# ELECTRICAL SYSTEM

**SECTION** 

MA

EM

SIM

LC

FE

CL

MT

AT

TF

When you read wiring diagrams:
Read GI section, "HOW TO READ WIRING DIAGRAMS".
When you perform trouble diagnoses, read GI section, "HOW TO FOLLOW FLOW CHART IN TROUBLE DIAGNOSES" and "HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT".
Check for any service bulletins before servicing the vehicle.

#### **MODIFICATION NOTICE:**

- Wiring Diagrams have been changed.
- Service Data and Specifications (SDS) for battery, starter motor and alternator have been changed.

# CONTENTS

PRECAUTIONS AND PREPARATION	5
Supplemental Restraint System (SRS) "AIR	
BAG" and "SEAT BELT PRE-TENSIONER"	5
Precautions for Trouble Diagnoses	5
Precautions for Harness Repair	
POWER SUPPLY ROUTING/WAGON AND	
HARDTOP MODELS	6
Schematic	6
Wiring Diagram - POWER	
POWER SUPPLY ROUTING/PICKUP MODELS	
Schematic	
Wiring Diagram - POWER	
GROUND DISTRIBUTION/WAGON AND	
HARDTOP MODELS	23
Engine Room Harness/LHD Models	23
Engine Room Harness/RHD Models	
Engine Control Harness/LHD Models	
Engine Harness/RHD Models	
Main Harness/LHD Models	
Main Harness/RHD Models	
Body Harness/LHD Models	36
Body Harness/RHD Models	
Body No. 2 Harness/LHD Models	
Body No. 2 Harness/RHD Models	
Back Door and Rear Window Defogger Harness/	
LHD Models	41
Back Door and Rear Window Defogger Harness/	
RHD Models	42
GROUND DISTRIBUTION/PICKUP MODELS	

Engine Room Harness	43	
Engine Harness	44	PD
Main Harness	45	
COMBINATION SWITCH		FA
Check	46	L-141
STEERING SWITCH		
Check	48	RA
BATTERY/WAGON, HARDTOP AND PICKUP		5 GD G
MODELS	49	
Service Data and Specifications (SDS)	49	BR
STARTING SYSTEM/WAGON AND HARDTOP		
MODELS	50	07
Wiring Diagram - START -/A/T Models with TB48		ST
Engine	50	
STARTING SYSTEM/PICKUP MODELS	51	RS
Wiring Diagram - START	51	110
STARTING SYSTEM/WAGON, HARDTOP AND		
PICKUP MODELS	52	BT
Service Data and Specifications (SDS)	52	
CHARGING SYSTEM/WAGON AND HARDTOP		ΠΠΛ
MODELS	53	HA
Wiring Diagram - CHARGE	53	
CHARGING SYSTEM/PICKUP MODELS	54	EL
Wiring Diagram - CHARGE	54	
CHARGING SYSTEM/WAGON, HARDTOP AND		
PICKUP MODELS	55	SE
Service Data and Specifications (SDS)	55	
HEADLAMP/WAGON AND HARDTOP MODELS -		
Conventional Type -	56	IDX

# CONTENTS (Cont'd)

Wiring Diagram - H/LAMP	56
HEADLAMP/PICKUP MODELS - Conventional	(
Type -	57
Wiring Diagram - H/LAMP	57 f
HEADLAMP/WAGON AND HARDTOP MODELS -	N N
Headlamp Aiming Control	58
Wiring Diagram - H/AIM	58 l
HEADLAMP/WAGON AND HARDTOP MODELS -	N N
Daytime Light System -	60 I
Wiring Diagram - DTRL	60 INT
PARKING, LICENSE AND TAIL LAMPS/WAGON	MO
AND HARDTOP MODELS	
Wiring Diagram - TAIL/L -/Type A	
Wiring Diagram - TAIL/L -/Type B	
Wiring Diagram - TAIL/L -/Type C	66 <b>MO</b>
PARKING, LICENSE AND TAIL LAMPS/PICKUP	(
MODELS	
Wiring Diagram - TAIL/L	
BACK-UP LAMP/WAGON AND HARDTOP	ME
MODELS	69 0
Wiring Diagram - BACK/L -/LHD Models for	
TB48 Engine with A/T	
BACK-UP LAMP/PICKUP MODELS	
Wiring Diagram - BACK/L	
FRONT FOG LAMP/WAGON AND HARDTOP	WA
MODELS	
Wiring Diagram - F/FOG -/Except for Europe,	
China and TB45S Engine	
Wiring Diagram - F/FOG -/RHD Models for	WA
Europe and China	
Wiring Diagram - F/FOG -/LHD Models for	70
Europe REAR FOG LAMP/WAGON AND HARDTOP	
MODELS	MO
Wiring Diagram - R/FOG -/For Europe and China	
TURN SIGNAL AND HAZARD WARNING LAMPS/	74 <b>WA</b>
WAGON AND HARDTOP MODELS	
Wiring Diagram - TURN -/Type A	
Wiring Diagram - TURN -/Type C	
TURN SIGNAL AND HAZARD WARNING LAMPS/	
PICKUP MODELS	83
Wiring Diagram - TURN -	
ILLUMINATION/WAGON AND HARDTOP	HA
MODELS	
Schematic	
Wiring Diagram - ILL	
ILLUMINATION/PICKUP MODELS	
Wiring Diagram - ILL -	
INTERIOR ROOM LAMP/WAGON AND HARDTOP	
MODELS - With Timer -	94

6	Schematic/LHD Models Except for Europe and	
	China	94
57	Wiring Diagram - ROOM/L -/LHD Models Except	
57	for Europe and China	
	Wiring Diagram - ROOM/L -/For China	98
58	Wiring Diagram - ROOM/L -/LHD Models for	
58	Europe	100
	Wiring Diagram - ROOM/L -/RHD Models for	
60	Europe	
60	INTERIOR ROOM LAMP/WAGON AND HARDTOP	
	MODELS - Without Timer	
62	Wiring Diagram - ROOM/L -/LHD Models	
62	Wiring Diagram - ROOM/L -/RHD Models	105
64	METER AND GAUGES/WAGON AND HARDTOP	
6	MODELS	
	Combination Meter	
8	Schematic	
68	Wiring Diagram - METER	
	METER AND GAUGES/PICKUP MODELS	
69	Combination Meter	
	Schematic	
69	Wiring Diagram - METER	
0	COMPASS AND THERMOMETER	
0	Wiring Diagram - COMPAS	114
	WARNING LAMPS/WAGON AND HARDTOP	
'1	MODELS	
	Schematic	
'1	Wiring Diagram - WARN	
2	WARNING LAMPS/PICKUP MODELS	
2	Schematic	
'3	Wiring Diagram - WARN -/Except for Europe A/T INDICATOR/WAGON AND HARDTOP	131
3	MODELS	105
<b>'</b> 4	Wiring Diagram - AT/IND -/TB48 Engine Models	155
4 '4	with A/T	125
4	WARNING CHIME/WAGON AND HARDTOP	155
7	MODELS	136
'7	Wiring Diagram - CHIME -/Except for Europe	
'9	and with Theft Warning System Models	136
0	Wiring Diagram - CHIME -/LHD Models for	
33	Europe	137
33	FRONT WIPER AND WASHER/WAGON AND	
	HARDTOP MODELS	138
85	Wiring Diagram - WIPER -/Except for Europe	
85	and TB48 Engine Models	138
36	FRONT WIPER AND WASHER/PICKUP MODELS.	
)2	Wiring Diagram - WIPER	
)2	HEADLAMP WASHER	
	Wiring Diagram - HLC	
)4	Washer Tube Layout	
	HORN/PICKUP MODELS	
	Wiring Diagram - HORN	

# CONTENTS (Cont'd)

CIGARETTE LIGHTER/WAGON AND HARDTOP
MODELS
Wiring Diagram - CIGAR -/LHD Models144
Wiring Diagram - CIGAR -/RHD Models145
CIGARETTE LIGHTER/PICKUP MODELS146
Wiring Diagram - CIGAR146
WIPER DEICER
Wiring Diagram - DEICER147
REAR WINDOW DEFOGGER148
Wiring Diagram - DEF -/LHD Models for Europe148
Wiring Diagram - DEF -/RHD Models Except for
Europe
AUDIO/WAGON AND HARDTOP MODELS151
Schematic/Except for Europe151
Wiring Diagram - AUDIO -/LHD Models Except
for Europe152
Wiring Diagram - AUDIO -/RHD Models Except
for Europe155
Schematic/For Europe158
Wiring Diagram - AUDIO -/LHD Models for
Europe
Wiring Diagram - CD/CHG -/With IDIN Type CD
Auto Changer162
Wiring Diagram - REMOTE163
AUDIO/PICKUP MODELS
Wiring Diagram - AUDIO -/RHD Models164
AUDIO ANTENNA/PICKUP MODELS
Wiring Diagram - P/ANT -/RHD Models
CLOCK
Wiring Diagram - CLOCK166
AUTOMATIC SPEED CONTROL DEVICE (ASCD)/
WAGON AND HARDTOP MODELS
Schematic/TB48 and TD42Ti Engine Models167
Wiring Diagram - ASCD -/TB48 and TD42Ti
Engine Models168
POWER WINDOW/PICKUP MODELS172
Wiring Diagram - WINDOW172
POWER DOOR LOCK/WAGON AND HARDTOP
MODELS
Schematic/Without Theft Warning System
Models174
Wiring Diagram - D/LOCK -/Without Theft
Warning System Models175
Schematic/With Theft Warning System Models178
Wiring Diagram - D/LOCK -/With Theft Warning
System Models
POWER DOOR LOCK/PICKUP MODELS
Wiring Diagram - D/LOCK187
POWER DOOR LOCK - Super Lock
Schematic
Wiring Diagram - S/LOCK -/LHD Models189

Wiring Diagram - S/LOCK -/RHD Models	MA
Wiring Diagram - MULTI -/Except for Europe and With Theft Warning System Models	EM
Wiring Diagram - MULTI -/LHD Models with Theft Warning System204	LC
Wiring Diagram - MULTI -/RHD Models with Theft Warning System208	
Wiring Diagram - MULTI -/For South Africa	EC
Schematic213 Wiring Diagram - THEFT -/LHD Models	FE
Wiring Diagram - THEFT -/RHD Models219 UNIFIED METER CONTROL UNIT (TIME	CL
CONTROL SYSTEM)	
Warning System Models224 NATS (Nissan Anti-Theft System)/TB48DE	MT
ENGINE MODELS FOR EUROPE	AT
Wiring Diagram - NATS226 CONSULT-II	TF
Trouble Diagnoses	PD
MODELS	FA
NATS (Nissan Anti-Theft System)/ZD ENGINE	
MODELS	RA
Europe	BR
Europe	ST
Wiring Diagram - CAN245	RS
AND HARDTOP MODELS	BT
Passenger Compartment - RHD Models250 LOCATION OF ELECTRICAL UNITS/PICKUP MODELS	HA
Engine Compartment253 Passenger Compartment254	EL
HARNESS LAYOUT	SE
MODELS	IDX

GI

# CONTENTS (Cont'd)

Main Harness/LHD Models	258
Main Harness/RHD Models	262
Engine Room Harness/LHD Models	266
Engine Room Harness/RHD Models	274
Engine Harness	280
Engine Control Harness	284
Body Harness/LHD Models	286
Body Harness/RHD Models	290
Body No. 2 Harness/LHD Models	292
Body No. 2 Harness/RHD Models	294
Chassis Harness	296
Back Door Harness and Rear Window Defogger	
Harness	297

HARNESS LAYOUT/PICKUP MODELS	298
Main Harness	298
Engine Room Harness	300
Engine Harness	303
Chassis Harness	304
WIRING DIAGRAM CODES (CELL CODES)	305
Wiring Diagram Codes (Cell Codes)	305
FUSE AND FUSIBLE LINK BOX	Foldout
Terminal Arrangement	Foldout
ELECTRICAL UNITS	Foldout
Terminal Arrangement	Foldout

#### Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

GI

a seat belt, helps to reduce the risk or s	ch as "AIR BAG" and "SEAT BELT PRE-TENSIONER" used along with severity of injury to the driver and front passenger for certain types of available to NISSAN MODEL Y61 is as follows (The composition var- ional equipment.):	MA EM			
The Supplemental Restraint System ing wheel), front passenger air bag r	n consists of driver air bag module (located in the center of the steer- module (located on the instrument panel on passenger side), seat belt unit, warning lamp, wiring harness and spiral cable.	LC			
The Supplemental Restraint System seat), satellite sensor, diagnosis ser	consists of front side air bag module (located in the outer side of front nsor unit (one of components of air bags for a frontal collision), wiring ponents of air bags for a frontal collision).	EC FE			
	erative, which could increase the risk of personal injury or death would result in air bag inflation, all maintenance should be per-	GL			
<ul> <li>Improper maintenance, including sonal injury caused by unintentio</li> <li>Do not use electrical test equipm</li> </ul>	incorrect removal and installation of the SRS, can lead to per-	MT			
	Precautions for Trouble Diagnoses	AT			
	CAN SYSTEM	TF			
	<ul> <li>Do not apply voltage of 7.0V or higher to the measurement terminals.</li> <li>Use the tester with its open terminal voltage being 7.0V or less.</li> </ul>	PD			
		FA			
		RA			
	Precautions for Harness Repair				
	CAN SYSTEM	BR			
	<ul> <li>Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in)]</li> </ul>	ST			
/ OK: Soldered and wound with tape		RS			
PKIA0306E		BT			
Do not perform bypass wire connections for the repair pa (The spliced wire will become separated and the characterist of twisted line will be lost.)					
NG: Bypass wire connection		EL			
		SE			

 Image: Second control of the system

 XE
 : With xenon headlamp system

 WN
 : With electrical winch

 54 54 Lo DT): With daytime light system THEFT VSS, BCDD GLOW, MILUDL STAIK, LOAD STAIK, LAT NONDTC STAB, ACA METER, ACH METER, ACH MILTI 'ATS, MULTI 'ATS, MULTI 'ATS, MULTI 'ATS, MULTI 'ATS, THEFT 7.5A : 20A : 42 7.5A 24 DAYTIME LIGHT CONTROL UNIT:( H/LAMP H/AIM TAIL/L F/FOG R/FOG ILL CHIME HLC 15A 53 10 ۳) (늡) (₩) 7.5A : LE ÷ 20A 15A 52 Б (5) R/FOG INT/L MULTI ROOM/L HILAMP DTRL R/FOG THEFT AMP COMBINATION SWITCH (LIGHTING SWITCH) TAIL/L 10A 15A 51 LOAD H/AIM TAIL/L F/FOG R/FOG ILL CORNER CORNER HLC H/LAMP DTRL THFFT Diesel engine models for cold areas 

 DC): Diesel engine Invuv.

 ZN): TD engine models with NATS,

 TD42Ti and ZD engine models

 D): Diesel engine models

 10A 10A BRK/SW NONDTC SHIFT ABS STOP/L ASCD AUDIO CD/CHG P/ANT REMOTE [S] 7.5A : 10A :( 50 :(  $(\overset{\circ}{\times})$ 15A (Ш) 1D4211 and ZD engine 1 D : Diesel engine models DU : TD42Ti engine models POWER NJPMP MAFS EGVC/V INT/V COMPS GN/SG GN/SG GN/SG GN/SG AAC/V POWER NATS R/COOL τŴ 15A 55 15A 7.5A :( 15A :( 20A :( 49 2 15A **ISEAT** CMRLY MBLY CMPS CMPS IGN/SG AAC/V (3) POWER VC/V BLOWER MOTOR RELAY 15A 90A HEATER A/C,M A/C,A 5  $\succ$ Except for TB45S engine models IGN, COOLF O251B1, O2H1B1 O251B1, O2H1B2 O251B2, O2H1B2 PGCN, IVC FRACN FCUT, AACN FCUT, AACN FCUT, AACN FRAT, DEF STRAT, <u></u> 10A RHD models and for France 

 (FR): RHD models and for Franc

 (LE): LHD models for Europe

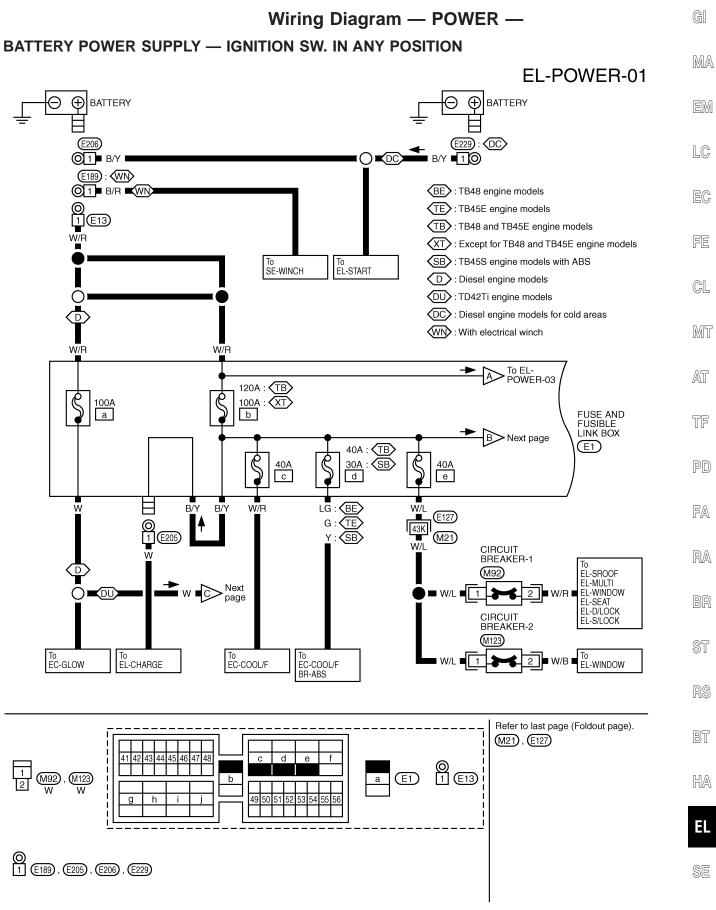
 (TE): TB45E engine models

 (TS): TB45S engine models

 (TS): TB45S engine models

 10A AUDIO TS) (S) X (S) MAIN. 20A : LR LCAD, S/TANK HEATER, A/C,M A/C,A, R/HEAT R/COOL, COOL/B 30A :: 10A :: 10A :: O2S1B1, O2S1B2 O2S2B1, O2S2B2 O2P181, O2P1B2 O2P181, O2P182 O2P181, O2P182 FUELB1, FUELB2 FUELB1, FUELB2 FUELB1, FUELB2 F ŝ 15A 22 (X) ABS  $\boxtimes$ DOLF POT SOLF DTRL 50A  $\square$ 210A INJECT FUELB1 EGRC/V SWL/V SWL/V SWL/V SWL/V OLLP/W IGNITION SWITCH TB45S engine models with NATS, TB48 and ZD engine models BS): TB48 and TB45S engine models (BZ): TB45S engine models with NATS, TD405 and 7D and 2D and 2D 00 MAIN LHD models except for France With ABS except for TB45S 15A F/PUMP FPCM 10A TURN 10A 7.5A engine models S/SIG GLOW PLA DTRL NATS 47.5A SRS CHARC START MAIN IGNSYS IGN 15A 46 ... Xo Ë CIGAR 10A MIL/DL TRQJSG, GLOW CHOKE BEDD MILDLC OILPMLDL MIL, DLC OILPMLDL STANK ATT, NONDTC STRAK, ATT, NONDTC STRAK, ATT, NONDTC STRAK, ATT, NONDTC STRAK, ARSK EPEN, SRSK, CHARGE MICHARGE MICHARGE MARN MICHARGE MARN AUDIO REMOTE CD/CHG P/ANT (BE) : TB48 engine models
 (TB) : TB48 and TB45E engine models
 (SB) : TB45S engine models with ABS
 (XT) : Except for TB48 and TB45E 10A 10A POWER 2010 2010 : Except for TB48 and TB45E engine models R/HEAT 20A 80Z 63 मि रि 15A 27 DEAD 10A S/TANK 15A 43 15A 61 WIP/R DEICER DEF 7.5A 7.5A 12 80A MIRROR POWER STSIG NONDTC SHIFT START BACK/L PNP/SW TRQ/SG 15A 7:5A 40A CIGAR TURN CORNER CHIME SROOF MULTI WNDOW SEAT D/LOCK F, CHIME I, SROOF WINDOW I, THEFT ¥ 15A 7.5A 8 CIRCUIT BREAKER-1 (E)(B) ACCESSORY RELAY EPS DTRL DTRL DTRL DEICER, S HSEAT, WII ASCD, ROC MULTI, THE CIGAR BATTERY BATTERY: DC) 40A :  $\oplus$ 9.5A 7.5A COOL/F ABS WODNW METER COMPAS CIGAR MULTI THEFT WINCH Q (2) QAD ABS START 120A :( 100A :( IGNITION RELAY 6 4 0 30A 30A  $\infty$  $\oplus$ go WIPER Þ Q B  $\square$ CHARGE WINCH GLOW  $\infty$ 

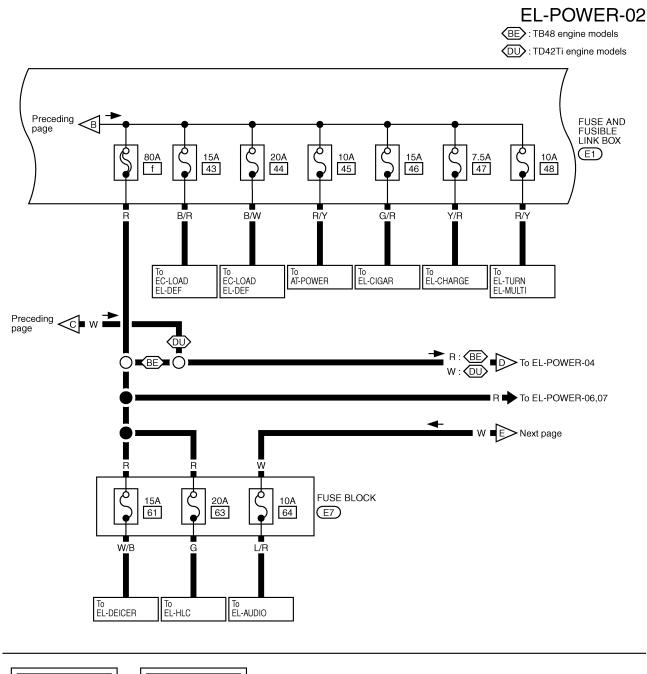
**Schematic** 

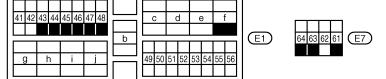


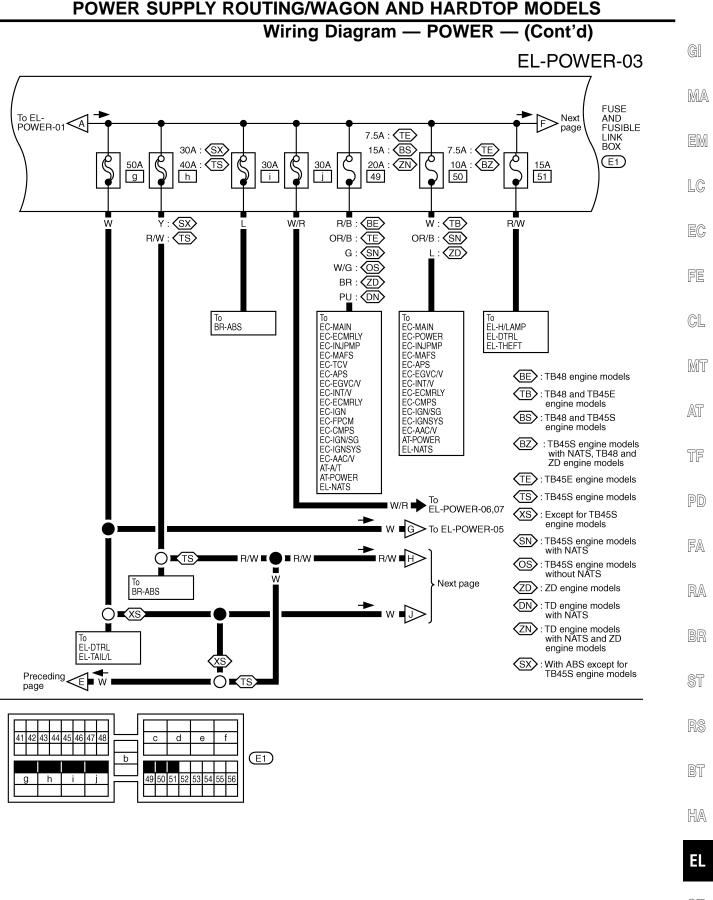
IDX

# POWER SUPPLY ROUTING/WAGON AND HARDTOP MODELS

Wiring Diagram — POWER — (Cont'd)



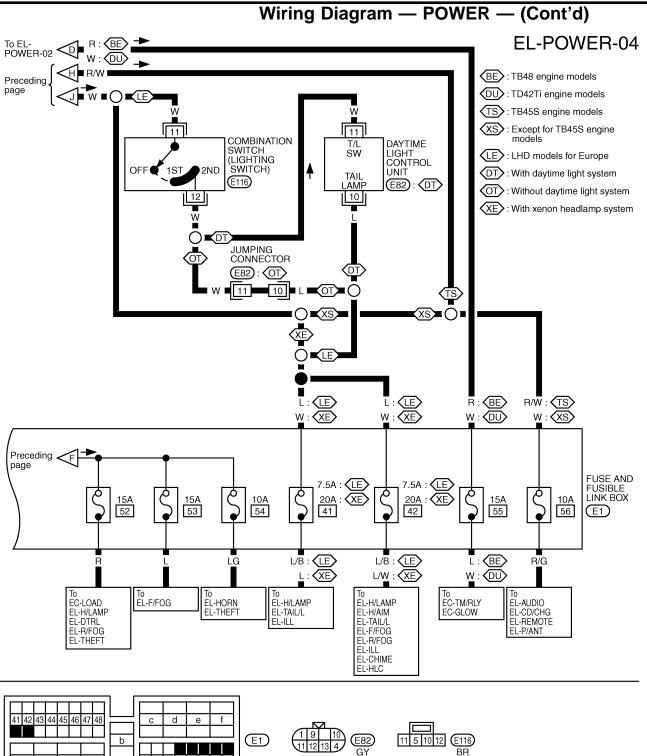




SE

IDX

TEL746M

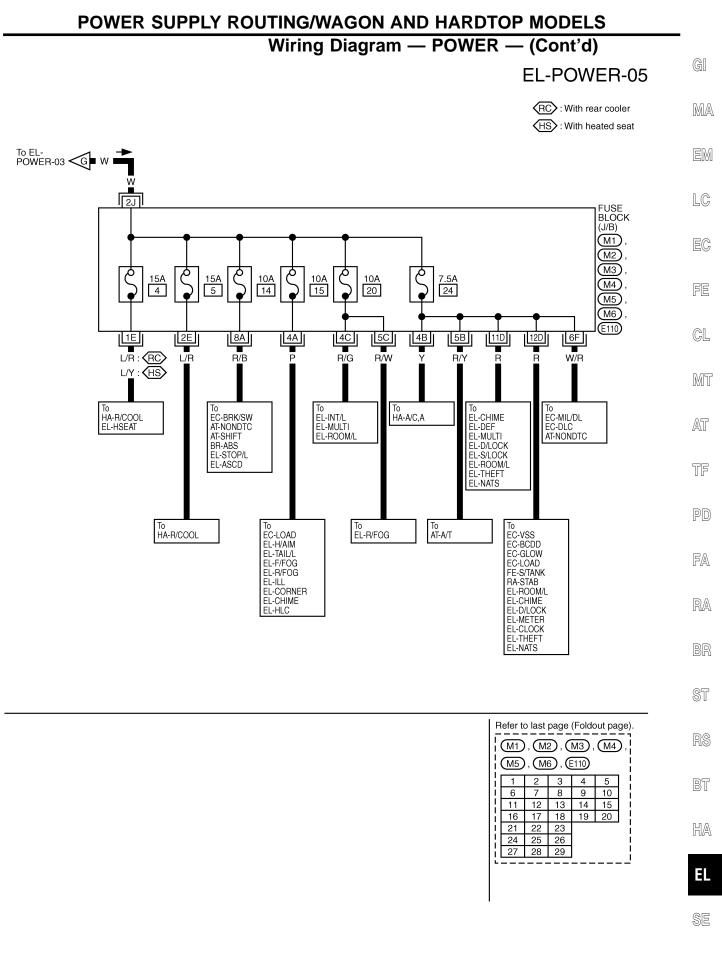


#### POWER SUPPLY ROUTING/WAGON AND HARDTOP MODELS

49 50 51 52

alh

53 54 55 56

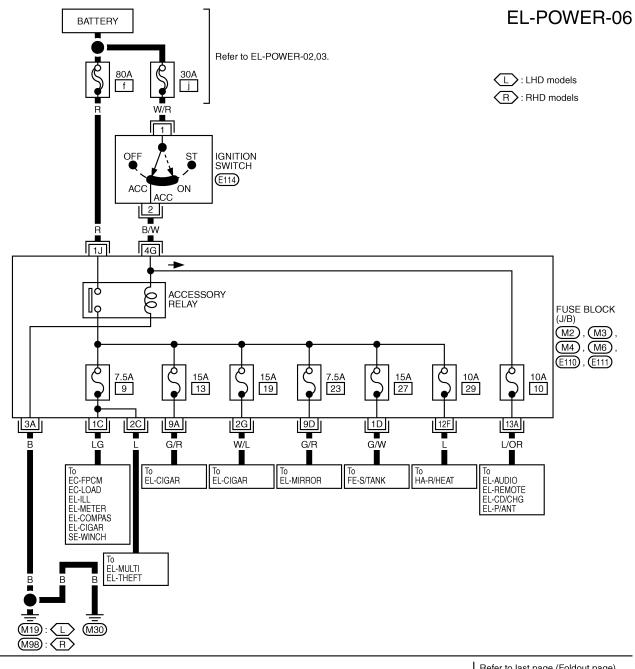


IDX

#### POWER SUPPLY ROUTING/WAGON AND HARDTOP MODELS

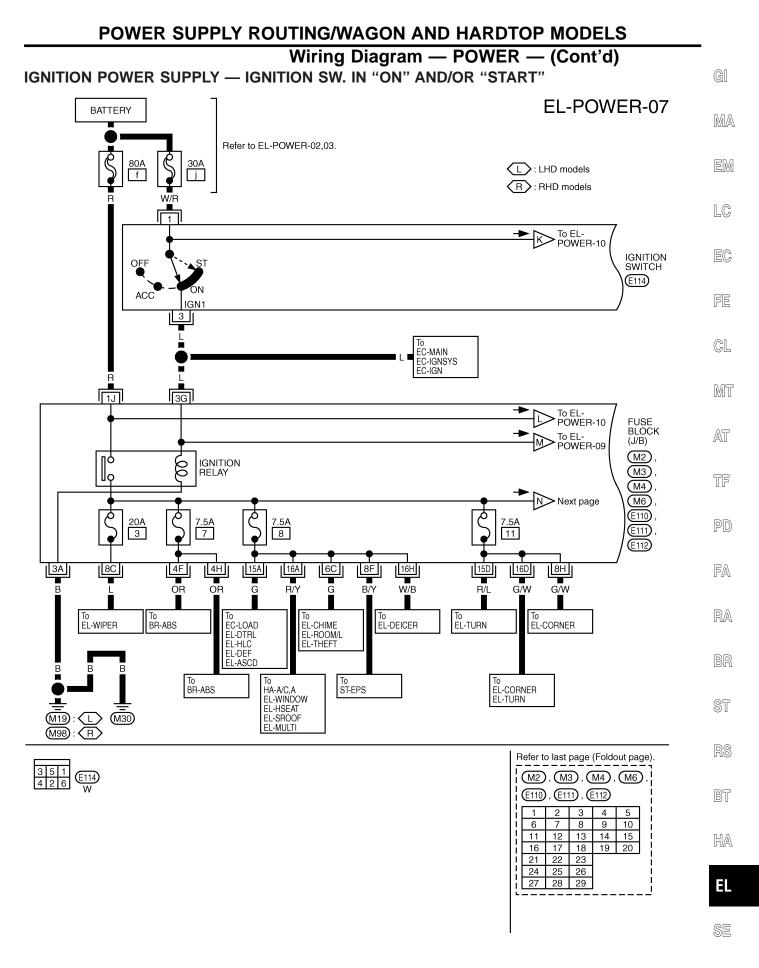
### Wiring Diagram — POWER — (Cont'd)

ACCESSORY POWER SUPPLY — IGNITION SW. IN "ACC" OR "ON"





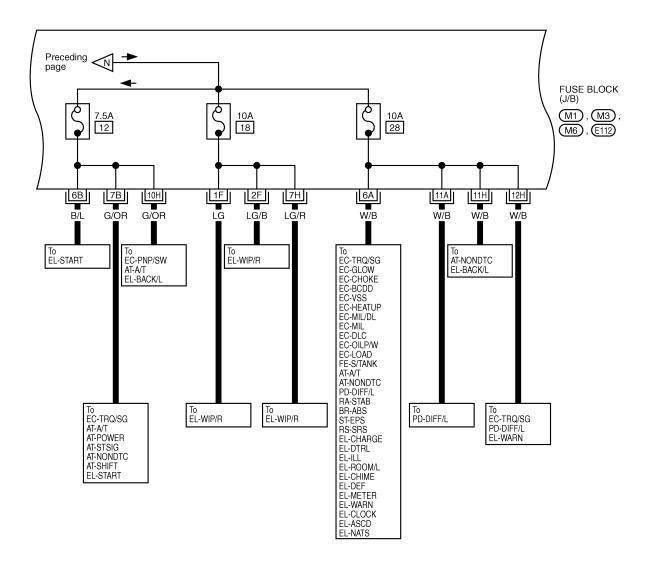
Refer to last page (Foldout page).								
M2, M3, M4, M6, H								
ł	1	2	3	4	5			
Ì.	6	7	8	9	10	l i		
!	11	12	13	14	15	1		
i	16	17	18	19	20			
Ì.	21	22	23					
!	24	25	26			1		
27 28 29								
: <u></u>								



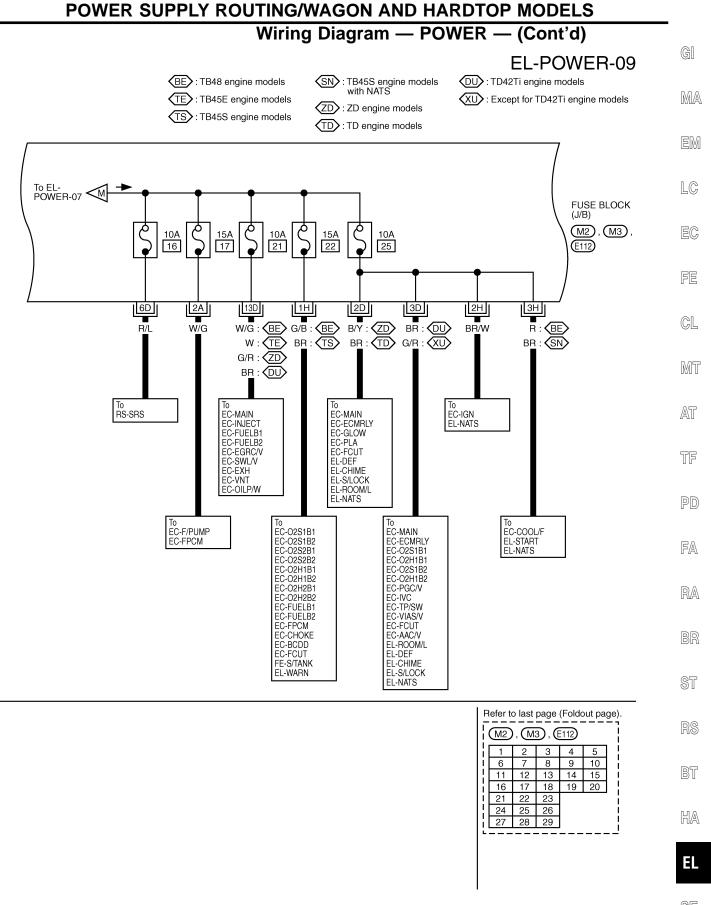
IDX

# POWER SUPPLY ROUTING/WAGON AND HARDTOP MODELS Wiring Diagram — POWER — (Cont'd)

**EL-POWER-08** 

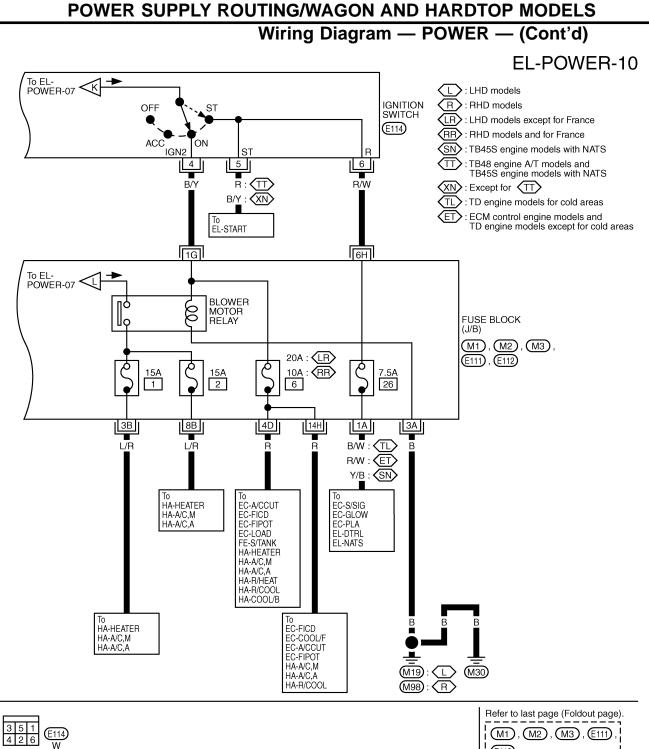


R	lefer te	o last	page	(Foldo	out page	e).
M1, M3, M6, E112						
i	1	2	3	4	5	Ł
1	6	7	8	9	10	i –
li	11	12	13	14	15	!
Ì.	16	17	18	19	20	i.
1	21	22	23			i i
li	24	25	26			!
Ì.	27	28	29			ł.
1_						j.



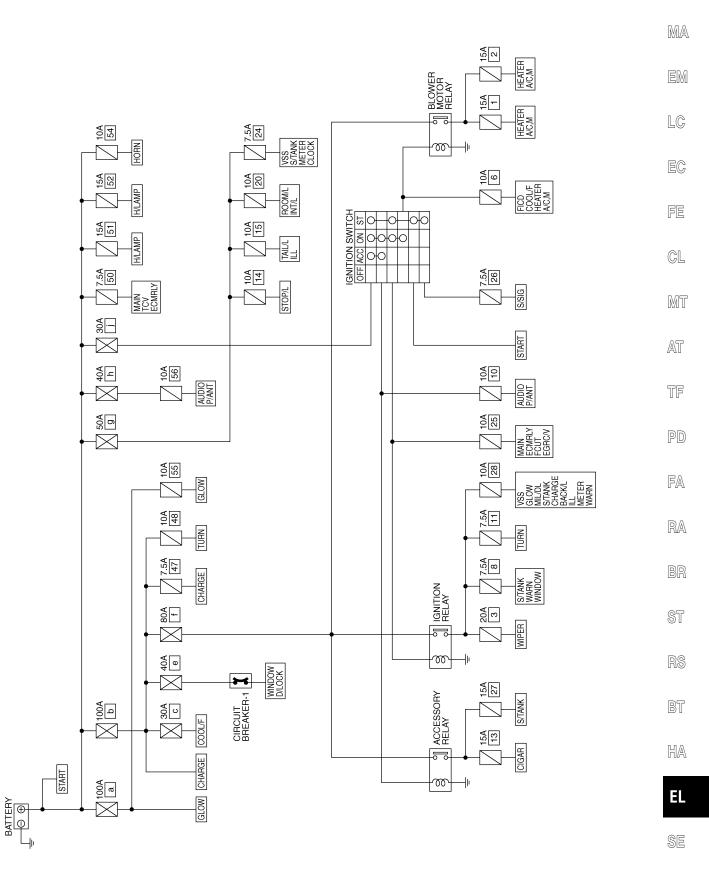
SE

IDX



[M1], [M2], [M3], [E111], [H11], [H							
		2	3	4	5	Ì	
i	6	7	8	9	10		
!	11	12	13	14	15	i	
i	16	17	18	19	20		
Ĩ.	21	22	23				
!	24	25	26			- i	
27 28 29							
·							

#### **Schematic**



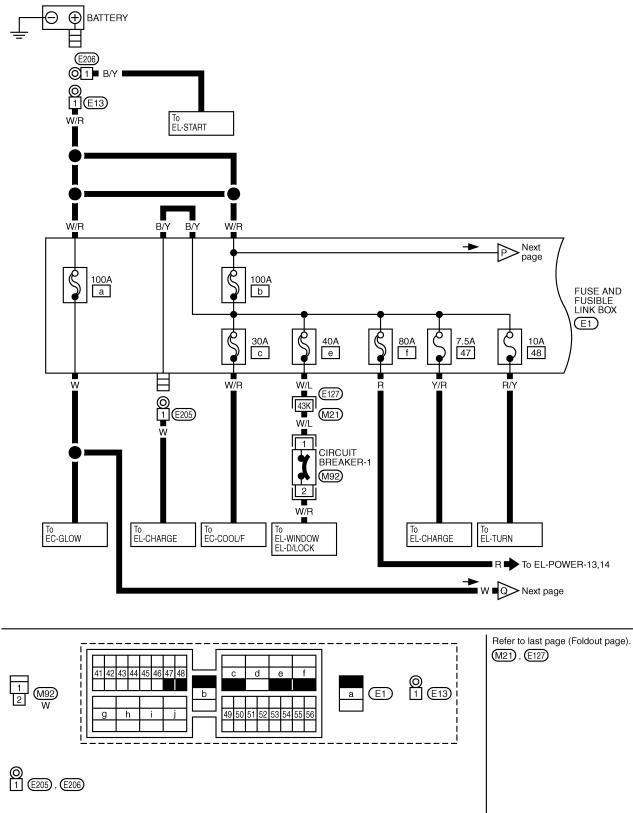
IDX

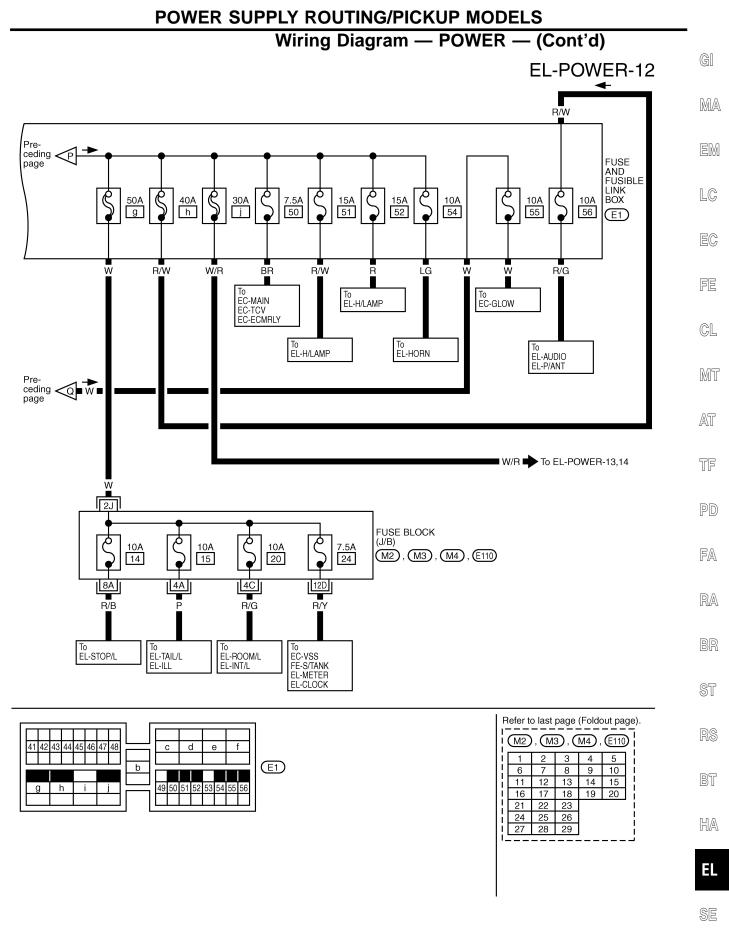
GI

Wiring Diagram — POWER —

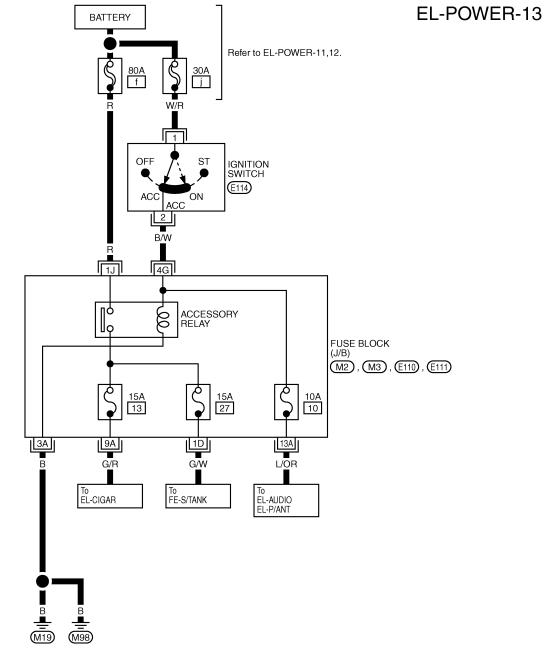
BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION





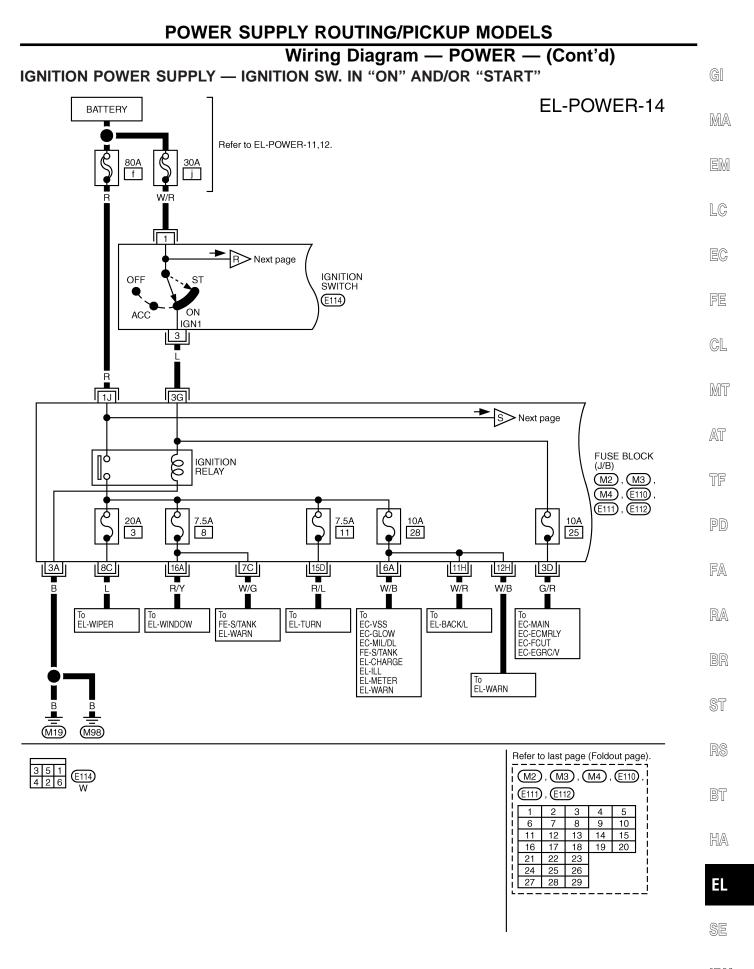


# POWER SUPPLY ROUTING/PICKUP MODELS Wiring Diagram — POWER — (Cont'd) ACCESSORY POWER SUPPLY — IGNITION SW. IN "ACC" OR "ON"

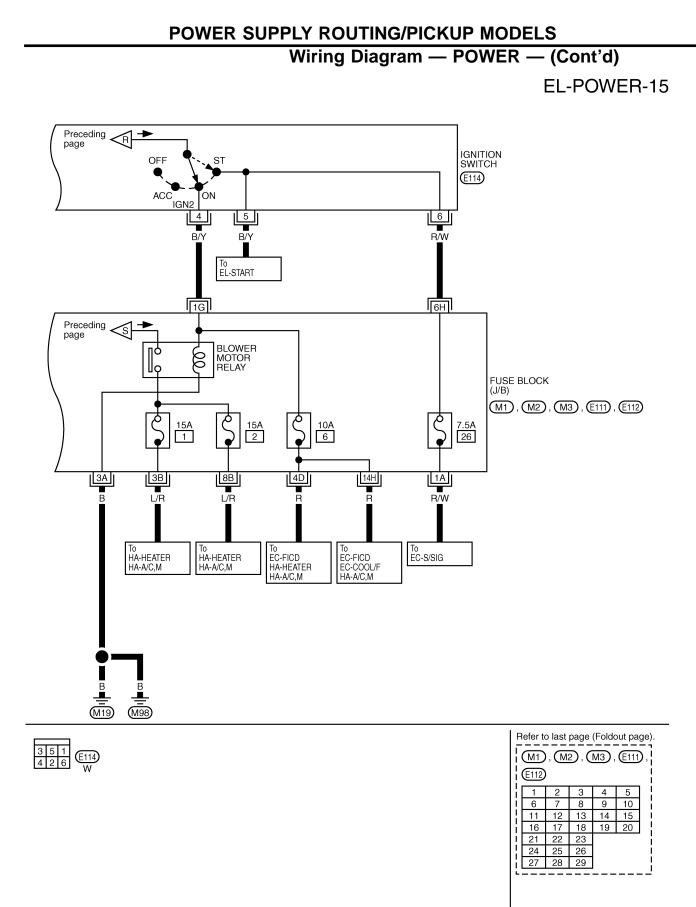




R   -   .	Refer to last page (Foldout page).					
ļ	1	2	3	4	5	
l i	6	7	8	9	10	
11	11	12	13	14	15	i
l:	16	17	18	19	20	
i.	21	22	23			. I
	24	25	26			- İ
l'	27	28	29			
·						



IDX



# Engine Room Harness/LHD Models

				MA
		CON- NECTOR NUMBER	CONNECT TO	EM
	•	E10	Diff. lock solenoid (Terminal No. 4)	LC
	、 <b></b>	E17	Cooling fan motor-2 (TB48 engine models)	
(E25		E166	Cooling fan relay-3 (TB48 engine models)	EC
	•	E20	Side turn signal lamp LH	EG
Body ground	•	E24)	Front combination lamp LH • Parking • Turn signal • Cornering	FE
	•	E26	Headlamp aiming motor LH	CL
	•	E30	Headlamp LH (Without xenon headlamp system)	
	<b>•</b>	E31	Distributor (TB45S engine models)	MT
	•	E36	Cooling fan motor-1 (Terminal No. 2) (Except for TB48 engine models)	0000
	¢?	E36	Cooling fan motor-1 (Terminal No. 4)	AT
		E164	Cooling fan relay-2 (TB48 engine models)	
	•	E57	Wiper deicer	56
	•	E58	Front wiper motor	TF
	•	E80	Front fog lamp LH	
	•	E84	Headlamp LH (With xenon headlamp system)	PD
	•	(E90)	Cool box solenoid valve (For the Middle East TB48 and TB45E engine models with cool box)	
	•	E118	Combination switch (Rear wiper switch)	FA
	•	E121)	Condenser (TB45S engine models)	
		E150	A/T PV ign relay (TB48 engine A/T models)	RA
	reest terms Main homooo			
	E127 M21 Main harness	M103	NATS IMMU (TD engine models with NATS)	BR
	E127 M21 Main harness	M141	Combination meter (Terminal No. 12)	
	•	<u>E4</u>	Cornering lamp relay	ST
	•	<b>E</b> 5	Air conditioner relay (Except for TB48 and TB45E engine models)	
	•	<b>E</b> 6	Auto-choke relay (TB45S engine models)	RS
	•	E10	Diff. lock solenoid (Terminal No. 3)	
	•	E14	Headlamp washer timer	BT
	•	E19	Power antenna	
	•	E37	Cooling fan motor-2 (TB45E engine models)	
				HA
<b>E40</b>	Headlamp RH			EL
Body ground	Next page			SE

GI

# GROUND DISTRIBUTION/WAGON AND HARDTOP MODELS Engine Room Harness/LHD Models (Cont'd)

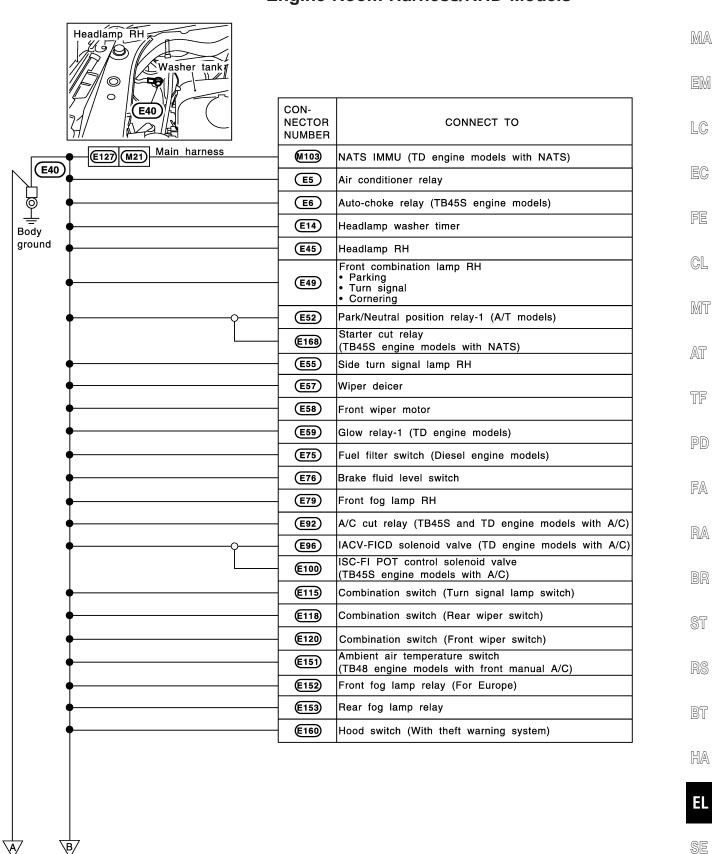
Preceding page

 $\mathbb{A}$ 

	CON- NECTOR NUMBER	CONNECT TO
	E41	Headlamp aiming motor RH
	E45	Headlamp RH (Without xenon headlamp system)
	E49	Front combination lamp RH • Parking • Turn signal • Cornering
	E52	Park/Neutral position relay-1 (A/T models)
	E168	Starter cut relay (TB45S engine models with NATS)
	E55	Side turn signal lamp RH
	E59	Glow relay-1 (TD engine models)
	E75	Fuel filter switch (Diesel engine models except for Europe
	E76	Brake fluid level switch
	E79	Front fog lamp RH
	E81	Headlamp RH (With xenon headlamp system)
	E82	Daytime light control unit
	<b>E86</b>	HID relay LH (With xenon headlamp system)
	E85	HID relay RH (With xenon headlamp system)
	E87	Glow relay-2 (TD engine models for cold areas)
	E92	A/C cut relay (TB45S and TD engine models with A/C)
	<b>E94</b>	Engine coolant temperature switch-1 (TB45S and TD engine models with A/C)
	E96	IACV-FICD solenoid valve (TD engine models with A/C)
	<b>E100</b>	ISC-FI POT control solenoid valve (TB45S engine models with A/C)
	E120	Combination switch (Front wiper switch)
	E147	Park/Neutral position relay-3 (Terminal No. 1) (TB48 engine A/T models)
	E147	Park/Neutral position relay-3 (Terminal No. 6) (TB48 engine A/T models)
	E151	Ambient air temperature switch (TB48 engine models with front manual A/C and TB45E engine models with rear cooler)
	E152	Front fog lamp relay (For Europe and China)
	E153	Rear fog lamp relay
	E160	Hood switch
E43 E181 Engine room sub-harness	E183	Winch relay
E69 E202 Engine harness	E211	Park/Neutral position switch (ECM control engine M/T models)
	E212	4WD switch
Engine harness	E213	Transfer neutral switch
E69 (E202)	E219	Engine coolant temperature sensor (TD engine models)
E68) (E222) Engine harness	E230	Csolu (TD engine models with NATS)

#### **Engine Room Harness/RHD Models**

GI



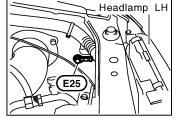
**EL-25** 

Next page

CEL437M

Engine Room Harness/RHD Models (Cont'd)

Preceding page	CON-	
	NECTOR	CONNECT TO
E69 E202 Engine harness	E211	Park/Neutral position switch (TB48 and ZD engine M/T models)
E70 E201 Engine harness	E211	Park/Neutral position switch (TD42Ti engine models)
	E212	4WD switch
E70 E201 Engine harness	E213	Transfer neutral switch
Engine harness	E219	Engine coolant temperature sensor (TD engine models)
E68 E222 Engine harness	E230	Csolu (TD engine models with NATS)
	CON- NECTOR NUMBER	CONNECT TO
E104 M86 Main harness	M141	Combination meter (Terminal No. 12)
	E10	Diff. lock solenoid (Terminal No. 3)
	E10	Diff. lock solenoid (Terminal No. 4)
Body ground	E17	Cooling fan motor-2 (TB48 engine models)
•	E19	Power antenna
•	E20	Side turn signal lamp LH
•	E24	Front combination lamp LH • Parking • Turn signal • Cornering
•	E26	Headlamp aiming motor LH
•	E29	Intake air temperature sensor
•	E30	Headlamp LH
•	E31	Distributor (TB45S engine models)
•	E36	Cooling fan motor-1 (Terminal No. 2) (Except for TB48 engine models)
<b>•</b>	<u>E36</u>	Cooling fan motor-1 (Terminal No. 4)
	E164	Cooling fan relay-2 (TB48 engine models)
•	E41	Headlamp aiming motor RH
•	E80	Front fog lamp LH
•	<u>E94</u>	Engine coolant temperature switch-1 (TB45S and TD engine models with A/C)
<b>•</b>	E121	Condenser (TB45S engine models)
•	E147	Park/Neutral position relay-3 (Terminal No. 1) (TB48 engine A/T models)
<b>+</b>	E147	Park/Neutral position relay-3 (Terminal No. 6) (TB48 engine A/T models)
<b>•</b>	E150	A/T pv ign relay (TB48 engine A/T models)
<b>•</b>	E153	Rear fog lamp relay
•	E160	Hood switch (OPT) (For Europe)
	E166	Cooling fan relay-3 (TB48 engine models)
E43) E181) Engine room sub	E183	Winch relay
Headlar	mp LH	



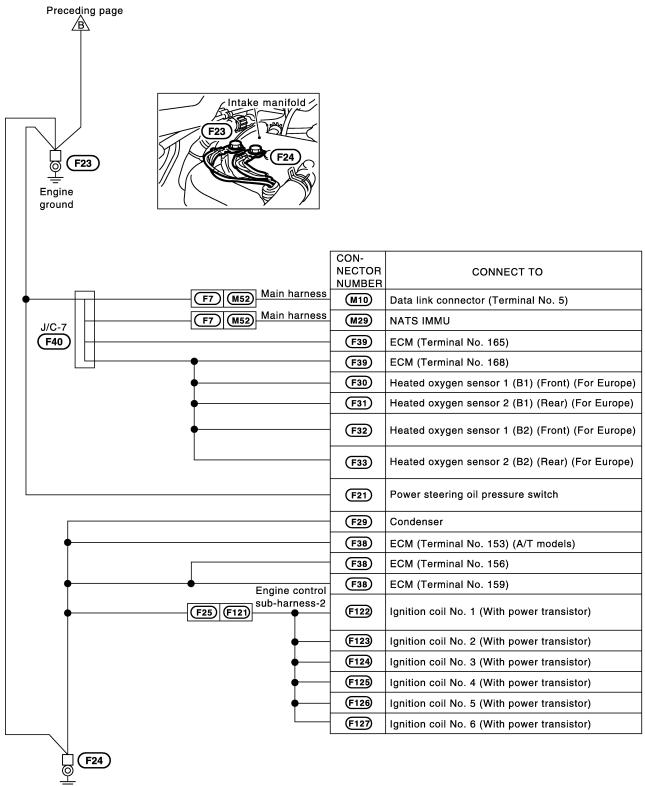
# Engine Control Harness/LHD Models

GI

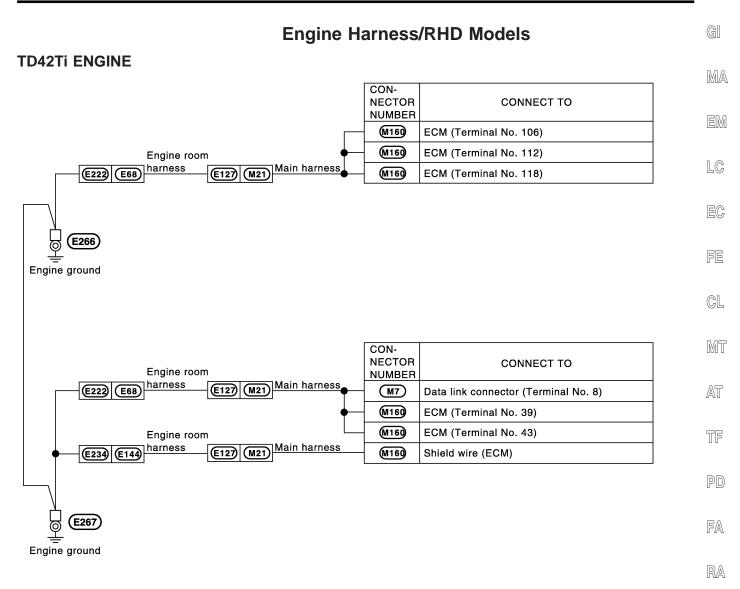
#### **TB48DE ENGINE**

TB48D	E ENGINE			
	Main Engine room	CON- NECTOR NUMBER	CONNECT TO	MA
	F6 (M51) harness (M88) (E106) harness	(E123)	Shield wire (TCM (Transmission control module))	EM
	Main     Engine room     harness     M88     E106     harness	Ē123	TCM (Transmission control module) (Terminal No. 5)	
	Main harness	(E123)	TCM (Transmission control module) (Terminal No. 14)	
	F5 M50 (Except for Europe) Engine room harness	(E123)	TCM (Transmission control module) (Terminal No. 24)	LC
	Main harness (For Europe)	<u>(E124</u> )	TCM (Transmission control module) (Terminal No. 46)	EC
Г	••••••••••••••••••••••••••••••••••••••	(F16)	Camshaft position sensor	
		(F2)	Shield wire (Throttle position sensor) (M/T models) Shield wire (Electric throttle control actuator	
	Main Engine room Engine harness harness harness	F4	(Accelerator pedal position sensor)) (For circuit from terminal No. 10) (A/T models)	FE
		E260	Shield wire (Crankshaft position sensor) (For Europe) Shield wire (Electric throttle control actuator	CL
		F4	(Accelerator pedal position sensor)) (For circuit from terminal No. 7) (A/T models)	MT
	•	F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor))	555 5
			(For circuit from terminal No. 9) (A/T models) Shield wire (Electric throttle control actuator	AT
	<b>•</b>	<b>F4</b>	(Accelerator pedal position sensor))	
			(For circuit from terminal No. 11) (A/T models) Shield wire (Heated oxygen sensor 1 (B1))	SP
	•	(F8	(With three way catalyst except for Europe)	TF
	•	(F9)	Shield wire (Heated oxygen sensor 1 (B2))	
			(With three way catalyst except for Europe) Shield wire (Mass air flow sensor)	PD
	•	(F17)	<ul> <li>Mass air flow sensor</li> <li>Intake air temperature sensor (For Europe)</li> </ul>	
		<b></b>	Shield wire (Heated oxygen sensor 1 (B1) (Front))	FA
		(F30) (F31)	(For Europe) Shield wire (Heated oxygen sensor 2 (B1) (Rear))	LA
		(F32)	(For Europe) Shield wire (Heated oxygen sensor 1 (B2) (Front)) (For Europe)	RA
		(F33)	Shield wire (Heated oxygen sensor 2 (B2) (Rear)) (For Europe)	
J/C-7 <b>F40</b>		(F10)	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 2) (A/T models)	BR
		(F10)	Shield wire (Electric throttle control actuator (Throttle control motor)) (For circuit from terminal No. 3, 6) (A/T models)	ST
			Shield wire (Electric throttle control actuator	ଲବ
		(F10)	(Throttle position sensor)) (For circuit from terminal No. 5) (A/T models)	RS
	Engine control sub-harness-1	(F16)	Shield wire (Camshaft position sensor)	BT
	F13 F19 Engine control sub-harness-1	<b>F109</b>	Shield wire (Knock sensor-1)	
	F13 F108	<b>F</b> 110	Shield wire (Knock sensor-2)	
		F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 8) (A/T models)	HA
		F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 12) (A/T models)	EL
		(F10)	Shield wire (Electric throttle control actuator (Throttle position sensor))	SE
			(For circuit from terminal No. 1) (A/T models) Shield wire (Electric throttle control actuator	
B Next		(F10)	(Throttle position sensor)) (For circuit from terminal No. 4) (A/T models)	IDX
page			CEL43	2M

### GROUND DISTRIBUTION/WAGON AND HARDTOP MODELS Engine Control Harness/LHD Models (Cont'd)



Engine ground



#### IDX

SE

BR

ST

RS

BT

HA

EL

CEL439M

#### Driver side view with dash side lower finisher removed CON-NECTOR CONNECT TO NUMBER M19 Fuse block (J/B) Accessory relay (M3) Ignition relay (M19) 0 Blower motor relay Data link connector (Terminal No. 4) Body ground (M10) (With CONSULT-II) (M11) Headlamp aiming switch Heat up switch (Illumination) (M13) (Terminal No. 2) (M13) Heat up switch (Terminal No. 4) (M14) Door mirror remote control switch (M17) ASCD control unit Illumination control switch (M39) (With illumination control switch) Combination meter (Terminal No. 34) Jumping connector (M39) (Without illumination control switch) (M142) Unified meter control unit Meter illumination (Without fine vision meter) (M108) Front fog lamp switch (Terminal No. 2) Front fog lamp switch (Illumination) (M108) (Terminal No. 6) (M111) Heated seat relay (M115) Check connector (TB45S engine models) Fuel pump control module (FPCM) (M116) (TB45S engine models) (M117) Super lock control unit (M130) Fuel pump relay (TB45S engine models) Front door harness (Driver side) (M22) (D1) (D3) Door mirror defogger (Driver side) Front door harness (Driver side) Power window main switch (M22) (D1) (D5) (Hardtop models) (D10) Power window main switch (Wagon models) Front door harness Front door key cylinder switch (Driver side) (Driver side) M22) (D6) (For Europe and with theft warning system) Front door harness Front door lock actuator assembly LH (Driver side) M22) D1 (D7) (M20) Main harness (Door unlock sensor) (For Europe) Front door harness Front door lock switch (Driver side) (B19) Body harness (Driver side) M22 D1 (D8) (Without multi-remote control system except for Europe) Front door lock actuator (Driver side) D, ∖C (D9) (Door unlock sensor) (With multi-remote control system except for Europe)

#### Main Harness/LHD Models

# Main Harness/LHD Models (Cont'd)

		5/LIID		
	Behind combination meter			
Preceding page		CON- NECTOR NUMBER	CONNECT TO	
		M29	NATS IMMU (TB45S engine models with NATS)	
Ш (МЗО)	•	M37	Combination flasher unit	
	•	- <u>M38</u>	Mode door motor (With front auto A/C)	
Body ground	•	M40	Air mix door motor (With front auto A/C)	
	•	M44	Stabilizer control unit	
	•	M46	Rear window defogger switch (Terminal No. 2)	
	•	M46	Rear window defogger switch (Indicator) (Terminal No. 4)	
	•	M46	Rear window defogger switch (Illumination) (Terminal No. 6)	
	•	M47	Headlamp washer switch (Terminal No. 5)	
	•	M47	Headlamp washer switch (Illumination) (Terminal No. 7)	
	•	M48	Sub fuel tank switch (Terminal No. 2)	
	•	M48	Sub fuel tank switch (Illumination) (Terminal No. 6)	
	•	M49	Hazard switch (Illumination)	
	•	M67	Diff. lock switch (Illumination)	
	•	M69	Sub fuel tank control unit (Terminal No. 4) (Except for TB45S engine models)	
	•	M69	Sub fuel tank control unit (Terminal No. 11)	
	•	M100	Stabilizer switch (Illumination)	
	•	M126	Smart entrance control unit (With theft warning system)	
	<b>•</b>	M136	Door lock and unlock switch (Via sub-harness) (Terminal No. 3)	
	•	M136	Door lock and unlock switch (Via sub- harness) (Illumination) (Terminal No. 5)	
	<b>•</b>	M137	Sub IMMU (Terminal No. 4) (TB45S engine models with NATS)	
	•	(M137)	Sub IMMU (Terminal No. 8) (TB45S engine models with NATS)	
	•	M137	Sub IMMU (Terminal No. 35) (TB45S engine models with NATS)	
	<u> </u>	M137	Sub IMMU (Terminal No. 48) (TB45S engine models with NATS)	
	F Next page			

HA



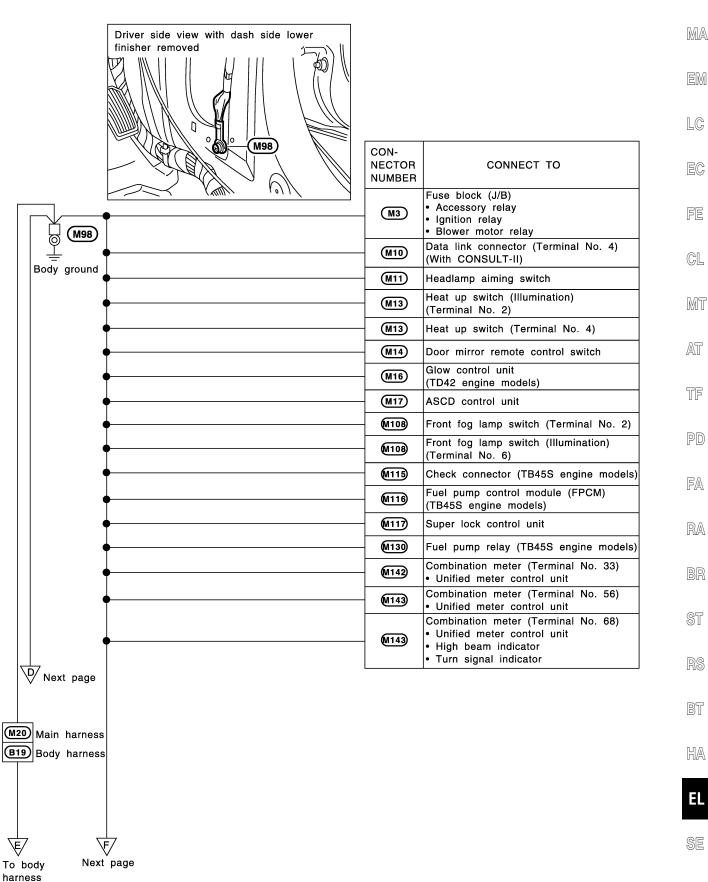
SE

Vext page

# Main Harness/LHD Models (Cont'd)

	→ Preceding Page		
View with glove box a	assembly removed	CON- NECTOR NUMBER	CONNECT TO
		M140	Door lock relay
(M98)		M142	Combination meter (Terminal No. 33) • Unified meter control unit
		M143	Combination meter (Terminal No. 56) • Unified meter control unit
Blower motor		M143	Combination meter (Terminal No. 68) • Unified meter control unit • High beam indicator • Turn signal indicator
E Precedir	ng page	M157	CD auto changer (Cluster lid) (Via sub-harness) (Located in the cluster lid)
	<b>φ</b> γ	M16	Glow control unit (TD engine models except for cold areas)
		M106	Glow control unit (TD engine models for cold areas)
Body ground	•	(M42)	Cigarette lighter
	•	M43	Front power socket
	•	(M53)	Rear heater front switch (Terminal No. 2)
	•	(M53)	Rear heater front switch (Illumination) (Terminal No. 9)
	•	(M54)	Air bag diagnosis sensor unit
	•	(M61)	Rear cooler front switch (Indicator) (Terminal No. 7)
	•	(M61)	Rear cooler front switch (Illumination) (Terminal No. 9)
	•	(M68)	Diff. lock control unit
	φγ	M71)	Fan switch (With front manual A/C)
		M75	A/C auto amp. (Terminal No. 3) (With front auto A/C)
	φγ	(M73)	Fan switch illumination (Via sub-harness) (With front manual A/C)
Main harness		M75	A/C auto amp. (Illumination) (Terminal No. 11) (With front auto A/C)
B104 Body No. 2 harness	•	(M74)	Recirculation switch (With front manual A/C)
	•	M78	Fan control amp. (With front auto A/C)
	•	(M91)	Power window relay
	•	M125	Theft warning horn relay
	φγ	M129	Multi-remote control unit (Except for Europe and with theft warning system)
		M133	Multi-remote control unit (For Europe)
	Jumping connector (M119)	M141)	Combination meter (Terminal No. 8) (Without air bag)
	Front door harness	M145	Power steering control unit
	(Passenger side) Front door harness	D23	Door mirror defogger (Passenger side)
	(Passenger side)	D26	Front door key cylinder switch (Passenger side) (For Europe and with theft warning system)
To body	Front door harness	D28	Front door lock actuator assembly RH (Door unlock sensor) (For Europe)
No. 2 harness	(Passenger side)	(D27)	Front door lock actuator (Passenger side) (Door unlock sensor) (With theft warning system)





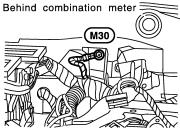
CEL440M

GI

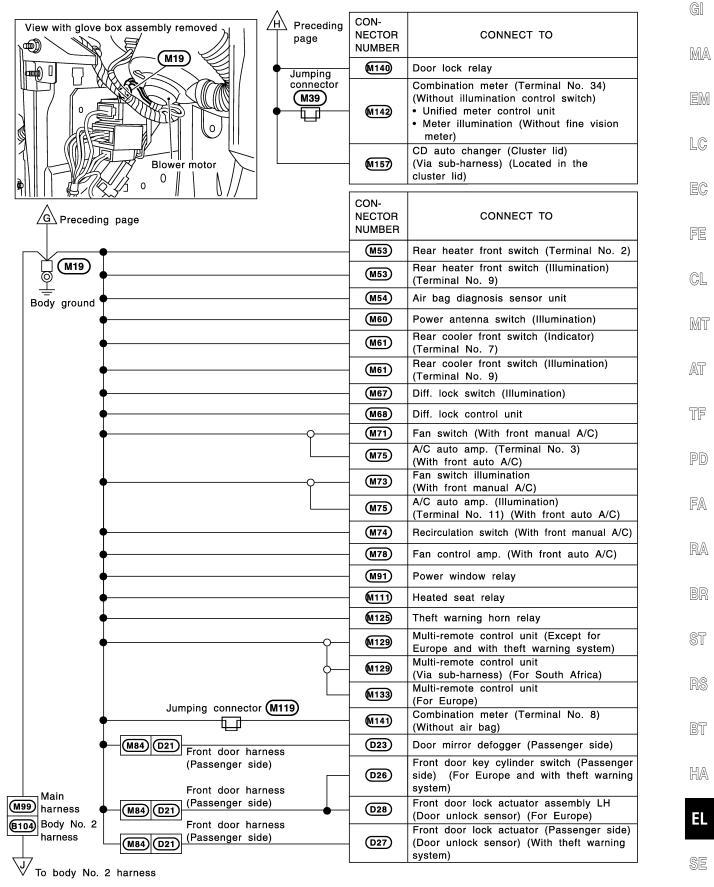
# Main Harness/RHD Models (Cont'd)

Preceding page	Front door harness	CON- NECTOR NUMBER	
• M22 D1	Oriver side) Front door harness	D3	Door mirror defogger (Driver side)
• M22 D1	Diver side)	D5	Power window main switch (Hardtop models)
	Front door harness	D10	Power window main switch (Wagon models)
• M22 D1	Coriver side) Front door harness	<b>D</b> 6	Front door key cylinder switch (Driver side) (For Europe and with theft warning system)
• M22 D1	(Driver side)	D7	Front door lock actuator assembly RH (Door unlock sensor) (With super lock)
	┘ Front door harness ┐ (Driver side) ़		Front door lock switch (Driver side) (Without
• (M22) (D1	<u></u>		multi-remote control system except for Europe)
		<b>D9</b>	Front door lock actuator (Driver side) (Door unlock sensor) (With multi-remote control system except for Europe)
	1	CON- NECTOR NUMBER	CONNECT TO
		M29	NATS IMMU (TB45S engine models with NATS)
		M37	Combination flasher unit
(M30) ↓		<u>M38</u>	Mode door motor (With front auto A/C)
⊥ +		<u>M39</u>	Illumination control switch
Body ground			Air mix door motor (With front auto A/C)
•		(M42)	Cigarette lighter
•		<u>(M43)</u>	Front power socket
•		$\rightarrow$	Stabilizer control unit
•			Rear window defogger switch (Terminal No. 2)
•			Rear window defogger switch (Indicator) (Terminal No. 4)
•		$\rightarrow$	Rear window defogger switch (Illumination) (Terminal No. 6)
•			Headlamp washer switch (Terminal No. 5)
•			Headlamp washer switch (Illumination) (Terminal No. 7)
•		$ \rightarrow $	Sub fuel tank switch (Terminal No. 2)
•		$ \ge +$	Sub fuel tank switch (Illumination) (Terminal No. 6)
•			Hazard switch (Illumination)
•			Sub fuel tank control unit (Terminal No. 4) (Except for TB45S engine models)
			Sub fuel tank control unit (Terminal No. 11)
•		$ \rightarrow $	Stabilizer switch (Illumination)
•		(M126)	Smart entrance control unit (With theft warning system)
•			Door lock and unlock switch (Terminal No. 3)
│			Door lock and unlock switch (Illumination) (Terminal No. 5)
│			Sub IMMU (Terminal No. 4) (TB45S engine models with NATS)
│		M137	Sub IMMU (Terminal No. 8) (TB45S engine models with NATS)
│		M137	Sub IMMU (Terminal No. 35) (TB45S engine models with NATS
•		M137	Sub IMMU (Terminal No. 48) (TB45S engine models with NATS)
	hind combination mate		1
G H Be	hind combination mete		

Next page

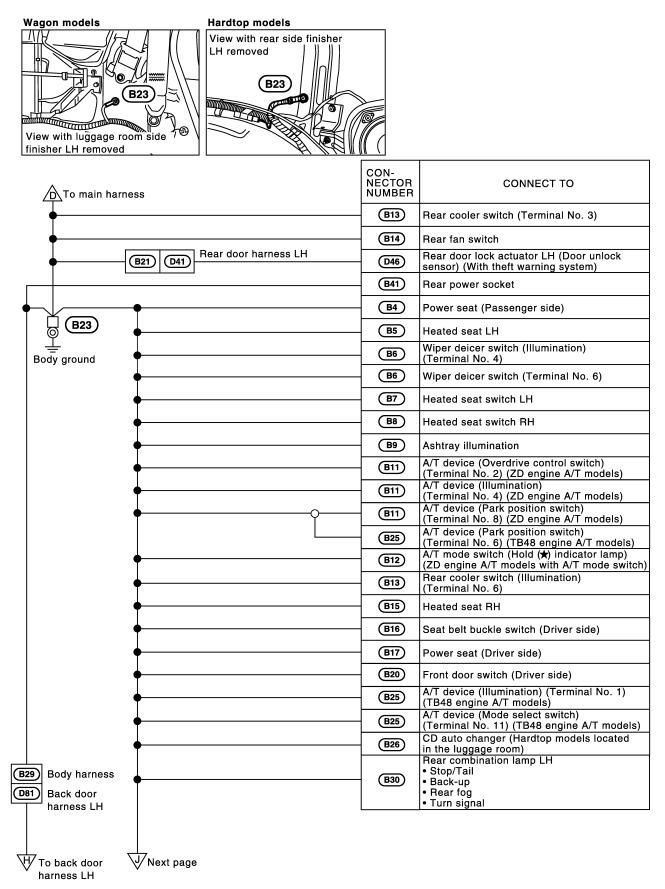


#### Main Harness/RHD Models (Cont'd)



[D))

#### **Body Harness/LHD Models**



### GROUND DISTRIBUTION/WAGON AND HARDTOP MODELS

### Body Harness/LHD Models (Cont'd)

Preceding page			MA
	CON- NECTOR NUMBER	CONNECT TO	EM
<b>•</b>	B32	Rear cooler solenoid valve	LC
<u>۹</u>	<b>B38</b>	Rear cooler unit (With rear cooler except for TB48 engine models)	
	<b>B56</b>	Rear cooler cut relay (TB48 engine models with rear cooler)	EC
•	B40	Cool box	
•	B42	Power socket relay	FE
•	B43	Rear cooler cut relay (Terminal No. 2) (TB45E engine models with rear cooler)	
•	<b>B43</b>	Rear cooler cut relay (Terminal No. 4) (TB45E engine models with rear cooler)	GL
•	<b>B57</b>	Snow mode switch (Snow indicator lamp) (TB48 engine A/T models with snow mode switch)	-
B37 C2 Chassis harness	- C7	Diff. lock indicator switch	MT
• • • • • • • • • • • • • • • • • • •	(6)	Sub fuel tank gauge unit (Terminal No. 5)	UVU U
•	C10	Rear bumper combination lamp LH • Stop/Tail • Turn signal	AT
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	C11	Fuel tank gauge unit (Fuel pump) (Terminal No. 6) (Gasoline engine models)	
	C12	Rear bumper combination lamp RH • Stop/Tail • Turn signal	TF
B37 C2 Chassis harness	<b>C8</b>	Sub fuel tank gauge unit (Terminal No. 3)	
B35 C1 Chassis harness	C11	Fuel tank gauge unit (Terminal No. 2)	PD

FA

RA

BR

ST

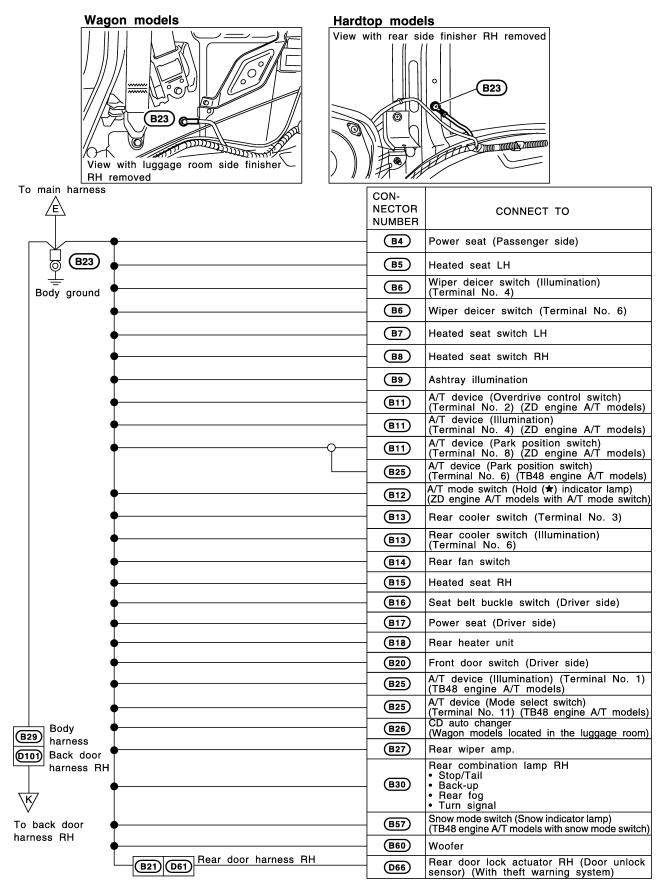
RS

BT

HA

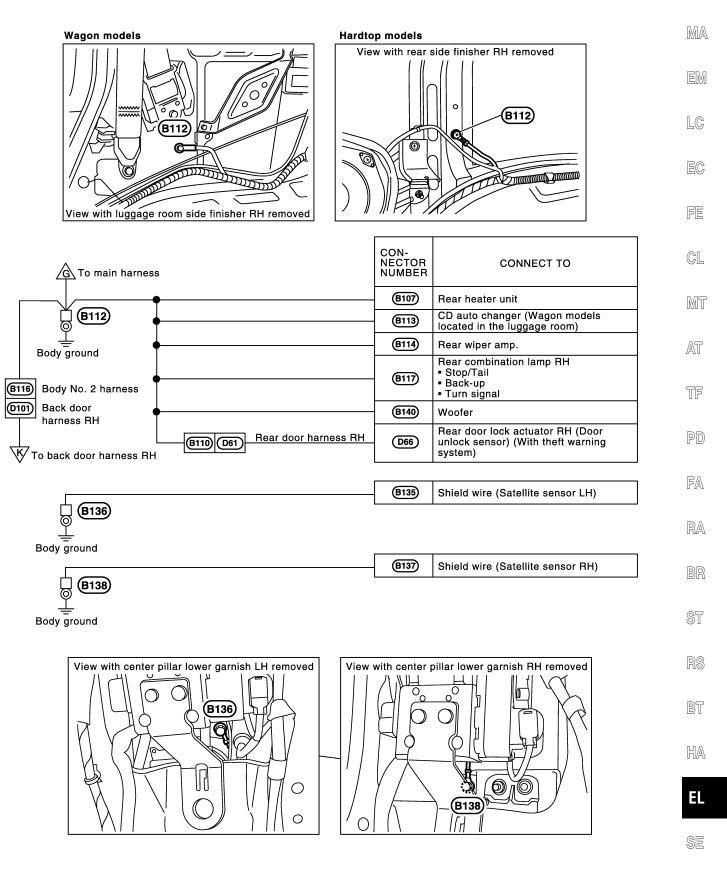
EL

SE



#### **Body Harness/RHD Models**

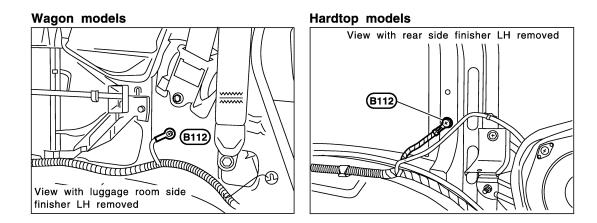
#### Body No. 2 Harness/LHD Models

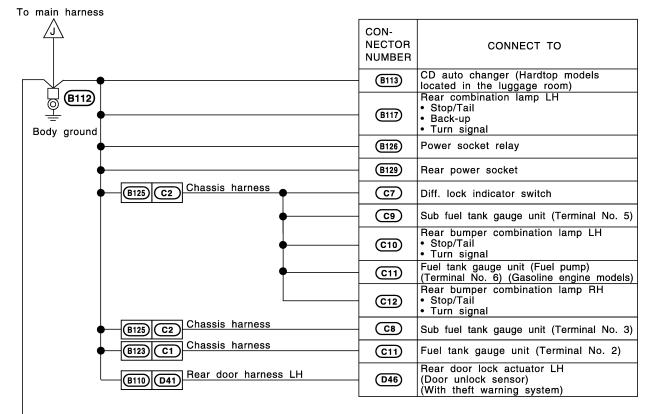


 $\mathbb{D}$ 

GI

#### Body No. 2 Harness/RHD Models

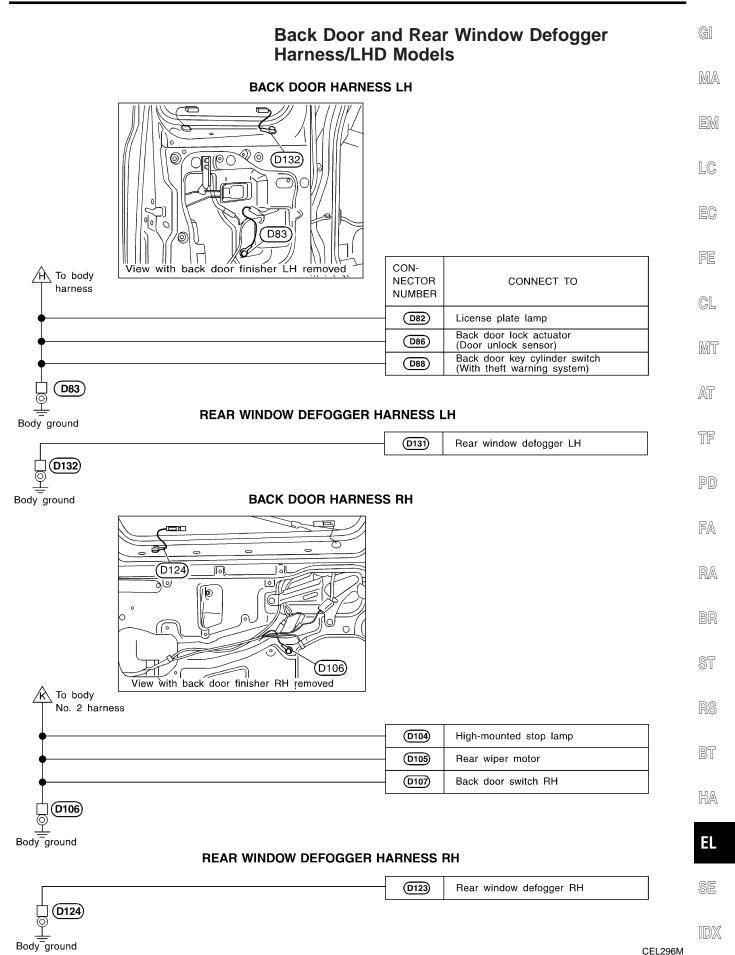




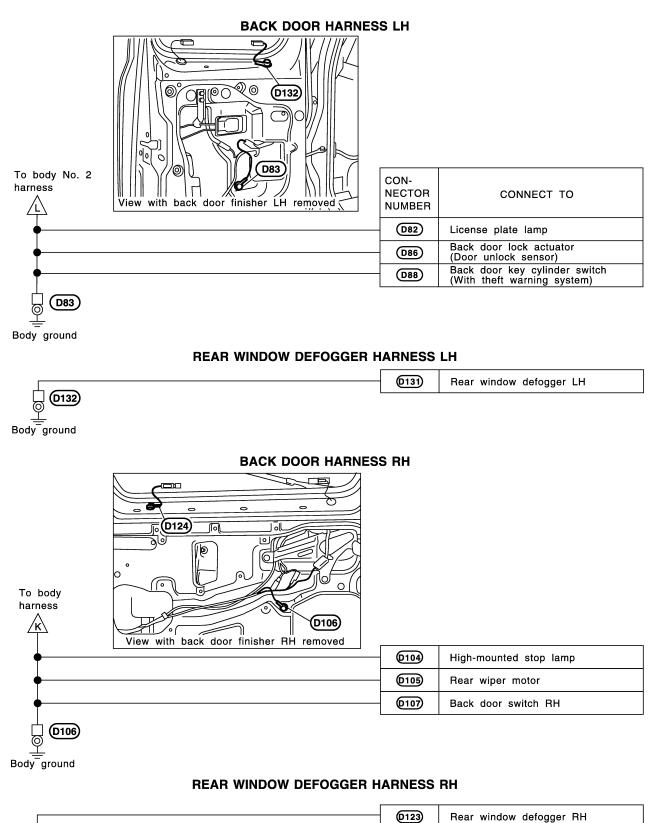
(B116) Body No. 2 harness

(D81) Back door harness LH

To back door harness LH



# Back Door and Rear Window Defogger Harness/RHD Models



(D124)

### Engine Room Harness

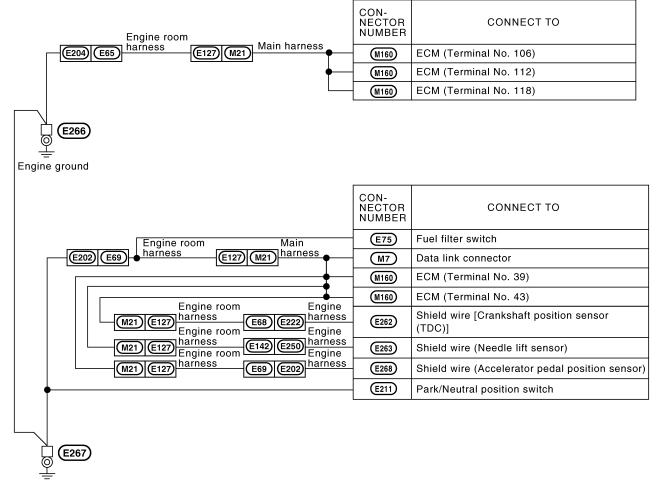
GI

CEL491M

E25 Body ground			MA EM LC
	CON- NECTOR NUMBER	CONNECT TO	
	E36	Cooling fan motor-1 (Terminal No. 2)	EC
↓	E36	Cooling fan motor-1 (Terminal No. 4)	
•	E7	Bulb check relay	FE
•	E19	Power antenna	
•	E20	Side turn signal lamp LH	GL
•	E24)	Front combination lamp LH • Parking • Turn signal	
•	E30	Headlamp LH	MT
•	E45	Headlamp RH	
•	E49	Front combination lamp RH • Parking • Turn signal	AT
•	E55	Side turn signal lamp RH	TF
•	E58	Front wiper motor	
•	E76	Brake fluid level switch	
•	E96	IACV-FICD solenoid valve	PD
•	E120	Combination switch (Front wiper switch)	
Engine harness	E212	4WD switch	FA
	E213	Transfer neutral switch	555
E40 Body ground			RA BR
			ST
	CON- NECTOR NUMBER	CONNECT TO	RS
E66 E203 Engine harness	E215	Alternator	BT
E65 E204 Engine harness			
E54			HA
Body ground			EL
Fuse and fusible link box			SE
			IDX

#### **Engine Harness**

#### TD42Ti ENGINE



Engine ground

#### CON-NECTOR NUMBER MA CONNECT TO Chassis harness (M152) C2 Sub fuel tank gauge unit **C18** EM Chassis harness (M151) ( C1 Sub fuel tank gauge unit (C9) Rear combination lamp LH Driver side view with dash (M18) Stop/Tail (C14) 0 LC side lower finisher removed Back-up • Turn signal V 2 M18), (M19) Rear combination lamp RH Body ground Stop/Tail (C15) EC Back-up Turn signal (C17) License plate lamp FE M19 0 CON-NECTOR CONNECT TO NUMBER Body ground CL Chassis harness M151 C1 (C11) Fuel tank gauge unit (Terminal No. 2) Fuse block (J/B) (Terminal No. 3A) Accessory relay (мз) Ignition relay MT Blower motor relay Combination meter (Terminal No. 5) · Unified meter control unit (M32) AT • Water temp. gauge • Fuel gauge Sub fuel gauge Combination meter (Terminal No. 13) TF (M33) • Turn signal indicator Clock Combination meter (Terminal No. 20) (M33) High beam indicator PD Combination meter (Terminal No. 24) Meter illumination (M33) Odo/Trip meter illumination Clock illumination FA (M37) Combination flasher unit Smart entrance control unit (M41) (M42) Cigarette lighter RA (M48) Sub fuel tank switch (Terminal No. 2) Sub fuel tank switch (Terminal No. 6) (M48) BR (M49) Hazard switch (M60) Power antenna switch Sub fuel tank control unit (Terminal No. 4) (M69) (M69) Sub fuel tank control unit (Terminal No. 11) (M73) Fan switch illumination (M74) Recirculation switch (M91) Power window relay Ashtray illumination (M133) Front door harness (driver side) (M22) (D1) (D5) Power window main switch Front door harness (driver side) Front door lock switch (driver side) (M22) [D1] HA Fan switch (M71) View with glove box assembly removed ' M98 E Q



SE

GI

1DX

EL-45

¢

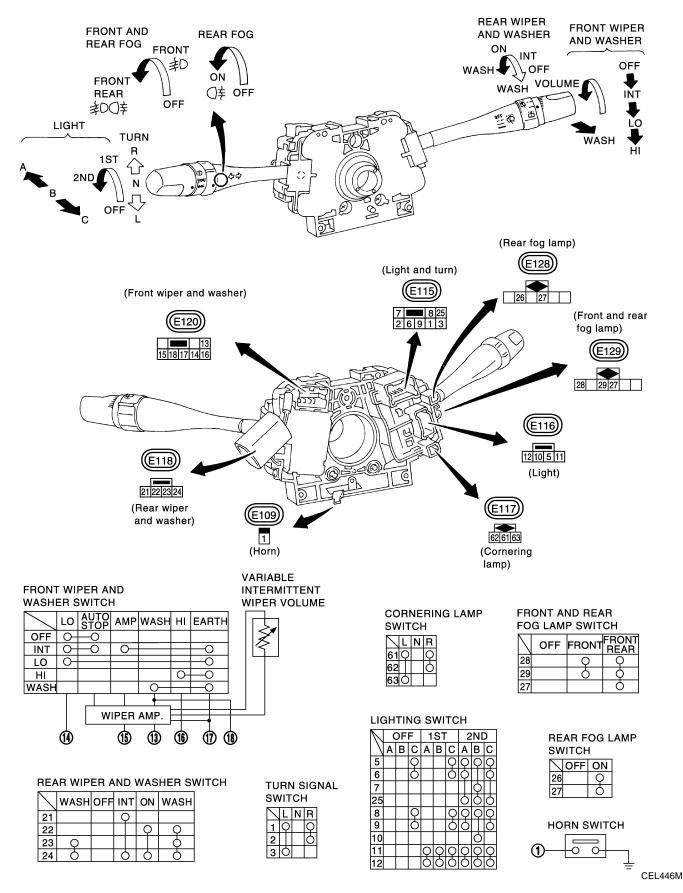
M98

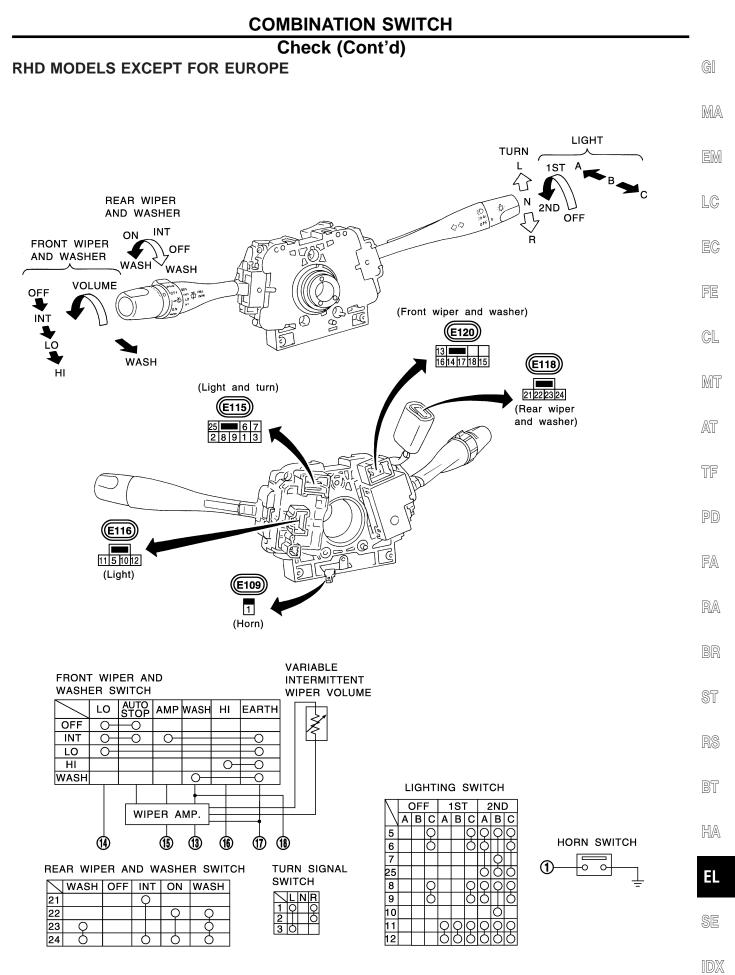
Blower motor

Body ground



#### RHD MODELS FOR EUROPE AND LHD MODELS

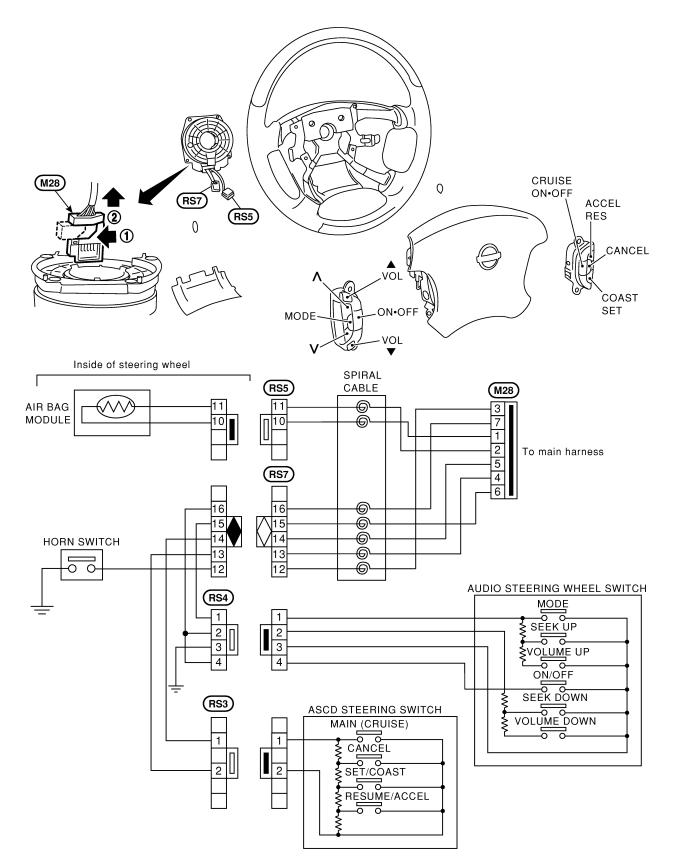




CEL447M

Check

#### WITH ASCD AND AUDIO SWITCH



#### Service Data and Specifications (SDS) EXCEPT FOR AUSTRALIA

					- MA
			ZD30DDTi		- 0000-
Applied model	TB48DE	Except for N	lorth Europe	For North	- EM
		Standard	Option	Europe	GIV
Туре	115[	D31L	110D2	26L x 2	-
Capacity V-AH	12	-70	12-128 (	(64 + 64)	LC
					-

#### FOR AUSTRALIA

Applied model	Wagon and Hardtop model			Pickup model	
Applied model	TB48DE	ZD30DDTi	TD4	42Ti	FE
Туре	110D26L	115D31L	95D	31L	
Capacity V-AH	12-64	12-70	12	-64	CL

MT

EC

GI

AT

TF

PD

FA

RA

BR

ST

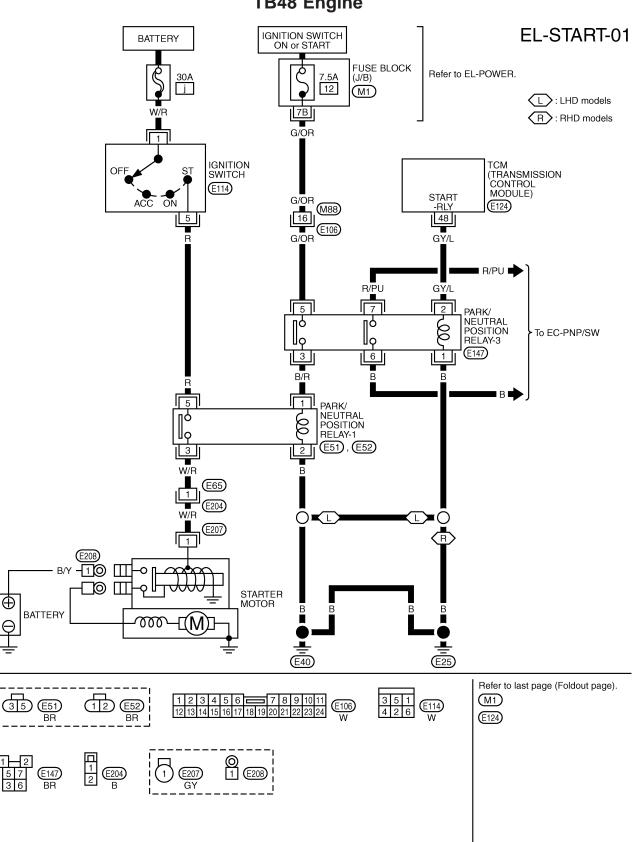
RS

BT

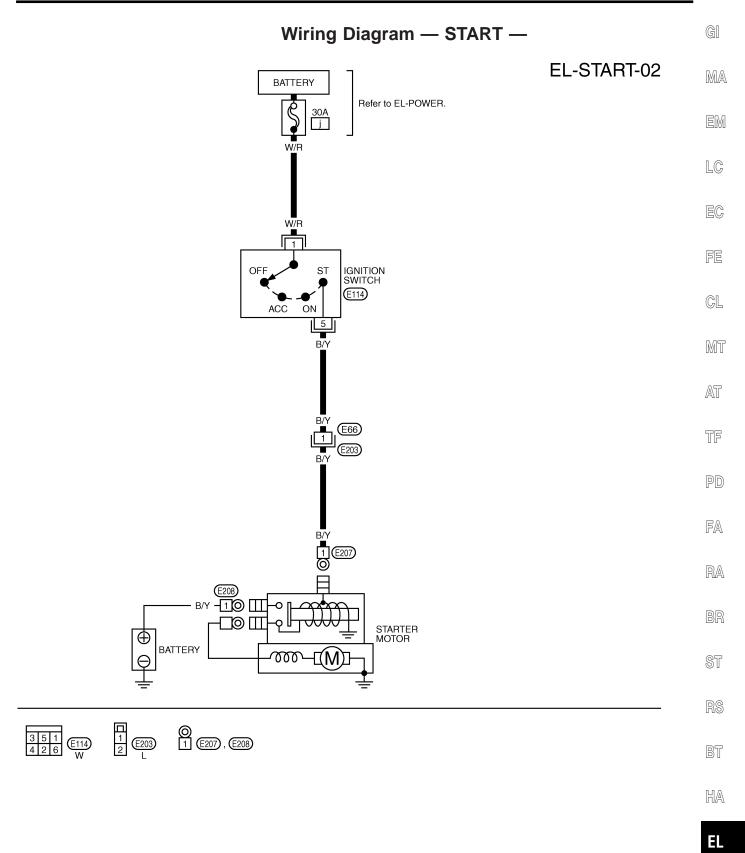
HA

EL

SE



# Wiring Diagram — START —/A/T Models with TB48 Engine

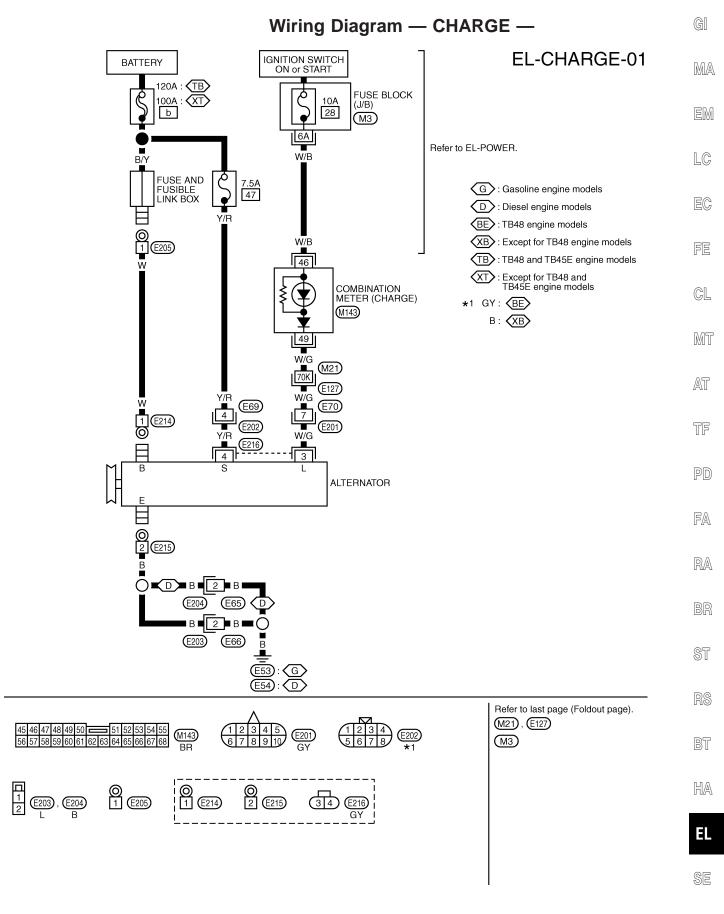


SE

Service Data and	<b>Specifications</b>	(SDS)
STARTER		

-				
	S114-878A	S13-118A	S13-551A	S14-607
Туре		HITACH	II make	
		Reduction	gear type	
Applied model		TD42Ti	ZD30	DDTi
Applied model	TB48DE	104211	Standard	Option
System voltage V		1	2	
No-load				
Terminal voltage V		1	1	
Current A	Less than 90		Less than 160	)
Revolution rpm	2,300	3,3	800	3,400
Minimum diameter of commutator mm (in)	28 (1.102)		35.5 (1.398)	
Minimum length of brush mm (in)	10.5 (	0.413)	11 (0.43)	10.5 (0.413)
Brush spring tension N (kg, lb)	16.2 (1.65, 3.64)	24.5 - 34.3 (2.5 - 3.5, 5.5 - 7.7)	28.4 - 34.3 (2.9 - 3.5, 6.4 - 7.7)	24.5 - 34.3 (2.5 - 3.5, 5.5 - 7.7)
Clearance between bearing metal and armature shaft mm (in)	Less than 0.2 (0.008)	—	_	—
Clearance " <i>t</i> " between pinion front edge and pinion stopper mm (in)	0.3 - 2.5 (0.012 - 0.098)	_	_	_
Movement " <i>ℓ</i> " in height of pinion assembly mm (in)	_	0.3 - 1.5 (0.012 - 0.059)		- 2.0 - 0.079)

#### CHARGING SYSTEM/WAGON AND HARDTOP MODELS

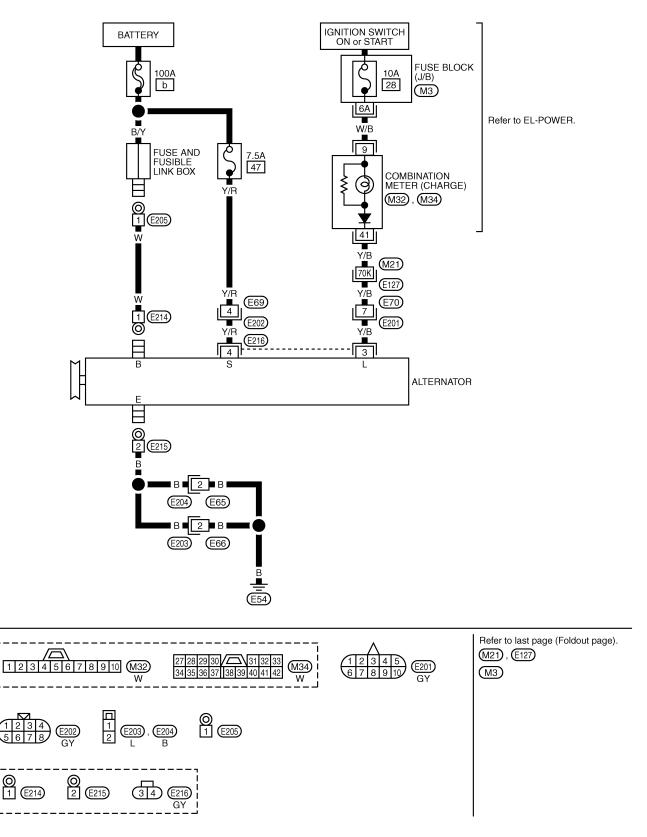


IDX

TEL653M

#### Wiring Diagram — CHARGE —

#### **EL-CHARGE-02**



## Service Data and Specifications (SDS)

#### ALTERNATOR

Time	LR1110-718	LR1100- 705F	A3TA2699C	LR190-752	
Туре	HITACHI		MITSUB- ISHI	HITACHI	
Applied model	TB48DE	TD	42Ti ZD30DDTi		
Nominal rating V-A	12-110	12-100	12-70	12-90	
Ground polarity		Neg	ative		
Minimum revolution under no- load (When 13.5V is applied) rpm	Less than 950	Less than 1,000	Less than 1,300	Less than 1,000	
Hot output current (When 13.5V is applied) A/rpm	More than 35/1,300 More than 85/2,500 More than 110/5,000	More than 34/1,300 More than 80/2,500 More than 91/5,000	More than 29/1,300 More than 65/2,500	More than 23/1,300 More than 65/2,500 More than 87/5,000	
Regulated output voltage V		14.1	- 14.7		
Minimum length of brush mm (in)	6.0 (0	6.0 (0.236)		6.0 (0.236)	
Brush spring pressure N (g, oz)	1.0 - 3.43 (102 - 350, 3.60 - 12.34)		4.6 - 5.8 (470 - 590, 16.58 - 20.81)	1.0 - 3.43 (102 - 350, 3.60 - 12.34)	
Slip ring minimum outer diameter mm (in)	26.0 (1.024)		22.1 (0.870)	26.0 (1.024)	
Rotor (Field coil) resistance Ω	2.31	2.31	2.1 - 2.5	2.67	

FA

GI

RA

BR

ا ت ر

ST

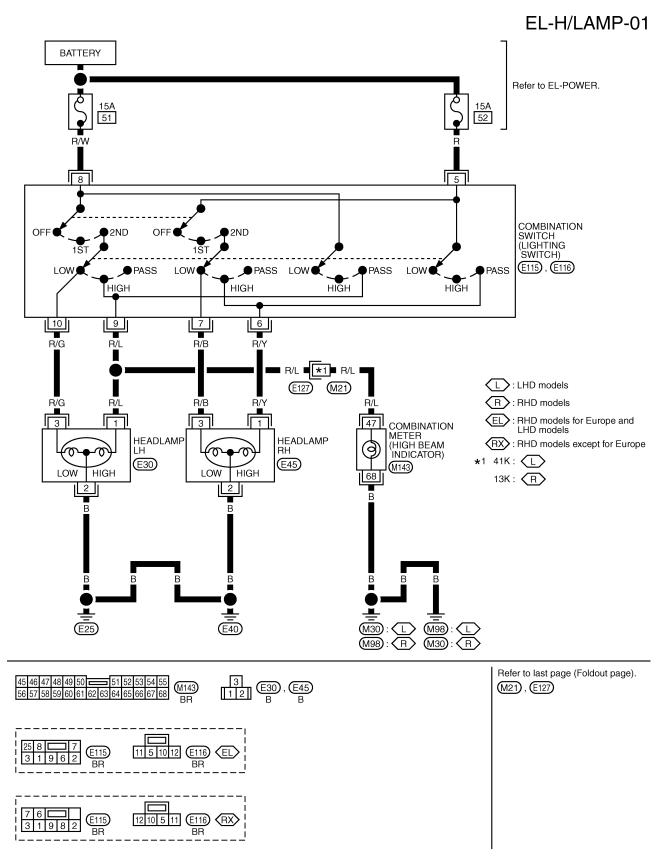
RS

BT

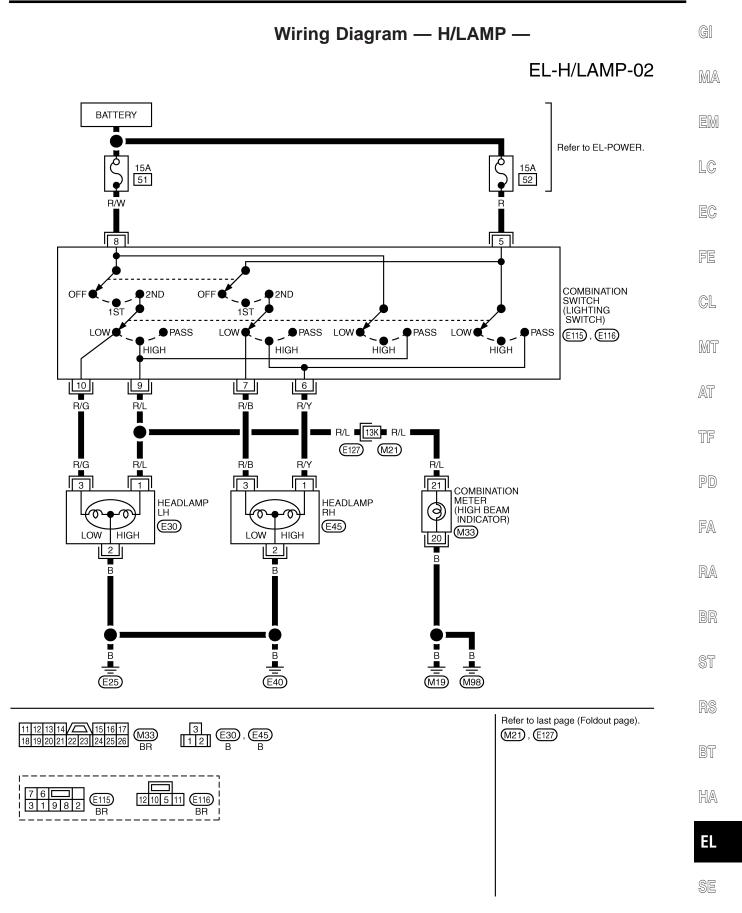
HA

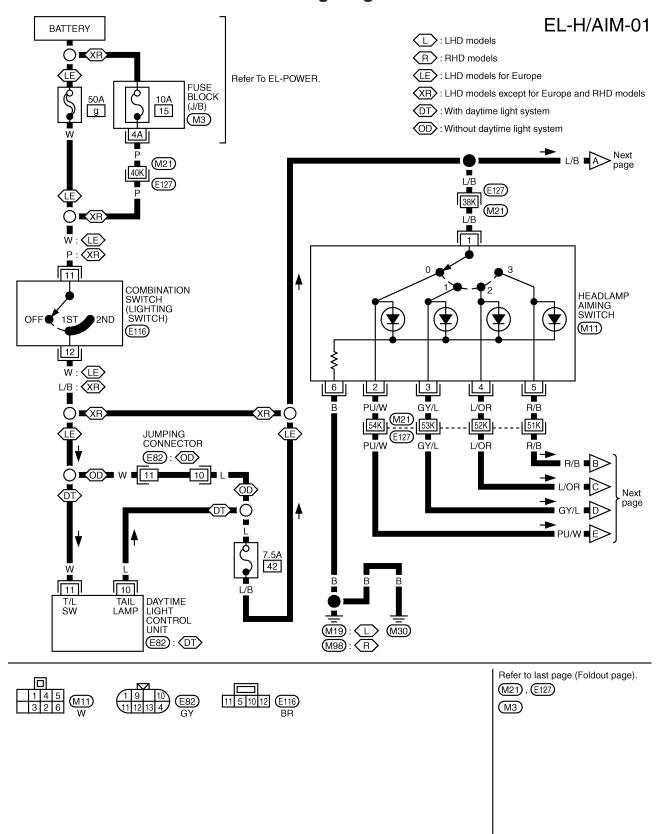
EL

SE

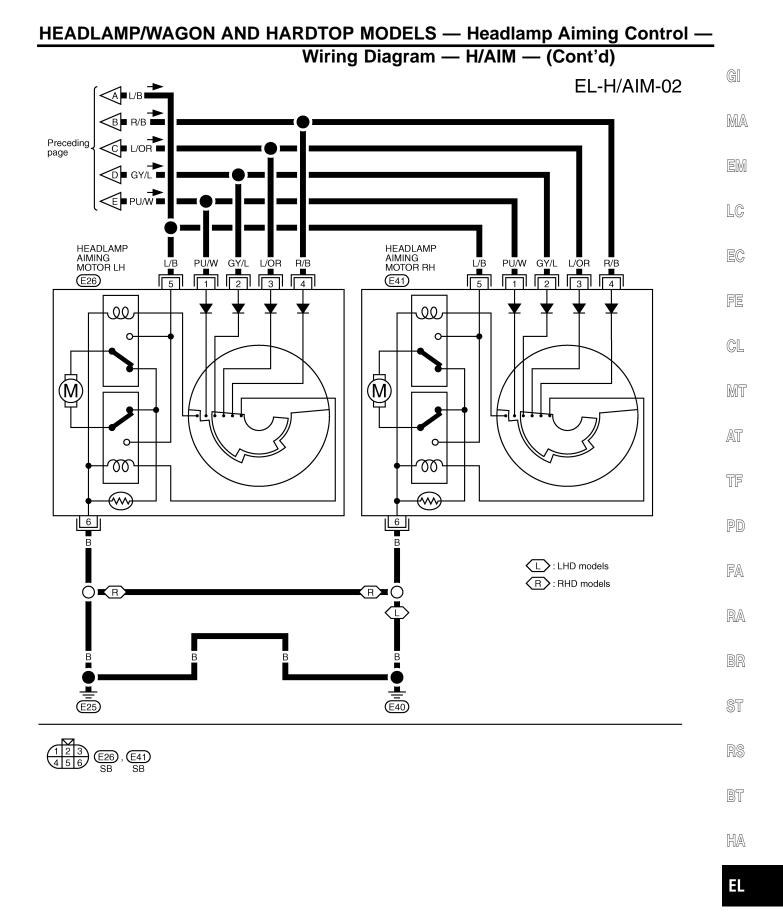


Wiring Diagram — H/LAMP —



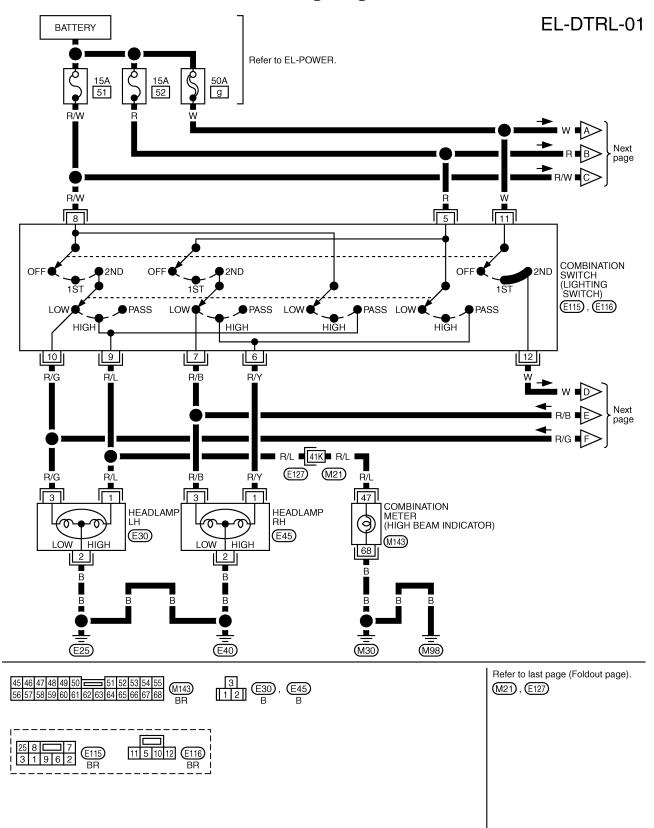


Wiring Diagram — H/AIM —

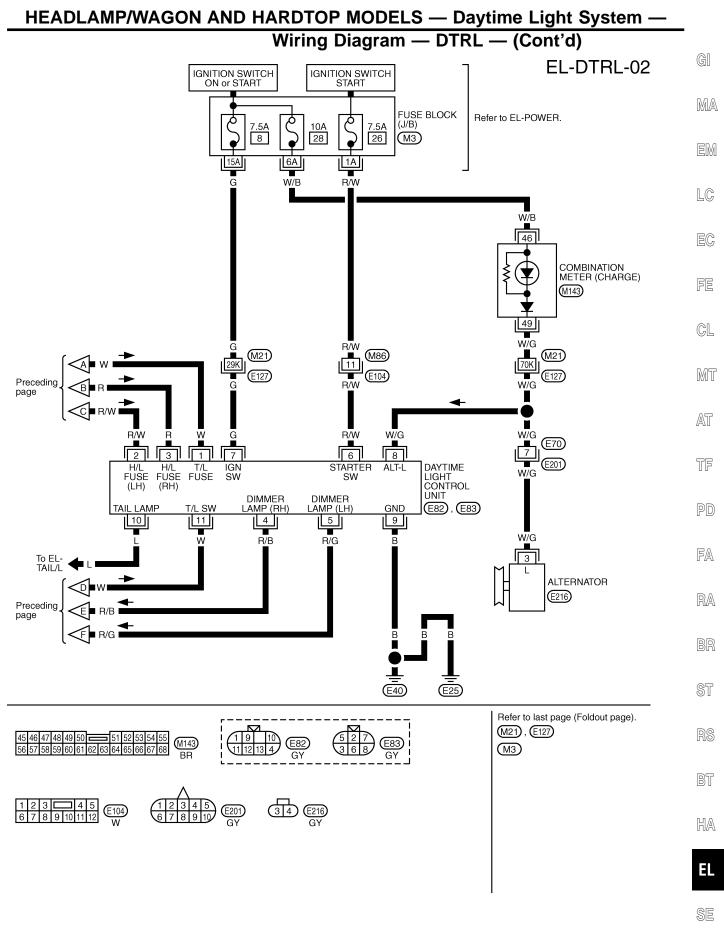


SE

96



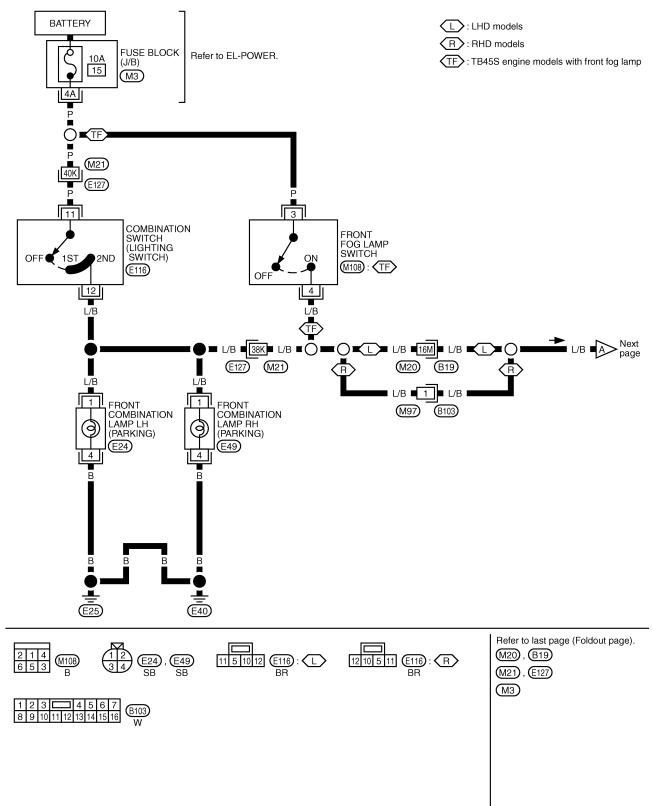
Wiring Diagram — DTRL —

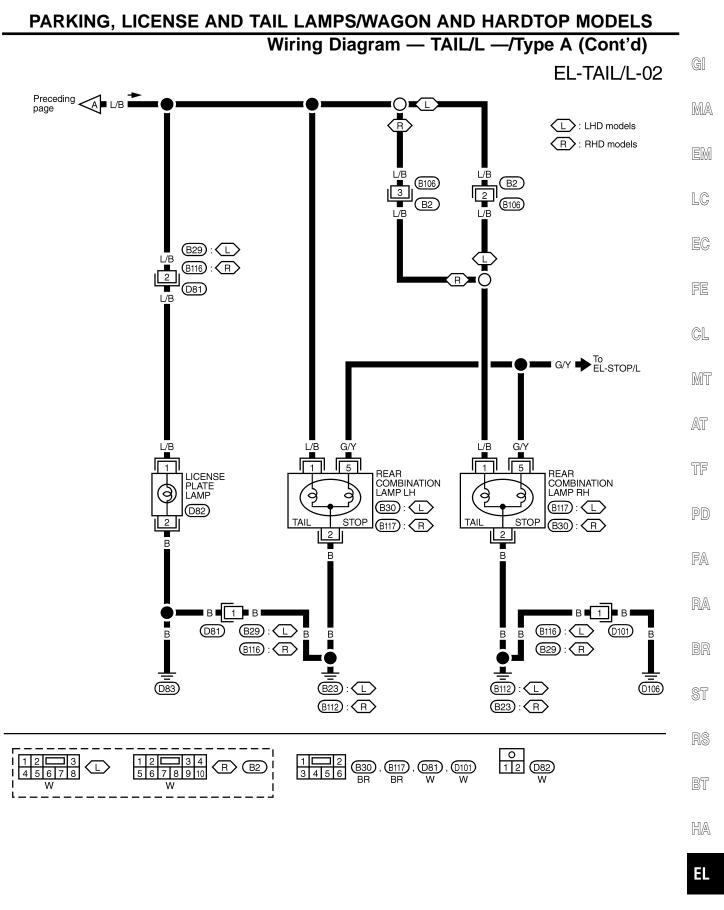


#### Wiring Diagram — TAIL/L —/Type A

Rear combination lamps are not located on rear bumper.

#### EL-TAIL/L-01

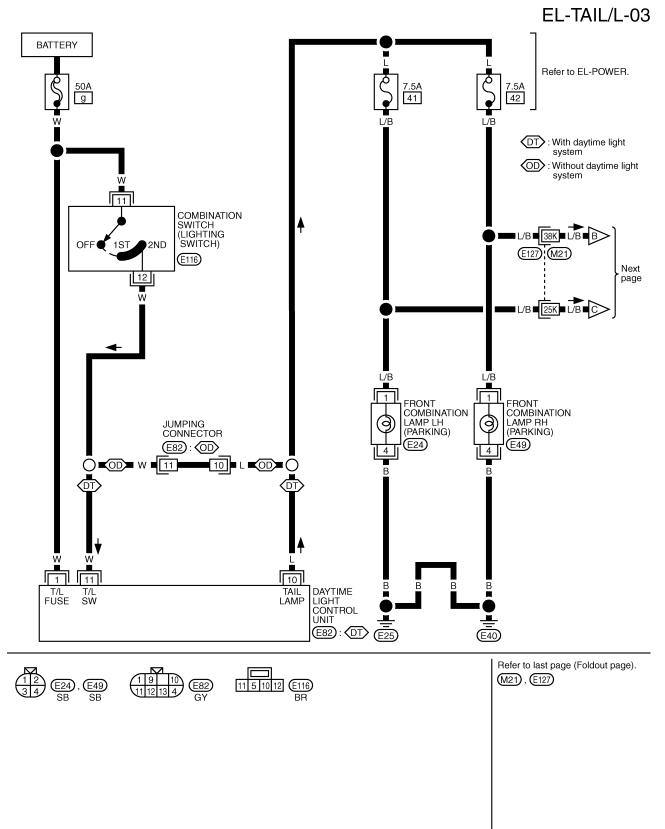


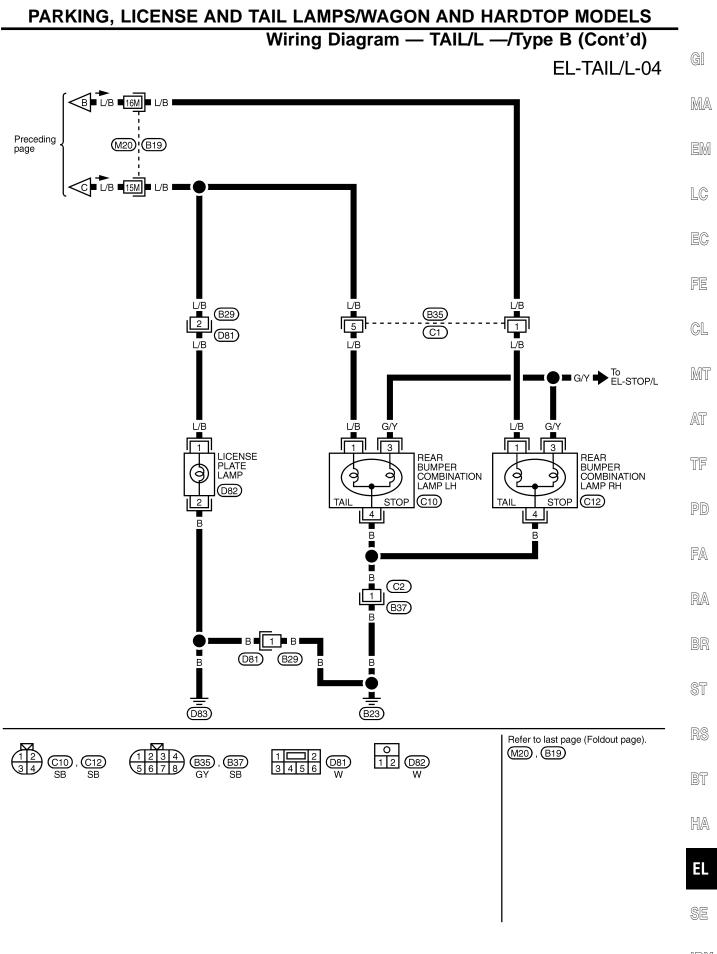


SE

#### Wiring Diagram — TAIL/L —/Type B

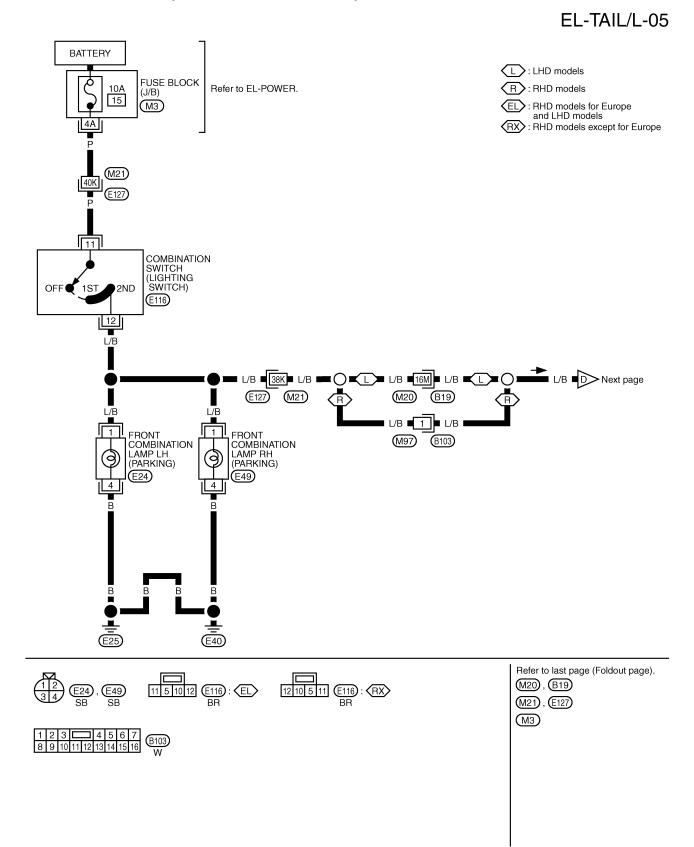
LHD MODELS FOR EUROPE Rear combination lamps are located on rear bumper.

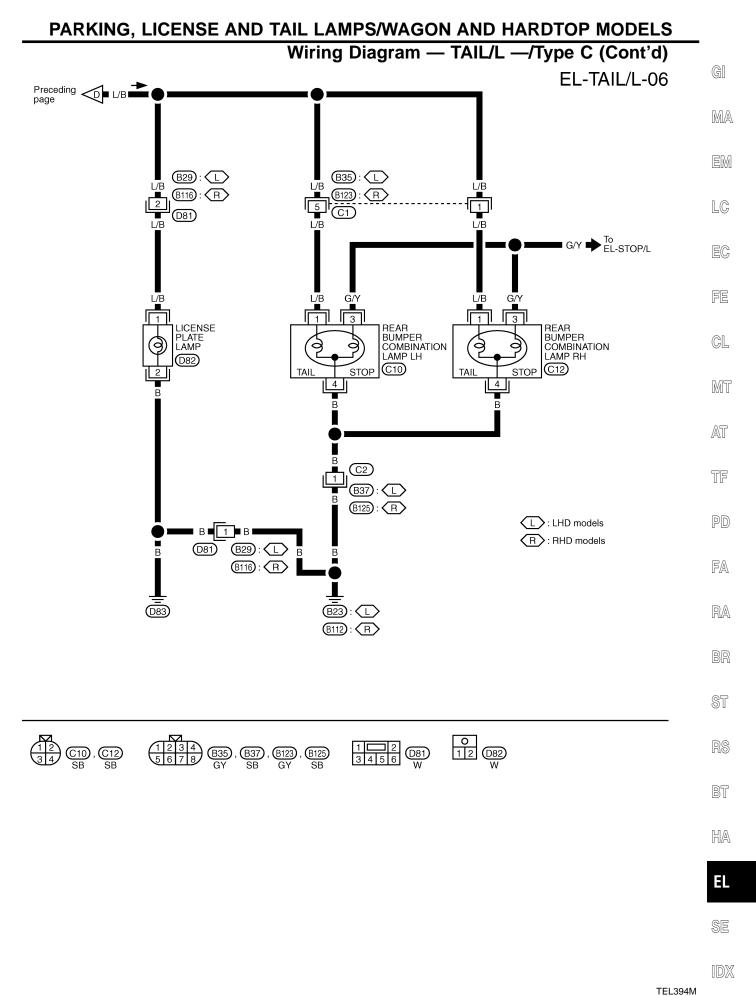




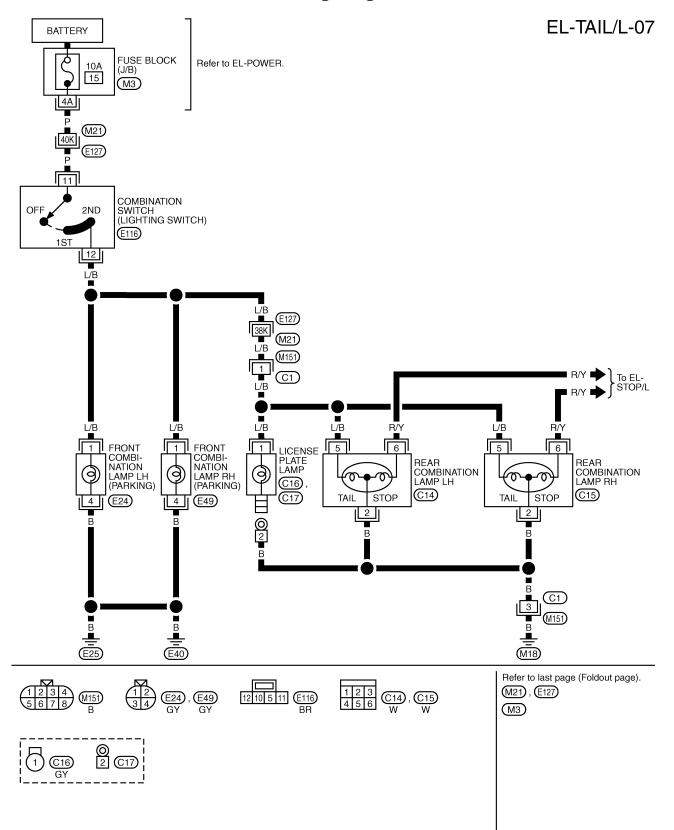
#### Wiring Diagram — TAIL/L —/Type C

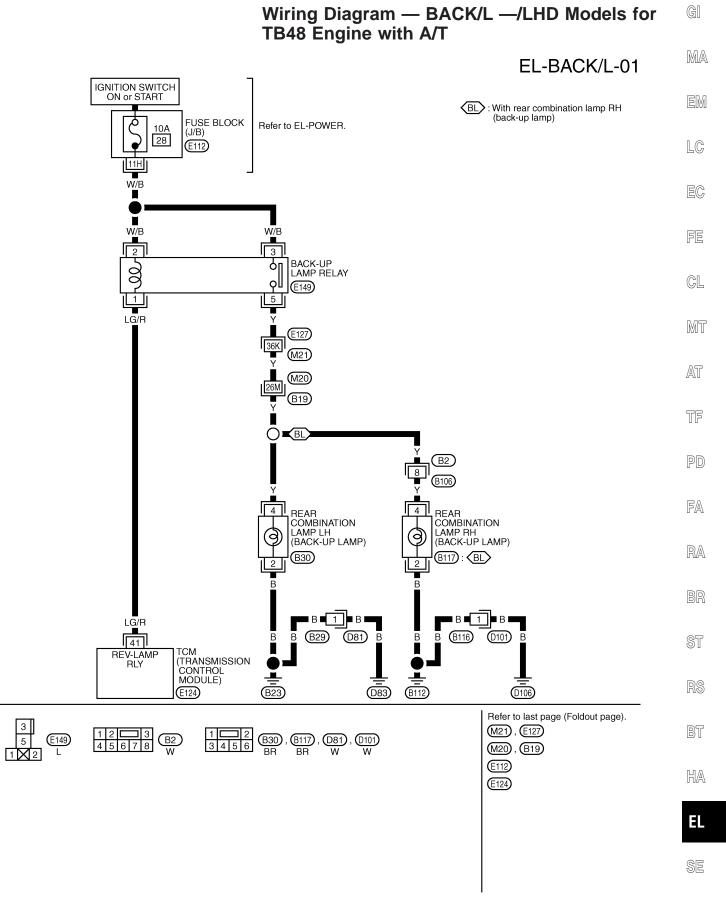
## RHD MODELS FOR EUROPE, CHINA, AUSTRALIA AND SOUTH AFRICA Rear combination lamps are located on rear bumper.

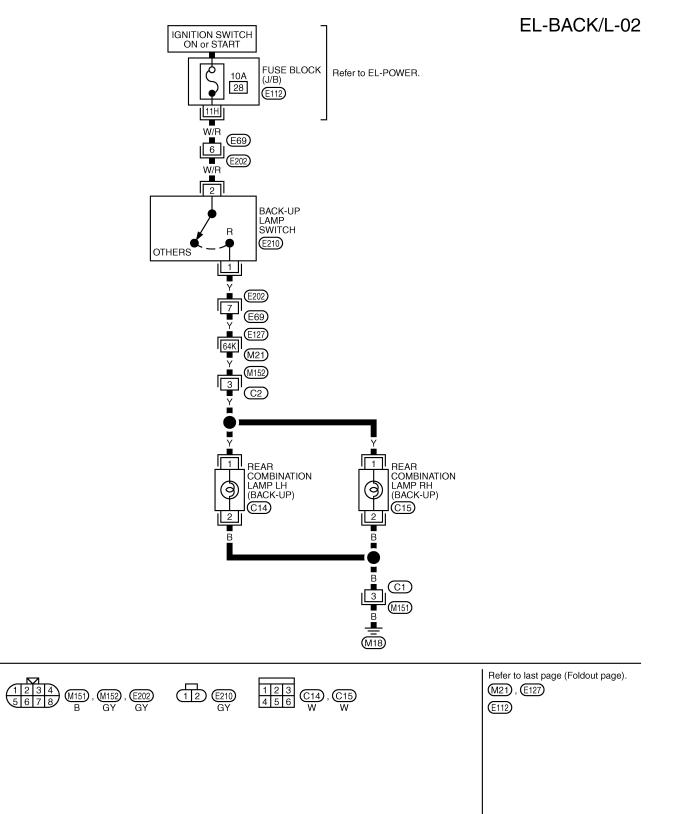




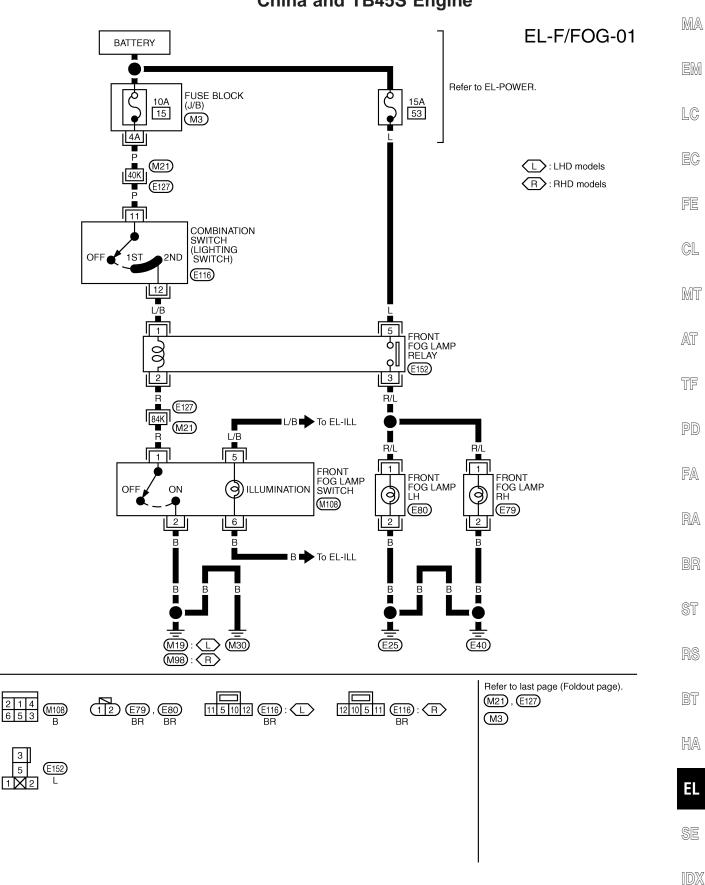
Wiring Diagram — TAIL/L —





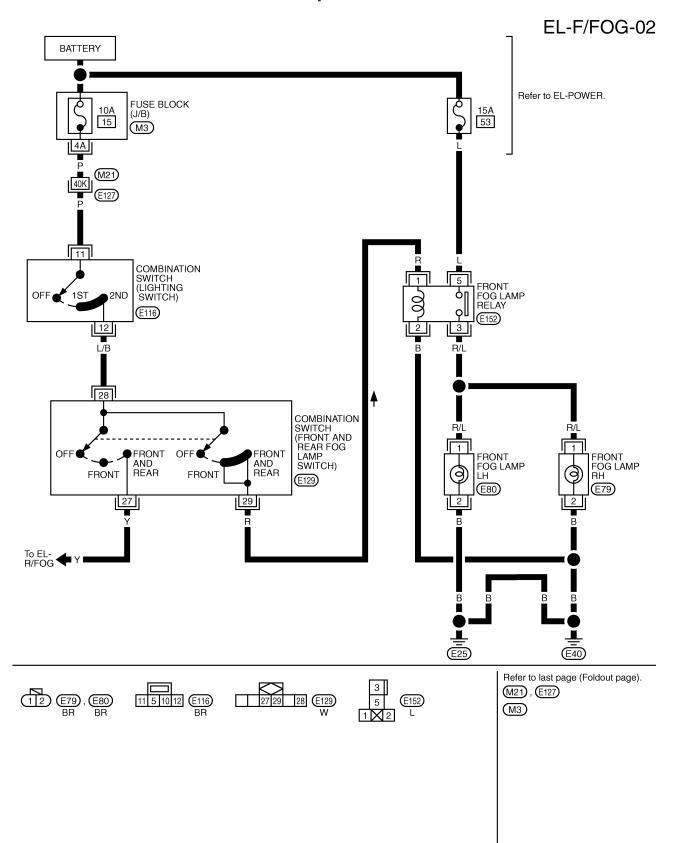


#### Wiring Diagram — BACK/L —

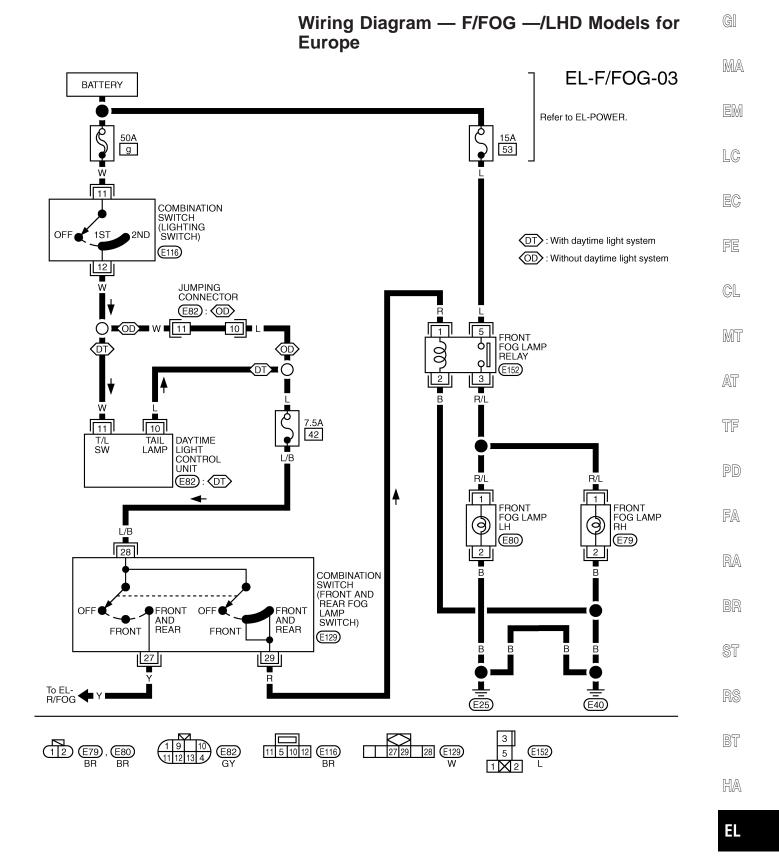


# Wiring Diagram — F/FOG —/Except for Europe, Gl China and TB45S Engine

TEL754M

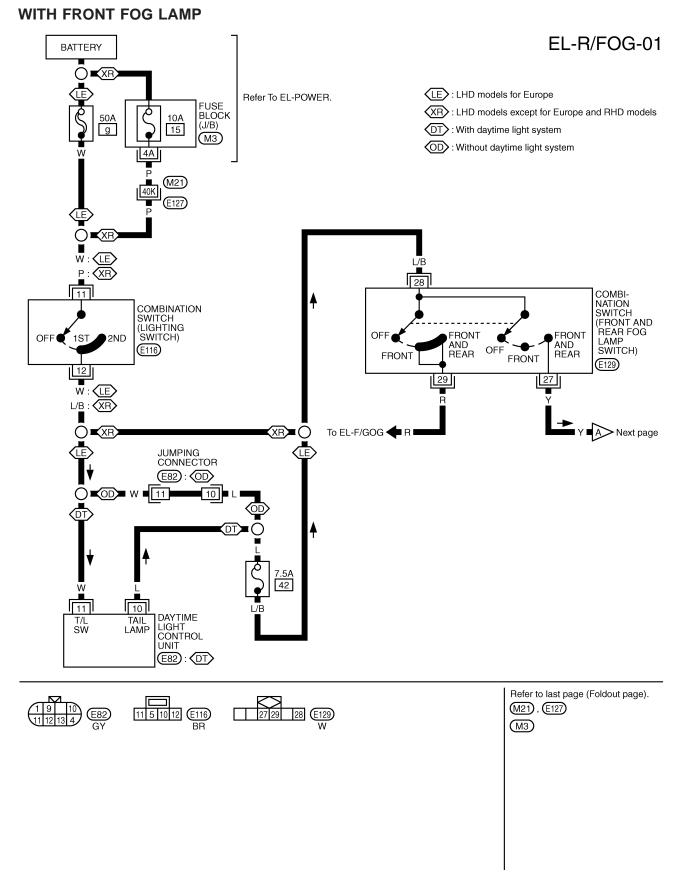


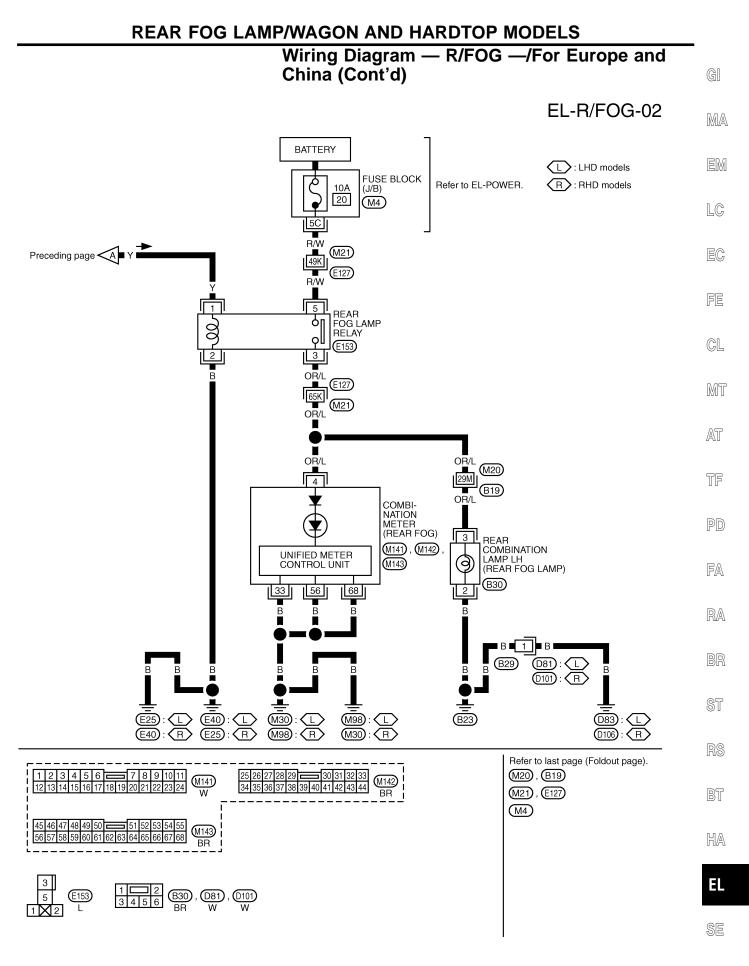
Wiring Diagram — F/FOG —/RHD Models for Europe and China



SE

Wiring Diagram — R/FOG —/For Europe and China

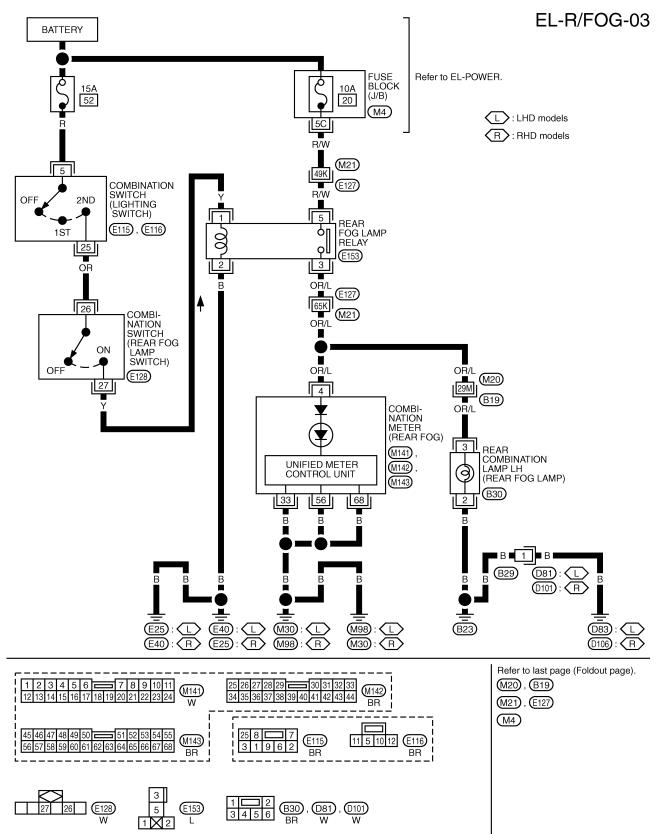




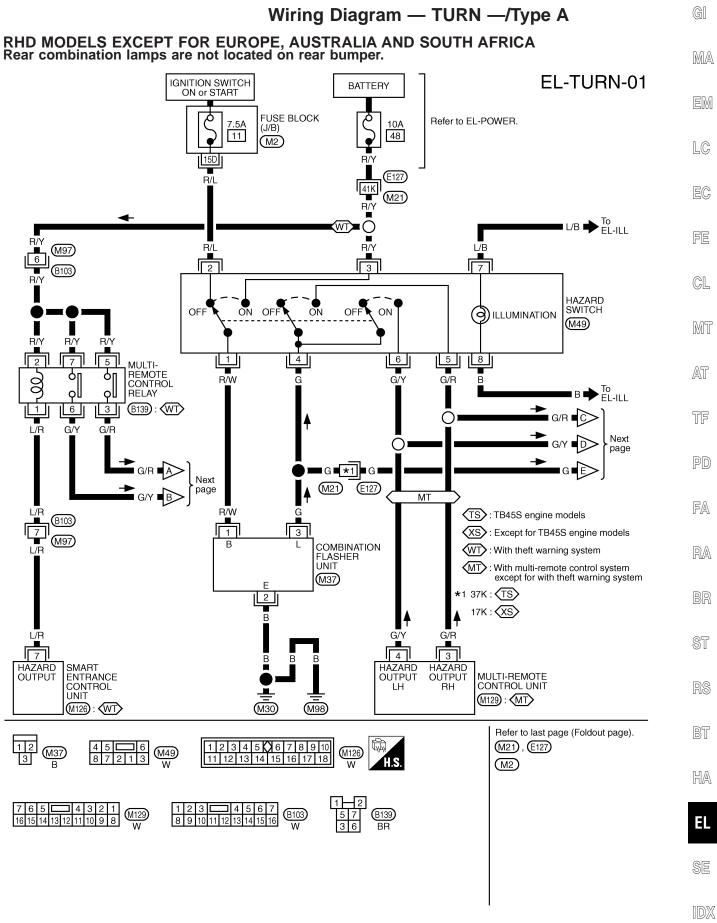
#### **REAR FOG LAMP/WAGON AND HARDTOP MODELS**

Wiring Diagram — R/FOG —/For Europe and China (Cont'd)

WITHOUT FRONT FOG LAMP

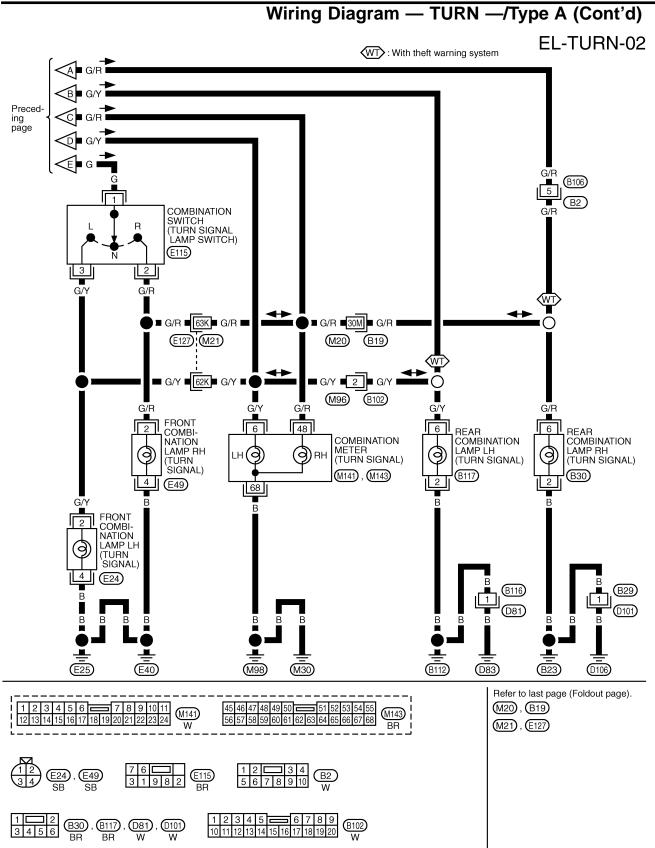


### TURN SIGNAL AND HAZARD WARNING LAMPS/WAGON AND HARDTOP MODELS

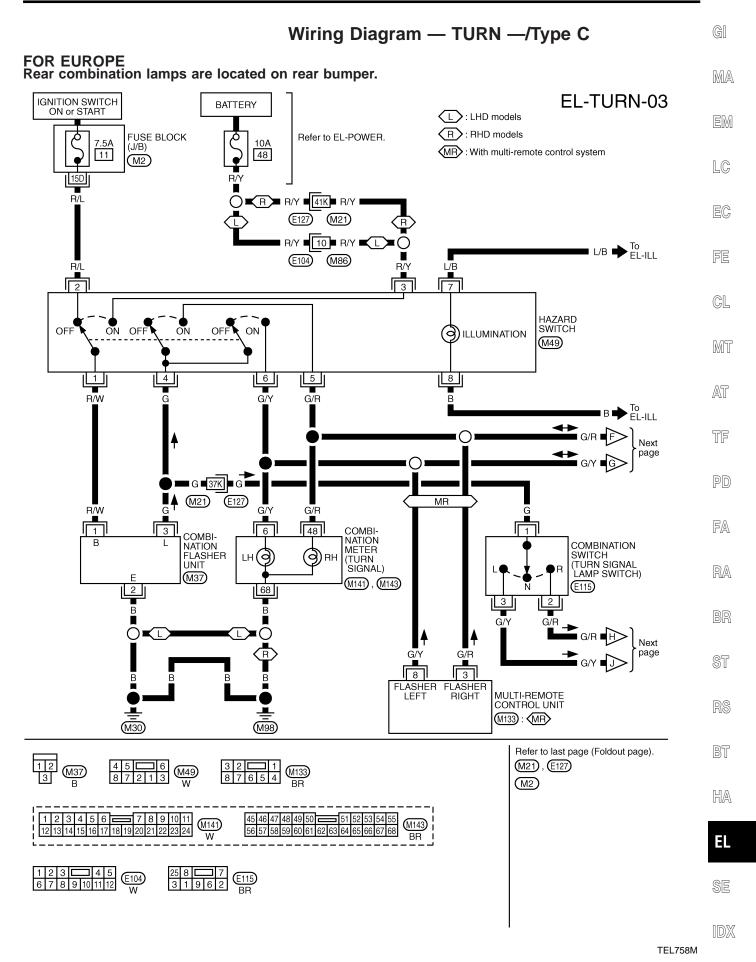


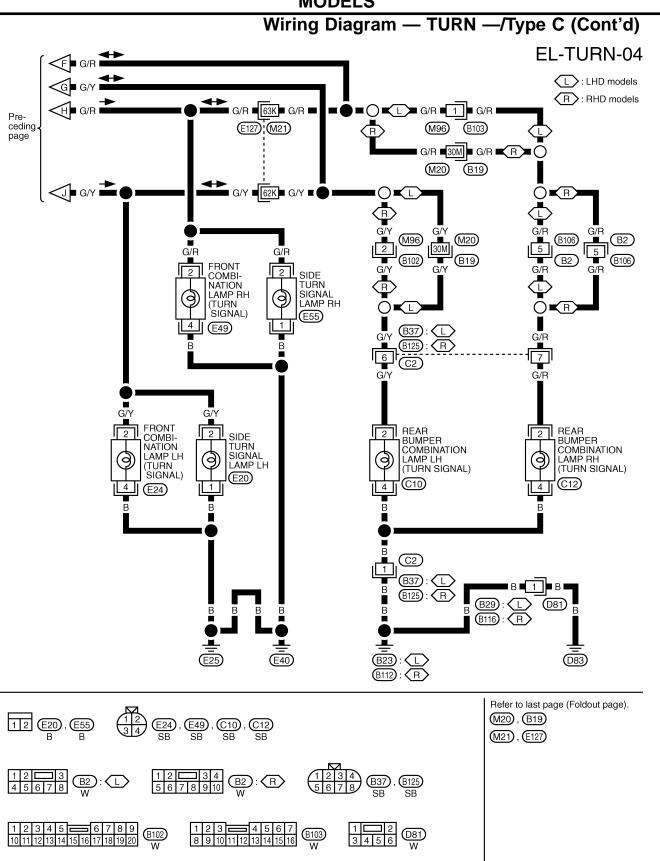
TEL817M

# TURN SIGNAL AND HAZARD WARNING LAMPS/WAGON AND HARDTOP



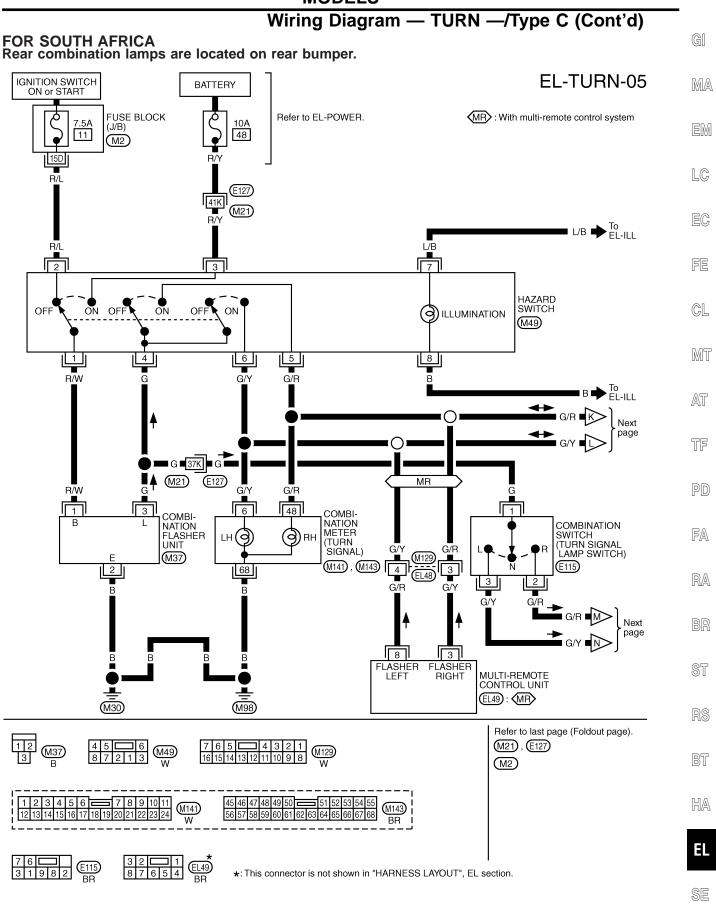
### TURN SIGNAL AND HAZARD WARNING LAMPS/WAGON AND HARDTOP MODELS



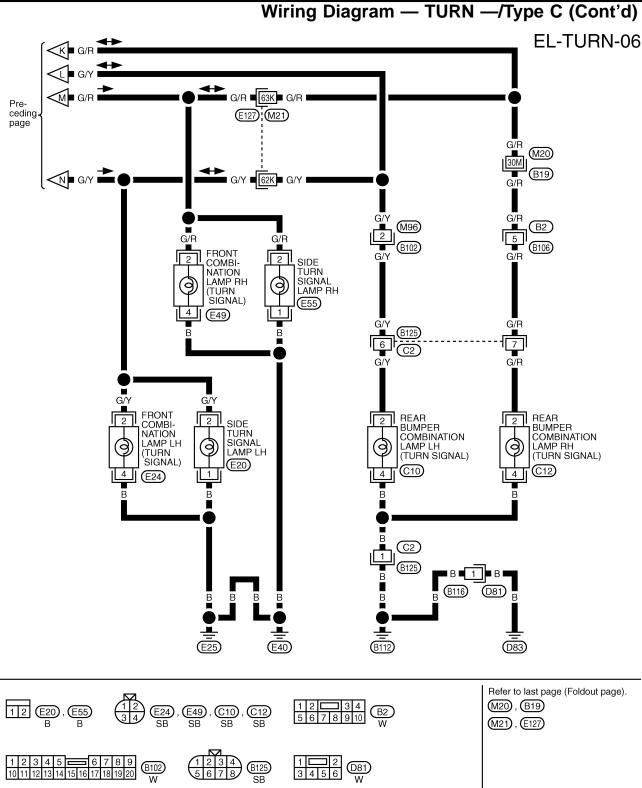


TURN SIGNAL AND HAZARD WARNING LAMPS/WAGON AND HARDTOP MODELS

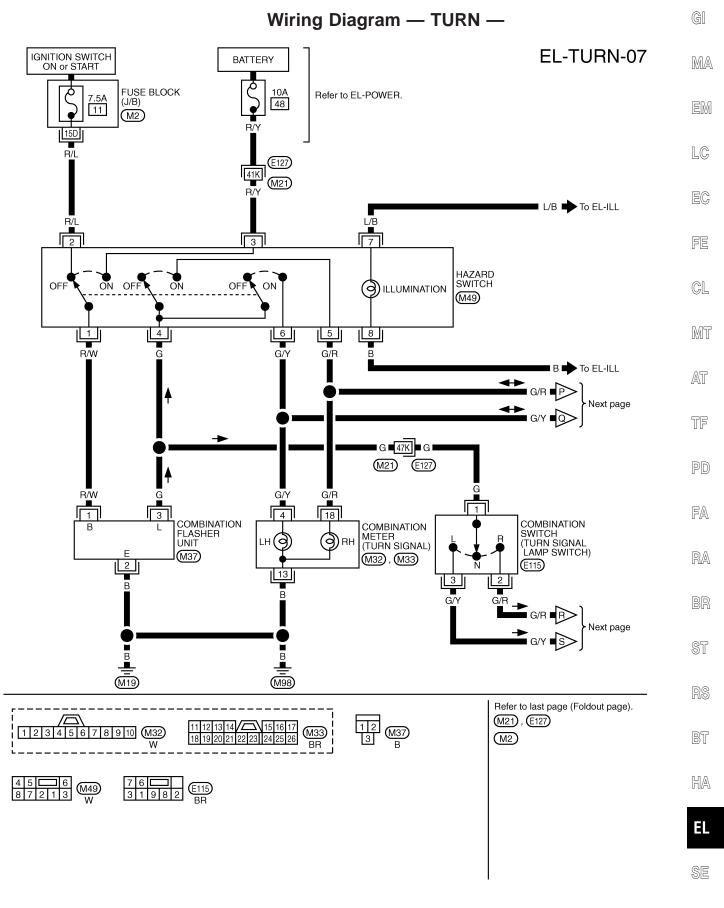
## TURN SIGNAL AND HAZARD WARNING LAMPS/WAGON AND HARDTOP MODELS



TURN SIGNAL AND HAZARD WARNING LAMPS/WAGON AND HARDTOP MODELS



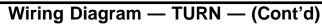
## TURN SIGNAL AND HAZARD WARNING LAMPS/PICKUP MODELS



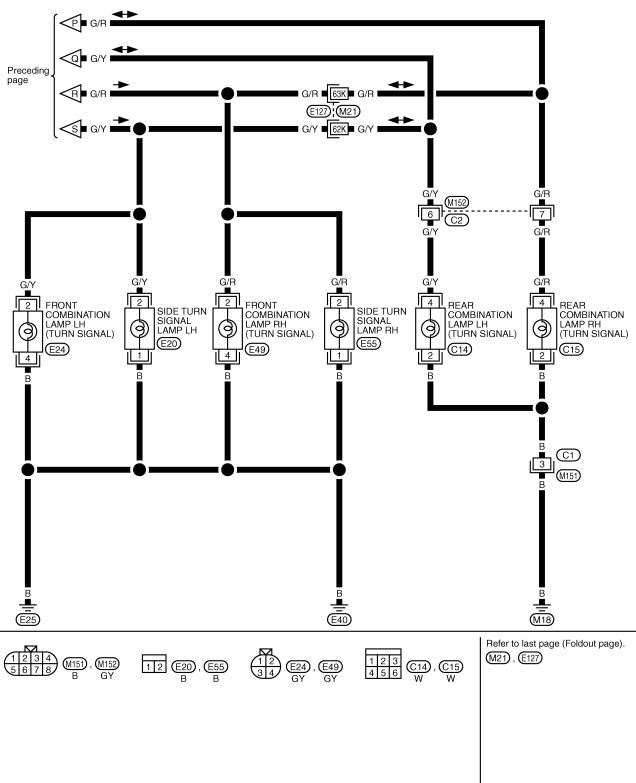
IDX

TEL859M

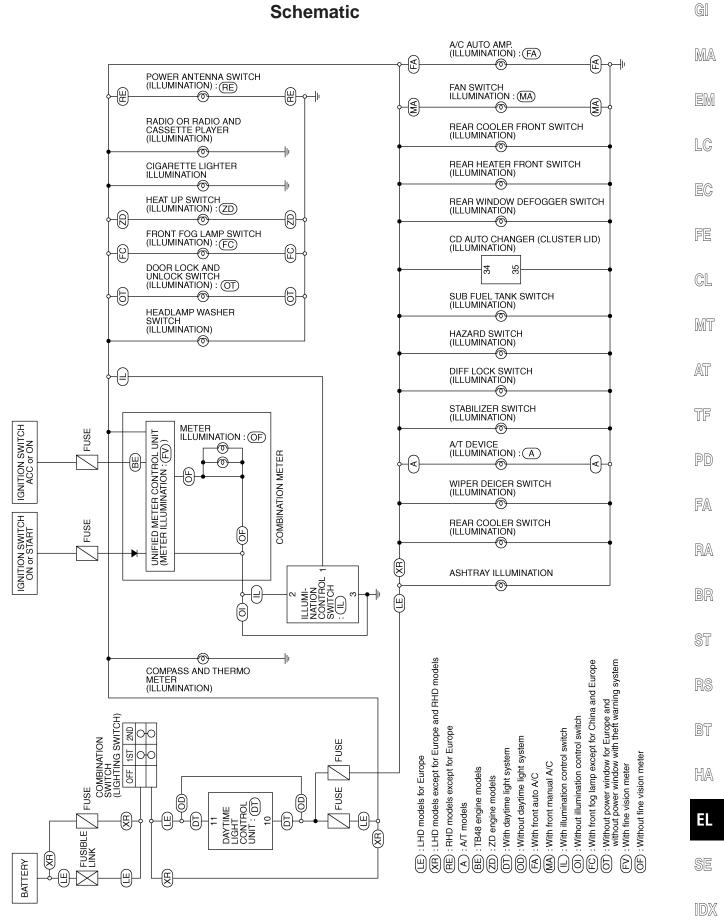
## TURN SIGNAL AND HAZARD WARNING LAMPS/PICKUP MODELS



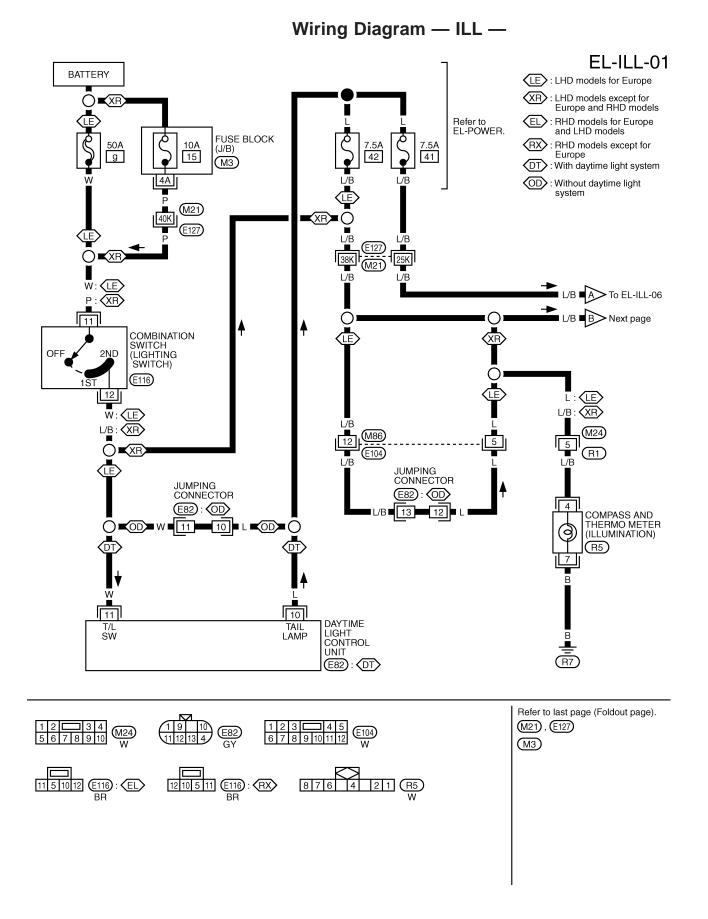
EL-TURN-08

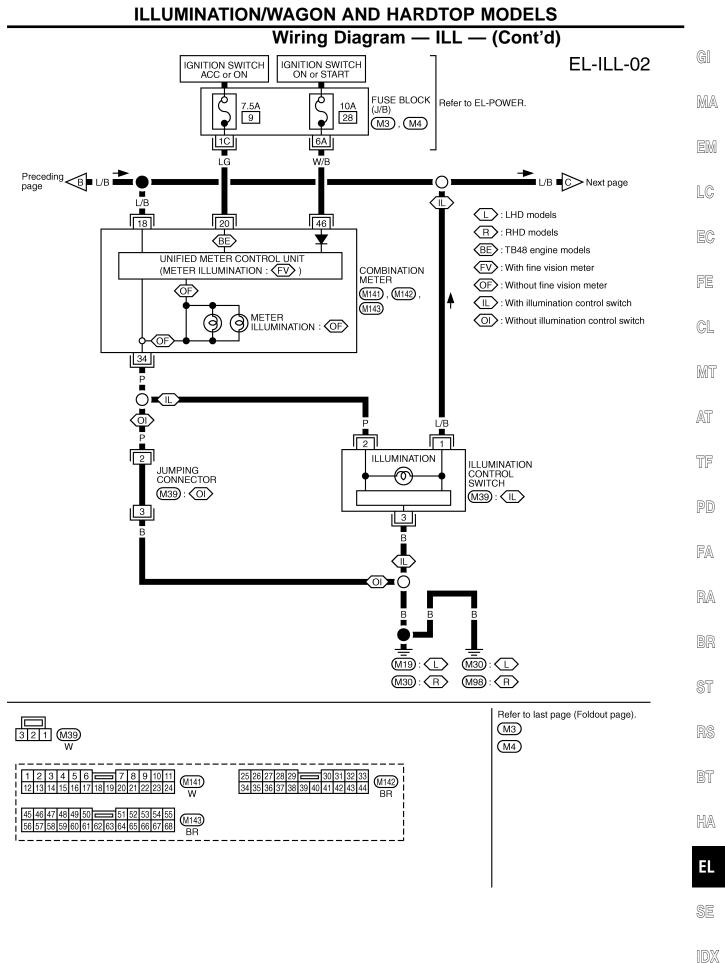


## ILLUMINATION/WAGON AND HARDTOP MODELS

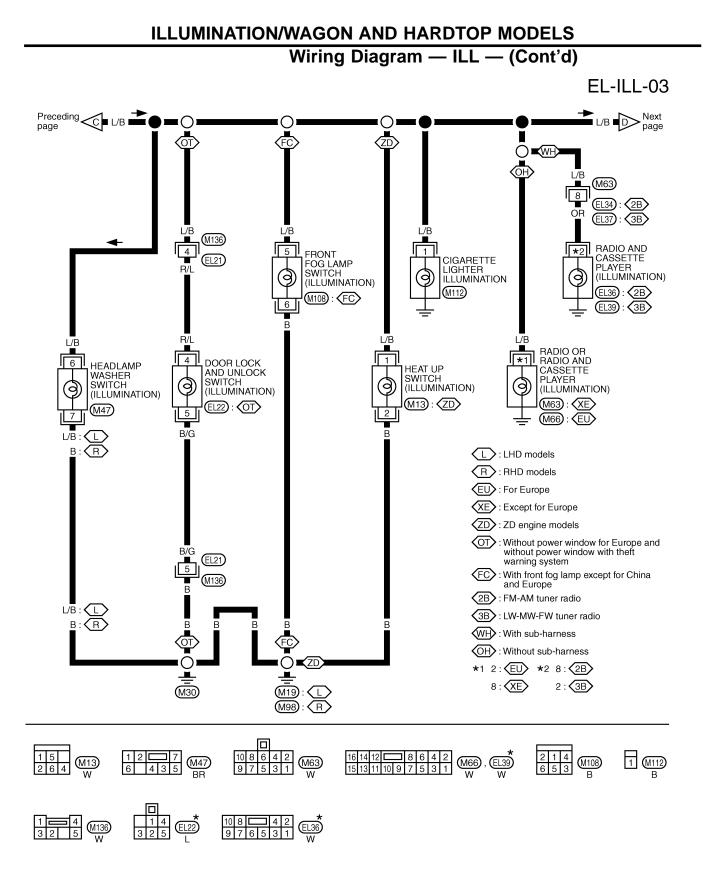


TEL667M

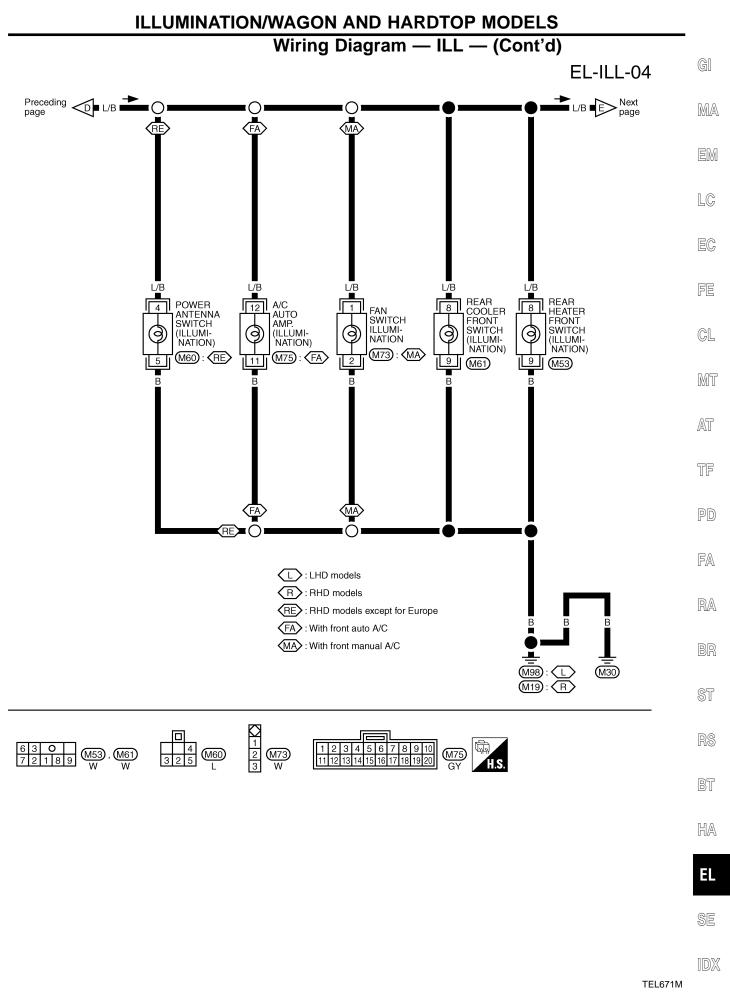


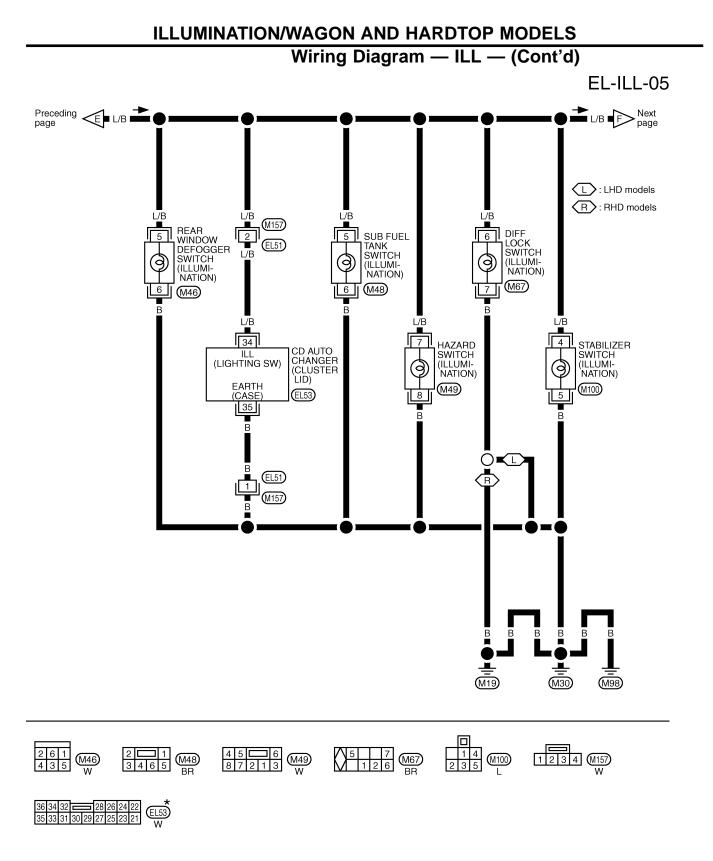


TEL669M

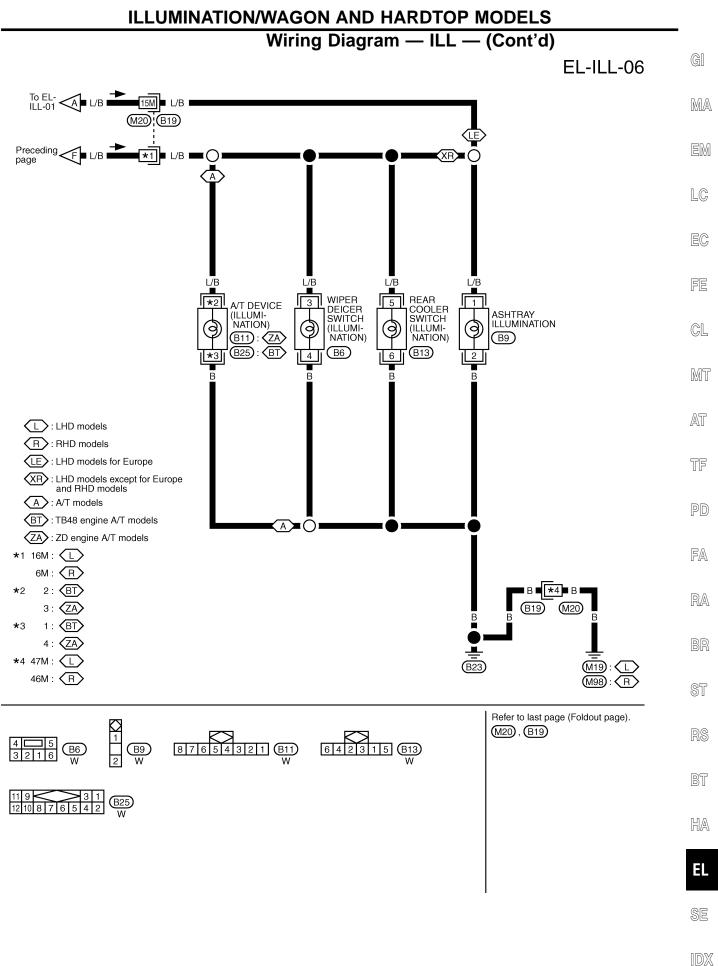


\*: This connector is not shown in "HARNESS LAYOUT", EL section.

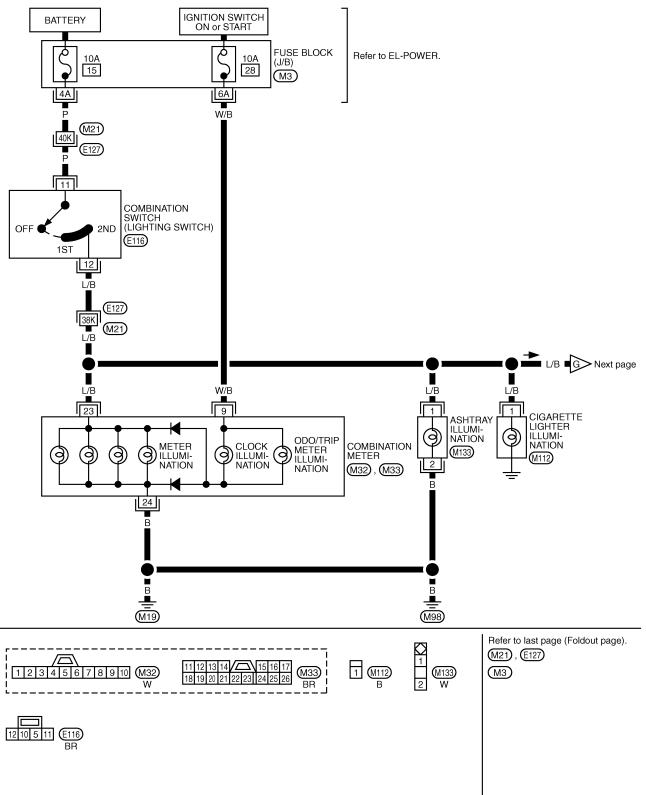


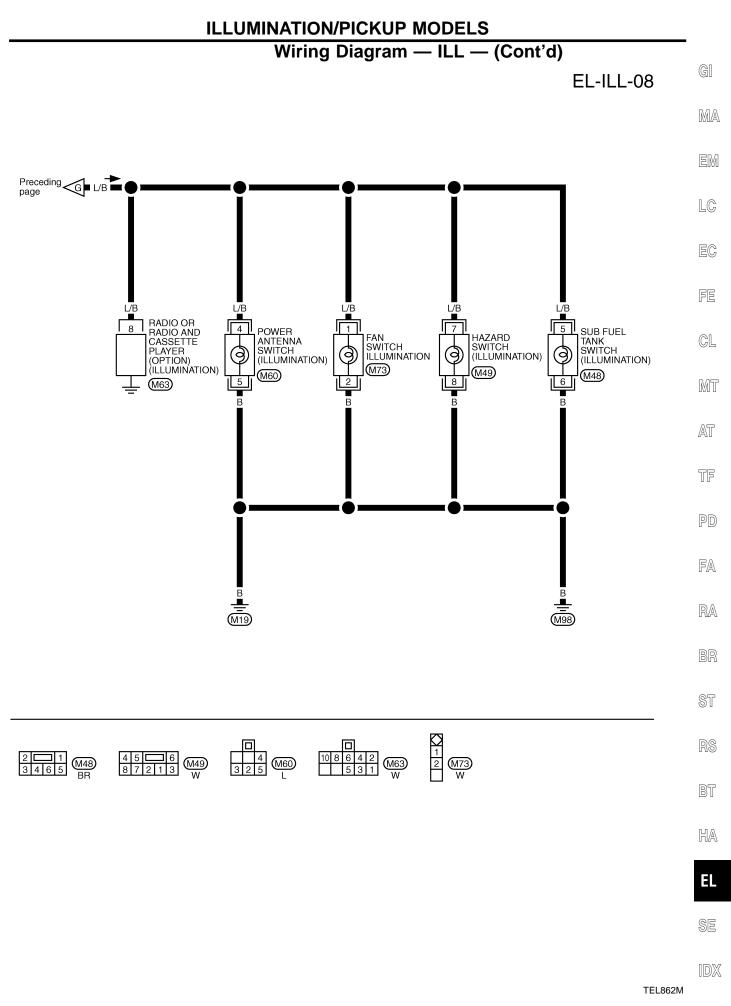


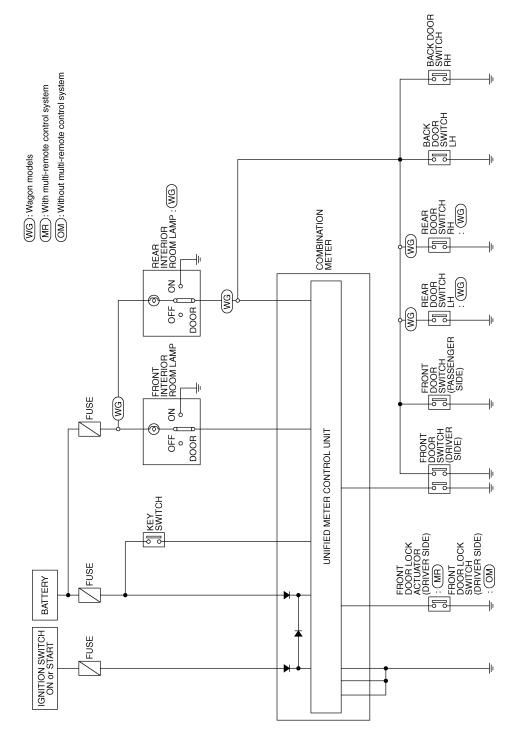
**\***: This connector is not shown in "HARNESS LAYOUT", EL section.



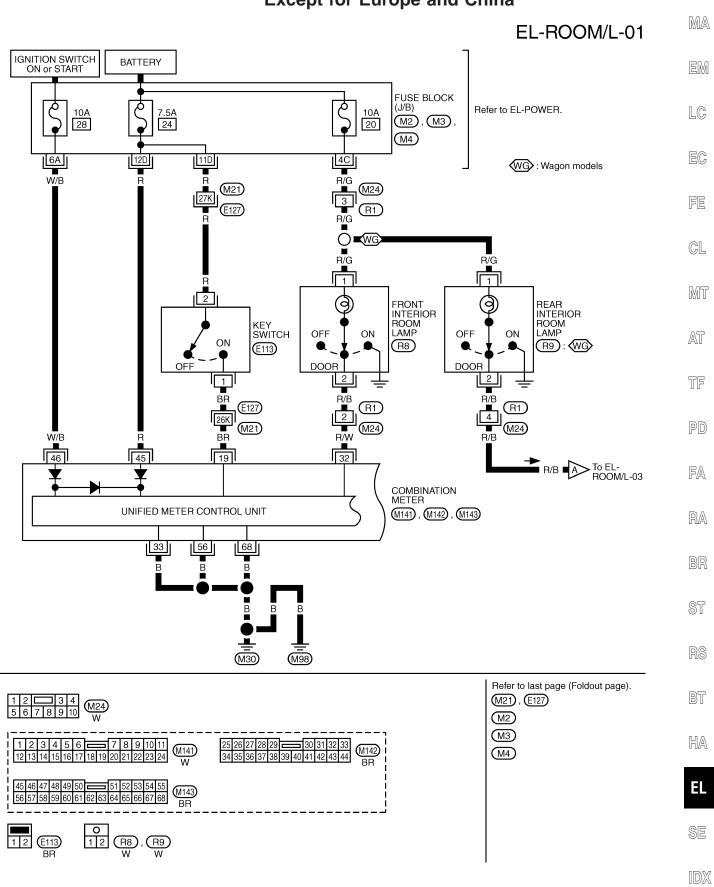
## Wiring Diagram — ILL —





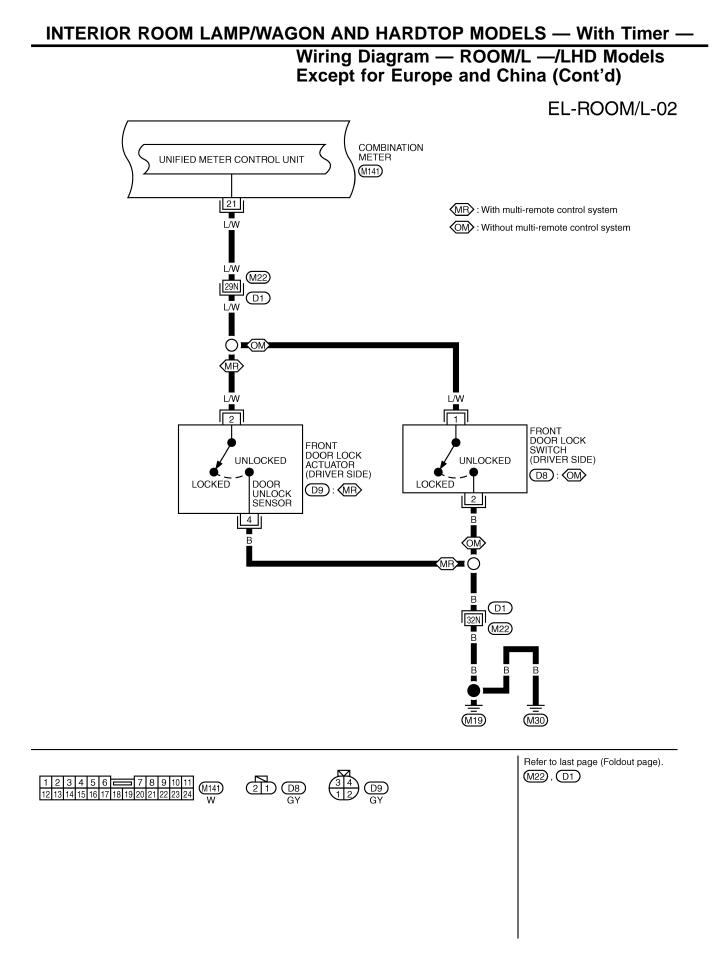


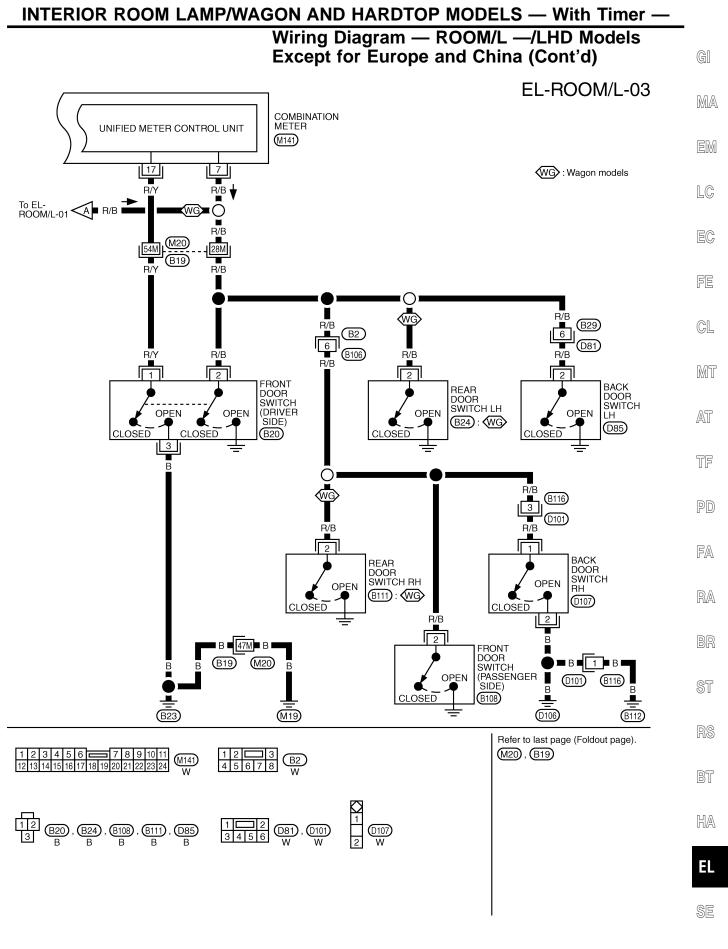
Schematic/LHD Models Except for Europe and China

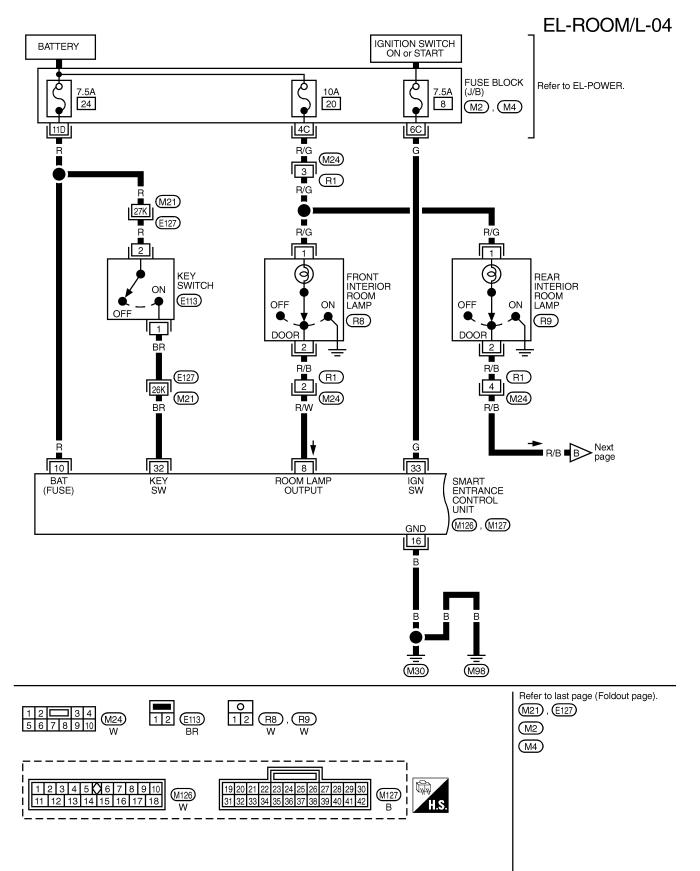


## Wiring Diagram — ROOM/L —/LHD Models Except for Europe and China

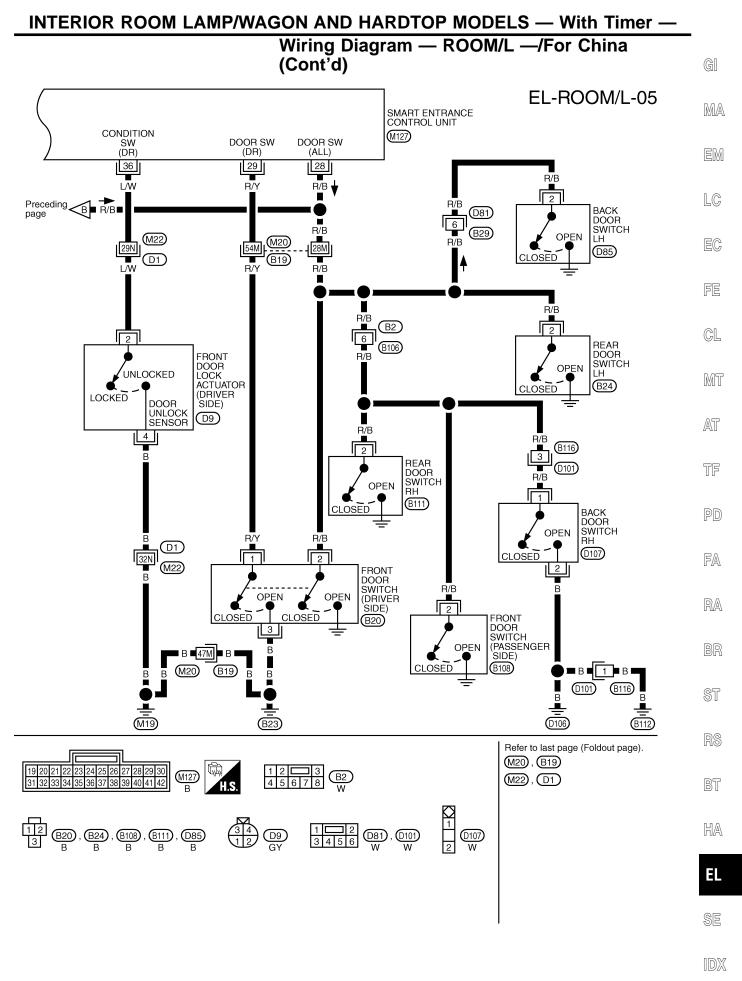
GI



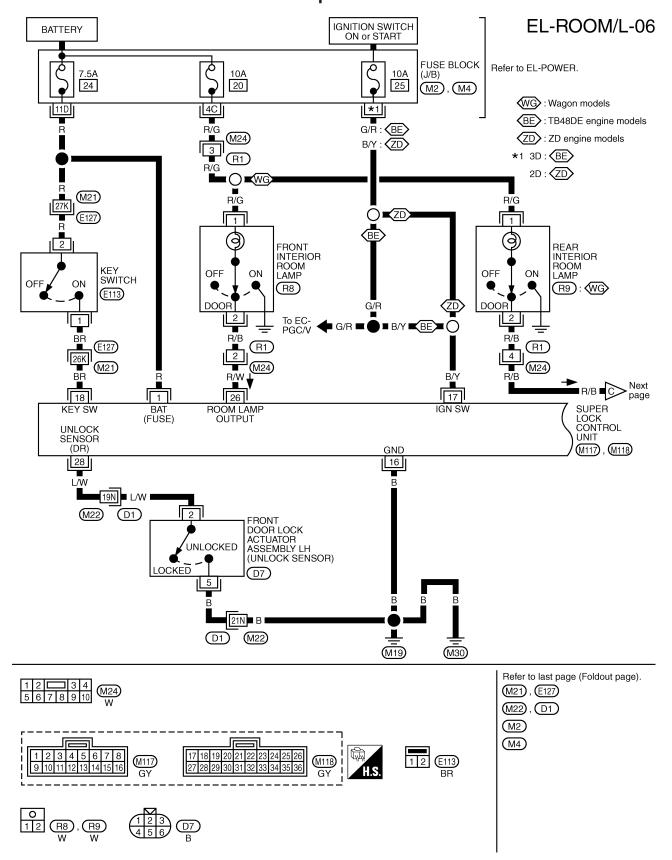




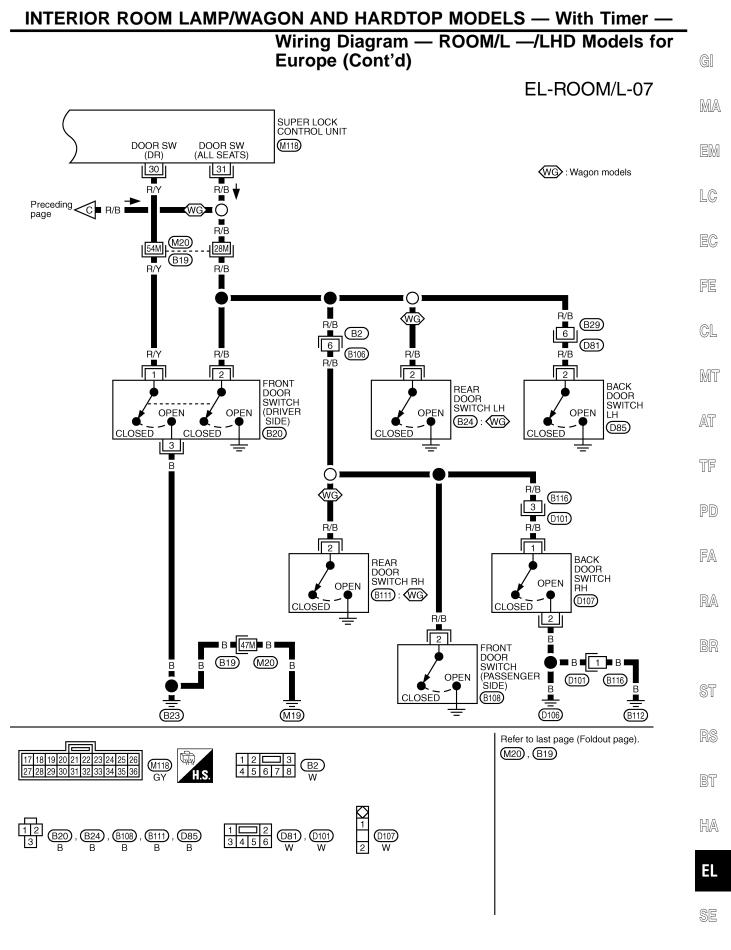
## Wiring Diagram — ROOM/L —/For China



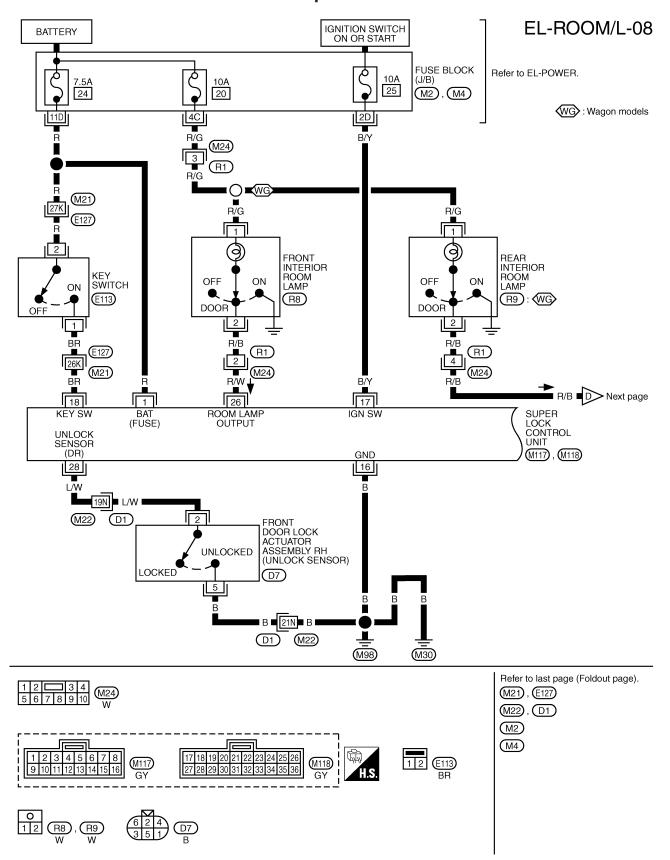
TEL675M



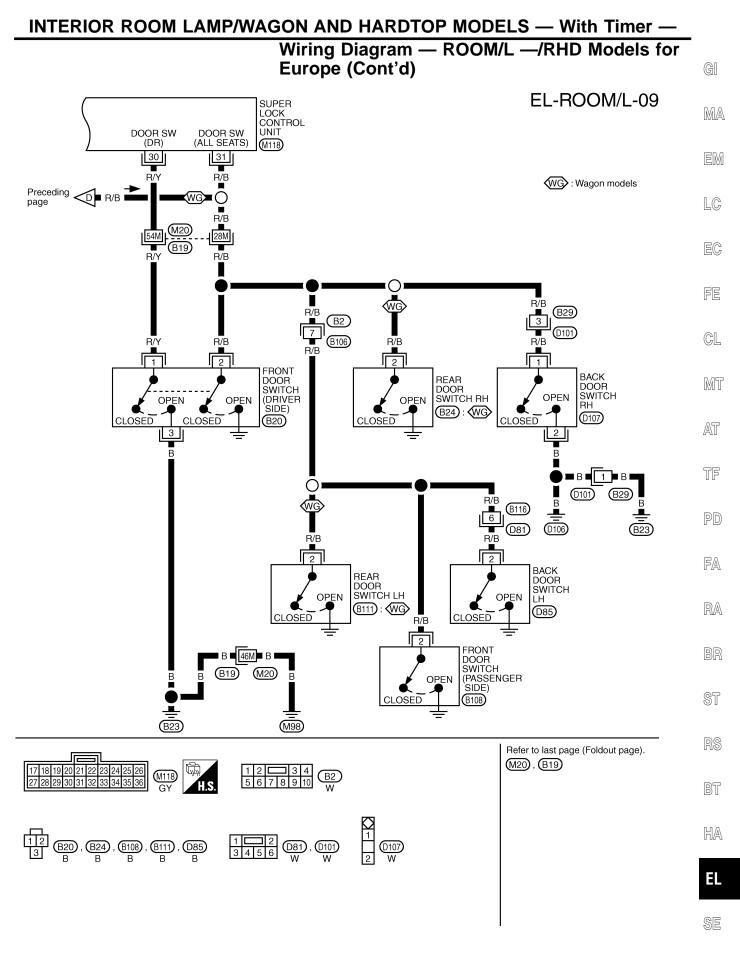
Wiring Diagram — ROOM/L —/LHD Models for Europe

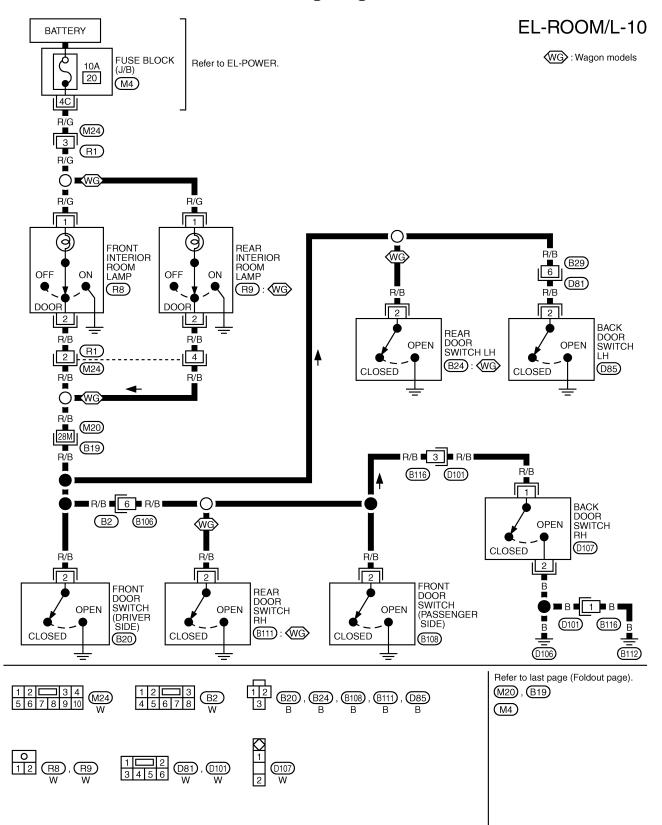


TEL677M

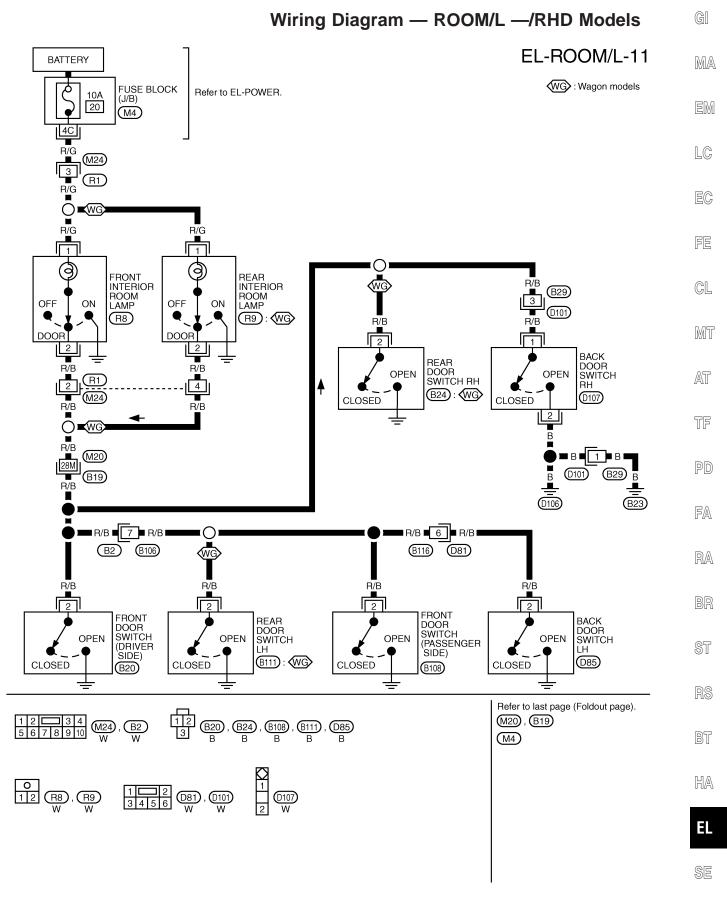


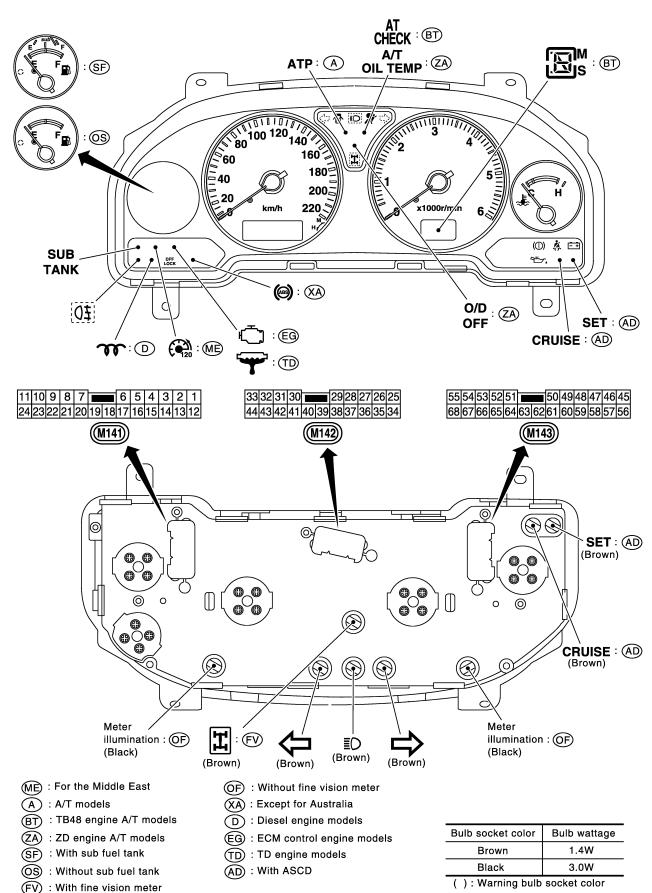
Wiring Diagram — ROOM/L —/RHD Models for Europe





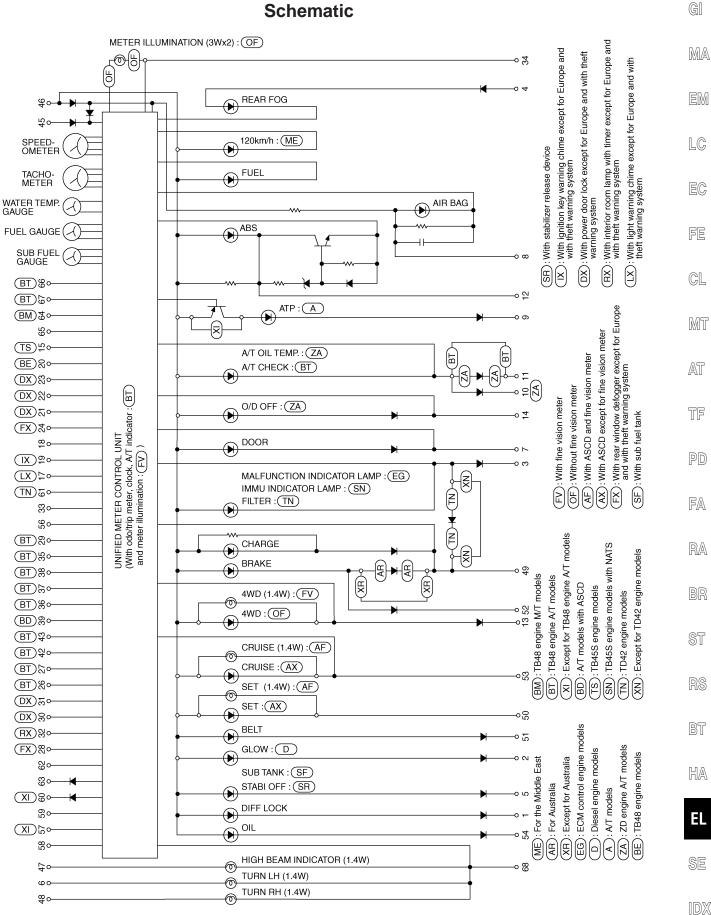
#### Wiring Diagram — ROOM/L —/LHD Models





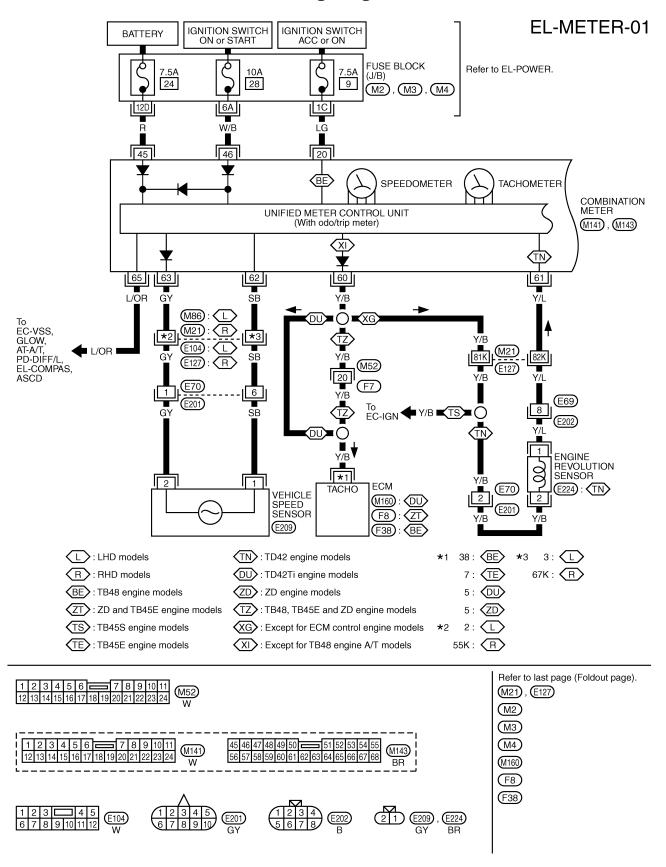
**Combination Meter** 

## METER AND GAUGES/WAGON AND HARDTOP MODELS

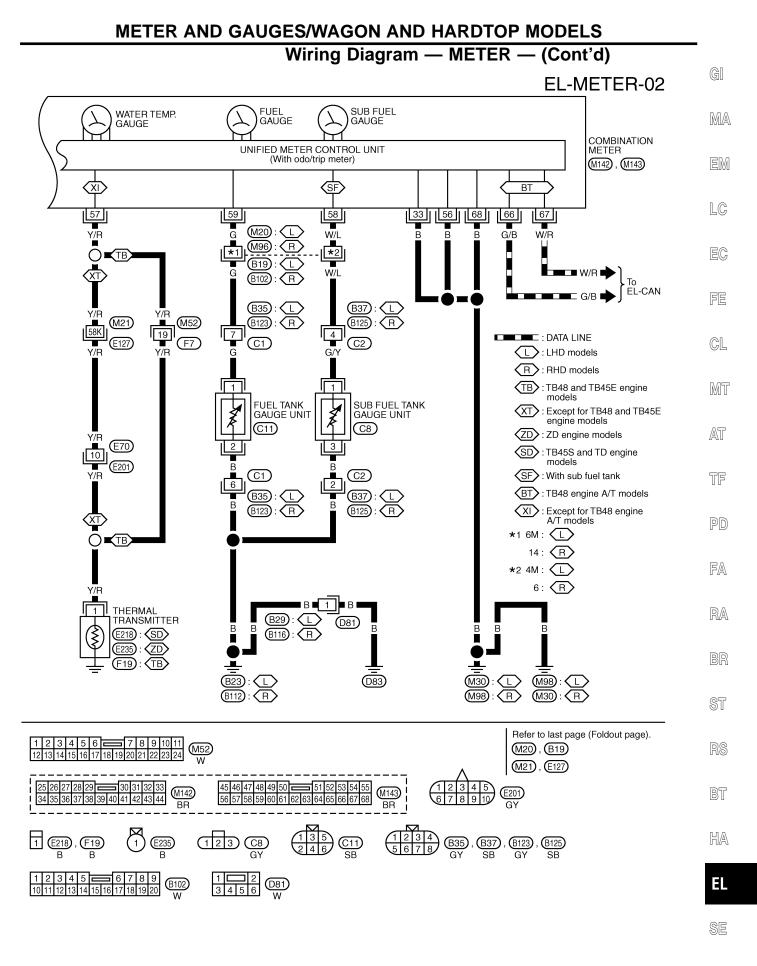


**Schematic** 

TEL837M

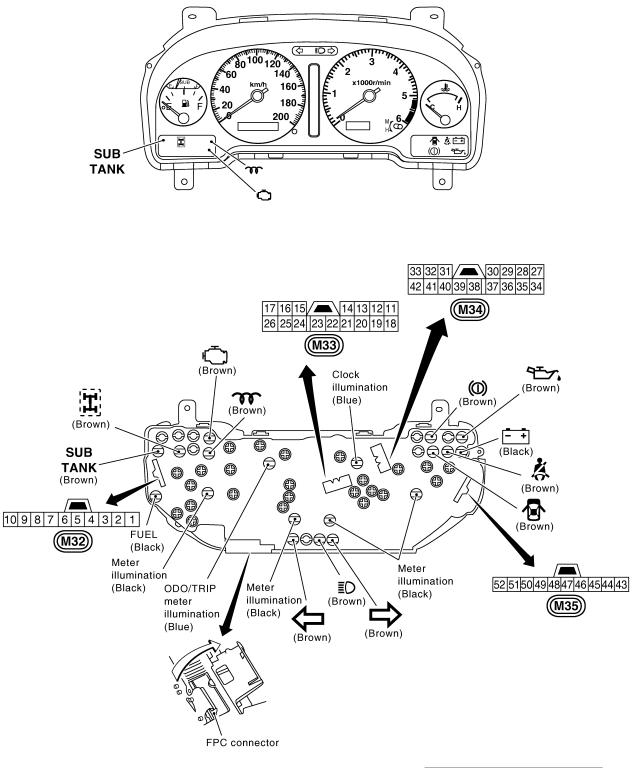


## Wiring Diagram — METER —



TEL765M

#### **Combination Meter**



Bulb socket color	Bulb wattage
Brown	1.4W
Blue	2.0W
Black	3.0W

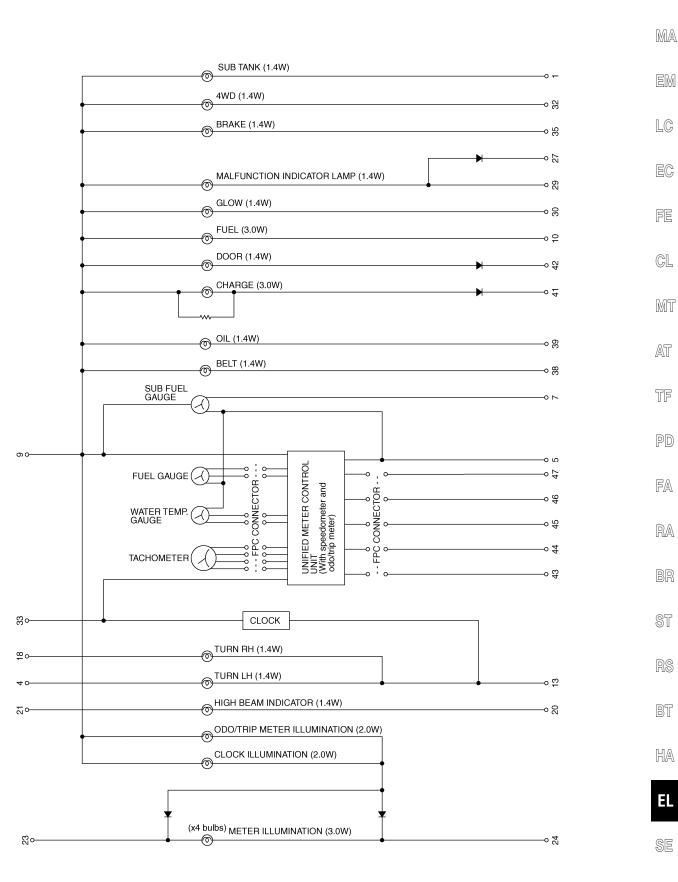
(): Warning bulb socket color

#### EL-111

TEL878M

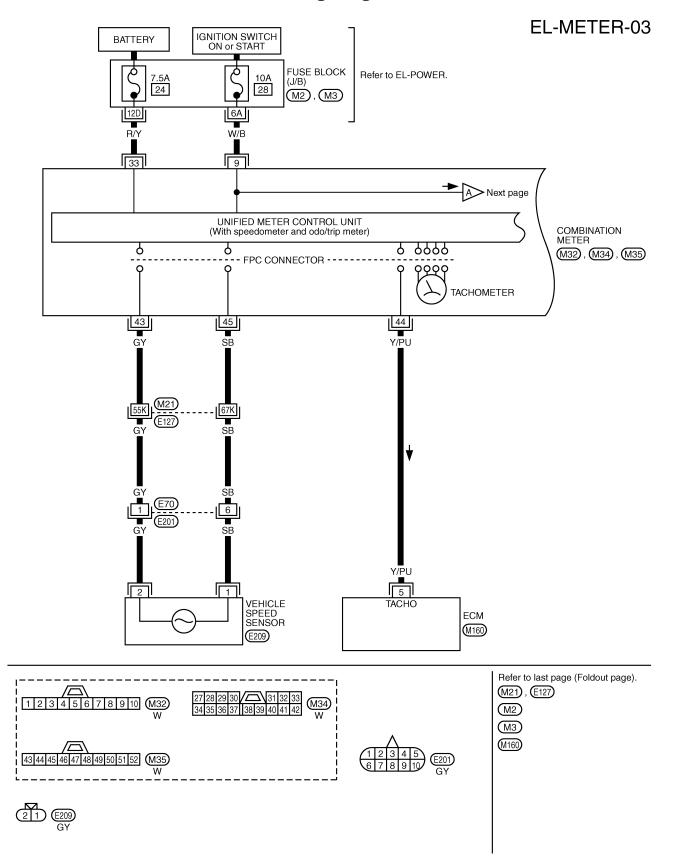
IDX

GI

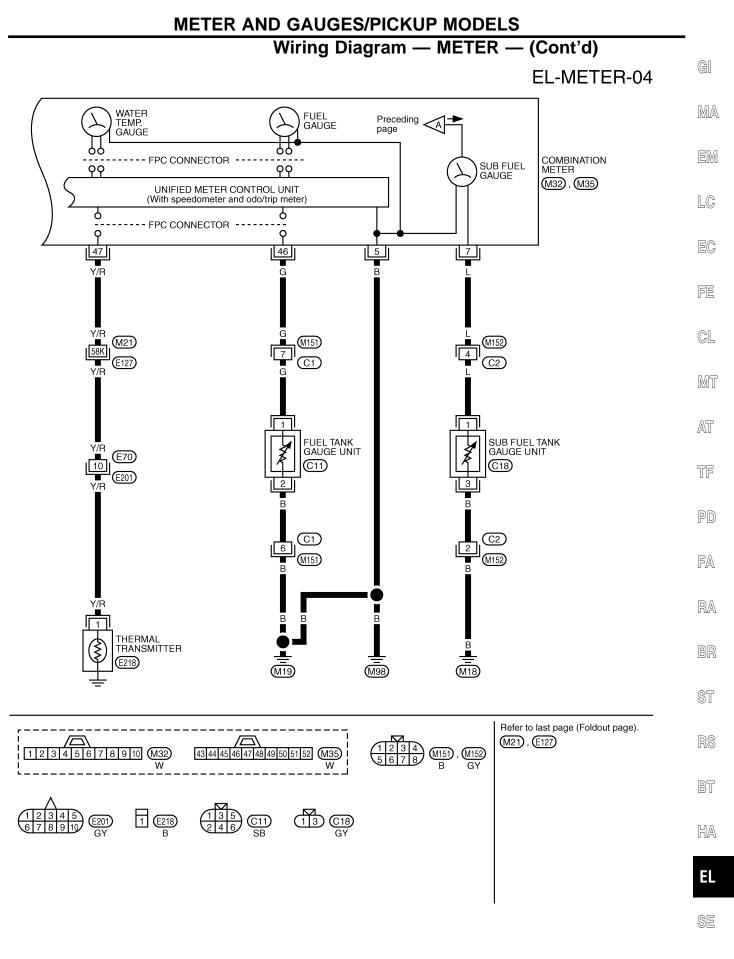


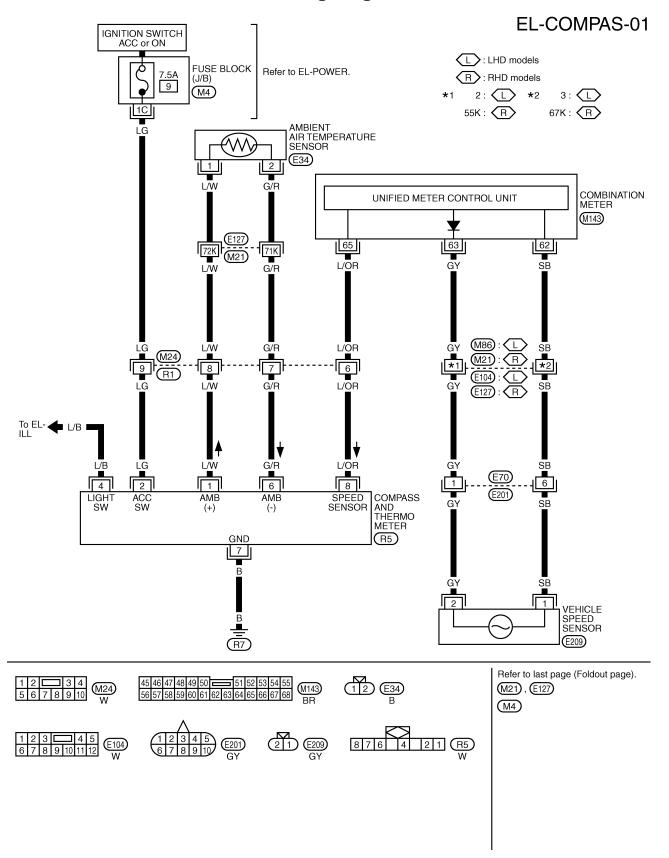
### METER AND GAUGES/PICKUP MODELS

**Schematic** 



#### Wiring Diagram — METER —





#### Wiring Diagram — COMPAS —

## COMPASS AND THERMOMETER

MA

EM

LC

EC

FE

CL

MT

AT

TF

PD

FA

RA

BR

ST

RS

BT

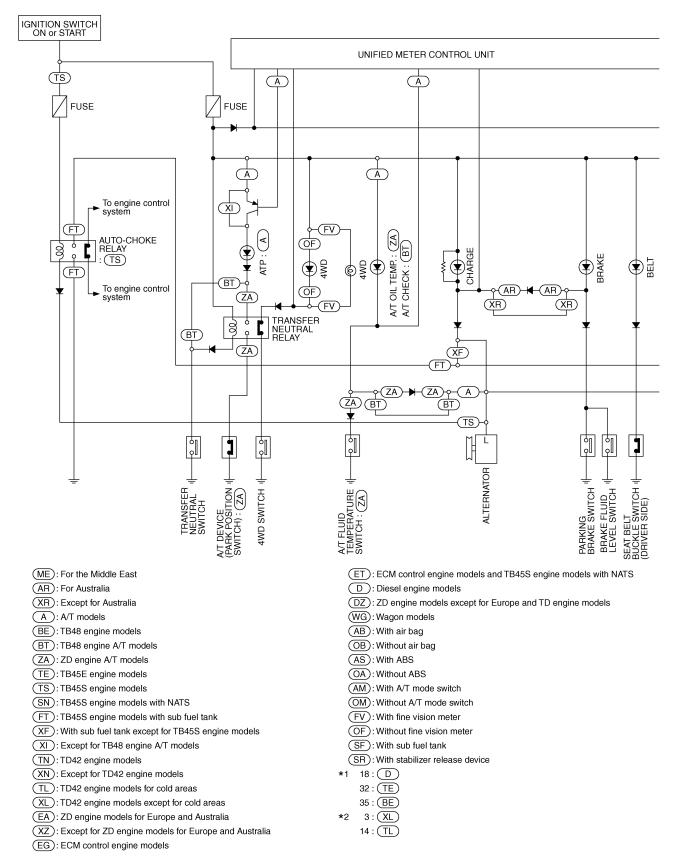
HA

EL

IDX

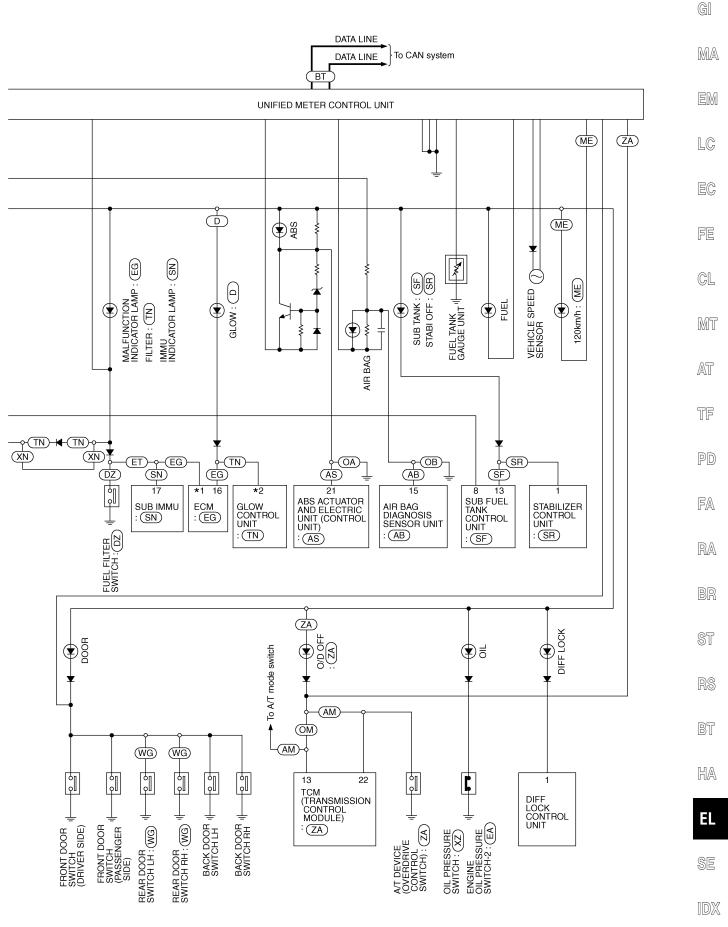
SE

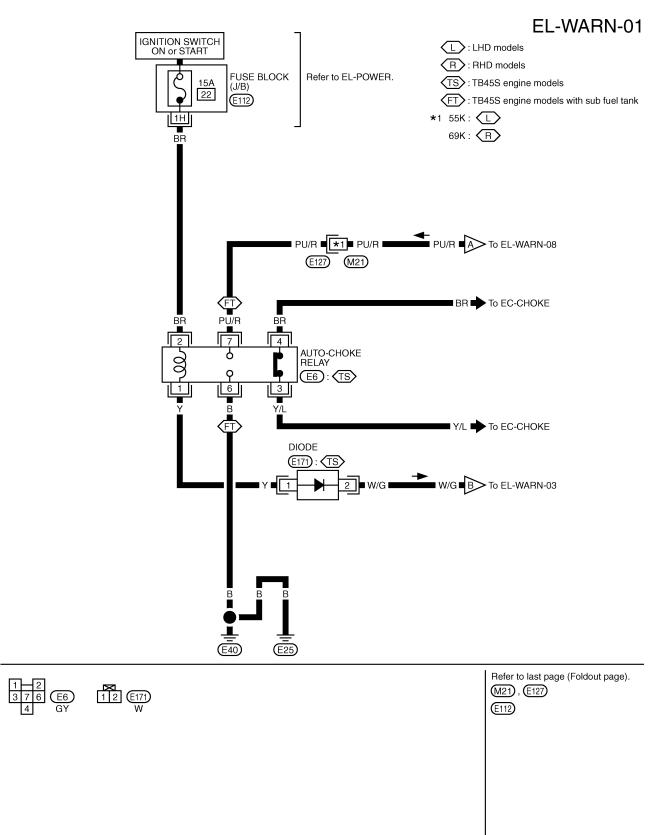
**Schematic** 

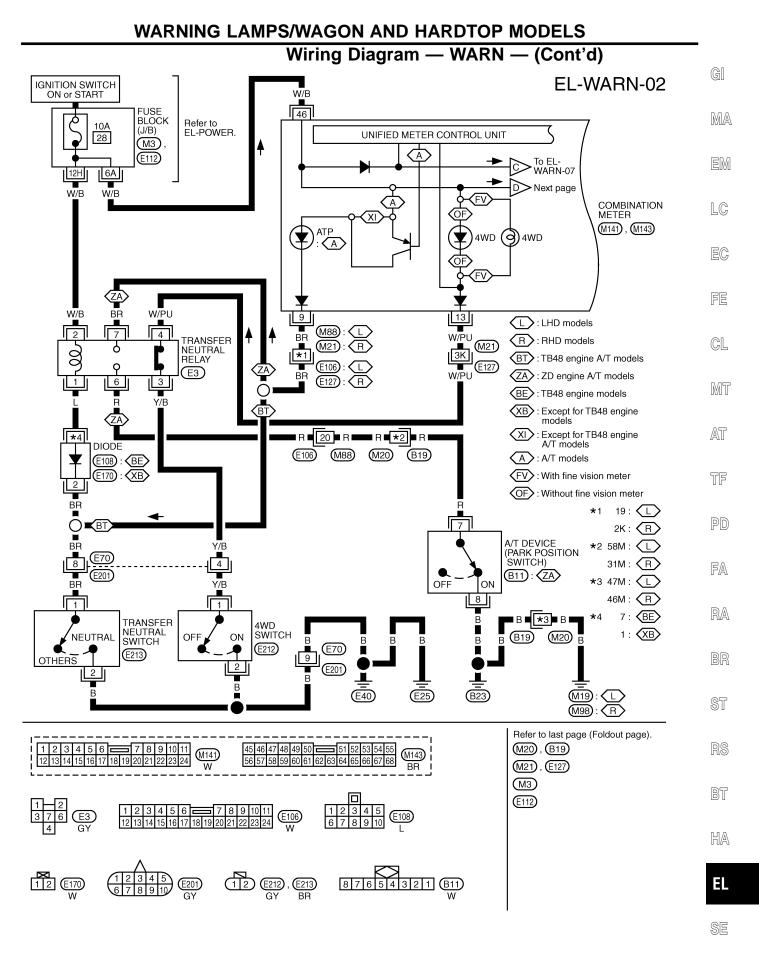




Schematic (Cont'd)

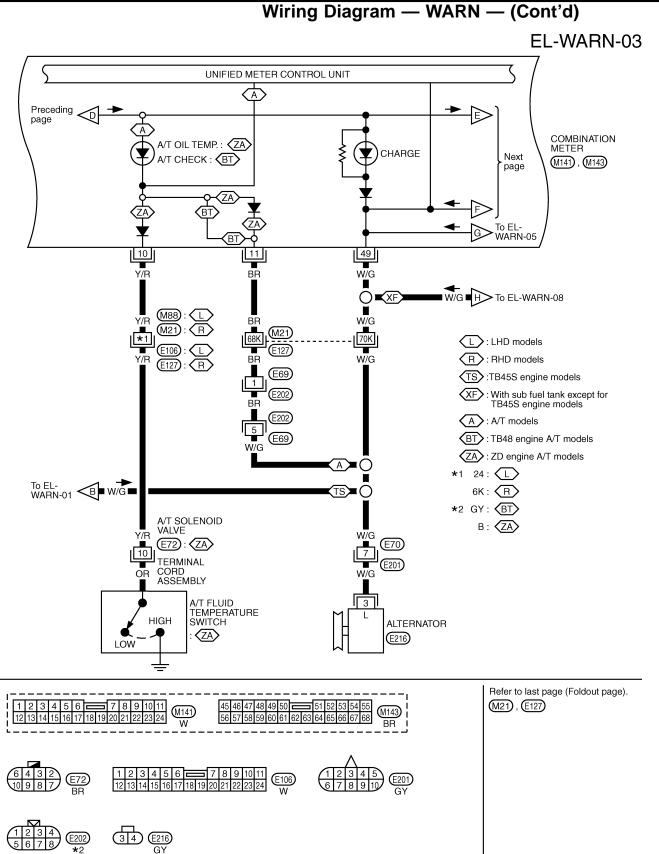


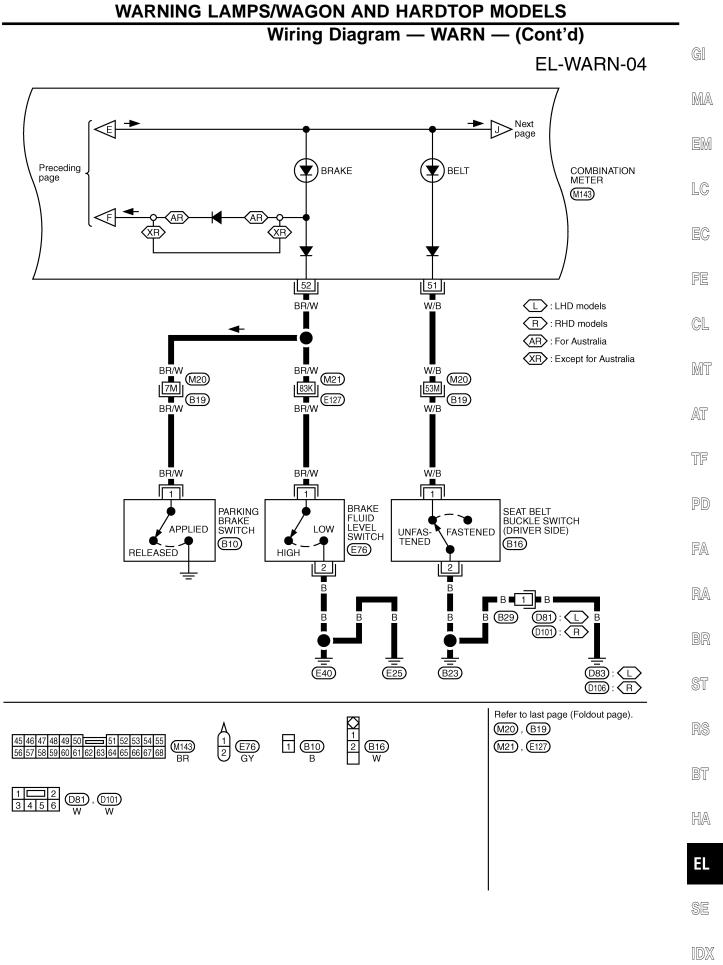




#### EL-119

### WARNING LAMPS/WAGON AND HARDTOP MODELS

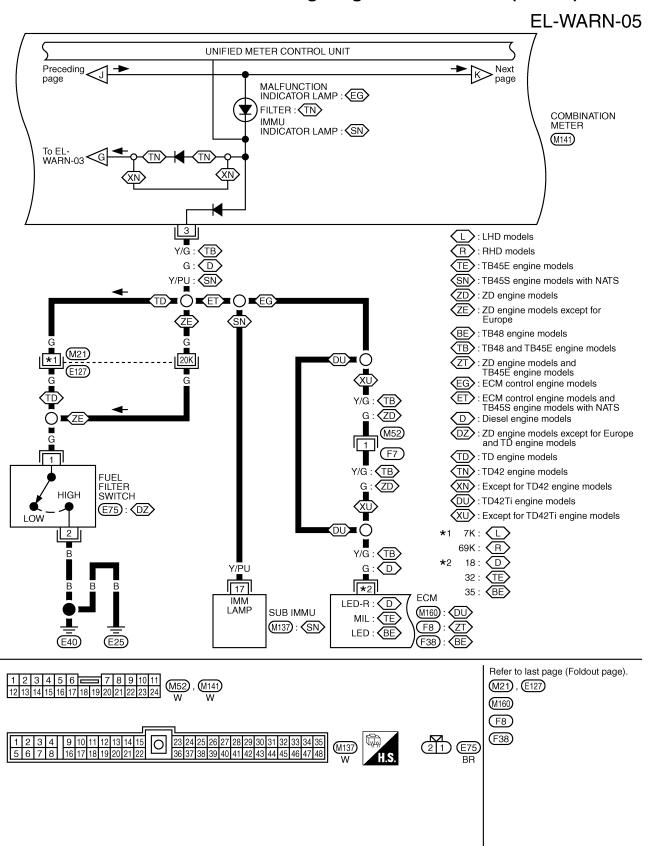


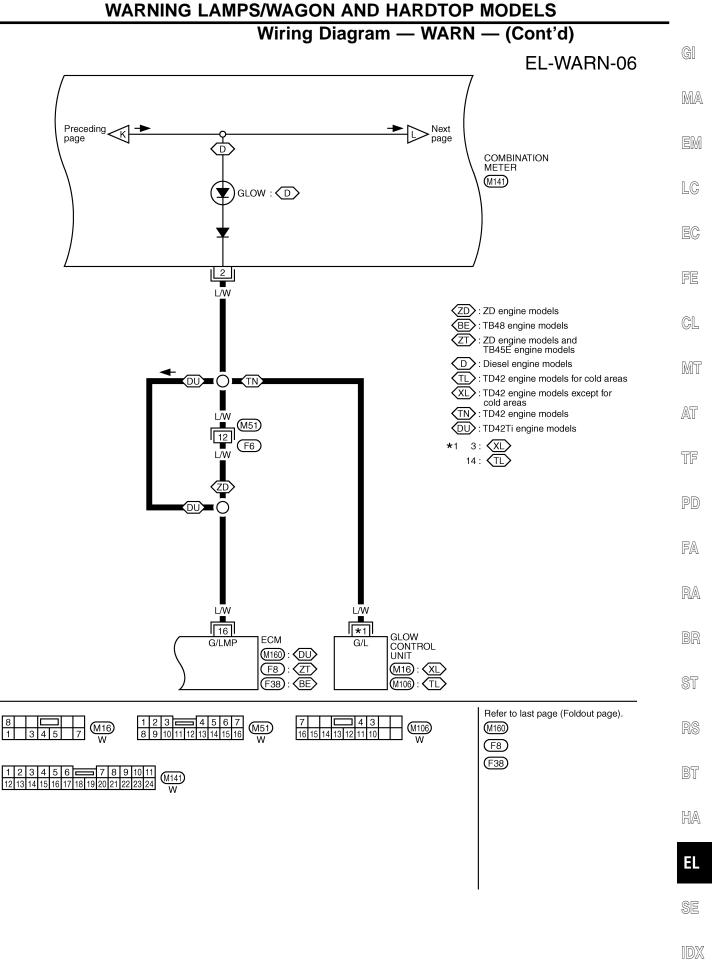


TEL841M

### WARNING LAMPS/WAGON AND HARDTOP MODELS

Wiring Diagram — WARN — (Cont'd)

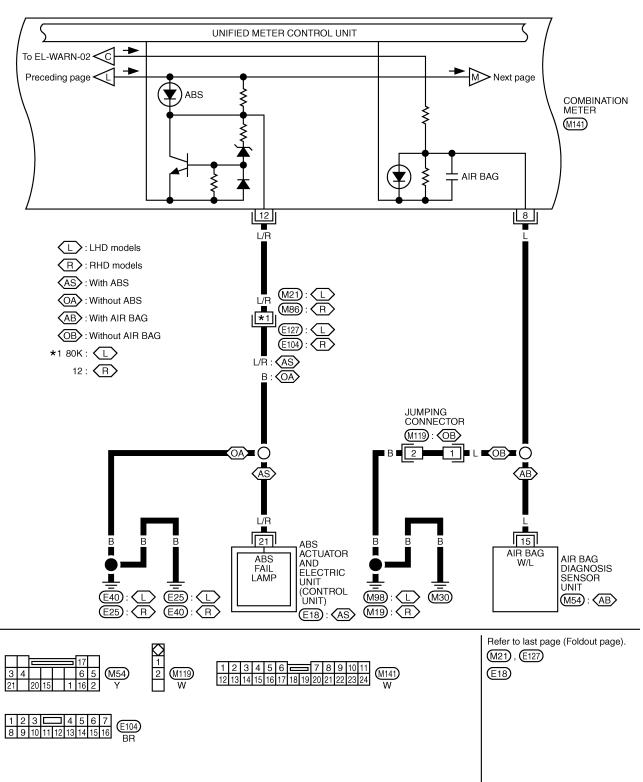


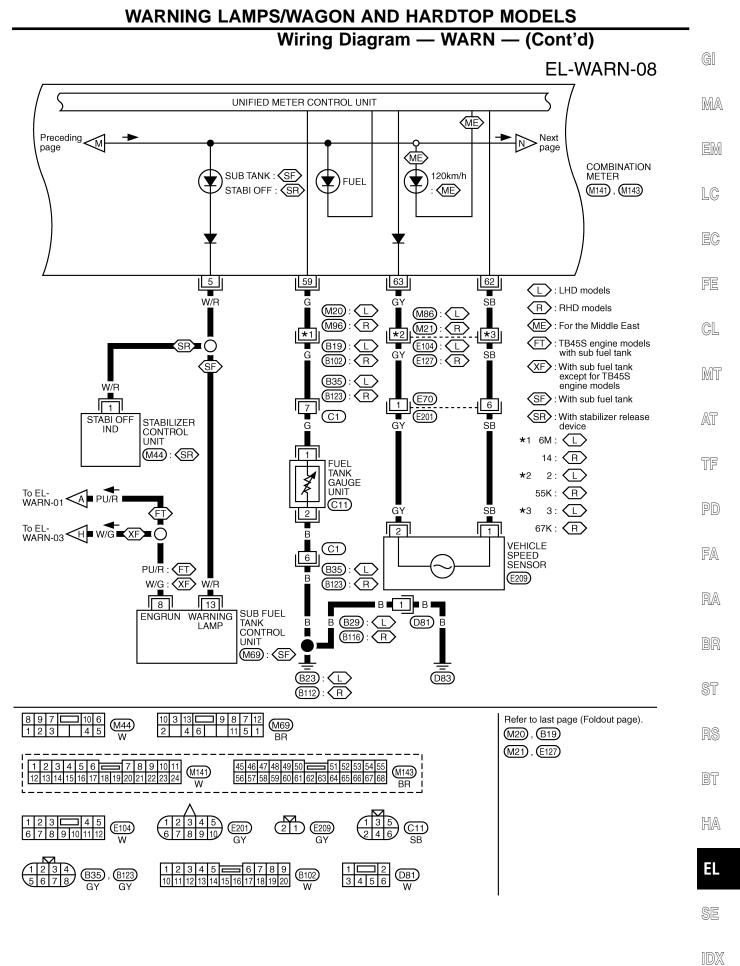


TEL767M

### WARNING LAMPS/WAGON AND HARDTOP MODELS Wiring Diagram — WARN — (Cont'd)

EL-WARN-07



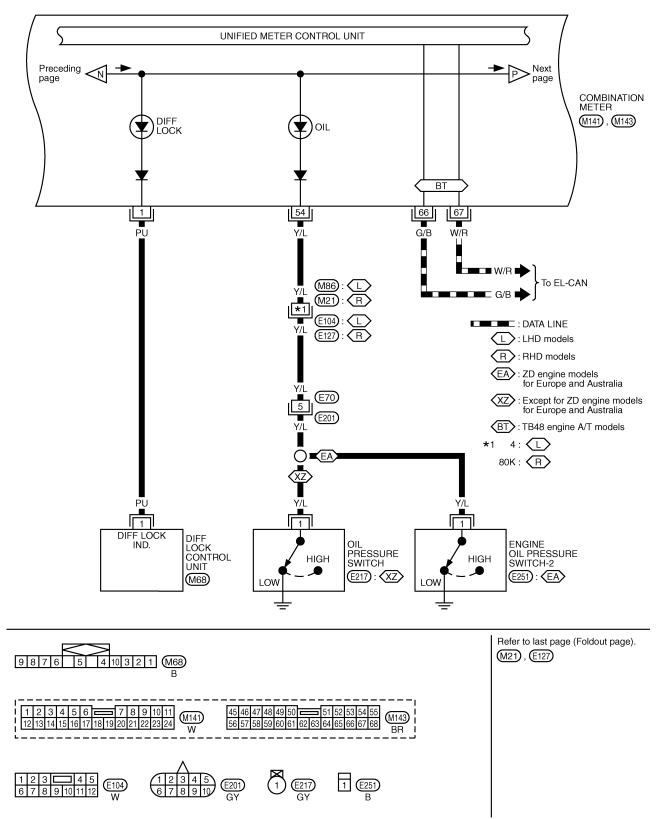


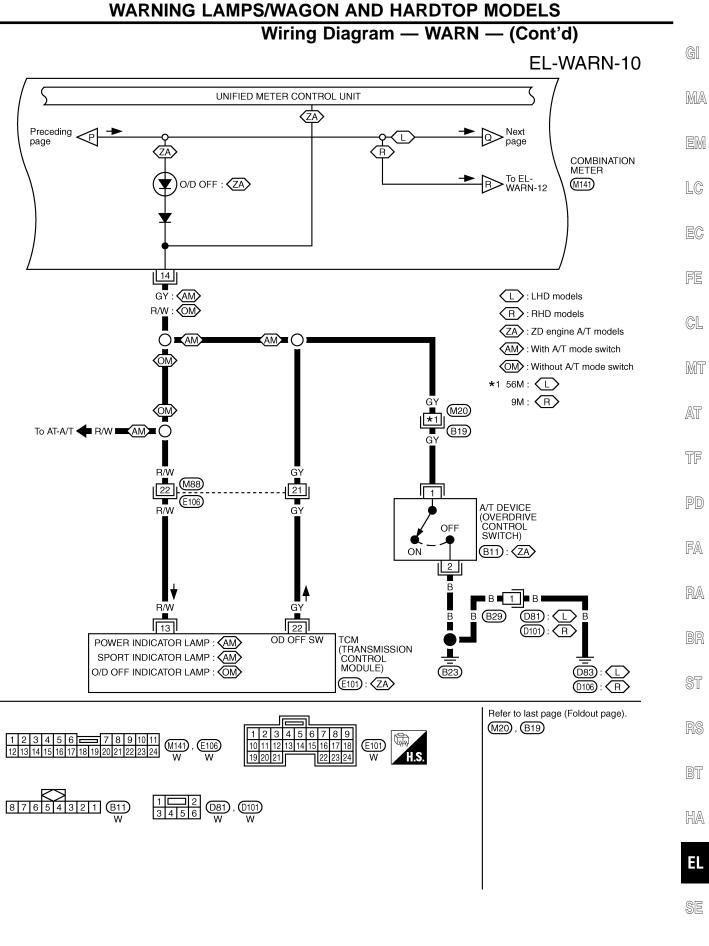
**EL-125** 

TEL808M

### WARNING LAMPS/WAGON AND HARDTOP MODELS Wiring Diagram — WARN — (Cont'd)

EL-WARN-09

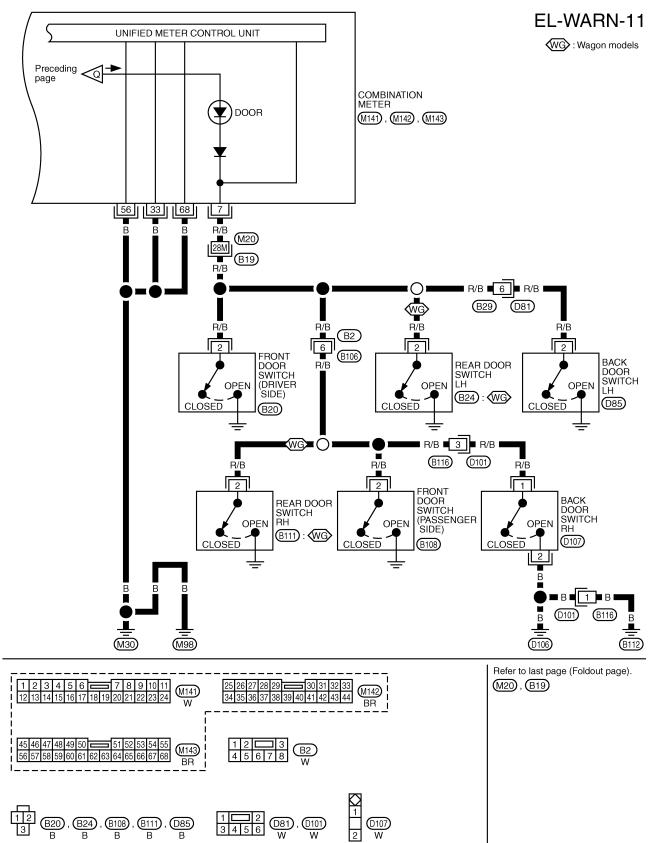


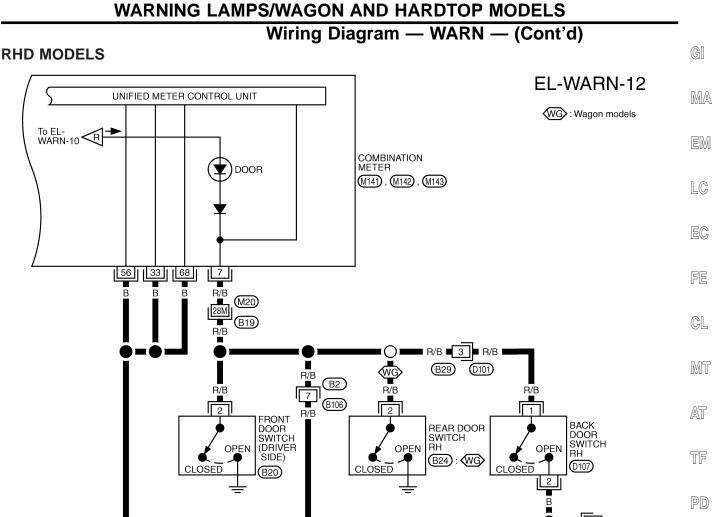


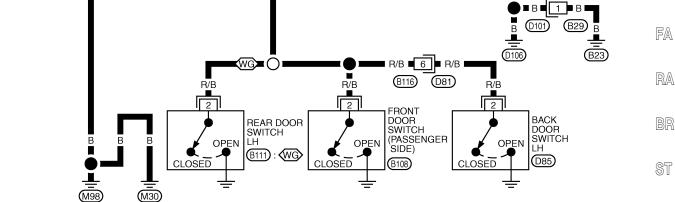
#### WARNING LAMPS/WAGON AND HARDTOP MODELS

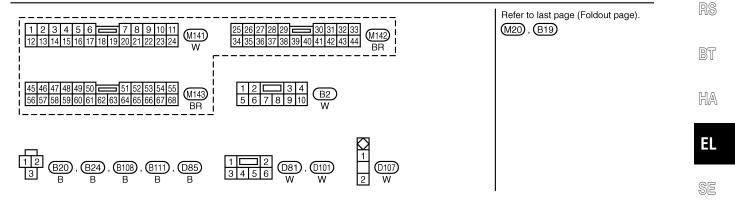
#### Wiring Diagram — WARN — (Cont'd)

#### LHD MODELS



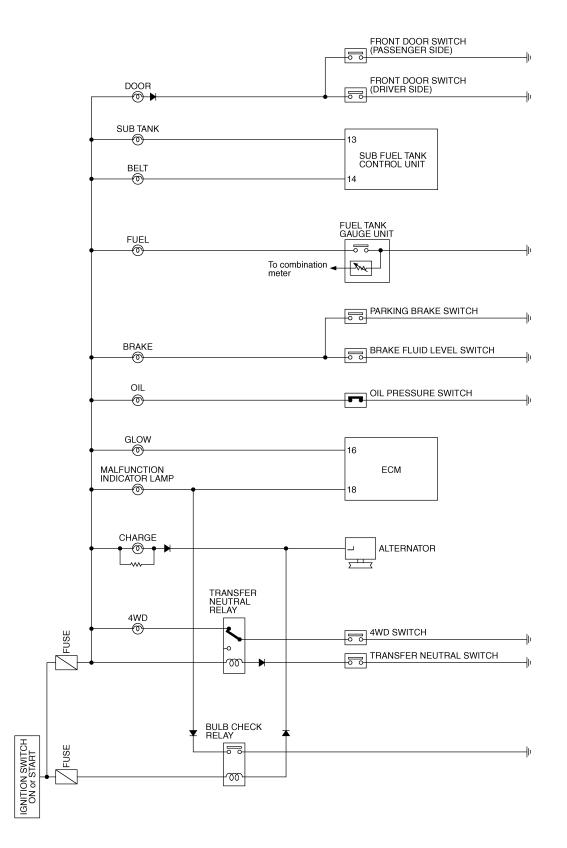


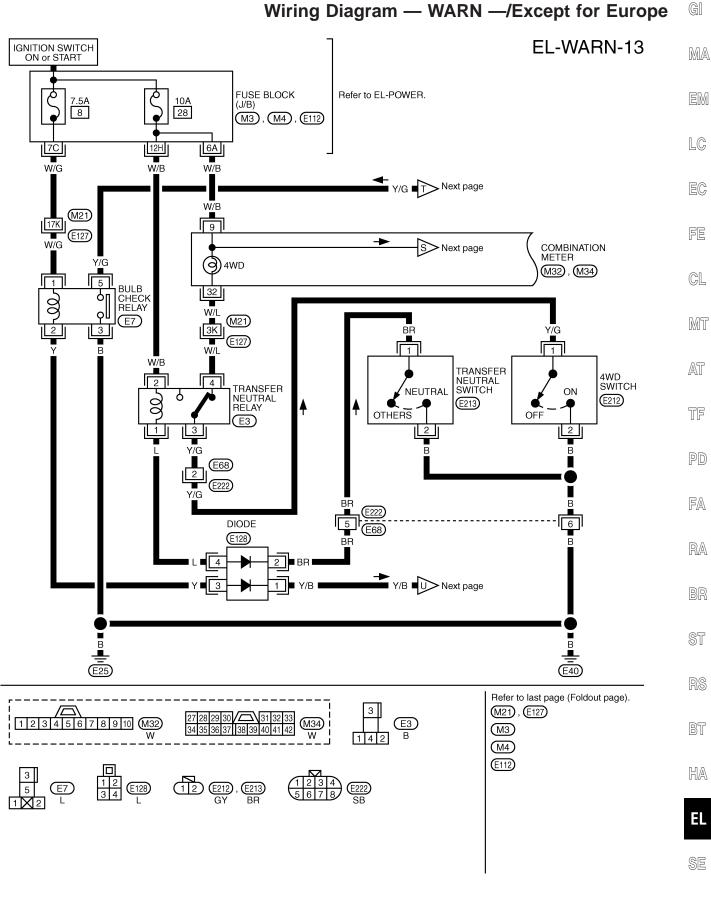




TEL768M

**Schematic** 

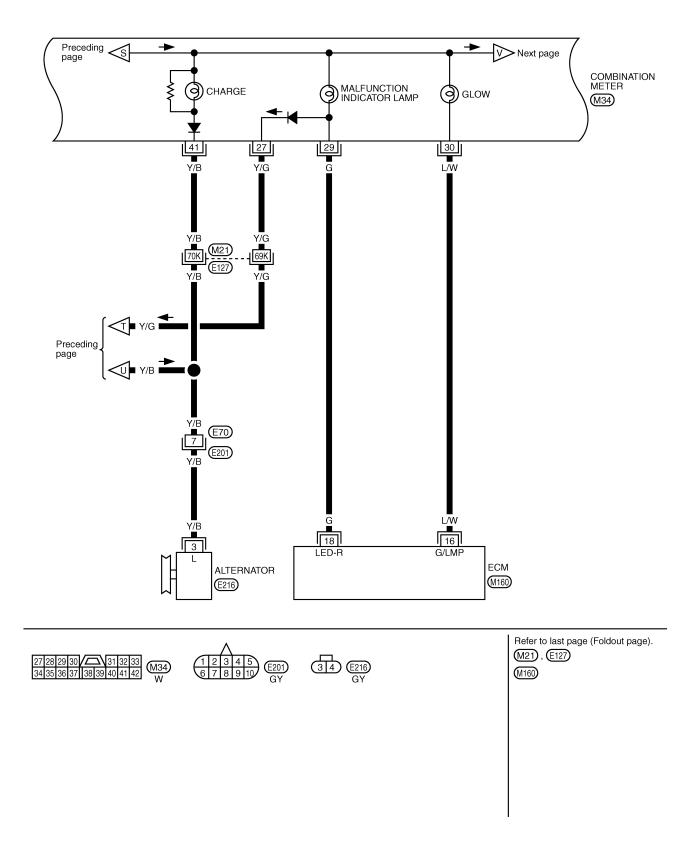


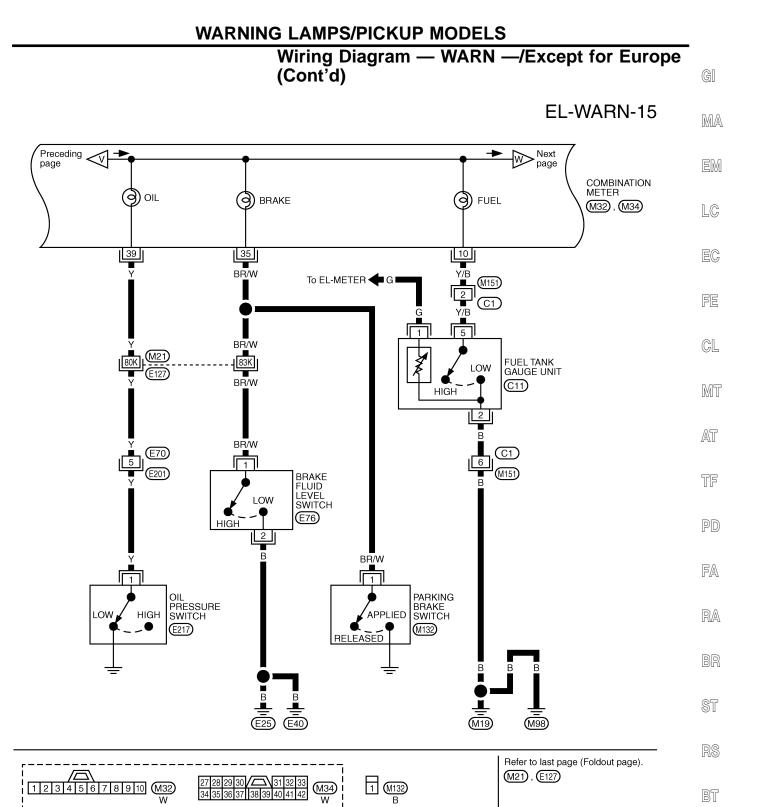


IDX TEL866M

# Wiring Diagram — WARN —/Except for Europe (Cont'd)

EL-WARN-14





TEL868M

HA

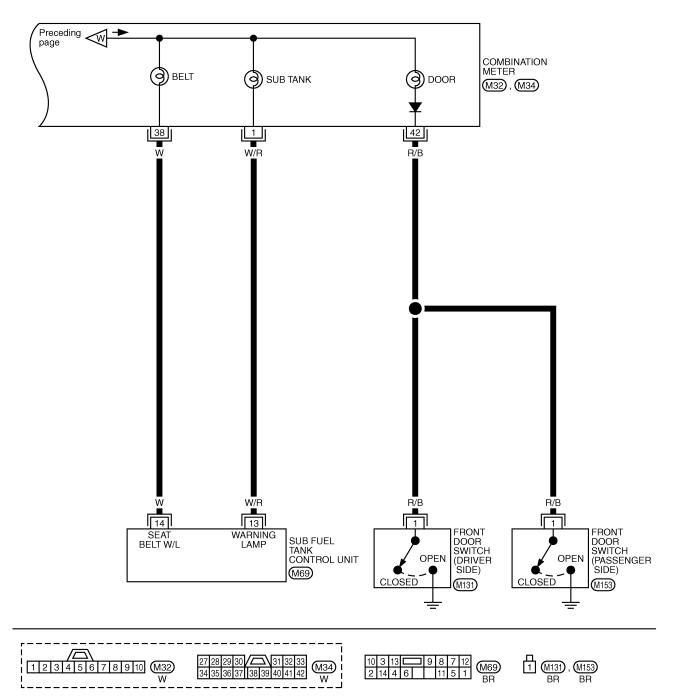
EL

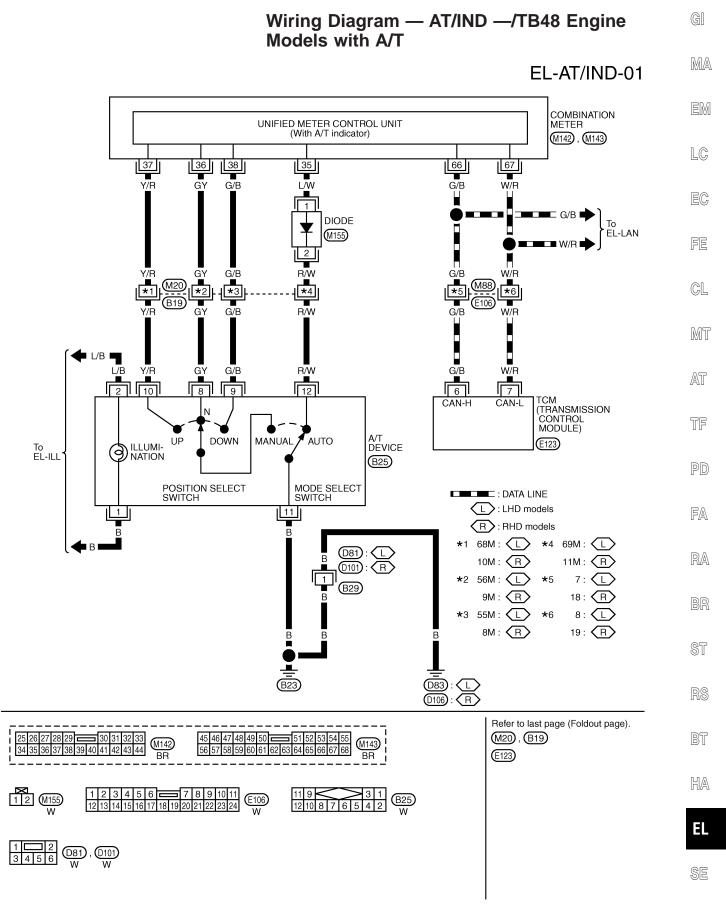
(C11) SB

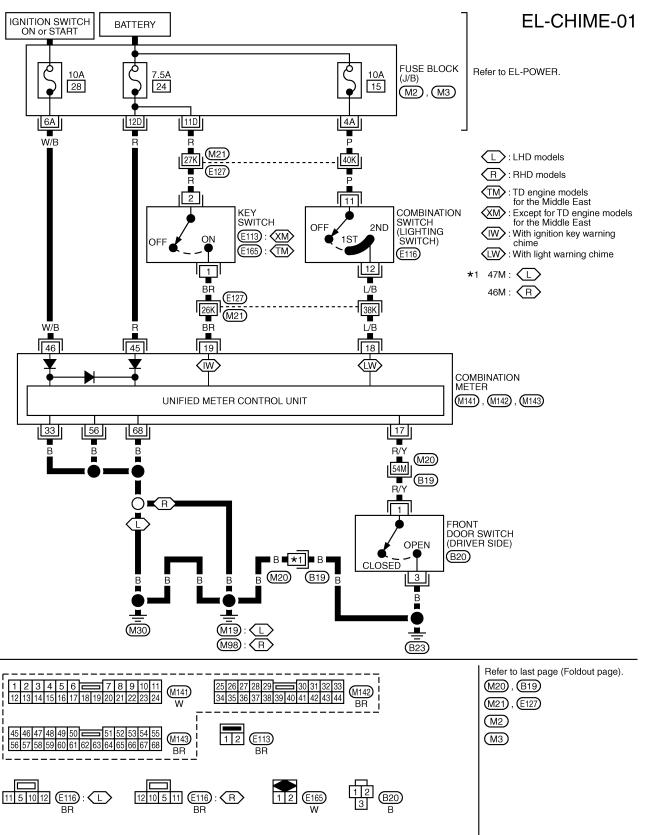
M151 B  $\begin{array}{c}
1 & 2 & 3 & 4 & 5 \\
\hline
6 & 7 & 8 & 9 & 10 \\
\hline
GY
\end{array}$ 

# Wiring Diagram — WARN —/Except for Europe (Cont'd)

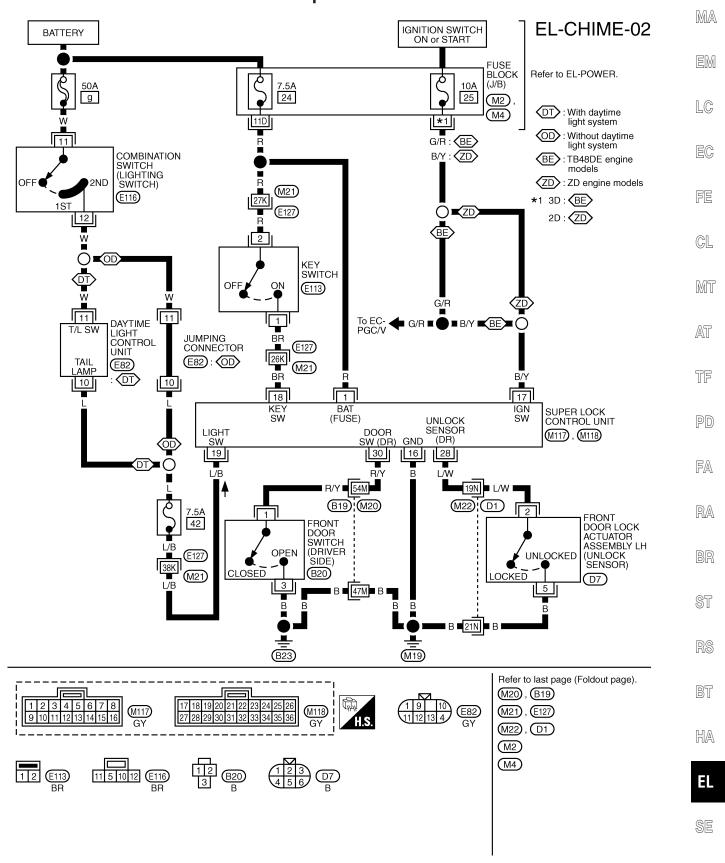
EL-WARN-16







# Wiring Diagram — CHIME —/Except for Europe and with Theft Warning System Models

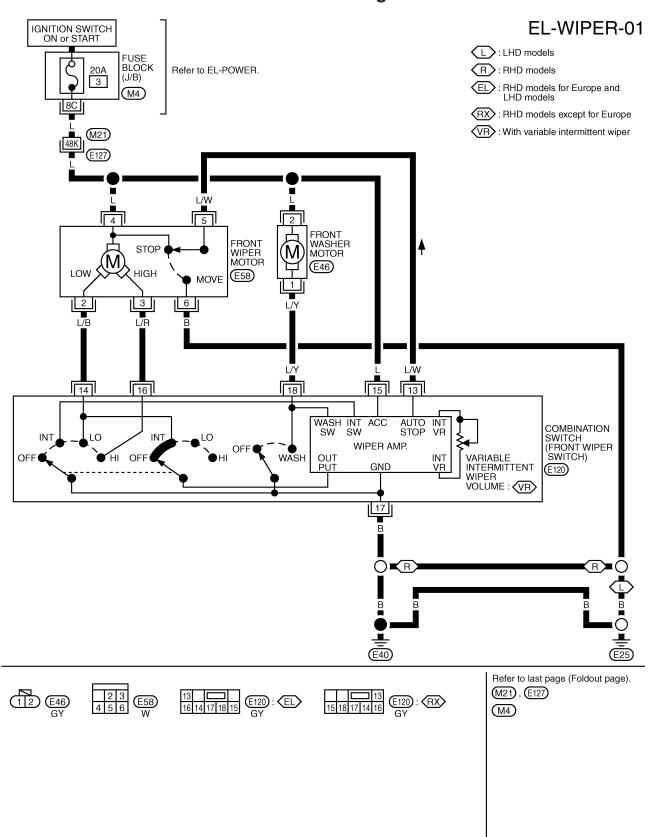


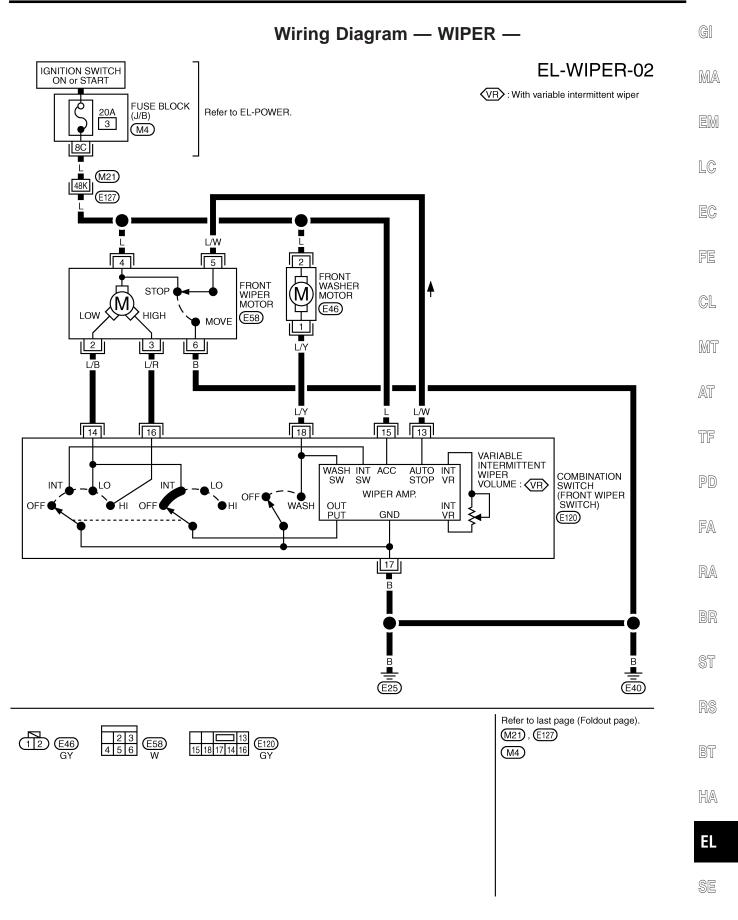
# Wiring Diagram — CHIME —/LHD Models for Europe

IDX

GI

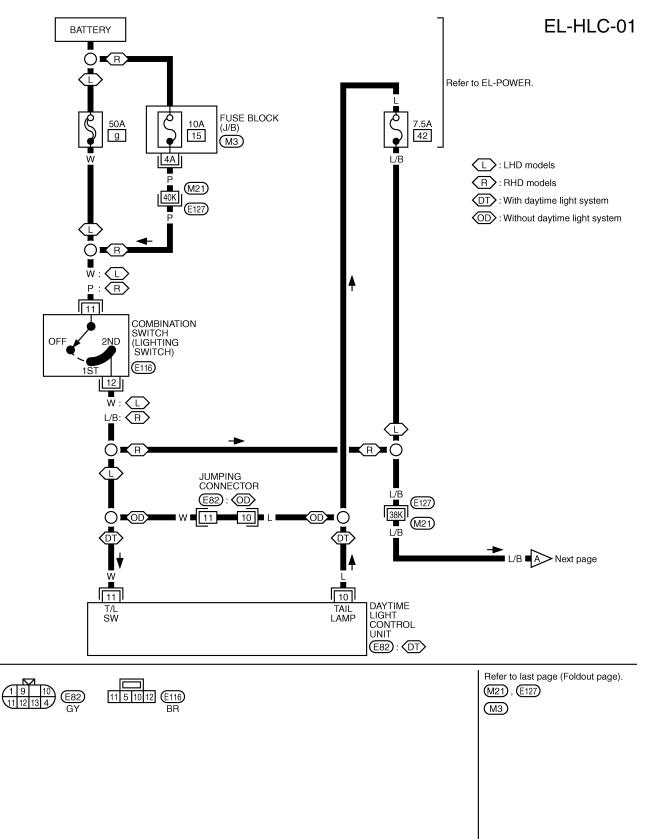
# Wiring Diagram — WIPER —/Except for Europe and TB48 Engine Models

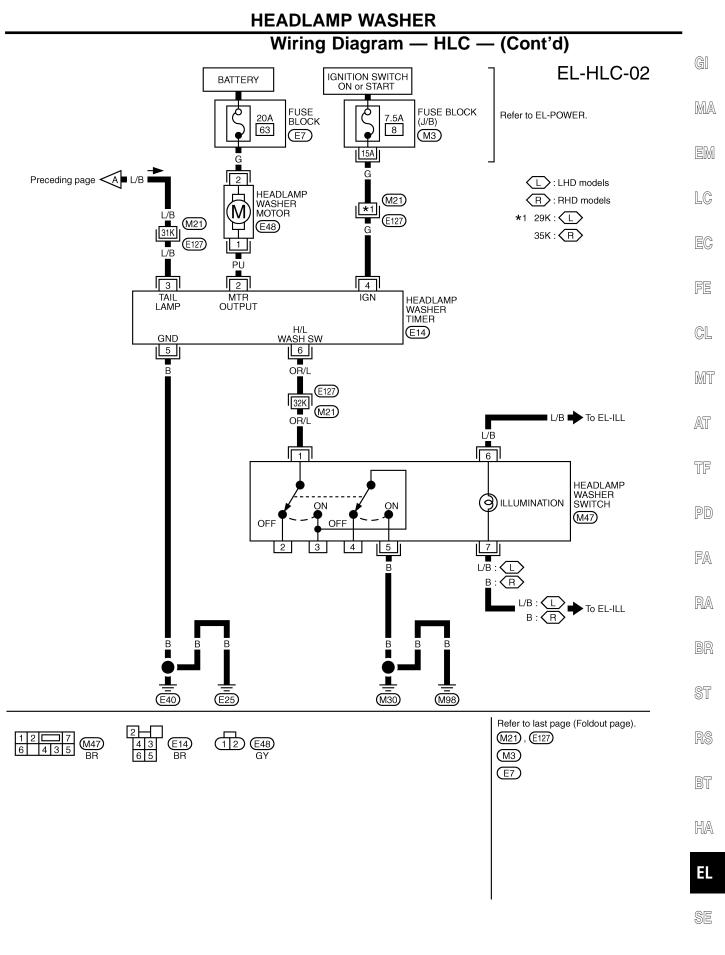


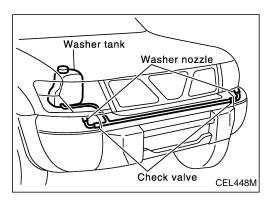


TEL870M

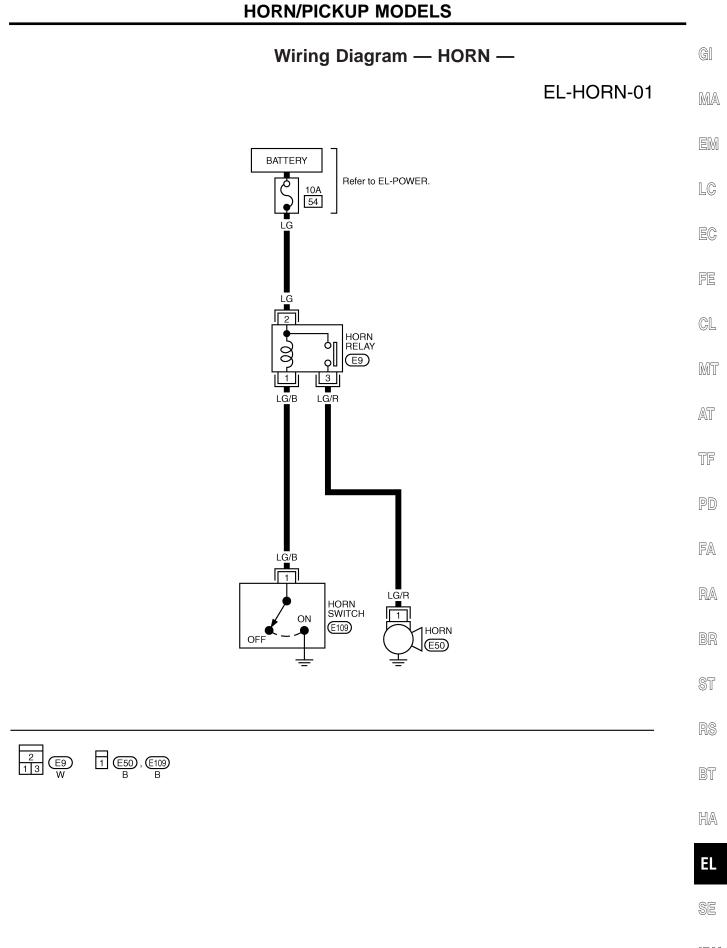




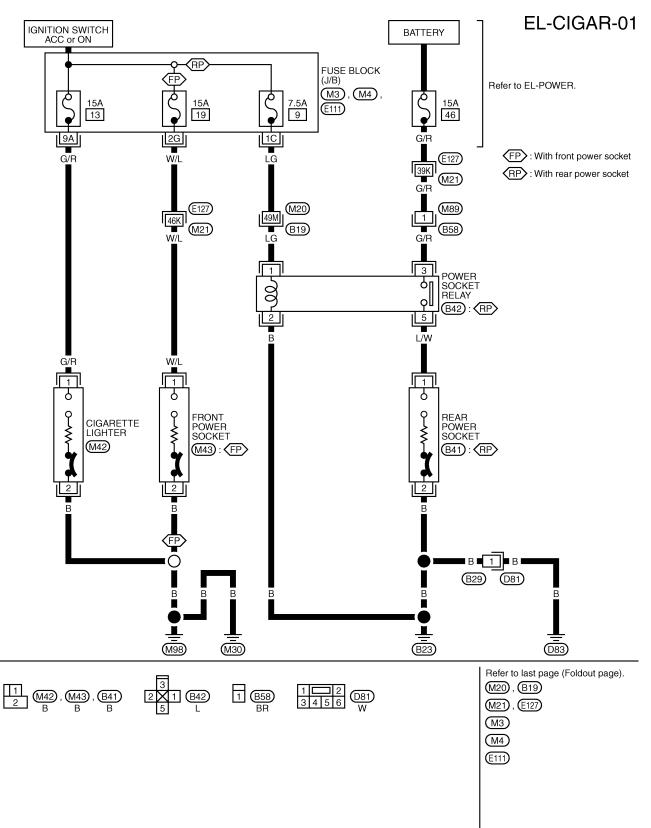




## Washer Tube Layout

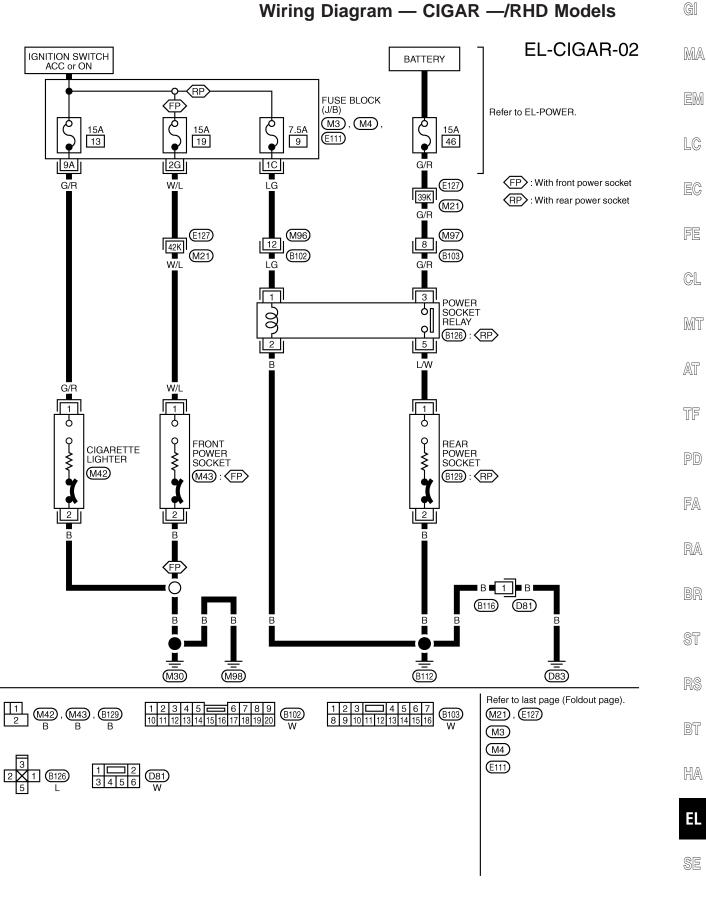


TEL871M



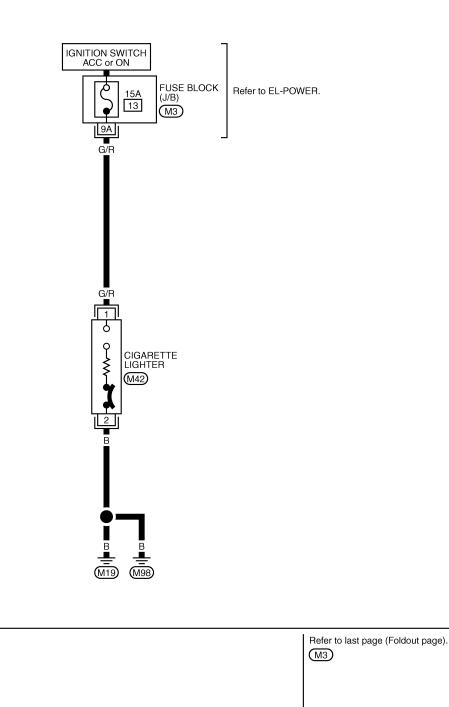


### CIGARETTE LIGHTER/WAGON AND HARDTOP MODELS



## Wiring Diagram — CIGAR —

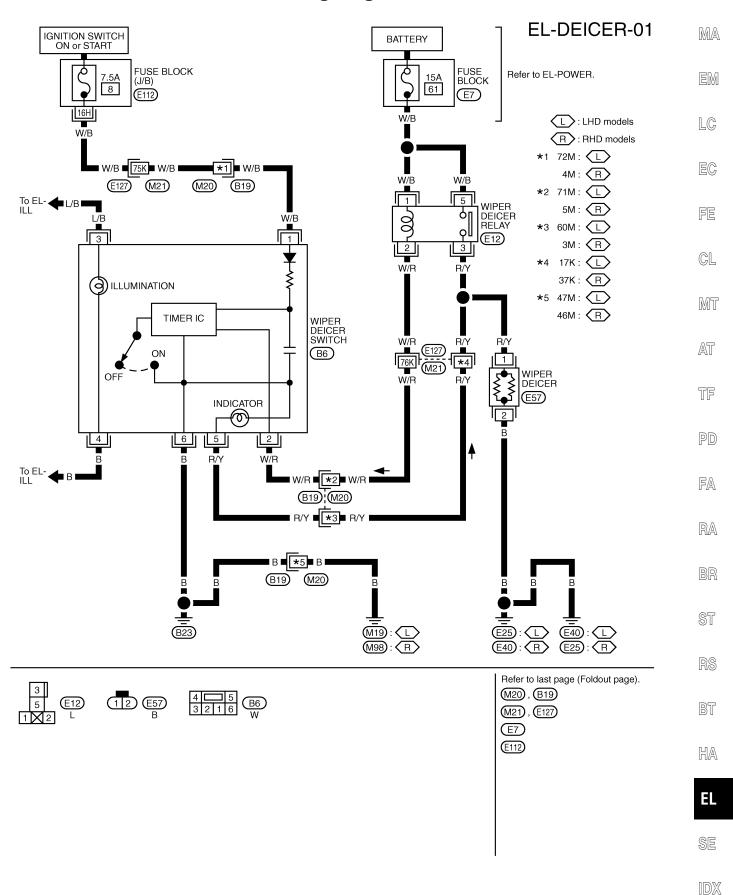
## EL-CIGAR-03



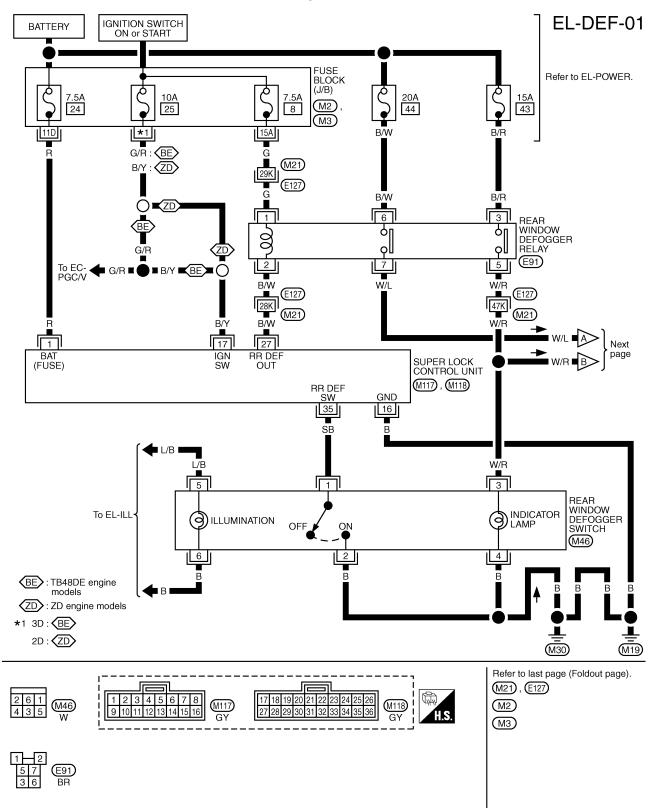
Wiring Diagram — DEICER —

GI

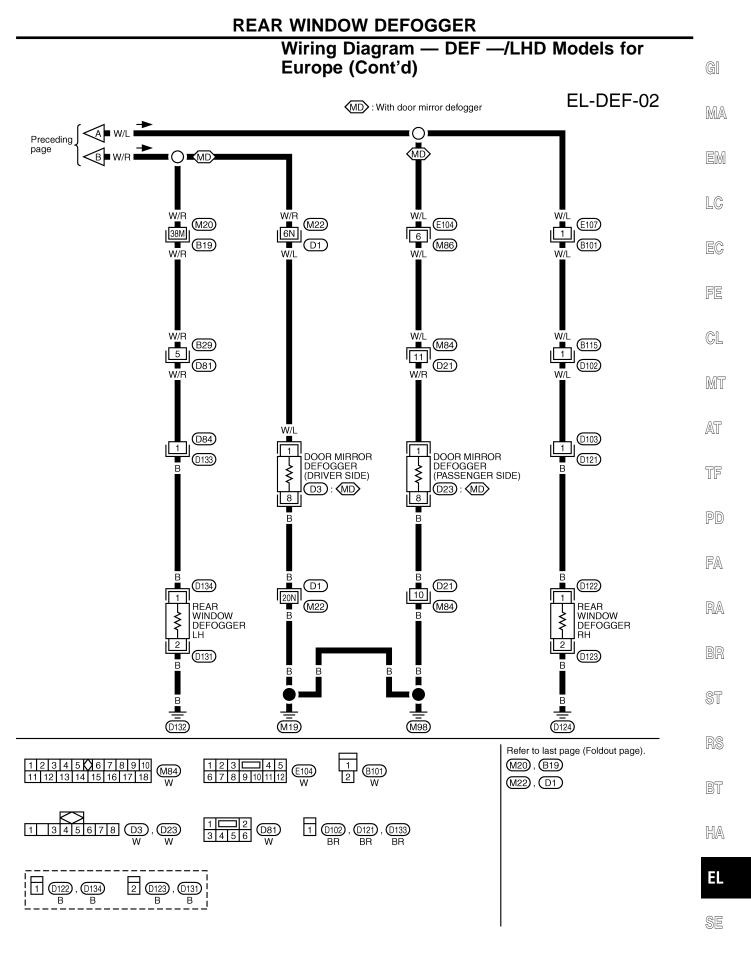
TEL775M



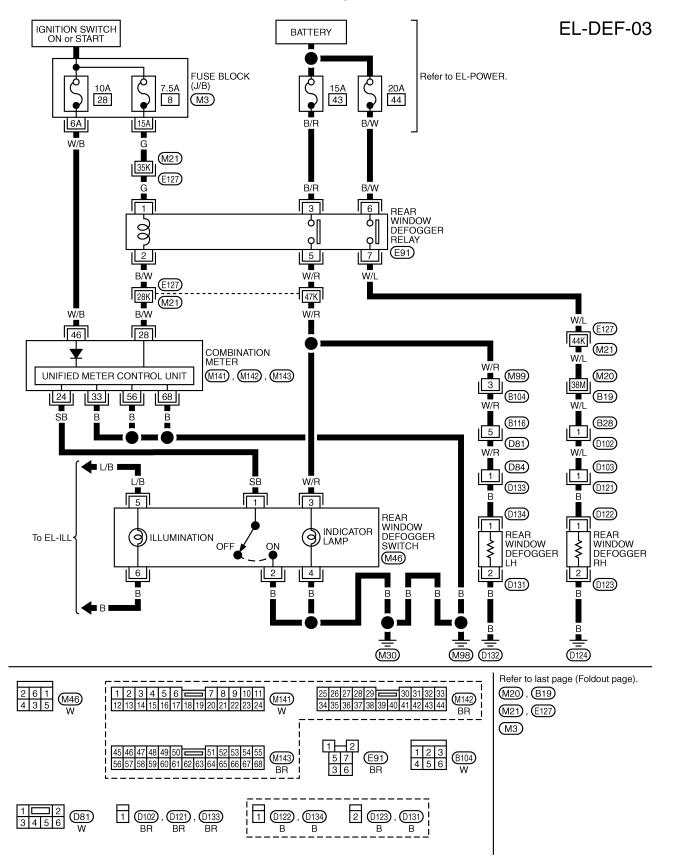
EL-147



Wiring Diagram — DEF —/LHD Models for Europe

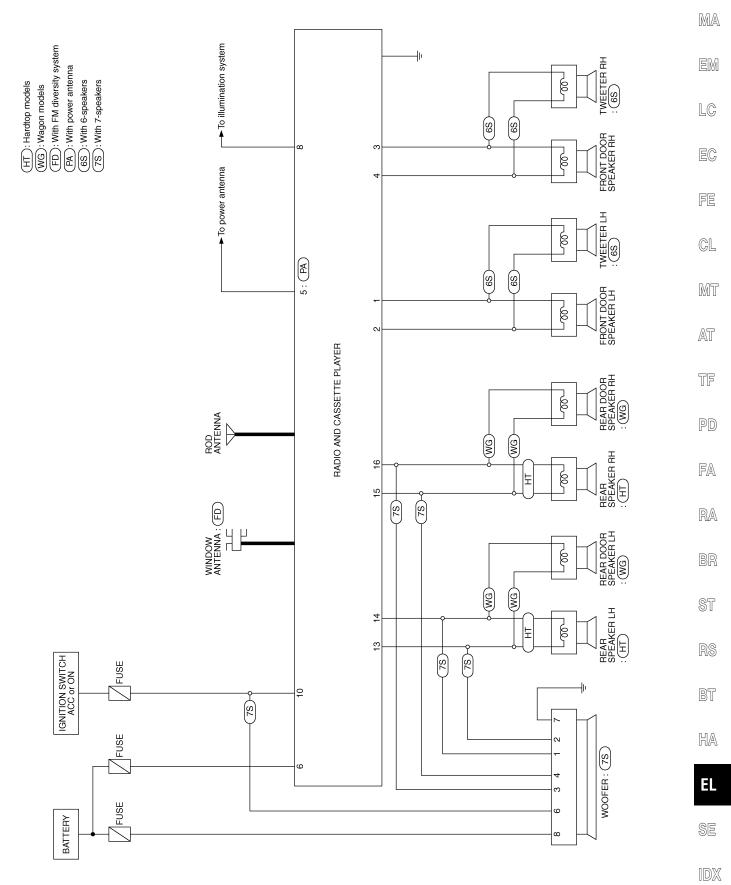


TEL702M



# Wiring Diagram — DEF —/RHD Models Except for Europe

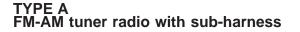
### Schematic/Except for Europe

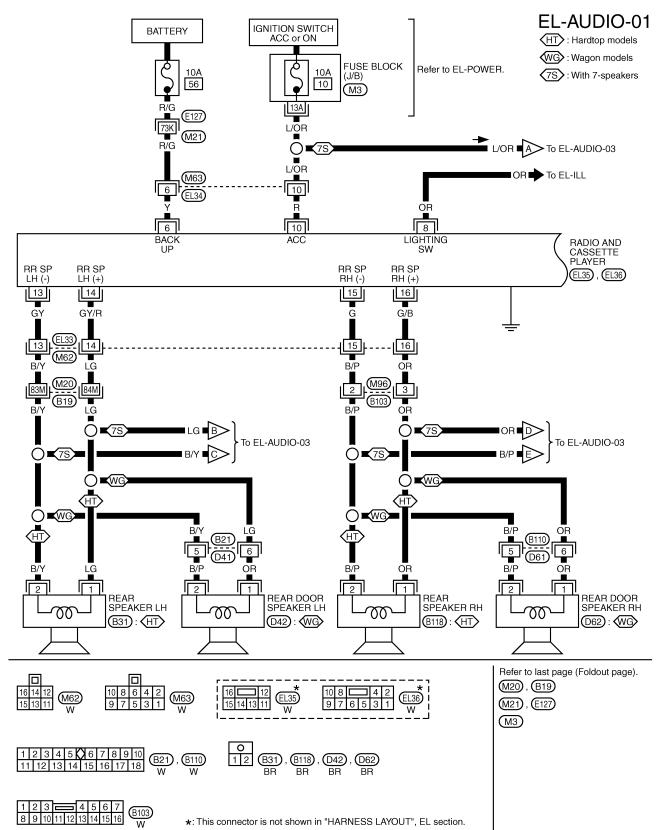


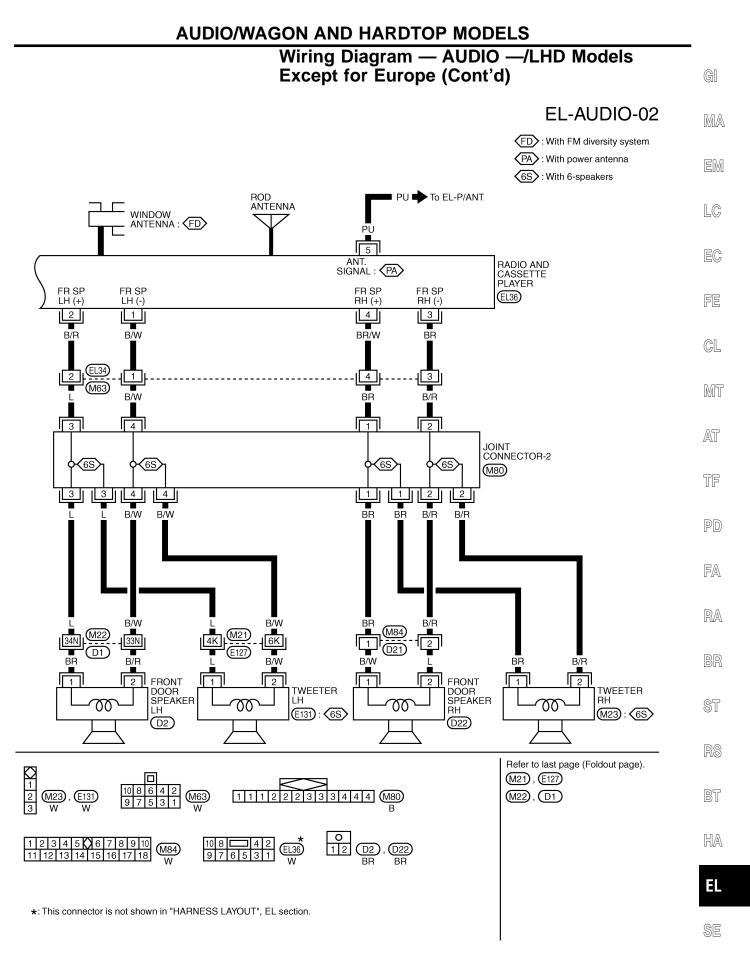
TEL703M

GI

# Wiring Diagram — AUDIO —/LHD Models Except for Europe



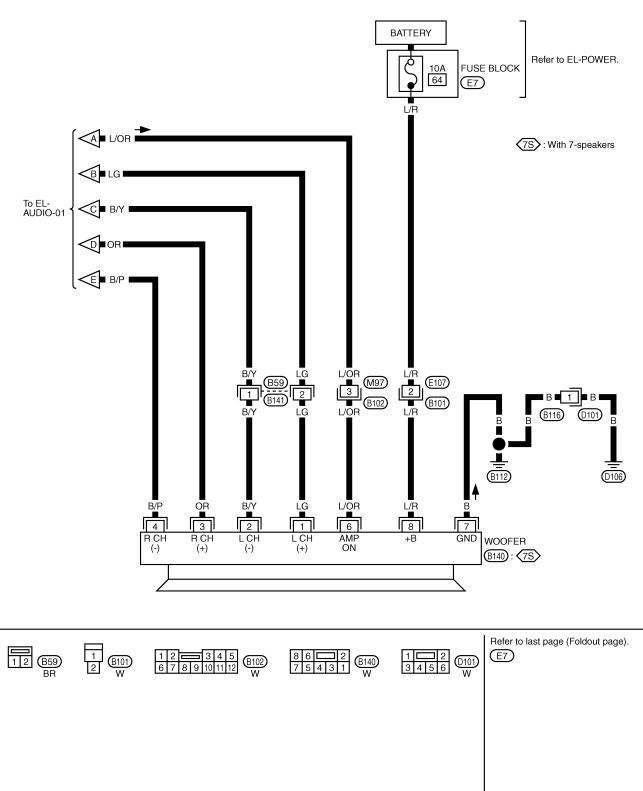




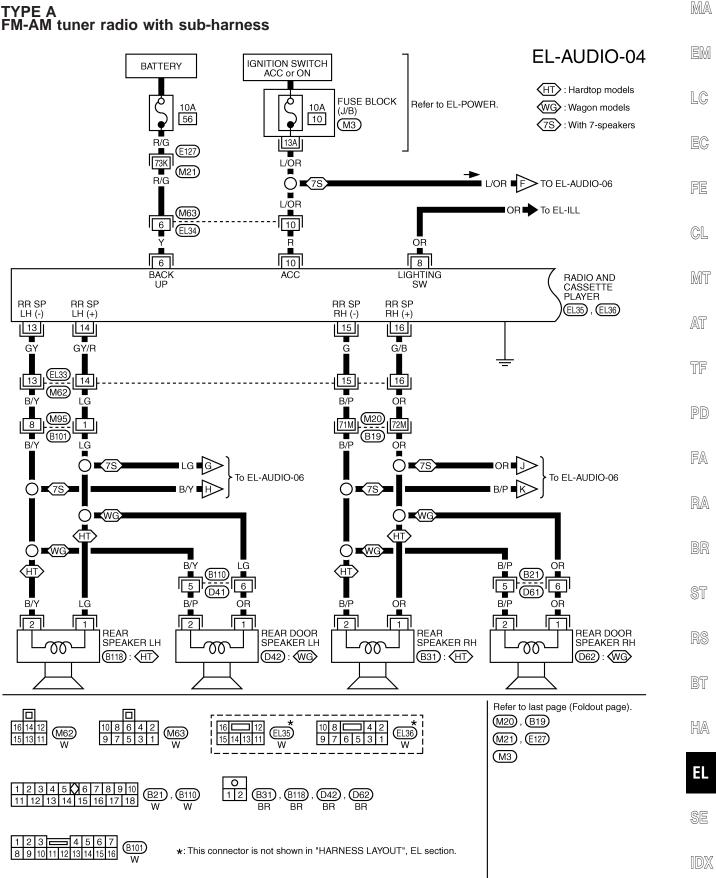
#### EL-153

### Wiring Diagram — AUDIO —/LHD Models Except for Europe (Cont'd)

EL-AUDIO-03



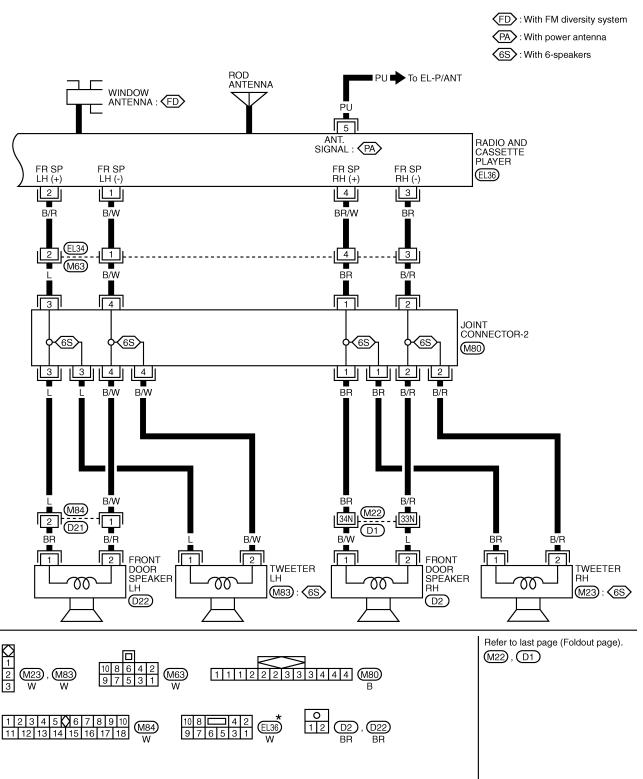
# Wiring Diagram — AUDIO —/RHD Models GI Except for Europe



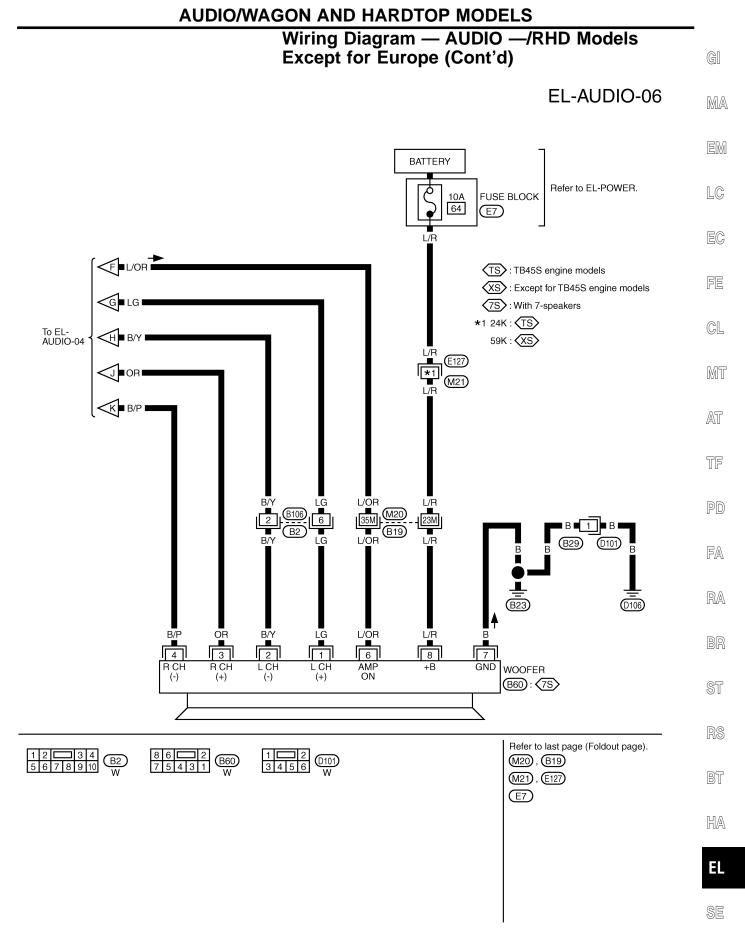
TEL781M

### Wiring Diagram — AUDIO —/RHD Models Except for Europe (Cont'd)

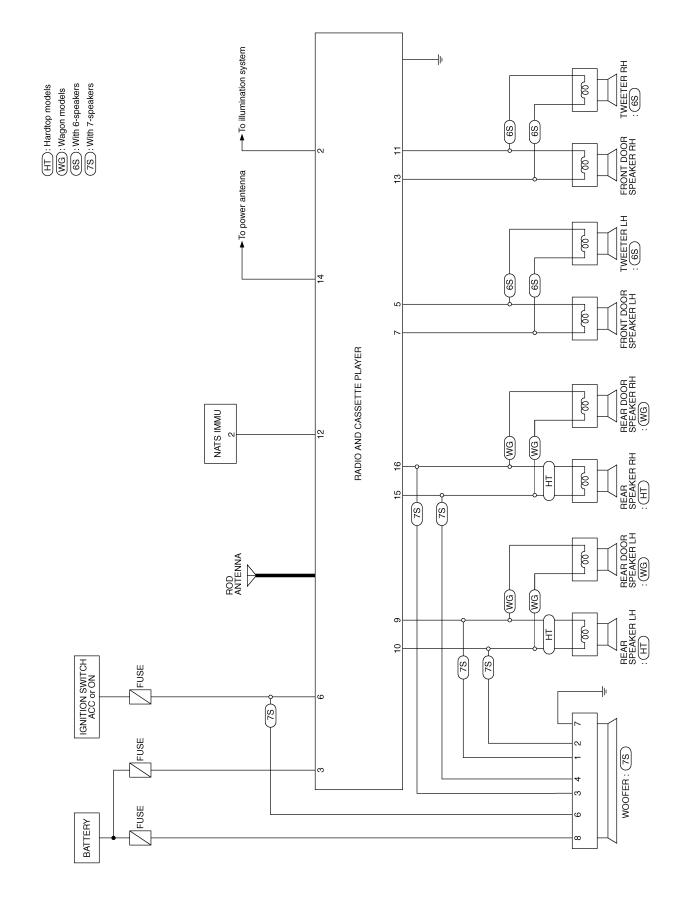
### EL-AUDIO-05

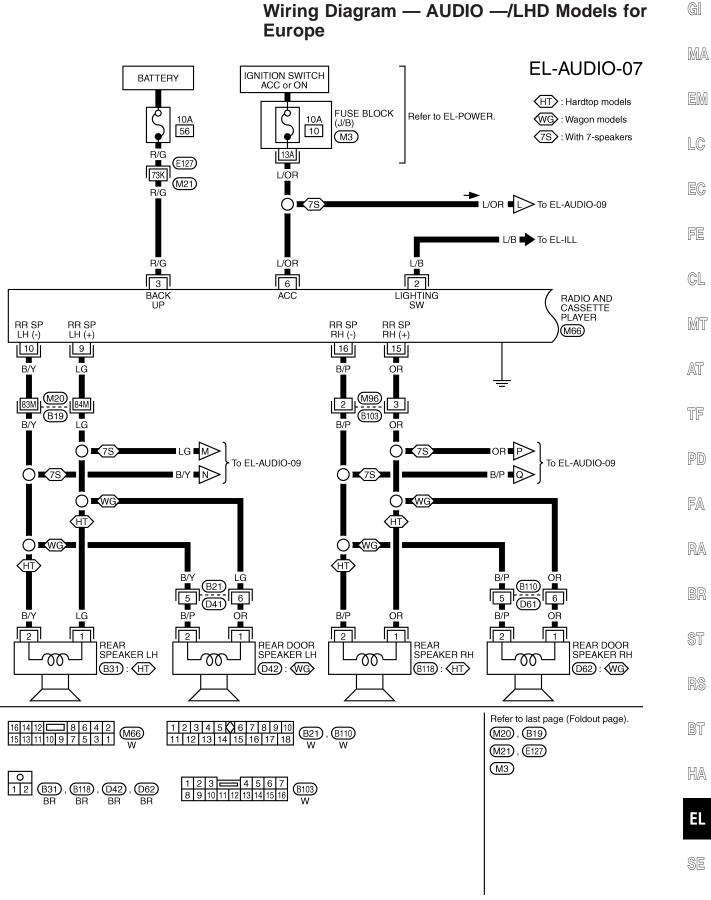


 $\bigstar$ : This connector is not shown in "HARNESS LAYOUT", EL section.

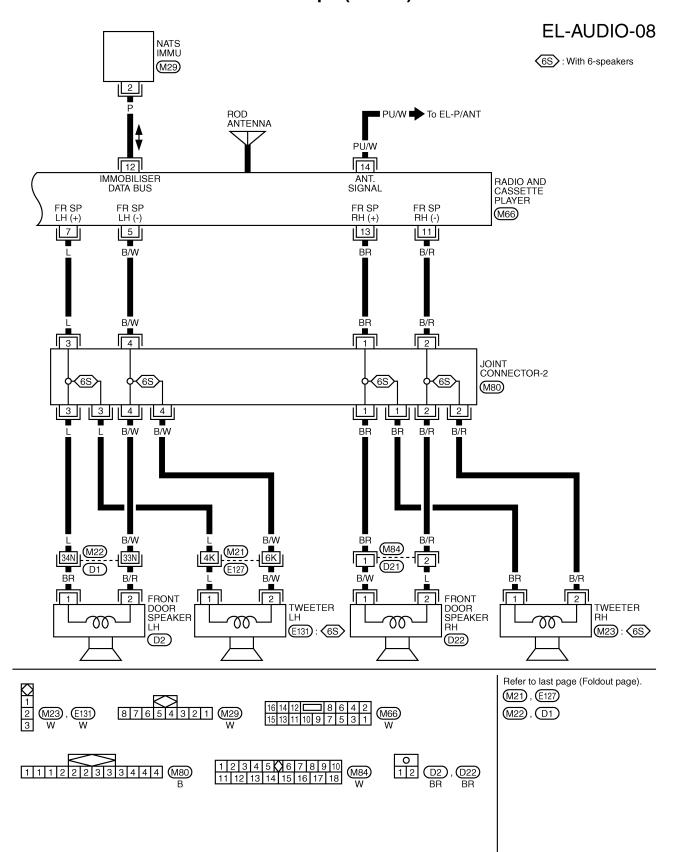


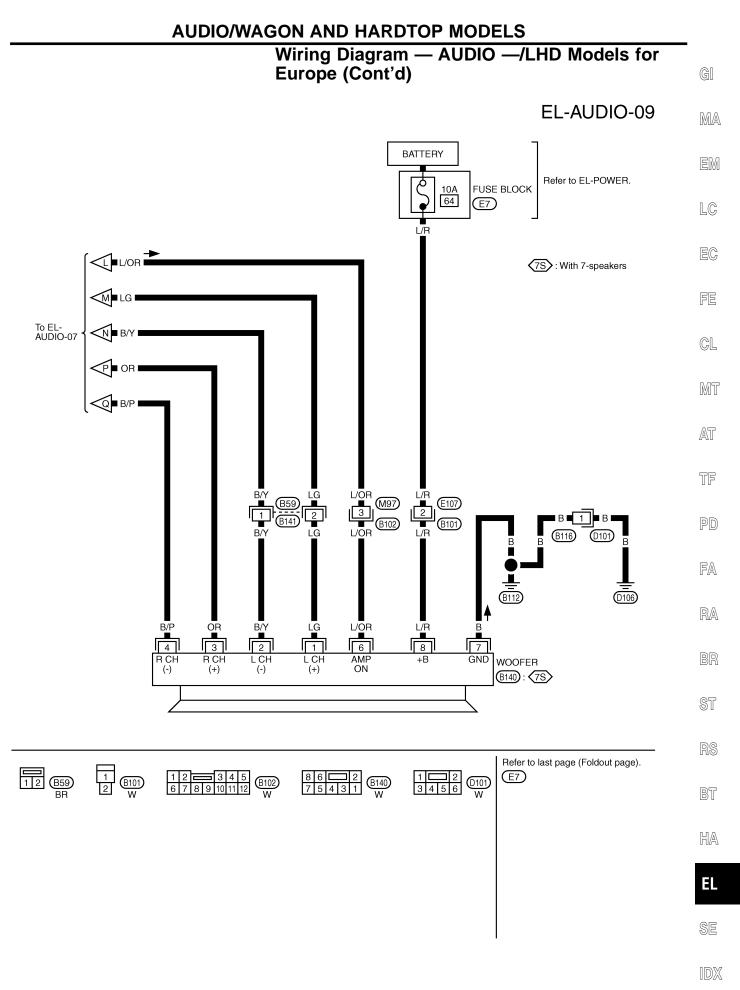
Schematic/For Europe

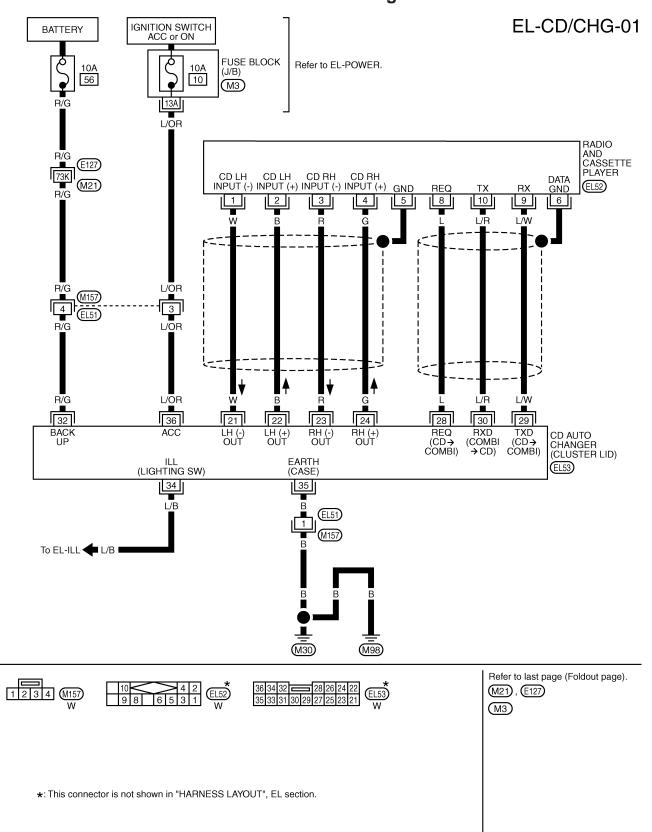




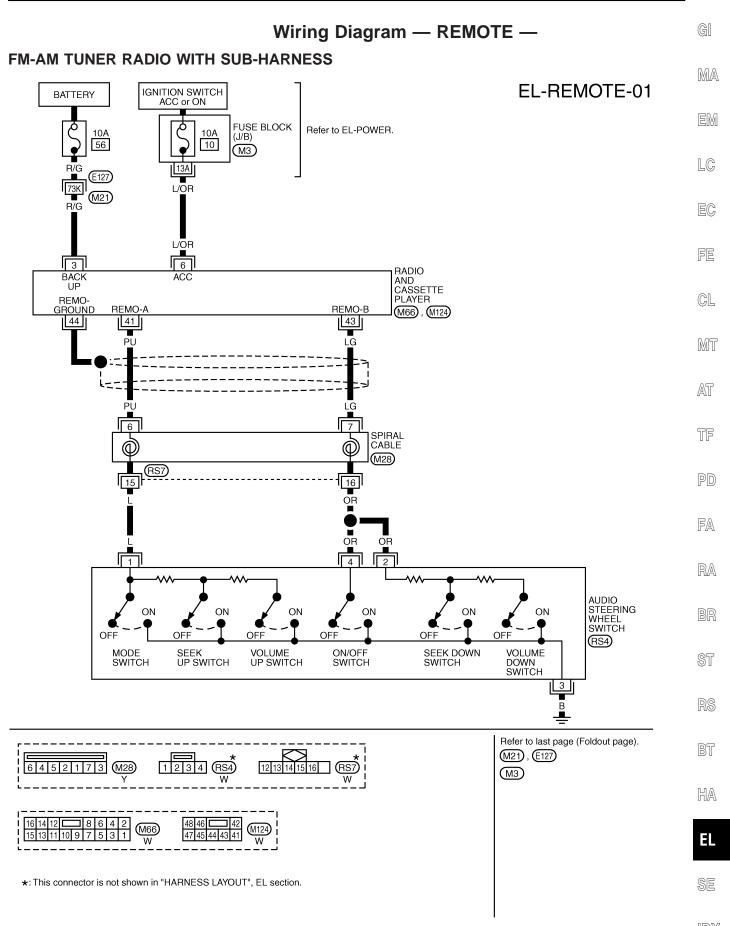
# Wiring Diagram — AUDIO —/LHD Models for Europe (Cont'd)







# Wiring Diagram — CD/CHG —/With IDIN Type CD Auto Changer

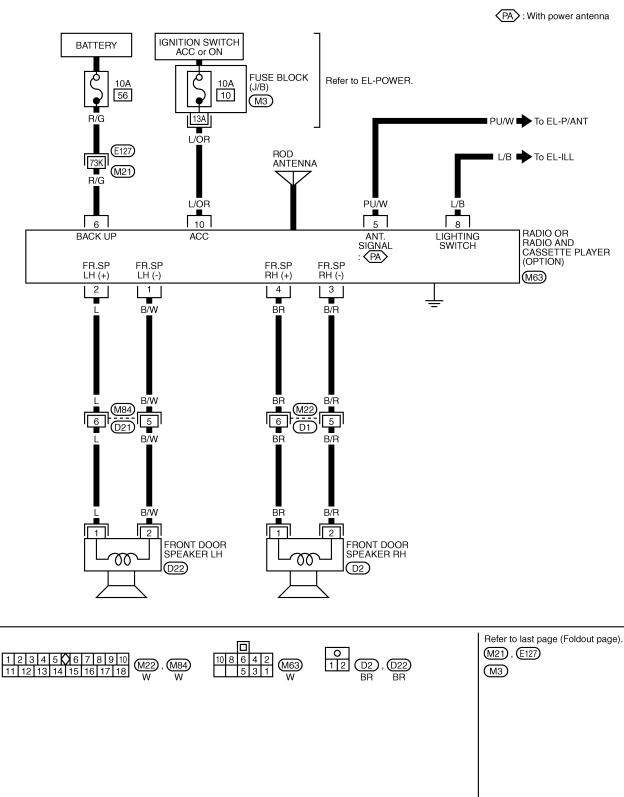


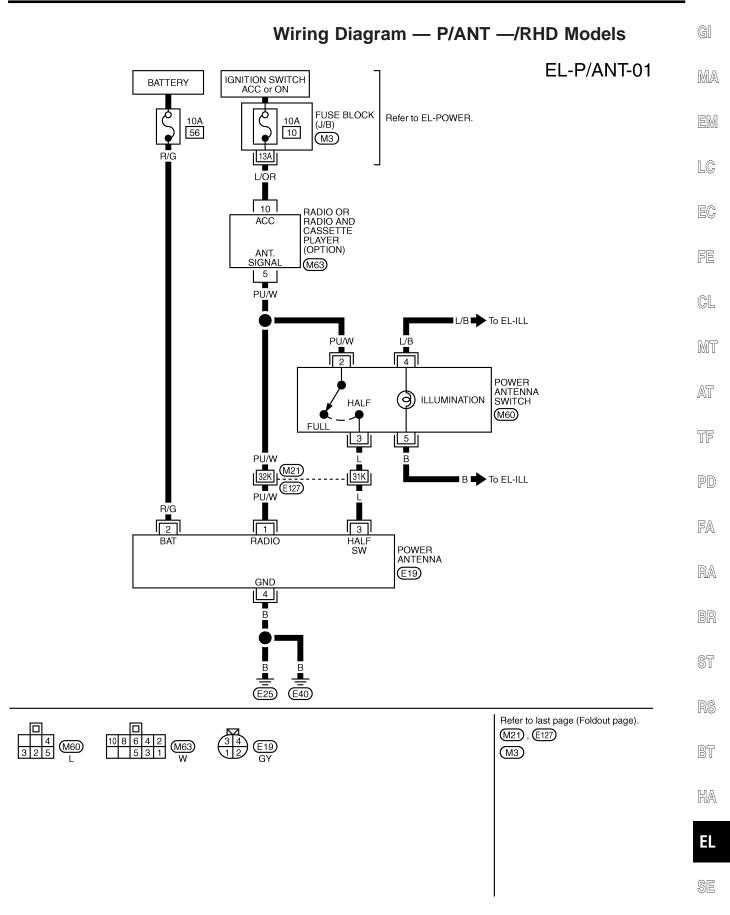
TEL840M

### Wiring Diagram — AUDIO —/RHD Models

#### MODELS WITH TWO SPEAKERS



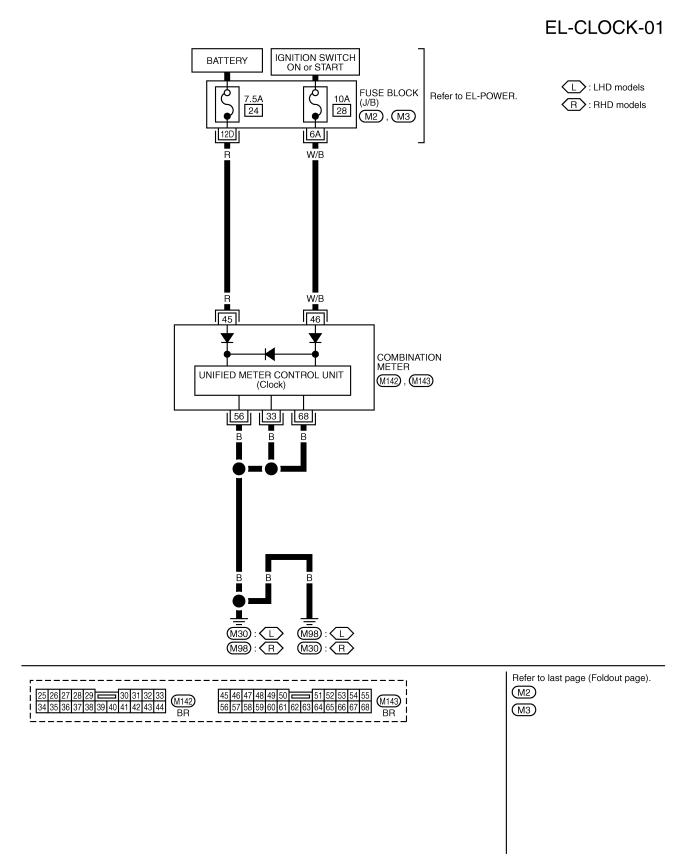




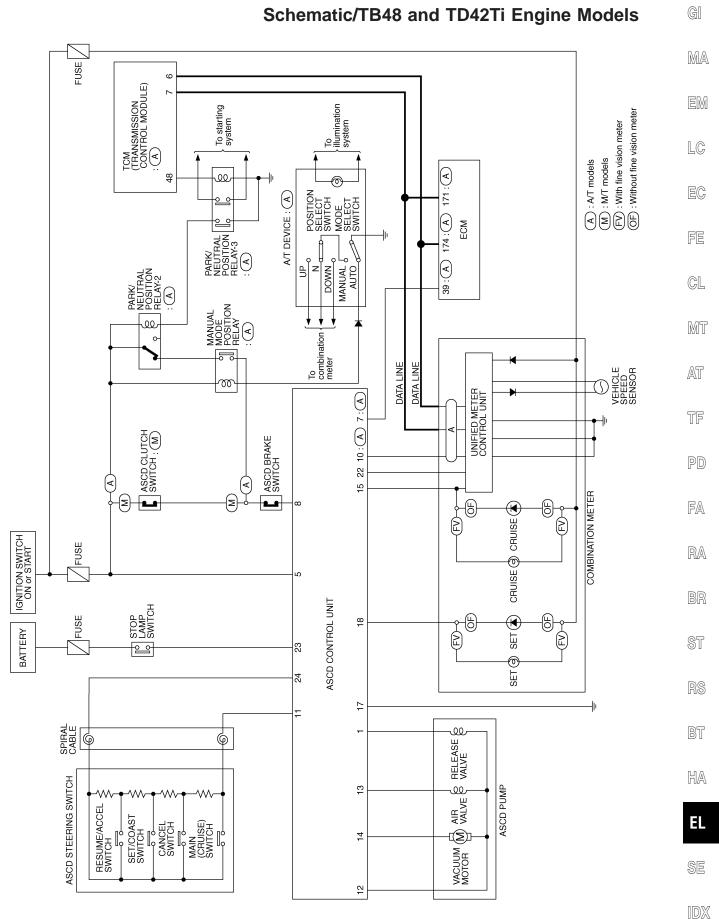
TEL874M

### CLOCK



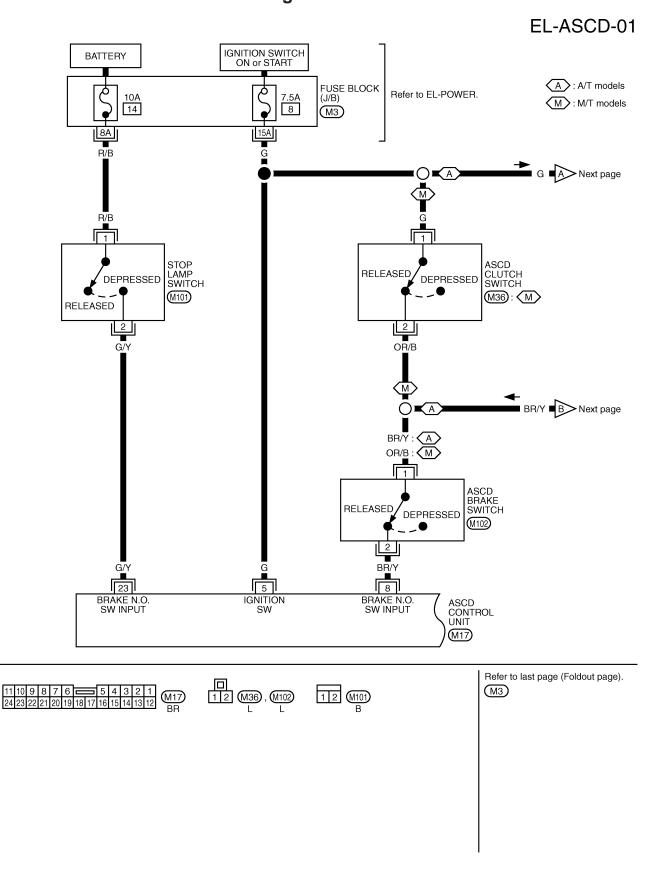


# AUTOMATIC SPEED CONTROL DEVICE (ASCD)/WAGON AND HARDTOP

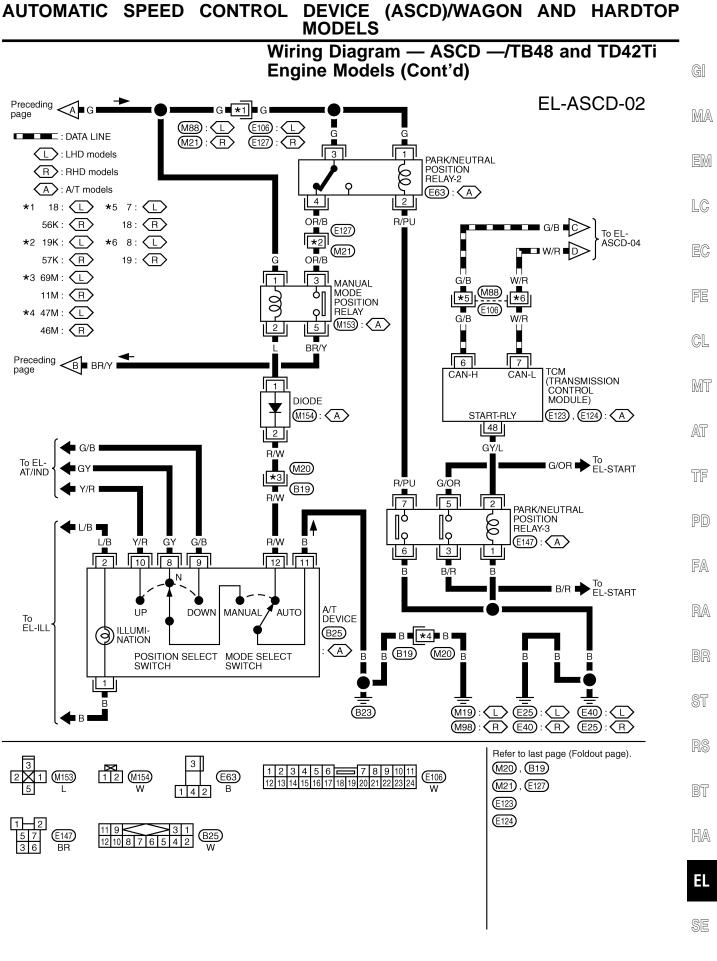


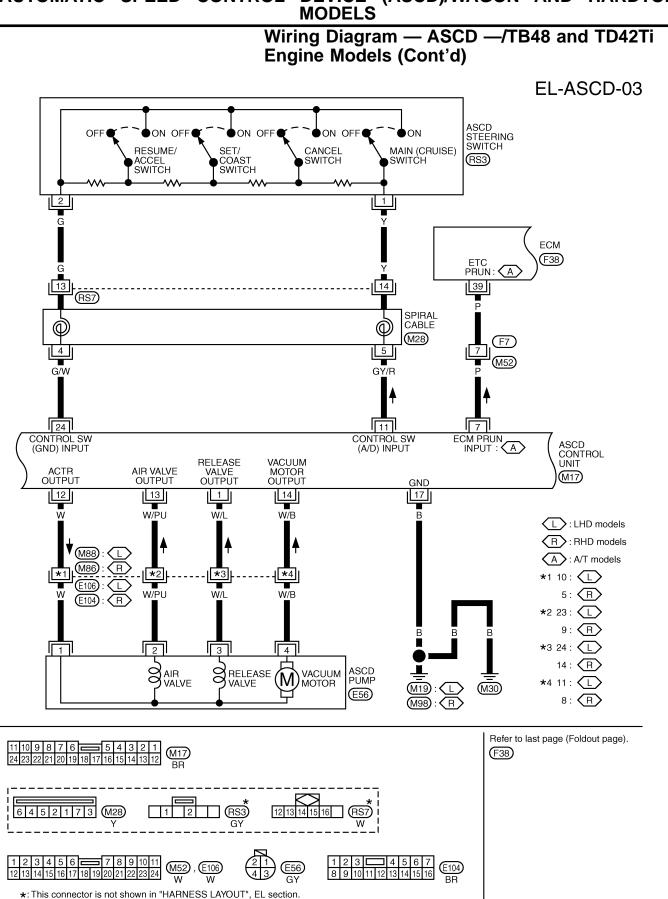
TEL737M

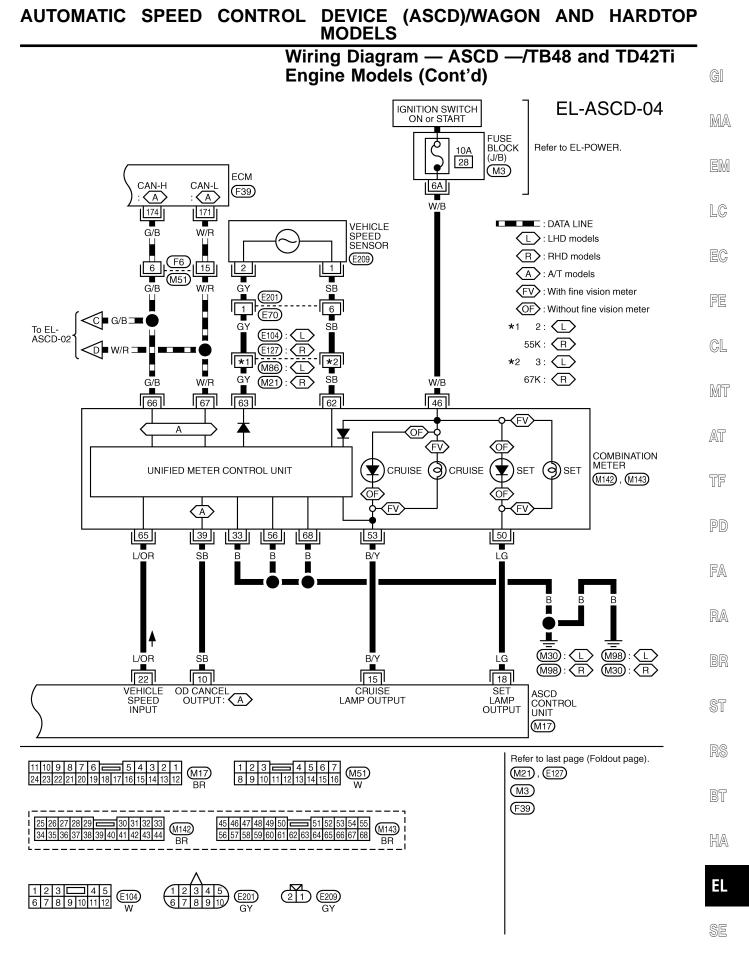
### AUTOMATIC SPEED CONTROL DEVICE (ASCD)/WAGON AND HARDTOP MODELS



Wiring Diagram — ASCD —/TB48 and TD42Ti Engine Models

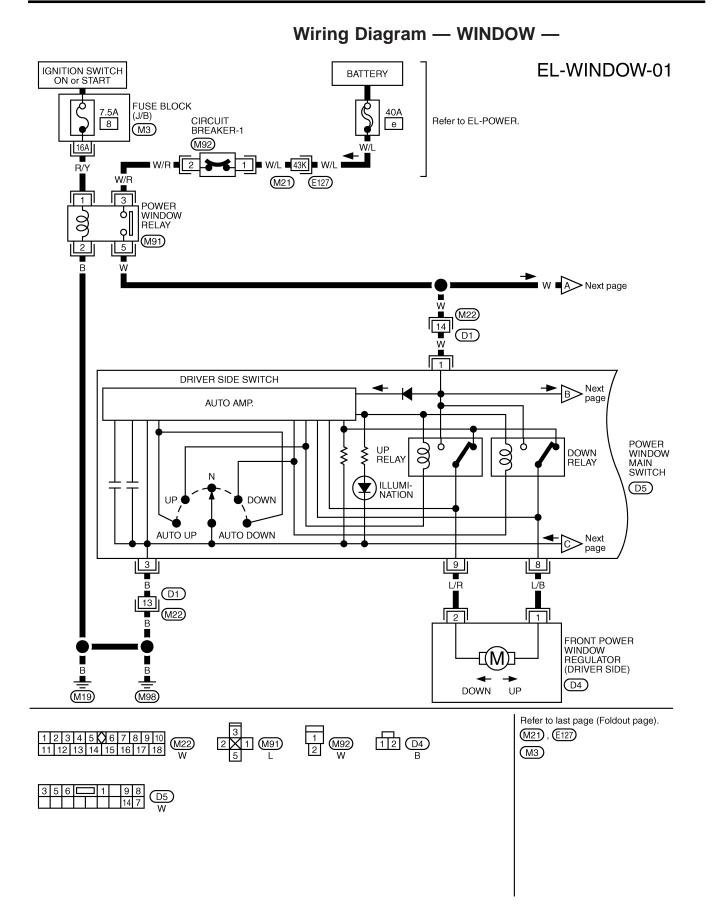


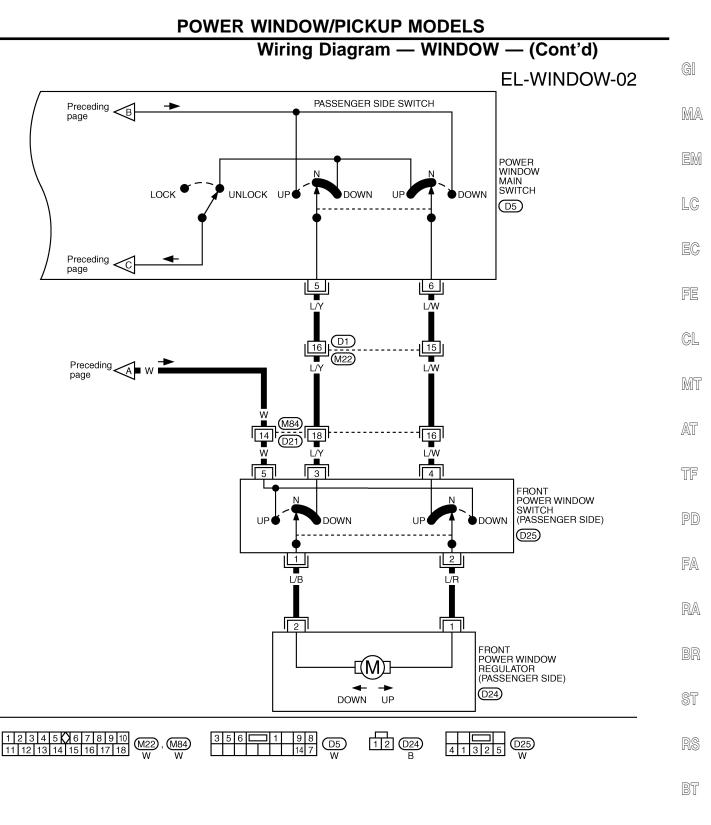




TEL738M

#### EL-171

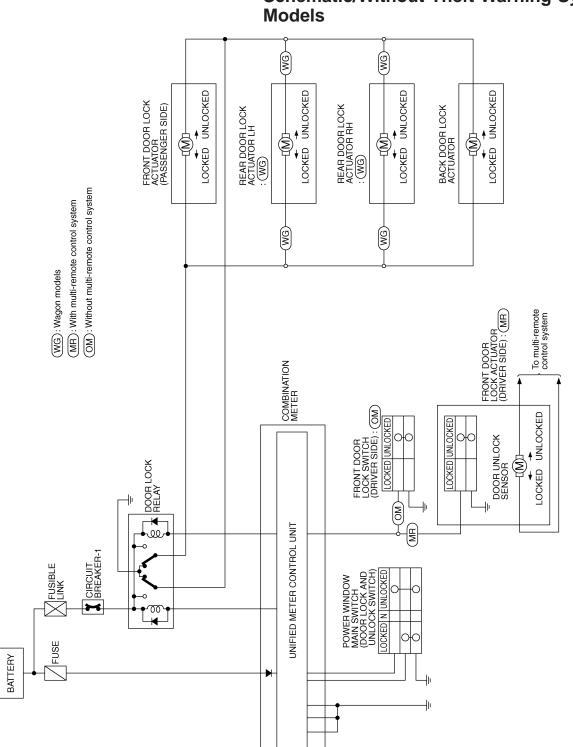




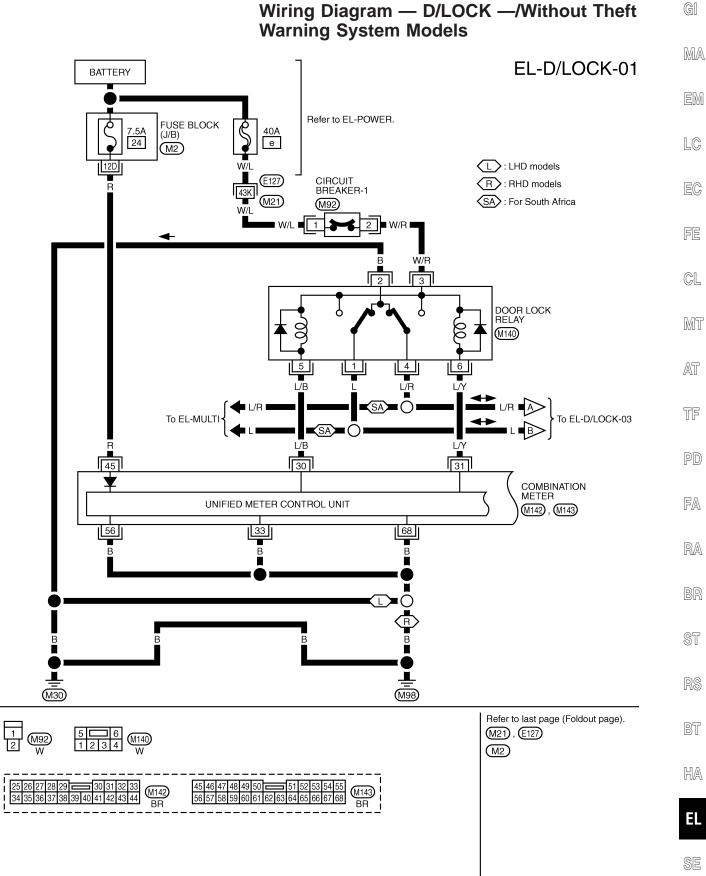
HA

EL

SE



Schematic/Without Theft Warning System



Wiring Diagram — D/LOCK —/Without Theft

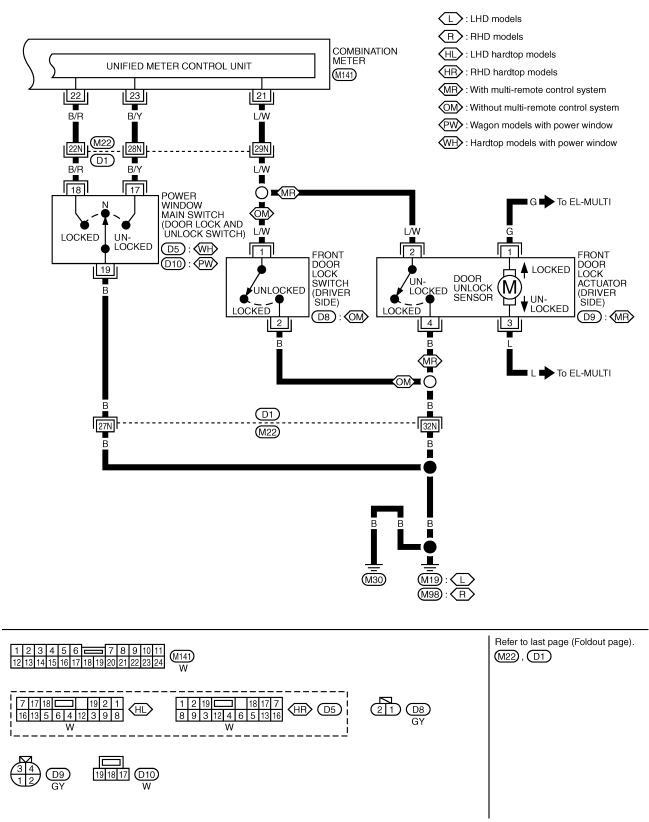
IDX

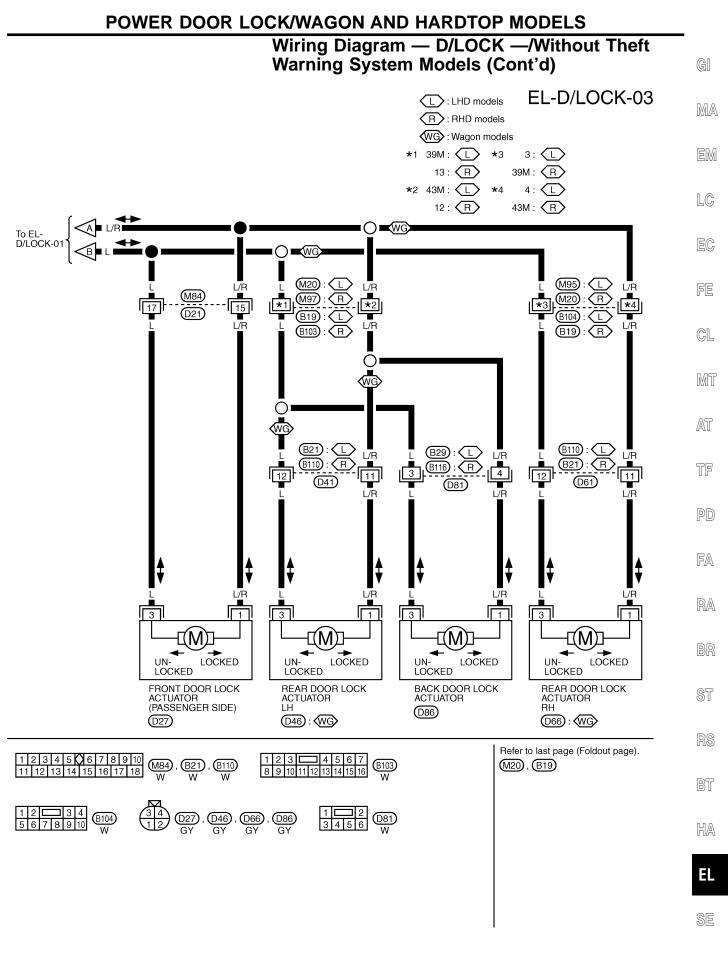
TEL839M

### POWER DOOR LOCK/WAGON AND HARDTOP MODELS

Wiring Diagram — D/LOCK —/Without Theft Warning System Models (Cont'd)

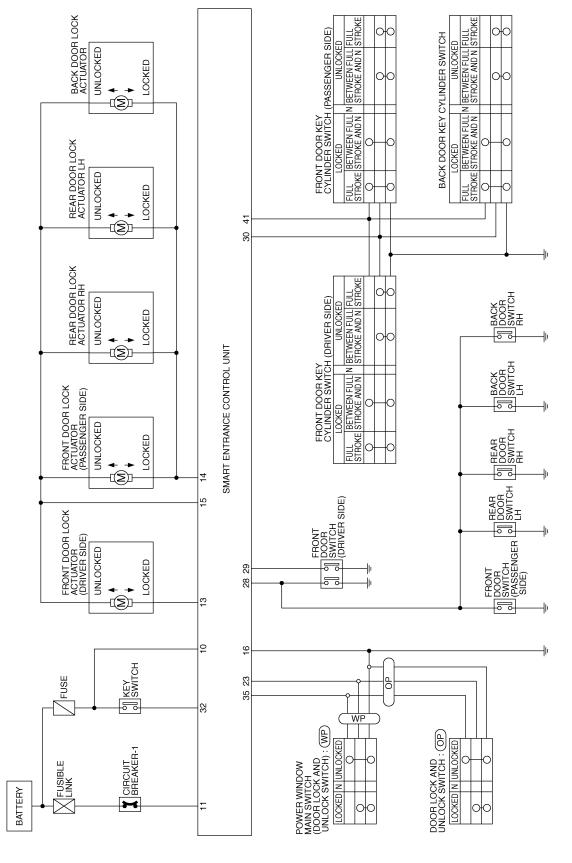
## EL-D/LOCK-02

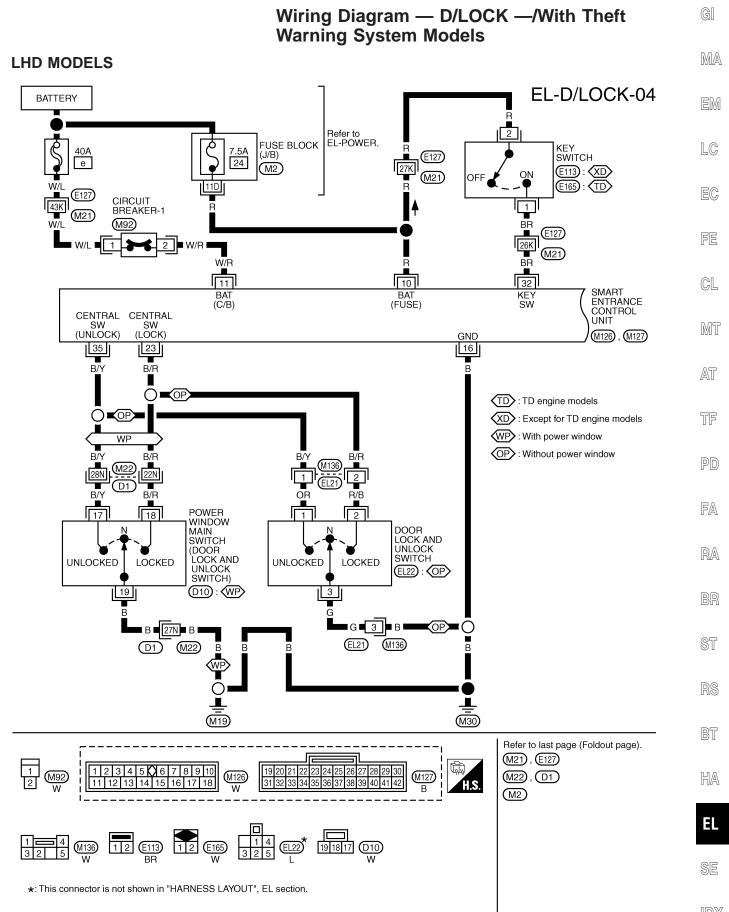




### Schematic/With Theft Warning System Models

WP) : With power window OP) : Without power window

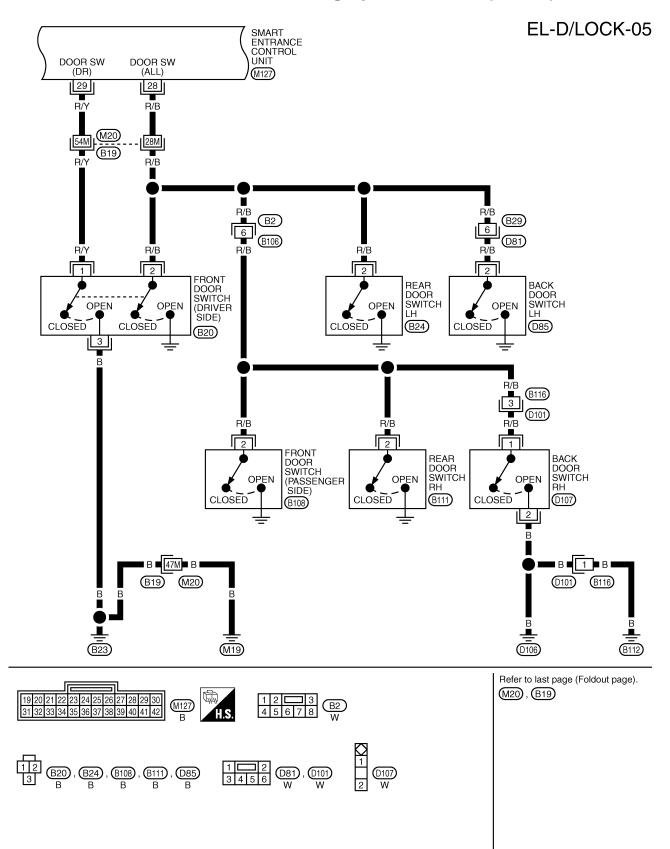


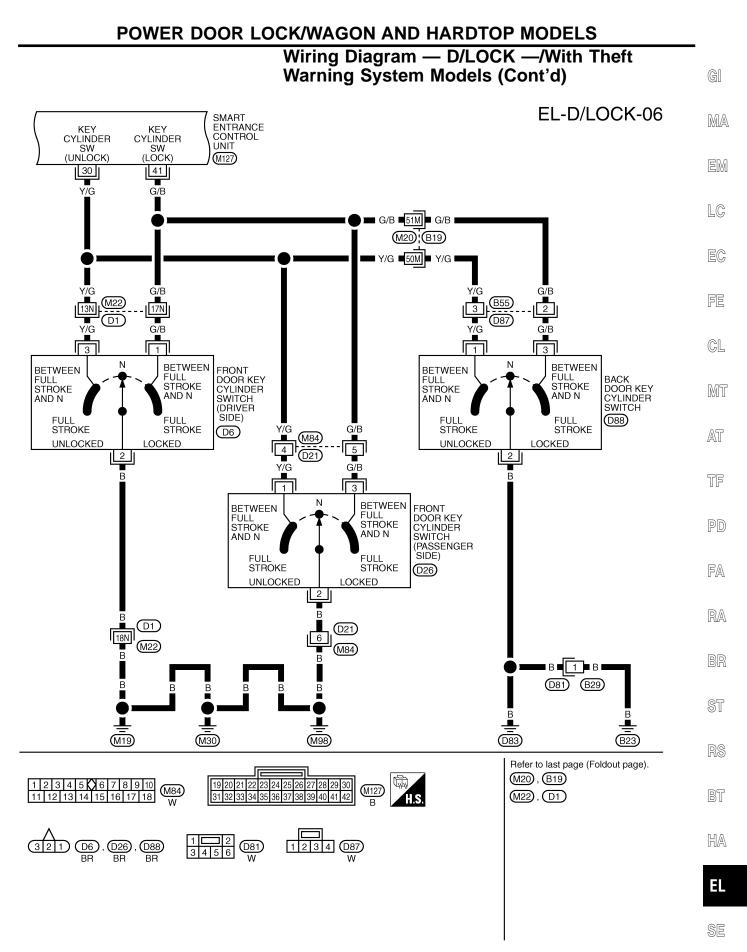


TEL790M

### POWER DOOR LOCK/WAGON AND HARDTOP MODELS

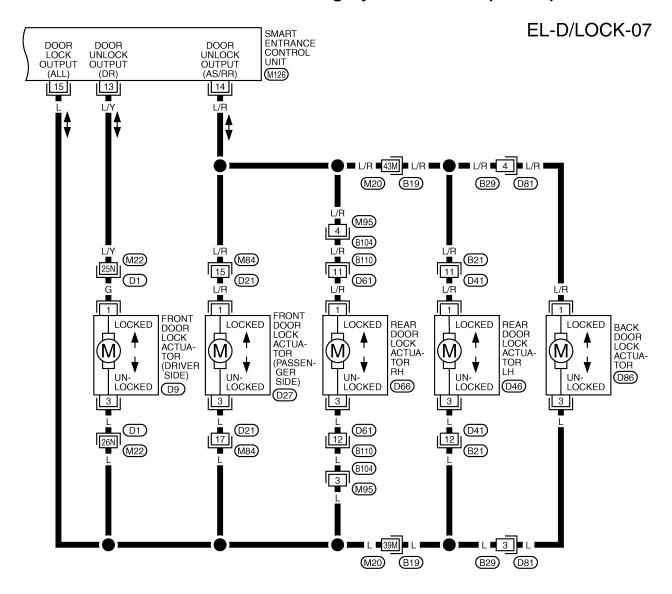
Wiring Diagram — D/LOCK —/With Theft Warning System Models (Cont'd)

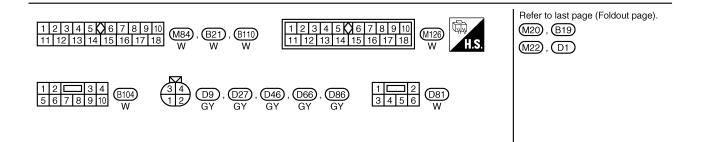




### POWER DOOR LOCK/WAGON AND HARDTOP MODELS

Wiring Diagram — D/LOCK —/With Theft Warning System Models (Cont'd)

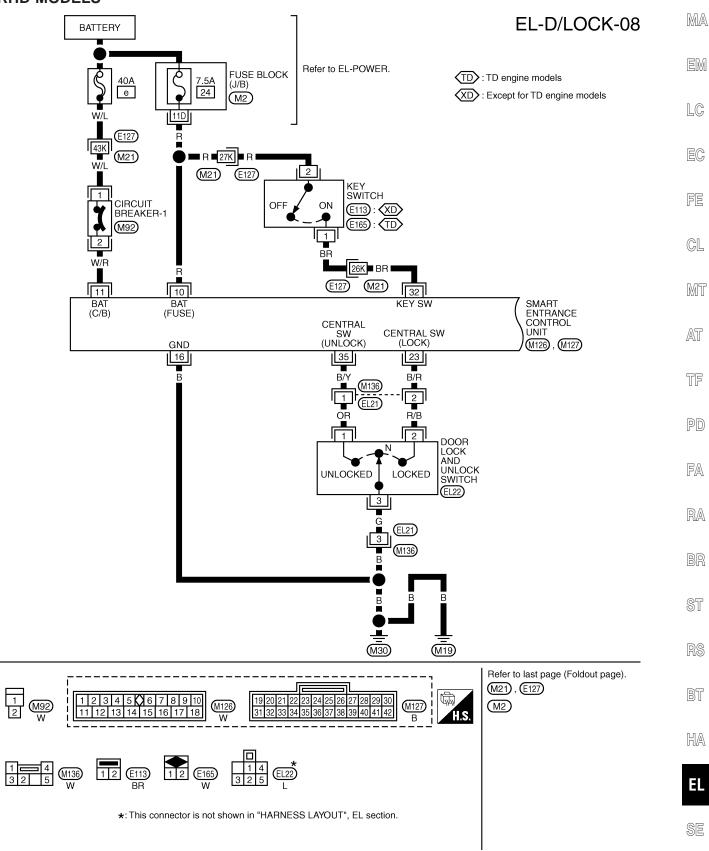




# POWER DOOR LOCK/WAGON AND HARDTOP MODELS Wiring Diagram — D/LOCK —/With Theft Warning System Models (Cont'd)



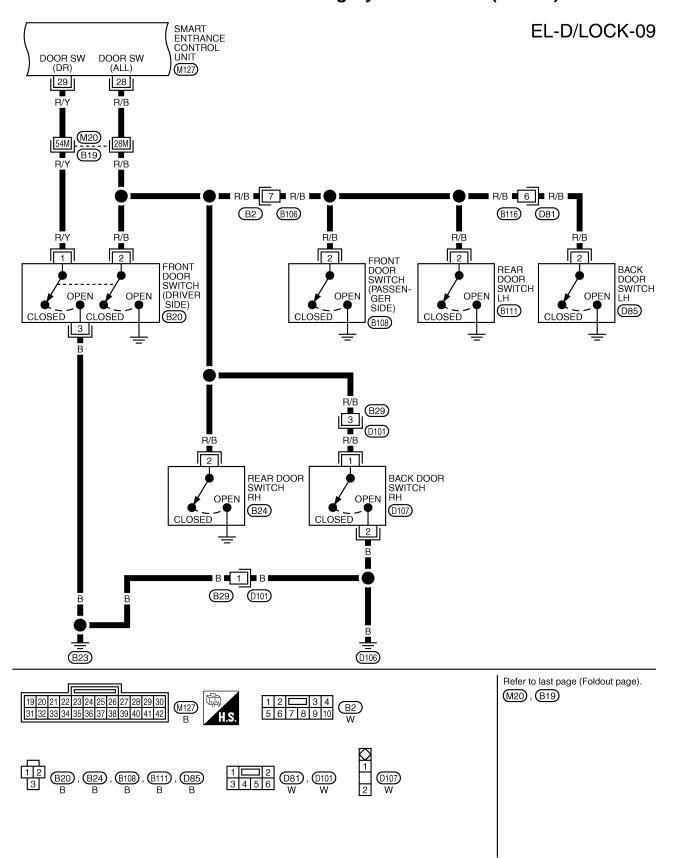
 $\frac{1}{2}$ 

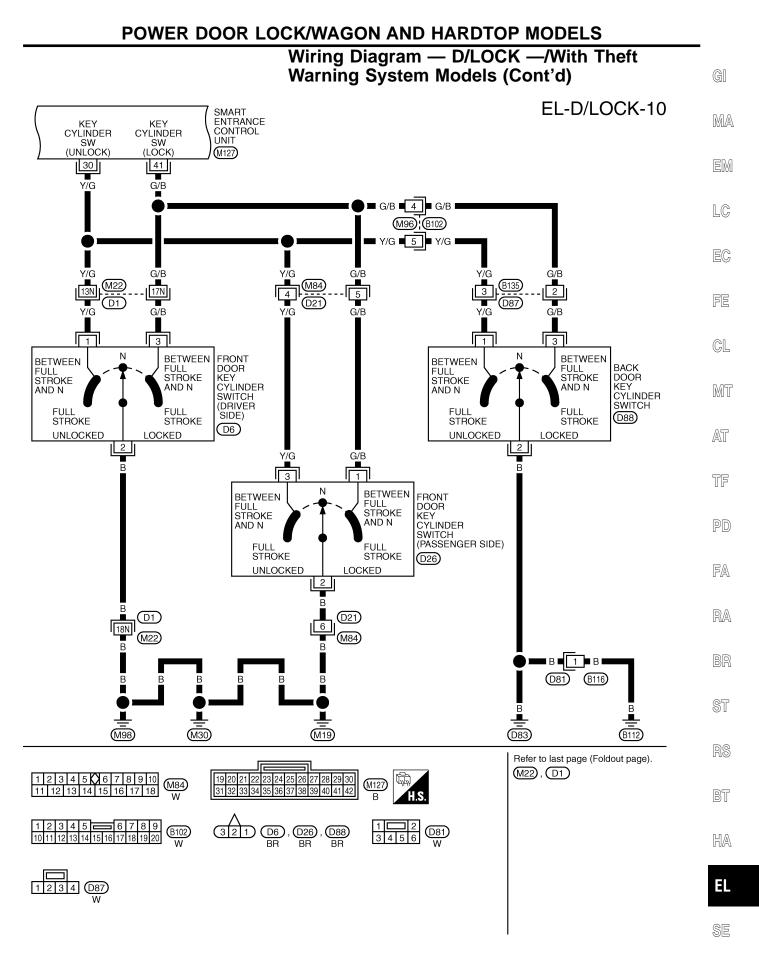


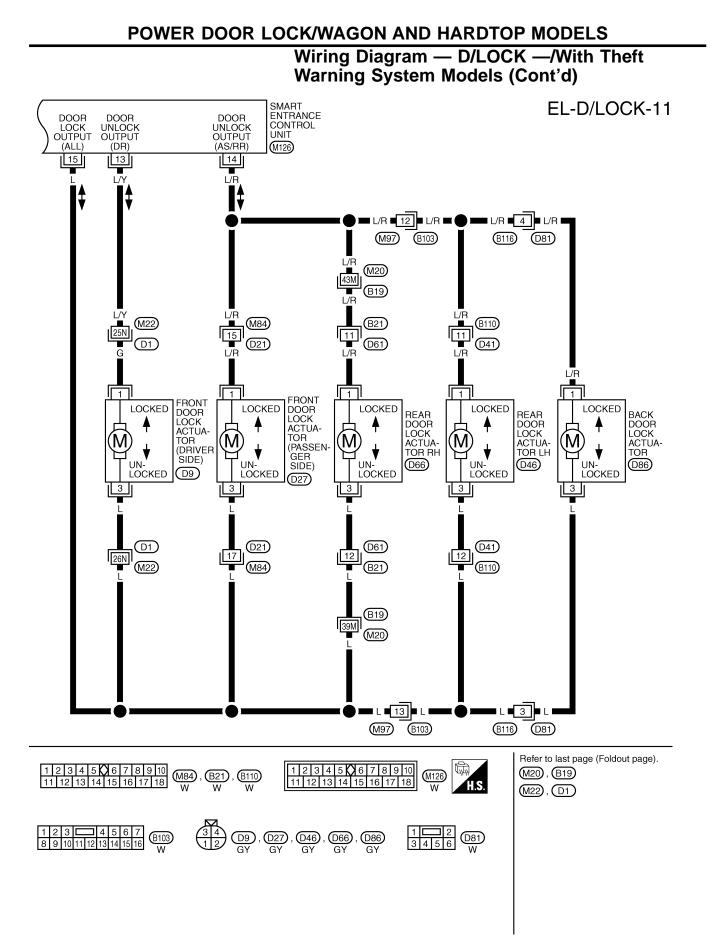
GI

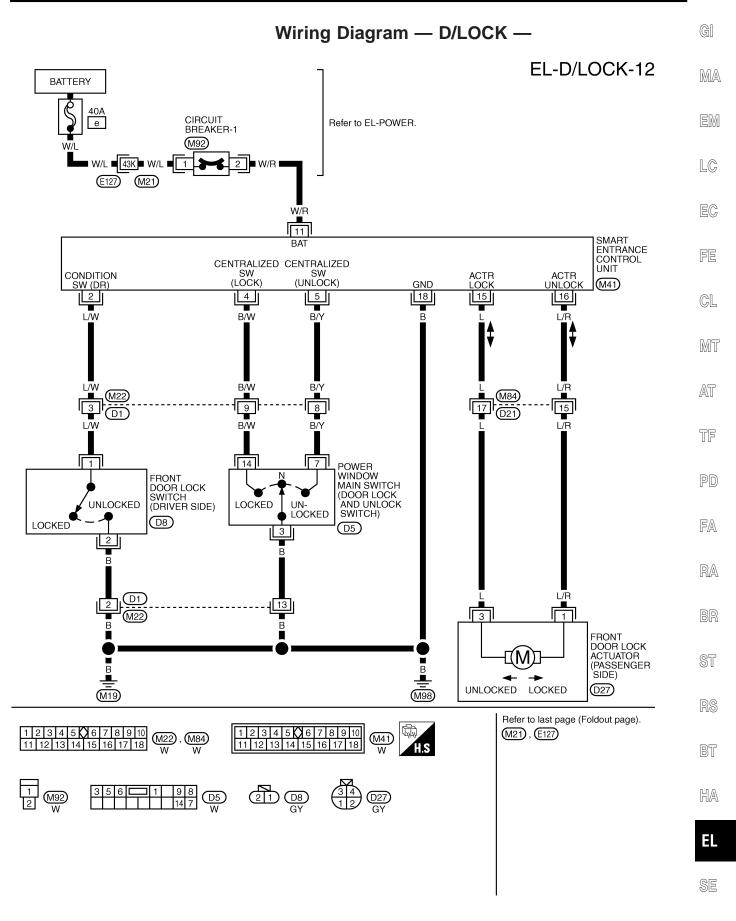
### POWER DOOR LOCK/WAGON AND HARDTOP MODELS

Wiring Diagram — D/LOCK —/With Theft Warning System Models (Cont'd)

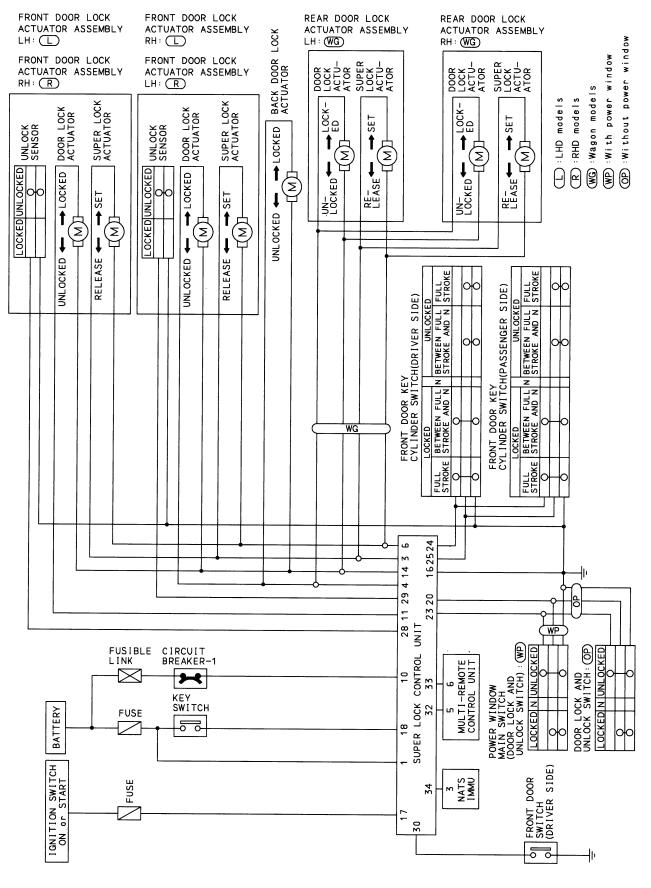




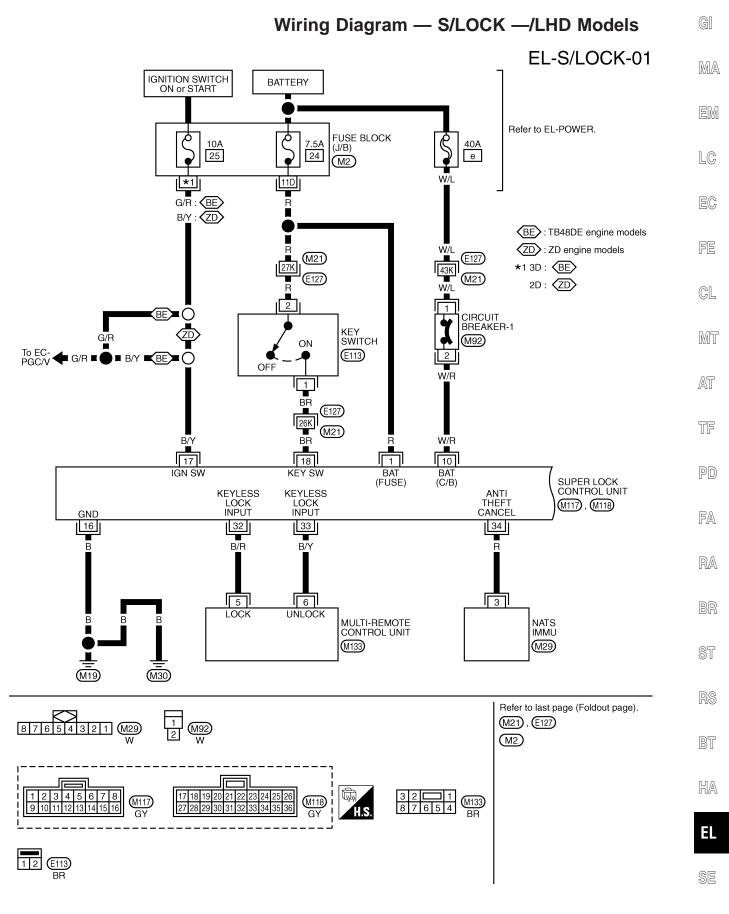




TEL877M



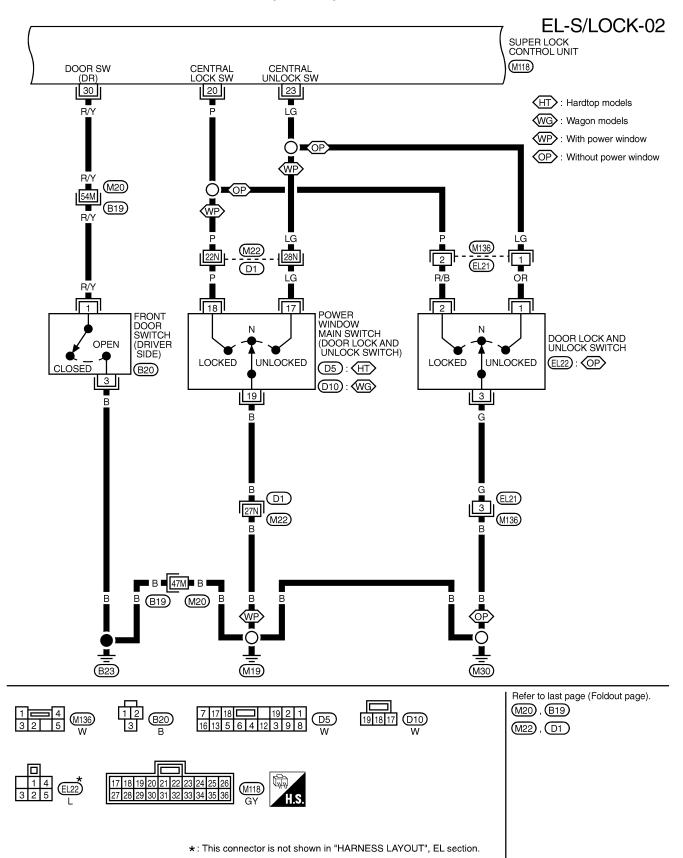
### **Schematic**



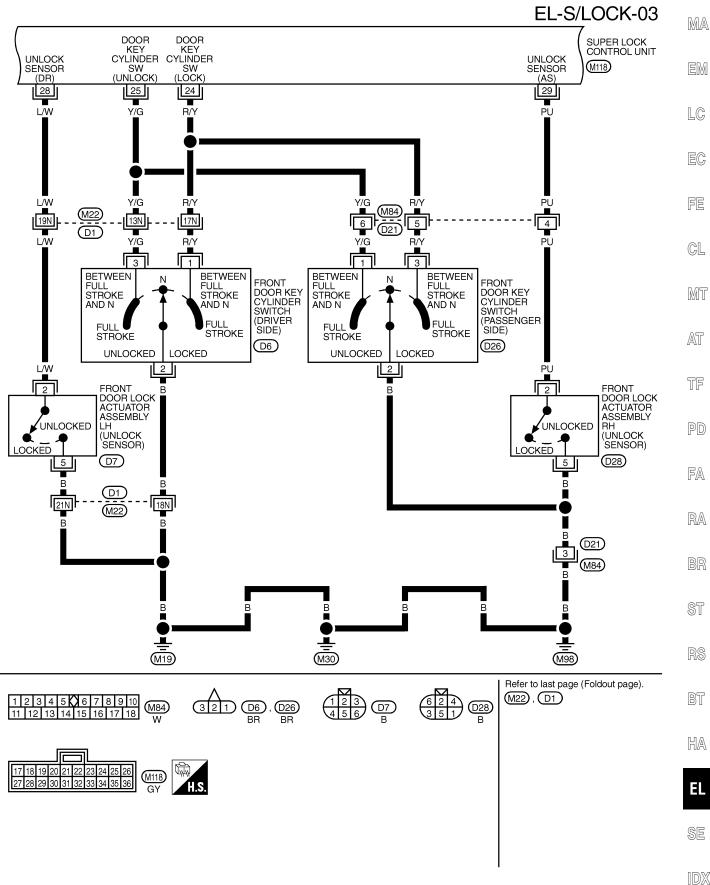
TEL719M

### POWER DOOR LOCK — Super Lock —

Wiring Diagram — S/LOCK —/LHD Models (Cont'd)



### POWER DOOR LOCK — Super Lock — Wiring Diagram — S/LOCK —/LHD Models (Cont<sup>'</sup>d)



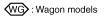
TEL264M

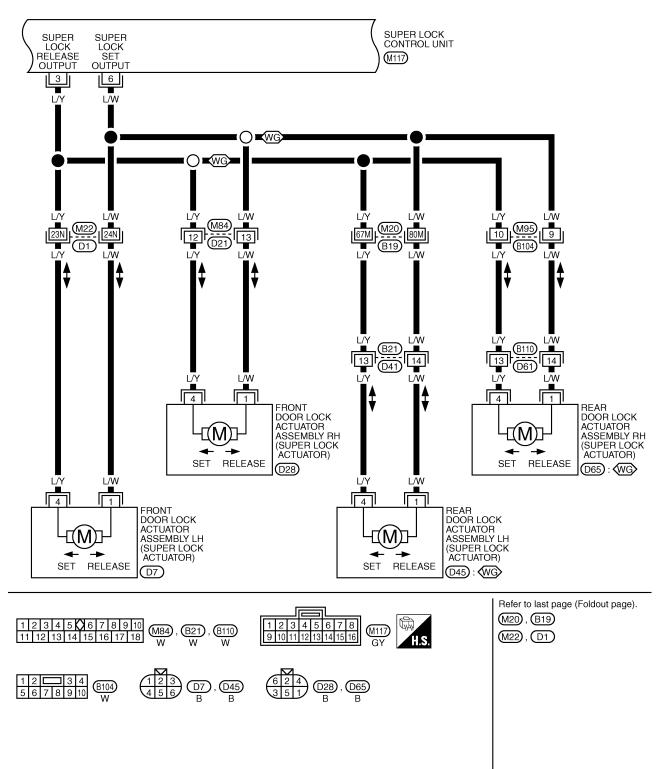
GI

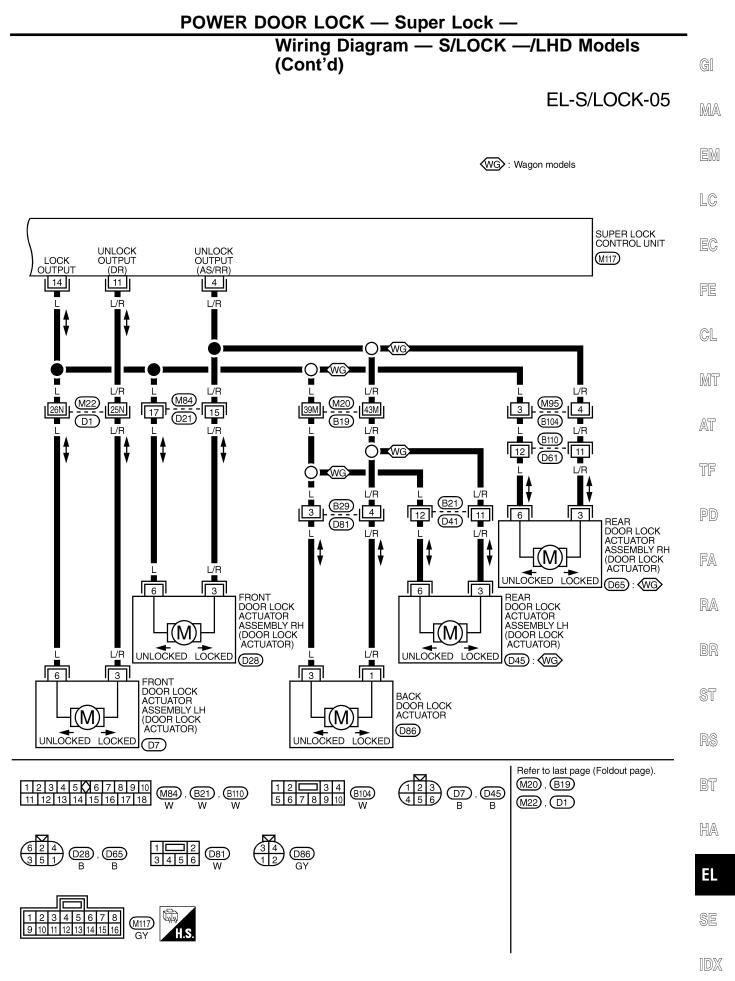
# POWER DOOR LOCK — Super Lock —

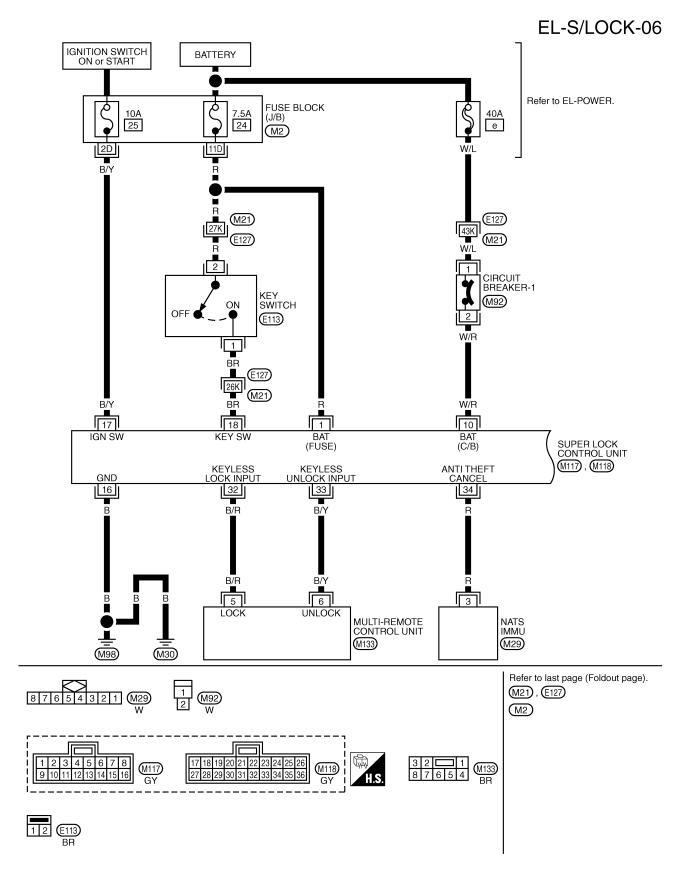
## Wiring Diagram — S/LOCK —/LHD Models (Cont'd)

## EL-S/LOCK-04

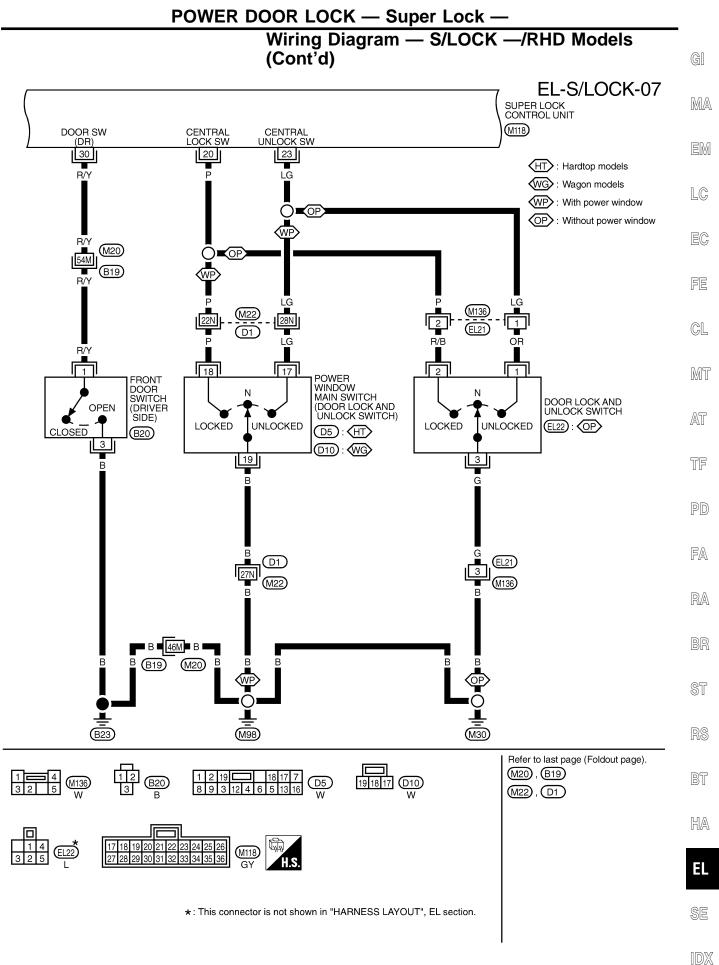










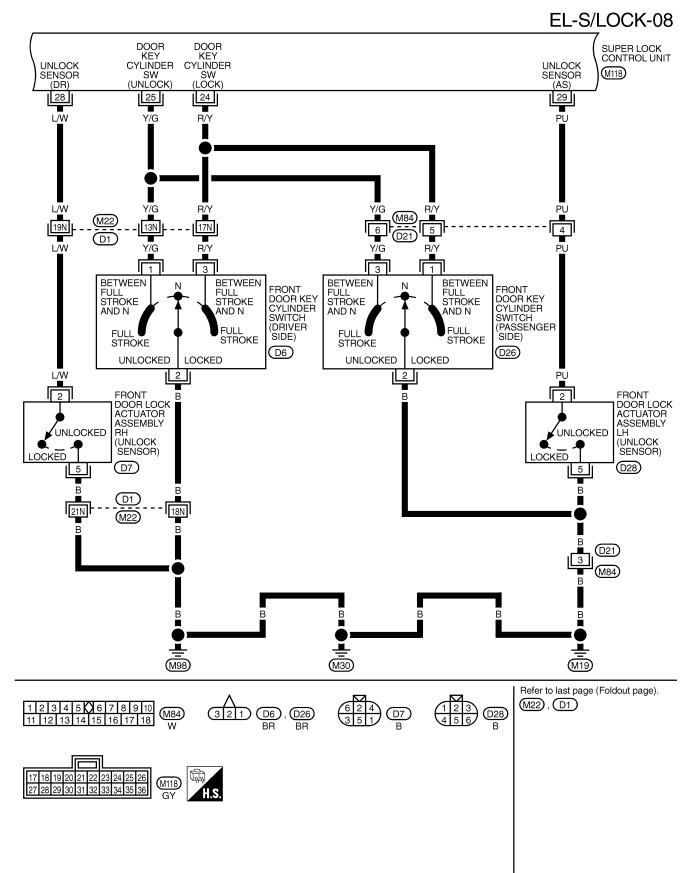


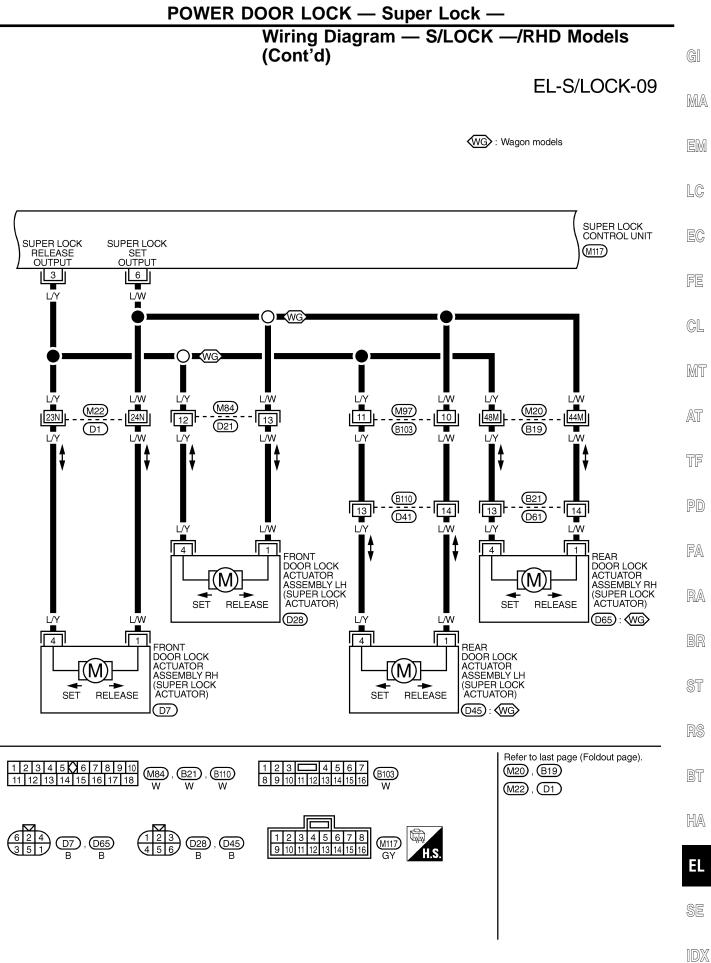
TEL268M

#### EL-195

# POWER DOOR LOCK — Super Lock —

Wiring Diagram — S/LOCK —/RHD Models (Cont'd)





EL-197

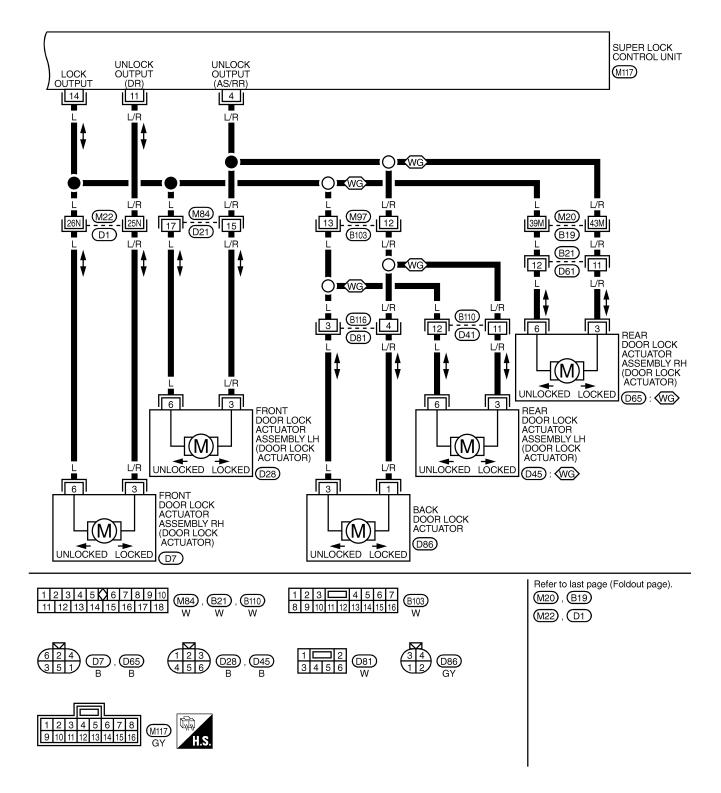
TEL270M

### POWER DOOR LOCK — Super Lock —

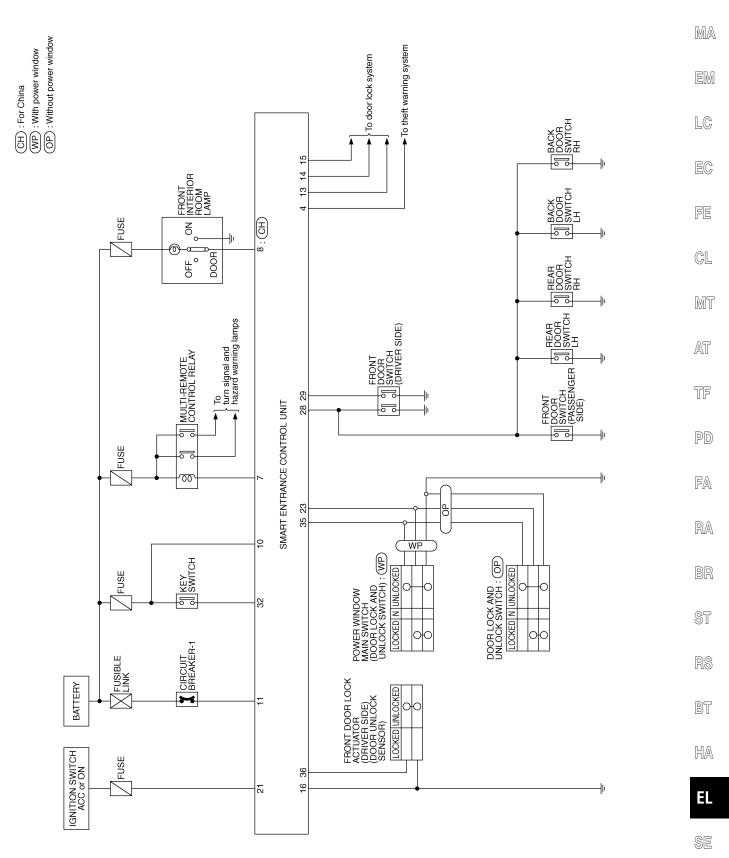
## Wiring Diagram — S/LOCK —/RHD Models (Cont'd)

EL-S/LOCK-10

WG : Wagon models



## Schematic/With Theft Warning System Models

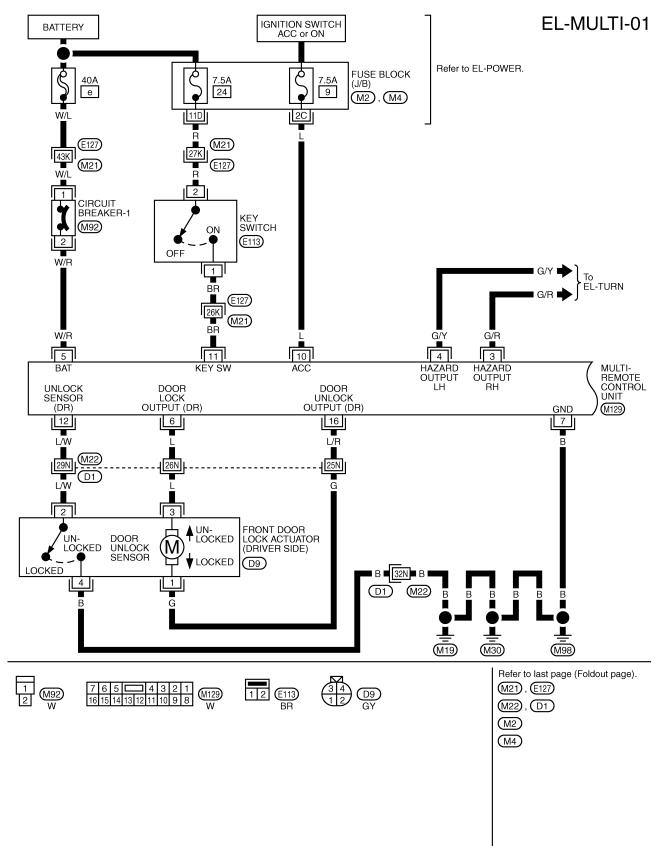


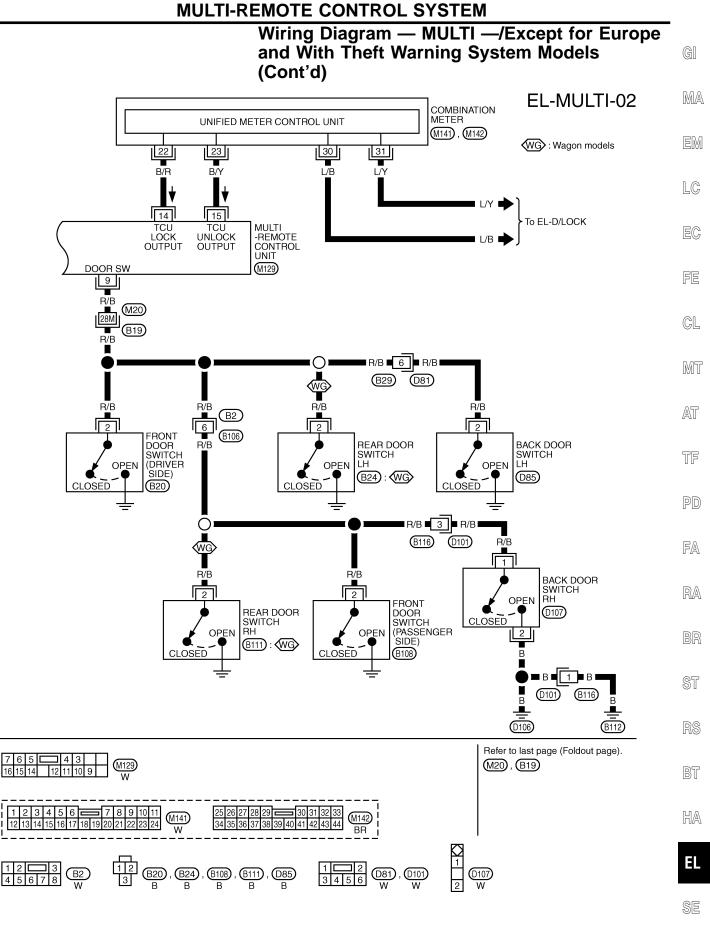
IDX

TEL584M

# Wiring Diagram — MULTI —/Except for Europe and With Theft Warning System Models

LHD MODELS

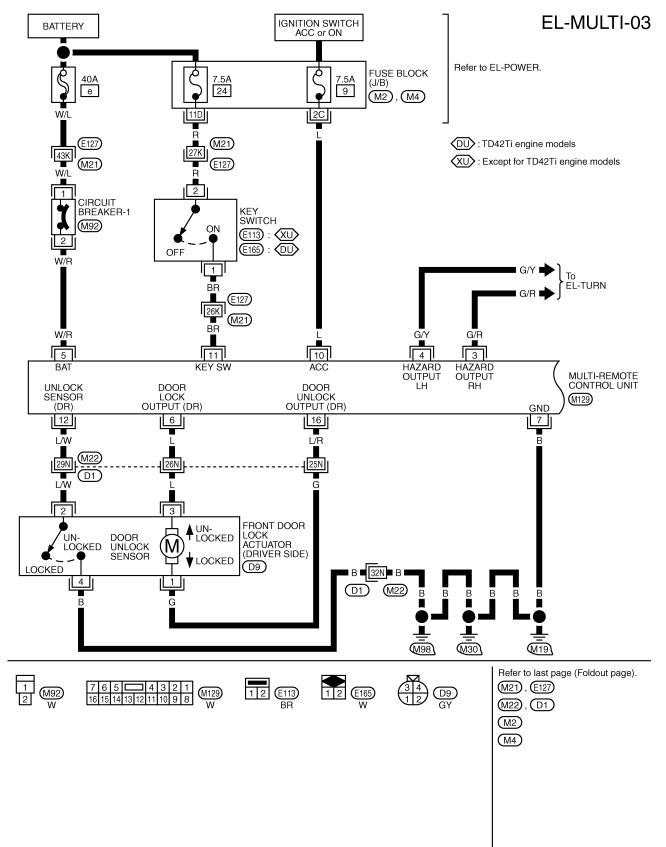


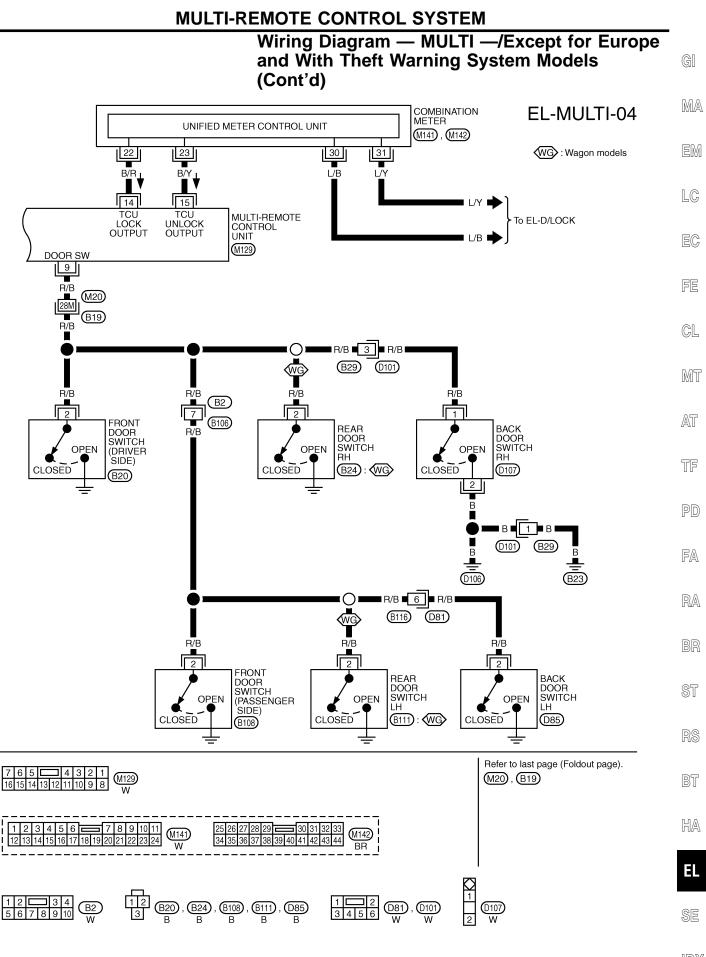


### **MULTI-REMOTE CONTROL SYSTEM**

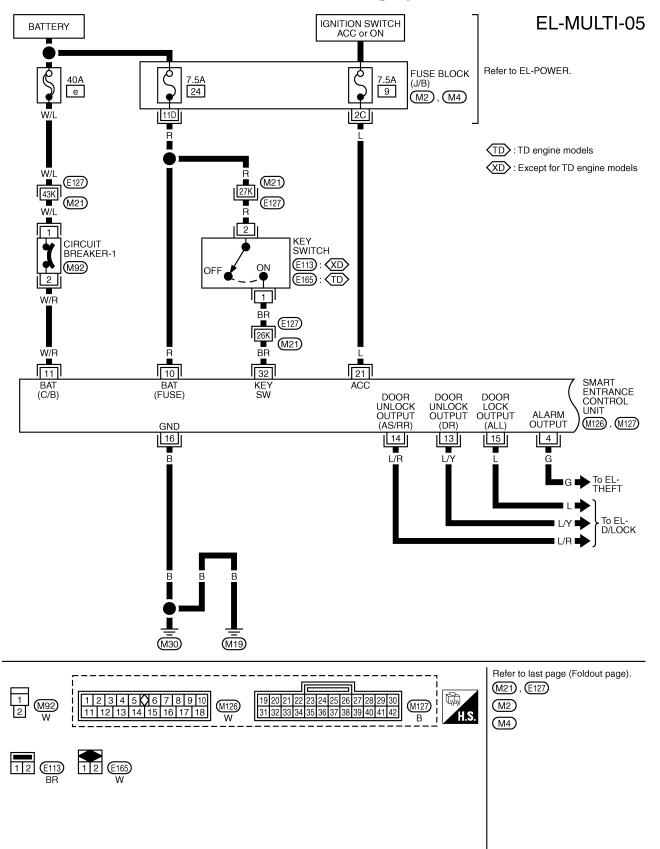
### Wiring Diagram — MULTI —/Except for Europe and With Theft Warning System Models (Cont'd)

**RHD MODELS** 

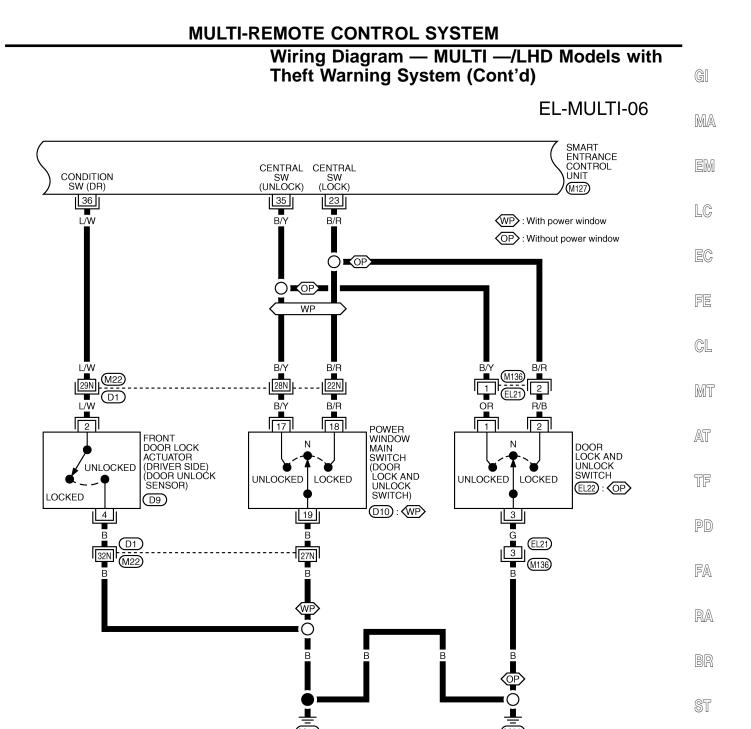


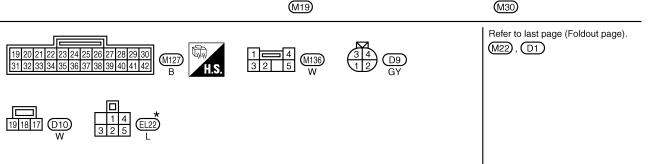


#### EL-203



# Wiring Diagram — MULTI —/LHD Models with Theft Warning System





\*: This connector is not shown in "HARNESS LAYOUT", EL section.

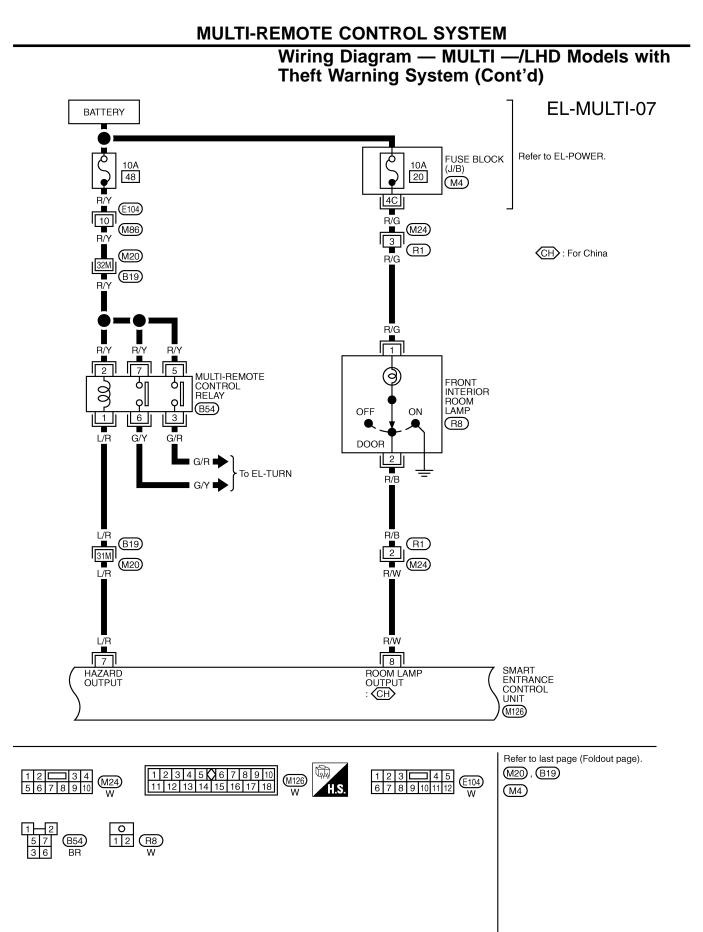
EL

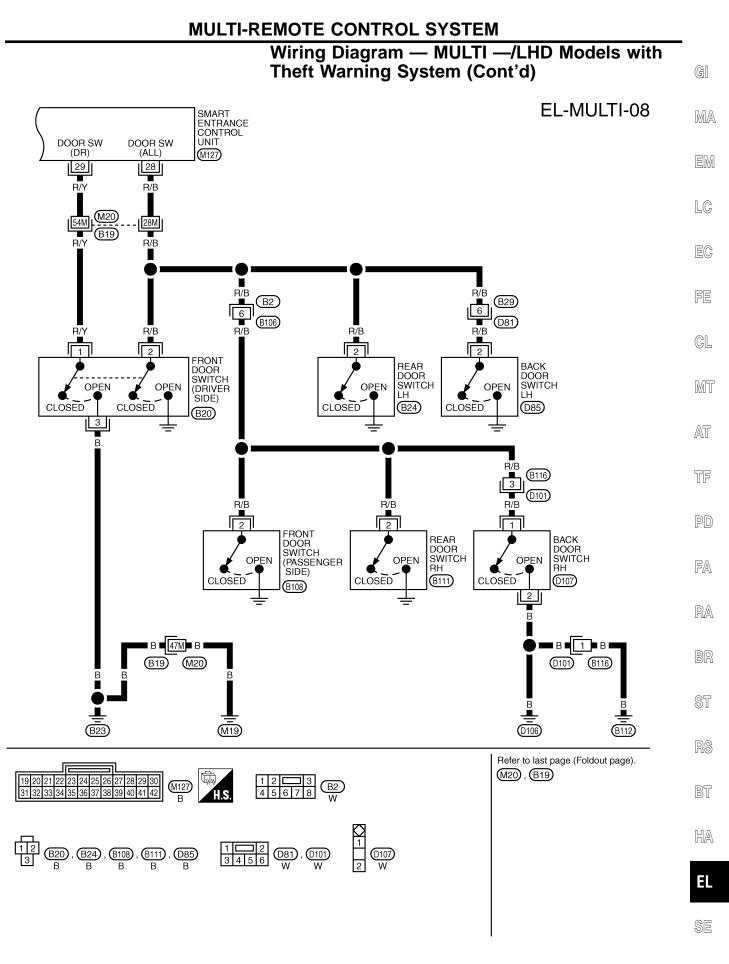
BT

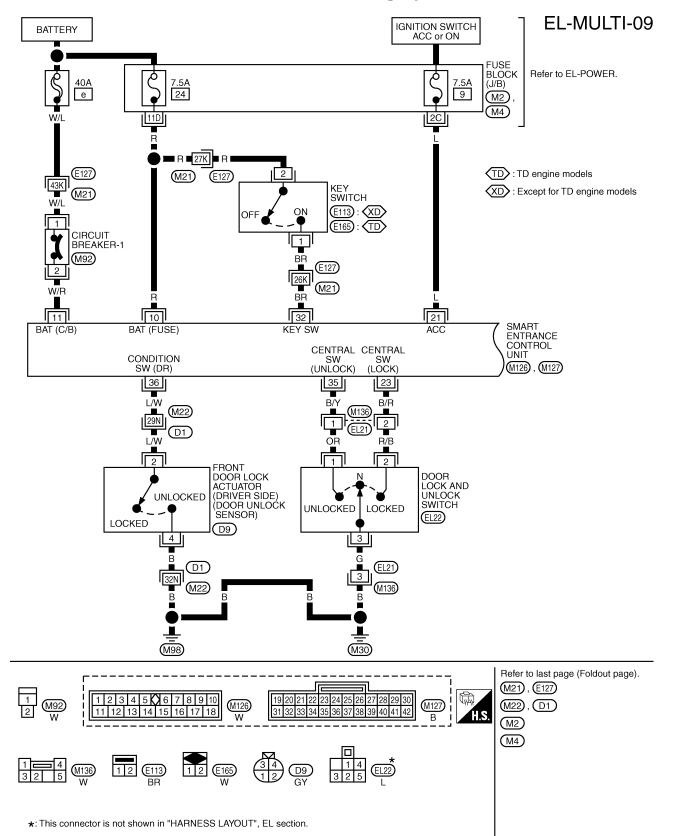
HA

IDX

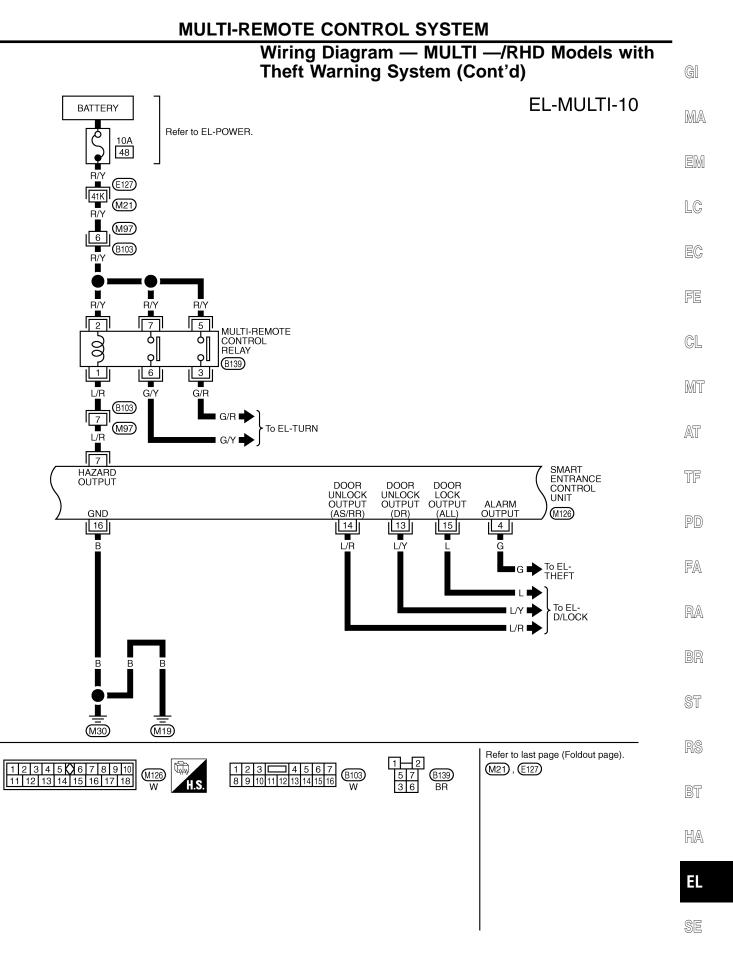
#### EL-205





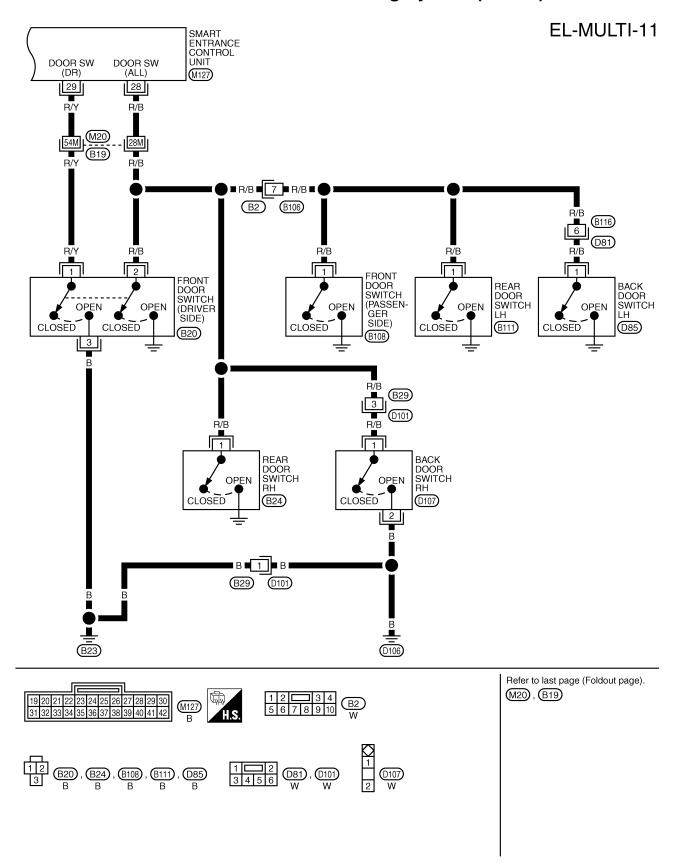


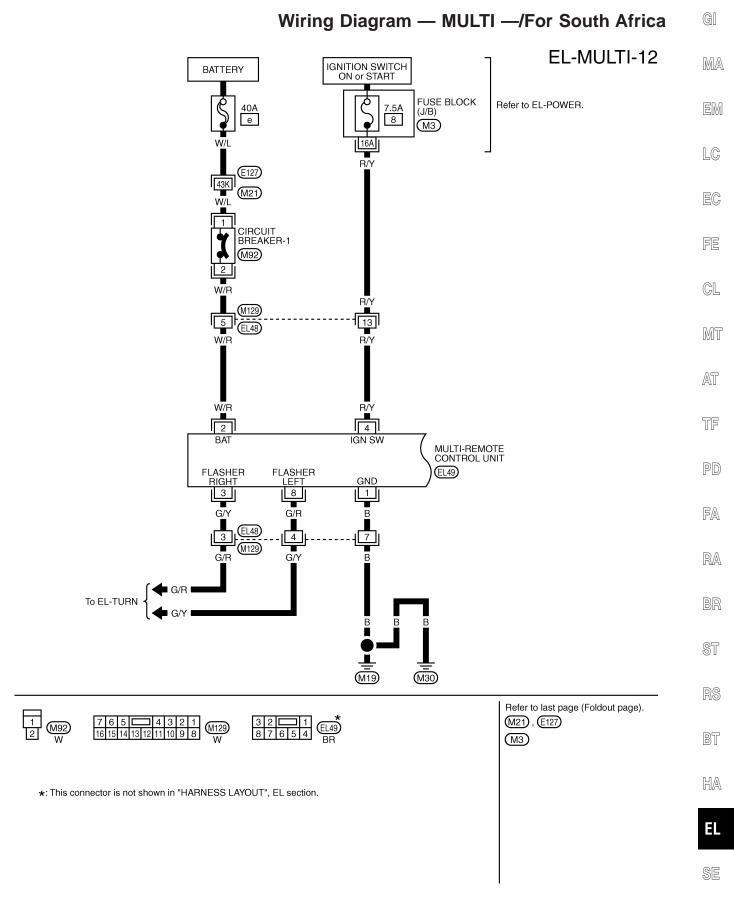
# Wiring Diagram — MULTI —/RHD Models with Theft Warning System



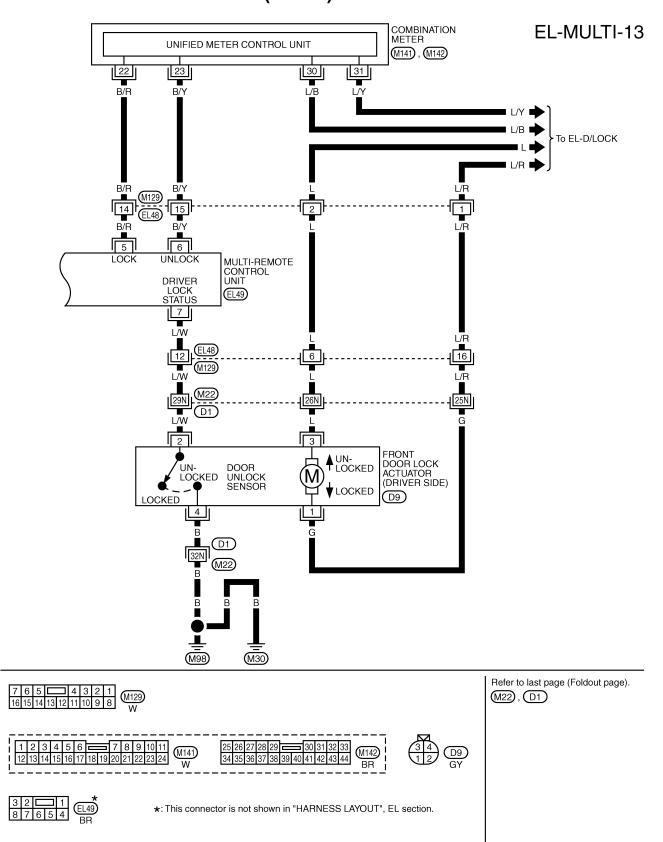
### **MULTI-REMOTE CONTROL SYSTEM**

Wiring Diagram — MULTI —/RHD Models with Theft Warning System (Cont'd)

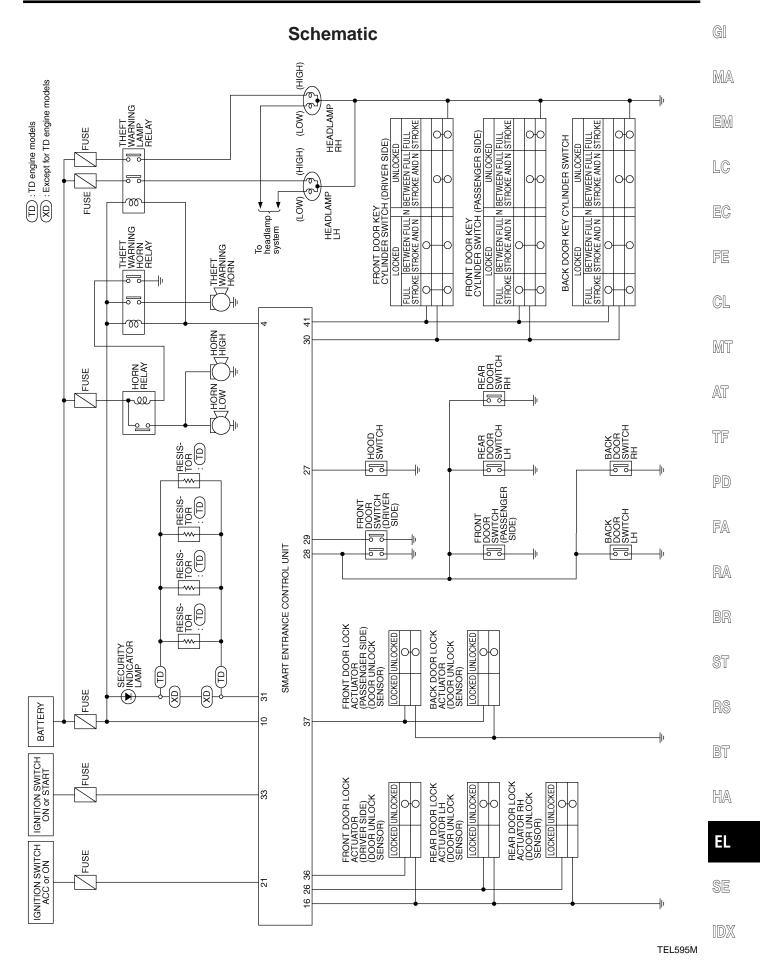


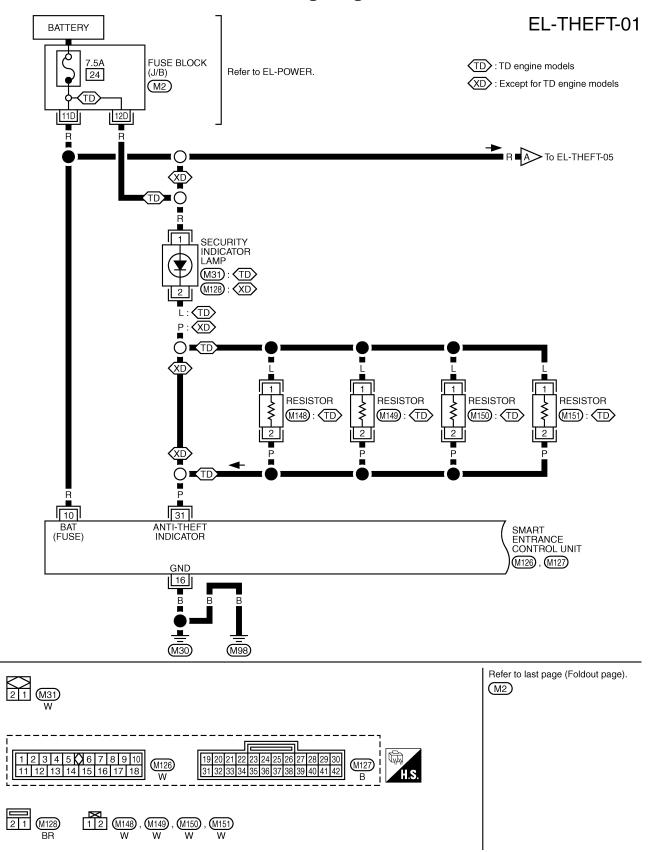


### MULTI-REMOTE CONTROL SYSTEM Wiring Diagram — MULTI —/For South Africa (Cont'd)

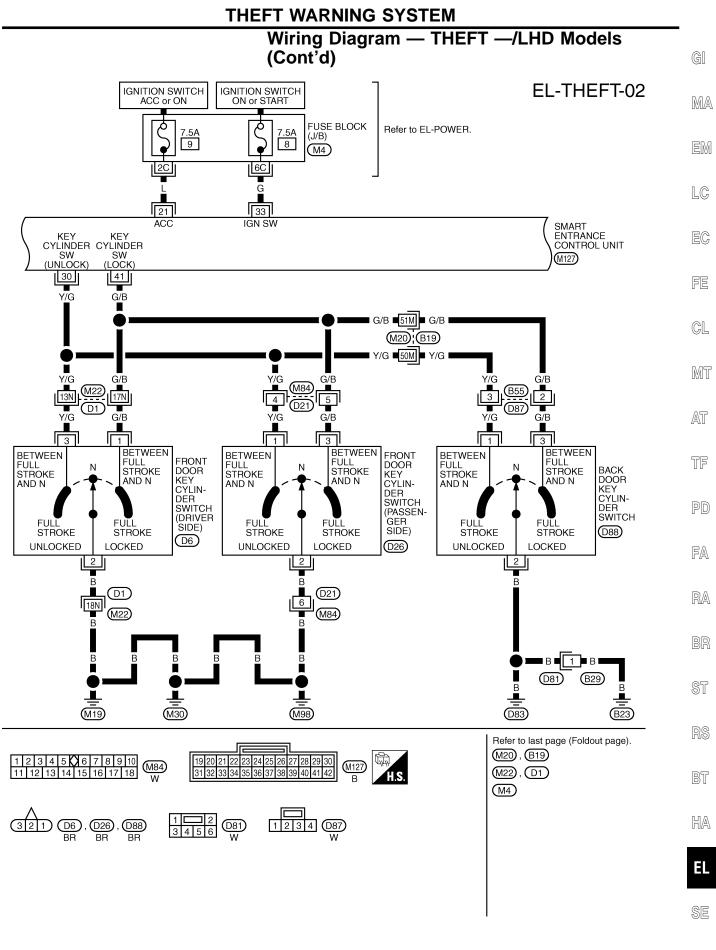


## THEFT WARNING SYSTEM





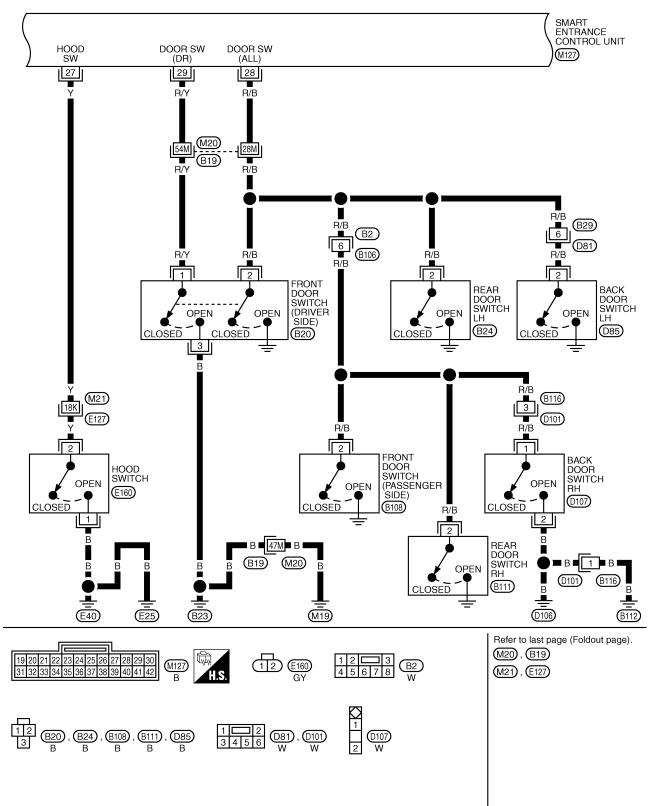
## Wiring Diagram — THEFT —/LHD Models

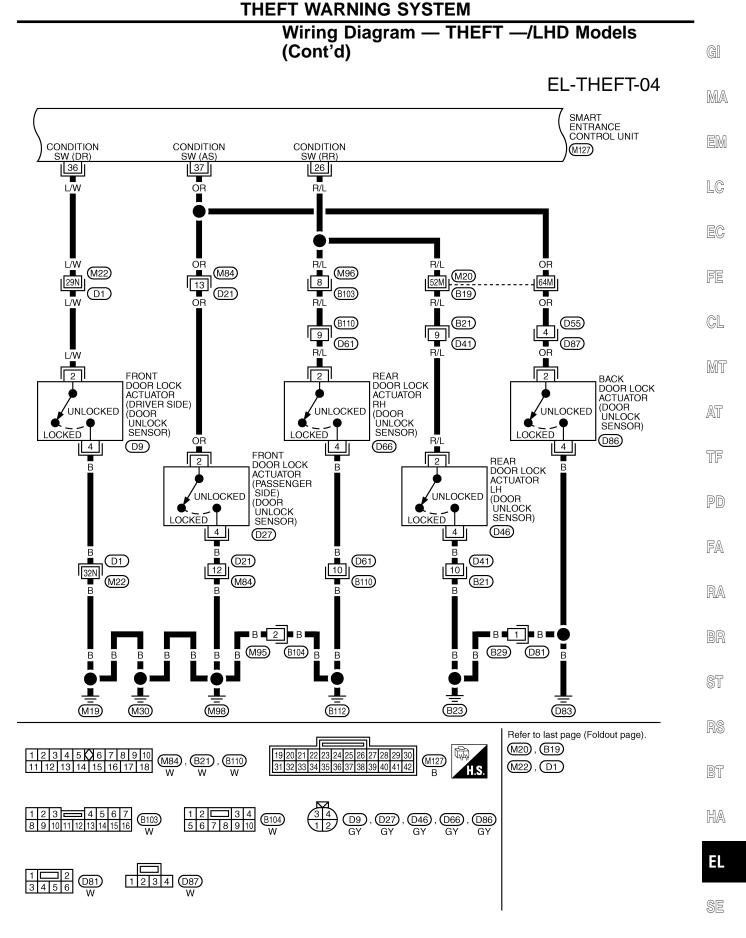


### THEFT WARNING SYSTEM

# Wiring Diagram — THEFT —/LHD Models (Cont'd)

EL-THEFT-03

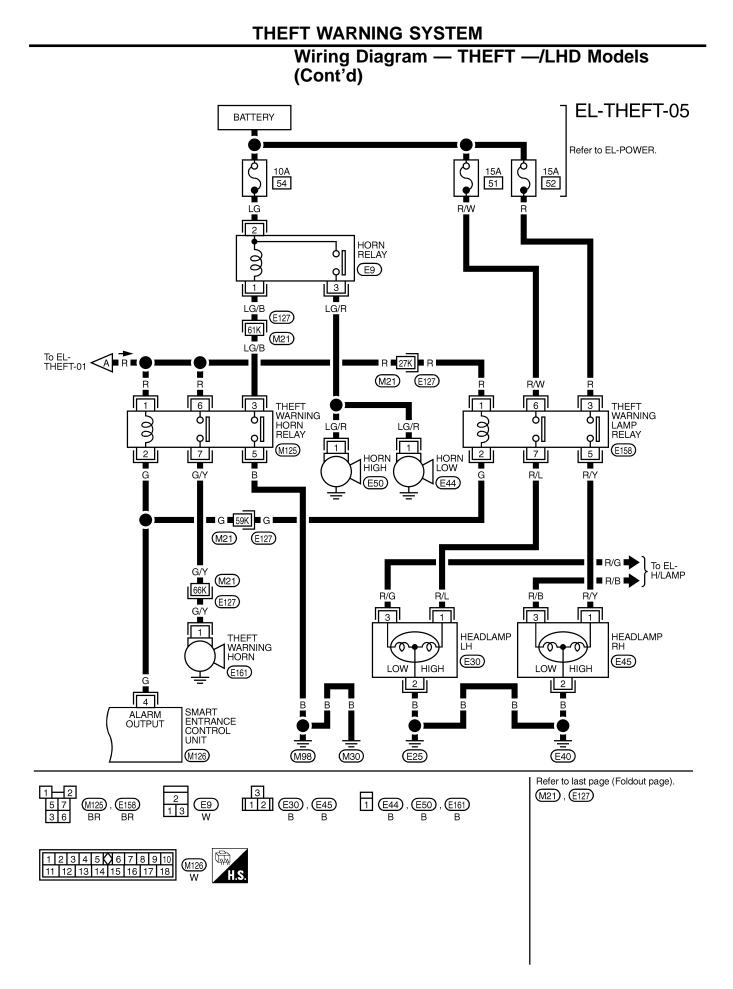


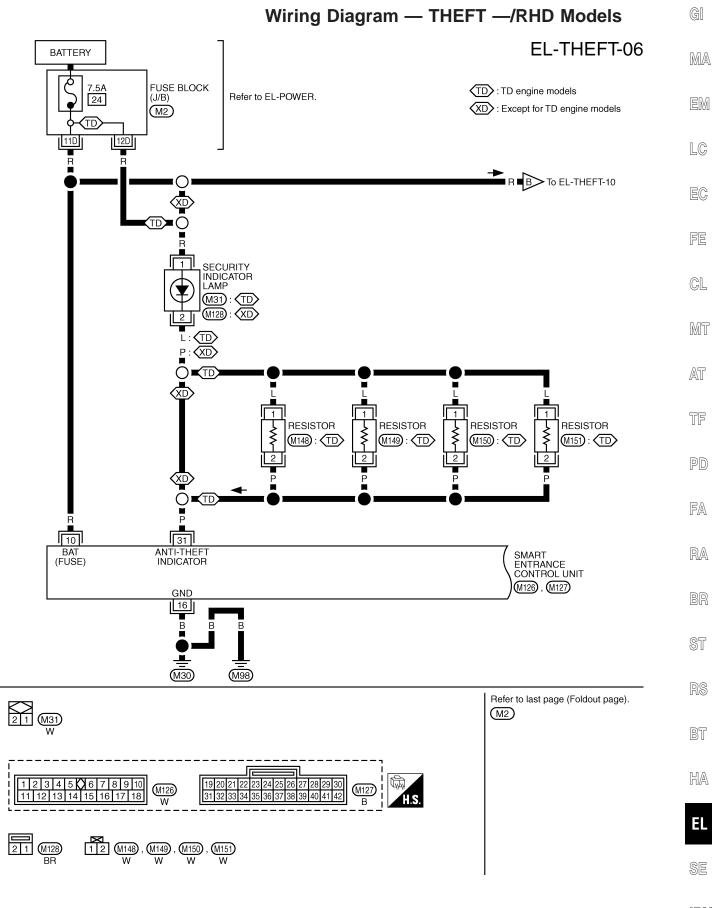


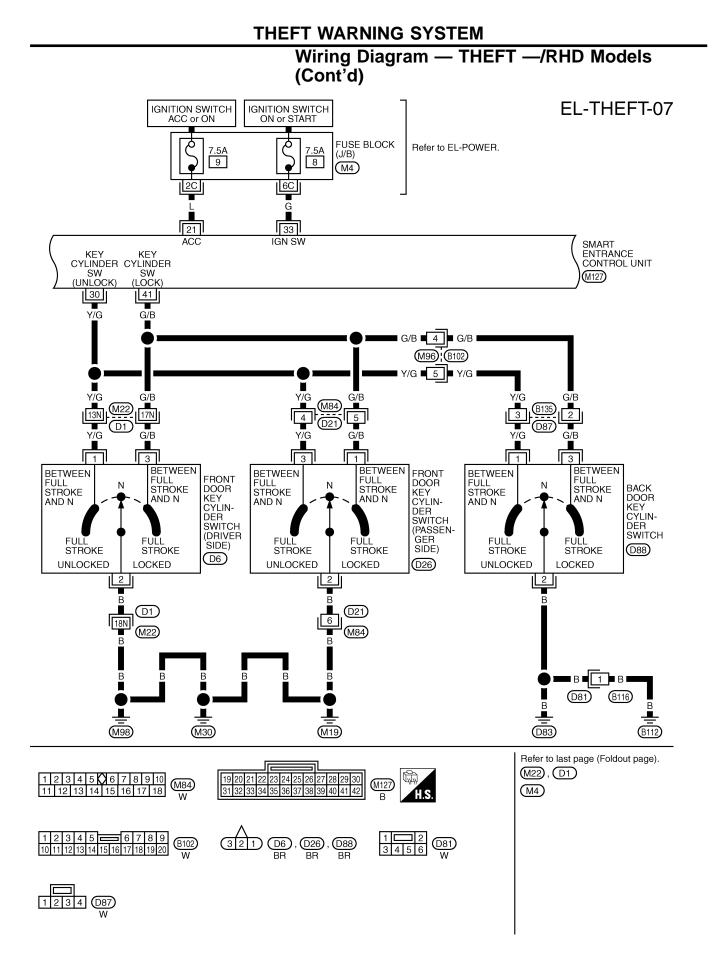
IDX

TEL599M

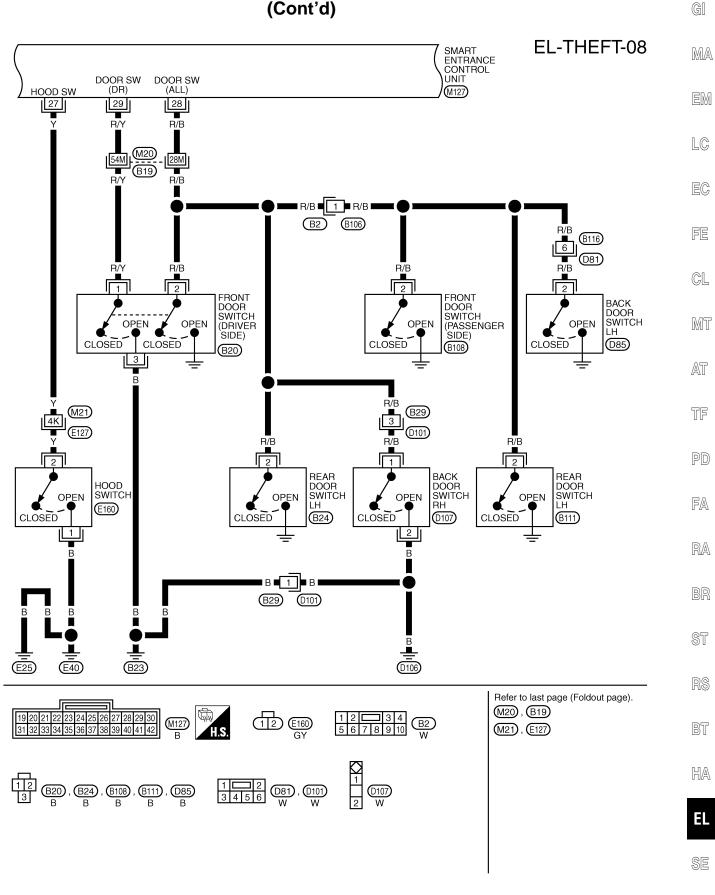
#### EL-217







#### THEFT WARNING SYSTEM Wiring Diagram — THEFT —/RHD Models (Cont'd)



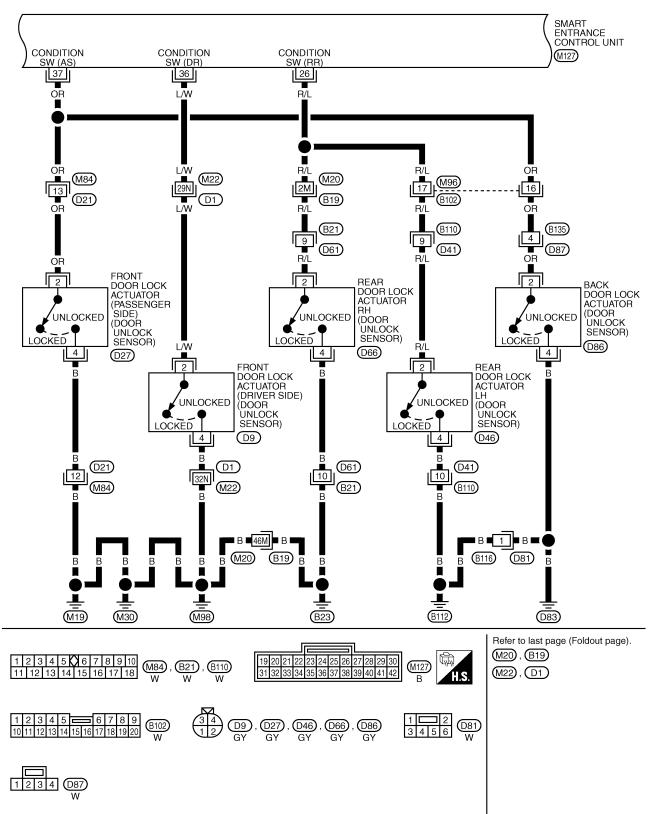
IDX

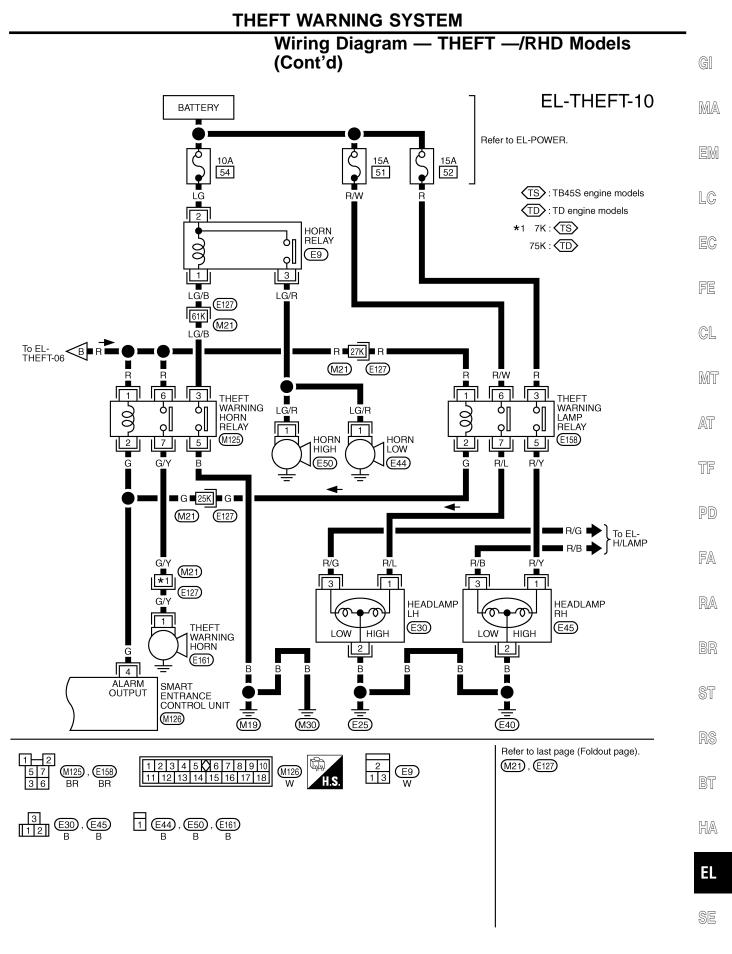
TEL801M

#### THEFT WARNING SYSTEM

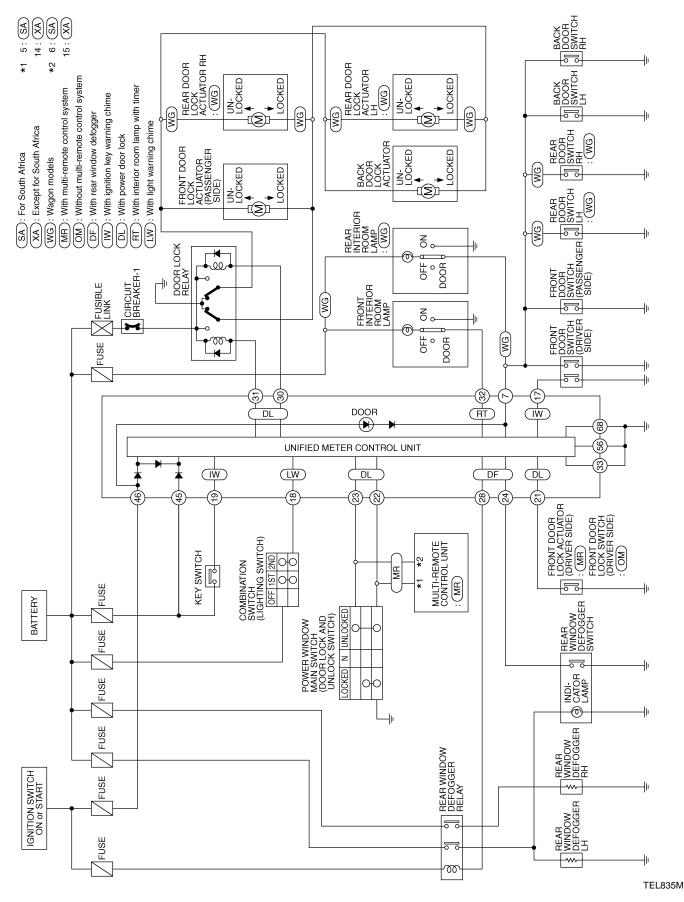
# Wiring Diagram — THEFT —/RHD Models (Cont'd)

EL-THEFT-09





TEL834M



# Schematic/Except for Europe and With Theft Warning System Models

EL-224

#### System Description

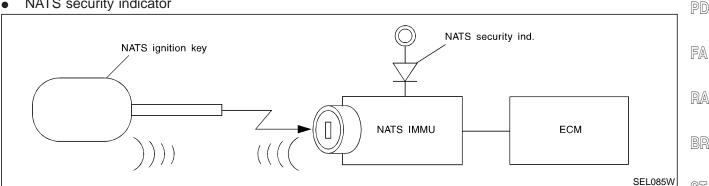
NATS (Nissan Anti-Theft System) has the following immobilizer functions:

- Since only NATS ignition keys, whose ID nos, have been registered into the ECM and IMMU of NATS. MA allow the engine to run, operation of a stolen vehicle without a NATS registered key is prevented by NATS. That is to say, NATS will immobilize the engine if someone tries to start it without the registered key of EM NATS.
- Both of the originally supplied ignition key IDs have been NATS registered. If requested by the vehicle owner, a maximum of five key IDs can be registered into the NATS components.
- The security indicator blinks when the ignition switch is in "OFF" or "ACC" position. Therefore, NATS warns outsiders that the vehicle is equipped with the anti-theft system.
- EC When NATS detects trouble, the security indicator lamp lights up while ignition key is in the "ON" position.
- NATS trouble diagnoses, system initialization and additional registration of other NATS ignition key IDs must be carried out using CONSULT-II hardware and CONSULT-II NATS software. FE When NATS initialization has been completed, the ID of the inserted ignition key is automatically NATS registered. Then, if necessary, additional registration of other NATS ignition key IDs can be carried out. Regarding the procedures of NATS initialization and NATS ignition key ID registration, refer to CONSULT-II CL operation manual, NATS.
- When servicing a malfunction of the NATS (indicated by lighting up of Security Indicator Lamp) or registering another NATS ignition key ID no., it is necessary to re-register original key identifica-MT tion. Therefore, be sure to receive ALL KEYS from vehicle owner.



The immobilizer function of the NATS consists of the following:

- NATS ignition key •
- NATS immobilizer control unit NATS (IMMU), located in the ignition key cylinder
- Engine control module (ECM)
- NATS security indicator



GI

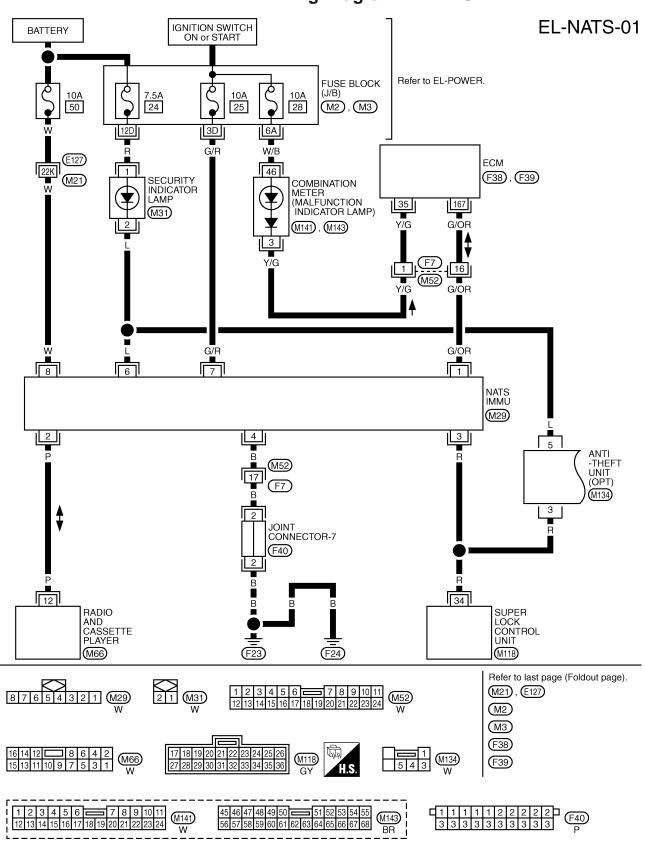
LC

AT

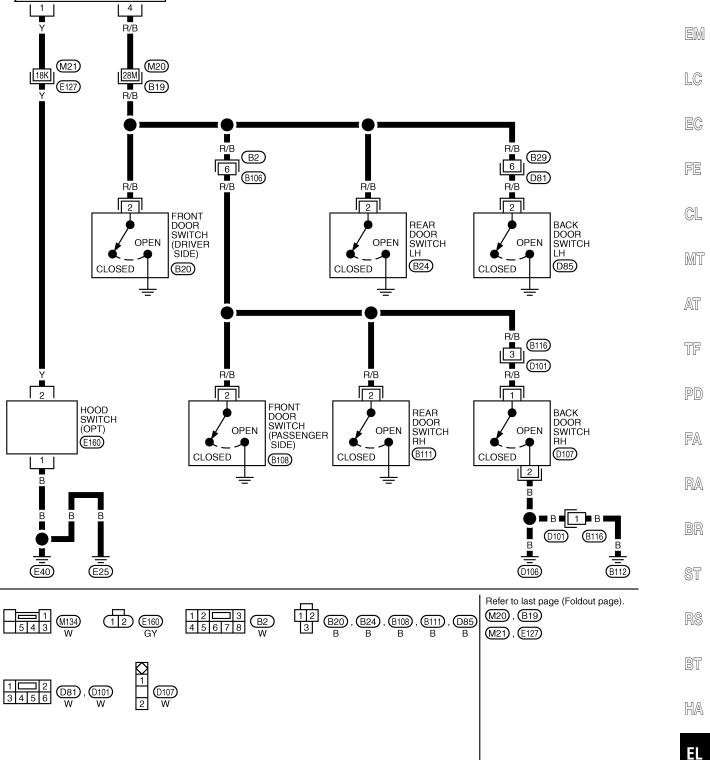
TF

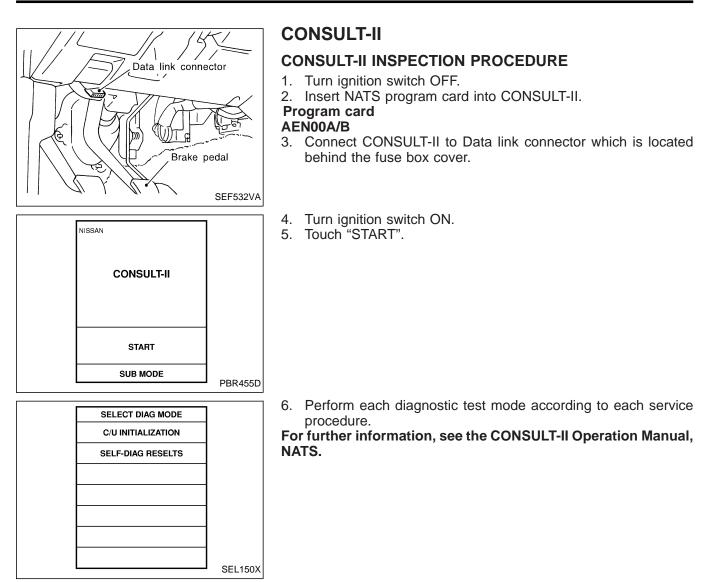
BT

HA



# NATS (Nissan Anti-Theft System)/TB48DE ENGINE MODELS FOR EUROPE Wiring Diagram — NATS — (Cont'd) Image: Colspan="2">EL-NATS-02





# CONSULT-II (Cont'd)

#### CONSULT-II DIAGNOSTIC TEST MODE FUNCTION

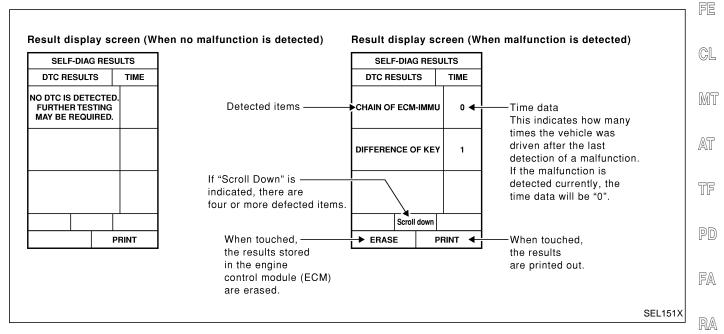
CONSULT-II DIAGNOSTIC TEST MODE	Description	MA
C/U INITIALIZATION	When replacing any of the following components, C/U initialization is necessary. [NATS ignition key/IMMU/ECM/Dongle unit]	
SELF-DIAG RESULTS	Detected items (screen terms) are as shown in the chart below.	EM

#### NOTE:

When any initialization is performed, all ID previously registered will be erased. So all NATS ignition keys must be registered again.

The engine cannot be started with an unregistered key. In this case, the system may show "DIFFER-ENCE OF KEY" or "LOCK MODE" as a self-diagnostic result on the CONSULT-II screen.

#### HOW TO READ SELF-DIAGNOSTIC RESULTS



#### SELF-DIAGNOSTIC RESULTS ITEM CHART

Detected items (Screen terms)	Description	Reference page	BR
ECM INT CIRC-IMMU	The malfunction of ECM internal circuit of IMMU communication line is detected.	EL-232	
CHAIN OF ECM-IMMU	Communication impossible between ECM and IMMU. (In rare case, "CHAIN OF ECM-IMMU" might be stored during key regis- tration procedure, even if the system is not malfunctioning.)	EL-233	ST
DIFFERENCE OF KEY	IMMU can receive the key ID signal but the result of ID verification between key ID and IMMU is NG.	EL-235	RS
CHAIN OF IMMU-KEY	IMMU cannot receive the key ID signal. Otherwise, the registered ID signal from dongle unit cannot be received when the IMMU requests the ID.	EL-235	BT
ID DISCORD, IMM-ECM	The result of ID verification between IMMU and ECM is NG. System initialization is required.	EL-236	
DON'T ERASE BEFORE CHECK- ING ENG DIAG	Engine trouble data and NATS trouble data have been detected in ECM.	EL-230	HA
LOCK MODE	When the starting operation is carried out 5 or more times consecutively under the following conditions, NATS will shift the mode to one which prevents the engine from being started. • unregistered ignition key is used • IMMU or ECM malfunctioning	EL-237	EL

SE

GI

# Trouble Diagnoses

#### WORK FLOW

	CHECK IN	_*NC	DTE: In rare case, "CHAIN OF ECM-IMMU" might be stored as a se diagnostic result during key registration procedure, even if the	elf- sys-
	Listen to customer complaints or request. (Get symptoms) NOTE: If customer reports a "No start" condition, request ALL KEYS to be brought to the Dealer in case of a NATS mal- function.		tem is not malfunctioning.	
		SER	VICE REQUEST (Additional key ID registration)	
	Verify the security indicator.			]
		7	(Refer to CONSULT-II operation manual NATS.)	
	Using the CONSULT-II program card for NATS check the "SELF-DIAG RESULTS" with CONSULT-II.	-		
			<b>+</b>	_
	Self-diagnostic results referring to NATS, but no information about engine self-diagnostic results is displayed on CONSULT-II.		Self-diagnostic results referring to NATS and "DON'T ERASE BEFORE CHECKING ENG DIAG" are displayed on CONSULT- II.	
	Turn ignition switch "OFF".		(This means that engine trouble data has been detected in ECM.)	
			$\downarrow$	
	Repair NATS. (If necessary, carry out "C/U INITIALIZATION" with CONSULT- II.*)		Turn ignition switch "OFF".	]
		٦	Repair NATS according to self-diagnostic results referring to	1
			NATS. (If necessary, carry out "C/U INITIALIZATION" with CONSULT- II.*)	
		-	•	1
	Erase the NATS "SELF-DIAG RESULTS" by using CONSULT-II. (Touch "ERASE")		Do not erase the NATS "SELF-DIAG RESULTS" by using CONSULT-II.	
	+	_	+	-
	Start the engine.		Check the engine "SELF-DIAG RESULTS" with CONSULT-II by using the CONSULT-II generic program card. (Engine diagnostic software included)	
	4			
NG	Verify no lighting up of the security indicator.		Repair engine control system (Refer to EC section.) when self- diagnostic results except "NATS MALFUNCTION" are detected. When only "NATS MALFUNCTION" is detected, erase the self- diagnostic results and go to the next step.	
	•		•	NG
	CHECK OUT	7	Start the engine. Does the engine start properly?	
			ок	
	Perform running test with CONSULT-II in engine "SELF-DIAG RESULTS" mode.		■ Erase the NATS and engine "SELF-DIAG RESULTS" by using the CONSULT-II program card for NATS and generic program card.	
	$\downarrow$		↓	'
NG			Start the engine.	]
	ок •			
	CHECK OUT	7 -		

Trouble Diagnoses (Cont'd)

#### SYMPTOM MATRIX CHART 1 (Self-diagnosis related item)

GI

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-II screen.	DIAGNOSTIC PROCE- DURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON DIAGNOSTIC SYSTEM DIAGRAM
	ECM INT CIRC-IMMU	PROCEDURE 1 (EL-232)	ECM	В
			In rare case, "CHAIN OF ECM-IMMU might be stored during key registration procedure, even if the sys- tem is not malfunctioning.	_
		PROCEDURE 2 (EL-233)	Open circuit in battery volt- age line of IMMU circuit	C1
			Open circuit in ignition line of IMMU circuit	C2
			Open circuit in ground line of IMMU circuit	C3
	CHAIN OF ECM-IMMU		Open circuit in communica- tion line between IMMU and ECM	C4
<ul> <li>Security indicator lighting up*</li> <li>Engine does not start</li> </ul>			Short circuit between IMMU and ECM communication line and battery voltage line	C4
			Short circuit between IMMU and ECM communication line and ground line	C4
			ECM	В
			IMMU	А
		PROCEDURE 3	Unregistered key	D
	DIFFERENCE OF KEY	(EL-235)	IMMU	А
	CHAIN OF IMMU-KEY	PROCEDURE 4	Malfunction of key ID chip	Е
	CHAIN OF ININIO-RET	(EL-235)	IMMU	А
	ID DISCORD, IMM-ECM	PROCEDURE 5	System initialization has not yet been completed.	F
		(EL-236)	ECM	В
	LOCK MODE	PROCEDURE 6 (EL-237)	LOCK MODE	D
MIL staying ON Security indicator lighting up*	DON'T ERASE BEFORE CHECKING ENG DIAG	WORK FLOW (EL-230)	Engine trouble data and NATS trouble data have been detected in ECM	_

\*: When NATS detects trouble, the security indicator lights up while ignition key is in the "ON" position.

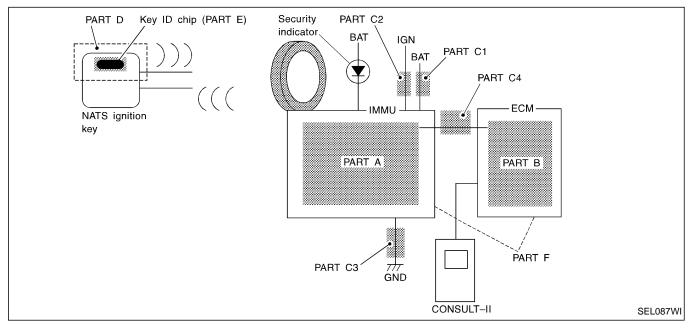
#### SYMPTOM MATRIX CHART 2 (Non self-diagnosis related item)

SYMPTOM	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON DIAG- NOSTIC SYSTEM DIAGRAM	HA
Security ind. does not light up.	PROCEDURE 7 (EL-238)	Security ind.	_	
		Open circuit between Fuse and NATS IMMU	_	
		(EL-238) Continuation of initialization mode		00
		NATS IMMU	A	SE

BT

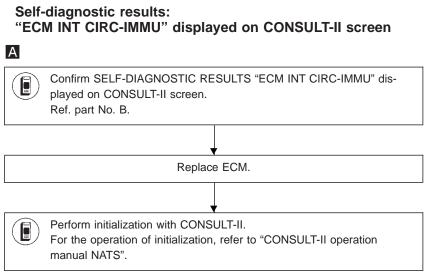
Trouble Diagnoses (Cont'd)

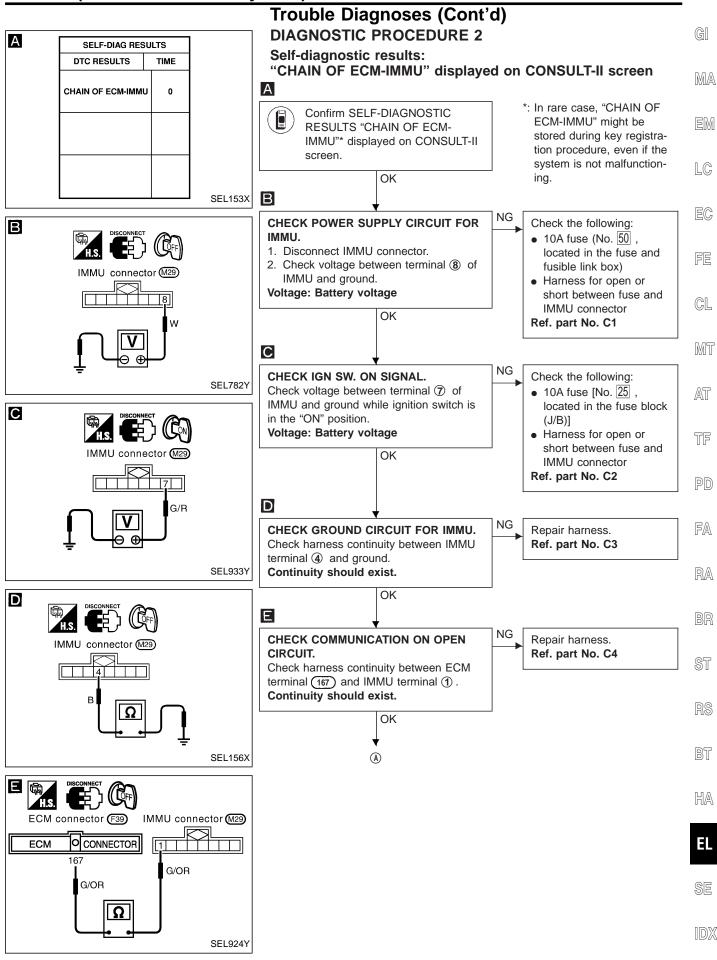
#### DIAGNOSTIC SYSTEM DIAGRAM

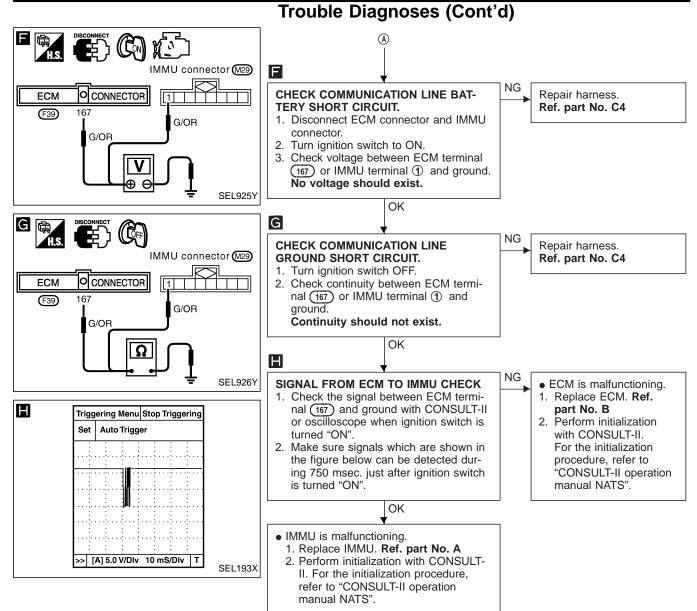


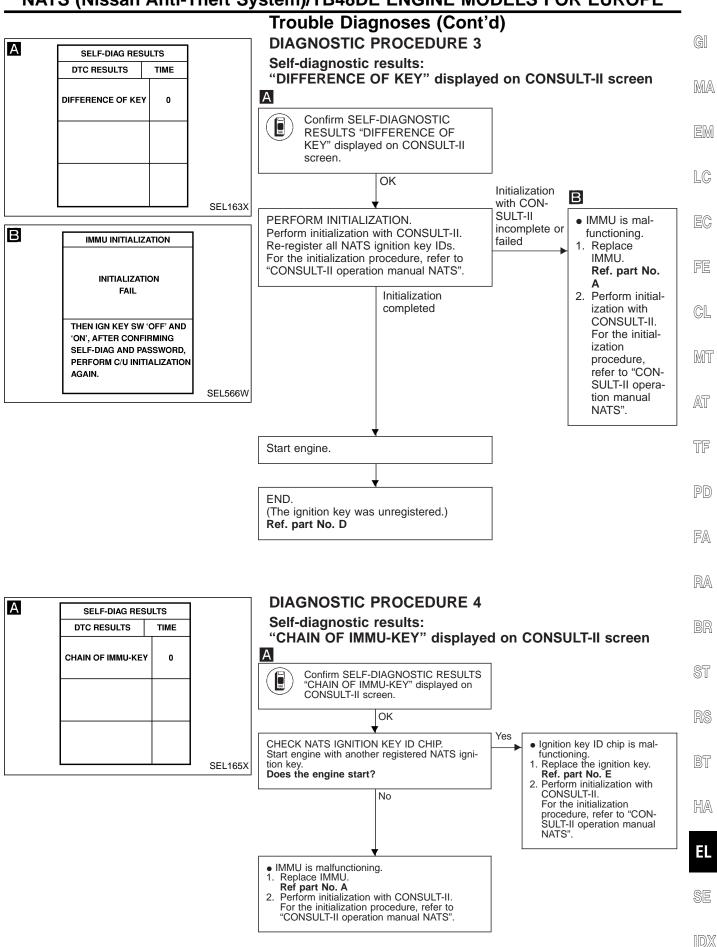
A	SELF-DIAG RES		
	DTC RESULTS TIME		
	ECM INT CIRC-IMMU	0	
			SEL152X

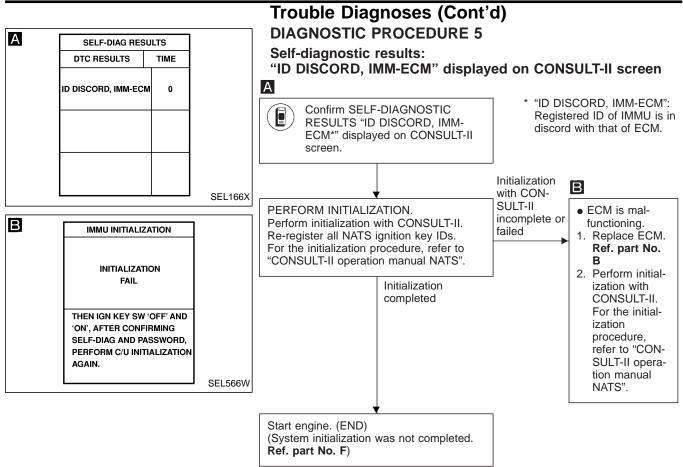
#### **DIAGNOSTIC PROCEDURE 1**

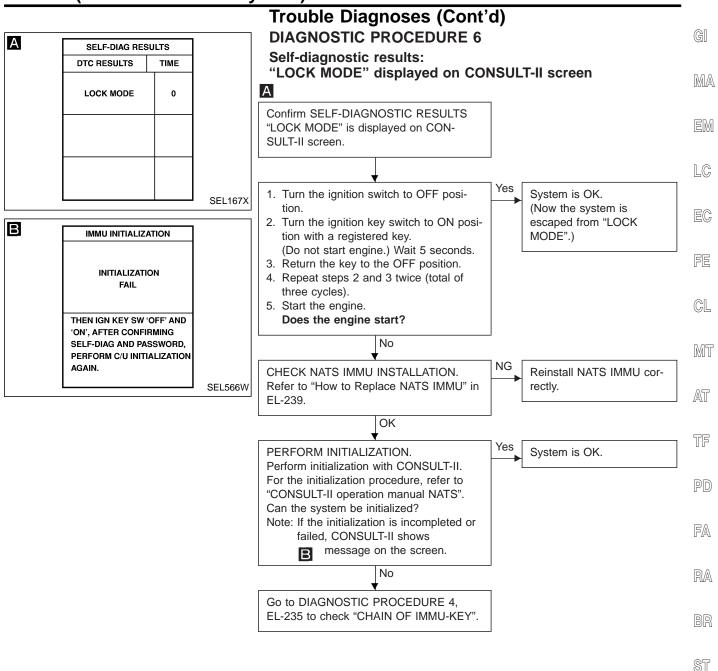










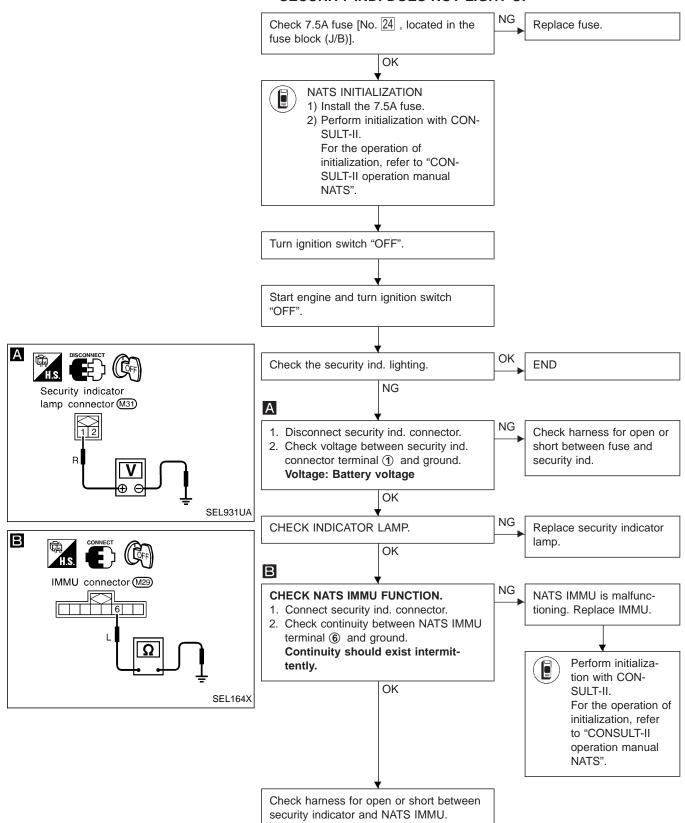


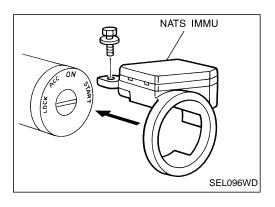
HA

EL

SE

#### Trouble Diagnoses (Cont'd) DIAGNOSTIC PROCEDURE 7 "SECURITY IND. DOES NOT LIGHT UP"





#### How to Replace NATS IMMU

NOTE:

• If NATS IMMU is not installed correctly, NATS system will manot operate properly and SELF-DIAG RESULTS on CON-SULT-II screen will show "LOCK MODE".

EM

GI

LC

FE

CL

MT

EC

AT

TF

PD

FA

RA

BR

ST

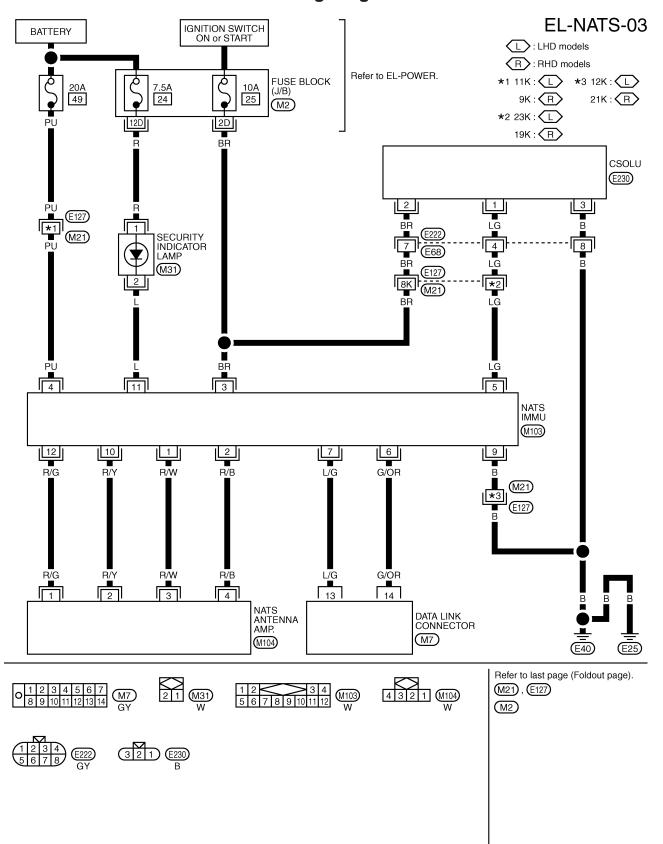
RS

BT

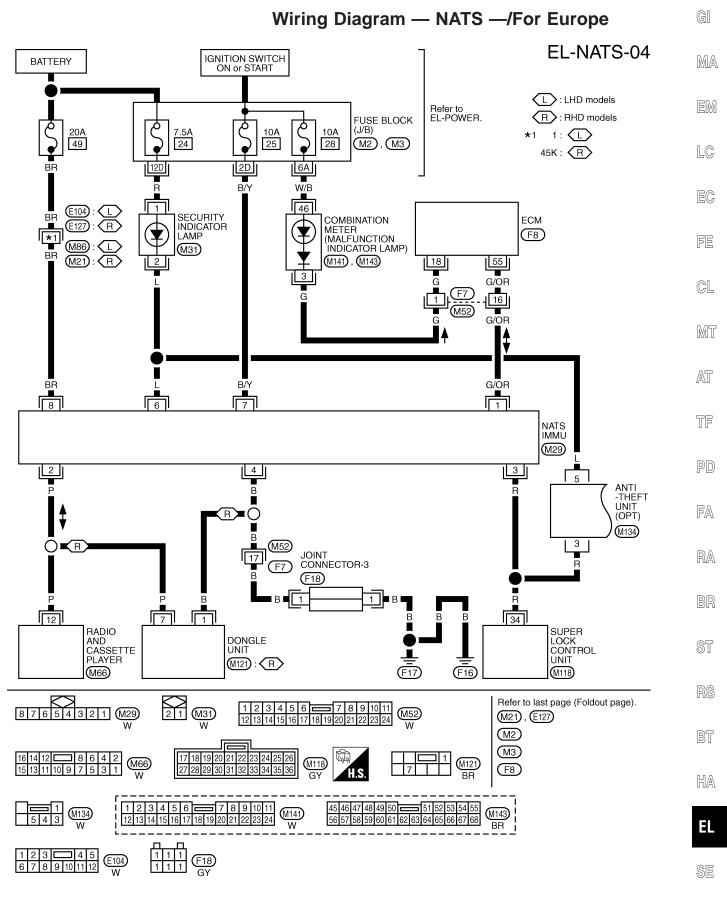
HA



SE

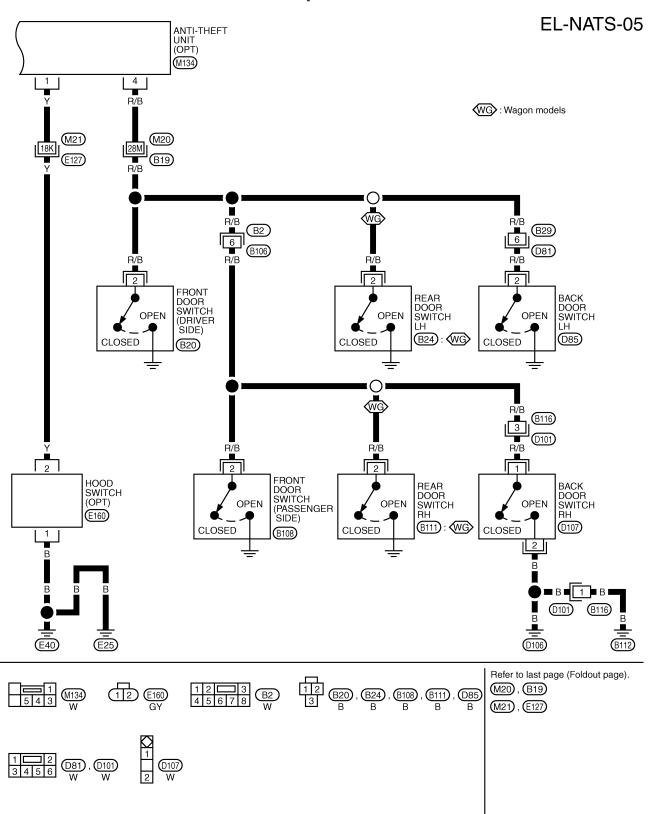


Wiring Diagram — NATS —

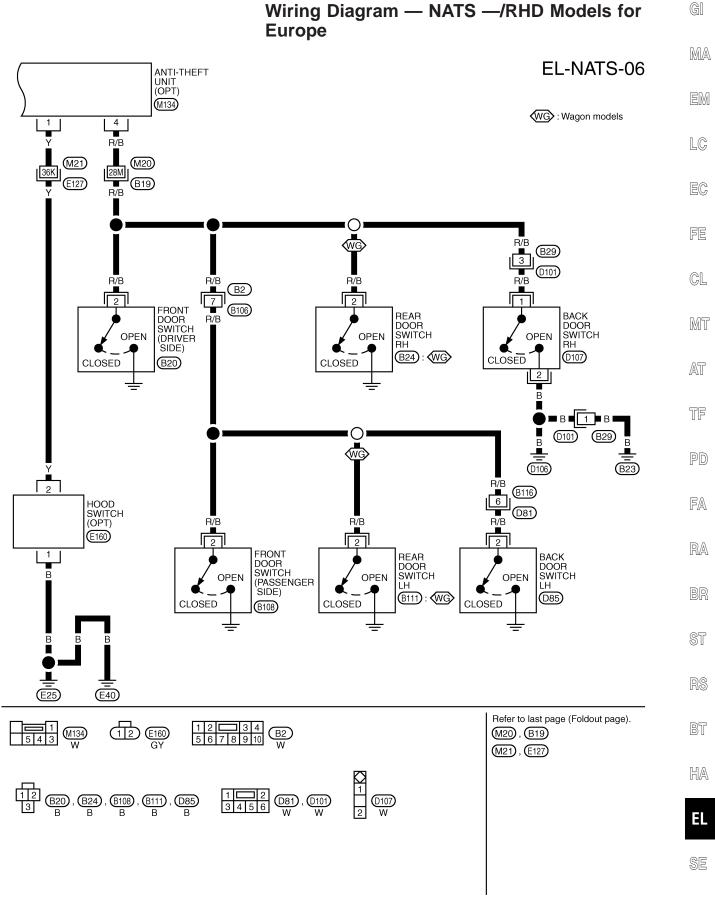


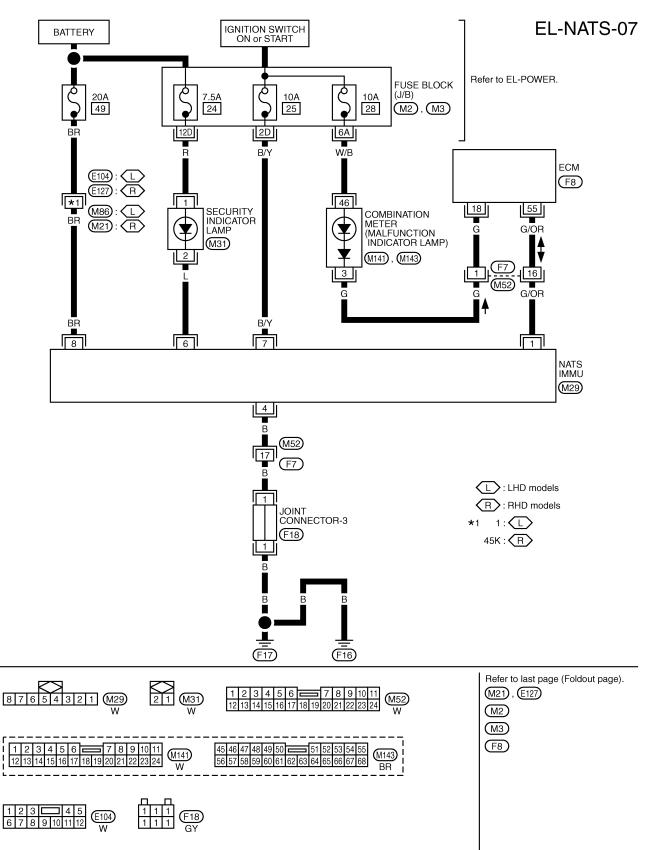
IDX

TEL731M

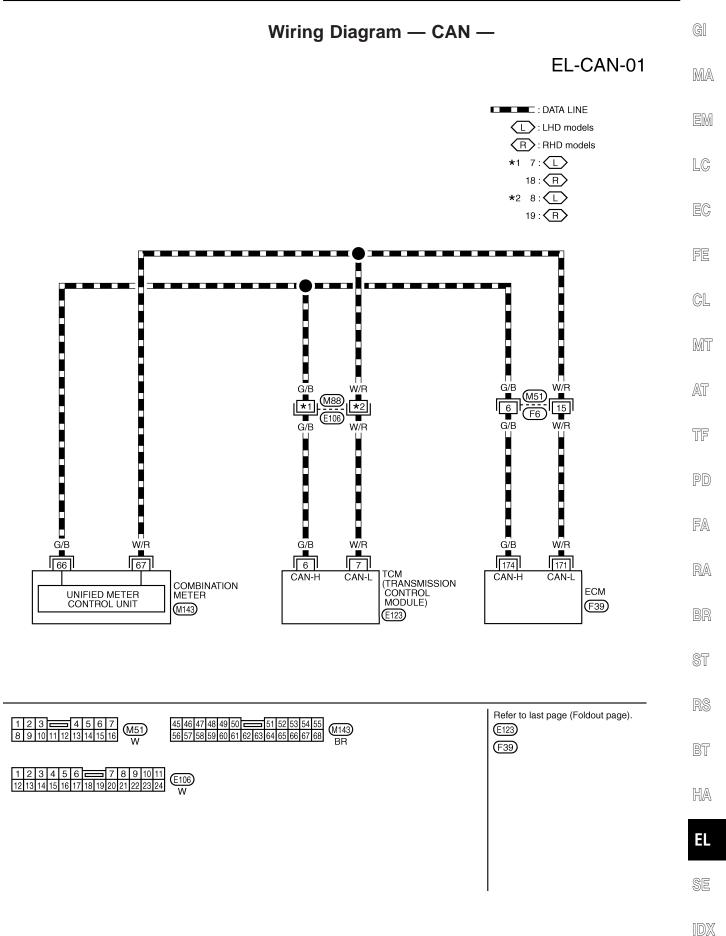


Wiring Diagram — NATS —/LHD Models for Europe



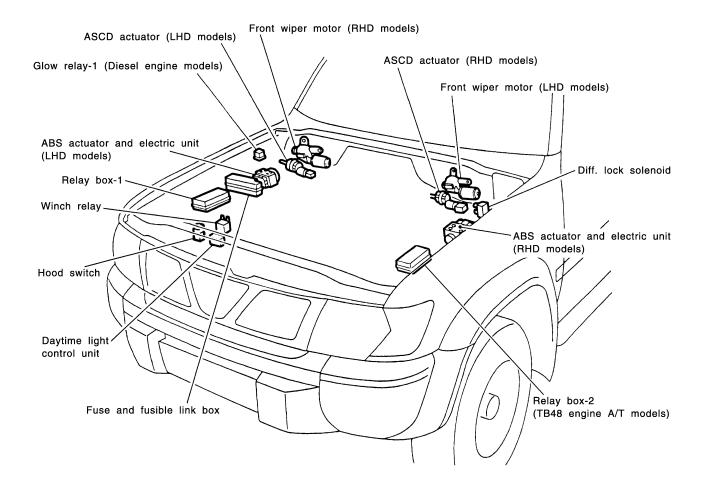


#### Wiring Diagram — NATS —/Except for Europe



# LOCATION OF ELECTRICAL UNITS/WAGON AND HARDTOP MODELS

# **Engine Compartment**

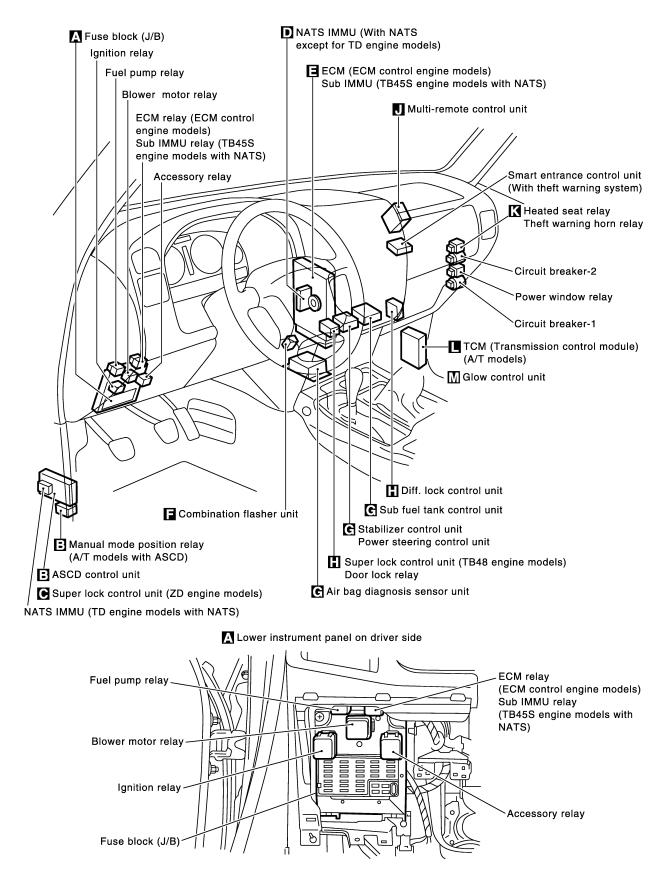


# LOCATION OF ELECTRICAL UNITS/WAGON AND HARDTOP MODELS

# Engine Compartment (Cont'd)

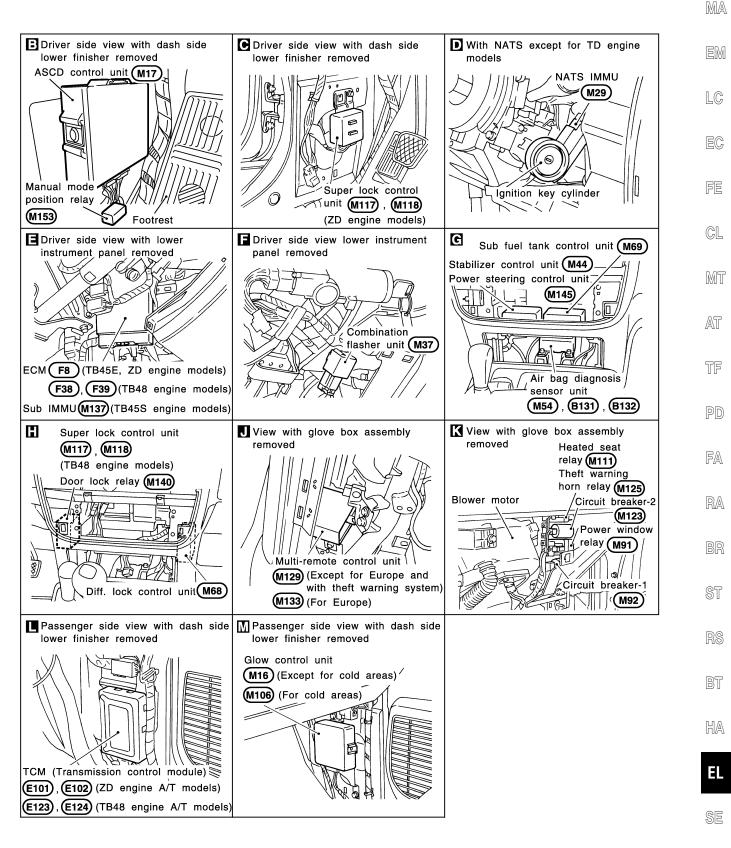
GI Relay box-1 and Fuse and fusible link box MA Fuse block (TB45S engine models) Park/Neutral position relay-2 Cooling fan relay-2 Fuse (A/T models with ASCD) **Fusible link** (TB45E engine models) Starter cut relay Fusible link A/C cut relay (TB45S engine models with NATS) EM (TD engine models with A/C) Cooling fan relay-3 (TB48 engine models) LC Fuse block (Except for TB45S engine models) Front fog lamp relay EC (TB45S engine models) Auto-choke relay -FE (TB45S engine models)  $\bigcirc$ Fuse Front fog lamp relay (Except for TB45S CL engine models) Air conditioner relay-MT Cornering lamp relay (LHD models with Shift lock relay cornering lamp) (ZD engine A/T models) AT Rear fog lamp relay Cooling fan relay-2 (TB48 engine models) Distributor cut relay Rear window defogger relay Horn relay Headlamp washer timer (TB45S engine models TF HID relay RH with NATS) (With xenon headlamp system) Wiper deicer relay A/C cut relay Transfer neutral relay HID relay LH (TB45S engine models PD (With xenon headlamp system) with A/C) Cooling fan relay-1 Theft warning lamp relay FA Relay box-2 (TB48 engine A/T models) RA BR A/T pv ign relay Back-up lamp relay ST Throttle control motor relay. Park/Neutral position relay-3 BT Shift lock relay HA EL SE

#### Passenger Compartment — LHD Models



# LOCATION OF ELECTRICAL UNITS/WAGON AND HARDTOP MODELS

Passenger Compartment — LHD Models (Cont'd)

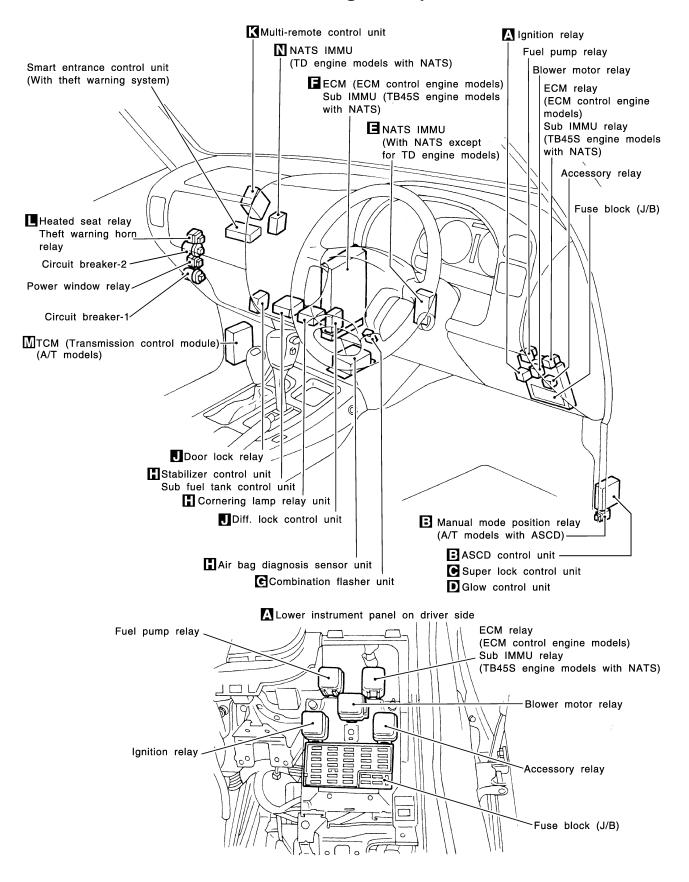


IDX

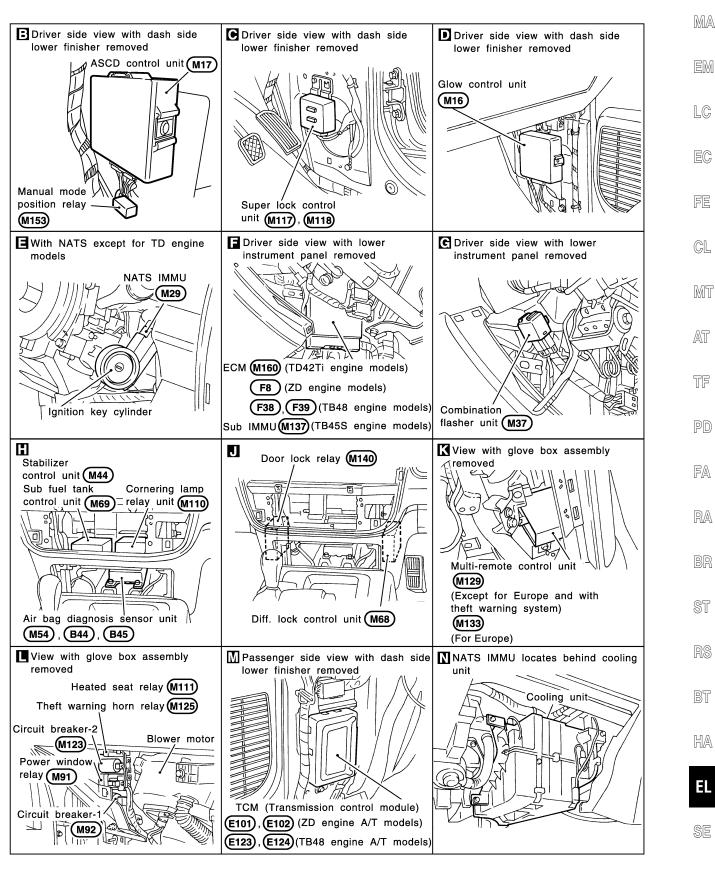
GI

# LOCATION OF ELECTRICAL UNITS/WAGON AND HARDTOP MODELS

#### **Passenger Compartment — RHD Models**



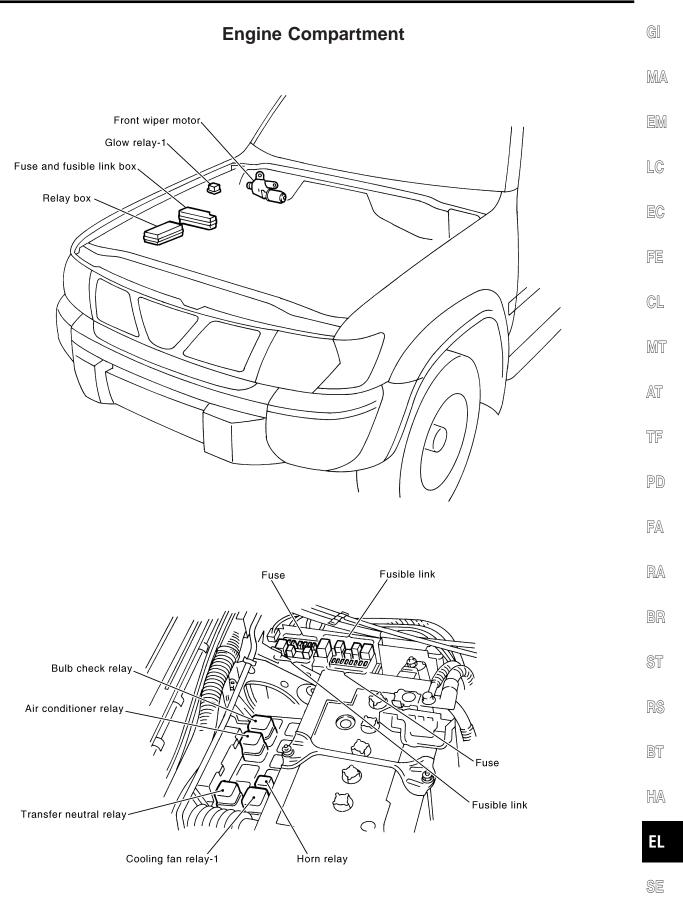
#### LOCATION OF ELECTRICAL UNITS/WAGON AND HARDTOP MODELS Passenger Compartment — RHD Models (Cont'd)



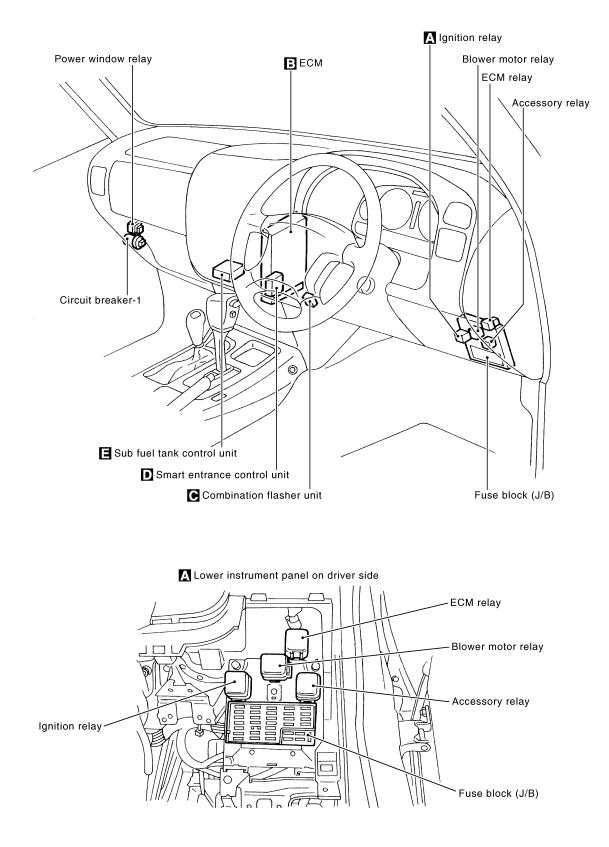
IDX

GI

NOTE

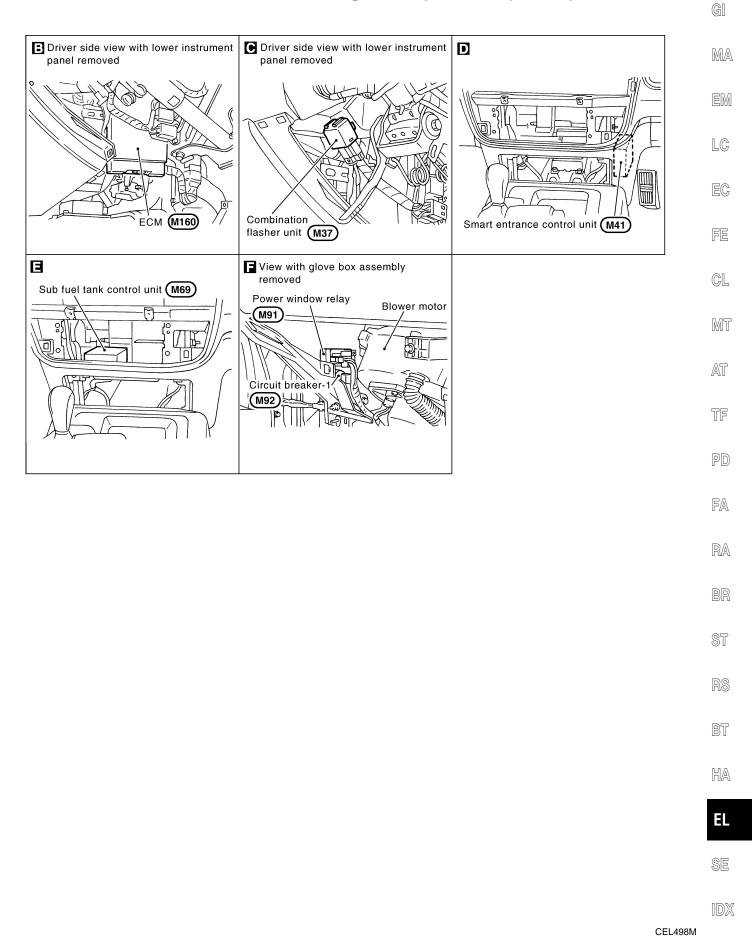


#### **Passenger Compartment**



### LOCATION OF ELECTRICAL UNITS/PICKUP MODELS

### Passenger Compartment (Cont'd)



NOTE

#### How to Read Harness Lavout

How to Read Harness Layout									
Example:						MA			
G2 E1 B/6 : ASCD ACTUATOR Connector color / Cavity									
Connector color / Cavity Connector number									
Grid reference									
<ul> <li>The following Harness Layouts use a map style grid to help locate connectors on the drawings:</li> <li>Main Harness</li> <li>Engine Room Harness (Engine Compartment)</li> </ul>									
To use the grid referent 1) Find the desired cor 2) Find the grid referent 3) On the drawing, find	nnector numb			column and n	Imber row	FE			
<ul><li>4) Find the connector r</li><li>5) Follow the line (if us</li></ul>	number in the	crossing zone	erence ietter ( 9.		inider tow.	MT			
CONNECTOR SYMBOI Main symbols of connect		ss Layout) are	indicated in t	he below.		AT			
Connector type	Water pr	oof type	Standa	Standard type					
Connector type	Male	Female	Male	Female					
<ul><li>Cavity: Less than 4</li><li>Relay connector</li></ul>	Ø	5				PD			
• Cavity: From 5 to 8	$\bigcirc$	$\bigcirc$	$\bigcirc$			FA			
• Cavity: More than 9	—	—	$\bigcirc$	$\bigcirc$		RA			
<ul> <li>Ground terminal etc.</li> </ul>	_	_	Ø	>		BR			
						ST			
						RS			
						BT			
						HA			
						EL			
						SE			
						IDX			

ო 2 4 S M92 M93 M94 For detailed ground distribution information, (86M) M86 M95 M87 (96M M123 M84 (111) M24 M125 View with glove box assembly 16M M85 ) വ വ M23 refer to "GROUND DISTRIBUTION". Body ground **M88** M59 M98 M76 **M7** M127 M106 M57 removed Blower M78 M56 M16 M133 ш Ш M58 (M73) M70 M66 M144 (M129) M112 (M113) M74 M68 M121 M43 M42) M126) M157 Behind combination meter M69 M134 (M145) (M124) M30 ш ш M62 ( M53 ) M63 M44 (F Body ground M61 M54) (M122) M64 M49 (0110) M46) (M140) M67 (T117) M75 M48 M38 Δ Δ M118) (M47) M51 M52 removed Driver side view with dash M45 M30 (M37 (M137 M156) M50 M40 M55 M151 M28) lower finisher (M104) M138 M115 6 M8 M150 M19 Body ground M29 C M135 ပ M102) M100 M148 M101) M149 ۲N ۲ side M10 M31 M3 M128 \*1 : Except for ECM control engine models
\*2 : For ECM control engine models
\*3 : ZD engine models for Europe
\*4 : TB48 engine models for Europe M143 M4 M5 മ മ 9W M130 M2 M80 M79 Ē M147) M13 M146) (M154) M153 ž M155) M142 M136 M136 M141 **M90** M103) M19 M14 M20 ∢ ∢ M21 M116 M117 0 M89 M22 M118) M17  $\sim$ က 4 ഹ

Main Harness/LHD Models

Main Harness/LHD Models (Cont'd)	_
	GI
Air bag diagnosis sensor unit Air bag diagnosis sensor unit Sunbad sensor (With front auto A/C) Air bag module (Passenger side) (With dual air bag system) Intake sensor (With front auto A/C) Thermo control amp. (Except for the Middle East TB48 engine models with front auto A/C) Reat cooler front witch Radio and cassette player Mith CD auto changer except for Europe) Mith fornt auto A/C) Fan switch A/C auto amp. (With front auto A/C) Intake door motor ] Mith front auto A/C) Fan switch illumination Reciculation switch, A/C switch Via sub-harness) A/C auto amp. (With front auto A/C) Intake door motor ? Mithe form manual A/C) Blower resistor (With front manual A/C) Blower motor 10 600 Mithe form manual A/C) Blower motor 10 600 Mithe form manual A/C) 10 600 Mithe form manual A/C) 10 600 Mithe form manual A/C) 10 600 Mithe form manual A/C) 10 600 Mithe form motor ? 10 600 Mithe form manual A/C) 10 600 Mithe form motor ? 10 600 Mithe form manua	MA
Air bag diagnosis sensor unit To (E3) (TB48 engine models for Europe) Sunda sensor (With front auto A/C) Air bag module (Passenger side) (With dual air bag system Intake sensor (With front auto A/C) Thermo control amp. (Except for the Middle East TB48 eng models with front auto A/C) Reac cooler front switch Radio and cassette player Radio and cassette player (For Europe) Radio for control unit AC auto amp. (With front auto AC) Intake door motor (With front auto AC) Intake door motor (I) Intake door	EM
for Europ e) (With c A/C) ayer } (E) tor Europe) Europe) auto A/C auto A/C auto A/C) uto A/C) utal A/C) utal A/C)	LC
isor unit isor unit ifront aut enger sid o A/C) o A/C) ch issette pla ayer front auto in A/C switt front auto ith front au ith front au ith front au front au front mar front mar	EC
nosis ser B48 engir hsor (With fi lule (Pass front aut front aut front aut front aut front aut front aut front aut front aut assette p assette p assette p itch motor (With rness) tront mar front m	FE
Air bag diagnosis sensor unit To (F35) (TB48 engine models for Europe) Sunload sensor (With front auto A/C) Air bag module (Passenger side) (With dua Intake sensor (With front auto A/C) Thermo control amp. (Except for the Middle models with front auto A/C) Read coaler front switch Radio and cassette player Radio and cassette player Radio and cassette player (With CD auto changer except for Europe) Radio and cassette player (For Europe) Radio and cassette player (With front auto A/C) Radio and the tank (Wit	GL
	MT
V/20 W/8 W/8 W/10 W/10 W/10 W/12 W/10 W/10 W/12 W/10 W/11 W/10 W/11 W/11 W/11 W/12 W/12 W/12 W/12 W/12	AT
CONTRACTOR	TF
ŝ	PD
Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) ECM relay (TB45E engine models) ECM relay (TB45E engine models) Date link connector (With CONSULT-II) Headlamp aiming switch Heat up switch Door mirror remote control switch Glow control unit (TD engine models except for cold areas) ASCD control unit To (1) To (1) To (1) Spiral cable NATS IMMU (With NATS except for cold areas) Body ground TO (1) Spiral cable NATS IMMU (With NATS except for china and TB45 engine models with theft warming system)) ASCD clutch switch (M/T models with ASCD) Combination flasher unit Mode door motor (With front auto A/C) Gradination flasher unit Mode door motor (With front auto A/C) Bar window defoger switch Harad switch Harad switch Hazad s	FA
Fuse block (JB) Fuse block (JB) Fuse block (JB) Fuse block (JB) Fuse block (JB) Fuse block (JB) Eves block (JB) ECM relay (TB45E engine models) Date link connector (With CONSULT-II) ECM relay (TB45E engine models) ECM relat Ink Body ground To (1) To (1)	RA
Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Edm relay (TB45E engine models) Edm relay (TB45E engine models) Edm relay (TB45E engine models) Edm relay (ZD engine models) Date link connector (With CONSULT-II) Headlamp aiming switch Heat up switch Door mirror remote control switch Glow control unit (TD engine models except 1 Glow control unit (TD engine models except 1 ASCD control unit (TD engine models except 1 Body ground To EI) To EI Spiral cable NATS IMMU (With NATS except for TD engin Body ground Spiral cable NATS IMMU (With NATS except for TD engin Body ground Security indicator lamp (With NATS except for TD Body ground Spiral cable NATS IMMU (With NATS except for TD engin Body ground Scontrol unit Mode door motor (With front auto A/C) Cigarette lighter Front power socket Stabilizer control switch Hazard switch Mumination control switch Humination control switch Hazard switch Sub fuel tank switch Sub fuel tank switch Sub fuel tank switch Hazard switch Sub fuel tank switch Hazard switch Sub fuel tank switch Hazard switch Hazard switch Hazard switch Sub fuel tank switch Hazard switch Sub fuel tank switch Hazard switch Sub fuel tank switch Hazard switch	BR
Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) ECM relay (TB45E engine models) ECM relay (ZD engine models) Date link connector (With CONSUL Head up switch Heat up switch Door mirror remote control switch Glow control unit (TD engine models ASCD control unit (TD engine models asCD control unit (TD engine models to <b>EID</b> To <b>EID</b> To <b>EID</b> Spiral cable NATS IMMU (With NATS except for Body ground Security indicator lamp (With NATS Spiral cable NATS IMMU (With front auto A Body ground Security indicator lamp (With front auto A Illumination control switch Mode door motor (With front auto A Illumination control switch Air mix door motor (With front auto A Body ground Scabilizer control unit In-vehicle sensor (With front auto A Rear window defogger switch Hazard swi	ST
Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Fuse block (J/B) Data link connector (With ECM relay (ZD engine m) Date link connector (With Heat up switch Door mirror remote control Glow control unit (TD eng ASCD control unit (TD eng ASCD control un	RS
Fuse block (J/E Fuse block (J/E Data link conne ECM relay (ZD Date link conne Headlamp aimi Heat up switch Door mirror ren Glow control ur ASCD control ur ASC	BT
W/8 BR/16 GY/16 GY/16 BV/16 U/14 W/12 W/16 W/10 W/10 W/10 W/10 W/10 W/10 W/10 W/10	HA
	EL
шолого со	SE

Main Harnose/I HD Models (Cont'd)

IDX

EL-259

TEL011V

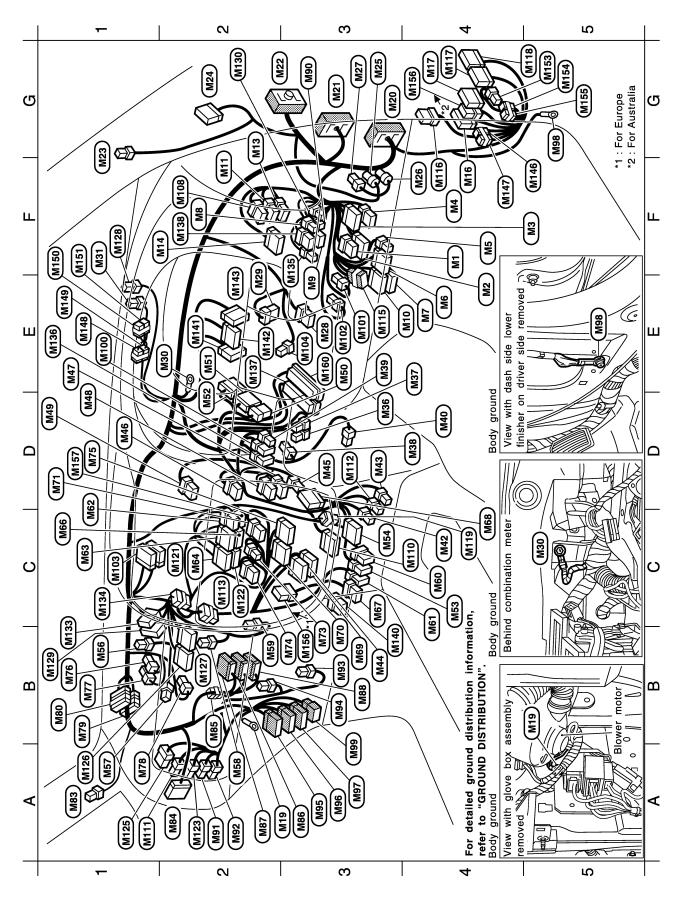
C1       Mr49       W/2       : Resistor         C1       Mr450       W/2       : Resistor         C1       Mr50       W/2       : Resistor         C1       Mr50       L/4       : Manual mode position relay       (A/T models with ASCD)         A4       Mr53       L/4       : Manual mode position relay       (A/T models with ASCD)         A5       Mr53       W/2       : Diode       (TB48 engine A/T models)         C3       Mr153       W/2       : Diode       (TB48 engine A/T models)         C4       Mr53       W/4       : Resistor (ZD engine models for Europe)       (Located in the cluster lid)       (Via sub-harness)         Diode       Mr83       Mr4       : CD auto changer (Cluster lid)       (Via sub-harness)	Fuse block (J/B)Recirculation switch Diode (M148)	Fuel pump control module     Alternator       (FPCM)     Diode (147)	Fuel pump control module Oil pressure switch (FPCM) Oil pressure switch Diode (M154)	Manual mode A/T device (Mode select switch)	Combination meter A/T device (Mode select switch)	)/B)	Resistor (1142), (1113), (1115) Resistor (1143) Smart entrance		Resistor (115)	Fuse block (J/B) Engine oil pressure Combination meter ECM Engine oil pressure switch-1 ECM
C3 (10) L/2 : ASCD brake switch A4 (110) W/12 : NATS IMMU C3 (110) W/14 : NATS antenna amp. F3 (110) W/16 : Glow control unit (TD engine models with NATS) A2 (110) W/16 : Glow control unit (TD engine models for cold areas) A2 (111) L/4 : Heated seat relay F4 (111) B/1 : Cigarette lighter illumination F2 (113) W/2 : Resistor (With diff lock) C4 (114) W/8 : Check connector A4 (114) W/8 : Check connector A5 (111) GV16 : Stiner lock Control unit (ZD encine models for Furne)	(M11) GY/16 : Super lock control unit (TB. (M118) GY/20 : Super lock control unit (ZD (M118) GY/20 · Super lock control unit (TB4	M119 W/3 ::	W/2 : Circuit breaker-2 W/8 : Barlio and cassette plaver	(M12) BR/6 : Theft warning horn relay (M12) W/18 : Smart entrance control unit	F1 (M12) B/24 : Smart entrance control unit ( With their warming system) B1 (M12) BR/2 : Security indicator lamp (For china and TB45S engine models with theft warning system)	F1 (M12) W/16 : Multi-remoto control unit (Except for Europe and with theft warning system) B3 (M130) L/4 : Fuel pump relay (TB45S engine models) F1 (M133) BR/8 : Multi-remote control unit C4 (M133) W/6 : Antiti-remote control unit C4 (M133) W/6 : Antiti-remote control unit	M139 W/6	(113) BR/6 : (1140) W/6 : (1141) W/24 : (1143) BR/20 :	E1 W1143 DFN/24 : COMMUNATION THELET F2 W1143 BR/2 : Not used	E4       M(145)       B/12       : Power steering control unit         A4       (M(145)       W/2       : Diode         A4       (M(147))       W/2       : Diode         A1       (M(143))       W/2       : Diode         C1       (M(143))       W/2       : Resistor (TD engine models with theft warning system)

Main Harness/LHD Models (Cont'd)

#### NOTE

GI
MA
EM
LC
EC
FE
CL
MT
AT
TF
PD
FA
RA
BR
ST
RS
BT
HA
EL
SE

IDX



Main Harness/RHD Models

Di (and Wis Franch and on deloger switch (and Wis Erkö Sub tuel tark switch) (and Wite Sub tuel tark switch) (and Wise Sub tuel tark switch) (and Wise Sub tuel tark switch) (and Wise Sub tuel tark control and) (and Wise Sub tuel tark control and) (and Wise Sub tuel tark control and) (and Wise Sub tuel tark control unit (and Wise Sub tuel tark control and With front auto AC) (and Wise Sub tuel tark control and With front auto AC) (and Wise Sub tuel tark control and With front auto AC) (and Wise Wise Sub tuel tark control (With front auto AC) (and Wise Wise Sub tuel and With front auto AC) (and Wise Wise Sub tuel and With front auto AC) (and Wise Wise Sub tuel and (With front auto AC) (and Wise Wise Sub tuel and (With front auto AC) (and Wis	
<pre>Fi (m) W8 : Fuse block (JB) E4 (m) W8 : Fuse block (JB) F5 (m) GY16 : Fuse block (JB) F4 (m) GY18 : Fuse block (JB) F4 (m) GY18 : Fuse block (JB) E4 (m) W12 : Fuse block (JB) E4 (m) W12 : Fuse block (JB) E4 (m) W12 : Fuse block (JB) E4 (m) W13 : Fuse block (JB) E4 (m) W14 : ECM relay (TD42Fi engle models) E4 (m) W16 : Data link connector (With CONSULT) E2 (m) W18 : Headamp aiming switch E4 (m) W18 : Headamp aiming switch E4 (m) W12 : Glow cartor) unit E4 (m) W13 : Glow cartor) with front auto AC) E4 (m) W13 : M04 : Glow forthon E4 (m) W13 : Glow forthon (W11 front auto AC) E4 (m) W13 : Stabilizer cartor) unit W11 theft warning system) E4 (m) W13 : Stabilizer cartor) unit W14 then warning system) E4 (m) W13 : Stabilizer cartor) unit W14 then warning system) E4 (m) W12 : Stabilizer cartor) unit W14 (m) W14 : Stabilizer cartor) unit W14 (m) W14 : Stabilizer cartor) unit W14 (m) W14 : Stabilizer cartor) unit W15 : T-article sensor (W11 front auto AC) E4 (m) W12 : Stabilizer cartor) unit W14 : M14 : Stabilizer cartor) unit W15 : T-article sensor (W11 front auto AC)</pre>	

Main Harness/RHD Models (Cont'd)

IDX

TEL008V

### EL-263

GI

MA

EM

LC

EC

FE

CL

MT

AT

TF

PD

FA

RA

BR

ST

RS

BT

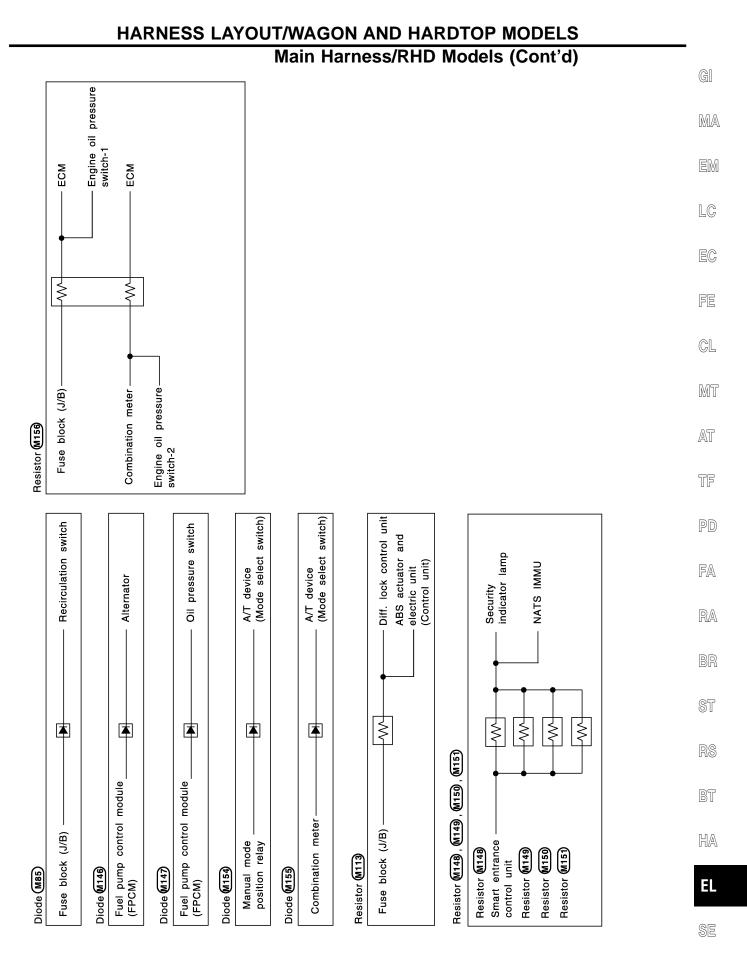
HA

EL

SE

	Main Harness/RHD Models (Cont'd)
<ul> <li>Diode Diode TB45S engine models)</li> <li>Diode Diode TB45S engine models)</li> <li>Resistor Resistor Resistor AT models with theft warning system)</li> <li>Resistor Diode (TB48 engine A/T models with ASCD)</li> <li>Diode (TB48 engine A/T models)</li> <li>Resistor (ZD engine models for Europe and Australia)</li> <li>CD auto changer (Cluster lid) (Via sub-harness)</li> <li>(Located in the cluster lid)</li> <li>ECM (TD42Ti engine models)</li> </ul>	
(114) (114) (114) (114) (115)(	system)
55555555555555555555555555555555555555	arning
<ul> <li>Blower motor</li> <li>To 6101</li> <li>To 6102</li> <li>To 6103</li> <li>Body ground</li> <li>To 6104</li> <li>Body ground</li> <li>Stabilizer switch</li> <li>Stabilizer switch</li> <li>Stop lamp switch</li> <li>ASCD brake switch</li> <li>ASCD brake switch</li> <li>Stop lamp switch</li> <li>MATS IMMU</li> <li>MATS IMMU</li> <li>Resistor (with diff. lock)</li> <li>Check connected</li> </ul>	
Mag W/16 Mag W/16 Mag W/16 Mag W/16 W/10 W/10 W/10 W/10 W/10 W/10 W/10 W/10	Milling         Milling <t< td=""></t<>
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	

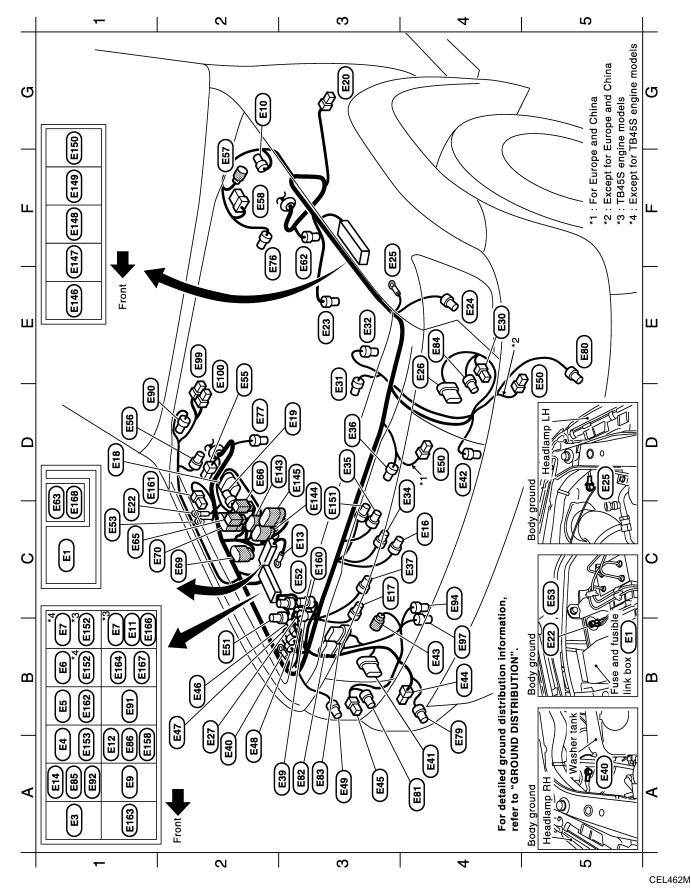
Main Harness/RHD Models (Cont'd)



IDX

#### Engine Room Harness/LHD Models

#### GASOLINE ENGINE MODELS



Engine Room Hamess/LHD wodels (Cont d)	<b>O</b> 1
odels models models models	GI MA
Horn high Park/Neutral position relay-1 Body ground Side turn signal lamp RH ASCD pump Mith NATS) Body ground Side turn signal lamp RH ASCD pump ASCD pump ASCD pump Front wheel sensor LH (With ABS) Park/Neutral position relay-2 (AT models with ASCD) To cool To cool Park/Neutral position relay-2 (AT models with ASCD) To cool Different wheel sensor LH (With ABS) Park/Neutral position relay-2 (AT models with ASCD) To cool Different wheel sensor LH (With ABS) Park/Neutral position relay-2 (AT models with ASCD) To cool Different tog lamp LH Headlamp RH Cront tog lamp LH Headlamp RH Cront fog lamp LH Headlamp RH Hill relay RH HID relay RH H	EM
(TB48 engine with NATS) with NATS) A/T models wi allamp system adlamp system he Middle Eas ol box) alve ditch (Rear coo ar cooler) alve witch (Rear coo ar cooler) alve with A/( witch A/dels)	LC
Horn high Park/Neutral position relay-1 Park/Neutral position relay-1 Park/Neutral position relay-1 Body ground Side turn signal lamp RH ASCD pump Wiper deicer Front wheel sensor LH (With ABS) Park/Neutral position relay-2 (A/T models with A) Wiper deicer Front wheel sensor LH (With ABS) Park/Neutral position relay-2 (A/T models with A) To 2000 (TB48 and TB45E engine models) To 2000 (TB48E engine models) To 2000 (TB48E engine models with ACC) To 2000 box solenoid valve (For the Middle East TB) Cool box solenoid valve (For the Middle East TB) TB45E engine models with cool box) Rear window defoger relay A/C cut relay A/C cut relay TD7 (TB45E engine models with rear cooler) (TB45E engine models with rear cooler) (	EC
Horn high Park/Neutral position relay-1 Park/Neutral position relay-1 Body ground Side turn signal lamp RH ASCD pump Wiper deicer Front wheel sensor LH (With Park/Neutral position relay-2 To £200 (TB48 and TB45E 6 To £200 (TB45E engine MCI on the HID relay RH HID relay RH HID relay RH HID relay RH A/C cut relay Cool box solenoid valve (For TB45E engine models with r SC-FI POT control solenoid Shift lock relay To £230 Shift lock relay Park/Neutral position relay-3 Throttle control motor relay-3 A/T pv ign relay	FE
Horn high Park/Neutral positid Body ground Side turn signal lan ASCD pump Wiper deicer Front wheel sensor Park/Neutral positid To 6200 (TB48 an To 6200 (TB48 an Front fog lamp LH Hadlamp LH Hadlamp LH HID relay LH Cool box solenoid v TB45E engine mod Rear window defog A/C cut relay Cool box solenoid v TB45E engine mod Rear window defog A/C cut relay To 6230 Shift lock relay To 6230 Shift lock relay To 6230 Shift lock relay Park/Neutral positid Throttle control mol Back-up lamp relay A/T pv ign relay	GL
	MT
	AT
	TF
D Europe)	PD
s) odels for   em) em)	FA
Fuse and fusible link box Transfer neutral relay Cornering lamp relay Auto-condutioner relay Auto-chocke relay Auto-chock relay Tues block Horn relay Diff lock solenoid Cooling fan relay-2 (TB45E engine models) Miper deicer relay Battery (+) Horn relay Muber deicer relay Battery (+) Hadlamp washer timer Cooling fan neuto-2 (TB48 engine models) Miper deicer relay Battery (+) Hadlamp washer timer Cooling fan neuto-2 (TB48 engine models) Miper deicer relay Battery (+) Hadlamp washer timer Cooling fan neuto-2 (TB48 engine models) Miper deicer relay Battory (+) Hadlamp washer timer ABS actuator and electric unit Power anterna Side turn signal lamp LH Body ground (With ABS) grition coil (TB45S engine models) ABS actuator and electric unit Power anterna Side turn signal lamp LH Body ground (With ABS) grition coil (TB45S engine models) Anterna Side turn signal lamp LH Refrigerant pressure sensor (TB48 engine models) Anter anterna Side turn signal lamp LH Mithout xenon headlamp system) Distributor Distributor Mation tair temperature sensor (With compass and thermometer) Ambient art temperature sensor (With compass and thermometer) Ambient artemperature sensor (With compass and thermometer) Ambient sensor (TB45S engine models) Cooling fan motor-1 Cooling fan motor-1 Cooling fan motor-1 Cooling fan motor-1 Cooling fan motor-1 Cooling fan motor-2 Cooling fan motor-1 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-1 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-1 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor-2 Cooling fan motor RH	RA
Fuse and fusible link box Transfer neutral relay Cornering lamp relay Auto-choke relay Heuro relay Diff lock solenoid Cooling fan relay-2 (TB45E engine models Wiper deicer relay Battery (+) Headlamp washer timer Ambient sensor (TB48 engine models) Cooling fan motor-2 (TB48 engine models) Gooling fan motor-2 (TB48 engine models) ABS actuator and electric unit Power antenna Side turn signal lamp LH Body ground (With ABS) Ignition coil (TB45S engine models) Front combination lamp LH Body ground (With ABS) Ignition coil (TB45S engine models) Front combination lamp LH Body ground Headlamp LH (Without xenon headlamp sy Distributor Compressor Mith compass and thermometer) Ambient sensor (TB45S engine models) Compressor Mith compass and thermometer) Ambient sensor (TB45S engine models) Conjing fan motor-1 Cooling fan motor	BR
Fuse and fusible link box Transfer neutral relay Cornering lamp relay Air conditioner relay Horn celay Diff lock solenoid Cooling fan relay-2 (TB45E engin Wiper deicer relay Battery (+) Headlamp washer timer Ambient sensor (TB48 engine mo Cooling fan motor-2 (TB45 engine mo Cooling fan motor-2 (TB45 engine mo Cooling fan motor-2 (TB455 engine mo Cooling fan motor LH Body ground Headlamp LH (Without xenon hea Distributor Compressor Mabient sensor (TB455 engine mo Cooling fan motor LH Body ground Headlamp LH (Without xenon hea Cooling fan motor-1 Cooling fan motor-1 Ambient air temperature sensor (TB455 engine models f (Except for TB48 engine models f Body ground Headlamp aiming motor RH Engine coolant temperature switch Headlamp RH (Without xenon hea Front washer motor Headlamp RH (Without xenon hea Front washer motor Headlamp washer motor Front washer motor Headlamp washer motor	ST
Fuse and fusible link box Transfer neutral relay Cornering lamp relay Air conditioner relay Horn relay Diff lock solenoid Cooling fan relay-2 (TB4! Wiper deicer relay Battery (+) Headlamp washer timer Ambient sensor (TB48 er Cooling fan motor-2 (TB4 Body ground (With ABS) Ignition coil (TB455 engin Front combination lamp L Body ground (With ABS) Ignition coil (TB455 engin Front combination lamp L Body ground (With ABS) Ignition coil (TB455 engin Front combination lamp L Body ground (With ABS) Ignition coil (TB455 engin Front combination lamp L Body ground (With ABS) Ignition coil (TB455 engin Front combination lamp L Body ground therr Ambient air temperature (With compass and therr Ambient air temperature (Except for TB48 engine Body ground Headlamp RH (Without x Front washer motor Headlamp RH (Without x Front washer motor Headlamp washer motor Front washer motor Headlamp washer motor	RS
Fuse and fusible Transfer neutra Cornering lamp Air conditioner Auto-choke rela Fuse block Horn relay Wiper deicer re Battery (+) Headlamp wash Ambient sensoi Cooling fan mo ABS actuator a Ambient sensoi Cooling fan mo ABS actuator a Multion coil (TE Front combinati Body ground (V Ignition coil (TE Front combinati Body ground (V Uth compass Ambient senso Cooling fan mo Cooling fan mo Duel-pressure (Except for TB2 Body ground Headlamp RH ( Front washer m Headlamp RH ( Front combinati	BT
GY/6 L/4 BR/6 GY/6 SB/4 SB/4 SB/4 SB/4 SB/4 SB/4 SB/4 SB/4	HA
	EL
A A B A B A B A C D D C M D M M M M M M M M M M M M M M	SE

Engine Room Harness/LHD Models (Cont'd)

IDX

TEL014V

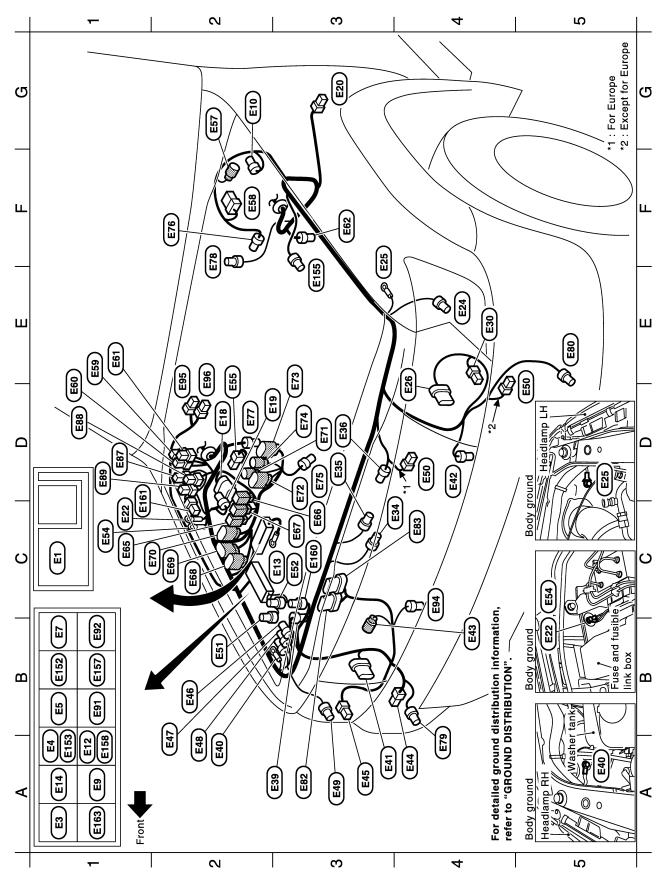
Ambient air temperature switch (TB48 engine models with front	Front fog lamp relay	Rear fog lamp relay	Theft warning lamp relay	Hood switch	Theft warning horn	Air conditioner relay (TB48 and TB45E engine models)	Cooling fan relay-1	Cooling fan relay-2 🌖 (TB48 andina madala)	Cooling fan relay-3 $\int (1040 \text{ engine inouels})$	Distributor cut relay ) (There are included in the NATE)	Starter cut relay
					••						
BR/2	L/4	L/4	BR/6	GY/2	B/1	L/4	BR/6	BR/6	BR/6	L/4	B/5
C3 E151	E152	E153	E158	E160	E161	E162	E163	E164	E166	E167	E168
ő	B1	A1	A1	ខ	5	8	A1	<u>8</u>	8	<u>в</u>	5

Engine Room Harness/LHD Models (Cont'd)

# HARNESS LAYOUT/WAGON AND HARDTOP MODELS Engine Room Harness/LHD Models (Cont'd) NOTE GI MA EM LC EC FE CL MT AT TF PD FA RA BR ST RS BT HA EL SE IDX EL-269

Engine Room Harness/LHD Models (Cont'd)

#### DIESEL ENGINE MODELS



CEL464M

**EL-270** 

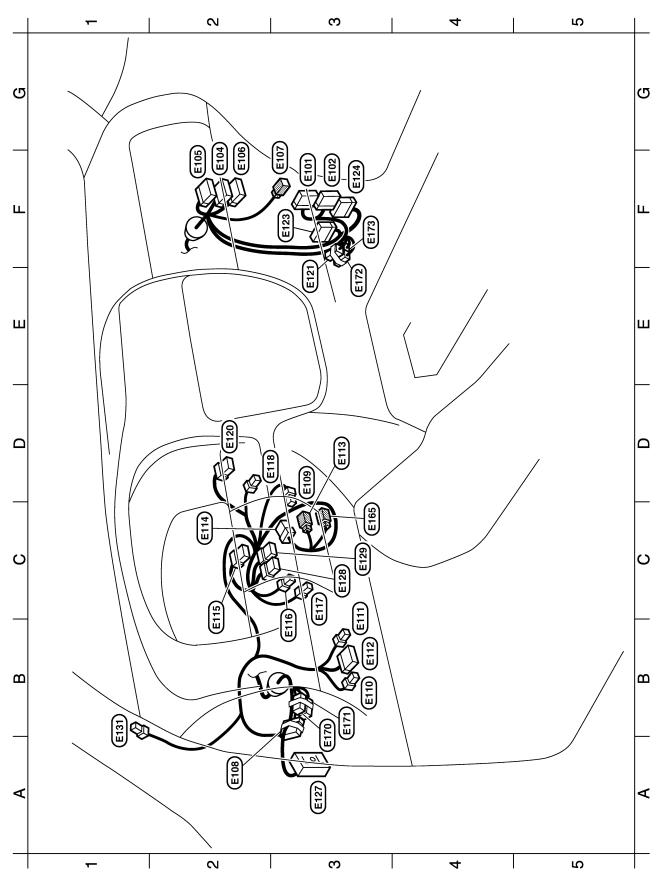
HARNESS LAYOUT/WAGON AND HARDTOP MODELS	_
Engine Room Harness/LHD Models (Cont'd)	GI
lels) old areas) with A/C) wid valve	MA
dels) bid areas) with A/C) bid valve	IMUZA
sS) (A/T models) rope) 3S) 3S) tch-1 with vith ol solenoid v	EM
ABS) Europe) s) and the followitch -1	LC
Glow relay-1 Front wheel sensor LH (With ABS) To E20 To E2	EC
Glow relay-1 Front wheel sensor LH (With To E203 To E203 The funct bark Park/Neutral position switch Park/Neutral position switch Front fog lamp LH Daytime light control unit Grow relay-2 Grow relay-2 Grow relay-2 Grow relay-2 Grow relay-2 Rear window defogger relay A/C cut relay A/C models) A/C models) A/C models) A/C models A/C models) A/C models A/C models) A/C models A/C mod	FE
Glow relay-1 Front wheel sensor I To (200) To (200) Revolution sensor A/T solenoid valve Park/Neutral position Park/Neutral position Park/Neutral position Park/Neutral position Front fog lamp RH Front fog lamp LH Daytime light contro Daytime light contro Grow relay-2 Grow relay-2 Grow relay-2 Grow relay-2 Grow relay-2 Grow relay-2 Rear window defogg A/C cut relay Rear vindow defogg A/C cut relay Front fog lamp relay Rear fog lamp relay Colling fan relay-1 Cooling fan relay-1	
Glow relay-1 Front wheel s To E203 To E203 Park/Neutral Park	CL
W/1 W/1 BR//2 BR//2 BR//2 W/1 BR//2 W/1 B//2 W/2 W/2 B//2 W/2 W/2 W/2 W/2 W/2 W/2 W/2 W/2 W/2	MT
	AT
> C C C C C C C C C C C C C C C C C C	TF
ith A/C)	PD
angine models with A/C)	
s) s) s)	FA
TD et th compared the compared to the compared	RA
iit iit auto A/Vi switch-;	BR
Euse and fusible link box Transfer neutral relay Cornering lamp relay Air conditioner relay Fuse block Honr relay Diff. lock solenoid Wiper deicer relay Battery (+) Headlamp washer timer ABS actuator and electric unit Power antenna Side turn signal lamp LH Body ground Headlamp washer time LH Body ground Headlamp uth Body ground Headlamp LH Ambient air temperature sensor (With com Ambient air temperature sensor (With com Ambient air temperature sensor (With com Ambient air temperature sensor (With com Headlamp LH Body ground Headlamp LH Body ground Headlamp LH Front combination lamp LH Body ground Headlamp LH Ambient sensor (With front auto A/C) Cooling fan motor-1 Dual-pressure switch Body ground Headlamp RH Front washer motor Headlamp RH Front Washer Headlamp RH F	ST
Fuse and fusible link box Transfer neutral relay Cornering lamp relay Air conditioner relay Horn relay Diff. lock solenoid Wiper deicer relay Battery (+) Headlamp washer timer ABS actuator and electric ur Power antenna Side turn signal lamp LH Body ground (With ABS) Front combination lamp LH Headlamp LH Ambient air temperature ser Ambient are temperature ser Ambient sensor (With front Cooling fan motor 1 Dual-pressure switch Body ground Headlamp RH Front washer motor Headlamp RH Front washer motor Headlamp washer motor Headlamp washer motor Front washer motor Fort combination lamp RH Horn high Park/Neutral position relay- Body ground Side turn signal lamp RH Wiper deicer Front wiper motor Grow relay-1 Grow relay-1	RS
Fuse and fusible lini Transfer neutral rela Cornering lamp rela Air conditioner relay Horn relay Diff. lock solenoid Wiper deicer relay Battery (+) Headlamp washer ti ABS actuator and el Power antenna Side turn signal lam Body ground (With <i>I</i> Front combination la Body ground (With <i>I</i> Front combination la Headlamp LH Ambient air tempera Ambient air tempera Headlamp RH Front washer motor Headlamp RH Front washer motor Headlamp RH Front combination la Horn low Headlamp RH Front vasher motor Rear washer motor Rear washer motor Rear washer motor Rear washer motor Rear washer motor Rear washer motor Goow relay-1 Grow relay-1	
Fuse and t Transfer n Cornering Air conditi, Horn relay Wiper deic Battery (+) Headlamp ABS actua Body grou Front com Body grou Headlamp Headlamp Headlamp Headlamp Headlamp Front wash Headlamp Headlamp Front wash Headlamp Front wash Horn high Front wipe Grow relay	BT
GY/6 L/4 N SB/6 SB/4 SNJ SNJ SNJ SNJ SNJ SNJ SNJ SNJ SNJ SNJ	HA
	EL
$ \begin{bmatrix} 1 & 2 & 2 & 2 & 2 \\ 1 & 2 & 2 & 2 & 2 \\ 1 & 1 & 2 & 2 & 2 \\ 1$	SE

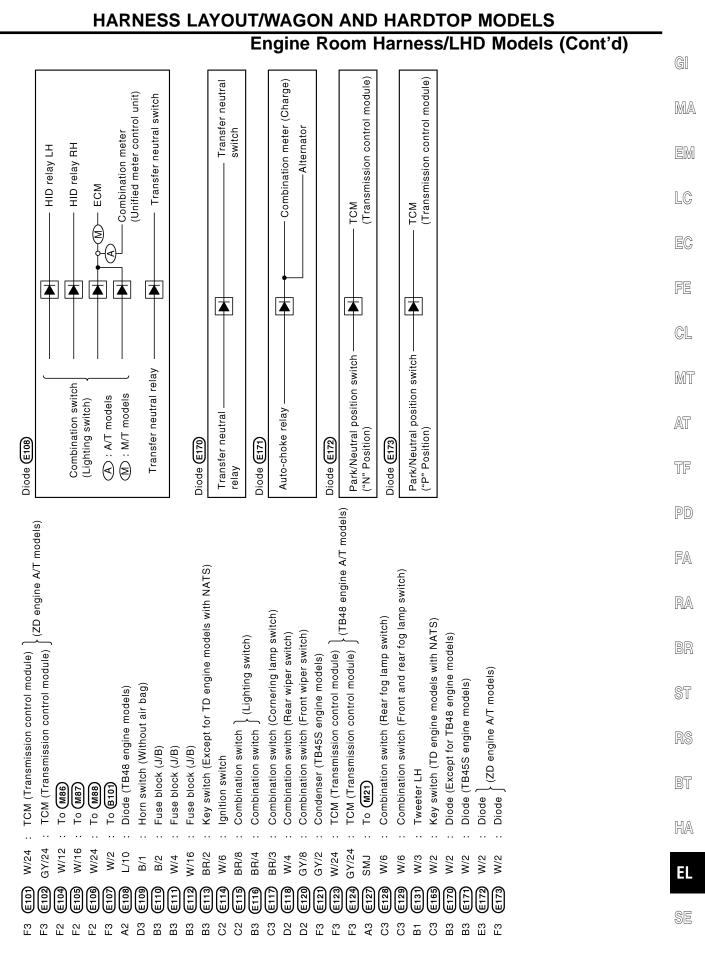
IDX

TEL015V

Engine Room Harness/LHD Models (Cont'd)

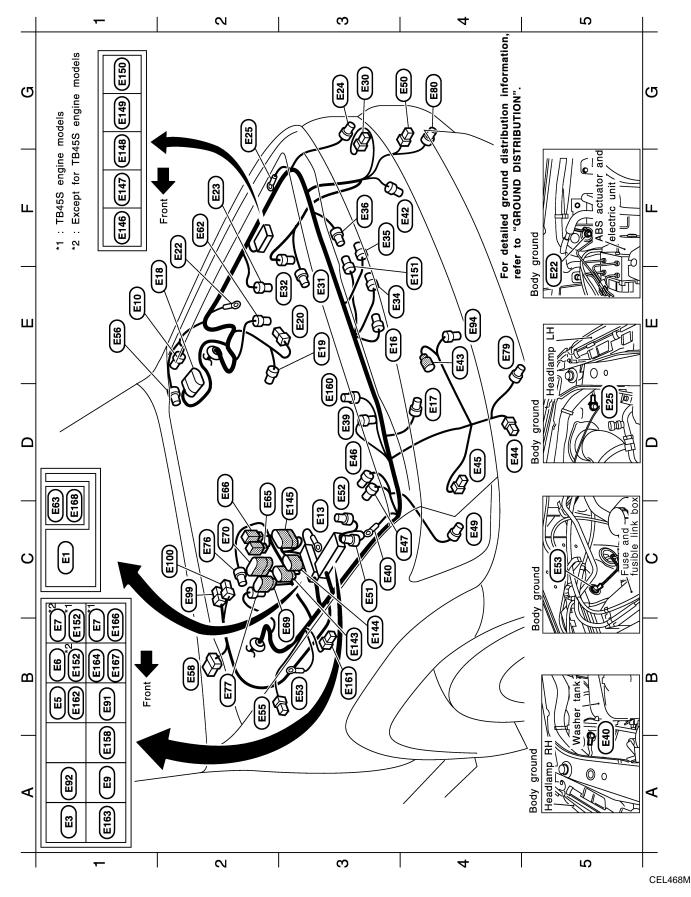
#### PASSENGER COMPARTMENT





IDX

#### Engine Room Harness/RHD Models



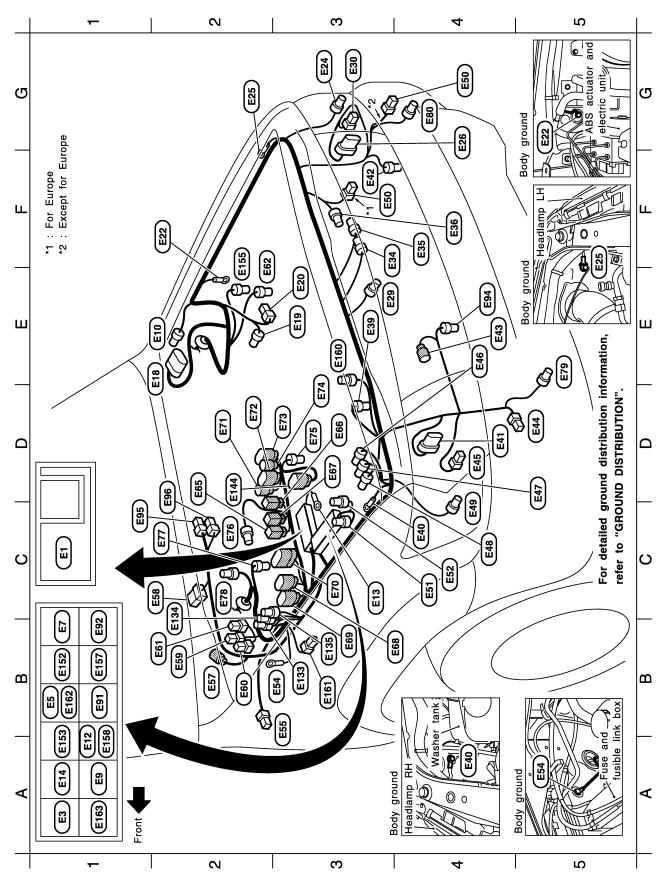
#### **GASOLINE ENGINE MODELS**

HARNESS LAYOUT/WAGON AND HARDTOP MODELS	
Engine Room Harness/RHD Models (Cont'd) ஓ	GI
ASCD) engine with A/C) (A/T models)	
	MA
nodels with (TB45S models) models)	EM
th ABS) e(A/T m els) th ABS) th ABS (th ABS) th ABS) t	LC
IP RH LH (With I relay-2 ne mode itch Nit RH (With RH (With RH (With RH 23 solenoid solenoid solenoid solenoid solenoid solenoid solenoid (TB48 (TB48 (TB45S) with N,	EC
Body ground Side turn signal lamp RH ASCD pump Front wiper motor Front wheel sensor LH (With ABS) Park/Neutral position relay-2 (A/T models with To (200) (TB48 engine models) To (200) To (200) (TB48 engine models) To (200) To (200) The the switch Front tog lamp LH Front tog lamp LH Throttle control solenoid valve Shift lock relay Throttle control solenoid valve The transition relay-3 Throttle control solenoid valve Shift lock relay A/T pv ign relay A/T pv ign relay Hood switch Theft warning lamp relay Hood switch Theft warning horn Air conditioner relay (TB48 engine models) Cooling fan relay-3 Cooling fan relay-3 Distributor cut relay (TB455 engine models) Cooling fan relay-3 Distributor cut relay (TB455 engine models) Cooling fan relay-3 Distributor cut relay (TB455 engine models)	FE
Body ground Side turn signal I ASCD pump Front wheel senso Fant wheel senso Fark/Neutral positi To E203 (TB48 er To E203 (TB48 er Front vheel senso Front fog lamp RI Front fog lamp RI Front fog lamp RI Front fog lamp RI Front fog lamp relay A/C cut relay Engine coolant tel ISC-FI POT contro A/C cut relay Engine coolant tel Shift lock relay To E23 Shift lock relay To E23 Shift lock relay Park/Neutral positi Throttle control m Back-up lamp relay A/T pv ign relay A/T pv ign relay A/T po ign relay Cooling fan relay- Cooling fan relay-	CL
	MT
Image: State of the state	AT
VO       VO <td< td=""><td>TF</td></td<>	TF
ont auto A/C) front auto A/C) front auto A/C) engine models with A/C) engine models with A/C)	PD
s) front auto A/C) i front auto A/C ass and therm ass and therm A/T models ar models with	FA
	RA
engine models w ngine models w nodels) nodels) or (With c te models witch-2 (TB Witch-2 (TB TB45 eng TB45 eng	BR
Fuse and fusible link box Transfer neutral relay Auto-choke relay Fuse block Fuse solenoid Battery (+) Ambient sensor (TB48 engine models) ABS actuator and electric unit Power antenna Side turn signal lamp LH Body ground (With ABS) Ignition coil (TB45S engine models) Front combination lamp LH Body ground (With ABS) Ignition coil (TB45S engine models) Front combination lamp LH Body ground Headlamp LH Distributor Body ground Engine coolant temperature sensor (With compas Ambient air temperature sensor (With compas Ambient air temperature sensor (With compas Ambient are temperature sensor (Mith electrical winch) Headlamp RH Front washer motor Rear washer motor Front combination lamp RH Horn low Headlamp RH Horn high Park/Neutral position relay-1 Mart Park/Neutral position relay-1 Mart Park Park/Neutral position relay-1 Mart Park Park Park Park Park Park Park Park	ST
Fuse and fusible link box Transfer neutral relay Air conditioner relay Fuse block Horn relay Diff. lock solenoid Battery (+) Ambient sensor (TB48 engine Cooling fan motor-2 (TB48 engine Cooling fan motor-1 Body ground (With ABS) Ignition coil (TB45S engine mc Front combination lamp LH Body ground Headlamp LH Distributor Front combination lamp LH Body ground Headlamp LH Distributor Compressor Ambient sensor (TB45S engine mc Compressor Coning fan motor-1 Dual-pressure switch Body ground Engine coolant temperature senso Ambient sensor (TB45S engine mc Compressor Ambient air temperature senso Ambient air temperature senso Ambient air temperature senso Ambient air temperature senso Ambient sensor (TB45S engine mc Coning fan motor-1 Dual-pressure switch Body ground Headlamp RH Front washer motor Front combination lamp RH Horn high Park/Neutral position relay-1 C	RS
Fuse and fusible link Transfer neutral relay Auto-choke relay Fuse block Horn relay Diff. lock solenoid Battery (+) Ambient sensor (TB48 Cooling fan motor-2 ( ABS actuator and ele Power antenna Side turn signal lamp Body ground (With Al Ignition coil (TB45S e Front combination larr Body ground (With Al Ignition coil (TB45S e Front combination larr Body ground Headlamp LH Distributor Distributor Cooling fan motor-1 Dual-pressure switch Body ground Engine coolant temperatu Ambient air temperatu Ambient	BT
Euse and fusi Transfer neutr Air conditione Auto-choke re Fuse block Horn relay Diff. lock sole Battery (+) Ambient sens Cooling fan m ABS actuator Power antenn Side turn sigr Body ground Ignition coil ( Front combine Body ground Distributor Compressor Cooling fan m Dual-pressure Body ground Horn low Headlamp RH Front washer Rear washer Front washer Front washer Front washer Front combine Engine coolan Body ground Engine coolan Park/Neutral p	HA
GY/6 BR/6 GY/6 GY/6 A BR/2 BR/2 BR/2 BR/2 BR/2 BR/2 BR/2 BR/2	EL
	SE

IDX TEL018V

Engine Room Harness/RHD Models (Cont'd)

#### DIESEL ENGINE MODELS



CEL470M

Engine Room Hamess/RHD wodels (Cont d)	G]
dels) dels) (TD engine models with A/C) odels)	MA
e e e e e e e e e e e e e e e e e e e	EM
Body ground Side turn signal lamp RH Wiper deicer Front wiper motor Grow relay-1 Grow relay-1 Front wheel sensor LH (With ABS) To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> To <u>620</u> Revolution sensor AT solenoid valve Park/Neutral position switch Park/Neutral position switch Fuel filter switch Front wheel sensor RH (With ABS) Park/Neutral position switch Front wheel sensor RH (With ABS) Propping resistor (AT models) Front wheel sensor RH (With ABS) Dropping resistor (AT models) Front tog lamp LH Rear window defogger relay AC cut relay A	LC
al lamp RH insor LH (With engine models) engine models) engine switch ssition switch ssition switch alve ssition switch th nsor RH (With or (A/T models) RH LH elsoger relay temperature sw solenoid valve solenoid valve	EC
Body ground Side turn signal lamp RH Wiper deicer Front wiper motor Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 (with AE To 6203 To 6203 The frant wheel sensor RH (With AE Park/Neutral position switch Park/Neutral position switch Park/Neutral position switch Front fog lamp LH Front fog lamp LH Front fog lamp LH Front fog lamp LH Front fog lamp LH Rear window defogger relay A/C cut relay Front fog lamp LH Rear window defogger relay A/C cut relay Tho 621 Colling lamp relay (TD42Ti en Cooling fan relay-1 Cooling fan relay-1	FE
Body ground Side turn sig Wiper deicer Front wiper Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Grow relay-1 Front wheel Front wheel Park/Neutral Park/Neu	GL
<ul> <li>-</li> <li>-&lt;</li></ul>	MT
	AT
eter) A/C) B1 A/C) B1 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2	TF
re models) mpass and thermometer) engine models with A/C)	PD
models ass and m	FA
d ZD engine models) (With compass and ) A/T models)	RA
and Z sor A/C) A/C) A/C) A/C) A/C)	BR
Fuse and fusible link box Transfer neutral relay Air conditioner relay (TD42 and ZD engine models) Fuse block Hom relay Wiper deiser relay Battery (+) Headlamp washer timer ABS actuator and electric unit Power antenna Stide turn signal lamp LH Body ground (With ABS) Front combination lamp LH Body ground (With ABS) Coling fan motor LH Intake air temperature sensor Mith compass and thermometer) Ambient air temperature sensor Mith auto A/C) Coling fan motor -1 Dual-pressue switch Body ground Headlamp LH Headlamp HH Engline coolant temperature switch-2 (TD engine models with A/C To (10) Headlamp HH Engline coolant temperature switch-2 (TD engine models with A/C To (10) Headlamp PH Headlamp HH Hon high Park/Neutral position relay-1 Park/Neutral position relay-1 Park/Neutral position relay-1 Park/Neutral position relay-1	ST
fusible neutral tioner r sk solenoi solenoi cer rel b washe wund (W with el wund (W with el wund washer mot sher mot washer mot tral pos tral pos	RS
Fuse and fusible link box Transfer neutral relay Air conditioner relay (TD <sup>2</sup> Fuse block Horn relay Diff lock solenoid Wiper deicer relay Battery (+) Headlamp washer timer ABS actuator and electric Power antenna Side turn signal lamp LH Body ground (With ABS) Front combination lamp L Body ground (With ABS) Front combination lamp L Body ground (With aut Cooling fan motor 1 Intake air temperature se Headlamp L Ambient sensor (With aut Cooling fan motor 1 Dual-pressure switch Body ground Headlamp RH Front vasher motor Headlamp RH Front washer motor Front washer motor Front vasher motor Park/Neutral position rela; Park/Neutral position rela;	BT
<ul> <li>□ □</li> /ul>	HA
	EL
	SE
Щ	20

### Engine Room Harness/RHD Models (Cont'd)

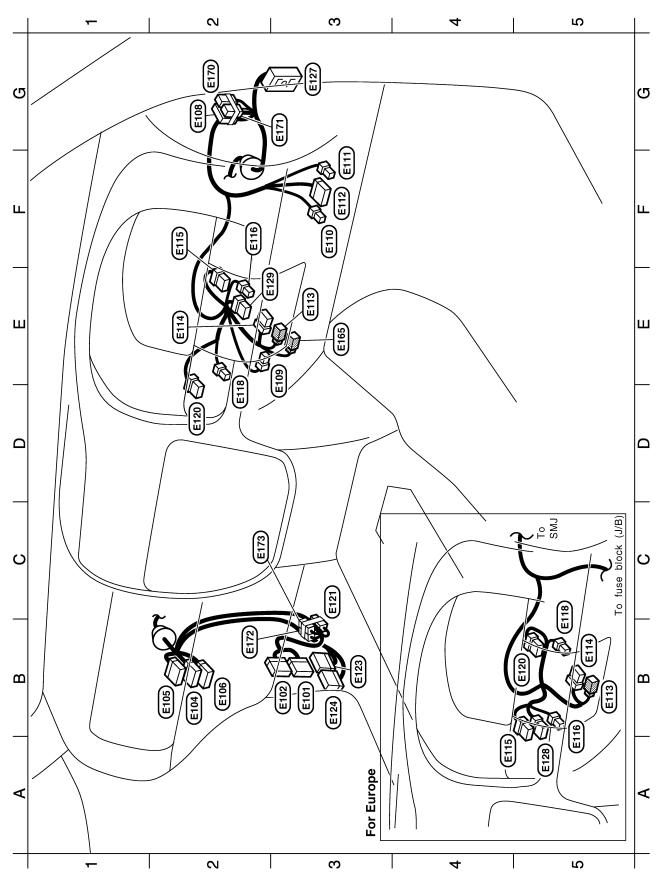
HARNESS LAYOUT/WAGON AND HARDTOP MODELS

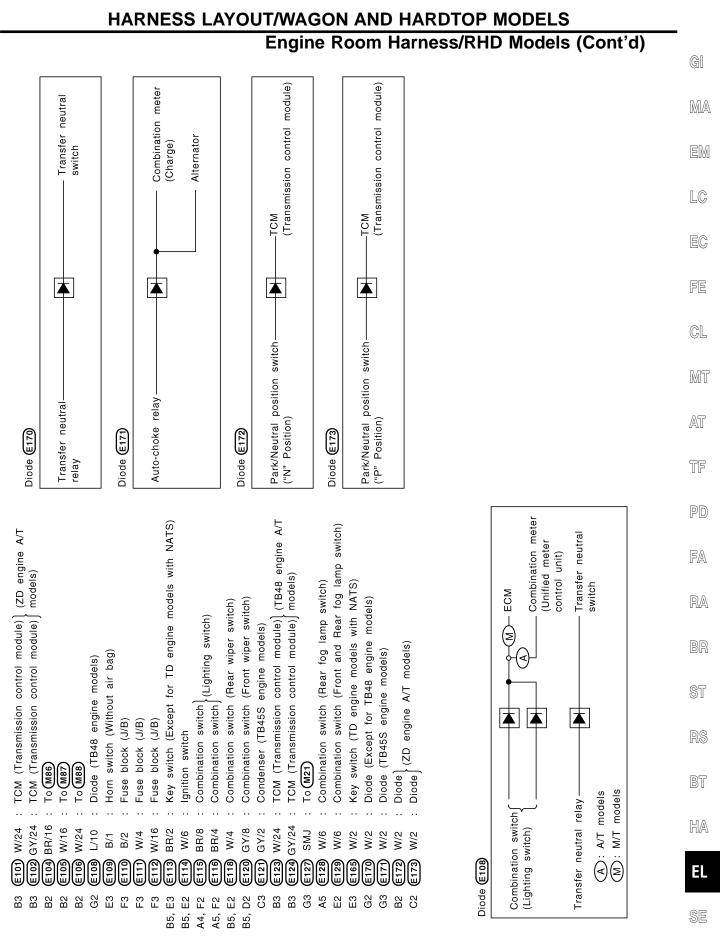
IDX

TEL010V

Engine Room Harness/RHD Models (Cont'd)

#### PASSENGER COMPARTMENT



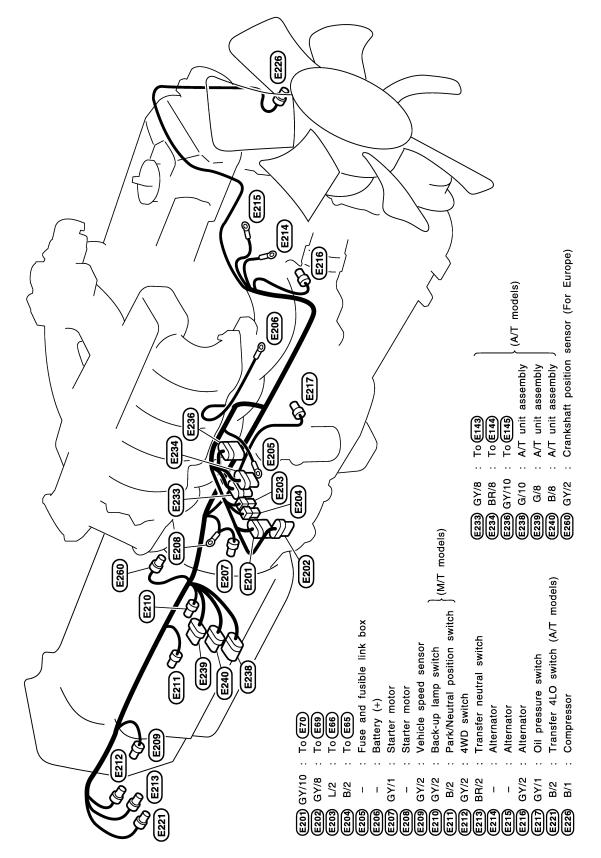


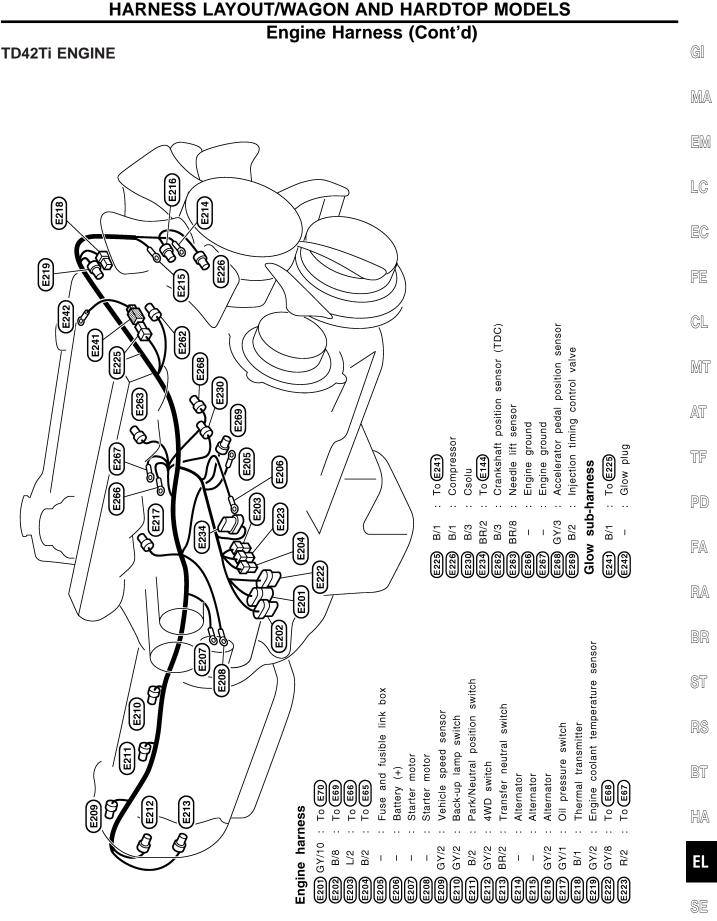
IDX

TEL020V

**Engine Harness** 

**TB48DE ENGINE** 



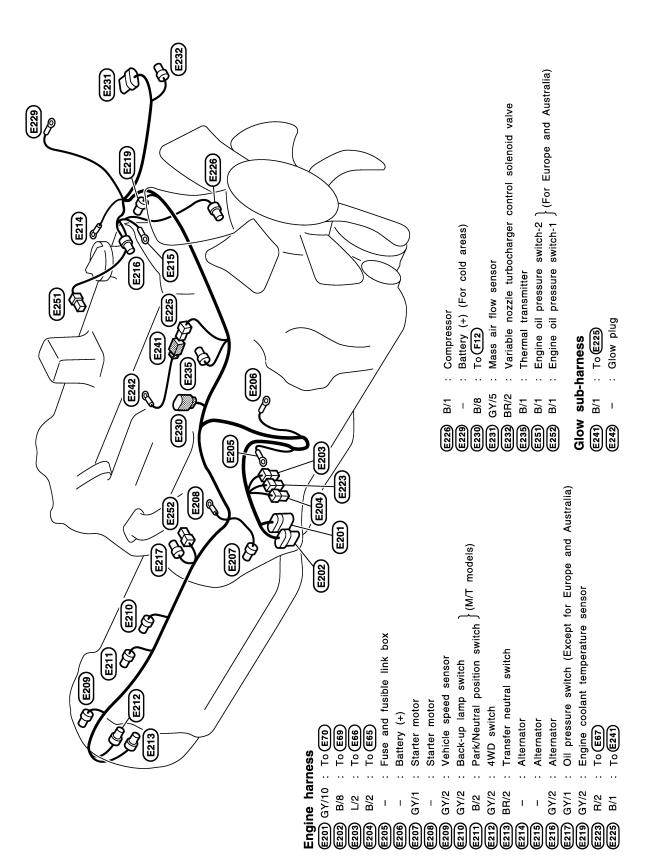


IDX

TEL009V

Engine Harness (Cont'd)

#### ZD ENGINE



#### NOTE

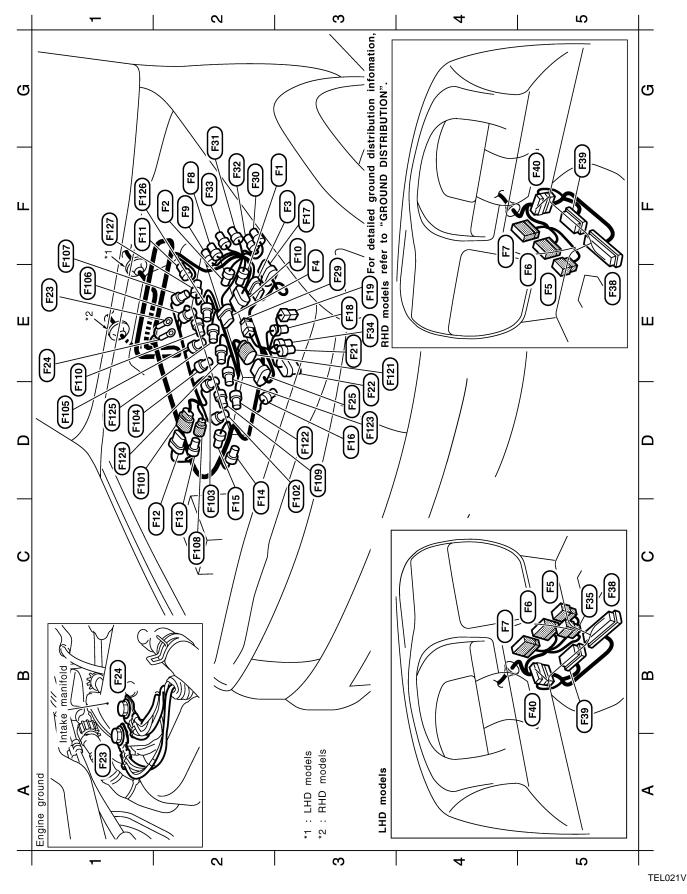
GI
MA
EM
LC
EC
FE
GL
MT
AT
TF
PD
FA
RA
BR
ST
RS
BT
HA
EL

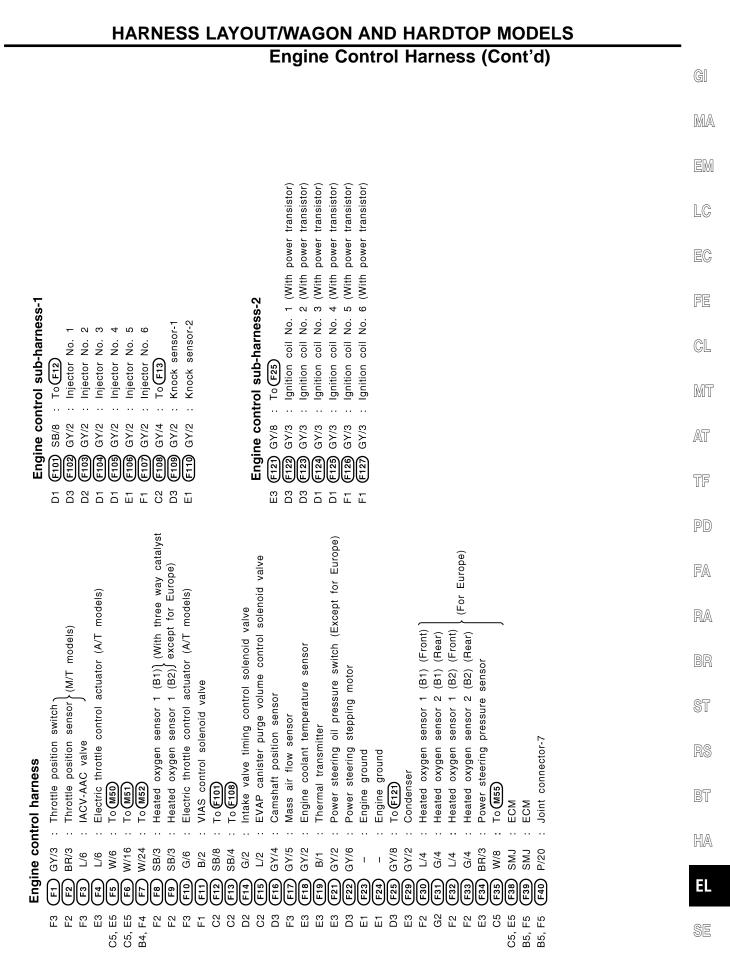
SE

IDX

**Engine Control Harness** 

**TB48DE ENGINE** 



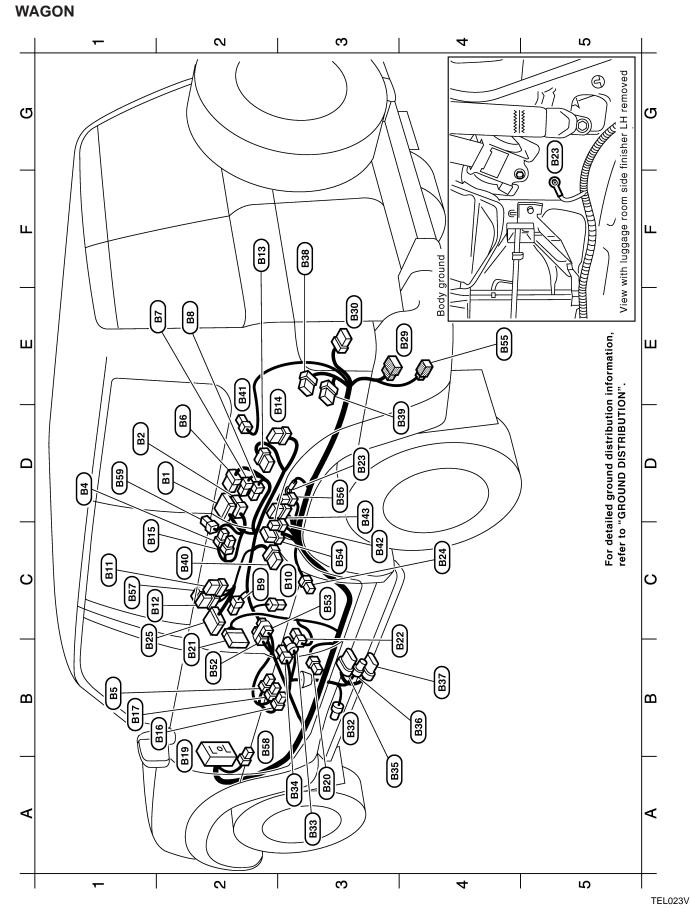


**EL-285** 

IDX

#### TEL022V

**Body Harness/LHD Models** 



HARNESS LAYOUT/WAGON AND HARDTOP MODELS				
			Body Harness/LHD Models (Cont'd)	GI
w w	on switch)	on switch)		MA
Multi-remote control relay (With theft warning system) To DB7 (With theft warning system) Rear cooler cut relay (TB48 engine models with rear cooler) Snow mode switch (TB48 engine A/T models with snow mode switch) To MB9 To E11 (With 7-speakers)	A/T device (Park position switch)	A/T device (Park position switch)		EM
theft warni stem) ine models a A/T mode				LC
elay (With warning sy (TB48 eng B48 engin B48 engin akers)				EC
Multi-remote control relay (With theft To DBT) (With theft warning system) Rear cooler cut relay (TB48 engine m Snow mode switch (TB48 engine A/T mode switch) To MBD To MBD To E111 (With 7-speakers)				FE
Multi-remote To <b>D</b> B7) (Wi Rear cooler c Snow mode s mode switch) To <b>M</b> B9 To <b>B141</b> (Wi				CL MT
BR/6 : W/4 : L/4 : W/8 : BR/1 : BR/2 :	elay	solenoid)		AT
C3 854 B E4 855 V C1 855 V B2 856 B B2 858 B D1 859 B Diode-1 852	Shift lock relay	Diode-2 (B53) A/T device (Shift lock solenoid)		TF
	witch)		oler)	PD
	A/T mode switch)		with rear cooler)	FA
			(a)	RA
(e)	F models) ne A/T mo		side) A/T models = ABS) + + + + + + 5E engine	BR ST
ssenger si vitch ritch LH ritch RH ation	switch engine A/ <sup>-</sup> h (ZD engi	itch I A e switch	at (Driver side) at (Driver side) pre-tensioner (D und r switch LH e (TB48 engine hbination lamp LH ler solenoid valv (With ABS) (With ABS) (With ABS) (With ABS) (A/T models) (A/T models)	s i RS
To (E106) To (E106) Power seat (Passenger side) Heated seat LH Wiper deicer switch Heated seat switch RH Heated seat switch RH Ashtray illumination	Parking brake switch A/T device (ZD engine A/T models) A/T mode switch (ZD engine A/T models with	Rear cooler switch Rear fan switch Heated seat RH Seat belt buckle switch	Power seat (Driver side) To ( <u>u20</u> ) Front door switch (Driver side) Body ground Rear door switch LH A/T device (TB48 engine A/T models) To ( <u>061</u> ) Rear combination lamp LH Rear cooler solenoid valve G sensor (For Europe with ABS) G sensor (For Europe with ABS) G sensor (With ABS) To ( <u>C3</u> ) To (	BT
				HA
>	B10 B/1 B12 W/8 W/8 W/8			EL
00000000	355			SE

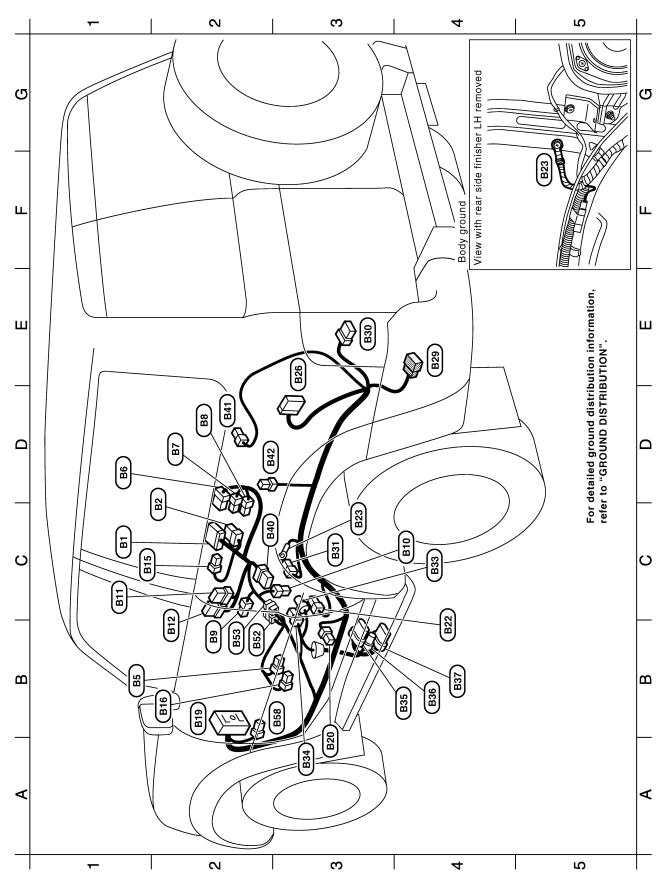
IDX

#### EL-287

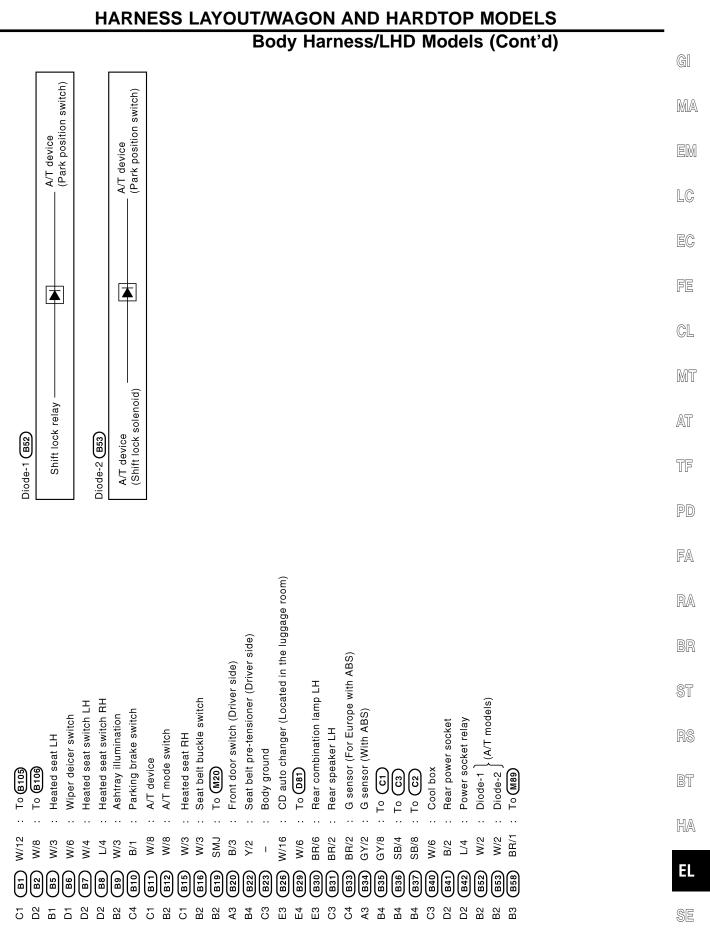
TEL024V

Body Harness/LHD Models (Cont'd)

#### HARDTOP



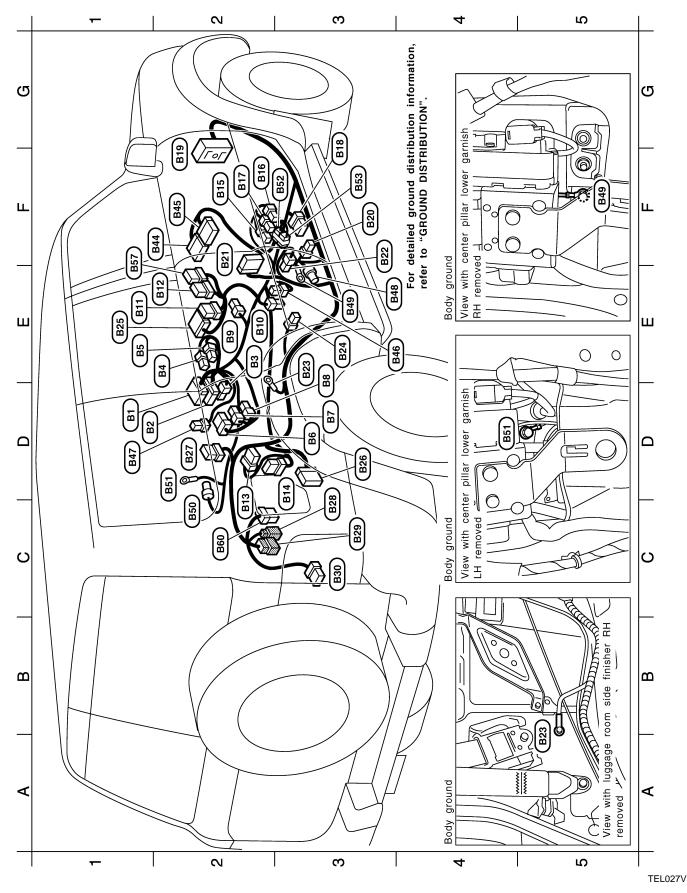
TEL025V



IDX

TEL026V

**Body Harness/RHD Models** 



**EL-290** 

## WAGON

										E	30	dy	ŀ	la	rn	es	SS	/R	H	DI	Мс	bd	els	S (	(C	0	nt	'd	)				
	switch)			switch)																													
	ion		đ	ion																													
	A/T device (Park position		A/T device	A/1 uevice (Park position																													
			Z																														
				solenoid)																													
	Shift lock relay	B53	avice	lock sol																													
	Shift I	Diode-2 B53	A/T d	(Shift lock																											witch)		
						switch)																									als with snow mode switch)		
						with A/T mode switch)																									th enow		
																		e room)													iw alabe		
					els)	A/T mode switch (ZD engine A/T models								e)		-	odels)	CD auto changer (Located in the luggage													A/T mod		
	iide)				A/T device (ZD engine A/T models)	gine A/1						side)		Seat belt pre-tensioner (Driver side)		ł	A/I device (IB48 engine A/I models)	d in the			H	unit	unit								A ancina A/T		
	To <b>E130</b> Power seat (Passenger side) Heated seat LH	ch Sh LH	h RH	itch	ngine A	(ZD en	=		switch	er side)		Front door switch (Driver side)		ioner (D		HH	engine	(Locate			Rear combination lamp RH	sensor unit	Air bag diagnosis sensor	lule RH	lule LH	Η		Ξ		dels)	Uloue-2J Snow mode switch (TB48	Woofer (With 7-speakers)	
	ıt (Pass at LH	cer swit at swite	seat switch RH	ake sw	e (ZD e	switch	switch	at RH	buckle	er unit		' switch		ore-tens	pu	switch	) (IB48	changer	r amp.		oination	agnosis	agnosis	ag moc	ag moc	ensor F	pu	ensor L	pu	A/T mod	la ewite	lith 7-sl	
10 (B106)	To <b>E130</b> Power seat (Pa Heated seat LH	Wiper deicer switch Heated seat switch LH	Heated seat switch Ashtrav illumination	Parking brake switch	r device	A/T mode switch (	Rear fan switch	Heated seat RH	Seat belt buckle switch	Power seat (Uriver side) Rear heater junit	To (M20)	ont dool	To 061	at belt	Body ground	Rear door switch	device	) auto (	Hear wiper amp.		ar com	Air bag diagnosis	bag di	Side air bag module RH	Side air bag module LH	Satellite sensor RH	Body ground	Satellite sensor LH	Body ground	Diode-1 }(A/T models)		oofer (V	
• •		 He	: He	с с С С С С	. A	A 0		не 	 			••		: Se	е 	••	••	••						: Sic	. Sic	. Sa	 Bo	: Sa	: Bo		זי ב יי ב		
		W %			~	8/N ۳/8		_			_	-	-		_	-	-	-				<b>1</b> Y/12	·	~	-	و الا	-	0 ۲/2	_		ار مربع مربع		
	B5 B3 B3	[B] [B]	( <u>8</u> )[8					6				<b>B20</b>	B21		B	B24				<u>الق</u>	)	B44	B45	B46	B47	B48	B49		B51		<u>ۋالە</u>		

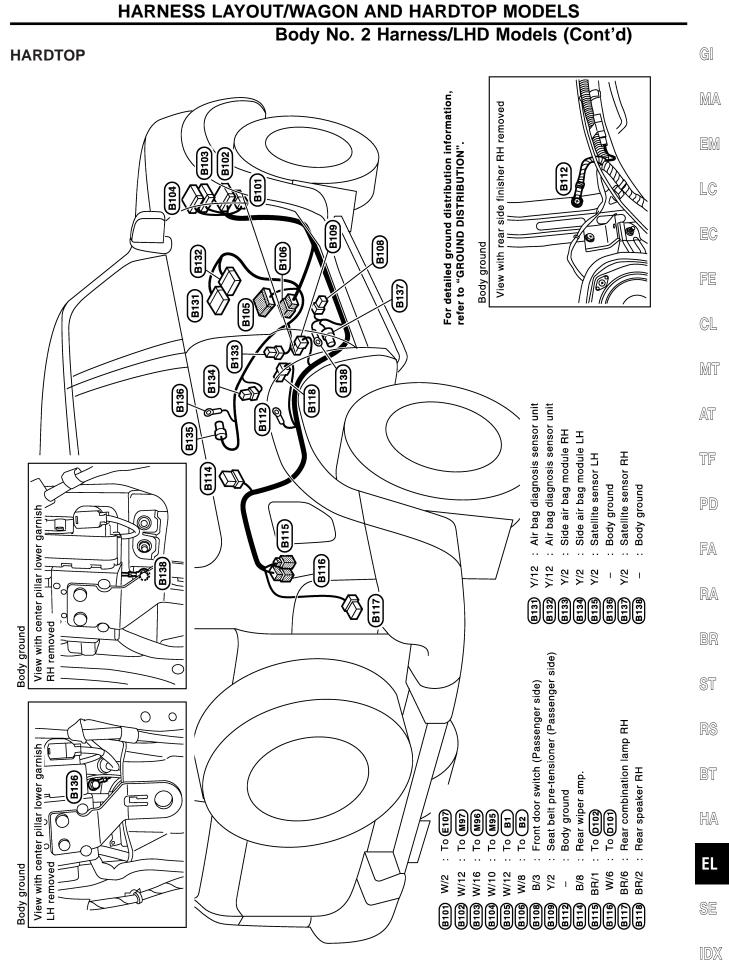
IDX

## EL-291

TEL028V

#### Body No. 2 Harness/LHD Models

WAGON View with luggage room side finisher RH removed Z For detailed ground distribution information, refer to "GROUND DISTRIBUTION". B102 0 B103 B104 (B101) B107 B112 NO 0 (B132) B141 B106 B108 B131 Body ground B137 B110 B105 (B109) B138 B134 B133) B136 B111 Ø, Air bag diagnosis sensor unit Air bag diagnosis sensor unit To (B59) { (With 7-speakers) Rear combination lamp RH B112 Þ Side air bag module RH Side air bag module LH 6 View with center pillar lower garnish RH removed B135 Satellite sensor RH Satellite sensor LH Body ground Body ground  $\bigcirc$ B114 B140 6 6 B113 B138) B115 BR/6 Y/12 Y/12 Y/2 Y/2 Y/2 - Y/2 W/8 BR/2 I B116 B117  $\bigcirc$ Body ground CD auto changer (Located in the luggage room) 0 Seat belt pre-tensioner (Passenger side) Front door switch (Passenger side) View with center pillar lower garnish LH removed Ο Ο Rear door switch RH B136 Rear heater unit Rear wiper amp. O Body ground : To 010 To **B2** To (M97 To D61 To (E107 To M96 W/16 W/12 W/16 W/10 W/12 W/8 W/6 B/3 Y/2 W/18 B/3 B/8 BR/1 W/6 W/2 Body ground ī CEL418M

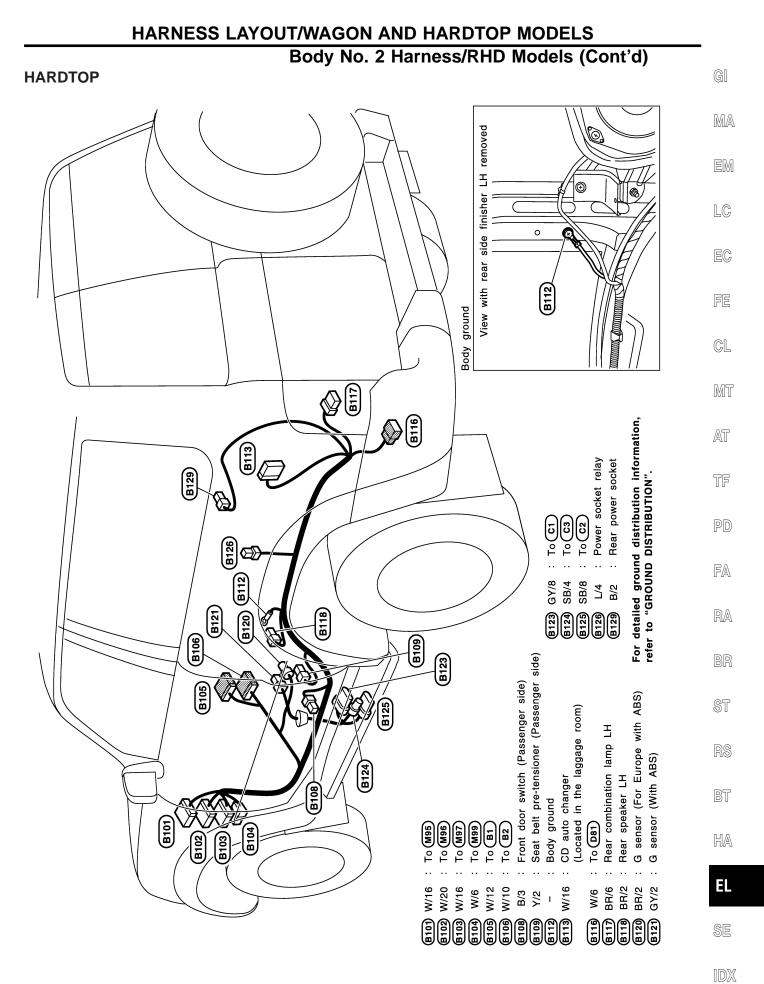


CEL419M

#### Body No. 2 Harness/RHD Models

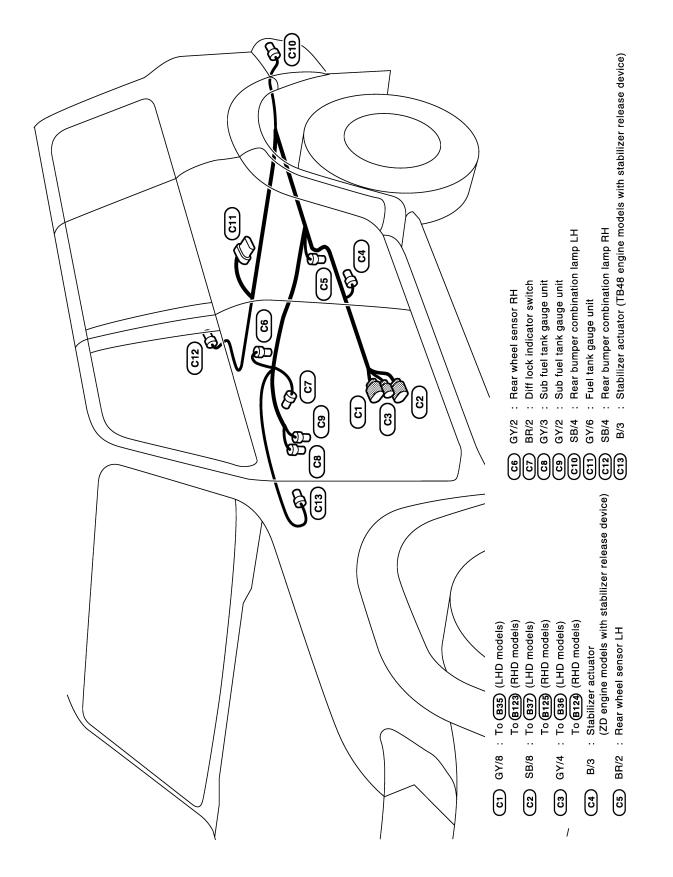
For detailed ground distribution information, refer to "GROUND DISTRIBUTION". € B112 View with luggage room side finisher LH removed Body ground B135 To D87 (With theft warning system) B117 Ø B116 Multi-remote control relay (With theft warning system) Ì  $\overline{\mathbb{O}}$ (129) (129) B127 Power socket relay Rear power socket Rear cooler unit Rear cooler unit **B128** T<sub>0</sub>B3 B112 B126 GY/8 SB/4 SB/8 L/4 W/8 B/6 B/2 W/4 W/4 W/4 B/2 B/2 B139 B111 B110 (B121) B120 B130 B109 B106 Seat belt pre-tensioner (Passenger side) (B123) Front door switch (Passenger side) G sensor (For Europe with ABS) B105 B125 Rear combination lamp LH G sensor (With ABS) Rear door switch LH B124 B108 Body ground To 041 To B2 To B1 To 081 To (M99 To (M96 To (M95 To (M97 B104 B101 B102 B103 W/20 W/16 W/6 W/12 W/10 B/3 Y/2 W/18 B/3 B/3 W/6 BR/6 BR/2 GY/2 W/16 

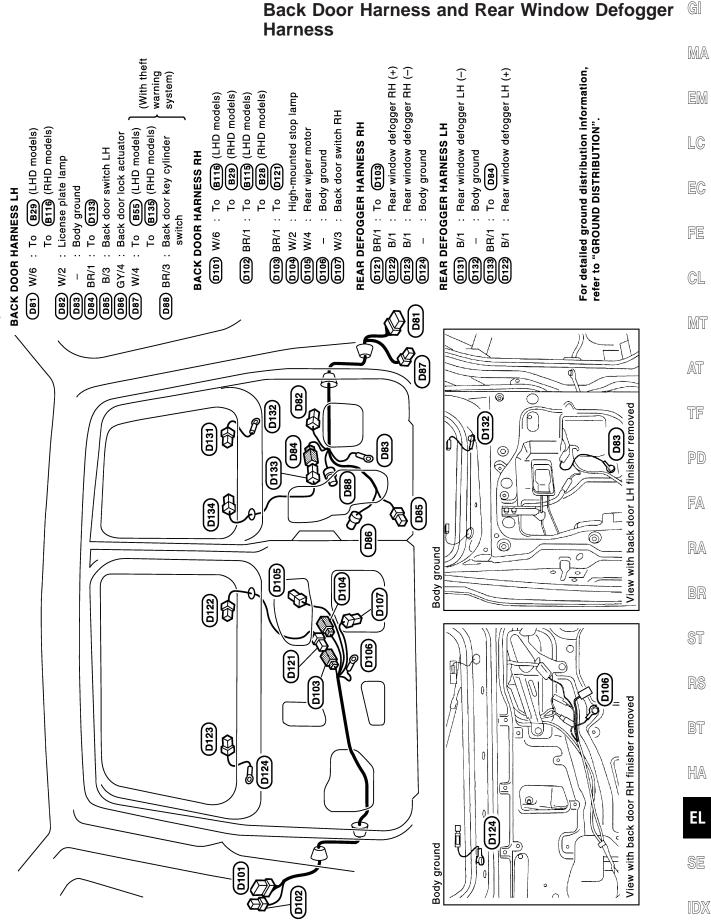
WAGON



CEL483M

## **Chassis Harness**

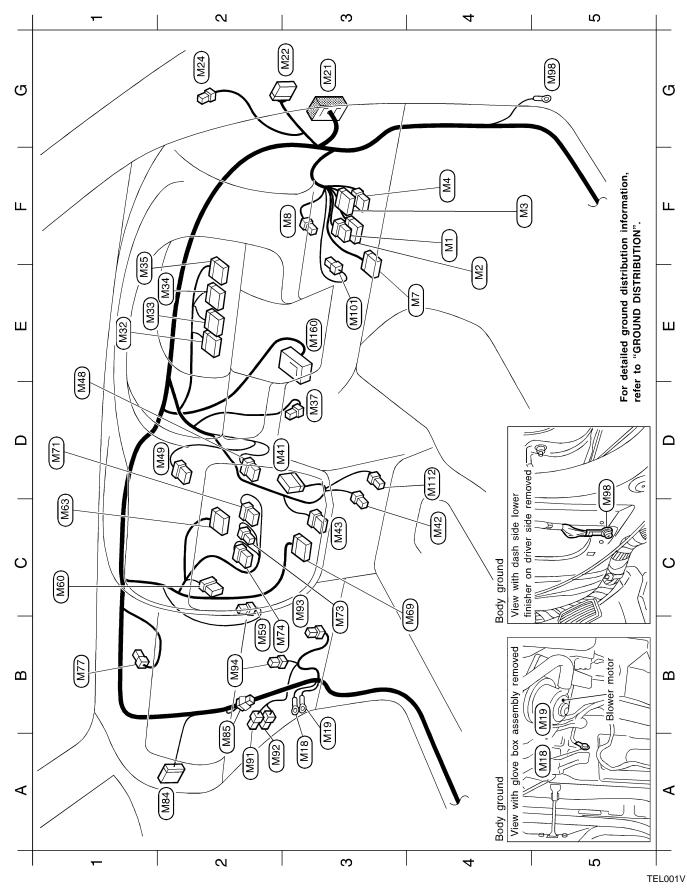


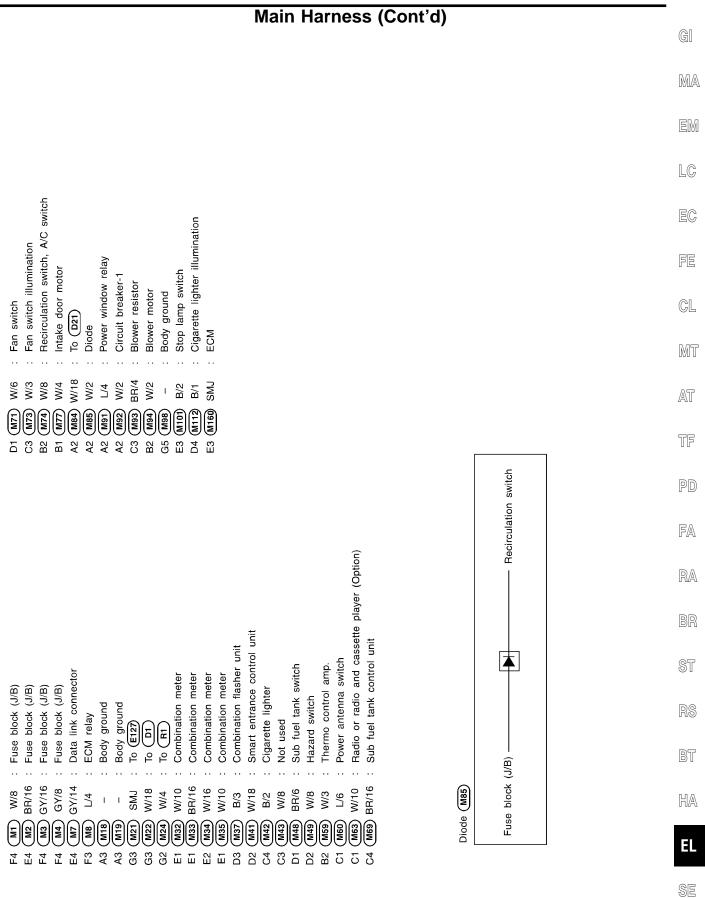


CEL420M

**Main Harness** 

#### **INSTRUMENT PANEL**





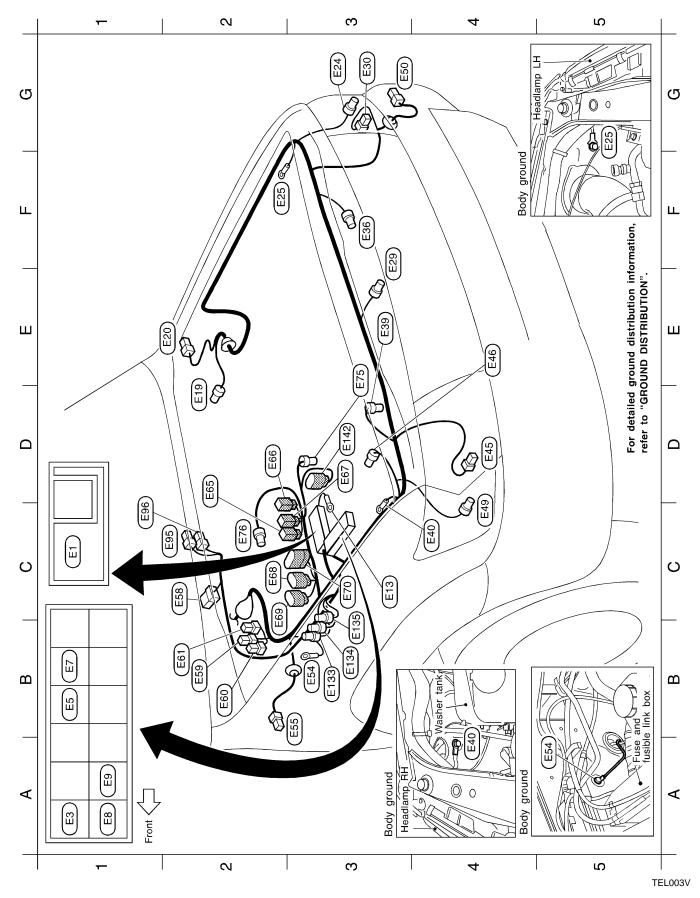
HARNESS LAYOUT/PICKUP MODELS

IDX

TEL002V

**ENGINE COMPARTMENT** 

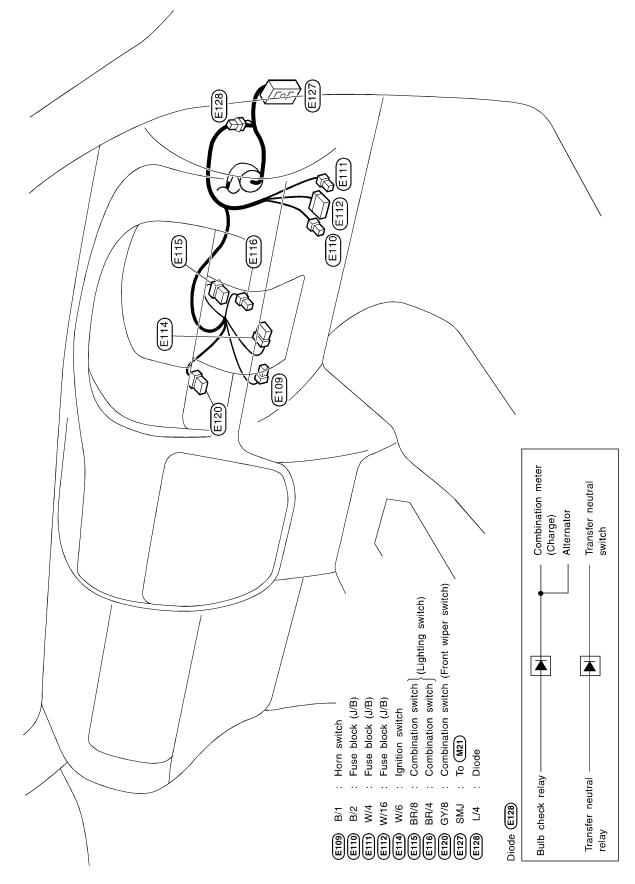
**Engine Room Harness** 



HARNESS LAYOUT/PICKUP MODELS	
Engine Room Harness (Cont'd)	G]
	MA
	EM
< ۵	LC
p RH h alve oid valve- oid valve-	EC
ation larr nal lamp notor vel switc olenoid v volenoid v rol solenc	FE
Front combination lamp RH Horn Body ground Side turn signal lamp RH Front wiper motor Glow relay-1 Glow relay-1 C E220 To	CL
	MT
874         8	AT
$\begin{array}{c} 2 & 3 & 3 & 3 & 3 & 3 & 5 & 5 & 5 & 5 & 5$	TF
	PD
	FA
	RA
sensor sensor	BR
Fuse and fusible link box Transfer neutral relay Air conditioner relay Bulb check relay Cooling fan relay-1 Horn relay Battery (+) Power antenna Side turn signal lamp LH Front combination lamp LH Body ground Intake air temperature sensor Headlamp LH Cooling fan motor-1 Dual-pressure switch Body ground Headlamp RH Front washer motor	ST
Fuse and fusible link Transfer neutral relay Air conditioner relay Bulb check relay Cooling fan relay-1 Horn relay Battery (+) Power antenna Side turn signal lam Front combination lan Body ground Intake air temperatur Headlamp LH Cooling fan motor-1 Dual-pressure switch Front washer motor Front washer motor	RS
Front colline of the	BT
$ \begin{array}{c} & & & \\ & & & & \\ & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & & \\ & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & $	HA
	EL
	SE

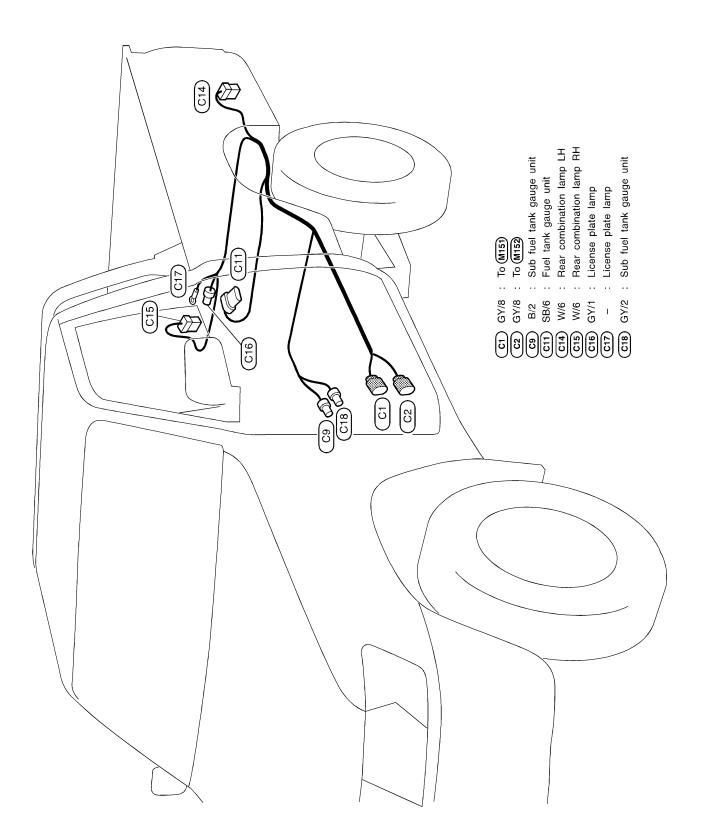
Engine Room Harness (Cont'd)

#### PASSENGER COMPARTMENT



#### GI **Engine Harness TD42Ti ENGINE** MA EM E216) LC E214) E218) Ì EC G E226) E219 E215) FE E242) E241 E262 CL E225) E268 MT E263) E22 e E E E E S e : Accelerator pedal position sensor AT E209 : Injection timing control valve E206 E267) TF E203 E266) (E217) E223 : Engine ground PD E250) E204 : Glow plug : To (E225) **Glow sub-harness** (E222) FA E201) GY/3 RA B/2 B/1 Т I E202) E207) E241 BR E208 ST E210) Engine coolant temperature sensor Crankshaft position sensor (TDC) BET1 RS Park/Neutral position switch Fuse and fusible link box Fuel cut solenoid valve Transfer neutral switch BT Vehicle speed sensor Back-up lamp switch (E213) Oil pressure switch Thermal transmitter E212) E209 Needle lift sensor Engine ground Starter motor Starter motor HA Ø 4WD switch Compressor Battery (+) Alternator Alternator Alternator To E66 To (E65) To (E68) To E67 To (E142) To **E70** To (E241) EL Engine harness GY/10 GY/2 GY/2 B/2 GY/2 BR/2 GY/2 GY/1 B/1 B/1 B/1 B/1 B/1 B/1 B/1 GY/6 B/3 B/3 B/3 GY/8 B/2 I I ۲/2 ī SE ī IDX TEL006V

## **Chassis Harness**



### Wiring Diagram Codes (Cell Codes)

GI

Use the chart below to find out what each wiring diagram code stands for.

MA Refer to the wiring diagram code in the alphabetical index to find the location (Page number) of each wiring diagram. en a

Code	Section	Wiring Diagram Name	Code	Section	Wiring Diagram Name
A/C, A	HA	Auto Air Conditioner	EGVC/V	EC	EGR Volume Control Valve
A/C, M	HA	Manual Air Conditioner	ETC1	EC	Throttle Control Motor
A/T	AT	A/T	ETC2	EC	Throttle Control Motor
ABS	BR	Anti-lock Brake System	ETC3	EC	Throttle Control Motor
APPS1	EC	Accelerator Pedal Position Sensor	F/FOG	EL	Front Fog Lamp
APPS2	EC	Accelerator Pedal Position Sensor	F/PUMP	EC	Fuel Pump
APPS3	EC	Accelerator Pedal Position Sensor	FCUT	EC	Fuel Cut System
APS	EC	Accelerator Position Sensor	FICD	EC	IACV-FICD Solenoid Valve
ASCD	EL	Automatic Speed Control Device	FPSW1	AT	ATF Pressure Switch 1
AT/IND	EL	A/T Indicator Lamp	FPSW3	AT	ATF Pressure Switch 3
AUDIO	EL	Audio	FPSW5	AT	ATF Pressure Switch 5
BACK/L	EL	Back-up Lamp	FPSW6	AT	ATF Pressure Switch 6
BRK/SW	EC	Brake Switch Signal	FR/B	AT	Front Brake Solenoid Valve
CAN	AT	CAN Communication Line	FR/BF	AT	Front Brake Solenoid Valve
CAN	EC	CAN Communication Line	FTS	AT	A/T Fluid Temperature Sensor Circuit
CAN	EL	CAN Communication Line	FUELB1	EC	Fuel Injection System Function
CD/CHG	EL	CD Auto Changer			(Bank 1)
CHARGE	EL	Charging System	FUELB2	EC	Fuel Injection System Function (Bank 2)
CHIME	EL	Warning Chime	GLOW	EC	Quick Glow System
CIGAR	EL	Cigarette Lighter	H/AIM	EL	Headlamp Aiming Control System
CKPS	EC	Crankshaft Position Sensor	H/LAMP	EL	Headlamp
CLOCK	EL	Clock	HLC	EL	Headlamp Washer
CMPS	EC	Camshaft Position Sensor			High and Low Reverse Clutch Sole-
COMPAS	EL	Compass and Thermometer	HLR/C	AT	noid Valve
COOL/F	EC	Cooling Fan Control	HLR/CF	AT	High and Low Reverse Clutch Sole-
D/C	AT	Direct Clutch Solenoid Valve			noid Valve
D/CF	AT	Direct Clutch Solenoid Valve	I/C	AT	Input Clutch Solenoid Valve
D/LOCK	EL	Power Door Lock	I/CF	AT	Input Clutch Solenoid Valve
DEF	EL	Rear Window Defogger	I/LOCK	AT	A/T Interlock
DEICER	EL	Wiper Deicer	IATS	EC	Intake Air Temperature Sensor
DIFF/L	PD	Differential Lock	IGNSYS	EC	Ignition Signal
DLC	EC	Data Link Connector	ILL	EL	Illumination
DTRL	EL	Headlamp — Daytime Light System	INJECT	EC	Injector
E/BRE	AT	A/T 1st Engine Braking	INJPMP	EC	Electronic Control Fuel Injection
ECMRLY	EC	ECM Relay			Pump
ECTS	EC	Engine Coolant Temperature Sensor	INT/V	EC	Intake Air Control Valve Control Solenoid Valve
EGRC/V	EC	EGRC-Solenoid Valve and Throttle Control Solenoid Valve	IVC	EC	Intake Valve Timing Control Solenoid Valve

# WIRING DIAGRAM CODES (CELL CODES) Wiring Diagram Codes (Cell Codes) (Cont'd)

Code	Section	Wiring Diagram Name
KS	EC	Knock Sensor
LC/B	AT	Low Coast Brake Solenoid Valve
LC/BF	AT	Low Coast Brake Solenoid Valve
LOAD	EC	Electrical Load Signal
LPSV	AT	Line Pressure Solenoid Valve
MAFS	EC	Mass Air Flow Sensor
MAIN	EC	Main Power Supply and Ground Cir- cuit
METER	EL	Meter and Gauges
MIL	EC	Malfunction Indicator Lamp
MMSW	AT	Manual Mode Switch
MULTI	EL	Multi-remote Control System
NATS	EL	Nissan Anti-Theft System
NLS	EC	Needle Lift Sensor
NONDTC	AT	Non-detective Items
O2H1B1	EC	Heated Oxygen Sensor 1 Heater (B1) (Front)
O2H1B2	EC	Heated Oxygen Sensor 1 Heater (B2) (Front)
O2H2B1	EC	Heated Oxygen Sensor 2 Heater (B1) (Rear)
O2H2B2	EC	Heated Oxygen Sensor 2 Heater (B2) (Rear)
O2S1B1	EC	Heated Oxygen Sensor 1 (B1) (Front)
O2S1B2	EC	Heated Oxygen Sensor 1 (B2) (Front)
O2S2B1	EC	Heated Oxygen Sensor 2 (B1) (Rear)
O2S2B2	EC	Heated Oxygen Sensor 2 (B2) (Rear)
OILP/W	EC	Engine Oil Pressure Warning System
PGC/V	EC	EVAP Canister Purge Volume Con- trol Solenoid Valve
PNP/SW	AT	Park/Neutral Position Switch
PNP/SW	EC	Park/Neutral Position Switch
POWER	AT	Transmission Control Module (Power Supply)
POWER	EC	ECM Power Supply For Back-up
POWER	EL	Power Supply Routing
PS/SEN	EC	Power Steering Pressure Sensor
R/COOL	HA	Rear Cooler System
R/FOG	EL	Rear Fog Lamp
ROOM/L	EL	Interior Room Lamp
RP/SEN	EC	Refrigerant Pressure Sensor
S/LOCK	EL	Power Door Lock - Super Lock -

Code	Section	Wiring Diagram Name
S/SIG	EC	Start Signal
S/TANK	FE	Sub Fuel Tank Control System
SEN/PW	EC	Sensor Power Supply
SHIFT	AT	A/T Shift Lock System
SRS	RS	Supplemental Restraint System
STAB	RA	Stabilizer Release Device
START	EL	Starting System
STSIG	AT	Start Signal Circuit
TAIL/L	EL	Parking, License and Tail Lamps
TCCSIG	AT	A/T TCC Signal (Lock Up)
TCV	AT	Torque Converter Clutch Solenoid Valve
TCV	EC	Injection Timing Control Valve
THEFT	EL	Theft Warning System
TPS1	EC	Throttle Position Sensor
TPS2	EC	Throttle Position Sensor
TPS3	EC	Throttle Position Sensor
TRQ/SG	EC	Engine Torque Control Signal
TRSA/T	AT	Turbine Revolution Sensor
TURN	EL	Turn Signal and Hazard Warning Lamps
VIAS/V	EC	Variable Induction Air Control System
VSS	EC	Vehicle Speed Sensor
VSSA/T	AT	Vehicle Speed Sensor A/T
WARN	EL	Warning Lamps
WIPER	EL	Front Wiper and Washer