

SECTION **LT**
LIGHTING SYSTEM

A
B
C

CONTENTS

D
E

APPLICATION NOTICE 7
 How to Check Vehicle Type 7

TYPE 1

PRECAUTIONS 8
 Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" 8
 Precautions for Battery Service 8
 General Precautions for Service Operations 8
HEADLAMP (FOR USA) 9
 Component Parts and Harness Connector Location... 9
 System Description 9
 OUTLINE 9
 HEADLAMP OPERATION 10
 COMBINATION SWITCH READING FUNCTION.. 11
 EXTERIOR LAMP BATTERY SAVER CONTROL.. 11
 REMOTE KEYLESS ENTRY SYSTEM OPERATION 11
 VEHICLE SECURITY SYSTEM 11
 XENON HEADLAMP 11
 CAN Communication System Description 11
 CAN Communication Unit 11
 Schematic 12
 Wiring Diagram — H/LAMP — 13
 Terminals and Reference Values for BCM 17
 Terminals and Reference Values for IPDM E/R 19
 How to Proceed With Trouble Diagnosis 19
 Preliminary Check 19
 CHECK POWER SUPPLY AND GROUND CIRCUIT 19
 CONSULT-II Functions (BCM) 21
 CONSULT-II BASIC OPERATION 21
 WORK SUPPORT 21
 DATA MONITOR 21
 ACTIVE TEST 22
 CONSULT-II Functions (IPDM E/R) 23
 CONSULT-II BASIC OPERATION 23
 DATA MONITOR 23

ACTIVE TEST 23
 Headlamp Does Not Change To High Beam (Both Sides) 24
 Headlamp Does Not Change To High Beam (One Side) 26
 High Beam Indicator Lamp Does Not Illuminate 27
 Headlamp Low Beam Does Not Illuminate (Both Sides) 27
 Headlamp Low Beam Does Not Illuminate (One Side) 29
 Headlamps Does Not Turn OFF 30
 General Information for Xenon Headlamp Trouble Diagnosis 31
 Caution: 31
 Xenon Headlamp Trouble Diagnosis 32
 Aiming Adjustment 32
 PREPARATION BEFORE ADJUSTING 32
 LOW BEAM AND HIGH BEAM 33
 ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE) 33
 Bulb Replacement 33
 HEADLAMP HIGH/LOW BEAM 33
 PARKING LAMP 34
 FRONT TURN SIGNAL LAMP 34
 FRONT SIDE MARKER LAMP 34
 Removal and Installation 34
 REMOVAL 34
 INSTALLATION 34
 Disassembly and Assembly 35
 DISASSEMBLY 35
 ASSEMBLY 36
 Servicing to Replace Headlamps When Damaged.. 36
 INSTALLATION OF HEADLAMP BRACKET 36
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM - 37
 Component Parts and Harness Connector Location.. 37
 System Description 37
 OUTLINE 37
 HEADLAMP OPERATION 38
 DAYTIME LIGHT OPERATION 39

F
G
H
I
J
LT
L
M

OPERATION	40	ASSEMBLY	70
COMBINATION SWITCH READING FUNCTION..	40	Serving to Replace Headlamps When Damaged ...	70
EXTERIOR LAMP BATTERY SAVER CONTROL..	40	INSTALLATION OF HEADLAMP BRACKET	70
INTERLOCKED OPERATION WITH REMOTE		TURN SIGNAL AND HAZARD WARNING LAMPS...71	
KEYLESS ENTRY SYSTEM	40	Component Parts and Harness Connector Location..	71
INTERLOCKED OPERATION WITH VEHICLE		System Description	71
SECURITY SYSTEM	40	TURN SIGNAL OPERATION	71
XENON HEADLAMP	40	HAZARD WARNING LAMP OPERATION	72
CAN Communication System Description	40	REMOTE KEYLESS ENTRY SYSTEM OPERA-	
CAN Communication Unit	41	TION	73
Schematic	42	COMBINATION SWITCH READING FUNCTION..	73
Wiring Diagram — DTRL —	43	CAN Communication System Description	73
Terminals and Reference Values for BCM	50	CAN Communication Unit	73
Terminals and Reference Values for IPDM E/R	52	Schematic	74
How to Proceed With Trouble Diagnosis	52	Wiring Diagram — TURN —	75
Preliminary Check	52	COUPE MODELS	75
CHECK POWER SUPPLY AND GROUND CIR-		ROADSTER MODELS	79
CUIT	52	Terminals and Reference Values for BCM	83
CONSULT-II Functions (BCM)	54	How to Proceed With Trouble Diagnosis	84
CONSULT-II BASIC OPERATION	54	Preliminary Check	85
WORK SUPPORT	54	CHECK POWER SUPPLY AND GROUND CIR-	
DATA MONITOR	54	CUIT	85
ACTIVE TEST	55	CONSULT-II Functions (BCM)	86
CONSULT-II Functions (IPDM E/R)	56	CONSULT-II BASIC OPERATION	86
CONSULT-II BASIC OPERATION	56	DATA MONITOR	86
DATA MONITOR	56	ACTIVE TEST	86
ACTIVE TEST	56	Turn Signal Lamp Does Not Operate	87
Daytime Light Control Does Not Operate	57	Hazard Warning Lamp Does Not Operate But Turn	
Headlamp Does Not Change To High Beam (Both		Signal Lamp Operate	88
Sides)	57	Turn Signal Indicator Lamp Does Not Operate	89
Headlamp Does Not Change To High Beam (One		Bulb Replacement (Front Turn Signal Lamp)	90
Side)	60	Bulb Replacement (Rear Turn Signal Lamp)	90
High Beam Indicator Lamp Does Not Illuminate	61	Removal and Installation of Front Turn Signal Lamp..	90
Headlamp Low Beam Does Not Illuminate (Both		Removal and Installation of Rear Turn Signal Lamp..	90
Sides)	61	LIGHTING AND TURN SIGNAL SWITCH	91
Headlamp Low Beam Does Not Illuminate (One		Removal and Installation	91
Side)	63	REMOVAL	91
Headlamps Does Not Turn OFF	64	INSTALLATION	91
General Information for Xenon Headlamp Trouble		HAZARD SWITCH	92
Diagnosis	65	Removal and Installation	92
Caution:	65	HAZARD SWITCH (A/T MODELS)	92
Xenon Headlamp Trouble Diagnosis	66	HAZARD SWITCH (M/T MODELS)	92
Aiming Adjustment	66	COMBINATION SWITCH	93
PREPARATION BEFORE ADJUSTING	66	Wiring Diagram — COMBSW —	93
LOW BEAM AND HIGH BEAM	67	Combination Switch Reading Function	94
ADJUSTMENT USING AN ADJUSTMENT		Terminals and Reference Values for BCM	94
SCREEN (LIGHT/DARK BORDERLINE)	67	CONSULT-II Functions (BCM)	98
Bulb Replacement	67	CONSULT-II BASIC OPERATION	98
HEADLAMP HIGH/LOW BEAM	67	DATA MONITOR	98
PARKING LAMP	68	Combination Switch Inspection	99
FRONT TURN SIGNAL LAMP	68	Removal and Installation	101
FRONT SIDE MARKER LAMP	68	STOP LAMP	102
Removal and Installation	68	Wiring Diagram — STOP/L —	102
REMOVAL	68	High-Mounted Stop Lamp (Coupe Models)	104
INSTALLATION	68	BULB REPLACEMENT, REMOVAL AND	
Disassembly and Assembly	69	INSTALLATION	104
DISASSEMBLY	69	High-Mounted Stop Lamp (Roadster Models)	104
		BULB REPLACEMENT, REMOVAL AND	

INSTALLATION	104	Component Parts and Harness Connector Location* ²	136	A
Stop Lamp	104	System Description	136	
BULB REPLACEMENT	104	POWER SUPPLY AND GROUND	137	B
REMOVAL AND INSTALLATION	104	SWITCH OPERATION	138	
BACK-UP LAMP	105	MAP LAMP TIMER OPERATION	138	C
Wiring Diagram — BACK/L —	105	INTERIOR LAMP BATTERY SAVER CONTROL	139	
COUPE MODELS (A/T)	105	Schematic	140	D
COUPE MODELS (M/T)	106	Wiring Diagram — ROOM/L —	141	
ROADSTER MODELS (A/T)	107	COUPE MODELS	141	E
ROADSTER MODELS (M/T)	108	ROADSTER MODELS	145	
Bulb Replacement	109	Schematic	149	F
Removal and Installation	109	Wiring Diagram — ROOM/L —	150	
PARKING, LICENSE PLATE AND TAIL LAMPS ...	110	COUPE MODELS	150	G
Component Parts and Harness Connector Location	110	ROADSTER MODELS	154	
System Description	110	Terminals and Reference Values for BCM	158	H
OUTLINE	110	How to Proceed with Trouble Diagnosis	158	
OPERATION BY LIGHTING SWITCH	111	Preliminary Check	159	I
COMBINATION SWITCH READING FUNCTION	111	CHECK POWER SUPPLY AND GROUND CIRCUIT	159	
EXTERIOR LAMP BATTERY SAVER CONTROL	111	CONSULT-II Functions (BCM)	160	J
CAN Communication System Description	112	CONSULT-II BASIC OPERATION	160	
CAN Communication Unit	112	WORK SUPPORT	160	LT
Schematic	113	DATA MONITOR	160	
Wiring Diagram — TAIL/L —	114	ACTIVE TEST	161	L
Terminals and Reference Values for BCM	119	Map Lamp Control Does Not Operate (Coupe models)	162	
Terminals and Reference Values for IPDM E/R ..	121	Map Lamp Control Does Not Operate (Roadster models)	164	M
How to Proceed With Trouble Diagnosis	121	Ignition Key Hole Illumination Does Not Illuminate	166	
Preliminary Check	121	Luggage Room Lamp Does Not Illuminate (Coupe Models)	168	
CHECK POWER SUPPLY AND GROUND CIRCUIT	121	Trunk Room Lamp Does Not Illuminate (Roadster Models)	170	
CONSULT-II Functions (BCM)	122	Bulb Replacement	172	
CONSULT-II Functions (IPDM E/R)	122	MAP LAMP	172	
Parking, License Plate, Side Marker and Tail Lamps Do Not Illuminate (for USA)	123	VANITY MIRROR LAMP	173	
Parking, License Plate, Side Marker, and Tail Lamps Do Not Illuminate (for Canada)	126	LUGGAGE ROOM LAMP & TRUNK ROOM LAMP	173	
Parking, Side Marker, License Plate and Tail Lamps Do Not Turn OFF (After Approx. 10 Minutes)	131	IGNITION KEY HOLE ILLUMINATION	173	
License Plate Lamp	132	Removal and Installation	174	
BULB REPLACEMENT, REMOVAL AND INSTALLATION	132	MAP LAMP	174	
Front Parking Lamp	132	LUGGAGE ROOM LAMP	174	
BULB REPLACEMENT	132	ILLUMINATION	175	
REMOVAL AND INSTALLATION	132	System Description	175	
Tail Lamp	132	OUT LINE	175	
BULB REPLACEMENT	132	ILLUMINATION OPERATION BY LIGHTING SWITCH	176	
REMOVAL AND INSTALLATION	132	EXTERIOR LAMP BATTERY SAVER CONTROL	177	
REAR COMBINATION LAMP	133	CAN Communication System Description	177	
Bulb Replacement	133	CAN Communication Unit	177	
REAR FENDER SIDE (STOP & TAIL LAMP, REAR SIDE MARKER LAMP)	133	Schematic	178	
REAR BUMPER SIDE (BACK-UP LAMP BULB, REAR TURN SIGNAL LAMP BULB)	133	Wiring Diagram — ILL —	180	
Removal and Installation	134	Bulb Replacement	190	
REMOVAL	134	LUGGAGE FLOOR BOX LAMP	190	
INSTALLATION	134	CUP HOLDER ILLUMINATION	190	
INTERIOR ROOM LAMP	135	Removal and Installation	190	
Component Parts and Harness Connector Location* ¹	135	LUGGAGE FLOOR BOX LAMP	190	

BULB SPECIFICATIONS	191
Headlamp	191
Exterior Lamp	191
Interior Lamp/Illumination	191

TYPE 2

PRECAUTIONS	192
Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	192
Precautions for Battery Service	192
General Precautions for Service Operations	192
HEADLAMP (FOR USA)	193
Component Parts and Harness Connector Location	193
System Description	193
OUTLINE	193
HEADLAMP OPERATION	194
COMBINATION SWITCH READING FUNCTION	195
EXTERIOR LAMP BATTERY SAVER CONTROL	195
REMOTE KEYLESS ENTRY SYSTEM OPERATION	195
VEHICLE SECURITY SYSTEM	195
XENON HEADLAMP	195
CAN Communication System Description	195
CAN Communication Unit	195
Schematic	196
Wiring Diagram — H/LAMP —	197
Terminals and Reference Values for BCM	201
Terminals and Reference Values for IPDM E/R	203
How to Proceed With Trouble Diagnosis	203
Preliminary Check	203
CHECK POWER SUPPLY AND GROUND CIRCUIT	203
CONSULT-II Functions (BCM)	205
CONSULT-II BASIC OPERATION	205
WORK SUPPORT	205
DATA MONITOR	205
ACTIVE TEST	206
CONSULT-II Functions (IPDM E/R)	207
CONSULT-II BASIC OPERATION	207
DATA MONITOR	207
ACTIVE TEST	207
Headlamp Does Not Change To High Beam (Both Sides)	208
Headlamp Does Not Change To High Beam (One Side)	210
High Beam Indicator Lamp Does Not Illuminate	211
Headlamp Low Beam Does Not Illuminate (Both Sides)	211
Headlamp Low Beam Does Not Illuminate (One Side)	213
Headlamps Does Not Turn OFF	215
General Information for Xenon Headlamp Trouble Diagnosis	215
Caution:	215
Xenon Headlamp Trouble Diagnosis	216
Aiming Adjustment	216
PREPARATION BEFORE ADJUSTING	216

LOW BEAM AND HIGH BEAM	217
ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)	217
Bulb Replacement	217
HEADLAMP HIGH/LOW BEAM	217
PARKING LAMP	218
FRONT TURN SIGNAL LAMP	218
FRONT SIDE MARKER LAMP	218
Removal and Installation	218
REMOVAL	218
INSTALLATION	218
Disassembly and Assembly	219
DISASSEMBLY	219
ASSEMBLY	220
Servicing to Replace Headlamps When Damaged	220
INSTALLATION OF HEADLAMP BRACKET	220
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -	221
Component Parts and Harness Connector Location	221
System Description	221
OUTLINE	221
HEADLAMP OPERATION	222
DAYTIME LIGHT OPERATION	223
OPERATION	224
COMBINATION SWITCH READING FUNCTION	224
EXTERIOR LAMP BATTERY SAVER CONTROL	224
INTERLOCKED OPERATION WITH REMOTE KEYLESS ENTRY SYSTEM	224
INTERLOCKED OPERATION WITH VEHICLE SECURITY SYSTEM	224
XENON HEADLAMP	224
CAN Communication System Description	225
CAN Communication Unit	225
Schematic	226
Wiring Diagram — DTRL —	227
Terminals and Reference Values for BCM	234
Terminals and Reference Values for IPDM E/R	236
How to Proceed With Trouble Diagnosis	236
Preliminary Check	236
CHECK POWER SUPPLY AND GROUND CIRCUIT	236
CONSULT-II Functions (BCM)	238
CONSULT-II BASIC OPERATION	238
WORK SUPPORT	238
DATA MONITOR	238
ACTIVE TEST	239
CONSULT-II Functions (IPDM E/R)	240
CONSULT-II BASIC OPERATION	240
DATA MONITOR	240
ACTIVE TEST	240
Daytime Light Control Does Not Operate	241
Headlamp Does Not Change To High Beam (Both Sides)	241
Headlamp Does Not Change To High Beam (One Side)	244
High Beam Indicator Lamp Does Not Illuminate	245
Headlamp Low Beam Does Not Illuminate (Both Sides)	245
Headlamp Low Beam Does Not Illuminate (One	

Side)	247	HAZARD SWITCH	275	
Headlamps Does Not Turn OFF	249	Removal and Installation	275	A
General Information for Xenon Headlamp Trouble		HAZARD SWITCH (A/T MODELS)	275	
Diagnosis	249	HAZARD SWITCH (M/T MODELS)	275	
Caution:	249	COMBINATION SWITCH	276	B
Xenon Headlamp Trouble Diagnosis	250	Wiring Diagram —COMBSW—	276	
Aiming Adjustment	250	Combination Switch Reading Function	277	
PREPARATION BEFORE ADJUSTING	250	Terminals and Reference Values for BCM	277	C
LOW BEAM AND HIGH BEAM	251	CONSULT-II Functions (BCM)	281	
ADJUSTMENT USING AN ADJUSTMENT		CONSULT-II BASIC OPERATION	281	
SCREEN (LIGHT/DARK BORDERLINE)	251	DATA MONITOR	281	D
Bulb Replacement	251	Combination Switch Inspection	282	
HEADLAMP HIGH/LOW BEAM	251	Removal and Installation	284	
PARKING LAMP	252	STOP LAMP	285	E
FRONT TURN SIGNAL LAMP	252	Wiring Diagram — STOP/L —	285	
FRONT SIDE MARKER LAMP	252	High-Mounted Stop Lamp (Coupe Models)	287	
Removal and Installation	252	BULB REPLACEMENT, REMOVAL AND		F
REMOVAL	252	INSTALLATION	287	
INSTALLATION	252	High-Mounted Stop Lamp (Roadster Models)	287	
Disassembly and Assembly	253	BULB REPLACEMENT, REMOVAL AND		G
DISASSEMBLY	253	INSTALLATION	287	
ASSEMBLY	254	Stop Lamp	287	
Serving to Replace Headlamps When Damaged. 254		BULB REPLACEMENT	287	
INSTALLATION OF HEADLAMP BRACKET ... 254		REMOVAL AND INSTALLATION	287	
TURN SIGNAL AND HAZARD WARNING LAMPS 255		BACK-UP LAMP	288	H
Component Parts and Harness Connector Location 255		Wiring Diagram — BACK/L —	288	
System Description	255	COUPE MODELS (A/T)	288	
TURN SIGNAL OPERATION	255	COUPE MODELS (M/T)	289	I
HAZARD WARNING LAMP OPERATION	256	ROADSTER MODELS (A/T)	290	
REMOTE KEYLESS ENTRY SYSTEM OPERA-		ROADSTER MODELS (M/T)	291	
TION	257	Bulb Replacement	292	J
COMBINATION SWITCH READING FUNCTION 257		Removal and Installation	292	
CAN Communication System Description	257	PARKING, LICENSE PLATE AND TAIL LAMPS .. 293		
CAN Communication Unit	257	Component Parts and Harness Connector Location 293		
Schematic	258	System Description	293	LT
Wiring Diagram — TURN —	259	OUTLINE	293	
COUPE MODELS	259	OPERATION BY LIGHTING SWITCH	294	L
ROADSTER MODELS	263	COMBINATION SWITCH READING FUNCTION 294		
Terminals and Reference Values for BCM	267	EXTERIOR LAMP BATTERY SAVER CONTROL 294		
How to Proceed With Trouble Diagnosis	268	CAN Communication System Description	295	M
Preliminary Check	269	CAN Communication Unit	295	
CHECK POWER SUPPLY AND GROUND CIR-		Schematic	296	
CUIT	269	Wiring Diagram — TAIL/L —	297	
CONSULT-II Functions (BCM)	270	Terminals and Reference Values for BCM	302	
CONSULT-II BASIC OPERATION	270	Terminals and Reference Values for IPDM E/R ... 304		
DATA MONITOR	270	How to Proceed With Trouble Diagnosis	304	
ACTIVE TEST	270	Preliminary Check	304	
Turn Signal Lamp Does Not Operate	271	CHECK POWER SUPPLY AND GROUND CIR-		
Hazard Warning Lamp Does Not Operate But Turn		CUIT	304	
Signal Lamp Operate	272	CONSULT-II Functions (BCM)	305	
Turn Signal Indicator Lamp Does Not Operate ... 273		CONSULT-II Functions (IPDM E/R)	305	
Bulb Replacement (Front Turn Signal Lamp)	273	Parking, License Plate, Side Marker and Tail Lamps		
Bulb Replacement (Rear Turn Signal Lamp)	273	Do Not Illuminate (for USA)	306	
Removal and Installation of Front Turn Signal Lamp 273		Parking, License Plate, Side Marker, and Tail Lamps		
Removal and Installation of Rear Turn Signal Lamp 273		Do Not Illuminate (for Canada)	309	
LIGHTING AND TURN SIGNAL SWITCH	274	Parking, Side Marker, License Plate and Tail Lamps		
Removal and Installation	274	Do Not Turn OFF (After Approx. 10 Minutes)	314	
REMOVAL	274	License Plate Lamp	315	
INSTALLATION	274	BULB REPLACEMENT, REMOVAL AND		

INSTALLATION	315	Map Lamp Control Does Not Operate (Coupe models)	335
Front Parking Lamp	315	Map Lamp Control Does Not Operate (Roadster models)	337
BULB REPLACEMENT	315	Ignition Key Hole Illumination Does Not Illuminate	339
REMOVAL AND INSTALLATION	315	Luggage Room Lamp Does Not Illuminate (Coupe Models)	341
Tail Lamp	315	Trunk Room Lamp Does Not Illuminate (Roadster Models)	343
BULB REPLACEMENT	315	Bulb Replacement	345
REMOVAL AND INSTALLATION	315	MAP LAMP	345
REAR COMBINATION LAMP	316	VANITY MIRROR LAMP	346
Bulb Replacement	316	LUGGAGE ROOM LAMP & TRUNK ROOM LAMP	346
REAR FENDER SIDE (STOP & TAIL LAMP, REAR SIDE MARKER LAMP)	316	IGNITION KEY HOLE ILLUMINATION	346
REAR BUMPER SIDE (BACK-UP LAMP BULB, REAR TURN SIGNAL LAMP BULB)	316	Removal and Installation	347
Removal and Installation	317	MAP LAMP	347
REMOVAL	317	LUGGAGE ROOM LAMP	347
INSTALLATION	317	ILLUMINATION	348
INTERIOR ROOM LAMP	318	System Description	348
Component Parts and Harness Connector Location	318	OUT LINE	348
System Description	318	ILLUMINATION OPERATION BY LIGHTING SWITCH	349
POWER SUPPLY AND GROUND	319	EXTERIOR LAMP BATTERY SAVER CONTROL	350
SWITCH OPERATION	320	CAN Communication System Description	350
MAP LAMP TIMER OPERATION	320	CAN Communication Unit	350
INTERIOR LAMP BATTERY SAVER CONTROL	321	Schematic	351
Schematic	322	Wiring Diagram — ILL —	353
Wiring Diagram — ROOM/L —	323	Bulb Replacement	363
COUPE MODELS	323	LUGGAGE FLOOR BOX LAMP	363
ROADSTER MODELS	327	CUP HOLDER ILLUMINATION	363
Terminals and Reference Values for BCM	331	Removal and Installation	363
How to Proceed with Trouble Diagnosis	331	LUGGAGE FLOOR BOX LAMP	363
Preliminary Check	332	BULB SPECIFICATIONS	364
CHECK POWER SUPPLY AND GROUND CIRCUIT	332	Headlamp	364
CONSULT-II Functions (BCM)	333	Exterior Lamp	364
CONSULT-II BASIC OPERATION	333	Interior Lamp/Illumination	364
WORK SUPPORT	333		
DATA MONITOR	333		
ACTIVE TEST	334		

APPLICATION NOTICE

APPLICATION NOTICE

PFP:00000

How to Check Vehicle Type

NKS004SZ

Check the vehicle identification number (chassis number).

Identification number (chassis number)	Service information
<p>For serial</p> <ul style="list-style-type: none">● JN1AZ34D300001 – JN1AZ34D330000● JN1AZ34E350001 – JN1AZ34E380000● JN1AZ36D400001 – JN1AZ36D430000● JN1AZ36A450001 – JN1AZ36A480000	Type 1
<p>From serial</p> <ul style="list-style-type: none">● JN1AZ34D330001 –● JN1AZ34E380001 –● JN1AZ36D430001 –● JN1AZ36A480001 –	Type 2

A

B

C

D

E

F

G

H

I

J

LT

L

M

PRECAUTIONS

PFP:00011

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

NKS002KG

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precautions for Battery Service

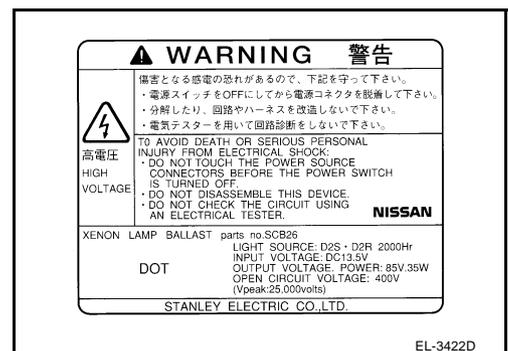
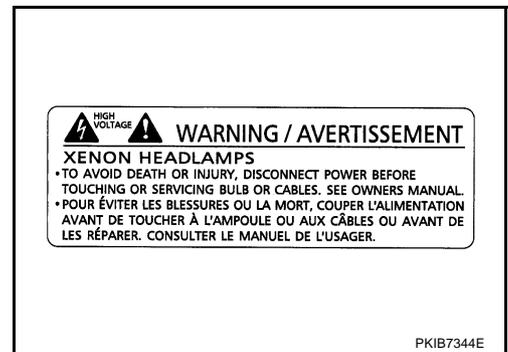
NKS002KT

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

General Precautions for Service Operations

NKS002KR

- Never work with wet hands.
- Xenon headlamp includes high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, never touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.
- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector, and housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.
- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. (If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.)
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.

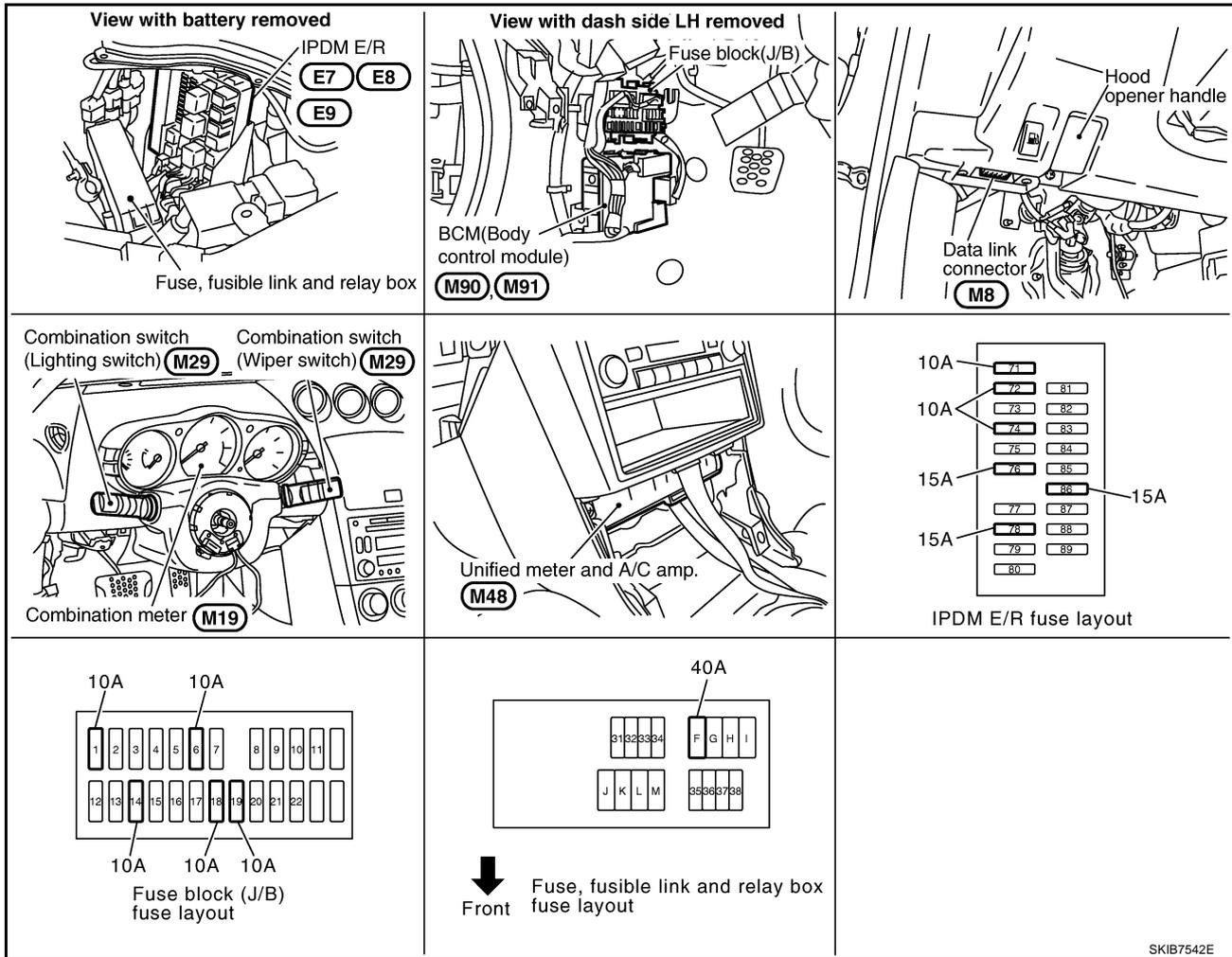


HEADLAMP (FOR USA)

PPF:26010

Component Parts and Harness Connector Location

NKS0000P



System Description

NKS0000Q

Control of the headlamp system operation is dependent upon the position of the combination switch (lighting switch). When the lighting switch is placed in the 2ND position, the BCM (body control module) receives input signal requesting the headlamps (and tail lamps) illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) through the CAN communication lines. The CPU (central processing unit) of the IPDM E/R controls the headlamp high and headlamp low relay coils. These relays, when energized, direct power to the respective headlamps, which then illuminate.

OUTLINE

Power is supplied at all times

- to headlamp high relay, located in IPDM E/R and
- to headlamp low relay, located in IPDM E/R, from battery directly,
- through 40A fusible link [letter F, located in fuse, fusible link and relay box]
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 15A fuse [No.78 located in IPDM E/R]
- to CPU located in IPDM E/R,
- through 10A fuse [No.71, located in IPDM E/R]
- to CPU located in IPDM E/R,
- through 10A fuse [No.19, located in fuse block (J/B)]

A
B
C
D
E
F
G
H
I
J
LT

- to combination meter terminal 24.

With ignition switch in the ON or START position, power is supplied

- to CPU located in IPDM E/R, from battery direct,
- through 10A fuse [No. 1, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

With ignition switch in ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and F152,
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives input signal from combination switch reading function (Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#)) the headlamp to illuminate. This input signal is communicated to the IPDM E/R through the CAN communication lines. The CPU located in the IPDM E/R controls the headlamp low relay coil, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7.

Ground is supplied

- to front combination lamp RH terminal 4, and
- to front combination lamp LH terminal 4
- through grounds E17, E43 and F152.

With power and ground supplied, low beam headlamps illuminate.

High Beam Operation/Flash-to-Pass Operation

With the lighting switch in 2ND position and placed in HIGH or PASS position, the BCM receives input signal requesting headlamp high beams to illuminate. High beam request signal and low beam request signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls headlamp high relay and headlamp low relay turned ON, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7,
- through 10A fuse [No. 72, located in IPDM E/R]
- through IPDM E/R terminal 27
- to front combination lamp RH terminal 3,
- through 10A fuse [No. 74, located in IPDM E/R]

- through IPDM E/R terminal 28
- to front combination lamp LH terminal 3.

Ground is supplied

- to front combination lamp RH terminals 4, and
- to front combination lamp LH terminals 4,
- through grounds E17,E43 and F152.

With the power and ground supplied, headlamp bulbs illuminate. High beam solenoids move the bulb shades in the front combination lamps, and the bulb shades change to high beam position.

Unified meter and A/C amp. receives signal from BCM through CAN communication lines, and then combination meter indicator illuminates high beam.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3. "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control function is activated.

Under this condition, the headlamps remain illuminated for 5 minutes, then the headlamps are turned off.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

REMOTE KEYLESS ENTRY SYSTEM OPERATION

Refer to [BL-60. "REMOTE KEYLESS ENTRY SYSTEM"](#) .

VEHICLE SECURITY SYSTEM

The vehicle security system will flash the high beams if the system is triggered. Refer to [BL-129. "VEHICLE SECURITY \(THEFT WARNING\) SYSTEM"](#) .

XENON HEADLAMP

Xenon type lamps are used for headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to strong lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Followings are some advantages of the xenon type headlamp.

- The light produced by the headlamps is white color similar to sunlight that is easy to the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- Counter-reflected luminance increases and the contrast enhances on the wet road in the rain. That makes visibility go up more than the increase of the light volume.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

CAN Communication System Description

NKS0000R

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS0000S

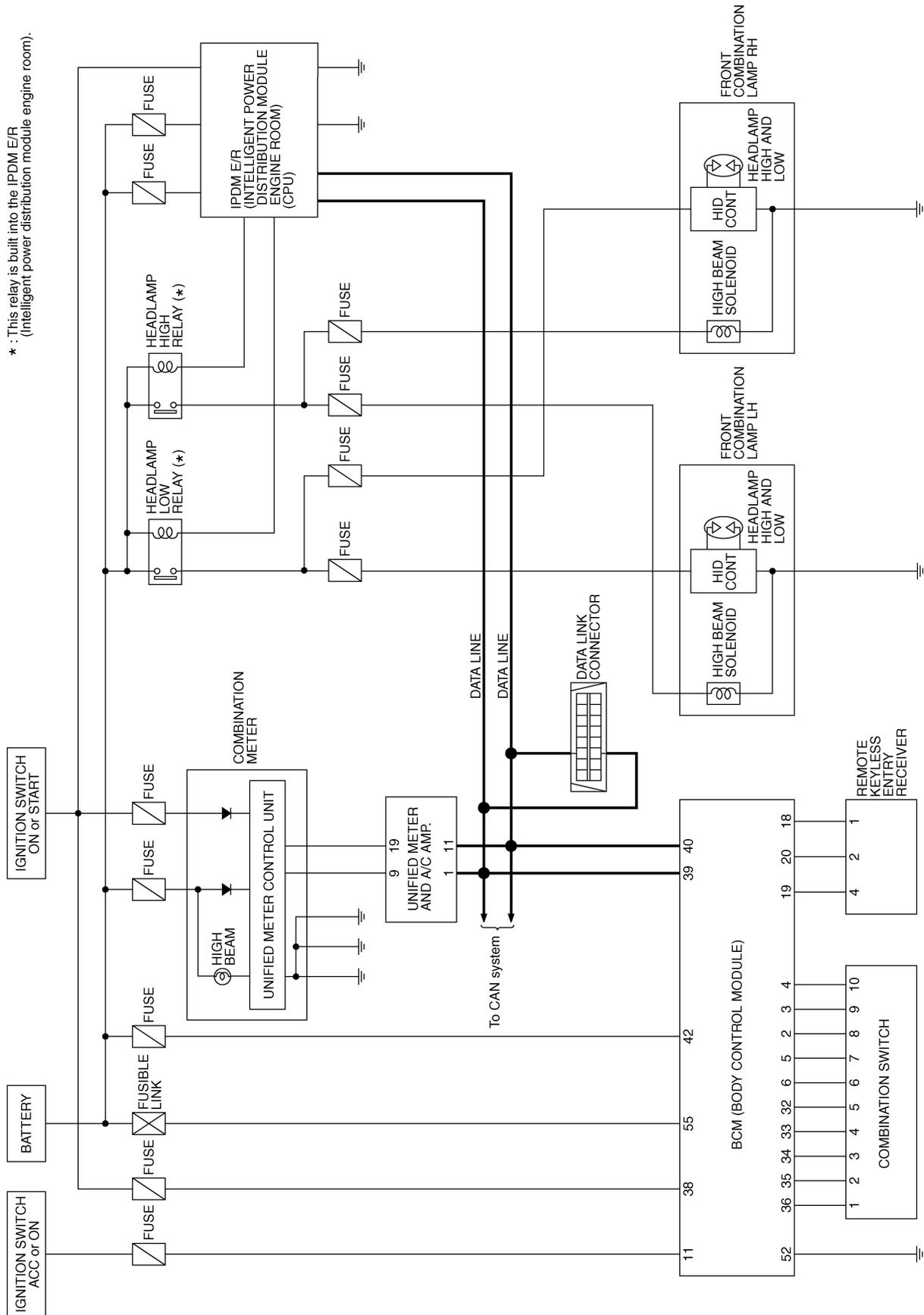
Refer to [LAN-48. "CAN System Specification Chart"](#) .

HEADLAMP (FOR USA)

[TYPE 1]

NKS0000T

Schematic



TKWT4058E

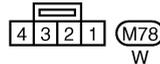
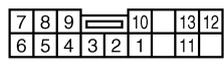
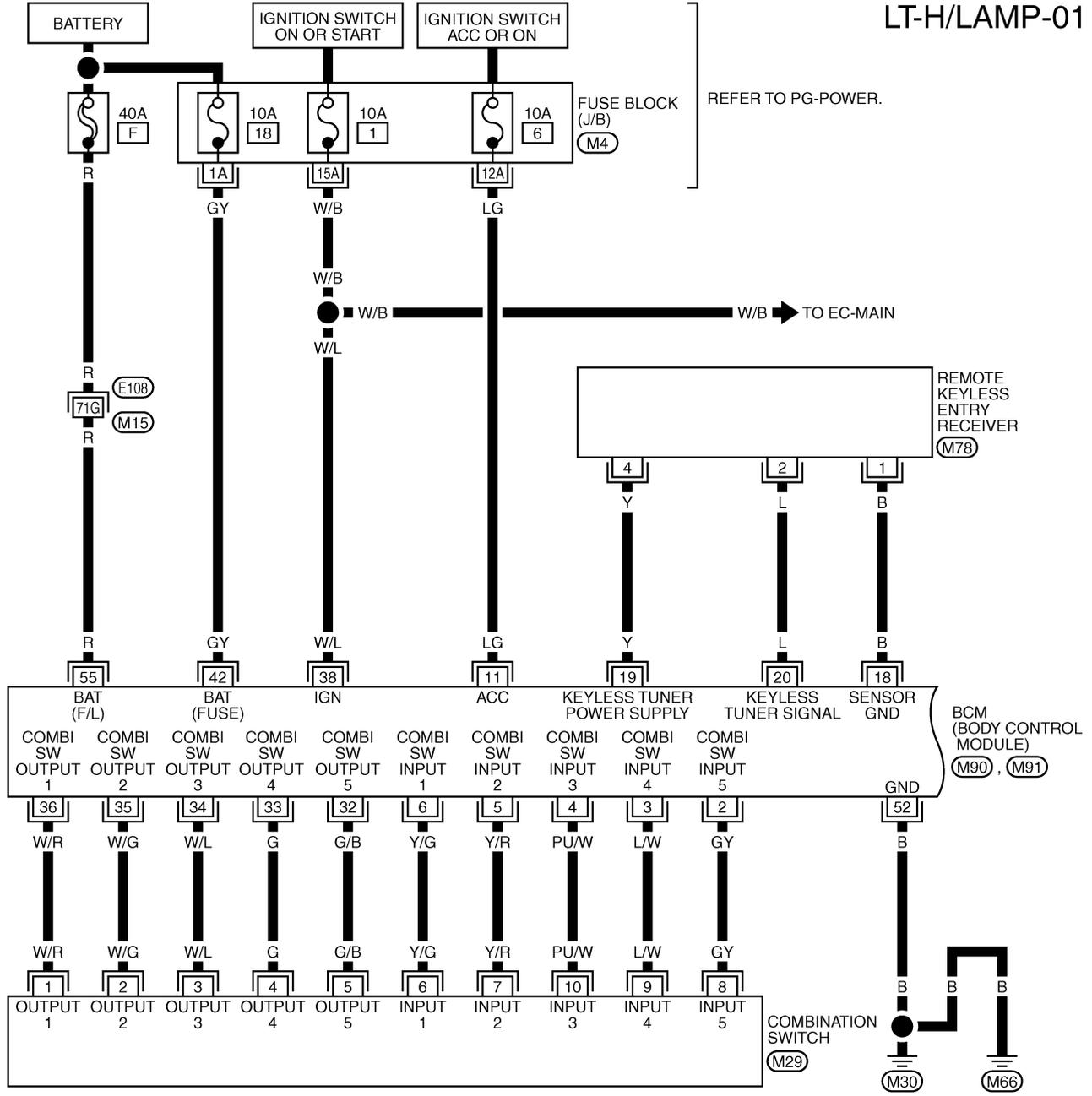
HEADLAMP (FOR USA)

[TYPE 1]

Wiring Diagram — H/LAMP —

NKS0000U

LT-H/LAMP-01



REFER TO THE FOLLOWING.
 (E108) -SUPER MULTIPLE JUNCTION (SMJ)
 (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
 (M90), (M91) -ELECTRICAL UNITS

A
B
C
D
E
F
G
H
I
J
K
L
M

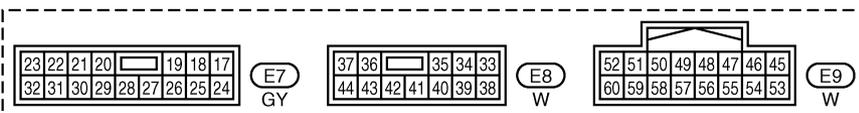
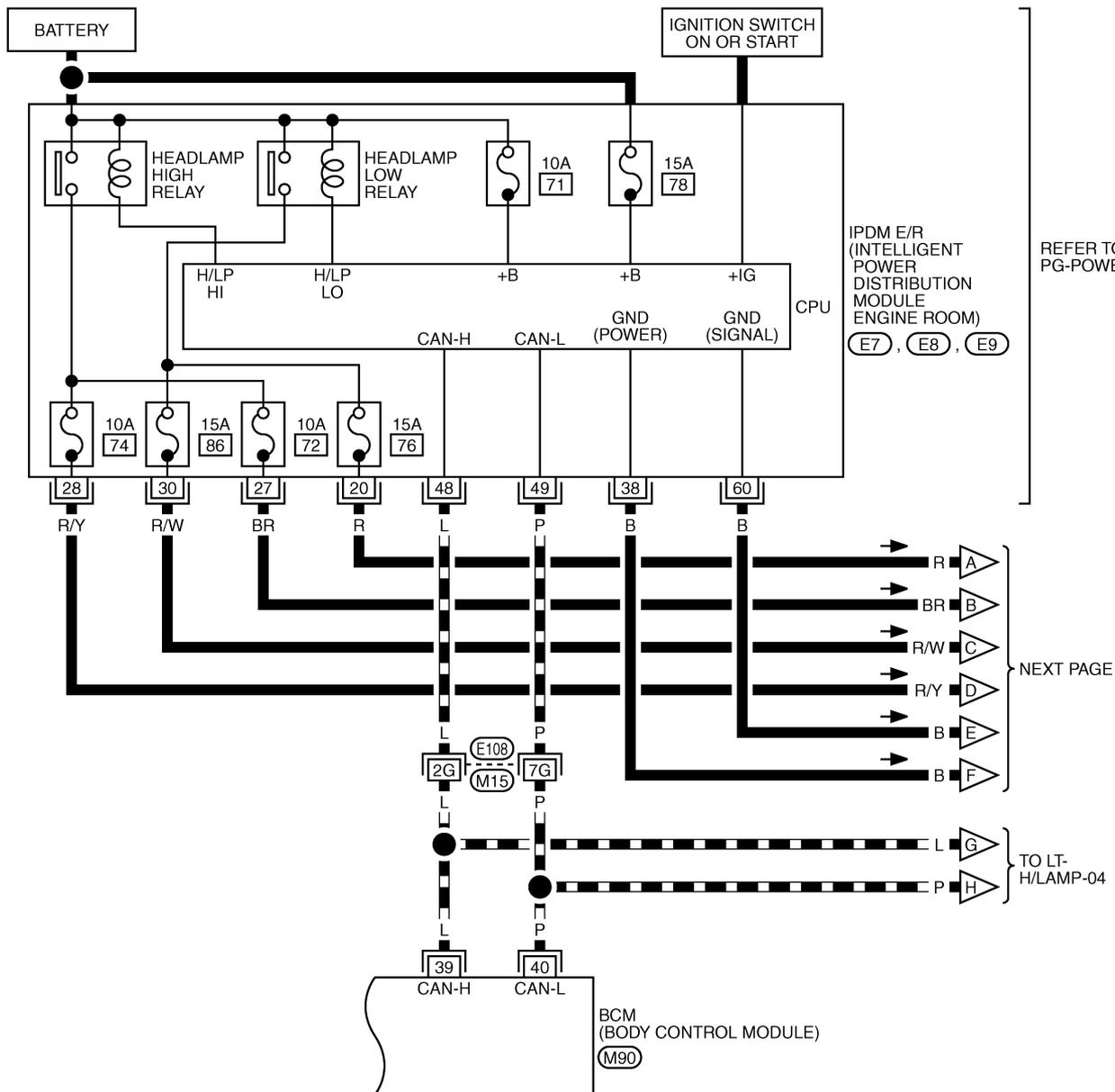
LT

HEADLAMP (FOR USA)

[TYPE 1]

LT-H/LAMP-02

▬ : DATA LINE



REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

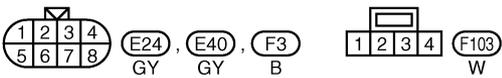
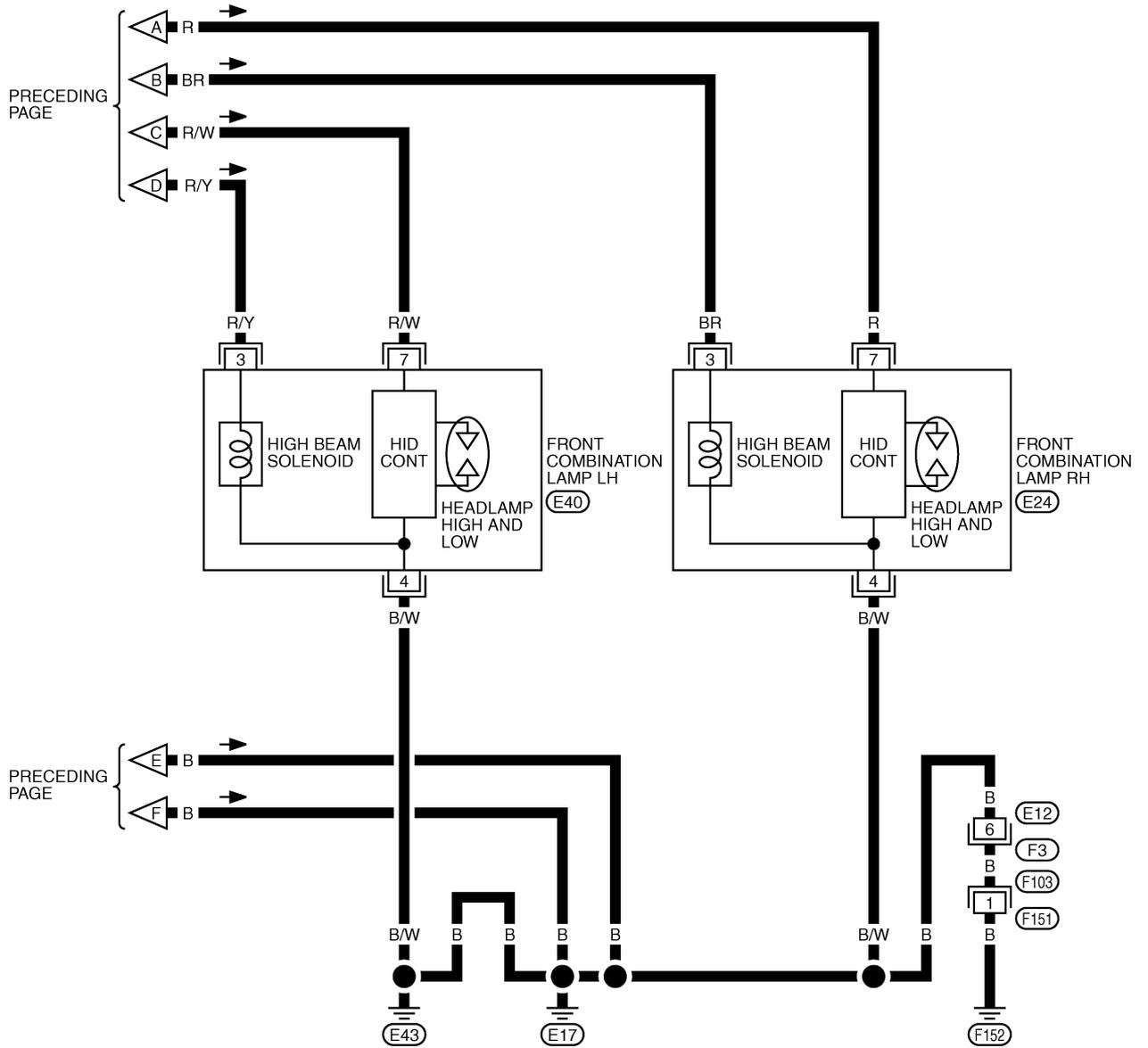
(M90) -ELECTRICAL UNITS

TKWT4020E

HEADLAMP (FOR USA)

[TYPE 1]

LT-H/LAMP-03



A
B
C
D
E
F
G
H
I
J
K
L
M

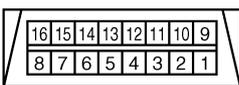
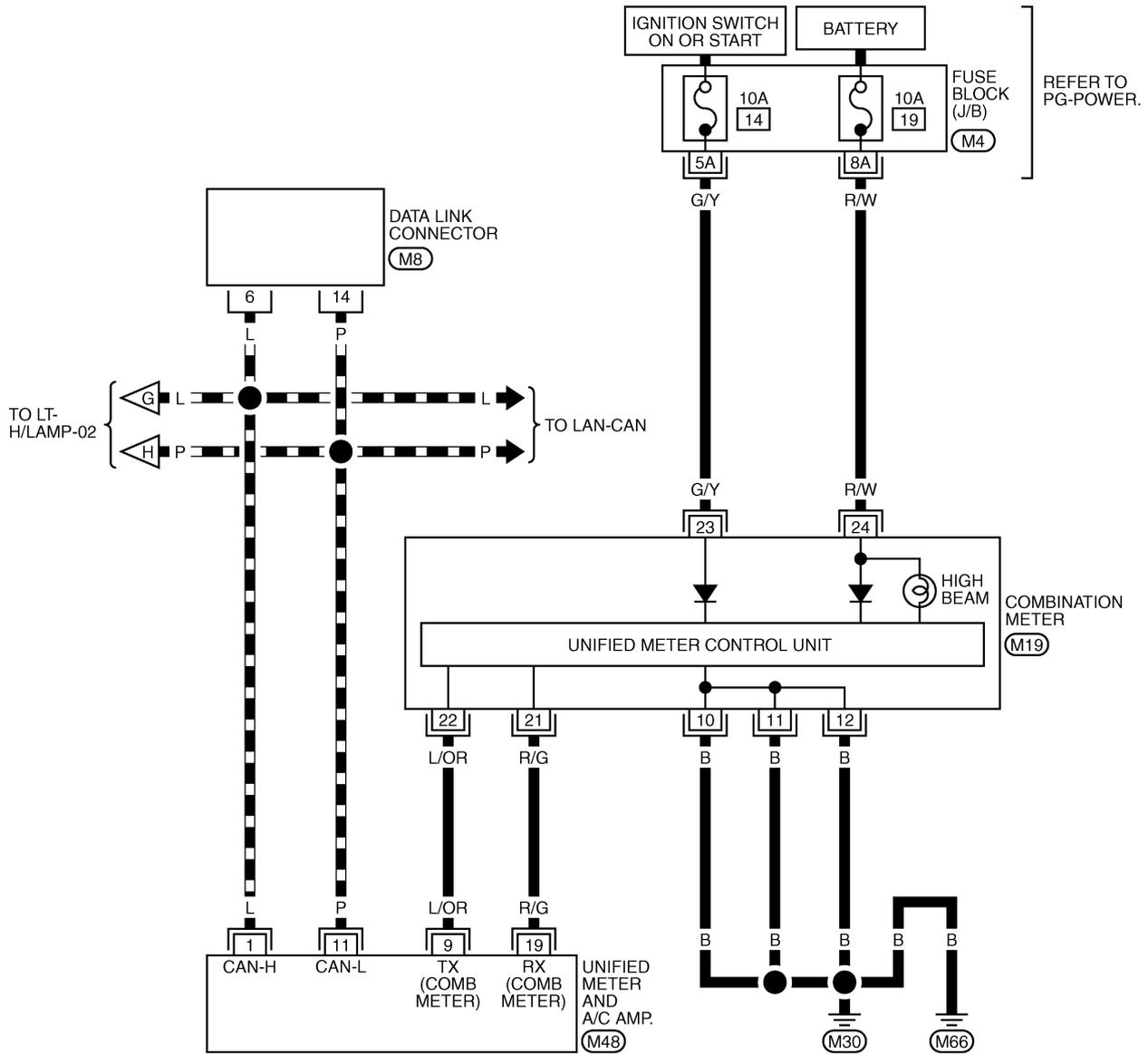
LT

HEADLAMP (FOR USA)

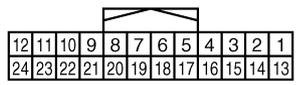
[TYPE 1]

LT-H/LAMP-04

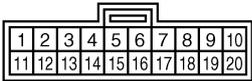
▬ : DATA LINE



(M8)
W



(M19)
W



(M48)
GY



REFER TO THE FOLLOWING.

(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWT2258E

HEADLAMP (FOR USA)

[TYPE 1]

NKS0000V

Terminals and Reference Values for BCM

CAUTION:

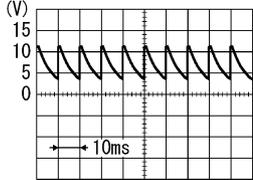
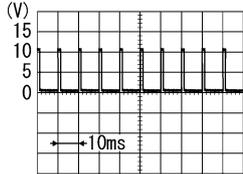
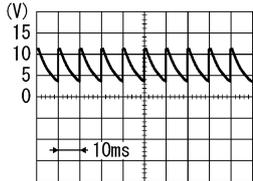
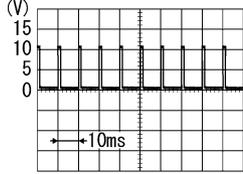
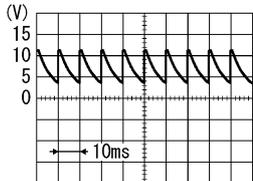
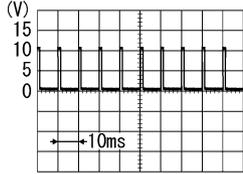
- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [WW-21, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) 	<p>Approx. 1.0 V</p>
				Lighting, turn, wiper switch (Wiper intermittent dial position 4)	Lighting switch 2ND
3	L/W	Combination switch input 4	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p>Approx. 1.0 V</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage

A
B
C
D
E
F
G
H
I
J
LT
L
M

HEADLAMP (FOR USA)

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Lighting switch 1ST (The same result with lighting switch 2ND)  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch)  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch)  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage

HEADLAMP (FOR USA)

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0 V
55	R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Values for IPDM E/R

NKS0000W

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
20	R	Headlamp low (RH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
27	BR	Headlamp high (RH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
28	R/Y	Headlamp high (LH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
30	R/W	Headlamp low (LH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
38	B	Ground	ON	—	Approx. 0 V	
48	L	CAN– H	—	—	—	
49	P	CAN– L	—	—	—	
60	B	Ground	ON	—	Approx. 0 V	

How to Proceed With Trouble Diagnosis

NKS0000X

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-9, "System Description"](#) .
3. Perform the preliminary check. Refer to [LT-19, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Does headlamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

NKS0000Y

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6

HEADLAMP (FOR USA)

[TYPE 1]

Unit	Power source	Fuse and fusible link No.
IPDM E/R	Battery	72
		74
		76
		86

Refer to [LT-13, "Wiring Diagram — H/LAMP —"](#) .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

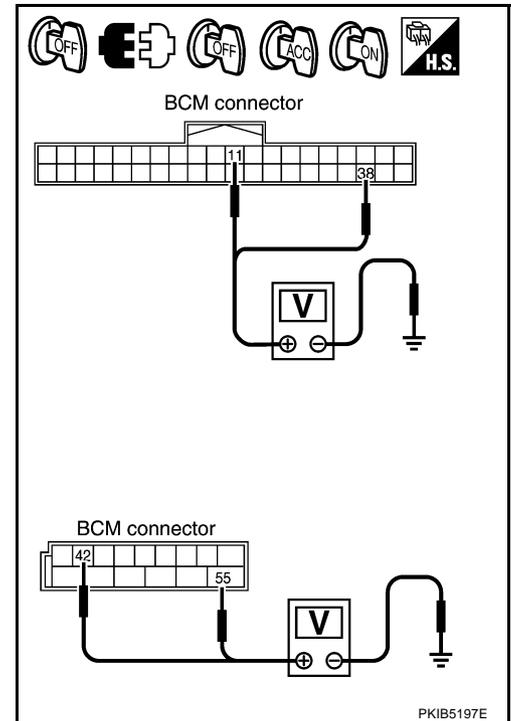
1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

Terminal		(-)	Ignition switch position		
(+)	Connector		Terminal	OFF	ACC
M90	11	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage	Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.



3. CHECK GROUND CIRCUIT

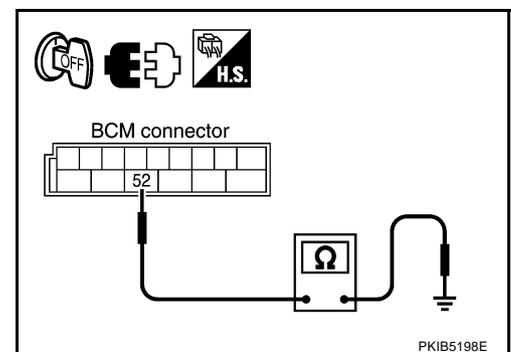
Check continuity between BCM harness connector and ground.

Terminal			Continuity
Connector	Terminal	Ground	
M91	52	Ground	Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS0000Z

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
HEADLAMP	WORK SUPPORT	Changes the setting for each function.
	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
BCM	SELF-DIAG RESULTS	BCM performs self-diagnosis of CAN communication.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

WORK SUPPORT

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
3. Touch "BATTERY SAVER SET" on "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch "CHANGE SET".
6. The setting will be changed and "CUSTOMIZING COMPLETED" will be displayed.
7. Touch "END".

Display Item List

Item	Description	CONSULT-II	Factory setting
BATTERY SAVER SET	Exterior lamp battery saver control mode can be changed in this mode. Selects exterior lamp battery saver control mode between two ON/OFF.	ON	×
		OFF	—

DATA MONITOR

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch individual items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW "ON/OFF"	Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from the ignition switch signal.
ACC ON SW "ON/OFF"	Displays "ACC (ON)/OFF, Ignition OFF (OFF)" status judged from ignition switch signal.
HI BEAM SW "ON/OFF"	Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
HEAD LAMP SW 1 "ON/OFF"	Displays status (headlamp switch 1: ON/Others: OFF) of headlamp switch 1 judged from lighting switch signal.
HEAD LAMP SW 2 "ON/OFF"	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.

HEADLAMP (FOR USA)

[TYPE 1]

Monitor item		Contents
LIGHT SW 1 ST	"ON/OFF"	Displays status (lighting switch 1ST or 2ND position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
PASSING SW	"ON/OFF"	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW ^{NOTE}	"ON/OFF"	—
DOOR SW - DR	"ON/OFF"	Displays status of driver door as judged from driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	"ON/OFF"	Displays status of passenger door as judged from passenger door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR ^{NOTE}	"OFF"	—
DOOR SW - RL ^{NOTE}	"OFF"	—
BACK DOOR SW	"ON/OFF"	<ul style="list-style-type: none"> ● Displays status of back door as judged from back door switch signal. (Coupe models) ● Displays status of rear trunk hood as judged from trunk lamp switch signal. (Roadster models)
TURN SIGNAL R	"ON/OFF"	Displays status (Turn right: ON/Others: OFF) as judged from lighting switch signal.
TURN SIGNAL L	"ON/OFF"	Displays status (Turn left: ON/Others: OFF) as judged from lighting switch signal.
CARGO LAMP SW ^{NOTE}	"OFF"	—

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
TAIL LAMP	Allows tail lamp relay to operate by switching ON-OFF.
HEAD LAMP	Allows headlamp relay to operate by switching ON-OFF.
FR FOG LAMP ^{NOTE}	—
CORNERING LAMP ^{NOTE}	—

NOTE:

This item is displayed, but cannot be tested.

CONSULT-II Functions (IPDM E/R)

NKS00010

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

Check Item, Diagnosis Mode	Description
SELF-DIAGNOSTIC RESULTS	Refer to PG-32. "SELF-DIAG RESULTS" .
DATA MONITOR	The input/output data of IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	IPDM E/R sends a drive signal to electronic components to check their operation.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "DATA MONITOR" on "SELECT DIAG MODE " screen.
2. Touch "ALL SIGNALS", "MAIN SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all items.
MAIN SIGNALS	Monitor the predetermined item.
SELECTION FROM MENU	Selects items and monitors them.

3. Touch the required monitoring item on "SELECTION FROM MENU". In "ALL SIGNALS", all items are monitored. In "MAIN SIGNALS", predetermined items are monitored.
4. Touch "START".
5. Touch "RECORD" while monitoring to record the status of the item being monitored. To stop recording, touch "STOP".

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Position lights request	TAIL & CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM

NOTE:

Perform monitoring of IPDM E/R data with ignition switch ON. When ignition switch is at ACC, the display may not be correct.

ACTIVE TEST

Operation Procedure

1. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Touch item to be tested, and check operation.
3. Touch "START".
4. Touch "STOP" while testing to stop the operation.

Test item	CONSULT-II screen display	Description
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option.
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI ON, LO ON) at your option (Headlamp high beam repeats ON- OFF every 1 second).

Headlamp Does Not Change To High Beam (Both Sides)

NKS00011

1. CHECK COMBINATION SWITCH INPUT SIGNAL

④ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HI BEAM SW" turns ON-OFF linked with operation of lighting switch.

When lighting switch is HIGH BEAM position : HI BEAM SW ON

⊗ Without CONSULT-II

Refer to [LT-99, "Combination Switch Inspection"](#) .

OK or NG

OK >> GO TO 2.

NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#) .

DATA MONITOR			
MONITOR		NO DTC	
HI BEAM SW		ON	
MODE	BACK	LIGHT	COPY

PKIA6324E

2. HEADLAMP ACTIVE TEST

④ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST ITEM" screen.
3. Touch "HI" screen.
4. Make sure headlamp high beam operation.

**Headlamp high beam should operate.
(Headlamp high beam repeats ON-OFF every 1 second).**

⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#) .
2. Make sure headlamp high beam operation.

Headlamp high beam should operate.

OK or NG

OK >> GO TO 3.

NG >> GO TO 4.

ACTIVE TEST			
LAMPS		OFF	
		HI	
LO		FOG	
MODE	BACK	LIGHT	COPY

SKIA5774E

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" and "HL HI REQ" turns ON when lighting switch is in HI position.

**When lighting switch is HIGH BEAM position : HL LO REQ ON
: HL HI REQ ON**

OK or NG

OK >> Replace IPDM E/R.

NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .

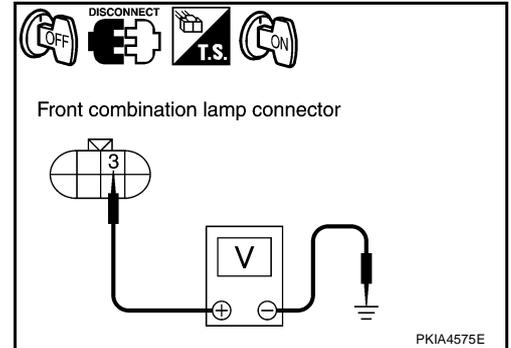
DATA MONITOR			
MONITOR		NO DTC	
HL LO REQ		ON	
HL HI REQ		ON	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

SKIA5775E

4. CHECK HEADLAMP INPUT SIGNAL

☑ With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "HI" screen.
6. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground (Headlamp high beam repeats ON-OFF every 1 second).



Terminal				Voltage
(+)		(-)		
Connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

☒ Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminal				Voltage
(+)		(-)		
Connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

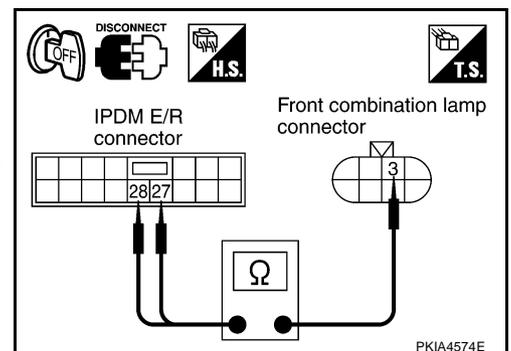
OK or NG

- OK >> GO TO 6.
 NG >> GO TO 5.

5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminal					Continuity	
IPDM E/R		Front combination lamp				
Connector	Terminal	Connector	Terminal			
RH	E7		27	E24	3	Yes
LH			28	E40		



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

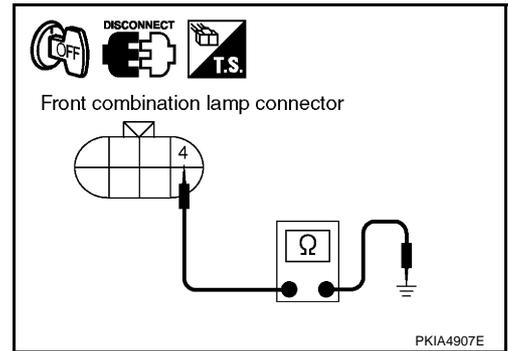
6. CHECK HEADLAMP GROUND

Check continuity between front combination lamp (RH and LH) harness connector and ground.

Connector		Terminal		Ground	Continuity
RH	E24	4			Ground
LH	E40	4			

OK or NG

- OK >> Check headlamp harness, connector and bulb.
- NG >> Repair harness or connector.



Headlamp Does Not Change To High Beam (One Side)

NKS00012

1. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned HIGH BEAM position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

Terminal (+)			Terminal (-)	Voltage
Connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 2.

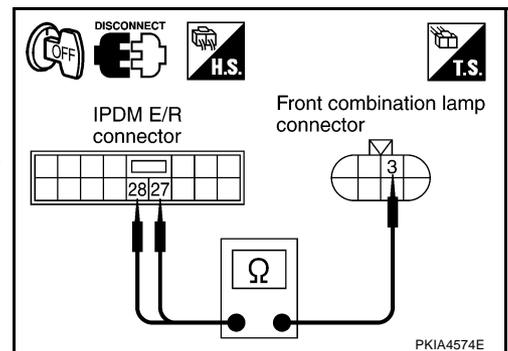
2. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

Terminal				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
RH	E7	27	E24	Yes
LH		28	E40	

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.



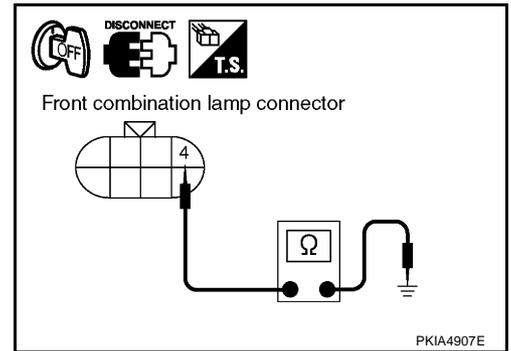
3. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

Connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connector.
- NG >> Repair harness or connector.



NKS00013

High Beam Indicator Lamp Does Not Illuminate

1. CHECK BULB

Check bulb of high beam indicator lamp.

OK or NG

- OK >> Replace combination meter.
- NG >> Replace indicator bulb.

Headlamp Low Beam Does Not Illuminate (Both Sides)

NKS00014

1. CHECK COMBINATION SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW1" and "HEAD LAMP SW2" turns ON-OFF linked with operation of lighting switch.

**When lighting switch is 2ND position : HEAD LAMP SW1 ON
: HEAD LAMP SW2 ON**

⊗ Without CONSULT-II

Refer to [LT-99, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#).

DATA MONITOR			
MONITOR		NO DTC	
HEAD LAMP SW1		ON	
HEAD LAMP SW2		ON	
MODE	BACK	LIGHT	COPY

PKIA6325E

2. HEADLAMP ACTIVE TEST

Ⓜ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST" ITEM screen.
3. Touch "LO" screen.
4. Make sure headlamp low beam operation.

Headlamp low beam should operate.

⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
2. Make sure headlamp low beam operation.

Headlamp low beam should operate.

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 4.

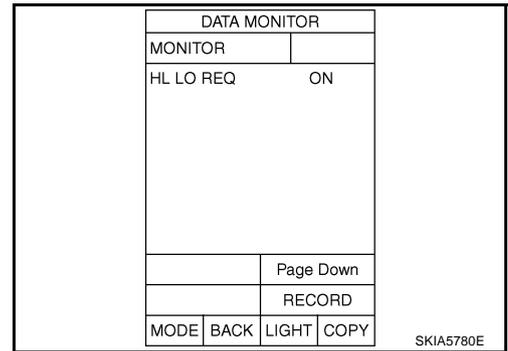
ACTIVE TEST			
LAMPS		OFF	
MODE	BACK	LIGHT	COPY

SKIA5774E

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" turns ON when lighting switch is in 2ND position.

When lighting switch is 2ND : HL LO REQ ON position



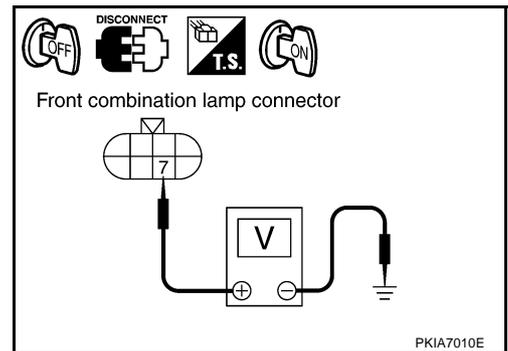
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

4. CHECK HEADLAMP INPUT SIGNAL

With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "LO" screen.
6. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.



Terminal			(-)	Voltage
(+)		Terminal		
Connector	Terminal			
RH	E24	7	Ground	Battery voltage
LH	E40	7		

Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminals			(-)	Voltage
(+)		Terminal		
Connector	Terminal			
RH	E24	7	Ground	Battery voltage
LH	E40	7		

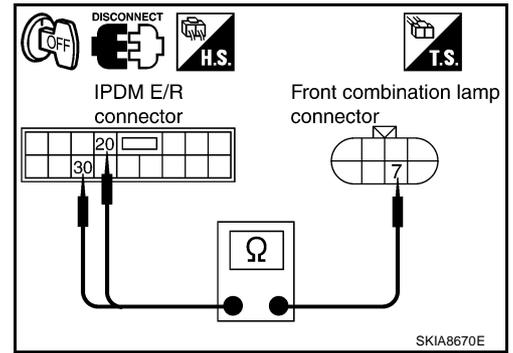
OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.

5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminal				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
RH	E7	20	E24	Yes
LH		30	E40	



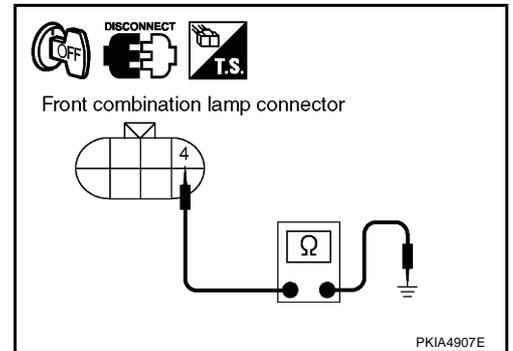
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.

6. CHECK HEADLAMP GROUND

1. Turn ignition switch OFF.
2. Check continuity between front combination lamp (RH and LH) harness connector and ground.

Connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		



OK or NG

- OK >> Check headlamp harness and connectors, ballasts (HID control unit), and xenon bulbs. Refer to [LT-32, "Xenon Headlamp Trouble Diagnosis"](#) .
- NG >> Repair harness or connector.

Headlamp Low Beam Does Not Illuminate (One Side)

NKS00015

1. CHECK BULB

Check ballast (HID control unit) and xenon bulb of lamp which does not illuminate. Refer to [LT-32, "Xenon Headlamp Trouble Diagnosis"](#) .

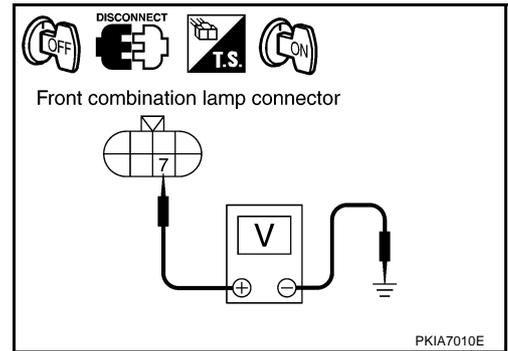
OK or NG

- OK >> GO TO 2.
- NG >> Replace malfunctioning part.

2. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned 2ND position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

		Terminal		Voltage
		(+)	(-)	
Connector		Terminal		
RH	E24	7	Ground	Battery voltage
LH	E40	7		



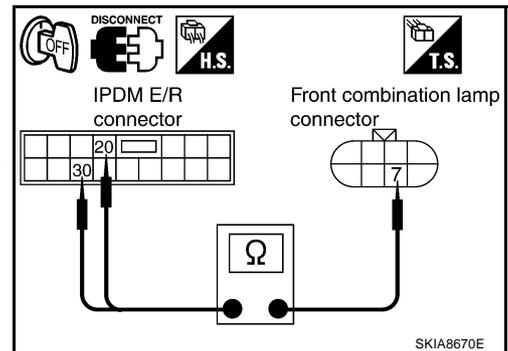
OK or NG

- OK >> GO TO 4.
 NG >> GO TO 3.

3. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

		Terminal		Continuity
		IPDM E/R	Front combination lamp	
Connector		Terminal	Connector	Terminal
RH	E7	20	E24	7
LH		30	E40	



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

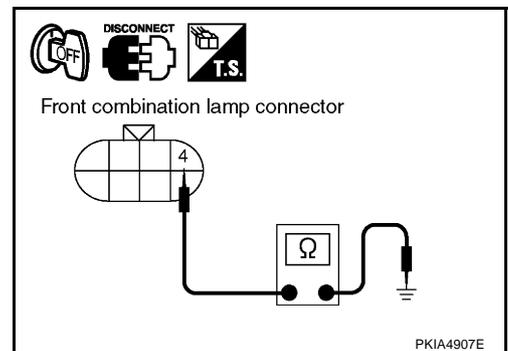
4. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

		Terminal	Ground	Continuity
Connector				
RH	E24	4	Ground	Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connector.
 NG >> Repair harness or connector.



Headlamps Does Not Turn OFF

1. CHECK HEADLAMP TURN OFF

Make sure that lighting switch is OFF. And check if headlamp turns off when ignition switch is turned OFF.

OK or NG

- OK >> GO TO 3.
 NG >> GO TO 2.

NKS00016

2. CHECK COMBINATION SWITCH INPUT SIGNAL

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW1" and "HEAD LAMP SW2" turns ON-OFF linked with operation of lighting switch.

When lighting switch is OFF : HEAD LAMP SW1 OFF position : HEAD LAMP SW2 OFF

OK or NG

OK >> Replace IPDM E/R.

NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#) .

DATA MONITOR			
MONITOR		NO DTC	
HEAD LAMP SW 1	OFF	HEAD LAMP SW 2	OFF
		Page Down	
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7011E

3. CHECKING CAN COMMUNICATIONS BETWEEN BCM AND IPDM E/R

Select "BCM" by CONSULT-II, and perform self-diagnosis for "BCM".

Display of self-diagnosis results

NO DTC>> Replace IPDM E/R.

CAN COMM CIRCUIT>> Refer to [BCS-18, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#) .

SELF-DIAG RESULTS			
DTC RESULTS		TIME	
CAN COMM CIRCUIT [U1000]			
ERASE		PRINT	
MODE	BACK	LIGHT	COPY

PKIA7627E

General Information for Xenon Headlamp Trouble Diagnosis

NKS00017

In most cases, malfunction of xenon headlamp - "does not illuminate", "flickers" or "dark" - is caused by a malfunctioning xenon bulb. A malfunctioning HID control unit or lamp housing, however, may be a cause. Be sure to perform trouble diagnosis following the steps described below.

Caution:

NKS00018

- Installation or removal of connector must be done with lighting switch OFF.
- Disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

- When the lamp is illuminated (when lighting switch is ON), never touch harness, HID control unit, inside of lamp, or lamp metal parts.
- To check illumination, temporarily install lamp in vehicle. Be sure to connect power at vehicle side connector.
- If error can be traced directly to electrical system, first check for items such as blown fuses and fusible links, broken wires or loose connectors, dislocated terminals, and improper connections.
- Never work with wet hands.
- Using a tester for HID control unit circuit trouble diagnosis is prohibited.
- Disassembling HID control unit or harnesses (bulb socket harness, ECM harness) is prohibited.
- Immediately after illumination, light intensity and color will fluctuate, but there is nothing wrong.
- When bulb has come to end of its life, brightness will drop significantly, it will flash repeatedly, or light color will turn reddish.

Xenon Headlamp Trouble Diagnosis

NKS00019

1. CHECK 1: XENON HEADLAMP LIGHTING

Install normal xenon bulb to corresponding xenon bulb headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace xenon bulb.
- NG >> GO TO 2.

2. CHECK 2: XENON HEADLAMP LIGHTING

Install normal HID control unit to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace HID control unit.
- NG >> GO TO 3.

3. CHECK 3: XENON HEADLAMP LIGHTING

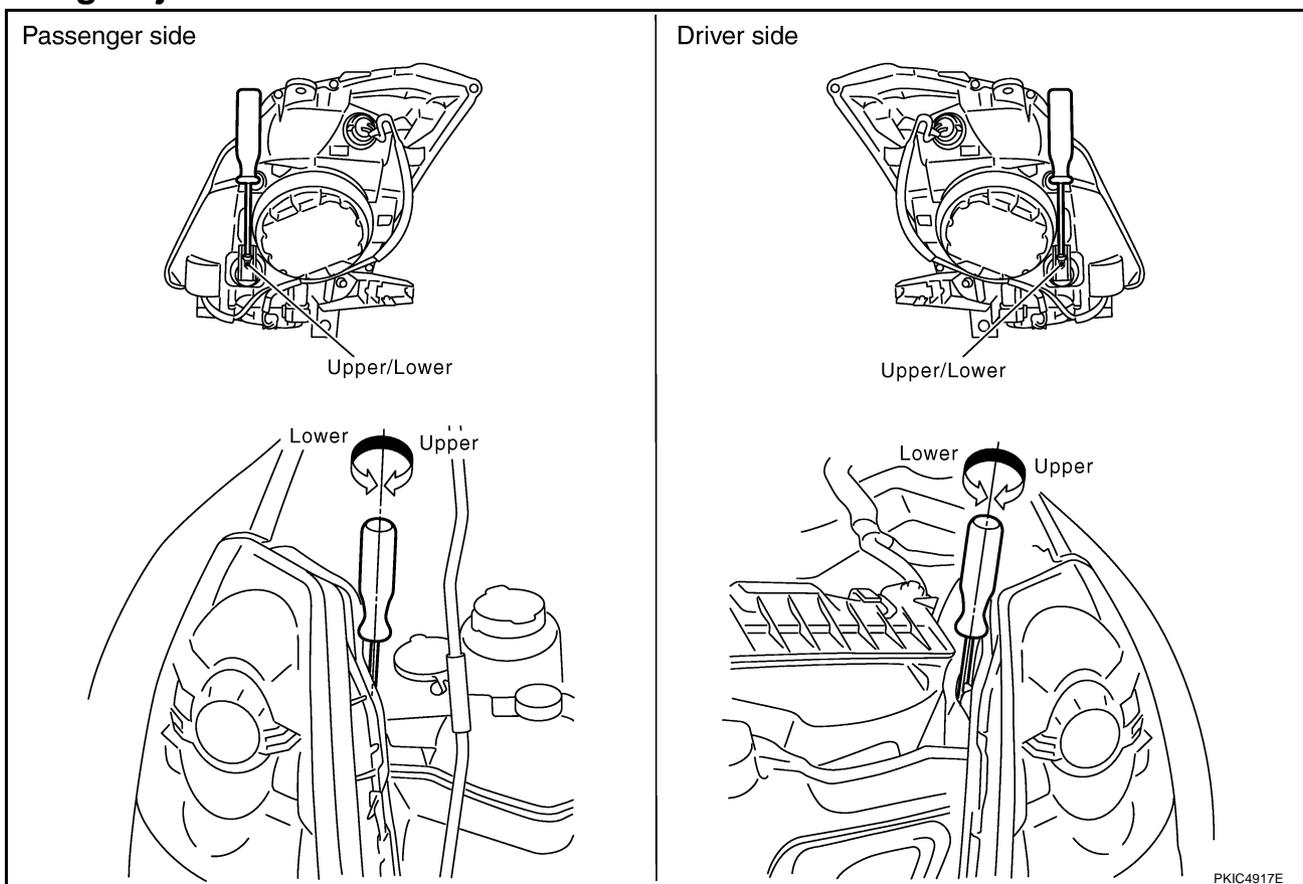
Install normal xenon lamp housing assembly to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace xenon headlamp housing assembly. [Malfunction in starter (boosting circuit) in xenon headlamp housing]
- NG >> INSPECTION END

Aiming Adjustment

NKS0001A



PREPARATION BEFORE ADJUSTING

For details, refer to the regulations in your own country.
Before performing aiming adjustment, check the following.

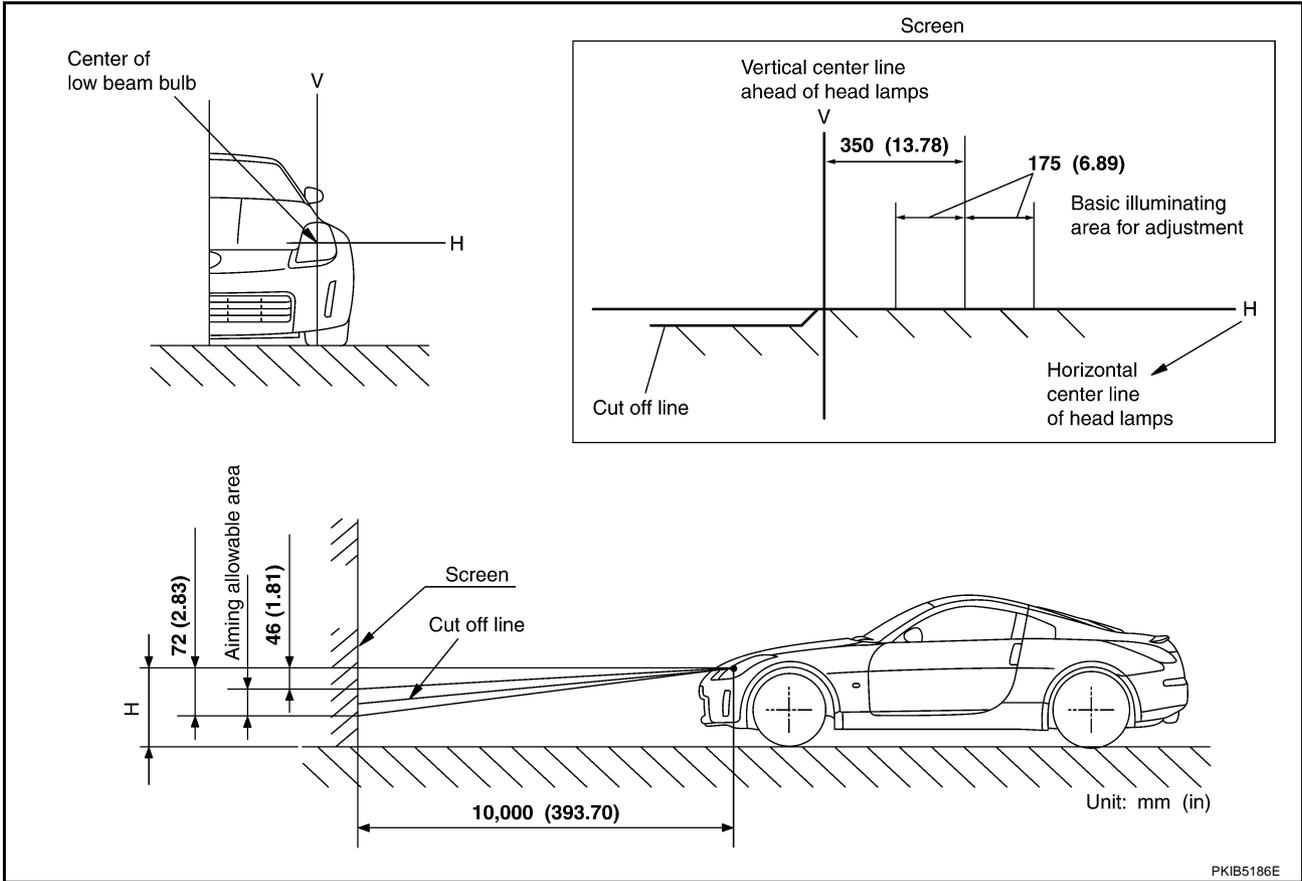
1. Keep all tires inflated to correct pressures.
2. Place vehicle on level surface.

- Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

LOW BEAM AND HIGH BEAM

- Turn headlamp low beam ON.
- Use adjusting screws to perform aiming adjustment.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- Basic illumination area for adjustment should be within the range shown on the aiming chart. Adjust headlamp accordingly.

Bulb Replacement HEADLAMP HIGH/LOW BEAM

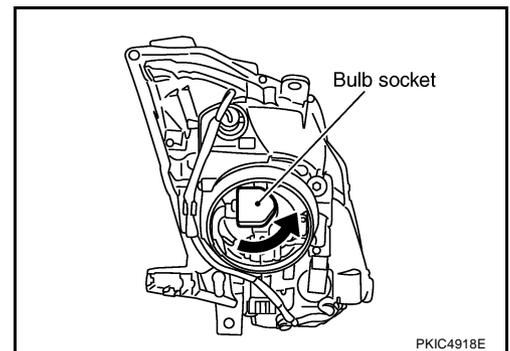
NKS0001B

- Turn lighting switch OFF.
- Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

- Remove headlamp. Refer to [LT-34, "Removal and Installation"](#).
- Turn plastic cap counterclockwise and unlock it.
- Turn bulb socket counterclockwise and unlock it.
- Unlock retaining spring and remove bulb from headlamp.
- Installation is reverse order of removal.



NOTE:

After installation, perform aiming adjustment. Refer to [LT-32, "Aiming Adjustment"](#) .

Headlamp high/low beam(Xenon) : 12V - 35W (D2R)

PARKING LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#) .
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is reverse order of removal.

Parking lamp : 12V - 5W

FRONT TURN SIGNAL LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#) .
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is reverse order of removal.

Front turn signal lamp/— : 12V - 28/8W (amber)

FRONT SIDE MARKER LAMP

1. Remove headlamp. Refer to [LT-34, "Removal and Installation"](#) .
2. Replacement integral with headlamp housing assembly.
3. Installation is reverse order of removal.

Front side marker lamp : LED

CAUTION:

After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness.

Removal and Installation

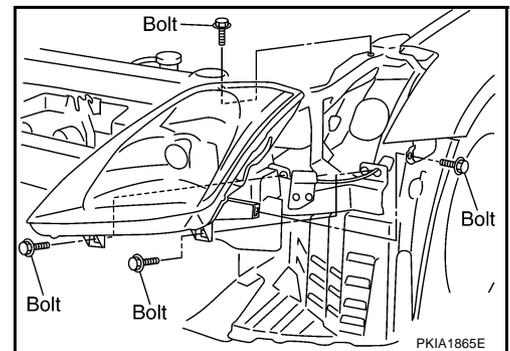
REMOVAL

1. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

2. Remove front bumper fascia. Refer to [EI-14, "FRONT BUMPER"](#) .
3. Remove headlamp mounting bolts.
4. Pull head lamp toward vehicle front, disconnect connector, and remove headlamp.



INSTALLATION

Installation is the reverse order of removal.

Headlamp mounting bolt  : 6.1 N·m (0.62 kg·m, 54 in·lb)

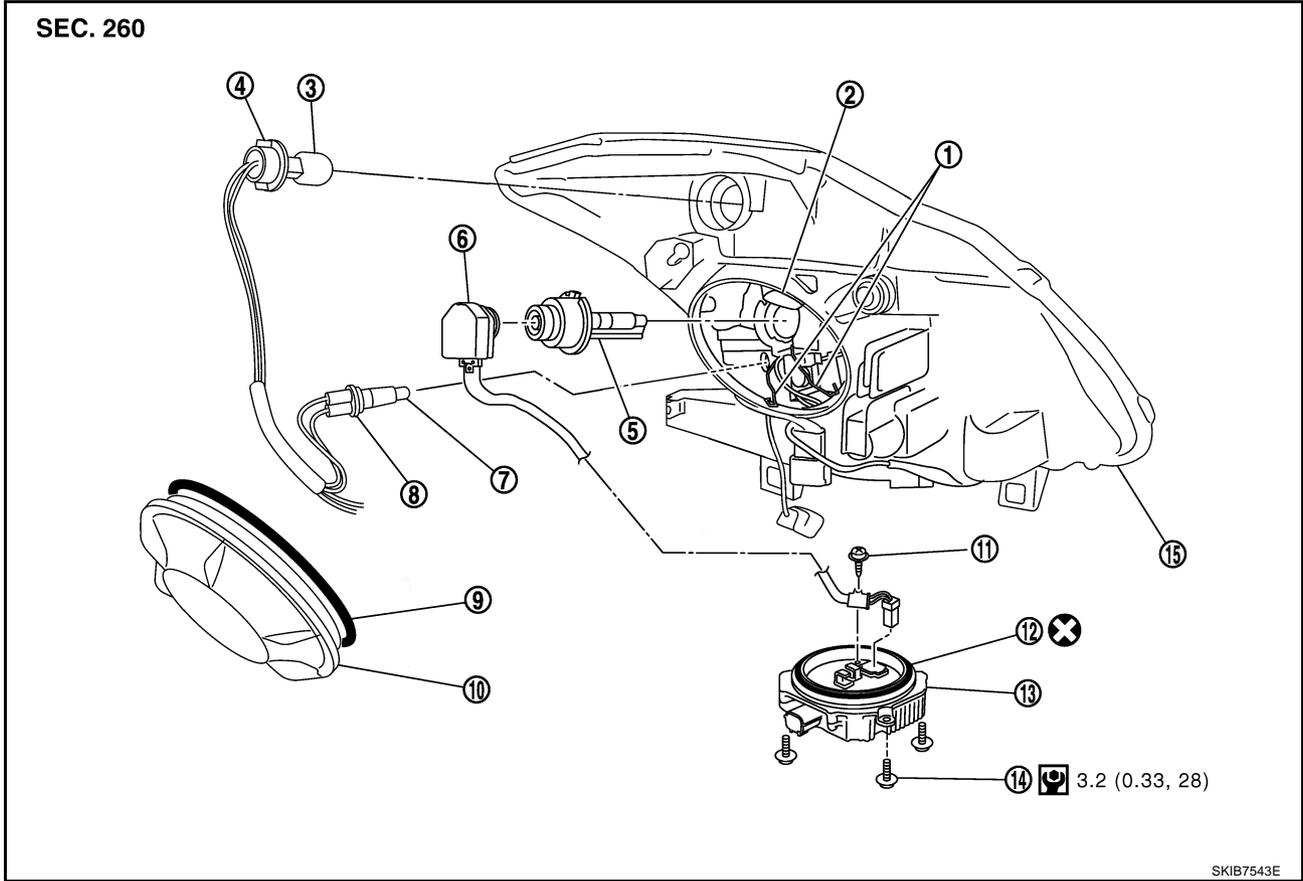
NOTE:

After installation, perform aiming adjustment. Refer to [LT-32, "Aiming Adjustment"](#) .

Disassembly and Assembly

NKS0001D

A
B
C
D
E
F
G
H
I
J
LT
L
M



- | | | |
|---------------------------------------|-------------------------------------|--------------------------------|
| 1. Retaining spring | 2. Xenon bulb socket ground | 3. Front turn signal lamp bulb |
| 4. Front turn signal lamp bulb socket | 5. Xenon bulb | 6. Xenon bulb socket |
| 7. Parking lamp bulb | 8. Parking lamp bulb socket | 9. Seal packing |
| 10. Plastic cap | 11. Ground screw | 12. Seal packing |
| 13. HID control unit | 14. HID control unit mounting screw | 15. Headlamp housing assembly |

:N·m (kg·m, in·lb)

: Always replace after every disassembly.

DISASSEMBLY

1. Turn plastic cap counterclockwise, and unlock it.
2. Turn xenon bulb socket counterclockwise, and unlock it.
3. Unlock retaining spring, and remove xenon bulb.
4. Disconnect xenon bulb socket ground.
5. Remove HID control unit mounting screws.
6. Remove ground screw from HID control unit.
7. Disconnect connectors from HID control unit.
8. Pull out xenon bulb socket from head lamp housing assembly.
9. Turn parking lamp bulb socket counterclockwise and unlock it.
10. Remove parking lamp bulb from its socket.
11. Turn front turn signal lamp bulb socket counterclockwise and unlock it.
12. Remove front turn signal lamp bulb from its socket.

ASSEMBLY

Assembly is the reverse order of disassembly.

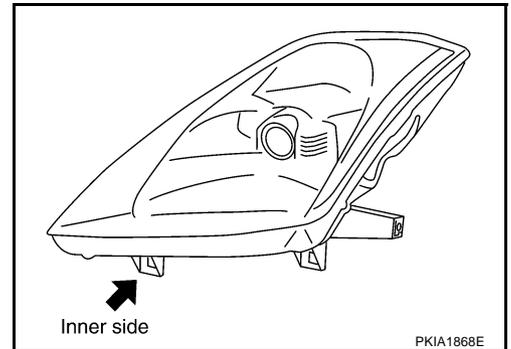
HID control unit mounting screw  : 3.2 N-m (0.33 kg-m, 28 in-lb)

CAUTION:

- When HID control unit is removed, reinstall it securely and avoid any looseness.
- After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness

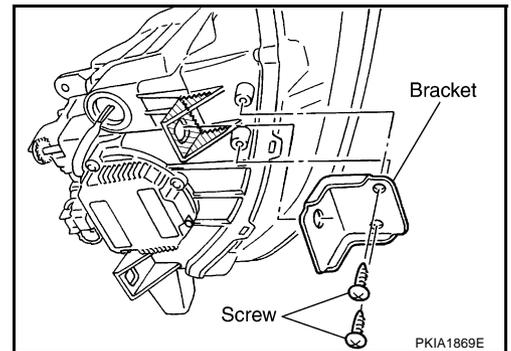
Servicing to Replace Headlamps When Damaged

If only installation part as shown in the figure is damaged, and headlamp housing itself is not damaged, repair can be completed easily by installing correction brackets.



INSTALLATION OF HEADLAMP BRACKET

1. Remove headlamps. Refer to [LT-34, "Removal and Installation"](#).
2. Cut damaged section of installation part, then shape with sandpaper.
3. Attach each correction bracket to headlamp housing boss with 2 screws.

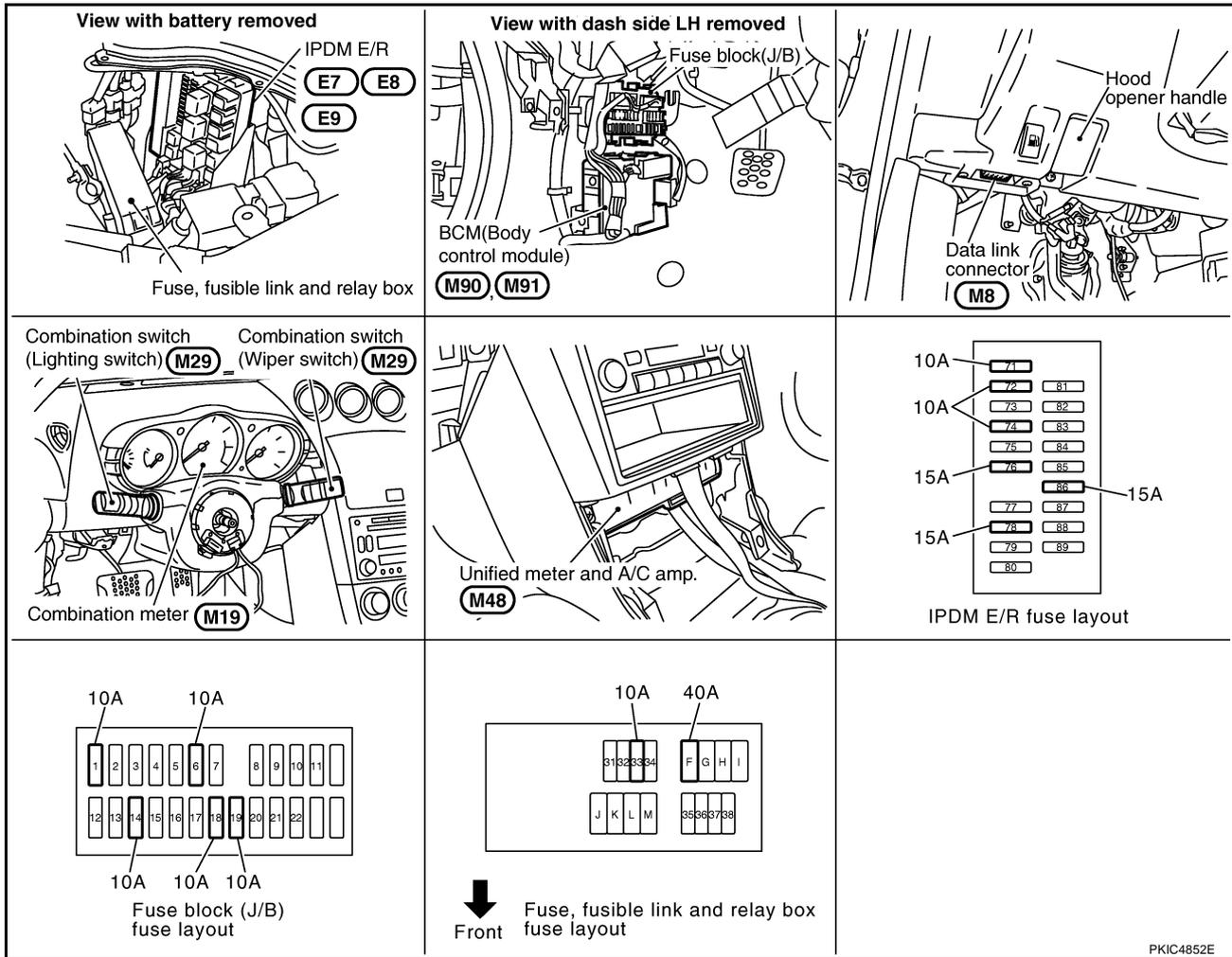


HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

PFP:26010

Component Parts and Harness Connector Location

NKS00022



System Description

NKS00023

- BCM (Body Control Module) controls headlamps low beam, high beam and daytime light operation.
- Daytime light system operates parking, license plate, side marker, tail lamps and headlamp low beam according to signals from unified meter and A/C amp. (receive parking brake switch signal through CAN communication), ECM (receive engine status signal through CAN communication), lighting switch, and ignition switch.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates parking, license plate, side marker, tail lamps, headlamp bulbs and high beam solenoids according to CAN communication signals from BCM.
- Unified meter and A/C amp. operates high beam indicator lamp according to CAN communication signals from BCM.

OUTLINE

Power is supplied at all times

- to headlamp high relay, located in IPDM E/R and
- to headlamp low relay, located in IPDM E/R, from battery directly,
- through 15A fuse [No. 78, located in IPDM E/R]
- to CPU (central processing unit) located in IPDM E/R,
- through 40A fusible link [letter F, located in the fuse, fusible link and relay box]
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]

A
B
C
D
E
F
G
H
I
J
LT

- to BCM terminal 42,
- through 10A fuse [No. 71, located in IPDM E/R]
- to CPU located in IPDM E/R,
- through 10A fuse [No.19, located in fuse block (J/B)]
- to combination meter terminal 24,
- through 10A fuse [No.33, located in the fuse, fusible link and relay box]
- to daytime light relay terminals 1 and 3.

With ignition switch in ON or START position, power is supplied

- to CPU located in IPDM E/R,
- through 10A fuse [No. 1, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

With ignition switch in ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and F152,
- to BCM terminal 52
- through grounds M30 and M66,
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives input signal requesting the headlamps to illuminate. This input signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls the headlamp low relay turned ON, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7.

Ground is supplied

- to front combination lamp RH terminal 4, and
- to front combination lamp LH terminal 4
- through grounds E17, E43 and F152.

With power and ground supplied, headlamp bulbs illuminate.

High Beam Operation /Flash-to-Pass Operation

With the lighting switch in 2ND position and placed in HIGH or PASS position, the BCM receives input signal requesting headlamp high beams to illuminate. High beam request signal and low beam request signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls headlamp high relay and headlamp low relay turned ON, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

- to front combination lamp LH terminal 7,
- through 10A fuse [No.72, located in IPDM E/R]
- through IPDM E/R terminal 27
- to front combination lamp RH terminal 3,
- through 10A fuse [No.74, located in IPDM E/R]
- through IPDM E/R terminal 28
- to front combination lamp LH terminal 3.

Ground is supplied

- to front combination lamp RH terminal 4, and
- to front combination lamp LH terminal 4
- through grounds E17, E43 and F152.

With the power and ground supplied, headlamp bulbs illuminate. High beam solenoids move the bulb shades in the front combination lamps, and the bulb shades change to high beam position.

Unified meter and A/C amp. receives signal from BCM through CAN communication, and then combination meter indicator illuminates high beam,

DAYTIME LIGHT OPERATION

Once the parking brake is turned OFF after ignition switch ON, if the lighting switch is turned OFF while engine is running, the BCM outputs the signal requesting parking, license plate, side marker, tail lamps and headlamp low beam to illuminate. This output signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls headlamp low relay and daytime light relay turned ON, which when energized, supplies power,

- through 15A fuse [No.76, located in the IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No.86, located in the IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7,
- through 10A fuse [No.33, located in the fuse, fusible link and relay box]
- through daytime light relay terminal 2
- to IPDM E/R terminal 55,
- through daytime light relay terminal 5
- to front combination lamp RH terminal 6
- to front combination lamp LH terminal 6
- to rear combination lamp RH terminal 2
- to rear combination lamp LH terminal 2
- to license plate lamp RH terminal 2
- to license plate lamp LH terminal 2.

Ground is supplied

- to front combination lamp RH terminal 4
- to front combination lamp LH terminal 4
- to front combination lamp RH terminal 8
- to front combination lamp LH terminal 8
- through grounds E17, E43 and F152,
- to rear combination lamp RH terminal 3
- to rear combination lamp LH terminal 3
- to license plate lamp RH terminal 1
- to license plate lamp LH terminal 1
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

With power and ground supplied, the headlamp low, parking, license plate and tail lamps illuminate.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

OPERATION

Engine		With engine stopped									With engine running								
Lighting switch		OFF			1ST			2ND			OFF			1ST			2ND		
		OFF	Hi	P	T	Hi	P	Lo	Hi	P	OFF	Hi	P	T	Hi	P	Lo	Hi	P
Headlamp	High beams	-	-	-	-	-	×	-	×	×	-	-	×	-	-	×	-	×	×
	Low beams	-	-	-	-	-	-	×	-	-	×	×	-	×	×	-	×	-	-
Parking, license plate, side marker and tail lamps		-	-	-	×	-	×	×	×	×	×	×	-	×	×	×	×	×	×
Illumination		-	-	-	×	-	×	×	×	×	-	-	-	×	×	×	×	×	×

- T: "TAIL LAMP" position
- Hi: "HIGH BEAM" position
- Lo: "LOW BEAM" position
- P: "FLASH TO PASS" position
- ×: Lamp "ON"
- -: Lamp "OFF"
- *: Once the parking brake is turned OFF after ignition switch ON, parking, license plate, side marker, tail lamps and headlamp low are turned ON.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control function is activated.

Under this condition, the headlamps remain illuminated for 5 minutes, then the headlamps are turned off. Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

INTERLOCKED OPERATION WITH REMOTE KEYLESS ENTRY SYSTEM

Refer to [BL-60, "REMOTE KEYLESS ENTRY SYSTEM"](#) .

INTERLOCKED OPERATION WITH VEHICLE SECURITY SYSTEM

Refer to [BL-129, "VEHICLE SECURITY \(THEFT WARNING\) SYSTEM"](#) .

XENON HEADLAMP

Xenon type lamps are used for headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to strong lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Followings are some advantages of the xenon type headlamp.

- The light produced by the headlamps is white color similar to sunlight that is easy to the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- Counter-reflected luminance increases and the contrast enhances on the wet road in the rain. That makes visibility go up more than the increase of the light volume.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

CAN Communication System Description

NKS00024

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS00025

Refer to [LAN-48, "CAN System Specification Chart"](#).

A

B

C

D

E

F

G

H

I

J

LT

L

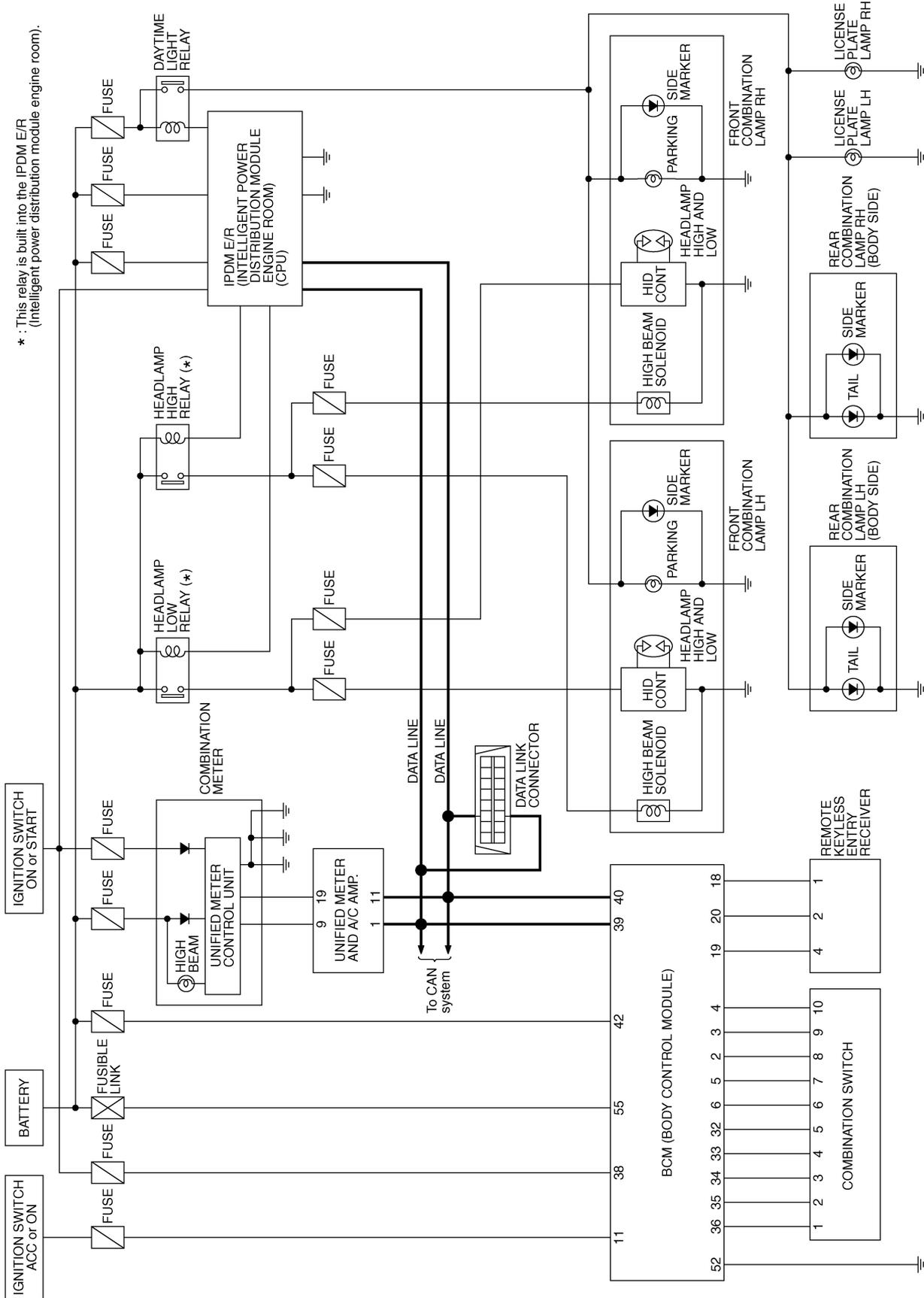
M

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

Schematic

NKS00026



TKWT4022E

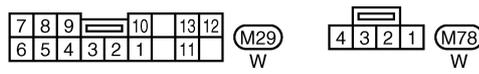
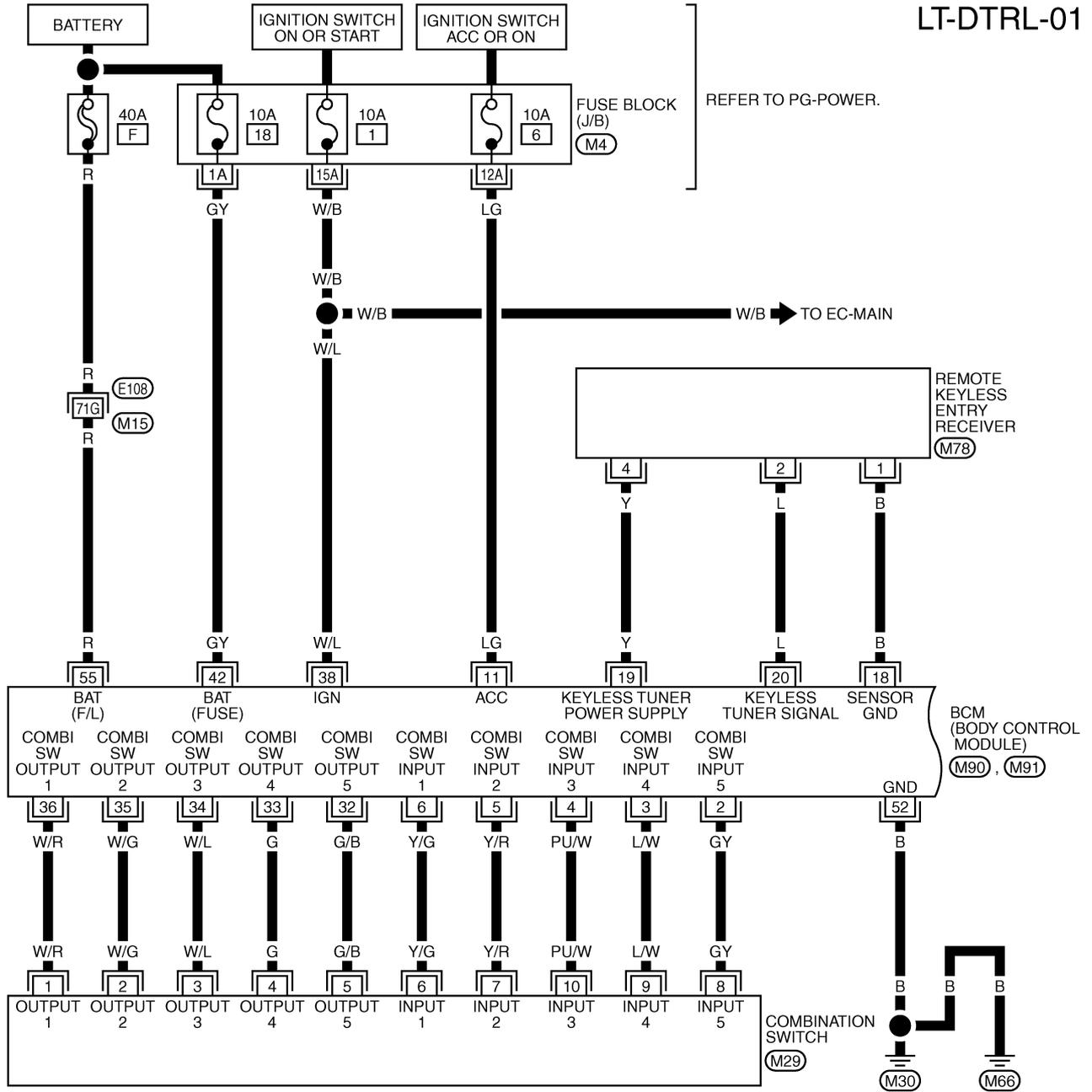
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

Wiring Diagram — DTRL —

NKS00027

LT-DTRL-01



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

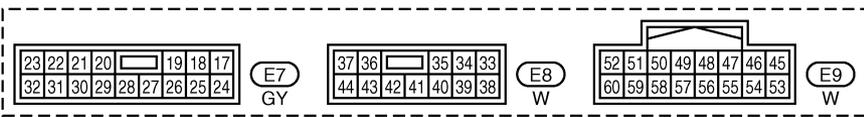
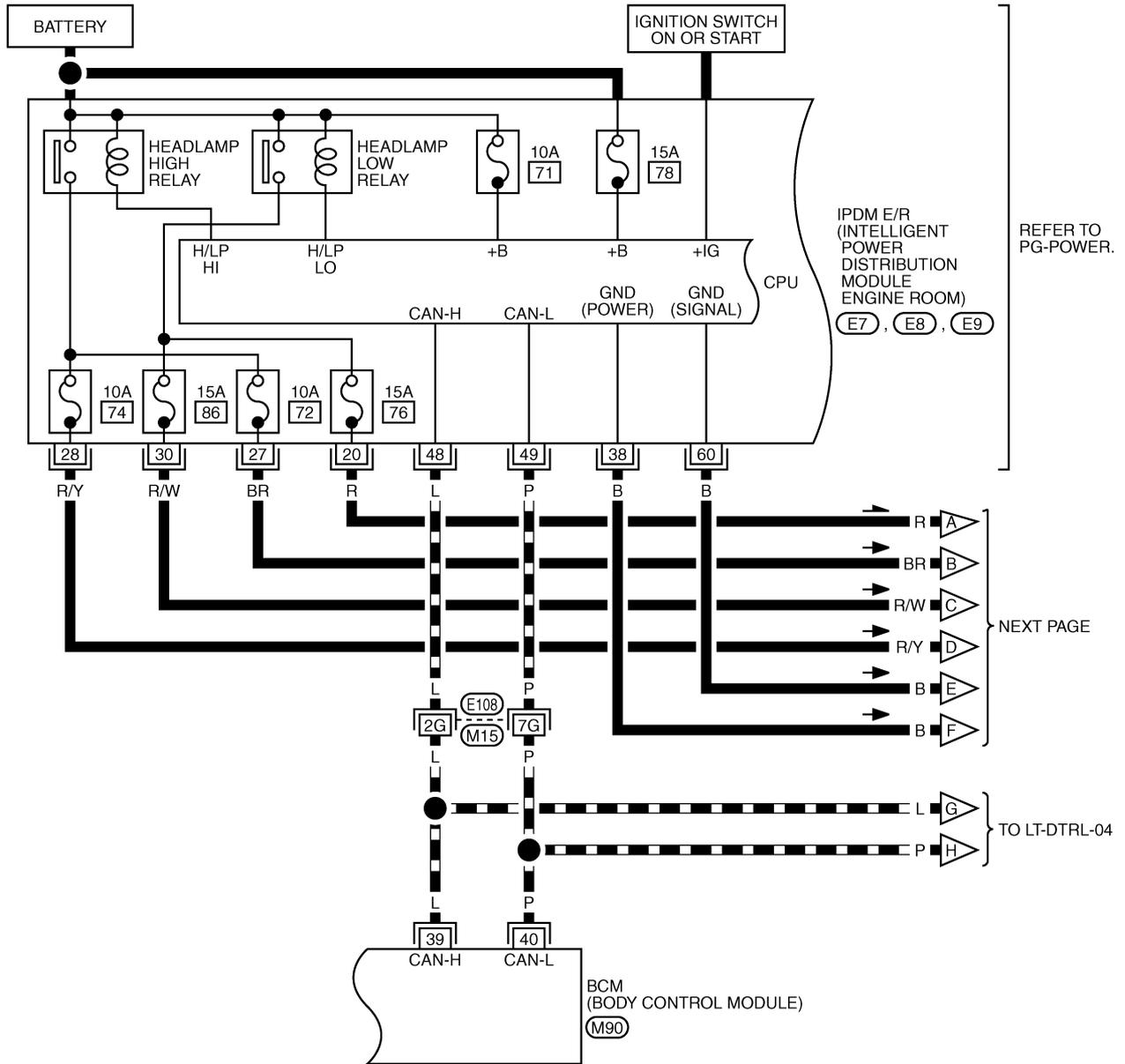
TKWT4023E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

LT-DTRL-02

▬ : DATA LINE



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M90) -ELECTRICAL UNITS

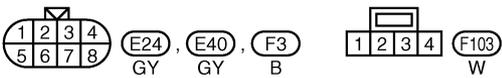
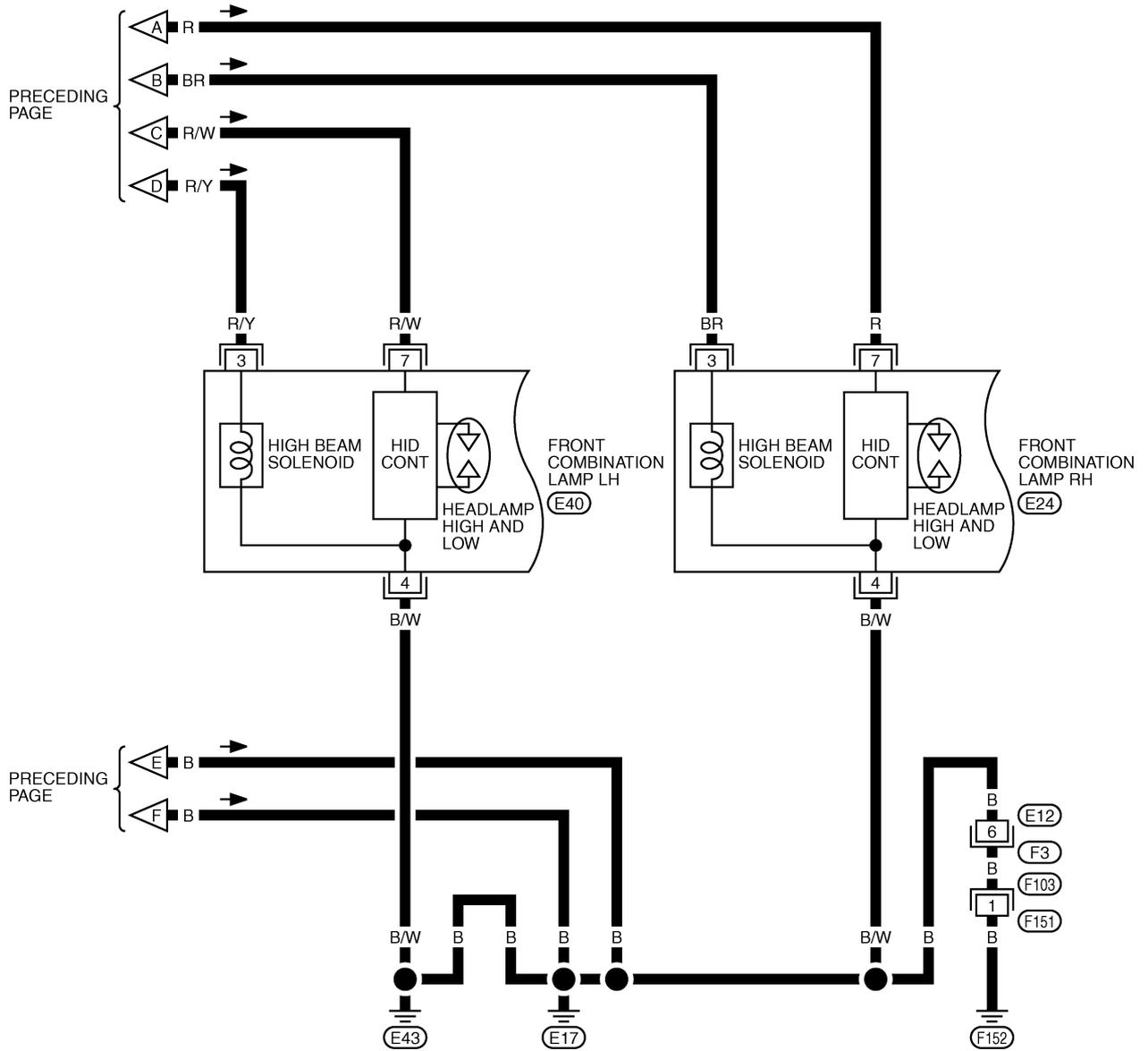


TKWT4024E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

LT-DTRL-03



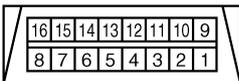
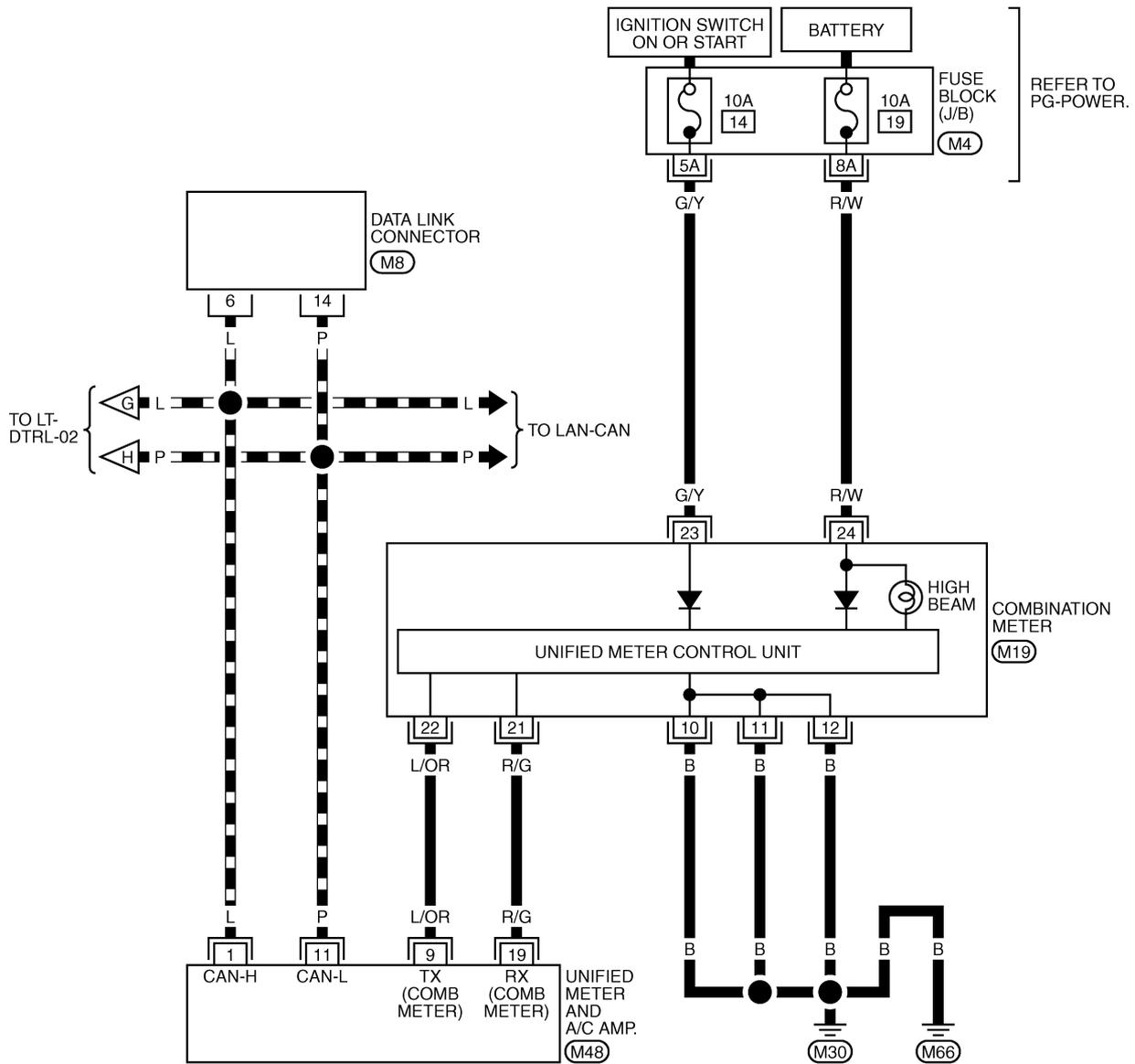
TKWT4025E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

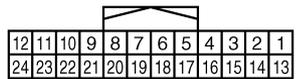
[TYPE 1]

LT-DTRL-04

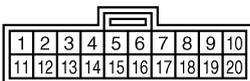
▬ : DATA LINE



(M8)
W



(M19)
W



(M48)
GY



REFER TO THE FOLLOWING.

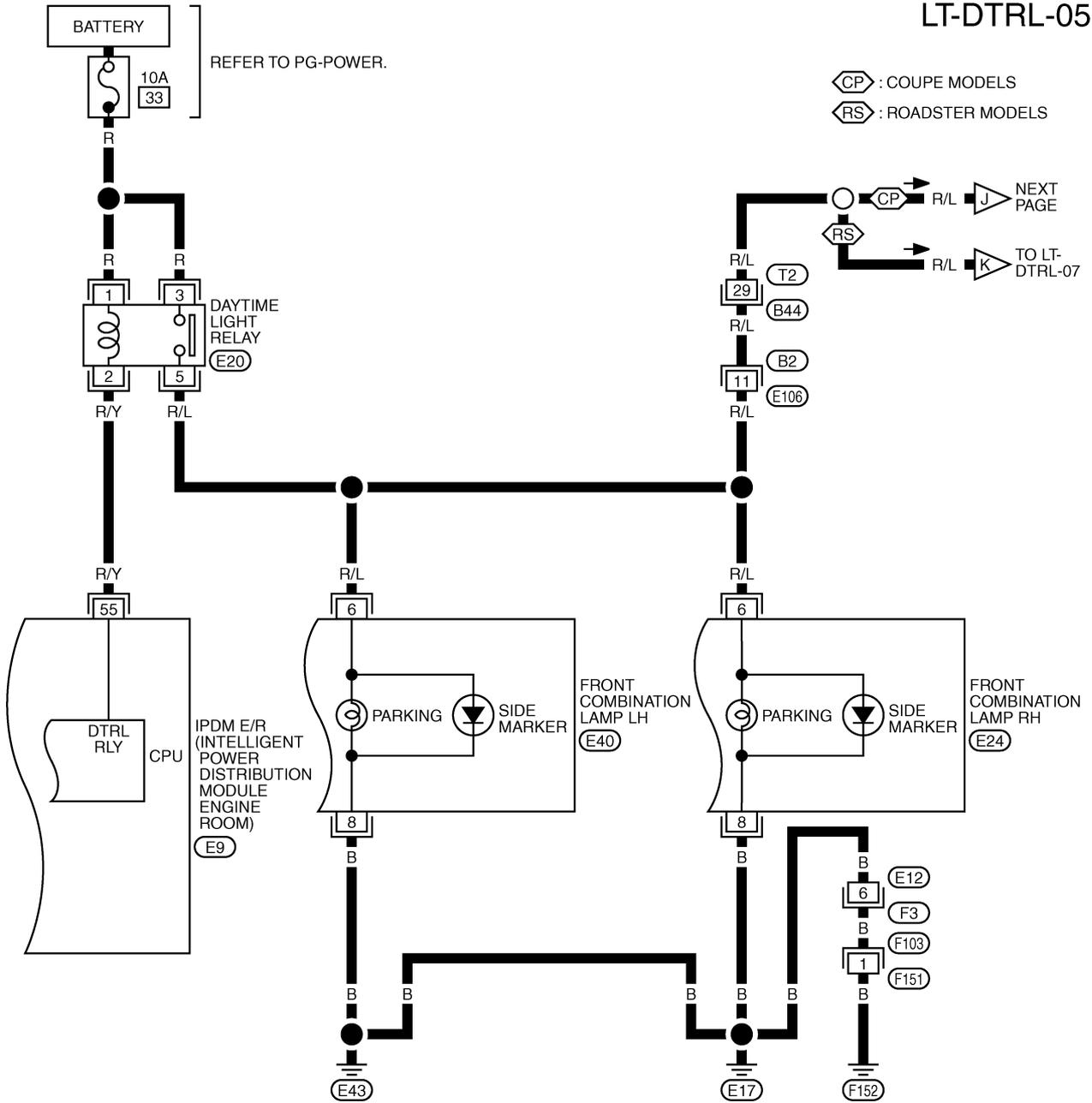
(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWT4026E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

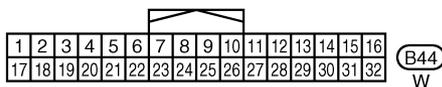
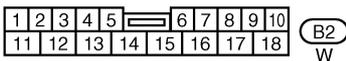
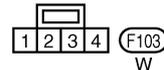
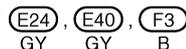
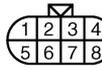
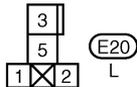
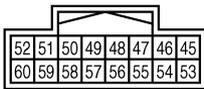
[TYPE 1]

LT-DTRL-05



A
B
C
D
E
F
G
H
I
J
K
L
M

LT



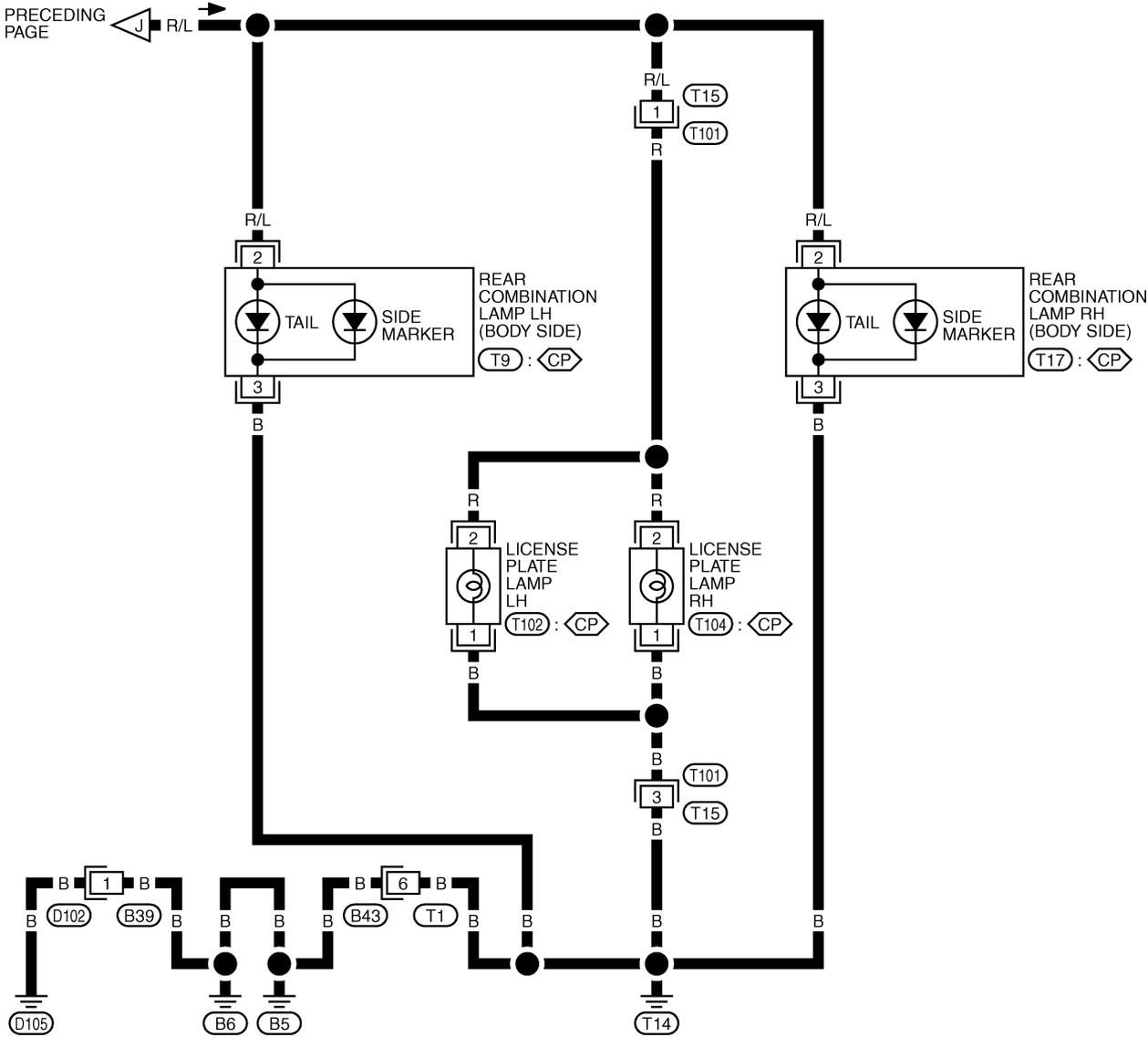
TKWT4027E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

LT-DTRL-06

◊CP◊ : COUPE MODELS



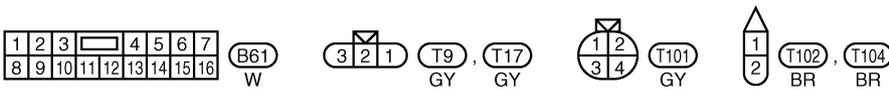
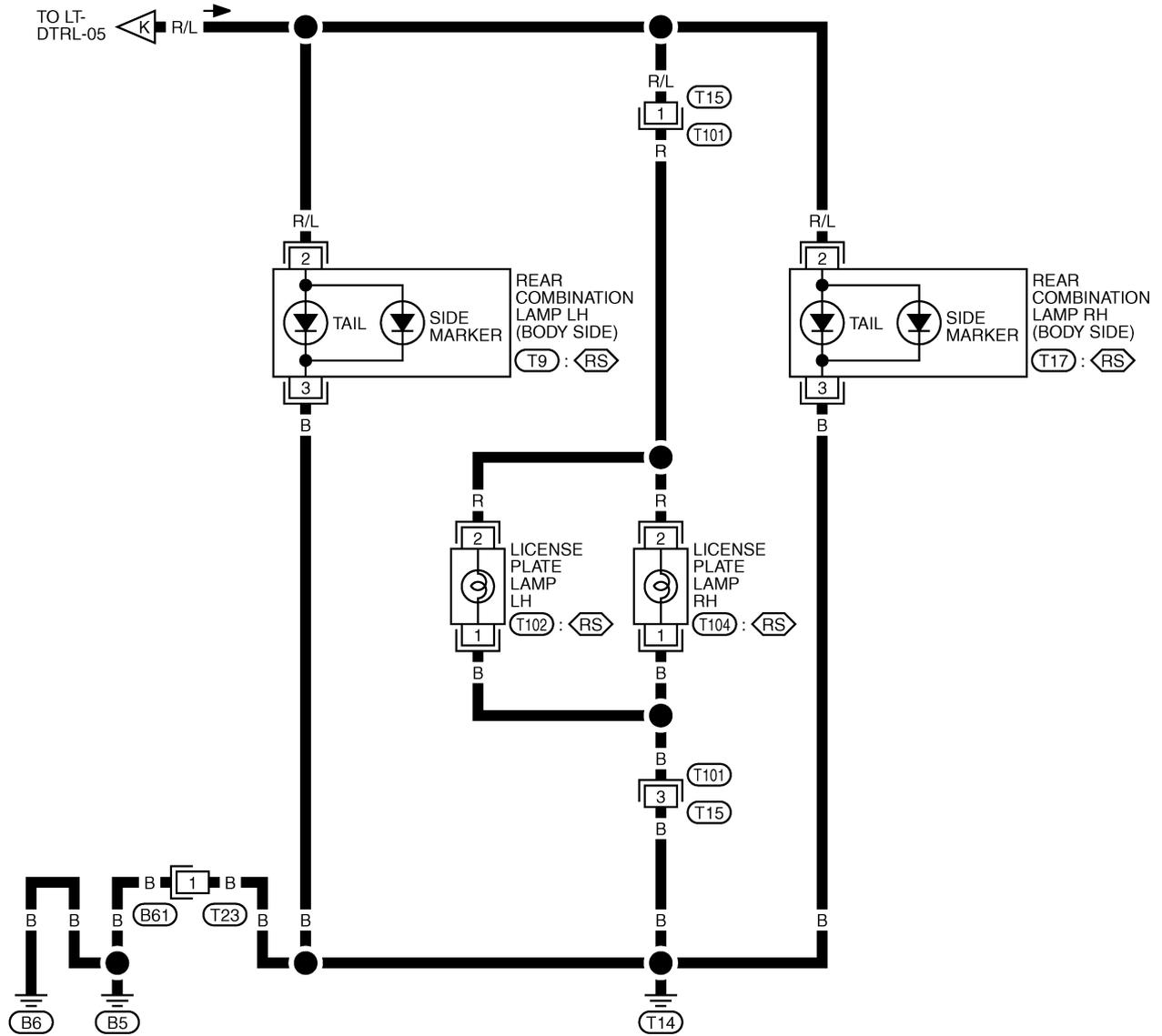
TKWT4028E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

LT-DTRL-07

⬡RS⬢ : ROADSTER MODELS



A
B
C
D
E
F
G
H
I
J
LT
L
M

TKWT4029E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

NKS00028

Terminals and Reference Values for BCM

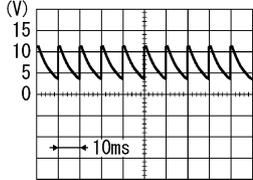
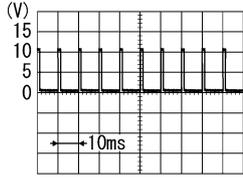
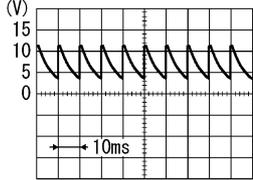
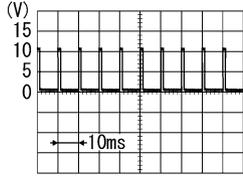
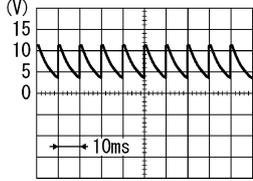
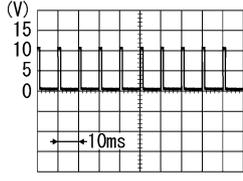
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [WW-21, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value	
			Ignition switch	Operation or condition		
2	GY	Combination switch input 5	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF	Approx. 0 V
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) 	<p>Approx. 1.0 V</p>
3	L/W	Combination switch input 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	Lighting switch 2ND	<p>Approx. 2.0 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p>Approx. 1.0 V</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage	

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> Approx. 7.2 V
					Lighting switch 1ST (The same result with lighting switch 2ND)  <p style="text-align: right; font-size: small;">PKIB4958J</p> Approx. 1.2 V
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> Approx. 7.2 V
					Any of the conditions below ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch)  <p style="text-align: right; font-size: small;">PKIB4958J</p> Approx. 1.2 V
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> Approx. 7.2 V
					Any of the conditions below ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch)  <p style="text-align: right; font-size: small;">PKIB4958J</p> Approx. 1.2 V
38	W/L	Ignition switch (ON)	ON	—	Battery voltage

A
B
C
D
E
F
G
H
I
J
L
M

LT

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0 V
55	R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Values for IPDM E/R

NKS00029

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
20	R	Headlamp low (RH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
27	BR	Headlamp high (RH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
28	R/Y	Headlamp high (LH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
30	R/W	Headlamp low (LH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
38	B	Ground	ON	—	Approx. 0 V	
48	L	CAN– H	—	—	—	
49	P	CAN– L	—	—	—	
55	R/Y	Daytime light relay signal	ON	Lighting switch 1ST position	OFF	Approx. 0 V
					ON	Battery voltage
60	B	Ground	ON	—	Approx. 0 V	

How to Proceed With Trouble Diagnosis

NKS0002B

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-37, "System Description"](#).
3. Perform the preliminary check. Refer to [LT-52, "Preliminary Check"](#).
4. Check symptom and repair or replace the cause of malfunction.
5. Does headlamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

NKS0002C

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

UNIT	POWER SOURCE	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

UNIT	POWER SOURCE	Fuse and fusible link No.
IPDM E/R	Battery	33
		72
		74
		76
		86
	Ignition switch ON or START	82

Refer to [LT-43. "Wiring Diagram — DTRL —"](#) .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5. "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

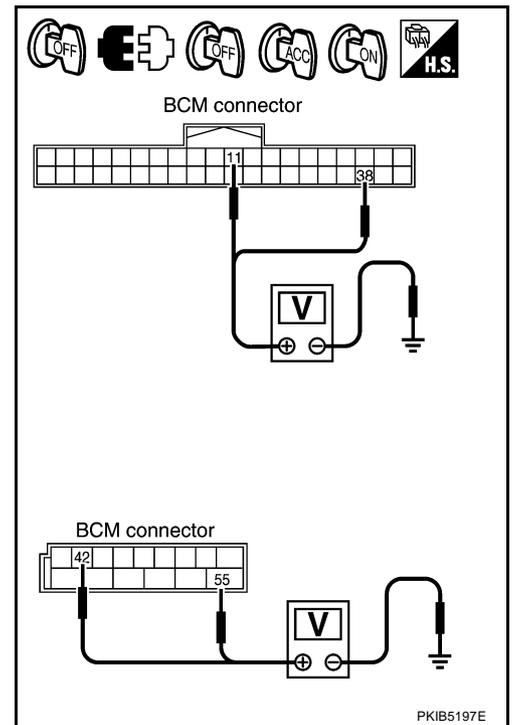
1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

Terminal		(-)	Ignition switch position		
(+)			OFF	ACC	ON
Connector	Terminal				
M90	11	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage	Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.



3. CHECK GROUND CIRCUIT

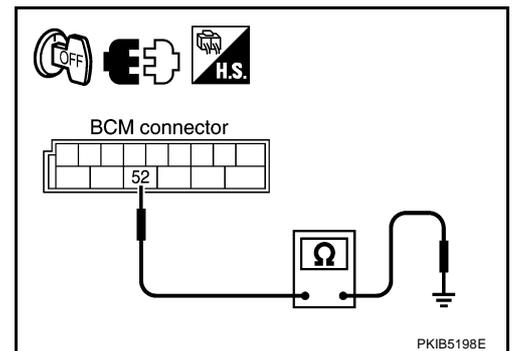
Check continuity between BCM harness connector and ground.

Terminal		Ground	Continuity
Connector	Terminal		
M91	52		Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS0002D

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
HEADLAMP	WORK SUPPORT	Changes the setting for each function.
	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
BCM	SELF-DIAG RESULTS	BCM performs self-diagnosis of CAN communication.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

WORK SUPPORT

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
3. Touch "BATTERY SAVER SET" on "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch "CHANGE SET".
6. The setting will be changed and "CUSTOMIZING COMPLETED" will be displayed.
7. Touch "END".

Display Item List

Item	Description	CONSULT-II	Factory setting
BATTERY SAVER SET	Exterior lamp battery saver control mode can be changed in this mode. Select exterior lamp battery saver control mode between two ON/OFF.	ON	×
		OFF	—

DATA MONITOR

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch individual items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW	"ON/OFF" Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from the ignition switch signal.
ACC ON SW	"ON/OFF" Displays "ACC (ON)/OFF, Ignition OFF (OFF)" status judged from ignition switch signal.
HI BEAM SW	"ON/OFF" Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
HEAD LAMP SW 1	"ON/OFF" Displays status (headlamp switch 1: ON/Others: OFF) of headlamp switch 1 judged from lighting switch signal.
HEAD LAMP SW 2	"ON/OFF" Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 1]

Monitor item	Contents
LIGHT SW 1 ST "ON/OFF"	Displays status (lighting switch 1ST or 2ND position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
PASSING SW "ON/OFF"	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW ^{NOTE} "ON/OFF"	—
DOOR SW - DR "ON/OFF"	Displays status of driver door as judged from driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS "ON/OFF"	Displays status of passenger door as judged from passenger door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR ^{NOTE} "OFF"	—
DOOR SW - RL ^{NOTE} "OFF"	—
BACK DOOR SW "ON/OFF"	<ul style="list-style-type: none"> ● Displays status of back door as judged from back door switch signal. (Coupe models) ● Displays status of rear trunk hood as judged from trunk lamp switch signal. (Roadster models)
TURN SIGNAL R "ON/OFF"	Displays status (Turn right: ON/Others: OFF) as judged from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays status (Turn left: ON/Others: OFF) as judged from lighting switch signal.
ENGINE RUN "ON/OFF"	Displays status (engine running: ON/ engine stopped: OFF) of engine judged from engine run signal.
PKB SW "ON/OFF"	Displays status (parking brake released: ON/ parking brake applied: OFF) of parking brake switch judged from parking brake switch signal.
CARGO LAMP SW ^{NOTE} "OFF"	—

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
TAIL LAMP	Allows tail lamp relay to operate by switching ON-OFF.
HEAD LAMP	Allows headlamp relay to operate by switching ON-OFF.
FR FOG LAMP ^{NOTE}	—
CORNERING LAMP ^{NOTE}	—
DAYTIME RUNNING LIGHT	Allows headlamp low relay and daytime light relay to operate switching ON-OFF.

NOTE:

This item is displayed, but cannot be tested.

CONSULT-II Functions (IPDM E/R)

NKS0002E

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

Check Item, Diagnosis Mode	Description
SELF-DIAG RESULTS	Refer to PG-32. "SELF-DIAG RESULTS" .
DATA MONITOR	The input/output data of IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	IPDM E/R sends a drive signal to electronic components to check their operation.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "DATA MONITOR" on "SELECT DIAG MODE " screen.
2. Touch "ALL SIGNALS", "MAIN SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signal.
MAIN SIGNALS	Monitor the predetermined item.
SELECTION FROM MENU	Selects items and monitors them.

3. Touch the required monitoring item on "SELECTION FROM MENU". In "ALL SIGNALS", all items are monitored. In "MAIN SIGNALS", predetermined items are monitored.
4. Touch "START".
5. Touch "RECORD" while monitoring to record the status of the item being monitored. To stop recording, touch "STOP".

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Position lights request	TAIL&CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM
Daytime running light request	DTRL REQ	ON/OFF	×		×	Signal status input from BCM

NOTE:

Perform monitoring of IPDM E/R data with ignition switch ON. When ignition switch is at ACC, the display may not be correct.

ACTIVE TEST

Operation Procedure

1. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Touch item to be tested, and check operation.
3. Touch "START".
4. Touch "STOP" while testing to stop the operation.

Test item	CONSULT-II screen display	Description
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option.
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI ON, LO ON) at your option (Headlamp high beam repeats ON- OFF every 1 second).

Daytime Light Control Does Not Operate

NKS002H6

NOTE:

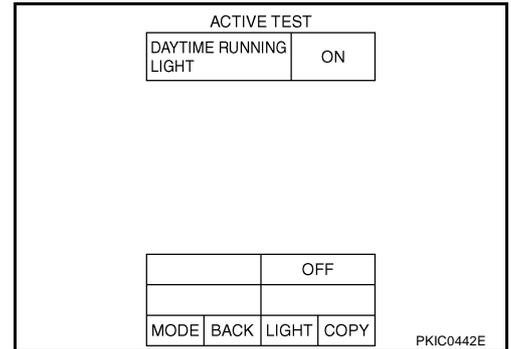
Check if parking, license plate, side marker, tail lamps and head lamps low operates normally.

1. ACTIVE TEST

☑ With CONSULT-II

1. Select "BCM" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "DAYTIME RUNNING LIGHT" on CONSULT-II.
3. Touch "ON" screen.
4. Make sure headlamp low beam, parking, license plate and tail lamp operation.

Headlamp low beam, parking, license plate and tail lamp should operate.



OK or NG

- OK >> GO TO 2.
- NG >> Replace IPDM E/R.

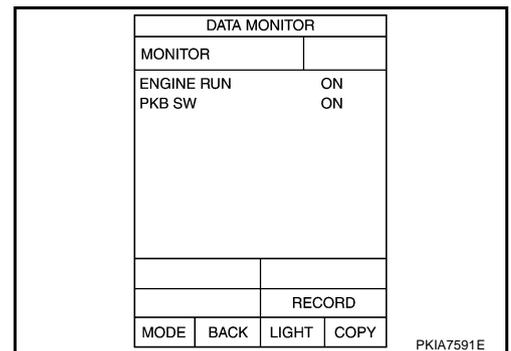
2. CHECK INPUT SIGNAL

1. Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "ENGINE RUN" turns ON-OFF linked with operation of engine running or stop.

Engine running : ENGINE RUN ON
Engine stop : ENGINE RUN OFF

2. Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "PKB SW" turns ON-OFF linked with operation of parking brake switch.

Parking brake ON : PKB SW ON
Parking brake OFF : PKB SW OFF



OK or NG

- OK >> Replace BCM.
- NG >> Refer to [BCS-18, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#).

Headlamp Does Not Change To High Beam (Both Sides)

NKS002ID

1. CHECK COMBINATION SWITCH INPUT SIGNAL

☑ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HI BEAM SW" turns ON-OFF linked with operation of lighting switch.

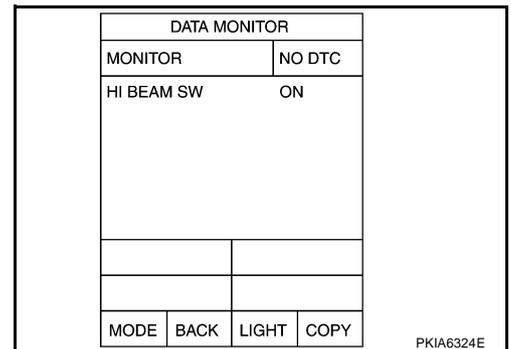
When lighting switch is HIGH BEAM position : HI BEAM SW ON

☒ Without CONSULT-II

Refer to [LT-99, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#).



2. HEADLAMP ACTIVE TEST

☑ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST ITEM" screen.
3. Touch "HI" screen.
4. Make sure headlamp high beam operation.

**Headlamp high beam should operate.
(Headlamp high beam repeats ON-OFF every 1 second).**

ACTIVE TEST			
LAMPS		OFF	
		HI	
LO		FOG	
MODE	BACK	LIGHT	COPY

SKIA5774E

☒ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#) .
2. Make sure headlamp high beam operation.

Headlamp high beam should operate.

OK or NG

- OK >> GO TO 3.
 NG >> GO TO 4.

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" and "HL HI REQ" turns ON when lighting switch is in HI position.

**When lighting switch is : HL LO REQ ON
 HIGH BEAM position : HL HI REQ ON**

DATA MONITOR			
MONITOR			
HL LO REQ		ON	
HL HI REQ		ON	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

SKIA5775E

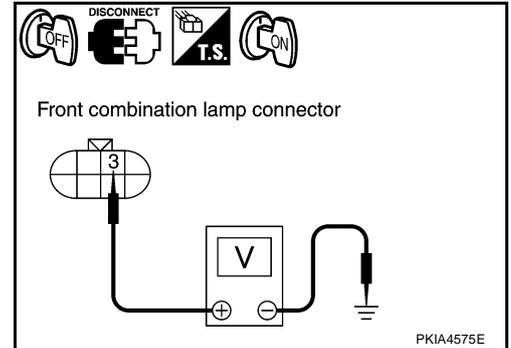
OK or NG

- OK >> Replace IPDM E/R.
 NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .

4. CHECK HEADLAMP INPUT SIGNAL

With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "HI" screen.
6. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground (Headlamp high beam repeats ON-OFF every 1 second).



Terminal				Voltage
(+)			(-)	
Connector	Terminal	Terminal		
RH	E24	3	Ground	Battery voltage
LH	E40	3		

Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminal				Voltage
(+)			(-)	
Connector	Terminal	Terminal		
RH	E24	3	Ground	Battery voltage
LH	E40	3		

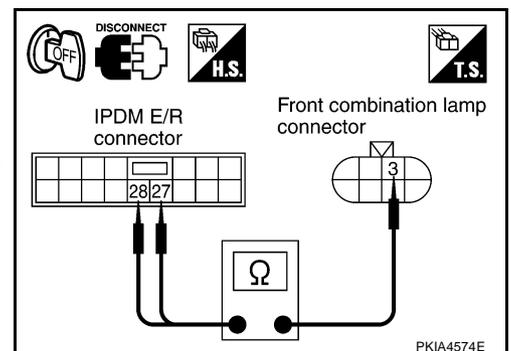
OK or NG

- OK >> GO TO 6.
 NG >> GO TO 5.

5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminal					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal	Terminal	
RH	E7	27	E24	3	Yes
LH		28	E40	3	



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

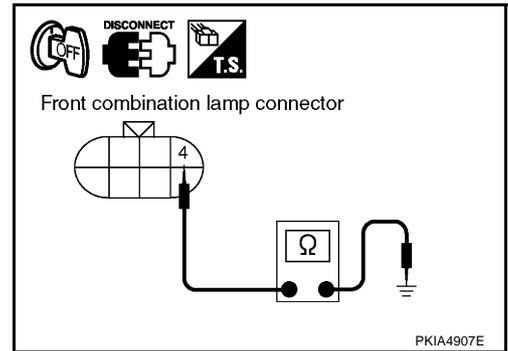
6. CHECK HEADLAMP GROUND

Check continuity between front combination lamp (RH and LH) harness connector and ground.

Connector		Terminal		Ground	Continuity
RH	E24	4			Ground
LH	E40	4			

OK or NG

- OK >> Check headlamp harness, connector and bulb.
- NG >> Repair harness or connector.



Headlamp Does Not Change To High Beam (One Side)

NKS0021E

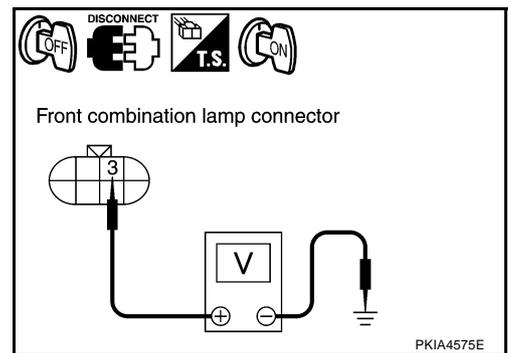
1. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned HIGH BEAM position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

Terminal (+)			Terminal (-)	Voltage
Connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 2.



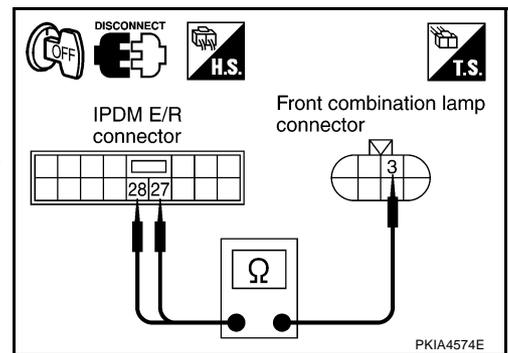
2. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

Terminal				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
RH	E7	27	E24	Yes
LH		28	E40	

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.



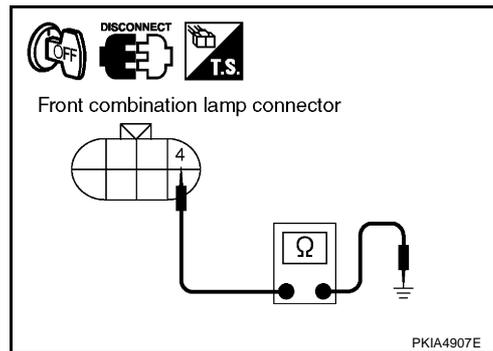
3. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

Connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connector.
- NG >> Repair harness or connector.



NKS0021F

High Beam Indicator Lamp Does Not Illuminate

1. CHECK BULB

Check bulb of high beam indicator lamp.

OK or NG

- OK >> Replace combination meter.
- NG >> Replace indicator bulb.

Headlamp Low Beam Does Not Illuminate (Both Sides)

NKS0021G

1. CHECK COMBINATION SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW 1" and "HEAD LAMP SW 2" turns ON-OFF linked with operation of lighting switch.

**When lighting switch is 2ND position : HEAD LAMP SW 1 ON
: HEAD LAMP SW 2 ON**

ⓧ Without CONSULT-II

Refer to [LT-99, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#).

DATA MONITOR			
MONITOR		NO DTC	
HEAD LAMP SW1		ON	
HEAD LAMP SW2		ON	
MODE	BACK	LIGHT	COPY

PKIA6325E

2. HEADLAMP ACTIVE TEST

Ⓜ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST" ITEM screen.
3. Touch "LO" screen.
4. Make sure headlamp low beam operation.

Headlamp low beam should operate.

ⓧ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
2. Make sure headlamp low beam operation.

Headlamp low beam should operate.

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 4.

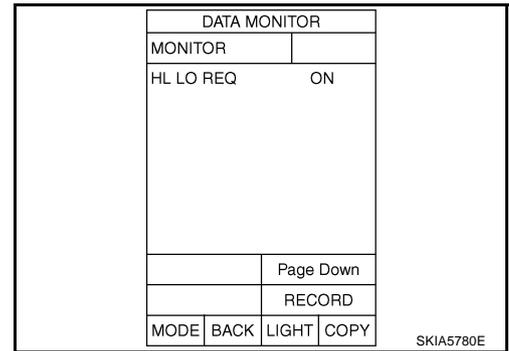
ACTIVE TEST			
LAMPS		OFF	
		HI	
LO		FOG	
MODE	BACK	LIGHT	COPY

SKIA5774E

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" turns ON when lighting switch is in 2ND position.

When lighting switch is 2ND : HL LO REQ ON position



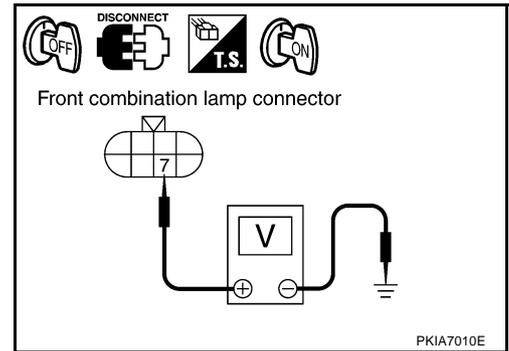
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

4. CHECK HEADLAMP INPUT SIGNAL

With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "LO" screen.
6. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.



Terminal			(-)	Voltage
(+)		Terminal		
Connector	Terminal			
RH	E24	7	Ground	Battery voltage
LH	E40	7		

Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminals			(-)	Voltage
(+)		Terminal		
Connector	Terminal			
RH	E24	7	Ground	Battery voltage
LH	E40	7		

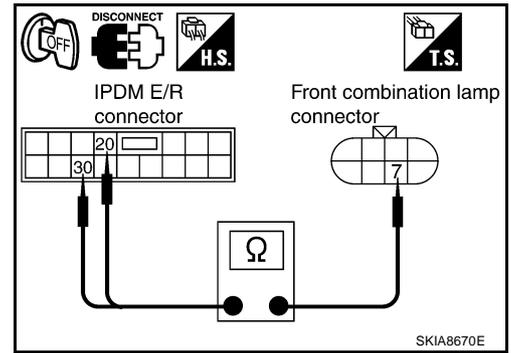
OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.

5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminal				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
RH	E7	20	E24	Yes
LH		30	E40	



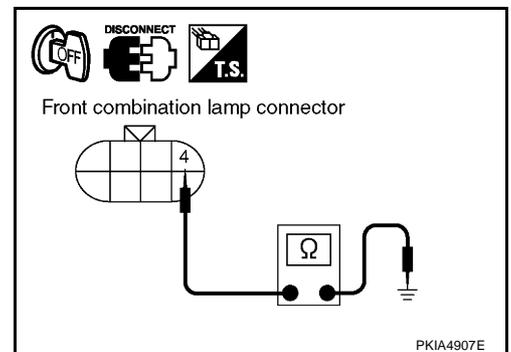
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.

6. CHECK HEADLAMP GROUND

1. Turn ignition switch OFF.
2. Check continuity between front combination lamp (RH and LH) harness connector and ground.

Connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		



OK or NG

- OK >> Check headlamp harness and connectors, ballasts (HID control unit), and xenon bulbs. Refer to [LT-32, "Xenon Headlamp Trouble Diagnosis"](#).
- NG >> Repair harness or connector.

Headlamp Low Beam Does Not Illuminate (One Side)

NKS002IH

1. CHECK BULB

Check ballast (HID control unit) and xenon bulb of lamp which does not illuminate. Refer to [LT-32, "Xenon Headlamp Trouble Diagnosis"](#).

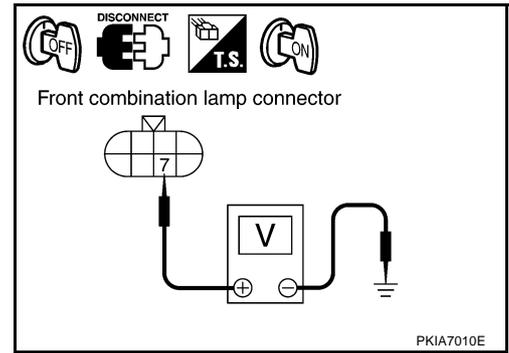
OK or NG

- OK >> GO TO 2.
- NG >> Replace malfunctioning part.

2. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned 2ND position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

		Terminal		Voltage
		(+)		
		Connector	Terminal	(-)
RH	E24		7	Ground
LH	E40		7	
Battery voltage				



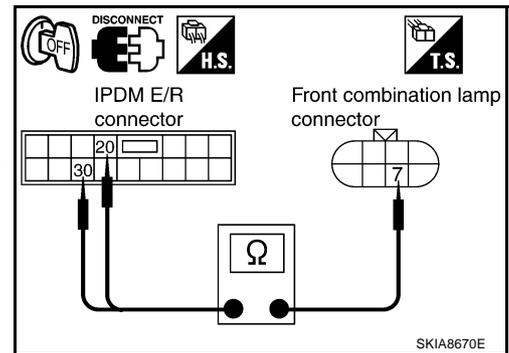
OK or NG

- OK >> GO TO 4.
 NG >> GO TO 3.

3. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

		Terminal			Continuity
		IPDM E/R		Front combination lamp	
		Connector	Terminal	Connector	Terminal
RH	E7		20	E24	7
LH			30	E40	7
Yes					



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

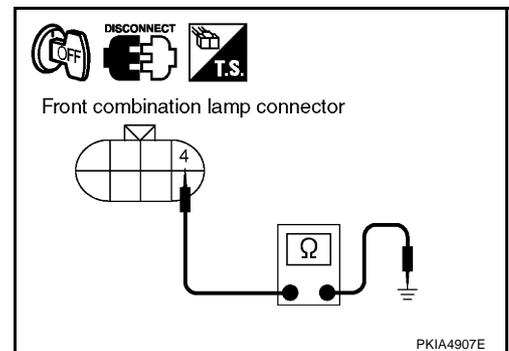
4. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

		Terminal		Continuity
		Connector	Terminal	
RH	E24		4	Ground
LH	E40		4	
Yes				

OK or NG

- OK >> Check headlamp harness and connector.
 NG >> Repair harness or connector.



Headlamps Does Not Turn OFF

1. CHECK HEADLAMP TURN OFF

Make sure that lighting switch is OFF. And check if headlamp turns off when ignition switch is turned OFF.

OK or NG

- OK >> GO TO 3.
 NG >> GO TO 2.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW 1" and "HEAD LAMP SW 2" turns ON-OFF linked with operation of lighting switch.

When lighting switch is OFF : HEAD LAMP SW 1 OFF position : HEAD LAMP SW 2 OFF

DATA MONITOR			
MONITOR		NO DTC	
HEAD LAMP SW 1		OFF	
HEAD LAMP SW 2		OFF	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

PKIA7011E

OK or NG

OK >> Replace IPDM E/R.

NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#) .

3. CHECKING CAN COMMUNICATIONS BETWEEN BCM AND IPDM E/R

Select "BCM" by CONSULT-II, and perform self-diagnosis for "BCM".

Display of self-diagnosis results

NO DTC>> Replace IPDM E/R.

CAN COMM CIRCUIT>> Refer to [BCS-18, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#) .

SELF-DIAG RESULTS			
DTC RESULTS		TIME	
CAN COMM CIRCUIT [U1000]			
ERASE		PRINT	
MODE	BACK	LIGHT	COPY

PKIA7627E

General Information for Xenon Headlamp Trouble Diagnosis

NKS002HG

In most cases, malfunction of xenon headlamp - "does not illuminate", "flickers" or "dark" - is caused by a malfunctioning xenon bulb. A malfunctioning HID control unit or lamp housing, however, may be a cause. Be sure to perform trouble diagnosis following the steps described below.

Caution:

NKS002HH

- Installation or removal of connector must be done with lighting switch OFF.
- Disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

- When the lamp is illuminated (when lighting switch is ON), never touch harness, HID control unit, inside of lamp, or lamp metal parts.
- To check illumination, temporarily install lamp in vehicle. Be sure to connect power at vehicle side connector.
- If error can be traced directly to electrical system, first check for items such as blown fuses and fusible links, broken wires or loose connectors, dislocated terminals, and improper connections.
- Never work with wet hands.
- Using a tester for HID control unit circuit trouble diagnosis is prohibited.
- Disassembling HID control unit or harnesses (bulb socket harness, ECM harness) is prohibited.
- Immediately after illumination, light intensity and color will fluctuate, but there is nothing wrong.
- When bulb has come to end of its life, brightness will drop significantly, it will flash repeatedly, or light color will turn reddish.

Xenon Headlamp Trouble Diagnosis

NKS002HI

1. CHECK 1: XENON HEADLAMP LIGHTING

Install normal xenon bulb to corresponding xenon bulb headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace xenon bulb.
- NG >> GO TO 2.

2. CHECK 2: XENON HEADLAMP LIGHTING

Install normal HID control unit to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace HID control unit.
- NG >> GO TO 3.

3. CHECK 3: XENON HEADLAMP LIGHTING

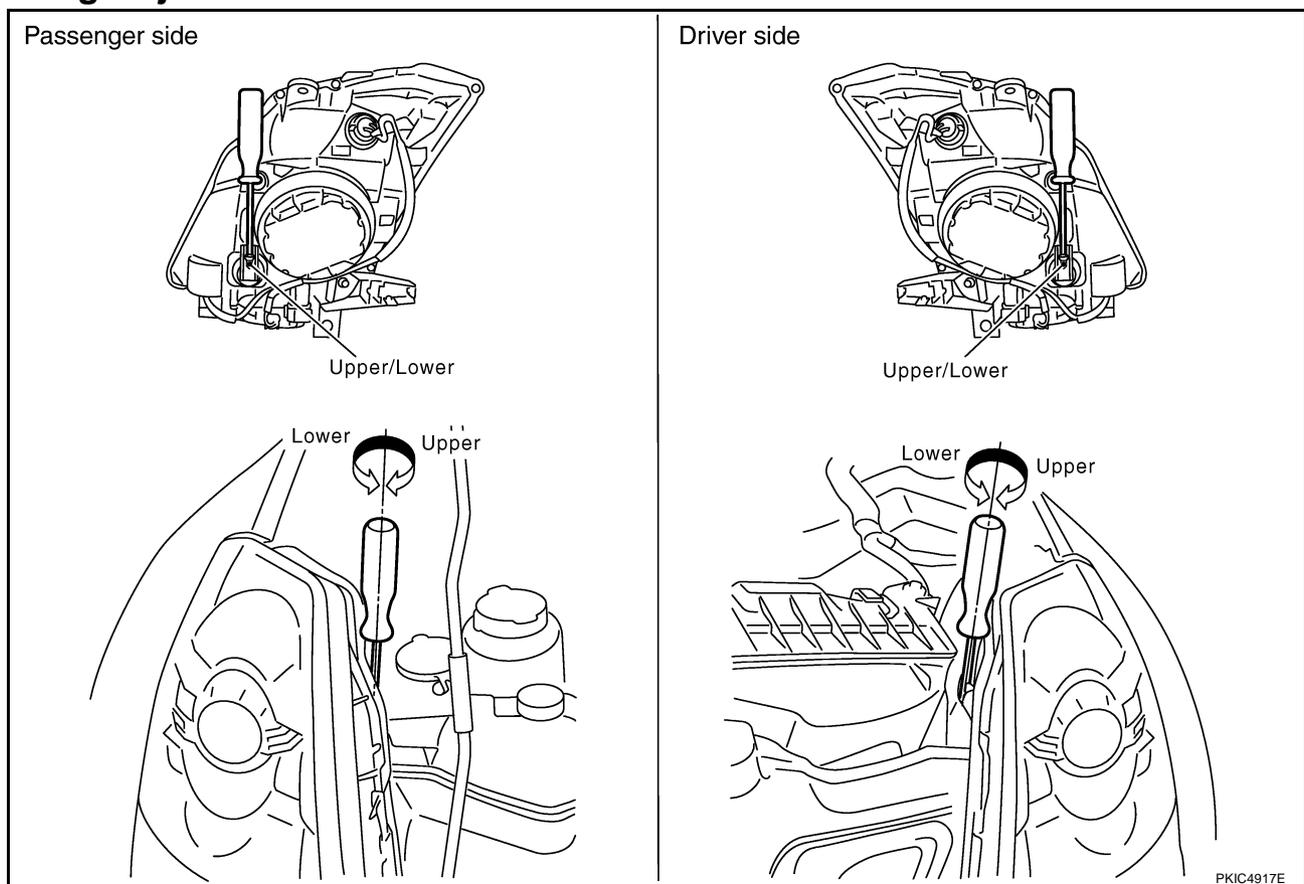
Install normal xenon lamp housing assembly to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace xenon headlamp housing assembly. [Malfunction in starter (boosting circuit) in xenon headlamp housing]
- NG >> INSPECTION END

Aiming Adjustment

NKS002HJ



PREPARATION BEFORE ADJUSTING

For details, refer to the regulations in your own country.
Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on level surface.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

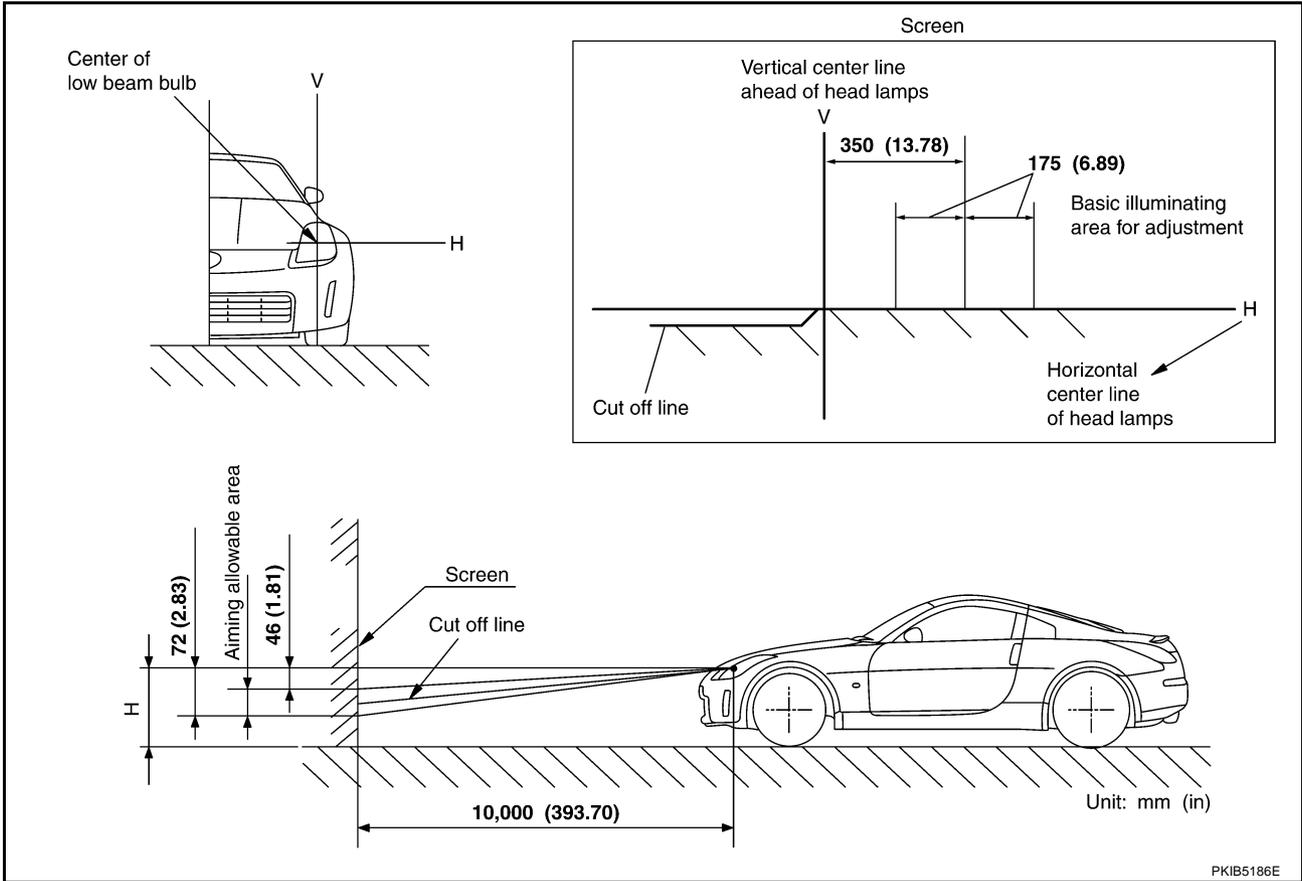
[TYPE 1]

3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam ON.
2. Use adjusting screws to perform aiming adjustment.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- Basic illumination area for adjustment should be within the range shown on the aiming chart. Adjust headlamp accordingly.

Bulb Replacement HEADLAMP HIGH/LOW BEAM

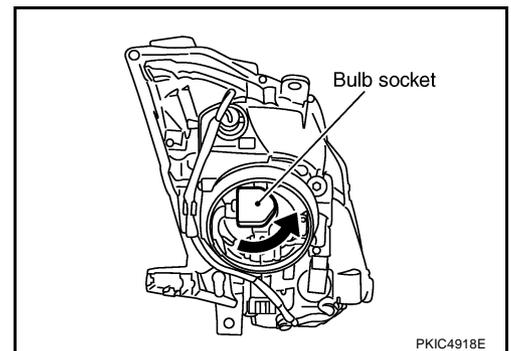
NKS002HK

1. Turn lighting switch OFF.
2. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

3. Remove headlamp. Refer to [LT-68, "Removal and Installation"](#).
4. Turn plastic cap counterclockwise and unlock it.
5. Turn bulb socket counterclockwise and unlock it.
6. Unlock retaining spring and remove bulb from headlamp.
7. Installation is the reverse order of removal.



NOTE:

After installation, perform aiming adjustment. Refer to [LT-66, "Aiming Adjustment"](#).

Headlamp high/low beam (Xenon) : 12V - 35W (D2R)

PARKING LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse order of removal.

Parking lamp : 12V - 5W

FRONT TURN SIGNAL LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse order of removal.

Front turn signal lamp/— : 12V - 28/8W (amber)

FRONT SIDE MARKER LAMP

1. Remove headlamp. Refer to [LT-68, "Removal and Installation"](#).
2. Replacement integral with headlamp housing assembly.
3. Installation is reverse order of removal.

Front side marker lamp : LED

CAUTION:

After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness.

Removal and Installation

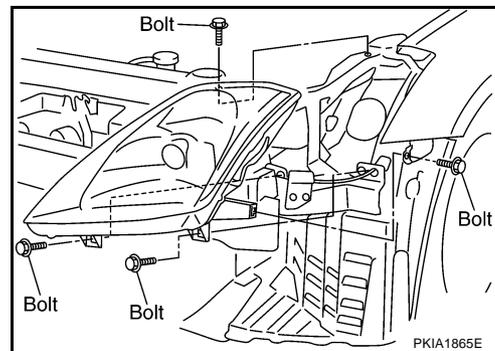
REMOVAL

1. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

2. Remove front bumper fascia. Refer to [EI-14, "FRONT BUMPER"](#).
3. Remove headlamp mounting bolts.
4. Pull head lamp toward vehicle front, disconnect connector, and remove headlamp.



INSTALLATION

Installation is the reverse order of removal.

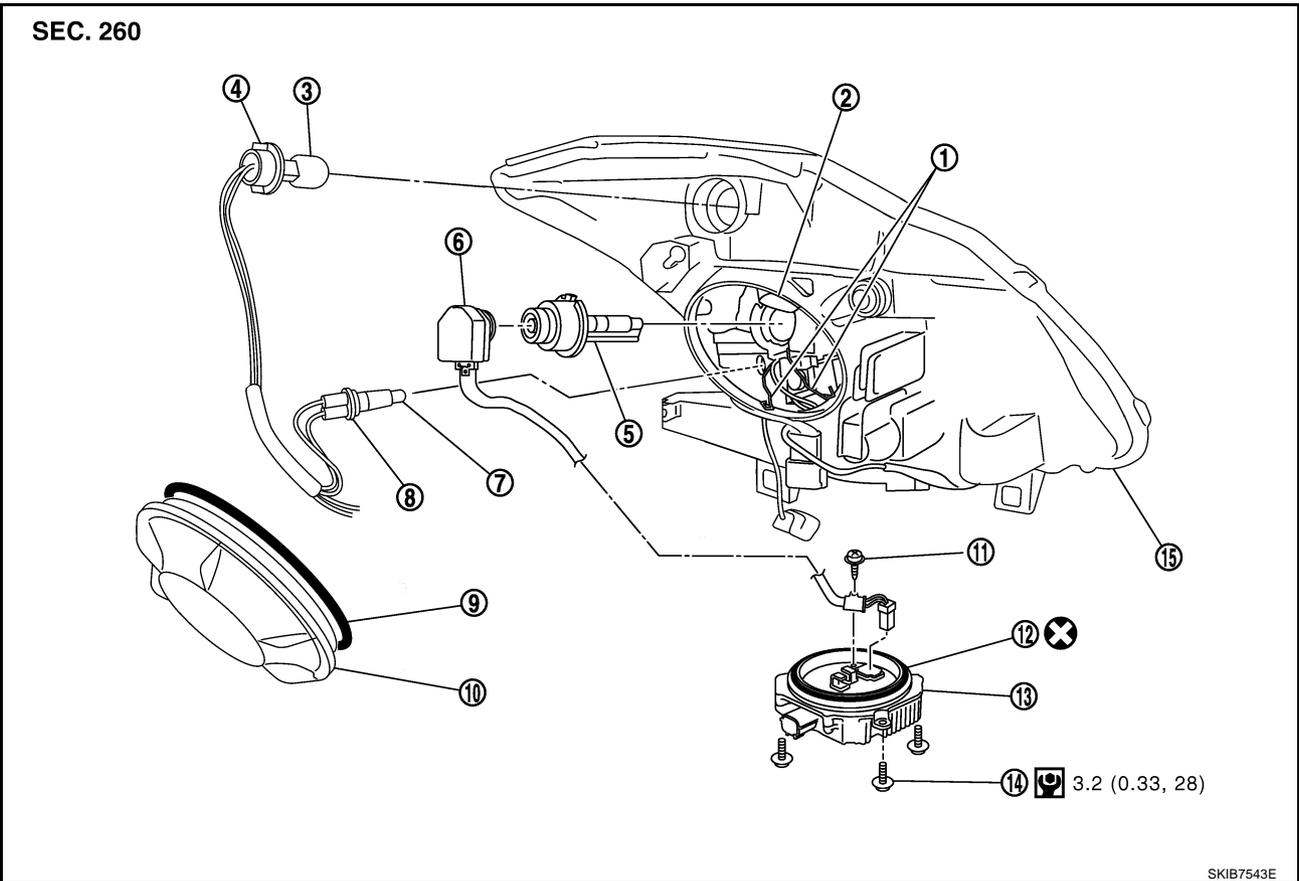
Headlamp mounting bolt  : 6.1N-m (0.62 kg-m, 54 in lb)

NOTE:

After installation, perform aiming adjustment. Refer to [LT-66, "Aiming Adjustment"](#).

Disassembly and Assembly

NKS002HM



- | | | |
|---------------------------------------|-------------------------------------|--------------------------------|
| 1. Retaining spring | 2. Xenon bulb socket ground | 3. Front turn signal lamp bulb |
| 4. Front turn signal lamp bulb socket | 5. Xenon bulb | 6. Xenon bulb socket |
| 7. Parking lamp bulb | 8. Parking lamp bulb socket | 9. Seal packing |
| 10. Plastic cap | 11. Ground screw | 12. Seal packing |
| 13. HID control unit | 14. HID control unit mounting screw | 15. Headlamp housing assembly |

:N·m (kg·m, in·lb)

: Always replace after every disassembly.

DISASSEMBLY

1. Turn plastic cap counterclockwise, and unlock it.
2. Turn xenon bulb socket counterclockwise, and unlock it.
3. Unlock retaining spring, and remove xenon bulb.
4. Disconnect xenon bulb socket ground.
5. Remove HID control unit mounting screws.
6. Remove ground screw from HID control unit.
7. Disconnect connectors from HID control unit.
8. Pull out xenon bulb socket from head lamp housing assembly.
9. Turn parking lamp bulb socket counterclockwise and unlock it.
10. Remove parking lamp bulb from its socket.
11. Turn front turn signal lamp bulb socket counterclockwise and unlock it.
12. Remove front turn signal lamp bulb from its socket.

A
B
C
D
E
F
G
H
I
J
LT
L
M

ASSEMBLY

Assembly is the reverse order of disassembly.

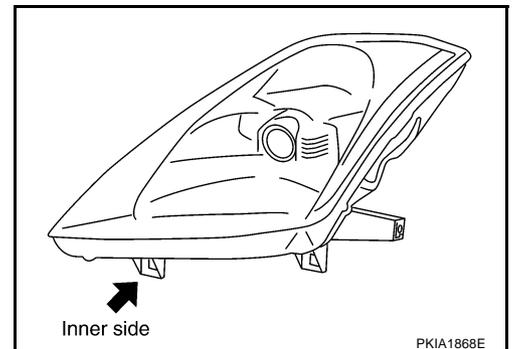
HID control unit mounting screw  : 3.2 N·m (0.33 kg-m, 28 in-lb)

CAUTION:

- When HID control unit is removed, reinstall it securely and avoid any looseness.
- After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness

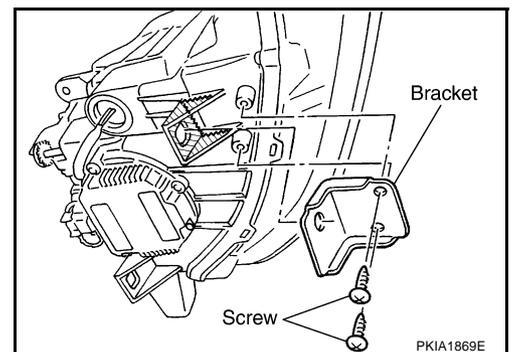
Serving to Replace Headlamps When Damaged

If only installation part as shown in the figure is damaged, and headlamp housing itself is not damaged, repair can be completed easily by installing correction brackets.



INSTALLATION OF HEADLAMP BRACKET

1. Remove headlamps. Refer to [LT-68, "Removal and Installation"](#).
2. Cut damaged section of installation part, then shape with sandpaper.
3. Attach each correction bracket to headlamp housing boss with 2 screws.

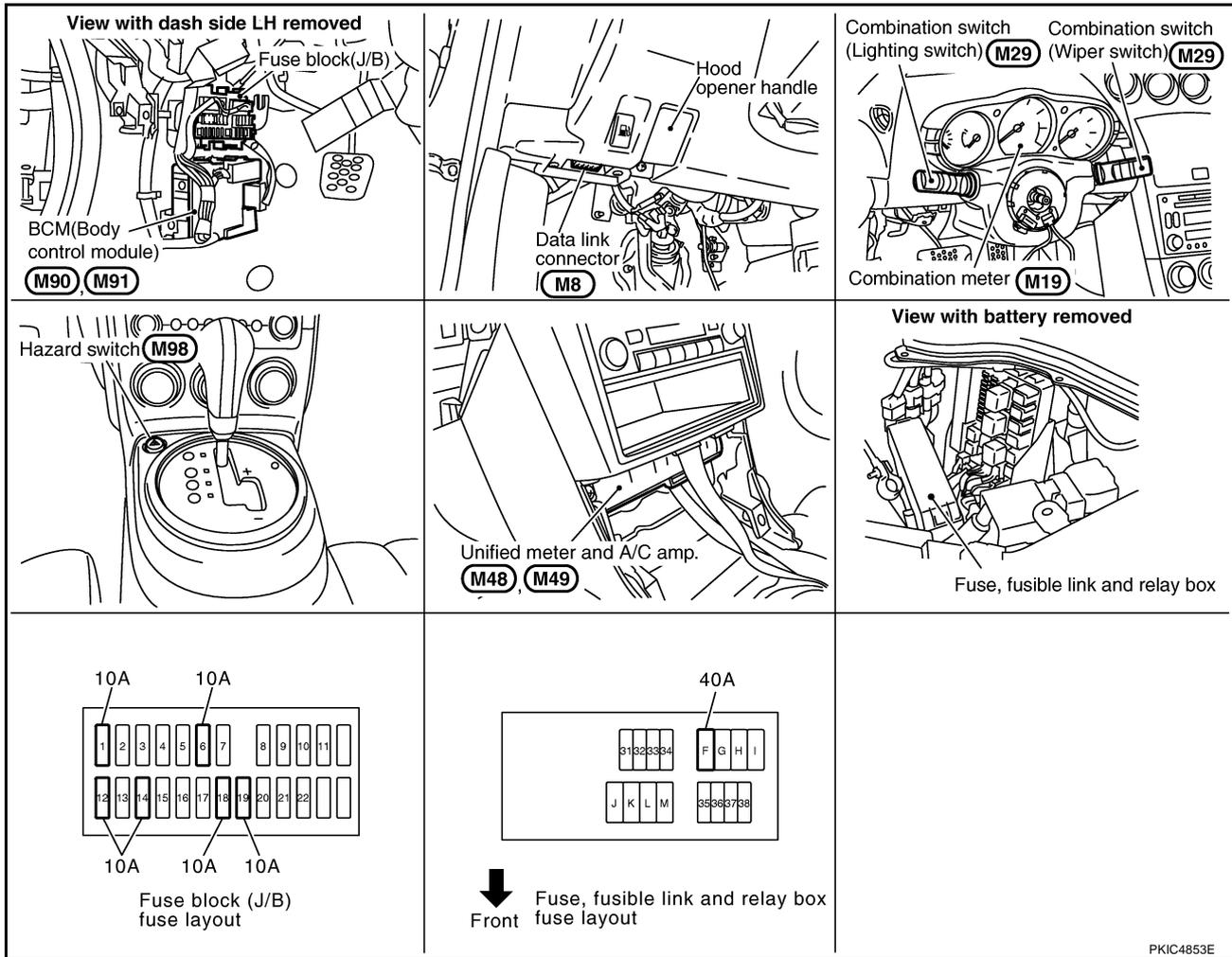


TURN SIGNAL AND HAZARD WARNING LAMPS

PFP:26120

Component Parts and Harness Connector Location

NKS0003J



PKIC4853E

System Description

TURN SIGNAL OPERATION

NKS0003K

When the ignition switch is in ON or START position, power is supplied

- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM (body control module) terminal 38,
- through 10A fuse [No.12, located in fuse block (J/B)]
- to unified meter and A/C amp. terminal 22,
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

Ground is supplied

- to BCM terminal 52
- to unified meter and A/C amp. terminals 29 and 30, and
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

LH Turn Signal Lamp

When the turn signal switch is moved to the left position, the BCM receives left turn signal by combination switch reading function (Refer to [BCS-3. "COMBINATION SWITCH READING FUNCTION"](#)). Power is supplied

- through BCM terminal 45
- to front combination lamp LH terminal 2

A
B
C
D
E
F
G
H
I
J

LT

- to rear combination lamp LH terminal 2.

Ground is supplied

- to front combination lamp LH terminal 8
- through grounds E17, E43 and F152,
- to rear combination lamp LH terminal 4
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

The BCM also supplies ground to unified meter and A/C amp. terminals 1 and 11 through the CAN communication lines. This input signal is processed by the unified meter control unit in the combination meter through unified meter and A/C amp., which in turn supplies ground to left turn signal indicator lamp. With the power and ground supplied, BCM controls the flashing of LH turn signal lamps.

RH Turn Signal Lamp

When the turn signal switch is moved to the right position, the BCM receives right turn signal by combination switch reading function (Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#)). Power is supplied

- through BCM terminal 46
- to front combination lamp RH terminal 2
- to rear combination lamp RH terminal 2.

Ground is supplied

- to front combination lamp RH terminal 8
- through grounds E17, E43 and F152 ,
- to rear combination lamp RH terminal 4
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

The BCM also supplies ground to unified meter and A/C amp. terminals 1 and 11 through CAN communication lines. This input signal is processed by unified meter control unit in combination meter through unified meter and A/C amp., which in turn supplies ground to the right turn signal indicator lamp. With power and ground supplied, BCM controls the flashing of RH turn signal lamps.

HAZARD WARNING LAMP OPERATION

Power is supplied at all times

- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55,
- through 10A fuse [No. 18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 10A fuse [No. 19, located in fuse block (J/B)]
- to combination meter terminal 24, and
- to unified meter and A/C amp. terminal 21.

Ground is supplied

- to BCM terminals 52
- to unified meter and A/C amp. terminals 29 and 30, and
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

When the hazard switch is depressed, power is supplied

- through BCM terminal 29
- to hazard lamp switch terminal 2.

Ground is supplied

- through hazard lamp switch terminal 1
- to grounds M30 and M66.

The BCM then supplies power

- through BCM terminal 45

- to front combination lamp LH terminal 2
- to rear combination lamp LH terminal 2,
- through BCM terminal 46
- to front combination lamp RH terminal 2
- to rear combination lamp RH terminal 2.

A
B

Ground is supplied

- to front combination lamp LH terminal 8, and
- to front combination lamp RH terminal 8
- through grounds E17, E43 and F152,
- to rear combination lamp LH terminal 4, and
- to rear combination lamp RH terminal 4
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

C
D
E

The BCM also supplies input to unified meter and A/C amp. terminals 1 and 11 through the CAN communication lines. This input signal is processed by the unified meter control unit in the combination meter through the unified meter and A/C amp., which in turn supplies ground to the left and right turn signal indicator lamps. With the power and ground supplied, BCM controls the flashing of hazard warning lamps.

F

REMOTE KEYLESS ENTRY SYSTEM OPERATION

Refer to [BL-60, "REMOTE KEYLESS ENTRY SYSTEM"](#) .

G

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

H

CAN Communication System Description

NKS0003L

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

I
J

CAN Communication Unit

NKS0003M

Refer to [LAN-48, "CAN System Specification Chart"](#) .



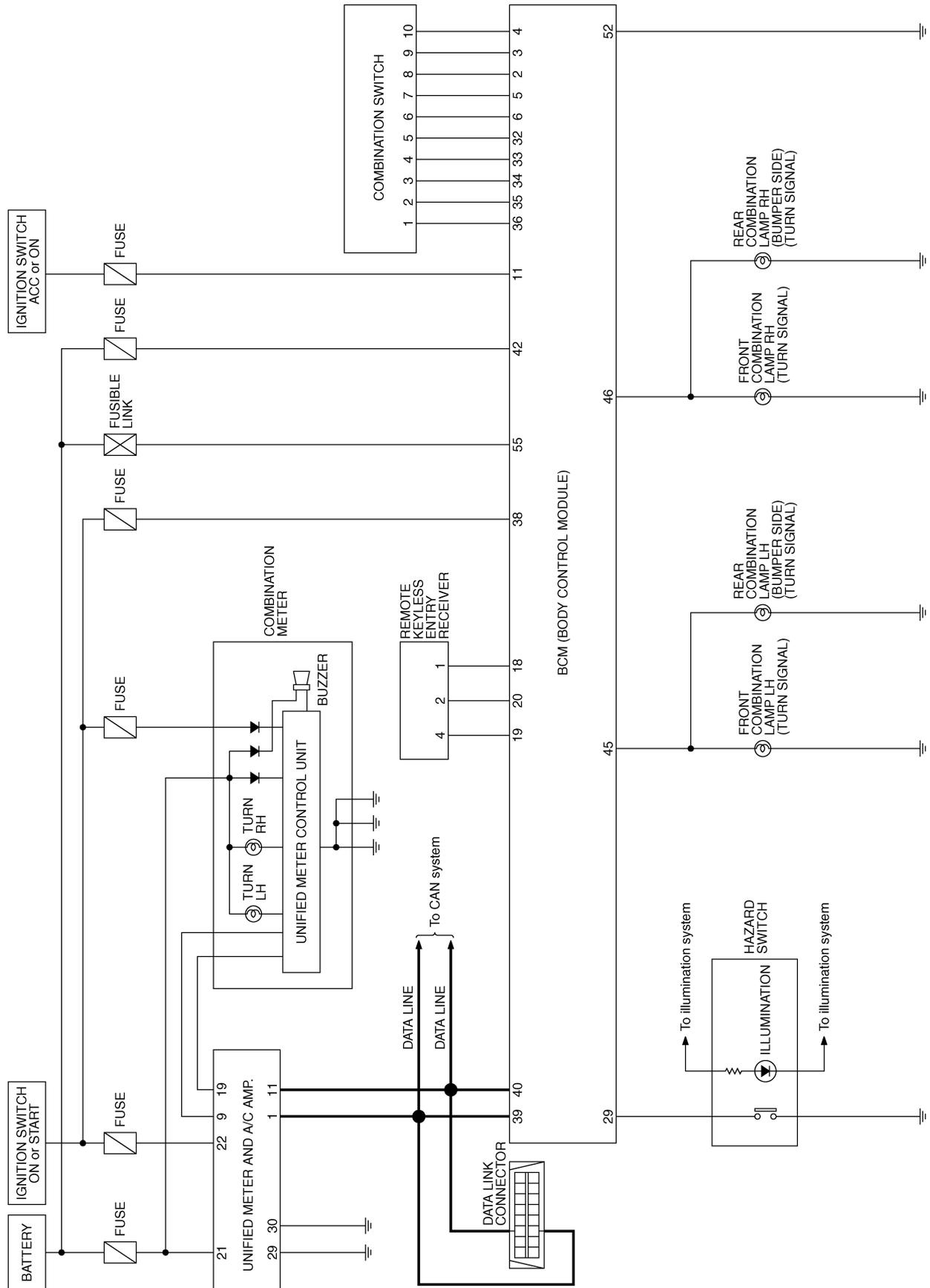
L
M

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

Schematic

NKS0003N

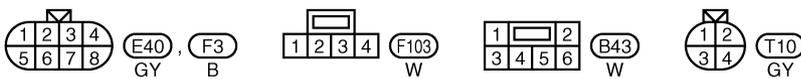
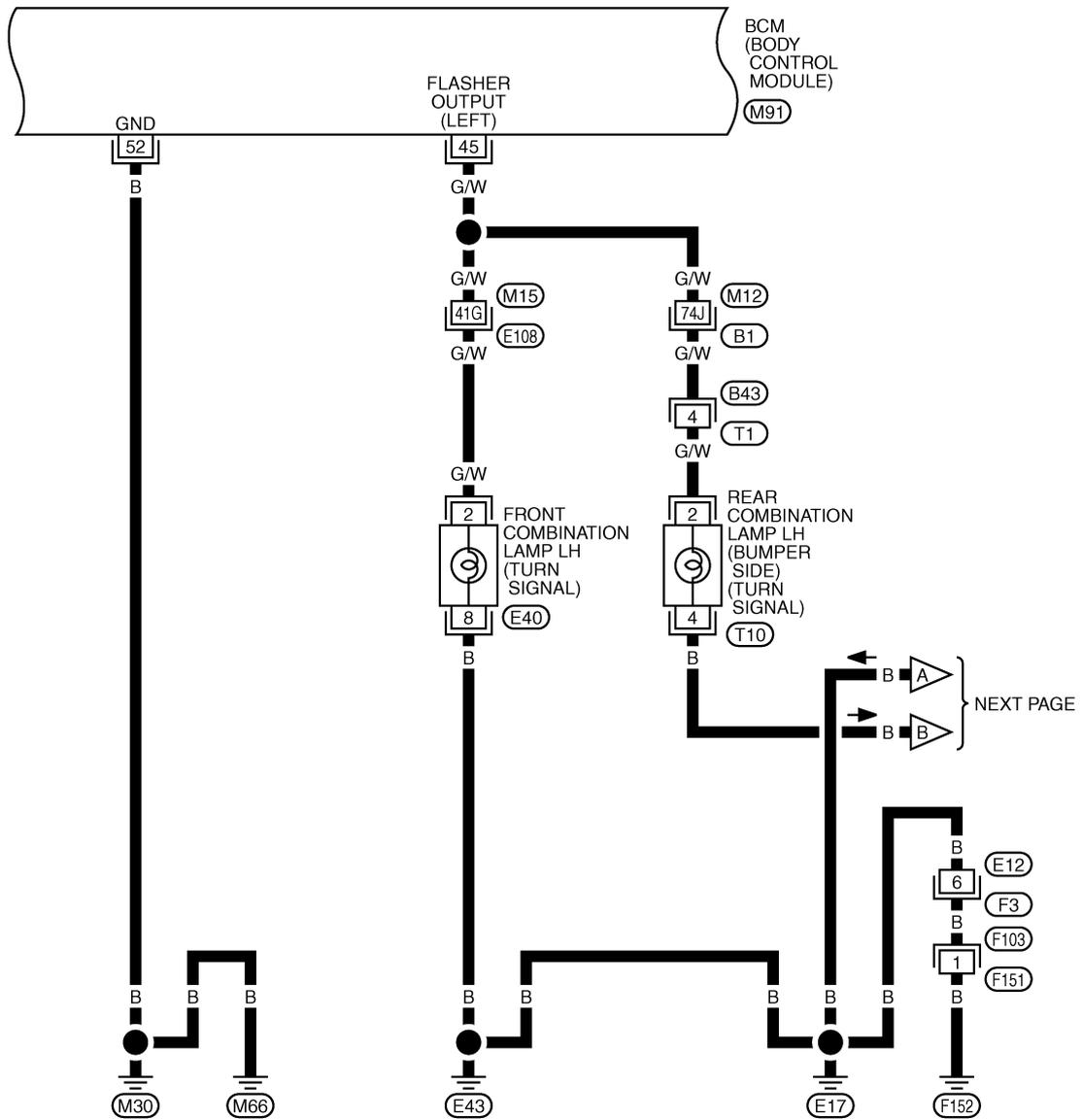


TKWT2278E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

LT-TURN-02



REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M91) -ELECTRICAL UNITS

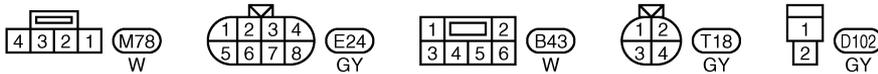
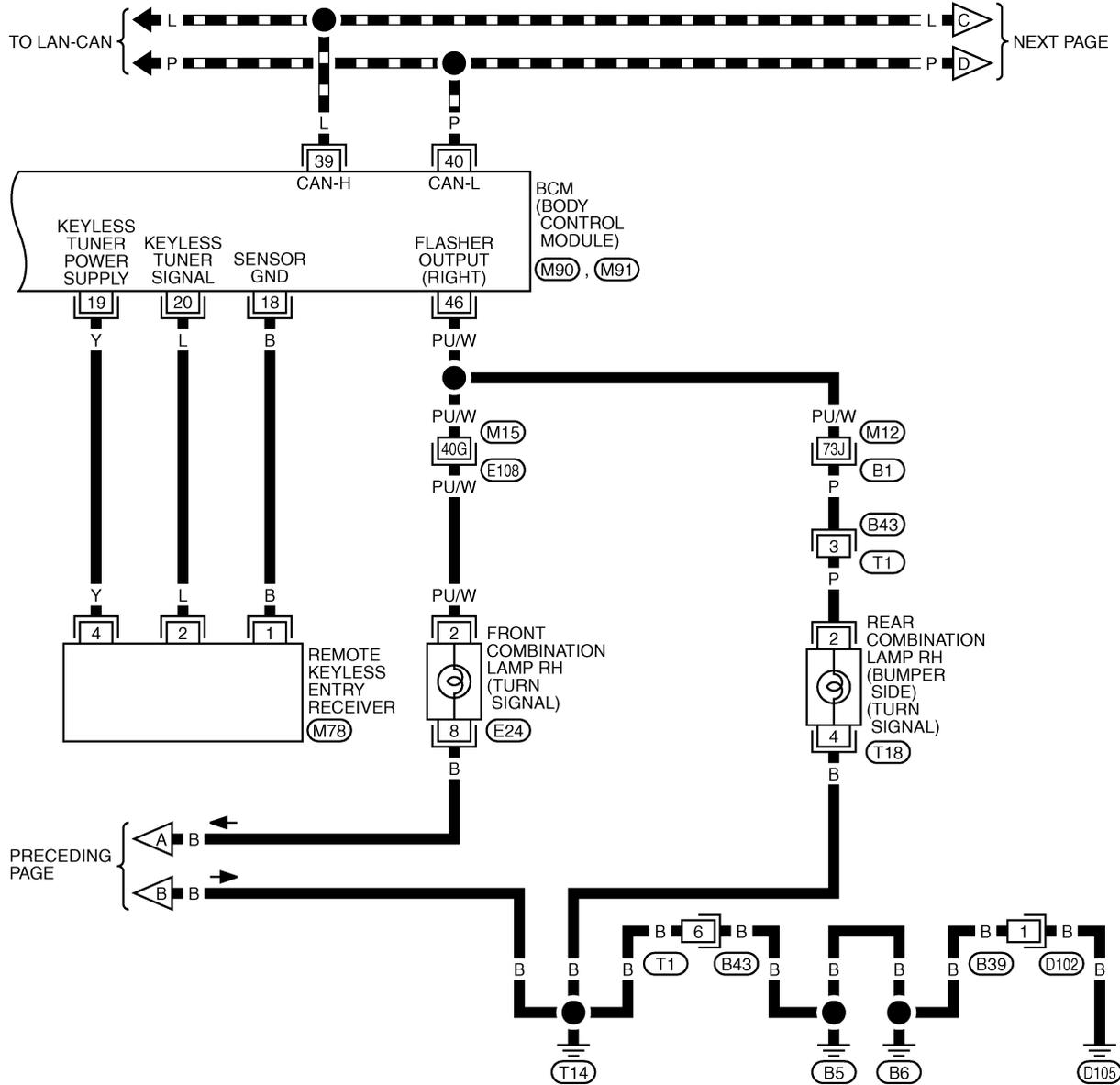
TKWT4031E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

LT-TURN-03

▬ : DATA LINE



REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (M91) -ELECTRICAL UNITS

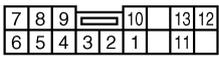
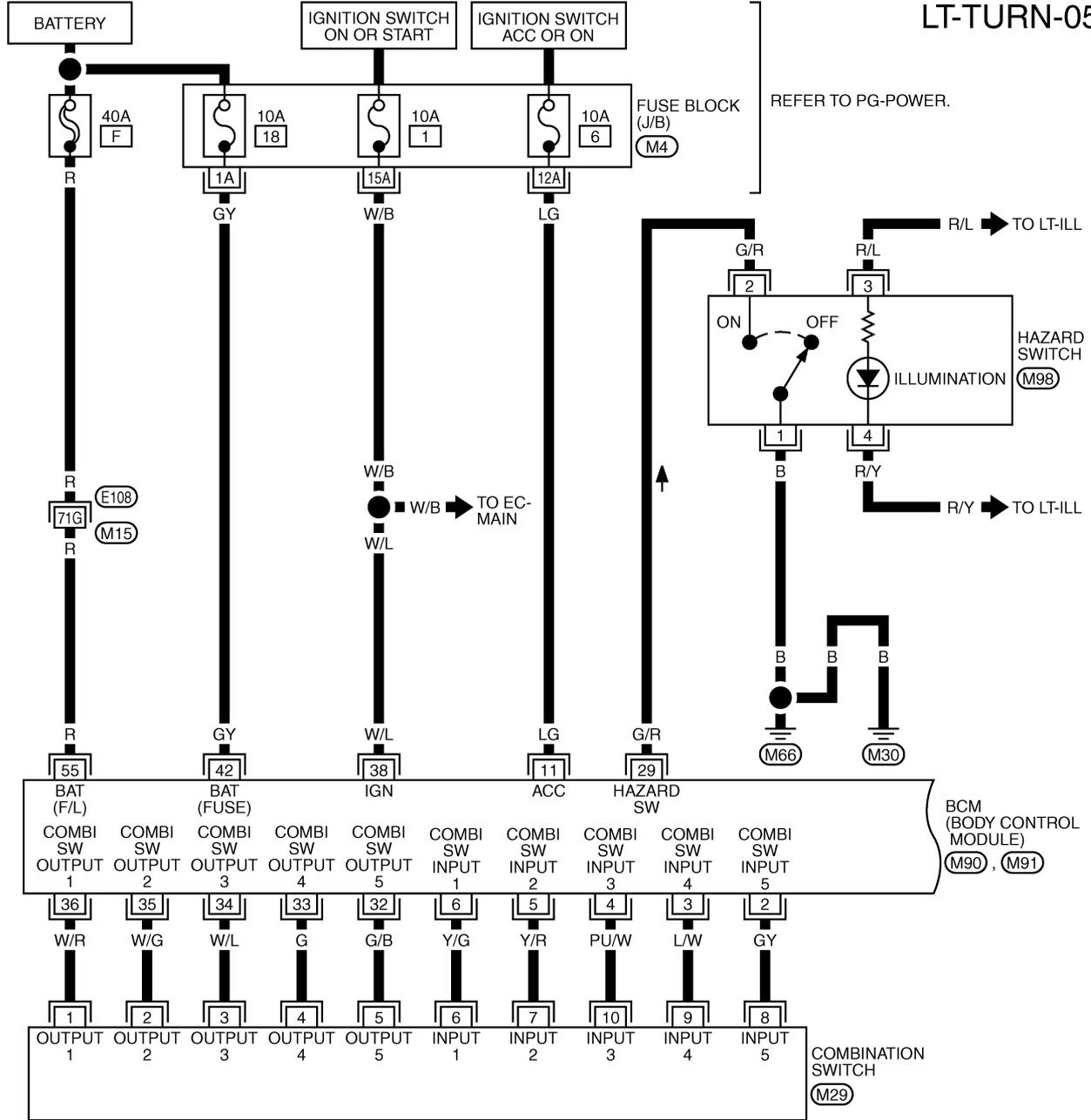
TKWT4032E

TURN SIGNAL AND HAZARD WARNING LAMPS

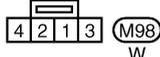
[TYPE 1]

ROADSTER MODELS

LT-TURN-05



(M29)
W



(M98)
W

REFER TO THE FOLLOWING.

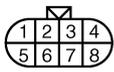
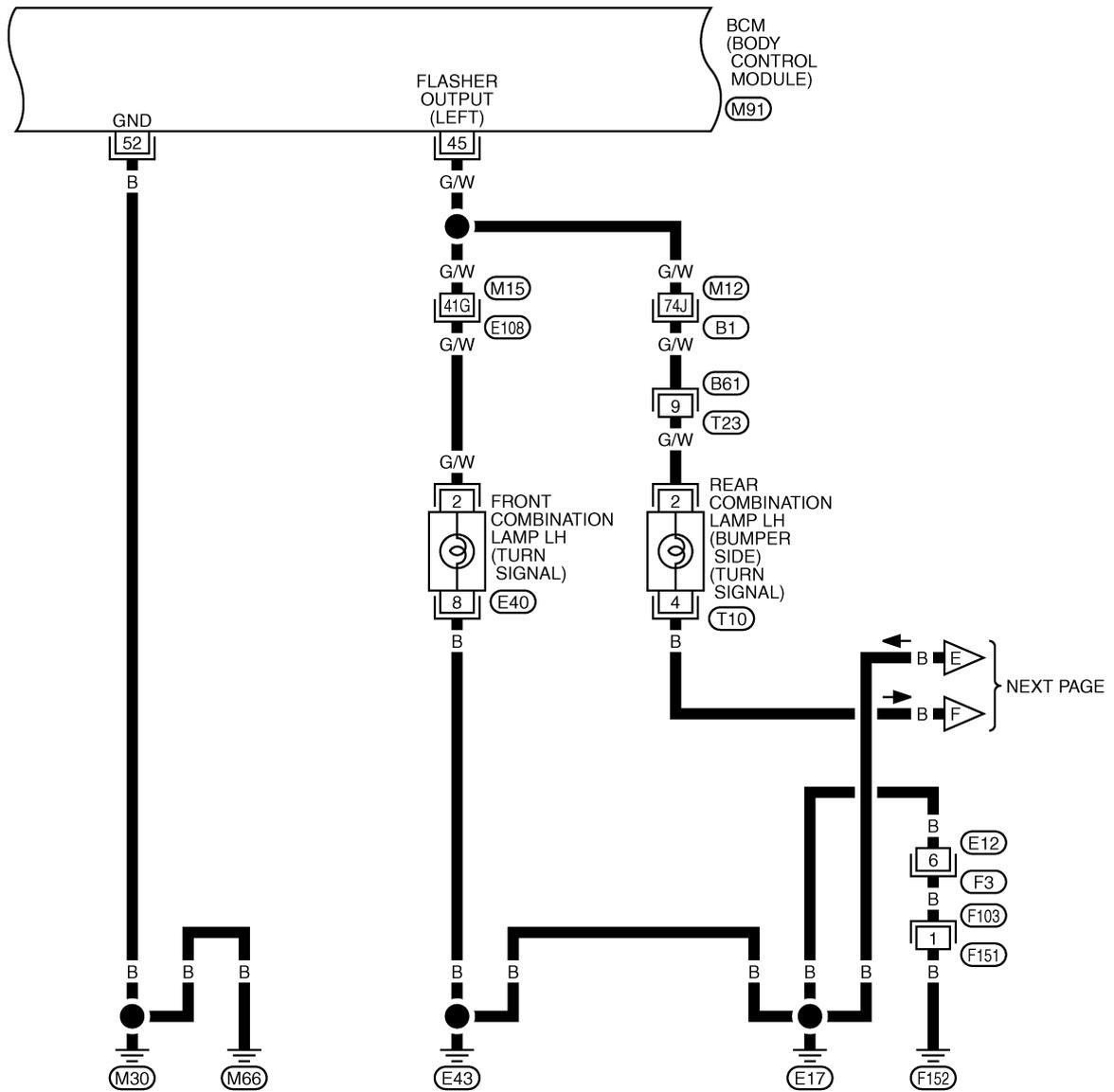
- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

A
B
C
D
E
F
G
H
I
J
LT
L
M

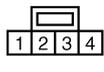
TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

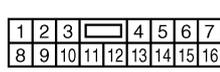
LT-TURN-06



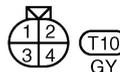
E40, F3
GY, B



F103
W



B61
W



T10
GY

REFER TO THE FOLLOWING.
 E108, B1 -SUPER MULTIPLE JUNCTION (SMJ)
 M91 -ELECTRICAL UNITS

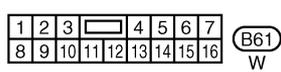
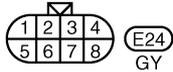
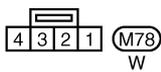
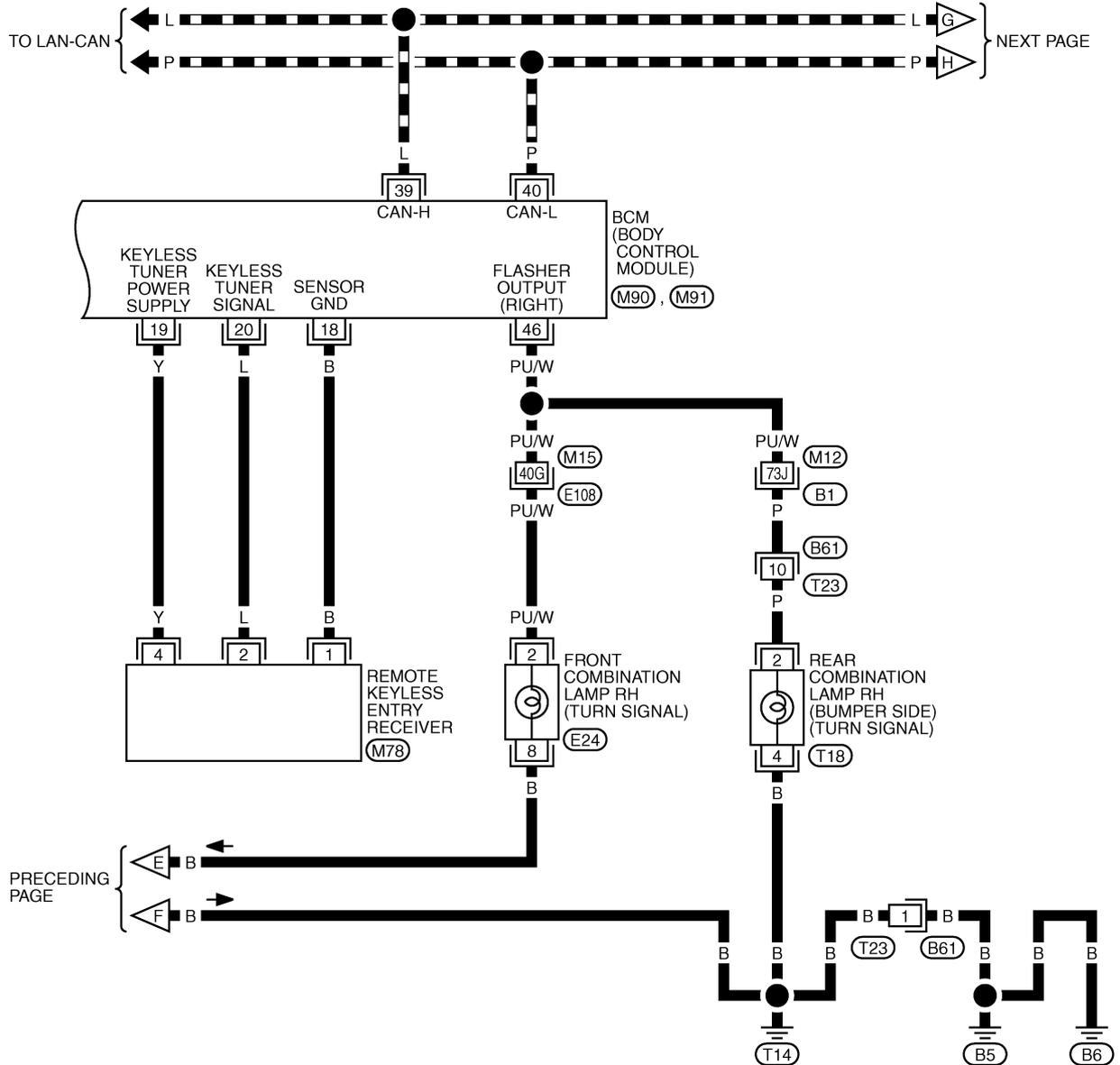
TKWT4034E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

LT-TURN-07

▬ : DATA LINE



REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (M91) -ELECTRICAL UNITS

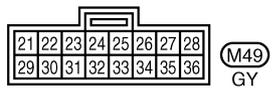
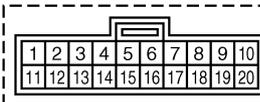
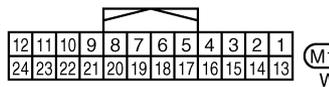
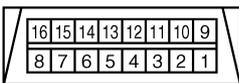
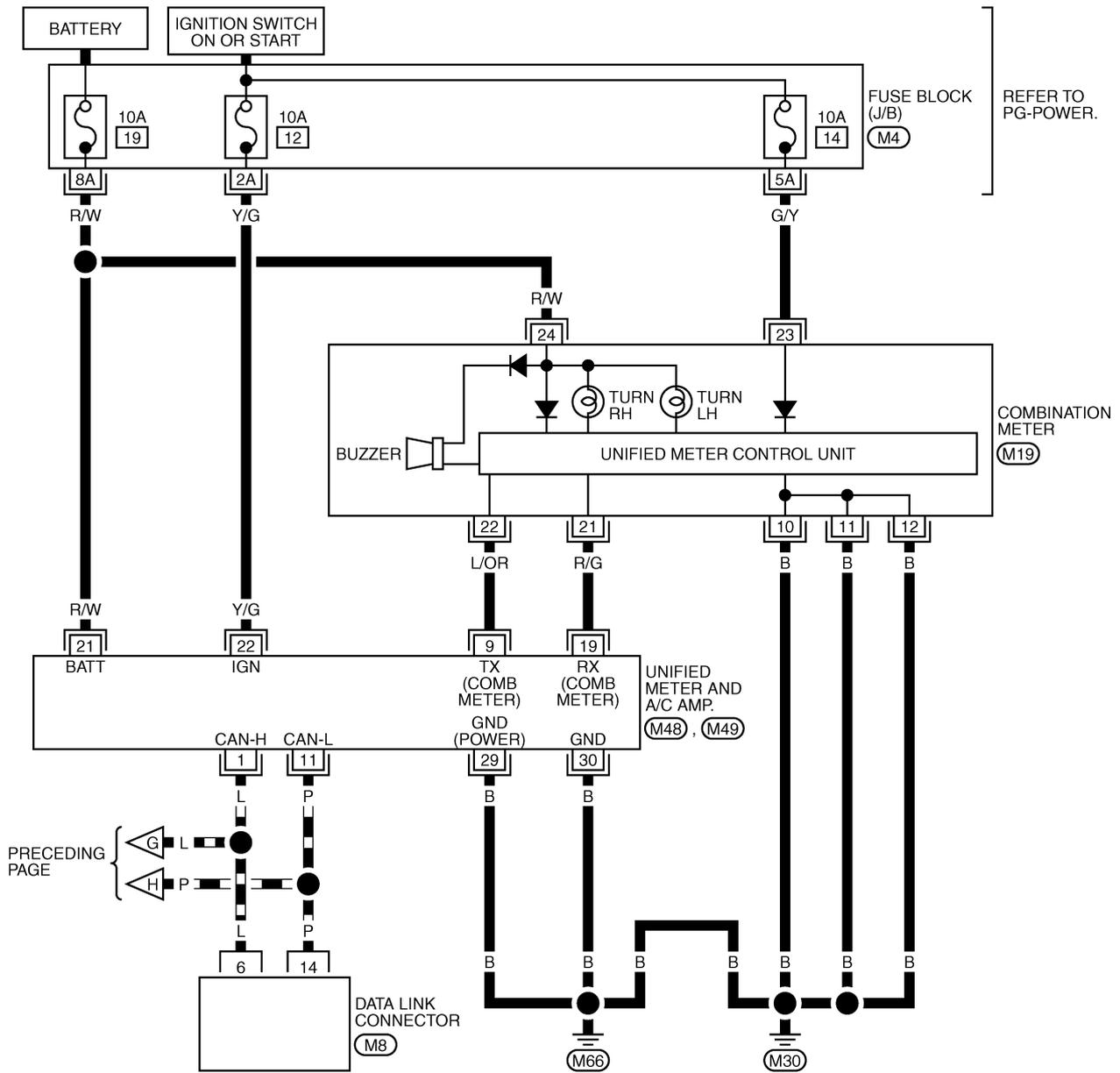
TKWT4035E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

LT-TURN-08

▬ : DATA LINE



REFER TO THE FOLLOWING.

(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWT2284E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

NKS0003P

Terminals and Reference Values for BCM

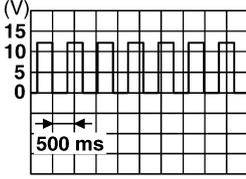
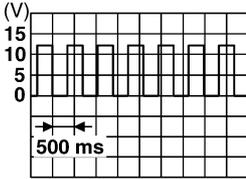
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [WW-21, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4) Turn signal switch to right	OFF Approx. 0 V
					<p style="text-align: right;">PKIB4959J</p> Approx. 1.0 V
3	L/W	Combination switch input 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4) Turn signal switch to left	OFF Approx. 0 V
					<p style="text-align: right;">PKIB4959J</p> Approx. 1.0 V
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage
29	G/R	Hazard signal	OFF	Hazard switch	OFF Battery voltage
					ON Approx. 0 V
36	W/R	Combination switch output 1	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF <p style="text-align: right;">PKIB4960J</p> Approx. 7.2 V
					Any of the conditions below <ul style="list-style-type: none"> ● Turn signal switch to right ● Turn signal switch to left <p style="text-align: right;">PKIB4958J</p> Approx. 1.2 V
38	W/L	Ignition switch (ON)	ON	—	Battery voltage
39	L	CAN - H	—	—	—
40	P	CAN - L	—	—	—

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
42	GY	Battery power supply	OFF	—		Battery voltage
45	G/W	Turn signal (left)	ON	Combination switch	Turn left ON	 <p style="text-align: right; font-size: small;">SKIA3009J</p>
46	PU/W	Turn signal (right)	ON	Combination switch	Turn right ON	 <p style="text-align: right; font-size: small;">SKIA3009J</p>
52	B	Ground	ON	—		Approx. 0V
55	R	Battery power supply	OFF	—		Battery voltage

How to Proceed With Trouble Diagnosis

NKS0003Q

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-71, "System Description"](#) .
3. Perform preliminary check. Refer to [LT-85, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Do turn signal and hazard warning lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

NKS0003R

Preliminary Check CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

UNIT	POWER SOURCE	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6

Refer to [LT-75, "Wiring Diagram — TURN —"](#) .

OK or NG

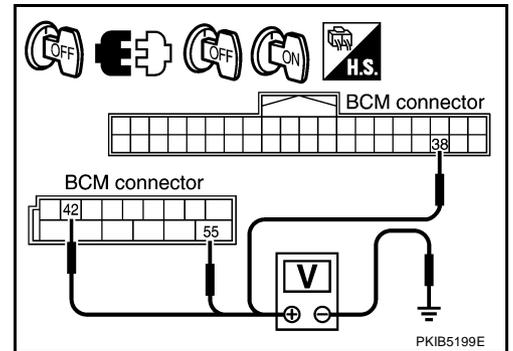
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM harness connector terminals and ground.

Terminal (+)		Terminal (-)	Ignition switch position	
Connector	Terminal		OFF	ON
M90	38	Ground	Approx. 0 V	Battery voltage
			Battery voltage	Battery voltage
M91	42		Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

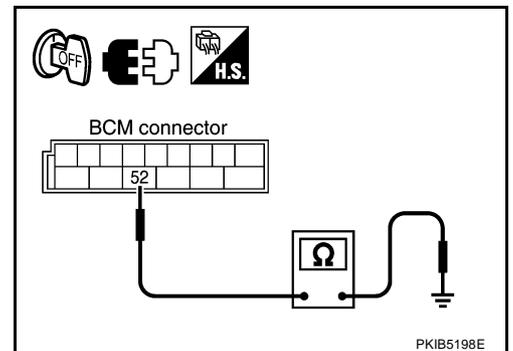
Check continuity between BCM harness connector terminal and ground.

Terminal		Ground	Continuity
Connector	Terminal		
M91	52	Ground	Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS0003S

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
FLASHER	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "FLASHER" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW "ON/OFF"	Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from ignition switch signal.
HAZARD SW "ON/OFF"	Displays "Hazard ON (ON)/Hazard OFF (OFF)" status, determined from hazard switch signal.
TURN SIGNAL R "ON/OFF"	Displays "Turn right (ON)/Other (OFF)" status, determined from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays "Turn left (ON)/Other (OFF)" status, determined from lighting switch signal.
BRAKE SW ^{NOTE} "OFF"	—

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "FLASHER" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
FLASHER	With a certain operation (OFF, RH, LH), turn signal lamp can be operated.

Turn Signal Lamp Does Not Operate

1. CHECK BULB

Check bulb standard of each turn signal lamp is correct.

OK or NG

- OK >> GO TO 2.
- NG >> Replace turn signal lamp bulb.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

☑ With CONSULT-II

Select "BCM" on CONSULT-II. With "FLASHER" data monitor, make sure "TURN SIGNAL R" and "TURN SIGNAL L" turns ON-OFF linked with operation of lighting switch.

When lighting switch is : TURN SIGNAL R ON
TURN RH position

When lighting switch is : TURN SIGNAL L ON
TURN LH position

☒ Without CONSULT-II

Refer to [LT-99, "Combination Switch Inspection"](#) .

OK or NG

- OK >> GO TO 3.
- NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#) .

DATA MONITOR			
MONITOR		NO DTC	
TURN SIGNAL R		ON	
TURN SIGNAL L		ON	
MODE	BACK	LIGHT	COPY

PKIA6351E

3. ACTIVE TEST

☑ With CONSULT-II

1. Select "FLASHER" during active test. Refer to [LT-86, "ACTIVE TEST"](#) .
2. Make sure "FLASHER RIGHT" and "FLASHER LEFT" operate.

Turn signal lamp should operate.

☒ Without CONSULT-II

GO TO 4.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> GO TO 4.

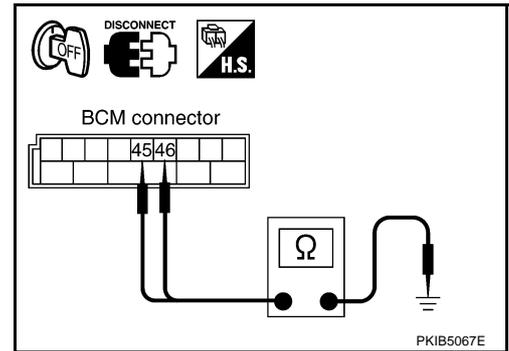
ACTIVE TEST			
FLASHER		OFF	
RH	LH	OFF	
MODE	BACK	LIGHT	COPY

PKIA6352E

4. CHECK SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and all turn signal lamp connectors.
3. Check continuity (short circuit) between BCM harness connector and ground.

Terminal		Continuity
BCM		
Connector	Terminal	Ground
RH	M91	
LH		45



OK or NG

- OK >> Replace BCM if turn signal lamps does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.

Hazard Warning Lamp Does Not Operate But Turn Signal Lamp Operate

NKS0003U

1. CHECK BULB

Make sure bulb standard of each turn signal lamp is correct.

OK or NG

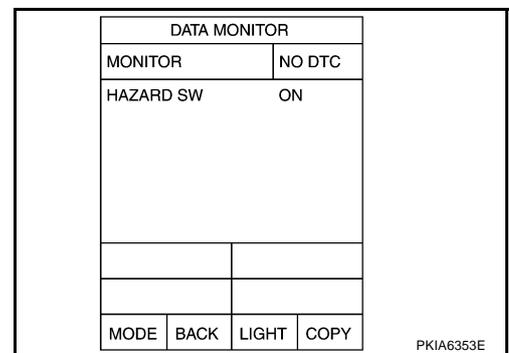
- OK >> GO TO 2.
- NG >> Replace bulb.

2. CHECK HAZARD SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

Select "BCM" on CONSULT-II. With "FLASHER" data monitor to make sure "HAZARD SW" turns ON-OFF linked with operation of hazard switch.

When hazard switch is ON : HAZARD SW ON position



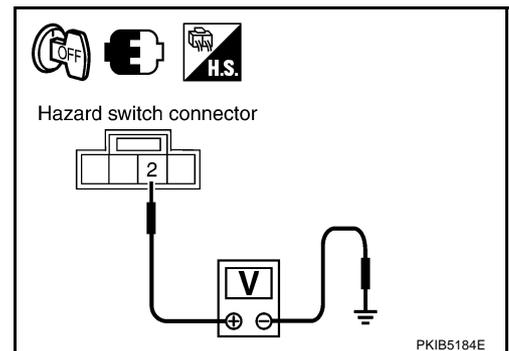
ⓧ Without CONSULT-II

Check voltage between hazard switch harness connector and ground.

Terminal		Condition	Voltage
(+)	(-)		
Connector	Terminal		
M98	2	Hazard switch is ON	Approx. 0V
		Hazard switch is OFF	Approx. 5V

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 3.



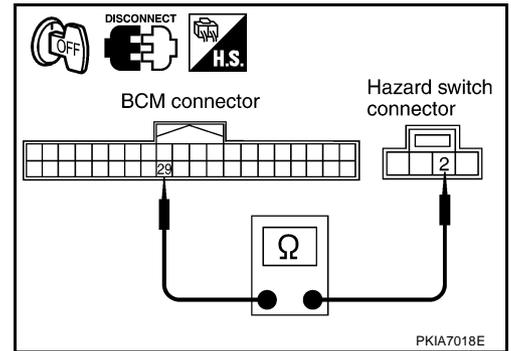
3. CHECK HAZARD SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and hazard switch connector.
3. Check continuity BCM harness connector and hazard switch harness connector.

Terminal				Continuity
BCM		Hazard switch		
Connector	Terminal	Connector	Terminal	
M90	29	M98	2	Yes

OK or NG

- OK >> GO TO 4.
- NG >> Repair harness or connector.



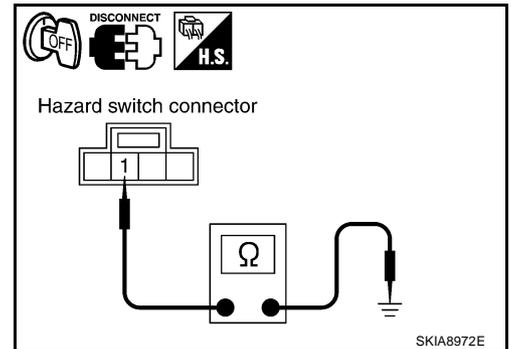
4. CHECK GROUND

Check continuity hazard switch harness connector and ground.

Connector	Terminal	Ground	Continuity
M98	1		

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.



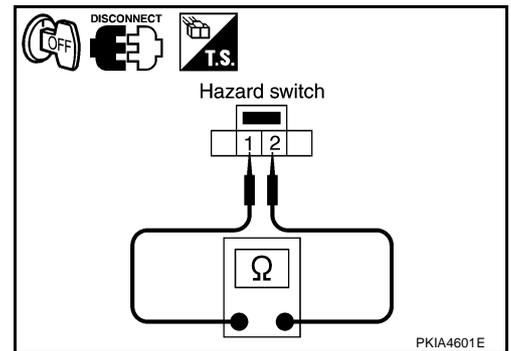
5. CHECK HAZARD SWITCH

Check continuity hazard switch.

Terminal		Condition	Continuity
Hazard switch			
1	2	Hazard switch is ON.	Yes
		Hazard switch is OFF.	No

OK or NG

- OK >> Replace BCM if turn signal lamps does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Replace hazard switch.



Turn Signal Indicator Lamp Does Not Operate

1. CHECK BULB

Check bulb of turn signal indicator lamp in combination meter.

OK or NG

- OK >> Replace combination meter.
- NG >> Replace indicator bulb.

NKS0003V

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 1]

Bulb Replacement (Front Turn Signal Lamp)

NKS0003W

Refer to [LT-33, "Bulb Replacement"](#) .

Bulb Replacement (Rear Turn Signal Lamp)

NKS0003X

Refer to [LT-133, "Bulb Replacement"](#) .

Removal and Installation of Front Turn Signal Lamp

NKS0003Y

Refer to [LT-34, "Removal and Installation"](#) .

Removal and Installation of Rear Turn Signal Lamp

NKS0003Z

Refer to [LT-134, "Removal and Installation"](#) .

LIGHTING AND TURN SIGNAL SWITCH

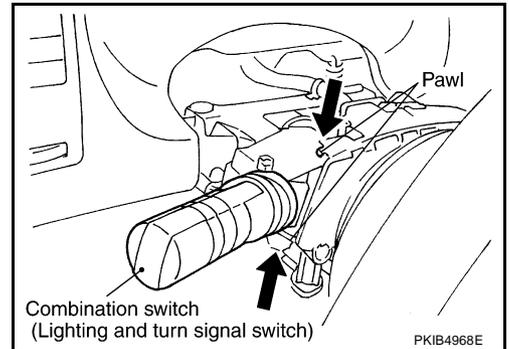
PFP:25540

Removal and Installation

NKS00040

REMOVAL

1. Remove steering column lower cover. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Remove column upper cover and combination meter assembly. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
3. While pressing pawls in direction as shown in the figure, pull lighting and turn signal switch toward driver door and disconnect from the base.



INSTALLATION

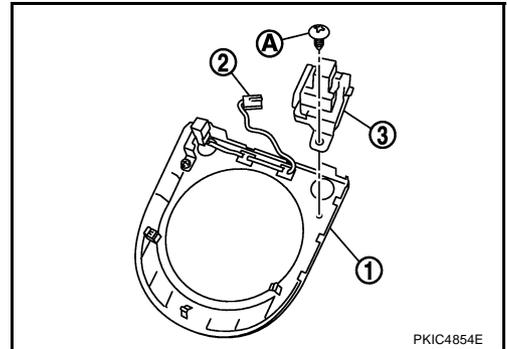
Installation is the reverse order of removal.

A
B
C
D
E
F
G
H
I
J
LT
L
M

LT

HAZARD SWITCH**Removal and Installation
HAZARD SWITCH (A/T MODELS)****Removal**

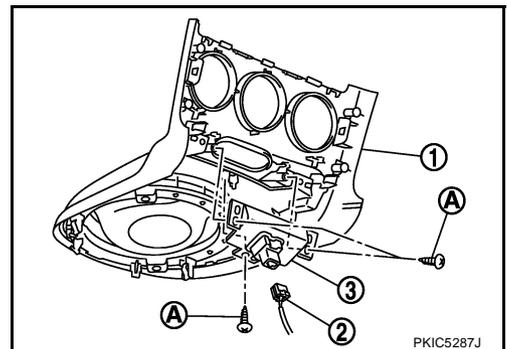
1. Remove console finisher (1). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Disconnect hazard switch connector (2).
3. Remove screw (A), and remove hazard switch (3).

**Installation**

Installation is the reverse order of removal.

HAZARD SWITCH (M/T MODELS)**Removal**

1. Remove console boot (1). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Disconnect hazard switch connector (2).
3. Remove screw (A), and remove hazard switch (3).

**Installation**

Installation is the reverse order of removal.

COMBINATION SWITCH

[TYPE 1]

Combination Switch Reading Function

NKS00043

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

Terminals and Reference Values for BCM

NKS002EY

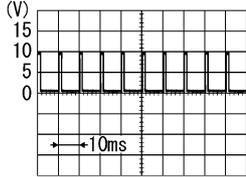
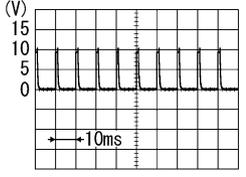
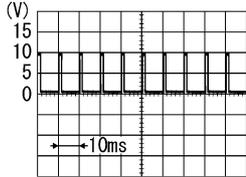
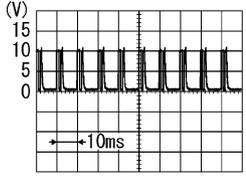
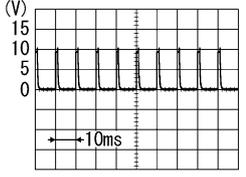
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [WW-21, "DATA MONITOR"](#) .

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) ● Turn signal switch to right 	<p>PKIB4959J</p>
				Lighting, turn, wiper switch (Wiper intermittent dial position 4)	Lighting switch 2ND
3	L/W	Combination switch input 4	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) ● Turn signal switch to left 	<p>PKIB4959J</p>
4	PU/W	Combination switch input 3	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Front wiper switch MIST ● Front wiper switch INT ● Front wiper switch LO 	<p>PKIB4959J</p>

COMBINATION SWITCH

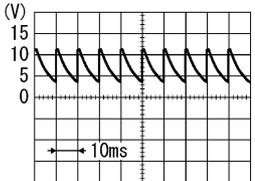
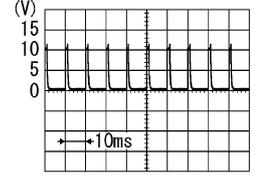
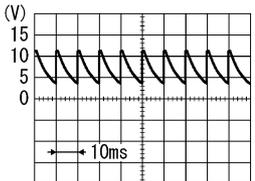
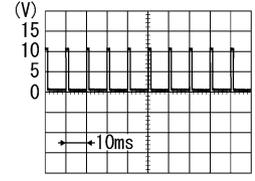
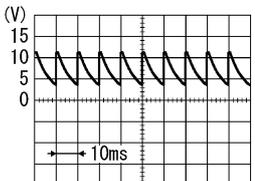
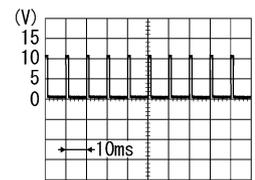
[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value	
			Ignition switch	Operation or condition		
5	Y/R	Combination switch input 2	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)	Approx. 0 V
					Any of the conditions below <ul style="list-style-type: none"> ● Front washer switch ● Rear washer switch ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 5 ● Wiper intermittent dial position 6 	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Rear wiper switch ON (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4955J</p>
6	Y/G	Combination switch input 1	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)	Approx. 0 V
					Any of the conditions below <ul style="list-style-type: none"> ● Front wiper switch HI ● Rear wiper switch INT ● Wiper intermittent dial position 3 	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 2 	 <p style="text-align: right; font-size: small;">PKIB4952J</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Wiper intermittent dial position 6 ● Wiper intermittent dial position 7 	 <p style="text-align: right; font-size: small;">PKIB4955J</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage	

A
B
C
D
E
F
G
H
I
J
LT
L
M

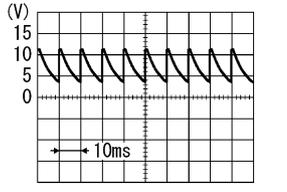
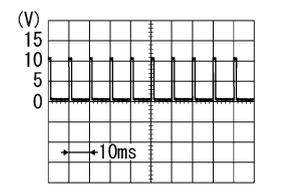
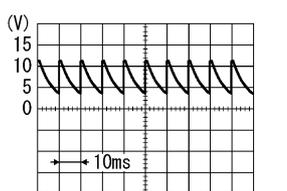
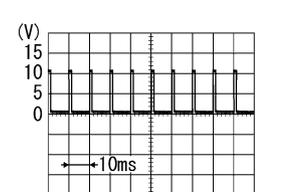
COMBINATION SWITCH

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
32	G/B	Combination switch output 5	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 2 ● Wiper intermittent dial position 6 ● Wiper intermittent dial position 7  <p style="text-align: right; font-size: small;">PKIB4956J</p> <p style="text-align: center;">Approx. 1.0 V</p>
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST (The same result with lighting switch 2ND) ● Rear wiper switch INT ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 5 ● Wiper intermittent dial position 6  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch) ● Rear washer switch ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 2 ● Wiper intermittent dial position 3  <p style="text-align: right; font-size: small;">PKIB4956J</p> <p style="text-align: center;">Approx. 1.2 V</p>

COMBINATION SWITCH

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) ● Front wiper switch INT ● Front wiper switch HI  <p style="text-align: right;">Approx. 1.2 V</p>
36	W/R	Combination switch output 1	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Turn signal switch to right ● Turn signal switch to left ● Front wiper switch MIST ● Front wiper switch LO ● Front washer switch  <p style="text-align: right;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0V
55	R	Battery power supply	OFF	—	Battery voltage

A
B
C
D
E
F
G
H
I
J
L
M

LT

CONSULT-II Functions (BCM)

NKS00044

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
COMB SW	DATA MONITOR	Displays BCM input data in real time.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "COMB SW" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the signals will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item name "OPERATION OR UNIT"	Contents
TURN SIGNAL R "ON/OFF"	Displays "Turn Right (ON)/Other (OFF)" status, determined from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays "Turn Left (ON)/Other (OFF)" status, determined from lighting switch signal.
HI BEAM SW "ON/OFF"	Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
HEAD LAMP SW 1 "ON/OFF"	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 1 judged from lighting switch signal.
HEAD LAMP SW 2 "ON/OFF"	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.
LIGHT SW 1ST "ON/OFF"	Displays status (lighting switch 1ST or 2ND position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
PASSING SW "ON/OFF"	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW ^{NOTE} "ON/OFF"	—
FR WIPER HI "ON/OFF"	Displays "Front Wiper HI (ON)/Other (OFF)" status, determined from wiper switch signal.
FR WIPER LOW "ON/OFF"	Displays "Front Wiper LOW (ON)/Other (OFF)" status, determined from wiper switch signal.
FR WIPER INT "ON/OFF"	Displays "Front Wiper INT (ON)/Other (OFF)" status, determined from wiper switch signal.
FR WASHER SW "ON/OFF"	Displays "Front Washer Switch (ON)/Other (OFF)" status, determined from wiper switch signal.
INT VOLUME [1 - 7]	Displays intermittent operation knob setting (1 - 7), determined from wiper switch signal.
RR WIPER ON "ON/OFF"	Displays "rear Wiper (ON)/Other (OFF)" status as judged from wiper switch signal.
RR WIPER INT "ON/OFF"	Displays "rear Wiper INT (ON)/Other (OFF)" status as judged from wiper switch signal.
RR WASHER SW "ON/OFF"	Displays "rear Washer Switch (ON)/Other (OFF)" status as judged from wiper switch signal.

NOTE:

This item is displayed, but cannot be monitored.

COMBINATION SWITCH

[TYPE 1]

Combination Switch Inspection

NKS00045

1. SYSTEM CHECK

Referring to table below, check which system malfunctioning switch belongs to.

System 1	System 2	System 3	System 4	System 5
—	FR WASHER	FR WIPER LO	TURN LH	TURN RH
FR WIPER HI	—	FR WIPER INT	PASSING	HEAD LAMP 1
INT VOLUME 1	RR WASHER	—	HEAD LAMP 2	HI BEAM
RR WIPER INT	INT VOLUME 3	—	—	LIGHT SW 1ST
INT VOLUME 2	RR WIPER ON	—	—	—

>> Check the system to which malfunctioning switch belongs, and GO TO 2.

2. SYSTEM CHECK

Ⓜ With CONSULT-II

CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

1. Connect CONSULT-II, and select "COMB SW" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR".
3. Select "START", and confirm that other switches in malfunctioning system operate normally.

Example: When the HI BEAM switch is malfunctioning, confirm that "TURN RH", "HEAD LAMP 1" and "LIGHT SW 1 ST" in System 5, to which the HI BEAM switch belongs, turn ON-OFF normally.

DATA MONITOR	
MONITOR	
TURN SIGNAL R	OFF
TURN SIGNAL L	OFF
HIBEAM SW	OFF
HEAD LAMP SW1	OFF
HEAD LAMP SW2	OFF
LIGHT SW 1ST	OFF
PASSING SW	OFF
AUTO LIGHT SW	OFF
FR FOG SW	OFF
	Page Down
	RECORD
MODE	BACK
LIGHT	COPY

SKIA7075E

ⓧ Without CONSULT-II

Operating combination switch, and confirm that other switches in malfunctioning system operate normally.

Example: When the HI BEAM switch is malfunctioning, confirm that "TURN RH", "HEAD LAMP 1" and "LIGHT SW 1 ST" in System 5, to which HI BEAM switch belongs, turn ON-OFF normally.

Check results

Other switches in malfunctioning system operate normally.>>Replace lighting switch or wiper switch.

Other switches in malfunctioning system do not operate normally.>>GO TO 3.

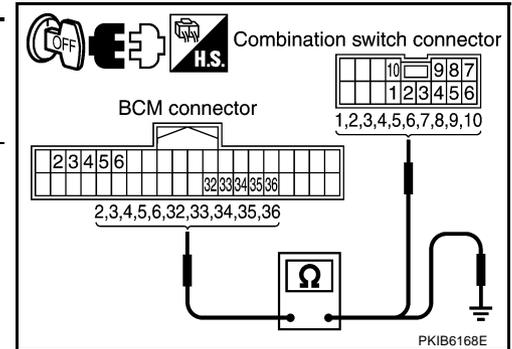
COMBINATION SWITCH

[TYPE 1]

3. HARNESS INSPECTION

1. Turn ignition switch OFF.
2. Disconnect BCM and combination switch connectors.
3. Check for continuity between BCM harness connector of the suspect system and the corresponding combination switch connector terminals.

Suspect system	Terminal				Continuity	
	BCM		Combination switch			
	Connector	Terminal	Connector	Terminal		
1	M90	Input 1	6	M29	6	Yes
		Output 1	36		1	
2		Input 2	5		7	
		Output 2	35		2	
3		Input 3	4		10	
		Output 3	34		3	
4		Input 4	3		9	
		Output 4	33		4	
5		Input 5	2		8	
		Output 5	32		5	



4. Check for continuity between each terminal of BCM harness connector in suspect malfunctioning system and ground.

Suspect system	Terminal				Continuity
	BCM		Ground		
	Connector	Terminal	Connector	Terminal	
1	M90	Input 1	6	Ground	No
		Output 1	36		
2		Input 2	5		
		Output 2	35		
3		Input 3	4		
		Output 3	34		
4		Input 4	3		
		Output 4	33		
5		Input 5	2		
		Output 5	32		

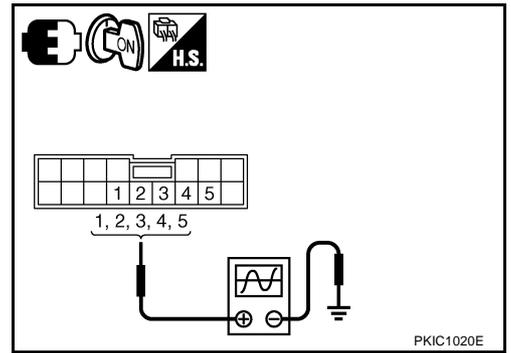
OK or NG

OK >> GO TO 4.

NG >> Check harness between BCM and combination switch for open or short circuit.

4. BCM OUTPUT TERMINAL INSPECTION

1. Connect BCM and combination switch connectors.
2. Set wiper dial position 4.
3. Turn ignition switch ON.
4. Check BCM output terminal voltage waveform of suspect malfunctioning system.



Suspect system	Terminal (+)		Terminal (-)	Reference value
	Combination switch connector	Terminal		
1	M29	1	Ground	
2		2		
3		3		
4		4		
5		5		

OK or NG

- OK >> Open circuit in combination switch, GO TO 5.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .

5. COMBINATION SWITCH INSPECTION

Referring to table below, perform combination switch inspection.

Procedure									
1	2		3	4		5	6		7
Replace lighting switch	Confirm check results	OK	INSPECTION END	Confirm check results	OK	INSPECTION END	Confirm check results	OK	INSPECTION END
		NG	Replace wiper switch		NG	Replace switch base		NG	Confirm symptom again

>> INSPECTION END

Removal and Installation

Refer to [LT-91, "LIGHTING AND TURN SIGNAL SWITCH"](#) .

STOP LAMP

[TYPE 1]

STOP LAMP

PFP:26550

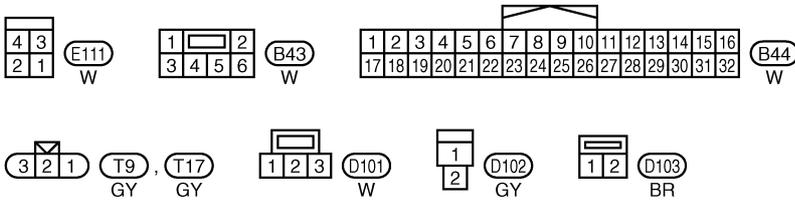
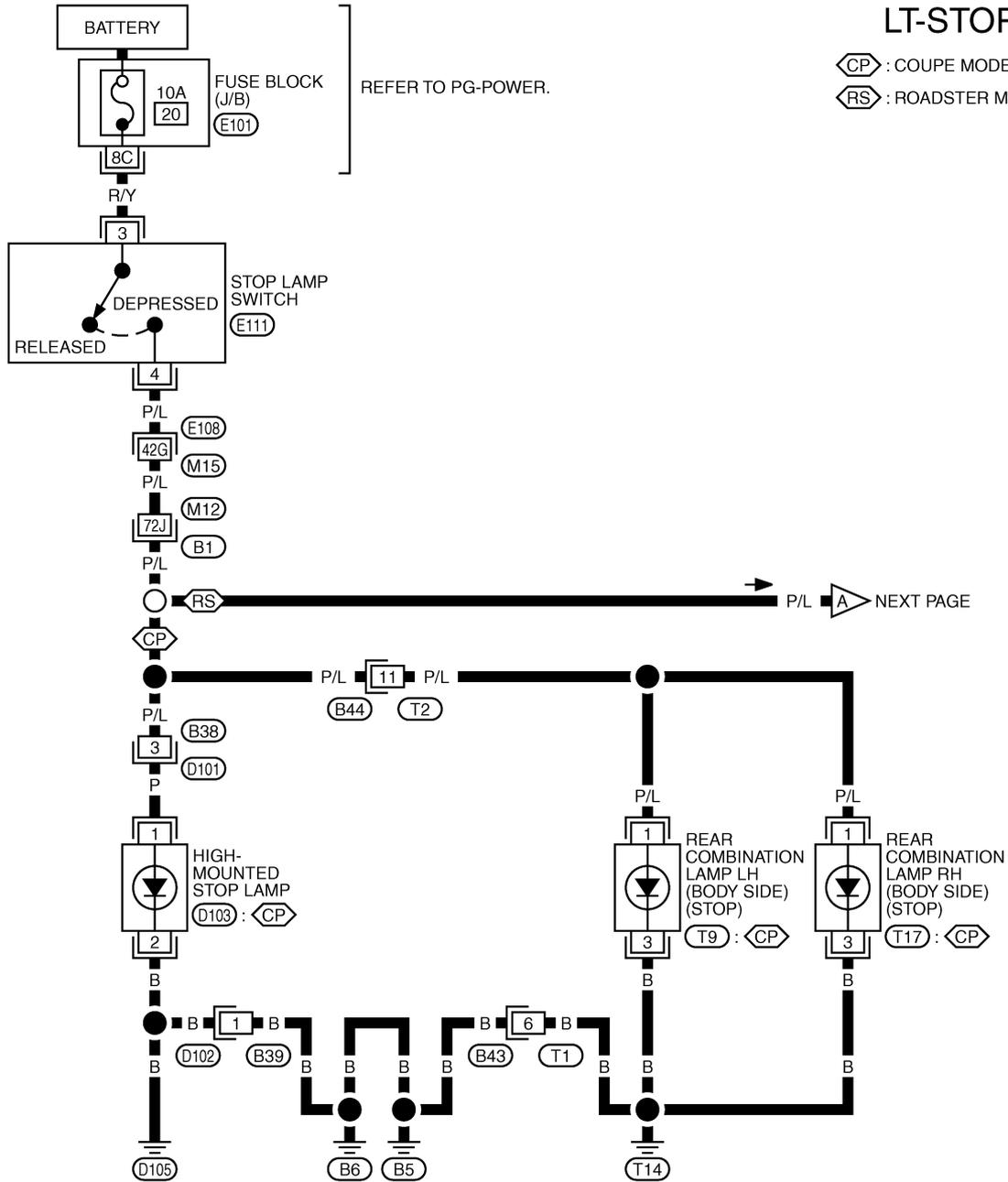
Wiring Diagram — STOP/L —

NKS00048

LT-STOP/L-01

⬡ : COUPE MODELS

⬢ : ROADSTER MODELS



REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (E101) -FUSE BLOCK-JUNCTION BOX (J/B)

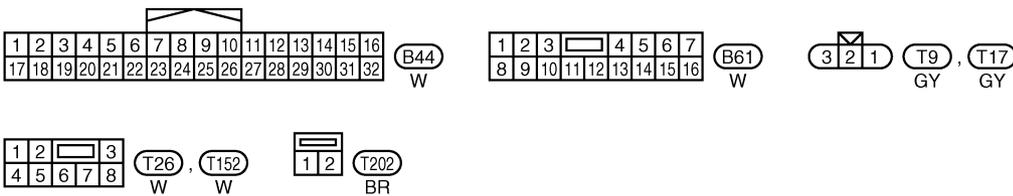
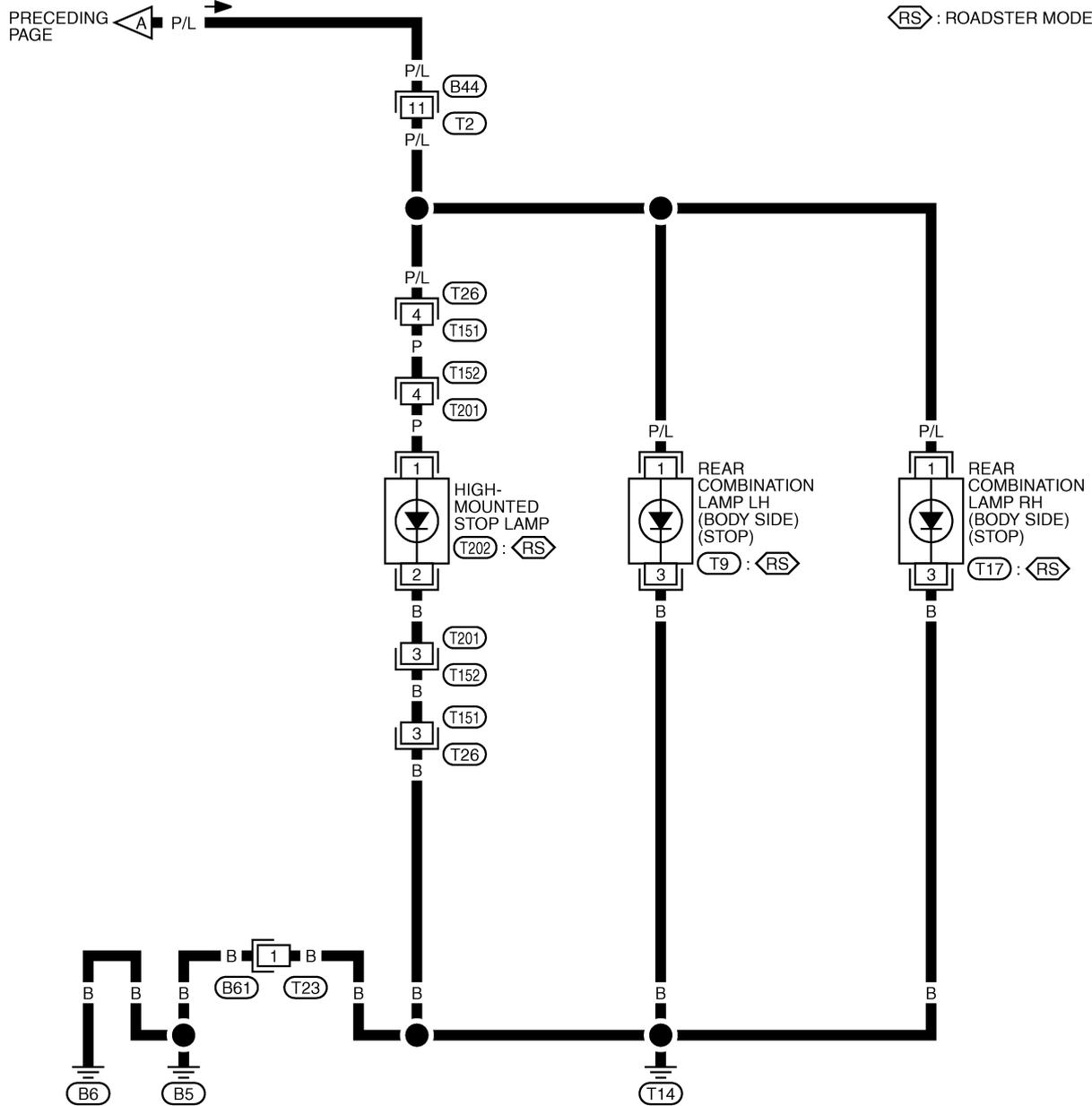
TKWT4037E

STOP LAMP

[TYPE 1]

LT-STOP/L-02

⬡ : ROADSTER MODELS



TKWT4038E

STOP LAMP

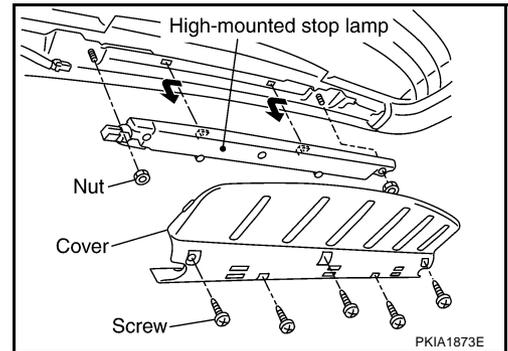
[TYPE 1]

High-Mounted Stop Lamp (Coupe Models) BULB REPLACEMENT, REMOVAL AND INSTALLATION

NKS00049

1. Remove back door finisher upper. Refer to [EI-48, "BACK DOOR FINISHER"](#) .
2. Disconnect high-mounted stop lamp connector.
3. Remove nuts and remove high-mounted stop lamp with cover from back door. Be sure to pull toward the arrow in the figure.
4. Remove screws and remove high-mounted stop lamp assembly from cover.
5. Installation is the reverse order of removal.

High-mounted stop lamp : LED

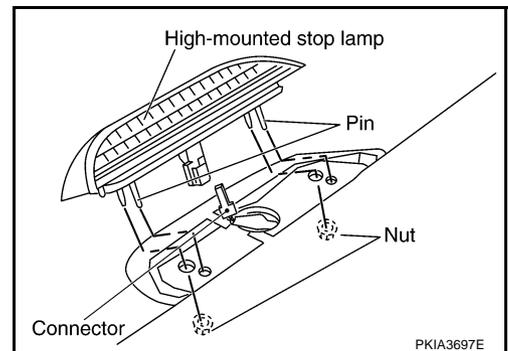


High-Mounted Stop Lamp (Roadster Models) BULB REPLACEMENT, REMOVAL AND INSTALLATION

NKS0004A

1. Turn ignition switch ON, and turn soft-top OPEN/CLOSE switch ON.
2. When the storage lid is fully opened, soft-top OPEN/CLOSE switch to OFF.
3. Remove battery negative cable.
4. Disconnect high-mounted stop lamp connector.
5. Remove high-mounted stop lamp.
6. Remove high-mounted stop lamp assembly from storage lid.
7. Installation is the reverse order of removal.

High-mounted stop lamp : LED



Stop Lamp BULB REPLACEMENT

NKS0004B

Refer to [LT-133, "Bulb Replacement"](#) .

REMOVAL AND INSTALLATION

Refer to [LT-134, "Removal and Installation"](#) .

BACK-UP LAMP

[TYPE 1]

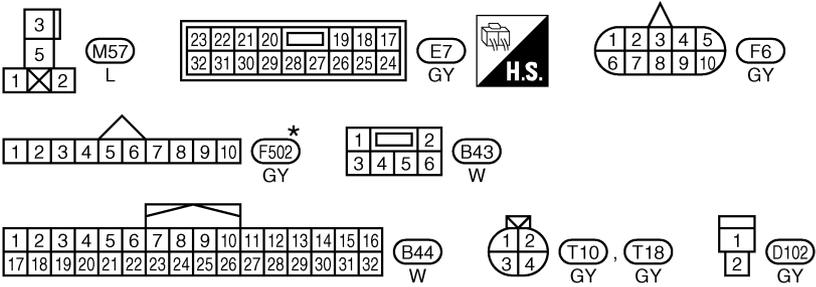
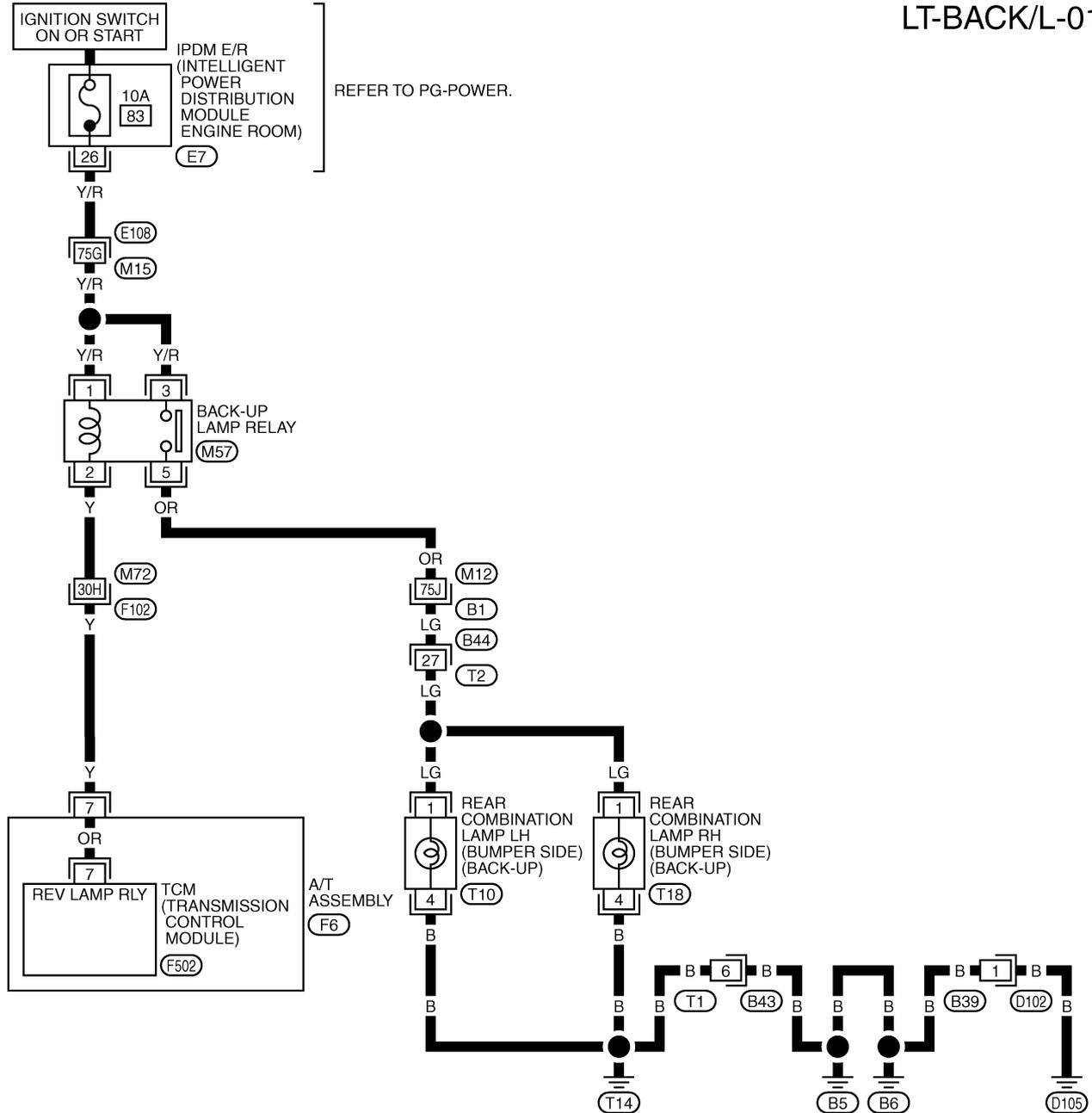
BACK-UP LAMP

PFP:26550

Wiring Diagram — BACK/L — COUPE MODELS (A/T)

NKS0004C

LT-BACK/L-01



REFER TO THE FOLLOWING.
E108, F102, B1 -SUPER
MULTIPLE JUNCTION (SMJ)

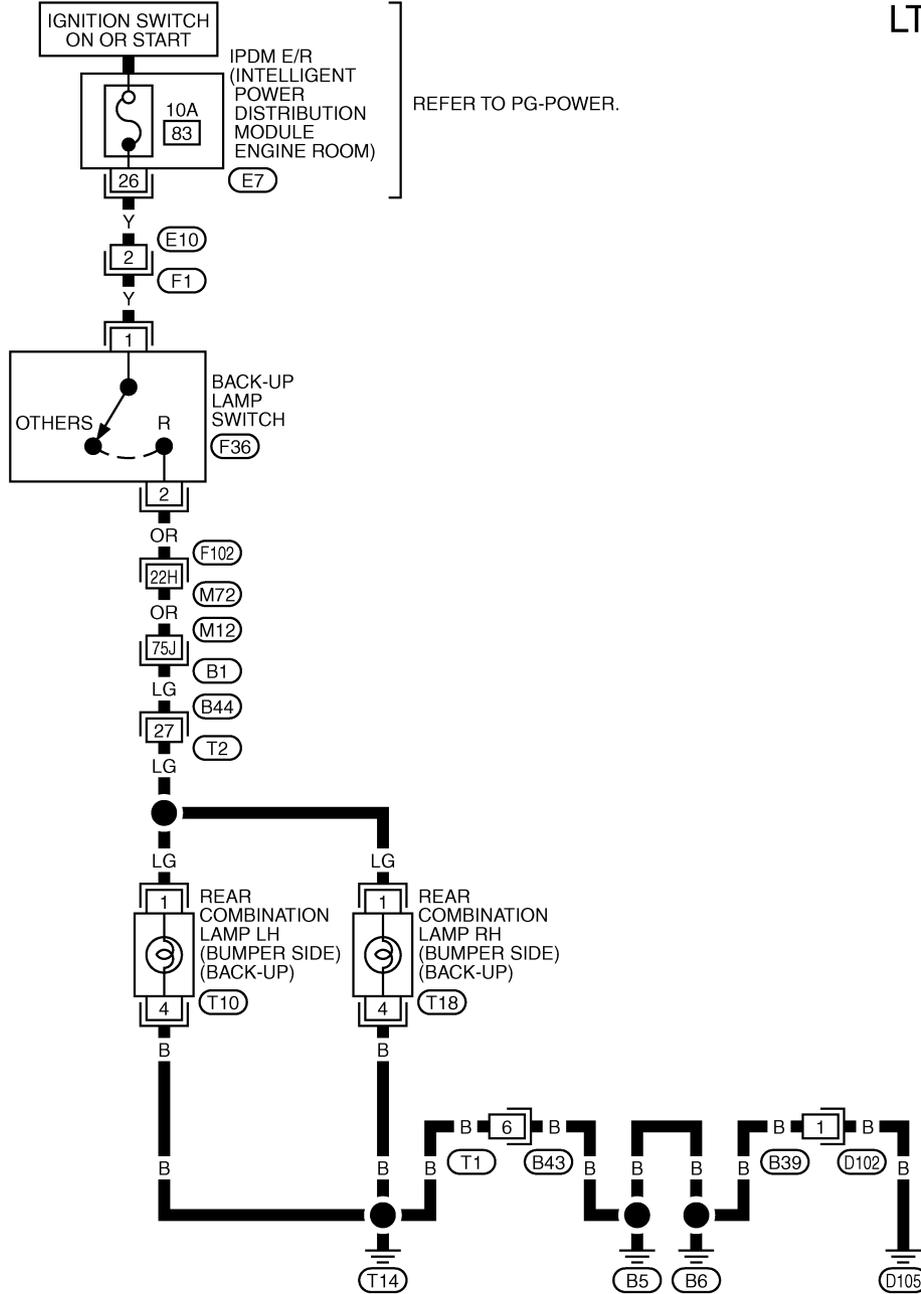
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

BACK-UP LAMP

[TYPE 1]

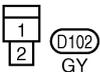
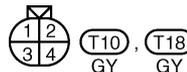
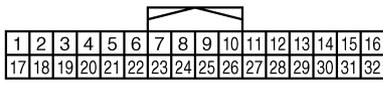
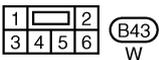
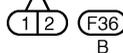
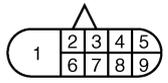
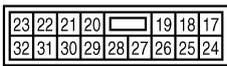
COUPE MODELS (M/T)

LT-BACK/L-02



REFER TO PG-POWER.

REFER TO THE FOLLOWING.
 (F102), (B1) -SUPER MULTIPLE JUNCTION (SMJ)



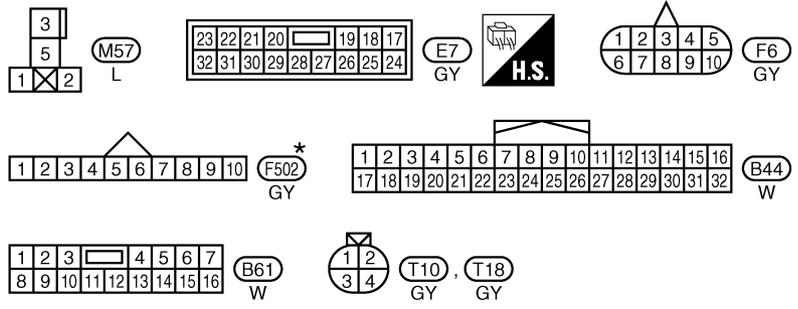
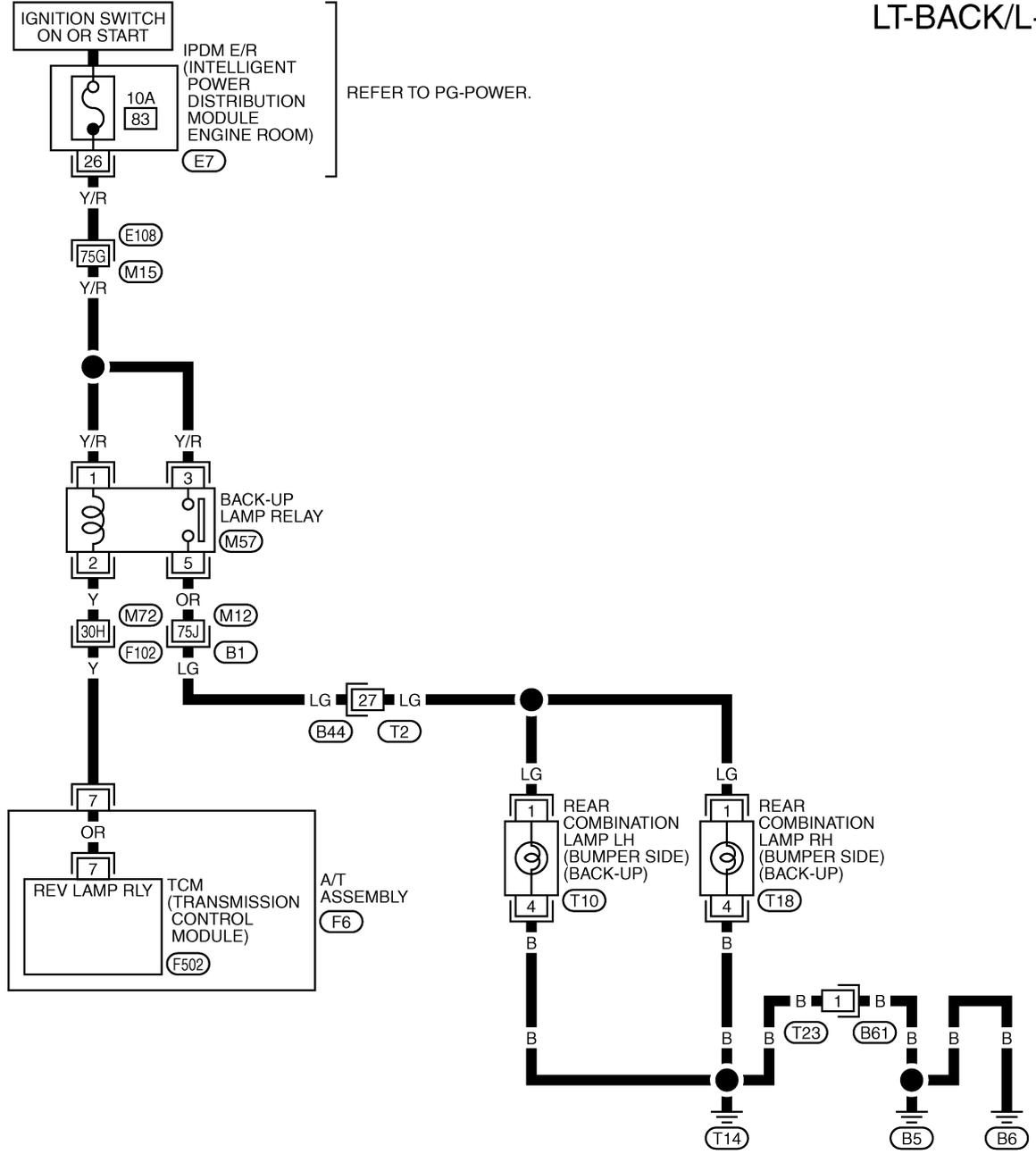
TKWT4040E

BACK-UP LAMP

[TYPE 1]

ROADSTER MODELS (A/T)

LT-BACK/L-03



REFER TO THE FOLLOWING.
 (E108), (F102), (B1) -SUPER
 MULTIPLE JUNCTION (SMJ)

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

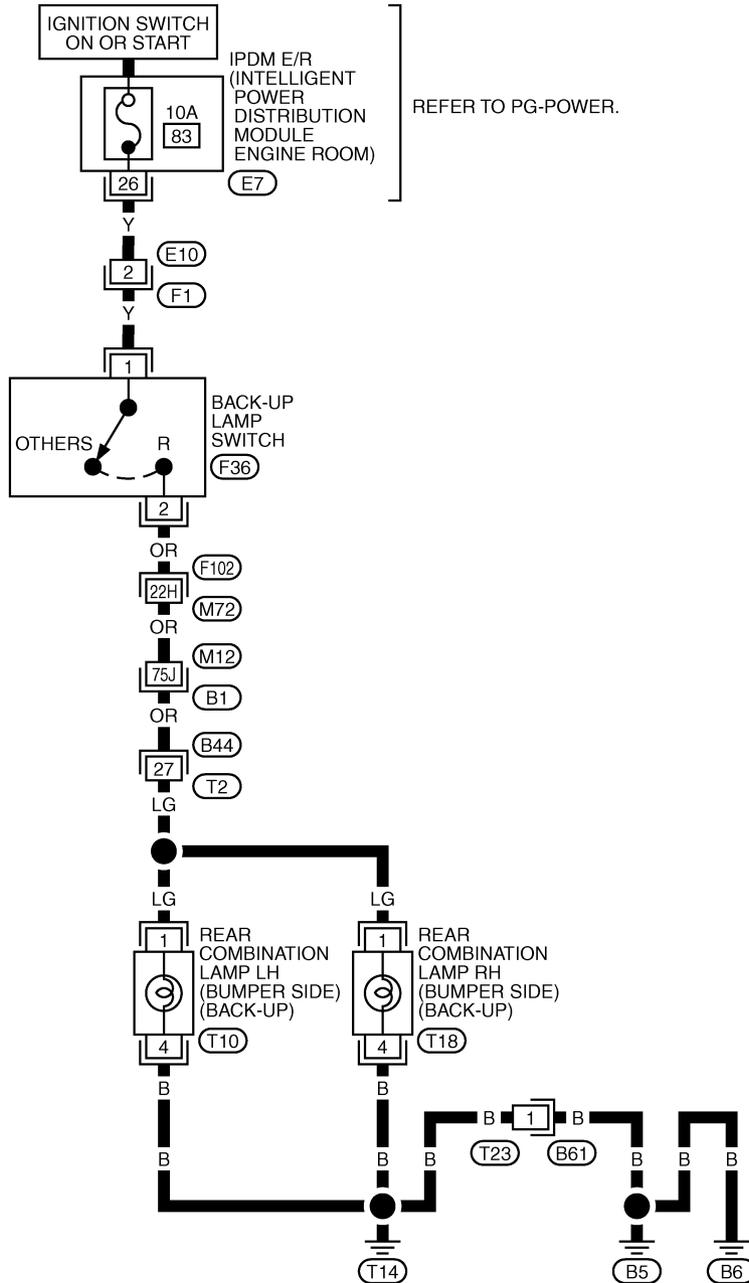
A
B
C
D
E
F
G
H
I
J
LT
L
M

BACK-UP LAMP

[TYPE 1]

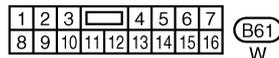
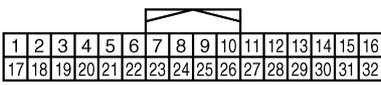
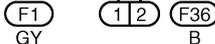
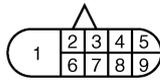
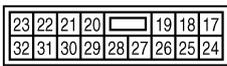
ROADSTER MODELS (M/T)

LT-BACK/L-04



REFER TO PG-POWER.

REFER TO THE FOLLOWING.
 (F102), (B1) -SUPER MULTIPLE JUNCTION (SMJ)



TKWT4042E

Bulb Replacement

NKS0004D

Refer to [LT-133, "Bulb Replacement"](#) .

A

Removal and Installation

NKS0004E

Refer to [LT-134, "Removal and Installation"](#) .

B

C

D

E

F

G

H

I

J

LT

L

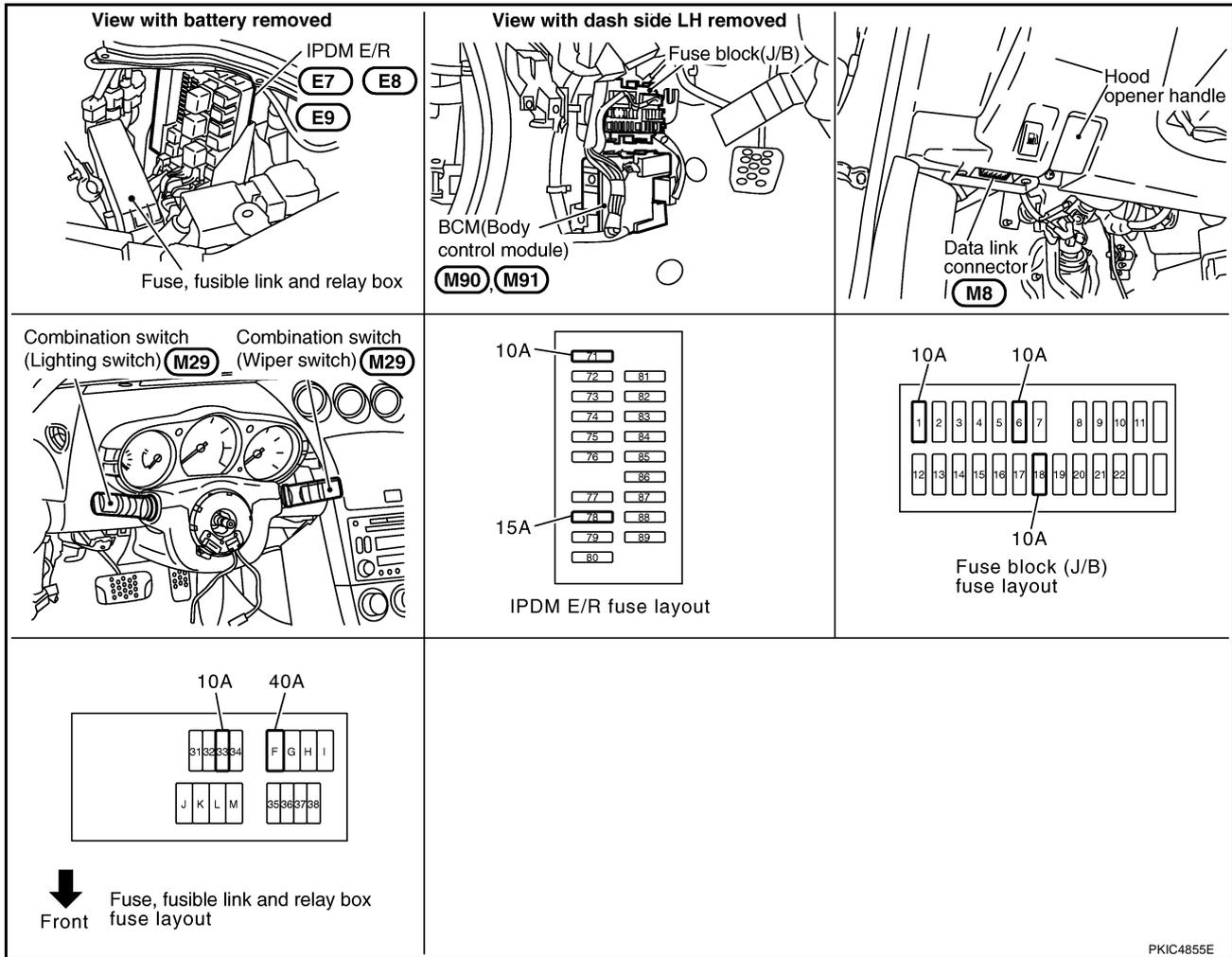
M

PARKING, LICENSE PLATE AND TAIL LAMPS

PFP:26550

Component Parts and Harness Connector Location

NKS0004F



PKIC4855E

System Description

NKS0004G

Control of parking, license plate, side marker and tail lamps operation is dependent upon the position of lighting switch (combination switch). When the lighting switch is in the 1ST position, the BCM (body control module) receives input signal requesting the parking, license plate, side marker and tail lamps to illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) through CAN communication. The CPU (central processing unit) located in the IPDM E/R controls the tail lamp relay coil and daytime light relay* coil. These relay, when energized, directs power to parking, license plate, side marker and tail lamps, which then illuminate.

NOTE:

Daytime light relay*: Canada models

OUTLINE

Power is supplied at all times

- through 10A fuse (No.71, located in IPDM E/R)
- to tail lamp relay, located in IPDM E/R, and
- to CPU located in IPDM E/R,
- through 15A fuse (No.78, located in IPDM E/R)
- to CPU located in IPDM E/R,
- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]

- to BCM terminal 42.

With ignition switch in ON or START position, power is supplied

- to CPU located in IPDM E/R, from battery direct,
- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM terminal 38.

With ignition switch in ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and F152.

OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position, the BCM receives input signal requesting the parking, license plate, side marker and tail lamps to illuminate. This input is communicated to the IPDM E/R through the CAN communication lines. The CPU located in the IPDM E/R controls the tail lamp relay coil and daytime light relay* coil. These relay, when energized, directs power to parking, license plate, side marker and tail lamps, which when energized, directs power

- through IPDM E/R terminal 22 (USA models)
- through daytime light relay terminal 5 (Canada models)
- to front combination lamp LH terminals 6
- to front combination lamp RH terminals 6
- to rear combination lamp LH terminals 2
- to rear combination lamp RH terminals 2
- to license plate lamp LH terminal 2, and
- to license plate lamp RH terminal 2.

Ground is supplied at all times

- to front combination lamp LH terminal 8, and
- to front combination lamp RH terminal 8
- through grounds E17, E43 and F152,
- to rear combination lamp LH terminals 3
- to rear combination lamp RH terminals 3
- to license plate lamp LH terminal 1, and
- to license plate lamp RH terminal 1
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

With power and ground supplied, parking, license plate side marker and tail lamps illuminate.

NOTE:

Daytime light relay*: Canada models

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control function is activated.

Under this condition, the parking, license, side marker and tail lamps remain illuminated for 5 minutes, then the headlamps are turned off.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

A

B

C

D

E

F

G

H

I

J

LT

L

M

CAN Communication System Description

NKS0004H

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS0004I

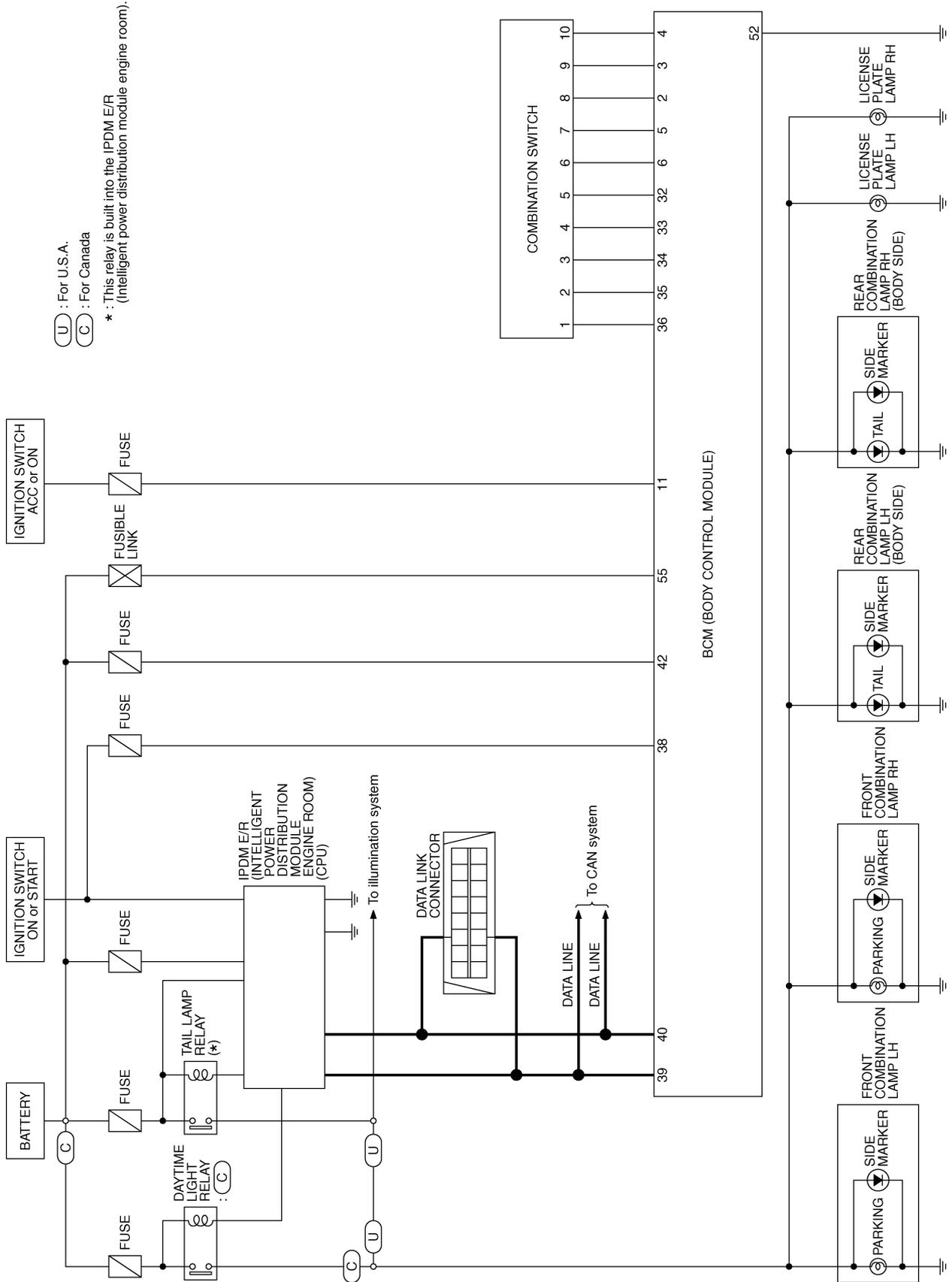
Refer to [LAN-48. "CAN System Specification Chart"](#) .

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

Schematic

NKS0004J



A
B
C
D
E
F
G
H
I
J
K
L
M

LT

TKWT4043E

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

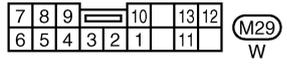
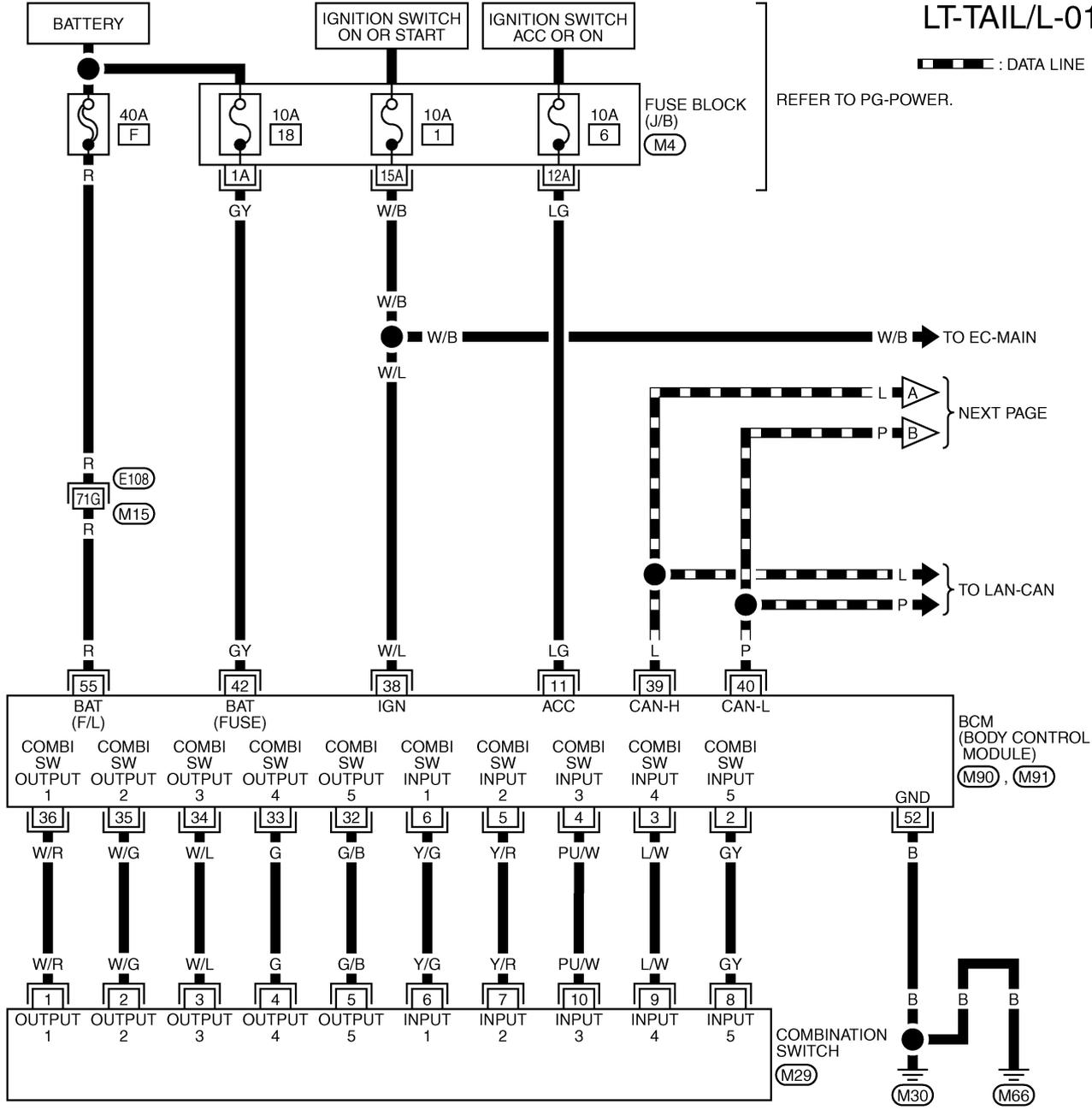
Wiring Diagram — TAIL/L —

NKS0004K

LT-TAIL/L-01

— — — — — : DATA LINE

REFER TO PG-POWER.



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

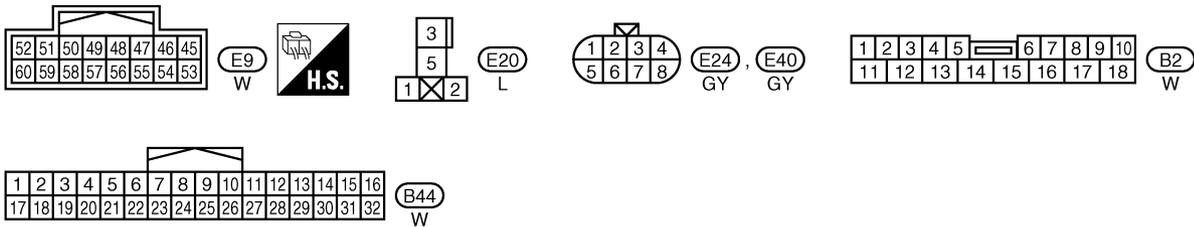
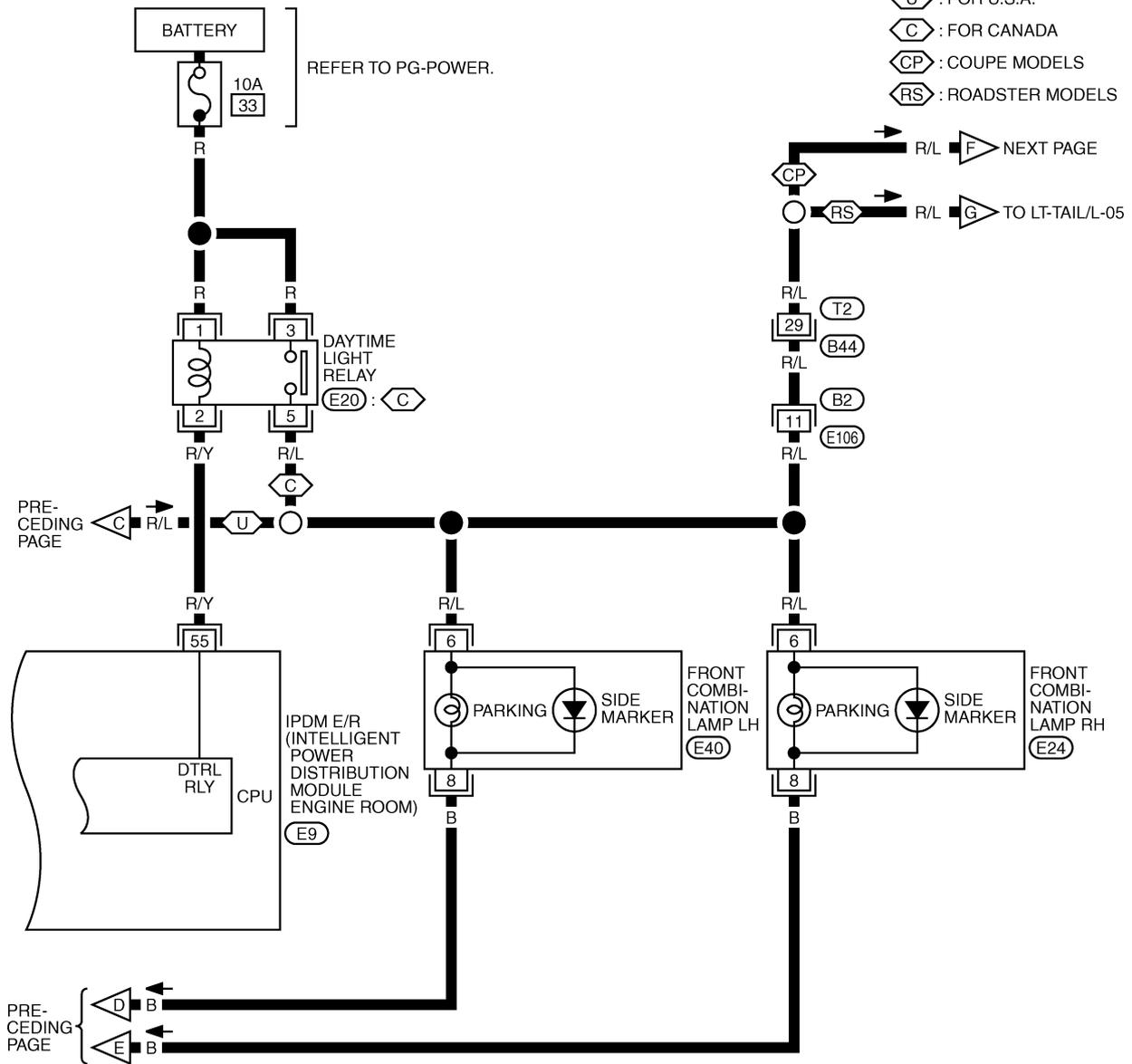
TKWT4044E

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

LT-TAIL/L-03

- : FOR U.S.A.
- : FOR CANADA
- : COUPE MODELS
- : ROADSTER MODELS



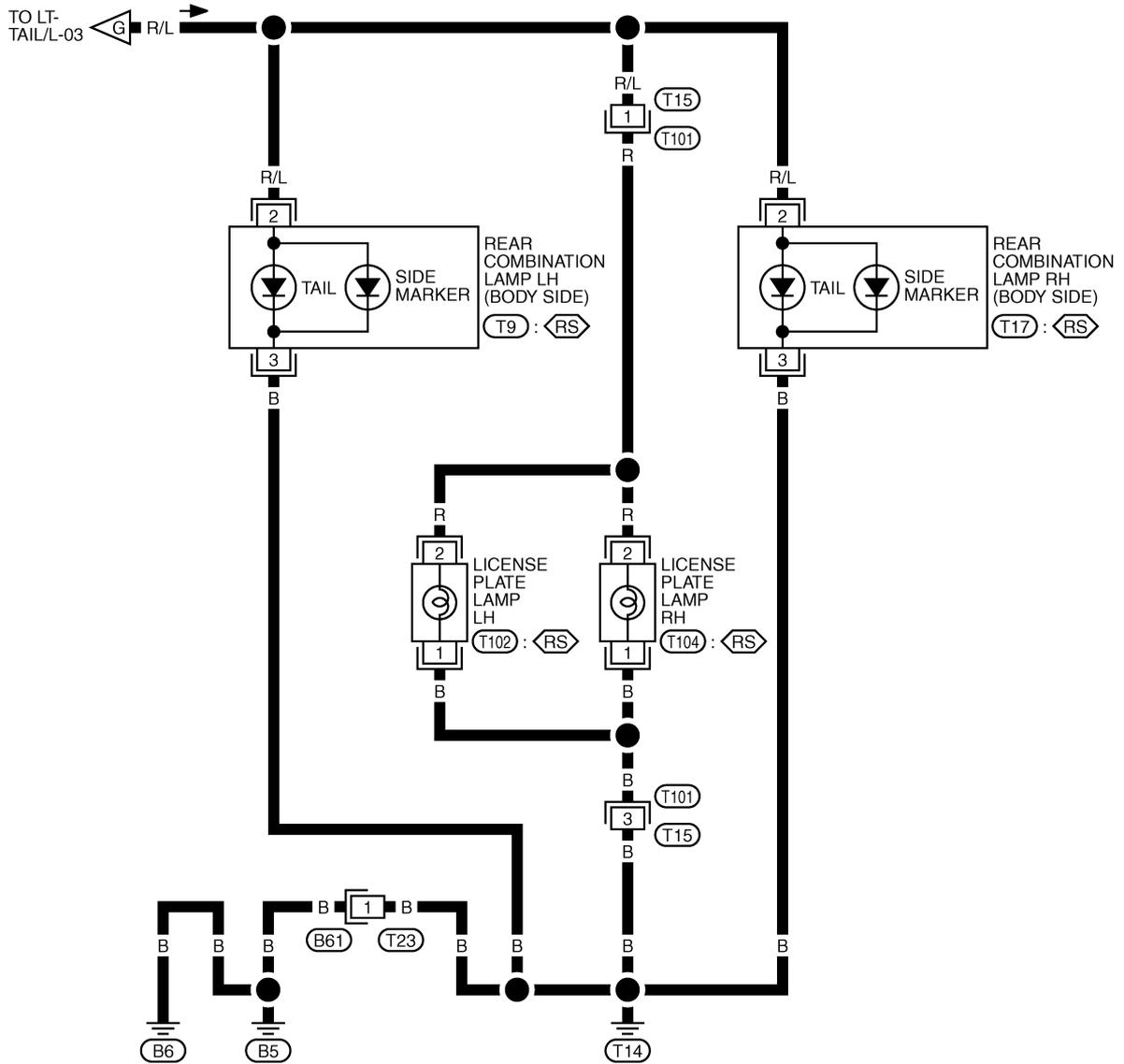
TKWT4046E

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

LT-TAIL/L-05

⬡RS⬢ : ROADSTER MODELS

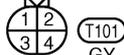


1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

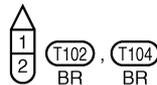
⬡B61⬢
W



⬡T9⬢, ⬡T17⬢
GY GY



⬡T101⬢
GY



⬡T102⬢, ⬡T104⬢
BR BR

TKWT4048E

Terminals and Reference Values for BCM

CAUTION:

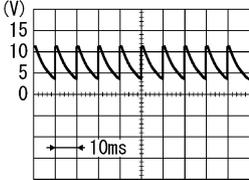
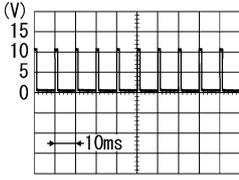
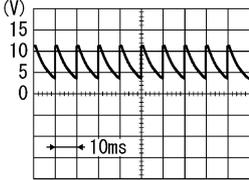
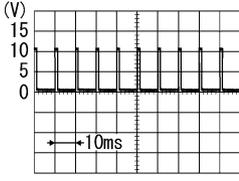
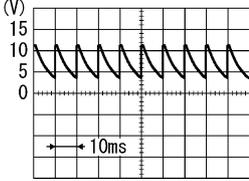
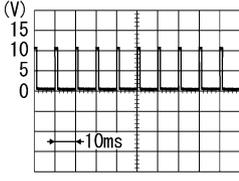
- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [WW-21, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value	
			Ignition switch	Operation or condition		
2	GY	Combination switch input 5	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF	Approx. 0 V
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) 	<p>PKIB4953J</p>
3	L/W	Combination switch input 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	Lighting switch 2ND	<p>PKIB4953J</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p>PKIB4953J</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage	

A
B
C
D
E
F
G
H
I
J
LT
L
M

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Lighting switch 1ST (The same result with lighting switch 2ND)  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch)  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF  <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch)  <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0 V
55	R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Values for IPDM E/R

NKS0004M

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
22	R/L	Parking, license plate, side marker and tail lamps	ON	Lighting switch 1ST position	OFF	Approx. 0 V
					ON	Battery voltage
38	B	Ground	ON	—	Approx. 0 V	
48	L	CAN– H	—	—	—	
49	P	CAN– L	—	—	—	
60	B	Ground	ON	—	Approx. 0 V	

How to Proceed With Trouble Diagnosis

NKS0004N

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-110, "System Description"](#) .
3. Carry out preliminary check. Refer to [LT-121, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Do parking, license plate, side marker and tail lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

NKS0004O

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6
IPDM E/R	Battery	71

Refer to [LT-114, "Wiring Diagram — TAIL/L —"](#) .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

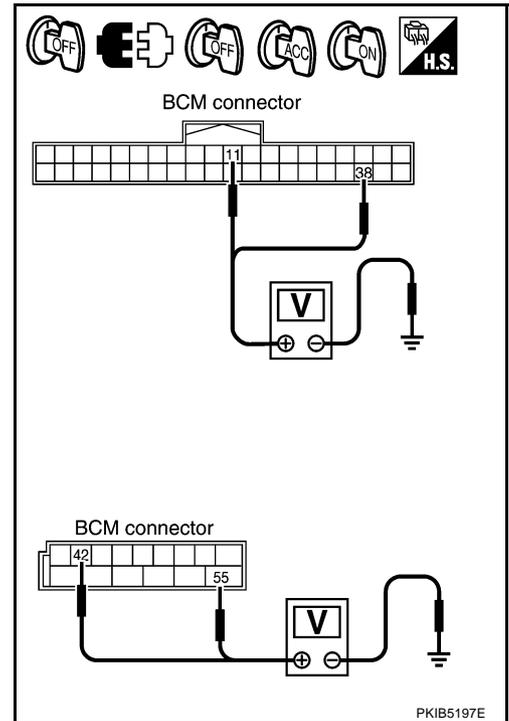
2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector terminals and ground.

Terminal		(-)	Ignition switch position		
(+)			OFF	ACC	ON
Connector	Terminal				
M90	11	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage	Battery voltage

OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.



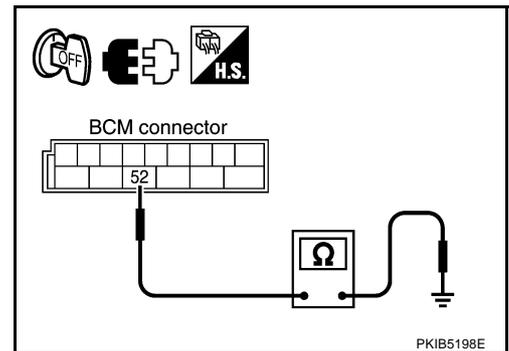
3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector terminal and ground.

Terminal			Continuity
Connector	Terminal	Ground	
M91	52		Yes

OK or NG

- OK >> INSPECTION END
 NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

Refer to [LT-21, "CONSULT-II Functions \(BCM\)"](#) in HEADLAMP (FOR USA).
 Refer to [LT-54, "CONSULT-II Functions \(BCM\)"](#) in HEADLAMP (FOR CANADA).

CONSULT-II Functions (IPDM E/R)

Refer to [LT-23, "CONSULT-II Functions \(IPDM E/R\)"](#) in HEADLAMP (FOR USA).
 Refer to [LT-56, "CONSULT-II Functions \(IPDM E/R\)"](#) in HEADLAMP (FOR CANADA).

NKS0004Q

4. CHECK IPDM E/R

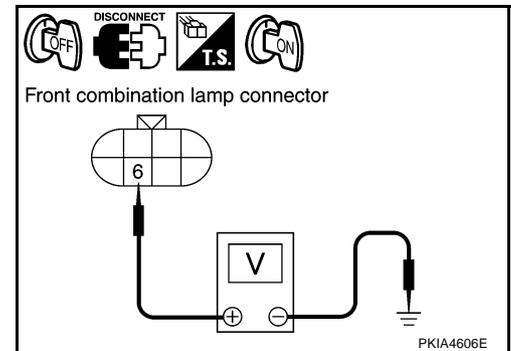
 With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connectors.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "TAIL LAMP" on "SELECT TEST ITEM" screen.
5. Touch "ON" screen.
6. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

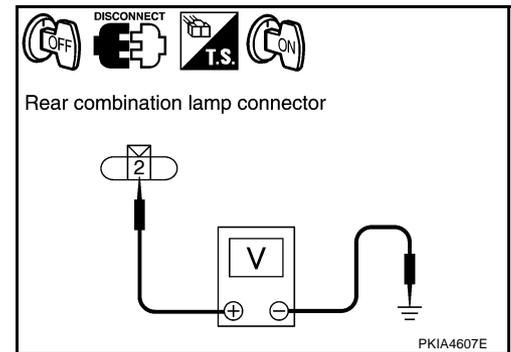
 With out CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

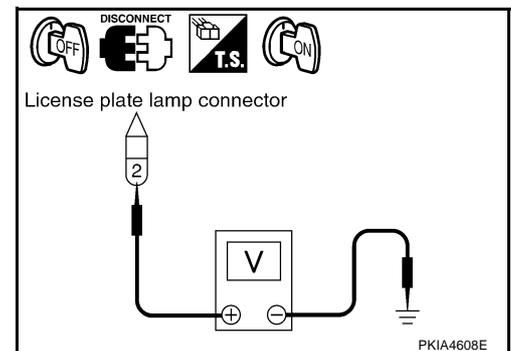
Terminal			(-)	Voltage
Front combination lamp (+)				
Connector	Terminal		Ground	Battery voltage
RH	E24			
LH	E40			



Terminal			(-)	Voltage
Rear combination lamp (+)				
Connector	Terminal		Ground	Battery voltage
RH	T17			
LH	T9			



Terminal			(-)	Voltage
License plate lamp (+)				
Connector	Terminal		Ground	Battery voltage
RH	T104			
LH	T102			



OK or NG

- OK >> GO TO 6.
 NG >> GO TO 5.

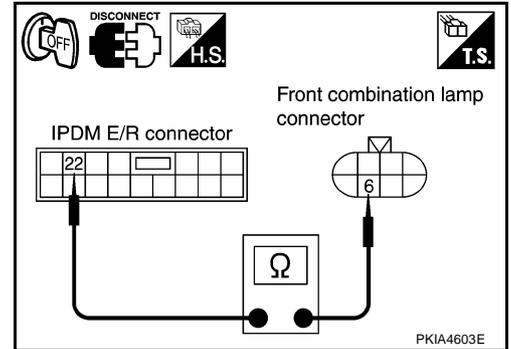
PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 1]

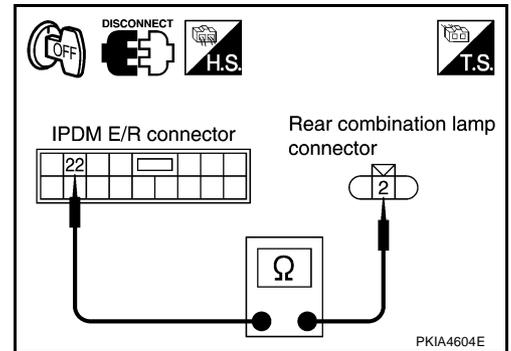
5. CHECK CIRCUIT BETWEEN IPDM E/R AND PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp, rear combination lamp and license plate lamp harness connector.

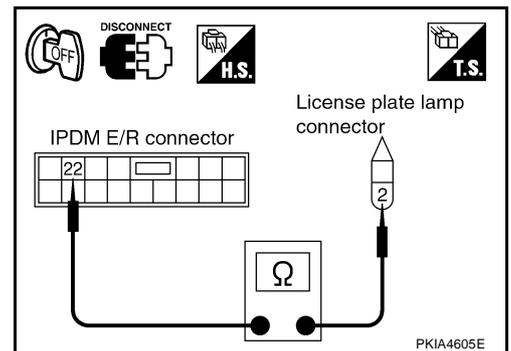
Terminal				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	E24	6
		LH	E40	6



Terminal				Continuity
IPDM E/R		Rear combination lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	T17	2
		LH	T9	2



Terminal				Continuity
IPDM E/R		Licence plat lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	T104	2
		LH	T102	2



OK or NG

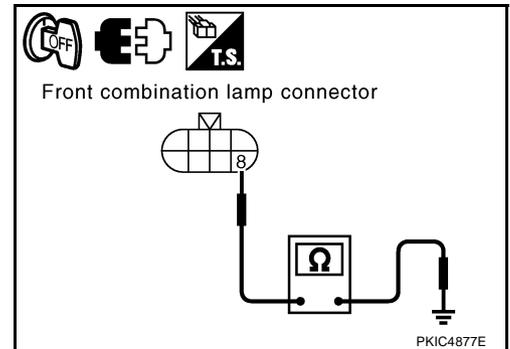
- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

A
B
C
D
E
F
G
H
I
J
LT
L
M

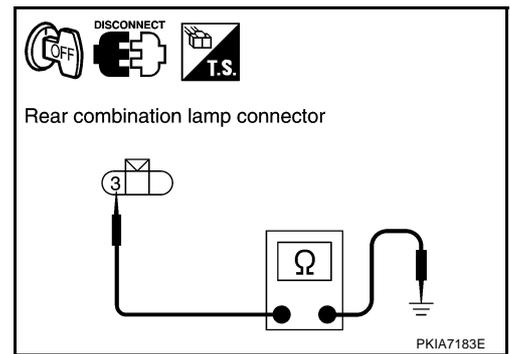
6. CHECK GROUND

1. Check continuity between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

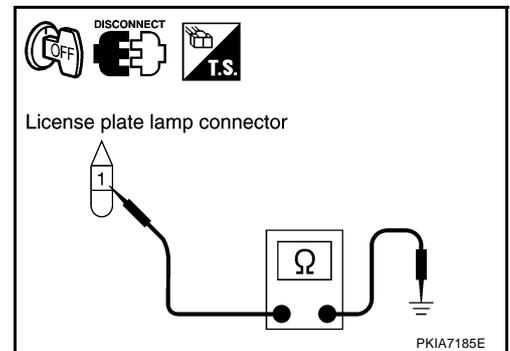
Terminal			Ground	Continuity
Front combination lamp				
Connector		Terminal	8	Yes
RH	E24			
LH	E40			



Terminal			Ground	Continuity
Rear combination lamp				
Connector		Terminal	3	Yes
RH	T17			
LH	T9			



Terminal			Ground	Continuity
License plate lamp				
Connector		Terminal	1	Yes
RH	T104			
LH	T102			



OK or NG

- OK >> Check bulb.
- NG >> Repair harness or connector.

Parking, License Plate, Side Marker, and Tail Lamps Do Not Illuminate (for Canada)

NKS002JA

1. CHECK COMBINATION SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "LIGHT SW 1ST" turns ON-OFF linked with operation of lighting switch.

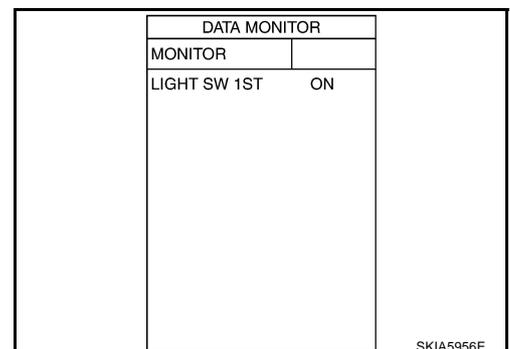
When lighting switch is 1ST : LIGHT SW 1ST ON position

ⓧ Without CONSULT-II

Refer to [LT-99, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-99, "Combination Switch Inspection"](#).

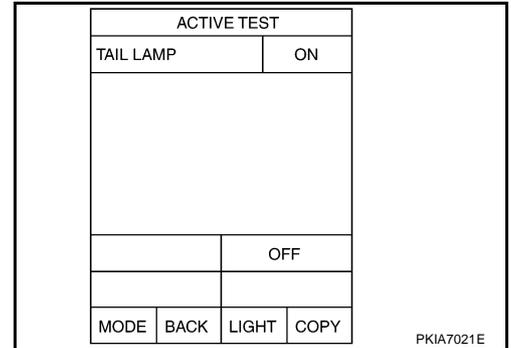


2. ACTIVE TEST

☑ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "TAIL LAMP" on "SELECT TEST ITEM" screen.
3. Touch "ON" screen.
4. Make sure parking, license plate, side marker and tail lamps operation.

Parking, license plate, side marker and tail lamps should operate.



☒ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
2. Make sure parking, license plate, side marker and tail lamps operation.

Parking, license plate, side marker and tail lamps should operate.

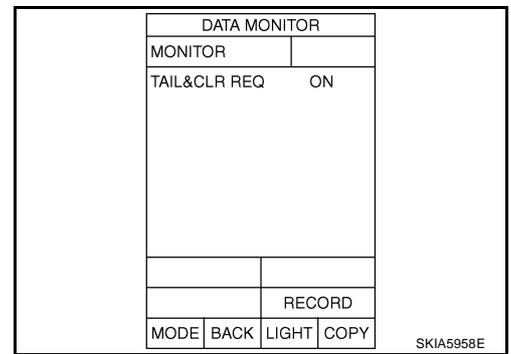
OK or NG

- OK >> GO TO 3.
- NG >> GO TO 4.

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "TAIL&CLR REQ" turns ON when lighting switch is in 1ST position.

When lighting switch is 1ST : TAIL&CLR REQ ON position



OK or NG

- OK >> Replace IPDM E/R.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

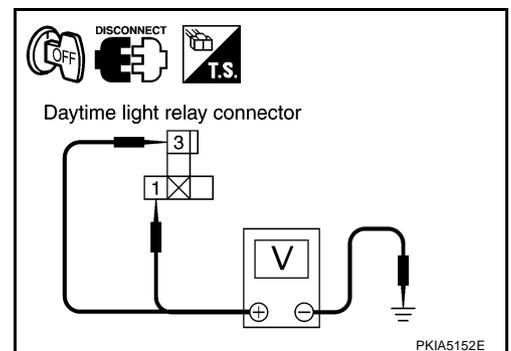
4. CHECK POWER SUPPLY CIRCUIT TO DAYTIME LIGHT RELAY

1. Turn ignition OFF.
2. Disconnect daytime light relay.
3. Check voltage between daytime light relay harness connector and ground.

Terminal		(-)	voltage
(+) Connector			
Terminal		Ground	Battery voltage
E20	1		
	3		

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.



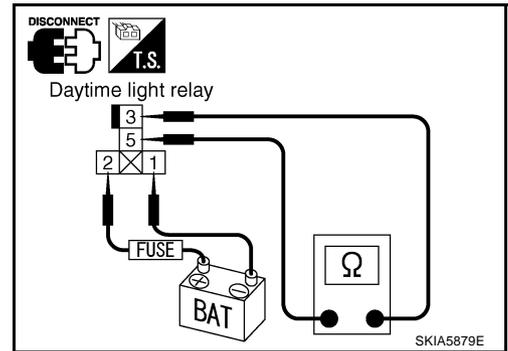
5. CHECK DAYTIME LIGHT RELAY

Apply battery voltage to between daytime light relay E20 terminal 1, 2 and check continuity between terminal 3 and 5.

3 – 5 : Continuity should exist.

OK or NG

- OK >> GO TO 6.
- NG >> Replace daytime light relay.



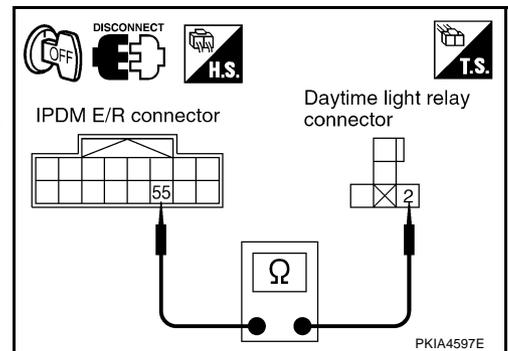
6. CHECK DAYTIME LIGHT RELAY CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector and daytime light relay harness connector.

Terminal		Terminal		Continuity
IPDM E/R		Daytime light relay		
Connector	Terminal	Connector	Terminal	
E9	55	E20	2	Yes

OK or NG

- OK >> GO TO 7.
- NG >> Repair harness or connector.



7. CHECK IPDM E/R

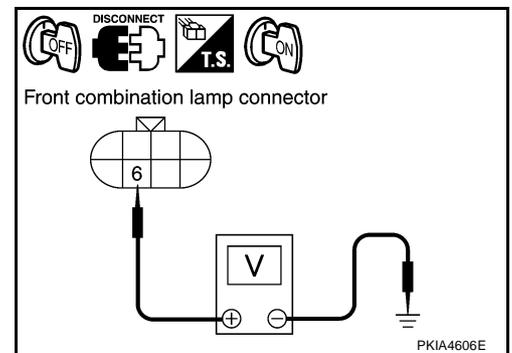
With CONSULT-II

1. Connect daytime light relay and IPDM E/R connector.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connectors.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "TAIL LAMP" on "SELECT TEST ITEM" screen.
5. Touch "ON" screen.
6. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

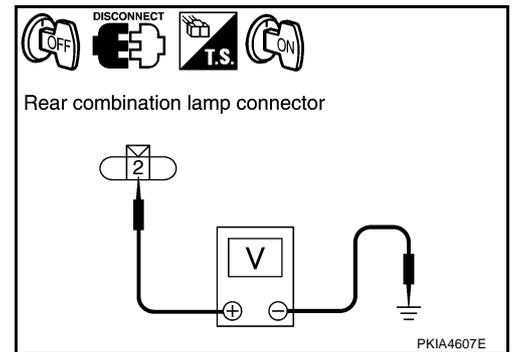
With out CONSULT-II

1. Connect daytime light relay and IPDM E/R connector.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

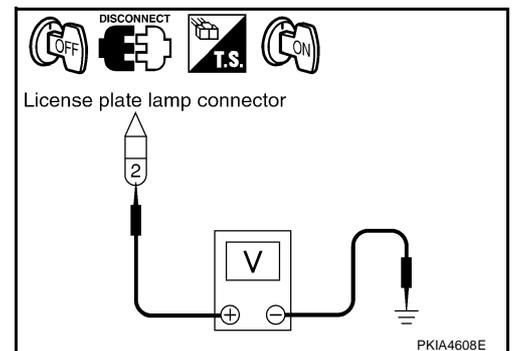
Terminal				Voltage
Front combination lamp (+)			(-)	
Connector	Terminal			Ground
RH	E24	6	Ground	
LH	E40			



Terminal				Voltage
Rear combination lamp (+)			(-)	
Connector	Terminal			Ground
RH	T17	2	Ground	
LH	T9			



Terminal				Voltage
License plate lamp (+)			(-)	
Connector	Terminal			Ground
RH	T104	2	Ground	
LH	T102			



OK or NG

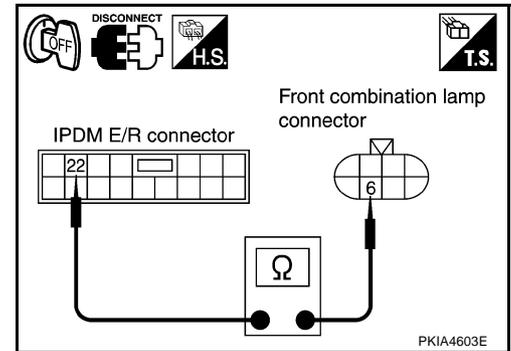
- OK >> GO TO 9.
 NG >> GO TO 8.

A
B
C
D
E
F
G
H
I
J
LT
L
M

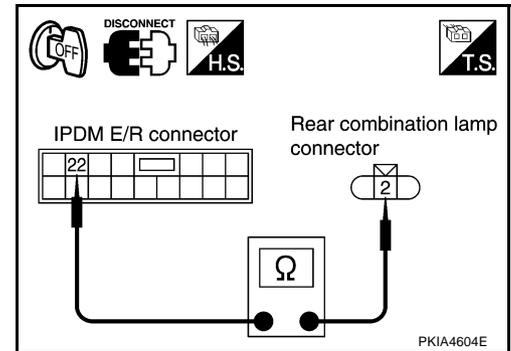
8. CHECK CIRCUIT BETWEEN IPDM E/R AND PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp, rear combination lamp and license plate lamp harness connector.

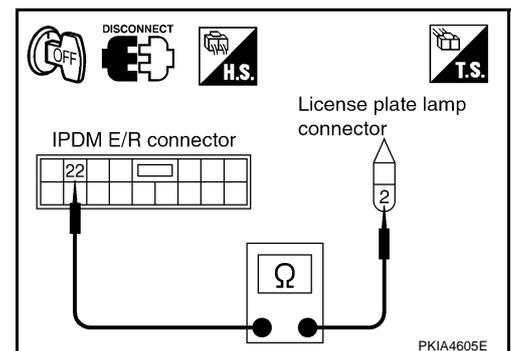
Terminal				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	E24	6
		LH	E40	6



Terminal				Continuity
IPDM E/R		Rear combination lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	T17	2
		LH	T9	2



Terminal				Continuity
IPDM E/R		Licence plat lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	T104	2
		LH	T102	2



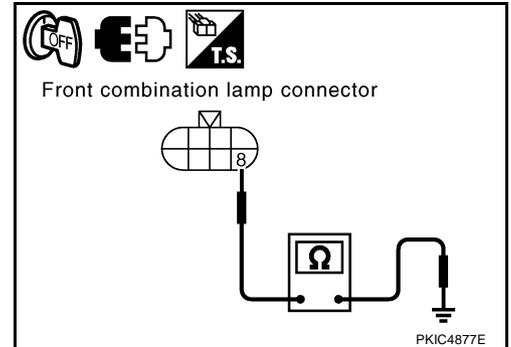
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.

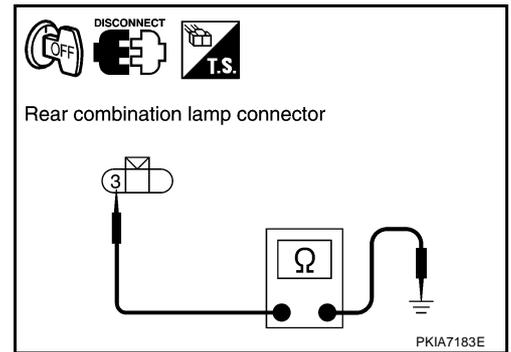
9. CHECK GROUND

1. Check continuity between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

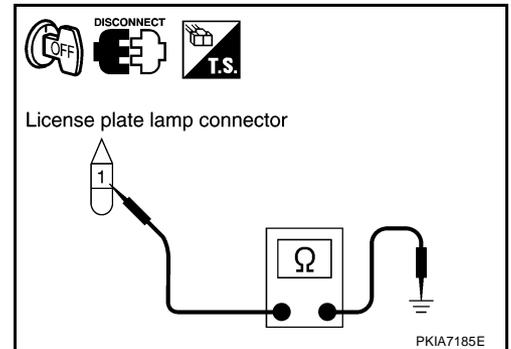
Terminal			Ground	Continuity
Front combination lamp				
Connector		Terminal	Ground	Yes
RH	E24	8		
LH	E40			



Terminal			Ground	Continuity
Rear combination lamp				
Connector		Terminal	Ground	Yes
RH	T17	3		
LH	T9			



Terminal			Ground	Continuity
License plate lamp				
Connector		Terminal	Ground	Yes
RH	T104	1		
LH	T102			



OK or NG

- OK >> Check bulb.
- NG >> Repair harness or connector.

Parking, Side Marker, License Plate and Tail Lamps Do Not Turn OFF (After Approx. 10 Minutes)

NKS0004S

1. CHECK IPDM E/R

1. Turn ignition switch ON. Place combination switch (lighting switch) in the ON position. Turn ignition switch OFF.
2. Make sure parking, license plate, and tail lamps turn OFF after approximately 10 minutes.

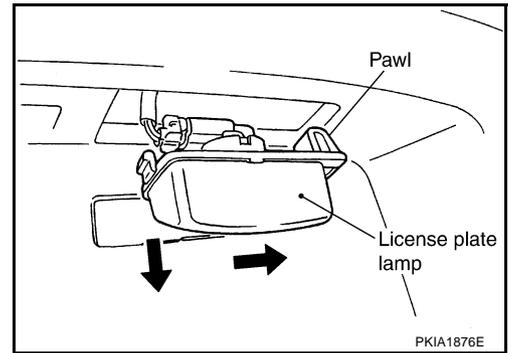
OK or NG

- OK >> INSPECTION END.
- NG >> Ignition relay malfunction. Refer to [PG-31, "Function of Detecting Ignition Relay Malfunction"](#).

License Plate Lamp BULB REPLACEMENT, REMOVAL AND INSTALLATION

NKS0004T

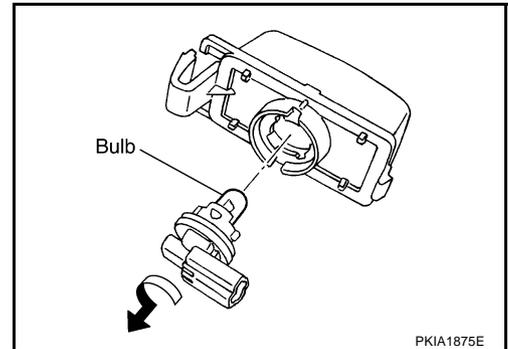
1. While pressing license plate lamp to rightward, pull left side of it and remove.
2. Disconnect license plate lamp connector.



3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from it's socket.

License plate lamp : 12V - 5W

5. Installation is the reverse order of removal.



Front Parking Lamp BULB REPLACEMENT

Refer to [LT-33, "Bulb Replacement"](#) .

REMOVAL AND INSTALLATION

Refer to [LT-34, "Removal and Installation"](#) .

Tail Lamp BULB REPLACEMENT

NKS0004U

Refer to [LT-133, "Bulb Replacement"](#) .

REMOVAL AND INSTALLATION

Refer to [LT-134, "Removal and Installation"](#) .

NKS0004V

REAR COMBINATION LAMP

[TYPE 1]

REAR COMBINATION LAMP

PFP:26554

Bulb Replacement

NKS0004W

REAR FENDER SIDE (STOP & TAIL LAMP, REAR SIDE MARKER LAMP)

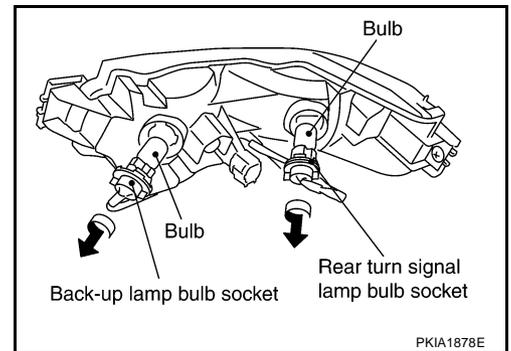
1. Remove rear combination lamp. Refer to [LT-134, "Removal and Installation"](#).
2. Replacement integral with rear combination lamp (rear fender side).

Stop/tail lamp : LED

Rear side marker lamp : LED

REAR BUMPER SIDE (BACK-UP LAMP BULB, REAR TURN SIGNAL LAMP BULB)

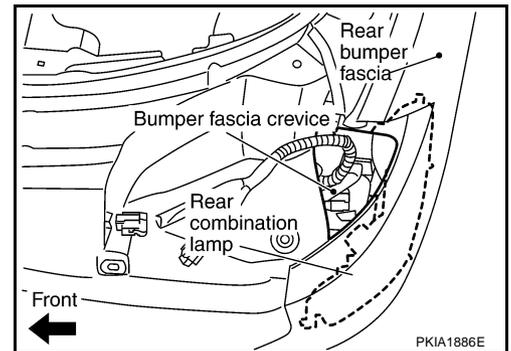
1. Remove rear combination lamp. Refer to [LT-134, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise and unlock it through bumper fascia crevice.



3. Remove bulb.
4. Installation is the reverse order of removal.

Rear turn signal lamp (rear bumper side) : 12 V - 28 W (amber)

Back-up lamp (rear bumper side) : 12 V - 21 W



A
B
C
D
E
F
G
H
I
J
LT
L
M

REAR COMBINATION LAMP

[TYPE 1]

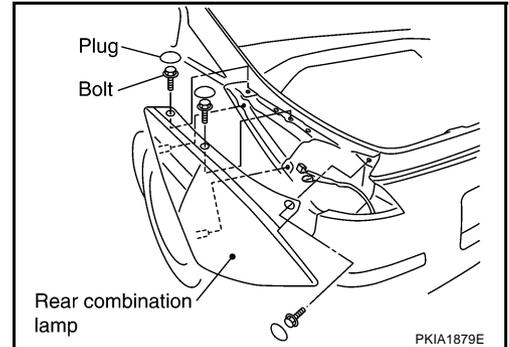
NKS0004X

Removal and Installation

REMOVAL

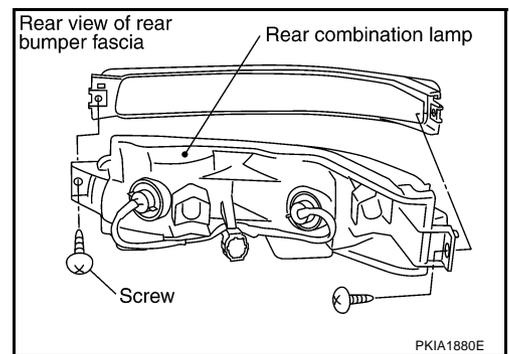
Rear Fender Side

1. Remove plugs and remove rear combination lamp mounting bolts.
2. Pull rear combination lamp toward side of the vehicle and remove from the vehicle.
3. Disconnect rear combination lamp connector.



Rear Bumper Side

1. Remove rear bumper fascia. Refer to [EI-17, "REAR BUMPER"](#).
2. Disconnect rear combination lamp connector.
3. Remove rear combination lamp mounting screws.
4. Remove rear combination lamp from rear bumper fascia.



INSTALLATION

Installation is the reverse order of removal. Be careful of the following:

Rear combination lamp (Rear fender side) mounting bolt  : 5.5 N-m (0.56 kg-m, 49 in-lb)

INTERIOR ROOM LAMP

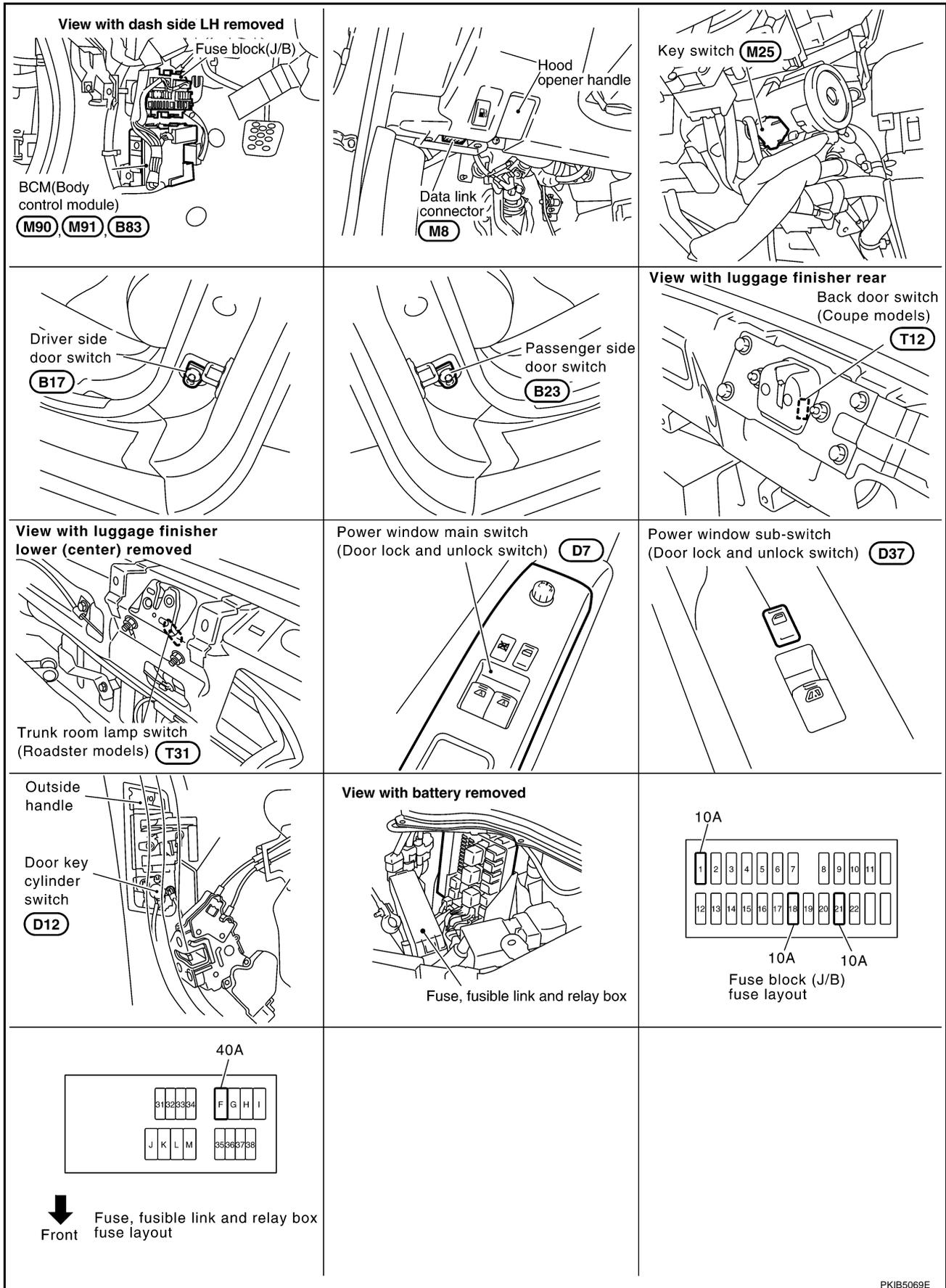
[TYPE 1]

INTERIOR ROOM LAMP

PFP:26410

Component Parts and Harness Connector Location *1

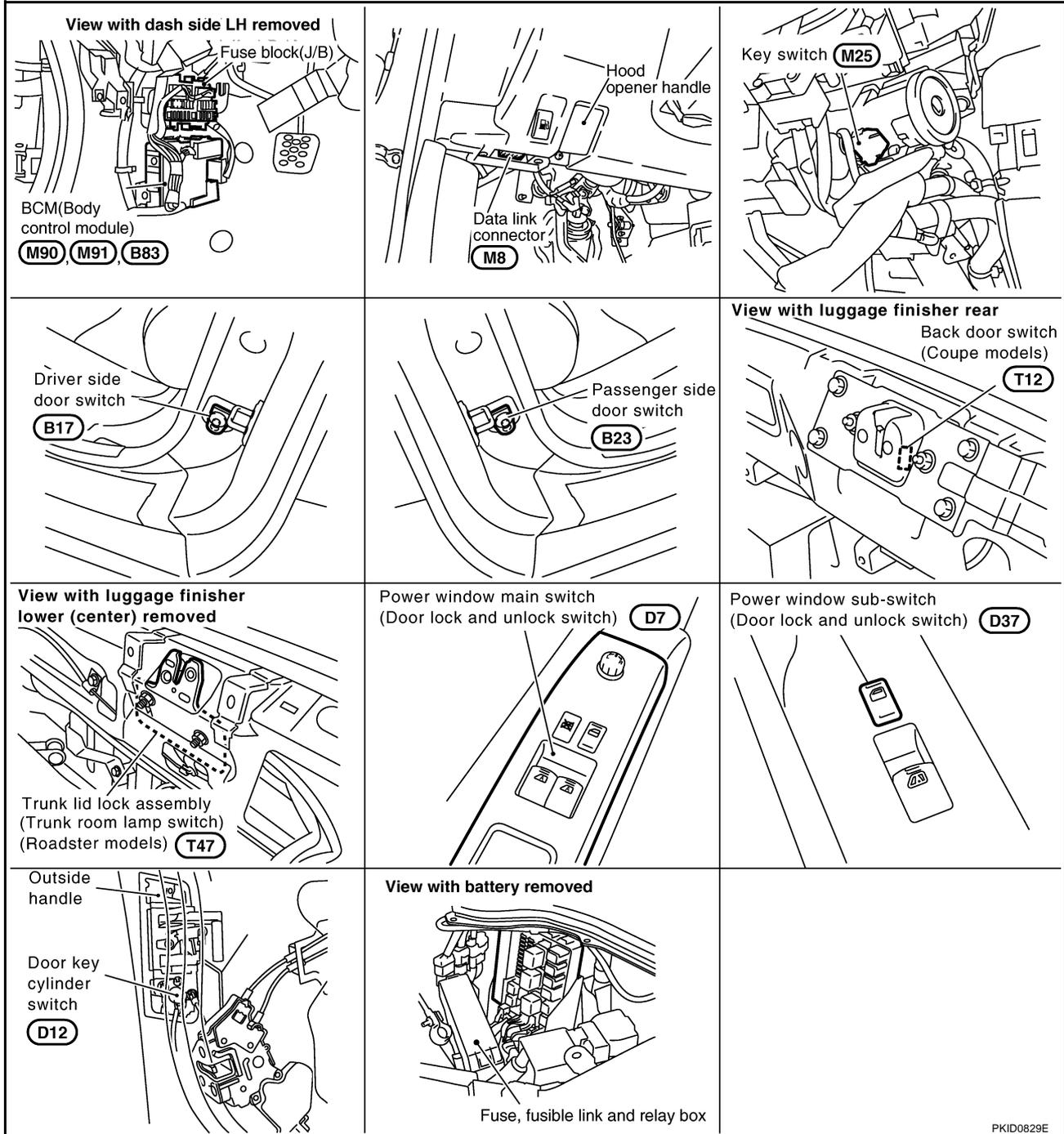
NKS002HY



A
B
C
D
E
F
G
H
I
J
LT
L
M

Component Parts and Harness Connector Location^{*2}

NKS00547



PKID0829E

*1: Up to Vehicle Identification Number JN1AZ36D400527 and JN1AZ36A455310

*2: From Vehicle Identification Number JN1AZ36D400528 and JN1AZ36A455311

System Description

NKS002HZ

When the map lamp switch is in the DOOR position, map lamp ON/OFF is controlled by timer according to signals from switches including key switch, door switch driver side and assist side, unlock and lock signal from key fob, door lock and unlock switch, key cylinder lock and unlock switch, ignition switch.

When the map lamp turns ON, there is a gradual brightening over 1 second. When map lamp turns OFF, there is a gradual dimming over 1 second.

Map lamp timer is controlled by BCM (body control module).

Map lamp timer control settings can be changed with CONSULT-II.

Ignition key hole illumination turns ON at time when driver door is opened (door switch ON) or removed key fob from key cylinder. Illumination turns OFF when driver door is closed (door switch OFF).

POWER SUPPLY AND GROUND

Power is supplied at all times

- through 10A fuse [No.21, located in fuse block (J/B)]
- to key switch terminal 2,
- through 10A fuse [No.18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55.

When key is removed from ignition key cylinder, power is interrupted

- through key switch terminal 1
- to BCM terminal 37.

With ignition switch in ON or START position, power is supplied

- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM terminal 38.

When map lamp and vanity mirror lamp power is supplied at times

- through BCM terminal 41
- to ignition key hole illumination terminal1
- to map lamp terminal 3 (Coupe models)
- to map lamp terminal 2 (Roadster models)
- to luggage room lamp terminal 1 (Coupe models)
- to trunk room lamp terminal 1 (Roadster models) and
- to vanity mirror lamp LH and RH terminals 1.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66.

When driver side door is opened, ground is supplied

- through case ground of driver side door switch
- to BCM terminal 62.

When passenger side door is opened, ground is supplied

- through case ground of passenger side door switch
- to BCM terminal 12.

When back door is opened, ground is supplied (Coupe models)

- through grounds B5, B6, D105 and T14
- to back door switch terminal 3
- through back door switch terminal 1
- to BCM terminal 58.

When trunk lid is opened, ground is supplied (Roadster models)

- through grounds B5, B6 and T14
- to trunk room lamp switch terminal 2 ^{*1}
- to trunk lid lock assembly (trunk room lamp switch) terminal 1 ^{*2}
- through trunk room lamp switch terminal 1 ^{*1}
- through trunk lid lock assembly (trunk room lamp switch) terminal 3 ^{*2}
- to BCM terminal 57.

^{*1}: Up to Vehicle Identification Number JN1AZ36D400527 and JN1AZ36A455310

^{*2}: From Vehicle Identification Number JN1AZ36D400528 and JN1AZ36A455311

When the driver side door or passenger side door is unlocked by door lock and unlock switch, The BCM receives unlock signal with power window serial link

- through grounds M30 and M66

A

B

C

D

E

F

G

H

I

J

LT

L

M

- to power window main switch (door lock and unlock switch) terminal 15 or power window sub switch (door lock and unlock switch) terminal 11
- through power window main switch (door lock and unlock switch) terminal 12 and power window sub switch (door lock and unlock switch) terminal 16
- to BCM terminal 22.

When the driver side door is unlocked by door key cylinder switch, The BCM receives information by communicating with power window main switch

- through grounds M30 and M66
- to door key cylinder switch terminal 2
- through door key cylinder switch terminal 1
- to power window main switch (door lock and unlock switch) terminal 7
- through power window main switch (door lock and unlock switch) terminal 12
- to BCM terminal 22.

When a signal, or combination of signals is received by BCM, ground is supplied

- through BCM terminal 48
- to map lamp terminal 2 (Coupe models)
- to map lamp terminal 3 (Roadster models).

With power and ground are supplied, map lamp illuminates.

SWITCH OPERATION

When map lamp switch is ON, ground is supplied

- to map lamp terminal 1
- through grounds M30 and M66.

And power is supplied

- through BCM terminal 41
- to ignition key hole illumination terminal 1
- to map lamp terminal 3 (Coupe models)
- to map lamp terminals 2 (Roadster models).

When vanity mirror lamp LH and RH is ON, ground is supplied

- to vanity mirror lamp LH and RH terminals 2
- through grounds M30 and M66.

And power is supplied

- through BCM terminal 41
- to vanity mirror lamp terminal 1.

MAP LAMP TIMER OPERATION

When the map lamp switch is in the DOOR position, and when all conditions below are met, BCM performs timer control (maximum 30 seconds) for map lamp ON/OFF.

In addition, when map lamp turns ON or OFF there is gradual brightening or dimming over 1 second.

Power is supplied at all times

- to 10A fuse [No. 21 located in fuse block (J/B)]
- through key switch terminal 2.

When all doors are closed (all door switches OFF) and key is removed from key cylinder (key switch OFF), power will not be supplied to BCM terminal 37.

Ground is supplied

- through BCM terminal 22
- to power window main switch (door lock and unlock switch) terminal 12.

At this time, BCM detects that driver door is unlocked. It determines that map lamp timer operation conditions are met, and turns map lamp ON for 30 seconds.

When all doors are closed (all door switches OFF) and key is in key cylinder (key switch ON),

Power is supplied

- through key switch terminal 1

INTERIOR ROOM LAMP

[TYPE 1]

- to BCM terminal 37.

When the key is removed from key switch (key switch OFF), power supply to BCM terminal 37 is terminated. BCM detects that key has been removed. It determines that map lamp timer conditions are met, and turns map lamp ON for 30 seconds.

When driver door opens → closes, and key is not inserted in key switch (key switch OFF), BCM terminal 62 changes between 0V (door open) → 5V (door closed). BCM determines that conditions for spot lamp operation are met and turns interior lamp ON for 30 seconds.

Timer control is canceled under the following conditions.

- Driver door is locked (When locked key fob or power window main switch (door lock and unlock switch, door key cylinder switch).
- Driver door is opened (driver door switch turns ON).
- Ignition switch ON.

INTERIOR LAMP BATTERY SAVER CONTROL

If the room lamp remains illuminated by door switch open signal, or if room lamp switch is in the ON position for more than 30 minutes after the ignition switch is turned to the OFF position, BCM will automatically turn off map lamp, luggage room lamp (Coupe models), trunk room lamp (Roadster models) and vanity mirror lamp. After lamps turn OFF by battery saver system, the lamps illuminate again when

- signal from key fob, door lock and unlock switch, or key cylinder is locked or unlocked,
- door is opened or closed,
- key is removed from ignition key cylinder or inserted in ignition key cylinder.

Interior lamp battery saver control period can be changed by the function setting of CONSULT-II.

A
B
C
D
E
F
G
H
I
J
LT
L
M

LT

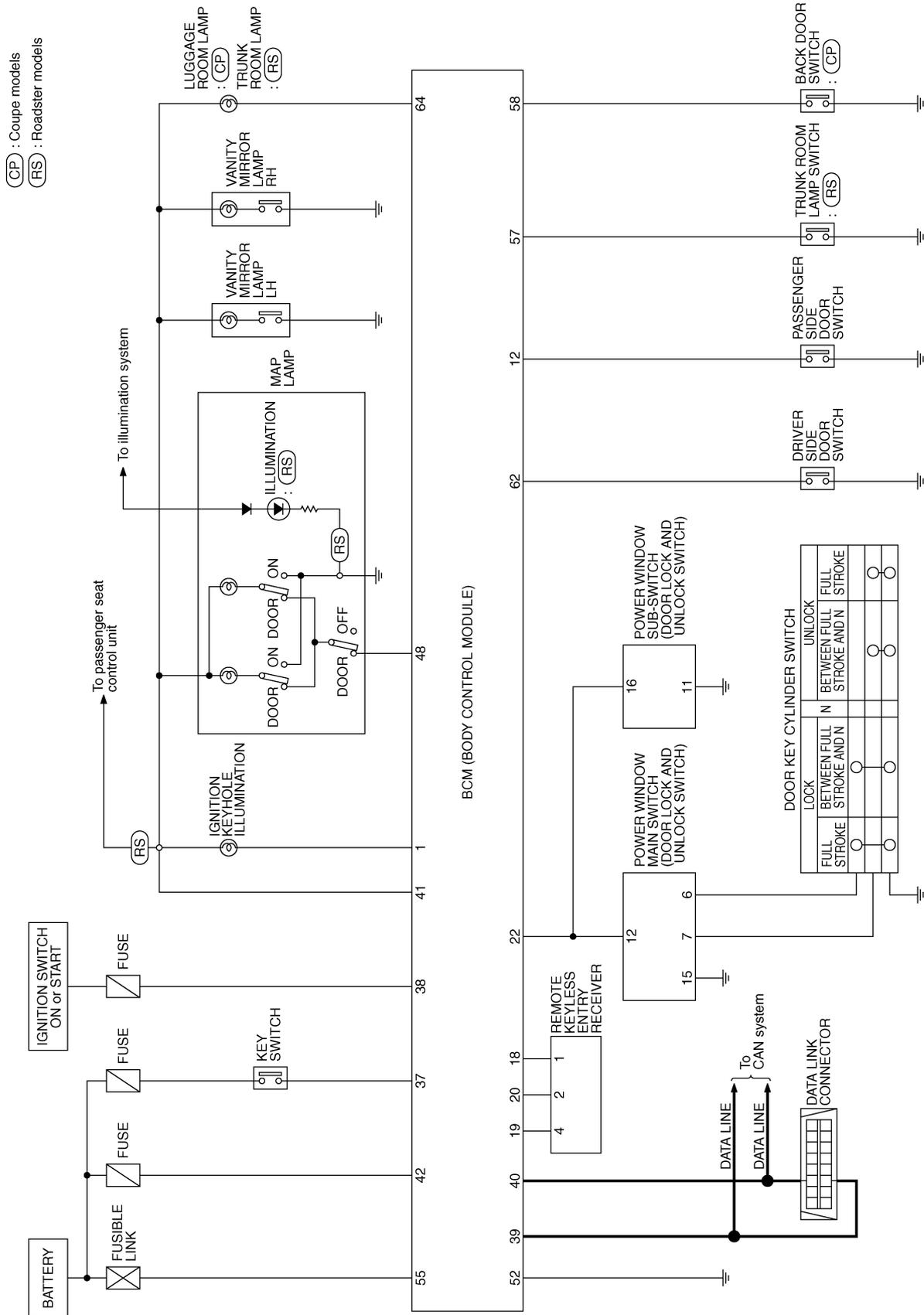
INTERIOR ROOM LAMP

[TYPE 1]

NKS00210

Schematic

Up to Vehicle Identification Number JN1A236D400527 and JN1A236A455310



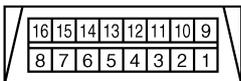
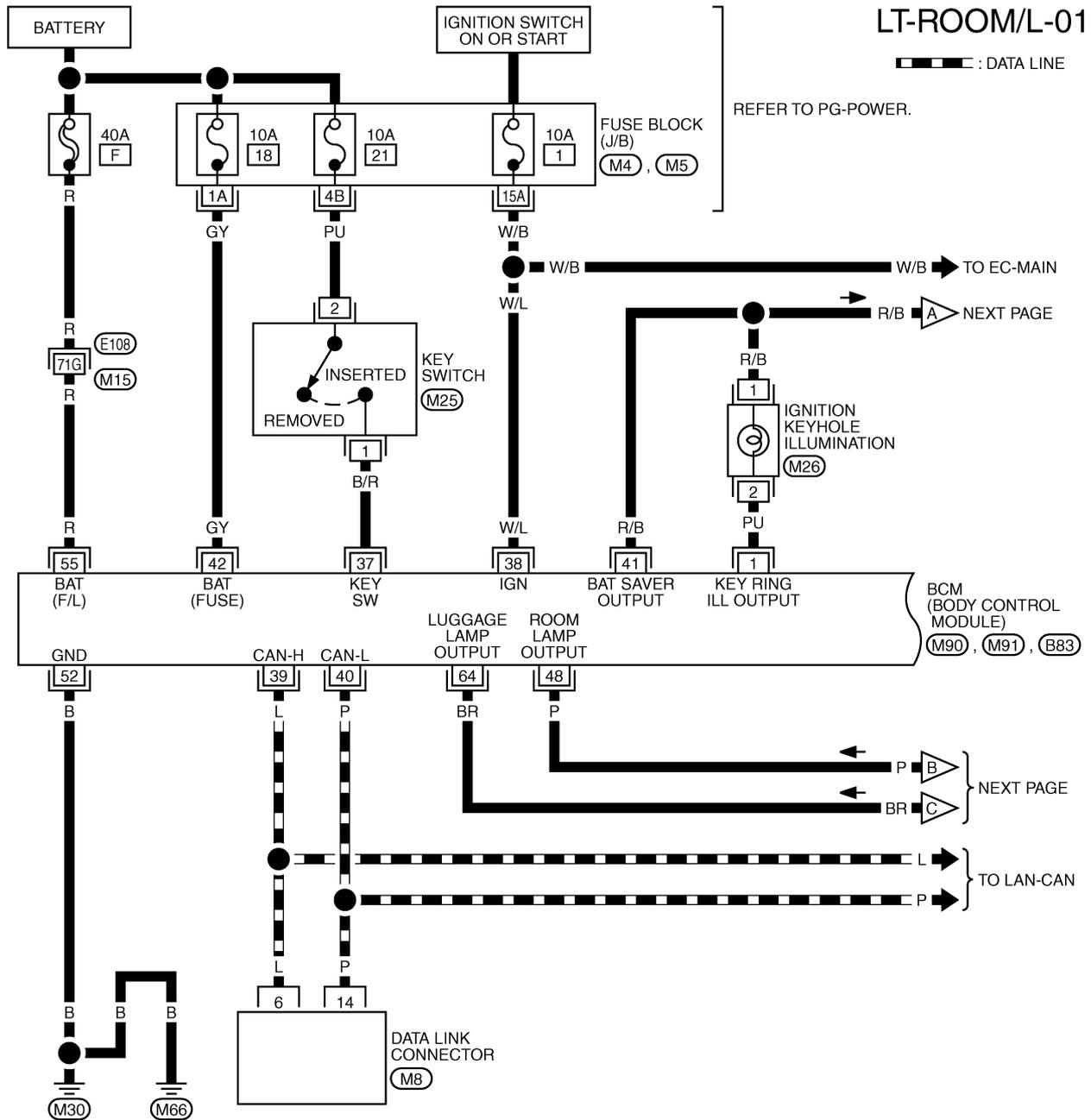
TKWT4049E

INTERIOR ROOM LAMP

[TYPE 1]

NKS00211

Wiring Diagram — ROOM/L — COUPE MODELS



(M8)
W

(M25)
BR

(M26)
W

REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

(M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)

(M90), (M91), (B83)

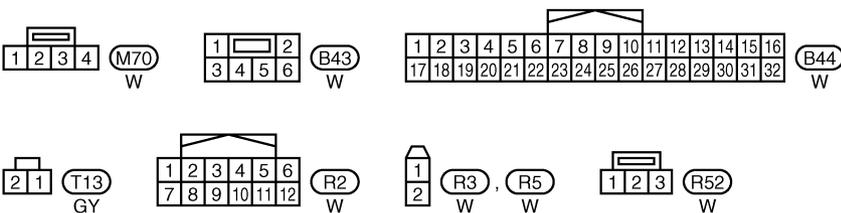
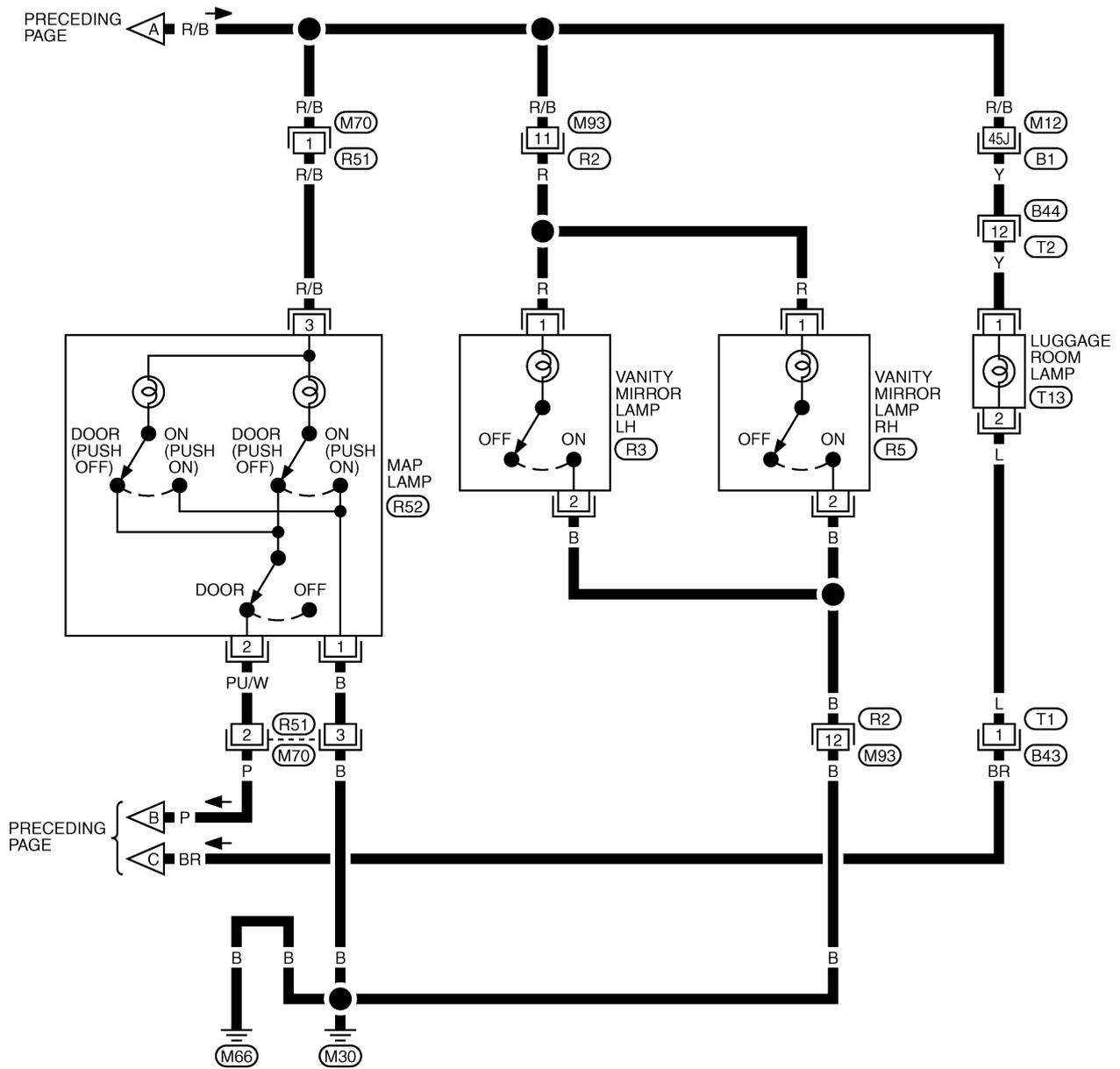
-ELECTRICAL UNITS

TKWT4050E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-02



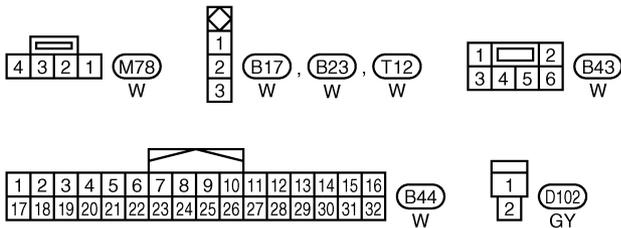
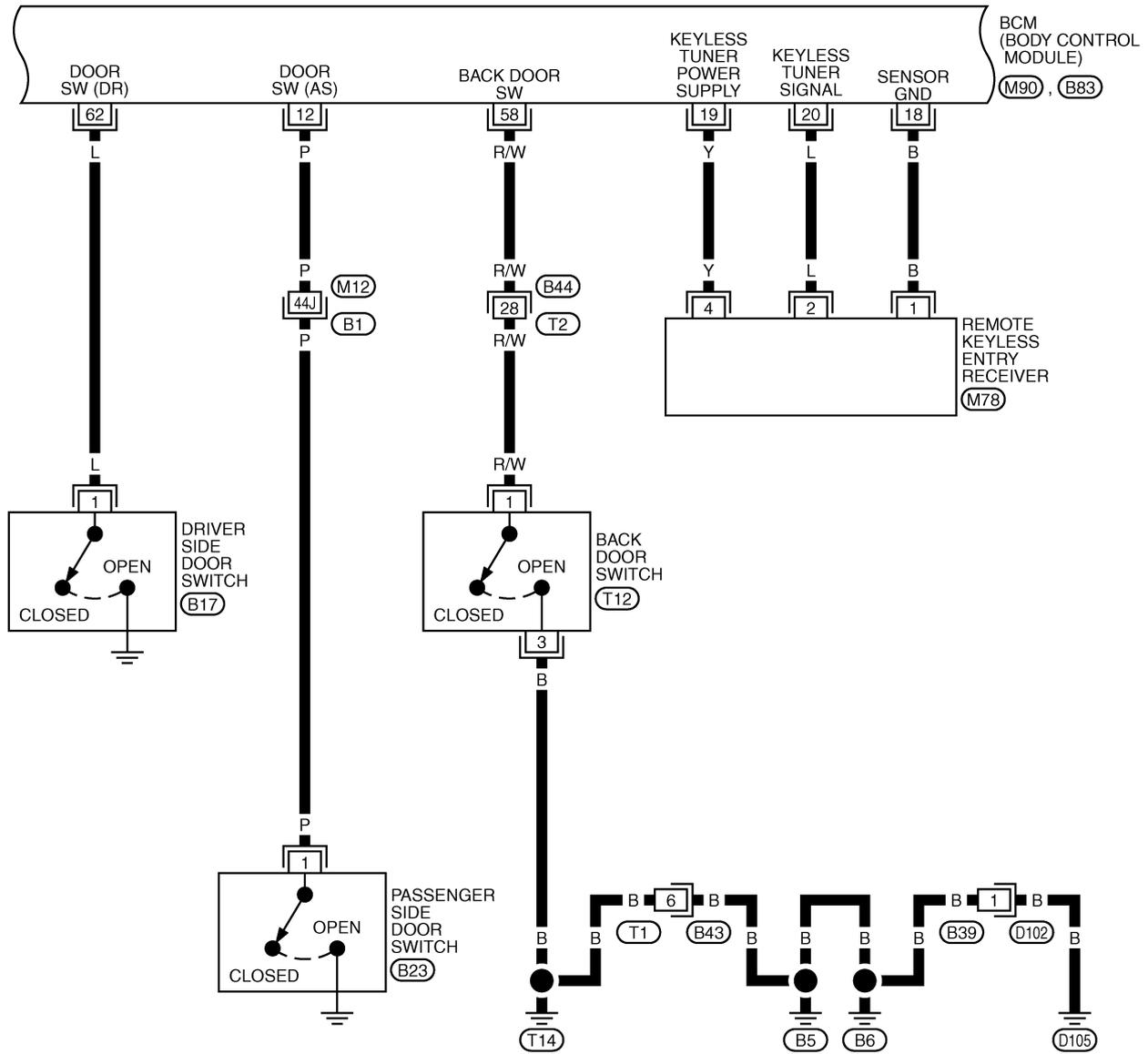
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)

TKWT4051E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-03



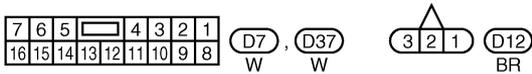
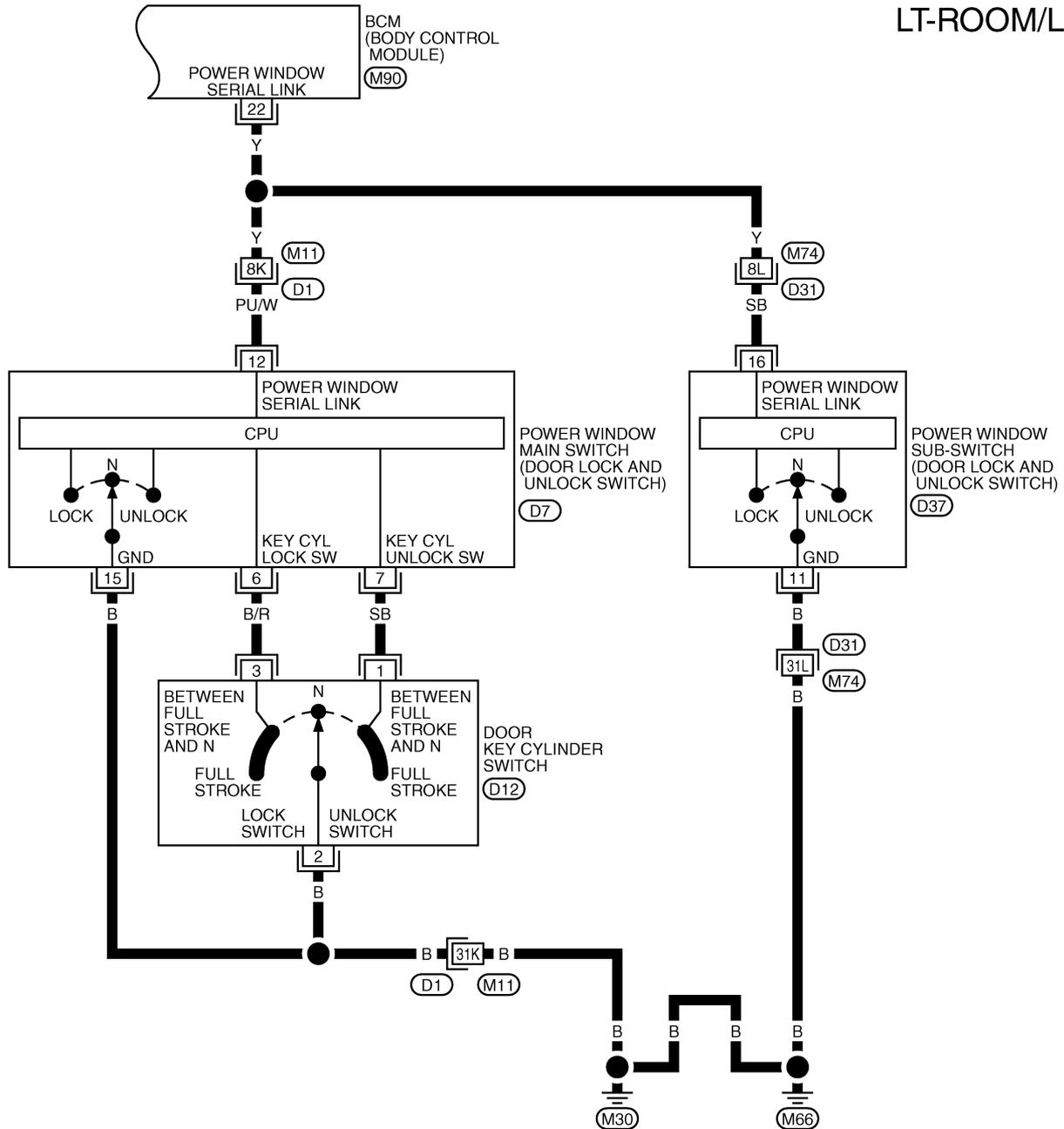
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (B83) -ELECTRICAL UNITS

A
B
C
D
E
F
G
H
I
J
LT
L
M

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-04



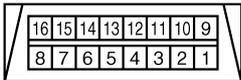
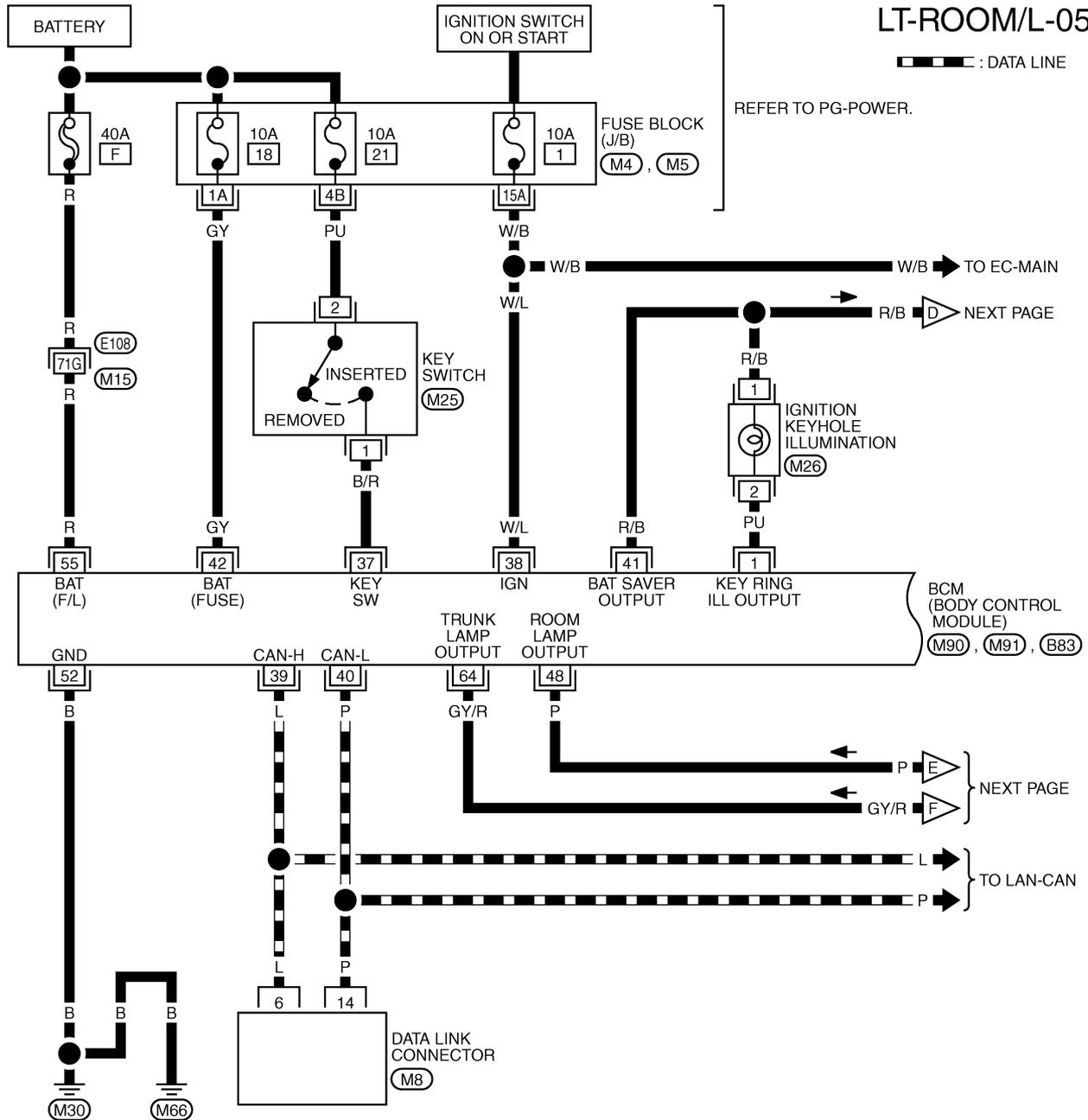
REFER TO THE FOLLOWING.
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90) -ELECTRICAL UNITS

TKWT4053E

INTERIOR ROOM LAMP

[TYPE 1]

ROADSTER MODELS



(M8)
W

(M25)
BR

(M26)
W

REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

(M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)

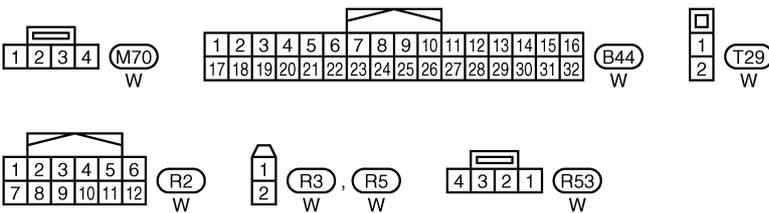
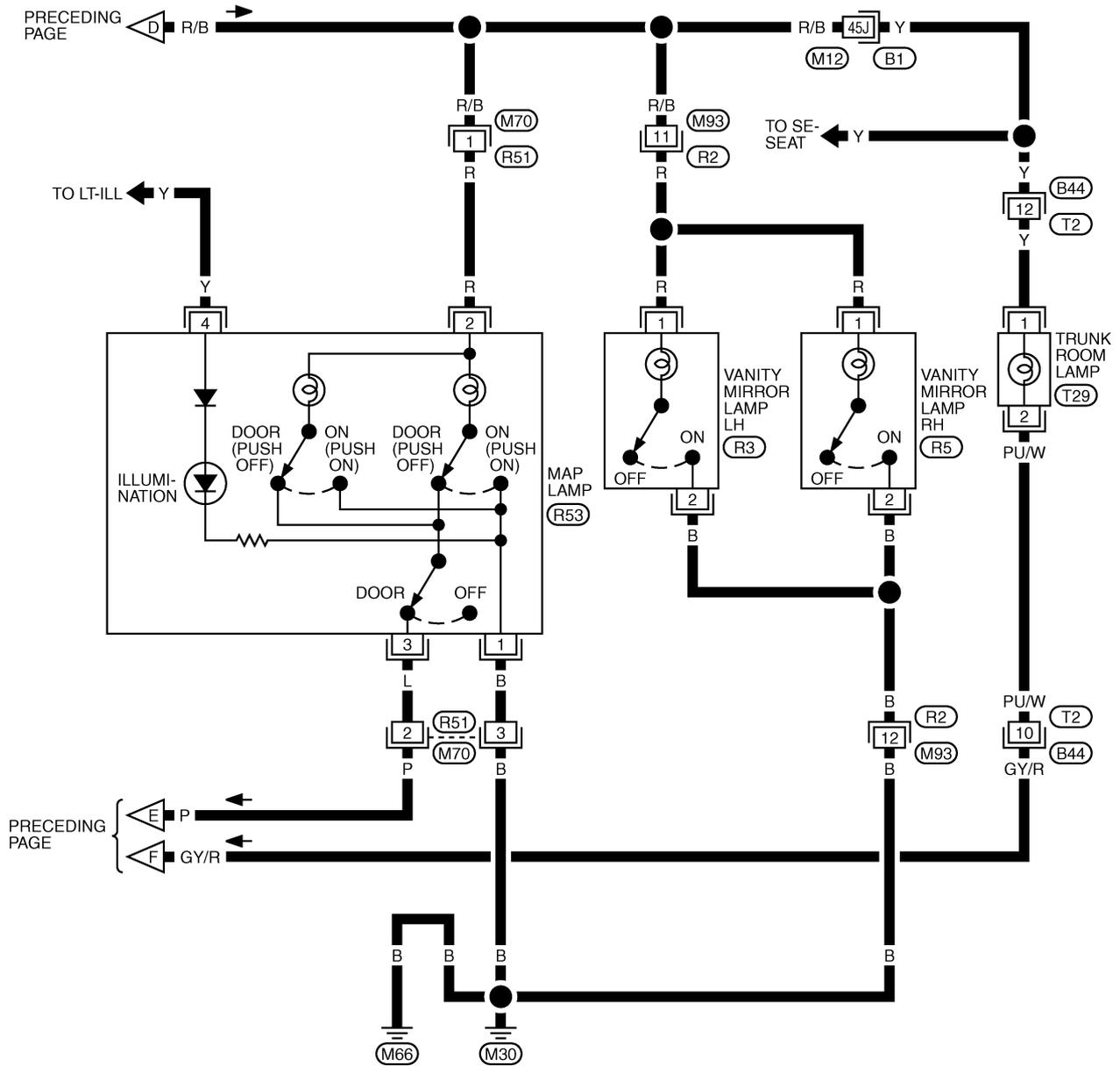
(M90), (M91), (B83)
-ELECTRICAL UNITS

TKWT4054E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-06



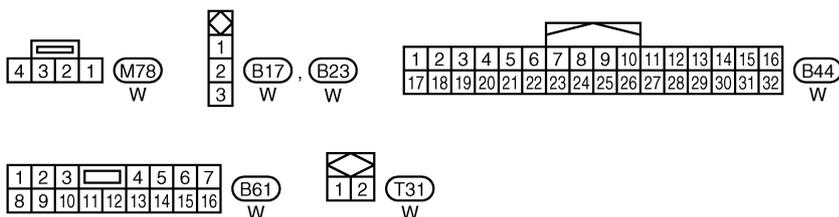
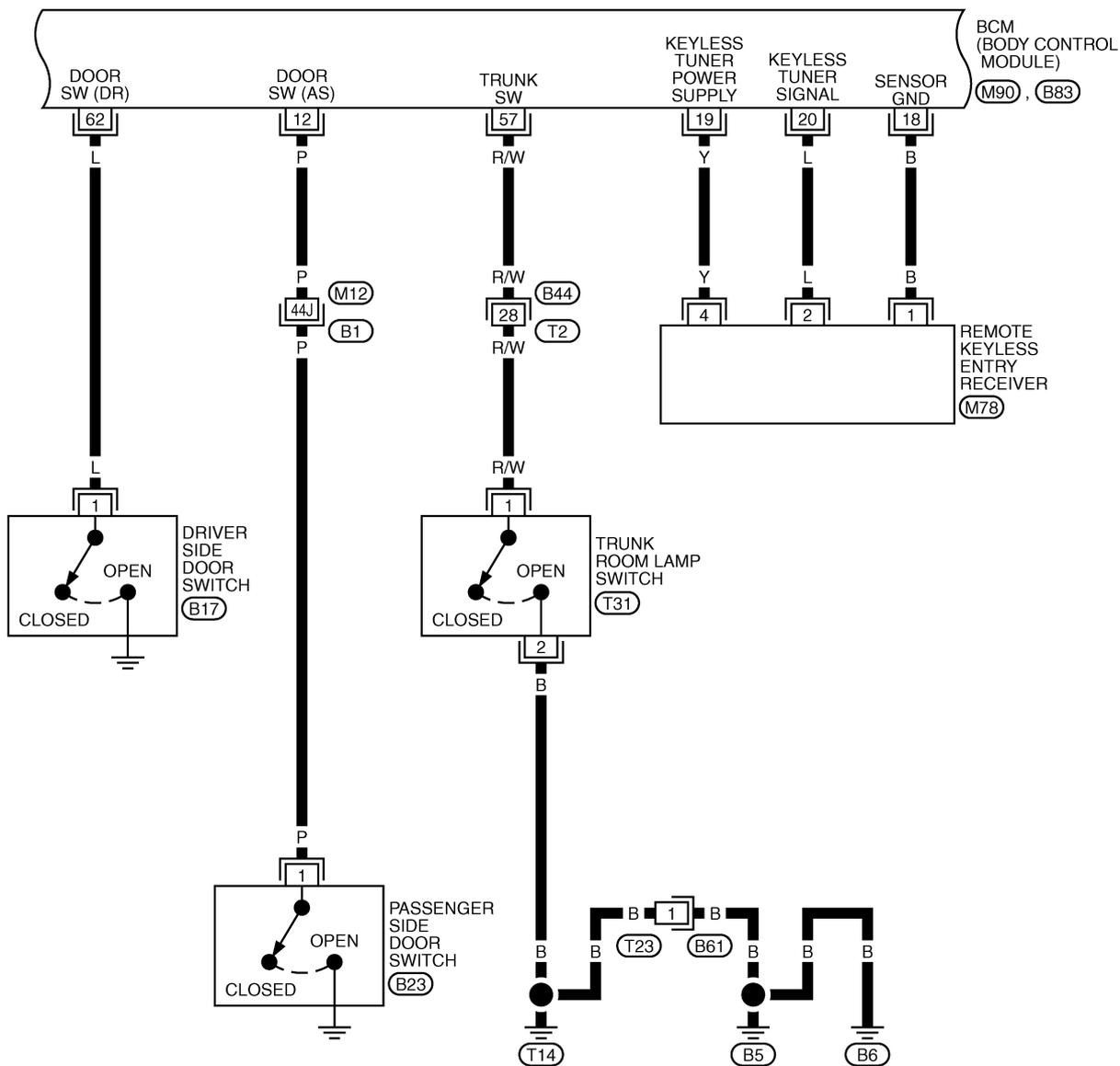
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)

TKWT4055E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-07



REFER TO THE FOLLOWING.

(B1) -SUPER MULTIPLE JUNCTION (SMJ)

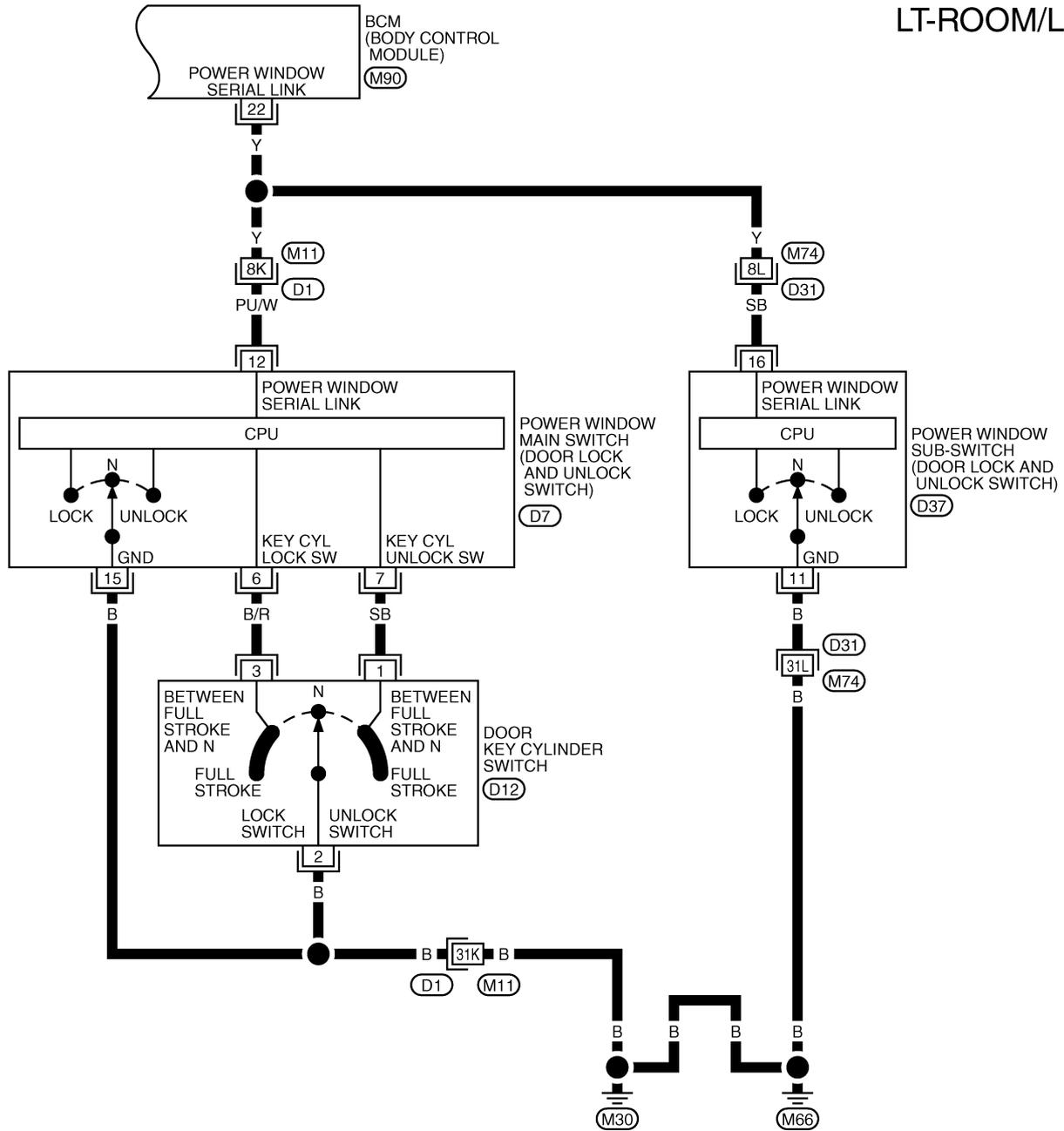
(M90, B83) -ELECTRICAL UNITS

TKWT4056E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-08



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

(D7) (D37) W W

(3 2 1) (D12) BR

REFER TO THE FOLLOWING.

(D1) , (D31) -SUPER MULTIPLE JUNCTION (SMJ)

(M90) -ELECTRICAL UNITS

TKWT4057E

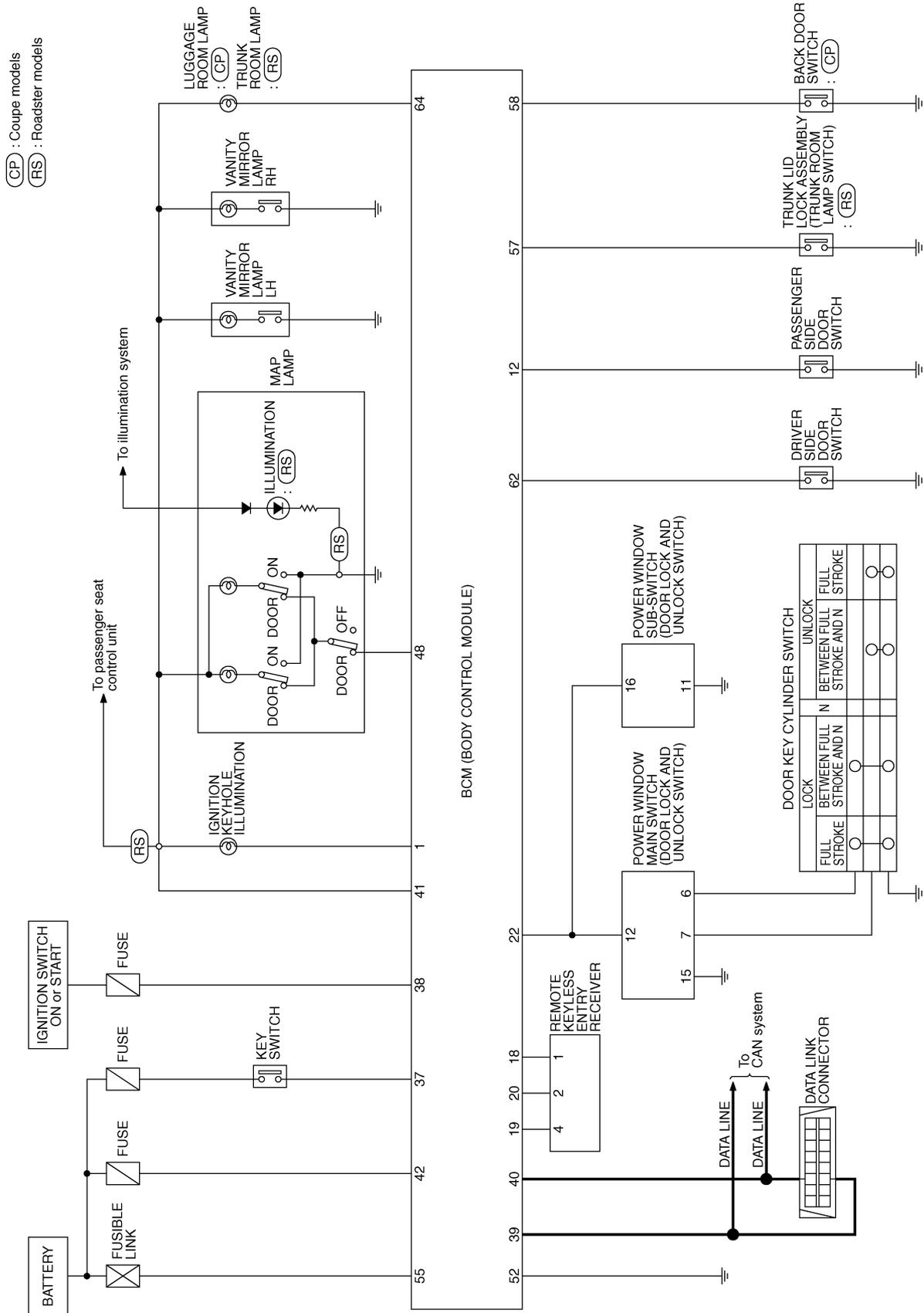
INTERIOR ROOM LAMP

[TYPE 1]

NKS00548

Schematic

From Vehicle Identification Number JN1AZ36D400528 and JN1AZ36A455311



TKWT5587E

A
B
C
D
E
F
G
H
I
J
K
L
M

LT

INTERIOR ROOM LAMP

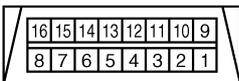
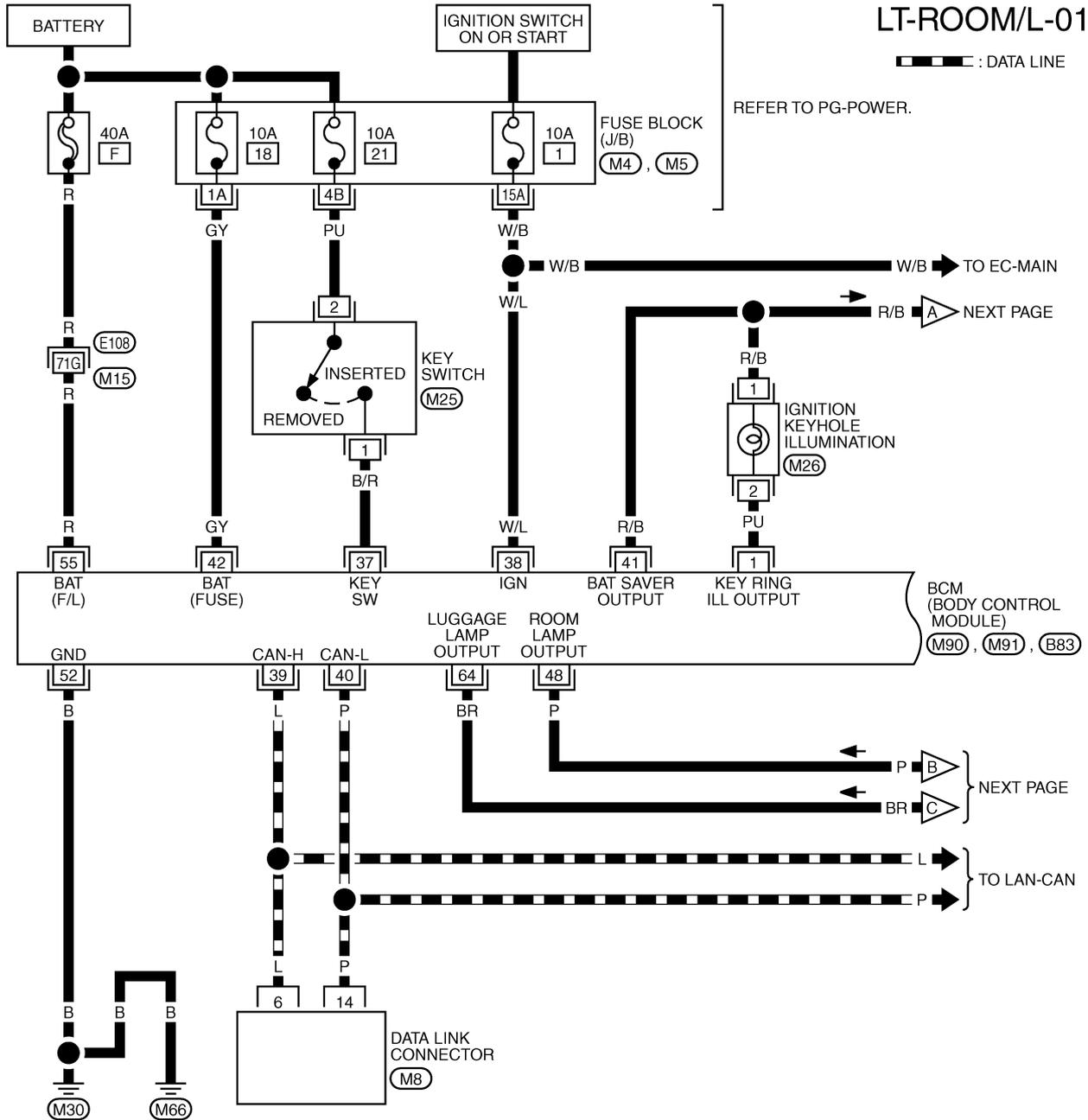
[TYPE 1]

NKS00549

Wiring Diagram — ROOM/L — COUPE MODELS

LT-ROOM/L-01

▬ : DATA LINE



(M8)
W

1 2
(M25)
BR

2 1
(M26)
W

REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

(M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)

(M90), (M91), (B83)
-ELECTRICAL UNITS

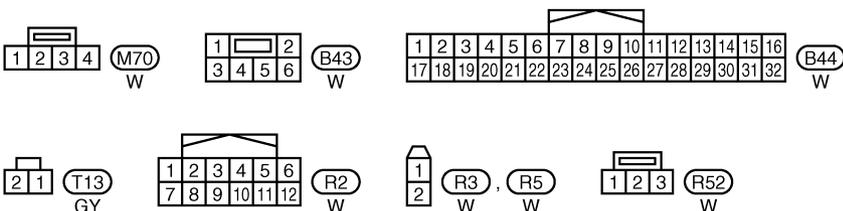
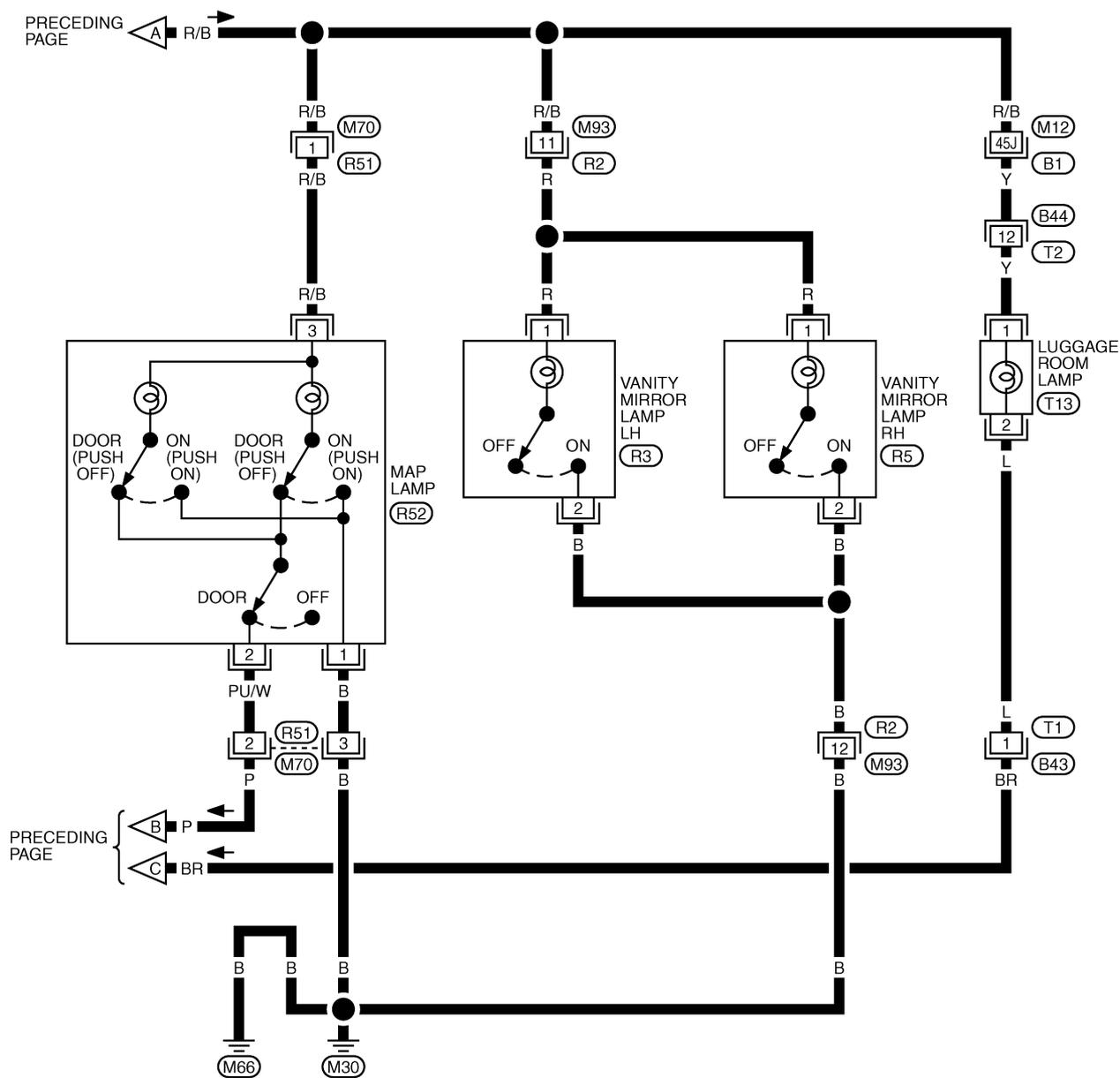
TKWT4050E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-02

A
B
C
D
E
F
G
H
I
J
LT
L
M



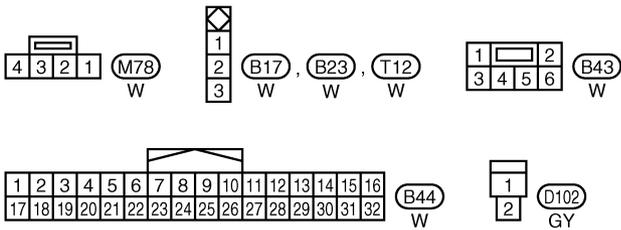
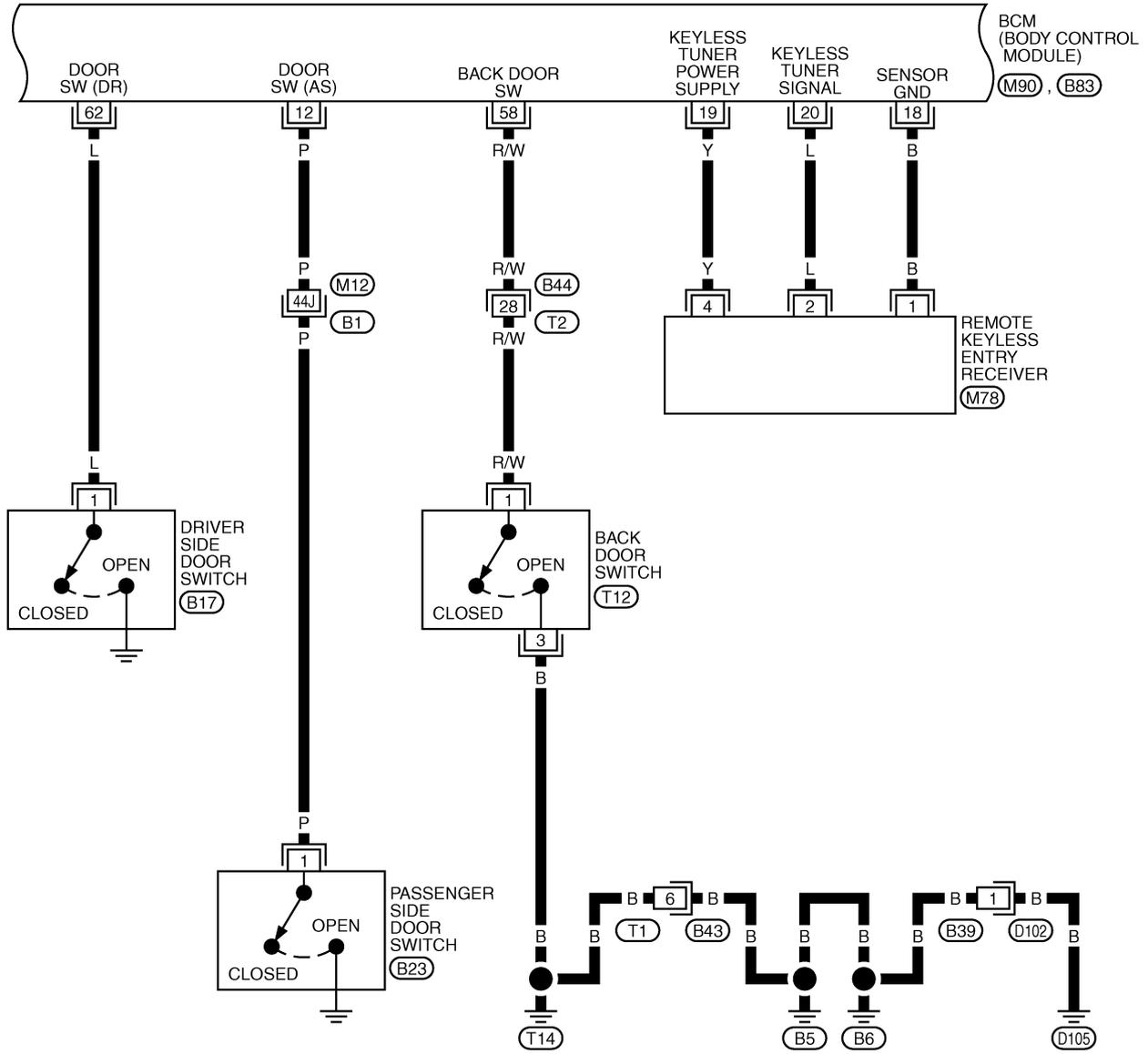
REFER TO THE FOLLOWING.
(B1) -SUPER MULTIPLE JUNCTION (SMJ)

TKWT4051E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-03



REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (B83) -ELECTRICAL UNITS

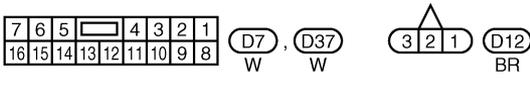
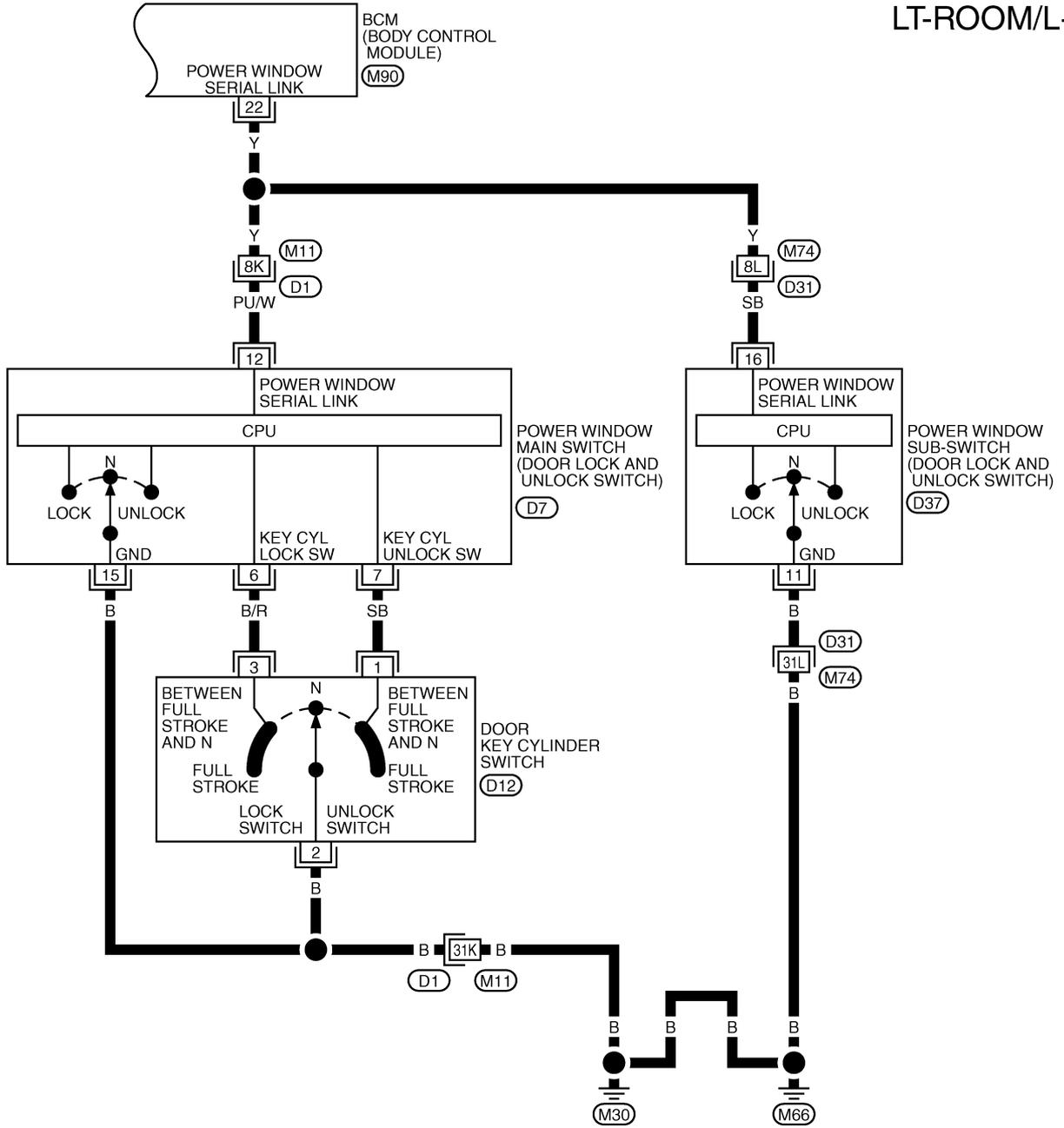
TKWT4052E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-04

A
B
C
D
E
F
G
H
I
J
LT
L
M



REFER TO THE FOLLOWING.
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90) -ELECTRICAL UNITS

TKWT4053E

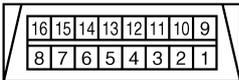
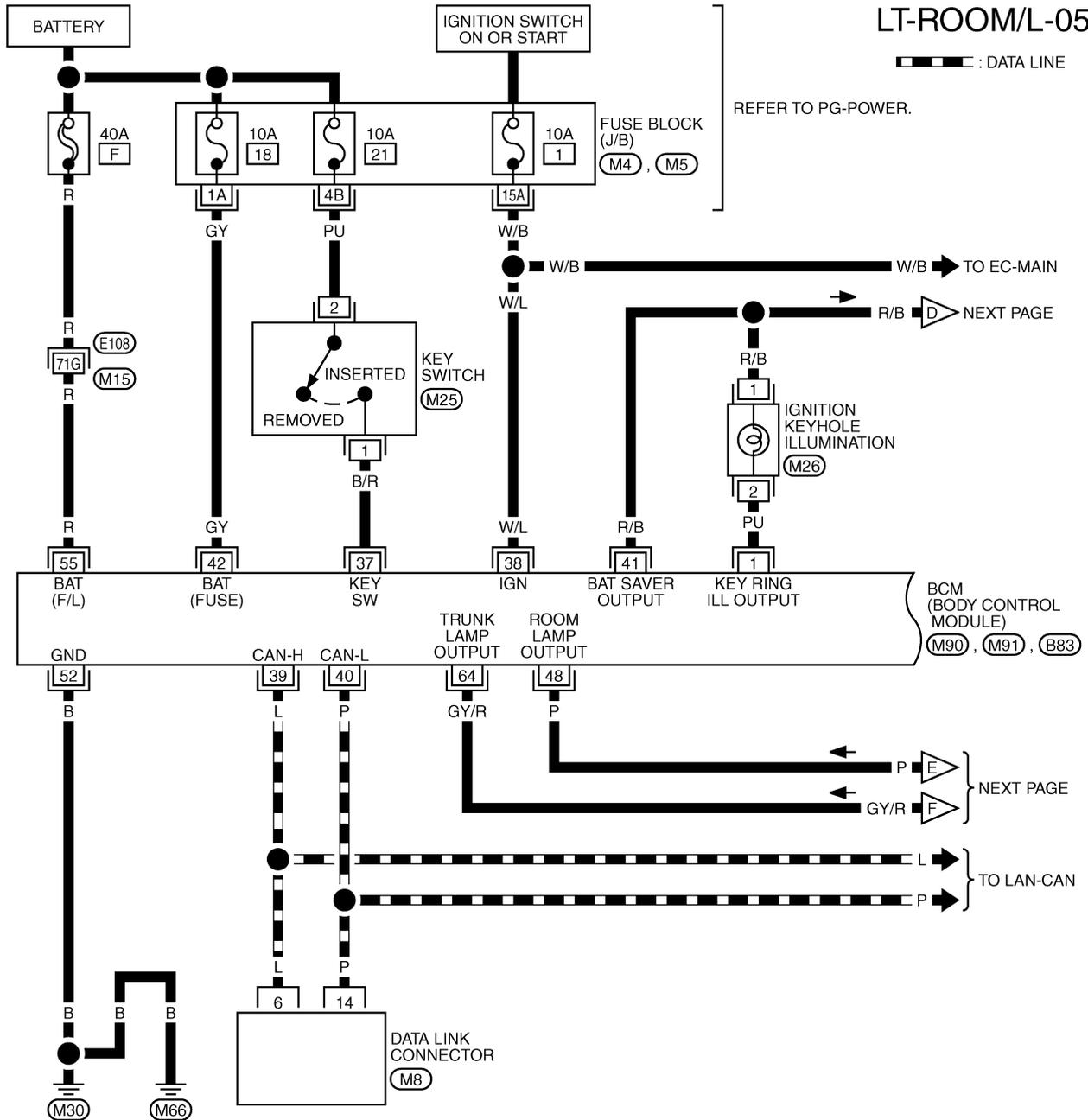
INTERIOR ROOM LAMP

[TYPE 1]

ROADSTER MODELS

LT-ROOM/L-05

▬ : DATA LINE



(M8)
W



(M25)
BR



(M26)
W

REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

(M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)

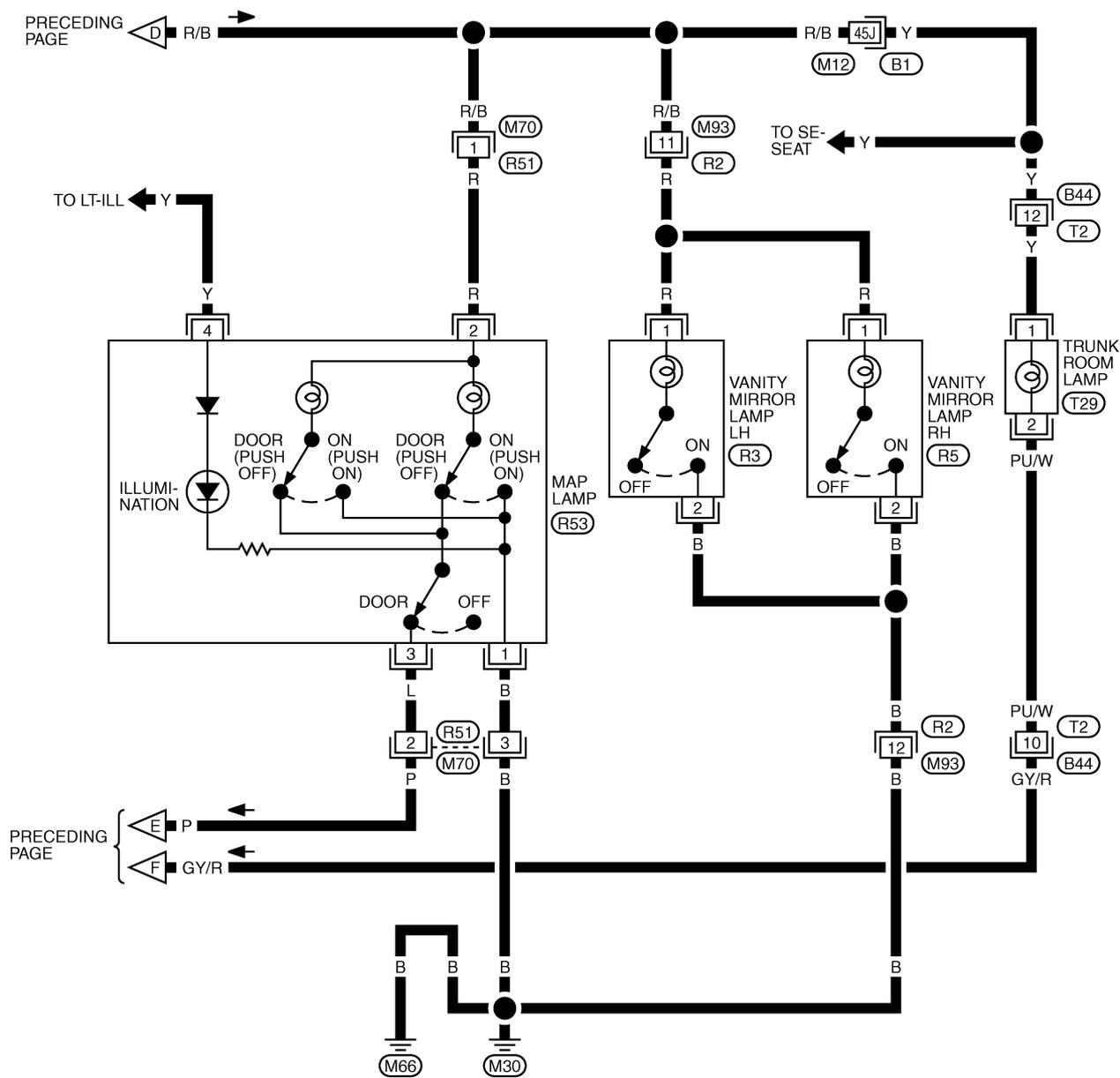
(M90), (M91), (B83)
-ELECTRICAL UNITS

TKWT4054E

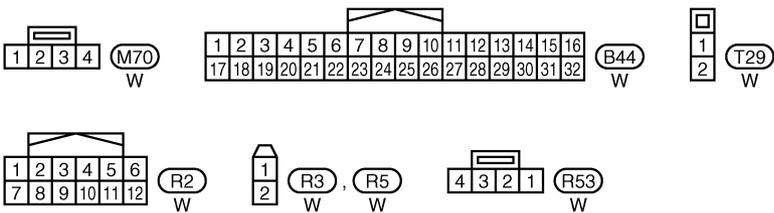
INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-06



A
B
C
D
E
F
G
H
I
J
LT
L
M



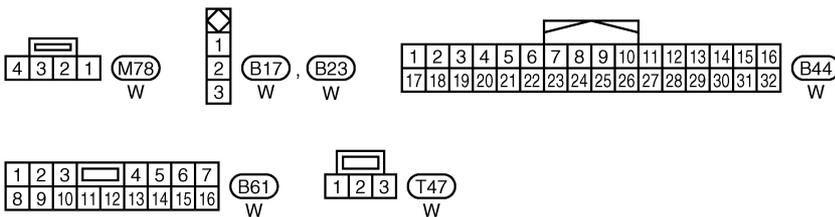
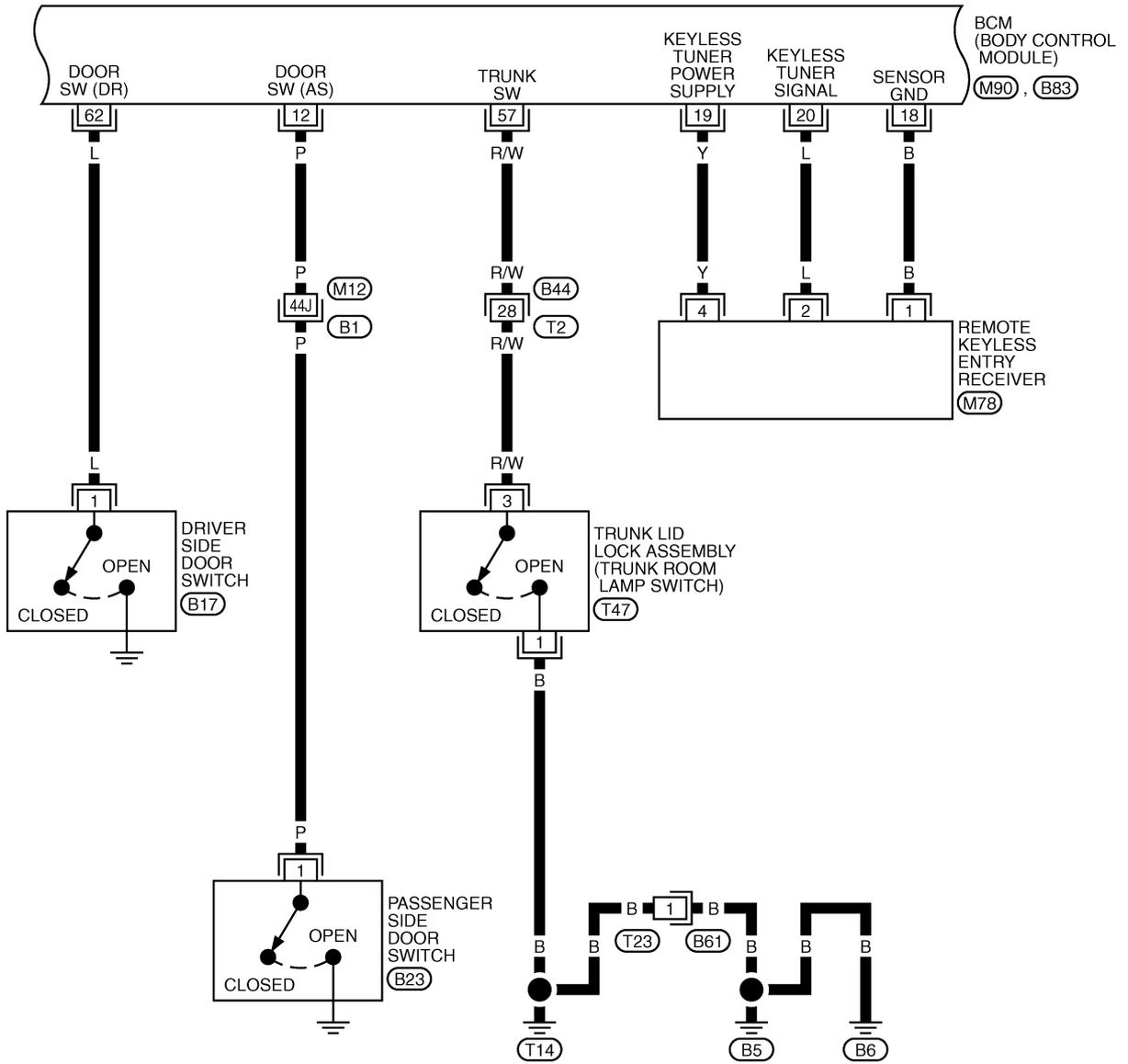
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)

TKWT4055E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-07



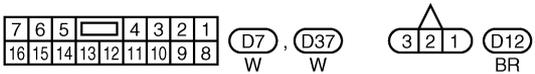
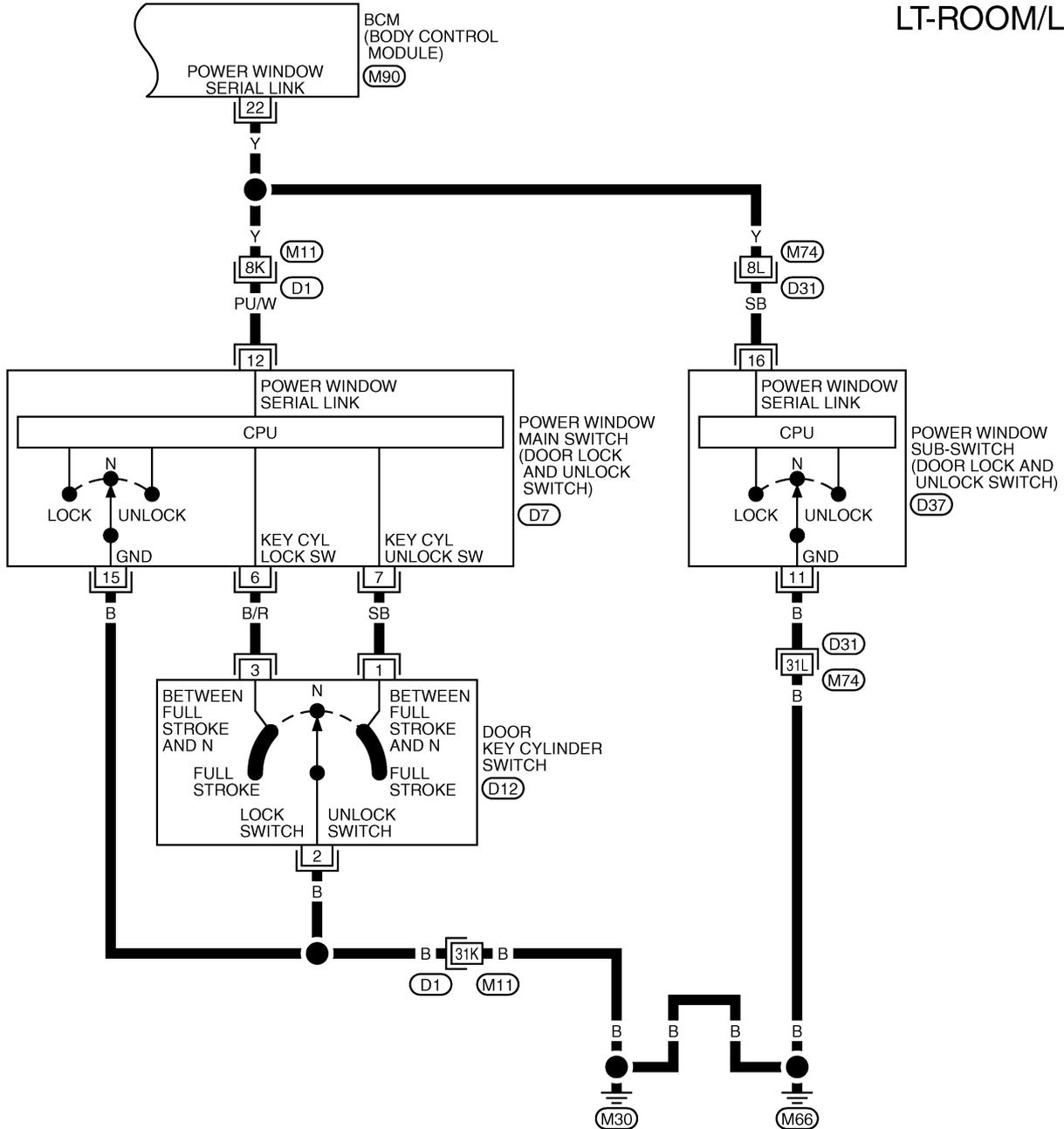
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (B83) -ELECTRICAL UNITS

TKWT5592E

INTERIOR ROOM LAMP

[TYPE 1]

LT-ROOM/L-08



REFER TO THE FOLLOWING.
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90) -ELECTRICAL UNITS

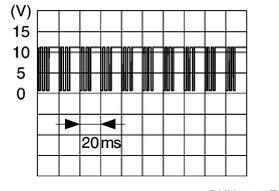
TKWT4057E

INTERIOR ROOM LAMP

[TYPE 1]

Terminals and Reference Values for BCM

NKS00212

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
1	PU	Ignition keyhole illumination signal	OFF	Door is locked. (SW OFF)		Battery voltage
				Door is unlocked. (SW ON)		Approx. 0 V
12	P	Front door switch AS signal	OFF	Front door switch AS	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
22	Y	Power window switch serial link	ON	—		
37	B/R	Key-in detection switch signal	OFF	Vehicle key is removed.		Approx. 0 V
				Vehicle key is inserted.		Battery voltage
38	W/L	Ignition power supply	ON	—		Battery voltage
39	L	CAN – H	—	—		—
40	P	CAN – L	—	—		—
41	R/B	Battery saver output signal	OFF	30 minutes after ignition switch is turned to OFF.		Approx. 0 V
			ON	—		Battery voltage
42	GY	Battery power supply	OFF	—		Battery voltage
48	P	Map lamp output signal	OFF	Map lamp door switch: DOOR position	Any door switch ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
52	B	Ground	ON	—		Approx. 0 V
55	R	Battery power supply	OFF	—		Battery voltage
57*1	R/W	Trunk room lamp switch signal	OFF	Trunk room lamp switch	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
58*2	R/W	Back door switch signal	OFF	Luggage room lamp switch	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
62	L	Front door switch DR signal	OFF	Front door switch DR	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
64	GY/R*1 BR*2	Trunk room lamp*1 or luggage lamp*2 switch signal	OFF	Trunk room lamp*1 or back door*2 switch	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage

*1: Roadster models, *2: Coupe models

How to Proceed with Trouble Diagnosis

NKS00213

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-136. "System Description"](#) .
3. Perform preliminary check. Refer to [LT-159. "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Does interior room lamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
		21
	Ignition switch ON or START position	1

Refer to [LT-141, "Wiring Diagram — ROOM/L —"](#) .

OK or NG

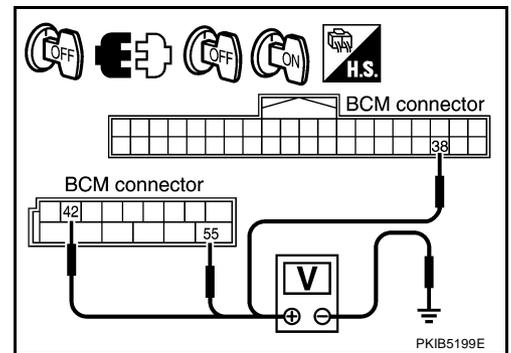
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM connector and ground.

Terminal (+)		(-)	Ignition switch position	
Connector	Terminal		OFF	ON
M90	38	Ground	Approx. 0 V	Battery voltage
			Battery voltage	Battery voltage
M91	42		Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

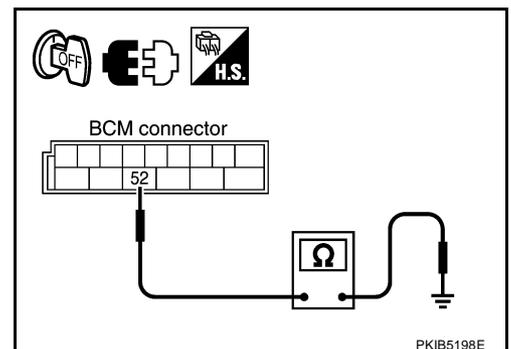
Check continuity between BCM and ground.

Terminal		Ground	Continuity
Connector	Terminal		
M91	52	Ground	Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS00215

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
INT LAMP	WORK SUPPORT	Changes the setting for each function.
	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

WORK SUPPORT

Operation Procedure

1. Touch "INT LAMP" on "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
3. Touch "SET I/L D- UNLCK INTCON" on "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch "CHANGE SETT".
6. The setting will be changed and "CUSTOMIZING COMPLETED " will be displayed.
7. Touch "END".

Display Item List

Item	Description	CONSULT-II
SET I/L D-UNLCK INTCON	The 30 seconds glowing function interior room lamps and ignition keyhole illumination can be selected when driver door is released (unlocked).	ON/OFF
ROOM LAMP ON TIME SET	The time in order to escalate illumination can be adjusted when interior room lamps and ignition keyhole illumination is turned on.	MODE 1 – 7
ROOM LAMP OFF TIME SET	The time in order to diminish illumination can be adjusted when interior room lamps and ignition keyhole illumination is turned off.	MODE 1 – 7

Reference between "MODE" and "TIME" for "TURN ON/OFF"

MODE	1	2	3	4	5	6	7
Time (sec.)	0.5	1	2	3	4	5	0

DATA MONITOR

Operation Procedure

1. Touch "INT LAMP" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW	"ON/OFF" Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from ignition switch signal.
KEY ON SW	"ON/OFF" Displays "Key inserted (ON)/key removed (OFF)" status judged from key switch signal.

INTERIOR ROOM LAMP

[TYPE 1]

Monitor item		Contents
DOOR SW - DR	"ON/OFF"	Displays status of driver door as judged from driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	"ON/OFF"	Displays "Door open (ON)/Door closed (OFF)" status, determined from passenger door switch signal.
DOOR SW - RR ^{NOTE}	"OFF"	—
DOOR SW - RL ^{NOTE}	"OFF"	—
BACK DOOR SW	"ON/OFF"	<ul style="list-style-type: none"> ● Displays status of back door as judged from back door switch signal. (Coupe models) ● Displays status of rear trunk hood as judged from trunk lamp switch signal. (Roadster models)
KEY CYL LK - SW	"ON/OFF"	Displays "Door locked (ON) status, determined from key cylinder lock switch in driver door.
KEY CYL UN - SW	"ON/OFF"	Displays "Door unlocked (OFF) status, determined from key cylinder lock switch in driver door.
CDL LOCK SW	"ON/OFF"	Displays "Door locked (ON)/Door unlocked (OFF) status, determined from locking detection switch in driver door.
CDL UNLOCK SW	"ON/OFF"	Displays "Door unlocked (OFF)" status, determined from locking detection switch in passenger door.
KEYLESS LOCK	"ON/OFF"	Displays "Locked (ON)/Other (OFF)" status, determined from lock signal.
KEYLESS UNLOCK	"ON/OFF"	Displays "Unlocked (ON)/Other (OFF)" status, determined from unlock signal.

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "INT LAMP" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
INT LAMP	Map lamp can be operated by any ON-OFF operations.
IGN ILLUM ^{NOTE}	—
STEM LAMP TEST ^{NOTE}	—
LUGGAGE LAMP TEST	<ul style="list-style-type: none"> ● Luggage room lamp can be operated by any ON-OFF operations. (Coupe models) ● Trunk room lamp can be operated by any ON-OFF operations. (Roadster models)

NOTE:

This item is displayed, but cannot be tested.

Map Lamp Control Does Not Operate (Coupe models)

NKS00216

1. CHECK BETWEEN EACH SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-160, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 2.
- NG >> Inspect malfunctioning switch system.

DATA MONITOR			
MONITOR		NO DTC	
DOOR SW-DR		ON	
DOOR SW-AS		ON	
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7024E

2. CHECK BETWEEN BCM AND MAP LAMP

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. When map lamp switch is in DOOR position, use active test to make sure room lamp operates.

Map lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 3.

ACTIVE TEST			
INT LAMP		ON	
OFF			
MODE	BACK	LIGHT	COPY

PKIA7027E

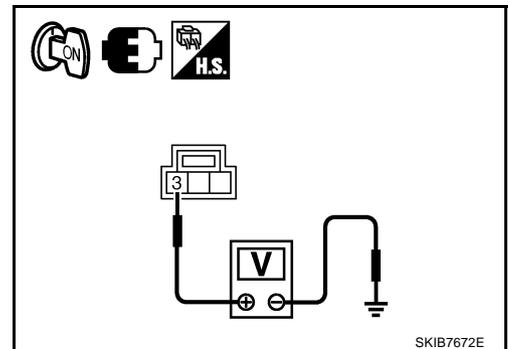
3. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between map lamp harness connector and ground.

Terminal			Voltage
(+)		(-)	
Map lamp connector	Terminal	Ground	Battery voltage
R52	3		

OK or NG

- OK >> GO TO 6.
- NG >> GO TO 4



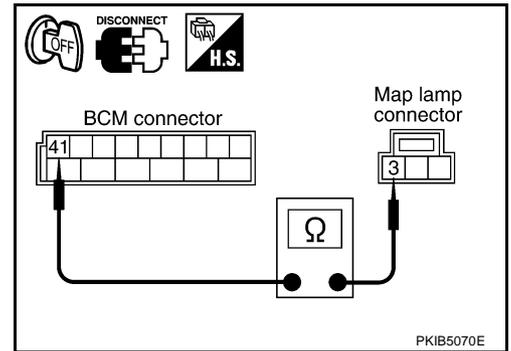
4. CHECK MAP LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and map lamp connector.
3. Check continuity between BCM harness connector and map lamp harness connector.

Terminal				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	41	R52	3	Yes

OK or NO

- OK >> GO TO 5.
- NG >> Repair harness or connector.



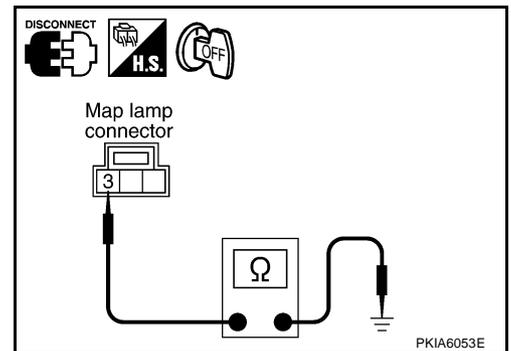
5. CHECK SHORT CIRCUIT

Check continuity between map lamp harness connector and ground.

Terminal			Continuity
Map lamp connector	Terminal	Ground	
R52	3	Ground	No

OK or NG

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.



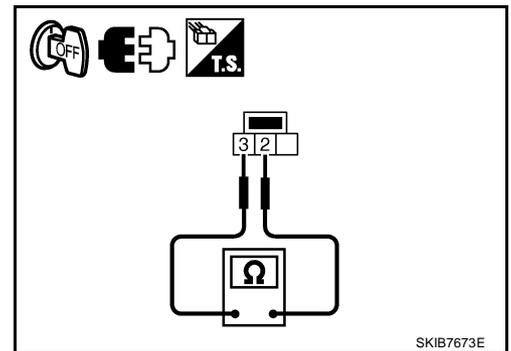
6. CHECK MAP LAMP

1. Turn ignition switch OFF.
2. Disconnect map lamp connector.
3. Check continuity between map lamp.

Terminal		Condition	Continuity
Map lamp			
3	2	Map lamp switch is DOOR.	Yes
3	2	Map lamp switch is OFF.	No

OK or NG

- OK >> GO TO 7.
- NG >> Replace map lamp



A
B
C
D
E
F
G
H
I
J
LT
L
M

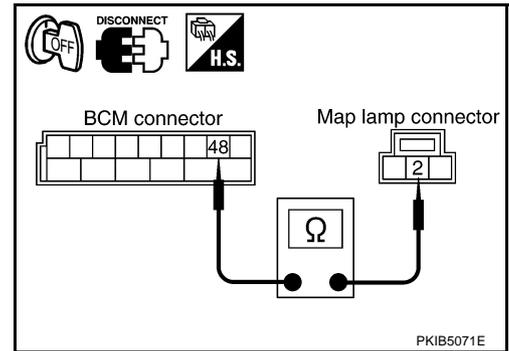
7. CHECK MAP LAMP CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and map lamp harness connector.

Terminal				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	48	R52	2	Yes

OK or NO

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> Repair harness or connector.



Map Lamp Control Does Not Operate (Roadster models)

NKS00217

1. CHECK BETWEEN EACH SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to check that switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-160, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 2.
- NG >> Inspect malfunctioning switch system.

DATA MONITOR			
MONITOR		NO DTC	
DOOR SW-DR	ON		
DOOR SW-AS	ON		
		RECORD	
MODE	BACK	LIGHT	COPY

PKIA7024E

2. CHECK BETWEEN BCM AND MAP LAMP

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. When map lamp switch is in DOOR position, use active test to make sure map lamp operates.

Map lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> GO TO 3.

ACTIVE TEST			
INT LAMP		ON	
		OFF	
MODE	BACK	LIGHT	COPY

PKIA7027E

INTERIOR ROOM LAMP

[TYPE 1]

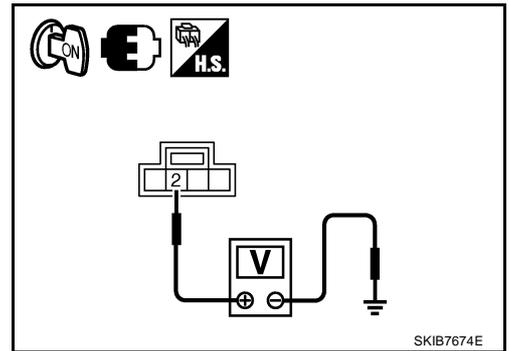
3. CHECK BETWEEN BCM AND MAP LAMP

1. Turn ignition switch ON.
2. Check voltage between map lamp harness connector and ground.

Terminal		Voltage
(+)	(-)	
Map lamp connector	Terminal	Battery voltage
R53	2	

OK or NG

- OK >> GO TO 6.
 NG >> GO TO 4.



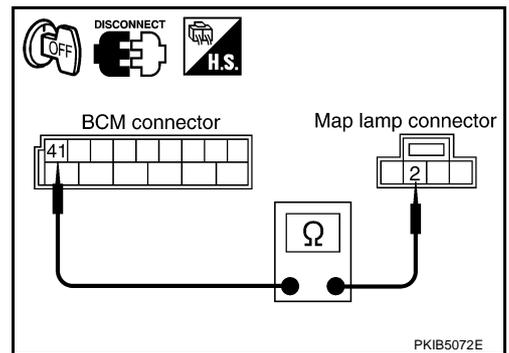
4. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and map lamp connector.
3. Check continuity between BCM harness connector and map lamp harness connector.

Terminal				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	41	R53	2	Yes

OK or NO

- OK >> GO TO 5.
 NG >> Repair harness or connector.



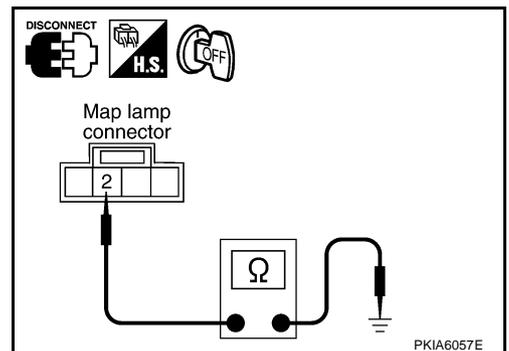
5. CHECK SHORT CIRCUIT

Check continuity between map lamp harness connector and ground.

Terminal		Continuity
Map lamp connector	Terminal	
R53	2	No

OK or NG

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
 NG >> Repair harness or connector.



A
B
C
D
E
F
G
H
I
J
LT
L
M

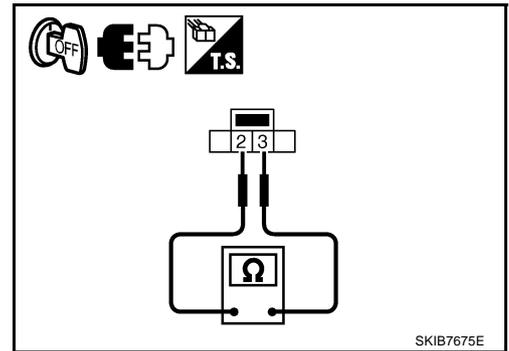
6. CHECK MAP LAMP

1. Turn ignition switch OFF.
2. Disconnect map lamp connector.
3. Check continuity between map lamp.

Terminal		Condition	Continuity
Map lamp			
2	3	Map lamp switch is DOOR.	Yes
		Map lamp switch is OFF.	No

OK or NG

- OK >> GO TO 7.
 NG >> Replace map lamp



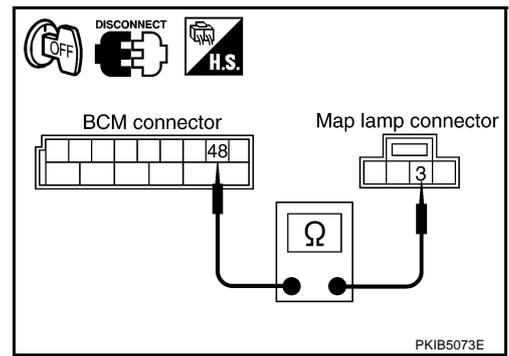
7. CHECK MAP LAMP CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and map lamp harness connector.

Terminal				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	48	R53	3	Yes

OK or NO

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
 NG >> Repair harness or connector.



Ignition Key Hole Illumination Does Not Illuminate

NKS002JL

1. CHECK BULB

Check bulb of lamp which does not operate.

OK or NG

- OK >> GO TO 2.
 NG >> Replace bulb.

2. CHECK EACH SWITCH

Select "BCM" on CONSULT-II. With "INT LAMP" data monitor to make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-160, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 3.
 NG >> Inspect malfunctioning switch system.

DATA MONITOR			
MONITOR			
IGN ON SW		ON	
KEY ON SW		ON	
DOOR SW-DR		ON	
DOOR SW-AS		ON	
DOOR SW-RR		OFF	
DOOR SW-RL		OFF	
BACK DOOR SW		OFF	
KEY CYL LK-SW		OFF	
KEY CYL UN-SW		OFF	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

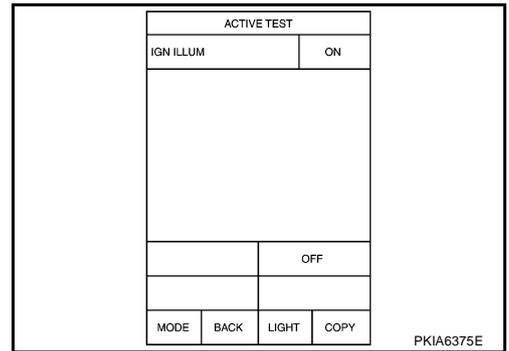
PKIB3532E

3. CHECK WITH ACTIVE TEST

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. Select "IGN ILLUM" active test to make sure lamp operates.

OK or NG

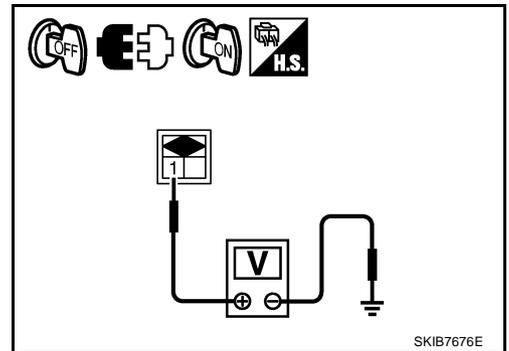
- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 4.



4. CHECK POWER SUPPLY TO IGNITION KEY HOLE ILLUMINATION

1. Turn ignition switch OFF.
2. Disconnect ignition key hole illumination connector.
3. Turn ignition switch ON.
4. Check voltage between ignition key hole illumination harness connector and ground.

Terminal			Voltage
(+)		(-)	
Ignition key hole illumination connector	Terminal	(-)	
M26	1	Ground	Battery voltage



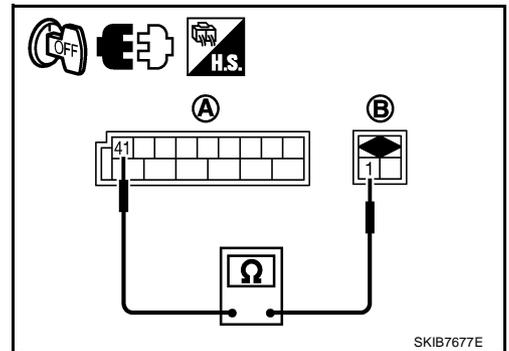
OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.

5. CHECK POWER SUPPLY CIRCUIT FOR IGNITION KEY HOLE ILLUMINATION

1. Turn ignition switch OFF.
2. Disconnect BCM connector and key hole illumination connector.
3. Check continuity between BCM harness connector and ignition key hole illumination harness connector.

Terminal				Continuity
BCM connector		Ignition key hole illumination connector		
Connector	Terminal	Connector	Terminal	
M91	41	M26	1	Yes



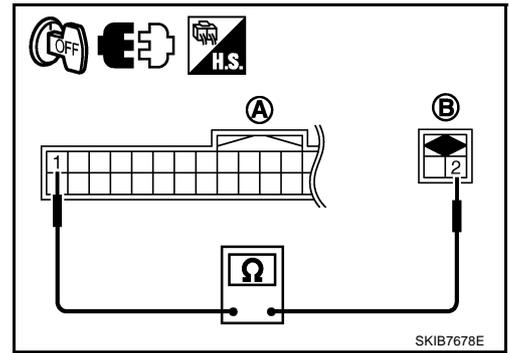
OK or NG

- OK >> Replace BCM if ignition key hole illumination does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.

6. CHECK GROUND CIRCUIT FOR IGNITION KEY HOLE ILLUMINATION

1. Turn ignition switch OFF.
2. Disconnect BCM connector and key hole illumination connector.
3. Check continuity between BCM harness connector and ignition key hole illumination harness connector.

Terminal				Continuity
BCM connector		Ignition key hole illumination connector		
Connector	Terminal	Connector	Terminal	
M90	1	M26	2	Yes



OK or NG

- OK >> Replace BCM if ignition key hole illumination does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.

Luggage Room Lamp Does Not Illuminate (Coupe Models)

NKS00218

1. CHECK BULB

Inspect bulb of luggage room lamp.

OK or NG

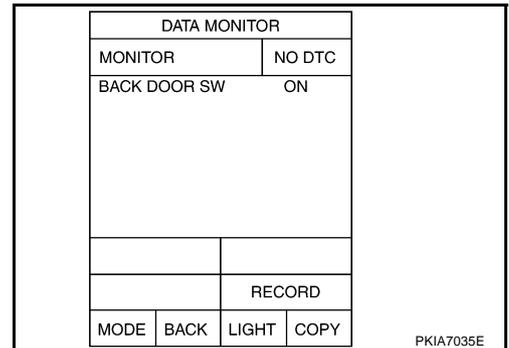
- OK >> GO TO 2.
- NG >> Replace bulb of luggage room lamp.

2. CHECK BETWEEN BACK DOOR SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-160, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 3.
- NG >> Inspect malfunctioning switch system.



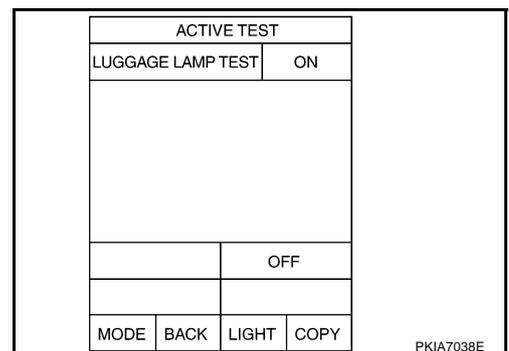
3. CHECK BETWEEN BCM AND LUGGAGE ROOM LAMP

1. Select "BCM" on CONSULT-II. Select "LUGGAGE LAMP TEST" active test.
2. Make sure luggage room lamp operates.

Luggage room lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 4.



INTERIOR ROOM LAMP

[TYPE 1]

4. CHECK POWER SUPPLY CIRCUIT

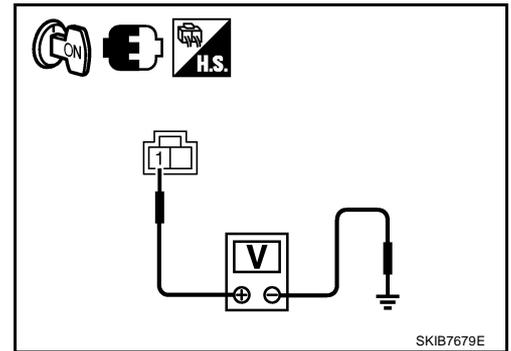
1. Turn ignition switch ON.
2. Check voltage between luggage room lamp harness connector and ground.

Terminal			Voltage
(+)		(-)	
Luggage room lamp connector	Terminal		
T13	1	Ground	Battery voltage

OK or NG

OK >> GO TO 7.

NG >> GO TO 5.



5. CHECK LUGGAGE ROOM LAMP CIRCUIT

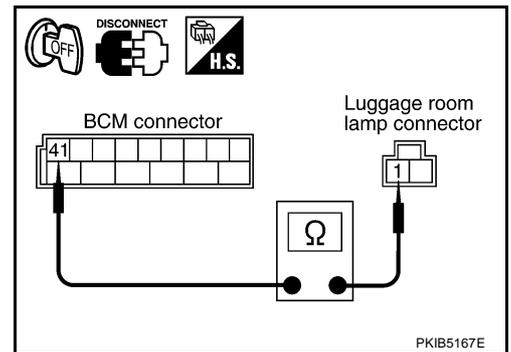
1. Turn ignition switch OFF.
2. Disconnect BCM connector and luggage room lamp connector.
3. Check continuity between BCM harness connector and luggage room lamp harness connector.

Terminal				Continuity
BCM		Luggage room lamp		
Connector	Terminal	Connector	Terminal	
M91	41	T13	1	Yes

OK or NO

OK >> GO TO 6.

NG >> Repair harness or connector.



6. CHECK SHORT CIRCUIT

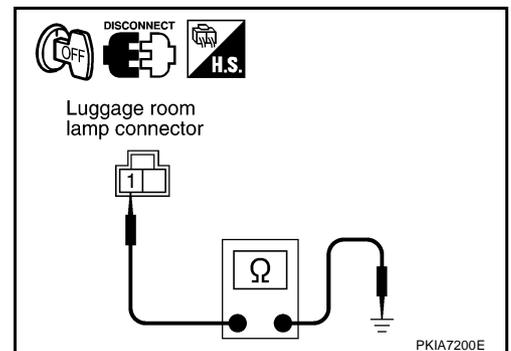
Check continuity between luggage room lamp harness connector and ground.

Terminal			Continuity
Luggage room lamp connector	Terminal	Ground	
T13	1		No

OK or NG

OK >> Replace BCM if luggage room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).

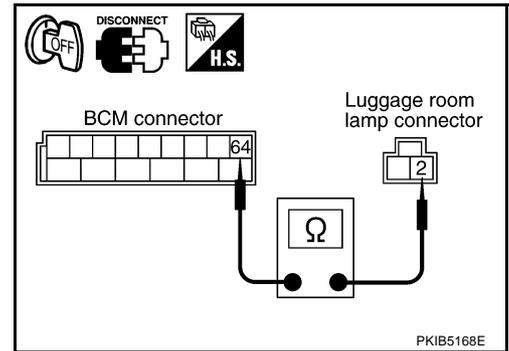
NG >> Repair harness or connector.



7. CHECK LUGGAGE ROOM LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and luggage room lamp harness connector.

Terminal				Continuity
BCM		Luggage room lamp		
Connector	Terminal	Connector	Terminal	
B83	64	T13	2	Yes



OK or NO

- OK >> Replace BCM if luggage room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.

Trunk Room Lamp Does Not Illuminate (Roadster Models)

NKS00219

1. CHECK BULB

Inspect bulb of trunk room lamp.

OK or NG

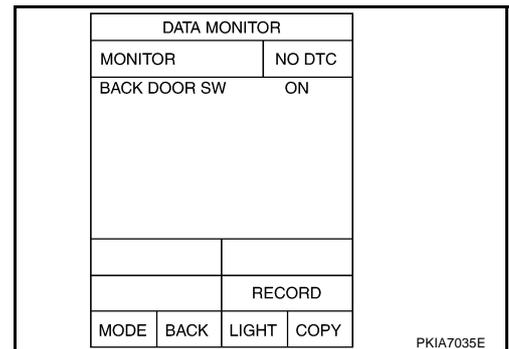
- OK >> GO TO 2.
- NG >> Replace map lamp

2. CHECK BETWEEN BACK DOOR SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to check that switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-160, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 3.
- NG >> Inspect malfunctioning switch system.



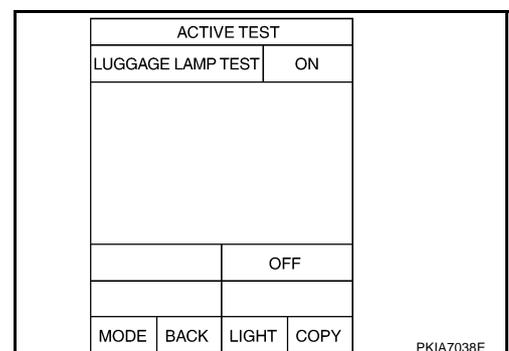
3. CHECK BETWEEN BCM AND TRUNK ROOM LAMP

1. Select "BCM" on CONSULT-II. Select "LUGGAGE LAMP TEST" active test.
2. Make sure trunk room lamp operates.

Trunk room lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 4.



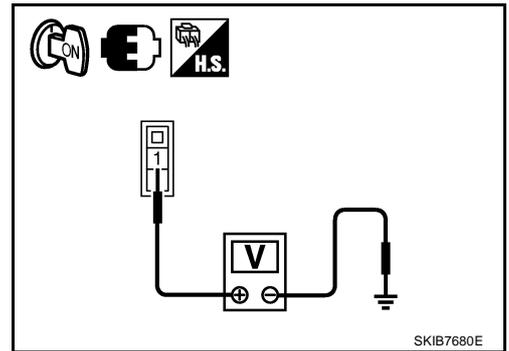
4. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between trunk room lamp harness connector and ground.

Terminal (+)		Terminal (-)	Voltage
Trunk room lamp connector	Terminal		
T29	1	Ground	Battery voltage

OK or NG

- OK >> GO TO 7.
- NG >> GO TO 5.



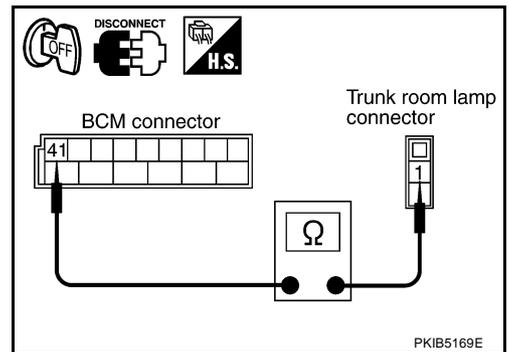
5. CHECK TRUNK ROOM LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and trunk room lamp connector.
3. Check continuity between BCM harness connector and trunk room lamp harness connector.

Terminal				Continuity
BCM		Trunk lamp		
Connector	Terminal	Connector	Terminal	
M91	41	T29	1	Yes

OK or NO

- OK >> GO TO 6.
- NG >> Repair harness or connector.



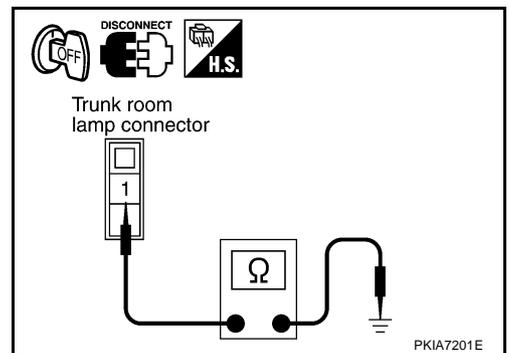
6. CHECK SHORT CIRCUIT

Check continuity between trunk room lamp harness connector and ground.

Terminal		Ground	Continuity
Trunk room lamp connector	Terminal		
T29	1		No

OK or NG

- OK >> Replace BCM if trunk room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.



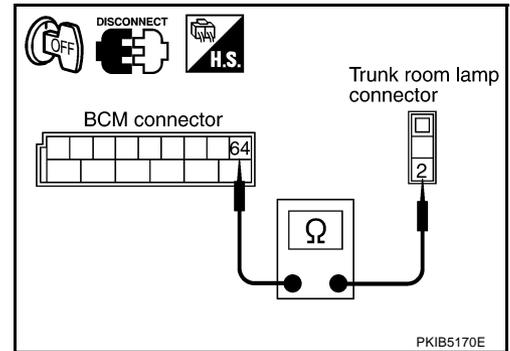
7. CHECK TRUNK ROOM LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and trunk room lamp harness connector.

Terminal				Continuity
BCM		Trunk room lamp		
Connector	Terminal	Connector	Terminal	
B83	64	T29	2	Yes

OK or NO

- OK >> Replace BCM if trunk room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> Repair harness or connector.



Bulb Replacement MAP LAMP

NKS005F

Coupe Models

1. Open driver and passenger window, and then disconnect battery cable from the negative terminal.

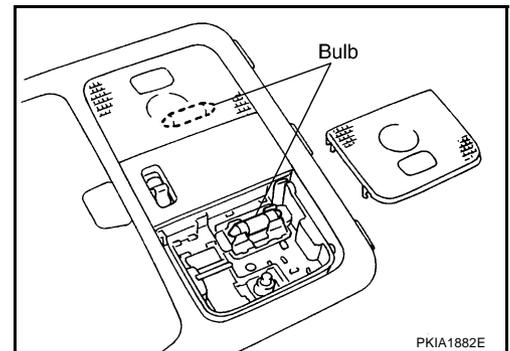
CAUTION:

After battery cables are disconnected, never open/close driver and/or passenger door with the window in the full up position. Automatic window adjusting function will not work and side roof panel may be damaged.

2. Remove lens using clip driver or suitable tool.
3. Remove bulb.

Map lamp : 12V - 8W

4. Installation is the reverse order of removal.



Roadster Models

1. Open driver and passenger window, and then disconnect battery cable from the negative terminal.

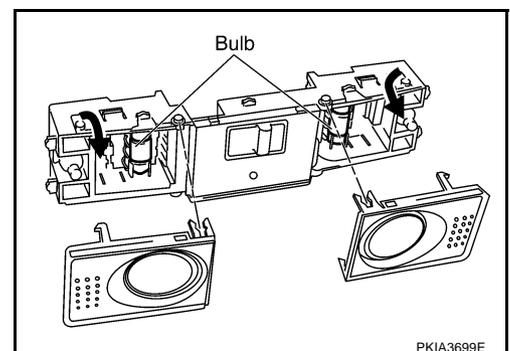
CAUTION:

After battery cables are disconnected, never open/close driver and/or passenger door with the window in the full up position. Automatic window adjusting function will not work and side roof panel may be damaged.

2. Remove lens using clip driver or suitable tool.
3. Remove bulb.

Map lamp : 12V - 8W

4. Installation is the reverse order of removal.

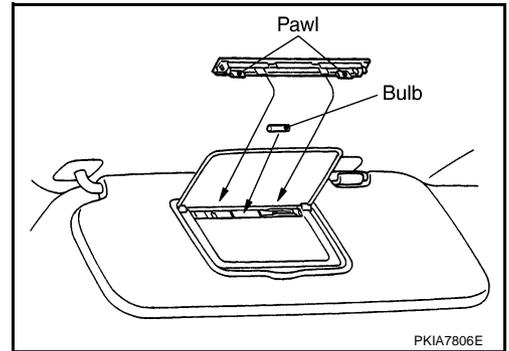


VANITY MIRROR LAMP

1. Insert a thin screwdriver in the lens end and remove lens.
2. Remove bulb.

Vanity mirror lamp : 12V - 1.32W

3. Installation is the reverse order of removal.



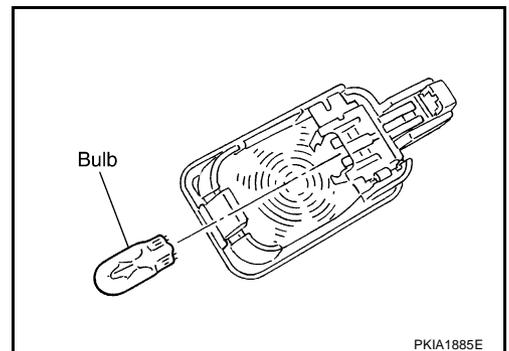
LUGGAGE ROOM LAMP & TRUNK ROOM LAMP

Luggage Room Lamp (Coupe Models)

1. Remove luggage room lamp. Refer to [LT-174, "Removal and Installation"](#).
2. Remove bulb.

Luggage room lamp : 12V - 5W

3. Installation is the reverse order of removal.

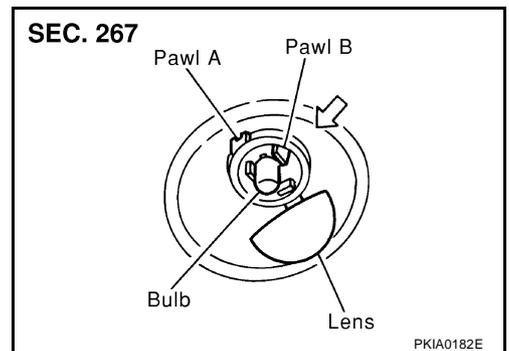


Trunk Room Lamp (Roadster Models)

1. Unfold pawl A and remove lens.
2. Remove trunk room lamp while pressing pawl B in the direction of the arrow.
3. Disconnect trunk room lamp connector.

Trunk room lamp : 12V - 3.4W

4. Installation is the reverse order of removal.

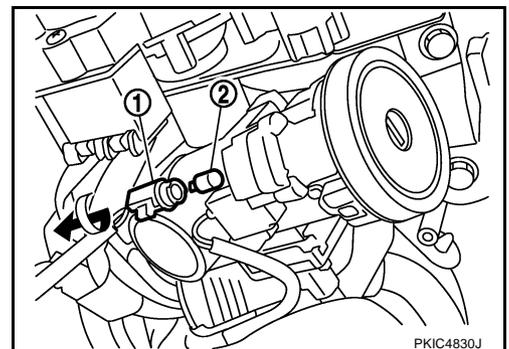


IGNITION KEY HOLE ILLUMINATION

1. Remove instrument lower driver panel. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Turn bulb socket to left to release lock and remove bulb socket (1).
3. Remove ignition key illumination bulb (2) from its socket.

Ignition key hole illumination : 12V - 1.4W

4. Installation is the reverse order of removal.

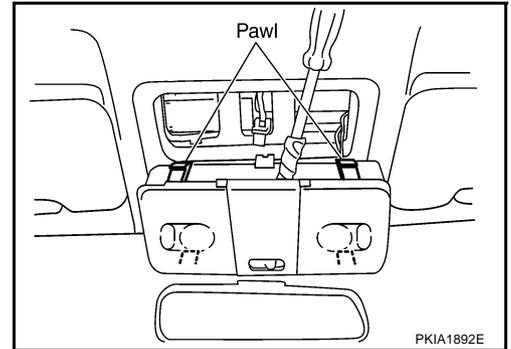


Removal and Installation

MAP LAMP

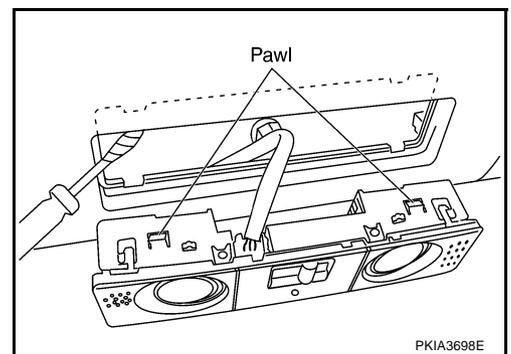
Coupe Models

1. Insert a clip driver or suitable tool and disengage pawl fittings of map lamp.
2. Disconnect map lamp connector and remove map lamp.
3. Installation is the reverse order of removal.



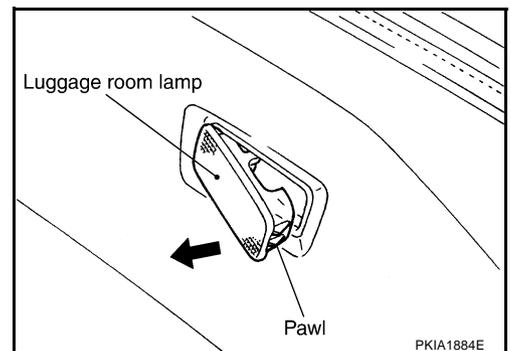
Roadster Models

1. Insert a clip driver or suitable tool and disengage pawl fittings of map lamp.
2. Disconnect map lamp connector and remove map lamp.
3. Installation is the reverse order of removal.



LUGGAGE ROOM LAMP

1. Pull out luggage room lamp in direction shown by the arrow in the figure.
2. Disconnect luggage room lamp connector.
3. Installation is the reverse order of removal.



ILLUMINATION

PFP:27545

System Description

NKS0005H

Control of the illumination lamp operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST or 2ND position, the BCM (body control module) receives input signal requesting illumination lamps to illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) through the CAN communication lines. The CPU (central processing unit) located in the IPDM E/R controls tail lamp relay coil. This relay, when energized, directs power to illumination lamps, which then illuminate.

OUT LINE

Power is supplied at all times

- through 10A fuse (No.71, located in IPDM E/R)
- to tail lamp relay, located in IPDM E/R, and
- to CPU located in IPDM E/R,
- through 15A fuse (No.78, located in IPDM E/R)
- to CPU located in IPDM E/R.

Power is also supplied at all times

- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 10A fuse [No.19, located in fuse block (J/B)]
- to unified meter and A/C amp. terminal 21,
- through 10A fuse [No.19, located in fuse block (J/B)]
- to combination meter terminal 24.

With ignition switch in the ON or START position, power is supplied

- to CPU located in IPDM E/R,
- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No.12, located in fuse block (J/B)]
- to unified meter and A/C amp. terminal 22, and
- to NAVI control unit terminal 63 (With navigation system),
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

With ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No.6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and F152,
- to unified meter and A/C amp. terminals 29 and 30
- through grounds M30 and M66,
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66,
- to NAVI control unit terminals 1 (With navigation system)
- through ground B102 (With navigation system).

A
B
C
D
E
F
G
H
I
J
LT
L
M

ILLUMINATION OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position, the BCM receives input signal requesting illumination lamps to illuminate. This input signal is communicated to the IPDM E/R through the CAN communication lines. CPU located in the IPDM E/R controls tail lamp relay coil, which, when energized, directs power

- through IPDM E/R terminal 22
- to NAVI control unit terminal 61 (With navigation system)
- to NAVI switch terminal 2 (With navigation system)
- to audio unit terminal 8
- to combination switch (spiral cable) terminal 26
- to soft top switch (illumination) terminal 5 (Roadster model)
- to A/T device (A/T illumination) terminal 3 (With A/T)
- to VDC off switch (illumination) terminal 3 (With VDC)
- to TCS off switch (illumination) terminal 3 (With TCS)
- to map lamp (illumination) terminal 4 (Roadster models)
- to hazard switch (illumination) terminal 3
- to heated seat switch (driver side) (illumination) terminal 5 (With heated seat)
- to heated seat switch (passenger side) (illumination) terminal 5 (With heated seat)
- to bottle holder illumination (driver side) terminal 1
- to bottle holder illumination (passenger side) terminal 1
- to cup holder illumination terminal 1
- to luggage floor box lamp terminal 1.

Ground is supplied at all times

- to NAVI control unit terminal 1 (With navigation system)
- through ground B102,
- to NAVI switch terminal 3 (With navigation system)
- to audio unit terminal 7
- to combination switch (spiral cable) terminal 27
- to soft top switch (illumination) terminal 6 (Roadster model)
- to A/T device (A/T illumination) terminal 5 (With A/T)
- to VDC off switch (illumination) terminal 4 (With VDC)
- to TCS off switch (illumination) terminal 4 (With TCS)
- to hazard switch (illumination) terminal 4
- to heated seat switch (driver side) (illumination) terminal 6 (With heated seat)
- to heated seat switch (passenger side) (illumination) terminal 6 (With heated seat)
- to bottle holder illumination (driver side) terminal 2 and
- to bottle holder illumination (passenger side) terminal 2
- through combination meter terminal 18,
- to map lamp (illumination) terminal 1 (Roadster models)
- to cup holder illumination terminal 2
- through grounds M30 and M66,
- to luggage floor box lamp terminal 1.
- through grounds B5, B6, D105 and T14 (Coupe model)
- through grounds B5, B6 and T14 (Roadster model),

With power and ground supplied, illumination lamps illuminate.

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 1ST or 2ND position, and the ignition switch is turned from ON or ACC to OFF, battery saver control function is activated.

Under this condition, the illumination lamps remain illuminated for 5 minutes, then illumination lamps are turned off.

When the lighting switch is turned from OFF to 1ST or 2ND position after illumination lamps are turned off by battery saver control, and illumination lamps illuminate again.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

CAN Communication System Description

NKS0005I

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS0005J

Refer to [LAN-48, "CAN System Specification Chart"](#) .

A

B

C

D

E

F

G

H

I

J

LT

L

M

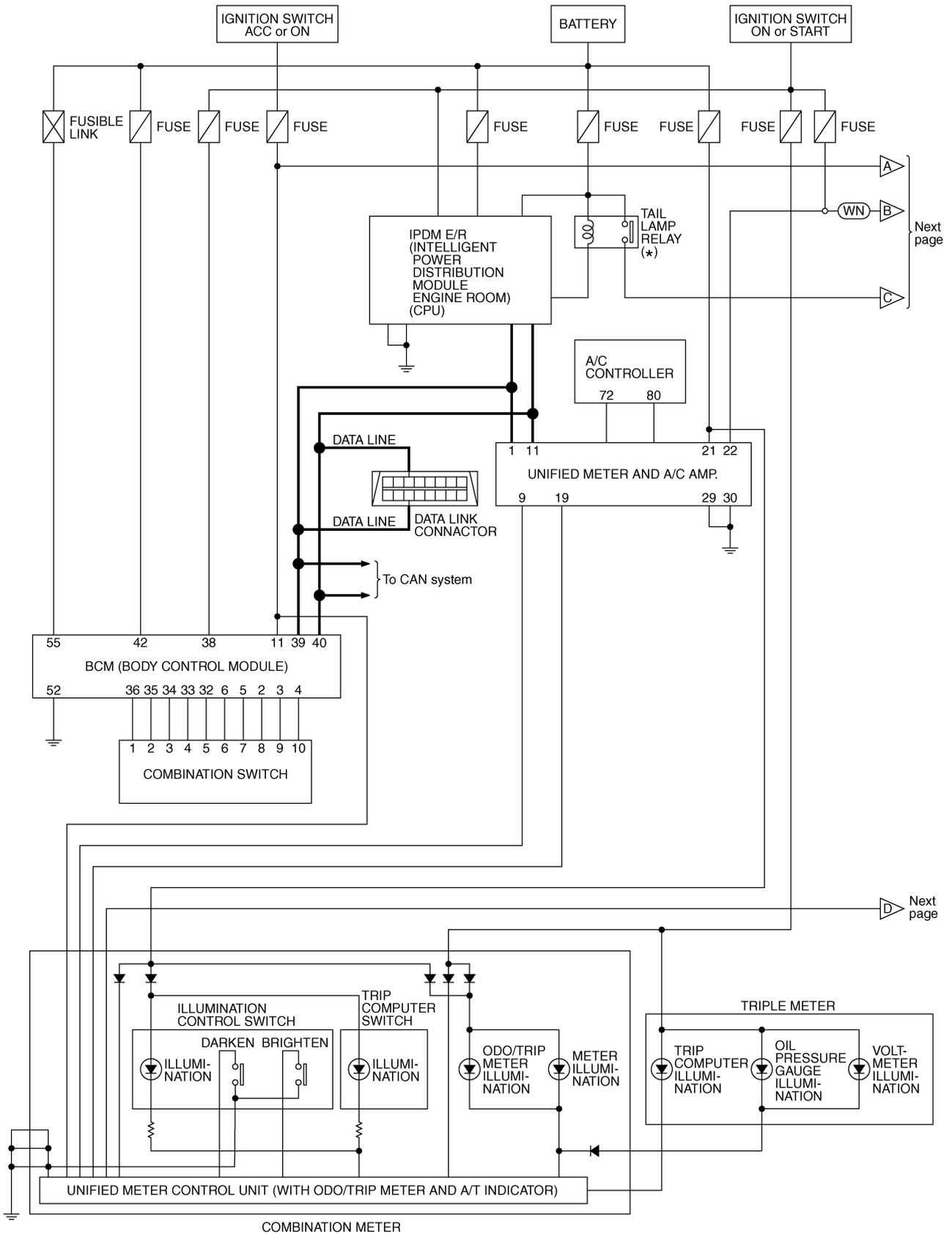
ILLUMINATION

[TYPE 1]

Schematic

NKS0005K

(WN) : With navigation system * : This relay is built into the IPDM E/R (Intelligent power distribution module engine room).

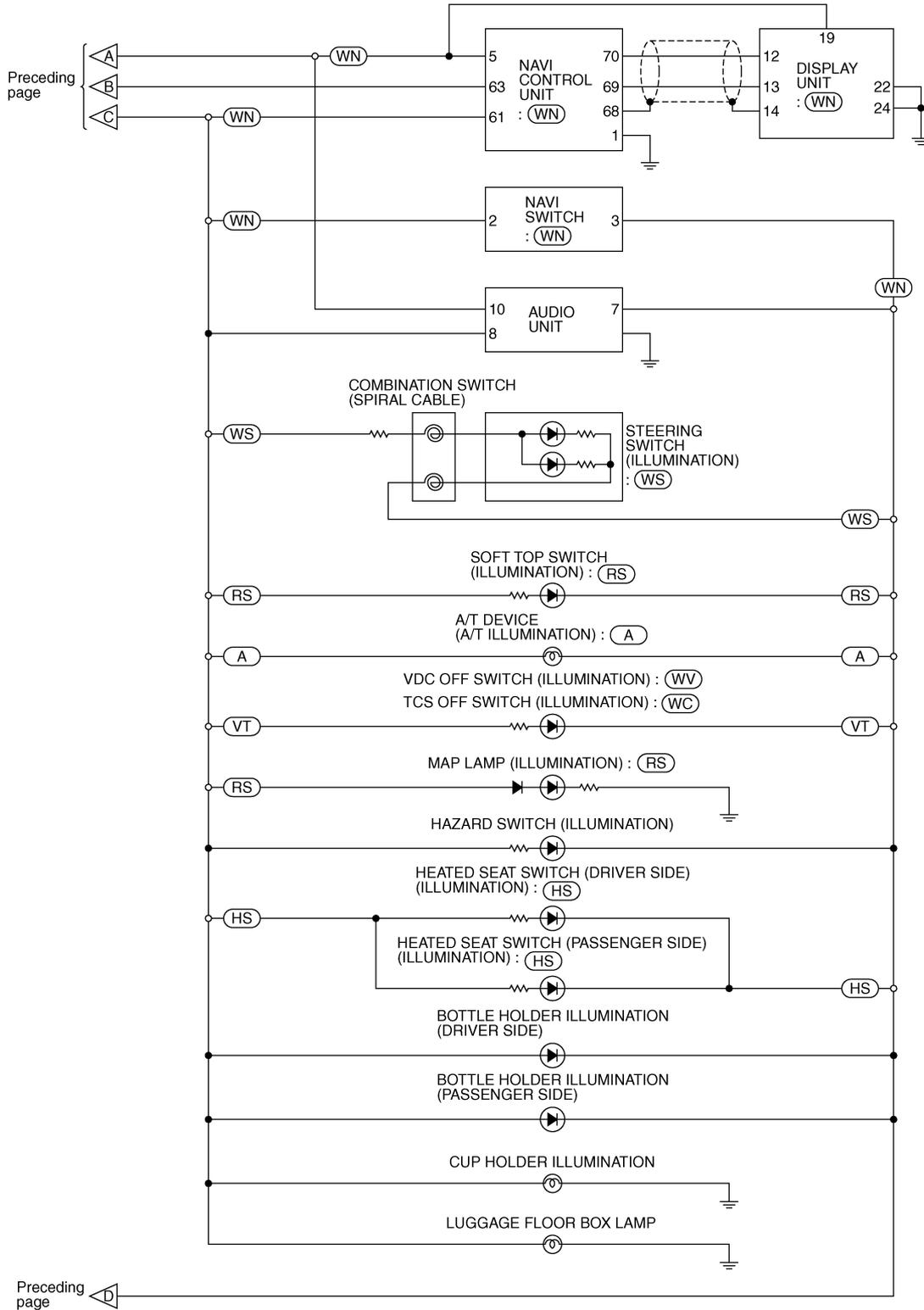


TKWT4089E

ILLUMINATION

[TYPE 1]

- (A) : With A/T
- (RS) : Roadster models
- (WV) : With VDC system
- (WC) : With TCS
- (VT) : With VDC system or TCS
- (WN) : With navigation system
- (HS) : With heated seat
- (WS) : With steering switch



A
B
C
D
E
F
G
H
I
J
LT
L
M

TKWT4090E

ILLUMINATION

[TYPE 1]

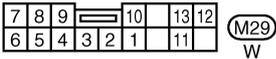
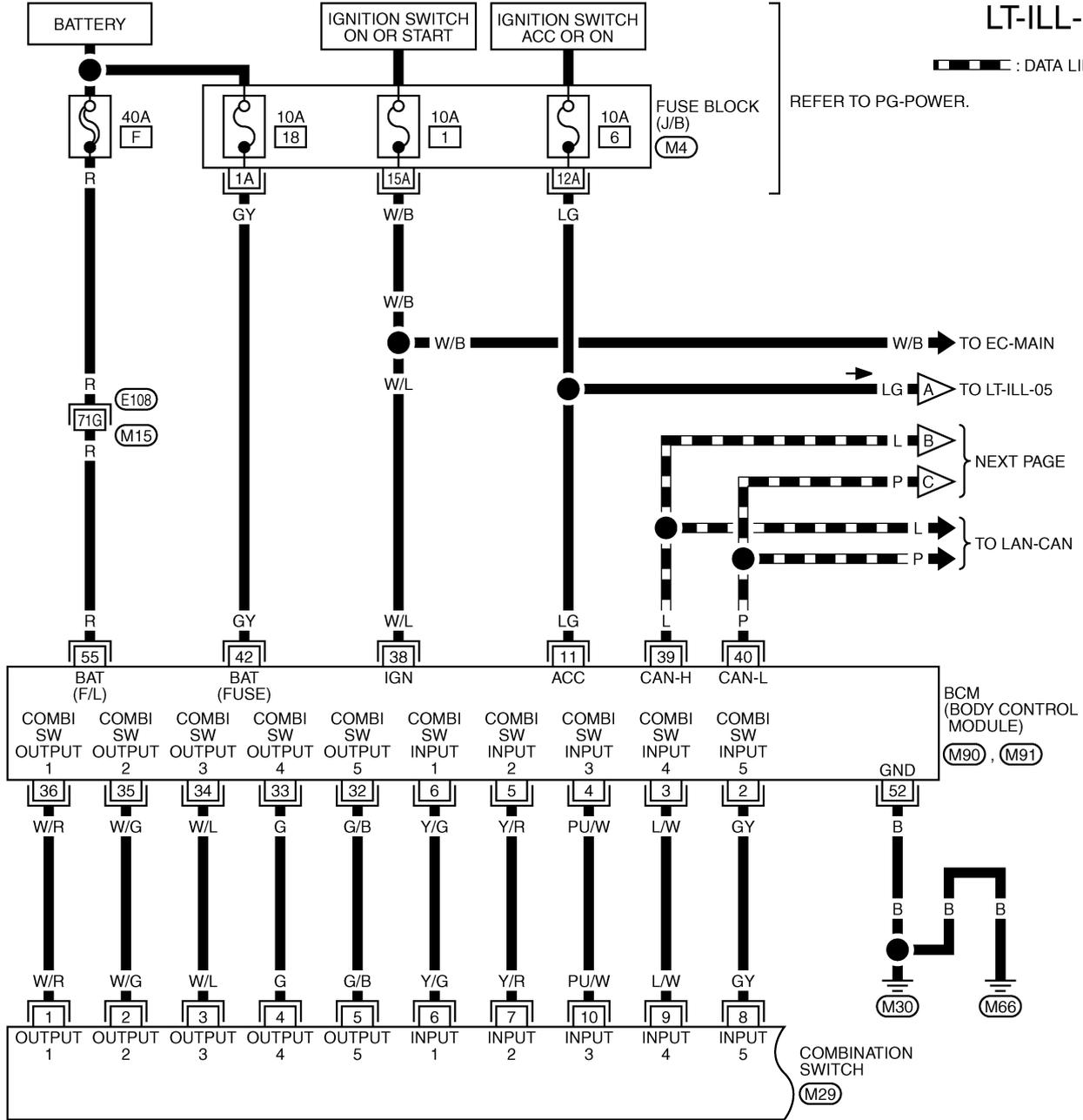
NKS0005L

Wiring Diagram — ILL —

LT-ILL-01

— : DATA LINE

REFER TO PG-POWER.



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

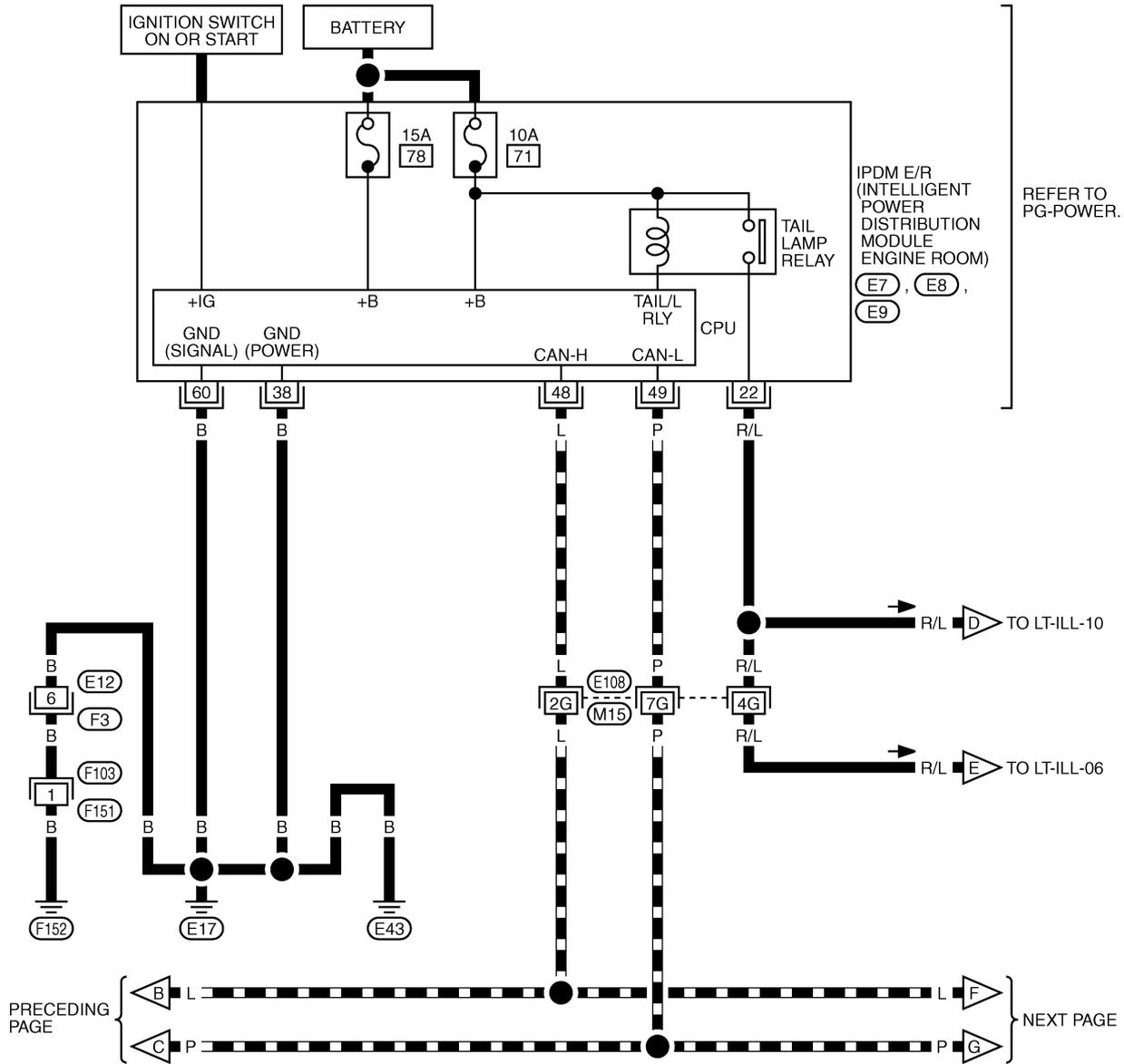
TKWT4091E

ILLUMINATION

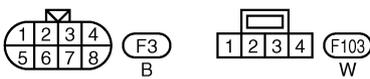
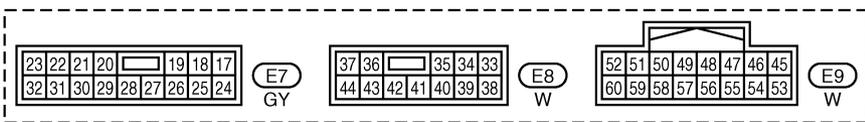
[TYPE 1]

LT-ILL-02

DATA LINE



A
B
C
D
E
F
G
H
I
J
LT
L
M



REFER TO THE FOLLOWING.
E108 -SUPER MULTIPLE JUNCTION (SMJ)

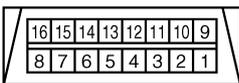
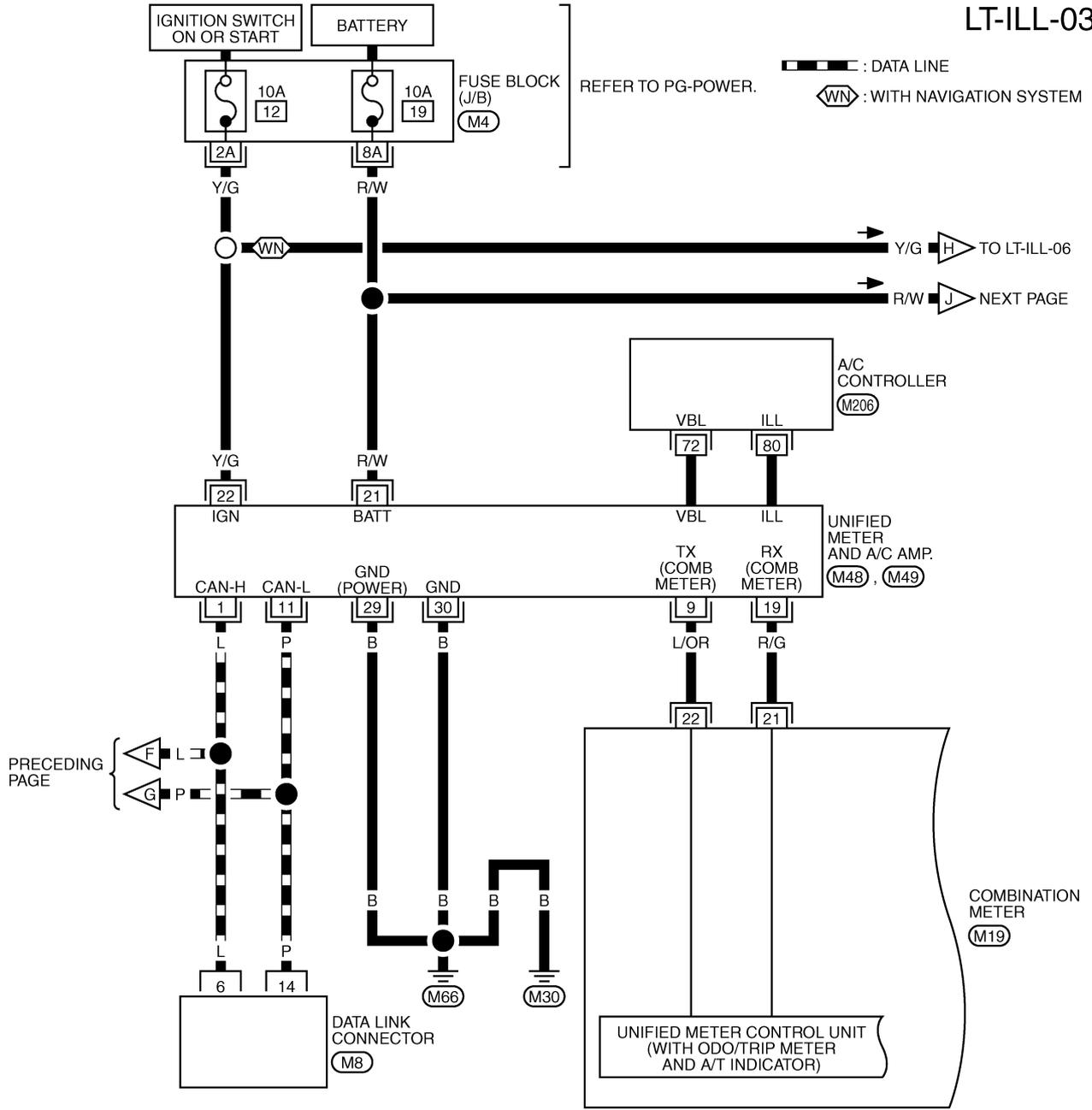


TKWT4092E

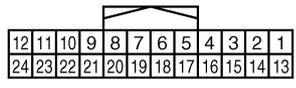
ILLUMINATION

[TYPE 1]

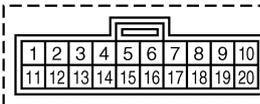
LT-ILL-03



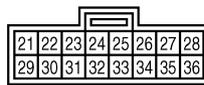
M8
W



M19
W



M48
GY



M49
GY



M206*

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.

(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

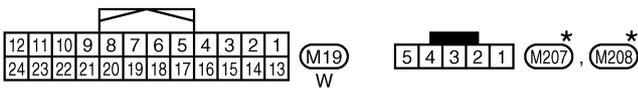
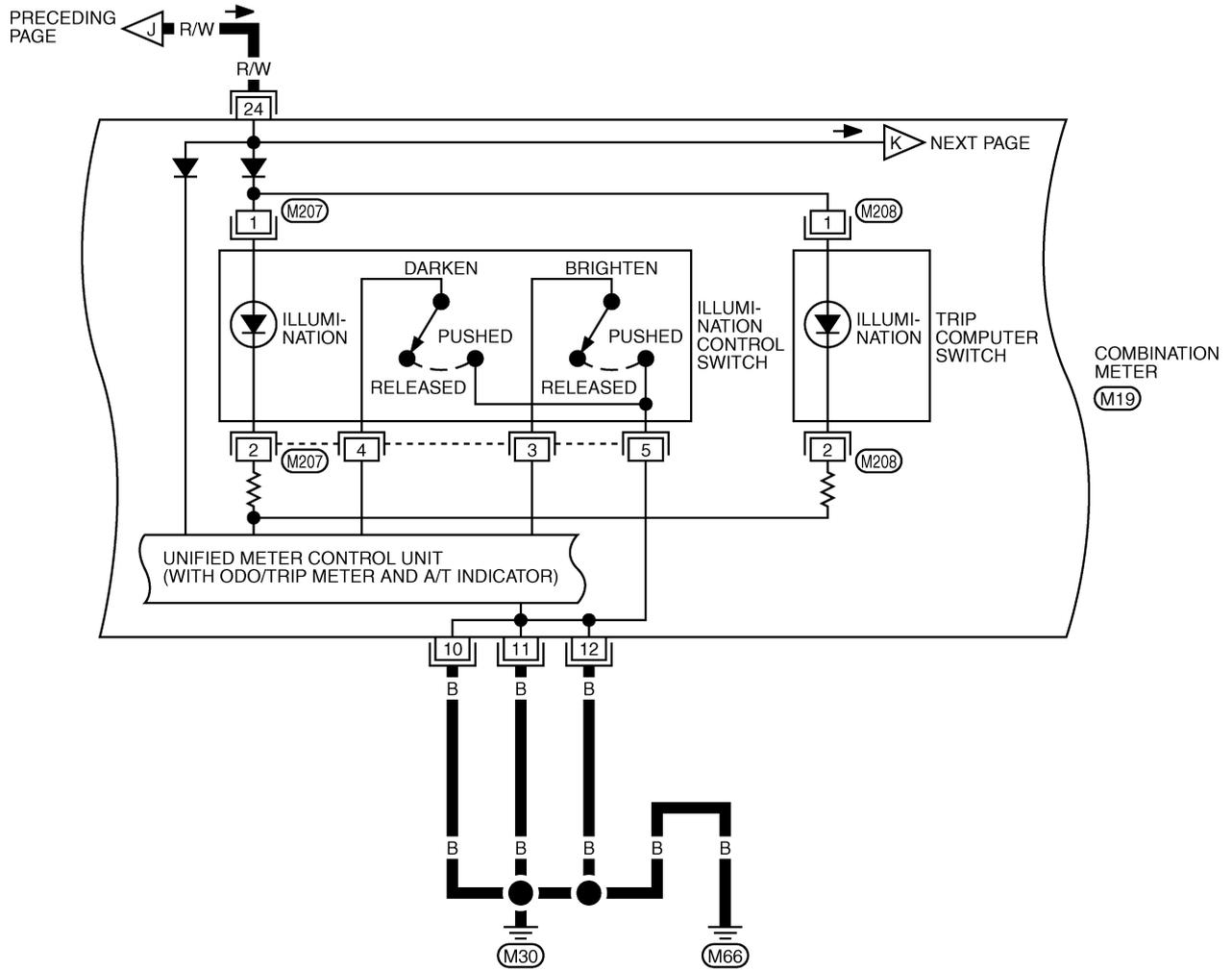
TKWT2296E

ILLUMINATION

[TYPE 1]

LT-ILL-04

A
B
C
D
E
F
G
H
I
J
K
L
M



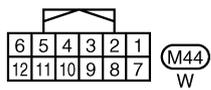
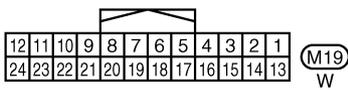
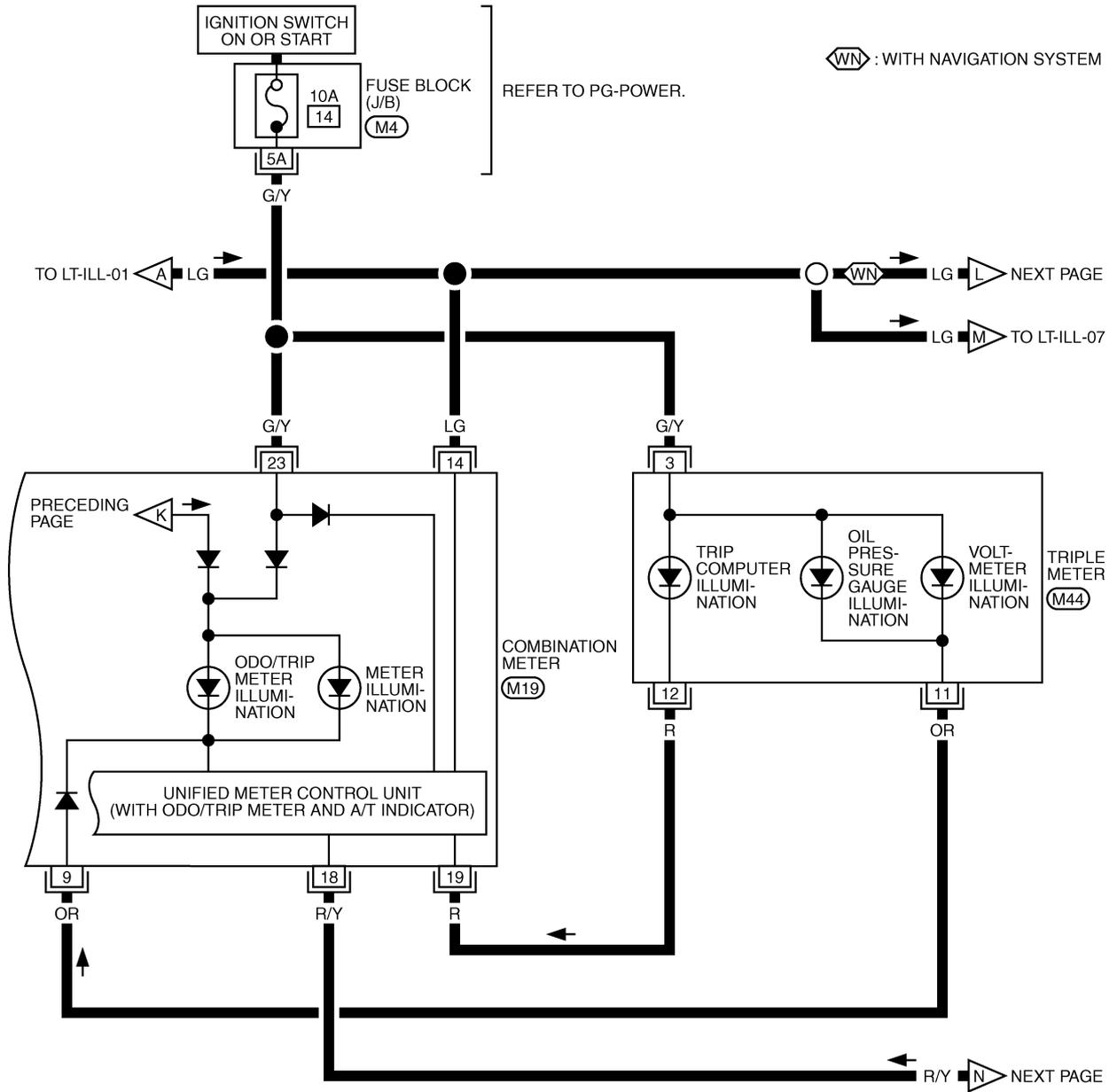
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TKWT4093E

ILLUMINATION

[TYPE 1]

LT-ILL-05



REFER TO THE FOLLOWING.
 (M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWT1830E

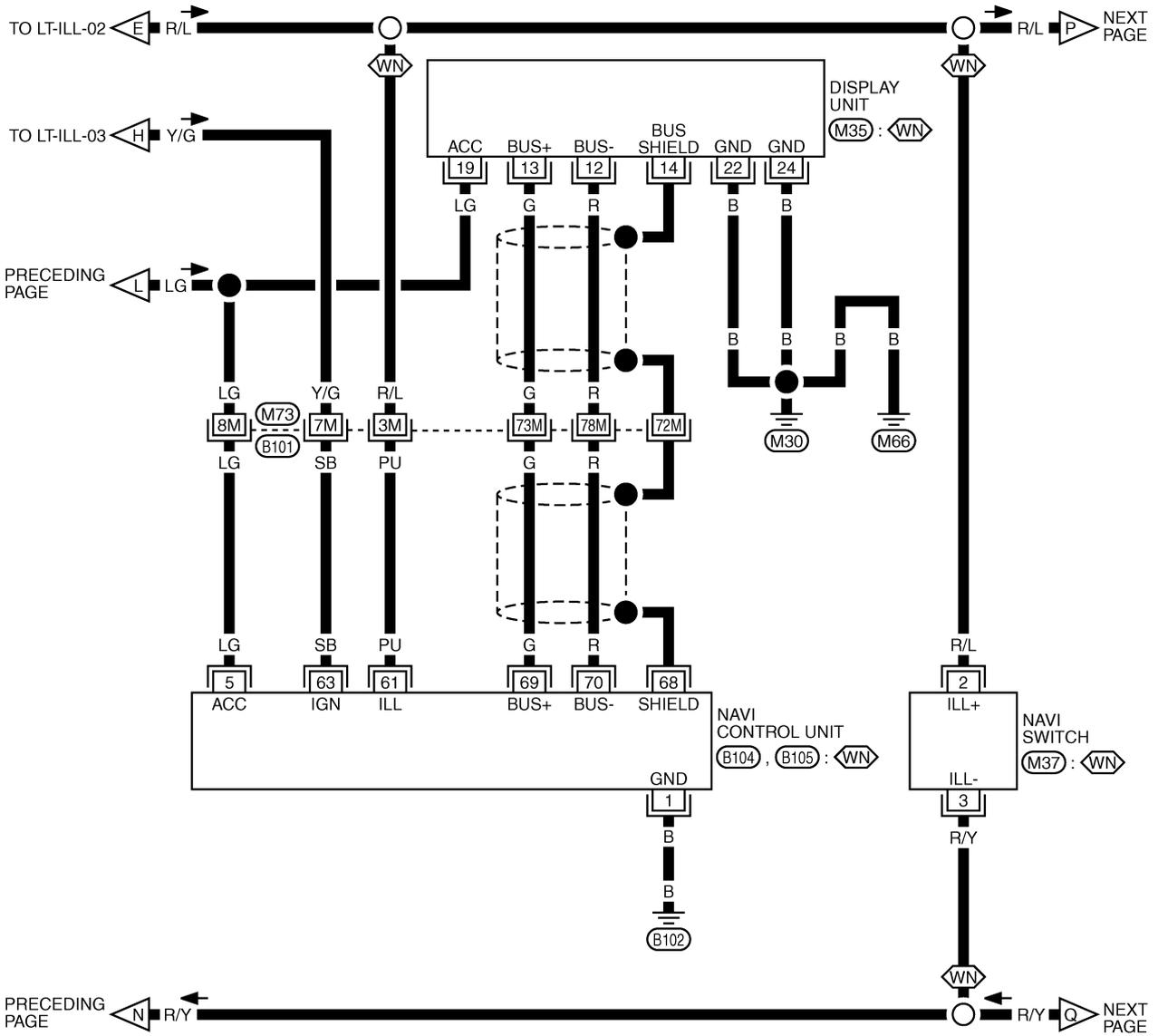
ILLUMINATION

[TYPE 1]

LT-ILL-06

A
B
C
D
E
F
G
H
I
J
LT
L
M

(WN) : WITH NAVIGATION SYSTEM



24	22	20	18	16	14	10	8	6	4	2		
23	21	19	17	15	13	12	11	9	7	5	3	1

(M35) GY

3	2	1		
8	7	6	5	4

(M37) W

REFER TO THE FOLLOWING.
(B101) -SUPER MULTIPLE JUNCTION (SMJ)

40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1

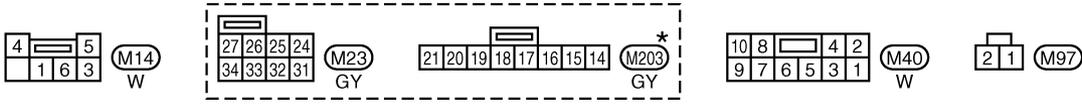
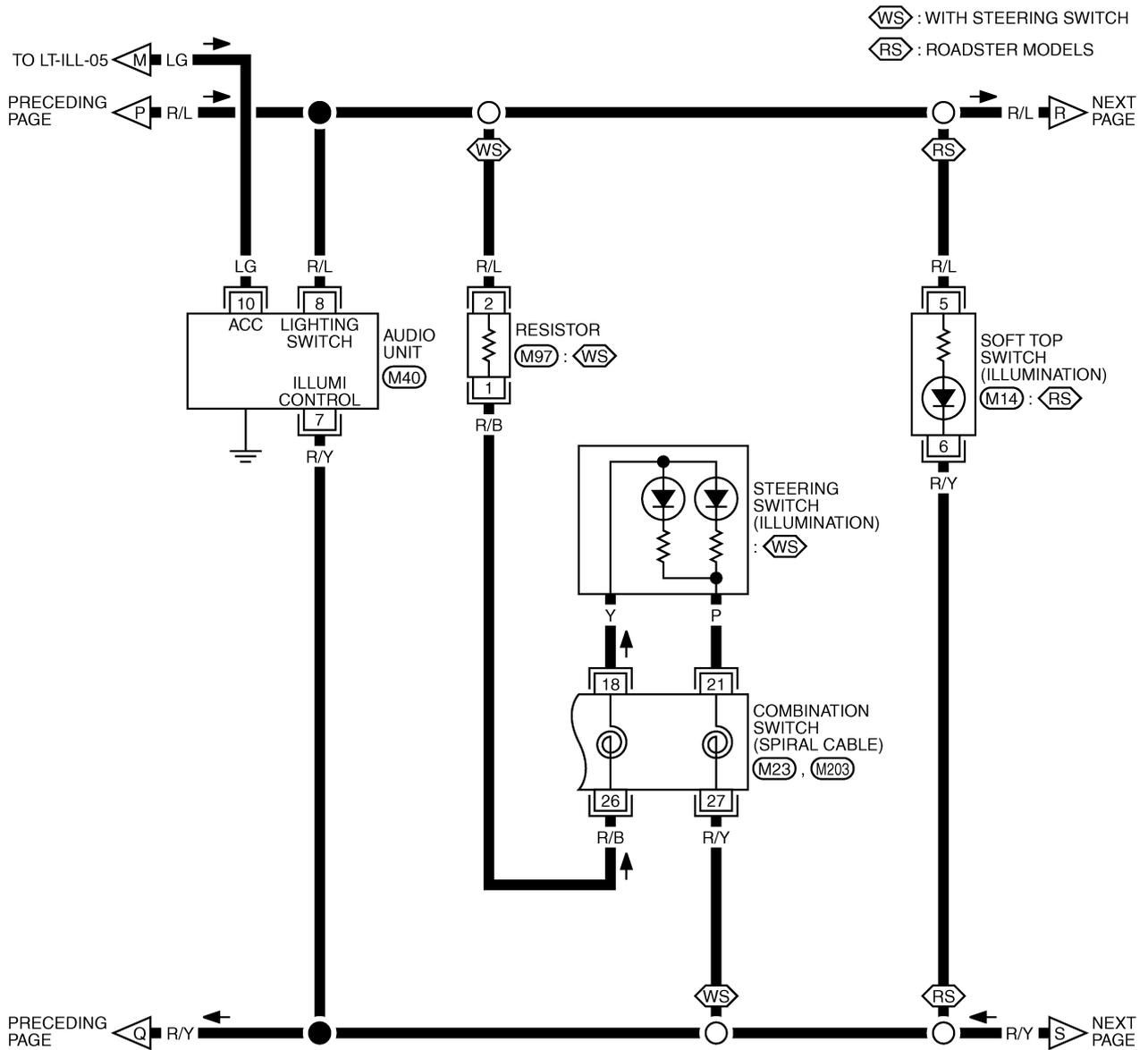
(B104) W

72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42
71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41

(B105) W

TKWT4094E

LT-ILL-07



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

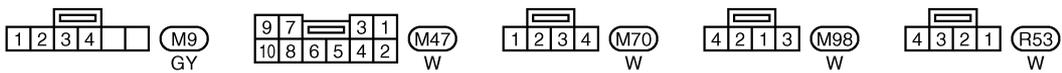
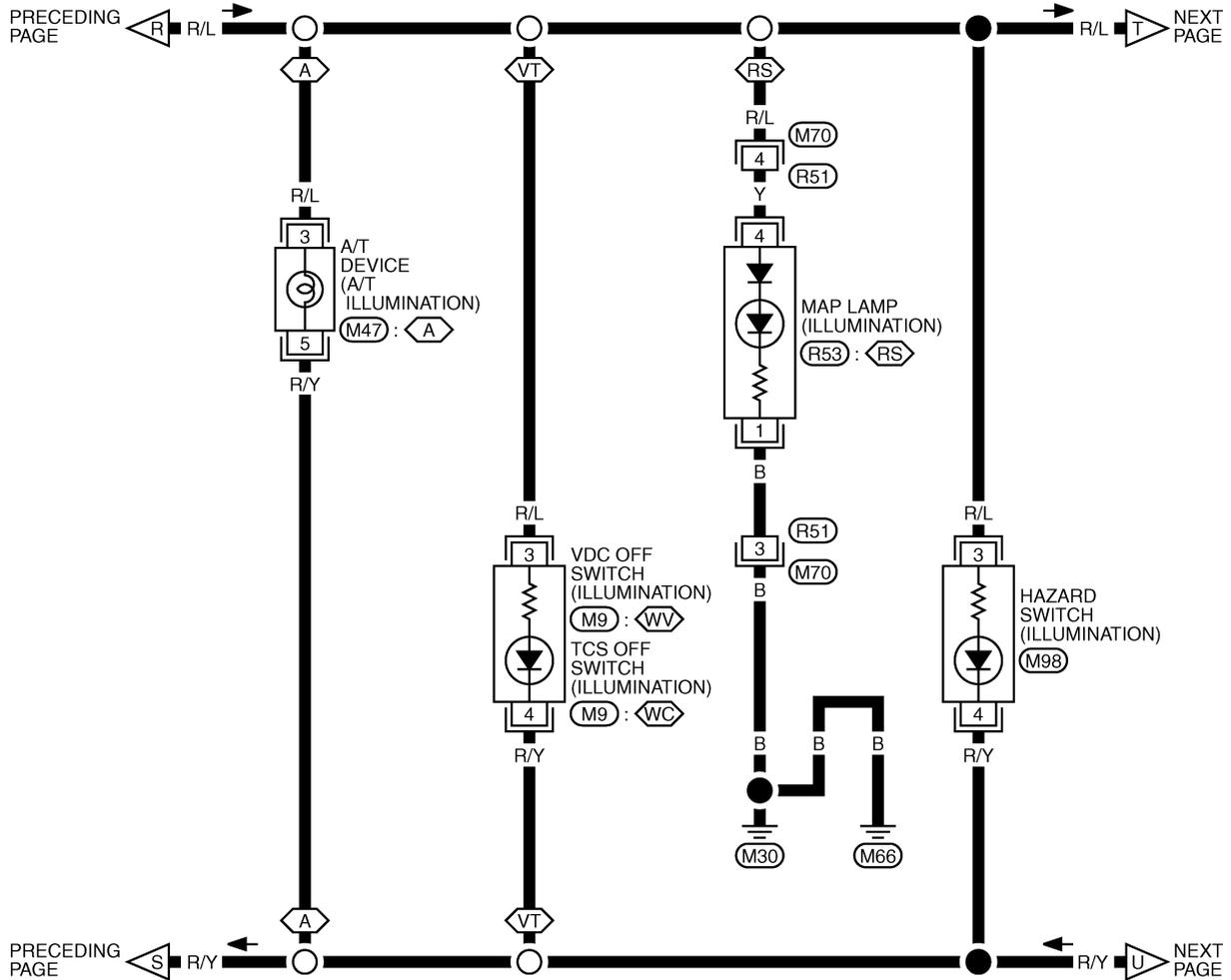
TKWT4095E

ILLUMINATION

[TYPE 1]

LT-ILL-08

- A : WITH A/T
- RS : ROADSTER MODELS
- VT : WITH VDC SYSTEM OR TCS
- WV : WITH VDC SYSTEM
- WC : WITH TCS



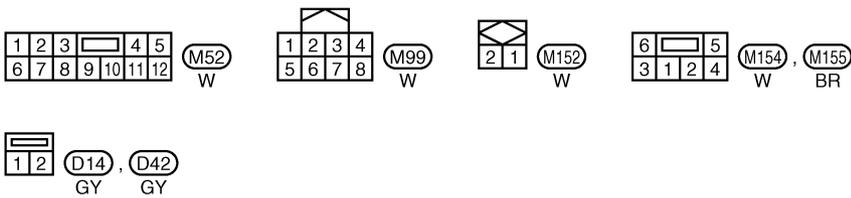
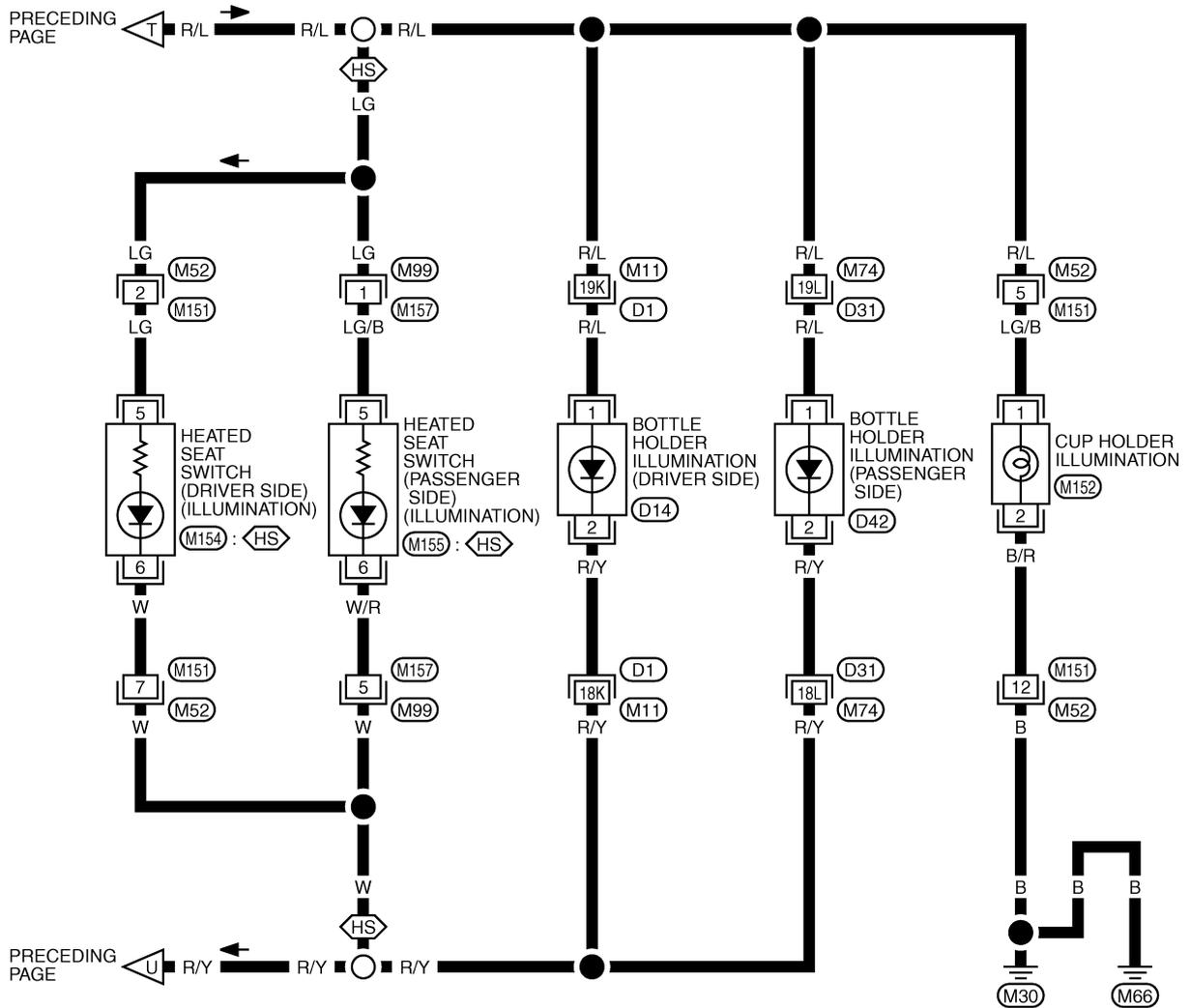
TKWT4096E

ILLUMINATION

[TYPE 1]

LT-ILL-09

⬡HS⬡ : WITH HEATED SEAT



REFER TO THE FOLLOWING.
 (D1), (D31) -SUPER MULTIPLE
 JUNCTION (SMJ)

TKWT4097E

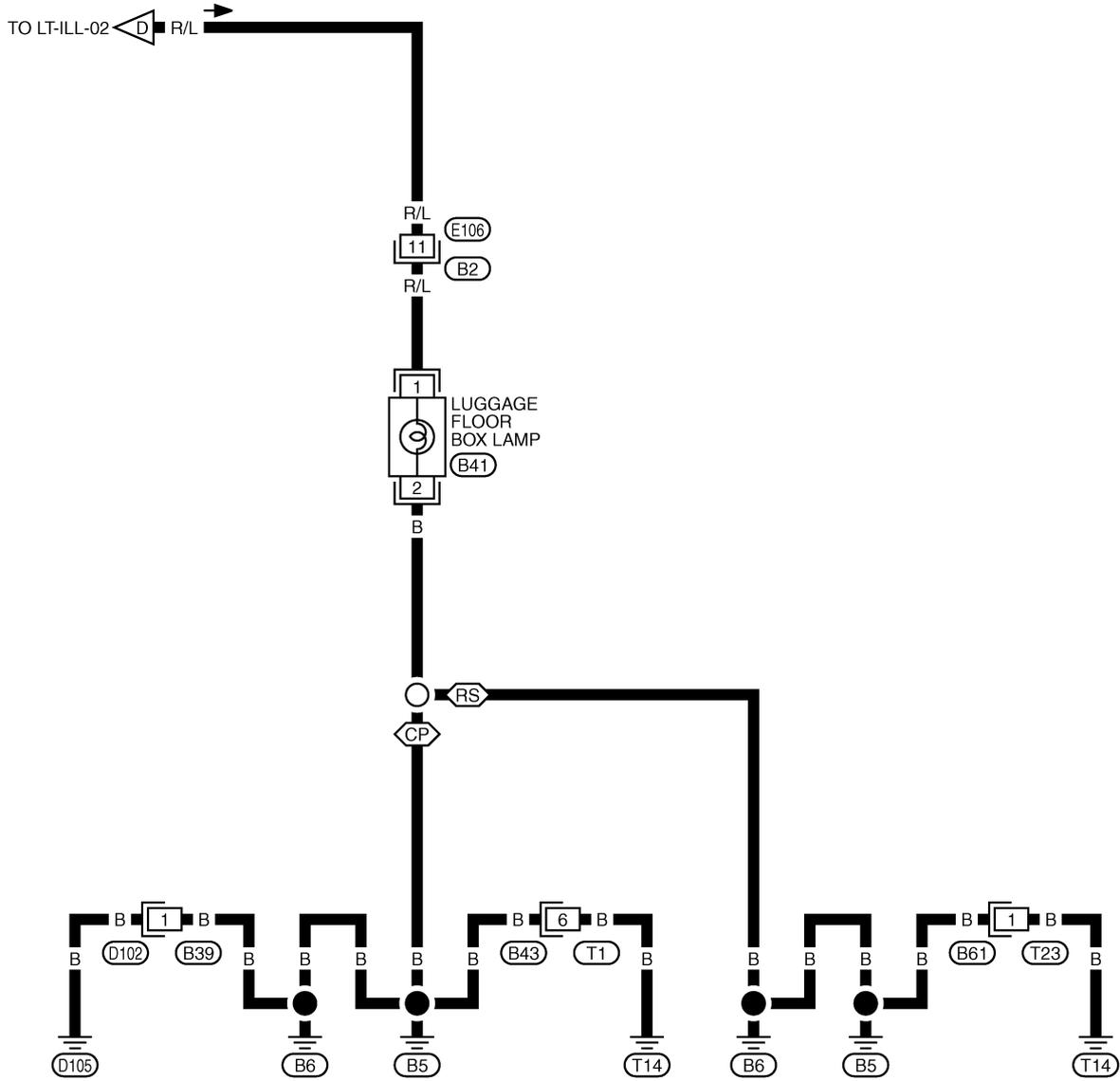
ILLUMINATION

[TYPE 1]

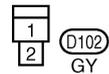
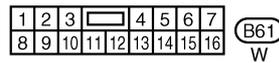
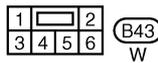
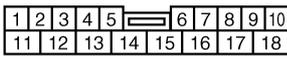
LT-ILL-10

⬡CP⬢ : COUPE MODELS

⬡RS⬢ : ROADSTER MODELS



A
B
C
D
E
F
G
H
I
J
LT
L
M



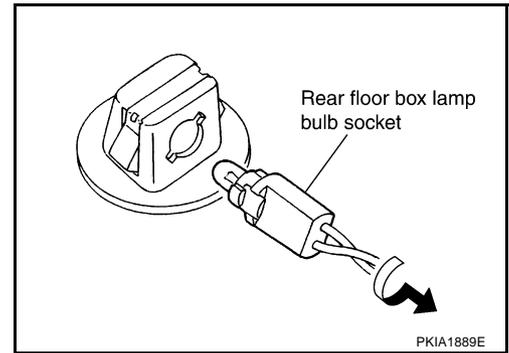
TKWT4098E

Bulb Replacement LUGGAGE FLOOR BOX LAMP

1. Remove luggage floor box lamp. Refer to
2. Turn bulb socket counterclockwise to release lock and remove it.

Luggage floor box lamp : 12 V - 1.4W

3. Installation is the reverse order of removal.

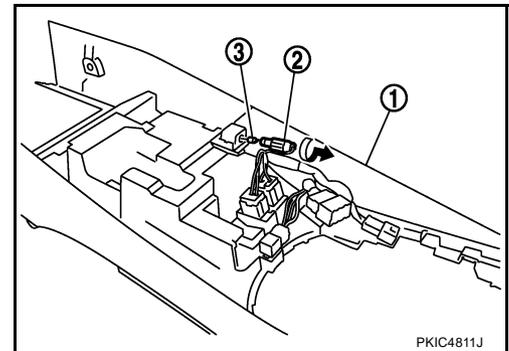


CUP HOLDER ILLUMINATION

1. Remove center console assembly (1). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Turn bulb socket counterclockwise to release lock and remove bulb socket (2).
3. Remove cup holder illumination bulb (3) from its socket.

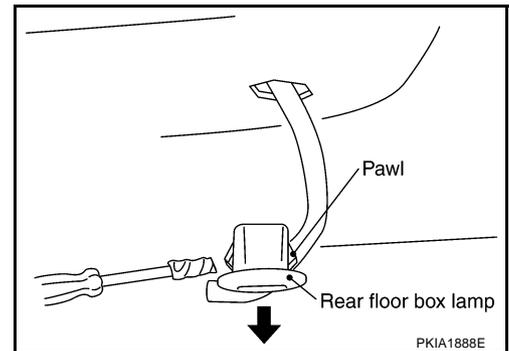
Cup holder illumination : 12V - 1.1W

4. Installation is the reverse order of removal.



Removal and Installation LUGGAGE FLOOR BOX LAMP

1. Pull out rear floor box lamp using screwdriver or similar tool.
2. Installation is the reverse order of removal.



BULB SPECIFICATIONS

[TYPE 1]

BULB SPECIFICATIONS

PFP:26297

Headlamp

NKS0005M

Item	Wattage (W)
High / Low	35 (D2R)

Exterior Lamp

NKS0005N

Item	Wattage (W)	
Front combination lamp	Front turn signal lamp/—	28/8 (amber)
	Parking lamp	5
	Front side marker lamp	LED
Rear combination lamp	Stop/Tail lamp	LED
	Rear turn signal lamp/—	28/8 (amber)
	Back-up lamp	21
	Rear side marker lamp	LED
License plate lamp	5	
High-mounted stop lamp	LED	

Interior Lamp/Illumination

NKS0005O

Item	Wattage (W)
Luggage floor box lamp	1.4
Cup holder illumination lamp	1.1
Bottle holder illumination lamp	LED
Map lamp	8
Luggage room lamp	5
Trunk room lamp	3.4
Vanity mirror lamp	1.32
Ignition key hole illumination lamp	1.4

A
B
C
D
E
F
G
H
I
J
LT
L
M

LT

PRECAUTIONS

PFP:00011

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

NKS00541

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precautions for Battery Service

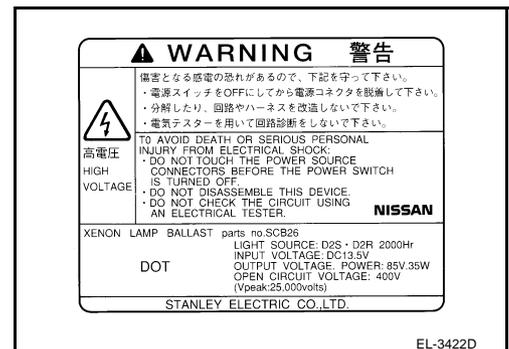
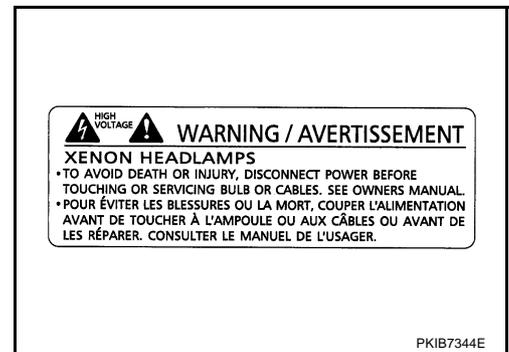
NKS00542

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

General Precautions for Service Operations

NKS00543

- Never work with wet hands.
- Xenon headlamp includes high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, never touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.
- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector, and housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.
- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. (If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.)
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.

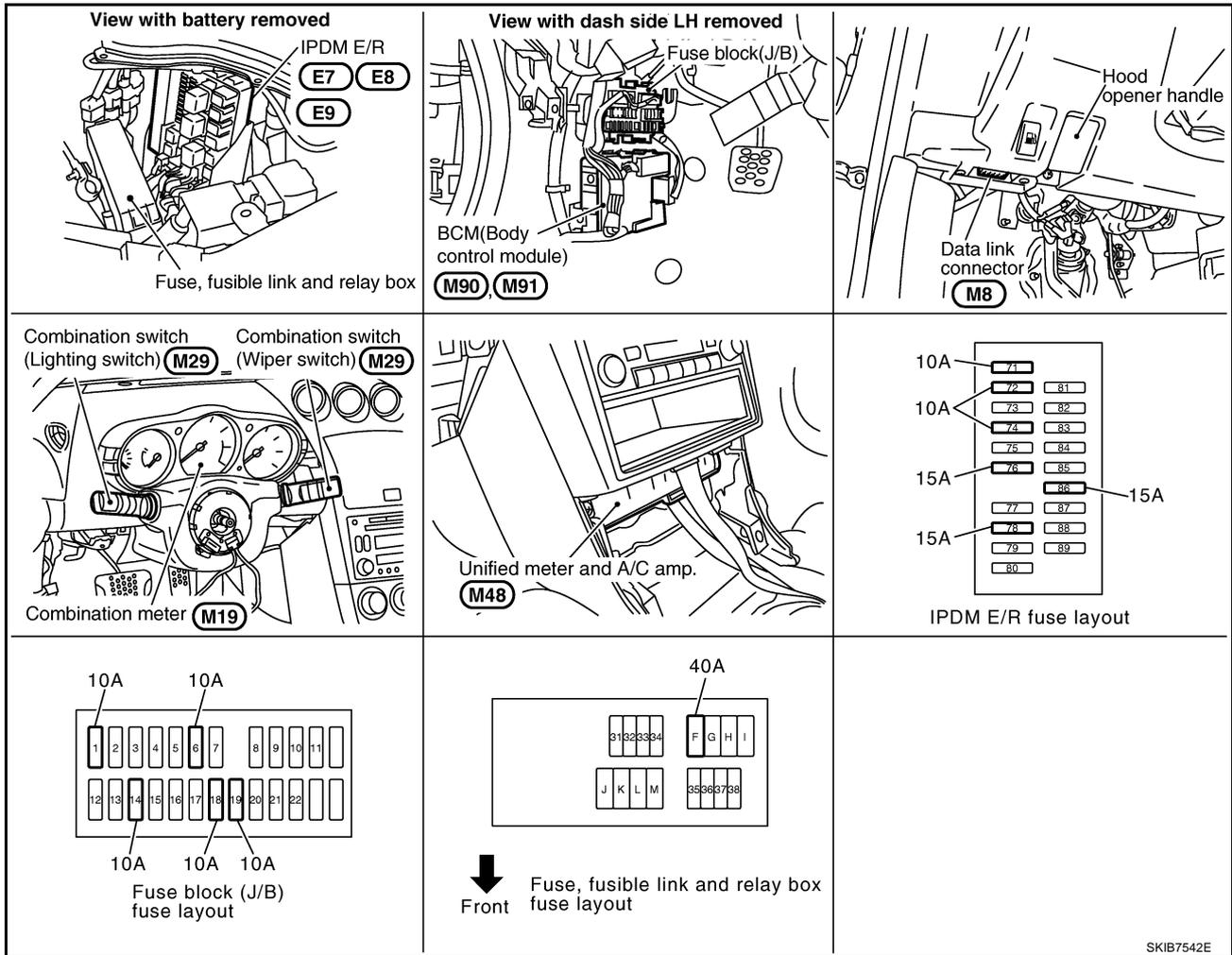


HEADLAMP (FOR USA)

PPF:26010

Component Parts and Harness Connector Location

NKS004WM



System Description

NKS004WN

Control of the headlamp system operation is dependent upon the position of the combination switch (lighting switch). When the lighting switch is placed in the 2ND position, the BCM (body control module) receives input signal requesting the headlamps (and tail lamps) illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) through the CAN communication lines. The CPU (central processing unit) of the IPDM E/R controls the headlamp high and headlamp low relay coils. These relays, when energized, direct power to the respective headlamps, which then illuminate.

OUTLINE

Power is supplied at all times

- to headlamp high relay, located in IPDM E/R and
- to headlamp low relay, located in IPDM E/R, from battery directly,
- through 40A fusible link [letter F, located in fuse, fusible link and relay box]
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 15A fuse [No.78 located in IPDM E/R]
- to CPU located in IPDM E/R,
- through 10A fuse [No.71, located in IPDM E/R]
- to CPU located in IPDM E/R,
- through 10A fuse [No.19, located in fuse block (J/B)]

A
B
C
D
E
F
G
H
I
J

LT

L
M

- to combination meter terminal 24.

With ignition switch in the ON or START position, power is supplied

- to CPU located in IPDM E/R,
- through 10A fuse [No. 1, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

With ignition switch in ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives input signal from combination switch reading function (Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#)) the headlamp to illuminate. This input signal is communicated to the IPDM E/R through the CAN communication lines. The CPU located in the IPDM E/R controls the headlamp low relay coil, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7.

Ground is supplied

- to front combination lamp RH terminal 4, and
- to front combination lamp LH terminal 4
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system).

With power and ground supplied, low beam headlamps illuminate.

High Beam Operation/Flash-to-Pass Operation

With the lighting switch in 2ND position and placed in HIGH or PASS position, the BCM receives input signal requesting headlamp high beams to illuminate. High beam request signal and low beam request signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls headlamp high relay and headlamp low relay turned ON, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7,
- through 10A fuse [No. 72, located in IPDM E/R]
- through IPDM E/R terminal 27

- to front combination lamp RH terminal 3,
- through 10A fuse [No. 74, located in IPDM E/R]
- through IPDM E/R terminal 28
- to front combination lamp LH terminal 3.

Ground is supplied

- to front combination lamp RH terminals 4, and
- to front combination lamp LH terminals 4,
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system).

With the power and ground supplied, headlamp bulbs illuminate. High beam solenoids move the bulb shades in the front combination lamps, and the bulb shades change to high beam position.

Unified meter and A/C amp. receives signal from BCM through CAN communication lines, and then combination meter indicator illuminates high beam.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control function is activated.

Under this condition, the headlamps remain illuminated for 5 minutes, then the headlamps are turned off.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

REMOTE KEYLESS ENTRY SYSTEM OPERATION

Refer to [BL-60, "REMOTE KEYLESS ENTRY SYSTEM"](#) .

VEHICLE SECURITY SYSTEM

The vehicle security system will flash the high beams if the system is triggered. Refer to [BL-129, "VEHICLE SECURITY \(THEFT WARNING\) SYSTEM"](#) .

XENON HEADLAMP

Xenon type lamps are used for headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to strong lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Followings are some advantages of the xenon type headlamp.

- The light produced by the headlamps is white color similar to sunlight that is easy to the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- Counter-reflected luminance increases and the contrast enhances on the wet road in the rain. That makes visibility go up more than the increase of the light volume.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

CAN Communication System Description

NKS004WO

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS004WP

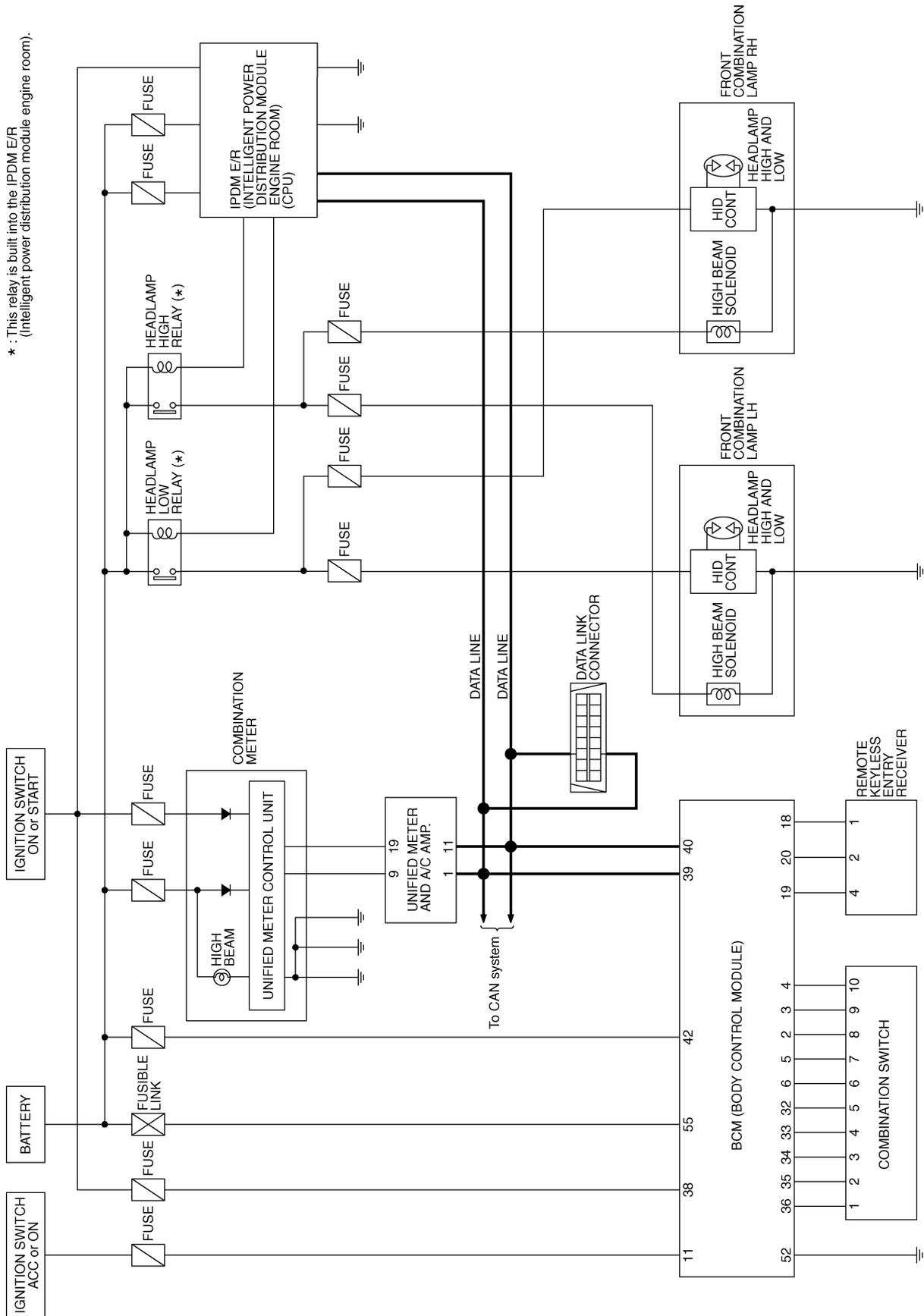
Refer to [LAN-48, "CAN System Specification Chart"](#) .

HEADLAMP (FOR USA)

[TYPE 2]

NKS004WQ

Schematic



TKWT4058E

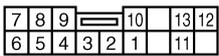
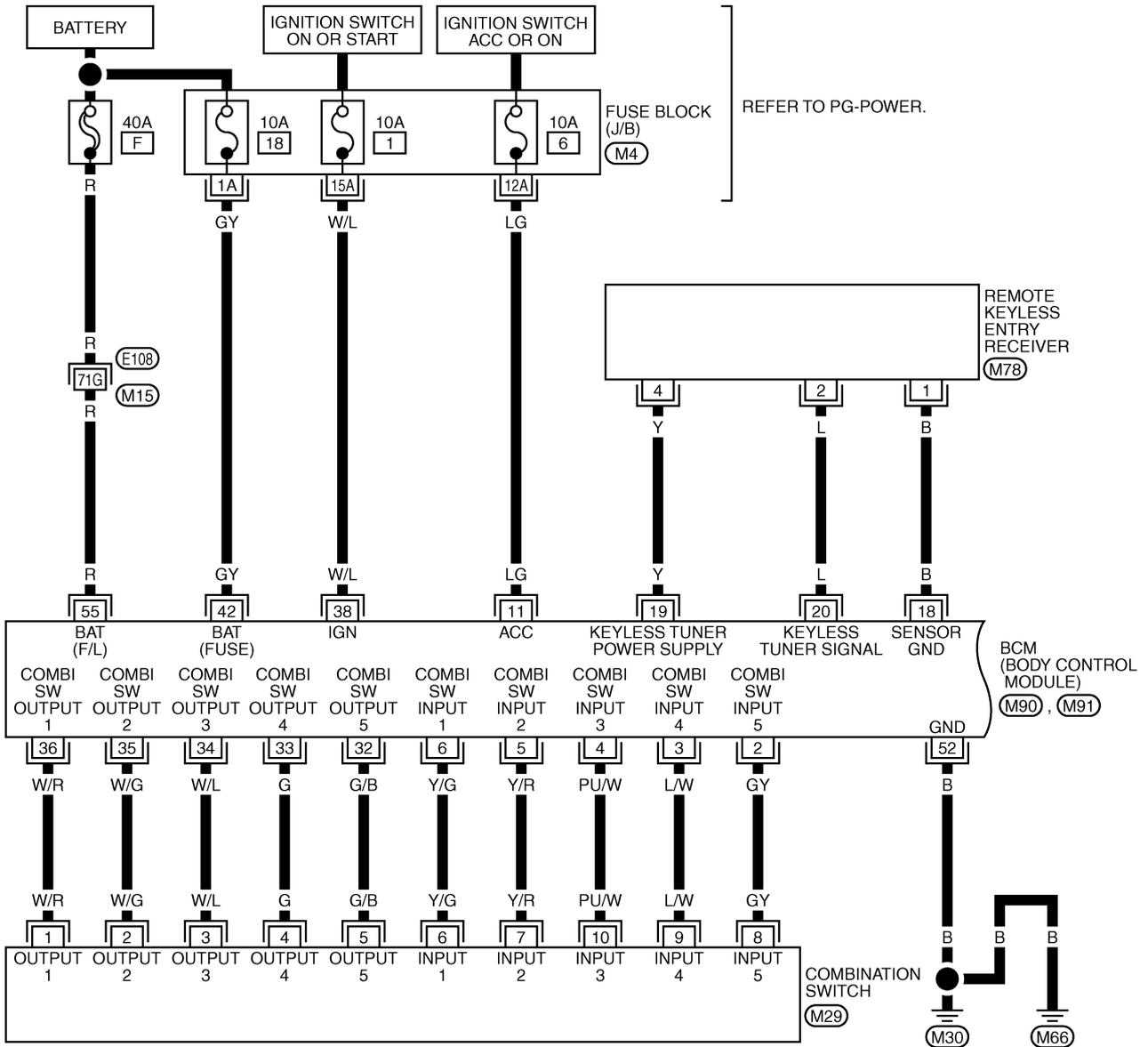
HEADLAMP (FOR USA)

[TYPE 2]

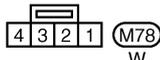
Wiring Diagram — H/LAMP —

NKS004WR

LT-H/LAMP-01



(M29)
W



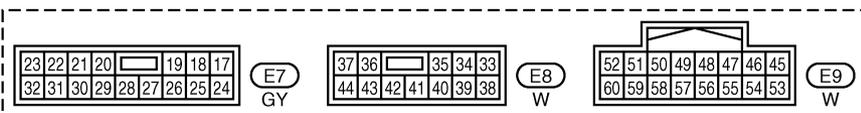
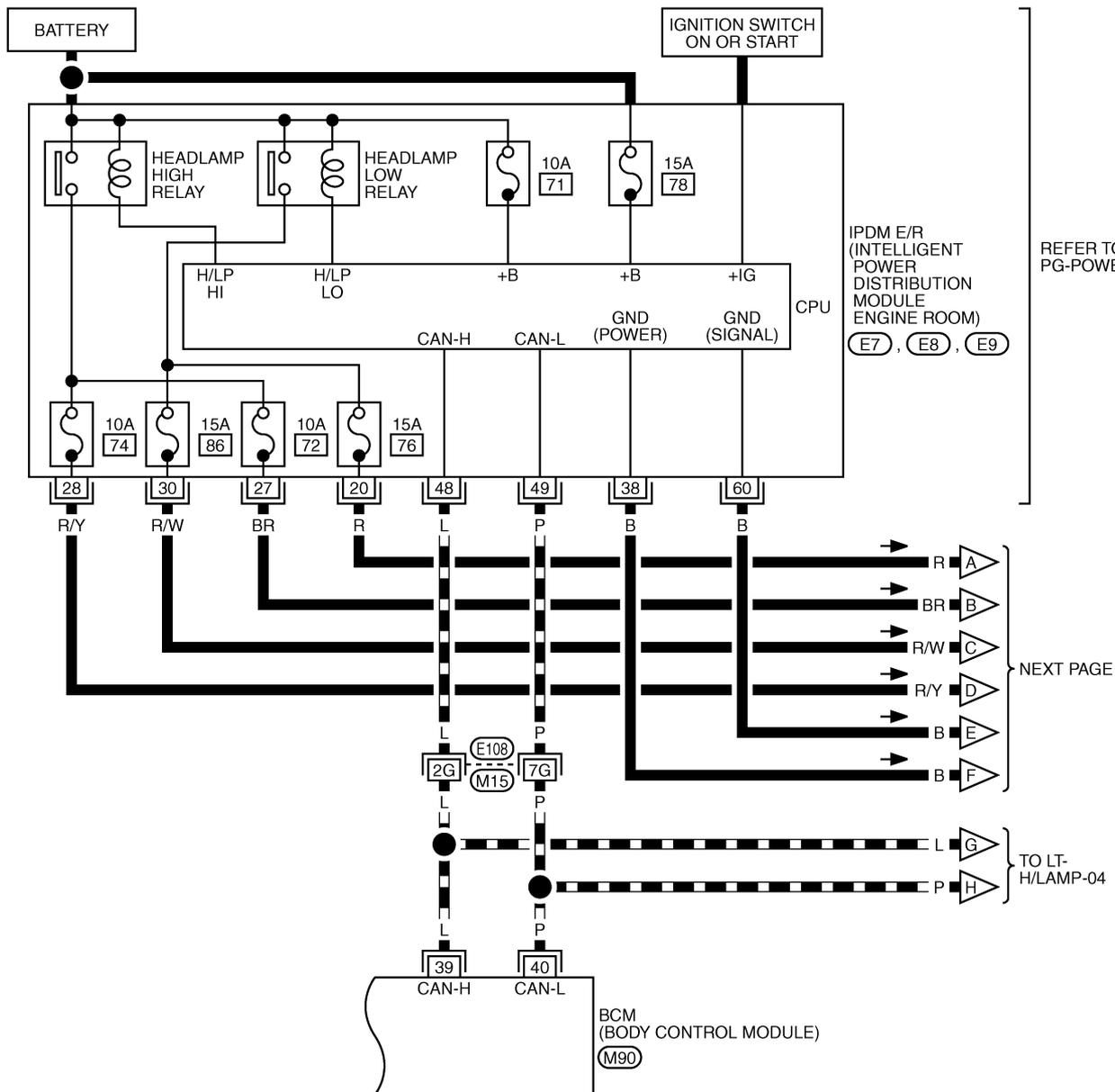
(M78)
W

HEADLAMP (FOR USA)

[TYPE 2]

LT-H/LAMP-02

▬ : DATA LINE



REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

(M90) -ELECTRICAL UNITS

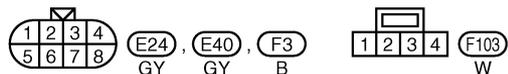
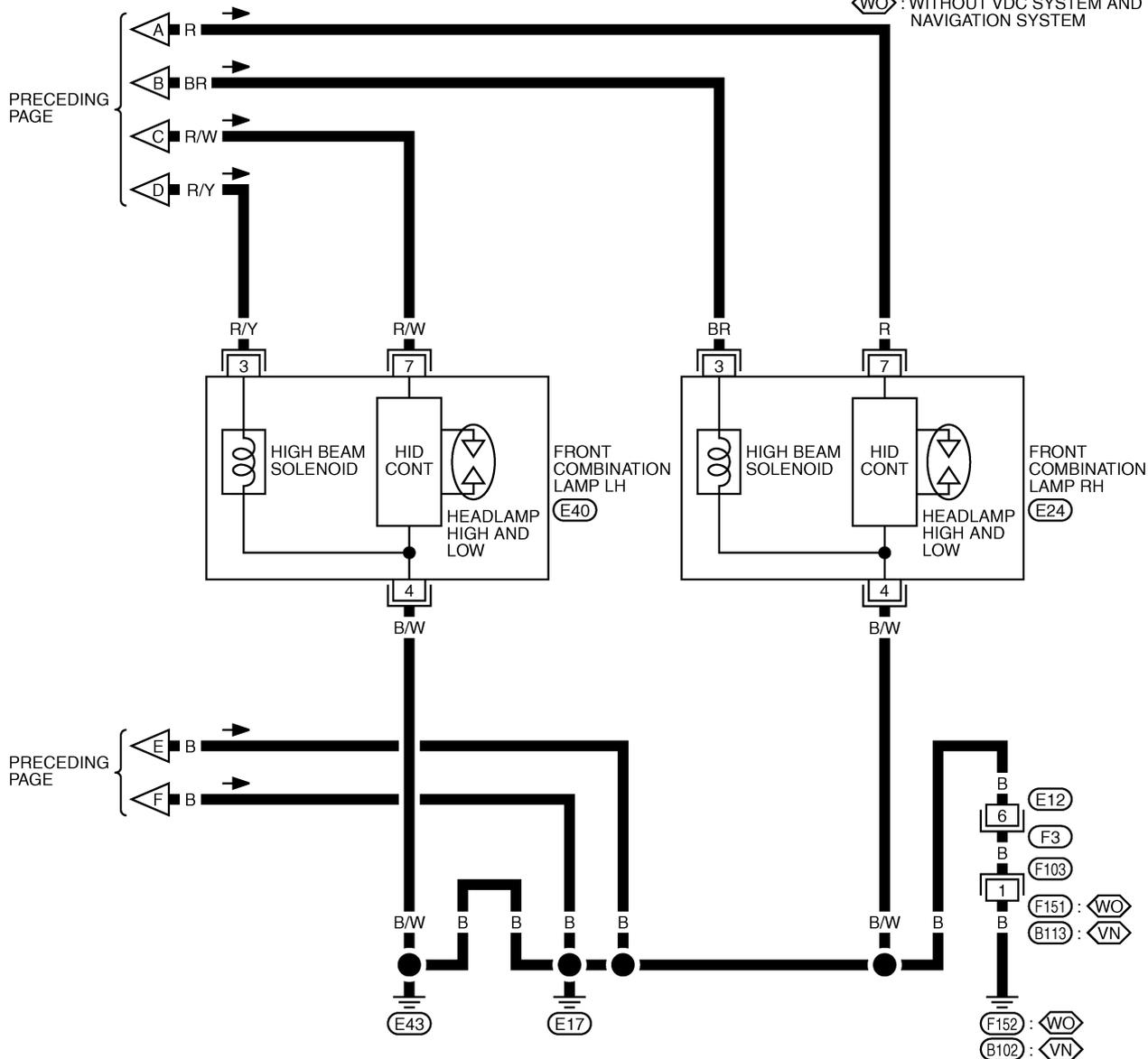
TKWT4020E

HEADLAMP (FOR USA)

[TYPE 2]

LT-H/LAMP-03

VN : WITH VDC SYSTEM OR NAVIGATION SYSTEM
WO : WITHOUT VDC SYSTEM AND NAVIGATION SYSTEM



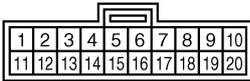
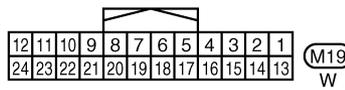
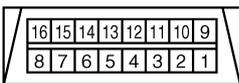
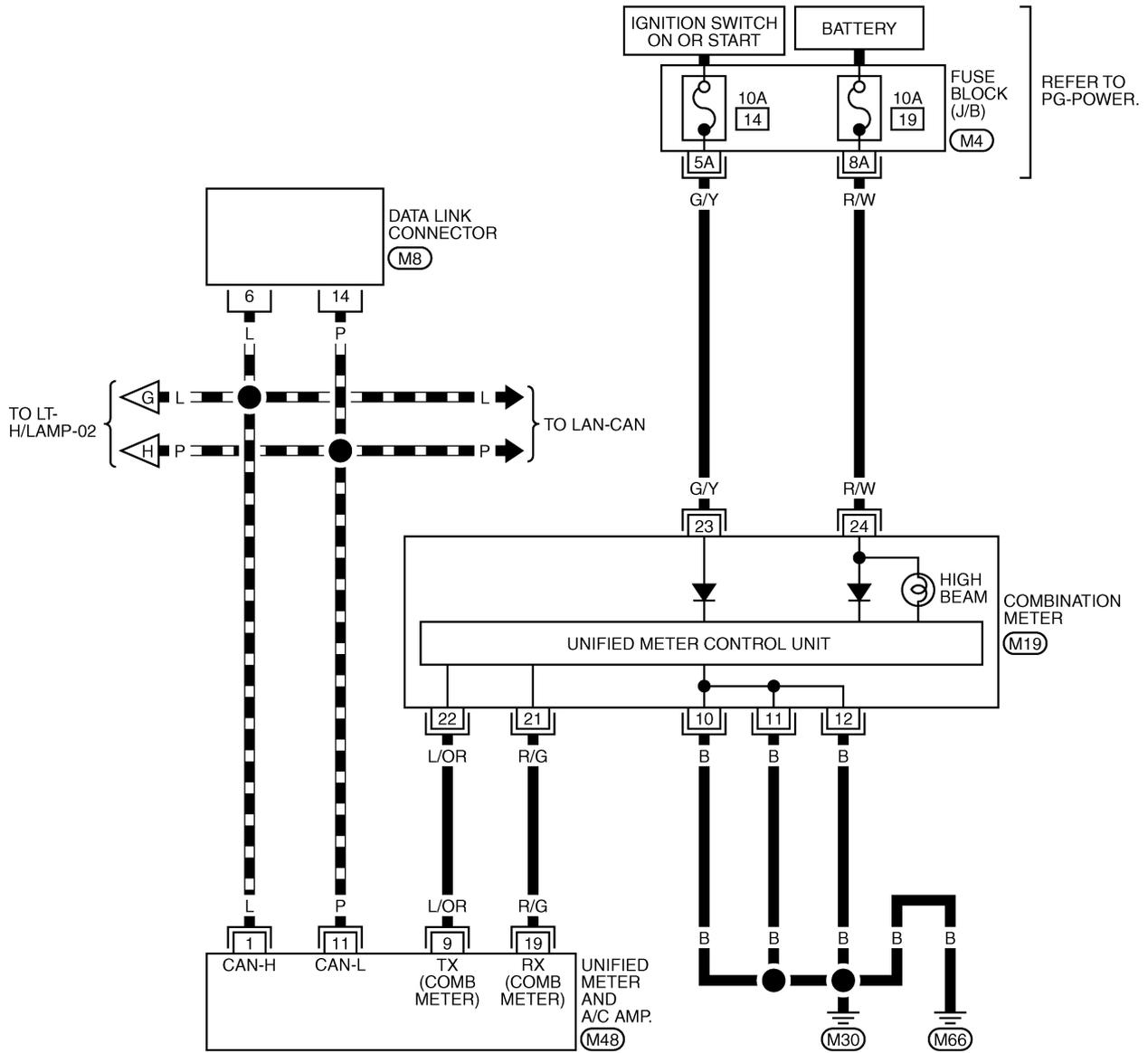
TKWT5576E

HEADLAMP (FOR USA)

[TYPE 2]

LT-H/LAMP-04

▬ : DATA LINE



REFER TO THE FOLLOWING.
 (M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWT2258E

HEADLAMP (FOR USA)

[TYPE 2]

NKS004WS

Terminals and Reference Values for BCM

CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [LT-281, "DATA MONITOR"](#).

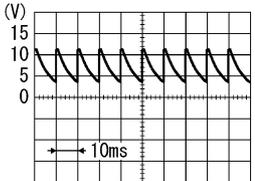
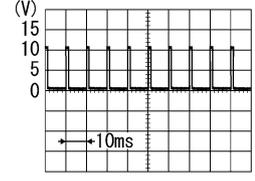
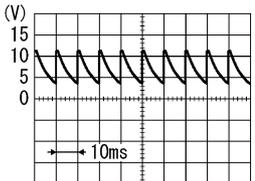
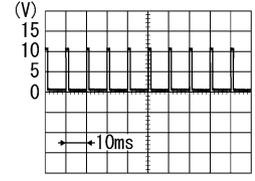
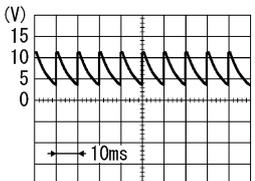
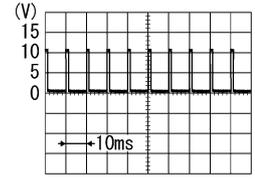
Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) 	<p>Approx. 1.0 V</p>
3	LW	Combination switch input 4	ON	Lighting switch 2ND	<p>Approx. 2.0 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p>Approx. 1.0 V</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage

A
B
C
D
E
F
G
H
I
J
L
M

LT

HEADLAMP (FOR USA)

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Lighting switch 1ST (The same result with lighting switch 2ND)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch) 	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage

HEADLAMP (FOR USA)

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0 V
55	R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Values for IPDM E/R

NKS004WT

Terminal No.	Wire color	Signal name	Measuring condition		Reference value	
			Ignition switch	Operation or condition		
20	R	Headlamp low (RH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
27	BR	Headlamp high (RH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
28	R/Y	Headlamp high (LH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
30	R/W	Headlamp low (LH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
38	B	Ground	ON	—	Approx. 0 V	
48	L	CAN– H	—	—	—	
49	P	CAN– L	—	—	—	
60	B	Ground	ON	—	Approx. 0 V	

How to Proceed With Trouble Diagnosis

NKS004WU

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-193, "System Description"](#) .
3. Perform the preliminary check. Refer to [LT-203, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Does headlamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

NKS004WV

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6

HEADLAMP (FOR USA)

[TYPE 2]

Unit	Power source	Fuse and fusible link No.
IPDM E/R	Battery	72
		74
		76
		86

Refer to [LT-197, "Wiring Diagram — H/LAMP —"](#) .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

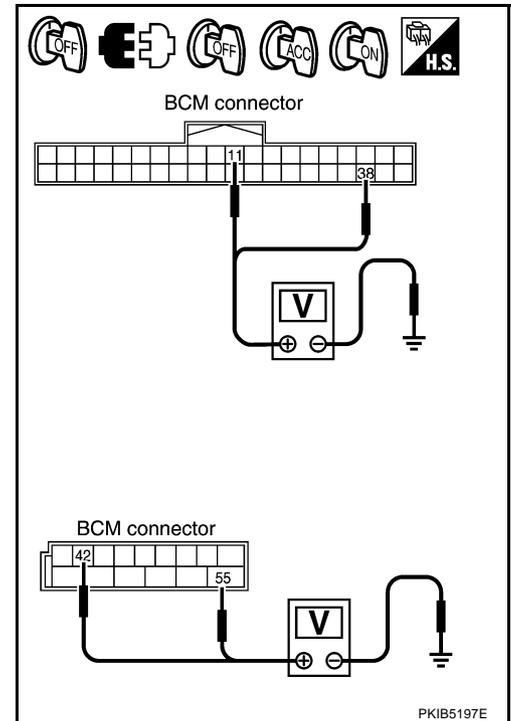
- Turn ignition switch OFF.
- Disconnect BCM connector.
- Check voltage between BCM harness connector and ground.

Terminals		(-)	Ignition switch position		
(+)	BCM connector		Terminal	OFF	ACC
M90	11	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage	Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.



3. CHECK GROUND CIRCUIT

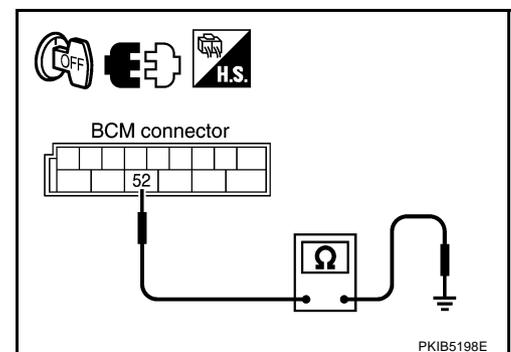
Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M91	52		Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS004WW

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
HEADLAMP	WORK SUPPORT	Changes the setting for each function.
	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
BCM	SELF-DIAG RESULTS	BCM performs self-diagnosis of CAN communication.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

WORK SUPPORT

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
3. Touch "BATTERY SAVER SET" on "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch "CHANGE SET".
6. The setting will be changed and "CUSTOMIZING COMPLETED" will be displayed.
7. Touch "END".

Display Item List

Item	Description	CONSULT-II	Factory setting
BATTERY SAVER SET	Exterior lamp battery saver control mode can be changed in this mode. Selects exterior lamp battery saver control mode between two ON/OFF.	ON	×
		OFF	—

DATA MONITOR

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch individual items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW	"ON/OFF" Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from the ignition switch signal.
ACC ON SW	"ON/OFF" Displays "ACC (ON)/OFF, Ignition OFF (OFF)" status judged from ignition switch signal.
HI BEAM SW	"ON/OFF" Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
HEAD LAMP SW 1	"ON/OFF" Displays status (headlamp switch 1: ON/Others: OFF) of headlamp switch 1 judged from lighting switch signal.
HEAD LAMP SW 2	"ON/OFF" Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.

HEADLAMP (FOR USA)

[TYPE 2]

Monitor item		Contents
LIGHT SW 1 ST	"ON/OFF"	Displays status (lighting switch 1ST or 2ND position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
PASSING SW	"ON/OFF"	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW ^{NOTE}	"ON/OFF"	—
DOOR SW - DR	"ON/OFF"	Displays status of driver door as judged from driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	"ON/OFF"	Displays status of passenger door as judged from passenger door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR ^{NOTE}	"OFF"	—
DOOR SW - RL ^{NOTE}	"OFF"	—
BACK DOOR SW	"ON/OFF"	<ul style="list-style-type: none"> ● Displays status of back door as judged from back door switch signal. (Coupe models) ● Displays status of rear trunk hood as judged from trunk lamp switch signal. (Roadster models)
TURN SIGNAL R	"ON/OFF"	Displays status (Turn right: ON/Others: OFF) as judged from lighting switch signal.
TURN SIGNAL L	"ON/OFF"	Displays status (Turn left: ON/Others: OFF) as judged from lighting switch signal.
CARGO LAMP SW ^{NOTE}	"OFF"	—

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
TAIL LAMP	Allows tail lamp relay to operate by switching ON-OFF.
HEAD LAMP	Allows headlamp relay to operate by switching ON-OFF.
FR FOG LAMP ^{NOTE}	—
CORNERING LAMP ^{NOTE}	—

NOTE:

This item is displayed, but cannot be tested.

CONSULT-II Functions (IPDM E/R)

NKS004WX

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

Check Item, Diagnosis Mode	Description
SELF-DIAGNOSTIC RESULTS	Refer to PG-32. "SELF-DIAG RESULTS" .
DATA MONITOR	The input/output data of IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	IPDM E/R sends a drive signal to electronic components to check their operation.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "DATA MONITOR" on "SELECT DIAG MODE " screen.
2. Touch "ALL SIGNALS", "MAIN SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all items.
MAIN SIGNALS	Monitor the predetermined item.
SELECTION FROM MENU	Selects items and monitors them.

3. Touch the required monitoring item on "SELECTION FROM MENU". In "ALL SIGNALS", all items are monitored. In "MAIN SIGNALS", predetermined items are monitored.
4. Touch "START".
5. Touch "RECORD" while monitoring to record the status of the item being monitored. To stop recording, touch "STOP".

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Position lights request	TAIL & CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM

NOTE:

Perform monitoring of IPDM E/R data with ignition switch ON. When ignition switch is at ACC, the display may not be correct.

ACTIVE TEST

Operation Procedure

1. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Touch item to be tested, and check operation.
3. Touch "START".
4. Touch "STOP" while testing to stop the operation.

Test item	CONSULT-II screen display	Description
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option.
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI ON, LO ON) at your option (Headlamp high beam repeats ON- OFF every 1 second).

Headlamp Does Not Change To High Beam (Both Sides)

1. CHECK COMBINATION SWITCH INPUT SIGNAL

④ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HI BEAM SW" turns ON-OFF linked with operation of lighting switch.

When lighting switch is HIGH BEAM position : HI BEAM SW ON

⊗ Without CONSULT-II

Refer to [LT-282, "Combination Switch Inspection"](#).

OK or NG

OK >> GO TO 2.

NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#).

DATA MONITOR			
MONITOR		NO DTC	
HI BEAM SW		ON	
MODE	BACK	LIGHT	COPY

PKIA6324E

2. HEADLAMP ACTIVE TEST

④ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST ITEM" screen.
3. Touch "HI" screen.
4. Make sure headlamp high beam operation.

**Headlamp high beam should operate.
(Headlamp high beam repeats ON-OFF every 1 second).**

⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
2. Make sure headlamp high beam operation.

Headlamp high beam should operate.

OK or NG

OK >> GO TO 3.

NG >> GO TO 4.

ACTIVE TEST			
LAMPS		OFF	
MODE	BACK	LIGHT	COPY

SKIA5774E

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" and "HL HI REQ" turns ON when lighting switch is in HI position.

**When lighting switch is HIGH BEAM position : HL LO REQ ON
: HL HI REQ ON**

OK or NG

OK >> Replace IPDM E/R.

NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

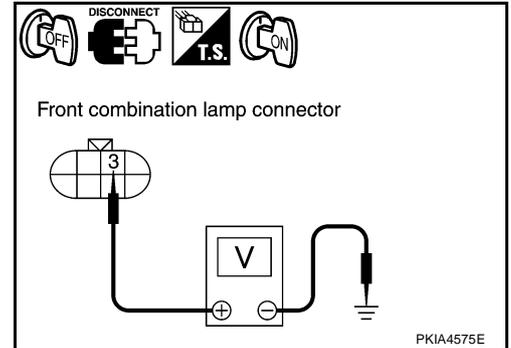
DATA MONITOR			
MONITOR		NO DTC	
HL LO REQ		ON	
HL HI REQ		ON	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

SKIA5775E

4. CHECK HEADLAMP INPUT SIGNAL

 With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "HI" screen.
6. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground (Headlamp high beam repeats ON-OFF every 1 second).



Terminals				Voltage (Approx.)
(+)		(-)	Terminal	
Front combination lamp connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

 Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminals				Voltage (Approx.)
(+)		(-)	Terminal	
Front combination lamp connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

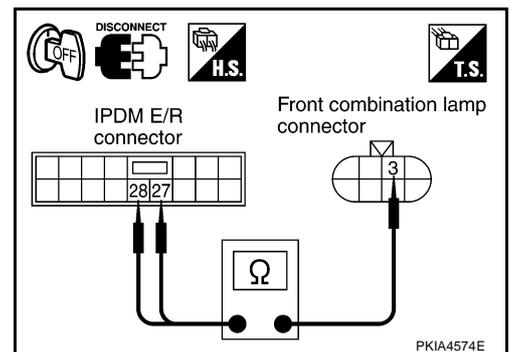
OK or NG

- OK >> GO TO 6.
 NG >> GO TO 5.

5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal		
RH	E7	27	E24	3	Yes
LH		28	E40	3	



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

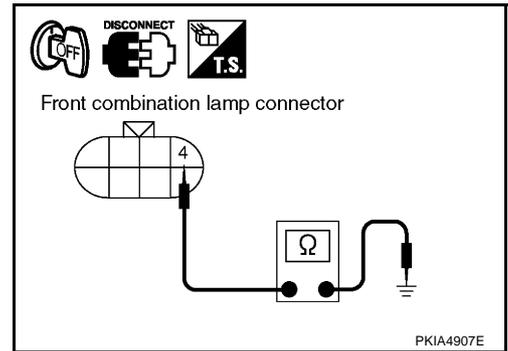
6. CHECK HEADLAMP GROUND

Check continuity between front combination lamp (RH and LH) harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness, connector and bulb.
- NG >> Repair harness or connector.



Headlamp Does Not Change To High Beam (One Side)

NKS004WZ

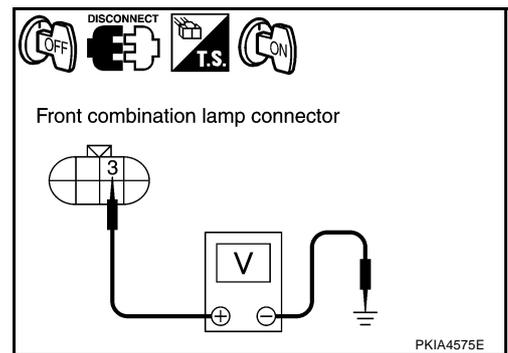
1. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned HIGH BEAM position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
Front combination lamp connector	Terminal	Ground	Battery voltage
RH	E24	3	
LH	E40	3	

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 2.



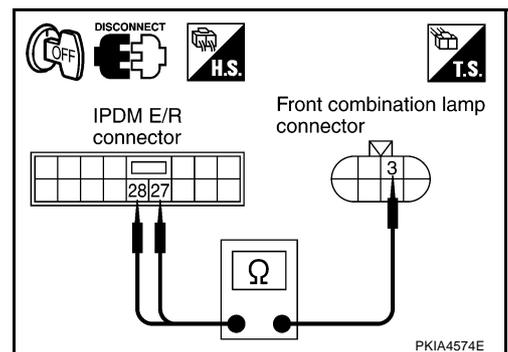
2. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal	Yes	
RH	E7	27	E24		3
LH		28	E40	3	

OK or NG

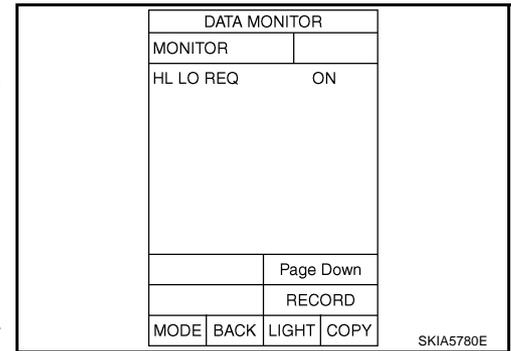
- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.



3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" turns ON when lighting switch is in 2ND position.

When lighting switch is 2ND : HL LO REQ ON position



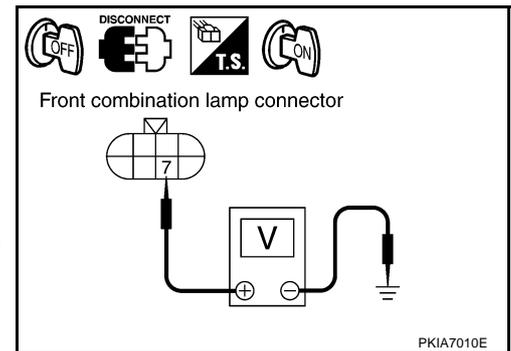
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

4. CHECK HEADLAMP INPUT SIGNAL

With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "LO" screen.
6. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.



Terminals			Voltage (Approx.)
(+)		(-)	
Front combination lamp connector	Terminal		
RH	E24	7	Ground Battery voltage
LH	E40	7	

Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
Front combination lamp connector	Terminal		
RH	E24	7	Ground Battery voltage
LH	E40	7	

OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.

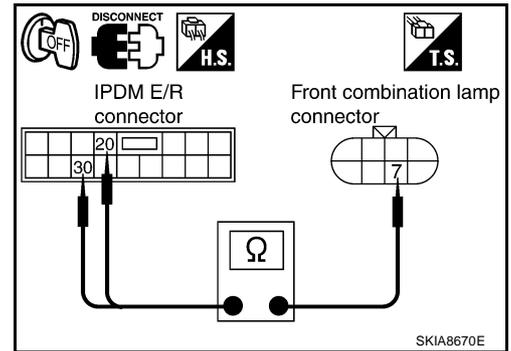
5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminals				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
RH	E7	20	E24	Yes
LH		30	E40	

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.



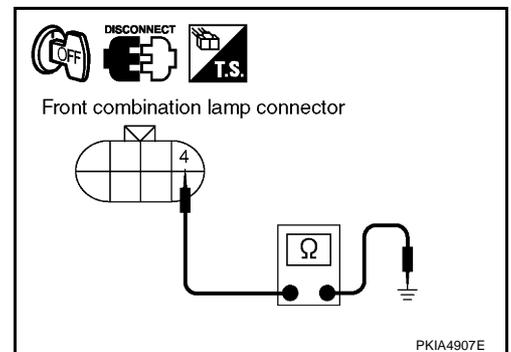
6. CHECK HEADLAMP GROUND

1. Turn ignition switch OFF.
2. Check continuity between front combination lamp (RH and LH) harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connectors, ballasts (HID control unit), and xenon bulbs. Refer to [LT-216, "Xenon Headlamp Trouble Diagnosis"](#).
- NG >> Repair harness or connector.



Headlamp Low Beam Does Not Illuminate (One Side)

NKS004X2

1. CHECK BULB

Check ballast (HID control unit) and xenon bulb of lamp which does not illuminate. Refer to [LT-216, "Xenon Headlamp Trouble Diagnosis"](#).

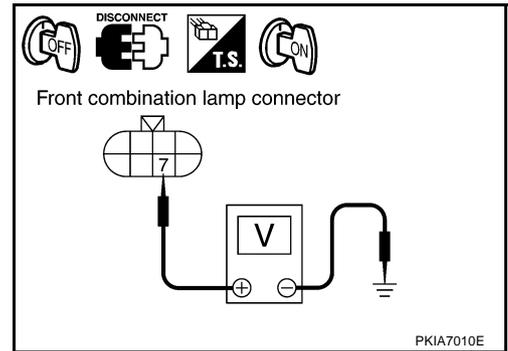
OK or NG

- OK >> GO TO 2.
- NG >> Replace malfunctioning part.

2. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned 2ND position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

Terminals			(-)	Voltage (Approx.)
(+)		Terminal		
Front combinatio lamp connector	Terminal		Ground	Battery voltage
RH	E24	7		
LH	E40	7		



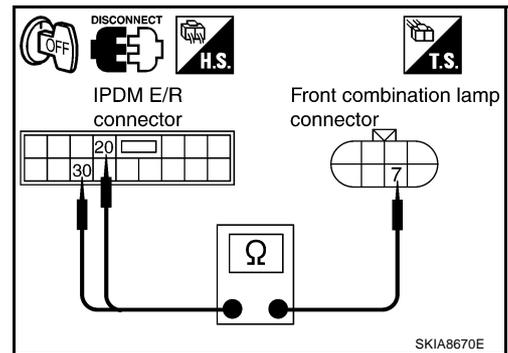
OK or NG

- OK >> GO TO 4.
 NG >> GO TO 3.

3. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Cconnector	Terminal	Connector	Terminal		
RH	E7	20	E24	7	Yes
LH		30	E40	7	



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

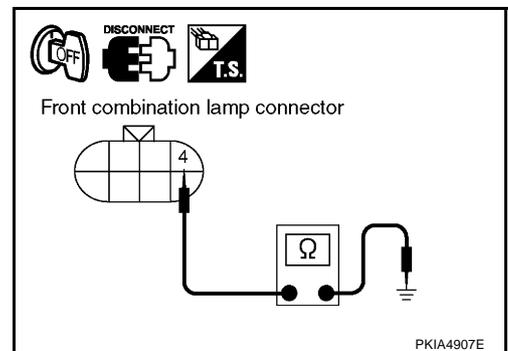
4. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

Front combi nation lamp connector		Terminal	Ground	Continuity
RH	E24	4		
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connector.
 NG >> Repair harness or connector.



Headlamps Does Not Turn OFF

NKS004X3

1. CHECK HEADLAMP TURN OFF

Make sure that lighting switch is OFF. And check if headlamp turns off when ignition switch is turned OFF.

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 2.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW1" and "HEAD LAMP SW2" turns ON-OFF linked with operation of lighting switch.

When lighting switch is OFF : HEAD LAMP SW1 OFF position
: HEAD LAMP SW2 OFF

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#).

DATA MONITOR			
MONITOR		NO DTC	
HEAD LAMP SW 1	OFF	HEAD LAMP SW 2	OFF
Page Down			
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7011E

3. CHECKING CAN COMMUNICATIONS BETWEEN BCM AND IPDM E/R

Select "BCM" by CONSULT-II, and perform self-diagnosis for "BCM".

Display of self-diagnosis results

- NO DTC>> Replace IPDM E/R.
- CAN COMM CIRCUIT>> Refer to [BCS-18, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#).

SELF-DIAG RESULTS			
DTC RESULTS		TIME	
CAN COMM CIRCUIT [U1000]			
ERASE		PRINT	
MODE	BACK	LIGHT	COPY

PKIA7627E

General Information for Xenon Headlamp Trouble Diagnosis

NKS004X4

In most cases, malfunction of xenon headlamp - "does not illuminate", "flickers" or "dark" - is caused by a malfunctioning xenon bulb. A malfunctioning HID control unit or lamp housing, however, may be a cause. Be sure to perform trouble diagnosis following the steps described below.

Caution:

NKS004X5

- Installation or removal of connector must be done with lighting switch OFF.
- Disconnect the battery cable from the negative terminal or remove power fuse.
- CAUTION:**
After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.
- When the lamp is illuminated (when lighting switch is ON), never touch harness, HID control unit, inside of lamp, or lamp metal parts.
- To check illumination, temporarily install lamp in vehicle. Be sure to connect power at vehicle side connector.
- If error can be traced directly to electrical system, first check for items such as blown fuses and fusible links, broken wires or loose connectors, dislocated terminals, and improper connections.
- Never work with wet hands.
- Using a tester for HID control unit circuit trouble diagnosis is prohibited.
- Disassembling HID control unit or harnesses (bulb socket harness, ECM harness) is prohibited.

- Immediately after illumination, light intensity and color will fluctuate, but there is nothing wrong.
- When bulb has come to end of its life, brightness will drop significantly, it will flash repeatedly, or light color will turn reddish.

Xenon Headlamp Trouble Diagnosis

NKS004X6

1. CHECK 1: XENON HEADLAMP LIGHTING

Install normal xenon bulb to corresponding xenon bulb headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace xenon bulb.
- NG >> GO TO 2.

2. CHECK 2: XENON HEADLAMP LIGHTING

Install normal HID control unit to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace HID control unit.
- NG >> GO TO 3.

3. CHECK 3: XENON HEADLAMP LIGHTING

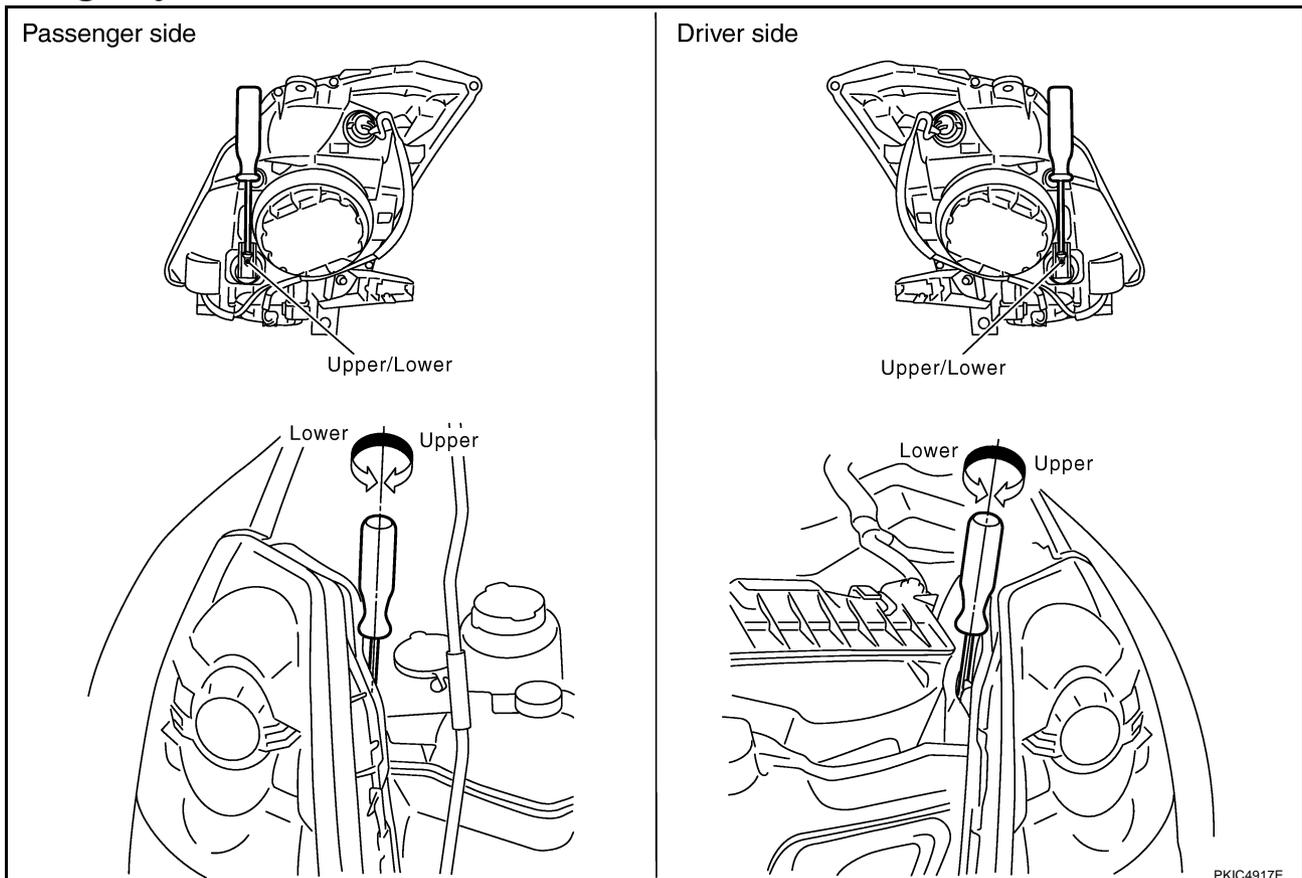
Install normal xenon lamp housing assembly to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

- OK >> Replace xenon headlamp housing assembly. [Malfunction in starter (boosting circuit) in xenon headlamp housing]
- NG >> INSPECTION END

Aiming Adjustment

NKS004X7



PREPARATION BEFORE ADJUSTING

For details, refer to the regulations in your own country.

HEADLAMP (FOR USA)

[TYPE 2]

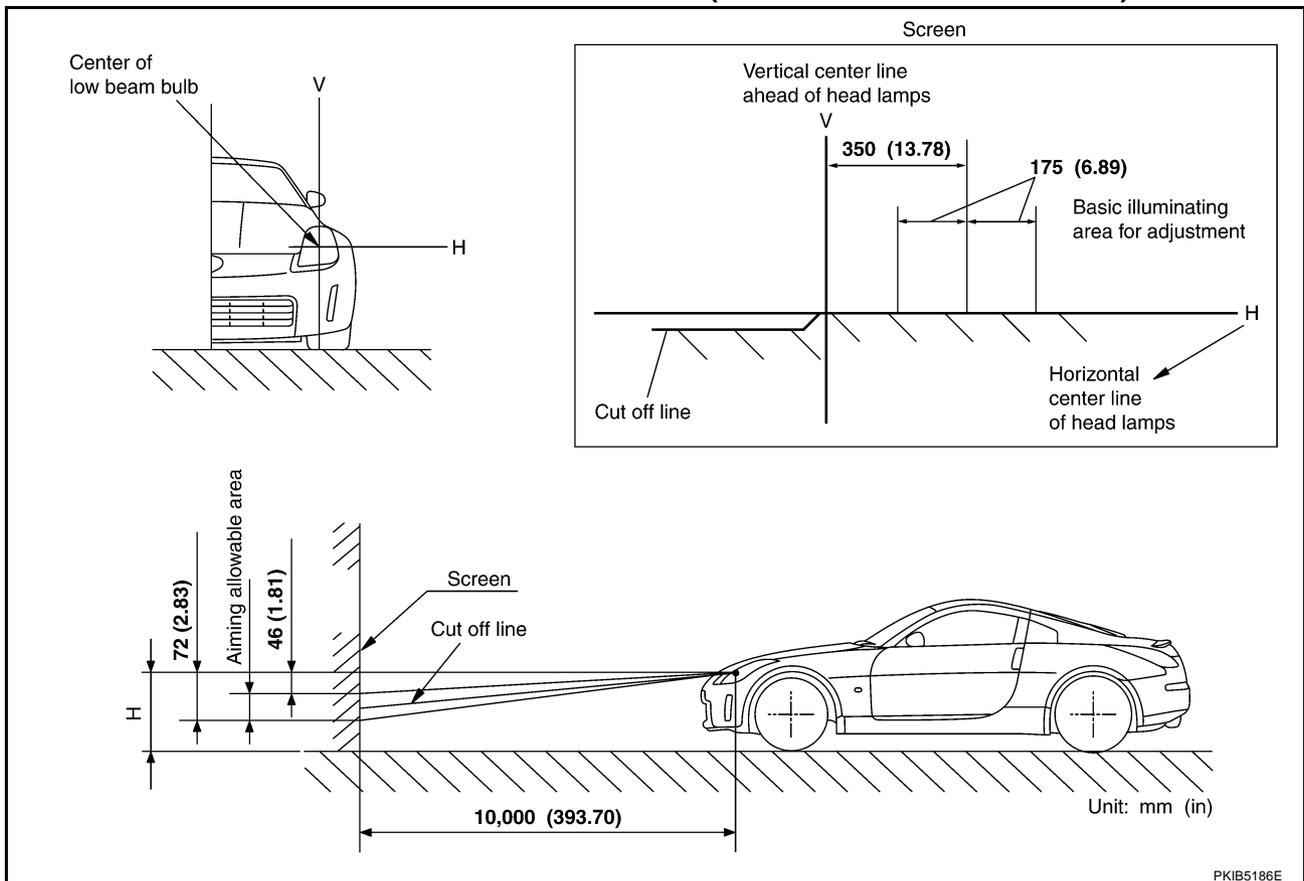
Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on level surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam ON.
2. Use adjusting screws to perform aiming adjustment.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- Basic illumination area for adjustment should be within the range shown on the aiming chart. Adjust headlamp accordingly.

Bulb Replacement HEADLAMP HIGH/LOW BEAM

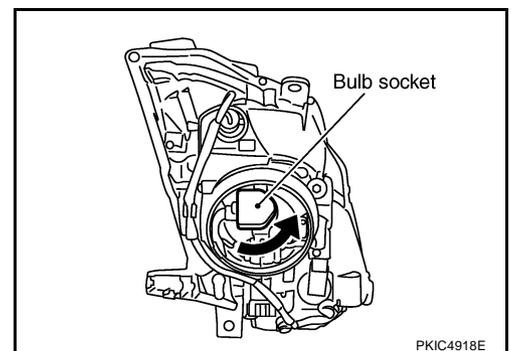
NKS004X8

1. Turn lighting switch OFF.
2. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

3. Remove headlamp. Refer to [LT-218, "Removal and Installation"](#).
4. Turn plastic cap counterclockwise and unlock it.



5. Turn bulb socket counterclockwise and unlock it.
6. Unlock retaining spring and remove bulb from headlamp.
7. Installation is reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [LT-216, "Aiming Adjustment"](#) .

Headlamp high/low beam (Xenon) : 12V - 35W (D2R)

PARKING LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#) .
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is reverse order of removal.

Parking lamp : 12V - 5W

FRONT TURN SIGNAL LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#) .
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is reverse order of removal.

Front turn signal lamp/— : 12V - 28/8W (amber)

FRONT SIDE MARKER LAMP

1. Remove headlamp. Refer to [LT-218, "Removal and Installation"](#) .
2. Replacement integral with headlamp housing assembly.
3. Installation is reverse order of removal.

Front side marker lamp : LED

CAUTION:

After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness.

Removal and Installation

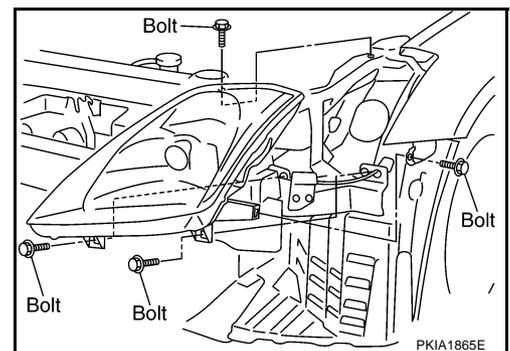
REMOVAL

1. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

2. Remove front bumper fascia. Refer to [EI-14, "FRONT BUMPER"](#) .
3. Remove headlamp mounting bolts.
4. Pull head lamp toward vehicle front, disconnect connector, and remove headlamp.



INSTALLATION

Installation is the reverse order of removal.

Headlamp mounting bolt



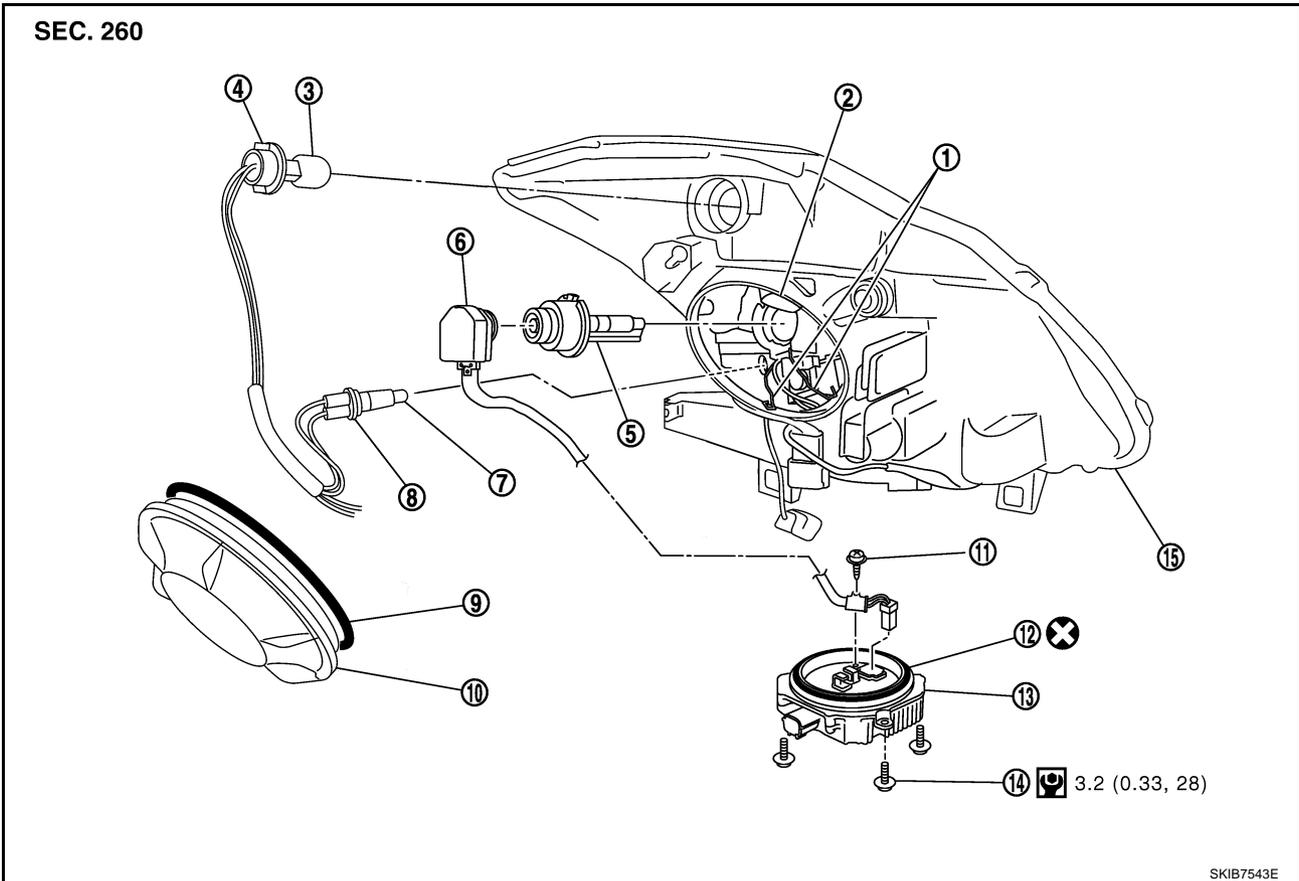
: 6.1 N·m (0.62 kg·m, 54 in-lb)

NOTE:

After installation, perform aiming adjustment. Refer to [LT-216, "Aiming Adjustment"](#).

Disassembly and Assembly

NKS004XA



- | | | |
|---------------------------------------|-------------------------------------|--------------------------------|
| 1. Retaining spring | 2. Xenon bulb socket ground | 3. Front turn signal lamp bulb |
| 4. Front turn signal lamp bulb socket | 5. Xenon bulb | 6. Xenon bulb socket |
| 7. Parking lamp bulb | 8. Parking lamp bulb socket | 9. Seal packing |
| 10. Plastic cap | 11. Ground screw | 12. Seal packing |
| 13. HID control unit | 14. HID control unit mounting screw | 15. Headlamp housing assembly |

:N·m (kg·m, in-lb)

: Always replace after every disassembly.

DISASSEMBLY

1. Turn plastic cap counterclockwise, and unlock it.
2. Turn xenon bulb socket counterclockwise, and unlock it.
3. Unlock retaining spring, and remove xenon bulb.
4. Disconnect xenon bulb socket ground.
5. Remove HID control unit mounting screws.
6. Remove ground screw from HID control unit.
7. Disconnect connectors from HID control unit.
8. Pull out xenon bulb socket from head lamp housing assembly.
9. Turn parking lamp bulb socket counterclockwise and unlock it.
10. Remove parking lamp bulb from its socket.
11. Turn front turn signal lamp bulb socket counterclockwise and unlock it.
12. Remove front turn signal lamp bulb from its socket.

A
B
C
D
E
F
G
H
I
J
LT
L
M

ASSEMBLY

Assembly is the reverse order of disassembly.

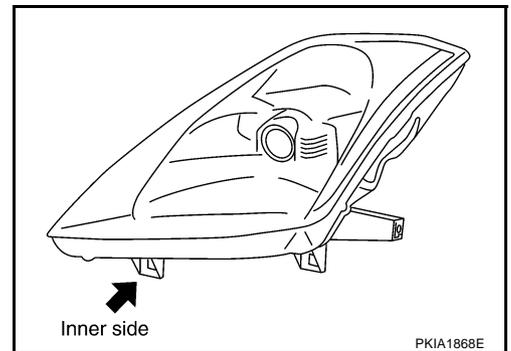
HID control unit mounting screw  : 3.2 N-m (0.33 kg-m, 28 in-lb)

CAUTION:

- When HID control unit is removed, reinstall it securely and avoid any looseness.
- After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness

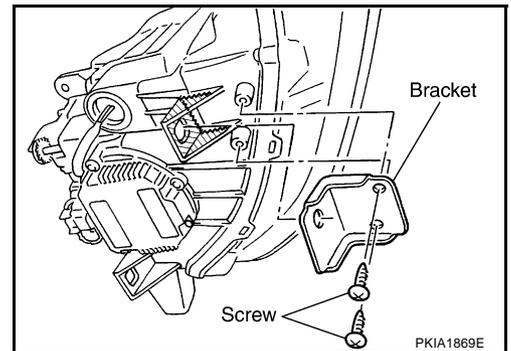
Servicing to Replace Headlamps When Damaged

If only installation part as shown in the figure is damaged, and headlamp housing itself is not damaged, repair can be completed easily by installing correction brackets.



INSTALLATION OF HEADLAMP BRACKET

1. Remove headlamps. Refer to [LT-218, "Removal and Installation"](#).
2. Cut damaged section of installation part, then shape with sandpaper.
3. Attach each correction bracket to headlamp housing boss with 2 screws.



HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

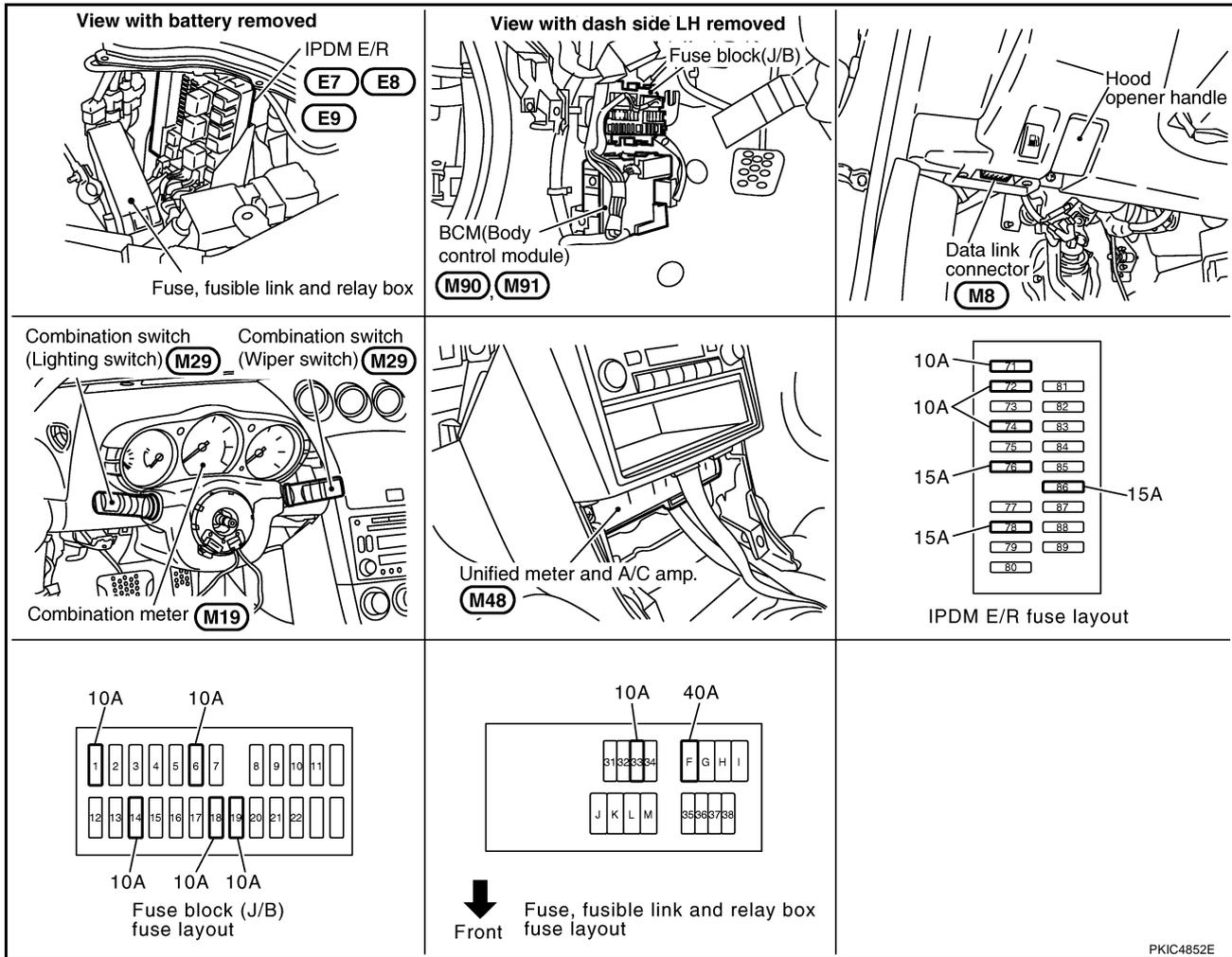
[TYPE 2]

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

PFP:26010

Component Parts and Harness Connector Location

NKS004XC



PKIC4852E

System Description

NKS004XD

- BCM (Body Control Module) controls headlamps low beam, high beam and daytime light operation.
- Daytime light system operates parking, license plate, side marker, tail lamps and headlamp low beam according to signals from unified meter and A/C amp. (receive parking brake switch signal through CAN communication), ECM (receive engine status signal through CAN communication), lighting switch, and ignition switch.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates parking, license plate, side marker, tail lamps, headlamp bulbs and high beam solenoids according to CAN communication signals from BCM.
- Unified meter and A/C amp. operates high beam indicator lamp according to CAN communication signals from BCM.

OUTLINE

Power is supplied at all times

- to headlamp high relay, located in IPDM E/R and
- to headlamp low relay, located in IPDM E/R, from battery directly,
- through 15A fuse [No. 78, located in IPDM E/R]
- to CPU (central processing unit) located in IPDM E/R,
- through 40A fusible link [letter F, located in the fuse, fusible link and relay box]
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]

A
B
C
D
E
F
G
H
I
J

LT

L
M

- to BCM terminal 42,
- through 10A fuse [No. 71, located in IPDM E/R]
- to CPU located in IPDM E/R,
- through 10A fuse [No.19, located in fuse block (J/B)]
- to combination meter terminal 24,
- through 10A fuse [No.33, located in the fuse, fusible link and relay box]
- to daytime light relay terminals 1 and 3.

With ignition switch in ON or START position, power is supplied

- to CPU located in IPDM E/R,
- through 10A fuse [No. 1, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

With ignition switch in ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to BCM terminal 52
- through grounds M30 and M66,
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives input signal requesting the headlamps to illuminate. This input signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls the headlamp low relay turned ON, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7.

Ground is supplied

- to front combination lamp RH terminal 4, and
- to front combination lamp LH terminal 4
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system).

With power and ground supplied, headlamp bulbs illuminate.

High Beam Operation /Flash-to-Pass Operation

With the lighting switch in 2ND position and placed in HIGH or PASS position, the BCM receives input signal requesting headlamp high beams to illuminate. High beam request signal and low beam request signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls headlamp high relay and headlamp low relay turned ON, which when energized, supplies power,

- through 15A fuse [No. 76, located in IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,

- through 15A fuse [No. 86, located in IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7,
- through 10A fuse [No.72, located in IPDM E/R]
- through IPDM E/R terminal 27
- to front combination lamp RH terminal 3,
- through 10A fuse [No.74, located in IPDM E/R]
- through IPDM E/R terminal 28
- to front combination lamp LH terminal 3.

Ground is supplied

- to front combination lamp RH terminal 4, and
- to front combination lamp LH terminal 4
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system).

With the power and ground supplied, headlamp bulbs illuminate. High beam solenoids move the bulb shades in the front combination lamps, and the bulb shades change to high beam position.

Unified meter and A/C amp. receives signal from BCM through CAN communication, and then combination meter indicator illuminates high beam,

DAYTIME LIGHT OPERATION

Once the parking brake is turned OFF after ignition switch ON, if the lighting switch is turned OFF while engine is running, the BCM outputs the signal requesting parking, license plate, side marker, tail lamps and headlamp low beam to illuminate. This output signal is communicated to the IPDM E/R through CAN communication. The CPU located in the IPDM E/R controls headlamp low relay and daytime light relay turned ON, which when energized, supplies power,

- through 15A fuse [No.76, located in the IPDM E/R]
- through IPDM E/R terminal 20
- to front combination lamp RH terminal 7,
- through 15A fuse [No.86, located in the IPDM E/R]
- through IPDM E/R terminal 30
- to front combination lamp LH terminal 7,
- through 10A fuse [No.33, located in the fuse, fusible link and relay box]
- through daytime light relay terminal 2
- to IPDM E/R terminal 55,
- through daytime light relay terminal 5
- to front combination lamp RH terminal 6
- to front combination lamp LH terminal 6
- to rear combination lamp RH terminal 2
- to rear combination lamp LH terminal 2
- to license plate lamp RH terminal 2
- to license plate lamp LH terminal 2.

Ground is supplied

- to front combination lamp RH terminal 4
- to front combination lamp LH terminal 4
- to front combination lamp RH terminal 8
- to front combination lamp LH terminal 8
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to rear combination lamp RH terminal 3
- to rear combination lamp LH terminal 3
- to license plate lamp RH terminal 1

A

B

C

D

E

F

G

H

I

J

LT

L

M

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

- to license plate lamp LH terminal 1
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

With power and ground supplied, the headlamp low, parking, license plate and tail lamps illuminate.

OPERATION

Engine		With engine stopped									With engine running								
Lighting switch		OFF			1ST			2ND			OFF			1ST			2ND		
		OFF	Hi	P	T	Hi	P	Lo	Hi	P	OFF	Hi	P	T	Hi	P	Lo	Hi	P
Headlamp	High beams	-	-	-	-	-	×	-	×	×	-	-	×	-	-	×	-	×	×
	Low beams	-	-	-	-	-	-	×	-	-	×	×	-	×	×	-	×	-	-
Parking, license plate, side marker and tail lamps		-	-	-	×	-	×	×	×	×	×	×	-	×	×	×	×	×	×
Illumination		-	-	-	×	-	×	×	×	×	-	-	-	×	×	×	×	×	×

- T: "TAIL LAMP" position
- Hi: "HIGH BEAM" position
- Lo: "LOW BEAM" position
- P: "FLASH TO PASS" position
- ×: Lamp "ON"
- -: Lamp "OFF"
- *: Once the parking brake is turned OFF after ignition switch ON, parking, license plate, side marker, tail lamps and headlamp low are turned ON.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control function is activated.

Under this condition, the headlamps remain illuminated for 5 minutes, then the headlamps are turned off. Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

INTERLOCKED OPERATION WITH REMOTE KEYLESS ENTRY SYSTEM

Refer to [BL-60, "REMOTE KEYLESS ENTRY SYSTEM"](#) .

INTERLOCKED OPERATION WITH VEHICLE SECURITY SYSTEM

Refer to [BL-129, "VEHICLE SECURITY \(THEFT WARNING\) SYSTEM"](#) .

XENON HEADLAMP

Xenon type lamps are used for headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to strong lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Followings are some advantages of the xenon type headlamp.

- The light produced by the headlamps is white color similar to sunlight that is easy to the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- Counter-reflected luminance increases and the contrast enhances on the wet road in the rain. That makes visibility go up more than the increase of the light volume.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

CAN Communication System Description

NKS004XE

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS004XF

Refer to [LAN-48, "CAN System Specification Chart"](#) .

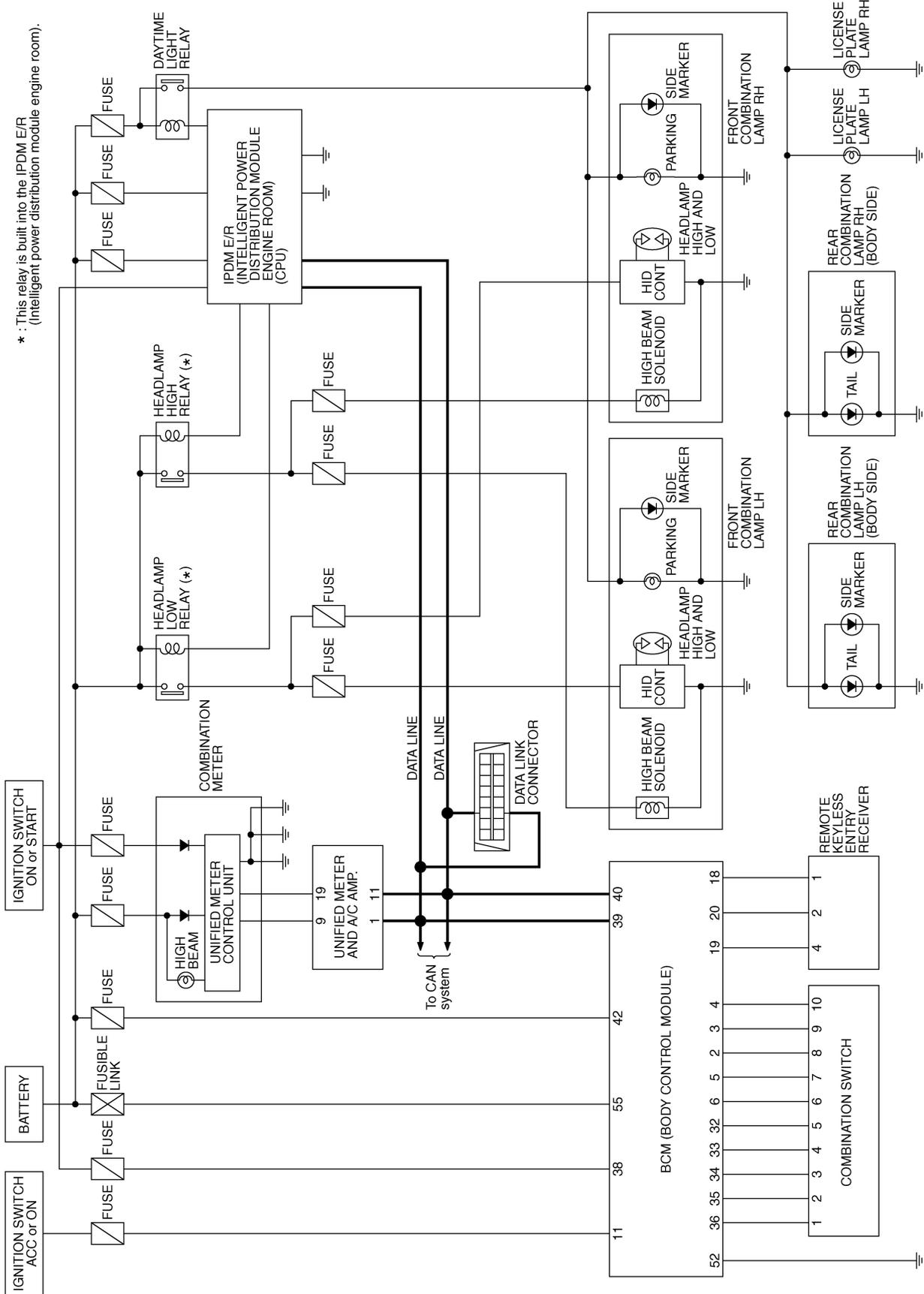
A
B
C
D
E
F
G
H
I
J
LT
L
M

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

Schematic

NKS004XG



TKWT4022E

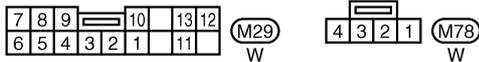
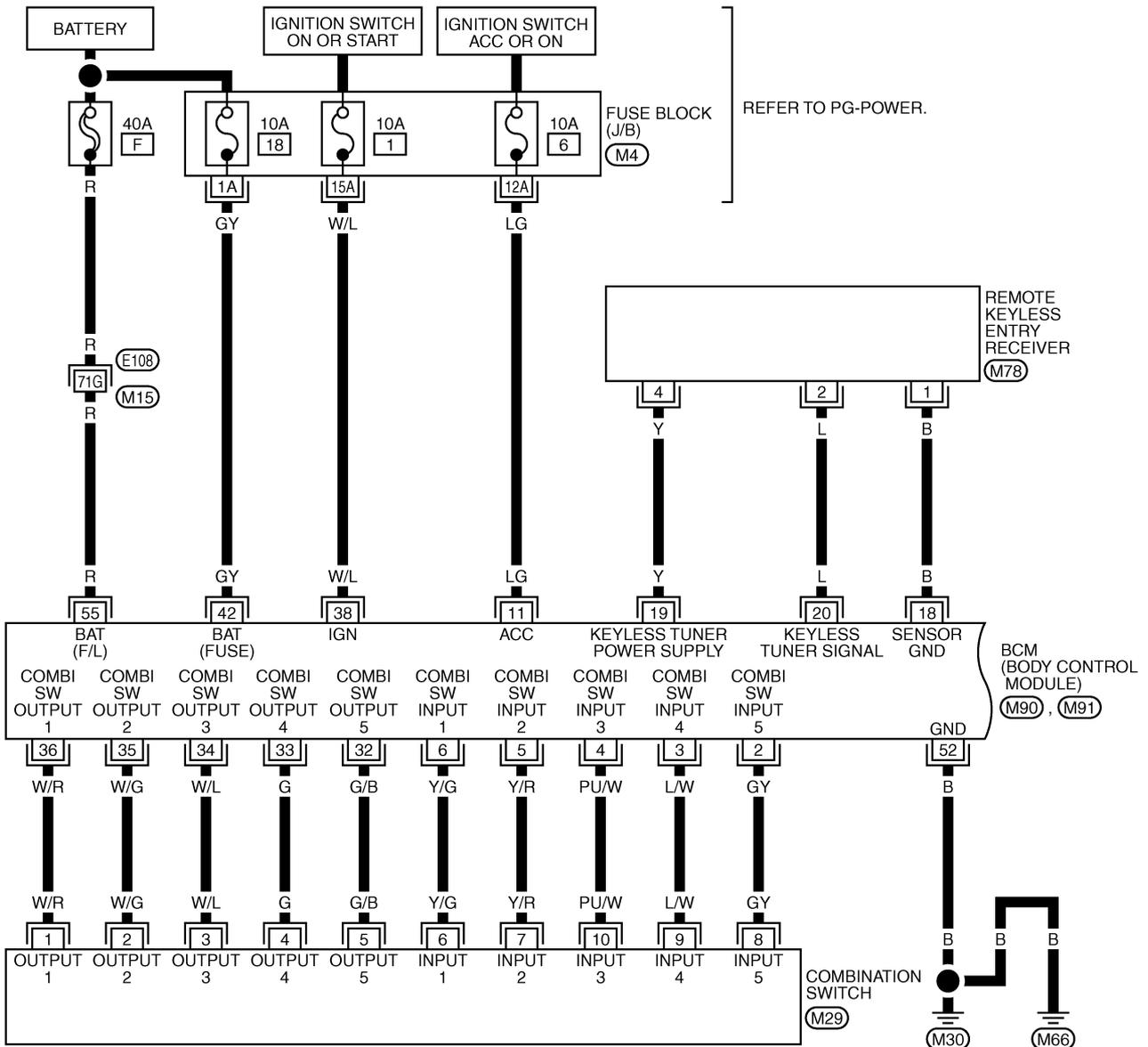
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

Wiring Diagram — DTRL —

NKS004XH

LT-DTRL-01



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

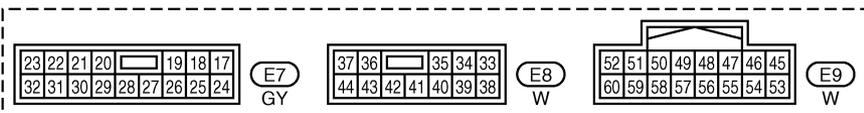
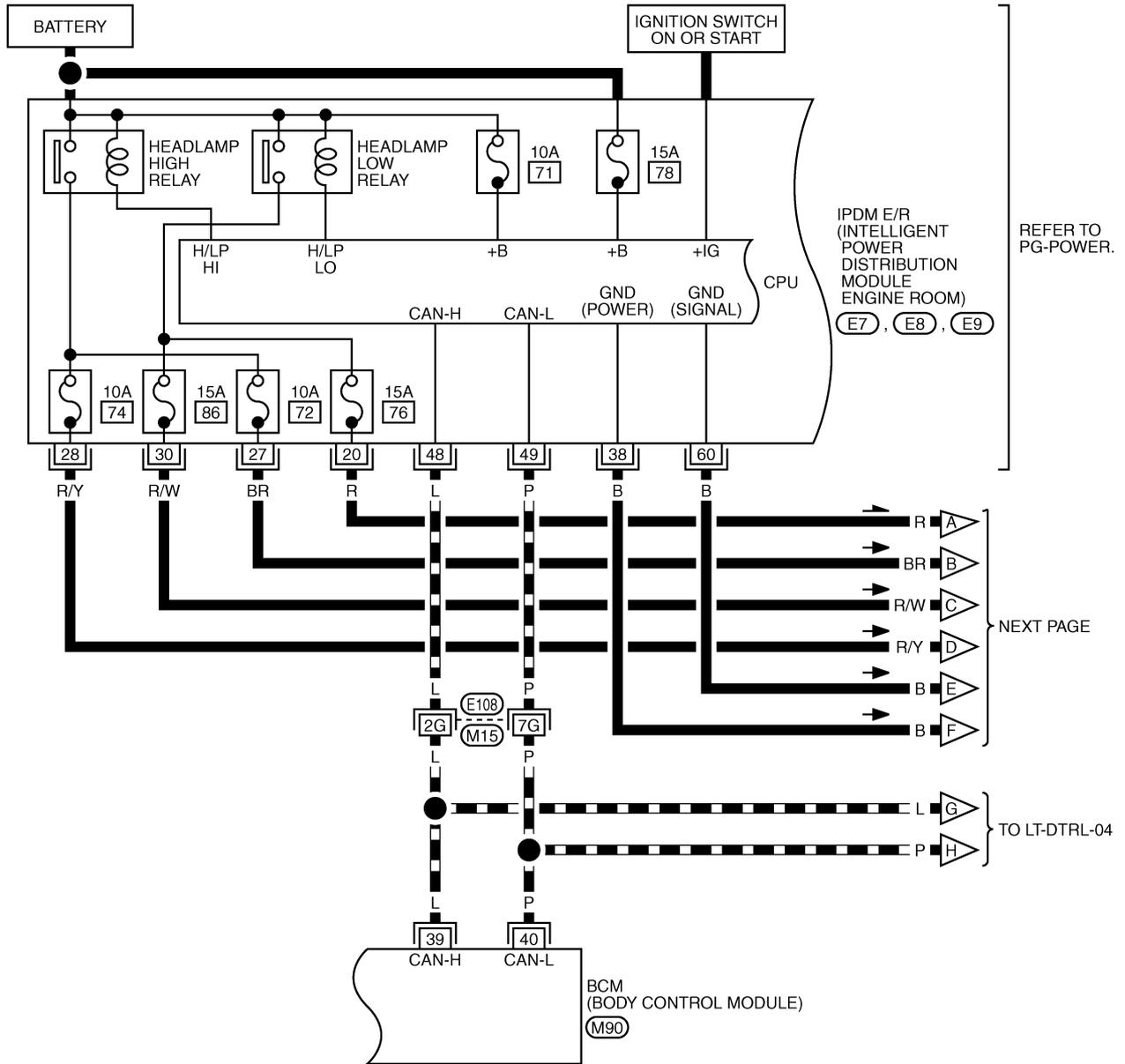
TKWT5577E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

LT-DTRL-02

▬ : DATA LINE



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M90) -ELECTRICAL UNITS

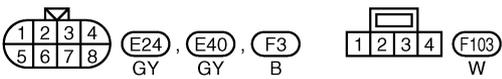
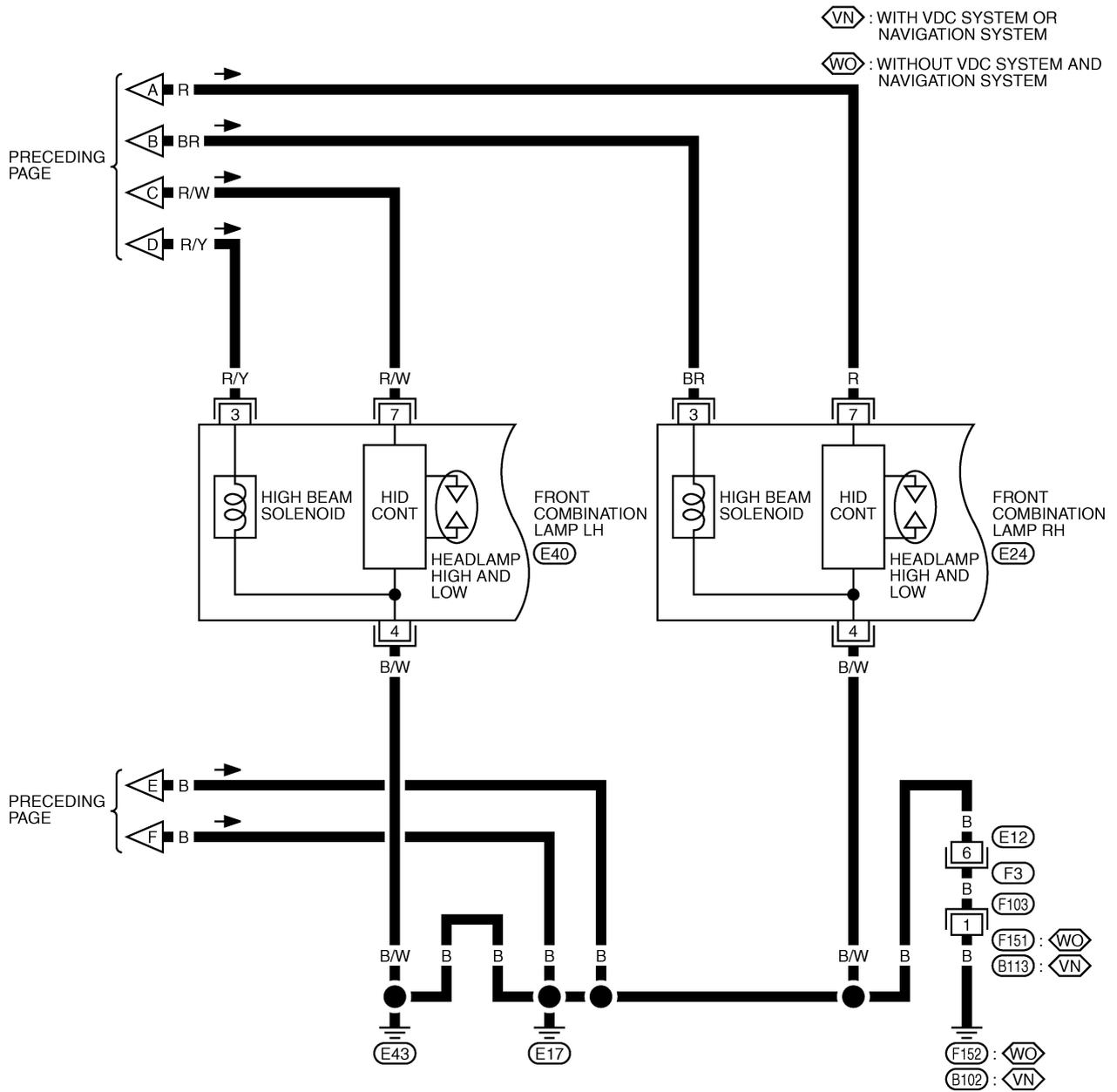


TKWT4024E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

LT-DTRL-03

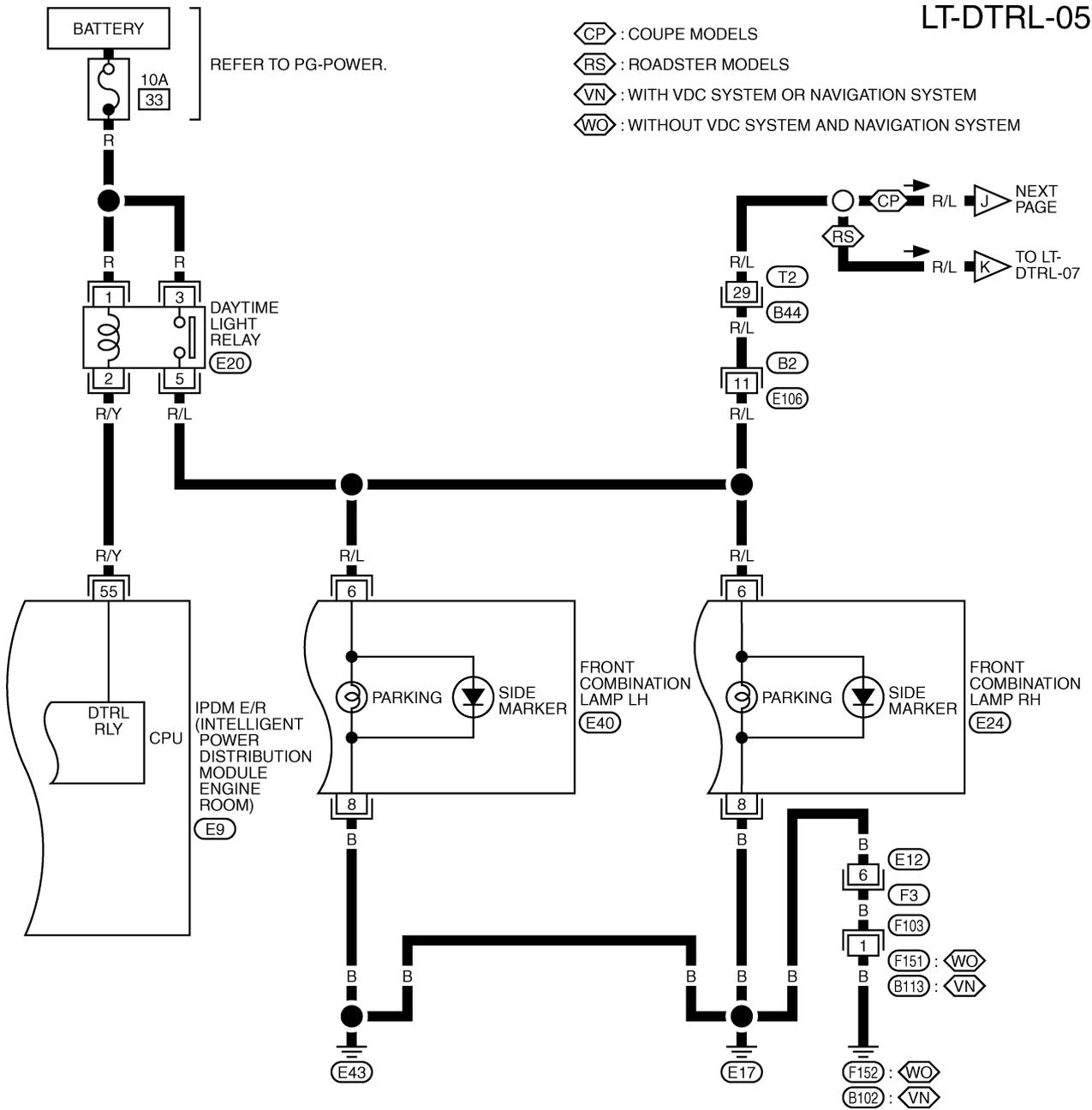


TKWT5578E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

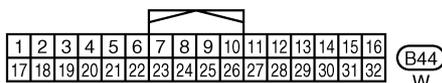
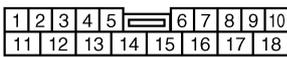
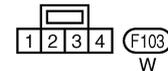
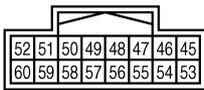
[TYPE 2]

LT-DTRL-05



A
B
C
D
E
F
G
H
I
J
K
L
M

LT



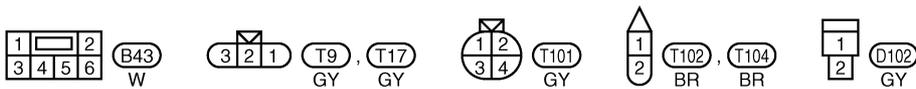
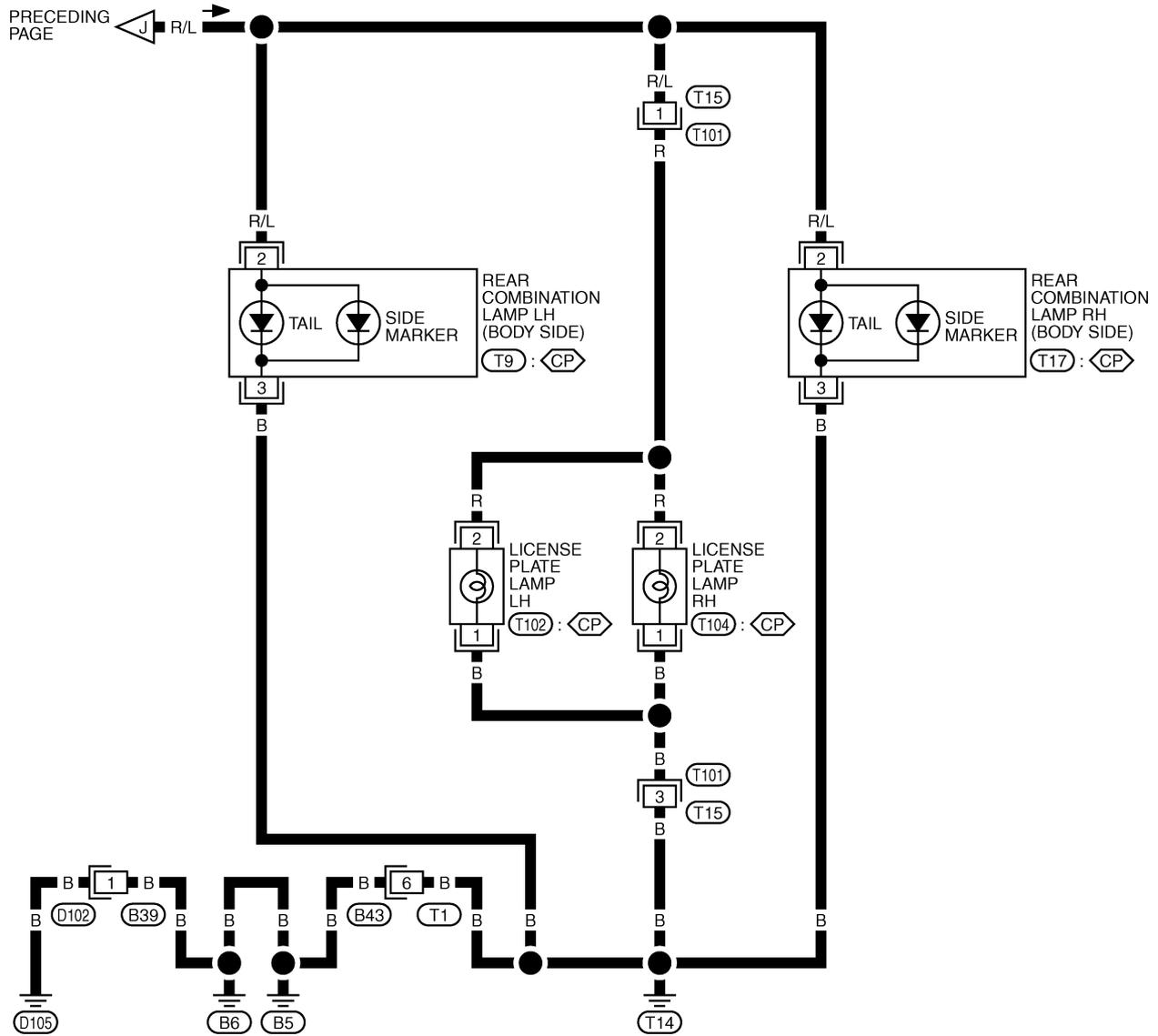
TKWT5579E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

LT-DTRL-06

◊CP◊ : COUPE MODELS



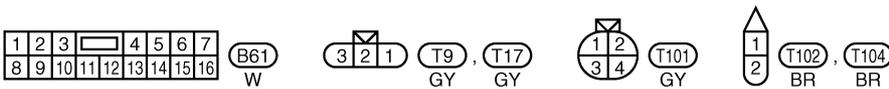
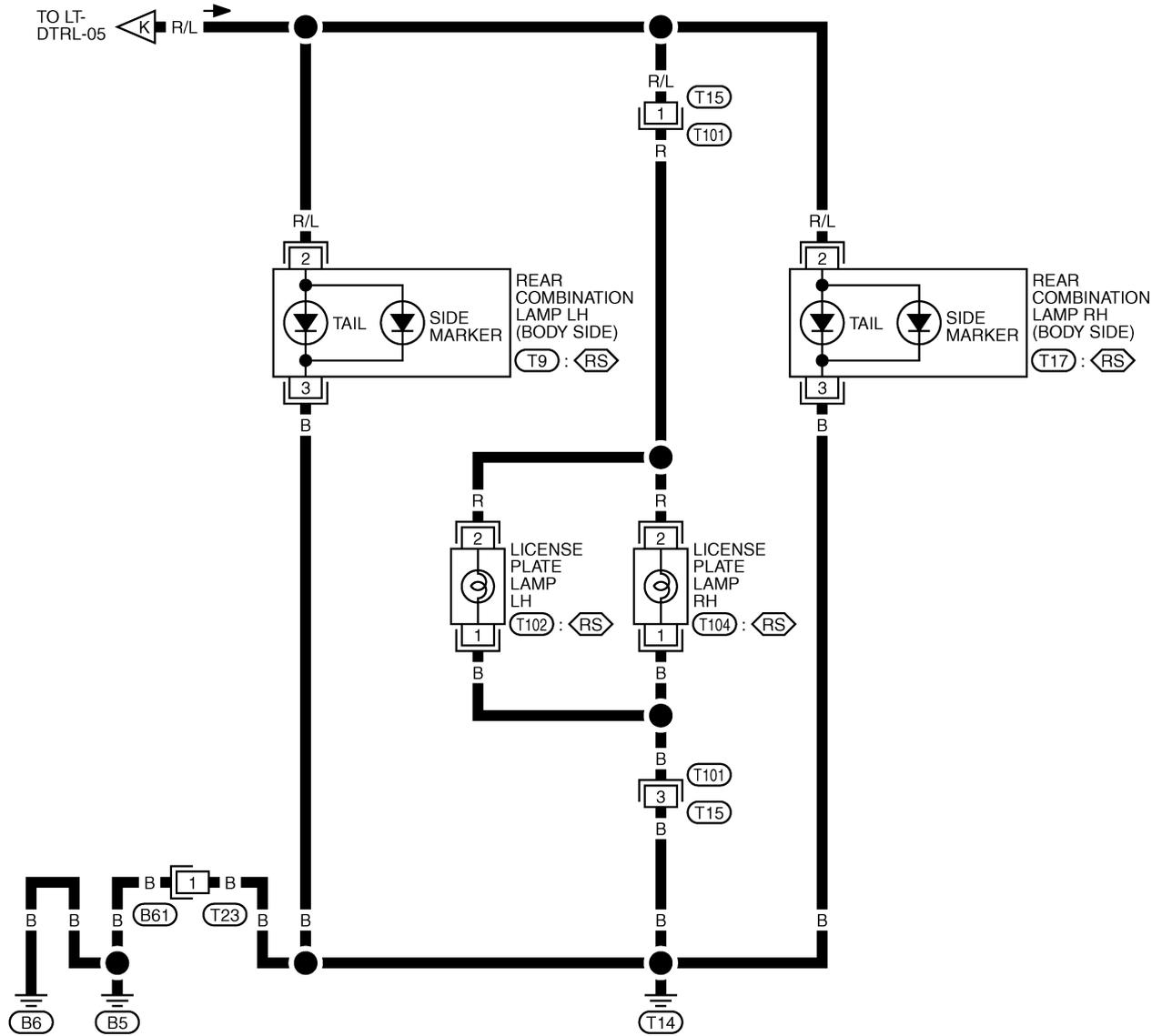
TKWT4028E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

LT-DTRL-07

⬡RS⬡ : ROADSTER MODELS



TKWT4029E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

NKS004X1

Terminals and Reference Values for BCM

CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [LT-281, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) 	<p>PKIB4959J</p>
3	LW	Combination switch input 4	ON	Lighting switch 2ND	<p>PKIB4953J</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p>PKIB4959J</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	<p style="text-align: right;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Lighting switch 1ST (The same result with lighting switch 2ND)	<p style="text-align: right;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	<p style="text-align: right;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch) 	<p style="text-align: right;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	<p style="text-align: right;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p style="text-align: right;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage

A
B
C
D
E
F
G
H
I
J
LT
L
M

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0 V
55	R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Values for IPDM E/R

NKS004XJ

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
20	R	Headlamp low (RH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
27	BR	Headlamp high (RH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
28	R/Y	Headlamp high (LH)	ON	Lighting switch HIGH or PASS position	OFF	Approx. 0 V
					ON	Battery voltage
30	R/W	Headlamp low (LH)	ON	Lighting switch 2ND position	OFF	Approx. 0 V
					ON	Battery voltage
38	B	Ground	ON	—	—	Approx. 0 V
48	L	CAN– H	—	—	—	—
49	P	CAN– L	—	—	—	—
55	R/Y	Daytime light relay signal	ON	Lighting switch 1ST position	OFF	Approx. 0 V
					ON	Battery voltage
60	B	Ground	ON	—	—	Approx. 0 V

How to Proceed With Trouble Diagnosis

NKS004XK

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-221, "System Description"](#) .
3. Perform the preliminary check. Refer to [LT-236, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Does headlamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

NKS004XL

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

UNIT	POWER SOURCE	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

UNIT	POWER SOURCE	Fuse and fusible link No.
IPDM E/R	Battery	33
		72
		74
		76
		86
	Ignition switch ON or START	82

Refer to [LT-227, "Wiring Diagram — DTRL —"](#) .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

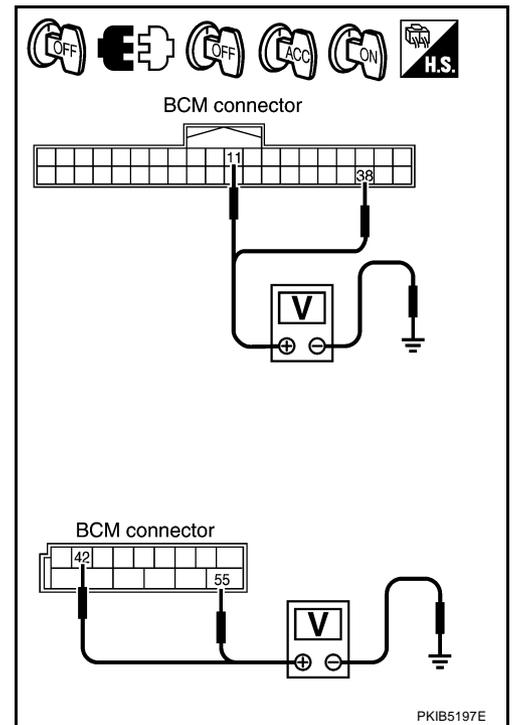
1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

Terminals		Ignition switch position			
(+)		(-)	OFF	ACC	ON
BCM connector	Terminal				
M90	11	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage	Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.



3. CHECK GROUND CIRCUIT

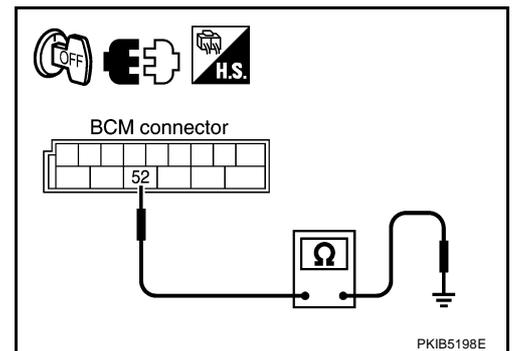
Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M91	52		Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS004XM

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
HEADLAMP	WORK SUPPORT	Changes the setting for each function.
	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
BCM	SELF-DIAG RESULTS	BCM performs self-diagnosis of CAN communication.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

WORK SUPPORT

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
3. Touch "BATTERY SAVER SET" on "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch "CHANGE SET".
6. The setting will be changed and "CUSTOMIZING COMPLETED" will be displayed.
7. Touch "END".

Display Item List

Item	Description	CONSULT-II	Factory setting
BATTERY SAVER SET	Exterior lamp battery saver control mode can be changed in this mode. Select exterior lamp battery saver control mode between two ON/OFF.	ON	×
		OFF	—

DATA MONITOR

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch individual items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW	"ON/OFF" Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from the ignition switch signal.
ACC ON SW	"ON/OFF" Displays "ACC (ON)/OFF, Ignition OFF (OFF)" status judged from ignition switch signal.
HI BEAM SW	"ON/OFF" Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
HEAD LAMP SW 1	"ON/OFF" Displays status (headlamp switch 1: ON/Others: OFF) of headlamp switch 1 judged from lighting switch signal.
HEAD LAMP SW 2	"ON/OFF" Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

Monitor item	Contents
LIGHT SW 1 ST "ON/OFF"	Displays status (lighting switch 1ST or 2ND position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
PASSING SW "ON/OFF"	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW ^{NOTE} "ON/OFF"	—
DOOR SW - DR "ON/OFF"	Displays status of driver door as judged from driver door switch signal. (Door is open: ON/ Door is closed: OFF)
DOOR SW - AS "ON/OFF"	Displays status of passenger door as judged from passenger door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR ^{NOTE} "OFF"	—
DOOR SW - RL ^{NOTE} "OFF"	—
BACK DOOR SW "ON/OFF"	<ul style="list-style-type: none"> ● Displays status of back door as judged from back door switch signal. (Coupe models) ● Displays status of rear trunk hood as judged from trunk lamp switch signal. (Roadster models)
TURN SIGNAL R "ON/OFF"	Displays status (Turn right: ON/Others: OFF) as judged from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays status (Turn left: ON/Others: OFF) as judged from lighting switch signal.
ENGINE RUN "ON/OFF"	Displays status (engine running: ON/ engine stopped: OFF) of engine judged from engine run signal.
PKB SW "ON/OFF"	Displays status (parking brake released: ON/ parking brake applied: OFF) of parking brake switch judged from parking brake switch signal.
CARGO LAMP SW ^{NOTE} "OFF"	—

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
TAIL LAMP	Allows tail lamp relay to operate by switching ON-OFF.
HEAD LAMP	Allows headlamp relay to operate by switching ON-OFF.
FR FOG LAMP ^{NOTE}	—
CORNERING LAMP ^{NOTE}	—
DAYTIME RUNNING LIGHT	Allows headlamp low relay and daytime light relay to operate switching ON-OFF.

NOTE:

This item is displayed, but cannot be tested.

CONSULT-II Functions (IPDM E/R)

NKS004XN

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

Check Item, Diagnosis Mode	Description
SELF-DIAG RESULTS	Refer to PG-32. "SELF-DIAG RESULTS" .
DATA MONITOR	The input/output data of IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	IPDM E/R sends a drive signal to electronic components to check their operation.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "DATA MONITOR" on "SELECT DIAG MODE " screen.
2. Touch "ALL SIGNALS", "MAIN SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signal.
MAIN SIGNALS	Monitor the predetermined item.
SELECTION FROM MENU	Selects items and monitors them.

3. Touch the required monitoring item on "SELECTION FROM MENU". In "ALL SIGNALS", all items are monitored. In "MAIN SIGNALS", predetermined items are monitored.
4. Touch "START".
5. Touch "RECORD" while monitoring to record the status of the item being monitored. To stop recording, touch "STOP".

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Position lights request	TAIL&CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM
Daytime running light request	DTRL REQ	ON/OFF	×		×	Signal status input from BCM

NOTE:

Perform monitoring of IPDM E/R data with ignition switch ON. When ignition switch is at ACC, the display may not be correct.

ACTIVE TEST

Operation Procedure

1. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Touch item to be tested, and check operation.
3. Touch "START".
4. Touch "STOP" while testing to stop the operation.

Test item	CONSULT-II screen display	Description
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option.
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI ON, LO ON) at your option (Headlamp high beam repeats ON- OFF every 1 second).

Daytime Light Control Does Not Operate

NOTE:

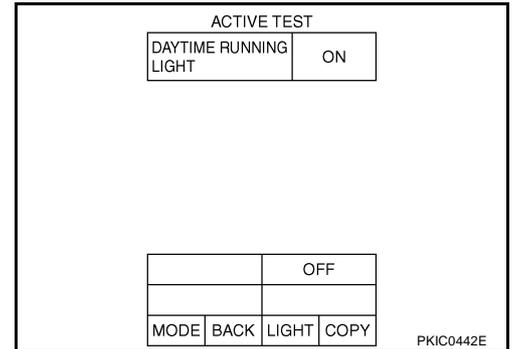
Check if parking, license plate, side marker, tail lamps and head lamps low operates normally.

1. ACTIVE TEST

☞ With CONSULT-II

1. Select "BCM" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "DAYTIME RUNNING LIGHT" on CONSULT-II.
3. Touch "ON" screen.
4. Make sure headlamp low beam, parking, license plate and tail lamp operation.

Headlamp low beam, parking, license plate and tail lamp should operate.



OK or NG

- OK >> GO TO 2.
- NG >> Replace IPDM E/R.

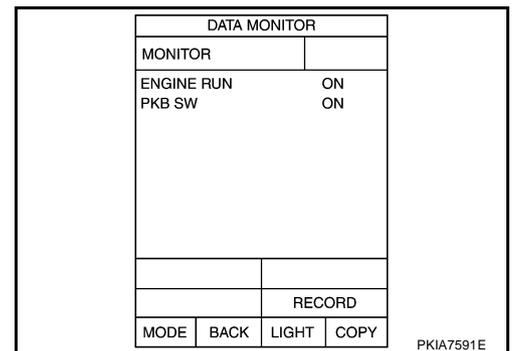
2. CHECK INPUT SIGNAL

1. Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "ENGINE RUN" turns ON-OFF linked with operation of engine running or stop.

Engine running : ENGINE RUN ON
Engine stop : ENGINE RUN OFF

2. Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "PKB SW" turns ON-OFF linked with operation of parking brake switch.

Parking brake ON : PKB SW ON
Parking brake OFF : PKB SW OFF



OK or NG

- OK >> Replace BCM.
- NG >> Refer to [BCS-18, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#).

Headlamp Does Not Change To High Beam (Both Sides)

1. CHECK COMBINATION SWITCH INPUT SIGNAL

☞ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HI BEAM SW" turns ON-OFF linked with operation of lighting switch.

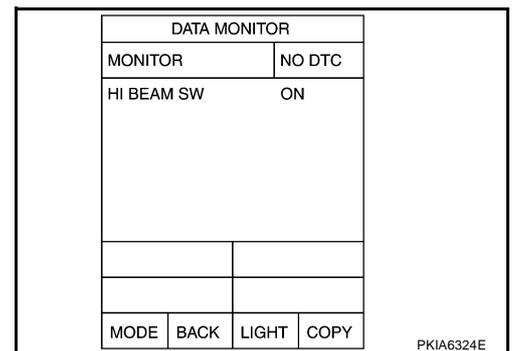
When lighting switch is HIGH BEAM position : HI BEAM SW ON

☒ Without CONSULT-II

Refer to [LT-282, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#).



2. HEADLAMP ACTIVE TEST

☑ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST ITEM" screen.
3. Touch "HI" screen.
4. Make sure headlamp high beam operation.

**Headlamp high beam should operate.
(Headlamp high beam repeats ON-OFF every 1 second).**

ACTIVE TEST			
LAMPS		OFF	
		HI	
LO		FOG	
MODE	BACK	LIGHT	COPY

SKIA5774E

☒ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#) .
2. Make sure headlamp high beam operation.

Headlamp high beam should operate.

OK or NG

- OK >> GO TO 3.
 NG >> GO TO 4.

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" and "HL HI REQ" turns ON when lighting switch is in HI position.

**When lighting switch is : HL LO REQ ON
 HIGH BEAM position : HL HI REQ ON**

DATA MONITOR			
MONITOR			
HL LO REQ		ON	
HL HI REQ		ON	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

SKIA5775E

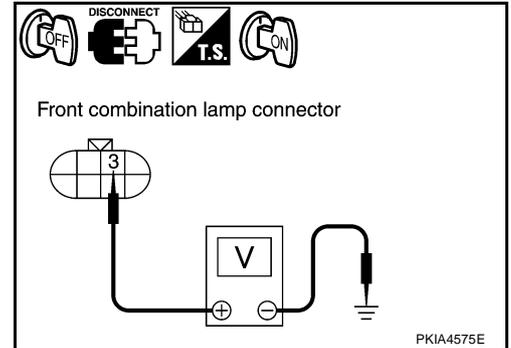
OK or NG

- OK >> Replace IPDM E/R.
 NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .

4. CHECK HEADLAMP INPUT SIGNAL

With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "HI" screen.
6. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground (Headlamp high beam repeats ON-OFF every 1 second).



Terminals				Voltage (Approx.)
(+)		(-)		
Front combination lamp connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp high beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminals				Voltage (Approx.)
(+)		(-)		
Front combination lamp connector	Terminal			
RH	E24	3	Ground	Battery voltage
LH	E40	3		

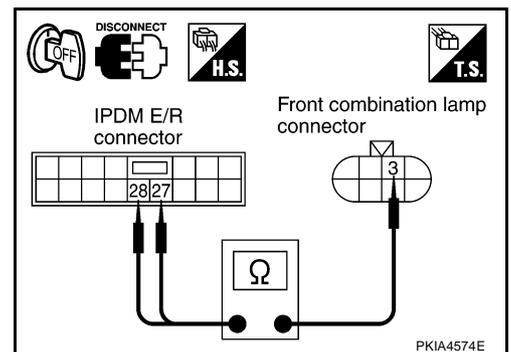
OK or NG

- OK >> GO TO 6.
 NG >> GO TO 5.

5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal		
RH	E7	27	E24	3	Yes
LH		28	E40	3	



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

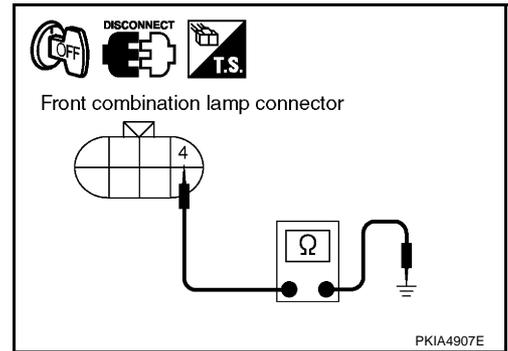
6. CHECK HEADLAMP GROUND

Check continuity between front combination lamp (RH and LH) harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness, connector and bulb.
- NG >> Repair harness or connector.



Headlamp Does Not Change To High Beam (One Side)

NKS004XQ

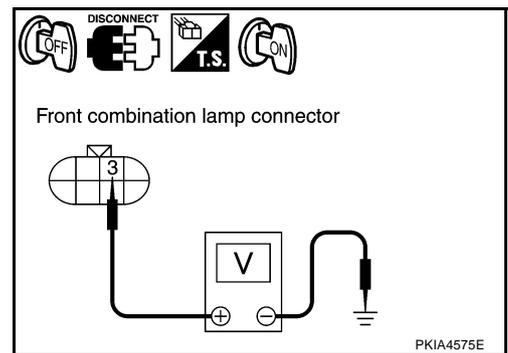
1. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned HIGH BEAM position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
Front combination lamp connector	Terminal	Ground	Battery voltage
RH	E24	3	Battery voltage
LH	E40	3	

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 2.



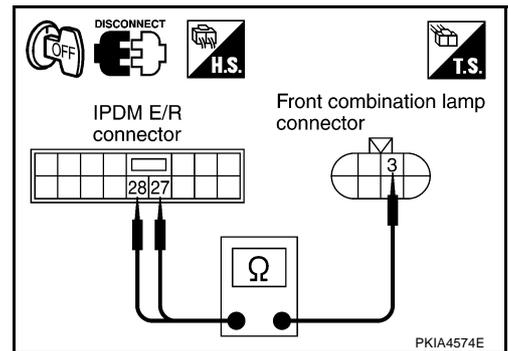
2. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal		
RH	E7	27	E24	3	Yes
LH		28	E40	3	

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.



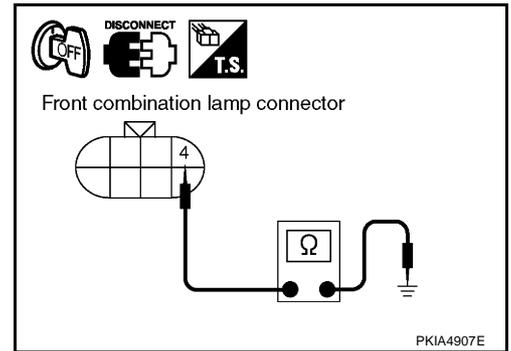
3. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connector.
- NG >> Repair harness or connector.



NKS004XR

High Beam Indicator Lamp Does Not Illuminate

1. CHECK BULB

Check bulb of high beam indicator lamp.

OK or NG

- OK >> Replace combination meter.
- NG >> Replace indicator bulb.

Headlamp Low Beam Does Not Illuminate (Both Sides)

NKS004XS

1. CHECK COMBINATION SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW 1" and "HEAD LAMP SW 2" turns ON-OFF linked with operation of lighting switch.

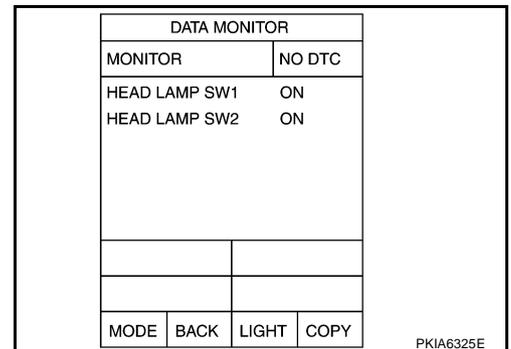
**When lighting switch is 2ND position : HEAD LAMP SW 1 ON
: HEAD LAMP SW 2 ON**

⊗ Without CONSULT-II

Refer to [LT-282, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#).



LT

2. HEADLAMP ACTIVE TEST

Ⓜ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "LAMPS" on "SELECT TEST" ITEM screen.
3. Touch "LO" screen.
4. Make sure headlamp low beam operation.

Headlamp low beam should operate.

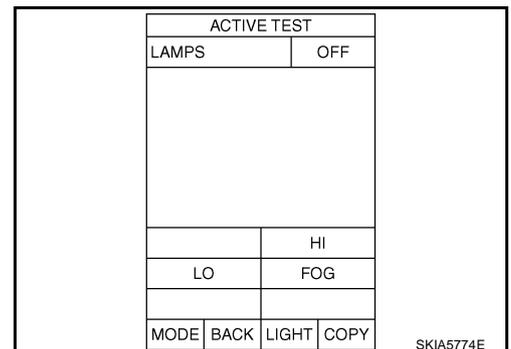
⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
2. Make sure headlamp low beam operation.

Headlamp low beam should operate.

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 4.



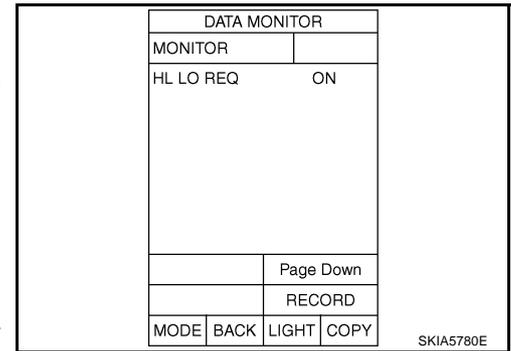
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" turns ON when lighting switch is in 2ND position.

When lighting switch is 2ND : HL LO REQ ON position



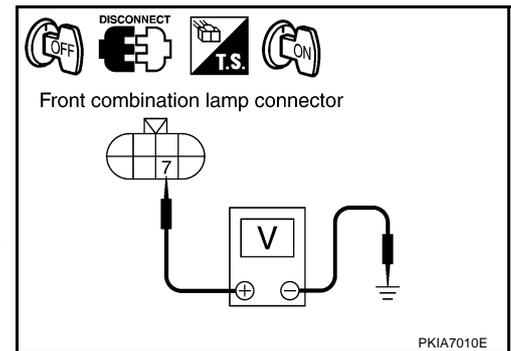
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

4. CHECK HEADLAMP INPUT SIGNAL

With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "LO" screen.
6. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.



Terminals			Voltage (Approx.)
(+) Front combination lamp connector		(-) Terminal	
RH	E24	7	Ground Battery voltage
LH	E40	7	

Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH and LH connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When headlamp low beam is operating, check voltage between front combination lamp (RH and LH) harness connector and ground.

Terminals			Voltage (Approx.)
(+) Front combination lamp connector		(-) Terminal	
RH	E24	7	Ground Battery voltage
LH	E40	7	

OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.

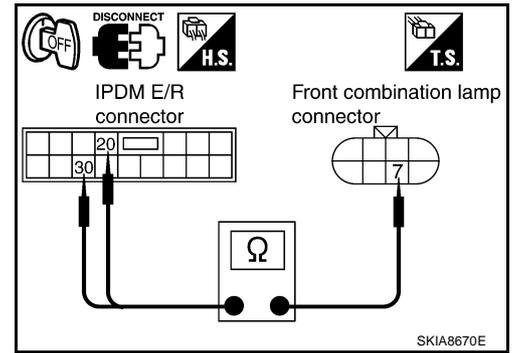
5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp (RH and LH) harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E7	20	E24	7	Yes
LH		30	E40	7	

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.



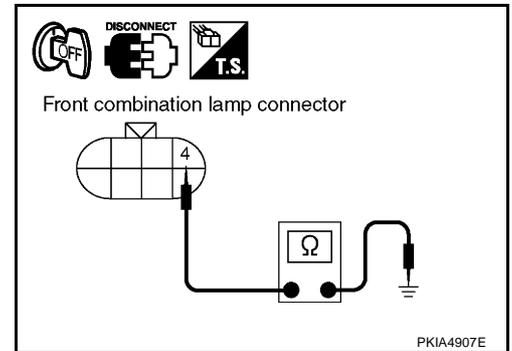
6. CHECK HEADLAMP GROUND

1. Turn ignition switch OFF.
2. Check continuity between front combination lamp (RH and LH) harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	4		Continuity
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connectors, ballasts (HID control unit), and xenon bulbs. Refer to [LT-250, "Xenon Headlamp Trouble Diagnosis"](#).
- NG >> Repair harness or connector.



Headlamp Low Beam Does Not Illuminate (One Side)

NKS004XT

1. CHECK BULB

Check ballast (HID control unit) and xenon bulb of lamp which does not illuminate. Refer to [LT-250, "Xenon Headlamp Trouble Diagnosis"](#).

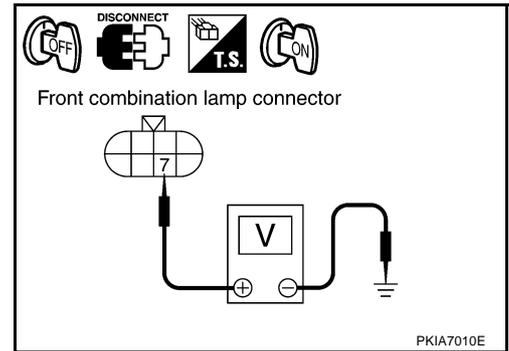
OK or NG

- OK >> GO TO 2.
- NG >> Replace malfunctioning part.

2. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front combination lamp RH or LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned 2ND position.
5. Check voltage between front combination lamp RH or LH harness connector and ground.

Terminals			(-)	Voltage (Approx.)
(+)		Terminal		
Front combination lamp connector				Ground
RH	E24	7		
LH	E40	7		



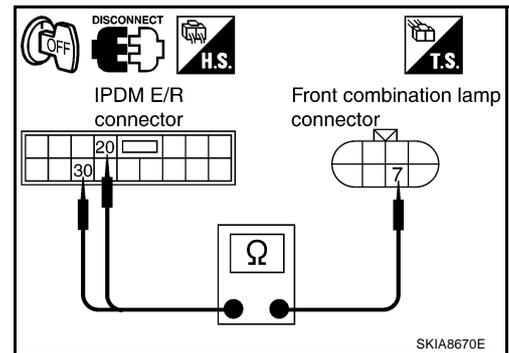
OK or NG

- OK >> GO TO 4.
 NG >> GO TO 3.

3. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp RH or LH harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal	Yes	
RH	E7	20	E24		7
LH		30	E40		7



OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair harness or connector.

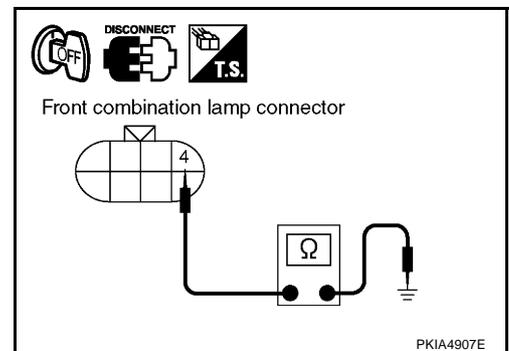
4. CHECK HEADLAMP GROUND

Check continuity between front combination lamp RH or LH harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	4		Yes
LH	E40	4		

OK or NG

- OK >> Check headlamp harness and connector.
 NG >> Repair harness or connector.



Headlamps Does Not Turn OFF

1. CHECK HEADLAMP TURN OFF

Make sure that lighting switch is OFF. And check if headlamp turns off when ignition switch is turned OFF.

OK or NG

- OK >> GO TO 3.
- NG >> GO TO 2.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "HEAD LAMP SW 1" and "HEAD LAMP SW 2" turns ON-OFF linked with operation of lighting switch.

When lighting switch is OFF : HEAD LAMP SW 1 OFF position : HEAD LAMP SW 2 OFF

OK or NG

- OK >> Replace IPDM E/R.
- NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#).

DATA MONITOR			
MONITOR		NO DTC	
HEAD LAMP SW 1	OFF	HEAD LAMP SW 2	OFF
		Page Down	
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7011E

3. CHECKING CAN COMMUNICATIONS BETWEEN BCM AND IPDM E/R

Select "BCM" by CONSULT-II, and perform self-diagnosis for "BCM".

Display of self-diagnosis results

- NO DTC>> Replace IPDM E/R.
- CAN COMM CIRCUIT>> Refer to [BCS-18, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#).

SELF-DIAG RESULTS			
DTC RESULTS		TIME	
CAN COMM CIRCUIT [U1000]			
ERASE		PRINT	
MODE	BACK	LIGHT	COPY

PKIA7627E

General Information for Xenon Headlamp Trouble Diagnosis

In most cases, malfunction of xenon headlamp - "does not illuminate", "flickers" or "dark" - is caused by a malfunctioning xenon bulb. A malfunctioning HID control unit or lamp housing, however, may be a cause. Be sure to perform trouble diagnosis following the steps described below.

Caution:

- Installation or removal of connector must be done with lighting switch OFF.
 - Disconnect the battery cable from the negative terminal or remove power fuse.
- CAUTION:**
After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.
- When the lamp is illuminated (when lighting switch is ON), never touch harness, HID control unit, inside of lamp, or lamp metal parts.
 - To check illumination, temporarily install lamp in vehicle. Be sure to connect power at vehicle side connector.
 - If error can be traced directly to electrical system, first check for items such as blown fuses and fusible links, broken wires or loose connectors, dislocated terminals, and improper connections.
 - Never work with wet hands.
 - Using a tester for HID control unit circuit trouble diagnosis is prohibited.
 - Disassembling HID control unit or harnesses (bulb socket harness, ECM harness) is prohibited.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

- Immediately after illumination, light intensity and color will fluctuate, but there is nothing wrong.
- When bulb has come to end of its life, brightness will drop significantly, it will flash repeatedly, or light color will turn reddish.

Xenon Headlamp Trouble Diagnosis

NKS004XX

1. CHECK 1: XENON HEADLAMP LIGHTING

Install normal xenon bulb to corresponding xenon bulb headlamp, and check if lamp lights up.

OK or NG

OK >> Replace xenon bulb.

NG >> GO TO 2.

2. CHECK 2: XENON HEADLAMP LIGHTING

Install normal HID control unit to corresponding xenon headlamp, and check if lamp lights up.

OK or NG

OK >> Replace HID control unit.

NG >> GO TO 3.

3. CHECK 3: XENON HEADLAMP LIGHTING

Install normal xenon lamp housing assembly to corresponding xenon headlamp, and check if lamp lights up.

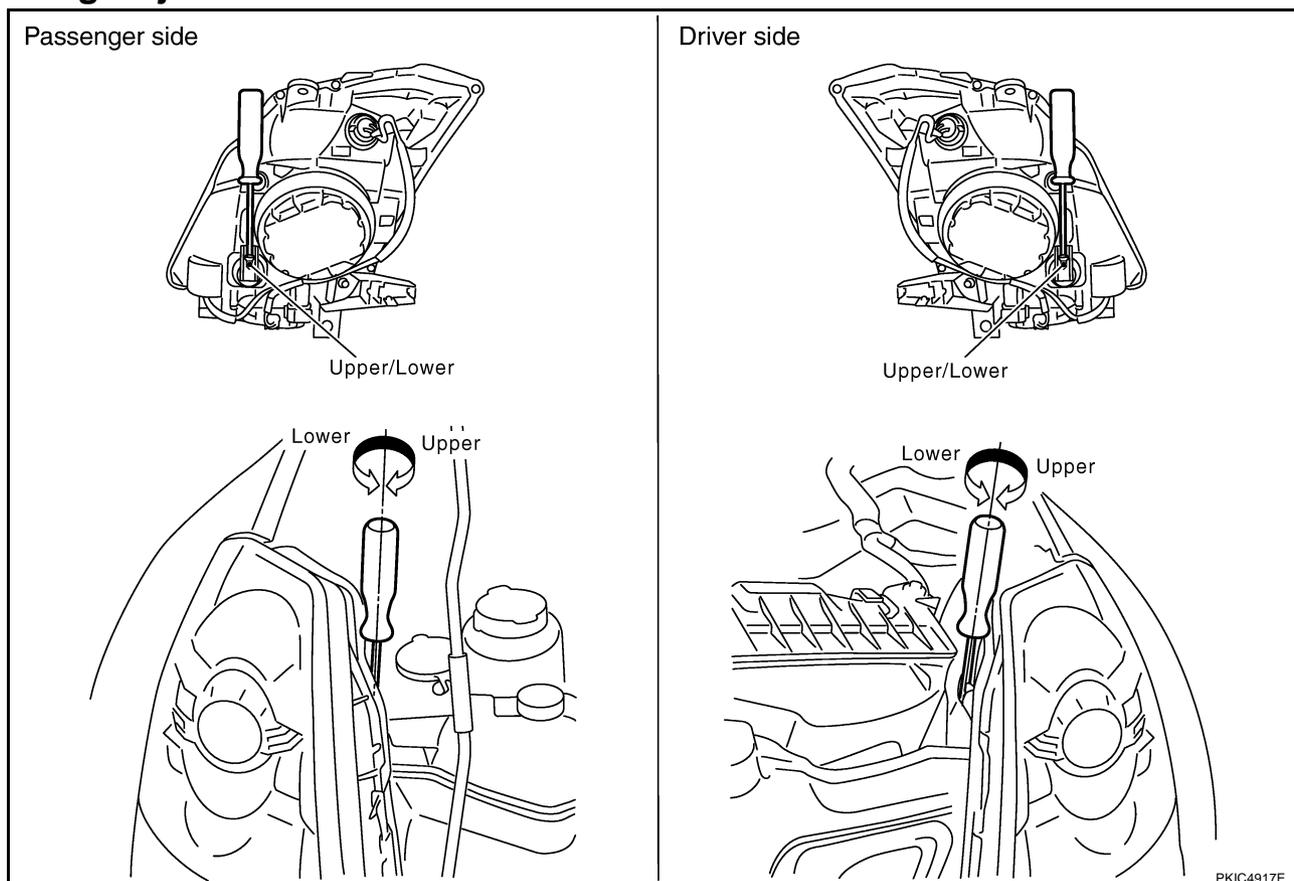
OK or NG

OK >> Replace xenon headlamp housing assembly. [Malfunction in starter (boosting circuit) in xenon headlamp housing]

NG >> INSPECTION END

Aiming Adjustment

NKS004XY



PREPARATION BEFORE ADJUSTING

For details, refer to the regulations in your own country.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

[TYPE 2]

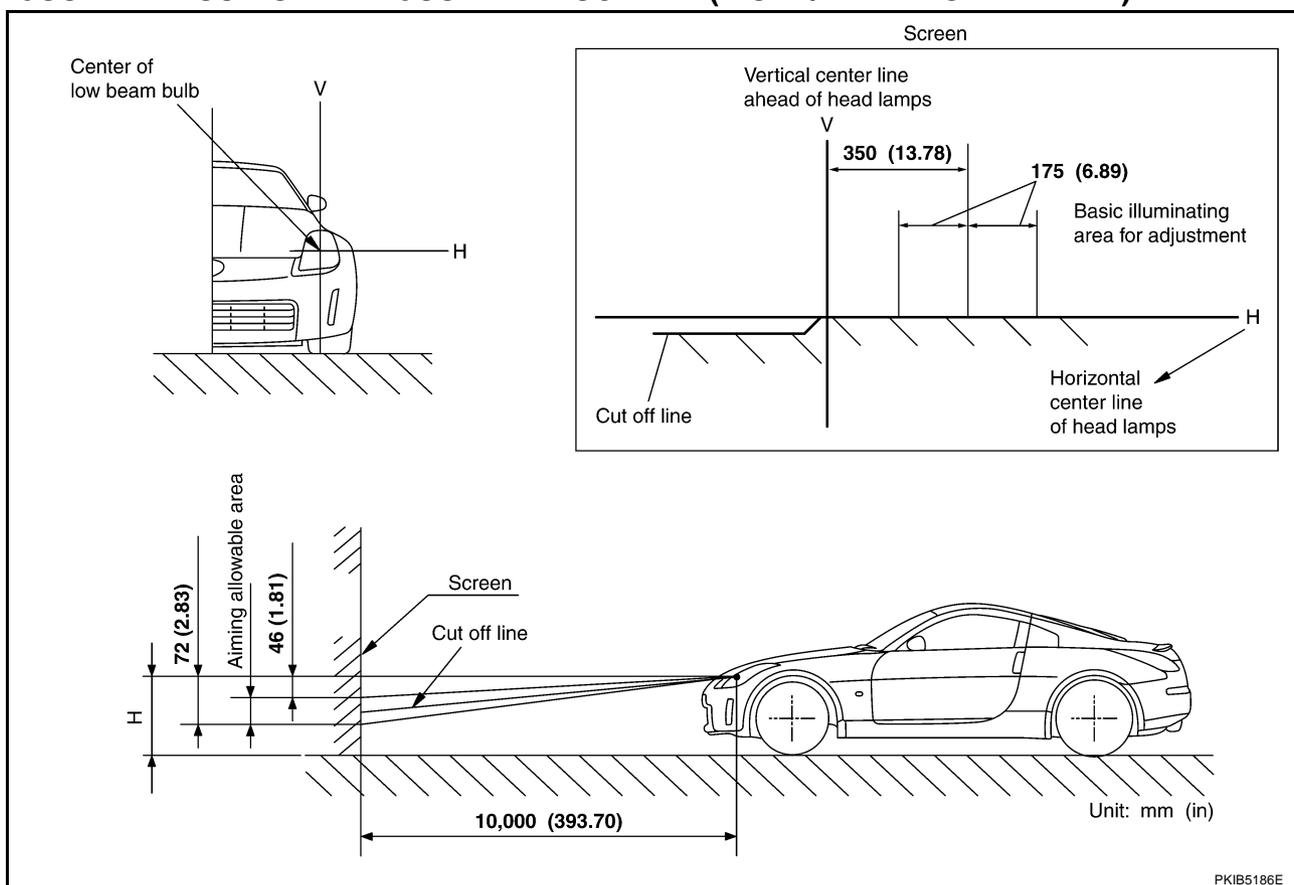
Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on level surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam ON.
2. Use adjusting screws to perform aiming adjustment.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- Basic illumination area for adjustment should be within the range shown on the aiming chart. Adjust headlamp accordingly.

Bulb Replacement HEADLAMP HIGH/LOW BEAM

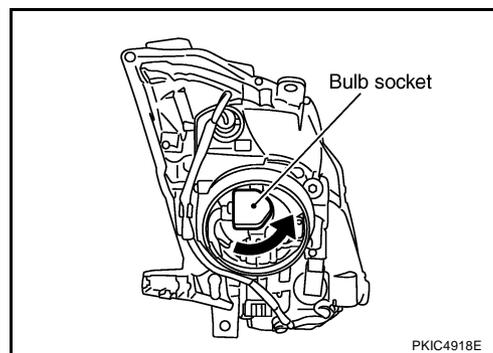
NKS004XZ

1. Turn lighting switch OFF.
2. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

3. Remove headlamp. Refer to [LT-252, "Removal and Installation"](#).
4. Turn plastic cap counterclockwise and unlock it.



5. Turn bulb socket counterclockwise and unlock it.
6. Unlock retaining spring and remove bulb from headlamp.
7. Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [LT-250, "Aiming Adjustment"](#).

Headlamp high/low beam (Xenon) : 12V - 35W (D2R)

PARKING LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse order of removal.

Parking lamp : 12V - 5W

FRONT TURN SIGNAL LAMP

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to [EI-21, "FENDER PROTECTOR"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse order of removal.

Front turn signal lamp/— : 12V - 28/8W (amber)

FRONT SIDE MARKER LAMP

1. Remove headlamp. Refer to [LT-252, "Removal and Installation"](#).
2. Replacement integral with headlamp housing assembly.
3. Installation is reverse order of removal.

Front side marker lamp : LED

CAUTION:

After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness.

Removal and Installation

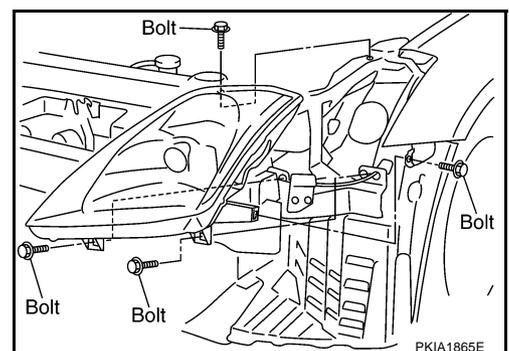
REMOVAL

1. Open the driver and front passenger window, and then disconnect the battery cable from the negative terminal or remove power fuse.

CAUTION:

After the battery cables are disconnected, never open/close the driver and/or front passenger door with the window in the full up position. The automatic window adjusting function will not work and the side roof panel may be damaged.

2. Remove front bumper fascia. Refer to [EI-14, "FRONT BUMPER"](#).
3. Remove headlamp mounting bolts.
4. Pull head lamp toward vehicle front, disconnect connector, and remove headlamp.



INSTALLATION

Installation is the reverse order of removal.

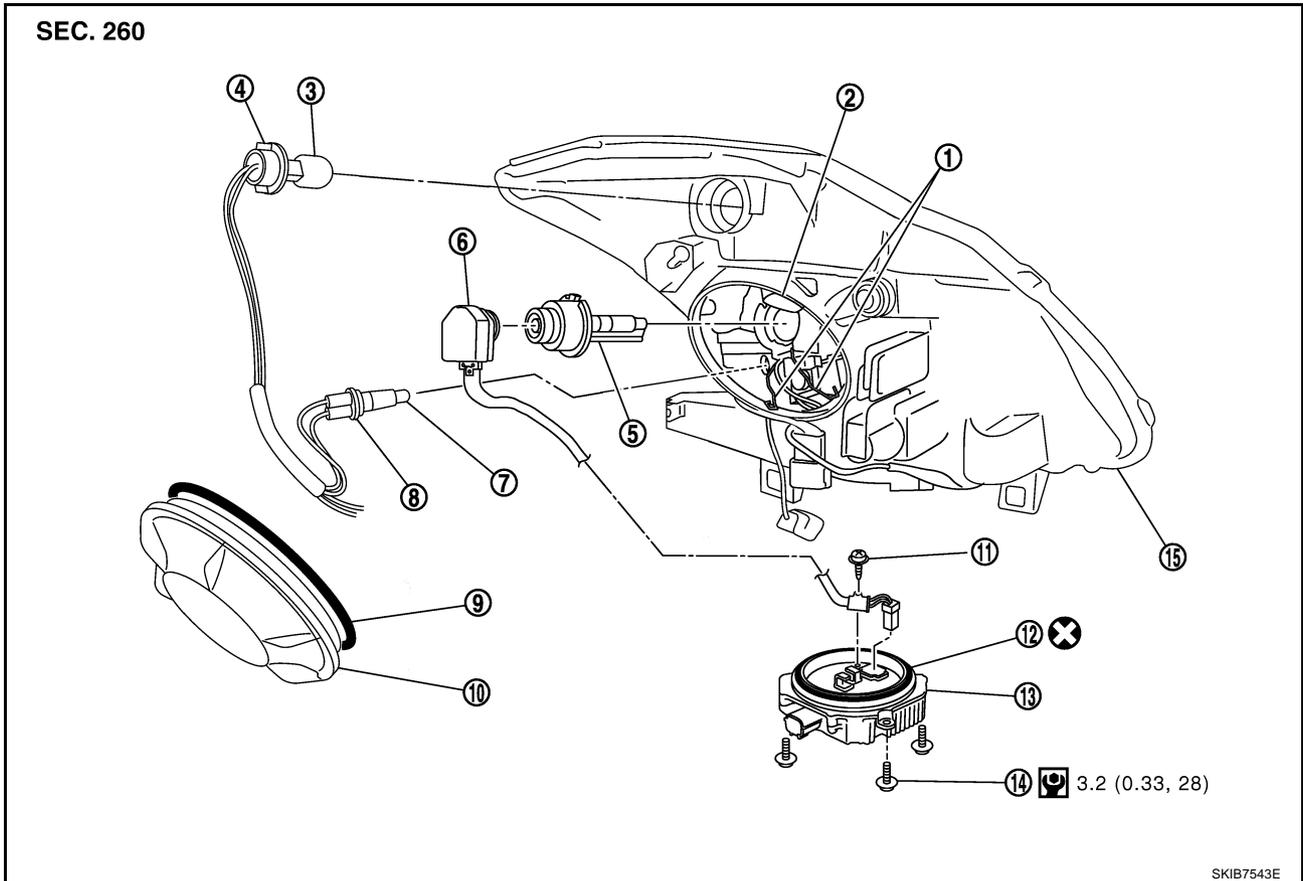
Headlamp mounting bolt  : 6.1N·m (0.62 kg·m, 54 in lb)

NOTE:

After installation, perform aiming adjustment. Refer to [LT-250, "Aiming Adjustment"](#) .

Disassembly and Assembly

NKS004Y1



- | | | |
|---------------------------------------|-------------------------------------|--------------------------------|
| 1. Retaining spring | 2. Xenon bulb socket ground | 3. Front turn signal lamp bulb |
| 4. Front turn signal lamp bulb socket | 5. Xenon bulb | 6. Xenon bulb socket |
| 7. Parking lamp bulb | 8. Parking lamp bulb socket | 9. Seal packing |
| 10. Plastic cap | 11. Ground screw | 12. Seal packing |
| 13. HID control unit | 14. HID control unit mounting screw | 15. Headlamp housing assembly |

 :N·m (kg·m, in-lb)

 : Always replace after every disassembly.

DISASSEMBLY

1. Turn plastic cap counterclockwise, and unlock it.
2. Turn xenon bulb socket counterclockwise, and unlock it.
3. Unlock retaining spring, and remove xenon bulb.
4. Disconnect xenon bulb socket ground.
5. Remove HID control unit mounting screws.
6. Remove ground screw from HID control unit.
7. Disconnect connectors from HID control unit.
8. Pull out xenon bulb socket from head lamp housing assembly.
9. Turn parking lamp bulb socket counterclockwise and unlock it.
10. Remove parking lamp bulb from its socket.
11. Turn front turn signal lamp bulb socket counterclockwise and unlock it.
12. Remove front turn signal lamp bulb from its socket.

A
B
C
D
E
F
G
H
I
J
LT
L
M

ASSEMBLY

Assembly is the reverse order of disassembly.

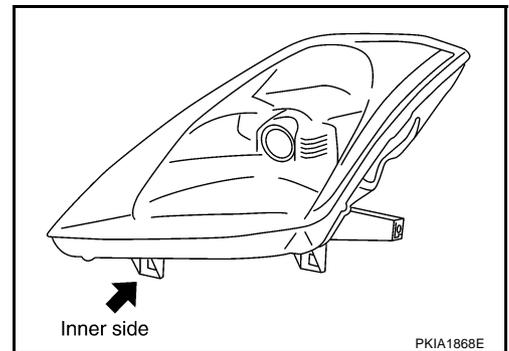
HID control unit mounting screw  : 3.2 N·m (0.33 kg·m, 28 in·lb)

CAUTION:

- When HID control unit is removed, reinstall it securely and avoid any looseness.
- After installing bulb, be sure to install plastic cap and bulb socket securely to insure watertightness

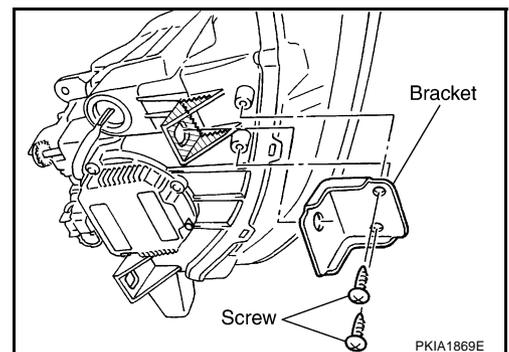
Serving to Replace Headlamps When Damaged

If only installation part as shown in the figure is damaged, and headlamp housing itself is not damaged, repair can be completed easily by installing correction brackets.



INSTALLATION OF HEADLAMP BRACKET

1. Remove headlamps. Refer to [LT-252, "Removal and Installation"](#).
2. Cut damaged section of installation part, then shape with sandpaper.
3. Attach each correction bracket to headlamp housing boss with 2 screws.

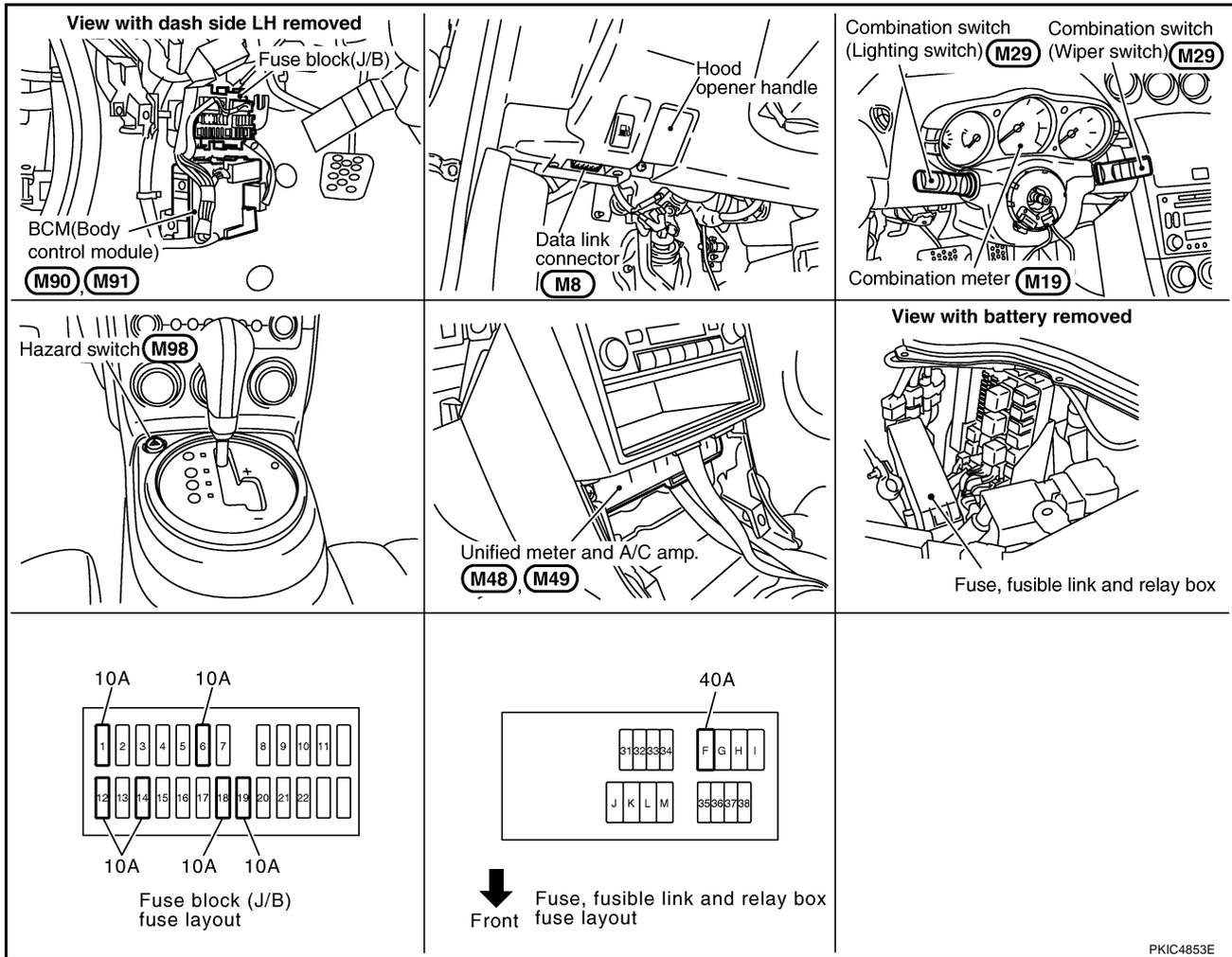


TURN SIGNAL AND HAZARD WARNING LAMPS

PFP:26120

Component Parts and Harness Connector Location

NKS004Y3



System Description

TURN SIGNAL OPERATION

NKS004Y4

When the ignition switch is in ON or START position, power is supplied

- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM (body control module) terminal 38,
- through 10A fuse [No.12, located in fuse block (J/B)]
- to unified meter and A/C amp. terminal 22,
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

Ground is supplied

- to BCM terminal 52
- to unified meter and A/C amp. terminals 29 and 30, and
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

LH Turn Signal Lamp

When the turn signal switch is moved to the left position, the BCM receives left turn signal by combination switch reading function (Refer to [BCS-3. "COMBINATION SWITCH READING FUNCTION"](#)). Power is supplied

- through BCM terminal 45
- to front combination lamp LH terminal 2

A
B
C
D
E
F
G
H
I
J

LT

- to rear combination lamp LH terminal 2.

Ground is supplied

- to front combination lamp LH terminal 8
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to rear combination lamp LH terminal 4
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

The BCM also supplies ground to unified meter and A/C amp. terminals 1 and 11 through the CAN communication lines. This input signal is processed by the unified meter control unit in the combination meter through unified meter and A/C amp., which in turn supplies ground to left turn signal indicator lamp.

With the power and ground supplied, BCM controls the flashing of LH turn signal lamps.

RH Turn Signal Lamp

When the turn signal switch is moved to the right position, the BCM receives right turn signal by combination switch reading function (Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#)). Power is supplied

- through BCM terminal 46
- to front combination lamp RH terminal 2
- to rear combination lamp RH terminal 2.

Ground is supplied

- to front combination lamp RH terminal 8
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to rear combination lamp RH terminal 4
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

The BCM also supplies ground to unified meter and A/C amp. terminals 1 and 11 through CAN communication lines. This input signal is processed by unified meter control unit in combination meter through unified meter and A/C amp., which in turn supplies ground to the right turn signal indicator lamp.

With power and ground supplied, BCM controls the flashing of RH turn signal lamps.

HAZARD WARNING LAMP OPERATION

Power is supplied at all times

- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55,
- through 10A fuse [No. 18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 10A fuse [No. 19, located in fuse block (J/B)]
- to combination meter terminal 24, and
- to unified meter and A/C amp. terminal 21.

Ground is supplied

- to BCM terminals 52
- to unified meter and A/C amp. terminals 29 and 30, and
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66.

When the hazard switch is depressed, power is supplied

- through BCM terminal 29
- to hazard lamp switch terminal 2.

Ground is supplied

- through hazard lamp switch terminal 1
- to grounds M30 and M66.

The BCM then supplies power

- through BCM terminal 45
- to front combination lamp LH terminal 2
- to rear combination lamp LH terminal 2,
- through BCM terminal 46
- to front combination lamp RH terminal 2
- to rear combination lamp RH terminal 2.

Ground is supplied

- to front combination lamp LH terminal 8, and
- to front combination lamp RH terminal 8
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to rear combination lamp LH terminal 4, and
- to rear combination lamp RH terminal 4
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

The BCM also supplies input to unified meter and A/C amp. terminals 1 and 11 through the CAN communication lines. This input signal is processed by the unified meter control unit in the combination meter through the unified meter and A/C amp., which in turn supplies ground to the left and right turn signal indicator lamps. With the power and ground supplied, BCM controls the flashing of hazard warning lamps.

REMOTE KEYLESS ENTRY SYSTEM OPERATION

Refer to [BL-60, "REMOTE KEYLESS ENTRY SYSTEM"](#) .

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

CAN Communication System Description

NKS004Y5

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS004Y6

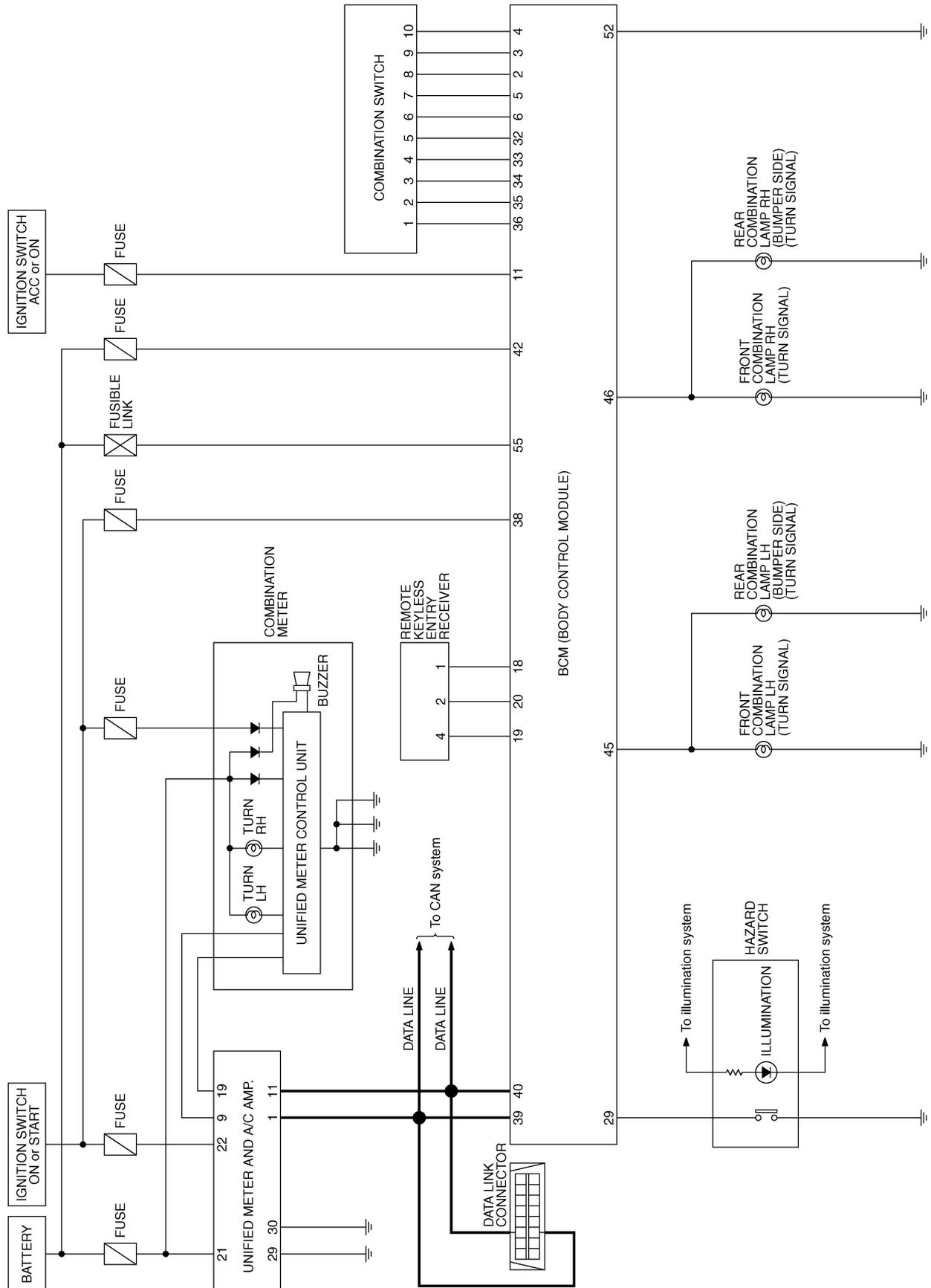
Refer to [LAN-48, "CAN System Specification Chart"](#) .

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

Schematic

NKS004Y7



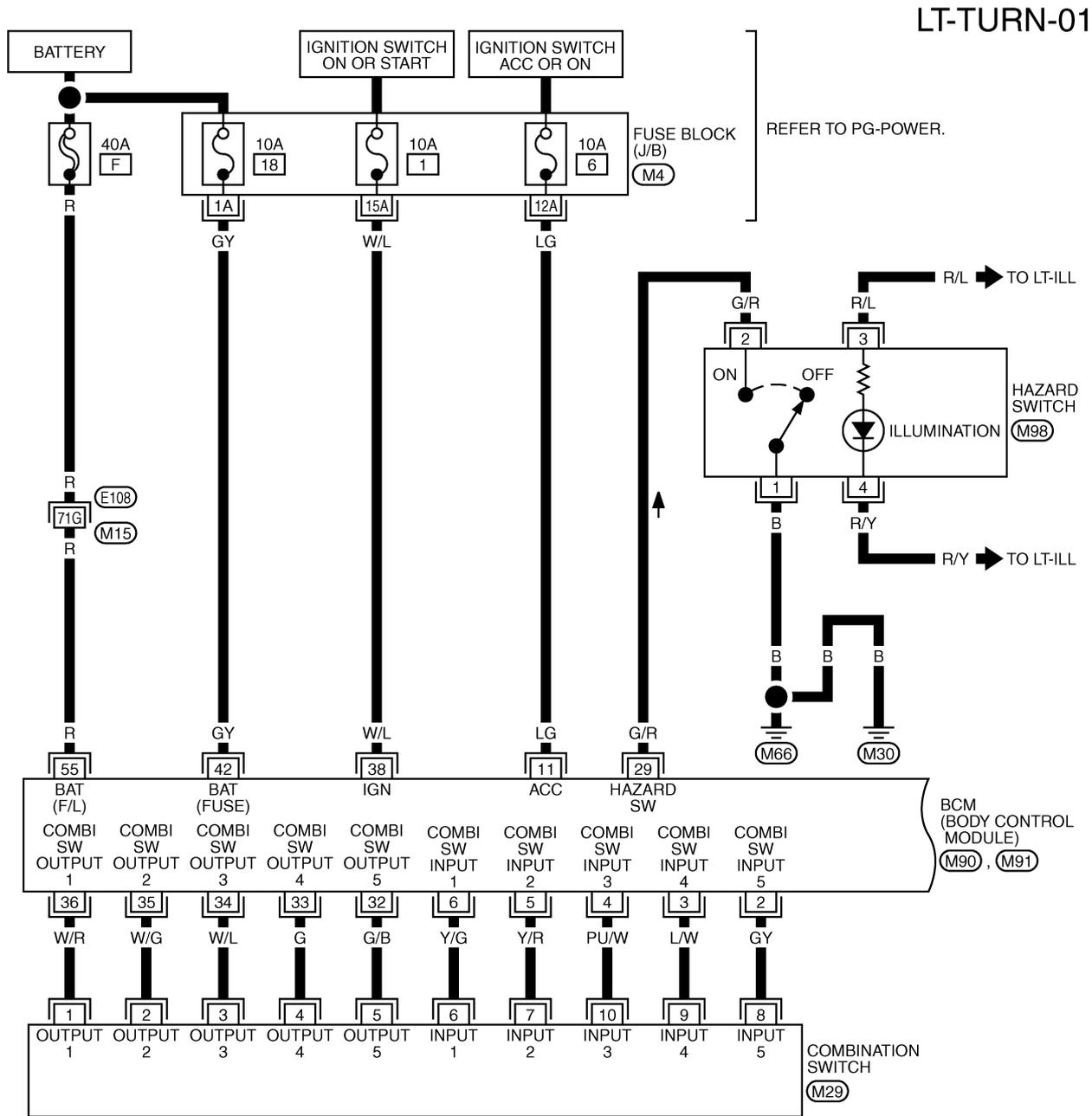
TKWT2278E

TURN SIGNAL AND HAZARD WARNING LAMPS

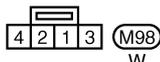
[TYPE 2]

Wiring Diagram — TURN — COUPE MODELS

NKS004Y8



(M29)
W



(M98)
W

REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

TKWT5580E

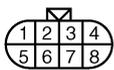
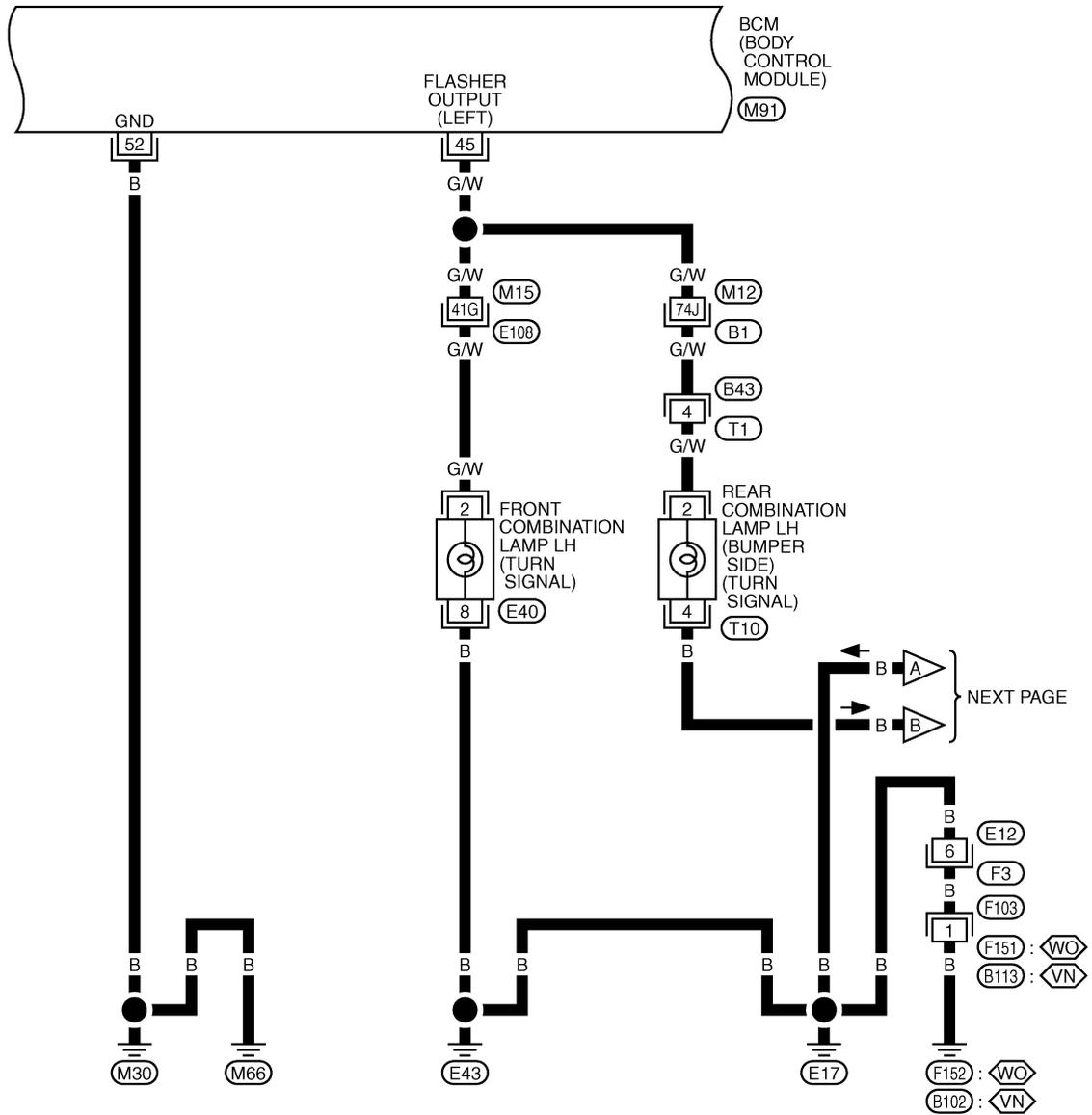
TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

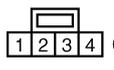
LT-TURN-02

 : WITH VDC SYSTEM OR NAVIGATION SYSTEM

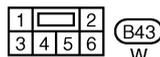
 : WITHOUT VDC SYSTEM AND NAVIGATION SYSTEM



E40 : GY
F3 : B



F103 : W



B43 : W



T10 : GY

REFER TO THE FOLLOWING.

 ,  -SUPER MULTIPLE JUNCTION (SMJ)

 -ELECTRICAL UNITS

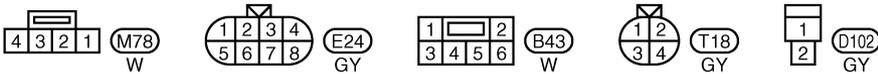
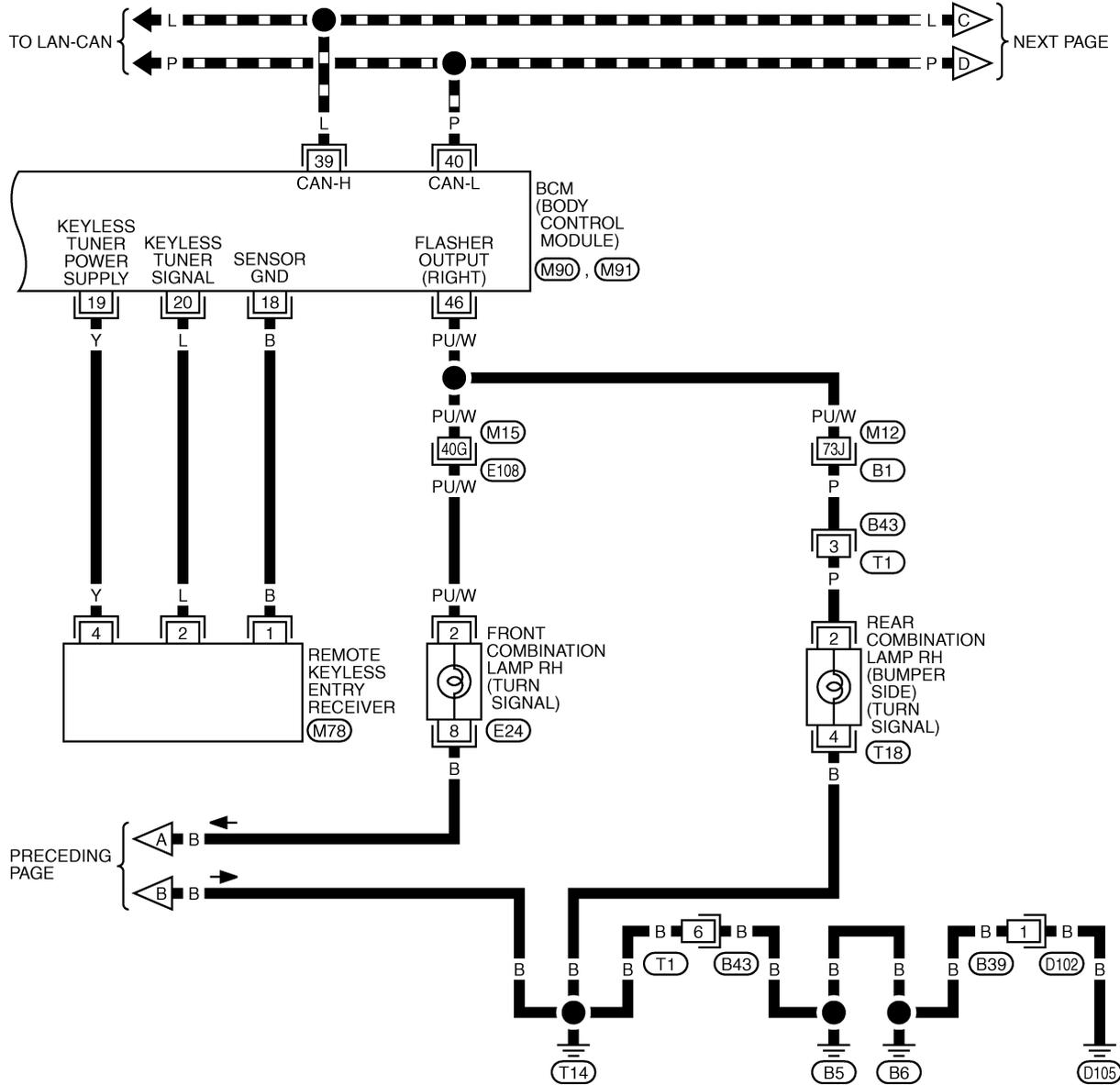
TKWT5581E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

LT-TURN-03

▬ : DATA LINE



REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (M91) -ELECTRICAL UNITS

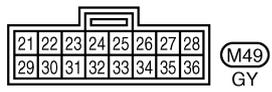
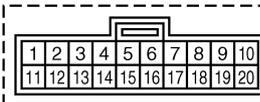
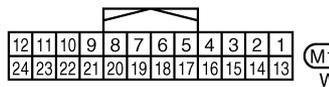
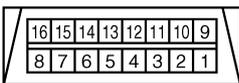
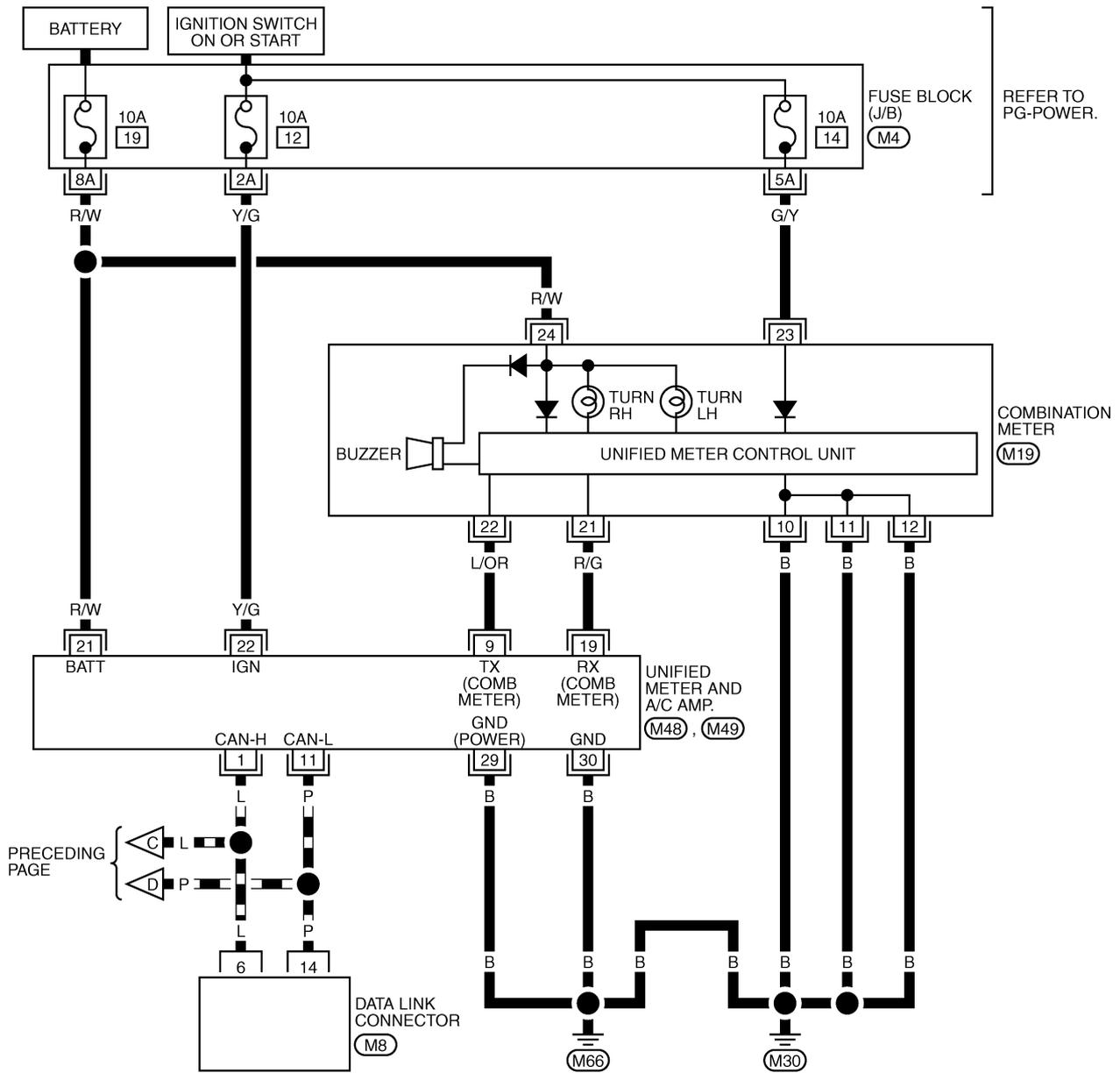
TKWT4032E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

LT-TURN-04

▬ : DATA LINE



REFER TO THE FOLLOWING.

(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

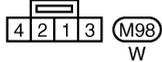
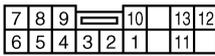
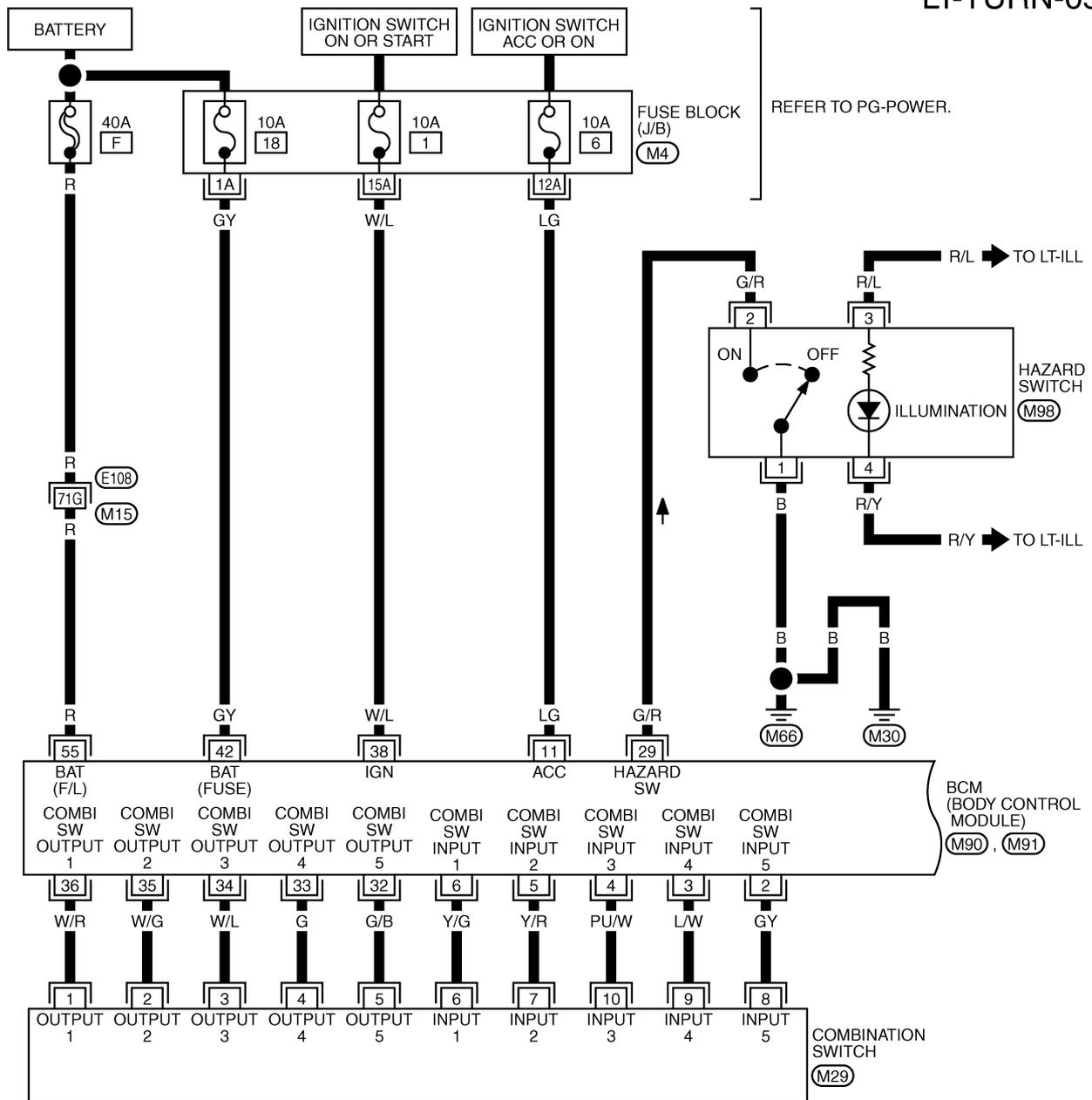
TKWT2281E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

ROADSTER MODELS

LT-TURN-05



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

TKWT5582E

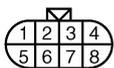
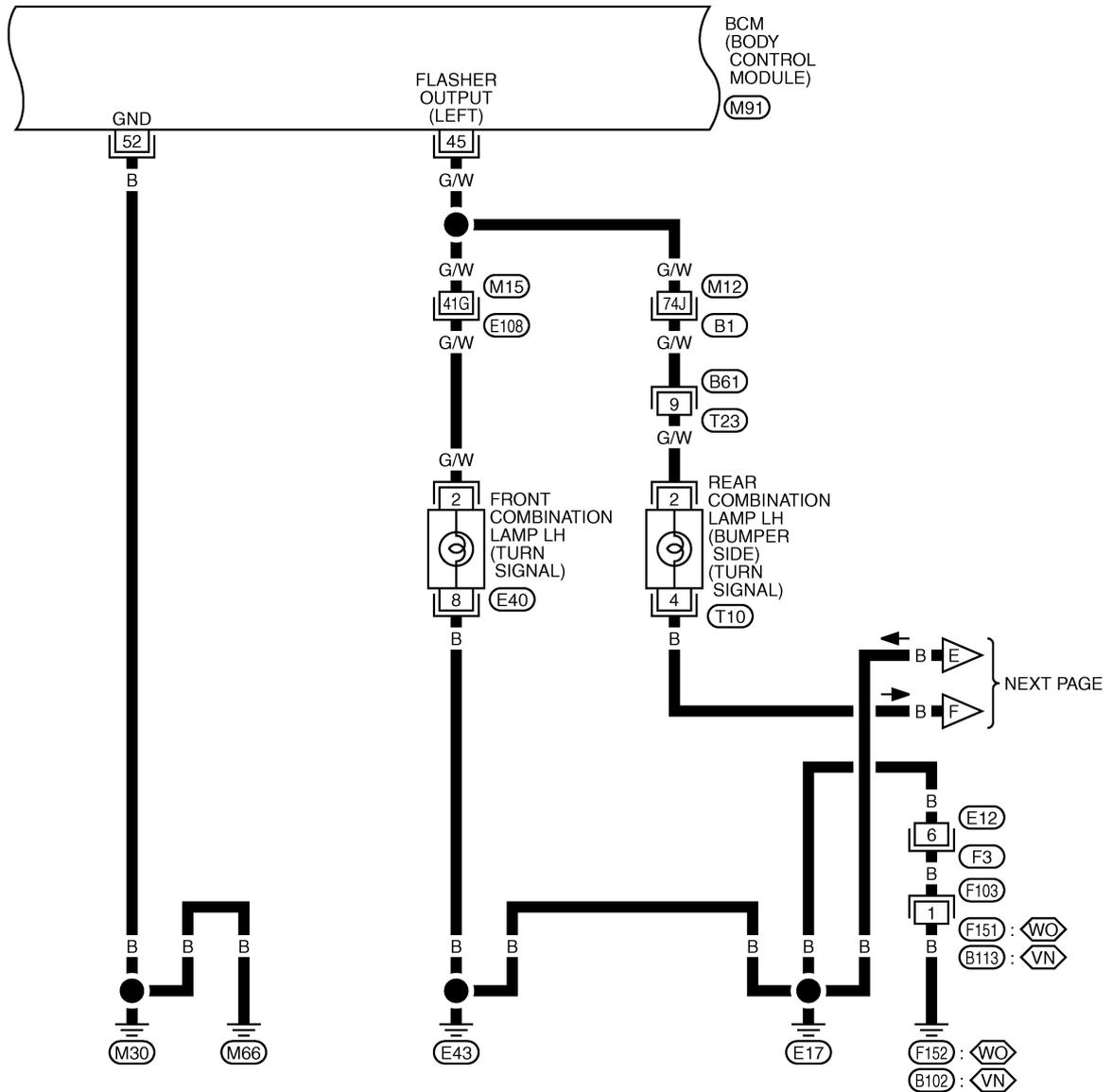
TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

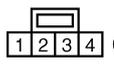
LT-TURN-06

: WITH VDC SYSTEM OR NAVIGATION SYSTEM

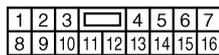
: WITHOUT VDC SYSTEM AND NAVIGATION SYSTEM



(E40) (F3)
GY B



(F103)
W



(B61)
W



(T10)
GY

REFER TO THE FOLLOWING.

(E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)

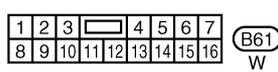
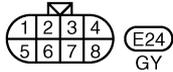
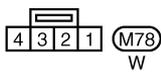
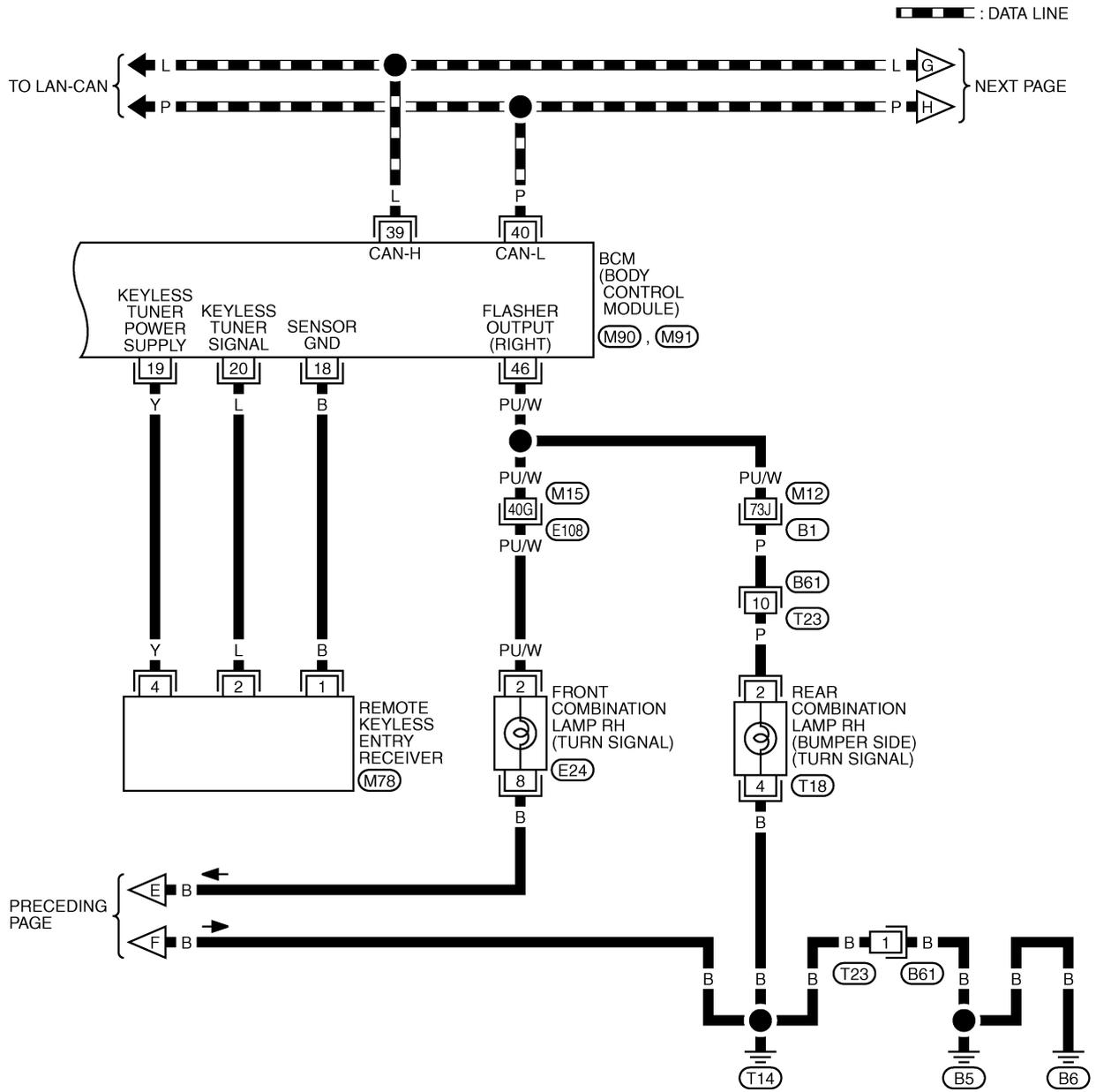
(M91) -ELECTRICAL UNITS

TKWT5583E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

LT-TURN-07



REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (M91) -ELECTRICAL UNITS

TKWT4035E

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

NKS004Y9

Terminals and Reference Values for BCM

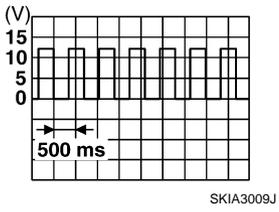
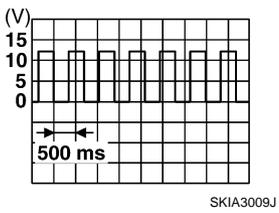
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [LT-281, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4) Turn signal switch to right	OFF Approx. 0 V
					<p>Approx. 1.0 V</p>
3	L/W	Combination switch input 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4) Turn signal switch to left	OFF Approx. 0 V
					<p>Approx. 1.0 V</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage
29	G/R	Hazard signal	OFF	Hazard switch	OFF Battery voltage
					ON Approx. 0 V
36	W/R	Combination switch output 1	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	OFF <p>Approx. 7.2 V</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Turn signal switch to right ● Turn signal switch to left <p>Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage
39	L	CAN - H	—	—	—
40	P	CAN - L	—	—	—

TURN SIGNAL AND HAZARD WARNING LAMPS

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
42	GY	Battery power supply	OFF	—		Battery voltage
45	G/W	Turn signal (left)	ON	Combination switch	Turn left ON	
46	PU/W	Turn signal (right)	ON	Combination switch	Turn right ON	
52	B	Ground	ON	—		Approx. 0V
55	R	Battery power supply	OFF	—		Battery voltage

How to Proceed With Trouble Diagnosis

NKS004YA

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-255, "System Description"](#) .
3. Perform preliminary check. Refer to [LT-269, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Do turn signal and hazard warning lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

UNIT	POWER SOURCE	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6

Refer to [LT-259, "Wiring Diagram — TURN —"](#) .

OK or NG

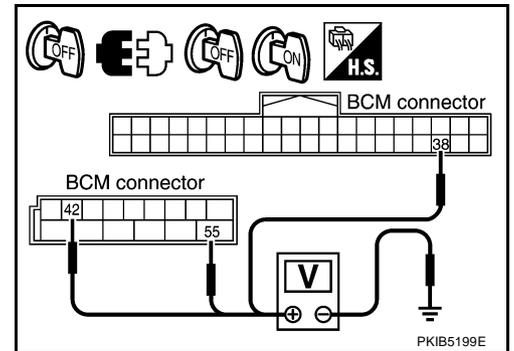
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM harness connector terminals and ground.

Terminals		Ignition switch position		
(+)		(-)	OFF	ON
BCM connector	Terminal		OFF	ON
M90	38	Ground	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

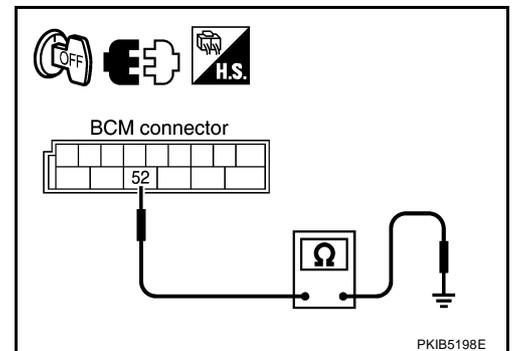
Check continuity between BCM harness connector terminal and ground.

BCM connector	Terminal	Ground	Continuity
M91	52		Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

NKS004YC

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
FLASHER	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "FLASHER" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
IGN ON SW "ON/OFF"	Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from ignition switch signal.
HAZARD SW "ON/OFF"	Displays "Hazard ON (ON)/Hazard OFF (OFF)" status, determined from hazard switch signal.
TURN SIGNAL R "ON/OFF"	Displays "Turn right (ON)/Other (OFF)" status, determined from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays "Turn left (ON)/Other (OFF)" status, determined from lighting switch signal.
BRAKE SW ^{NOTE} "OFF"	—

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "FLASHER" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
FLASHER	With a certain operation (OFF, RH, LH), turn signal lamp can be operated.

Turn Signal Lamp Does Not Operate

1. CHECK BULB

Check bulb standard of each turn signal lamp is correct.

OK or NG

- OK >> GO TO 2.
- NG >> Replace turn signal lamp bulb.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

☑ With CONSULT-II

Select "BCM" on CONSULT-II. With "FLASHER" data monitor, make sure "TURN SIGNAL R" and "TURN SIGNAL L" turns ON-OFF linked with operation of lighting switch.

When lighting switch is : TURN SIGNAL R ON
TURN RH position

When lighting switch is : TURN SIGNAL L ON
TURN LH position

DATA MONITOR			
MONITOR		NO DTC	
TURN SIGNAL R		ON	
TURN SIGNAL L		ON	
MODE	BACK	LIGHT	COPY

PKIA6351E

⊗ Without CONSULT-II

Refer to [LT-282, "Combination Switch Inspection"](#) .

OK or NG

- OK >> GO TO 3.
- NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#) .

3. ACTIVE TEST

☑ With CONSULT-II

1. Select "FLASHER" during active test. Refer to [LT-270, "ACTIVE TEST"](#) .
2. Make sure "FLASHER RIGHT" and "FLASHER LEFT" operate.

Turn signal lamp should operate.

ACTIVE TEST			
FLASHER		OFF	
RH	LH	OFF	
MODE	BACK	LIGHT	COPY

PKIA6352E

⊗ Without CONSULT-II

GO TO 4.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> GO TO 4.

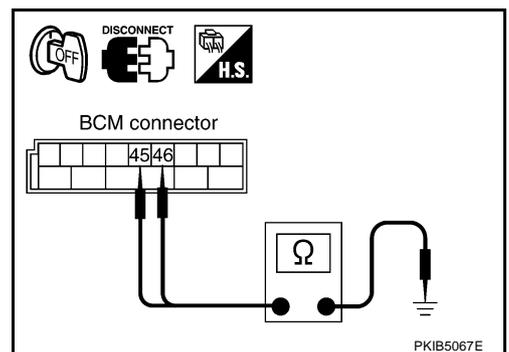
4. CHECK SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and all turn signal lamp connectors.
3. Check continuity (short circuit) between BCM harness connector and ground.

BCM connector		Terminal	Ground	Continuity
RH	M91	46		No
LH		45		

OK or NG

- OK >> Replace BCM if turn signal lamps does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> Repair harness or connector.



Hazard Warning Lamp Does Not Operate But Turn Signal Lamp Operate

NKS004YE

1. CHECK BULB

Make sure bulb standard of each turn signal lamp is correct.

OK or NG

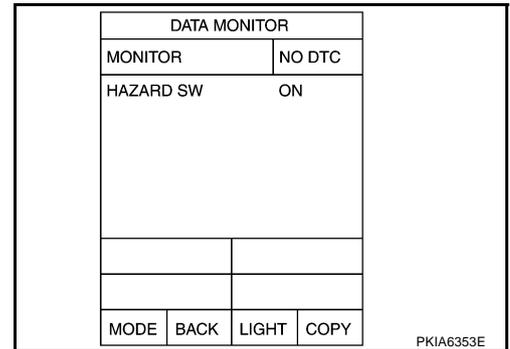
- OK >> GO TO 2.
- NG >> Replace bulb.

2. CHECK HAZARD SWITCH INPUT SIGNAL

☑ With CONSULT-II

Select "BCM" on CONSULT-II. With "FLASHER" data monitor to make sure "HAZARD SW" turns ON-OFF linked with operation of hazard switch.

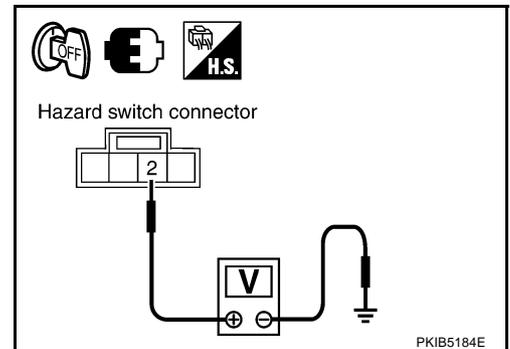
When hazard switch is ON : HAZARD SW ON position



☒ Without CONSULT-II

Check voltage between hazard switch harness connector and ground.

Terminal		(-)	Condition	Voltage (Approx.)
(+)	Terminal			
Hazard switch connector	Terminal	Ground	Hazard switch is ON	0V
M98	2		Hazard switch is OFF	5V



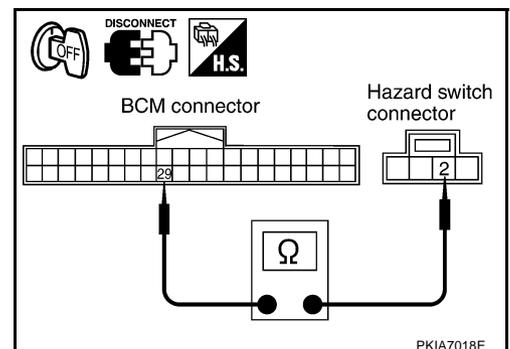
OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 3.

3. CHECK HAZARD SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and hazard switch connector.
3. Check continuity BCM harness connector and hazard switch harness connector.

Terminals				Continuity
BCM		Hazard switch		
Connector	Terminal	Connector	Terminal	
M90	29	M98	2	Yes



OK or NG

- OK >> GO TO 4.
- NG >> Repair harness or connector.

4. CHECK GROUND

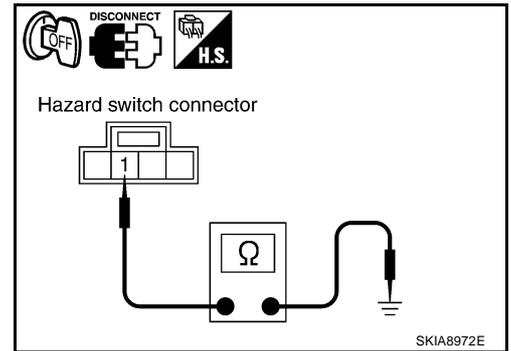
Check continuity hazard switch harness connector and ground.

Hazard switch connector	Terminal	Ground	Continuity
M98	1		Yes

OK or NG

OK >> GO TO 5.

NG >> Repair harness or connector.



5. CHECK HAZARD SWITCH

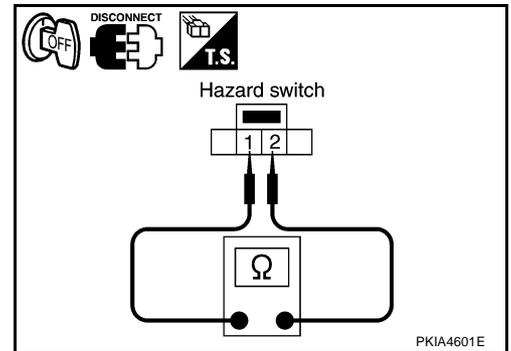
Check continuity hazard switch.

Terminal		Condition	Continuity
Hazard switch			
1	2	Hazard switch is ON.	Yes
		Hazard switch is OFF.	No

OK or NG

OK >> Replace BCM if turn signal lamps does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .

NG >> Replace hazard switch.



Turn Signal Indicator Lamp Does Not Operate

1. CHECK BULB

Check bulb of turn signal indicator lamp in combination meter.

OK or NG

OK >> Replace combination meter.

NG >> Replace indicator bulb.

Bulb Replacement (Front Turn Signal Lamp)

Refer to [LT-217, "Bulb Replacement"](#) .

Bulb Replacement (Rear Turn Signal Lamp)

Refer to [LT-316, "Bulb Replacement"](#) .

Removal and Installation of Front Turn Signal Lamp

Refer to [LT-218, "Removal and Installation"](#) .

Removal and Installation of Rear Turn Signal Lamp

Refer to [LT-317, "Removal and Installation"](#) .

A
B
C
D
E
F
G
H
I
J

LT

L
M

LIGHTING AND TURN SIGNAL SWITCH

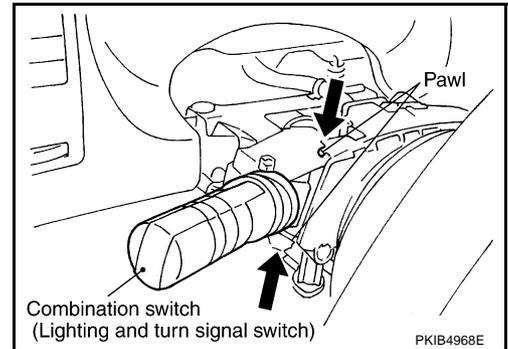
PFP:25540

Removal and Installation

NKS004YK

REMOVAL

1. Remove steering column lower cover. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Remove column upper cover and combination meter assembly. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
3. While pressing pawls in direction as shown in the figure, pull lighting and turn signal switch toward driver door and disconnect from the base.



INSTALLATION

Installation is the reverse order of removal.

HAZARD SWITCH

[TYPE 2]

HAZARD SWITCH

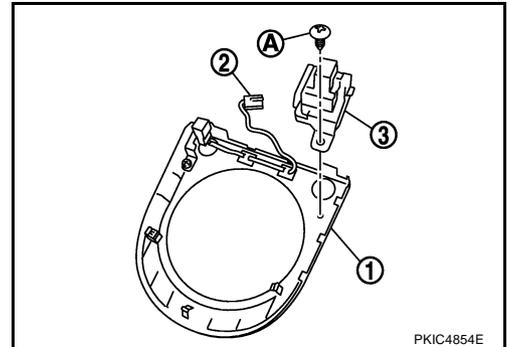
PF2:25290

Removal and Installation HAZARD SWITCH (A/T MODELS)

NKS004YL

Removal

1. Remove console finisher (1). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Disconnect hazard switch connector (2).
3. Remove screw (A), and remove hazard switch (3).



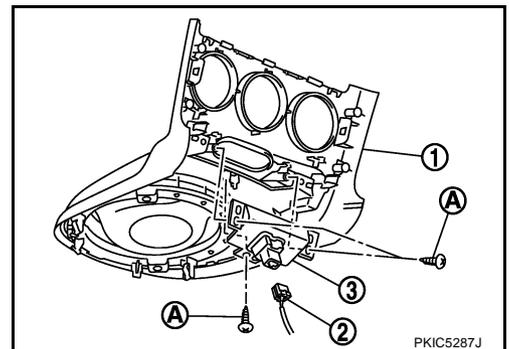
Installation

Installation is the reverse order of removal.

HAZARD SWITCH (M/T MODELS)

Removal

1. Removal console boot (1). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Disconnect hazard switch connector (2).
3. Remove screw (A), and remove hazard switch (3).



Installation

Installation is the reverse order of removal.

A
B
C
D
E
F
G
H
I
J
LT
L
M

COMBINATION SWITCH

[TYPE 2]

COMBINATION SWITCH

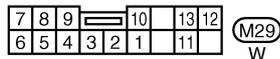
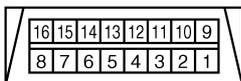
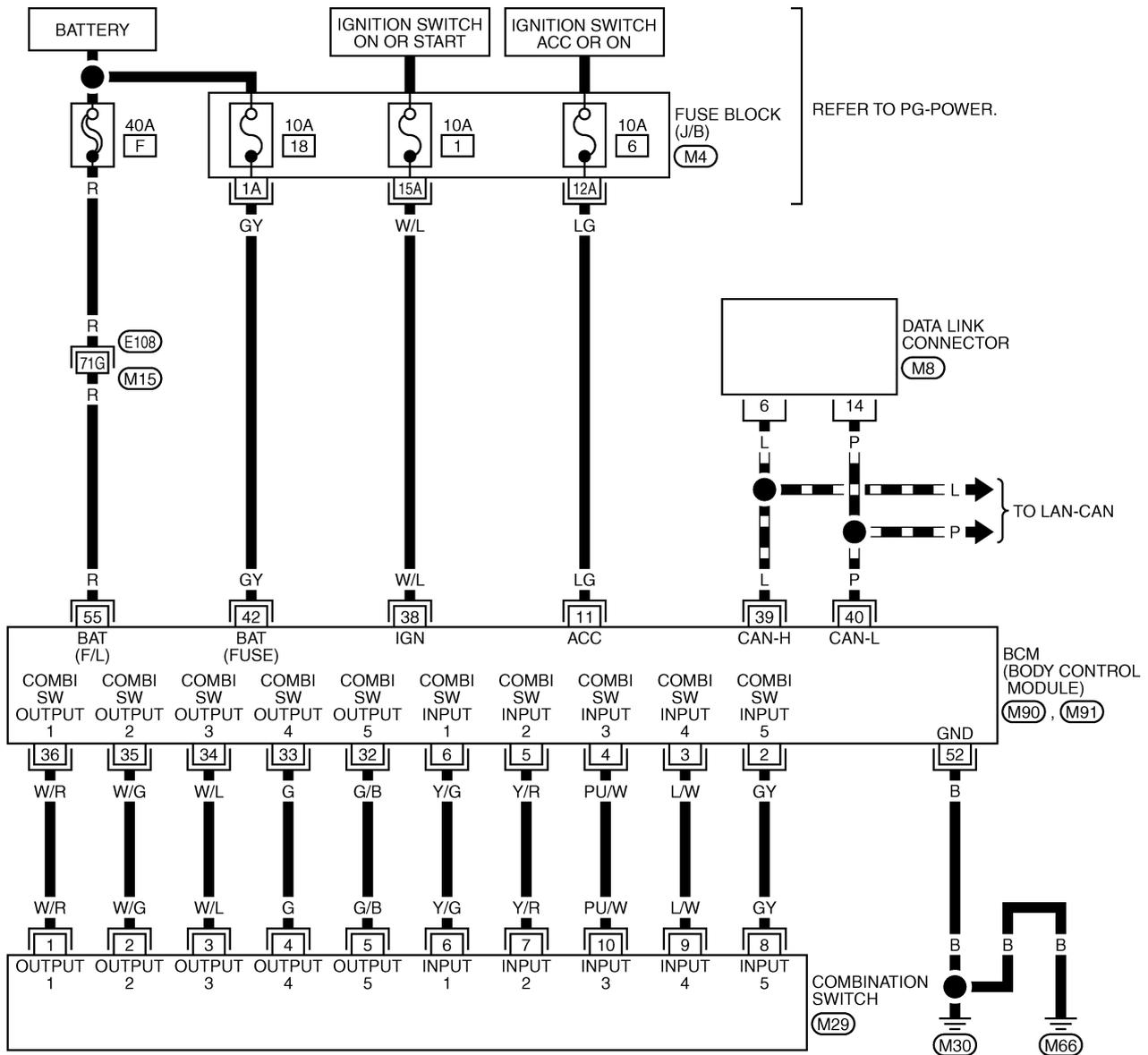
PFP:25567

Wiring Diagram —COMBSW—

NKS004YM

LT-COMBSW-01

▬ : DATA LINE



REFER TO THE FOLLOWING.

- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

TKWT5584E

COMBINATION SWITCH

[TYPE 2]

Combination Switch Reading Function

NKS004YN

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

Terminals and Reference Values for BCM

NKS004YO

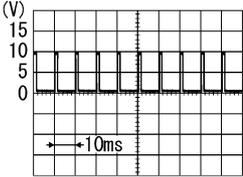
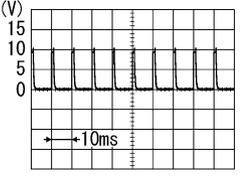
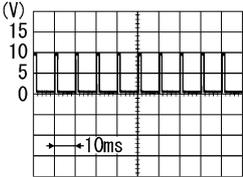
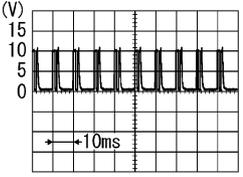
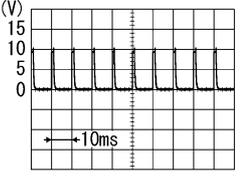
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [LT-281, "DATA MONITOR"](#) .

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) ● Turn signal switch to right 	<p>PKIB4959J</p>
3	LW	Combination switch input 4	ON	Lighting switch 2ND	<p>PKIB4953J</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) ● Turn signal switch to left 	<p>PKIB4959J</p>
4	PU/W	Combination switch input 3	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Front wiper switch MIST ● Front wiper switch INT ● Front wiper switch LO 	<p>PKIB4959J</p>

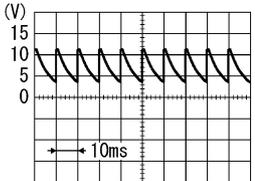
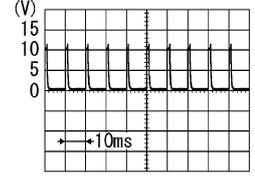
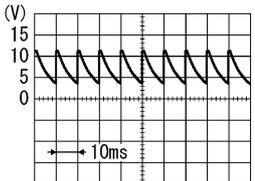
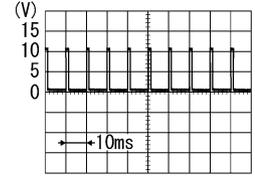
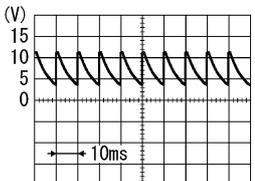
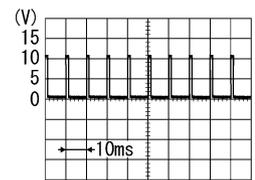
COMBINATION SWITCH

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
5	Y/R	Combination switch input 2	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)	Approx. 0 V
					Any of the conditions below <ul style="list-style-type: none"> ● Front washer switch ● Rear washer switch ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 5 ● Wiper intermittent dial position 6 	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Rear wiper switch ON (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4955J</p>
6	Y/G	Combination switch input 1	ON	Lighting, turn, wiper switch	OFF (Wiper intermittent dial position 4)	Approx. 0 V
					Any of the conditions below <ul style="list-style-type: none"> ● Front wiper switch HI ● Rear wiper switch INT ● Wiper intermittent dial position 3 	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 2 	 <p style="text-align: right; font-size: small;">PKIB4952J</p>
					Any of the conditions below <ul style="list-style-type: none"> ● Wiper intermittent dial position 6 ● Wiper intermittent dial position 7 	 <p style="text-align: right; font-size: small;">PKIB4955J</p>
11	LG	Ignition switch (ACC)	ACC	—		Battery voltage

COMBINATION SWITCH

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
32	G/B	Combination switch output 5	ON	Lighting, turn, wiper switch	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 2 ● Wiper intermittent dial position 6 ● Wiper intermittent dial position 7 	 <p style="text-align: right; font-size: small;">PKIB4956J</p> <p style="text-align: center;">Approx. 1.0 V</p>
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST (The same result with lighting switch 2ND) ● Rear wiper switch INT ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 5 ● Wiper intermittent dial position 6 	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch) ● Rear washer switch ● Wiper intermittent dial position 1 ● Wiper intermittent dial position 2 ● Wiper intermittent dial position 3 	 <p style="text-align: right; font-size: small;">PKIB4956J</p> <p style="text-align: center;">Approx. 1.2 V</p>

A
B
C
D
E
F
G
H
I
J
L
M

LT

COMBINATION SWITCH

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	<p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below	<p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
36	W/R	Combination switch output 1	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	<p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below	<p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage
39	L	CAN - H	—	—	—
40	P	CAN - L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0V
55	R	Battery power supply	OFF	—	Battery voltage

COMBINATION SWITCH

[TYPE 2]

CONSULT-II Functions (BCM)

NKS004YP

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
COMB SW	DATA MONITOR	Displays BCM input data in real time.

CONSULT-II BASIC OPERATION

Refer to [GI-36, "CONSULT-II Start Procedure"](#) .

DATA MONITOR

Operation Procedure

1. Touch "COMB SW" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the signals will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item name "OPERATION OR UNIT"	Contents
TURN SIGNAL R "ON/OFF"	Displays "Turn Right (ON)/Other (OFF)" status, determined from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays "Turn Left (ON)/Other (OFF)" status, determined from lighting switch signal.
HI BEAM SW "ON/OFF"	Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
HEAD LAMP SW 1 "ON/OFF"	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 1 judged from lighting switch signal.
HEAD LAMP SW 2 "ON/OFF"	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.
LIGHT SW 1ST "ON/OFF"	Displays status (lighting switch 1ST or 2ND position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
PASSING SW "ON/OFF"	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW ^{NOTE} "ON/OFF"	—
FR WIPER HI "ON/OFF"	Displays "Front Wiper HI (ON)/Other (OFF)" status, determined from wiper switch signal.
FR WIPER LOW "ON/OFF"	Displays "Front Wiper LOW (ON)/Other (OFF)" status, determined from wiper switch signal.
FR WIPER INT "ON/OFF"	Displays "Front Wiper INT (ON)/Other (OFF)" status, determined from wiper switch signal.
FR WASHER SW "ON/OFF"	Displays "Front Washer Switch (ON)/Other (OFF)" status, determined from wiper switch signal.
INT VOLUME [1 - 7]	Displays intermittent operation knob setting (1 - 7), determined from wiper switch signal.
RR WIPER ON "ON/OFF"	Displays "rear Wiper (ON)/Other (OFF)" status as judged from wiper switch signal.
RR WIPER INT "ON/OFF"	Displays "rear Wiper INT (ON)/Other (OFF)" status as judged from wiper switch signal.
RR WASHER SW "ON/OFF"	Displays "rear Washer Switch (ON)/Other (OFF)" status as judged from wiper switch signal.

NOTE:

This item is displayed, but cannot be monitored.

COMBINATION SWITCH

[TYPE 2]

NKS004YQ

Combination Switch Inspection

1. SYSTEM CHECK

Referring to table below, check which system malfunctioning switch belongs to.

System 1	System 2	System 3	System 4	System 5
—	FR WASHER	FR WIPER LO	TURN LH	TURN RH
FR WIPER HI	—	FR WIPER INT	PASSING	HEAD LAMP 1
INT VOLUME 1	RR WASHER	—	HEAD LAMP 2	HI BEAM
RR WIPER INT	INT VOLUME 3	—	—	LIGHT SW 1ST
INT VOLUME 2	RR WIPER ON	—	—	—

>> Check the system to which malfunctioning switch belongs, and GO TO 2.

2. SYSTEM CHECK

Ⓜ With CONSULT-II

CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

1. Connect CONSULT-II, and select "COMB SW" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR".
3. Select "START", and confirm that other switches in malfunctioning system operate normally.
Example: When the HI BEAM switch is malfunctioning, confirm that "TURN RH", "HEAD LAMP 1" and "LIGHT SW 1 ST" in System 5, to which the HI BEAM switch belongs, turn ON-OFF normally.

DATA MONITOR	
MONITOR	
TURN SIGNAL R	OFF
TURN SIGNAL L	OFF
HIBEAM SW	OFF
HEAD LAMP SW1	OFF
HEAD LAMP SW2	OFF
LIGHT SW 1ST	OFF
PASSING SW	OFF
AUTO LIGHT SW	OFF
FR FOG SW	OFF
	Page Down
	RECORD
MODE	BACK LIGHT COPY

SKIA7075E

ⓧ Without CONSULT-II

Operating combination switch, and confirm that other switches in malfunctioning system operate normally.
Example: When the HI BEAM switch is malfunctioning, confirm that "TURN RH", "HEAD LAMP 1" and "LIGHT SW 1 ST" in System 5, to which HI BEAM switch belongs, turn ON-OFF normally.

Check results

Other switches in malfunctioning system operate normally.>>Replace lighting switch or wiper switch.

Other switches in malfunctioning system do not operate normally.>>GO TO 3.

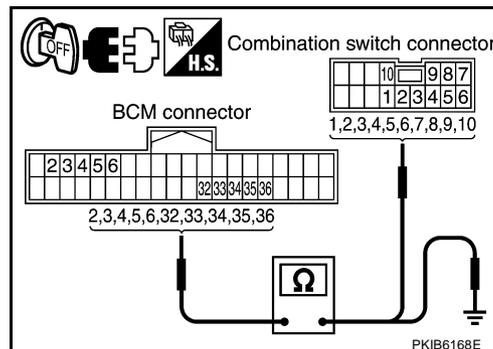
COMBINATION SWITCH

[TYPE 2]

3. HARNESS INSPECTION

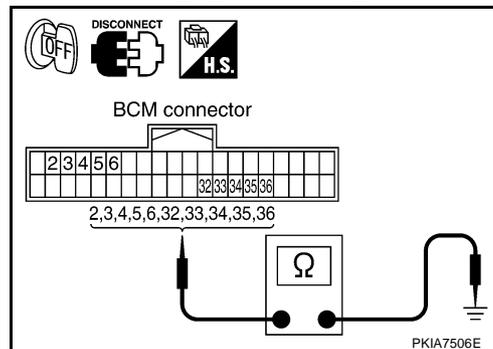
1. Turn ignition switch OFF.
2. Disconnect BCM and combination switch connectors.
3. Check for continuity between BCM harness connector of the suspect system and the corresponding combination switch harness connector.

Suspect system	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
1	M90	Input 1	6	M29	6
		Output 1	36		1
2		Input 2	5		7
		Output 2	35		2
3		Input 3	4		10
		Output 3	34		3
4		Input 4	3		9
		Output 4	33		4
5		Input 5	2		8
		Output 5	32		5



4. Check for continuity between BCM harness connector in suspect malfunctioning system and ground.

Suspect system	BCM		Continuity
	Connector	Terminal	
1	M90	Input 1	6
		Output 1	36
2		Input 2	5
		Output 2	35
3		Input 3	4
		Output 3	34
4		Input 4	3
		Output 4	33
5		Input 5	2
		Output 5	32



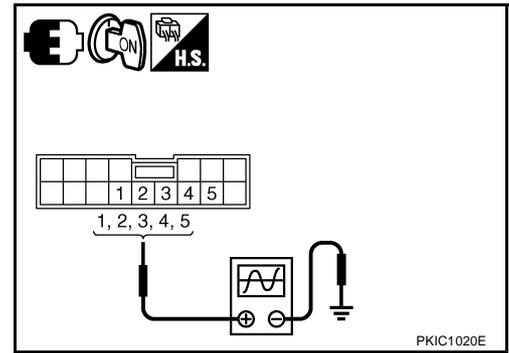
OK or NG

OK >> GO TO 4.

NG >> Check harness between BCM and combination switch for open or short circuit.

4. BCM OUTPUT TERMINAL INSPECTION

1. Connect BCM and combination switch connectors.
2. Set wiper dial position 4.
3. Turn ignition switch ON.
4. Check BCM output terminal voltage waveform of suspect malfunctioning system.



Suspect system	Terminals		Reference value
	(+)		
	Combination switch connector	Terminal	
		(-)	
1	M29	1	Ground
2		2	
3		3	
4		4	
5		5	

PKIB4960J

OK or NG

- OK >> Open circuit in combination switch, GO TO 5.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .

5. COMBINATION SWITCH INSPECTION

Referring to table below, perform combination switch inspection.

Procedure									
1	2		3	4		5	6		7
Replace lighting switch	Confirm check results	OK	INSPECTION END	Confirm check results	OK	INSPECTION END	Confirm check results	OK	INSPECTION END
		NG	Replace wiper switch		NG	Replace switch base		NG	Confirm symptom again

>> INSPECTION END

Removal and Installation

NKS004YR

Refer to [LT-274, "LIGHTING AND TURN SIGNAL SWITCH"](#) .

STOP LAMP

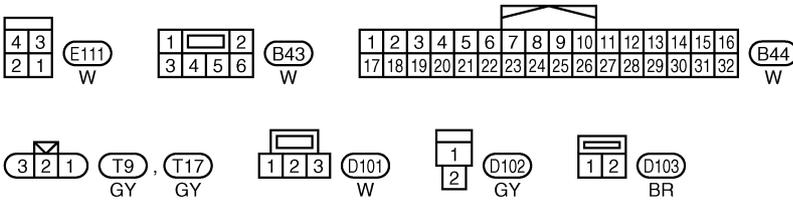
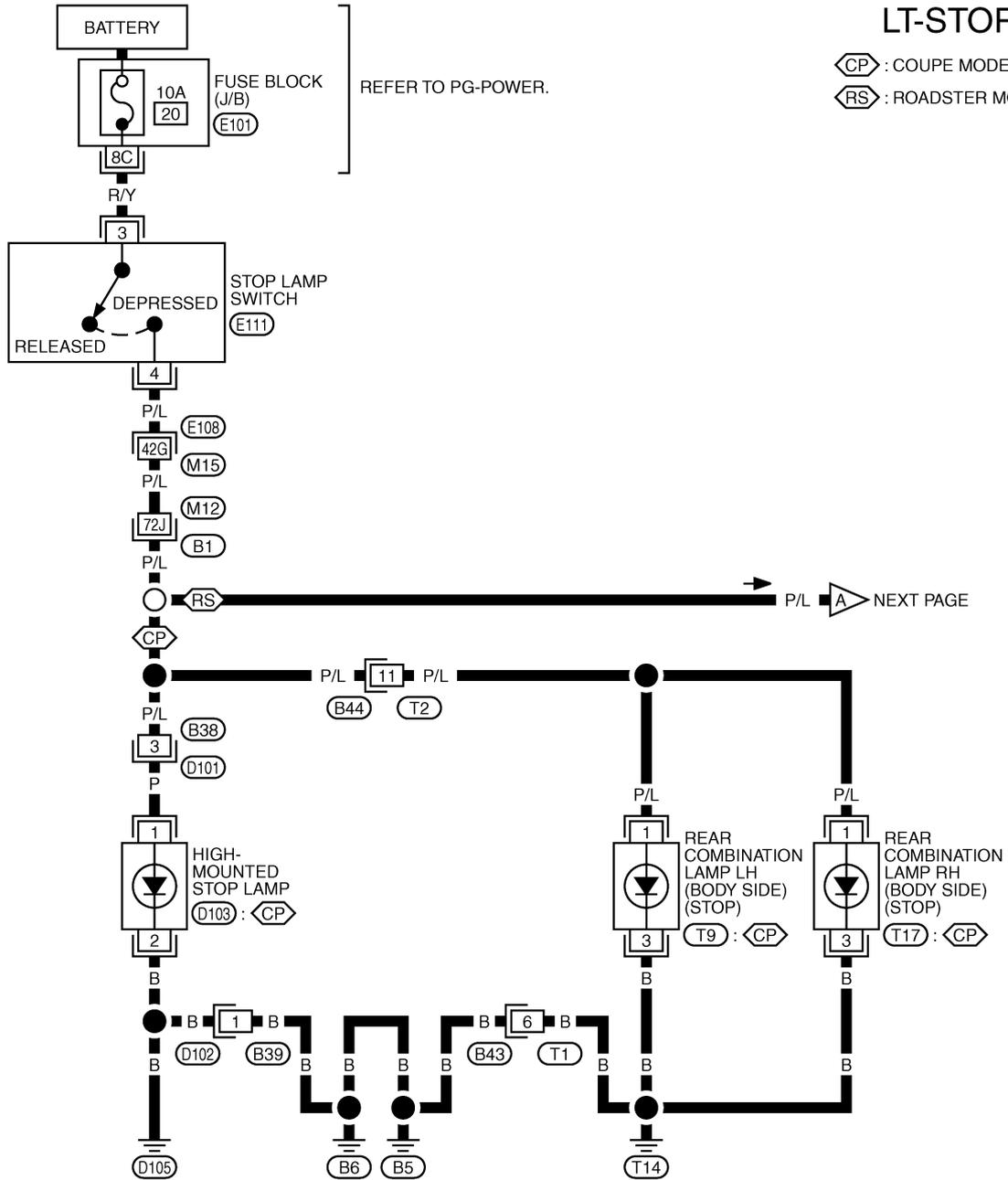
[TYPE 2]

STOP LAMP

PFP:26550

Wiring Diagram — STOP/L —

NKS004YS



REFER TO THE FOLLOWING.

⬠E108, ⬠B1 -SUPER MULTIPLE JUNCTION (SMJ)

⬠E101 -FUSE BLOCK-JUNCTION BOX (J/B)

TKWT4037E

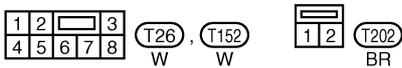
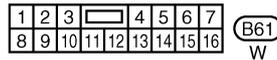
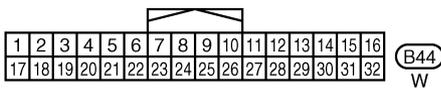
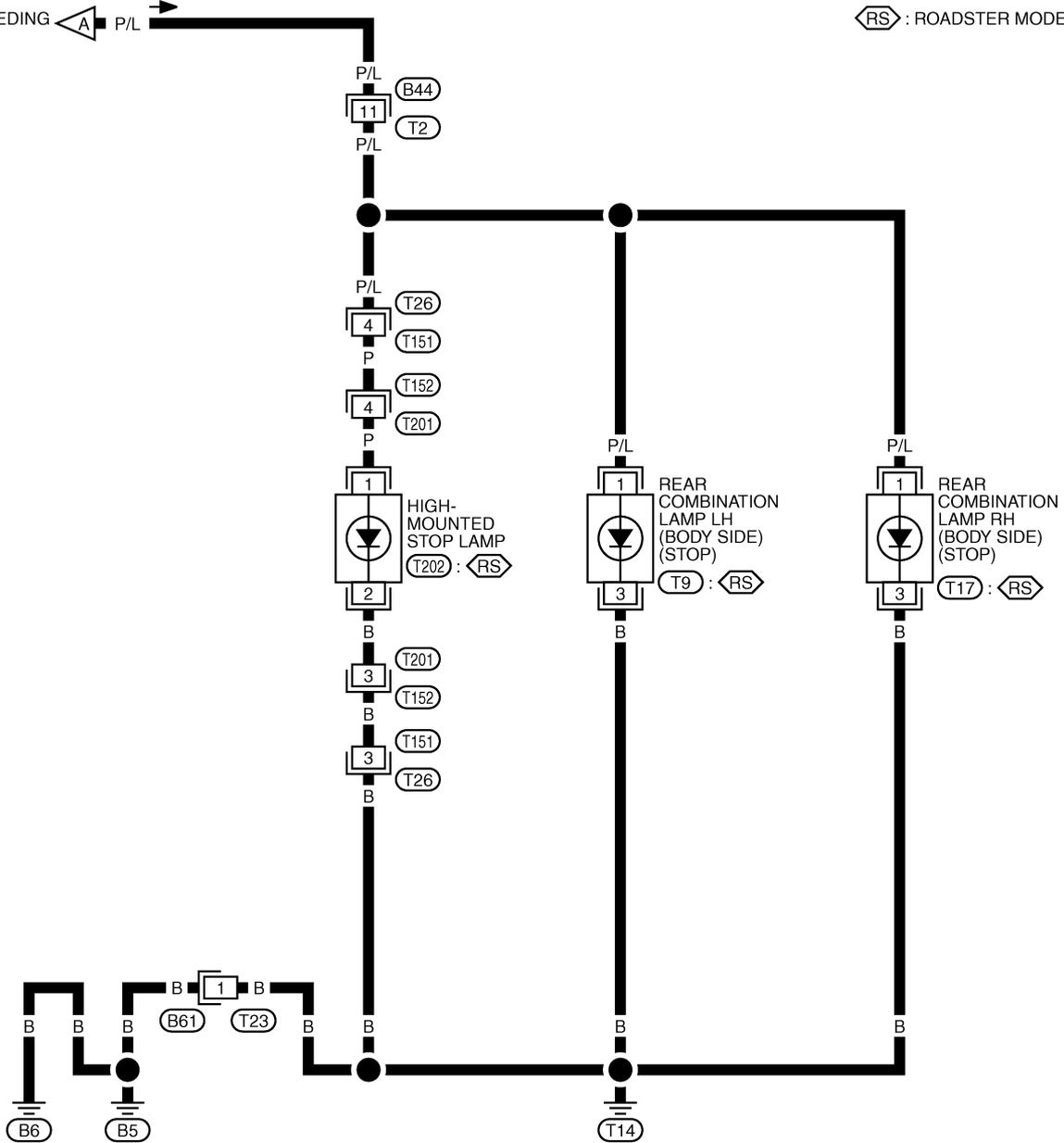
STOP LAMP

[TYPE 2]

LT-STOP/L-02

⬠RS⬠ : ROADSTER MODELS

PRECEDING PAGE



TKWT4038E

STOP LAMP

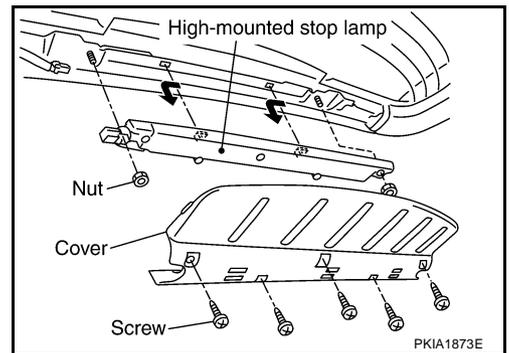
[TYPE 2]

High-Mounted Stop Lamp (Coupe Models) BULB REPLACEMENT, REMOVAL AND INSTALLATION

NKS004YT

1. Remove back door finisher upper. Refer to [EI-48, "BACK DOOR FINISHER"](#) .
2. Disconnect high-mounted stop lamp connector.
3. Remove nuts and remove high-mounted stop lamp with cover from back door. Be sure to pull toward the arrow in the figure.
4. Remove screws and remove high-mounted stop lamp assembly from cover.
5. Installation is the reverse order of removal.

High-mounted stop lamp : LED

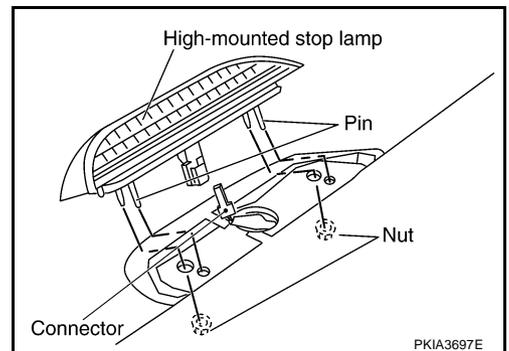


High-Mounted Stop Lamp (Roadster Models) BULB REPLACEMENT, REMOVAL AND INSTALLATION

NKS004YU

1. Turn ignition switch ON, and turn soft-top OPEN/CLOSE switch ON.
2. When the storage lid is fully opened, soft-top OPEN/CLOSE switch to OFF.
3. Remove battery negative cable.
4. Disconnect high-mounted stop lamp connector.
5. Remove high-mounted stop lamp.
6. Remove high-mounted stop lamp assembly from storage lid.
7. Installation is the reverse order of removal.

High-mounted stop lamp : LED



Stop Lamp BULB REPLACEMENT

NKS004YV

Refer to [LT-316, "Bulb Replacement"](#) .

REMOVAL AND INSTALLATION

Refer to [LT-317, "Removal and Installation"](#) .

A
B
C
D
E
F
G
H
I
J
L
M

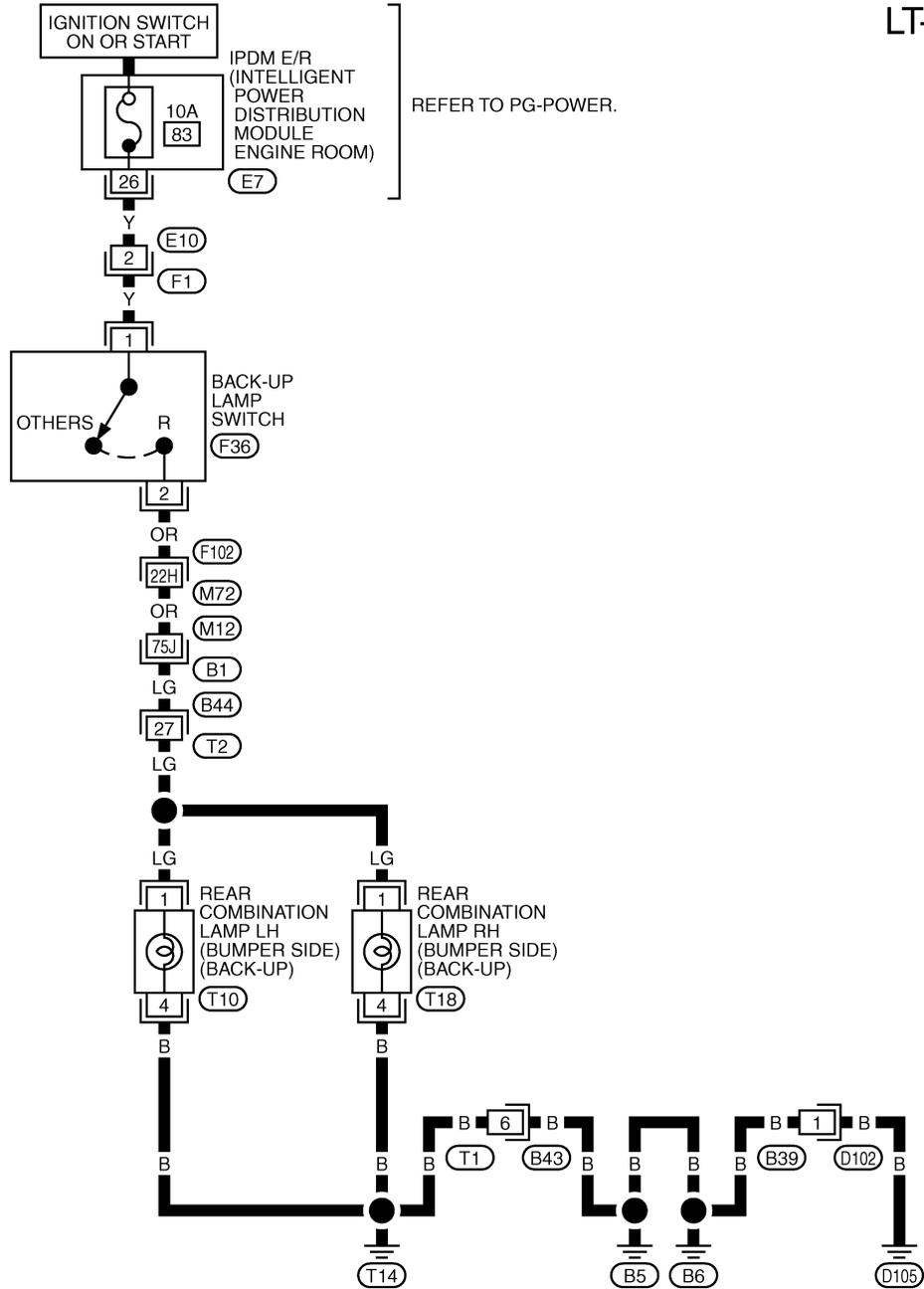
LT

BACK-UP LAMP

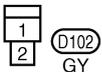
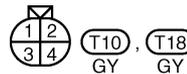
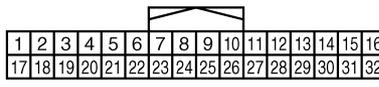
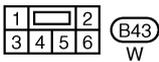
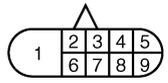
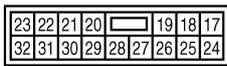
[TYPE 2]

COUPE MODELS (M/T)

LT-BACK/L-02



A
B
C
D
E
F
G
H
I
J
LT
L
M



REFER TO THE FOLLOWING.
 (F102), (B1) -SUPER MULTIPLE JUNCTION (SMJ)

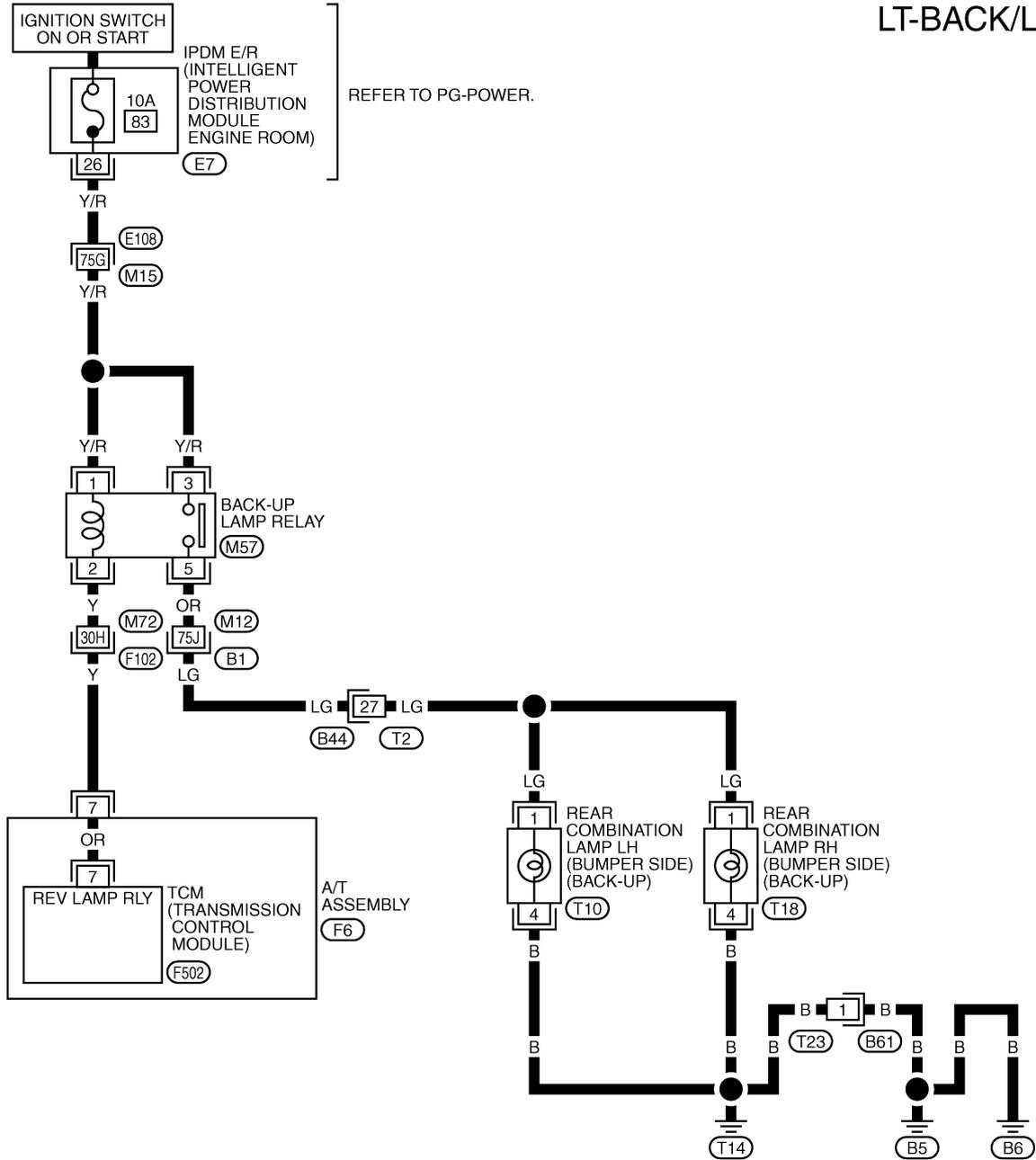
TKWT4040E

BACK-UP LAMP

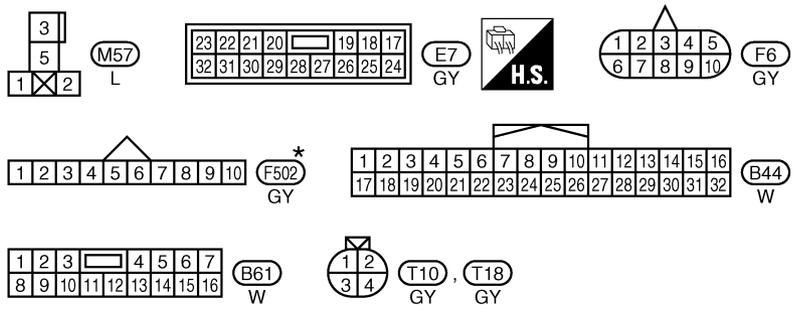
[TYPE 2]

ROADSTER MODELS (A/T)

LT-BACK/L-03



REFER TO PG-POWER.



REFER TO THE FOLLOWING.
 (E108), (F102), (B1) -SUPER
 MULTIPLE JUNCTION (SMJ)

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

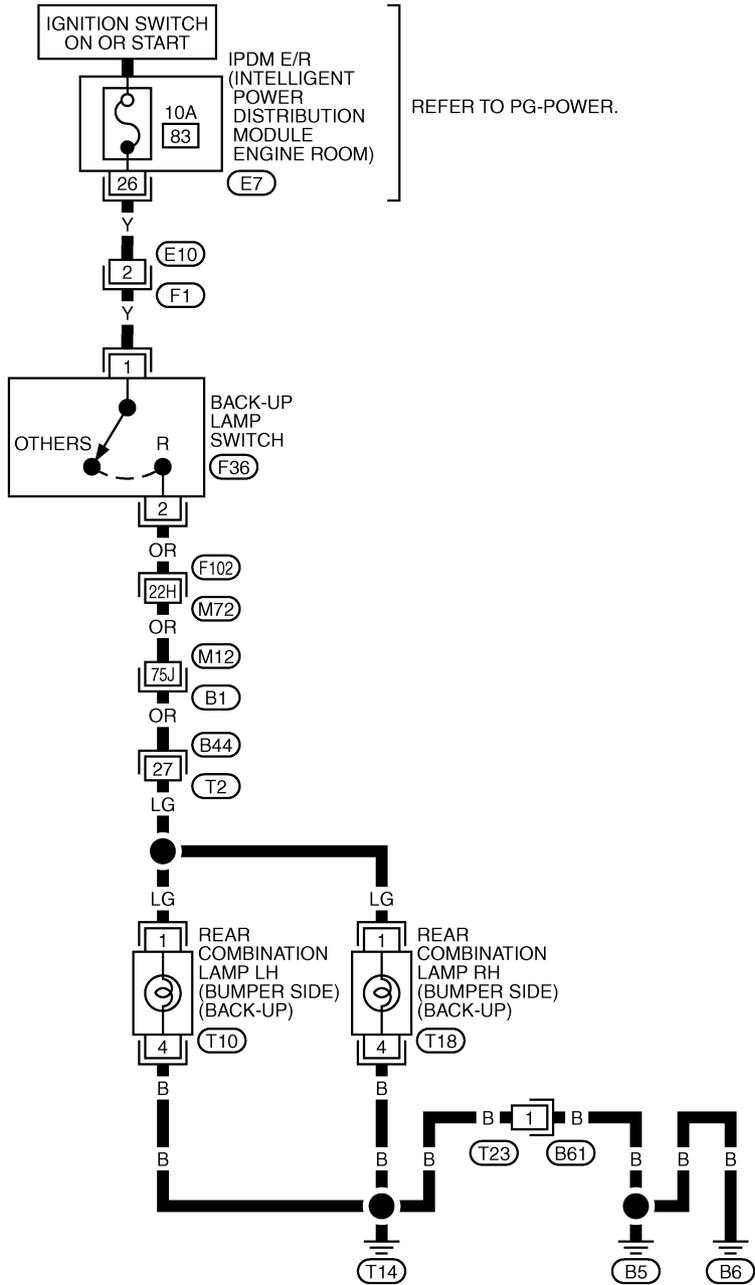
TKWT4041E

BACK-UP LAMP

[TYPE 2]

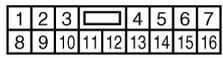
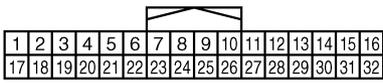
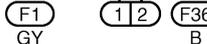
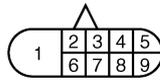
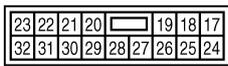
ROADSTER MODELS (M/T)

LT-BACK/L-04



REFER TO PG-POWER.

A
B
C
D
E
F
G
H
I
J
LT
L
M



REFER TO THE FOLLOWING.

F102, B1 -SUPER MULTIPLE JUNCTION (SMJ)

TKWT4042E

Bulb Replacement

NKS004YX

Refer to [LT-316, "Bulb Replacement"](#) .

Removal and Installation

NKS004YY

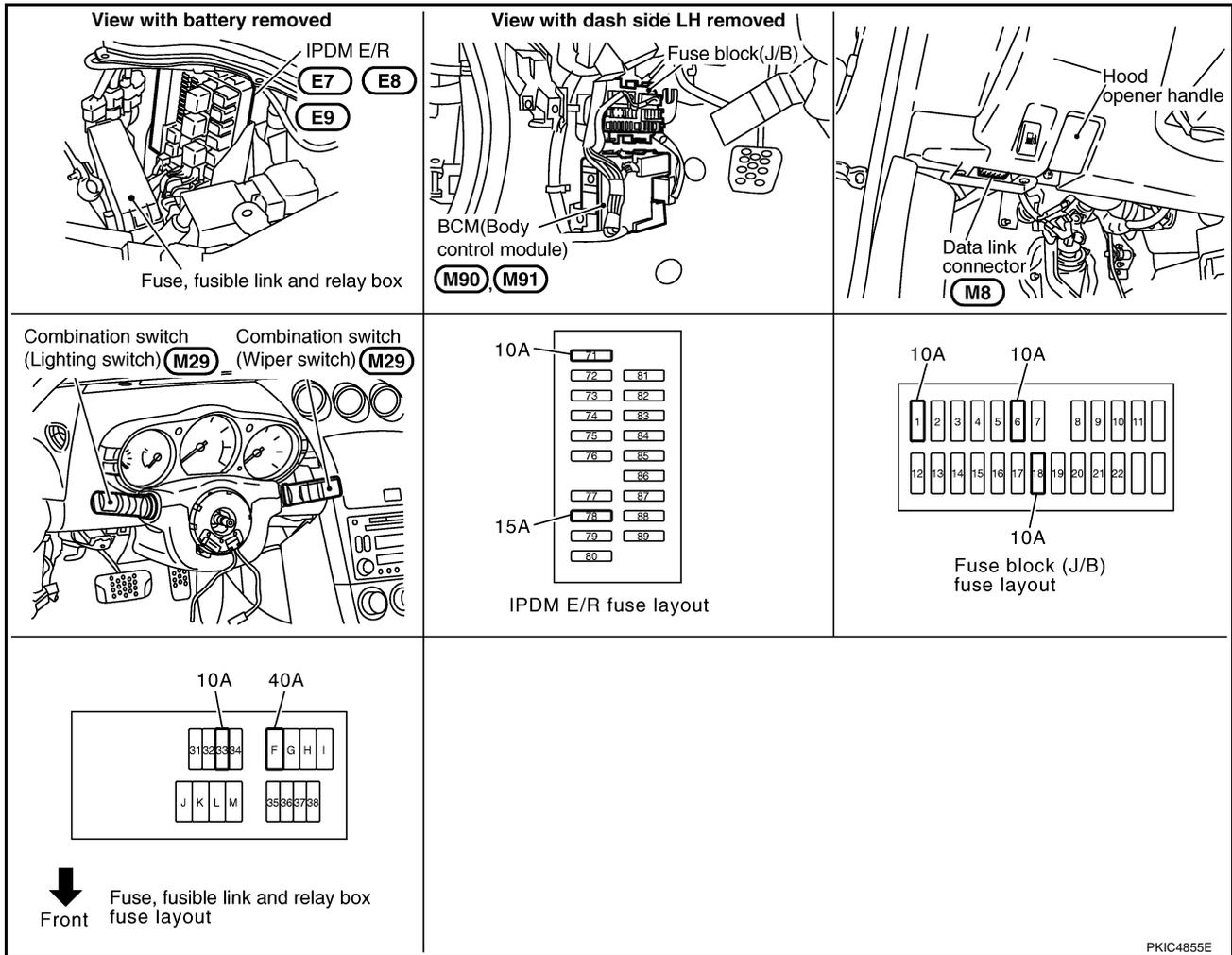
Refer to [LT-317, "Removal and Installation"](#) .

PARKING, LICENSE PLATE AND TAIL LAMPS

PFP:26550

Component Parts and Harness Connector Location

NKS004YZ



PKIC4855E

System Description

NKS004Z0

Control of parking, license plate, side maker and tail lamps operation is dependent upon the position of lighting switch (combination switch). When the lighting switch is in the 1ST position, the BCM (body control module) receives input signal requesting the parking, license plate, side marker and tail lamps to illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) through CAN communication. The CPU (central processing unit) located in the IPDM E/R controls the tail lamp relay coil and daytime light relay* coil. These relay, when energized, directs power to parking, license plate, side marker and tail lamps, which then illuminate.

NOTE:

Daytime light relay*: Canada models

OUTLINE

Power is supplied at all times

- through 10A fuse (No.71, located in IPDM E/R)
- to tail lamp relay, located in IPDM E/R, and
- to CPU located in IPDM E/R,
- through 15A fuse (No.78, located in IPDM E/R)
- to CPU located in IPDM E/R,
- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]

A
B
C
D
E
F
G
H
I
J

LT

L
M

- to BCM terminal 42.

With ignition switch in ON or START position, power is supplied

- to CPU located in IPDM E/R,
- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM terminal 38.

With ignition switch in ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system).

OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position, the BCM receives input signal requesting the parking, license plate, side marker and tail lamps to illuminate. This input is communicated to the IPDM E/R through the CAN communication lines. The CPU located in the IPDM E/R controls the tail lamp relay coil and daytime light relay* coil. These relay, when energized, directs power to parking, license plate, side marker and tail lamps, which when energized, directs power

- through IPDM E/R terminal 22 (USA models)
- through daytime light relay terminal 5 (Canada models)
- to front combination lamp LH terminals 6
- to front combination lamp RH terminals 6
- to rear combination lamp LH terminals 2
- to rear combination lamp RH terminals 2
- to license plate lamp LH terminal 2, and
- to license plate lamp RH terminal 2.

Ground is supplied at all times

- to front combination lamp LH terminal 8, and
- to front combination lamp RH terminal 8
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to rear combination lamp LH terminals 3
- to rear combination lamp RH terminals 3
- to license plate lamp LH terminal 1, and
- to license plate lamp RH terminal 1
- through grounds B5, B6, D105 and T14 (Coupe models)
- through grounds B5, B6 and T14 (Roadster models).

With power and ground supplied, parking, license plate side marker and tail lamps illuminate.

NOTE:

Daytime light relay*: Canada models

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control function is activated.

Under this condition, the parking, license, side marker and tail lamps remain illuminated for 5 minutes, then the headlamps are turned off.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

CAN Communication System Description

NKS004Z1

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

NKS004Z2

Refer to [LAN-48, "CAN System Specification Chart"](#) .

A
B
C
D
E
F
G
H
I
J
LT
L
M

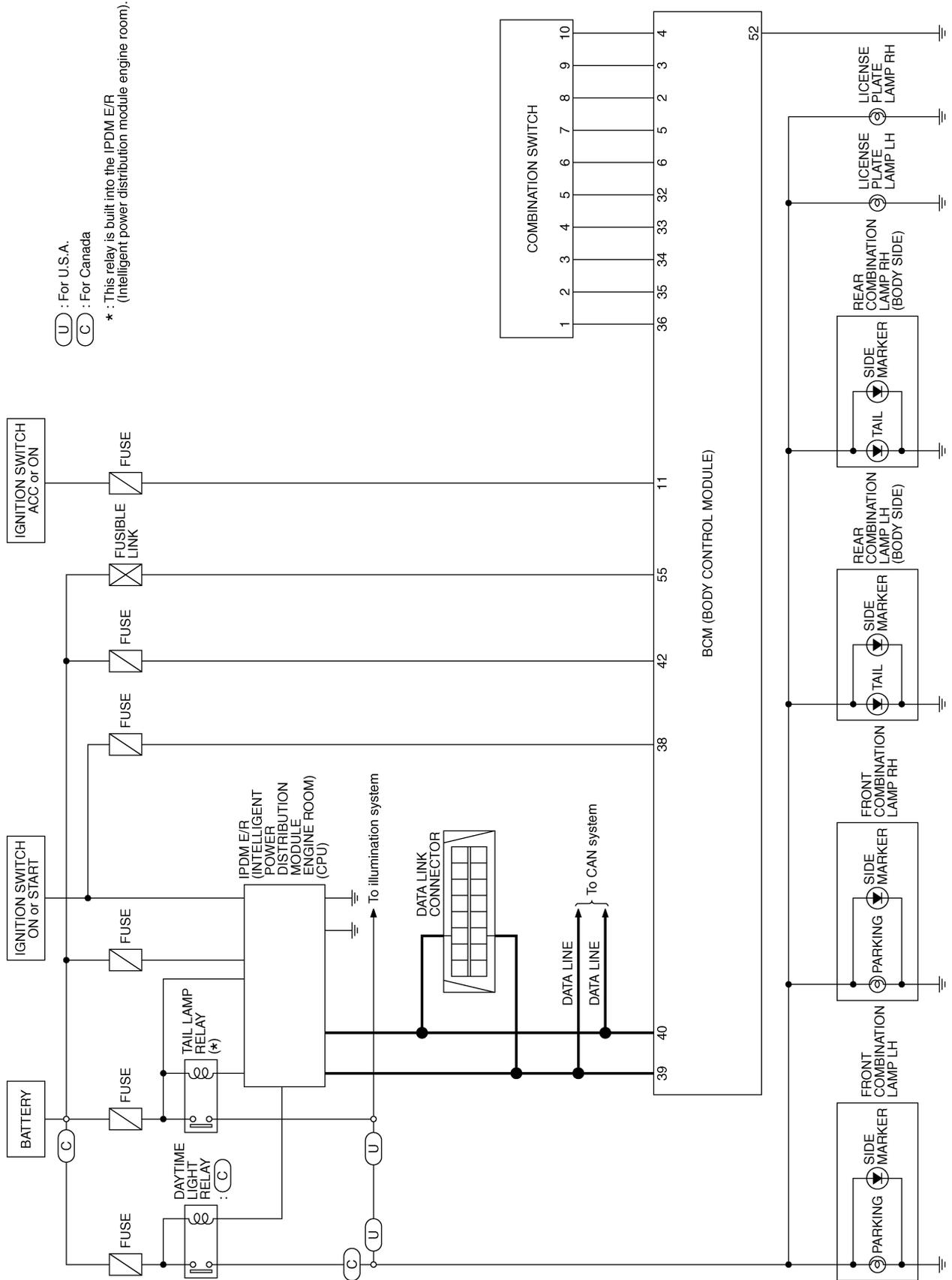


PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 2]

NKS004Z3

Schematic



TKWT4043E

PARKING, LICENSE PLATE AND TAIL LAMPS

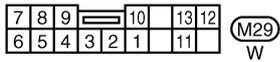
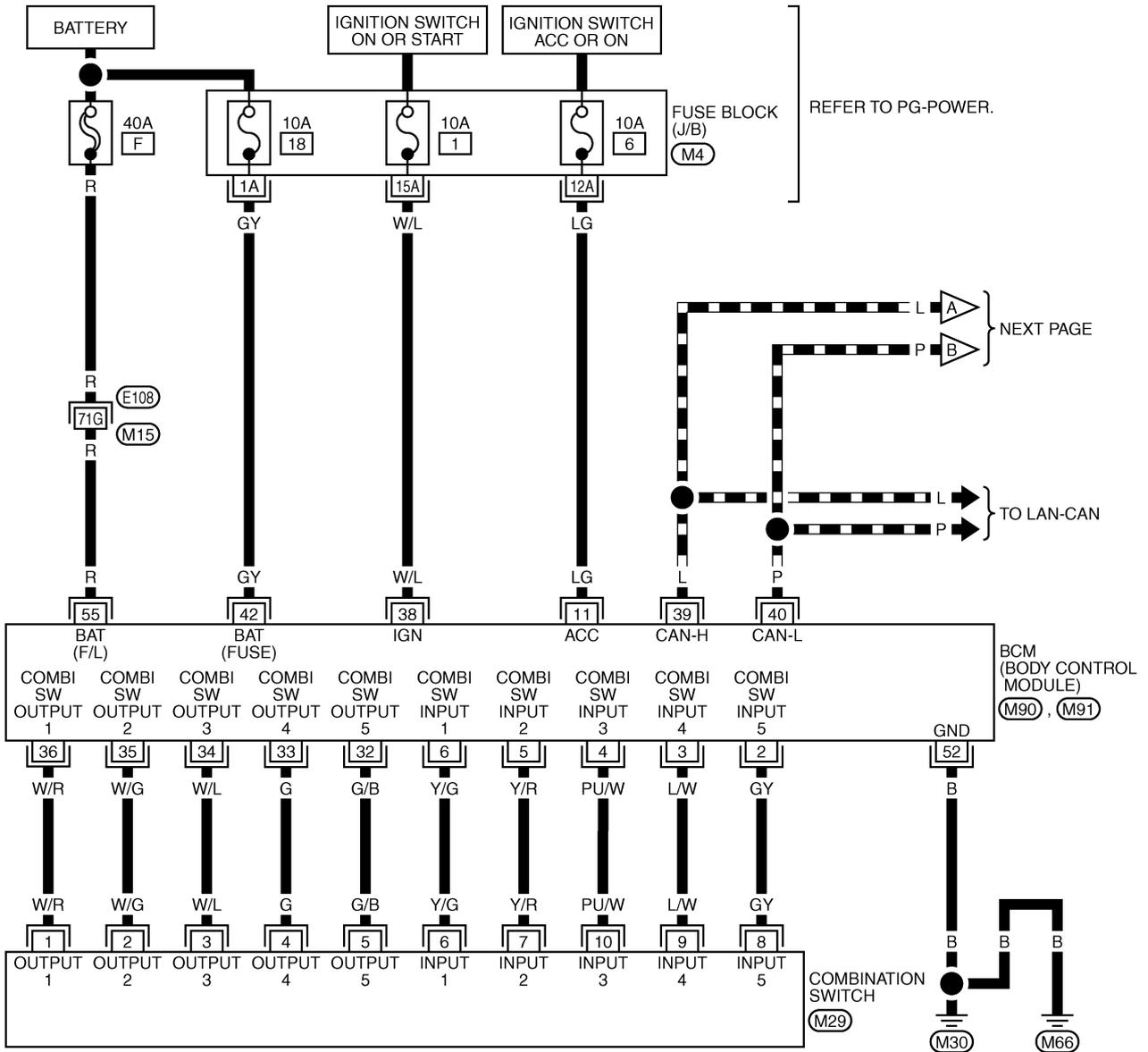
[TYPE 2]

Wiring Diagram — TAIL/L —

NKS004Z4

LT-TAIL/L-01

▬▬▬▬ : DATA LINE



REFER TO THE FOLLOWING.

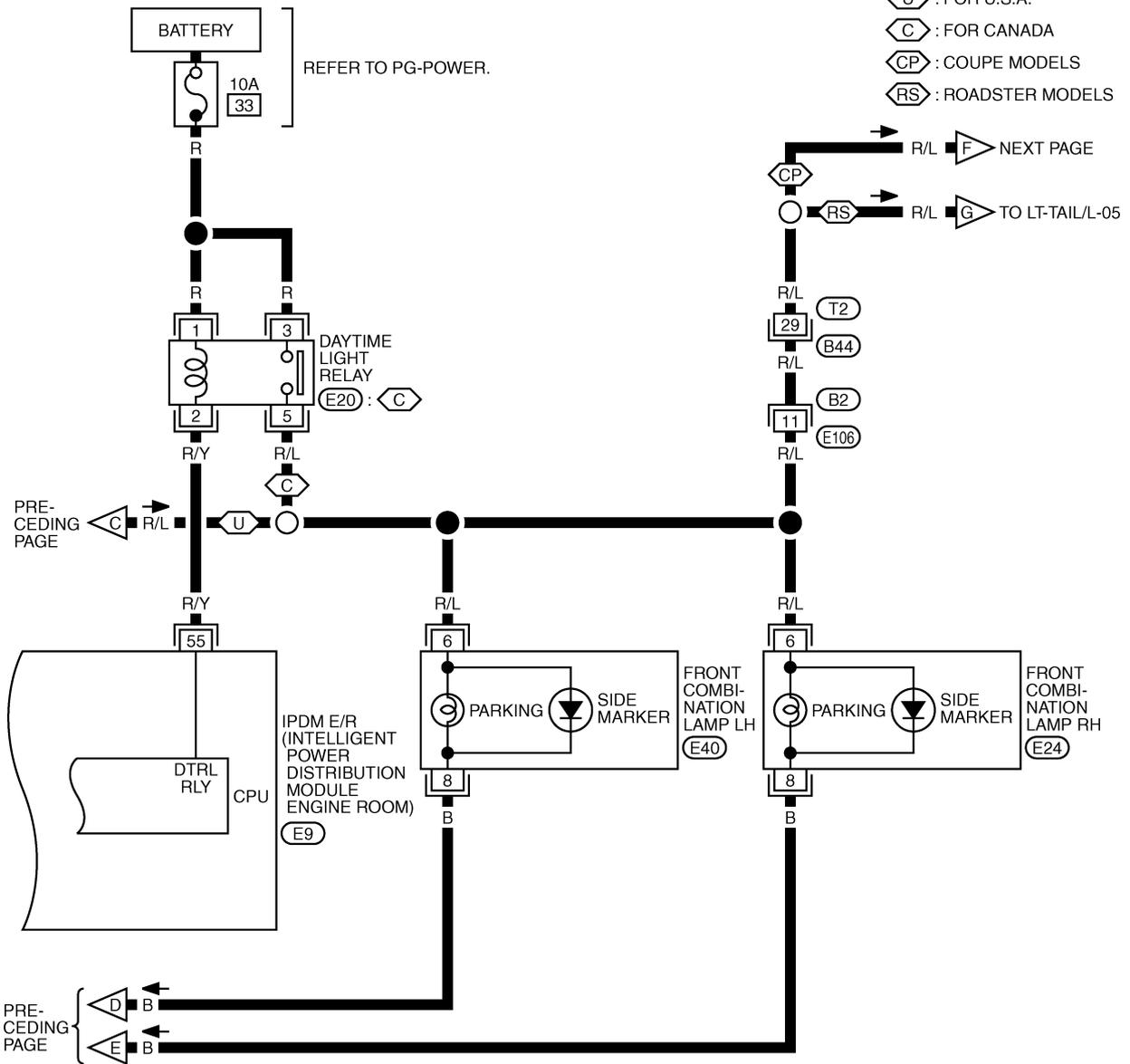
- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

TKWT5585E

PARKING, LICENSE PLATE AND TAIL LAMPS

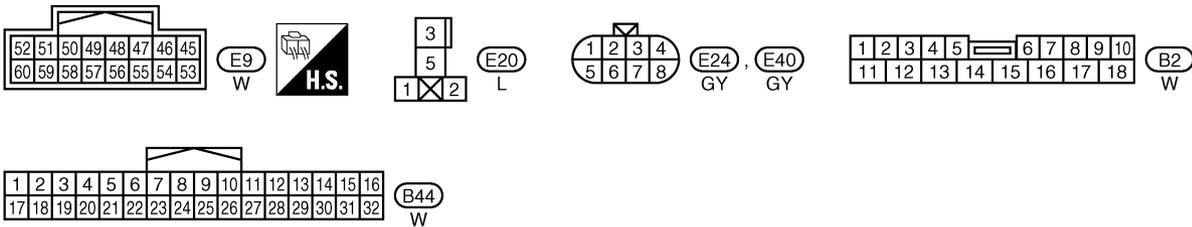
[TYPE 2]

LT-TAIL/L-03



A
B
C
D
E
F
G
H
I
J
K
L
M

LT



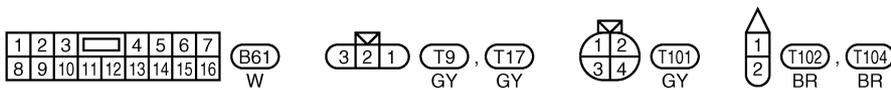
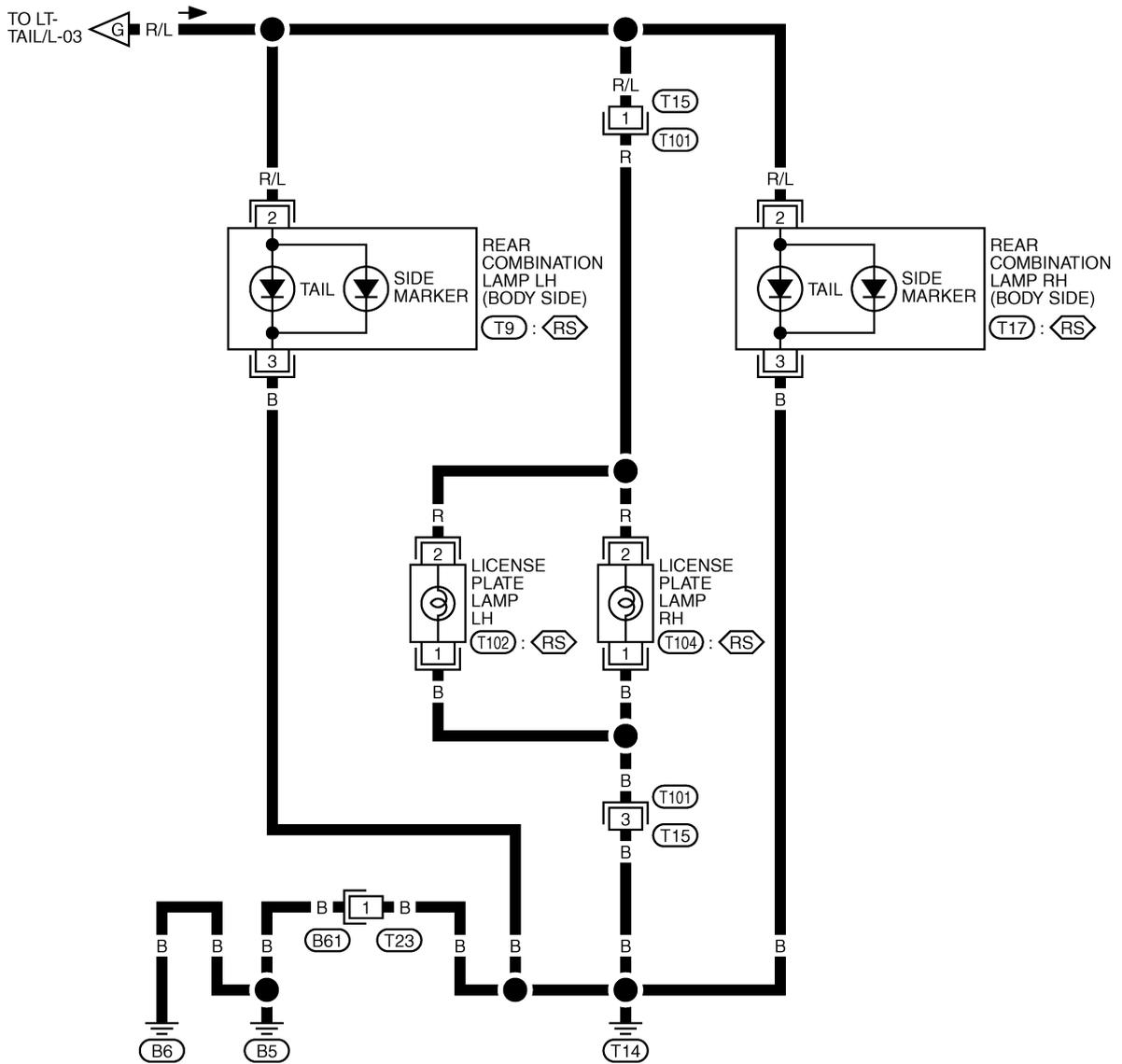
TKWT4046E

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 2]

LT-TAIL/L-05

⬠RS⬠ : ROADSTER MODELS



TKWT4048E

Terminals and Reference Values for BCM

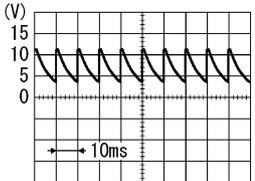
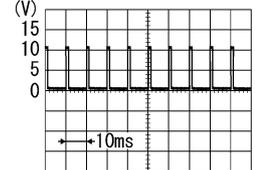
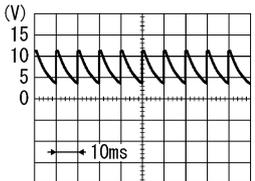
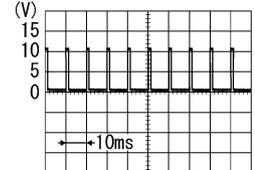
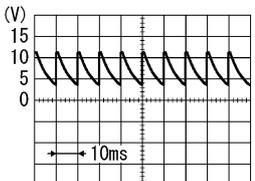
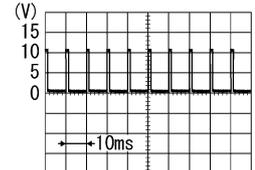
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF not to be fluctuated by overloaded.
- Turn wiper dial position to 4 except when checking waveform or voltage of wiper dial position. Wiper dial position can be confirmed on CONSULT-II. Refer to [LT-281, "DATA MONITOR"](#).

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	GY	Combination switch input 5	ON	OFF	Approx. 0 V
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 1ST ● Lighting switch HIGH beam (Operates only HIGH beam switch) 	<p>Approx. 1.0 V</p>
3	L/W	Combination switch input 4	ON	Lighting switch 2ND	<p>Approx. 2.0 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	<p>Approx. 1.0 V</p>
11	LG	Ignition switch (ACC)	ACC	—	Battery voltage

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
33	G	Combination switch output 4	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Lighting switch 1ST (The same result with lighting switch 2ND)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
34	W/L	Combination switch output 3	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch HI beam (Operates only HI beam switch) 	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
35	W/G	Combination switch output 2	ON	Lighting, turn, wiper switch (Wiper intermittent dial position 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">Approx. 7.2 V</p>
				Any of the conditions below <ul style="list-style-type: none"> ● Lighting switch 2ND ● Lighting switch PASSING (Operates only PASSING switch) 	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">Approx. 1.2 V</p>
38	W/L	Ignition switch (ON)	ON	—	Battery voltage

A
B
C
D
E
F
G
H
I
J
LT
L
M

PARKING, LICENSE PLATE AND TAIL LAMPS

[TYPE 2]

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
39	L	CAN – H	—	—	—
40	P	CAN – L	—	—	—
42	GY	Battery power supply	OFF	—	Battery voltage
52	B	Ground	ON	—	Approx. 0 V
55	R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Values for IPDM E/R

NKS004Z6

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
22	R/L	Parking, license plate, side marker and tail lamps	ON	Lighting switch 1ST position	OFF	Approx. 0 V
					ON	Battery voltage
38	B	Ground	ON	—	Approx. 0 V	
48	L	CAN– H	—	—	—	
49	P	CAN– L	—	—	—	
60	B	Ground	ON	—	Approx. 0 V	

How to Proceed With Trouble Diagnosis

NKS004Z7

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-293, "System Description"](#) .
3. Carry out preliminary check. Refer to [LT-304, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Do parking, license plate, side marker and tail lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

NKS004Z8

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch ON or START position	1
	Ignition switch ACC or ON position	6
IPDM E/R	Battery	71

Refer to [LT-297, "Wiring Diagram — TAIL/L —"](#) .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

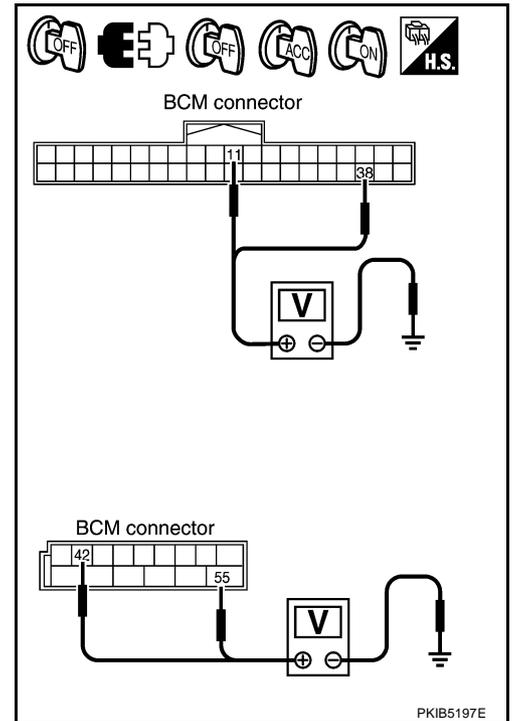
2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector terminals and ground.

Terminals		(-)	Ignition switch position		
(+)	OFF		ACC	ON	
BCM connector	Terminal				
M90	11	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M91	42		Battery voltage	Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage	Battery voltage

OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.



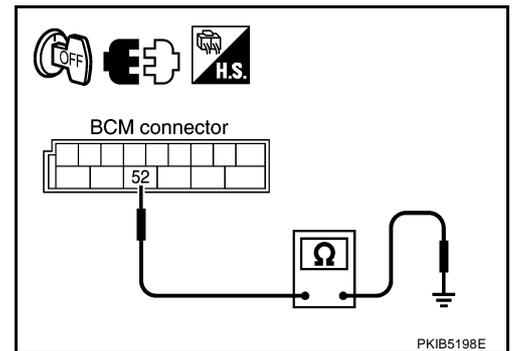
3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector terminal and ground.

BCM connector	Terminal	Ground	Continuity
M91	52		Yes

OK or NG

- OK >> INSPECTION END
 NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

Refer to [LT-205, "CONSULT-II Functions \(BCM\)"](#) in HEADLAMP (FOR USA).
 Refer to [LT-238, "CONSULT-II Functions \(BCM\)"](#) in HEADLAMP (FOR CANADA).

CONSULT-II Functions (IPDM E/R)

Refer to [LT-207, "CONSULT-II Functions \(IPDM E/R\)"](#) in HEADLAMP (FOR USA).
 Refer to [LT-240, "CONSULT-II Functions \(IPDM E/R\)"](#) in HEADLAMP (FOR CANADA).

4. CHECK IPDM E/R

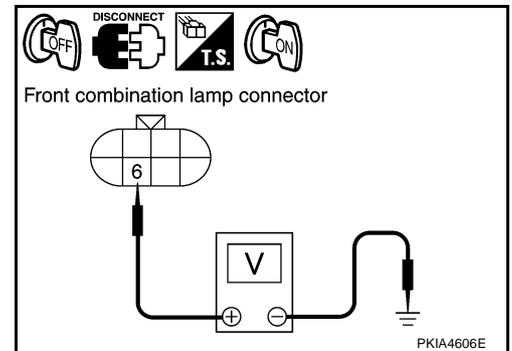
With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connectors.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "TAIL LAMP" on "SELECT TEST ITEM" screen.
5. Touch "ON" screen.
6. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

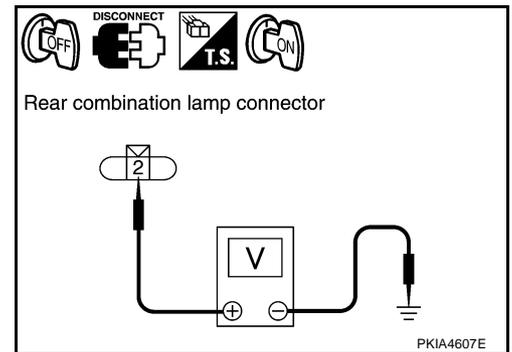
With out CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

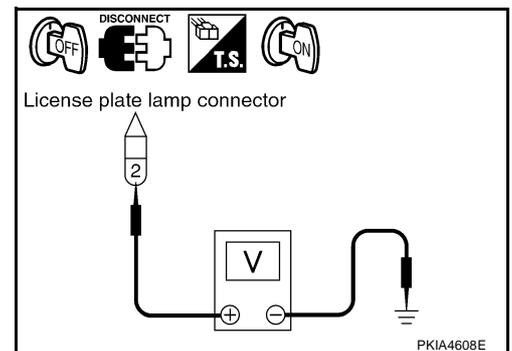
Terminals				Voltage (Approx.)
(+)		Terminal	(-)	
Front combination lamp connector				6
RH	E24			
LH	E40			



Terminals				Voltage (Approx.)
(+)		Terminal	(-)	
Rear combination lamp connector				2
RH	T17			
LH	T9			



Terminals				Voltage (Approx.)
(+)		Terminal	(-)	
License plate lamp connector				2
RH	T104			
LH	T102			



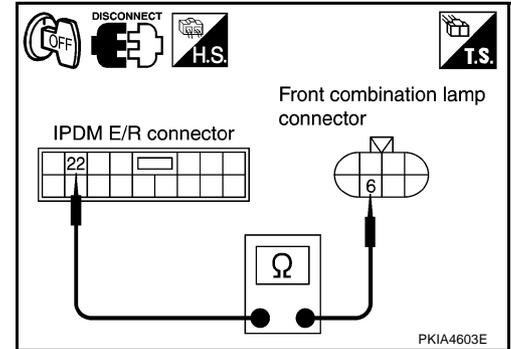
OK or NG

- OK >> GO TO 6.
 NG >> GO TO 5.

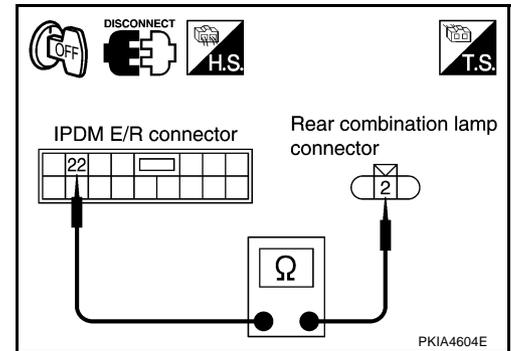
5. CHECK CIRCUIT BETWEEN IPDM E/R AND PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp, rear combination lamp and license plate lamp harness connector.

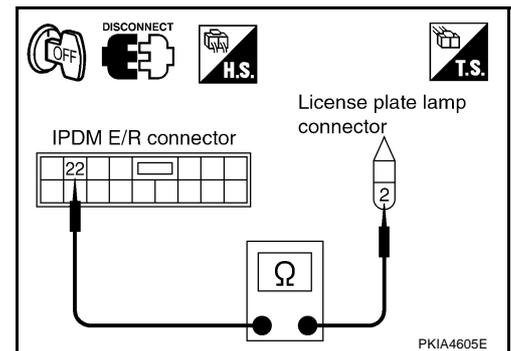
Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal	Connector	Terminal		
E7	22	RH	E24	6	Yes
		LH	E40	6	



Terminals					Continuity
IPDM E/R		Rear combination lamp			
Connector	Terminal	Connector	Terminal		
E7	22	RH	T17	2	Yes
		LH	T9	2	



Terminals					Continuity
IPDM E/R		Licence plat lamp			
Connector	Terminal	Connector	Terminal		
E7	22	RH	T104	2	Yes
		LH	T102	2	



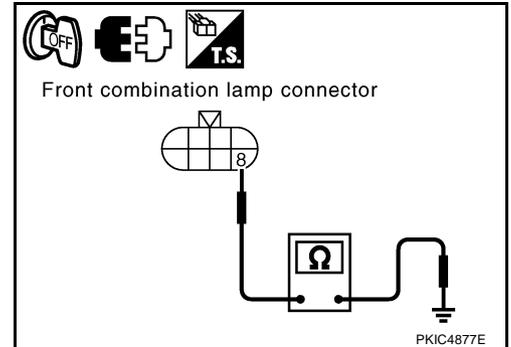
OK or NG

- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.

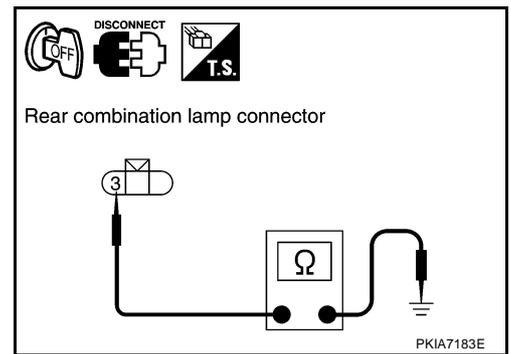
6. CHECK GROUND

1. Check continuity between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

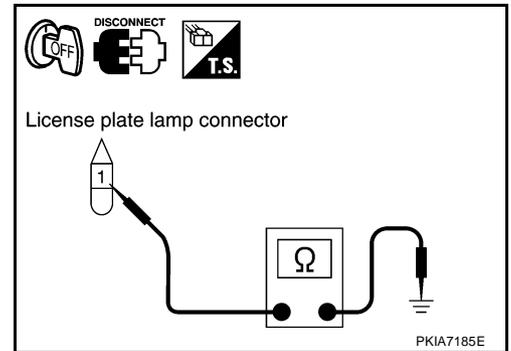
Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	8		Yes
LH	E40			



Rear combination lamp connector		Terminal	Ground	Continuity
RH	T17	3		Yes
LH	T9			



License plate lamp connector		Terminal	Ground	Continuity
RH	T104	1		Yes
LH	T102			



OK or NG

- OK >> Check bulb.
- NG >> Repair harness or connector.

Parking, License Plate, Side Marker, and Tail Lamps Do Not Illuminate (for Canada)

NKS004ZC

1. CHECK COMBINATION SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "LIGHT SW 1ST" turns ON-OFF linked with operation of lighting switch.

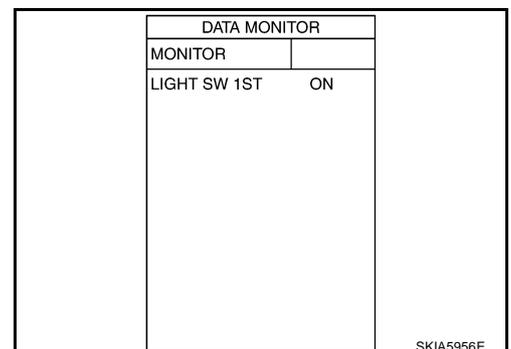
When lighting switch is 1ST : LIGHT SW 1ST ON position

ⓧ Without CONSULT-II

Refer to [LT-282, "Combination Switch Inspection"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Check combination switch (lighting switch). Refer to [LT-282, "Combination Switch Inspection"](#).

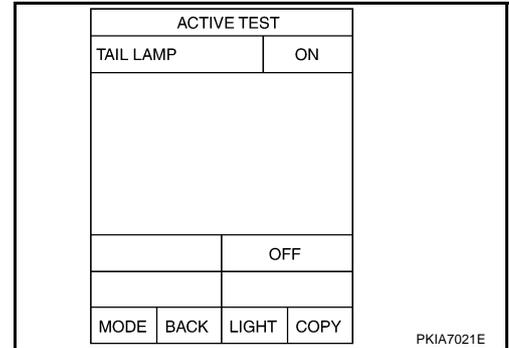


2. ACTIVE TEST

☑ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "TAIL LAMP" on "SELECT TEST ITEM" screen.
3. Touch "ON" screen.
4. Make sure parking, license plate, side marker and tail lamps operation.

Parking, license plate, side marker and tail lamps should operate.



☒ Without CONSULT-II

1. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
2. Make sure parking, license plate, side marker and tail lamps operation.

Parking, license plate, side marker and tail lamps should operate.

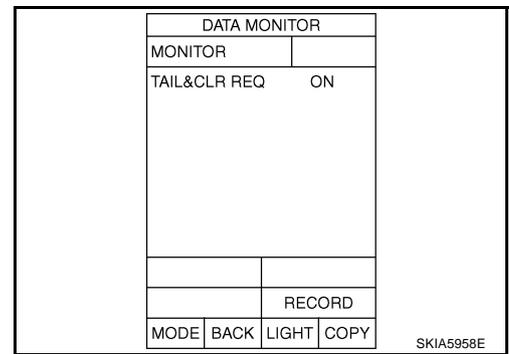
OK or NG

- OK >> GO TO 3.
- NG >> GO TO 4.

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "TAIL&CLR REQ" turns ON when lighting switch is in 1ST position.

When lighting switch is 1ST : TAIL&CLR REQ ON position



OK or NG

- OK >> Replace IPDM E/R.
- NG >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).

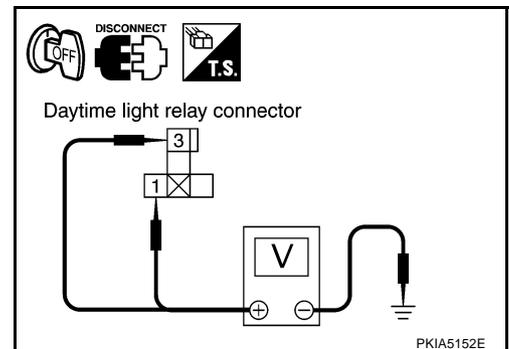
4. CHECK POWER SUPPLY CIRCUIT TO DAYTIME LIGHT RELAY

1. Turn ignition OFF.
2. Disconnect daytime light relay.
3. Check voltage between daytime light relay harness connector and ground.

Terminal (+)		Terminal (-)	voltage (Approx.)
Daytime light relay connector	Terminal		
E20	1	Ground	Battery voltage
	3		

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.



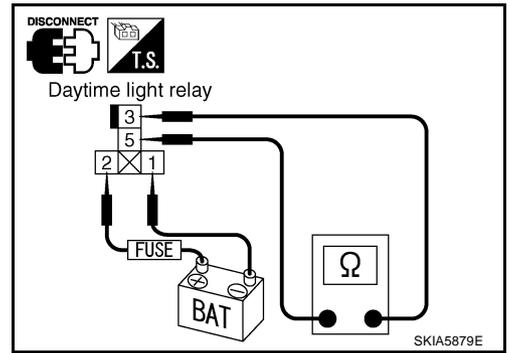
5. CHECK DAYTIME LIGHT RELAY

Apply battery voltage to between daytime light relay E20 terminal 1, 2 and check continuity between terminal 3 and 5.

3 – 5 : Continuity should exist.

OK or NG

- OK >> GO TO 6.
- NG >> Replace daytime light relay.



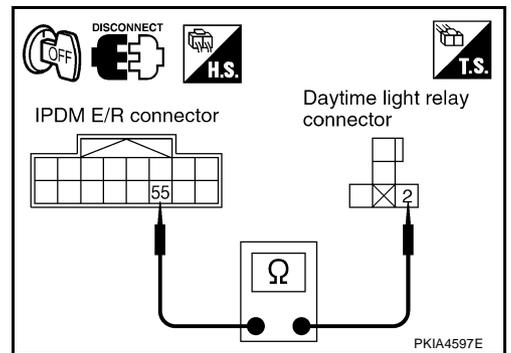
6. CHECK DAYTIME LIGHT RELAY CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector and daytime light relay harness connector.

Terminals				Continuity
IPDM E/R		Daytime light relay		
Connector	Terminal	Connector	Terminal	
E9	55	E20	2	Yes

OK or NG

- OK >> GO TO 7.
- NG >> Repair harness or connector.



A
B
C
D
E
F
G
H
I
J
LT
L
M

7. CHECK IPDM E/R

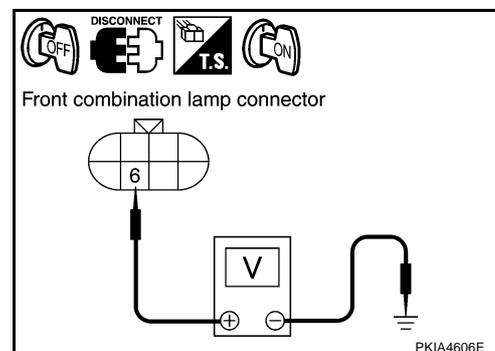
 With CONSULT-II

1. Connect daytime light relay and IPDM E/R connector.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connectors.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "TAIL LAMP" on "SELECT TEST ITEM" screen.
5. Touch "ON" screen.
6. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

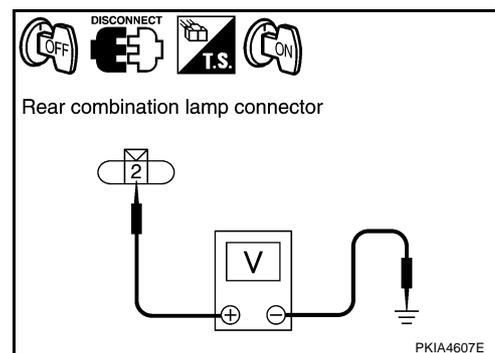
 With out CONSULT-II

1. Connect daytime light relay and IPDM E/R connector.
2. Disconnect front combination lamp, rear combination lamp and license plate lamp connector.
3. Start auto active test. Refer to [PG-35, "Auto Active Test"](#).
4. When tail lamp relay is operating, check voltage between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

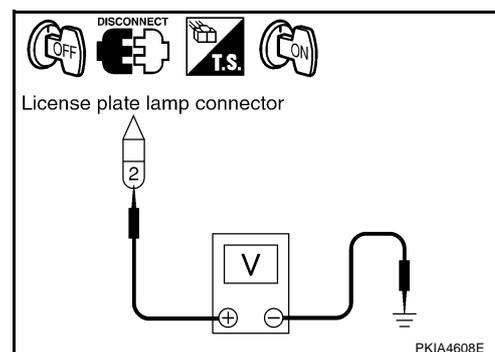
Terminals				Voltage (Approx.)
(+)		Terminal	(-)	
Front combination lamp connector				6
RH	E24			
LH	E40			



Terminals				Voltage (Approx.)
(+)		Terminal	(-)	
Rear combination lamp connector				2
RH	T17			
LH	T9			



Terminals				Voltage (Approx.)
(+)		Terminal	(-)	
License plate lamp connector				2
RH	T104			
LH	T102			



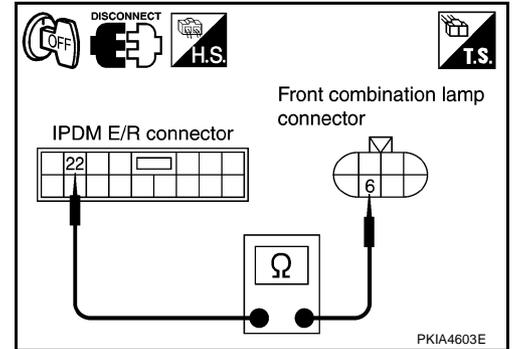
OK or NG

- OK >> GO TO 9.
 NG >> GO TO 8.

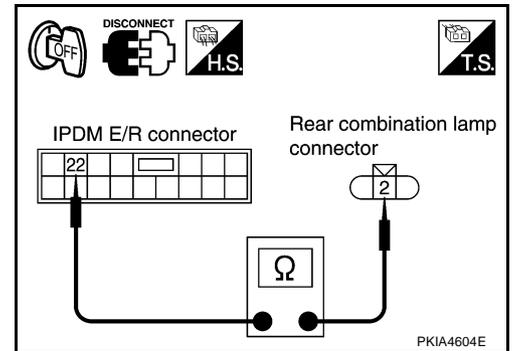
8. CHECK CIRCUIT BETWEEN IPDM E/R AND PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front combination lamp, rear combination lamp and license plate lamp harness connector.

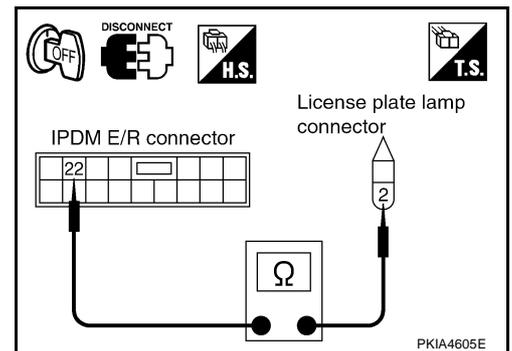
Terminals				Continuity
IPDM E/R		Front combination lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	E24	6
		LH	E40	



Terminals				Continuity
IPDM E/R		Rear combination lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	T17	2
		LH	T9	



Terminals				Continuity
IPDM E/R		Licence plat lamp		
Connector	Terminal	Connector	Terminal	
E7	22	RH	T104	2
		LH	T102	



OK or NG

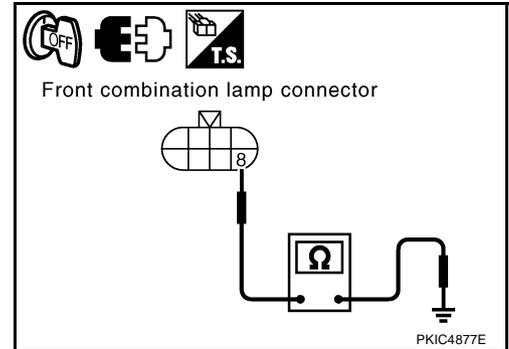
- OK >> Replace IPDM E/R.
- NG >> Repair harness or connector.

A
B
C
D
E
F
G
H
I
J
LT
L
M

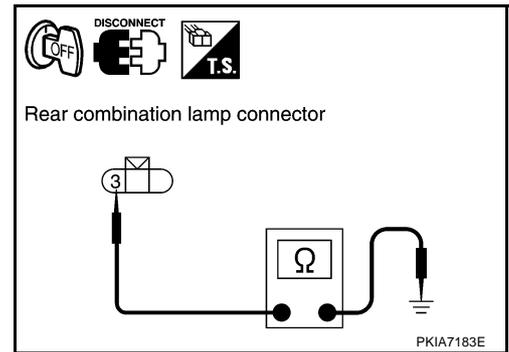
9. CHECK GROUND

1. Check continuity between front combination lamp, rear combination lamp and license plate lamp harness connector and ground.

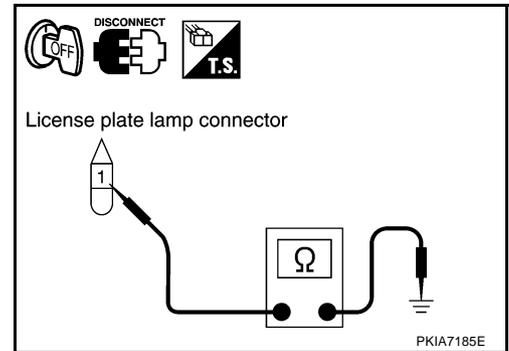
Front combination lamp connector		Terminal	Ground	Continuity
RH	E24	8		Yes
LH	E40			



Rear combination lamp connector		Terminal	Ground	Continuity
RH	T17	3		Yes
LH	T9			



License plate lamp connector		Terminal	Ground	Continuity
RH	T104	1		Yes
LH	T102			



OK or NG

- OK >> Check bulb.
- NG >> Repair harness or connector.

Parking, Side Marker, License Plate and Tail Lamps Do Not Turn OFF (After Approx. 10 Minutes)

NKS004ZD

1. CHECK IPDM E/R

1. Turn ignition switch ON. Place combination switch (lighting switch) in the ON position. Turn ignition switch OFF.
2. Make sure parking, license plate, and tail lamps turn OFF after approximately 10 minutes.

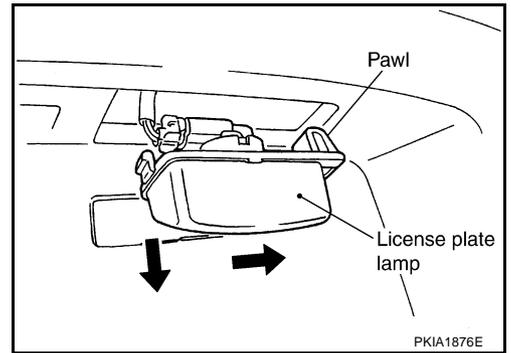
OK or NG

- OK >> INSPECTION END.
- NG >> Ignition relay malfunction. Refer to [PG-31, "Function of Detecting Ignition Relay Malfunction"](#).

License Plate Lamp BULB REPLACEMENT, REMOVAL AND INSTALLATION

NKS004ZE

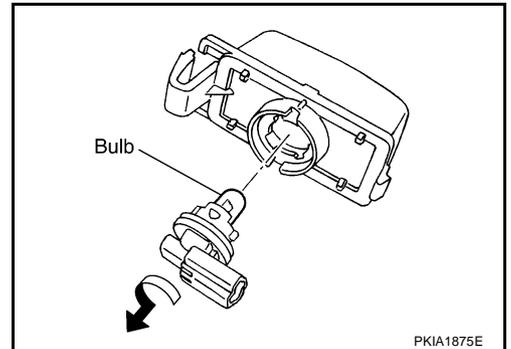
1. While pressing license plate lamp to rightward, pull left side of it and remove.
2. Disconnect license plate lamp connector.



3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from it's socket.

License plate lamp : 12V - 5W

5. Installation is the reverse order of removal.



Front Parking Lamp BULB REPLACEMENT

Refer to [LT-217, "Bulb Replacement"](#) .

REMOVAL AND INSTALLATION

Refer to [LT-218, "Removal and Installation"](#) .

Tail Lamp BULB REPLACEMENT

Refer to [LT-316, "Bulb Replacement"](#) .

REMOVAL AND INSTALLATION

Refer to [LT-317, "Removal and Installation"](#) .

NKS004ZF

NKS004ZG

A
B
C
D
E
F
G
H
I
J
L
M

LT

REAR COMBINATION LAMP

[TYPE 2]

REAR COMBINATION LAMP

PFP:26554

Bulb Replacement

NKS004ZH

REAR FENDER SIDE (STOP & TAIL LAMP, REAR SIDE MARKER LAMP)

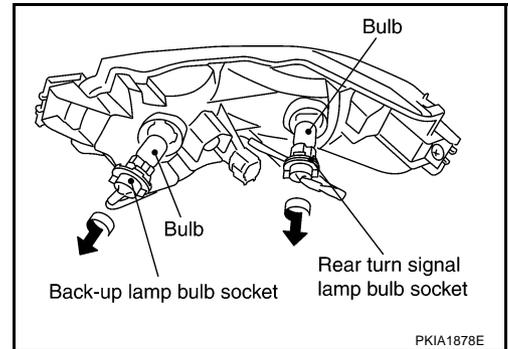
1. Remove rear combination lamp. Refer to [LT-317, "Removal and Installation"](#).
2. Replacement integral with rear combination lamp (rear fender side).

Stop/tail lamp : LED

Rear side marker lamp : LED

REAR BUMPER SIDE (BACK-UP LAMP BULB, REAR TURN SIGNAL LAMP BULB)

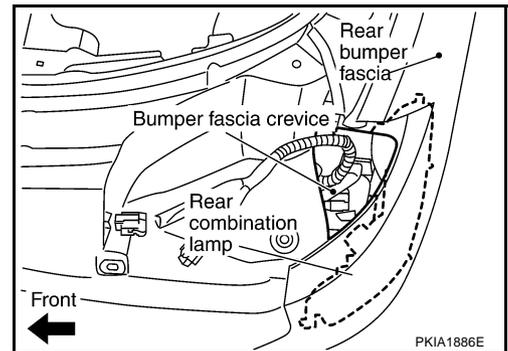
1. Remove rear combination lamp. Refer to [LT-317, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise and unlock it through bumper fascia crevice.



3. Remove bulb.
4. Installation is the reverse order of removal.

Rear turn signal lamp (rear bumper side) : 12 V - 28 W (amber)

Back-up lamp (rear bumper side) : 12 V - 21 W



REAR COMBINATION LAMP

[TYPE 2]

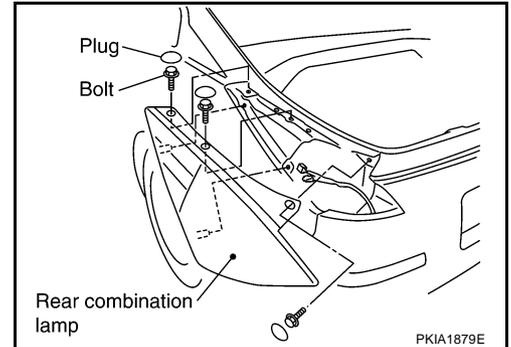
NKS004ZI

Removal and Installation

REMOVAL

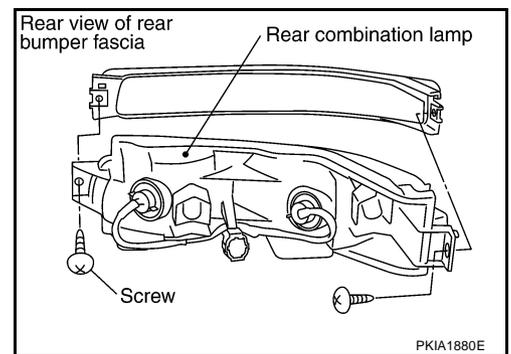
Rear Fender Side

1. Remove plugs and remove rear combination lamp mounting bolts.
2. Pull rear combination lamp toward side of the vehicle and remove from the vehicle.
3. Disconnect rear combination lamp connector.



Rear Bumper Side

1. Remove rear bumper fascia. Refer to [EI-17, "REAR BUMPER"](#).
2. Disconnect rear combination lamp connector.
3. Remove rear combination lamp mounting screws.
4. Remove rear combination lamp from rear bumper fascia.



INSTALLATION

Installation is the reverse order of removal. Be careful of the following:

Rear combination lamp (Rear fender side) mounting bolt  : 5.5 N·m (0.56 kg·m, 49 in·lb)

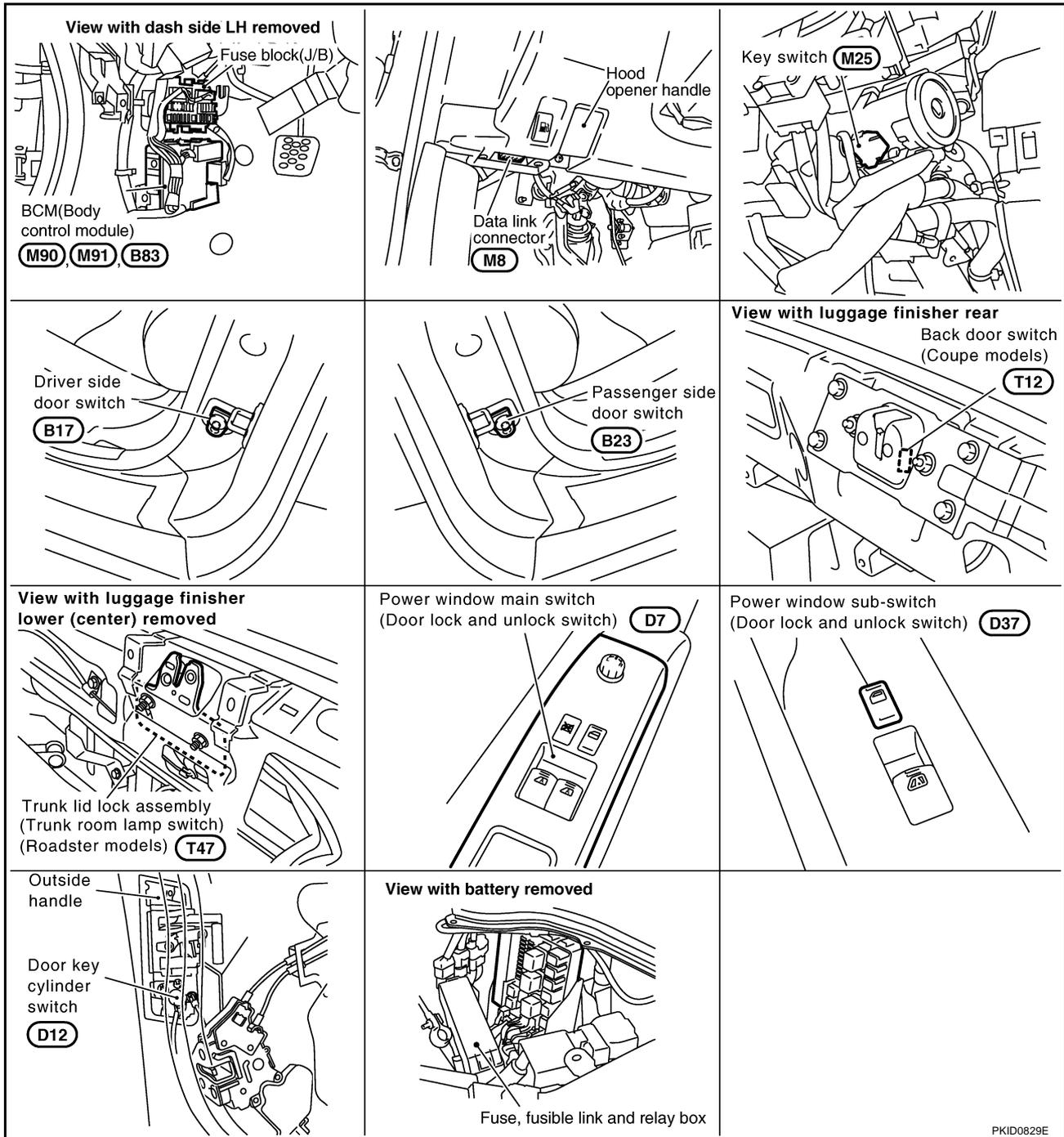
A
B
C
D
E
F
G
H
I
J
LT
L
M

INTERIOR ROOM LAMP

PFP:26410

Component Parts and Harness Connector Location

NKS004ZJ



PKID0829E

System Description

NKS004ZK

When the map lamp switch is in the DOOR position, map lamp ON/OFF is controlled by timer according to signals from switches including key switch, door switch driver side and assist side, unlock and lock signal from key fob, door lock and unlock switch, key cylinder lock and unlock switch, ignition switch.

When the map lamp turns ON, there is a gradual brightening over 1 second. When map lamp turns OFF, there is a gradual dimming over 1 second.

Map lamp timer is controlled by BCM (body control module).

Map lamp timer control settings can be changed with CONSULT-II.

Ignition key hole illumination turns ON at time when driver door is opened (door switch ON) or removed key fob from key cylinder. Illumination turns OFF when driver door is closed (door switch OFF).

POWER SUPPLY AND GROUND

Power is supplied at all times

- through 10A fuse [No.21, located in fuse block (J/B)]
- to key switch terminal 2,
- through 10A fuse [No.18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55.

When key is removed from ignition key cylinder, power is interrupted

- through key switch terminal 1
- to BCM terminal 37.

With ignition switch in ON or START position, power is supplied

- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM terminal 38.

When map lamp and vanity mirror lamp power is supplied at times

- through BCM terminal 41
- to ignition key hole illumination terminal1
- to map lamp terminal 3 (Coupe models)
- to map lamp terminal 4 (Roadster models)
- to luggage room lamp terminal 1 (Coupe models)
- to trunk room lamp terminal 1 (Roadster models) and
- to vanity mirror lamp LH and RH terminals 1.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66.

When driver side door is opened, ground is supplied

- through case ground of driver side door switch
- to BCM terminal 62.

When passenger side door is opened, ground is supplied

- through case ground of passenger side door switch
- to BCM terminal 12.

When back door is opened, ground is supplied (Coupe models)

- through grounds B5, B6, D105 and T14
- to back door switch terminal 3
- through back door switch terminal 1
- to BCM terminal 58.

When trunk lid is opened, ground is supplied (Roadster models)

- through grounds B5, B6 and T14
- to trunk lid lock assembly (trunk room lamp switch) terminal 1
- through trunk lid lock assembly (trunk room lamp switch) terminal 3
- to BCM terminal 57.

When the driver side door or passenger side door is unlocked by door lock and unlock switch, The BCM receives unlock signal with power window serial link

- through grounds M30 and M66
- to power window main switch (door lock and unlock switch) terminal 15 or power window sub switch (door lock and unlock switch) terminal 11
- through power window main switch (door lock and unlock switch) terminal 12 and power window sub switch (door lock and unlock switch) terminal 16
- to BCM terminal 22.

A
B
C
D
E
F
G
H
I
J
LT
L
M

When the driver side door is unlocked by door key cylinder switch, The BCM receives information by communicating with power window main switch

- through grounds M30 and M66
- to door key cylinder switch terminal 2
- through door key cylinder switch terminal 1
- to power window main switch (door lock and unlock switch) terminal 7
- through power window main switch (door lock and unlock switch) terminal 12
- to BCM terminal 22.

When a signal, or combination of signals is received by BCM, ground is supplied

- through BCM terminal 48
- to map lamp terminal 2 (Coupe models)
- to map lamp terminal 3 (Roadster models).

With power and ground are supplied, map lamp illuminates.

SWITCH OPERATION

When map lamp switch is ON, ground is supplied

- to map lamp terminal 1 (Coupe models)
- to map lamp terminal 2 (Roadster models)
- through grounds M30 and M66.

And power is supplied

- through BCM terminal 41
- to ignition key hole illumination terminal 1
- to map lamp terminal 3 (Coupe models)
- to map lamp terminals 4 (Roadster models).

When vanity mirror lamp LH and RH is ON, ground is supplied

- to vanity mirror lamp LH and RH terminals 2
- through grounds M30 and M66.

And power is supplied

- through BCM terminal 41
- to vanity mirror lamp terminal 1.

MAP LAMP TIMER OPERATION

When the map lamp switch is in the DOOR position, and when all conditions below are met, BCM performs timer control (maximum 30 seconds) for map lamp ON/OFF.

In addition, when map lamp turns ON or OFF there is gradual brightening or dimming over 1 second.

Power is supplied at all times

- to 10A fuse [No. 21 located in fuse block (J/B)]
- through key switch terminal 2.

When all doors are closed (all door switches OFF) and key is removed from key cylinder (key switch OFF), power will not be supplied to BCM terminal 37.

Ground is supplied

- through BCM terminal 22
- to power window main switch (door lock and unlock switch) terminal 12.

At this time, BCM detects that driver door is unlocked. It determines that map lamp timer operation conditions are met, and turns map lamp ON for 30 seconds.

When all doors are closed (all door switches OFF) and key is in key cylinder (key switch ON),

Power is supplied

- through key switch terminal 1
- to BCM terminal 37.

When the key is removed from key switch (key switch OFF), power supply to BCM terminal 37 is terminated. BCM detects that key has been removed. It determines that map lamp timer conditions are met, and turns map lamp ON for 30 seconds.

INTERIOR ROOM LAMP

[TYPE 2]

When driver door opens → closes, and key is not inserted in key switch (key switch OFF), BCM terminal 62 changes between 0V (door open) → 5V (door closed). BCM determines that conditions for spot lamp operation are met and turns interior lamp ON for 30 seconds.

Timer control is canceled under the following conditions.

- Driver door is locked (When locked key fob or power window main switch (door lock and unlock switch, door key cylinder switch).
- Driver door is opened (driver door switch turns ON).
- Ignition switch ON.

INTERIOR LAMP BATTERY SAVER CONTROL

If the room lamp remains illuminated by door switch open signal, or if room lamp switch is in the ON position for more than 30 minutes after the ignition switch is turned to the OFF position, BCM will automatically turn off map lamp, luggage room lamp (Coupe models), trunk room lamp (Roadster models) and vanity mirror lamp. After lamps turn OFF by battery saver system, the lamps illuminate again when

- signal from key fob, door lock and unlock switch, or key cylinder is locked or unlocked,
- door is opened or closed,
- key is removed from ignition key cylinder or inserted in ignition key cylinder.

Interior lamp battery saver control period can be changed by the function setting of CONSULT-II.

A
B
C
D
E
F
G
H
I
J
LT
L
M

INTERIOR ROOM LAMP

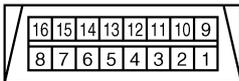
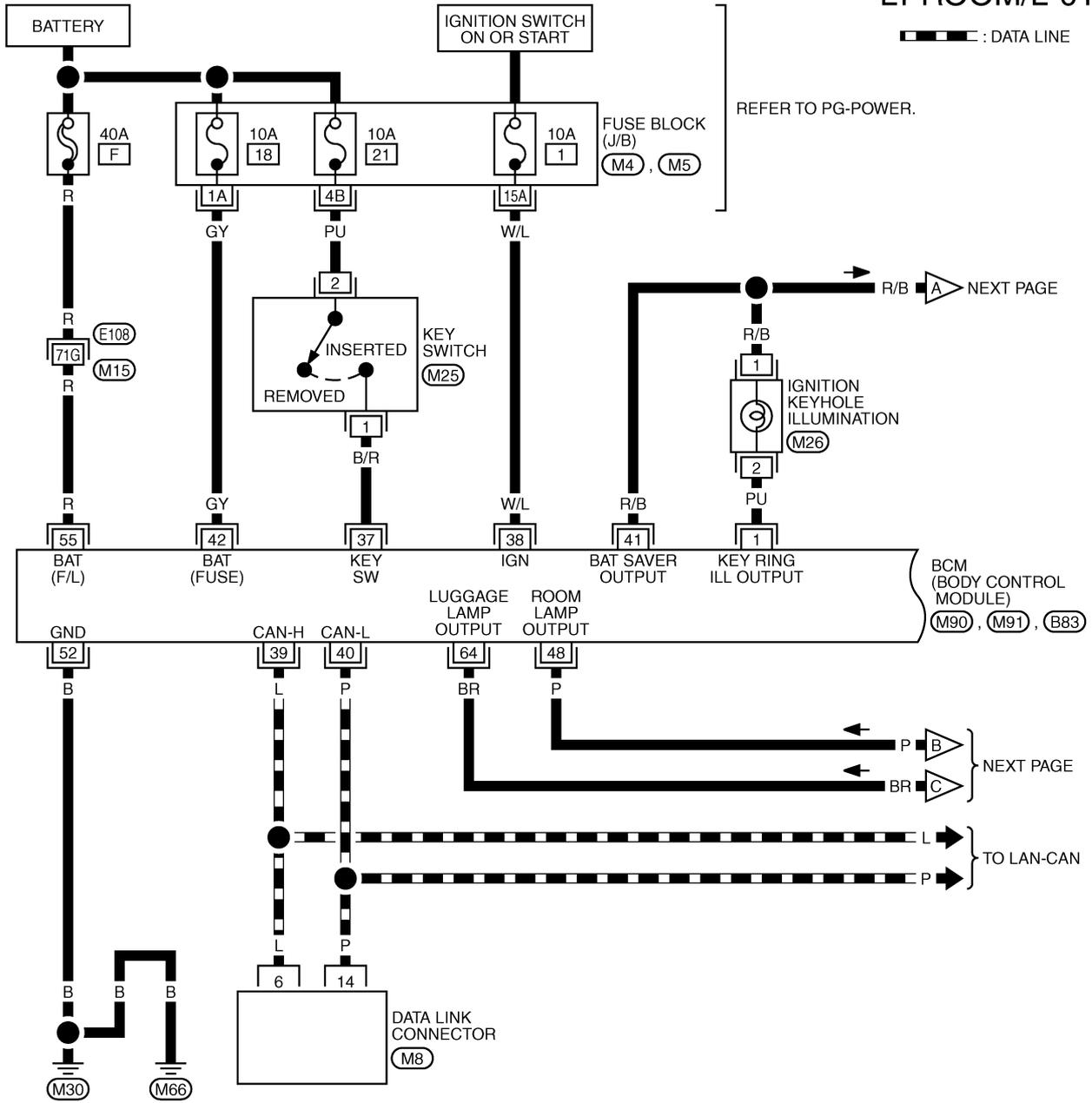
[TYPE 2]

Wiring Diagram — ROOM/L — COUPE MODELS

NKS004ZM

LT-ROOM/L-01

▬ : DATA LINE



(M8)
W



(M25)
BR



(M26)
W

REFER TO THE FOLLOWING.

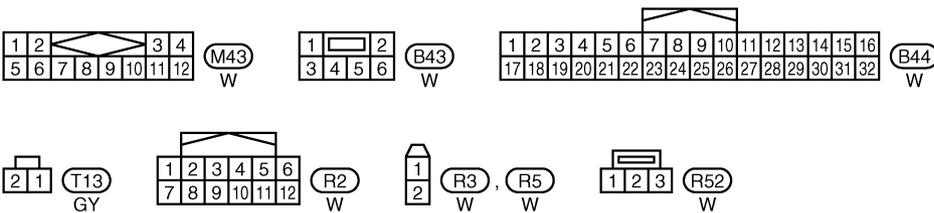
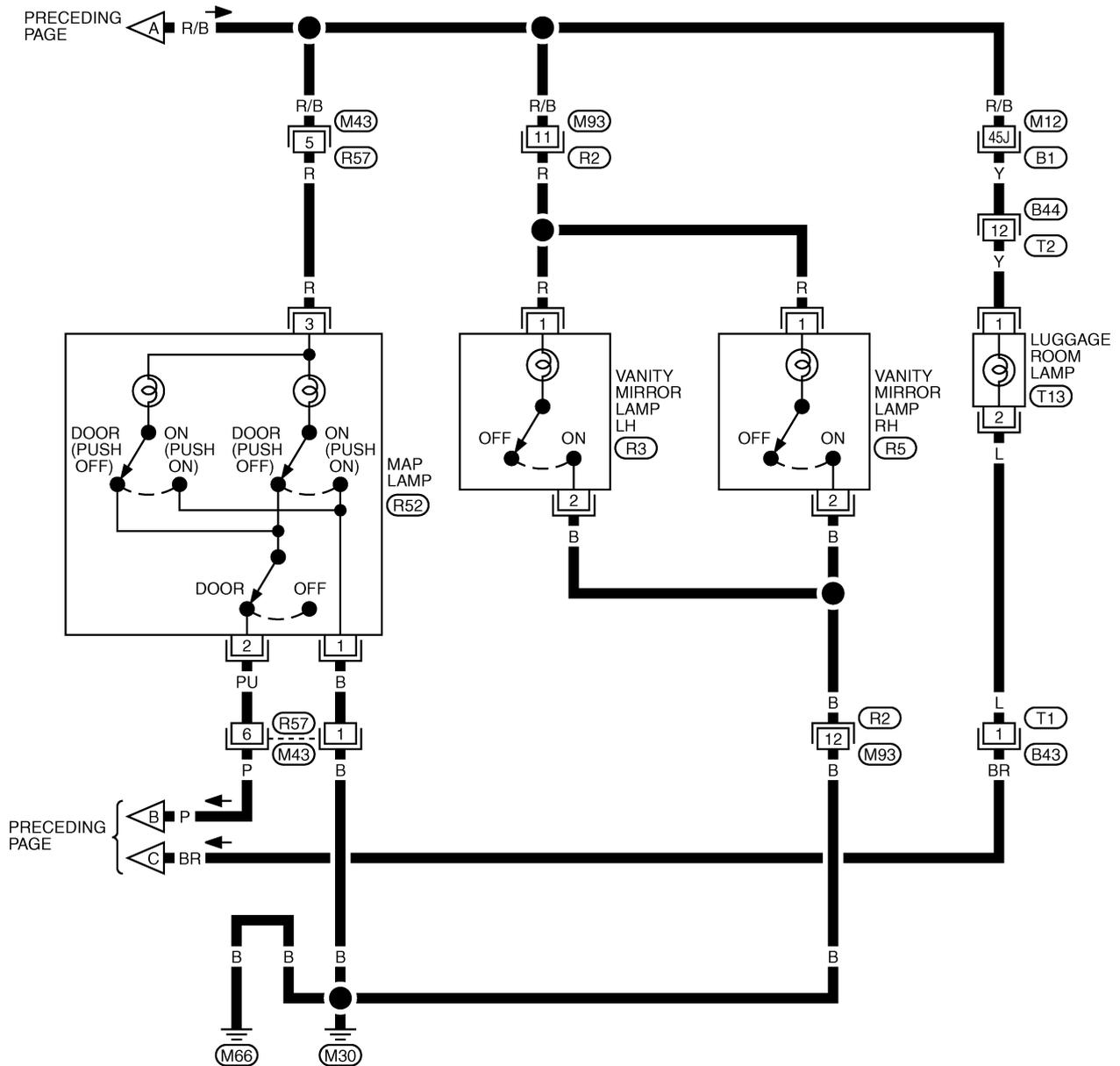
- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91), (B83) -ELECTRICAL UNITS

TKWT5588E

INTERIOR ROOM LAMP

[TYPE 2]

LT-ROOM/L-02



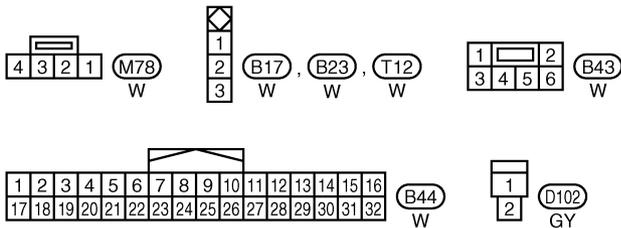
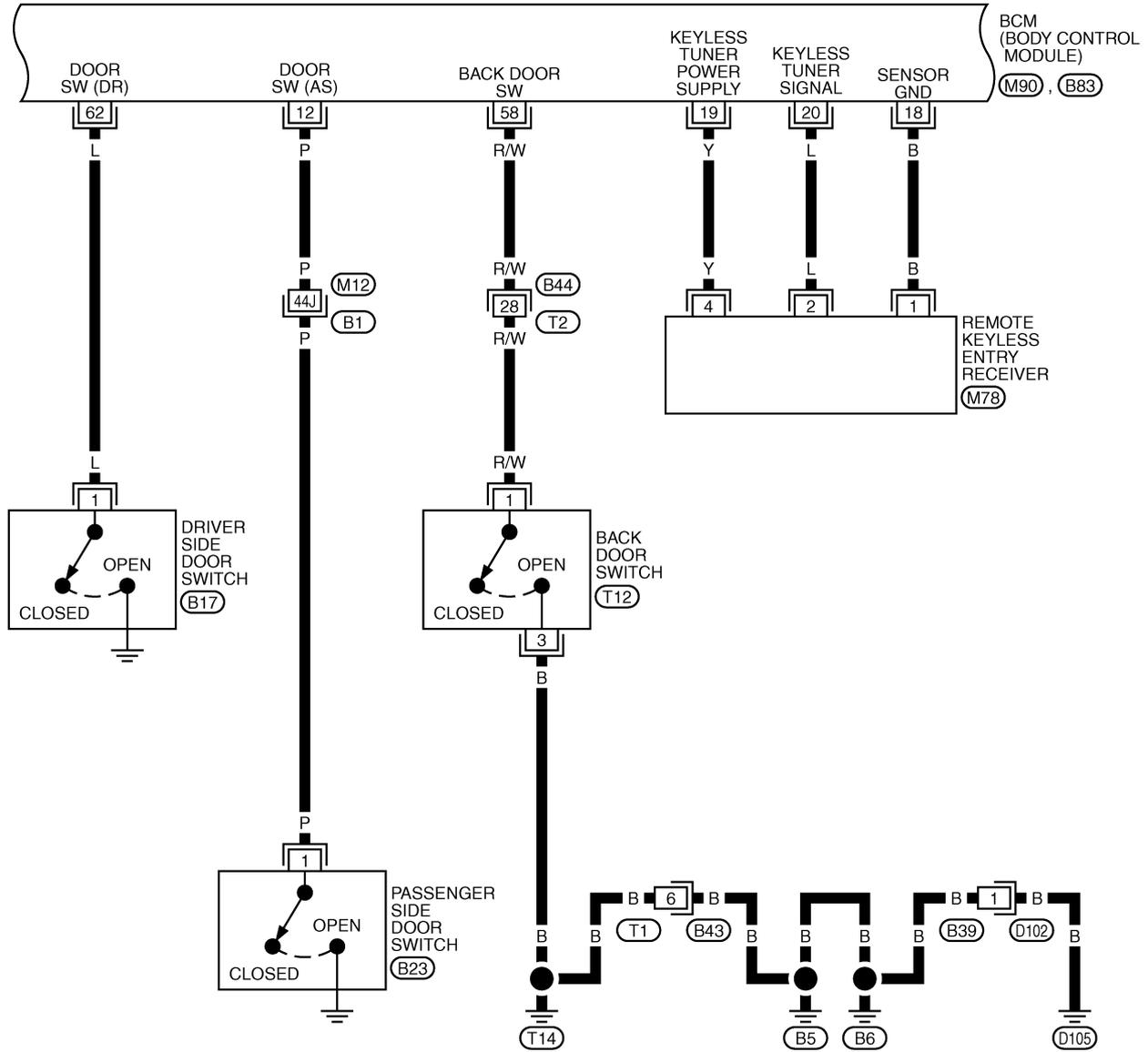
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE
 JUNCTION (SMJ)

TKWT5589E

INTERIOR ROOM LAMP

[TYPE 2]

LT-ROOM/L-03



REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (B83) -ELECTRICAL UNITS

A
B
C
D
E
F
G
H
I
J
LT
L
M

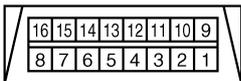
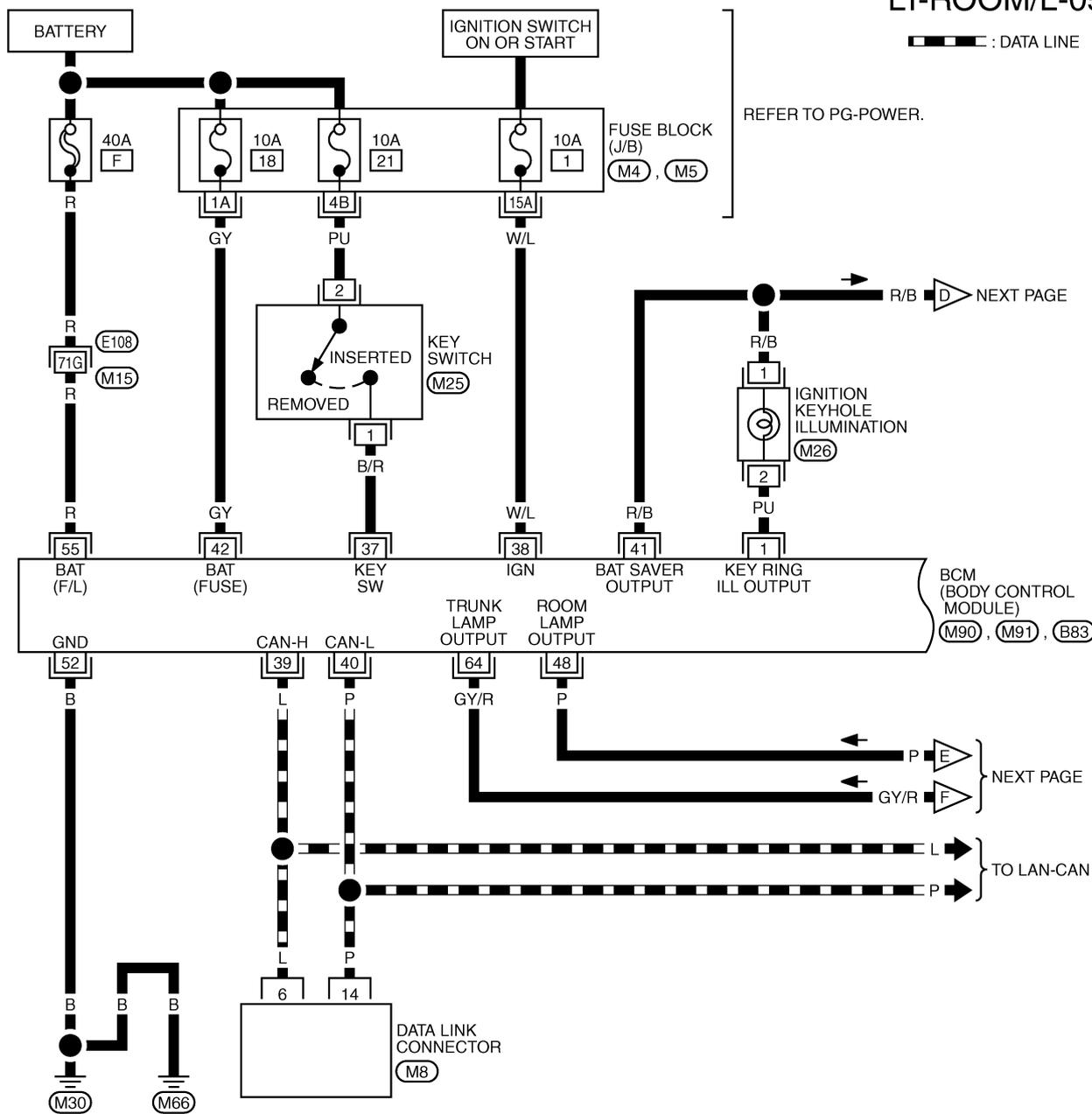
INTERIOR ROOM LAMP

[TYPE 2]

ROADSTER MODELS

LT-ROOM/L-05

▬ : DATA LINE



(M8)
W

(M25)
BR

(M26)
W

REFER TO THE FOLLOWING.

(E108) -SUPER MULTIPLE JUNCTION (SMJ)

(M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)

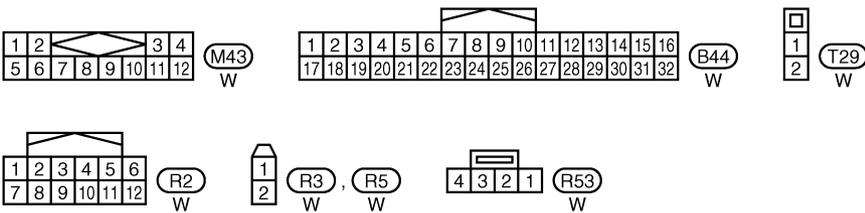
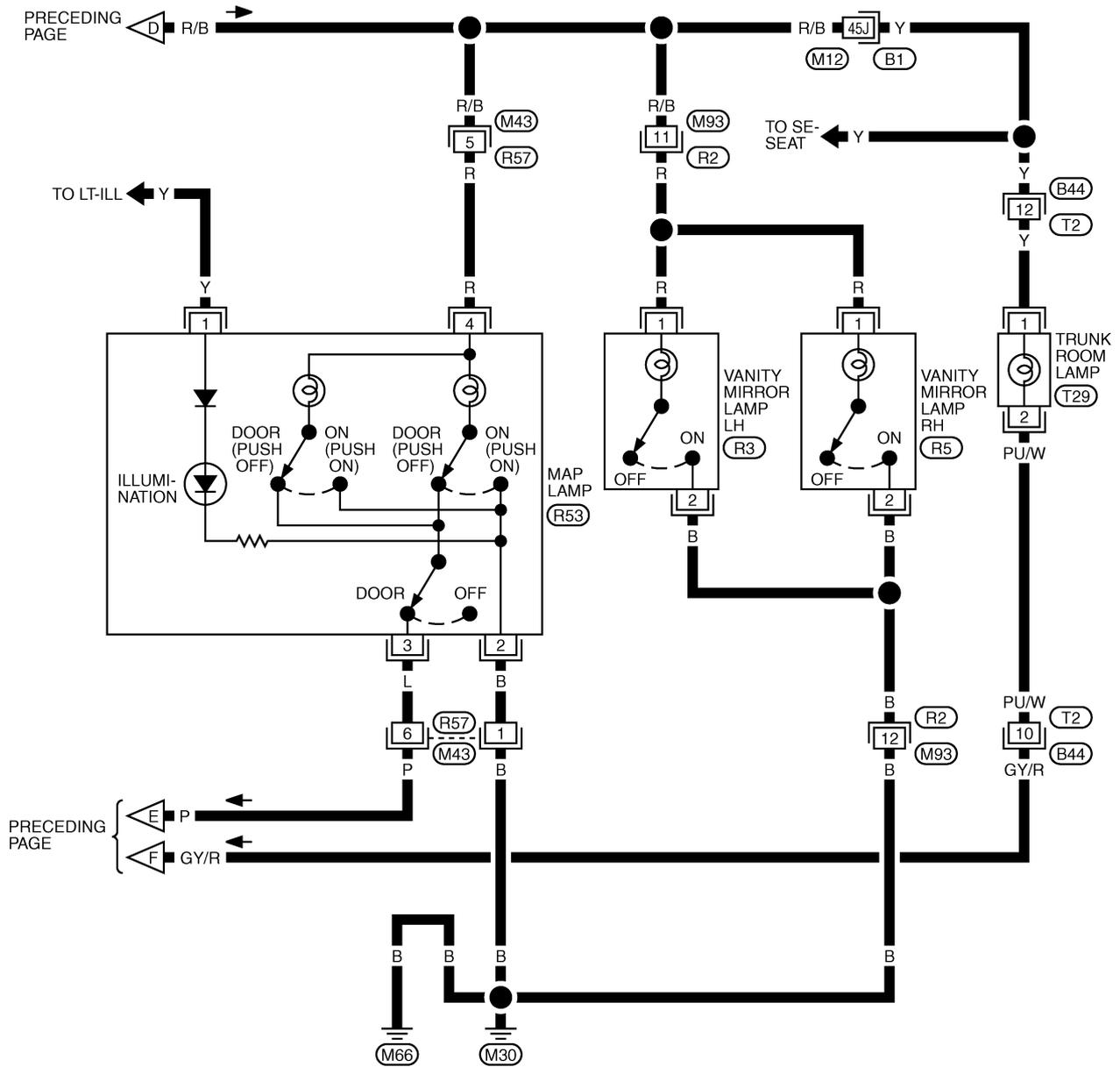
(M90), (M91), (B83) -ELECTRICAL UNITS

TKWT5590E

INTERIOR ROOM LAMP

[TYPE 2]

LT-ROOM/L-06



REFER TO THE FOLLOWING.

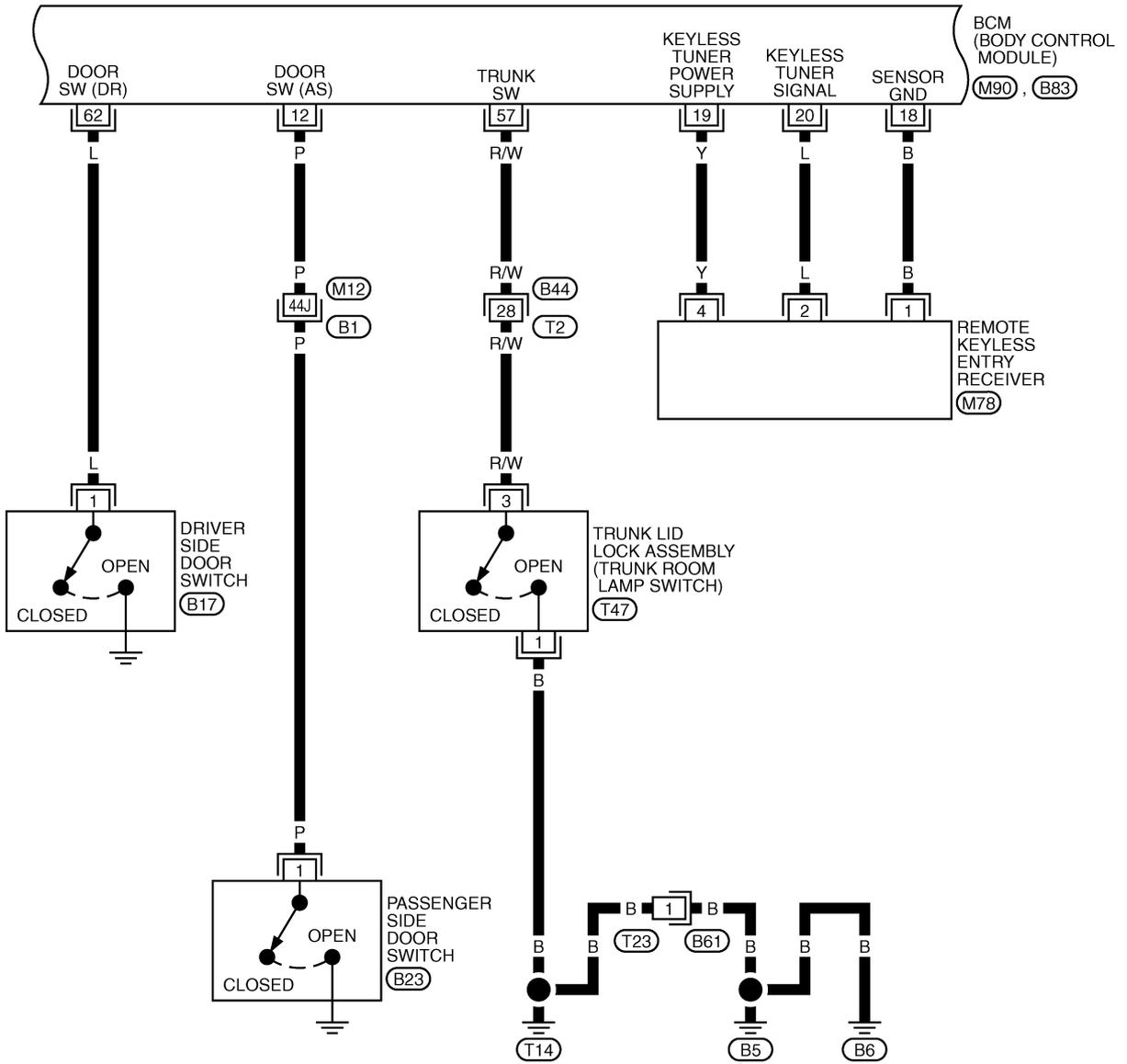
(B1) -SUPER MULTIPLE JUNCTION (SMJ)

TKWT5591E

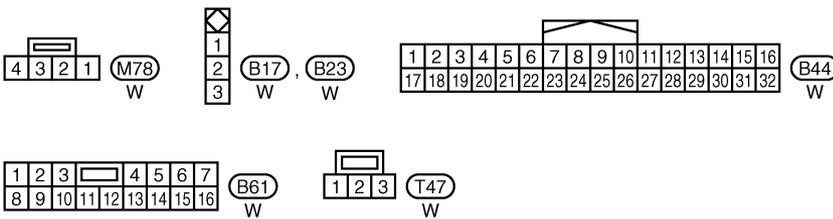
INTERIOR ROOM LAMP

[TYPE 2]

LT-ROOM/L-07



A
B
C
D
E
F
G
H
I
J
LT
L
M



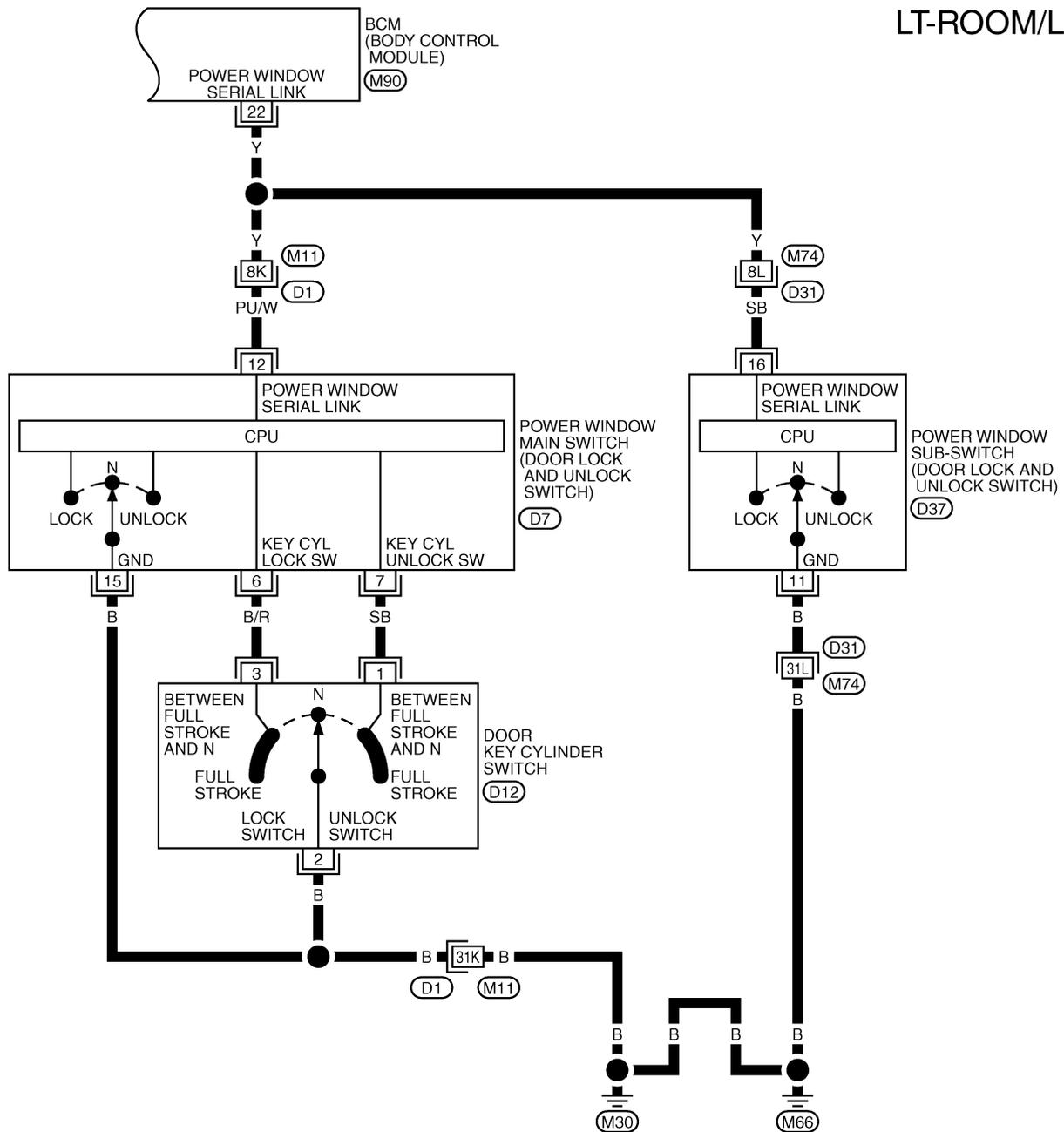
REFER TO THE FOLLOWING.
 (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90), (B83) -ELECTRICAL UNITS

TKWT5592E

INTERIOR ROOM LAMP

[TYPE 2]

LT-ROOM/L-08



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

(D7), (D37) W W (3 2 1) (D12) BR

REFER TO THE FOLLOWING.
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)
 (M90) -ELECTRICAL UNITS

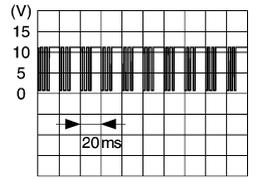
TKWT4057E

INTERIOR ROOM LAMP

[TYPE 2]

Terminals and Reference Values for BCM

NKS004ZN

Terminal No.	Wire color	Signal name	Measuring condition			Reference value
			Ignition switch	Operation or condition		
1	PU	Ignition keyhole illumination signal	OFF	Door is locked. (SW OFF)		Battery voltage
				Door is unlocked. (SW ON)		Approx. 0 V
12	P	Front door switch AS signal	OFF	Front door switch AS	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
22	Y	Power window switch serial link	ON	—		 <p style="text-align: right;">PKIA7023E</p>
37	B/R	Key-in detection switch signal	OFF	Vehicle key is removed.		Approx. 0 V
				Vehicle key is inserted.		Battery voltage
38	W/L	Ignition power supply	ON	—		Battery voltage
39	L	CAN – H	—	—		—
40	P	CAN – L	—	—		—
41	R/B	Battery saver output signal	OFF	30 minutes after ignition switch is turned to OFF.		Approx. 0 V
			ON	—		Battery voltage
42	GY	Battery power supply	OFF	—		Battery voltage
48	P	Map lamp output signal	OFF	Map lamp door switch: DOOR position	Any door switch ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
52	B	Ground	ON	—		Approx. 0 V
55	R	Battery power supply	OFF	—		Battery voltage
57*1	R/W	Trunk room lamp switch signal	OFF	Trunk room lamp switch	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
58*2	R/W	Back door switch signal	OFF	Luggage room lamp switch	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
62	L	Front door switch DR signal	OFF	Front door switch DR	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage
64	GY/R*1 BR*2	Trunk room lamp*1 or luggage lamp*2 switch signal	OFF	Trunk room lamp*1 or back door*2 switch	ON (open)	Approx. 0 V
					OFF (closed)	Battery voltage

*1: Roadster models, *2: Coupe models

How to Proceed with Trouble Diagnosis

NKS004ZO

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-318, "System Description"](#).
3. Perform preliminary check. Refer to [LT-332, "Preliminary Check"](#).
4. Check symptom and repair or replace the cause of malfunction.
5. Does interior room lamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
		21
	Ignition switch ON or START position	1

Refer to [LT-323, "Wiring Diagram — ROOM/L —"](#) .

OK or NG

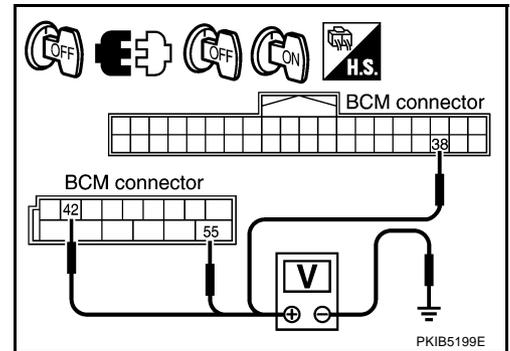
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM connector and ground.

Terminals		(-)	Ignition switch position	
(+)			OFF	ON
BCM connector	Terminal	Ground	Approx. 0 V	Battery voltage
M90	38			
M91	42		Battery voltage	Battery voltage
	55		Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

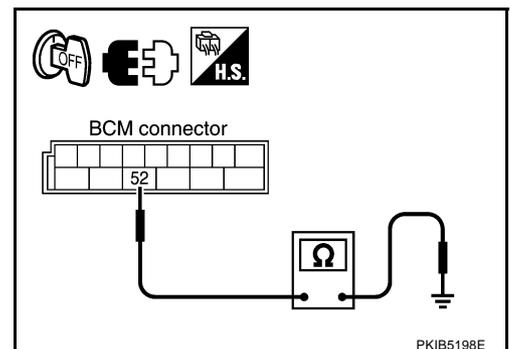
Check continuity between BCM and ground.

BCM connector	Terminal	Ground	Continuity
M91	52		Yes

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



CONSULT-II Functions (BCM)

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

BCM diagnosis part	Diagnosis mode	Description
INT LAMP	WORK SUPPORT	Changes the setting for each function.
	DATA MONITOR	Displays BCM input data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.

CONSULT-II BASIC OPERATION

Refer to [GI-36. "CONSULT-II Start Procedure"](#) .

WORK SUPPORT

Operation Procedure

1. Touch "INT LAMP" on "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
3. Touch "SET I/L D- UNLCK INTCON" on "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch "CHANGE SETT".
6. The setting will be changed and "CUSTOMIZING COMPLETED " will be displayed.
7. Touch "END".

Display Item List

Item	Description	CONSULT-II
SET I/L D-UNLCK INTCON	The 30 seconds glowing function interior room lamps and ignition keyhole illumination can be selected when driver door is released (unlocked).	ON/OFF
ROOM LAMP ON TIME SET	The time in order to escalate illumination can be adjusted when interior room lamps and ignition keyhole illumination is turned on.	MODE 1 - 7
ROOM LAMP OFF TIME SET	The time in order to diminish illumination can be adjusted when interior room lamps and ignition keyhole illumination is turned off.	MODE 1 - 7

Reference between "MODE" and "TIME" for "TURN ON/OFF"

MODE	1	2	3	4	5	6	7
Time (sec.)	0.5	1	2	3	4	5	0

DATA MONITOR

Operation Procedure

1. Touch "INT LAMP" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitor them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

INTERIOR ROOM LAMP

[TYPE 2]

Display Item List

Monitor item	Contents
IGN ON SW "ON/OFF"	Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from ignition switch signal.
KEY ON SW "ON/OFF"	Displays "Key inserted (ON)/key removed (OFF)" status judged from key switch signal.
DOOR SW - DR "ON/OFF"	Displays status of driver door as judged from driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS "ON/OFF"	Displays "Door open (ON)/Door closed (OFF)" status, determined from passenger door switch signal.
DOOR SW - RR ^{NOTE} "OFF"	—
DOOR SW - RL ^{NOTE} "OFF"	—
BACK DOOR SW "ON/OFF"	<ul style="list-style-type: none"> ● Displays status of back door as judged from back door switch signal. (Coupe models) ● Displays status of rear trunk hood as judged from trunk lamp switch signal. (Roadster models)
KEY CYL LK - SW "ON/OFF"	Displays "Door locked (ON) status, determined from key cylinder lock switch in driver door.
KEY CYL UN - SW "ON/OFF"	Displays "Door unlocked (OFF) status, determined from key cylinder lock switch in driver door.
CDL LOCK SW "ON/OFF"	Displays "Door locked (ON)/Door unlocked (OFF) status, determined from locking detection switch in driver door.
CDL UNLOCK SW "ON/OFF"	Displays "Door unlocked (OFF)" status, determined from locking detection switch in passenger door.
KEYLESS LOCK "ON/OFF"	Displays "Locked (ON)/Other (OFF)" status, determined from lock signal.
KEYLESS UNLOCK "ON/OFF"	Displays "Unlocked (ON)/Other (OFF)" status, determined from unlock signal.

NOTE:

This item is displayed, but cannot be monitored.

ACTIVE TEST

Operation Procedure

1. Touch "INT LAMP" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching "BACK" deactivates the operation.

Display Item List

Test item	Description
INT LAMP	Map lamp can be operated by any ON-OFF operations.
IGN ILLUM ^{NOTE}	—
STEM LAMP TEST ^{NOTE}	—
LUGGAGE LAMP TEST	<ul style="list-style-type: none"> ● Luggage room lamp can be operated by any ON-OFF operations. (Coupe models) ● Trunk room lamp can be operated by any ON-OFF operations. (Roadster models)

NOTE:

This item is displayed, but cannot be tested.

Map Lamp Control Does Not Operate (Coupe models)

NKS004ZR

1. CHECK BETWEEN EACH SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-334, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 2.
- NG >> Inspect malfunctioning switch system.

DATA MONITOR			
MONITOR		NO DTC	
DOOR SW-DR		ON	
DOOR SW-AS		ON	
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7024E

2. CHECK BETWEEN BCM AND MAP LAMP

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. When map lamp switch is in DOOR position, use active test to make sure room lamp operates.

Map lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 3.

ACTIVE TEST			
INT LAMP		ON	
OFF			
MODE	BACK	LIGHT	COPY

PKIA7027E

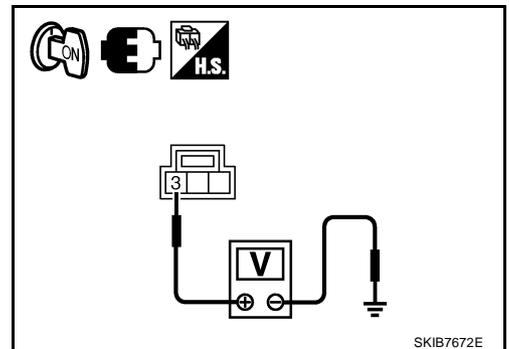
3. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between map lamp harness connector and ground.

Terminal			Voltage (Approx.)
(+)		(-)	
Map lamp connector	Terminal	Ground	Battery voltage
R52	3		

OK or NG

- OK >> GO TO 6.
- NG >> GO TO 4



A
B
C
D
E
F
G
H
I
J
L
M

LT

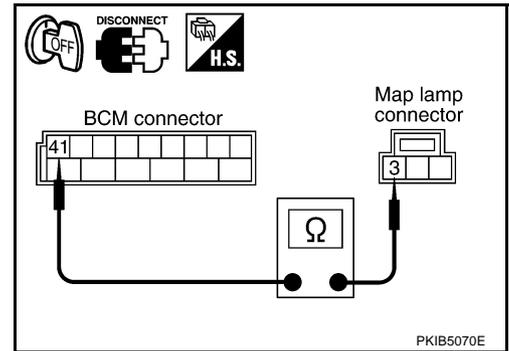
4. CHECK MAP LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and map lamp connector.
3. Check continuity between BCM harness connector and map lamp harness connector.

Terminals				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	41	R52	3	Yes

OK or NO

- OK >> GO TO 5.
 NG >> Repair harness or connector.



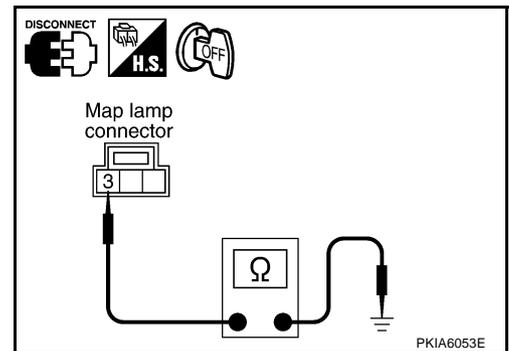
5. CHECK SHORT CIRCUIT

Check continuity between map lamp harness connector and ground.

Map lamp connector	Terminal	Ground	Continuity
R52	3		

OK or NG

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
 NG >> Repair harness or connector.



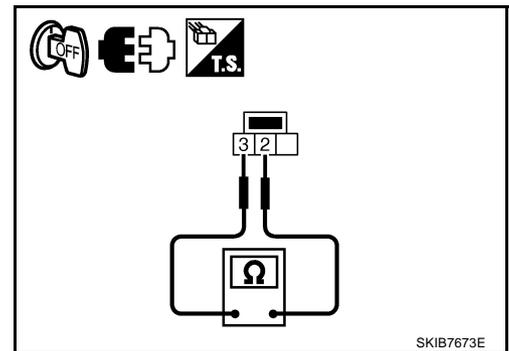
6. CHECK MAP LAMP

1. Turn ignition switch OFF.
2. Disconnect map lamp connector.
3. Check continuity between map lamp.

Terminal		Condition	Continuity
Map lamp			
3	2	Map lamp switch is DOOR.	Yes
		Map lamp switch is OFF.	No

OK or NG

- OK >> GO TO 7.
 NG >> Replace map lamp



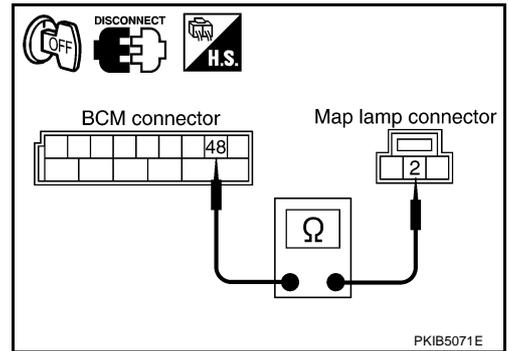
7. CHECK MAP LAMP CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and map lamp harness connector.

Terminals				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	48	R52	2	Yes

OK or NO

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.



Map Lamp Control Does Not Operate (Roadster models)

NKS004ZS

1. CHECK BETWEEN EACH SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to check that switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-334, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 2.
- NG >> Inspect malfunctioning switch system.

DATA MONITOR			
MONITOR		NO DTC	
DOOR SW-DR	ON	ON	ON
DOOR SW-AS	ON	ON	ON
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7024E

2. CHECK BETWEEN BCM AND MAP LAMP

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. When map lamp switch is in DOOR position, use active test to make sure map lamp operates.

Map lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 3.

ACTIVE TEST			
INT LAMP		ON	
OFF			
MODE	BACK	LIGHT	COPY

PKIA7027E

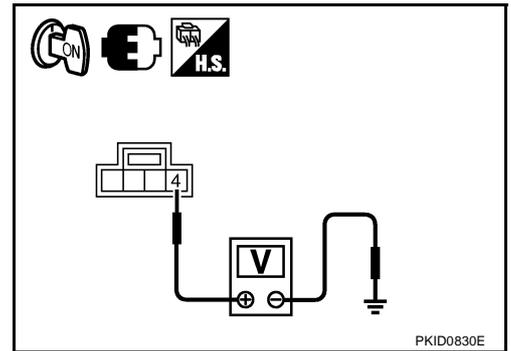
3. CHECK BETWEEN BCM AND MAP LAMP

1. Turn ignition switch ON.
2. Check voltage between map lamp harness connector and ground.

Terminal		(-)	Voltage (Approx.)
(+)			
Map lamp connector	Terminal	Ground	Battery voltage
R53	4		

OK or NG

- OK >> GO TO 6.
- NG >> GO TO 4.



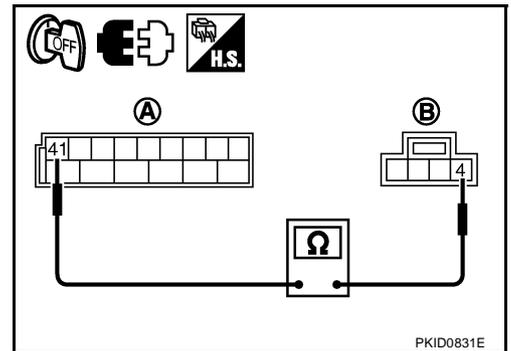
4. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and map lamp connector.
3. Check continuity between BCM harness connector (A) and map lamp harness connector (B).

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
M91	41	R53	4	Yes

OK or NO

- OK >> GO TO 5.
- NG >> Repair harness or connector.



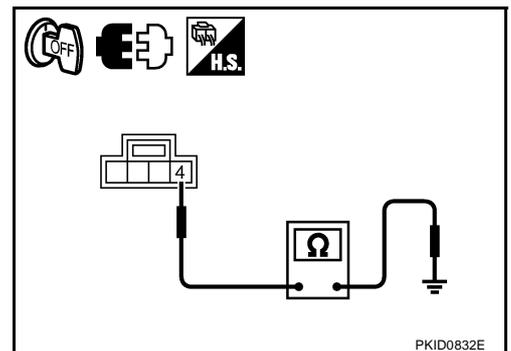
5. CHECK SHORT CIRCUIT

Check continuity between map lamp harness connector and ground.

Map lamp connector	Terminal	Ground	Continuity
R53	4		

OK or NG

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.



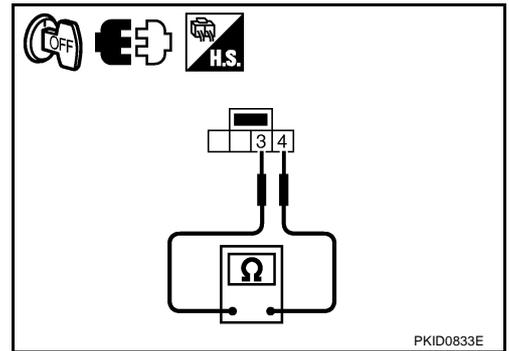
6. CHECK MAP LAMP

1. Turn ignition switch OFF.
2. Disconnect map lamp connector.
3. Check continuity between map lamp.

Terminal		Condition	Continuity
Map lamp			
3	4	Map lamp switch is DOOR.	Yes
		Map lamp switch is OFF.	No

OK or NG

- OK >> GO TO 7.
- NG >> Replace map lamp



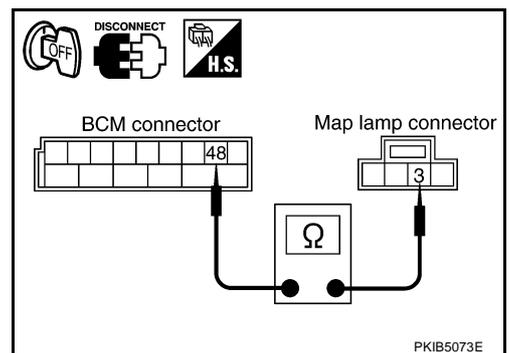
7. CHECK MAP LAMP CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and map lamp harness connector.

Terminals				Continuity
BCM		Map lamp		
Connector	Terminal	Connector	Terminal	
M91	48	R53	3	Yes

OK or NO

- OK >> Replace BCM if map lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.



Ignition Key Hole Illumination Does Not Illuminate

NKS004ZT

1. CHECK BULB

Check bulb of lamp which does not operate.

OK or NG

- OK >> GO TO 2.
- NG >> Replace bulb.

2. CHECK EACH SWITCH

Select "BCM" on CONSULT-II. With "INT LAMP" data monitor to make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-334, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 3.
- NG >> Inspect malfunctioning switch system.

DATA MONITOR	
MONITOR	
IGN ON SW	ON
KEY ON SW	ON
DOOR SW-DR	ON
DOOR SW-AS	ON
DOOR SW-RR	OFF
DOOR SW-RL	OFF
BACK DOOR SW	OFF
KEY CYL LK-SW	OFF
KEY CYL UN-SW	OFF
Page Down	
RECORD	
MODE	BACK
LIGHT	COPY

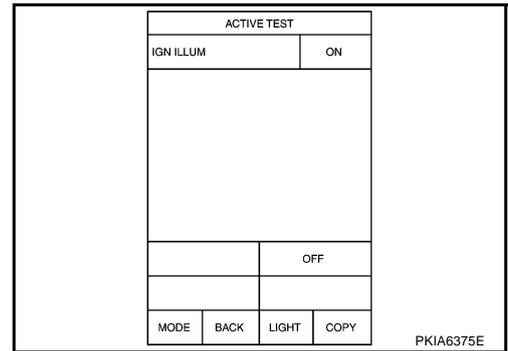
PKIB3532E

3. CHECK WITH ACTIVE TEST

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. Select "IGN ILLUM" active test to make sure lamp operates.

OK or NG

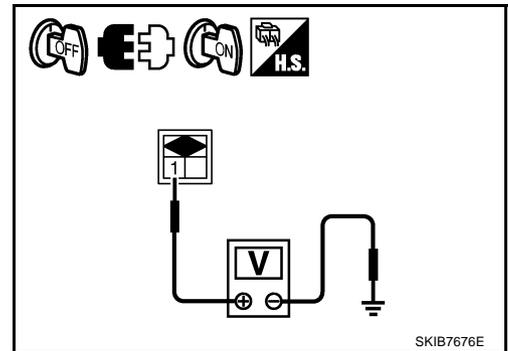
- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> GO TO 4.



4. CHECK POWER SUPPLY TO IGNITION KEY HOLE ILLUMINATION

1. Turn ignition switch OFF.
2. Disconnect ignition key hole illumination connector.
3. Turn ignition switch ON.
4. Check voltage between ignition key hole illumination harness connector and ground.

Terminal			Voltage (Approx.)
(+)		(-)	
Ignition key hole illumination connector	Terminal	(-)	
M26	1	Ground	Battery voltage



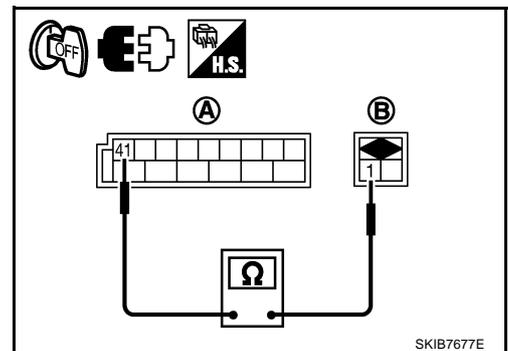
OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.

5. CHECK POWER SUPPLY CIRCUIT FOR IGNITION KEY HOLE ILLUMINATION

1. Turn ignition switch OFF.
2. Disconnect BCM connector and key hole illumination connector.
3. Check continuity between BCM harness connector (A) and ignition key hole illumination harness connector (B).

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
M91	41	M26	1	Yes

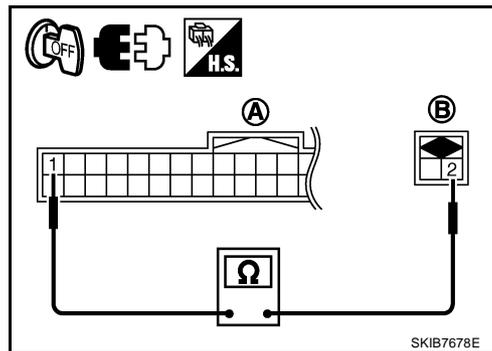


OK or NG

- OK >> Replace BCM if ignition key hole illumination does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> Repair harness or connector.

6. CHECK GROUND CIRCUIT FOR IGNITION KEY HOLE ILLUMINATION

1. Turn ignition switch OFF.
2. Disconnect BCM connector and key hole illumination connector.
3. Check continuity between BCM harness connector (A) and ignition key hole illumination harness connector (B).



A		B		Continuity
Connector	Terminal	Connector	Terminal	
M90	1	M26	2	Yes

OK or NG

- OK >> Replace BCM if ignition key hole illumination does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> Repair harness or connector.

Luggage Room Lamp Does Not Illuminate (Coupe Models)

NKS004ZU

1. CHECK BULB

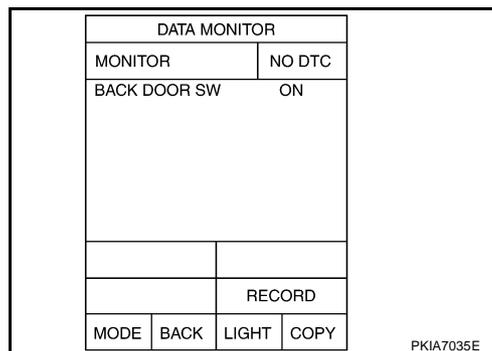
Inspect bulb of luggage room lamp.

OK or NG

- OK >> GO TO 2.
- NG >> Replace bulb of luggage room lamp.

2. CHECK BETWEEN BACK DOOR SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-334, "Display Item List"](#) for switches and their functions.



OK or NG

- OK >> GO TO 3.
- NG >> Inspect malfunctioning switch system.

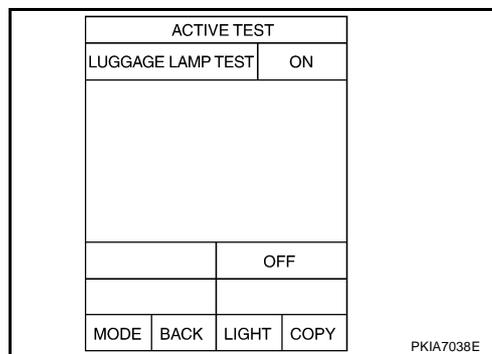
3. CHECK BETWEEN BCM AND LUGGAGE ROOM LAMP

1. Select "BCM" on CONSULT-II. Select "LUGGAGE LAMP TEST" active test.
2. Make sure luggage room lamp operates.

Luggage room lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#).
- NG >> GO TO 4.



4. CHECK POWER SUPPLY CIRCUIT

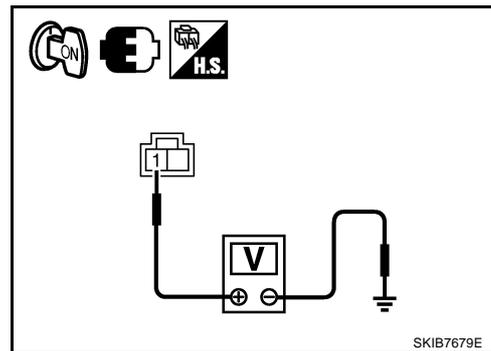
1. Turn ignition switch ON.
2. Check voltage between luggage room lamp harness connector and ground.

Terminal (+)		Terminal (-)	Voltage (Approx.)
Luggage room lamp connector	Terminal		
T13	1	Ground	Battery voltage

OK or NG

OK >> GO TO 7.

NG >> GO TO 5.



5. CHECK LUGGAGE ROOM LAMP CIRCUIT

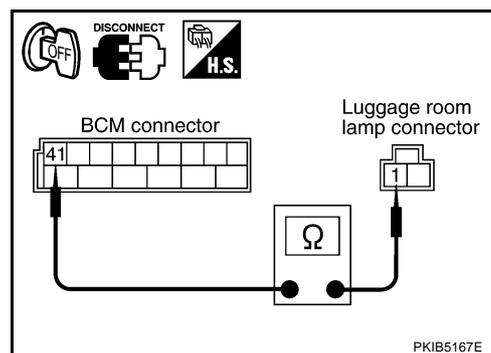
1. Turn ignition switch OFF.
2. Disconnect BCM connector and luggage room lamp connector.
3. Check continuity between BCM harness connector and luggage room lamp harness connector.

Terminals				Continuity
BCM		Luggage room lamp		
Connector	Terminal	Connector	Terminal	
M91	41	T13	1	Yes

OK or NO

OK >> GO TO 6.

NG >> Repair harness or connector.



6. CHECK SHORT CIRCUIT

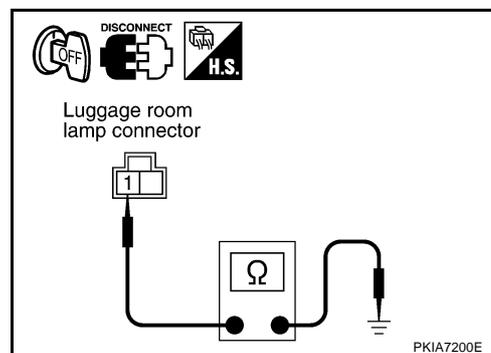
Check continuity between luggage room lamp harness connector and ground.

Luggage room lamp connector	Terminal	Ground	Continuity
T13	1		

OK or NG

OK >> Replace BCM if luggage room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#).

NG >> Repair harness or connector.



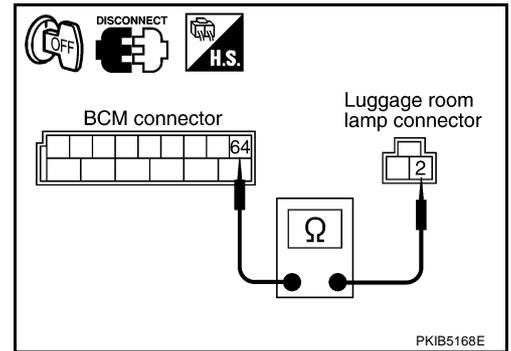
7. CHECK LUGGAGE ROOM LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and luggage room lamp harness connector.

Terminals				Continuity
BCM		Luggage room lamp		
Connector	Terminal	Connector	Terminal	
B83	64	T13	2	Yes

OK or NO

- OK >> Replace BCM if luggage room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> Repair harness or connector.



Trunk Room Lamp Does Not Illuminate (Roadster Models)

NKS004ZV

1. CHECK BULB

Inspect bulb of trunk room lamp.

OK or NG

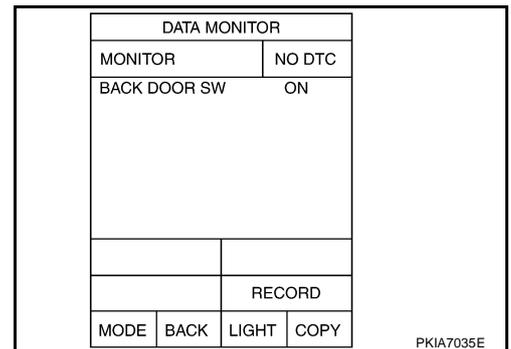
- OK >> GO TO 2.
- NG >> Replace map lamp

2. CHECK BETWEEN BACK DOOR SWITCH AND BCM

Select BCM on CONSULT-II. Use "INT LAMP" data monitor to check that switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-334, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 3.
- NG >> Inspect malfunctioning switch system.



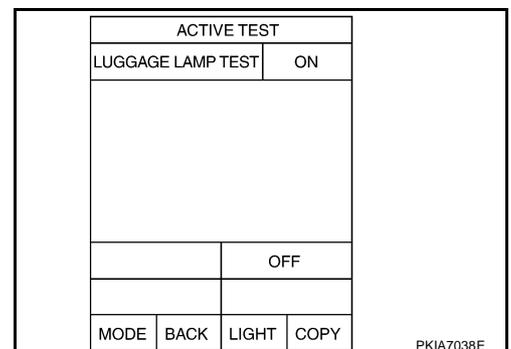
3. CHECK BETWEEN BCM AND TRUNK ROOM LAMP

1. Select "BCM" on CONSULT-II. Select "LUGGAGE LAMP TEST" active test.
2. Make sure trunk room lamp operates.

Trunk room lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> GO TO 4.



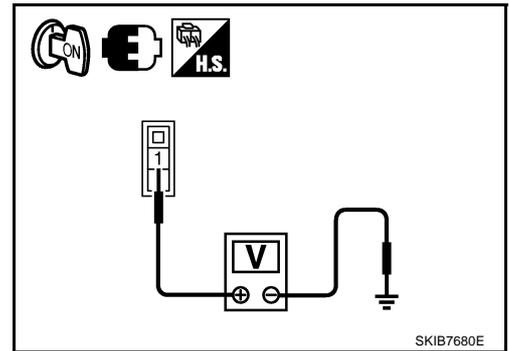
4. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between trunk room lamp harness connector and ground.

Terminal		(-)	Voltage (Approx.)
(+)			
Trunk room lamp connector	Terminal		
T29	1	Ground	Battery voltage

OK or NG

- OK >> GO TO 7.
 NG >> GO TO 5.



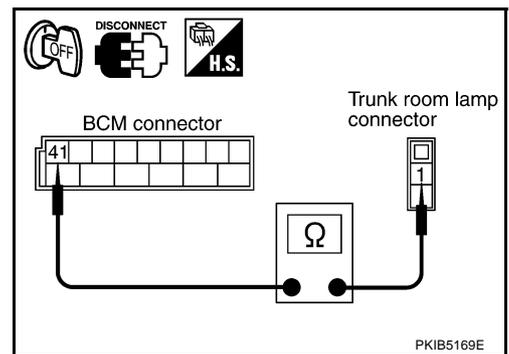
5. CHECK TRUNK ROOM LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and trunk room lamp connector.
3. Check continuity between BCM harness connector and trunk room lamp harness connector.

Terminals				Continuity
BCM		Trunk room lamp		
Connector	Terminal	Connector	Terminal	
M91	41	T29	1	Yes

OK or NO

- OK >> GO TO 6.
 NG >> Repair harness or connector.



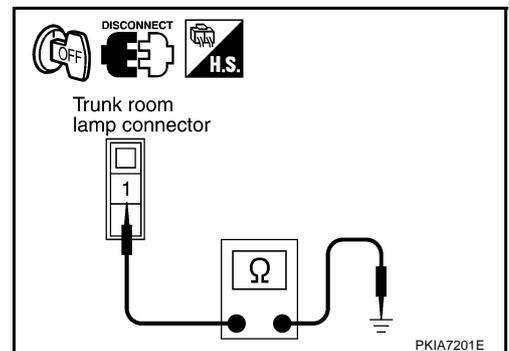
6. CHECK SHORT CIRCUIT

Check continuity between trunk room lamp harness connector and ground.

Trunk room lamp connector	Terminal	Ground	Continuity
T29	1		No

OK or NG

- OK >> Replace BCM if trunk room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
 NG >> Repair harness or connector.



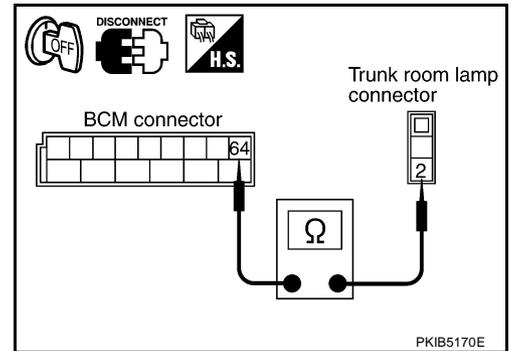
7. CHECK TRUNK ROOM LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and trunk room lamp harness connector.

Terminals				Continuity
BCM		Trunk room lamp		
Connector	Terminal	Connector	Terminal	
B83	64	T29	2	Yes

OK or NO

- OK >> Replace BCM if trunk room lamp does not work after setting the connector again. Refer to [BCS-19, "Removal and Installation of BCM"](#) .
- NG >> Repair harness or connector.



Bulb Replacement MAP LAMP

Coupe Models

1. Open driver and passenger window, and then disconnect battery cable from the negative terminal.

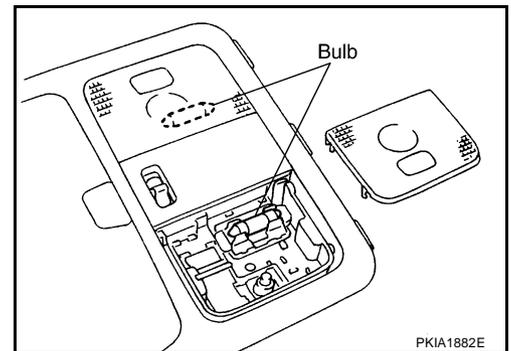
CAUTION:

After battery cables are disconnected, never open/close driver and/or passenger door with the window in the full up position. Automatic window adjusting function will not work and side roof panel may be damaged.

2. Remove lens using clip driver or suitable tool.
3. Remove bulb.

Map lamp : 12V - 8W

4. Installation is the reverse order of removal.



Roadster Models

1. Open driver and passenger window, and then disconnect battery cable from the negative terminal.

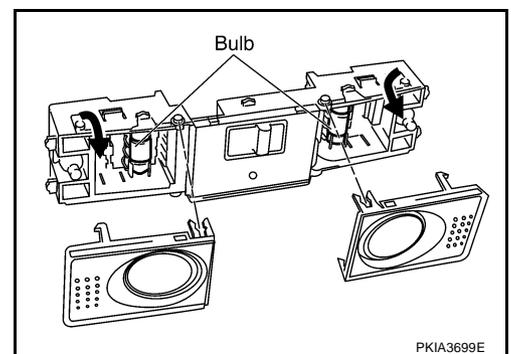
CAUTION:

After battery cables are disconnected, never open/close driver and/or passenger door with the window in the full up position. Automatic window adjusting function will not work and side roof panel may be damaged.

2. Remove lens using clip driver or suitable tool.
3. Remove bulb.

Map lamp : 12V - 8W

4. Installation is the reverse order of removal.



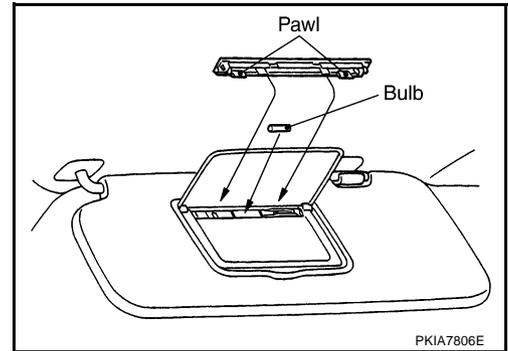
A
B
C
D
E
F
G
H
I
J
LT
L
M

VANITY MIRROR LAMP

1. Insert a thin screwdriver in the lens end and remove lens.
2. Remove bulb.

Vanity mirror lamp : 12V - 1.32W

3. Installation is the reverse order of removal.



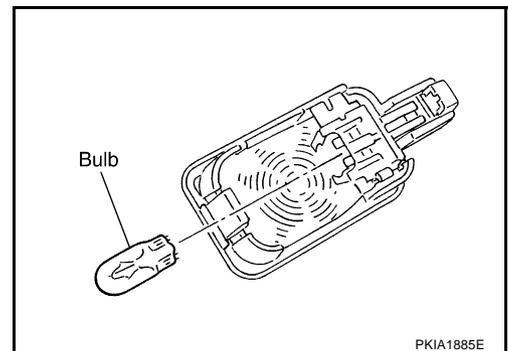
LUGGAGE ROOM LAMP & TRUNK ROOM LAMP

Luggage Room Lamp (Coupe Models)

1. Remove luggage room lamp. Refer to [LT-347, "Removal and Installation"](#).
2. Remove bulb.

Luggage room lamp : 12V - 5W

3. Installation is the reverse order of removal.

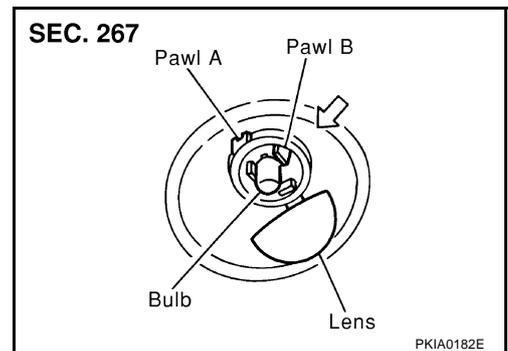


Trunk Room Lamp (Roadster Models)

1. Unfold pawl A and remove lens.
2. Remove trunk room lamp while pressing pawl B in the direction of the arrow.
3. Disconnect trunk room lamp connector.

Trunk room lamp : 12V - 3.4W

4. Installation is the reverse order of removal.

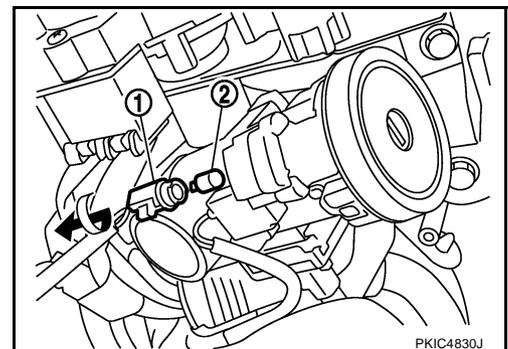


IGNITION KEY HOLE ILLUMINATION

1. Remove instrument lower driver panel. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Turn bulb socket to left to release lock and remove bulb socket (1).
3. Remove ignition key illumination bulb (2) from its socket.

Ignition key hole illumination : 12V - 1.4W

4. Installation is the reverse order of removal.

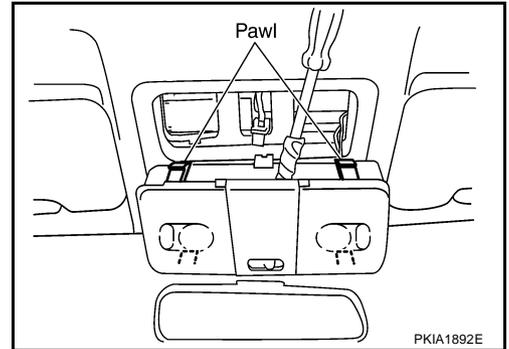


Removal and Installation

MAP LAMP

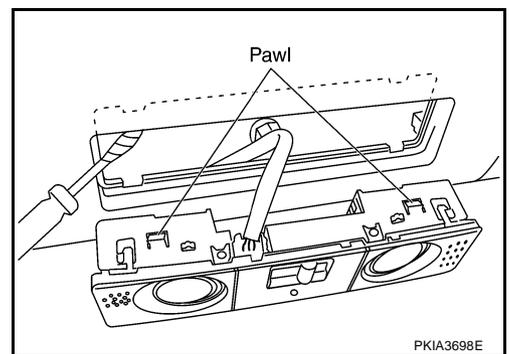
Coupe Models

1. Insert a clip driver or suitable tool and disengage pawl fittings of map lamp.
2. Disconnect map lamp connector and remove map lamp.
3. Installation is the reverse order of removal.



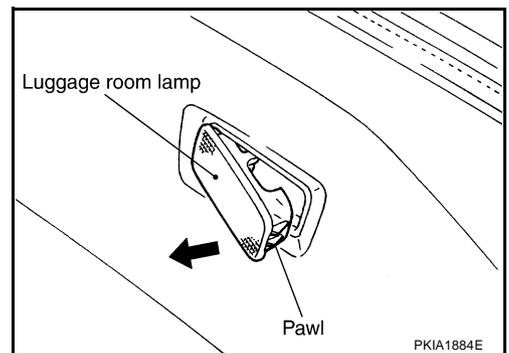
Roadster Models

1. Insert a clip driver or suitable tool and disengage pawl fittings of map lamp.
2. Disconnect map lamp connector and remove map lamp.
3. Installation is the reverse order of removal.



LUGGAGE ROOM LAMP

1. Pull out luggage room lamp in direction shown by the arrow in the figure.
2. Disconnect luggage room lamp connector.
3. Installation is the reverse order of removal.



A
B
C
D
E
F
G
H
I
J
LT
L
M

ILLUMINATION**System Description**

NKS004ZY

Control of the illumination lamp operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST or 2ND position, the BCM (body control module) receives input signal requesting illumination lamps to illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) through the CAN communication lines. The CPU (central processing unit) located in the IPDM E/R controls tail lamp relay coil. This relay, when energized, directs power to illumination lamps, which then illuminate.

OUT LINE

Power is supplied at all times

- through 10A fuse (No.71, located in IPDM E/R)
- to tail lamp relay, located in IPDM E/R, and
- to CPU located in IPDM E/R,
- through 15A fuse (No.78, located in IPDM E/R)
- to CPU located in IPDM E/R.

Power is also supplied at all times

- through 40A fusible link (letter F, located in fuse, fusible link and relay box)
- to BCM terminal 55,
- through 10A fuse [No.18, located in fuse block (J/B)]
- to BCM terminal 42,
- through 10A fuse [No.19, located in fuse block (J/B)]
- to unified meter and A/C amp. terminal 21,
- through 10A fuse [No.19, located in fuse block (J/B)]
- to combination meter terminal 24.

With ignition switch in the ON or START position, power is supplied

- to CPU located in IPDM E/R,
- through 10A fuse [No.1, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No.12, located in fuse block (J/B)]
- to unified meter and A/C amp. terminal 22, and
- to NAVI control unit terminal 63 (With navigation system),
- through 10A fuse [No.14, located in fuse block (J/B)]
- to combination meter terminal 23.

With ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No.6, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to IPDM E/R terminals 38 and 60
- through grounds E17, E43 and B102 (with VDC system or navigation system)
- through grounds E17, E43 and F152 (without VDC system and navigation system),
- to unified meter and A/C amp. terminals 29 and 30
- through grounds M30 and M66,
- to combination meter terminals 10, 11 and 12
- through grounds M30 and M66,
- to NAVI control unit terminals 1 (With navigation system)
- through ground B115 (With navigation system).

ILLUMINATION OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position, the BCM receives input signal requesting illumination lamps to illuminate. This input signal is communicated to the IPDM E/R through the CAN communication lines. CPU located in the IPDM E/R controls tail lamp relay coil, which, when energized, directs power

- through terminal 22 of IPDM E/R
- to NAVI control unit terminal 61 (With navigation system)
- to NAVI switch terminal 2 (With navigation system)
- to audio unit terminal 8.
- to combination switch (spiral cable) terminal 26 (with steering switch)
- to soft top switch (illumination) terminal 5 (Roadster model)
- to A/T device (A/T illumination) terminal 3 (With A/T)
- to VDC off switch (illumination) terminal 3 (With VDC)
- to TCS off switch (illumination) terminal 3 (With TCS)
- to map lamp (illumination) terminal 1 (Roadster models)
- to hazard switch (illumination) terminal 3
- to heated seat switch (driver side) (illumination) terminal 5 (With heated seat)
- to heated seat switch (passenger side) (illumination) terminal 5 (With heated seat)
- to bottle holder illumination (driver side) terminal 1
- to bottle holder illumination (passenger side) terminal 1
- to cup holder illumination terminal 1
- to luggage floor box lamp terminal 1.

Ground is supplied at all times

- to NAVI control unit terminal 1 (with navigation system)
- through ground B115,
- to NAVI switch terminal 3 (With navigation system)
- to audio unit terminal 7
- to combination switch (spiral cable) terminal 27 (with steering switch)
- to soft top switch (illumination) terminal 6 (Roadster models)
- to A/T device (A/T illumination) terminal 5 (With A/T)
- to VDC off switch (illumination) terminal 4 (With VDC)
- to TCS off switch (illumination) terminal 4 (With TCS)
- to hazard switch (illumination) terminal 4
- to heated seat switch (driver side) (illumination) terminal 6 (With heated seat)
- to heated seat switch (passenger side) (illumination) terminal 6 (With heated seat)
- to bottle holder illumination (driver side) terminal 2, and
- to bottle holder illumination (passenger side) terminal 2
- through combination meter terminal 18,
- to map lamp (illumination) terminal 2 (Roadster models)
- to cup holder illumination terminal 2
- through grounds M30 and M66,
- to luggage floor box lamp terminal 2
- through grounds B5, B6, D105 and T14 (Coupe model)
- through grounds B5, B6 and T14 (Roadster model).

With power and ground supplied, illumination lamps illuminate.

A

B

C

D

E

F

G

H

I

J

LT

L

M

EXTERIOR LAMP BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 1ST or 2ND position, and the ignition switch is turned from ON or ACC to OFF, battery saver control function is activated.

Under this condition, the illumination lamps remain illuminated for 5 minutes, then illumination lamps are turned off.

When the lighting switch is turned from OFF to 1ST or 2ND position after illumination lamps are turned off by battery saver control, and illumination lamps illuminate again.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

CAN Communication System Description

NKS004ZZ

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

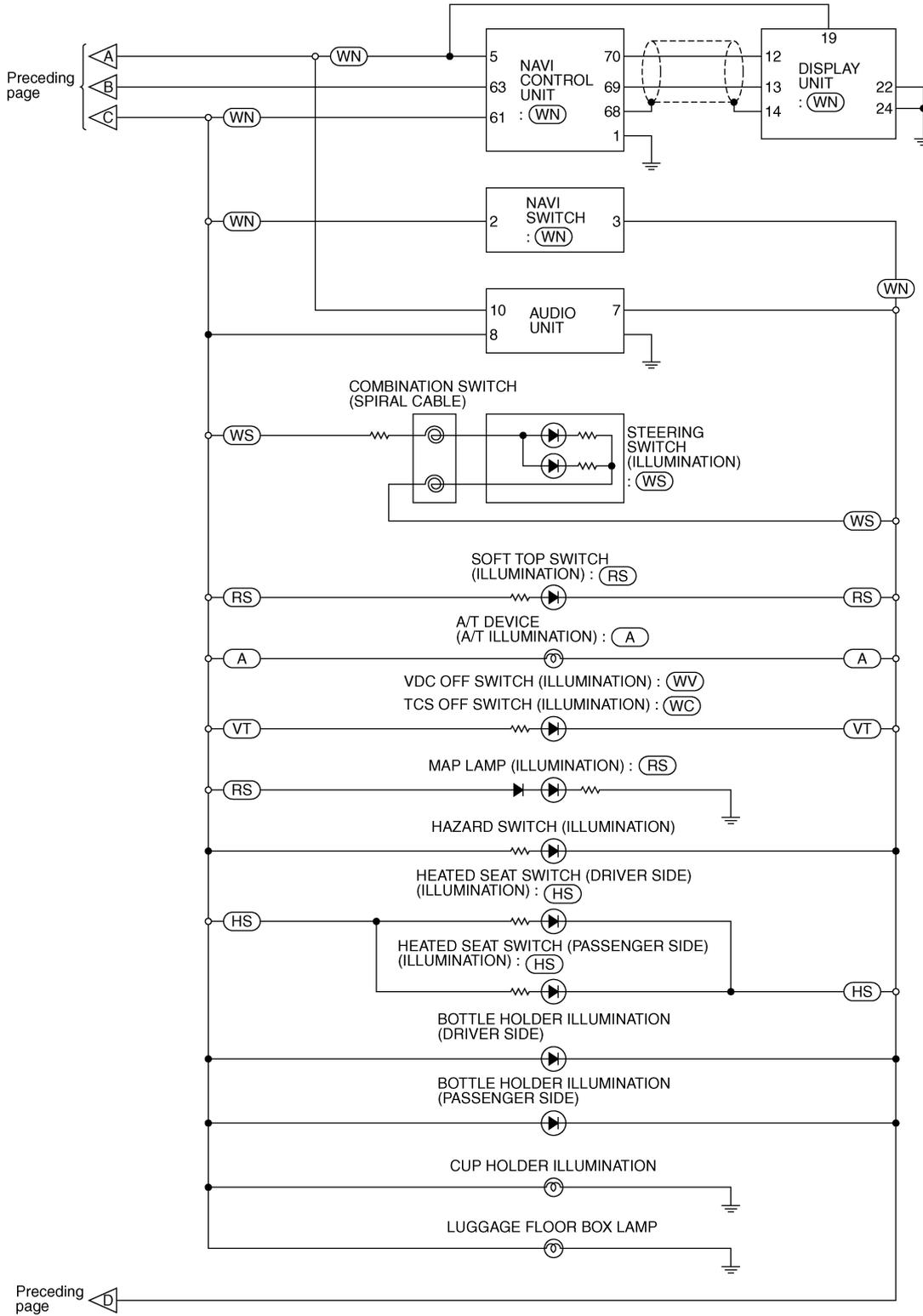
NKS00500

Refer to [LAN-48, "CAN System Specification Chart"](#) .

ILLUMINATION

[TYPE 2]

- (A) : With A/T
- (RS) : Roadster models
- (WV) : With VDC system
- (WC) : With TCS
- (VT) : With VDC system or TCS
- (WN) : With navigation system
- (HS) : With heated seat
- (WS) : With steering switch



TKWT4090E

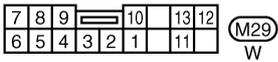
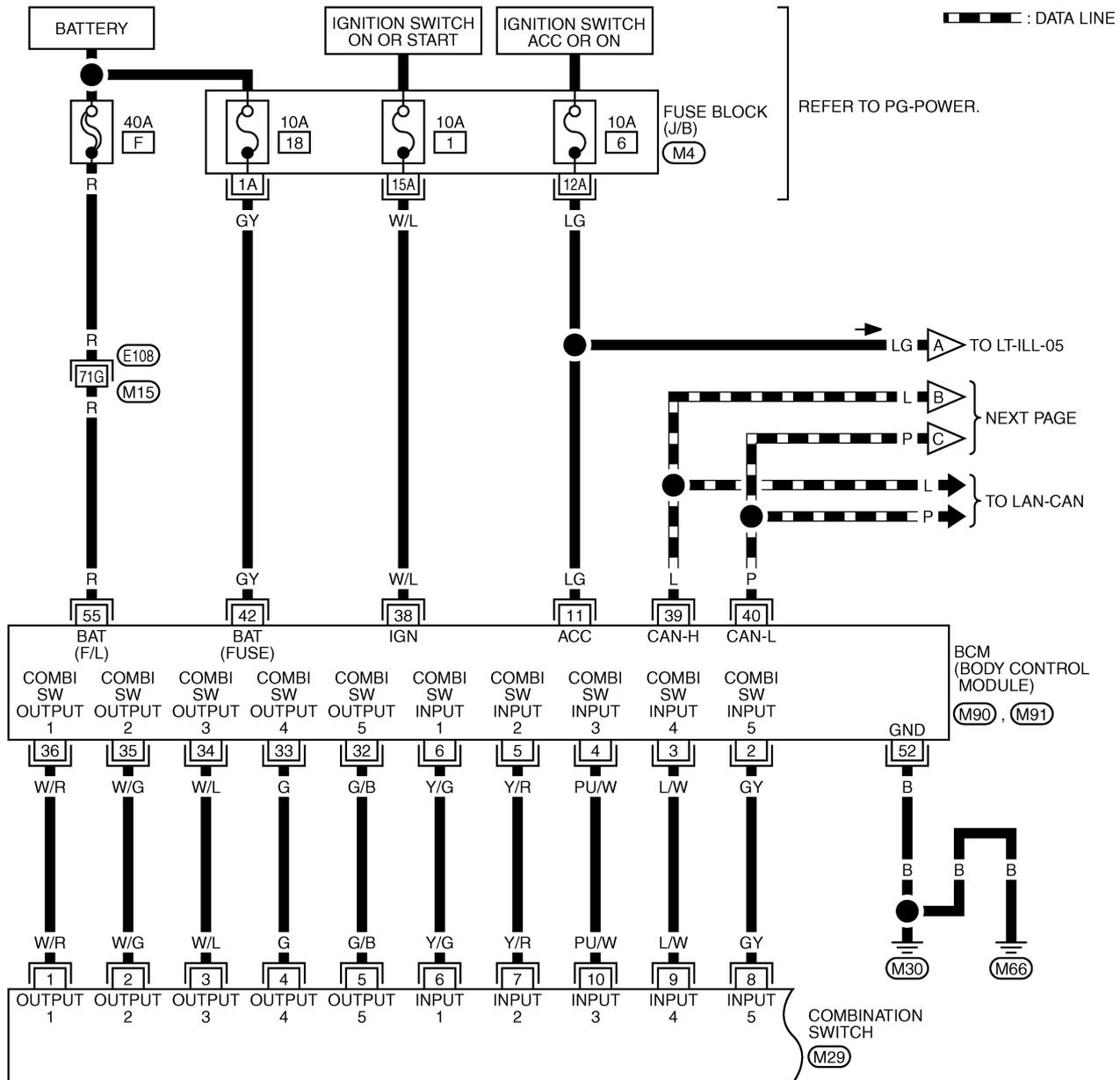
ILLUMINATION

[TYPE 2]

Wiring Diagram — ILL —

NKS00502

LT-ILL-01



REFER TO THE FOLLOWING.

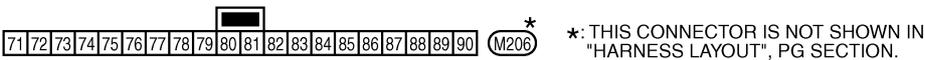
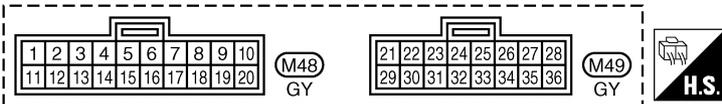
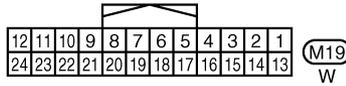
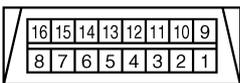
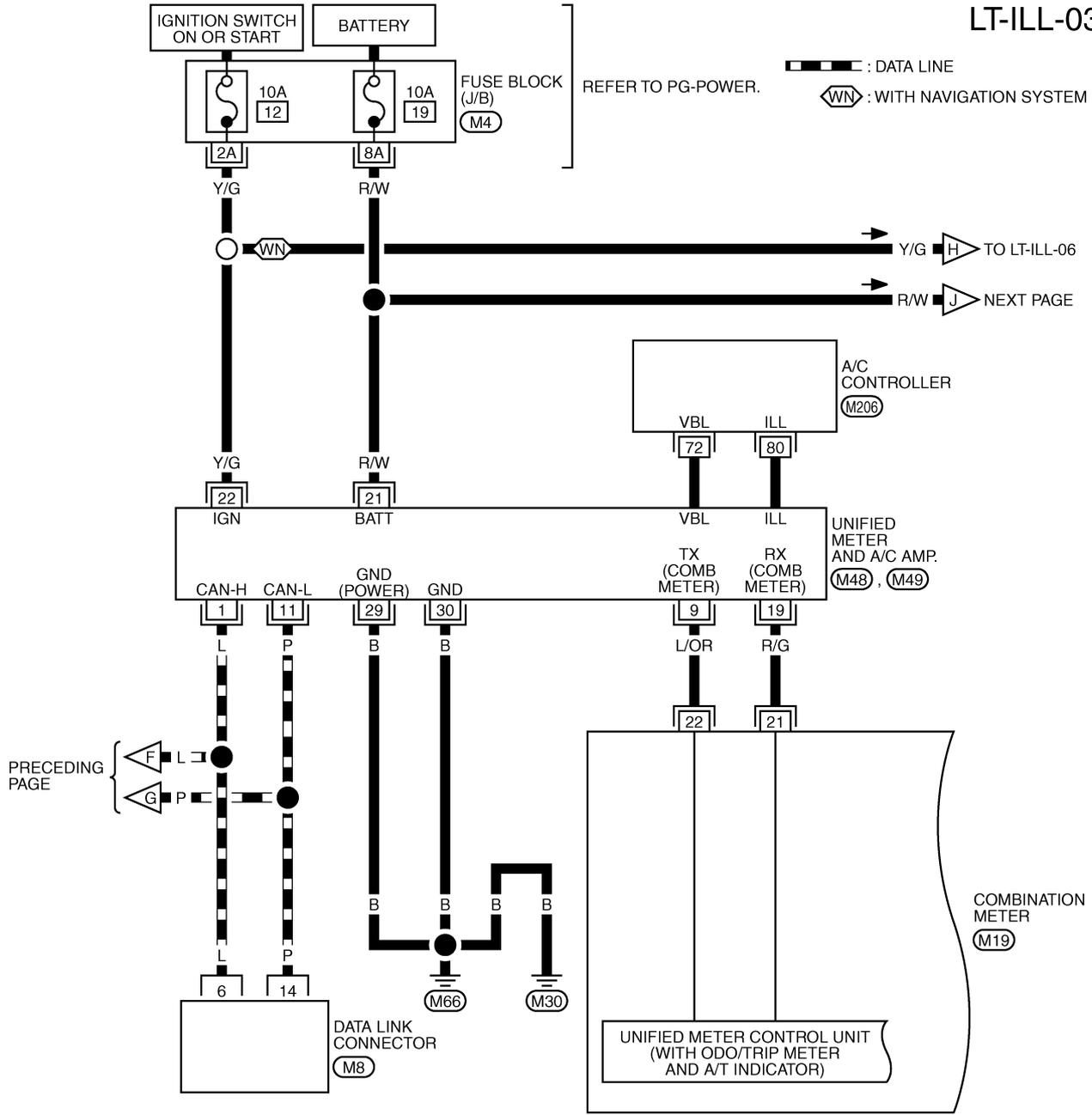
- (E108) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91) -ELECTRICAL UNITS

TKWT5594E

ILLUMINATION

[TYPE 2]

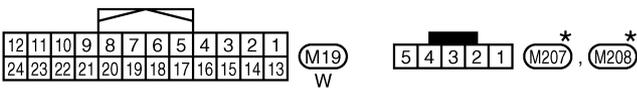
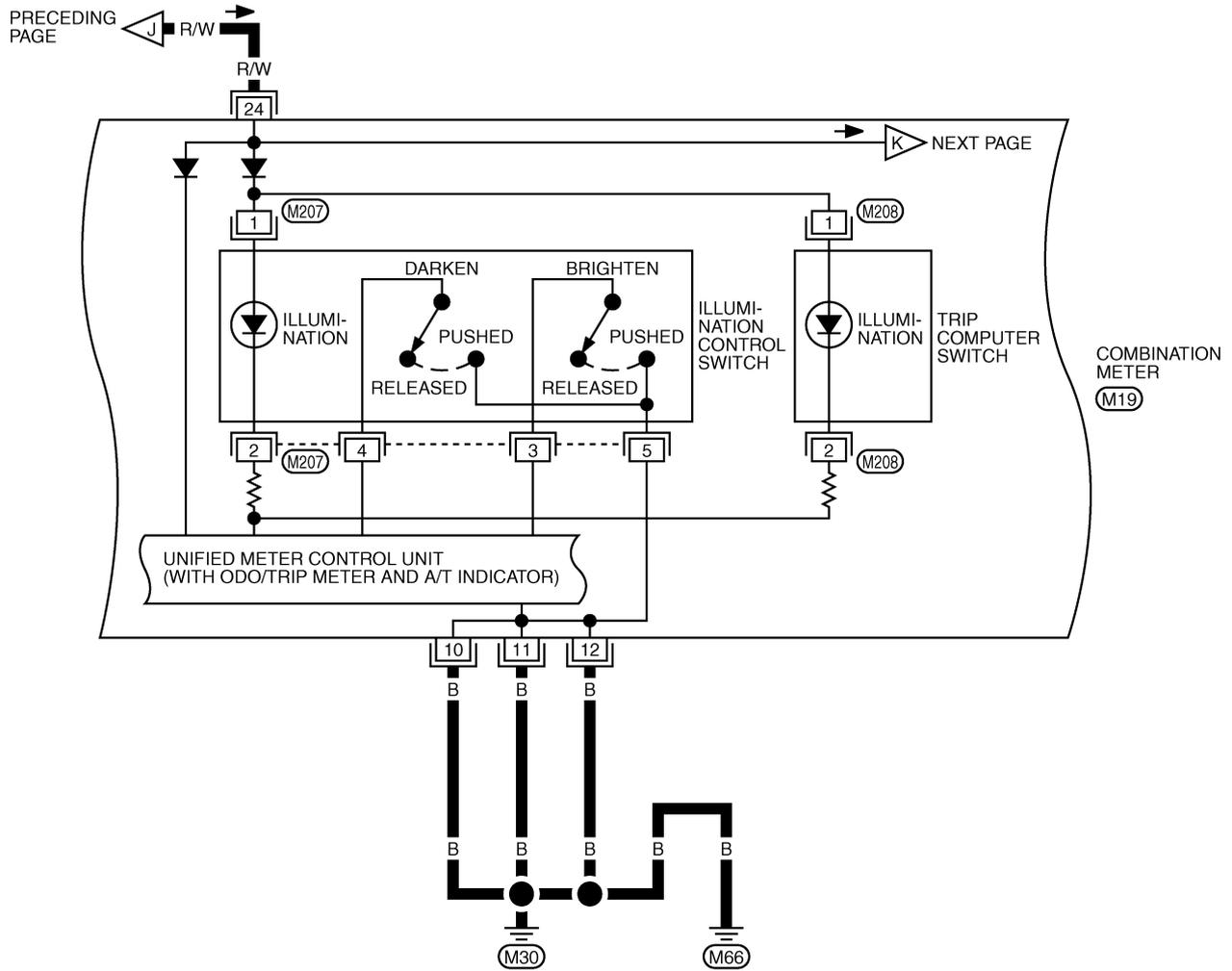
LT-ILL-03



REFER TO THE FOLLOWING.

(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWT2296E

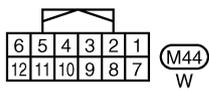
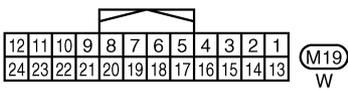
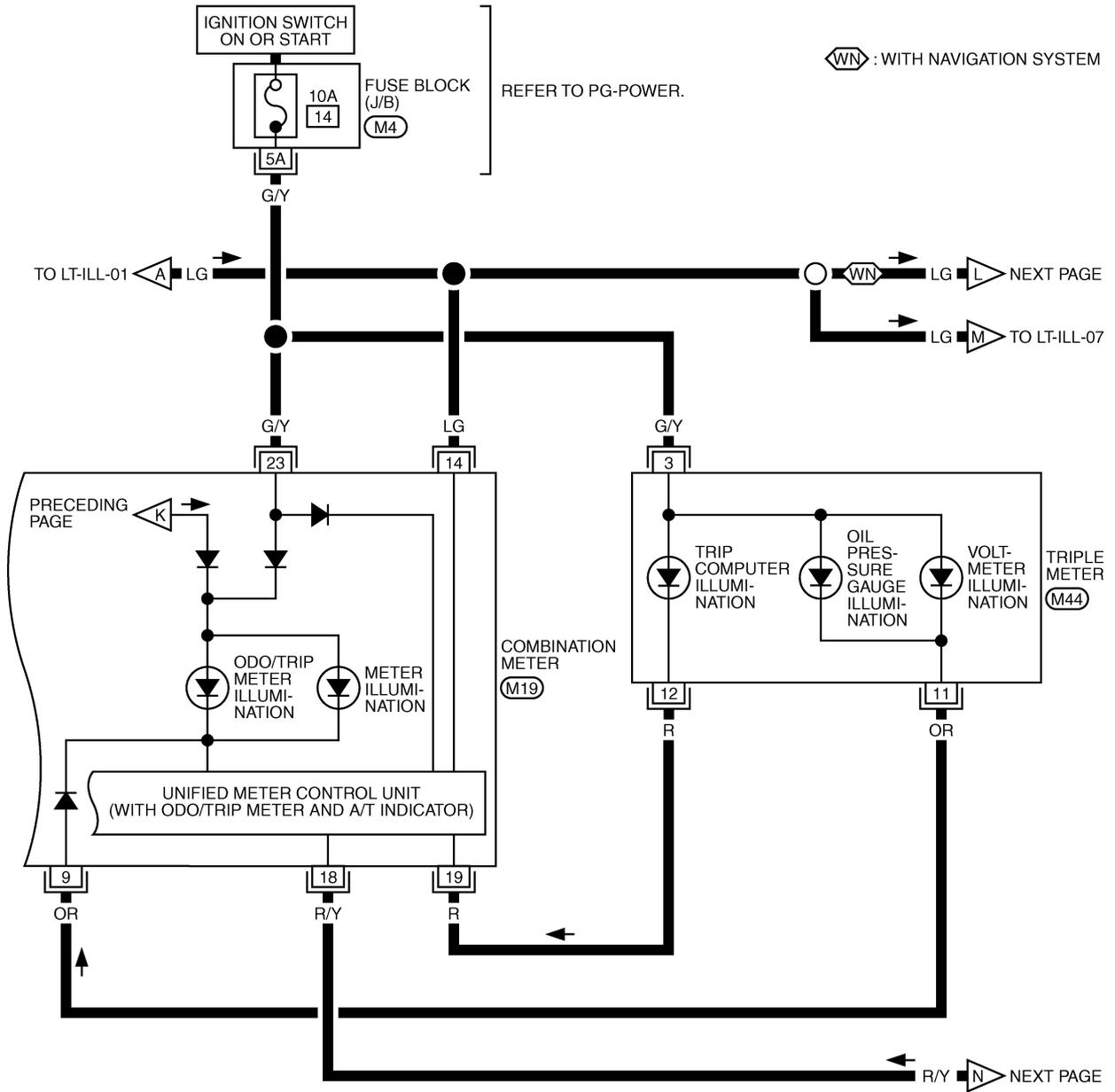


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

ILLUMINATION

[TYPE 2]

LT-ILL-05



REFER TO THE FOLLOWING.
(M4) -FUSE BLOCK-JUNCTION BOX (J/B)

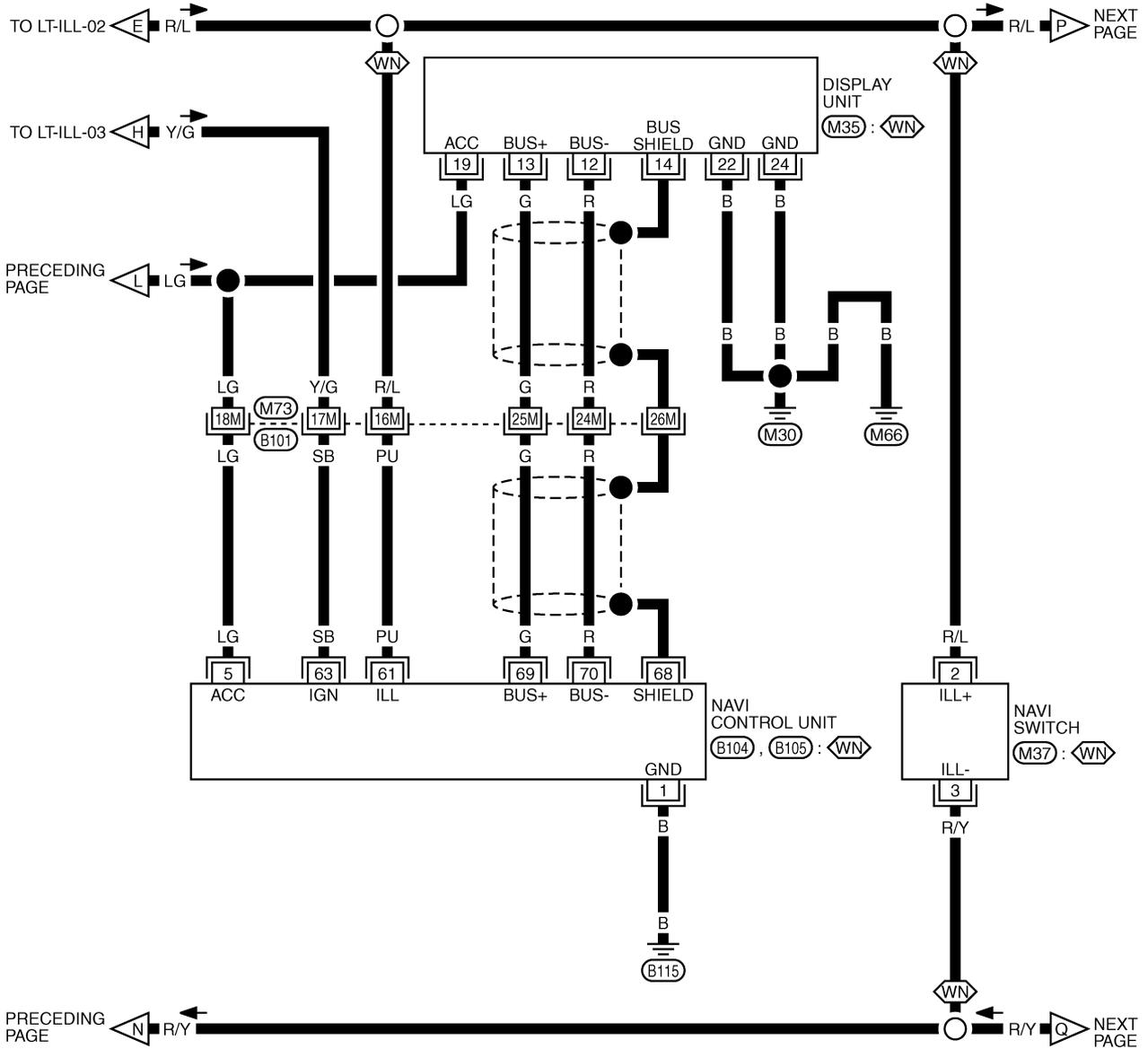
TKWT1830E

ILLUMINATION

[TYPE 2]

LT-ILL-06

(WN) : WITH NAVIGATION SYSTEM



24	22	20	18	16	14	10	8	6	4	2		
23	21	19	17	15	13	12	11	9	7	5	3	1

(M35)
GY

3	2	1		
8	7	6	5	4

(M37)
W

REFER TO THE FOLLOWING.

(B101) -SUPER MULTIPLE JUNCTION (SMJ)

40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1

(B104)
W

72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42
71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41

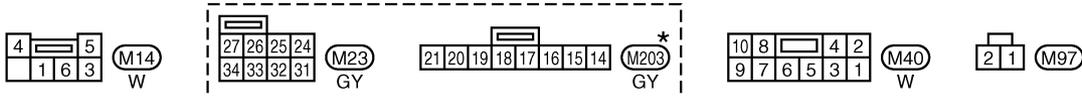
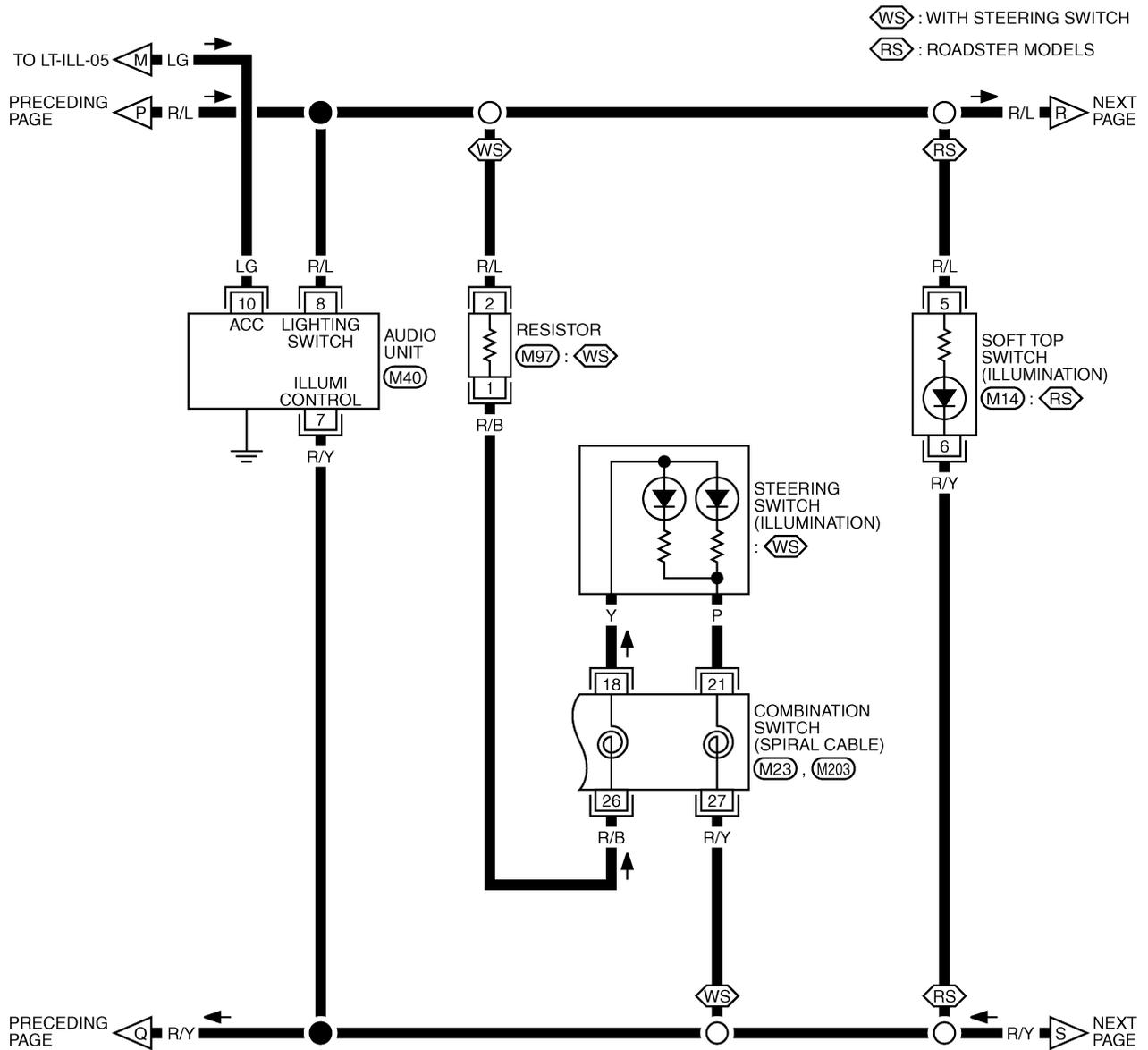
(B105)
W

TKWT5596E

ILLUMINATION

[TYPE 2]

LT-ILL-07



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

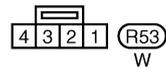
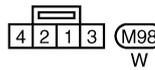
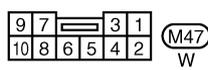
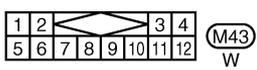
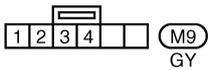
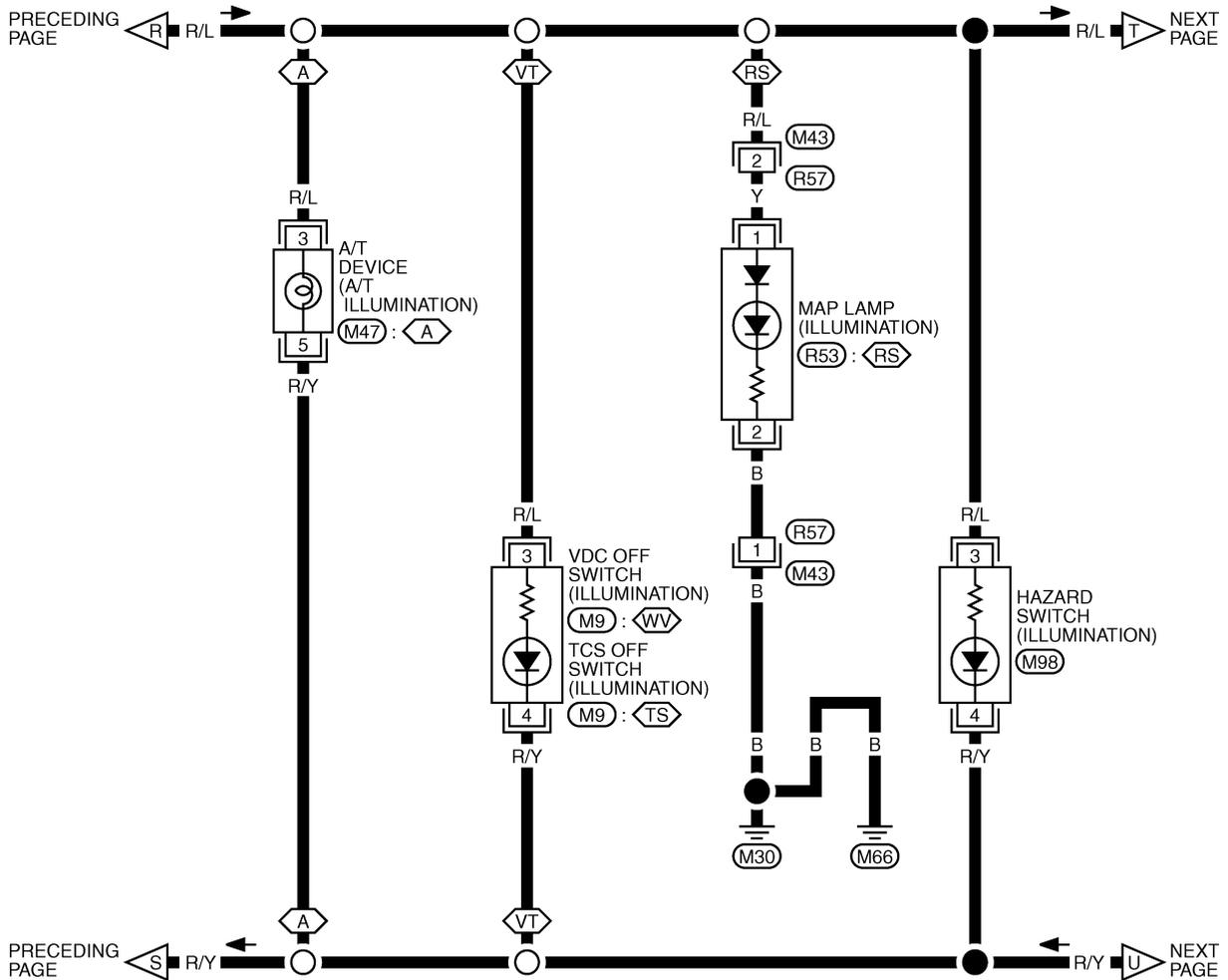
TKWT4095E

ILLUMINATION

[TYPE 2]

LT-ILL-08

- ⬡ : WITH A/T
- ⬢ : ROADSTER MODELS
- ⬤ : WITH VDC SYSTEM OR TCS
- ⬥ : WITH VDC SYSTEM
- ⬦ : WITH TCS WITHOUT VDC SYSTEM



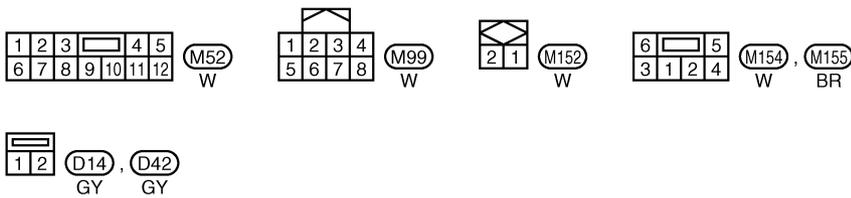
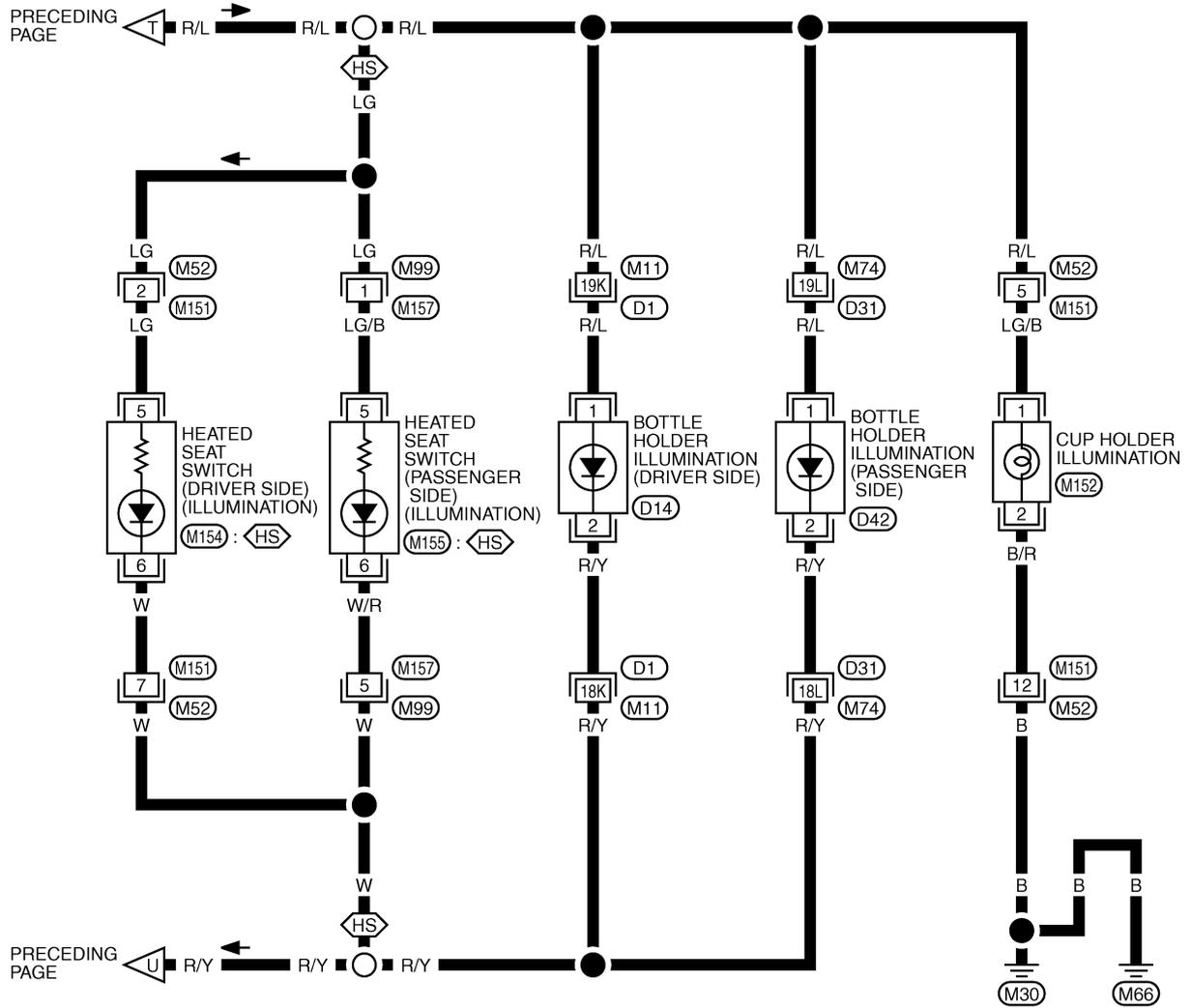
TKWT5597E

ILLUMINATION

[TYPE 2]

LT-ILL-09

⬡HS⬡ : WITH HEATED SEAT



REFER TO THE FOLLOWING.
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)

TKWT4097E

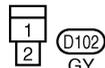
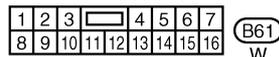
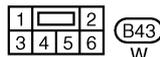
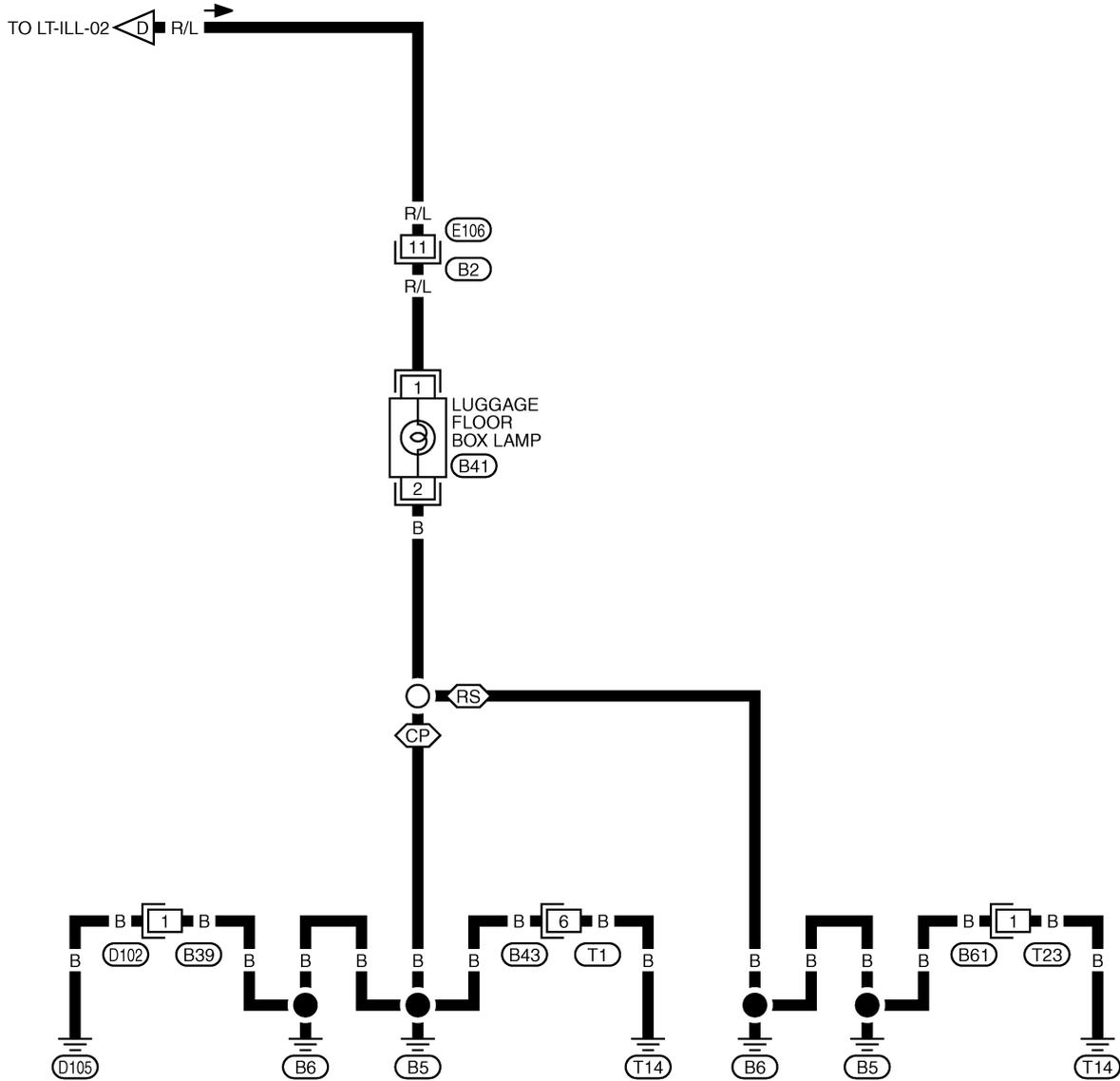
ILLUMINATION

[TYPE 2]

LT-ILL-10

⬡CP⬢ : COUPE MODELS

⬡RS⬢ : ROADSTER MODELS



TKWT4098E

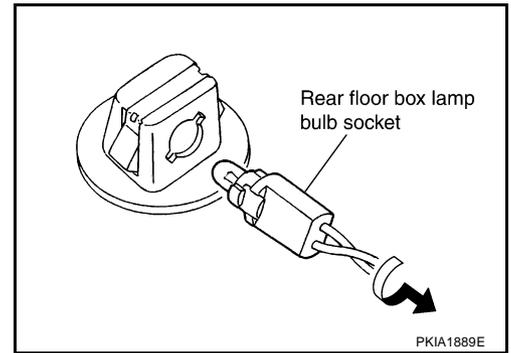
NKS00503

Bulb Replacement LUGGAGE FLOOR BOX LAMP

1. Remove luggage floor box lamp. Refer to
2. Turn bulb socket counterclockwise to release lock and remove it.

Luggage floor box lamp : 12 V - 1.4W

3. Installation is the reverse order of removal.

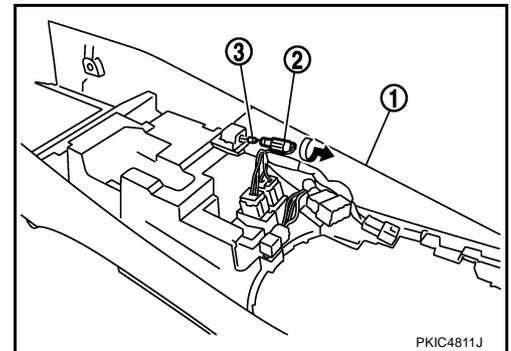


CUP HOLDER ILLUMINATION

1. Remove center console assembly (1). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Turn bulb socket counterclockwise to release lock and remove bulb socket (2).
3. Remove cup holder illumination bulb (3) from its socket.

Cup holder illumination : 12V - 1.1W

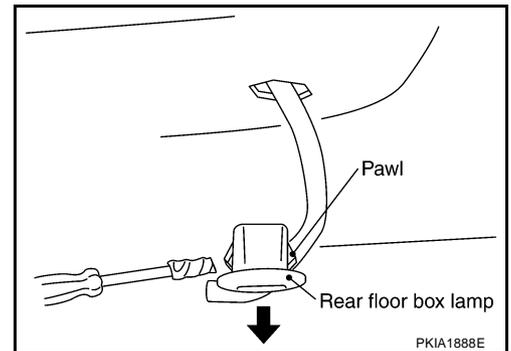
4. Installation is the reverse order of removal.



NKS00504

Removal and Installation LUGGAGE FLOOR BOX LAMP

1. Pull out rear floor box lamp using screwdriver or similar tool.
2. Installation is the reverse order of removal.



A
B
C
D
E
F
G
H
I
J
LT
L
M

BULB SPECIFICATIONS

[TYPE 2]

BULB SPECIFICATIONS

PFP:26297

Headlamp

NKS00505

Item	Wattage (W)
High / Low	35 (D2R)

Exterior Lamp

NKS00506

Item	Wattage (W)	
Front combination lamp	Front turn signal lamp/—	28/8 (amber)
	Parking lamp	5
	Front side marker lamp	LED
Rear combination lamp	Stop/Tail lamp	LED
	Rear turn signal lamp/—	28/8 (amber)
	Back-up lamp	21
	Rear side marker lamp	LED
License plate lamp	5	
High-mounted stop lamp	LED	

Interior Lamp/Illumination

NKS00507

Item	Wattage (W)
Luggage floor box lamp	1.4
Cup holder illumination lamp	1.1
Bottle holder illumination lamp	LED
Map lamp	8
Luggage room lamp	5
Trunk room lamp	3.4
Vanity mirror lamp	1.32
Ignition key hole illumination lamp	1.4