ELECTRICAL SYSTEM

SECTION EL

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:

- Combination meter has been changed.
- Wiring Diagram has been changed.

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

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The SRS system composition which is available to NISSAN MODEL Y61 is as follows (The composition varies according to the destination and optional equipment.):

- For a frontal collision
  The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.
- For a side collision
  The Supplemental Restraint System consists of front side air bag module (located in the outer side of front seat), satellite sensor, diagnosis sensor unit (one of components of air bags for a frontal collision), wiring harness, warning lamp (one of components of air bags for a frontal collision).

Information necessary to service the system safely is included in the **RS section** of this Service Manual.

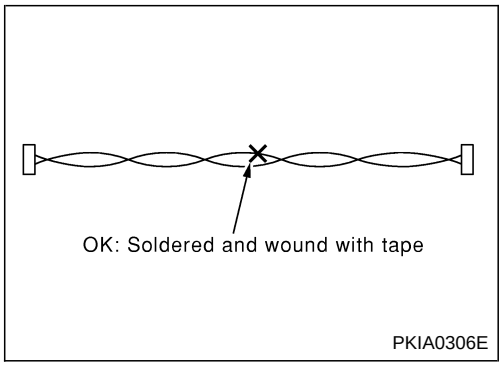
WARNING:

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

Precautions for Trouble Diagnoses

CAN SYSTEM

- **Do not apply voltage of 7.0V or higher to the measurement terminals.**
- **Use the tester with its open terminal voltage being 7.0V or less.**

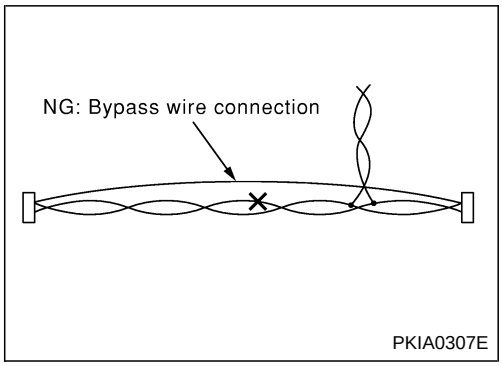


Precautions for Harness Repair

CAN SYSTEM

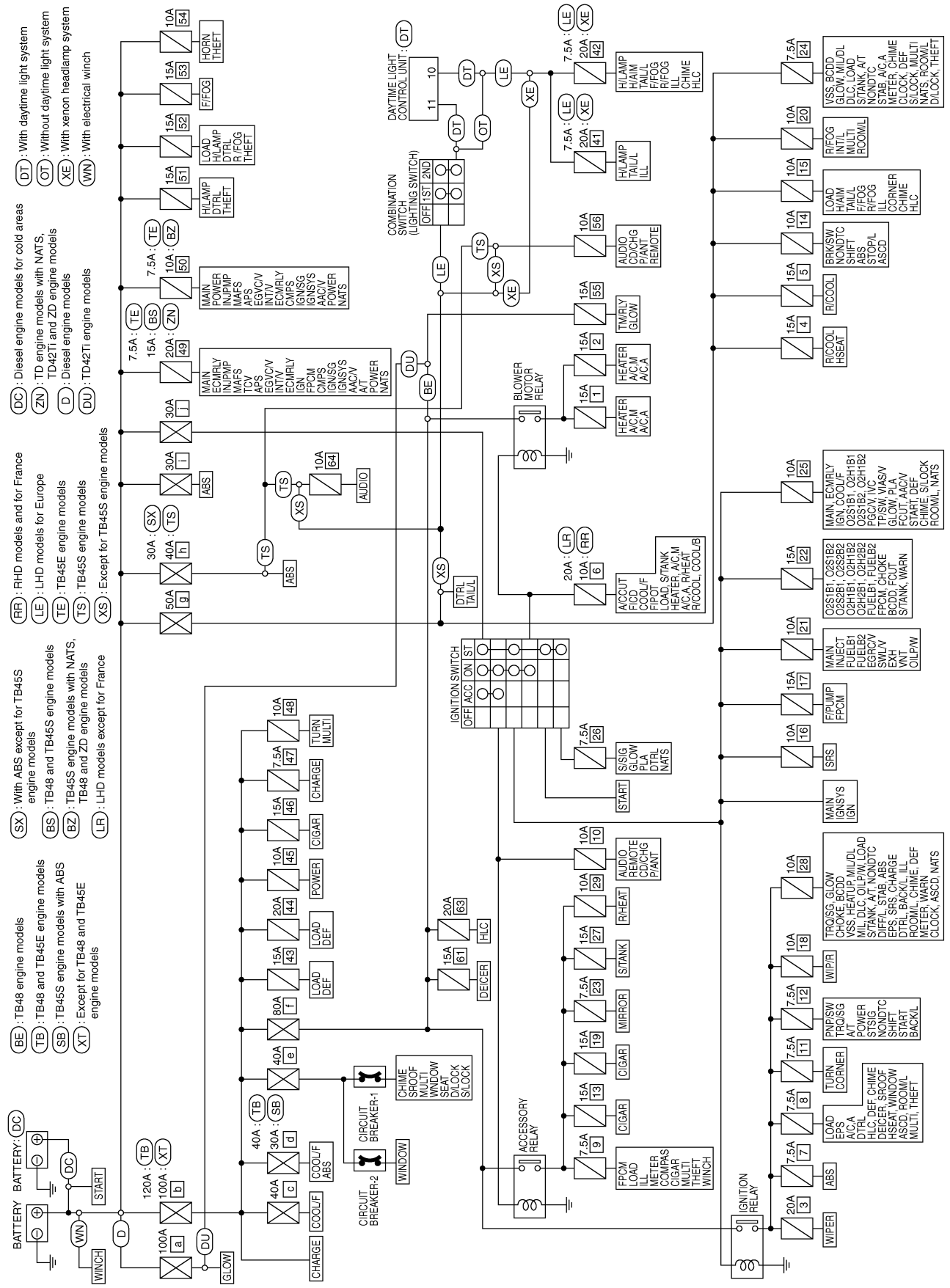
- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in)]

Precautions for Harness Repair (Cont'd)



- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)

Schematic

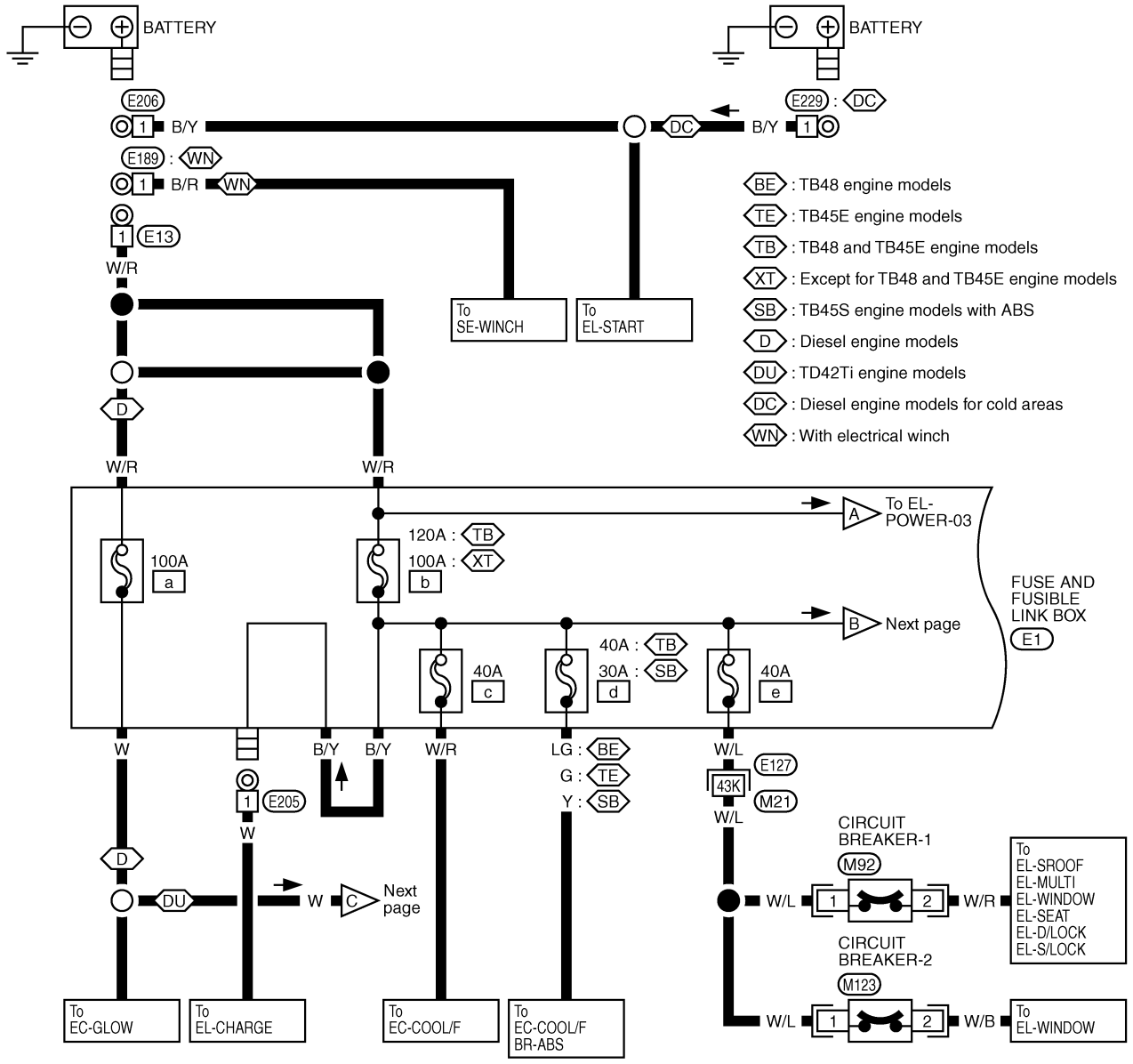


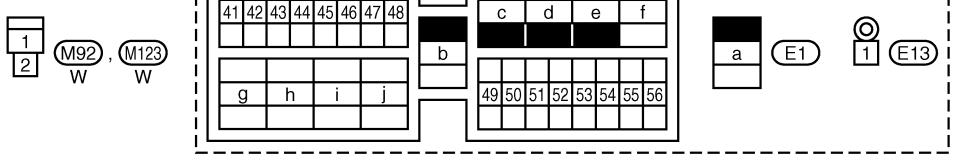
TEL745M

Wiring Diagram — POWER —

BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

EL-POWER-01





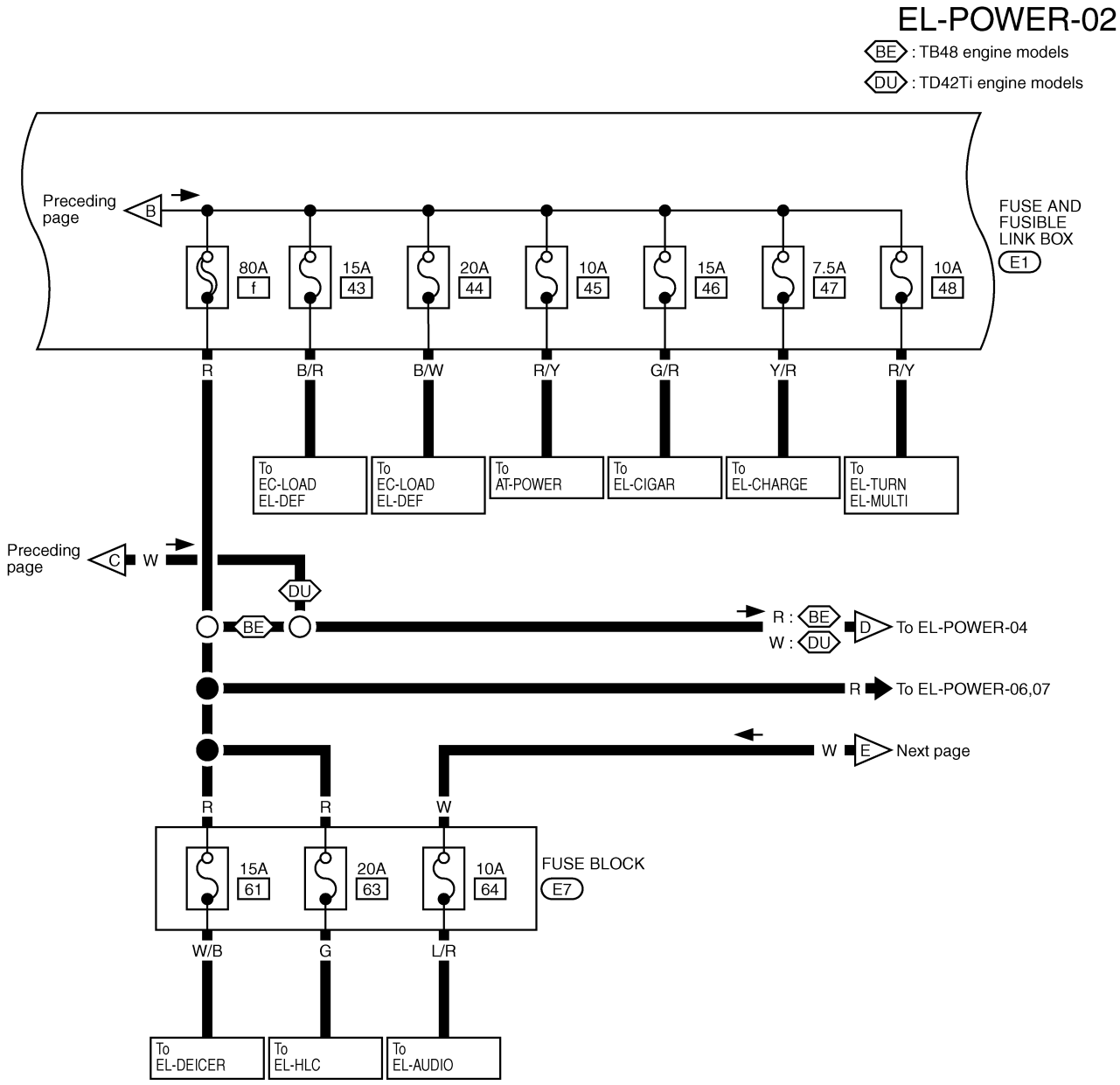
Refer to last page (Foldout page).
M21 , E127

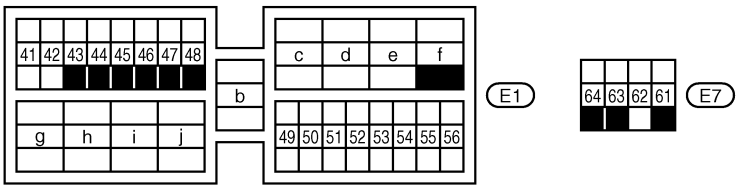
1 E189 , E205 , E206 , E229

TEL809M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-02

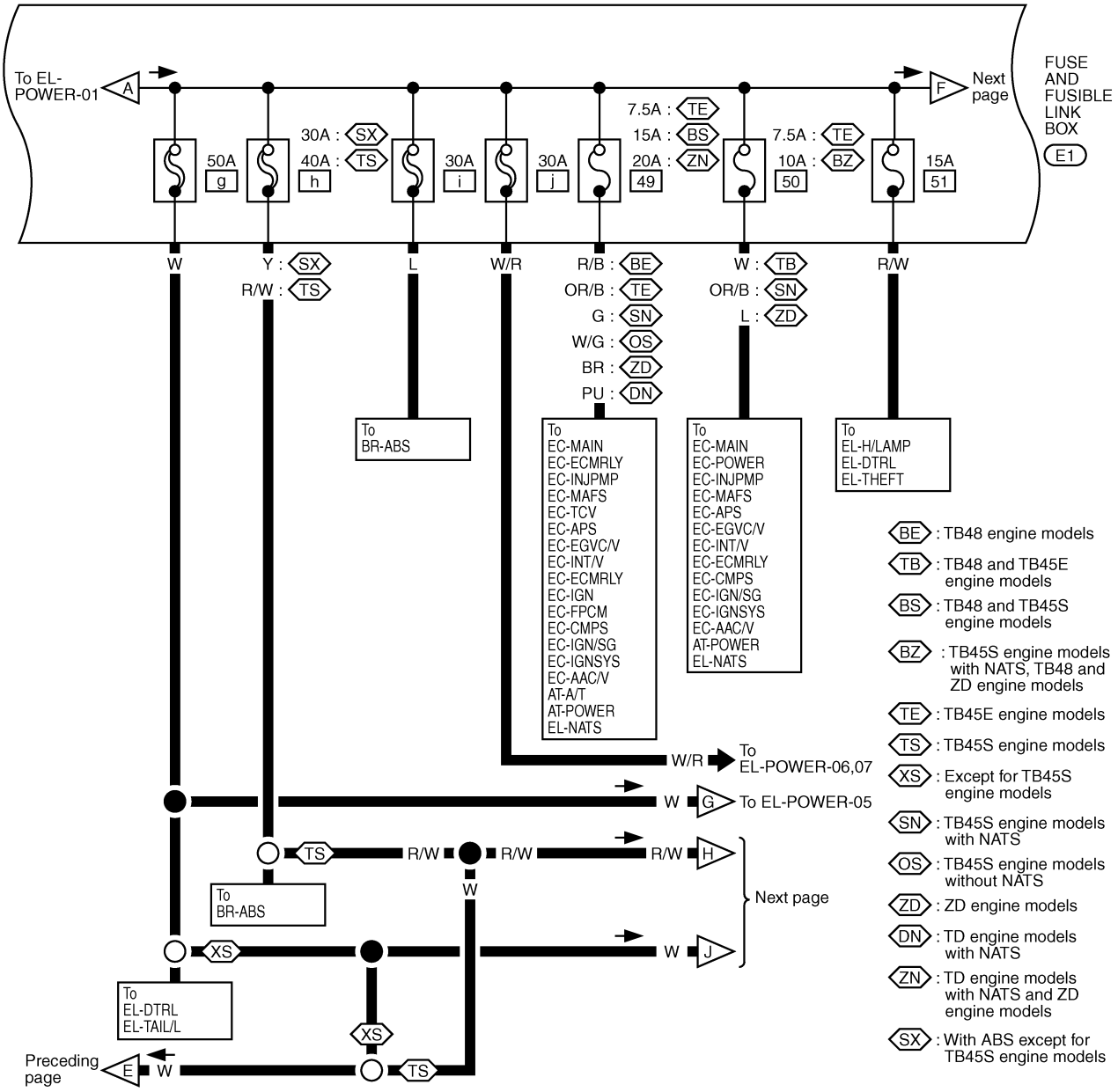


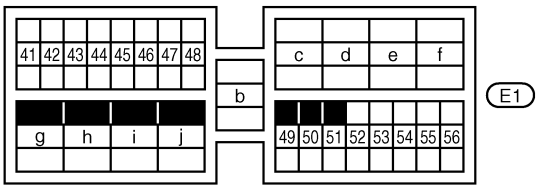


TEL810M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-03

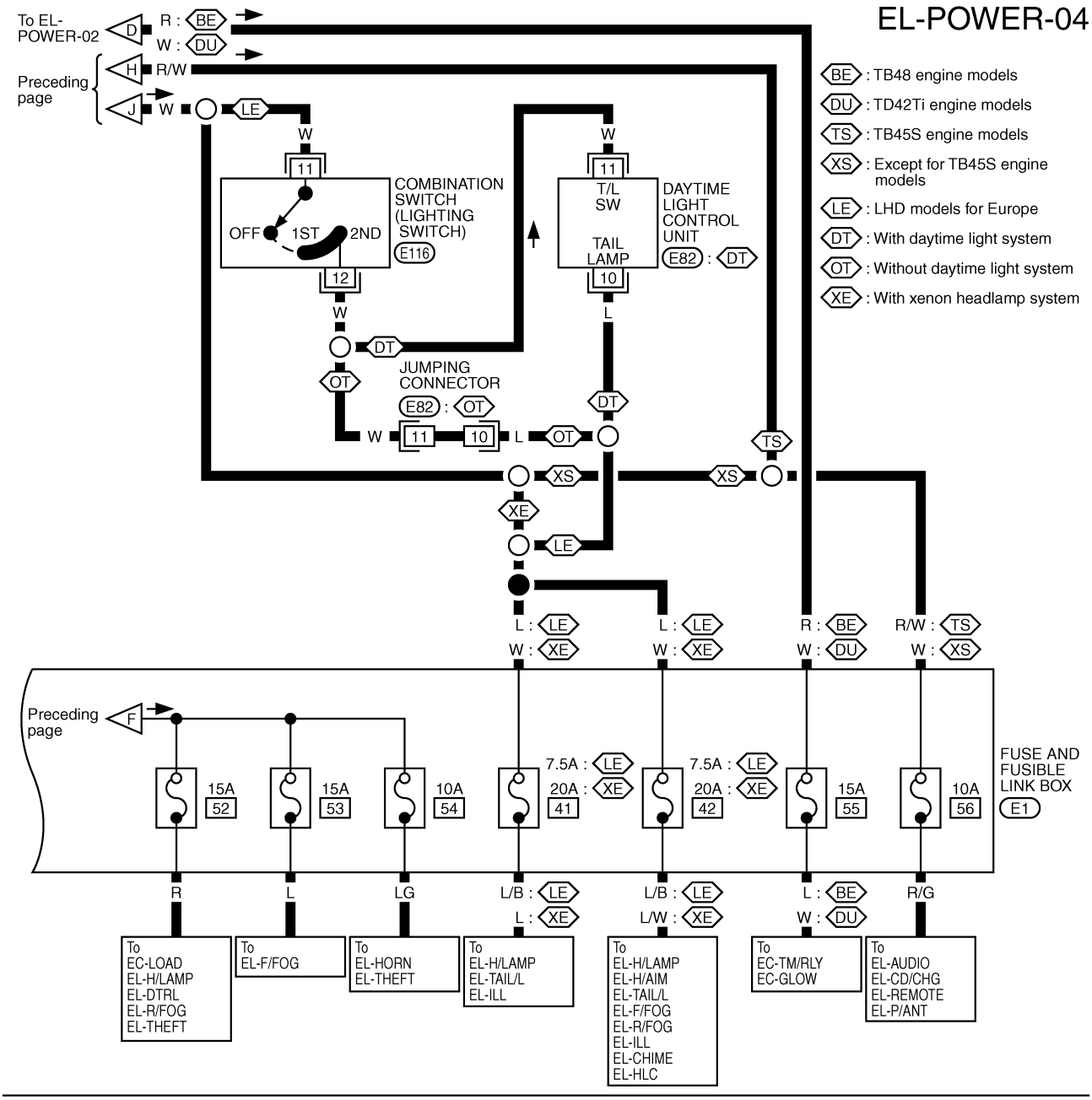


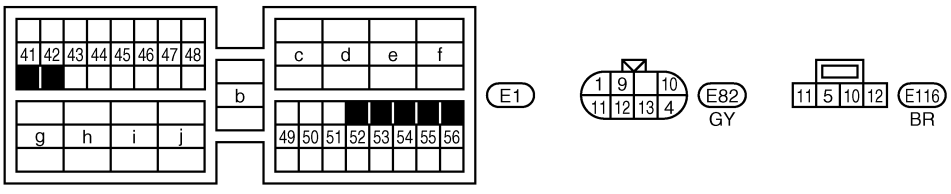


TEL746M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-04

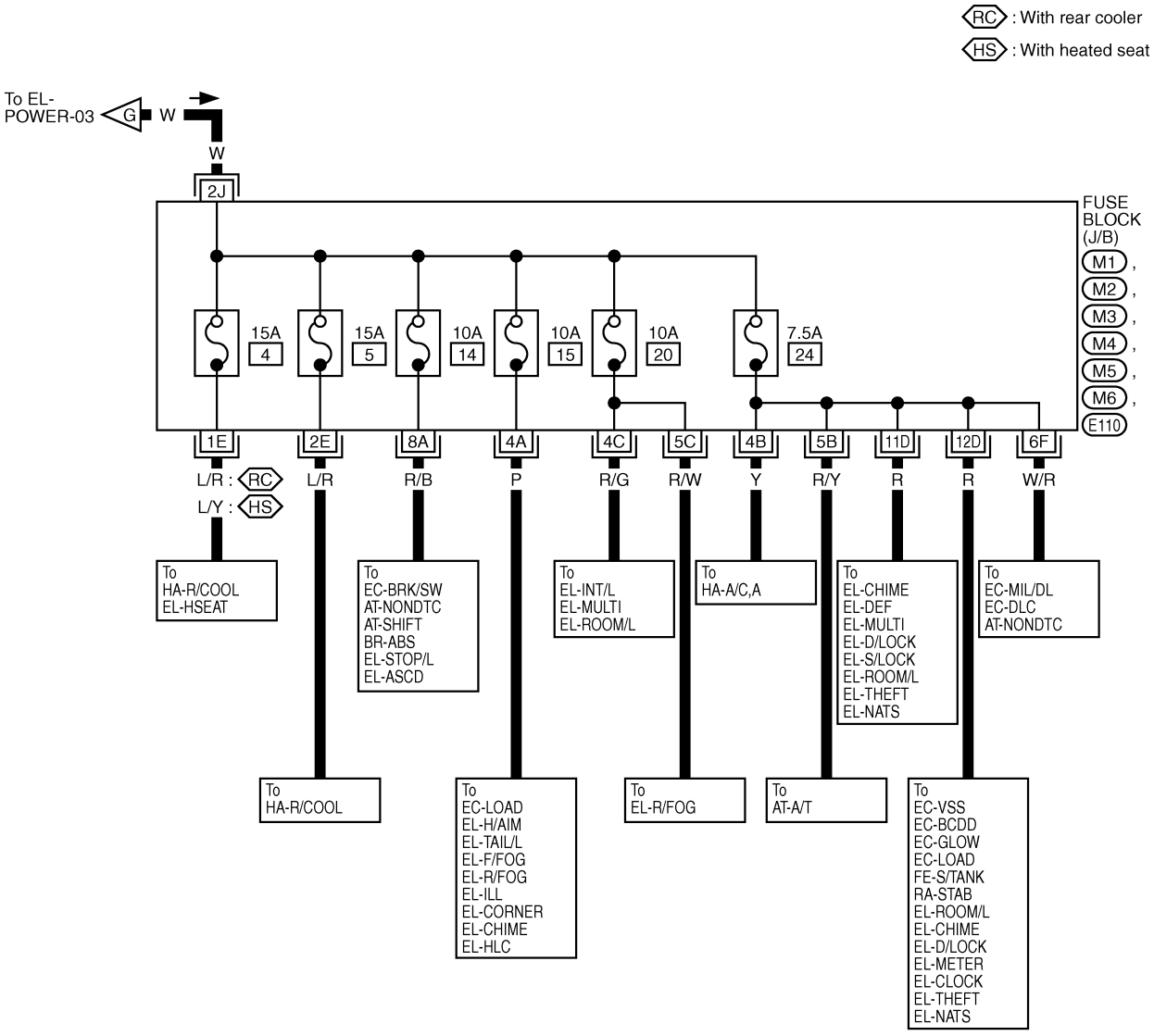




TEL747M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-05



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M1, M2, M3, M4, M5, M6, E110

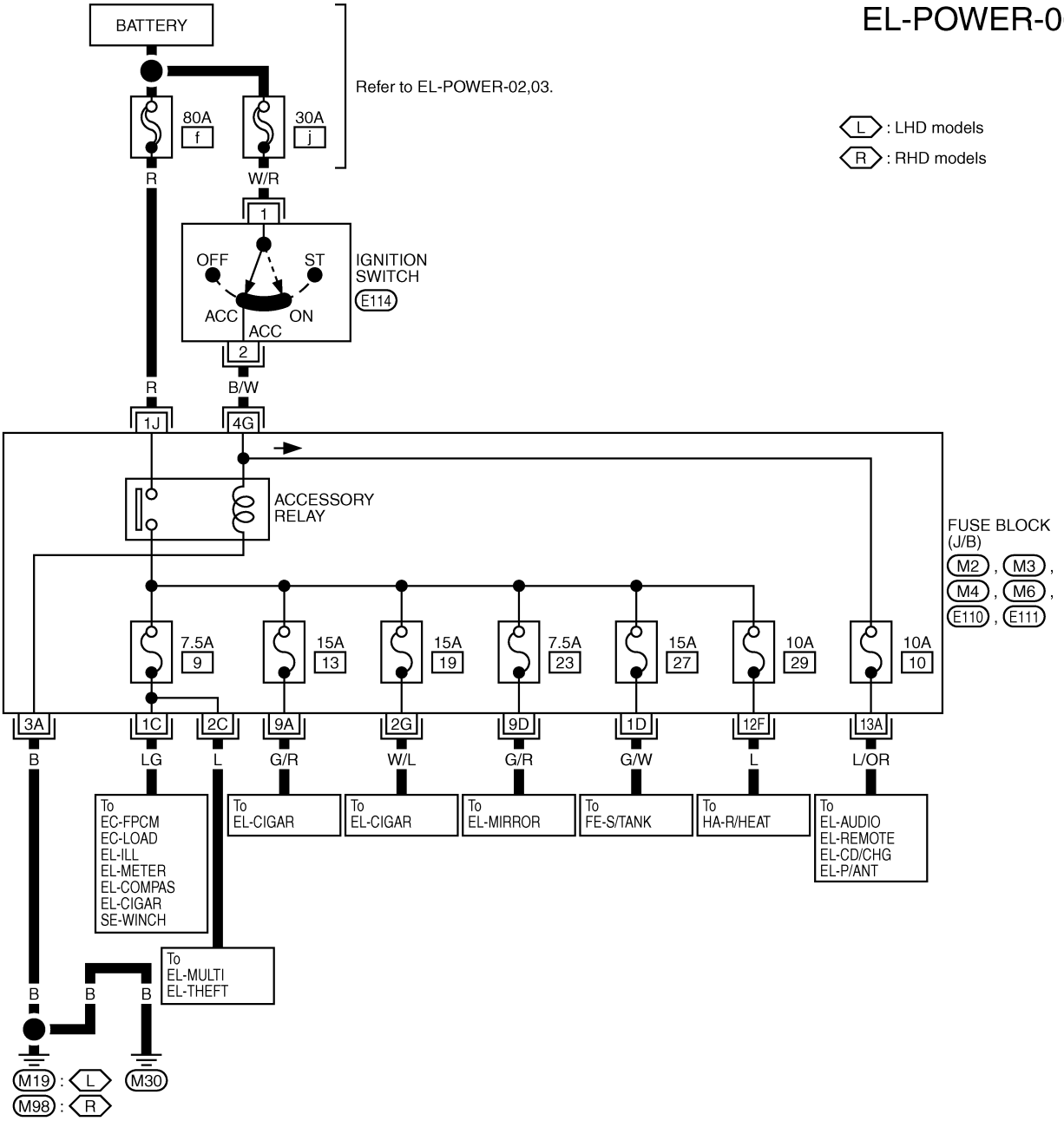
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23		
24	25	26		
27	28	29		

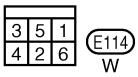
TEL748M

Wiring Diagram — POWER — (Cont'd)

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

EL-POWER-06





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M2 , M3 , M4 , M6 , E110 , E111

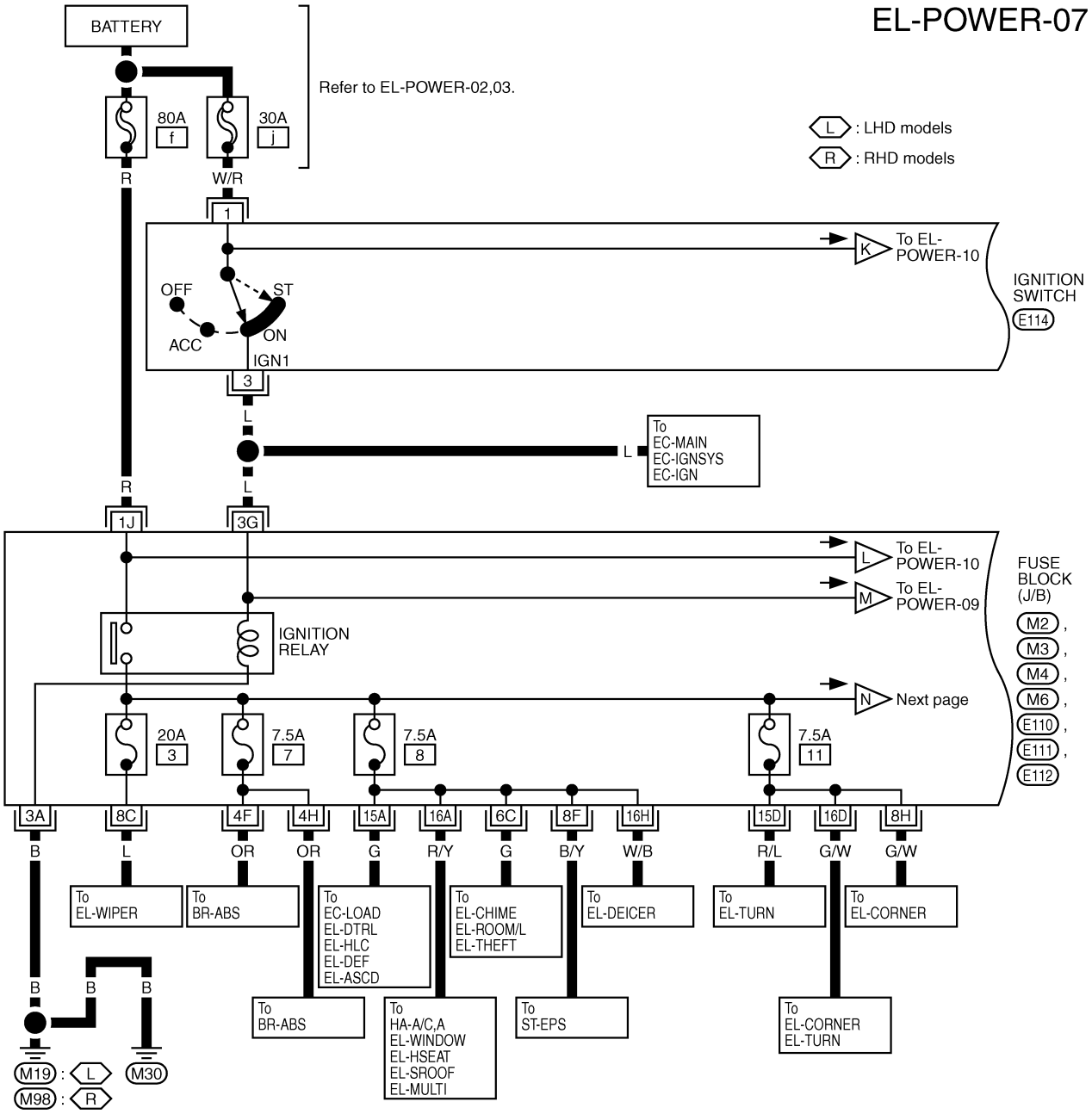
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23		
24	25	26		
27	28	29		

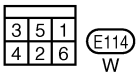
TEL647M

Wiring Diagram — POWER — (Cont'd)

IGNITION POWER SUPPLY — IGNITION SW. IN "ON" AND/OR "START"

EL-POWER-07





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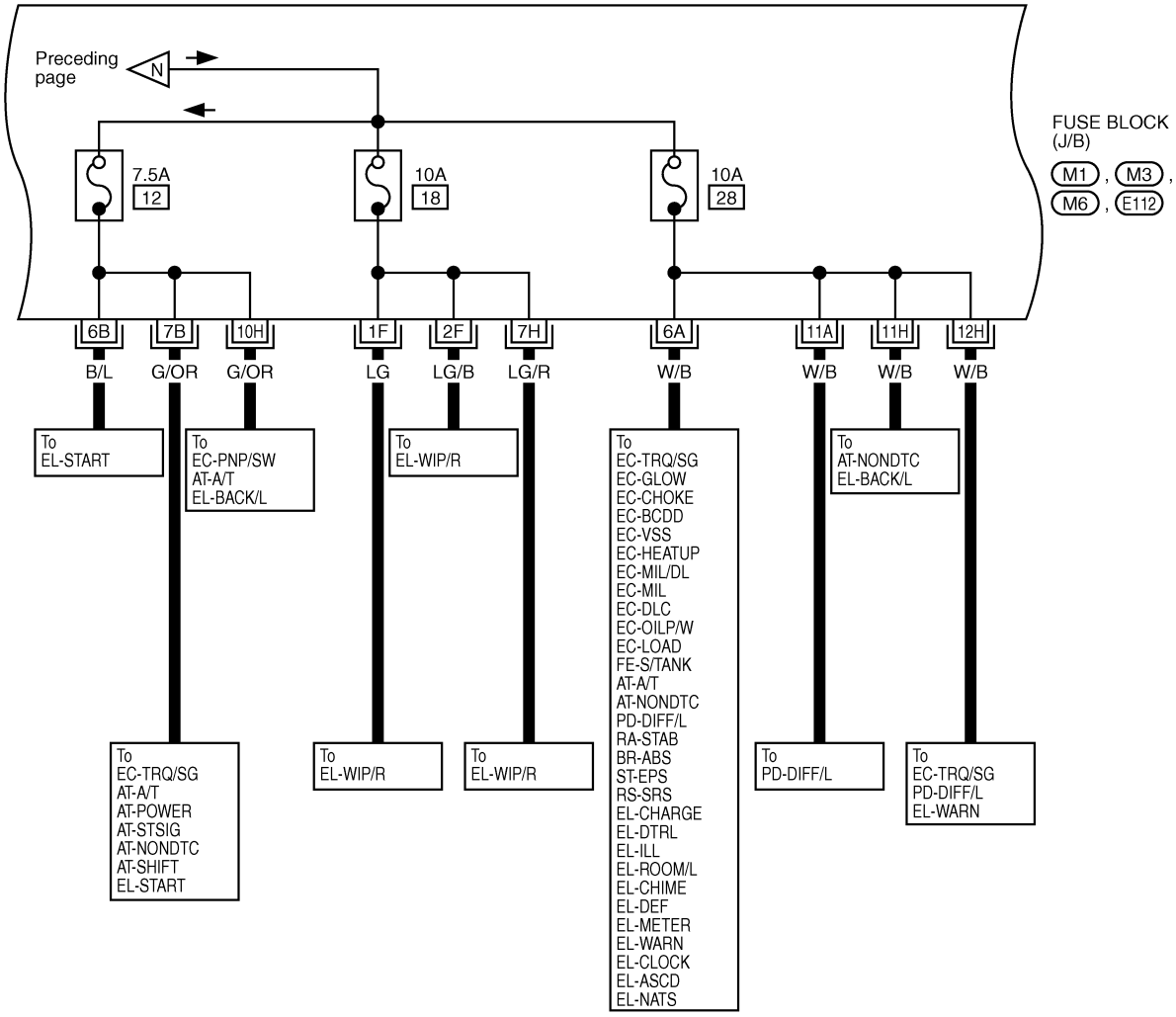
M2, M3, M4, M6, E110, E111, E112

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23		
24	25	26		
27	28	29		

TEL749M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-08



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M1 , M3 , M6 , E112

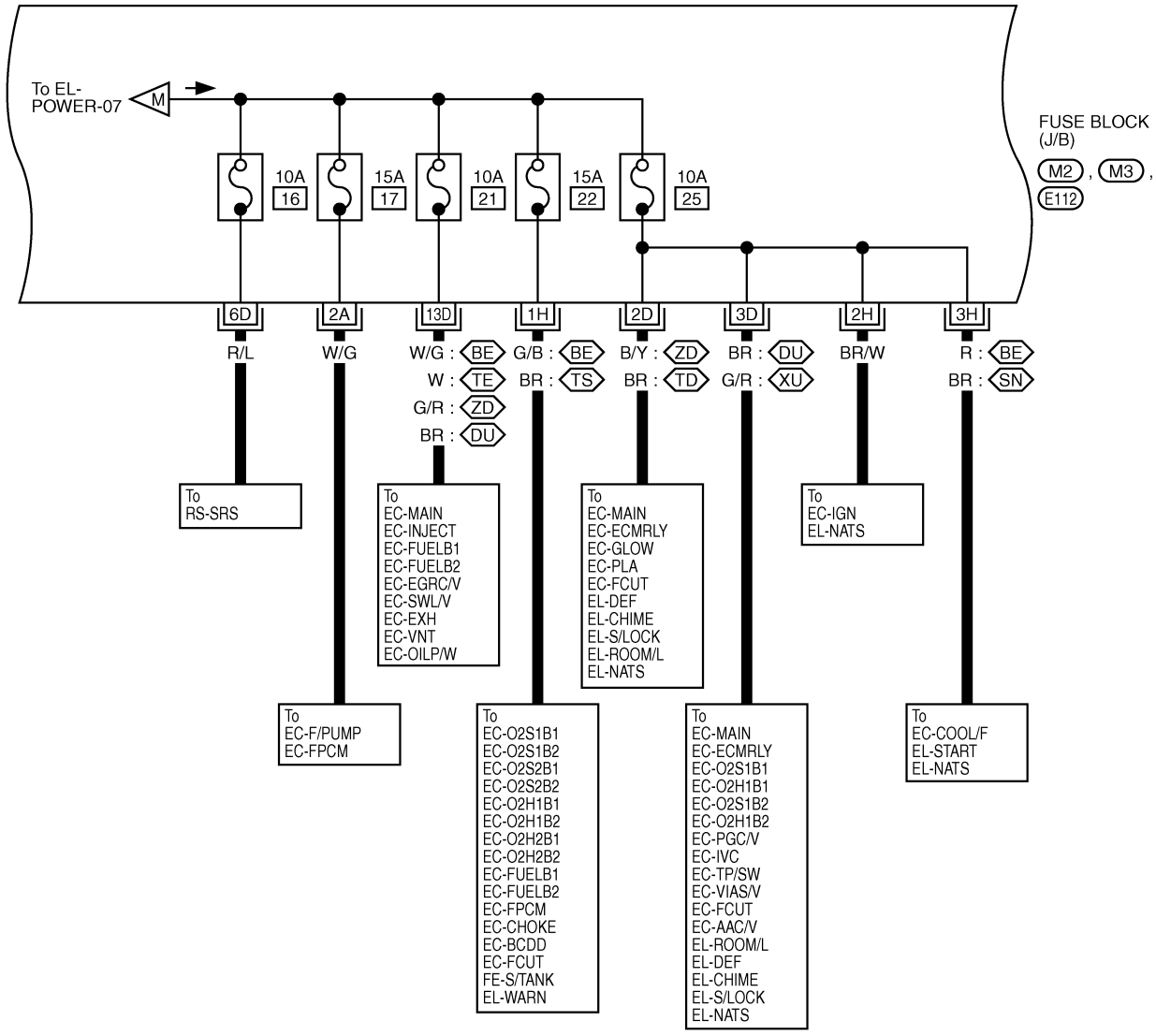
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23		
24	25	26		
27	28	29		

TEL811M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-09

BE : TB48 engine models
TE : TB45E engine models
TS : TB45S engine models
SN : TB45S engine models with NATS
ZD : ZD engine models
TD : TD engine models
DU : TD42Ti engine models
XU : Except for TD42Ti engine models



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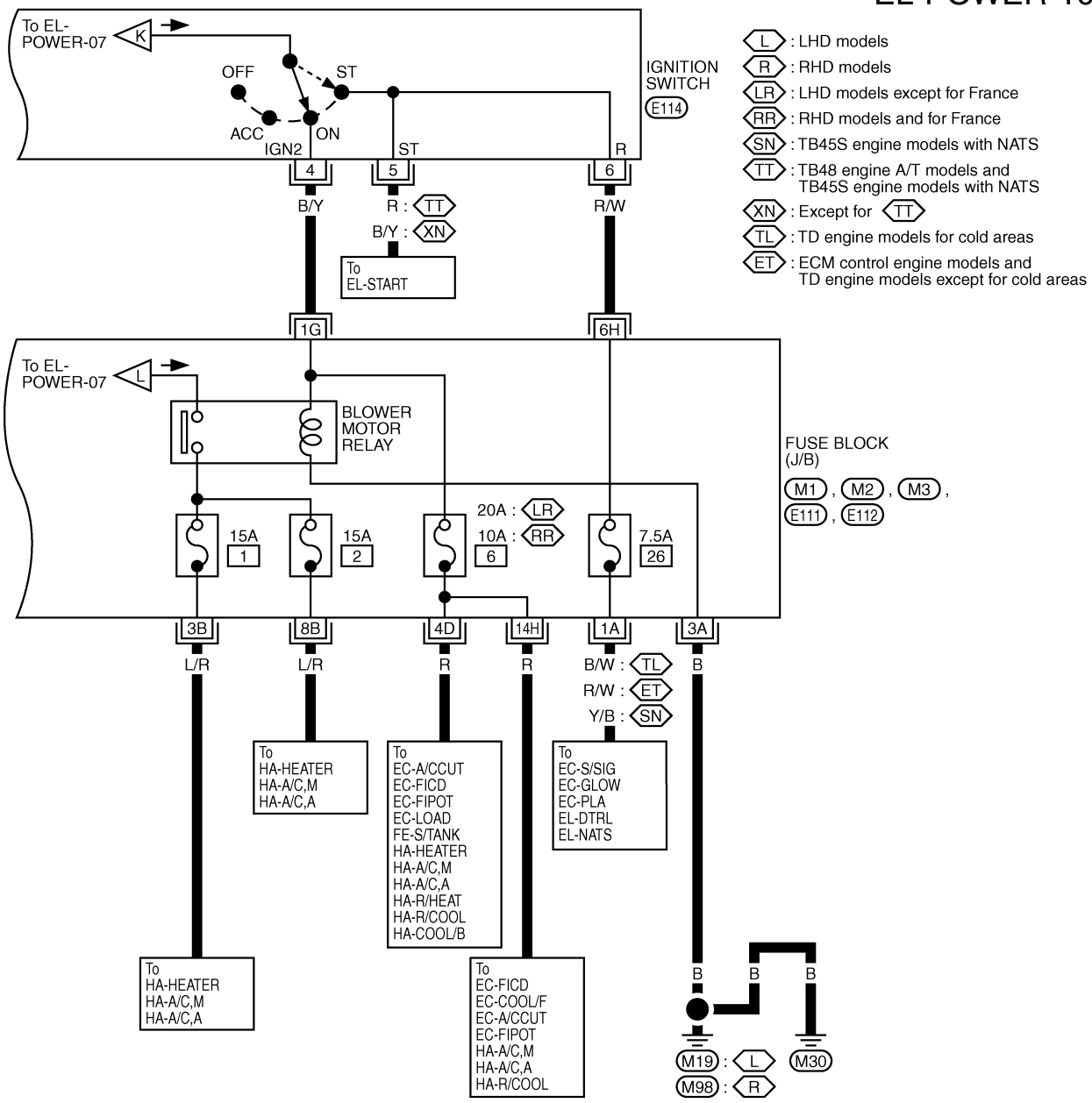
M2 , M3 , E112

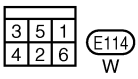
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23		
24	25	26		
27	28	29		

TEL750M

Wiring Diagram — POWER — (Cont'd)

EL-POWER-10





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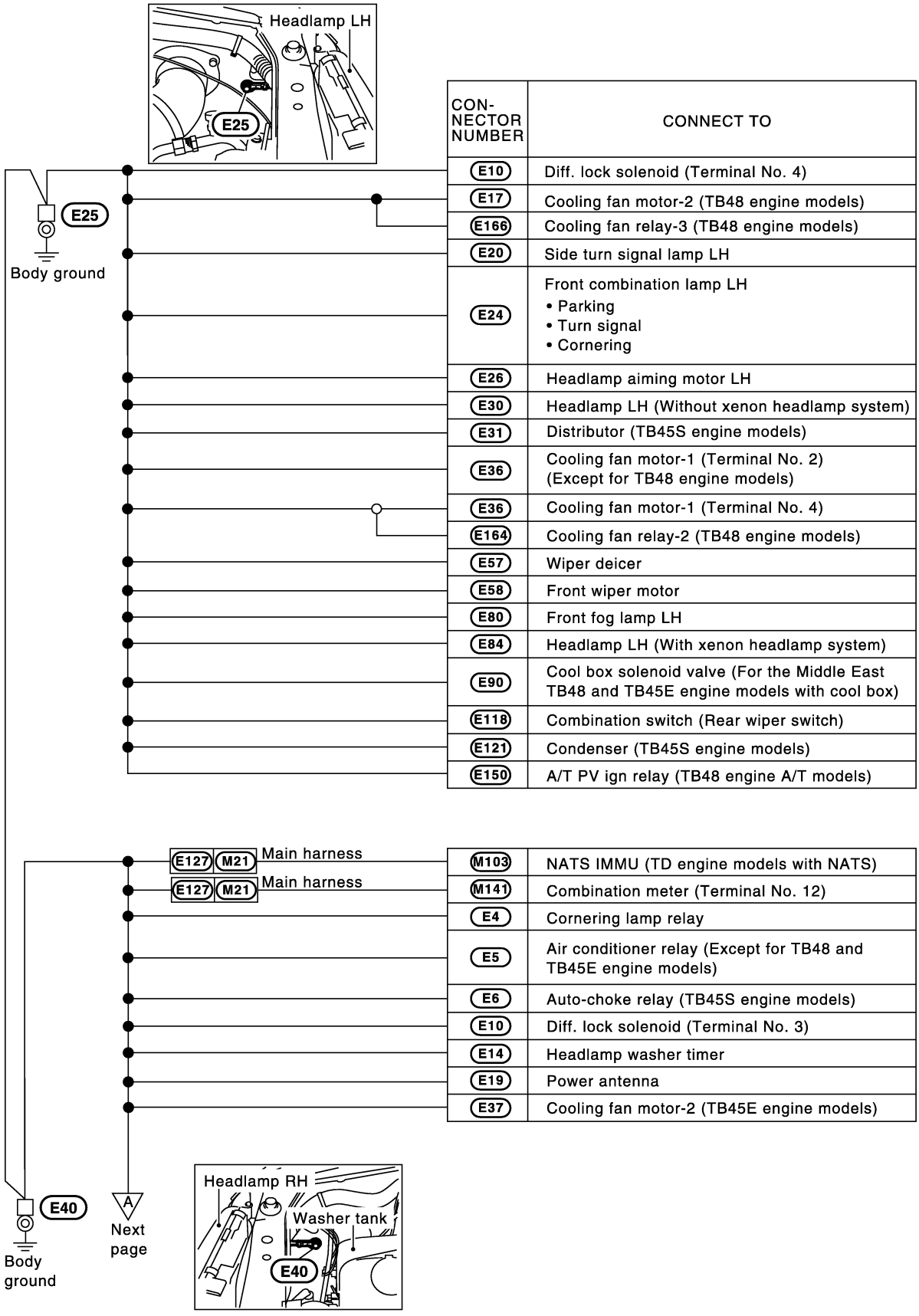
M1 , M2 , M3 , E111 , E112

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23		
24	25	26		
27	28	29		

TEL812M

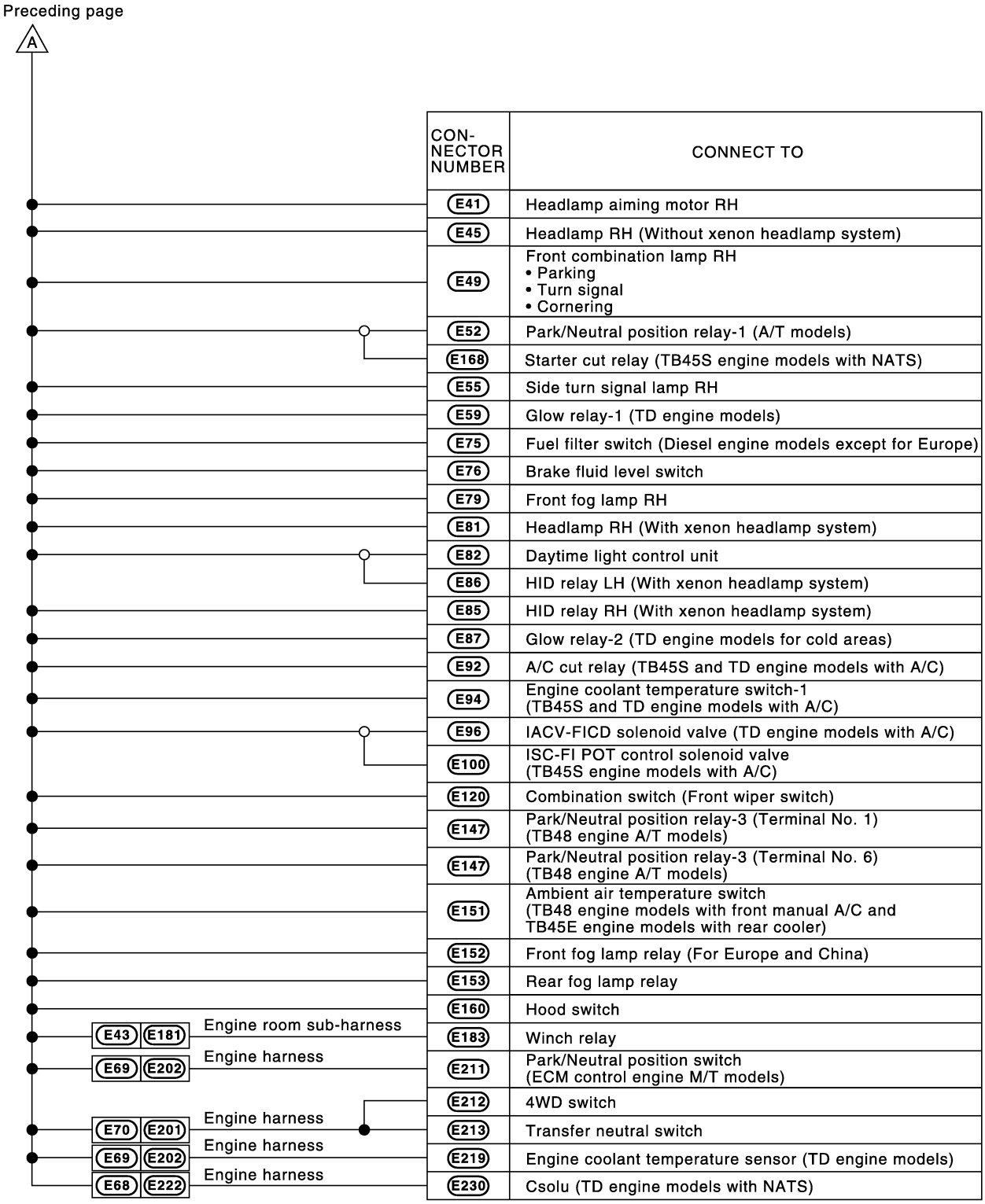
Engine Room Harness/LHD Models



CON-NECTOR NUMBER	CONNECT TO
E10	Diff. lock solenoid (Terminal No. 4)
E17	Cooling fan motor-2 (TB48 engine models)
E166	Cooling fan relay-3 (TB48 engine models)
E20	Side turn signal lamp LH
E24	Front combination lamp LH • Parking • Turn signal • Cornering
E26	Headlamp aiming motor LH
E30	Headlamp LH (Without xenon headlamp system)
E31	Distributor (TB45S engine models)
E36	Cooling fan motor-1 (Terminal No. 2) (Except for TB48 engine models)
E36	Cooling fan motor-1 (Terminal No. 4)
E164	Cooling fan relay-2 (TB48 engine models)
E57	Wiper deicer
E58	Front wiper motor
E80	Front fog lamp LH
E84	Headlamp LH (With xenon headlamp system)
E90	Cool box solenoid valve (For the Middle East TB48 and TB45E engine models with cool box)
E118	Combination switch (Rear wiper switch)
E121	Condenser (TB45S engine models)
E150	A/T PV ign relay (TB48 engine A/T models)
M103	NATS IMMU (TD engine models with NATS)
M141	Combination meter (Terminal No. 12)
E4	Cornering lamp relay
E5	Air conditioner relay (Except for TB48 and TB45E engine models)
E6	Auto-choke relay (TB45S engine models)
E10	Diff. lock solenoid (Terminal No. 3)
E14	Headlamp washer timer
E19	Power antenna
E37	Cooling fan motor-2 (TB45E engine models)

CEL430M

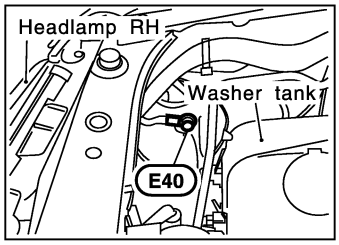
Engine Room Harness/LHD Models (Cont'd)

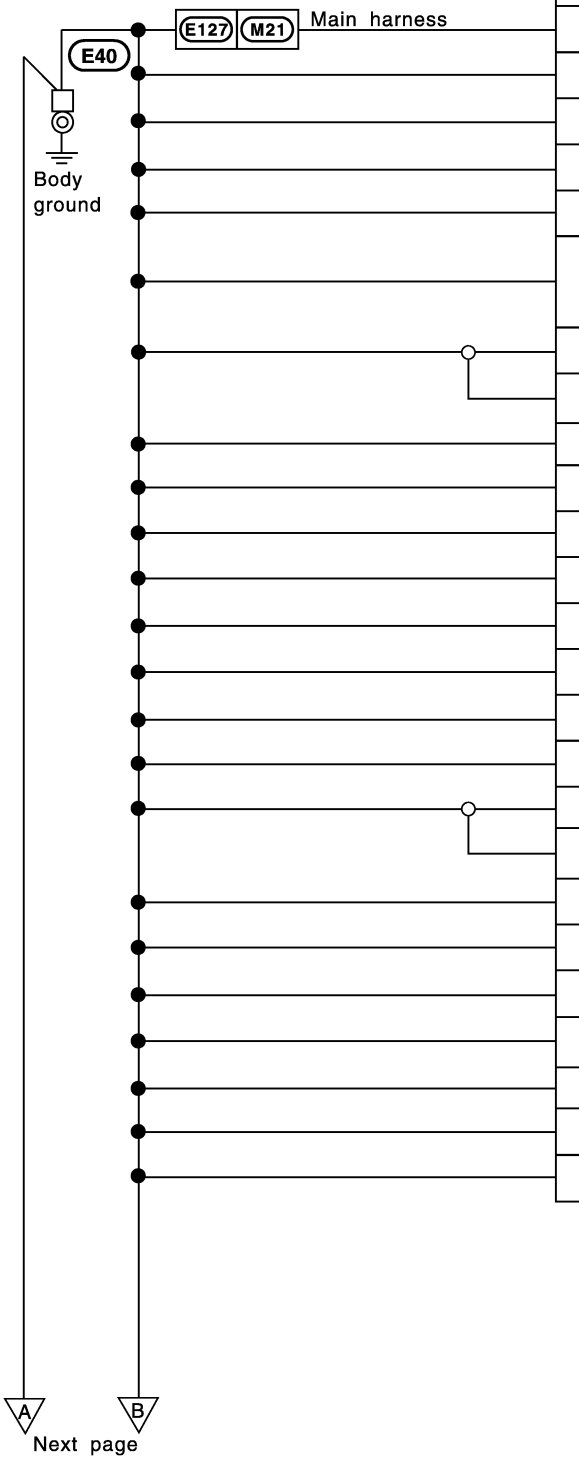


CON-NECTOR NUMBER	CONNECT TO
E41	Headlamp aiming motor RH
E45	Headlamp RH (Without xenon headlamp system)
E49	Front combination lamp RH • Parking • Turn signal • Cornering
E52	Park/Neutral position relay-1 (A/T models)
E168	Starter cut relay (TB45S engine models with NATS)
E55	Side turn signal lamp RH
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
E86	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)
E94	Engine coolant temperature switch-1 (TB45S and TD engine models with A/C)
E96	IACV-FICD solenoid valve (TD engine models with A/C)
E100	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
E183	Winch relay
E211	Park/Neutral position switch (ECM control engine M/T models)
E212	4WD switch
E213	Transfer neutral switch
E219	Engine coolant temperature sensor (TD engine models)
E230	Csolu (TD engine models with NATS)

CEL431M

Engine Room Harness/RHD Models

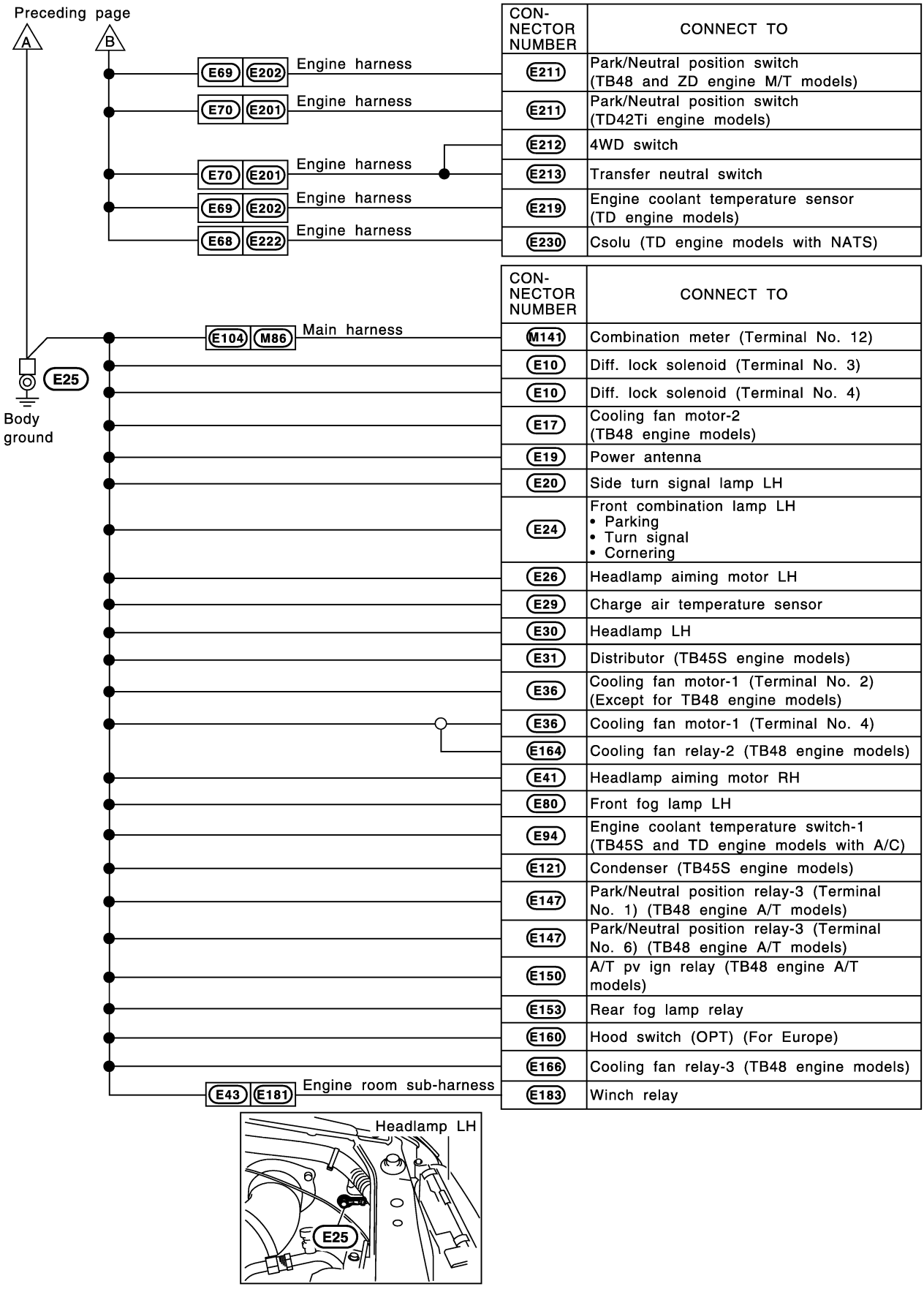




CONNECTOR NUMBER	CONNECT TO
M103	NATS IMMU (TD engine models with NATS)
E5	Air conditioner relay
E6	Auto-choke relay (TB45S engine models)
E14	Headlamp washer timer
E45	Headlamp RH
E49	Front combination lamp RH • Parking • Turn signal • Cornering
E52	Park/Neutral position relay-1 (A/T models)
E168	Starter cut relay (TB45S engine models with NATS)
E55	Side turn signal lamp RH
E57	Wiper deicer
E58	Front wiper motor
E59	Glow relay-1 (TD engine models)
E75	Fuel filter switch (Diesel engine models)
E76	Brake fluid level switch
E79	Front fog lamp RH
E92	A/C cut relay (TB45S and TD engine models with A/C)
E96	IACV-FICD solenoid valve (TD engine models with A/C)
E100	ISC-FI POT control solenoid valve (TB45S engine models with A/C)
E115	Combination switch (Turn signal lamp switch)
E118	Combination switch (Rear wiper switch)
E120	Combination switch (Front wiper switch)
E151	Ambient air temperature switch (TB48 engine models with front manual A/C)
E152	Front fog lamp relay (For Europe)
E153	Rear fog lamp relay
E160	Hood switch (With theft warning system)

CEL437M

Engine Room Harness/RHD Models (Cont'd)



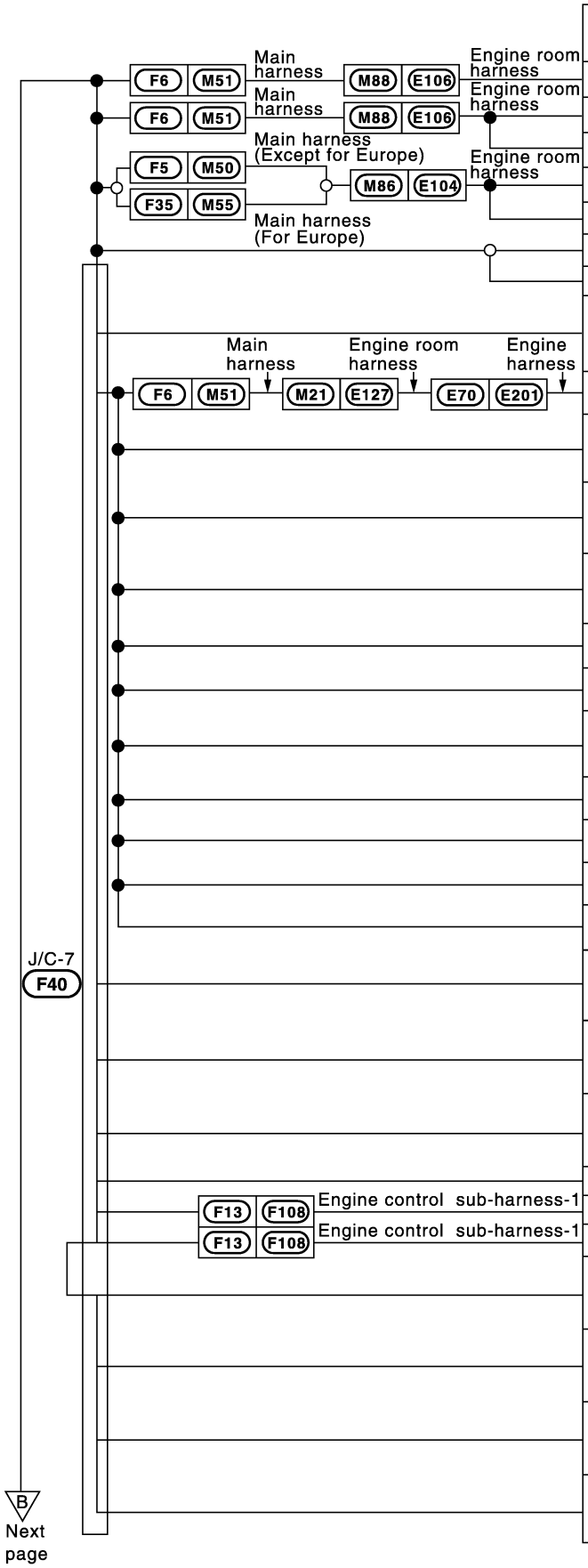
CONNECTOR NUMBER	CONNECT TO
E211	Park/Neutral position switch (TB48 and ZD engine M/T models)
E211	Park/Neutral position switch (TD42Ti engine models)
E212	4WD switch
E213	Transfer neutral switch
E219	Engine coolant temperature sensor (TD engine models)
E230	Csolu (TD engine models with NATS)

CONNECTOR NUMBER	CONNECT TO
M141	Combination meter (Terminal No. 12)
E10	Diff. lock solenoid (Terminal No. 3)
E10	Diff. lock solenoid (Terminal No. 4)
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	Charge air temperature sensor
E30	Headlamp LH
E31	Distributor (TB45S engine models)
E36	Cooling fan motor-1 (Terminal No. 2) (Except for TB48 engine models)
E36	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
E94	Engine coolant temperature switch-1 (TB45S and TD engine models with A/C)
E121	Condenser (TB45S engine models)
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)
E150	A/T pv ign relay (TB48 engine A/T models)
E153	Rear fog lamp relay
E160	Hood switch (OPT) (For Europe)
E166	Cooling fan relay-3 (TB48 engine models)
E183	Winch relay

CEL438M

Engine Control Harness/LHD Models

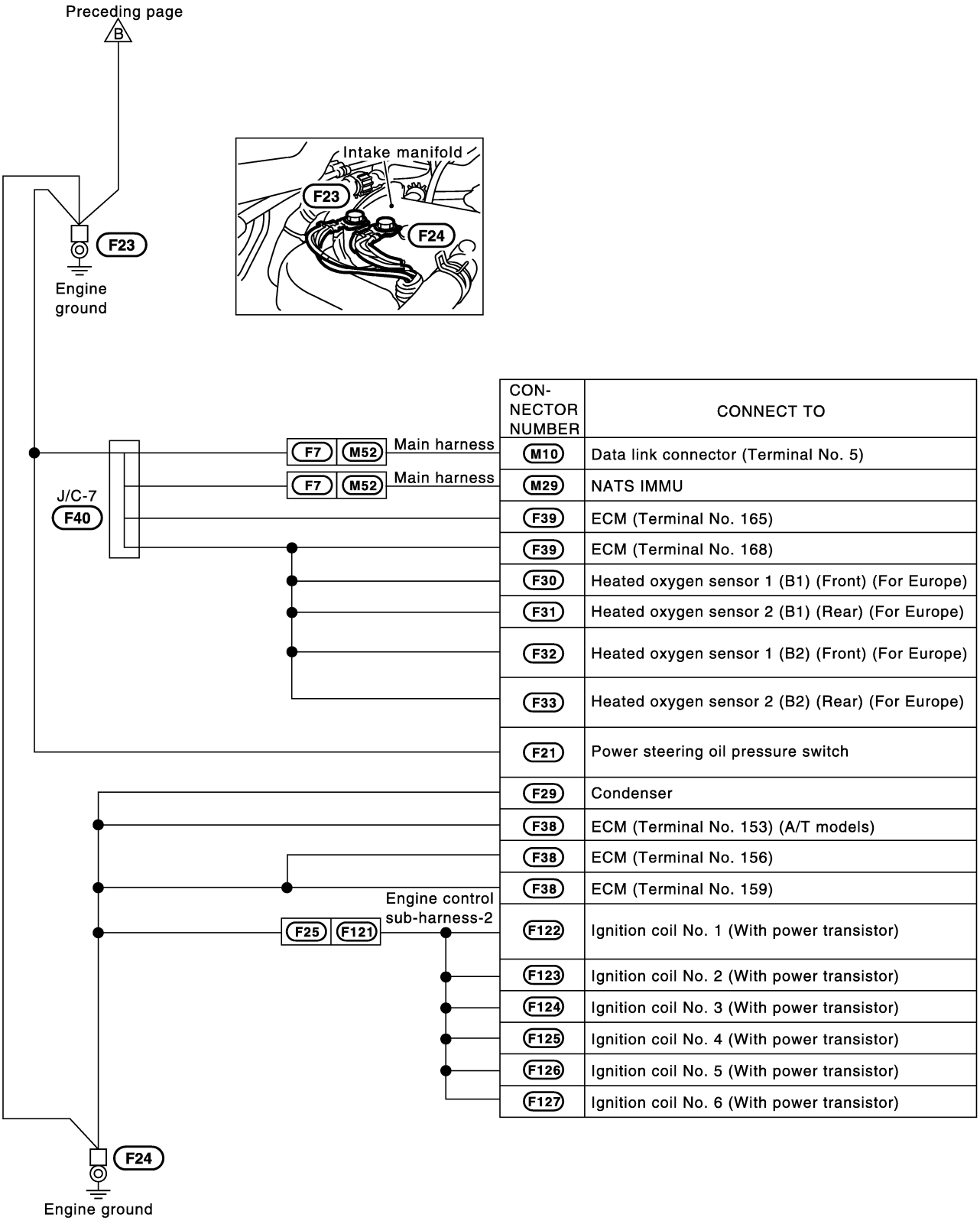
TB48DE ENGINE



CON-NECTOR NUMBER	CONNECT TO
E123	Shield wire (TCM (Transmission control module))
E123	TCM (Transmission control module) (Terminal No. 5)
E123	TCM (Transmission control module) (Terminal No. 14)
E123	TCM (Transmission control module) (Terminal No. 24)
E124	TCM (Transmission control module) (Terminal No. 46)
F16	Camshaft position sensor
F2	Shield wire (Throttle position sensor) (M/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 10) (A/T models)
E260	Shield wire (Crankshaft position sensor) (For Europe)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 7) (A/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 9) (A/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 11) (A/T models)
F8	Shield wire (Heated oxygen sensor 1 (B1)) (With three way catalyst except for Europe)
F9	Shield wire (Heated oxygen sensor 1 (B2)) (With three way catalyst except for Europe)
F17	Shield wire (Mass air flow sensor) • Mass air flow sensor • Intake air temperature sensor (For Europe)
F30	Shield wire (Heated oxygen sensor 1 (B1) (Front)) (For Europe)
F31	Shield wire (Heated oxygen sensor 2 (B1) (Rear)) (For Europe)
F32	Shield wire (Heated oxygen sensor 1 (B2) (Front)) (For Europe)
F33	Shield wire (Heated oxygen sensor 2 (B2) (Rear)) (For Europe)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 2) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle control motor)) (For circuit from terminal No. 3, 6) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 5) (A/T models)
F16	Shield wire (Camshaft position sensor)
F109	Shield wire (Knock sensor-1)
F110	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)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 12) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 1) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 4) (A/T models)

CEL432M

Engine Control Harness/LHD Models (Cont'd)

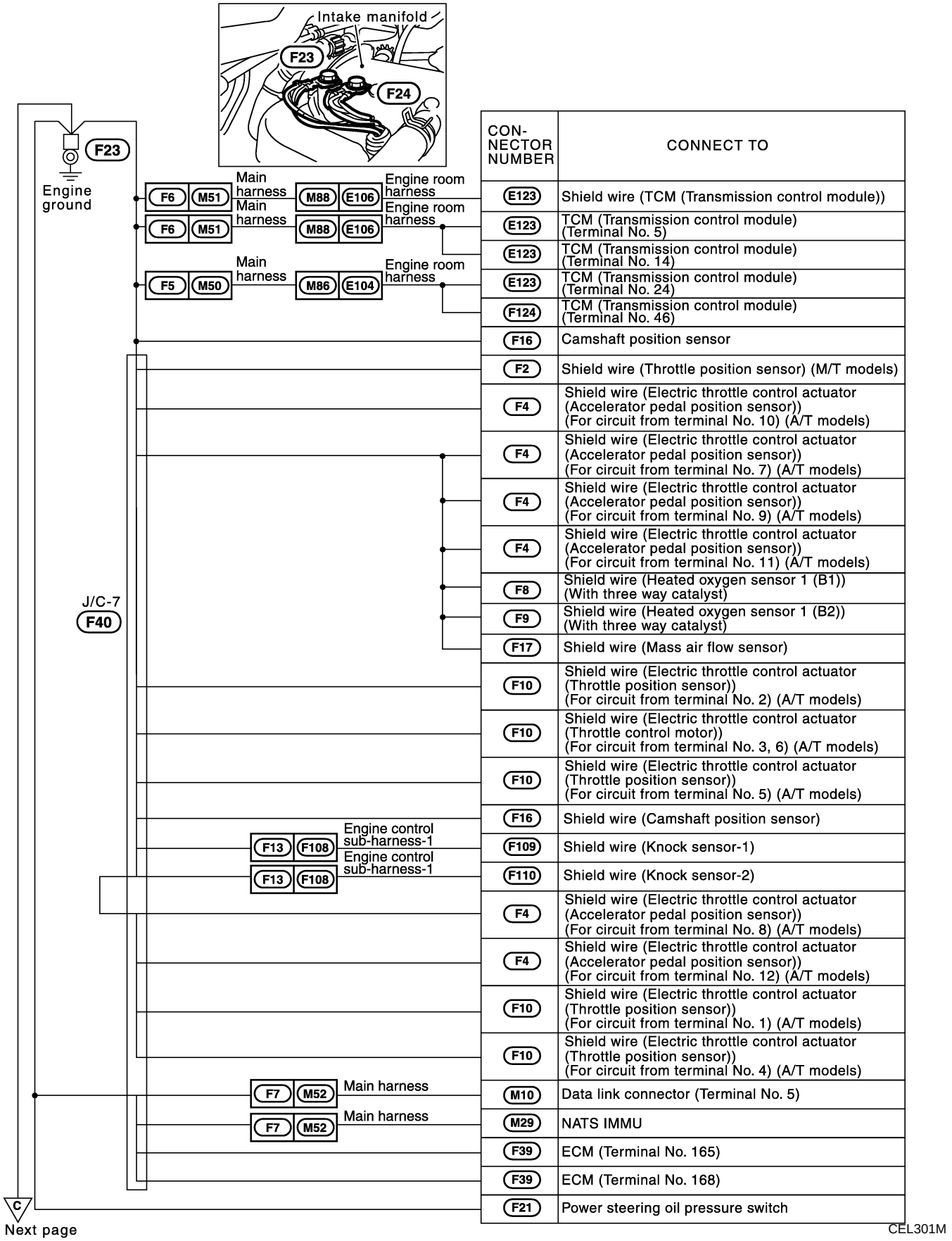


CONNECTOR NUMBER	CONNECT TO
M10	Data link connector (Terminal No. 5)
M29	NATS IMMU
F39	ECM (Terminal No. 165)
F39	ECM (Terminal No. 168)
F30	Heated oxygen sensor 1 (B1) (Front) (For Europe)
F31	Heated oxygen sensor 2 (B1) (Rear) (For Europe)
F32	Heated oxygen sensor 1 (B2) (Front) (For Europe)
F33	Heated oxygen sensor 2 (B2) (Rear) (For Europe)
F21	Power steering oil pressure switch
F29	Condenser
F38	ECM (Terminal No. 153) (A/T models)
F38	ECM (Terminal No. 156)
F38	ECM (Terminal No. 159)
F122	Ignition coil No. 1 (With power transistor)
F123	Ignition coil No. 2 (With power transistor)
F124	Ignition coil No. 3 (With power transistor)
F125	Ignition coil No. 4 (With power transistor)
F126	Ignition coil No. 5 (With power transistor)
F127	Ignition coil No. 6 (With power transistor)

CEL433M

Engine Room Harness/RHD Models

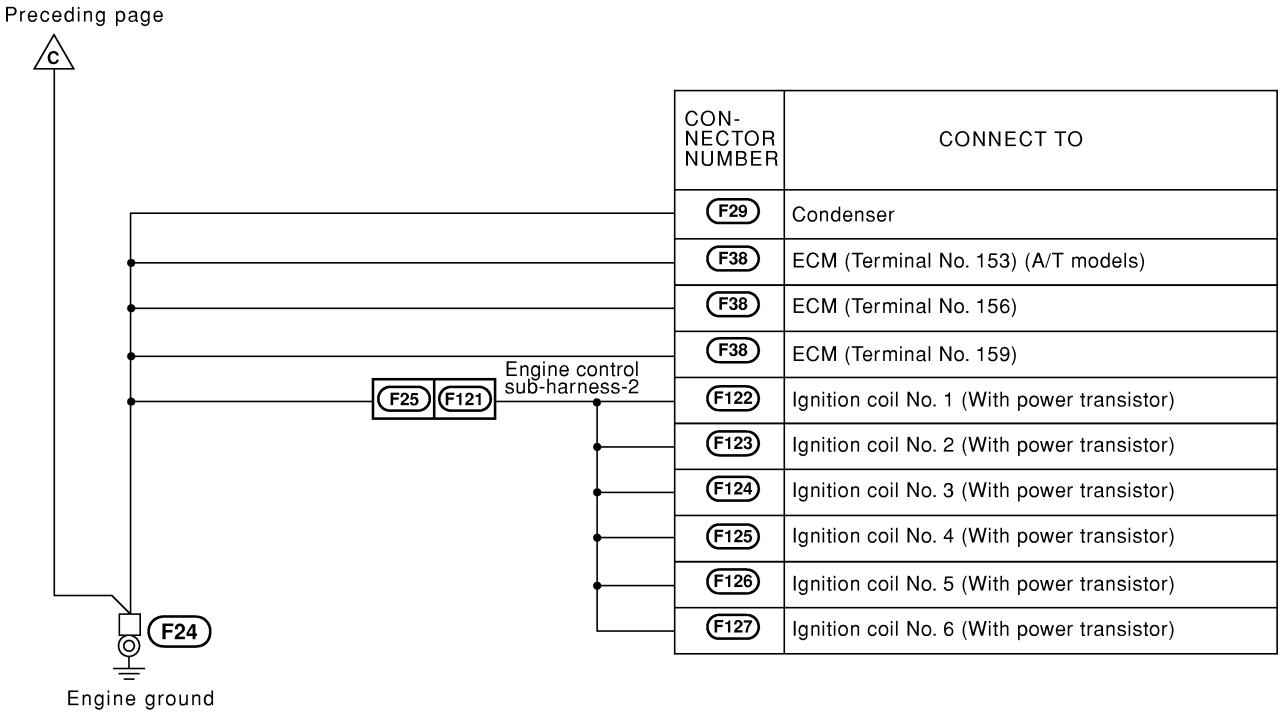
TB48DE ENGINE



CONNECTOR NUMBER	CONNECT TO
E123	Shield wire (TCM (Transmission control module))
E123	TCM (Transmission control module) (Terminal No. 5)
E123	TCM (Transmission control module) (Terminal No. 14)
E123	TCM (Transmission control module) (Terminal No. 24)
F124	TCM (Transmission control module) (Terminal No. 46)
F16	Camshaft position sensor
F2	Shield wire (Throttle position sensor) (M/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 10) (A/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 7) (A/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 9) (A/T models)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 11) (A/T models)
F8	Shield wire (Heated oxygen sensor 1 (B1)) (With three way catalyst)
F9	Shield wire (Heated oxygen sensor 1 (B2)) (With three way catalyst)
F17	Shield wire (Mass air flow sensor)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 2) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle control motor)) (For circuit from terminal No. 3, 6) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 5) (A/T models)
F16	Shield wire (Camshaft position sensor)
F109	Shield wire (Knock sensor-1)
F110	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)
F4	Shield wire (Electric throttle control actuator (Accelerator pedal position sensor)) (For circuit from terminal No. 12) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 1) (A/T models)
F10	Shield wire (Electric throttle control actuator (Throttle position sensor)) (For circuit from terminal No. 4) (A/T models)
M10	Data link connector (Terminal No. 5)
M29	NATS IMMU
F39	ECM (Terminal No. 165)
F39	ECM (Terminal No. 168)
F21	Power steering oil pressure switch

CEL301M

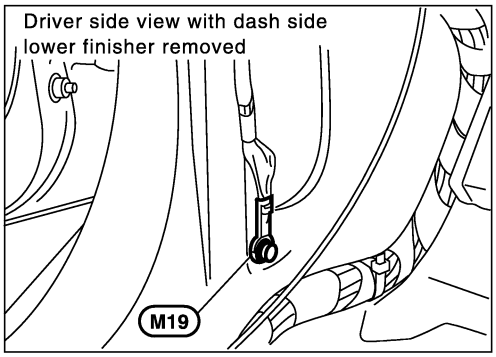
TB48DE ENGINE

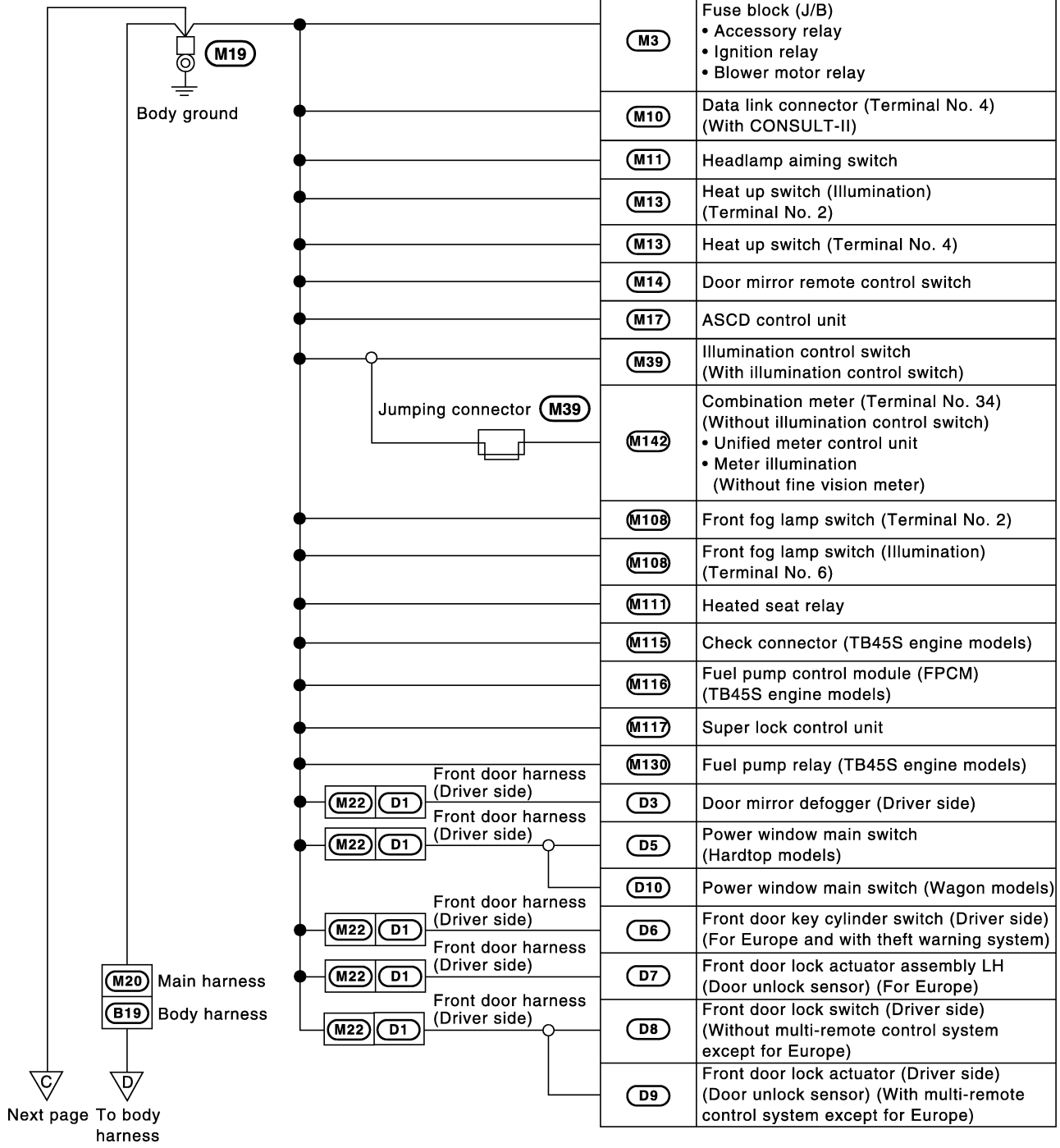


CON-NECTOR NUMBER	CONNECT TO
F29	Condenser
F38	ECM (Terminal No. 153) (A/T models)
F38	ECM (Terminal No. 156)
F38	ECM (Terminal No. 159)
F122	Ignition coil No. 1 (With power transistor)
F123	Ignition coil No. 2 (With power transistor)
F124	Ignition coil No. 3 (With power transistor)
F125	Ignition coil No. 4 (With power transistor)
F126	Ignition coil No. 5 (With power transistor)
F127	Ignition coil No. 6 (With power transistor)

CEL302M

Main Harness/LHD Models

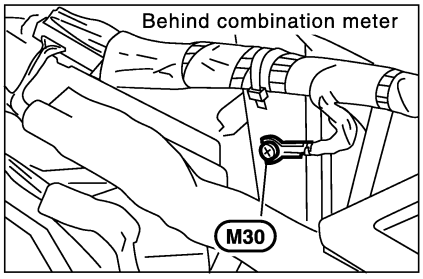




CONNECTOR NUMBER	CONNECT TO
M3	Fuse block (J/B) • Accessory relay • Ignition relay • Blower motor relay
M10	Data link connector (Terminal No. 4) (With CONSULT-II)
M11	Headlamp aiming switch
M13	Heat up switch (Illumination) (Terminal No. 2)
M13	Heat up switch (Terminal No. 4)
M14	Door mirror remote control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

CEL490M

Main Harness/LHD Models (Cont'd)



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C

M30

Body ground

CON-NECTOR NUMBER	CONNECT TO
M29	NATS IMMU (TB45S engine models with NATS)
M37	Combination flasher unit
M38	Mode door motor (With front auto A/C)
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)
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)
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)
M137	Sub IMMU (Terminal No. 48) (TB45S engine models with NATS)

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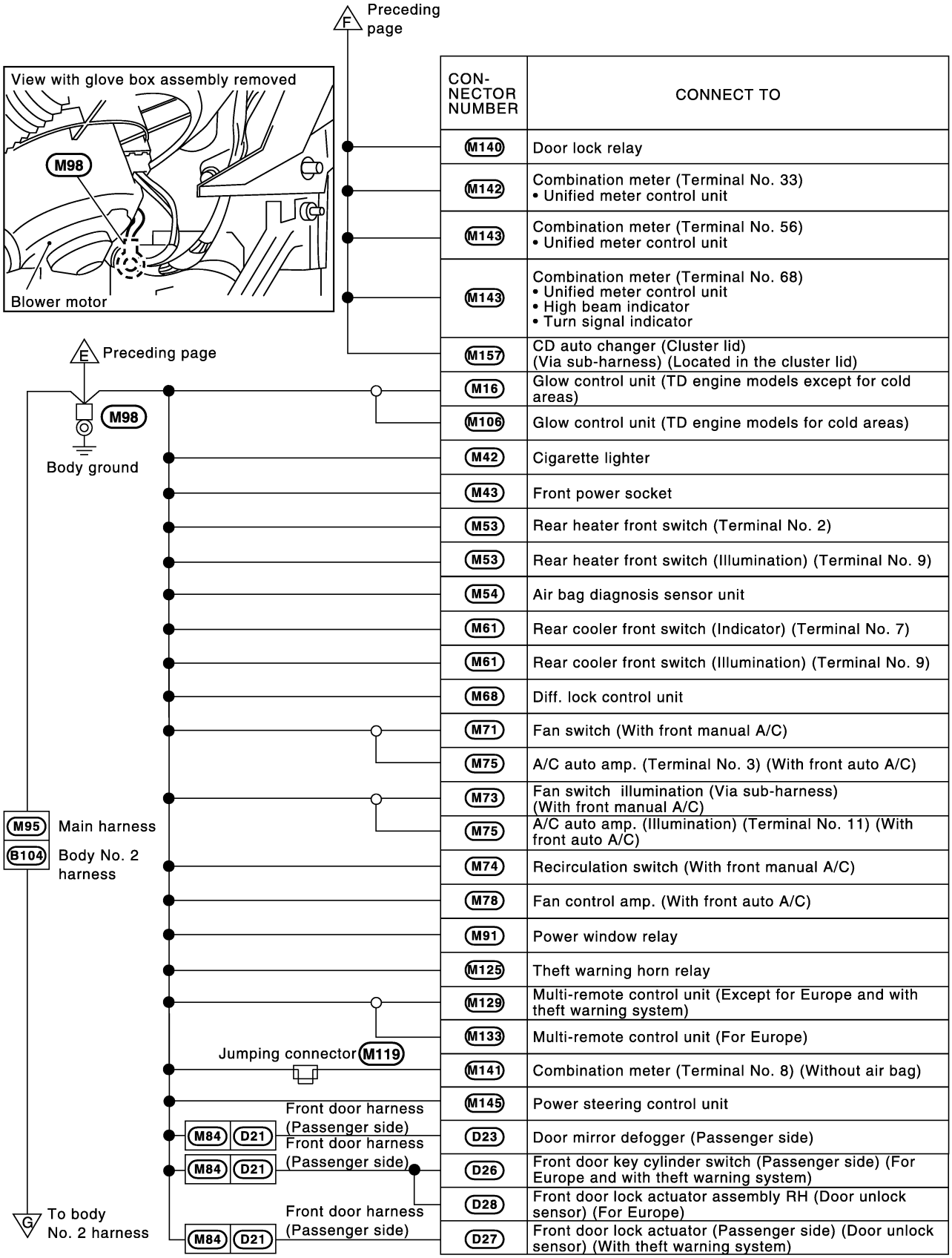
CEL434M

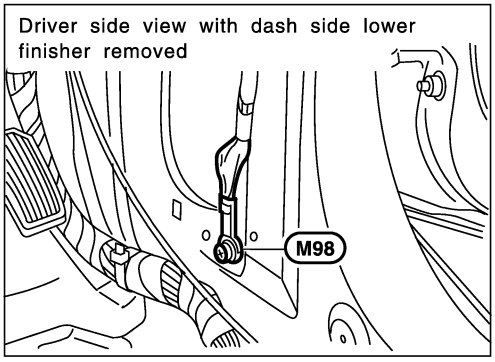
Main Harness/LHD Models (Cont'd)

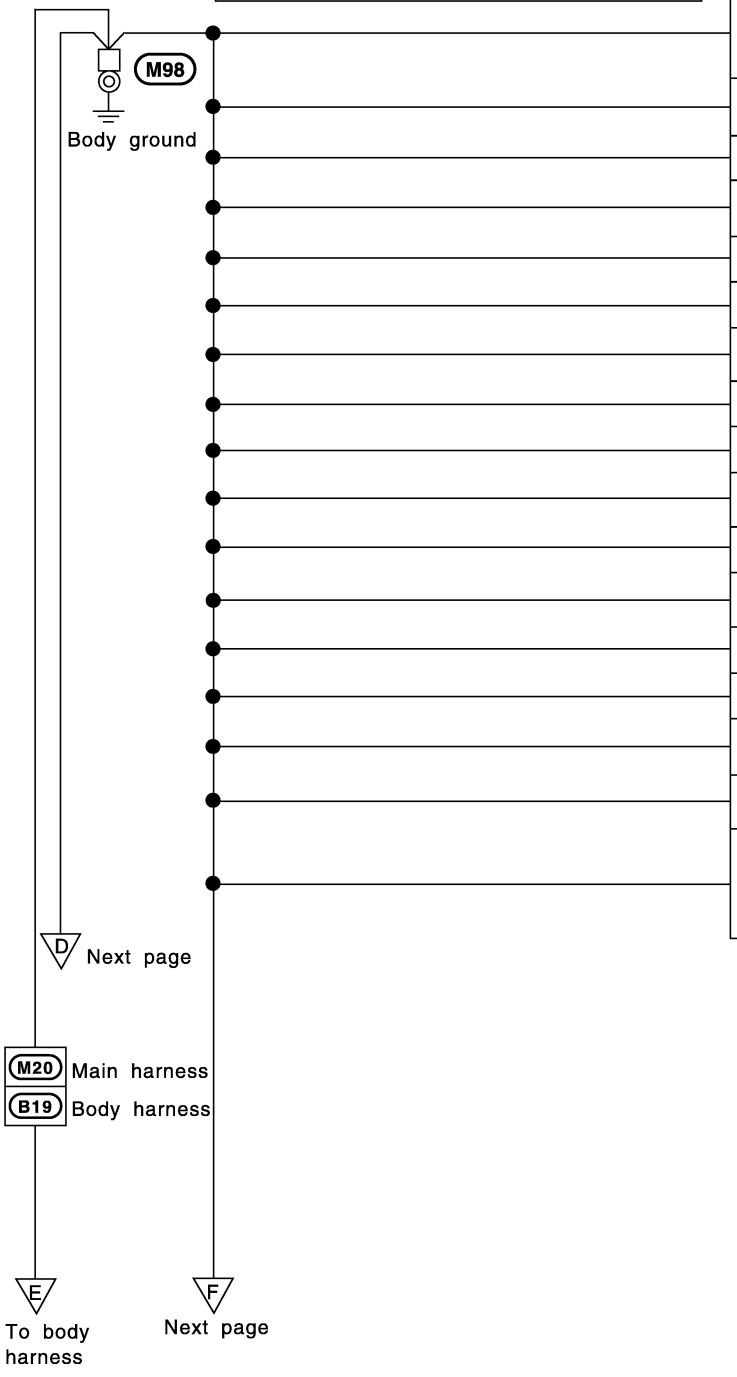


CONNECTOR NUMBER	CONNECT TO
M140	Door lock relay
M142	Combination meter (Terminal No. 33) • Unified meter control unit
M143	Combination meter (Terminal No. 56) • Unified meter control unit
M143	Combination meter (Terminal No. 68) • Unified meter control unit • High beam indicator • Turn signal indicator
M157	CD auto changer (Cluster lid) (Via sub-harness) (Located in the cluster lid)
M16	Glow control unit (TD engine models except for cold areas)
M106	Glow control unit (TD engine models for cold areas)
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
M71	Fan switch (With front manual A/C)
M75	A/C auto amp. (Terminal No. 3) (With front auto A/C)
M73	Fan switch illumination (Via sub-harness) (With front manual A/C)
M75	A/C auto amp. (Illumination) (Terminal No. 11) (With front auto A/C)
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
M129	Multi-remote control unit (Except for Europe and with theft warning system)
M133	Multi-remote control unit (For Europe)
M141	Combination meter (Terminal No. 8) (Without air bag)
M145	Power steering control unit
D23	Door mirror defogger (Passenger side)
D26	Front door key cylinder switch (Passenger side) (For Europe and with theft warning system)
D28	Front door lock actuator assembly RH (Door unlock sensor) (For Europe)
D27	Front door lock actuator (Passenger side) (Door unlock sensor) (With theft warning system)

CEL435M

Main Harness/RHD Models

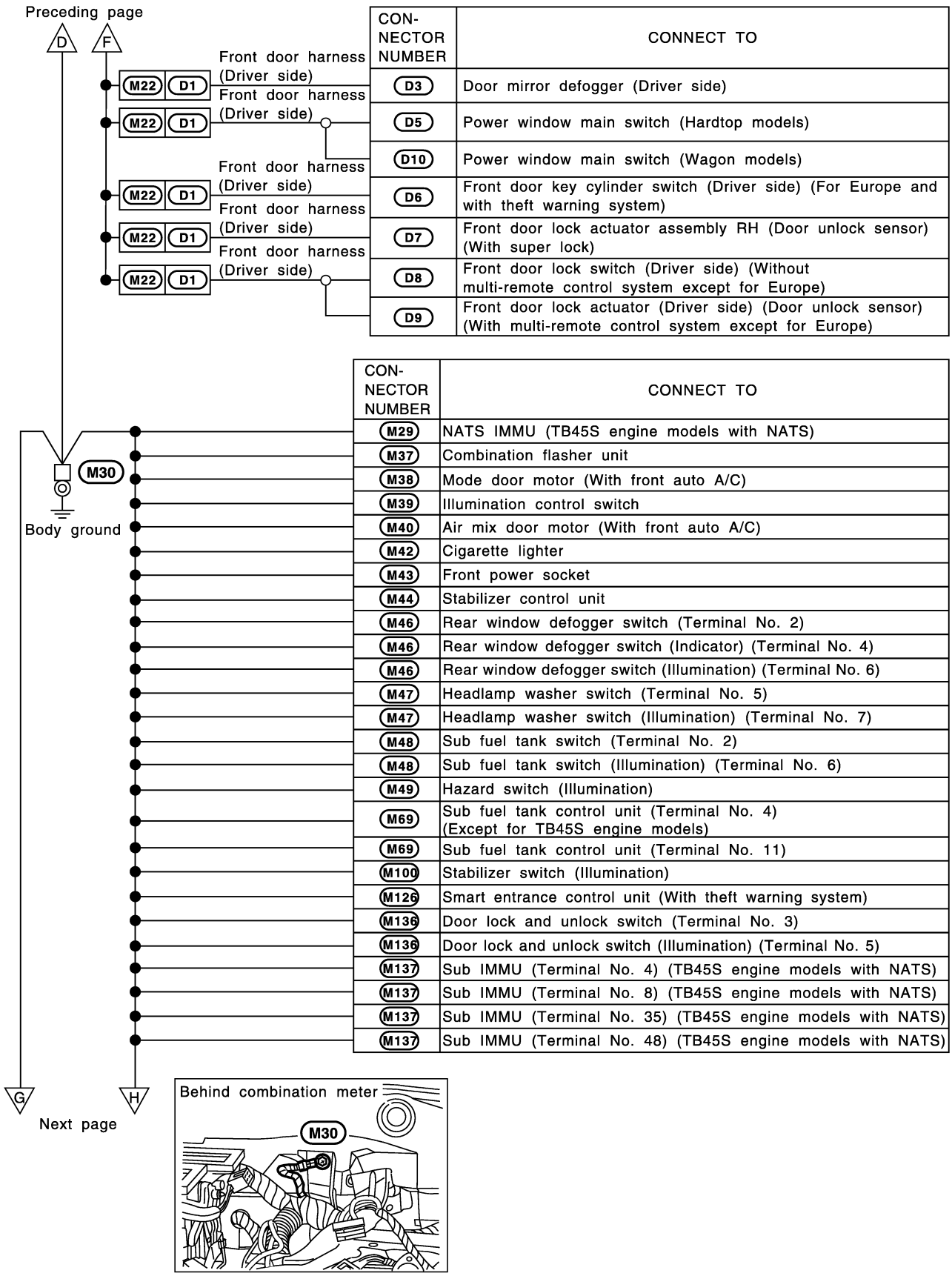




CONNECTOR NUMBER	CONNECT TO
M3	Fuse block (J/B) • Accessory relay • Ignition relay • Blower motor relay
M10	Data link connector (Terminal No. 4) (With CONSULT-II)
M11	Headlamp aiming switch
M13	Heat up switch (Illumination) (Terminal No. 2)
M13	Heat up switch (Terminal No. 4)
M14	Door mirror remote control switch
M16	Glow control unit (TD42 engine models)
M17	ASCD control unit
M108	Front fog lamp switch (Terminal No. 2)
M108	Front fog lamp switch (Illumination) (Terminal No. 6)
M115	Check connector (TB45S engine models)
M116	Fuel pump control module (FPCM) (TB45S engine models)
M117	Super lock control unit
M130	Fuel pump relay (TB45S engine models)
M142	Combination meter (Terminal No. 33) • Unified meter control unit
M143	Combination meter (Terminal No. 56) • Unified meter control unit
M143	Combination meter (Terminal No. 68) • Unified meter control unit • High beam indicator • Turn signal indicator

CEL440M

Main Harness/RHD Models (Cont'd)

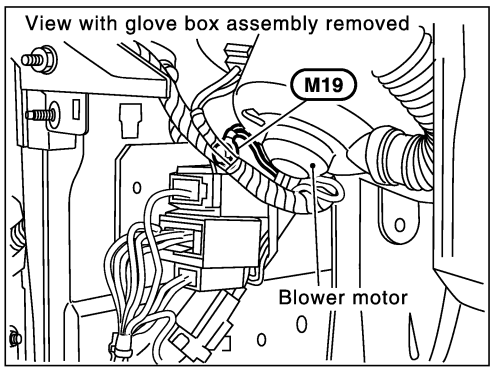


CONNECTOR NUMBER	CONNECT TO
D3	Door mirror defogger (Driver side)
D5	Power window main switch (Hardtop models)
D10	Power window main switch (Wagon models)
D6	Front door key cylinder switch (Driver side) (For Europe and with theft warning system)
D7	Front door lock actuator assembly RH (Door unlock sensor) (With super lock)
D8	Front door lock switch (Driver side) (Without multi-remote control system except for Europe)
D9	Front door lock actuator (Driver side) (Door unlock sensor) (With multi-remote control system except for Europe)

CONNECTOR NUMBER	CONNECT TO
M29	NATS IMMU (TB45S engine models with NATS)
M37	Combination flasher unit
M38	Mode door motor (With front auto A/C)
M39	Illumination control switch
M40	Air mix door motor (With front auto A/C)
M42	Cigarette lighter
M43	Front power socket
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)
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)
M136	Door lock and unlock switch (Terminal No. 3)
M136	Door lock and unlock switch (Illumination) (Terminal No. 5)
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)
M137	Sub IMMU (Terminal No. 48) (TB45S engine models with NATS)

CEL441M

Main Harness/RHD Models (Cont'd)



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Jumping connector M39

CONNECTOR NUMBER	CONNECT TO
M140	Door lock relay
M142	Combination meter (Terminal No. 34) (Without illumination control switch) • Unified meter control unit • Meter illumination (Without fine vision meter)
M157	CD auto changer (Cluster lid) (Via sub-harness) (Located in the cluster lid)

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M19

Body ground

CONNECTOR NUMBER	CONNECT TO
M53	Rear heater front switch (Terminal No. 2)
M53	Rear heater front switch (Illumination) (Terminal No. 9)
M54	Air bag diagnosis sensor unit
M60	Power antenna switch (Illumination)
M61	Rear cooler front switch (Indicator) (Terminal No. 7)
M61	Rear cooler front switch (Illumination) (Terminal No. 9)
M67	Diff. lock switch (Illumination)
M68	Diff. lock control unit
M71	Fan switch (With front manual A/C)
M75	A/C auto amp. (Terminal No. 3) (With front auto A/C)
M73	Fan switch illumination (With front manual A/C)
M75	A/C auto amp. (Illumination) (Terminal No. 11) (With front auto A/C)
M74	Recirculation switch (With front manual A/C)
M78	Fan control amp. (With front auto A/C)
M91	Power window relay
M111	Heated seat relay
M125	Theft warning horn relay
M129	Multi-remote control unit (Except for Europe and with theft warning system)
M129	Multi-remote control unit (Via sub-harness) (For South Africa)
M133	Multi-remote control unit (For Europe)
M141	Combination meter (Terminal No. 8) (Without air bag)
D23	Door mirror defogger (Passenger side)
D26	Front door key cylinder switch (Passenger side) (For Europe and with theft warning system)
D28	Front door lock actuator assembly LH (Door unlock sensor) (For Europe)
D27	Front door lock actuator (Passenger side) (Door unlock sensor) (With theft warning system)

Jumping connector M119

M84 D21 Front door harness (Passenger side)

M84 D21 Front door harness (Passenger side)

M84 D21 Front door harness (Passenger side)

M99 Main harness

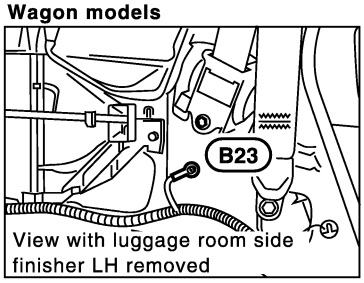
B104 Body No. 2 harness

J To body No. 2 harness

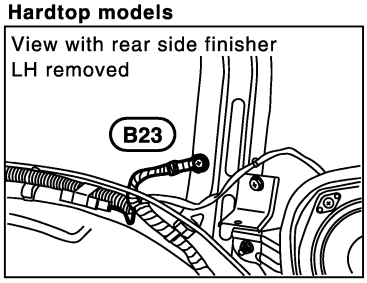
CEL442M

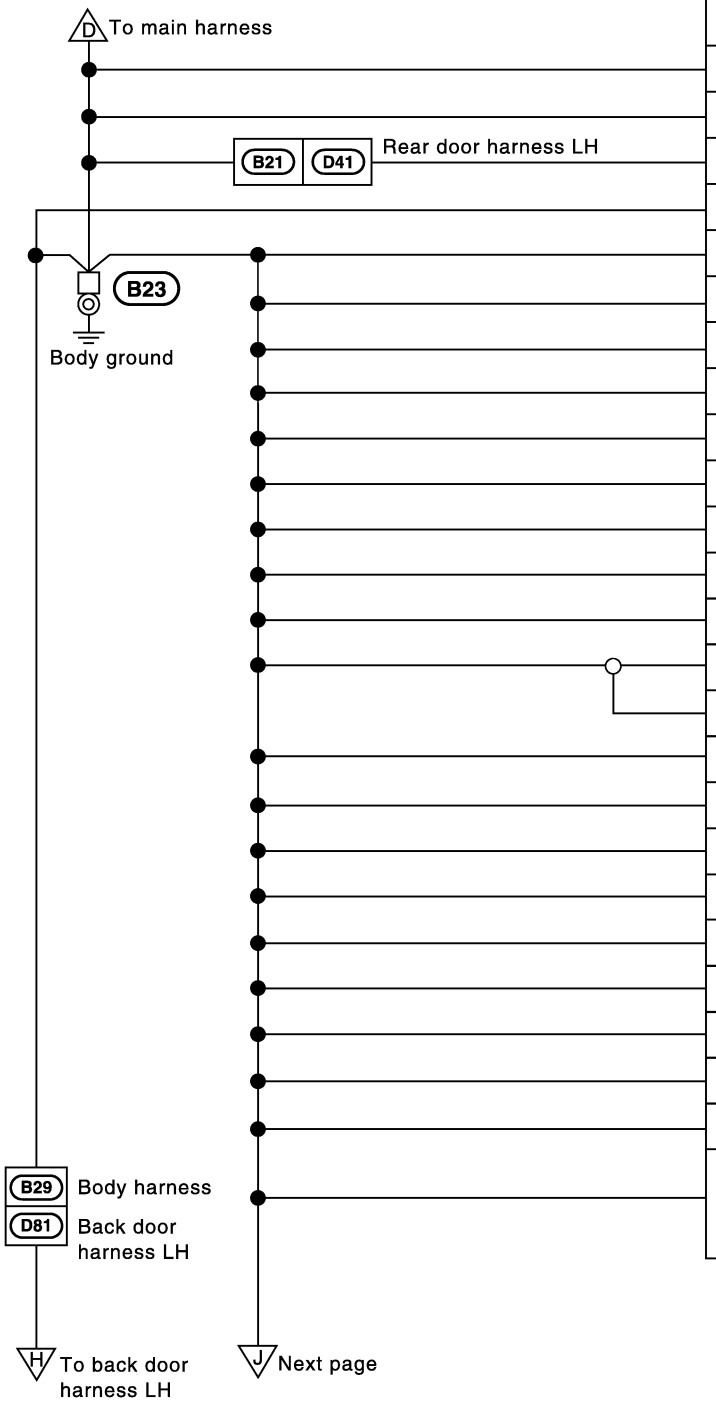
Body Harness/LHD Models

Wagon models



Hardtop models

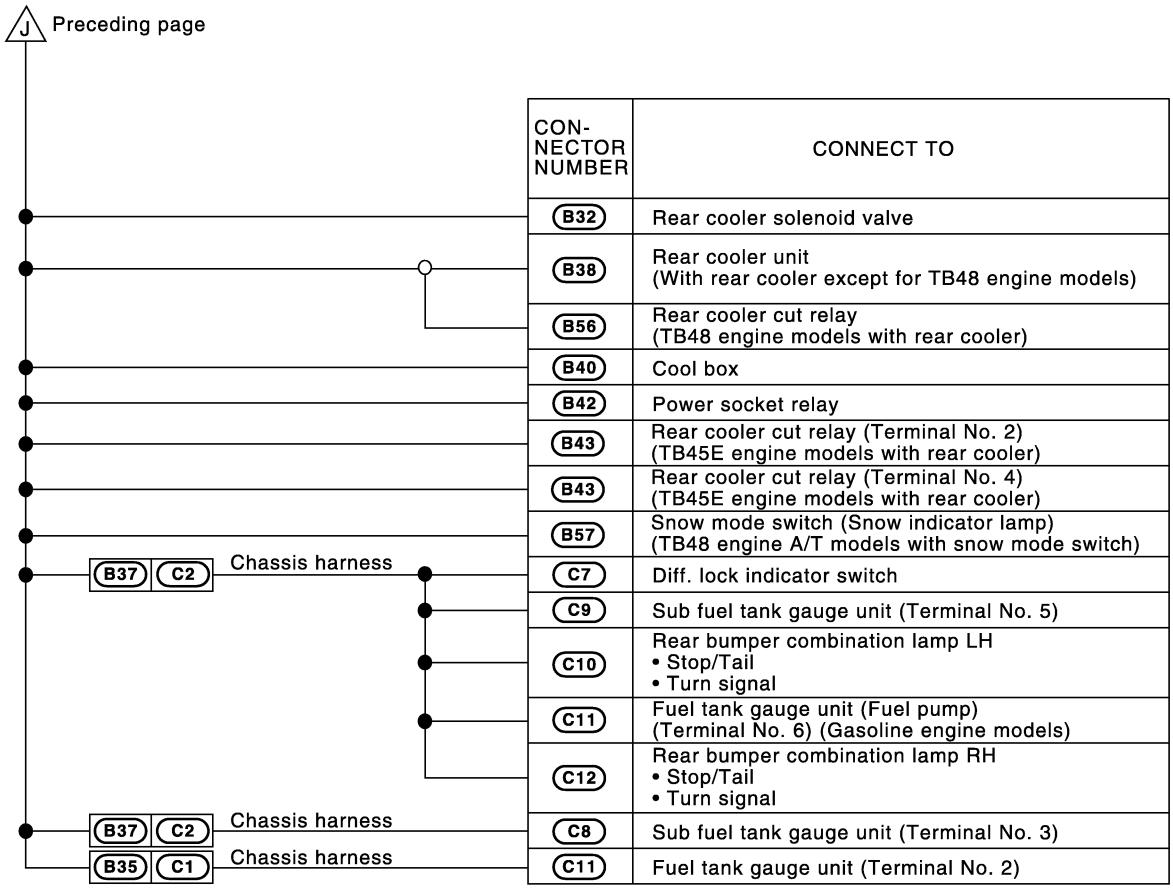




CON-NECTOR NUMBER	CONNECT TO
B13	Rear cooler switch (Terminal No. 3)
B14	Rear fan switch
D46	Rear door lock actuator LH (Door unlock sensor) (With theft warning system)
B41	Rear power socket
B4	Power seat (Passenger side)
B5	Heated seat LH
B6	Wiper deicer switch (Illumination) (Terminal No. 4)
B6	Wiper deicer switch (Terminal No. 6)
B7	Heated seat switch LH
B8	Heated seat switch RH
B9	Ashtray illumination
B11	A/T device (Overdrive control switch) (Terminal No. 2) (ZD engine A/T models)
B11	A/T device (Illumination) (Terminal No. 4) (ZD engine A/T models)
B11	A/T device (Park position switch) (Terminal No. 8) (ZD engine A/T models)
B25	A/T device (Park position switch) (Terminal No. 6) (TB48 engine A/T models)
B12	A/T mode switch (Hold (★) indicator lamp) (ZD engine A/T models with A/T mode switch)
B13	Rear cooler switch (Illumination) (Terminal No. 6)
B15	Heated seat RH
B16	Seat belt buckle switch (Driver side)
B17	Power seat (Driver side)
B20	Front door switch (Driver side)
B25	A/T device (Illumination) (Terminal No. 1) (TB48 engine A/T models)
B25	A/T device (Mode select switch) (Terminal No. 11) (TB48 engine A/T models)
B26	CD auto changer (Hardtop models located in the luggage room)
B30	Rear combination lamp LH • Stop/Tail • Back-up • Rear fog • Turn signal

CEL400M

Body Harness/LHD Models (Cont'd)

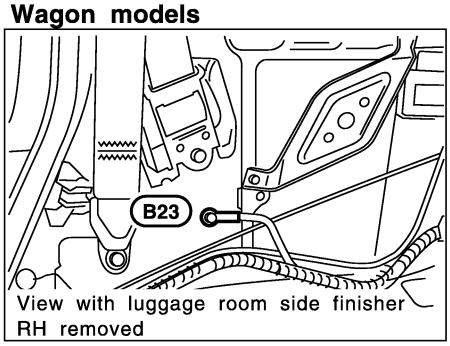


CON-NECTOR NUMBER	CONNECT TO
B32	Rear cooler solenoid valve
B38	Rear cooler unit (With rear cooler except for TB48 engine models)
B56	Rear cooler cut relay (TB48 engine models with rear cooler)
B40	Cool box
B42	Power socket relay
B43	Rear cooler cut relay (Terminal No. 2) (TB45E engine models with rear cooler)
B43	Rear cooler cut relay (Terminal No. 4) (TB45E engine models with rear cooler)
B57	Snow mode switch (Snow indicator lamp) (TB48 engine A/T models with snow mode switch)
C7	Diff. lock indicator switch
C9	Sub fuel tank gauge unit (Terminal No. 5)
C10	Rear bumper combination lamp LH • Stop/Tail • Turn signal
C11	Fuel tank gauge unit (Fuel pump) (Terminal No. 6) (Gasoline engine models)
C12	Rear bumper combination lamp RH • Stop/Tail • Turn signal
C8	Sub fuel tank gauge unit (Terminal No. 3)
C11	Fuel tank gauge unit (Terminal No. 2)

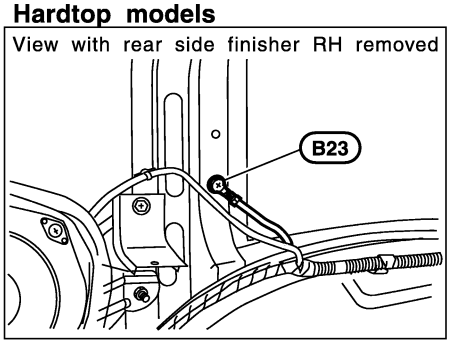
CEL436M

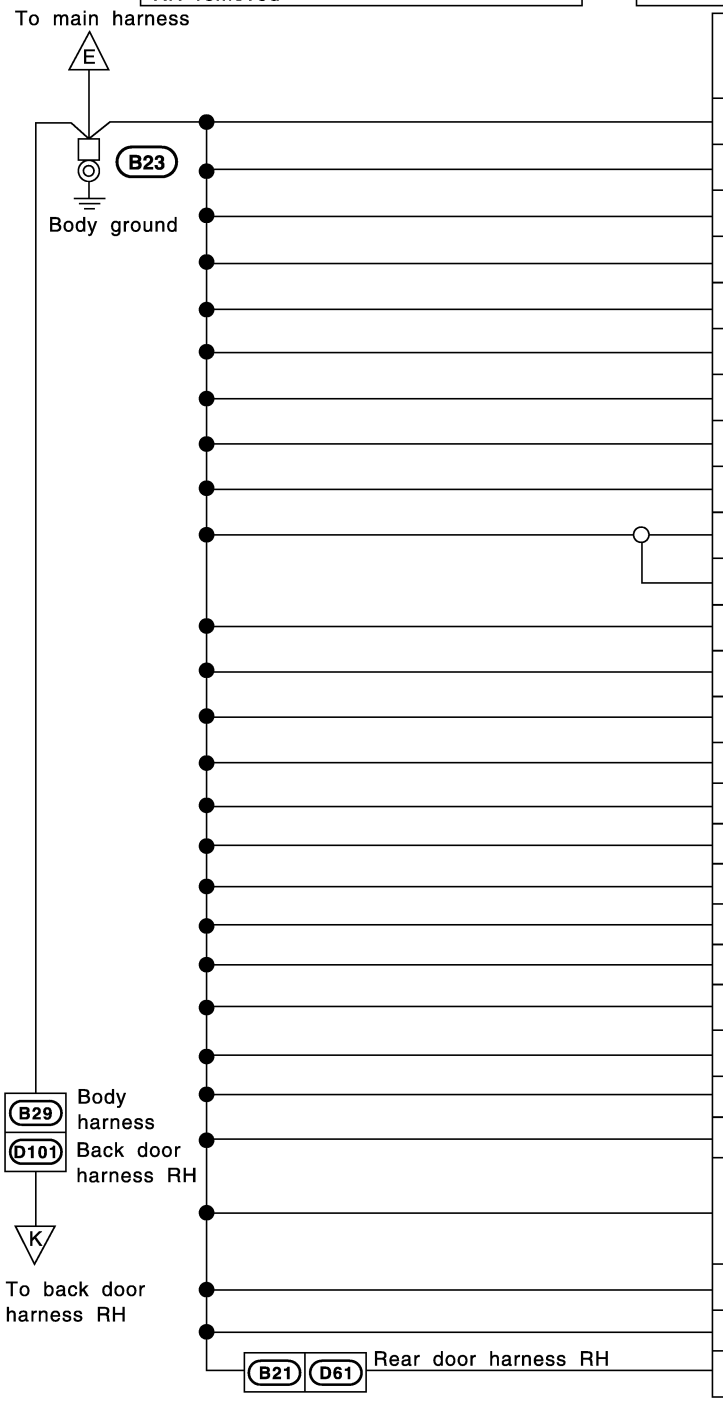
Body Harness/RHD Models

Wagon models



Hardtop models



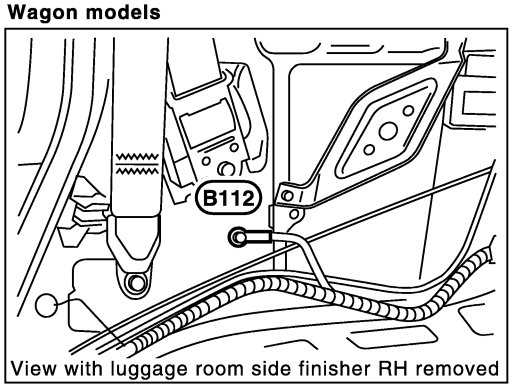


CONNECTOR NUMBER	CONNECT TO
B4	Power seat (Passenger side)
B5	Heated seat LH
B6	Wiper deicer switch (Illumination) (Terminal No. 4)
B6	Wiper deicer switch (Terminal No. 6)
B7	Heated seat switch LH
B8	Heated seat switch RH
B9	Ashtray illumination
B11	A/T device (Overdrive control switch) (Terminal No. 2) (ZD engine A/T models)
B11	A/T device (Illumination) (Terminal No. 4) (ZD engine A/T models)
B11	A/T device (Park position switch) (Terminal No. 8) (ZD engine A/T models)
B25	A/T device (Park position switch) (Terminal No. 6) (TB48 engine A/T models)
B12	A/T mode switch (Hold (★) indicator lamp) (ZD engine A/T models with A/T mode switch)
B13	Rear cooler switch (Terminal No. 3)
B13	Rear cooler switch (Illumination) (Terminal No. 6)
B14	Rear fan switch
B15	Heated seat RH
B16	Seat belt buckle switch (Driver side)
B17	Power seat (Driver side)
B18	Rear heater unit
B20	Front door switch (Driver side)
B25	A/T device (Illumination) (Terminal No. 1) (TB48 engine A/T models)
B25	A/T device (Mode select switch) (Terminal No. 11) (TB48 engine A/T models)
B26	CD auto changer (Wagon models located in the luggage room)
B27	Rear wiper amp.
B30	Rear combination lamp RH • Stop/Tail • Back-up • Rear fog • Turn signal
B57	Snow mode switch (Snow indicator lamp) (TB48 engine A/T models with snow mode switch)
B60	Woofer
D66	Rear door lock actuator RH (Door unlock sensor) (With theft warning system)

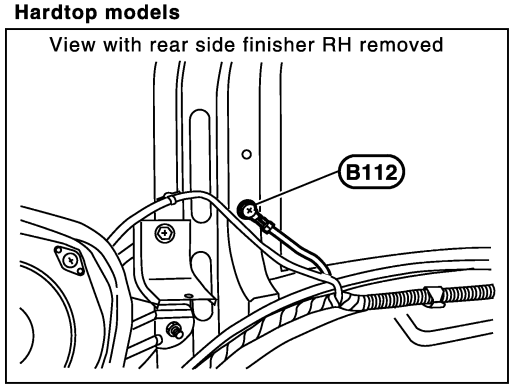
CEL443M

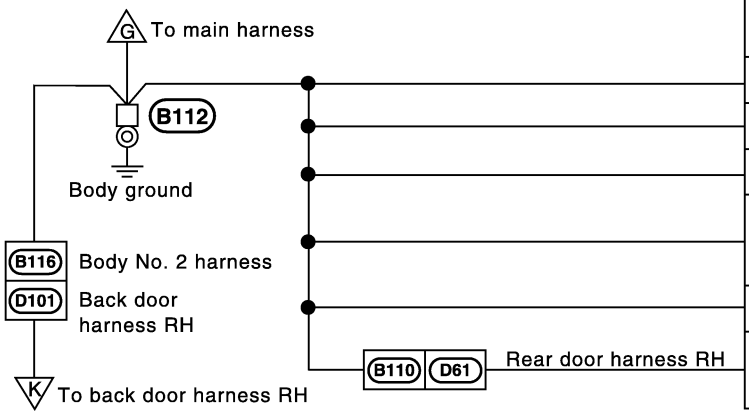
Body No. 2 Harness/LHD Models

Wagon models

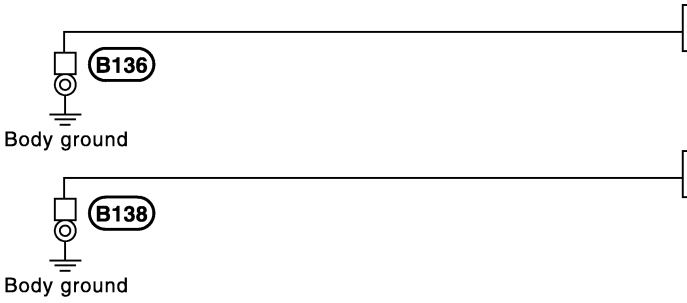


Hardtop models

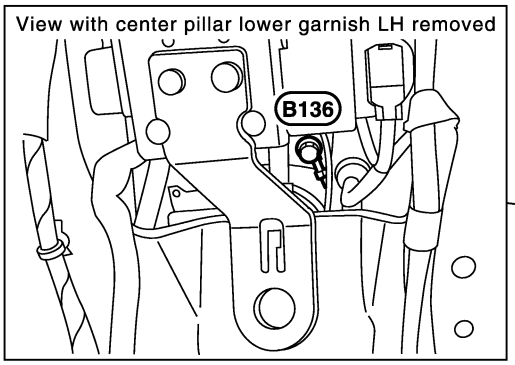


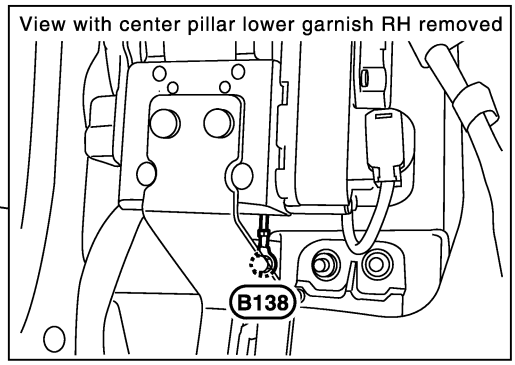


CON-NECTOR NUMBER	CONNECT TO
B107	Rear heater unit
B113	CD auto changer (Wagon models located in the luggage room)
B114	Rear wiper amp.
B117	Rear combination lamp RH • Stop/Tail • Back-up • Turn signal
B140	Woofer
D66	Rear door lock actuator RH (Door unlock sensor) (With theft warning system)



B135	Shield wire (Satellite sensor LH)
B137	Shield wire (Satellite sensor RH)

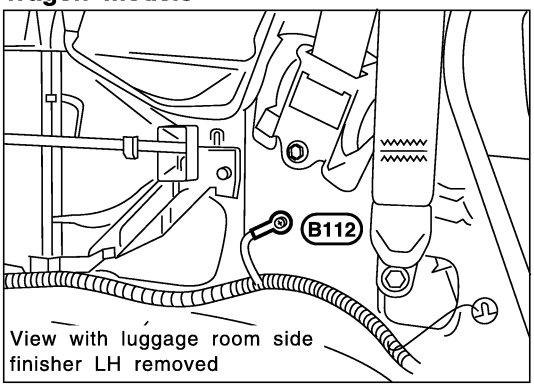




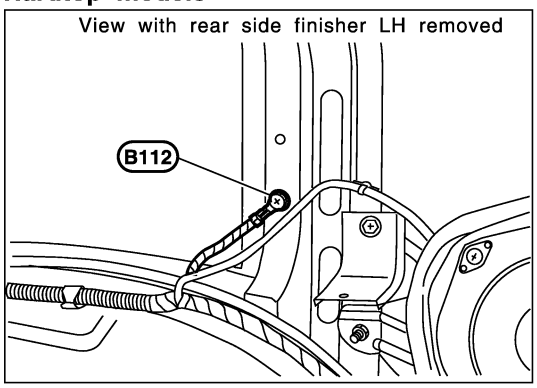
CEL402M

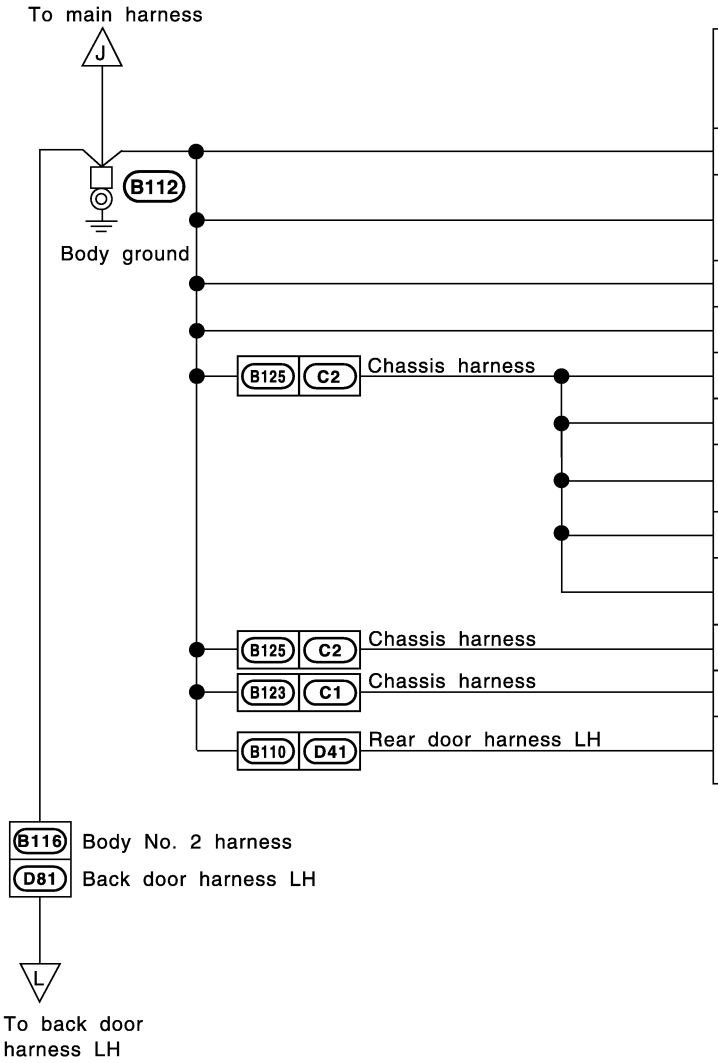
Body No. 2 Harness/RHD Models

Wagon models



Hardtop models



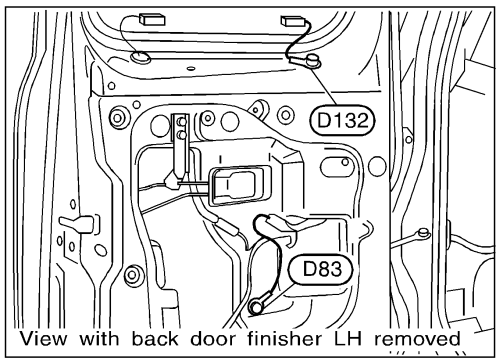


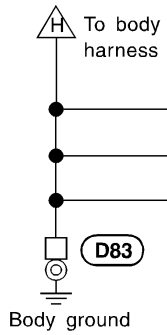
CONNECTOR NUMBER	CONNECT TO
B113	CD auto changer (Hardtop models located in the luggage room)
B117	Rear combination lamp LH • Stop/Tail • Back-up • Turn signal
B126	Power socket relay
B129	Rear power socket
C7	Diff. lock indicator switch
C9	Sub fuel tank gauge unit (Terminal No. 5)
C10	Rear bumper combination lamp LH • Stop/Tail • Turn signal
C11	Fuel tank gauge unit (Fuel pump) (Terminal No. 6) (Gasoline engine models)
C12	Rear bumper combination lamp RH • Stop/Tail • Turn signal
C8	Sub fuel tank gauge unit (Terminal No. 3)
C11	Fuel tank gauge unit (Terminal No. 2)
D46	Rear door lock actuator LH (Door unlock sensor) (With theft warning system)

CEL444M

Back Door and Rear Window Defogger Harness/LHD Models

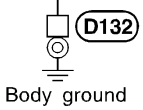
BACK DOOR HARNESS LH





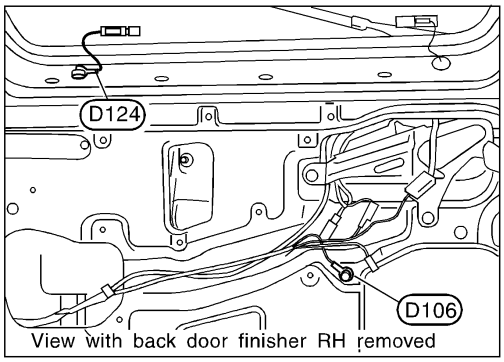
CONNECTOR NUMBER	CONNECT TO
D82	License plate lamp
D86	Back door lock actuator (Door unlock sensor)
D88	Back door key cylinder switch (With theft warning system)

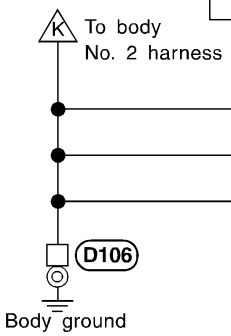
REAR WINDOW DEFOGGER HARNESS LH



D131	Rear window defogger LH

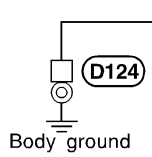
BACK DOOR HARNESS RH





D104	High-mounted stop lamp
D105	Rear wiper motor
D107	Back door switch RH

REAR WINDOW DEFOGGER HARNESS RH

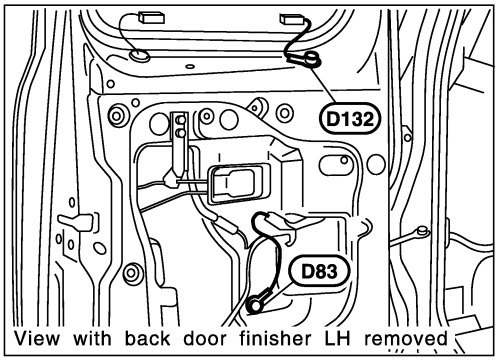


D123	Rear window defogger RH

CEL296M

Back Door and Rear Window Defogger Harness/RHD Models

BACK DOOR HARNESS LH



To body No. 2 harness

L

D83

Body ground

CONNECTOR NUMBER	CONNECT TO
D82	License plate lamp
D86	Back door lock actuator (Door unlock sensor)
D88	Back door key cylinder switch (With theft warning system)

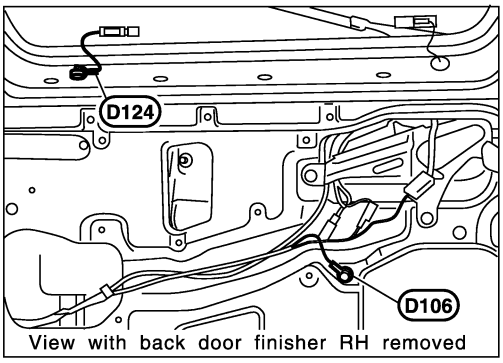
REAR WINDOW DEFOGGER HARNESS LH

D132

Body ground

D131	Rear window defogger LH

BACK DOOR HARNESS RH



To body harness

K

D106

Body ground

D104	High-mounted stop lamp
D105	Rear wiper motor
D107	Back door switch RH

REAR WINDOW DEFOGGER HARNESS RH

D124

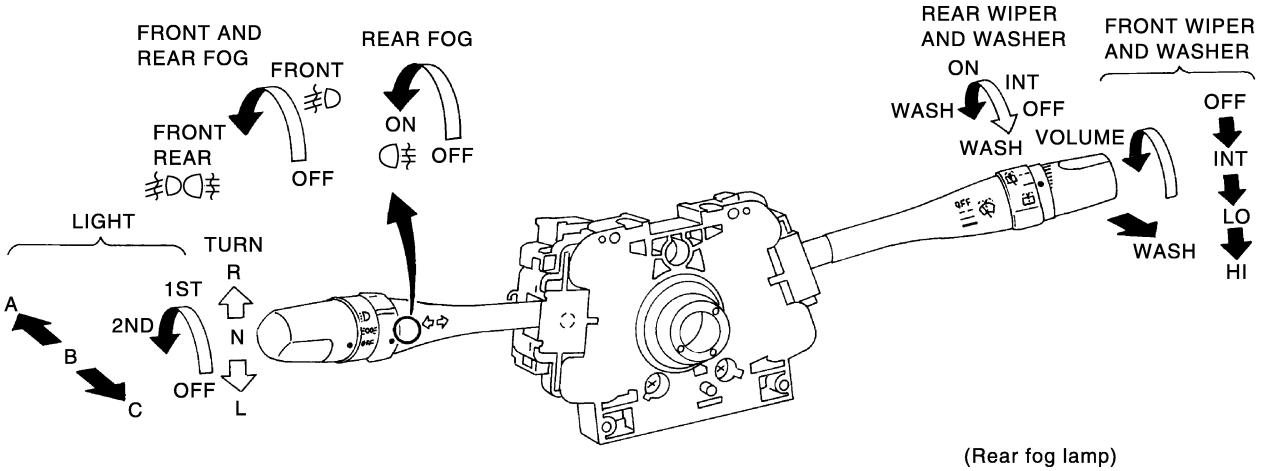
Body ground

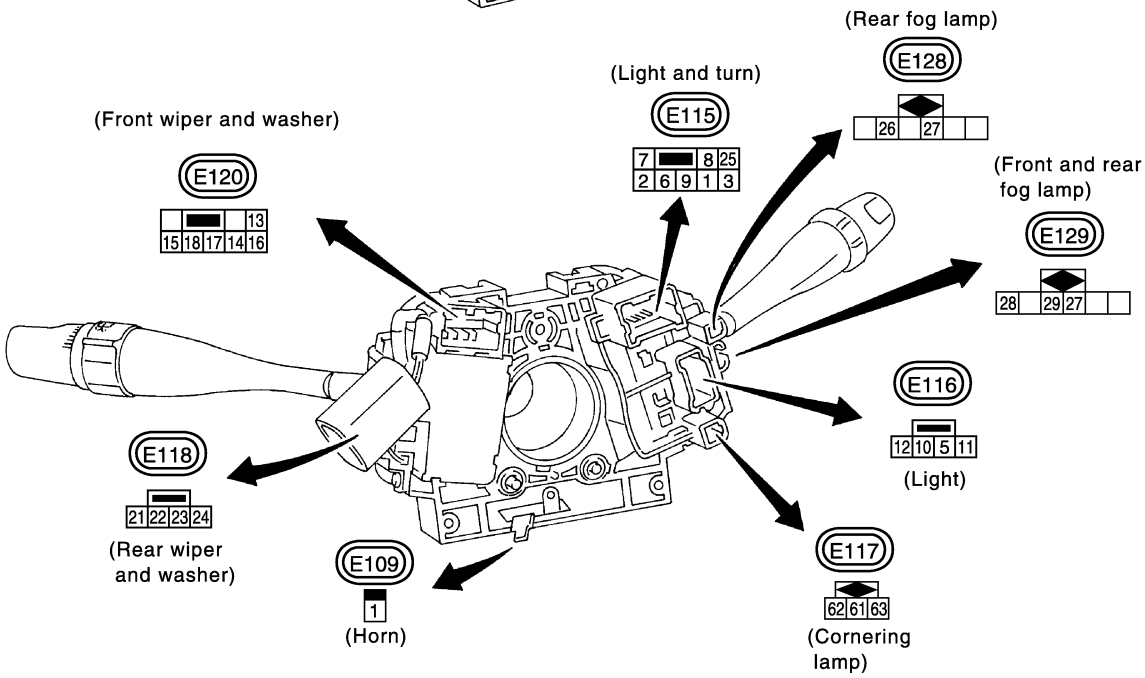
D123	Rear window defogger RH

CEL445M

Check

RHD MODELS FOR EUROPE AND LHD MODELS





FRONT WIPER AND WASHER SWITCH

	LO	AUTO STOP	AMP	WASH	HI	EARTH
OFF	○	○				
INT	○	○	○			○
LO	○					○
HI					○	○
WASH				○	○	○

VARIABLE INTERMITTENT WIPER VOLUME

WIPER AMP.

⑭ ⑮ ⑬ ⑯ ⑰ ⑱

CORNERING LAMP SWITCH

	L	N	R
61	○		○
62			○
63	○		

FRONT AND REAR FOG LAMP SWITCH

	OFF	FRONT	FRONT REAR
28		○	○
29		○	○
27			○

LIGHTING SWITCH

	OFF			1ST			2ND		
	A	B	C	A	B	C	A	B	C
5			○			○	○	○	○
6			○			○	○	○	○
7								○	○
25								○	○
8			○			○	○	○	○
9			○			○	○	○	○
10								○	
11				○	○	○	○	○	○
12				○	○	○	○	○	○

REAR FOG LAMP SWITCH

	OFF	ON
26		○
27		○

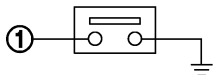
REAR WIPER AND WASHER SWITCH

	WASH	OFF	INT	ON	WASH
21			○		
22				○	○
23	○				○
24	○		○	○	○

TURN SIGNAL SWITCH

	L	N	R
1	○		○
2			○
3	○		

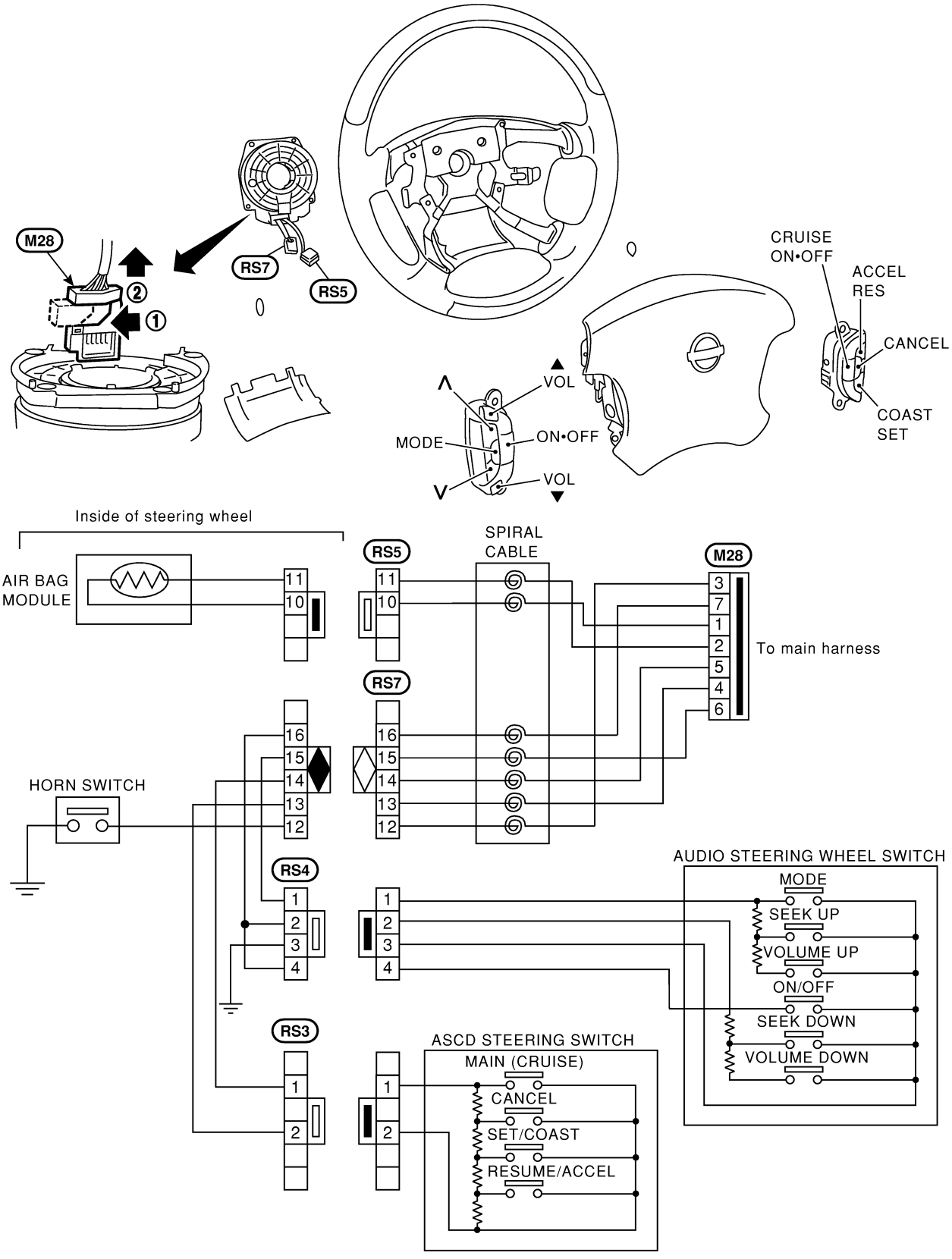
HORN SWITCH



CEL446M

Check

WITH ASCD AND AUDIO SWITCH

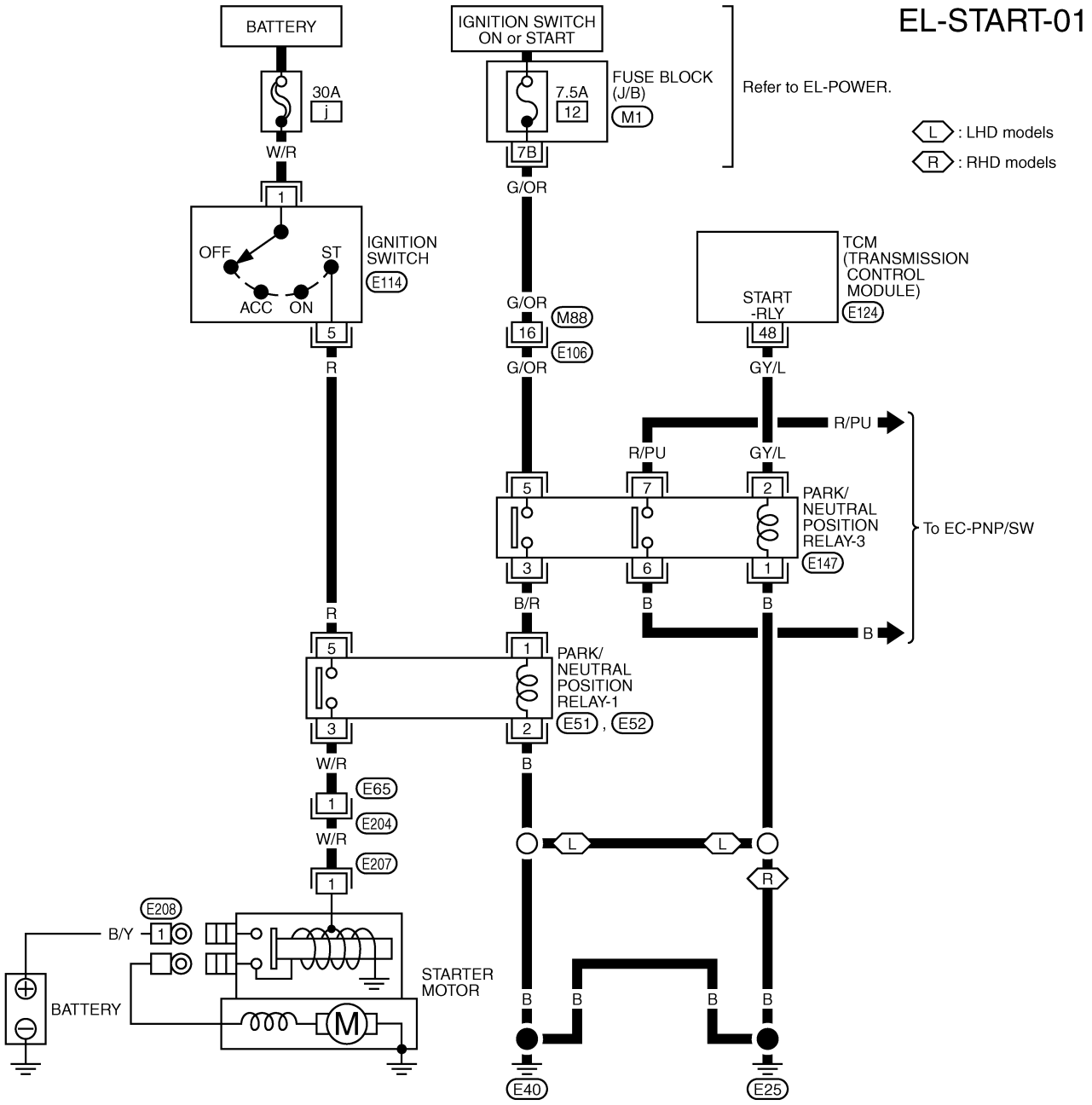


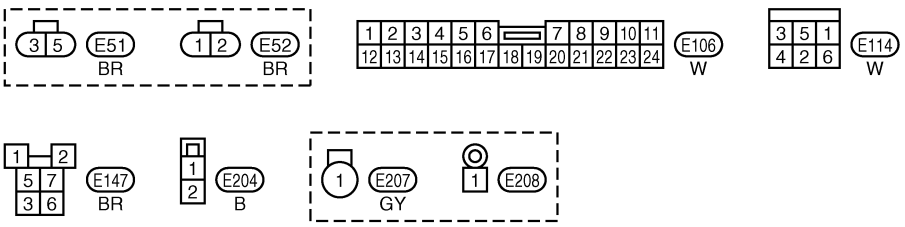
CEL310M

Service Data and Specifications (SDS)

Applied model	TB48DE	ZD30DDTi		
		Except for North Europe		For North Europe
		Standard	Option	
Type	115D31L		110D26L x 2	
Capacity V-AH	12-70		12-128 (64 + 64)	

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





Refer to last page (Foldout page).

M1

E124

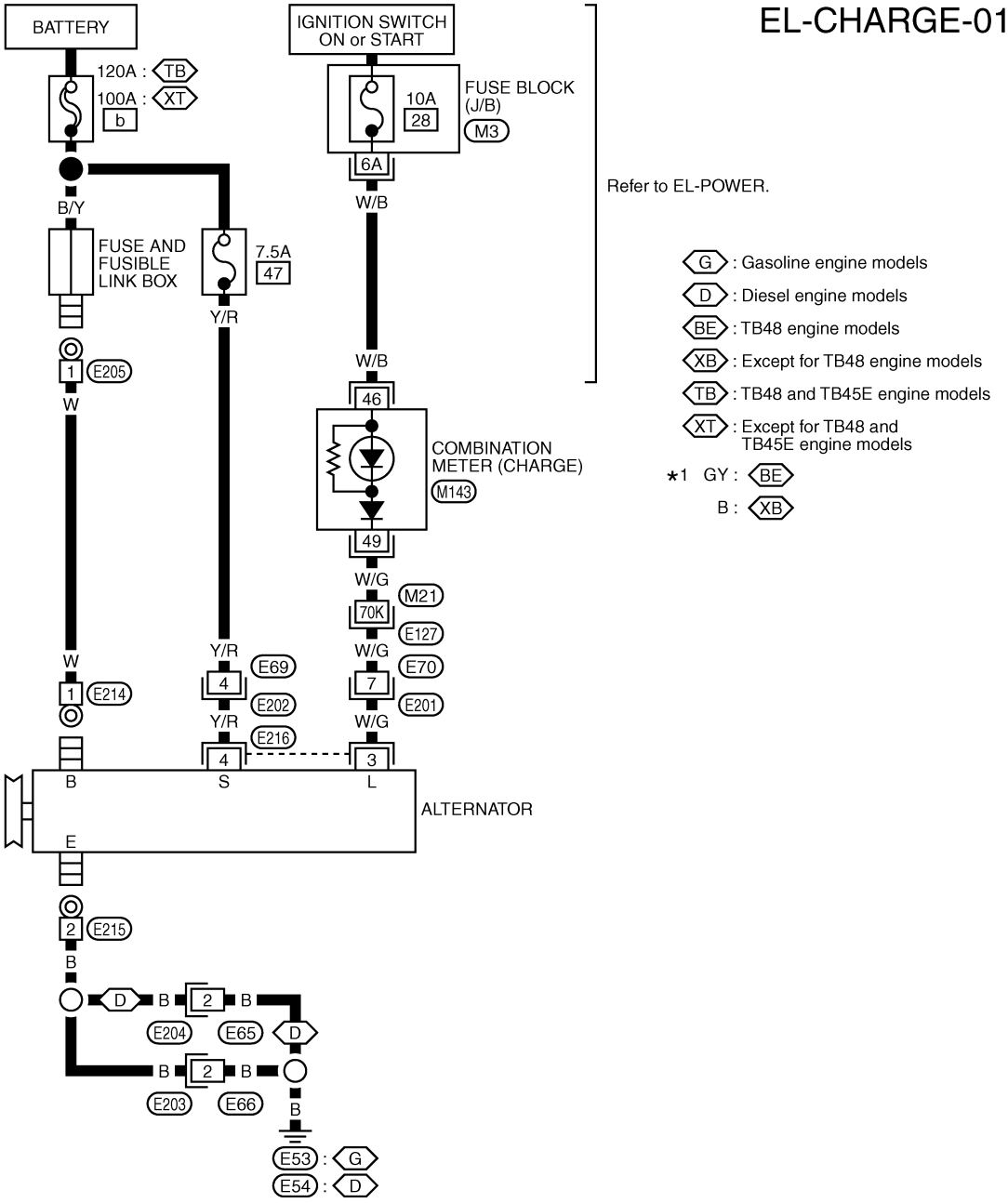
Service Data and Specifications (SDS)

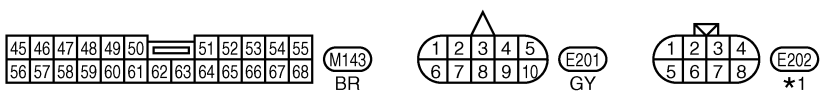
STARTER

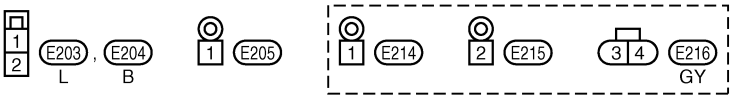
Type		S114-878A	S13-551A	S14-607
		HITACHI make		
		Reduction gear type		
Applied model		TB48DE	ZD30DDTi	
			Standard	Option
System voltage	V	12		
No-load				
Terminal voltage	V	11	11	11
Current	A	Less than 90	Less than 160	
Revolution	rpm	2,300	3,300	3,400
Minimum diameter of commutator	mm (in)	28 (1.102)	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)	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 "ℓ" between pinion front edge and pinion stopper	mm (in)	0.3 - 2.5 (0.012 - 0.098)	—	—
Movement "ℓ" in height of pinion assembly	mm (in)	—	0.3 - 2.0 (0.012 - 0.079)	

Wiring Diagram — CHARGE —

EL-CHARGE-01







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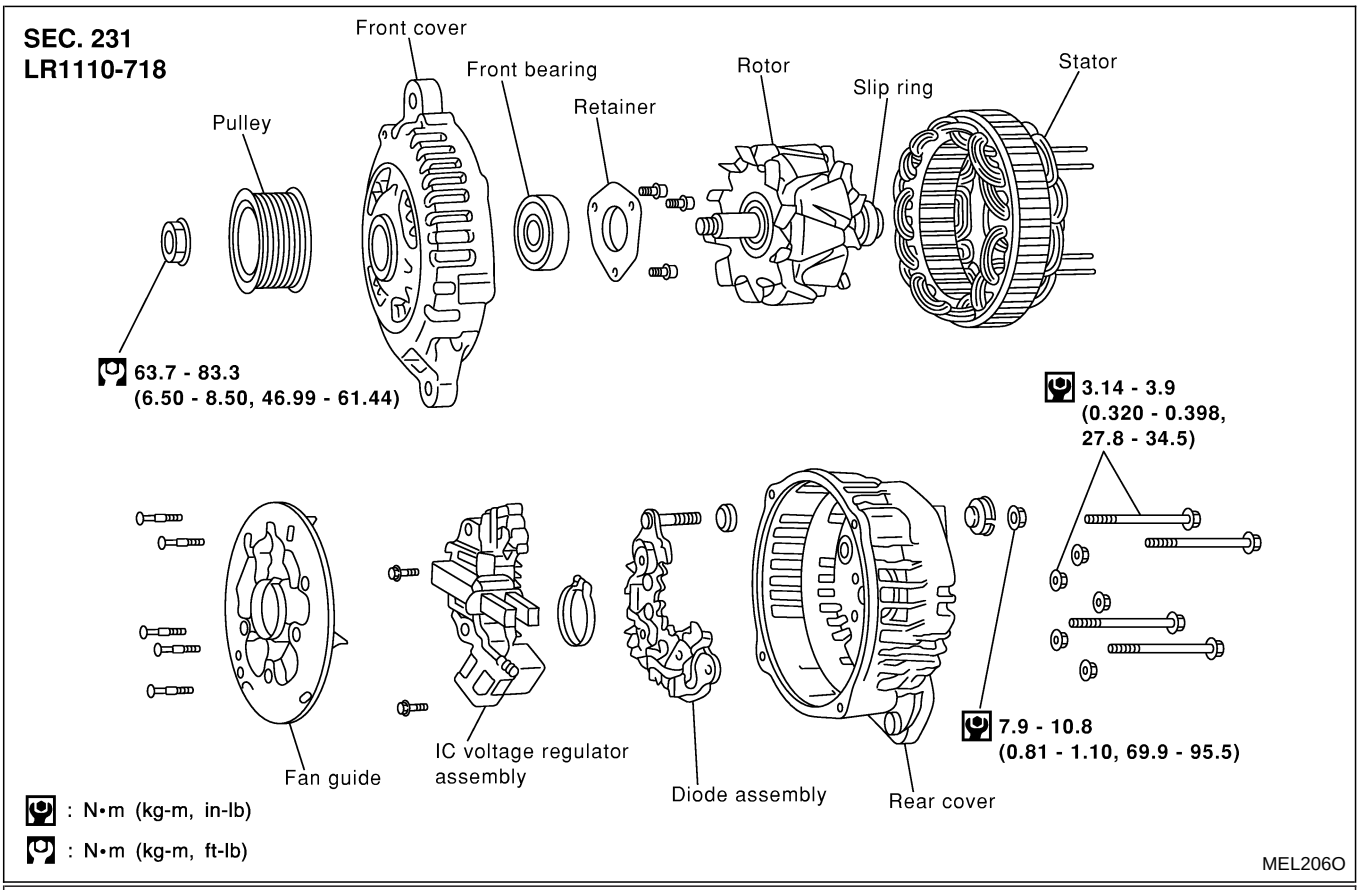
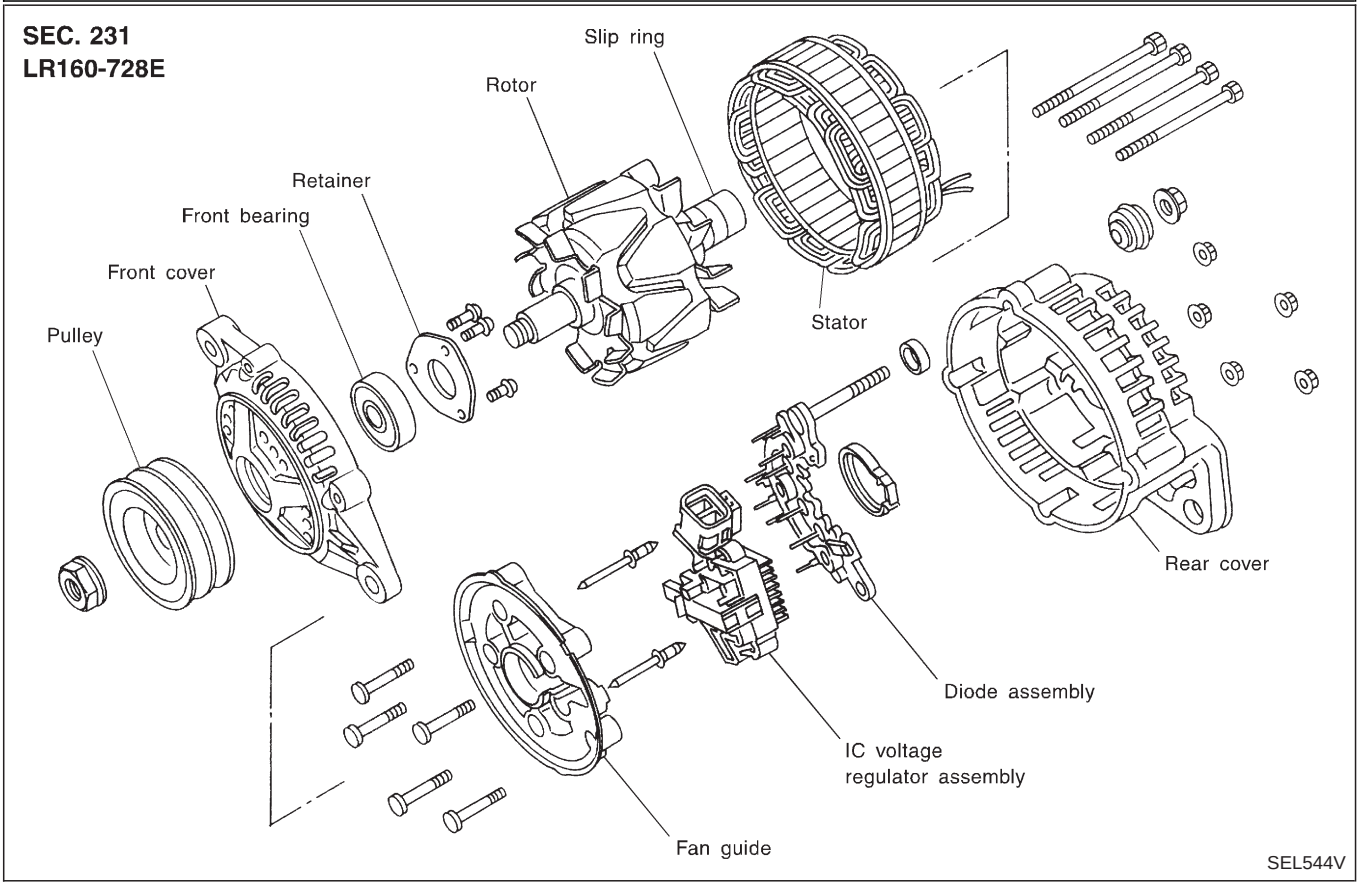
M21 , E127

M3

TEL653M

Construction





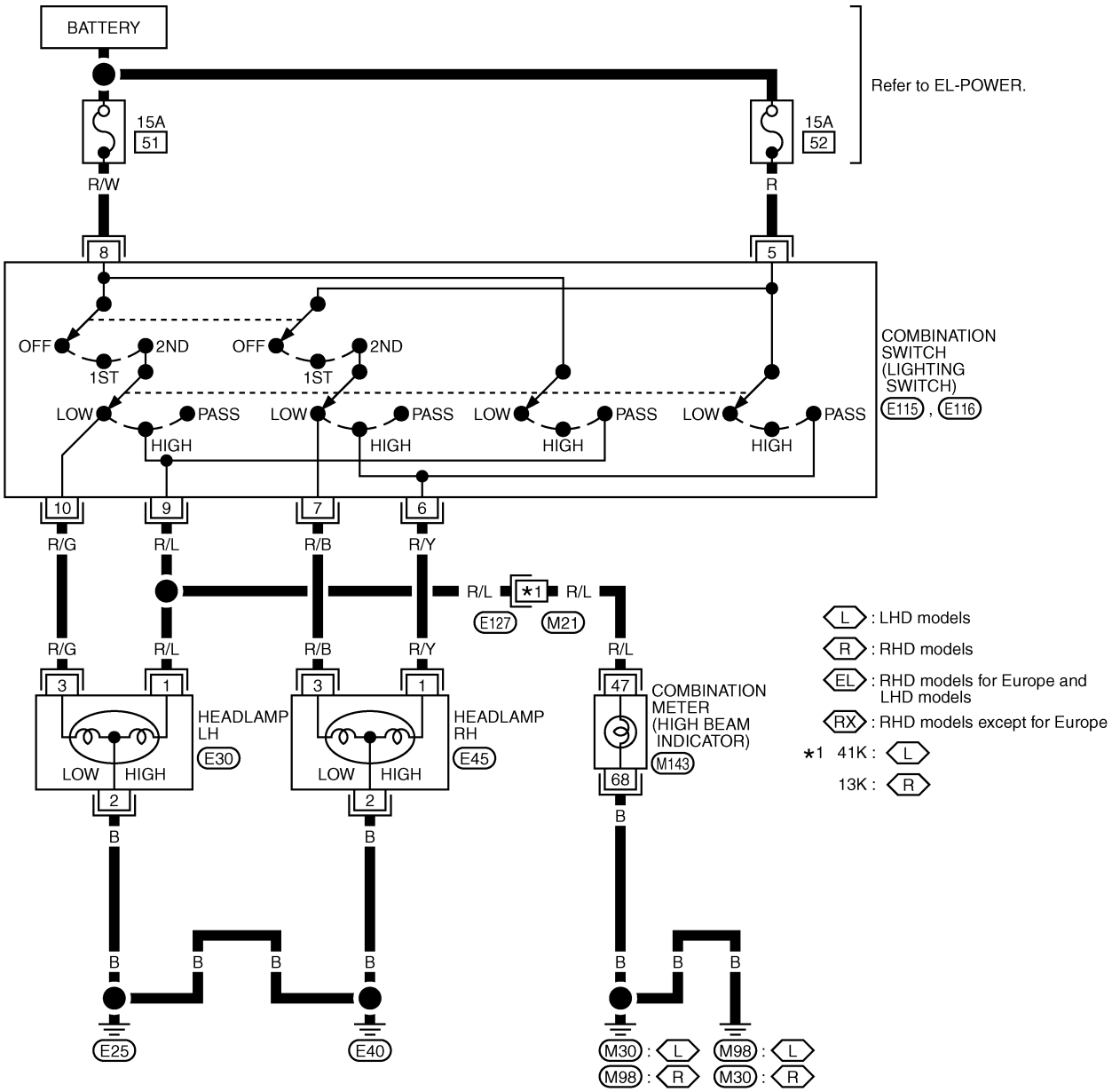
Service Data and Specifications (SDS)

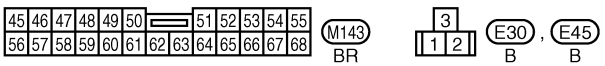
ALTERNATOR

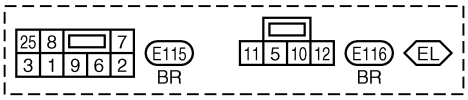
Type	LR1110-718	LR190-752
	HITACHI	
Applied model	TB48DE	ZD30DDTi
Nominal rating V-A	12-110	12-90
Ground polarity	Negative	
Minimum revolution under no-load (When 13.5V is applied) rpm	Less than 950	Less than 1,000
Hot output current (When 13.5V is applied) A/rpm	More than 35/1,300 More than 85/2,500 More than 110/5,000	More than 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 (0.236)	
Brush spring pressure N (g, oz)	1.0 - 3.43 (102 - 350, 3.60 - 12.34)	
Slip ring minimum outer diameter mm (in)	26.0 (1.024)	
Rotor (Field coil) resistance Ω	2.31	2.67

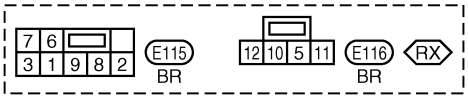
Wiring Diagram — H/LAMP —

EL-H/LAMP-01





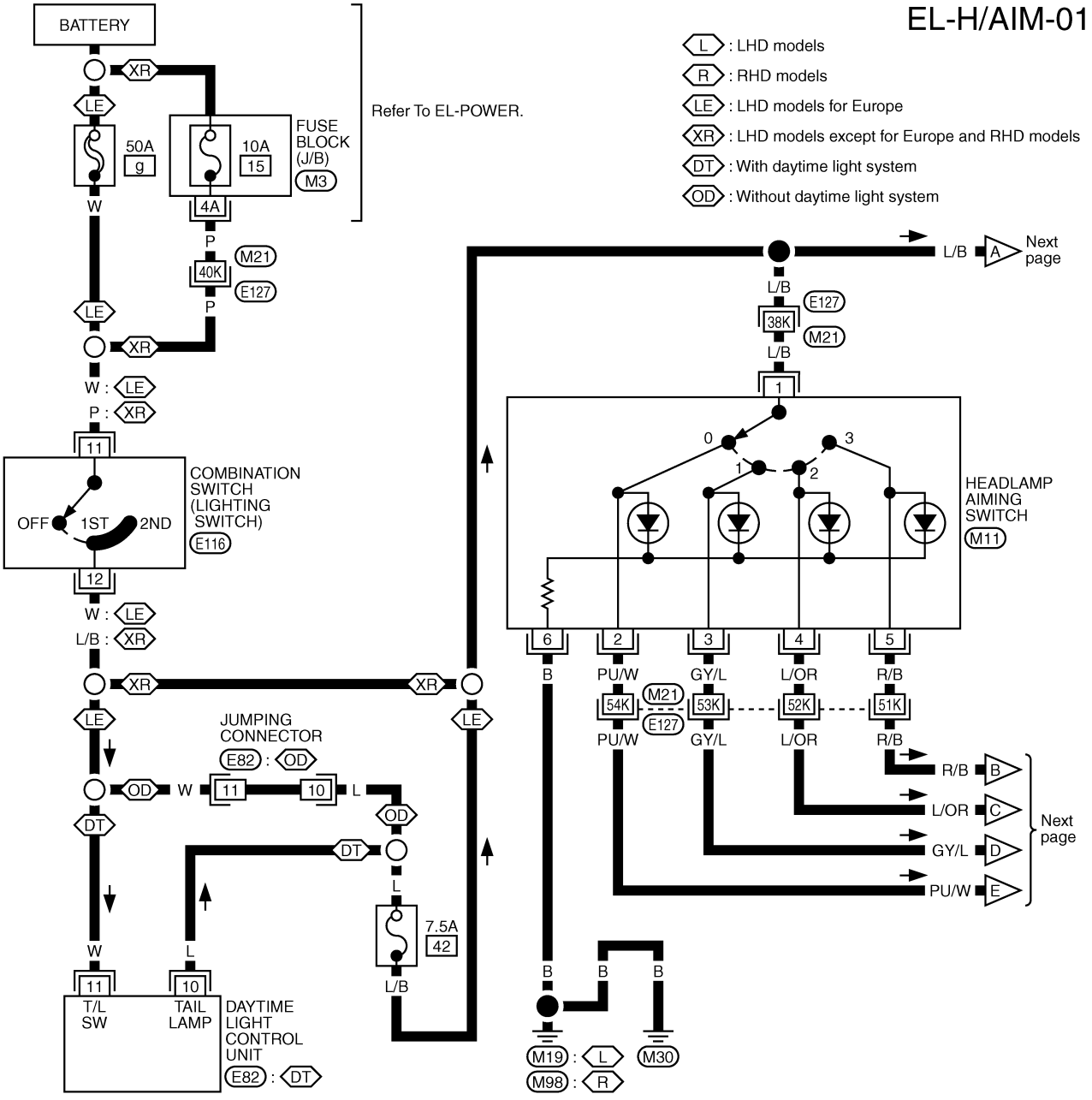


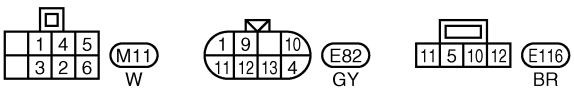


Refer to last page (Foldout page).
M21 , E127

TEL654M

Wiring Diagram — H/AIM —



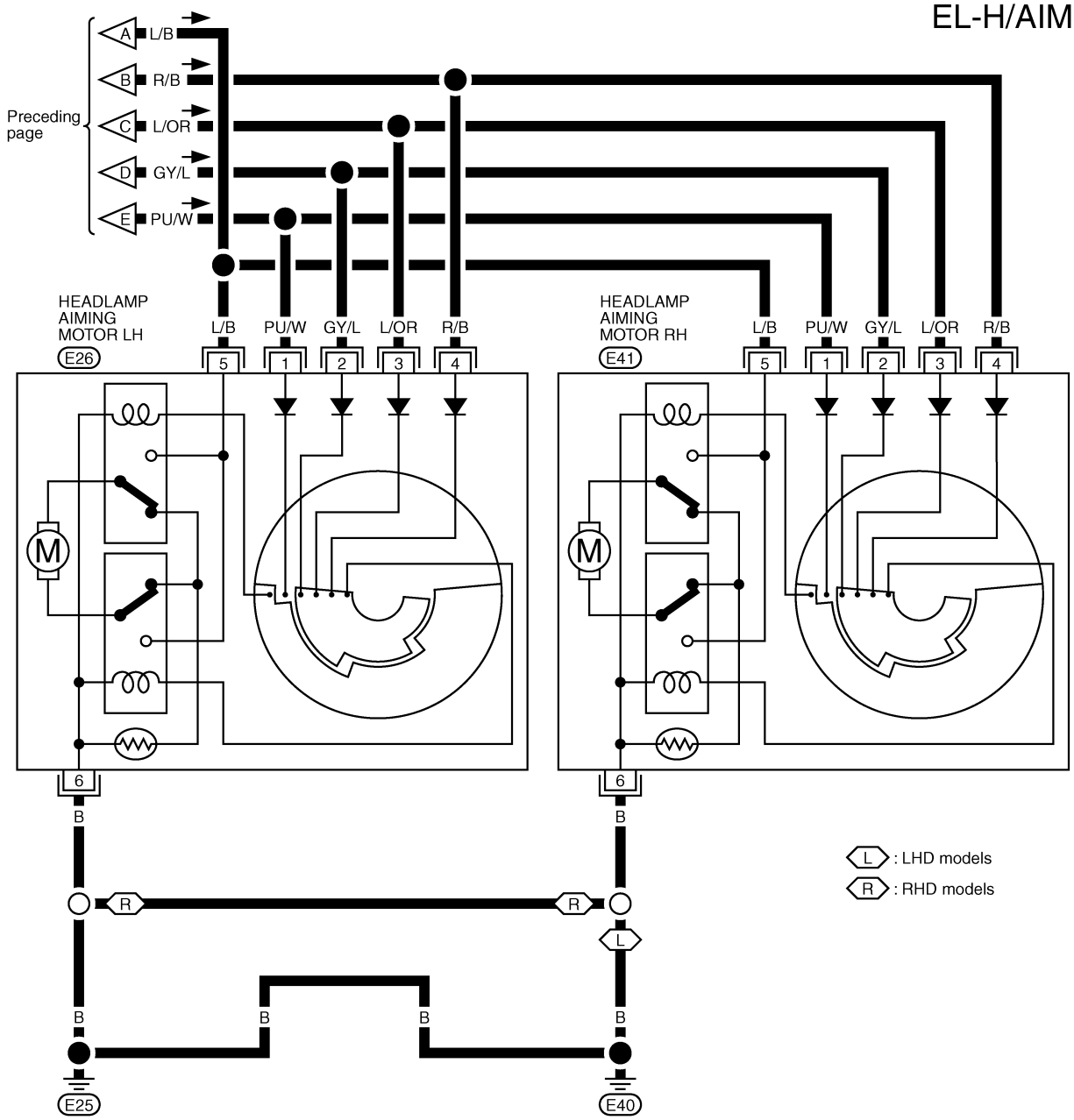


Refer to last page (Foldout page).
M21 , E127
M3

TEL736M

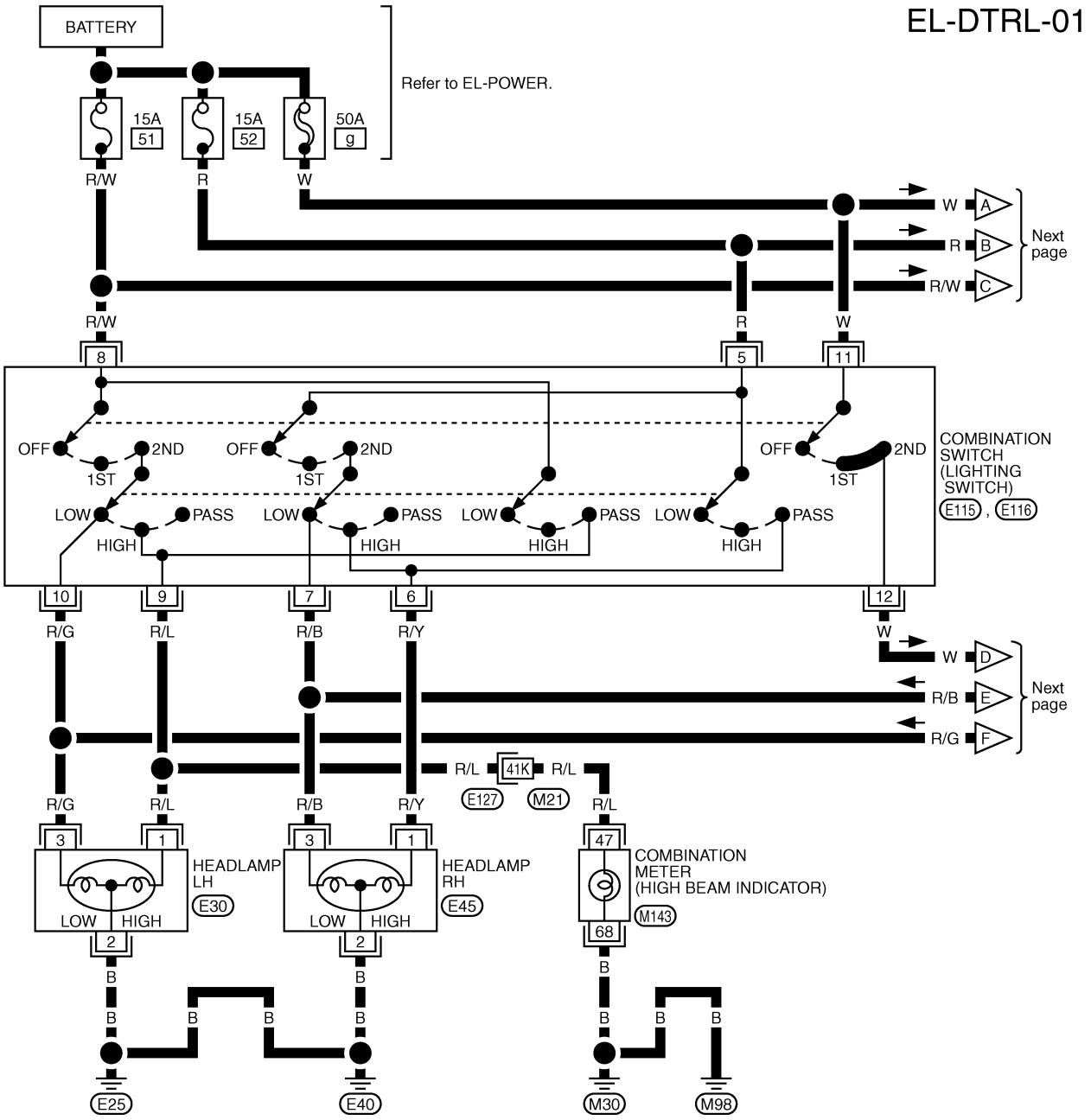
Wiring Diagram — H/AIM — (Cont'd)

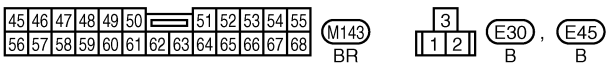
EL-H/AIM-02



TEL751M

Wiring Diagram — DTRL —



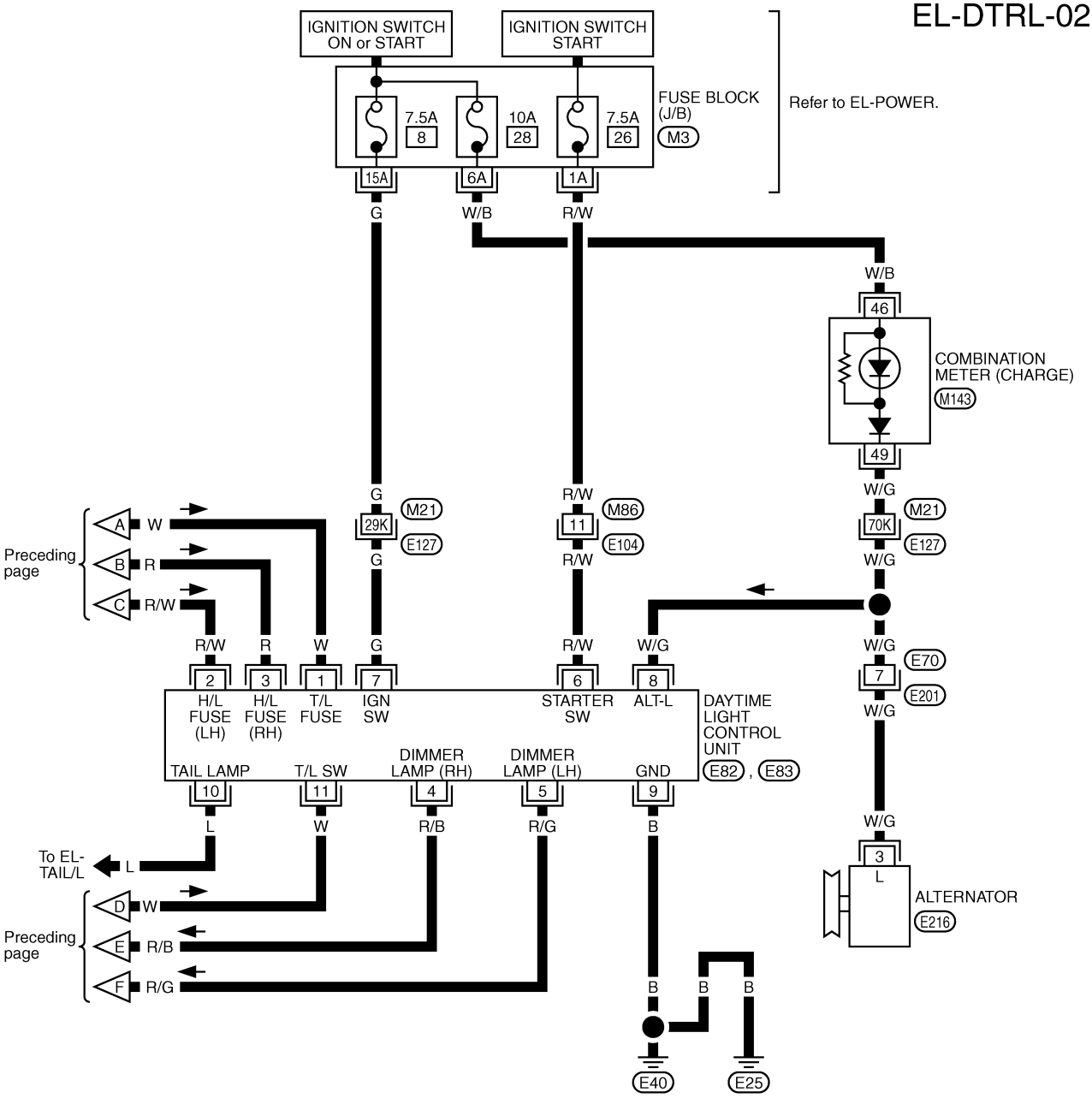


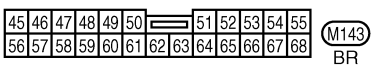
Refer to last page (Foldout page).
M21 , E127

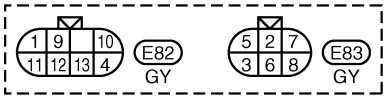
TEL655M

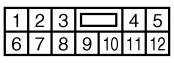
Wiring Diagram — DTRL — (Cont'd)

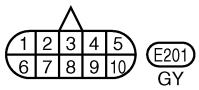
EL-DTRL-02

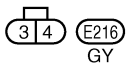












Refer to last page (Foldout page).

M21, E127

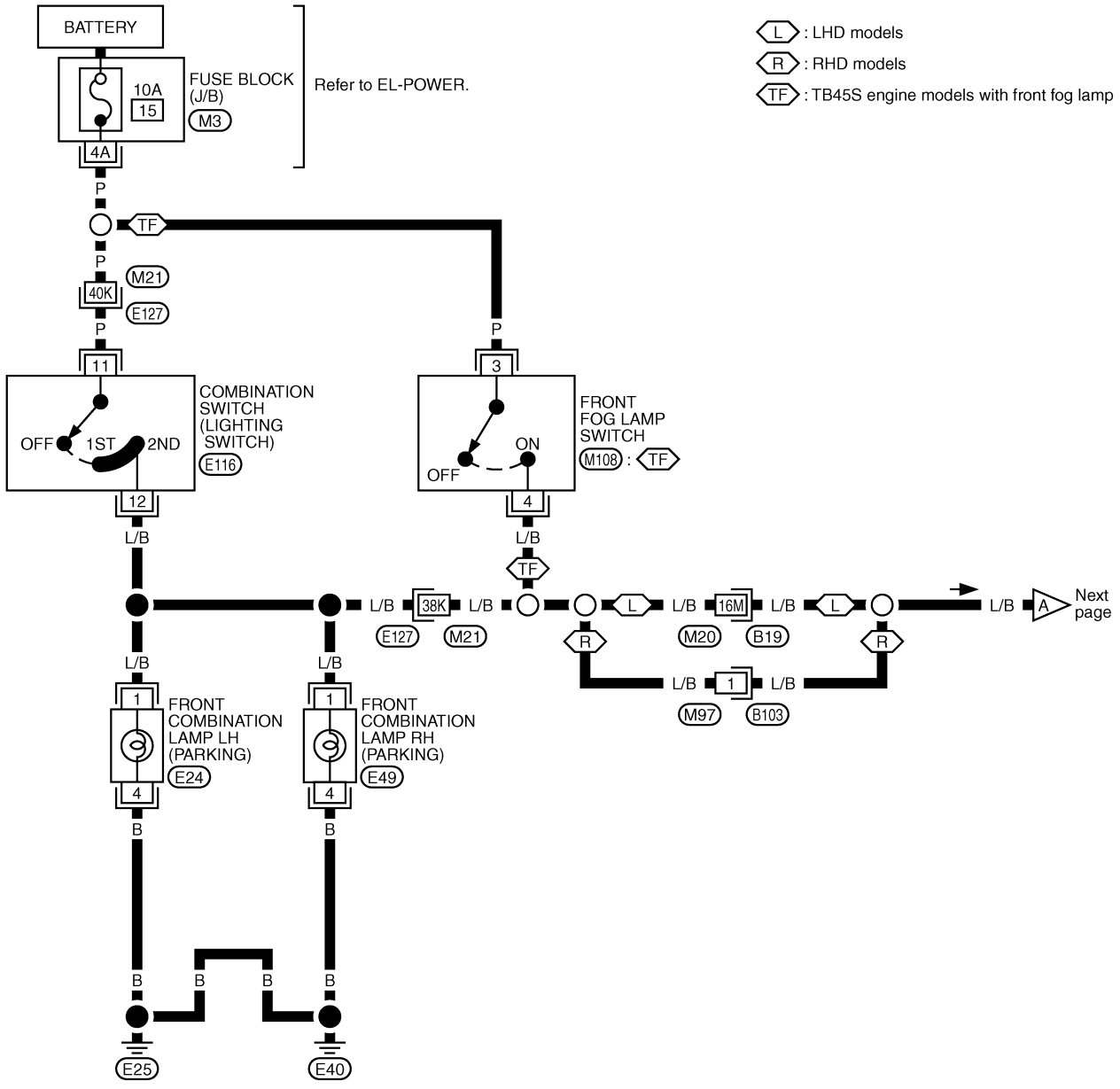
M3

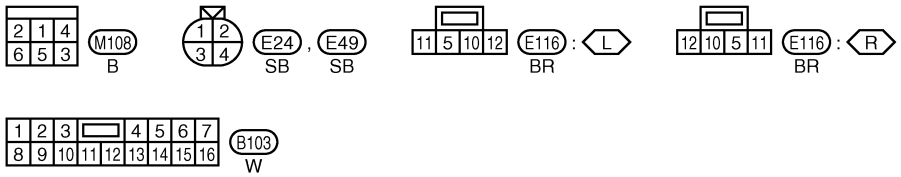
TEL656M

Wiring Diagram — TAIL/L —/Type A

Rear combination lamps are not located on rear bumper.

EL-TAIL/L-01





Refer to last page (Foldout page).

M20 , B19

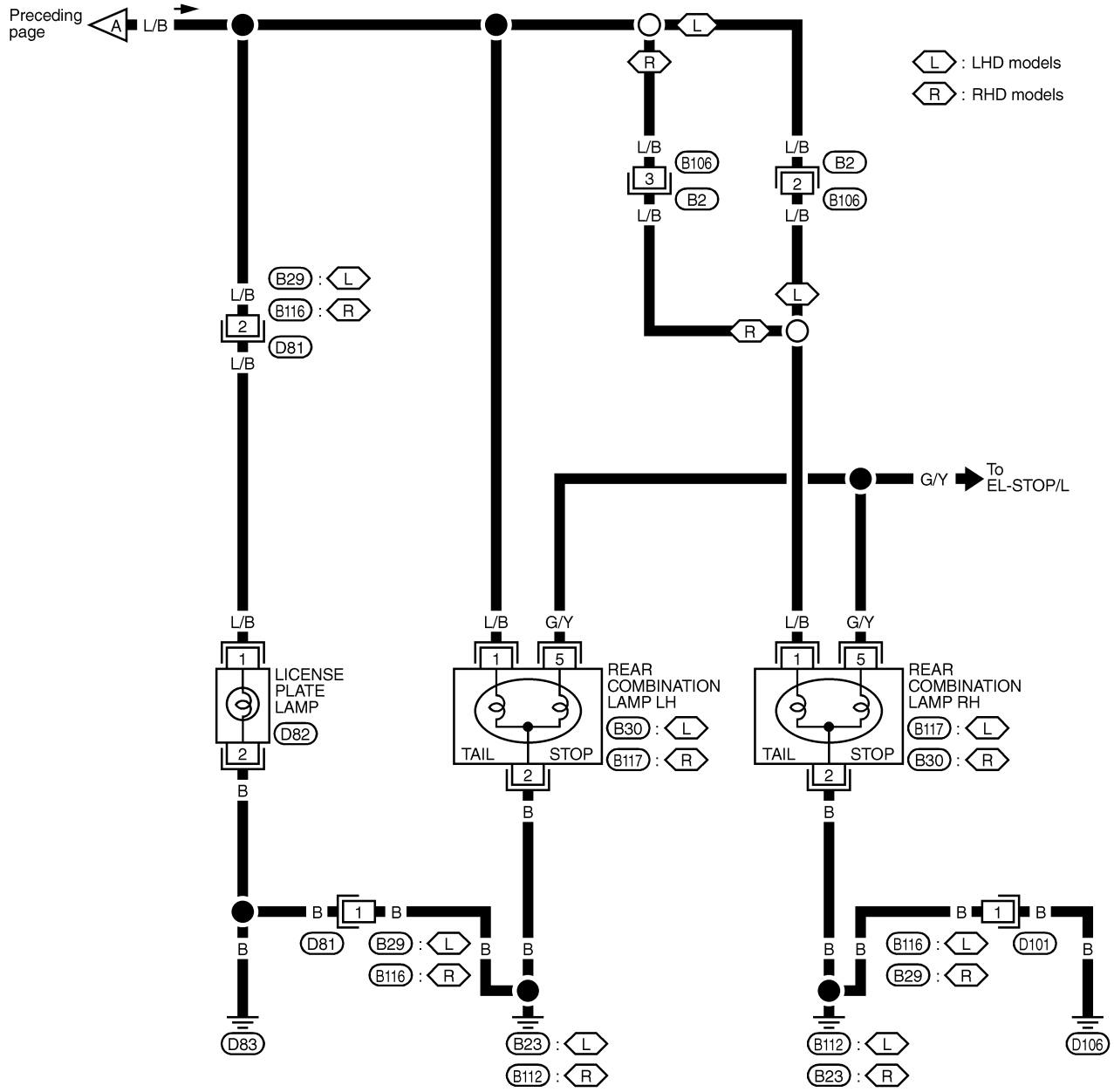
M21 , E127

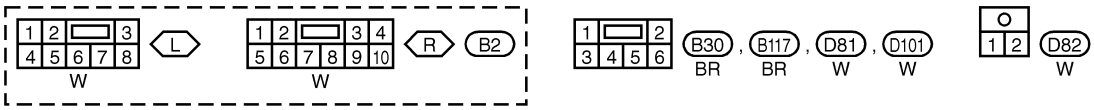
M3

TEL752M

Wiring Diagram — TAIL/L —/Type A (Cont'd)

EL-TAIL/L-02





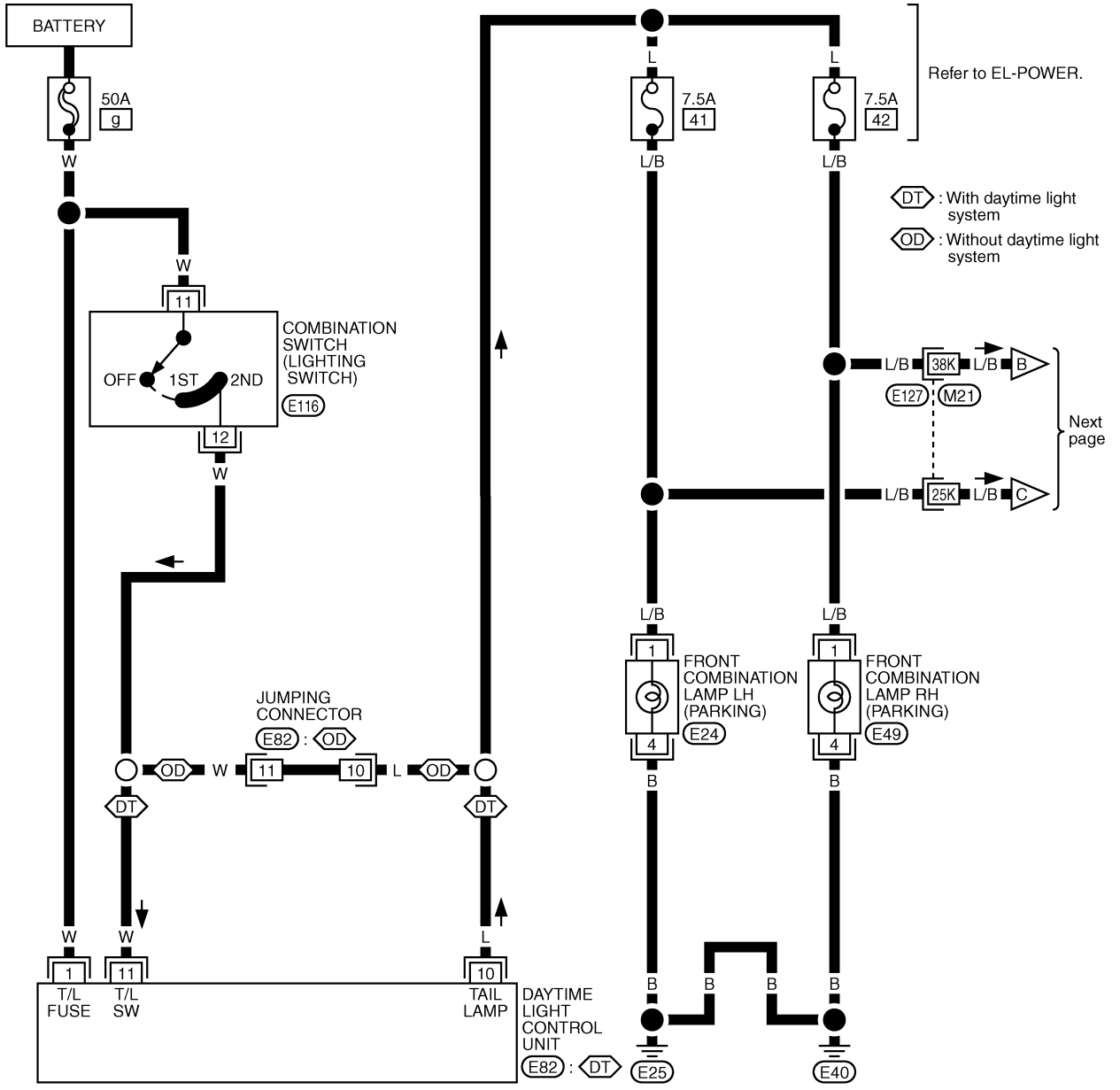
TEL212M

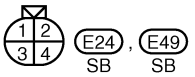
Wiring Diagram — TAIL/L —/Type B

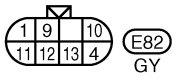
LHD MODELS FOR EUROPE

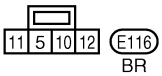
Rear combination lamps are located on rear bumper.

EL-TAIL/L-03







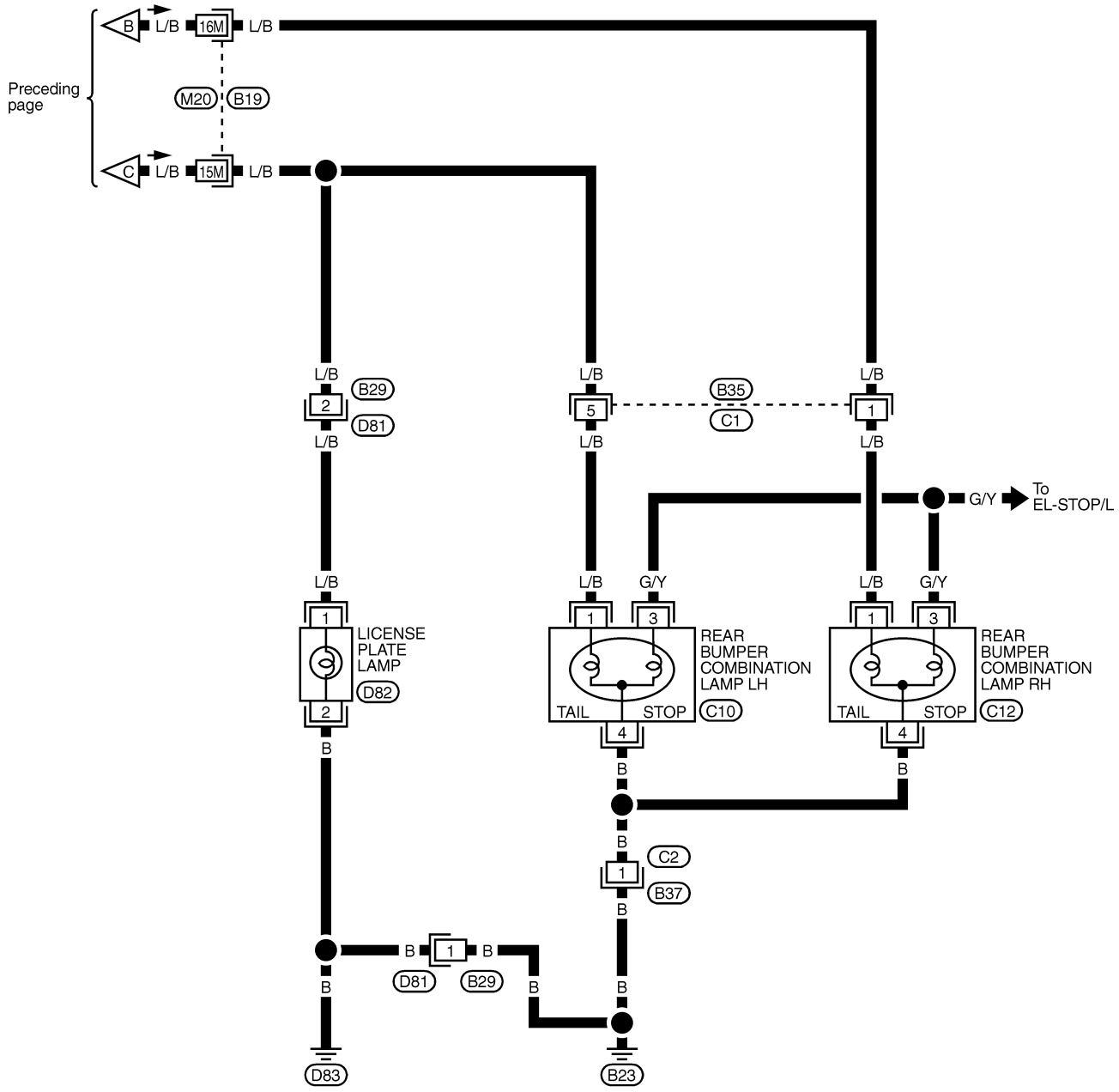


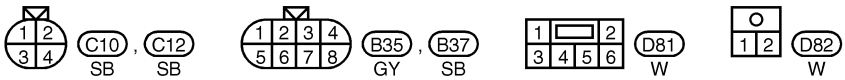
Refer to last page (Foldout page).
M21 , E127

TEL658M

Wiring Diagram — TAIL/L —/Type B (Cont'd)

EL-TAIL/L-04





Refer to last page (Foldout page).

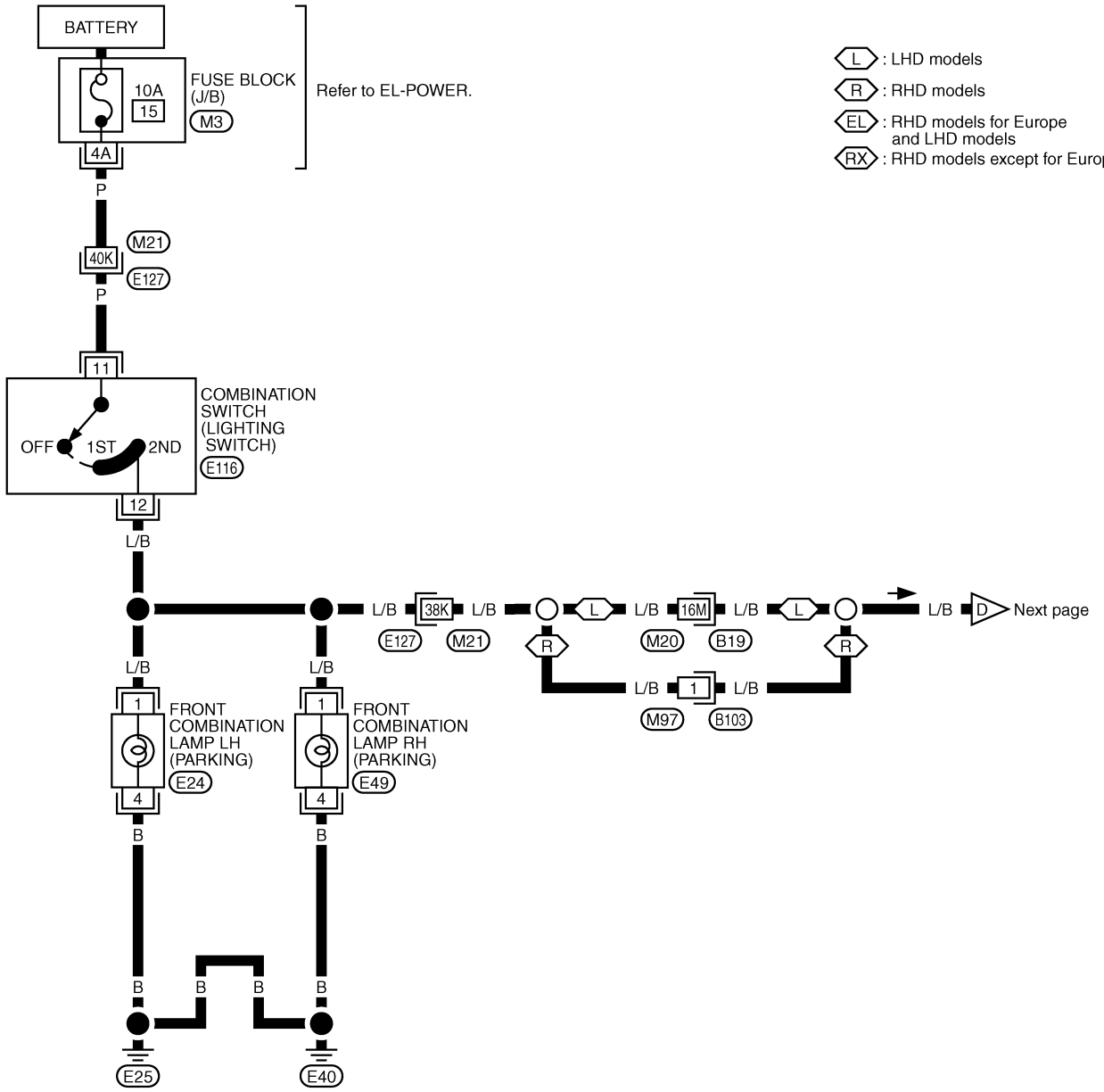
M20 , B19

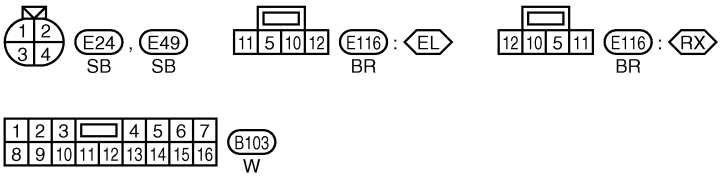
TEL213M

Wiring Diagram — TAIL/L —/Type C

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

EL-TAIL/L-05





Refer to last page (Foldout page).

M20 , B19

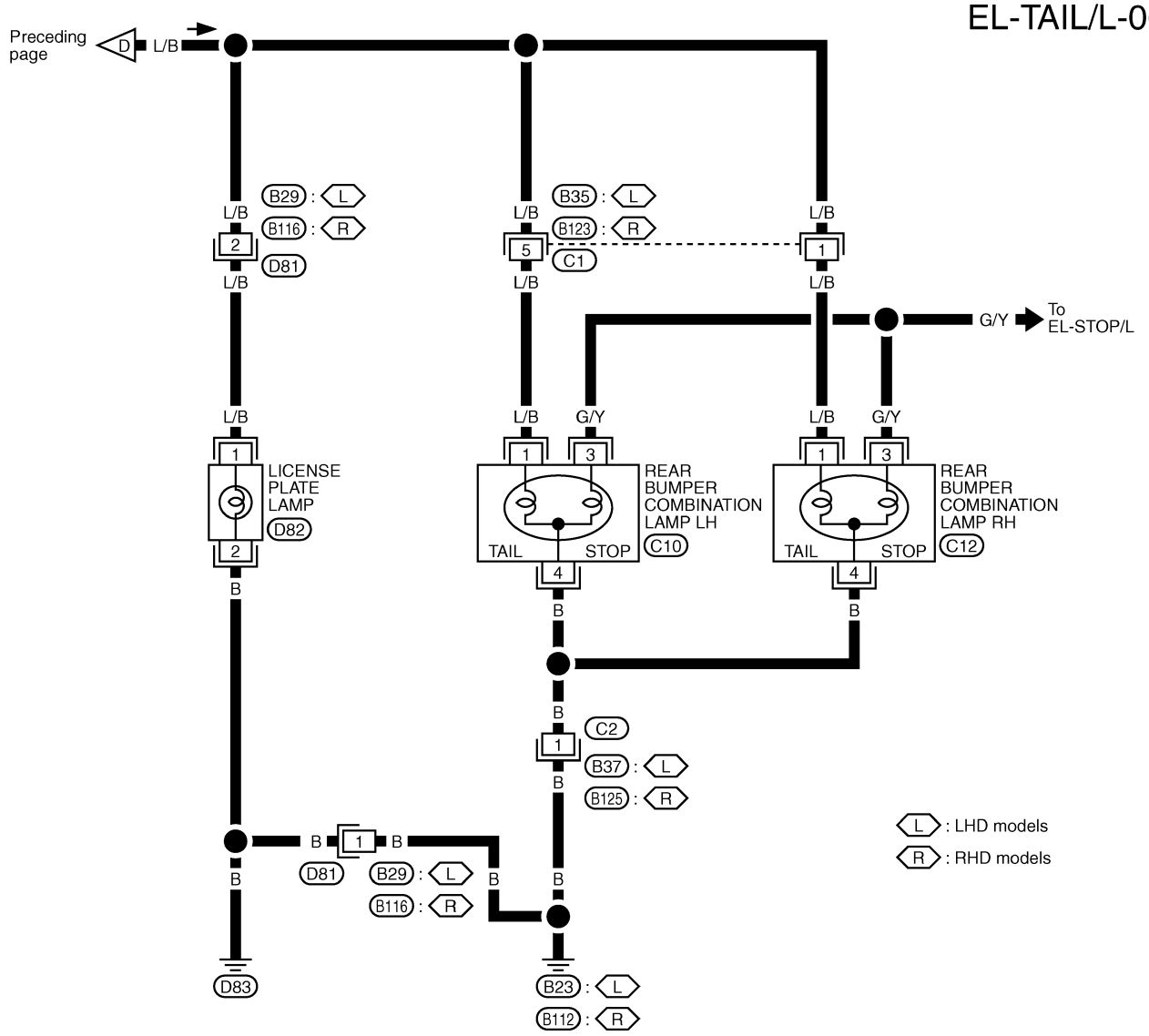
M21 , E127

M3

TEL753M

Wiring Diagram — TAIL/L —/Type C (Cont'd)

EL-TAIL/L-06



C10 SB, C12 SB

B35 GY, B37 SB, B123 GY, B125 SB

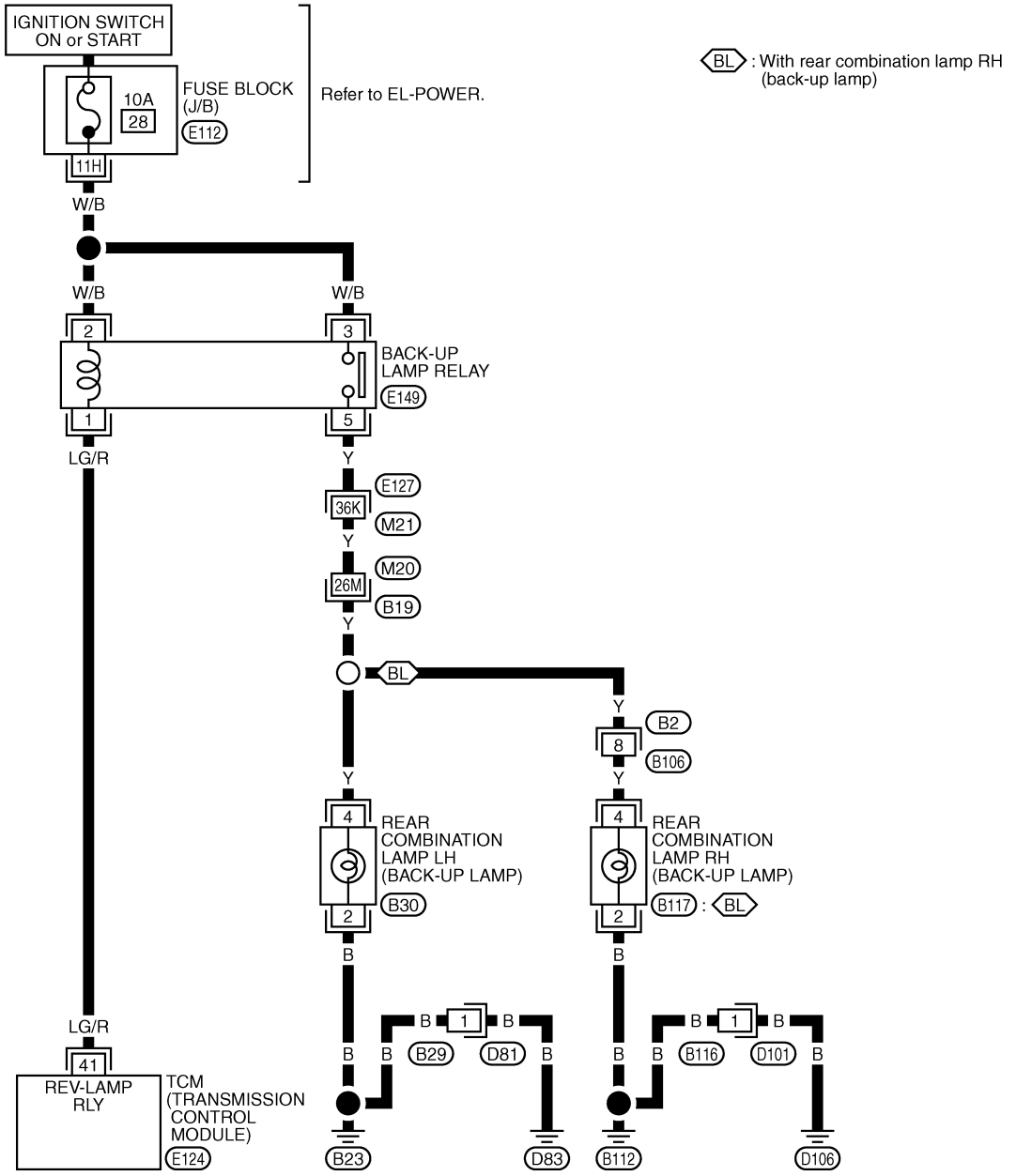
D81 W

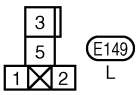
D82 W

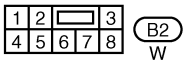
TEL394M

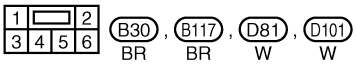
Wiring Diagram — BACK/L —/LHD Models for TB48 Engine with A/T

EL-BACK/L-01









Refer to last page (Foldout page).

M21 , E127

M20 , B19

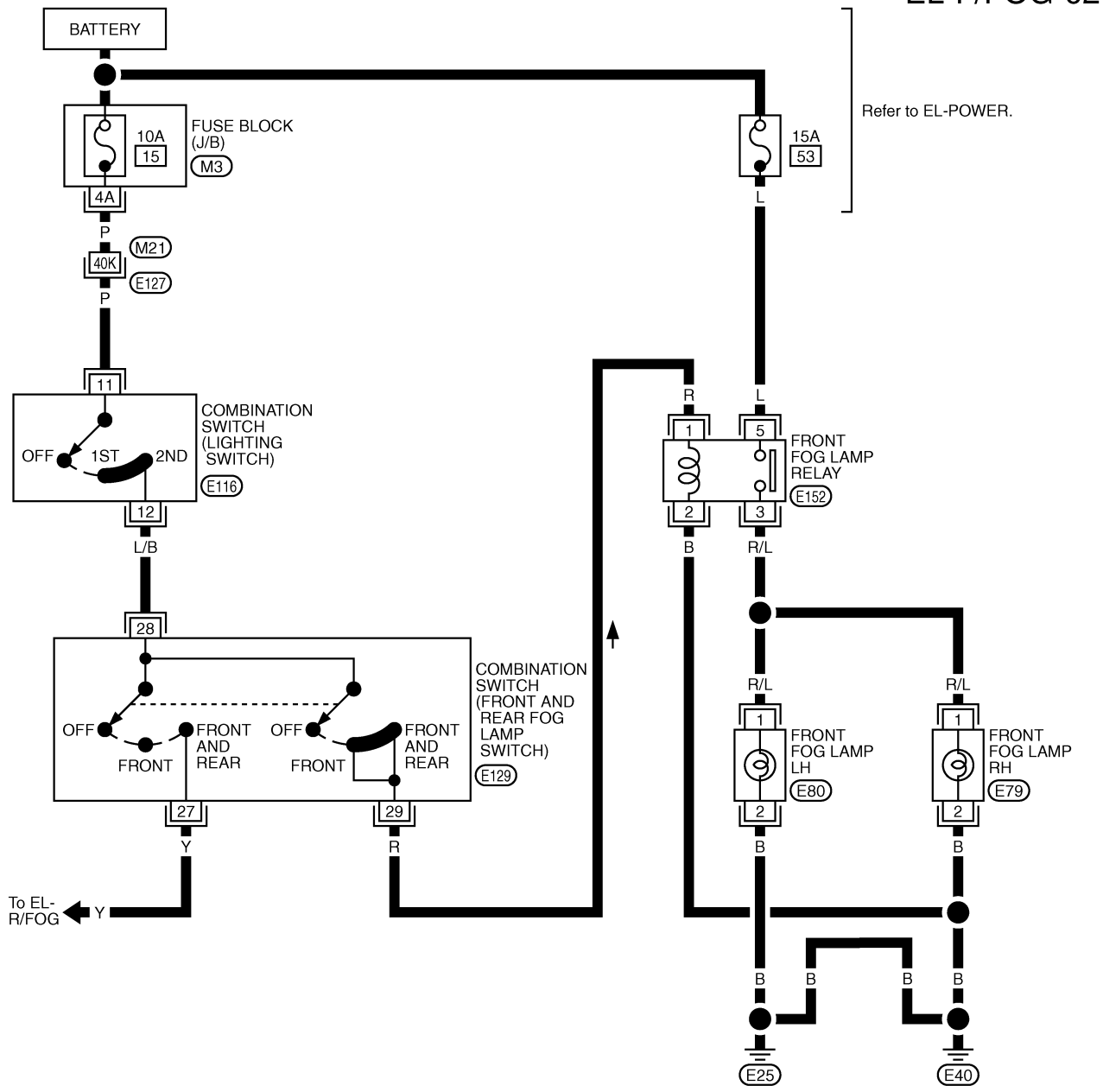
E112

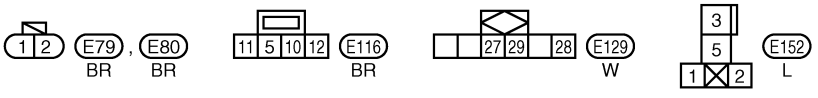
E124

TEL660M

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

EL-F/FOG-02

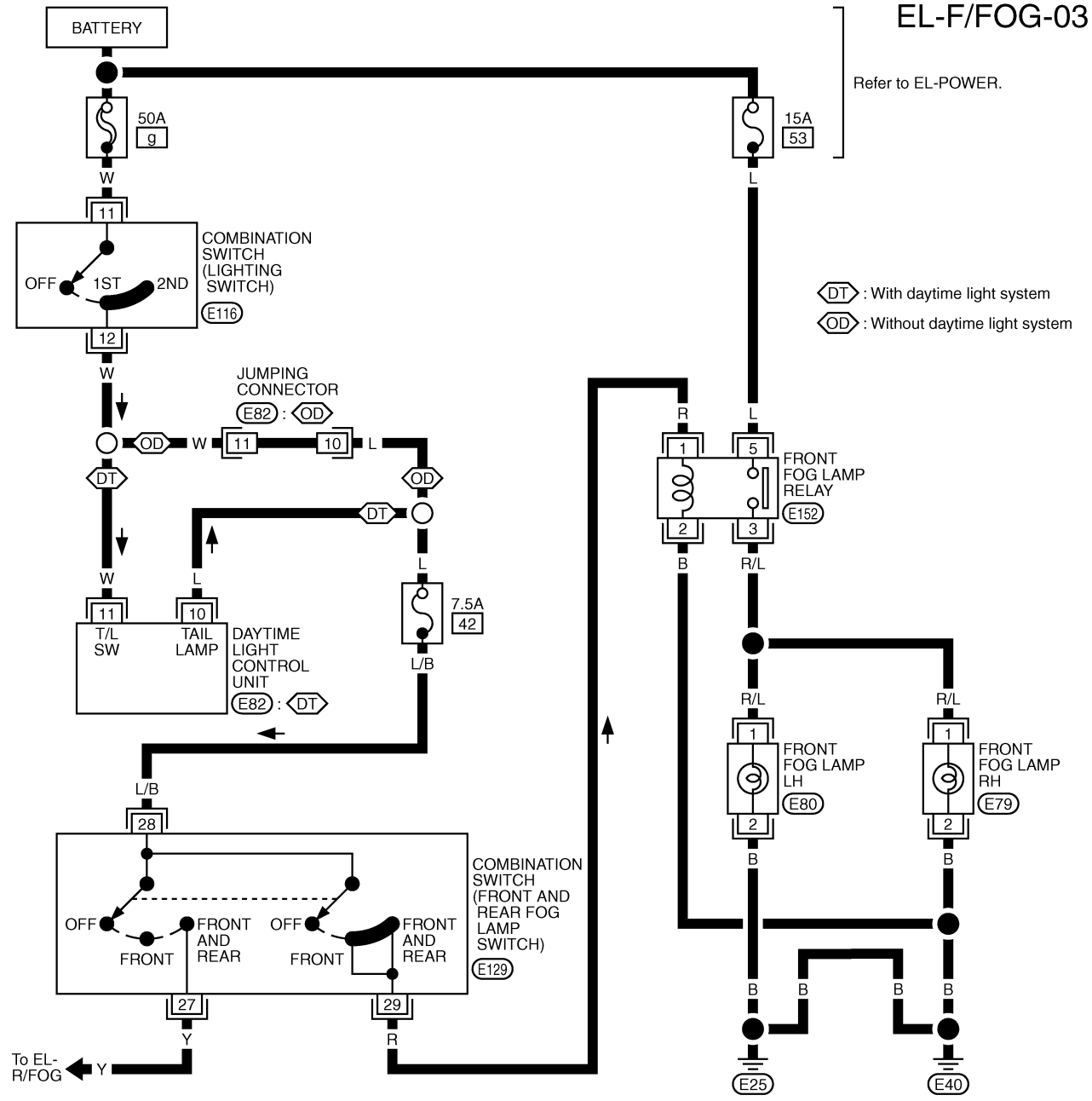


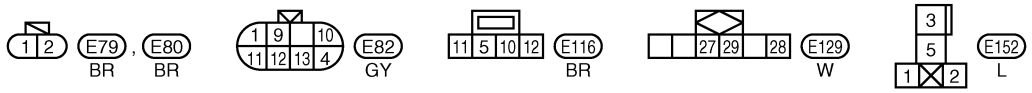


Refer to last page (Foldout page).
M21 , E127
M3

TEL755M

Wiring Diagram — F/FOG —/LHD Models for Europe



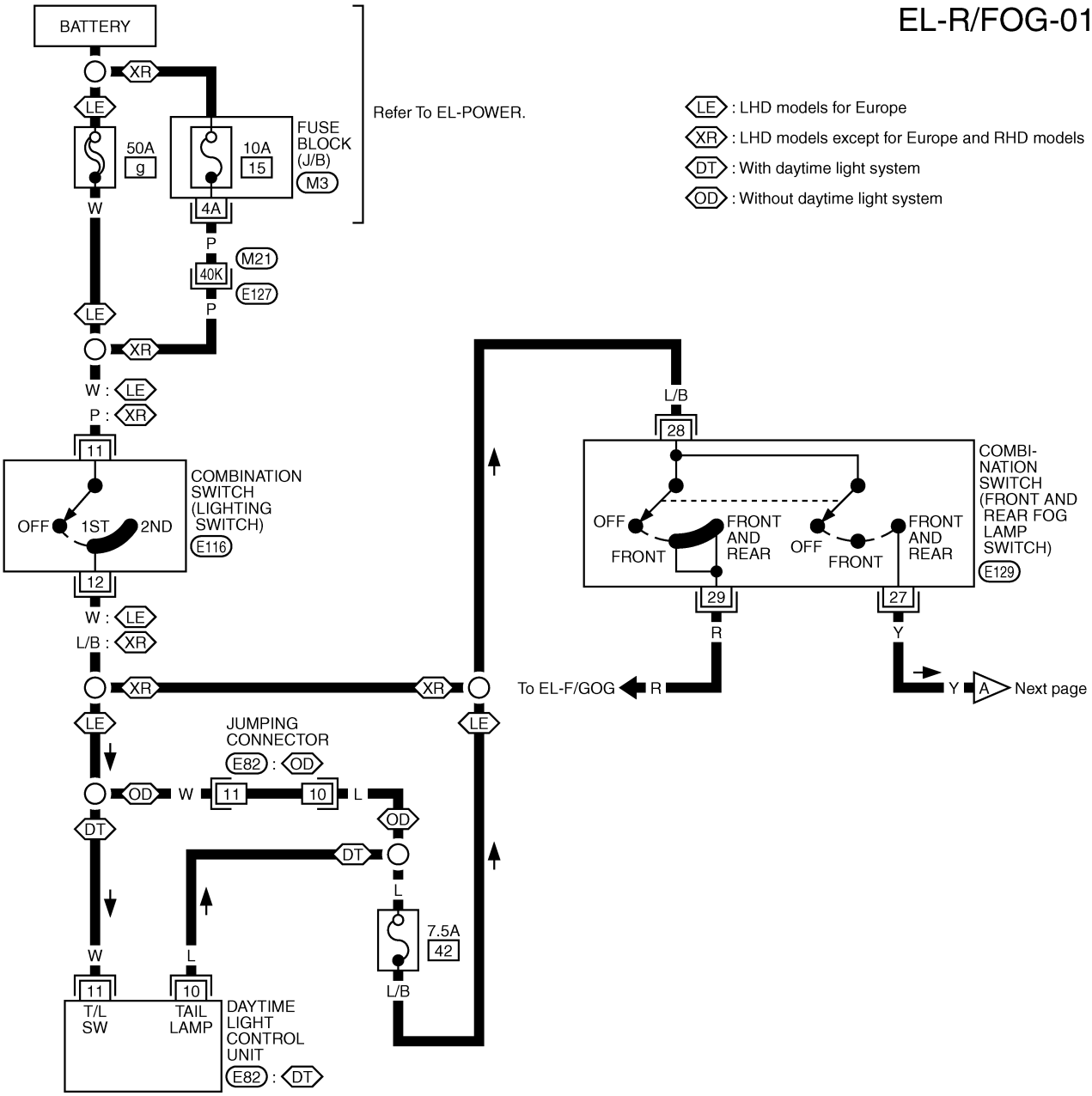


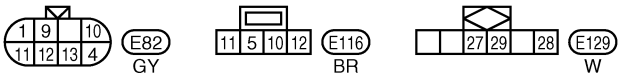
TEL813M

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

WITH FRONT FOG LAMP

EL-R/FOG-01





Refer to last page (Foldout page).

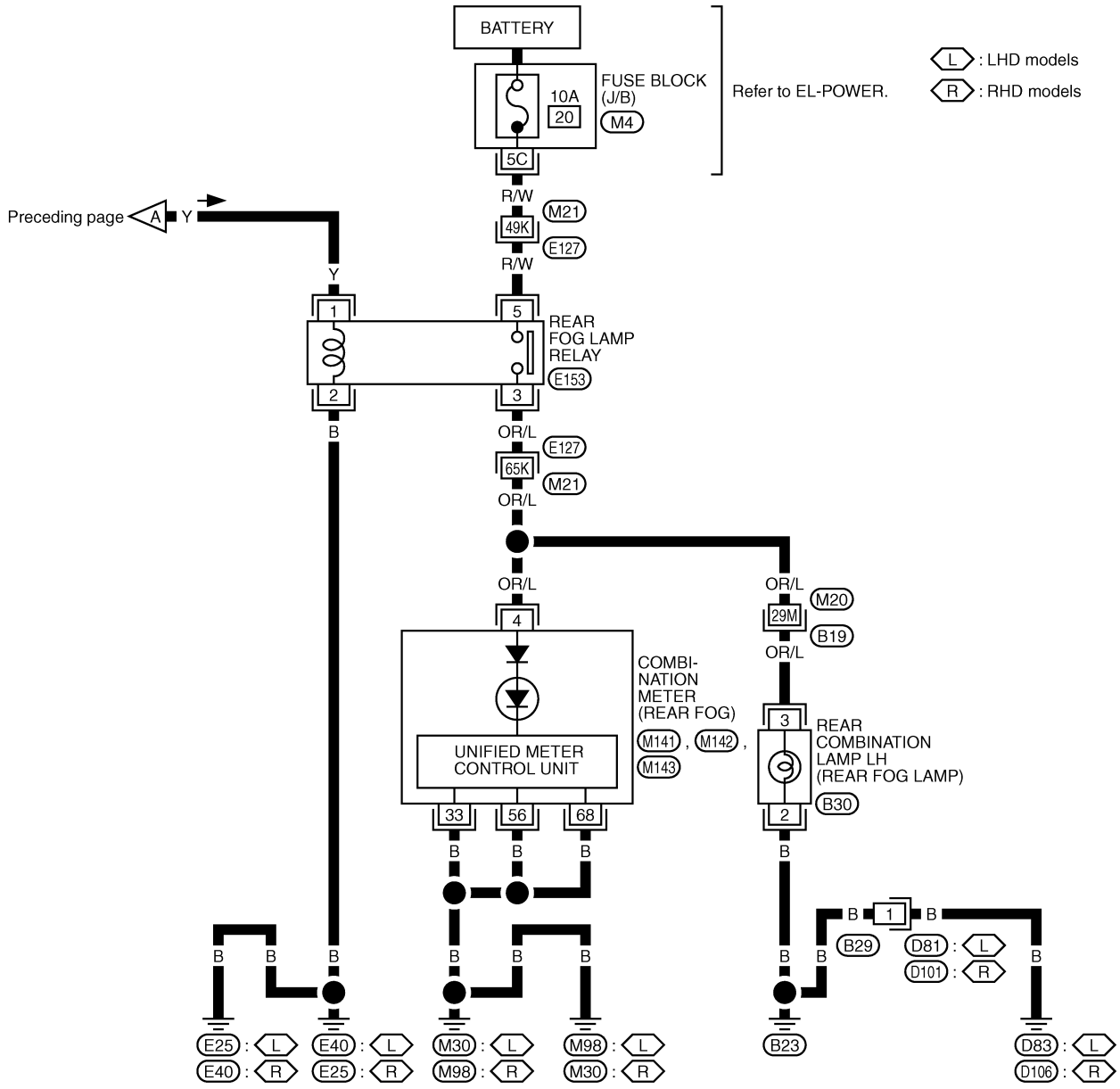
M21 , E127

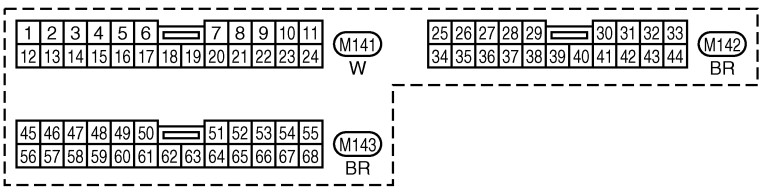
M3

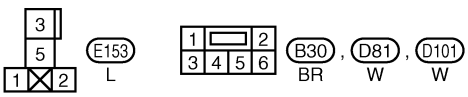
TEL814M

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

EL-R/FOG-02







Refer to last page (Foldout page).

M20 , B19

M21 , E127

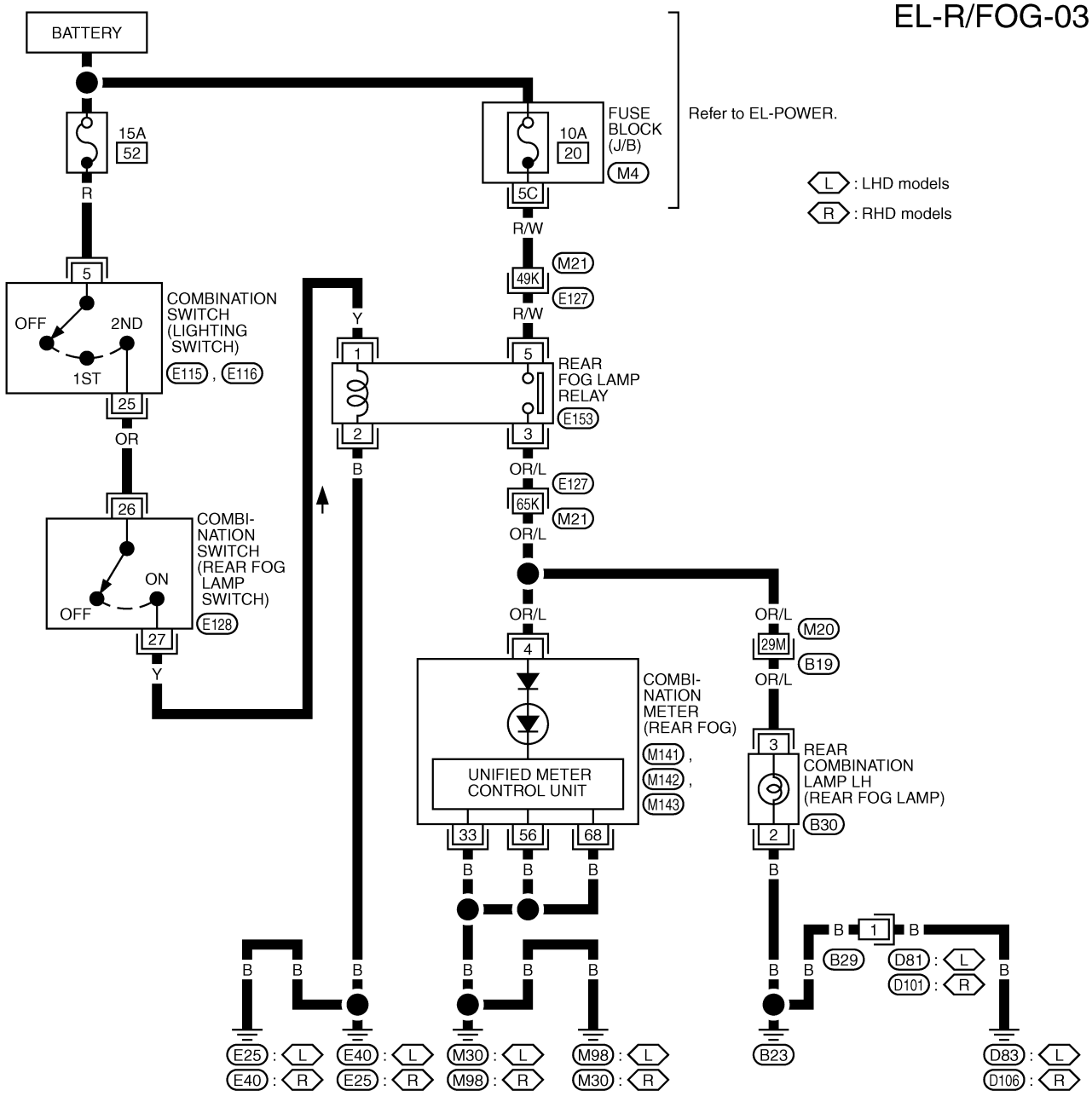
M4

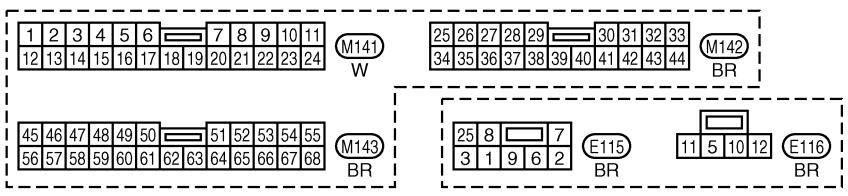
TEL756M

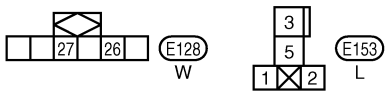
Wiring Diagram — R/FOG —/For Europe and China (Cont'd)

WITHOUT FRONT FOG LAMP

EL-R/FOG-03







Refer to last page (Foldout page).

M20 , B19

M21 , E127

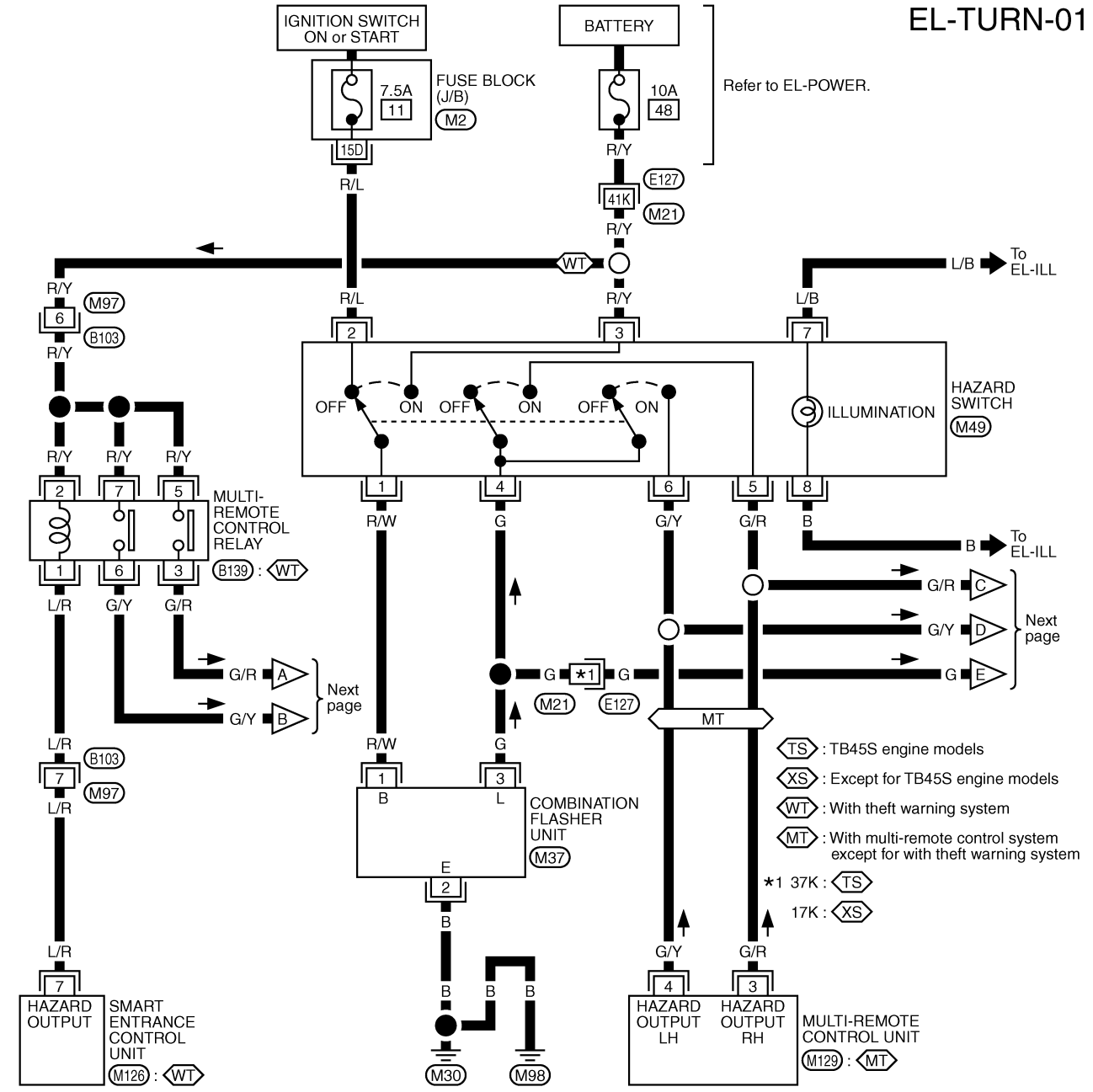
M4

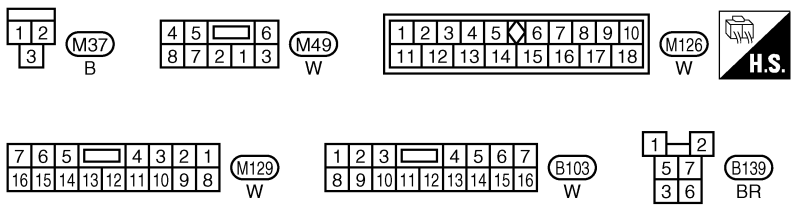
TEL757M

Wiring Diagram — TURN —/Type A

RHD MODELS EXCEPT FOR EUROPE, AUSTRALIA AND SOUTH AFRICA

Rear combination lamps are not located on rear bumper.



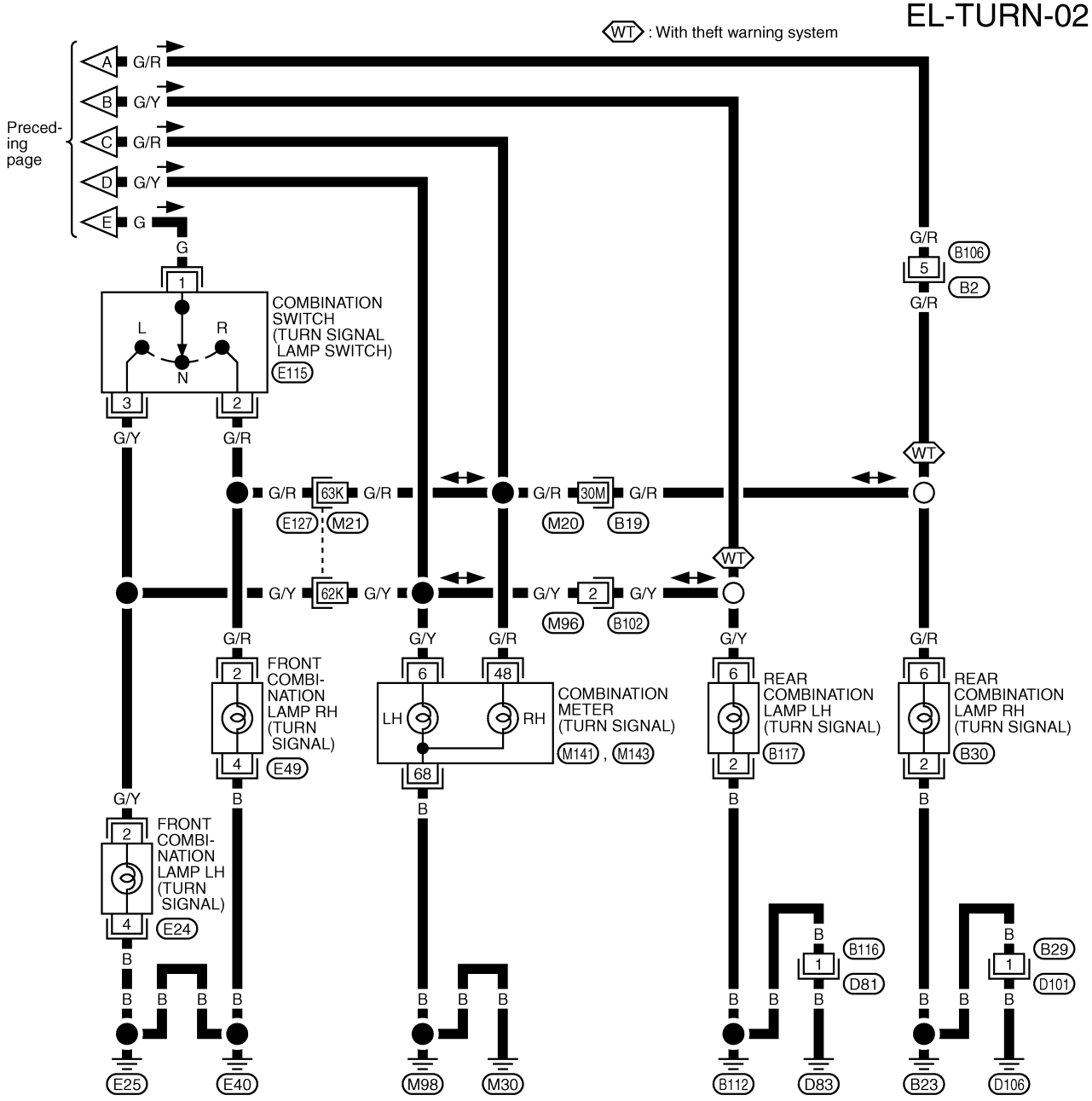


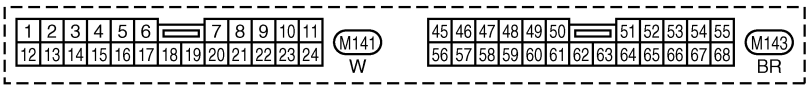
Refer to last page (Foldout page).
M21, E127
M2

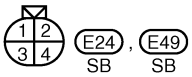
TEL817M

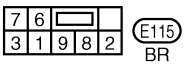
Wiring Diagram — TURN —/Type A (Cont'd)

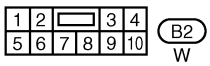
EL-TURN-02

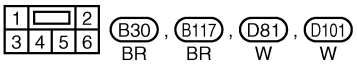


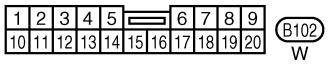












Refer to last page (Foldout page).

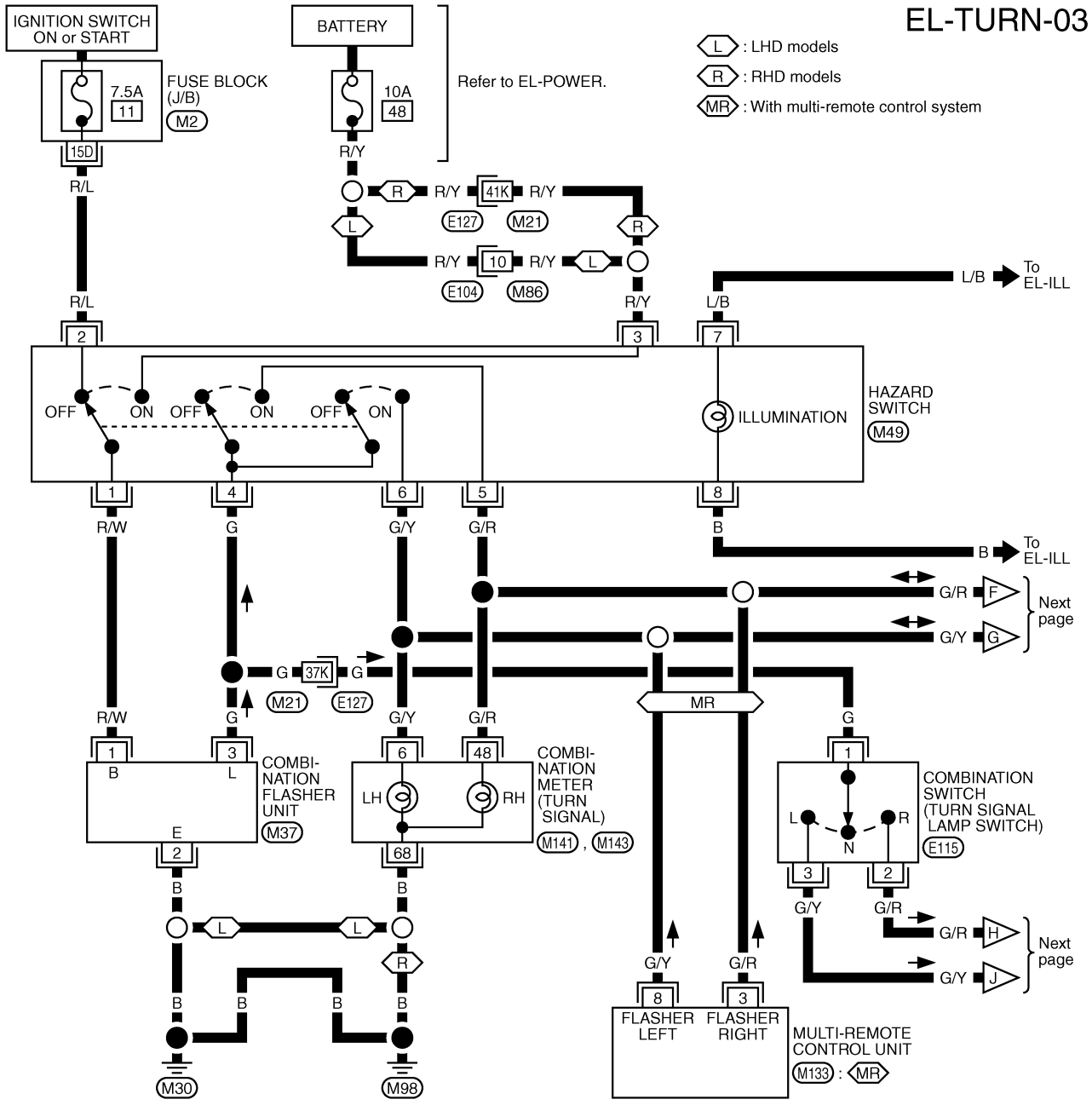
M20, B19

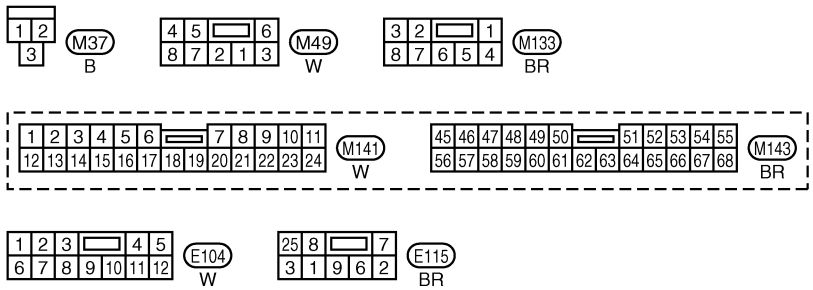
M21, E127

TEL818M

Wiring Diagram — TURN —/Type C

FOR EUROPE
Rear combination lamps are located on rear bumper.

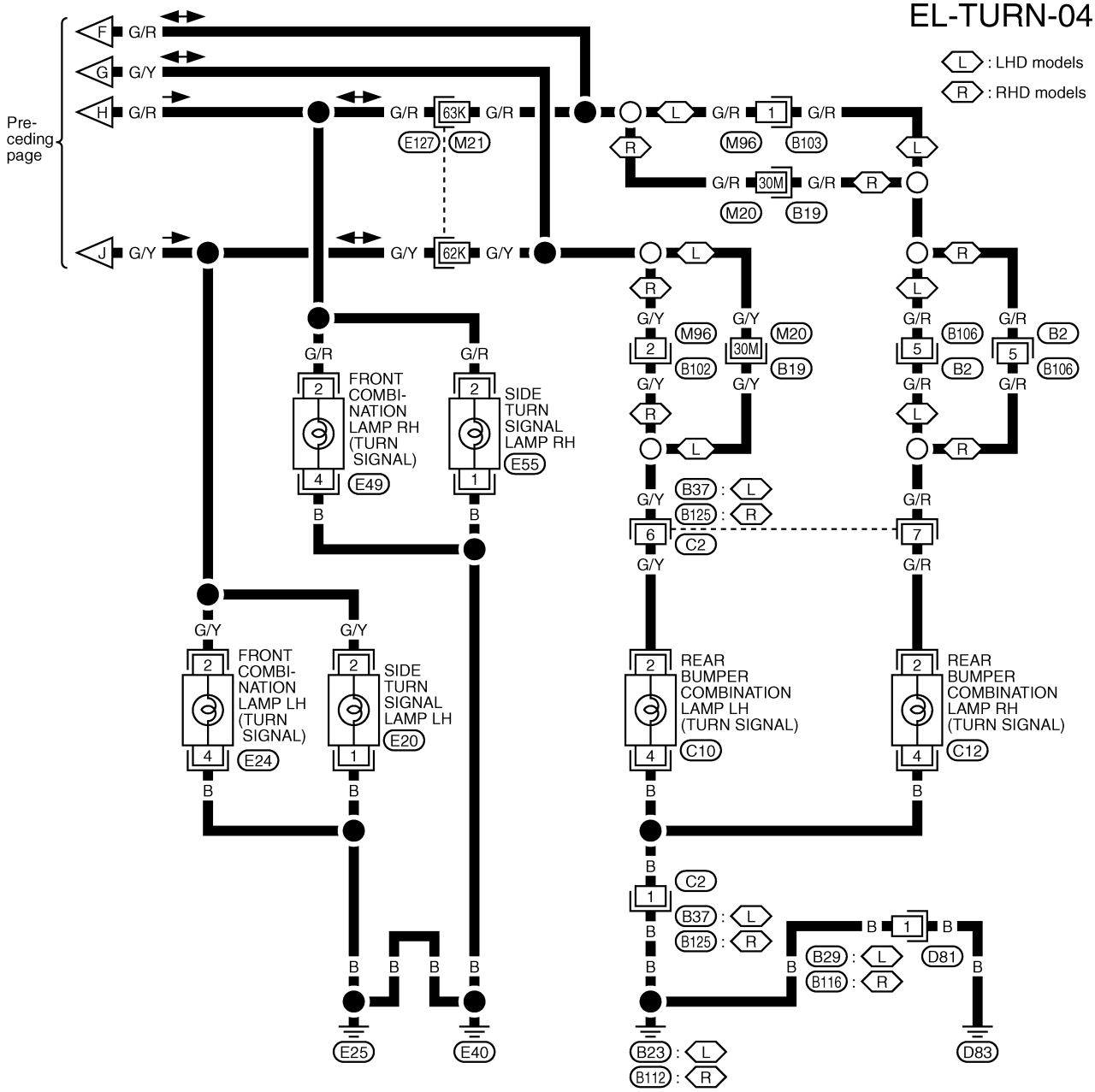


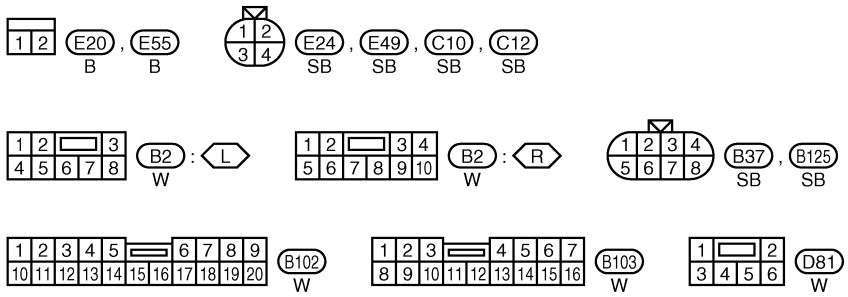


Refer to last page (Foldout page).
M21, E127
M2

Wiring Diagram — TURN —/Type C (Cont'd)

EL-TURN-04





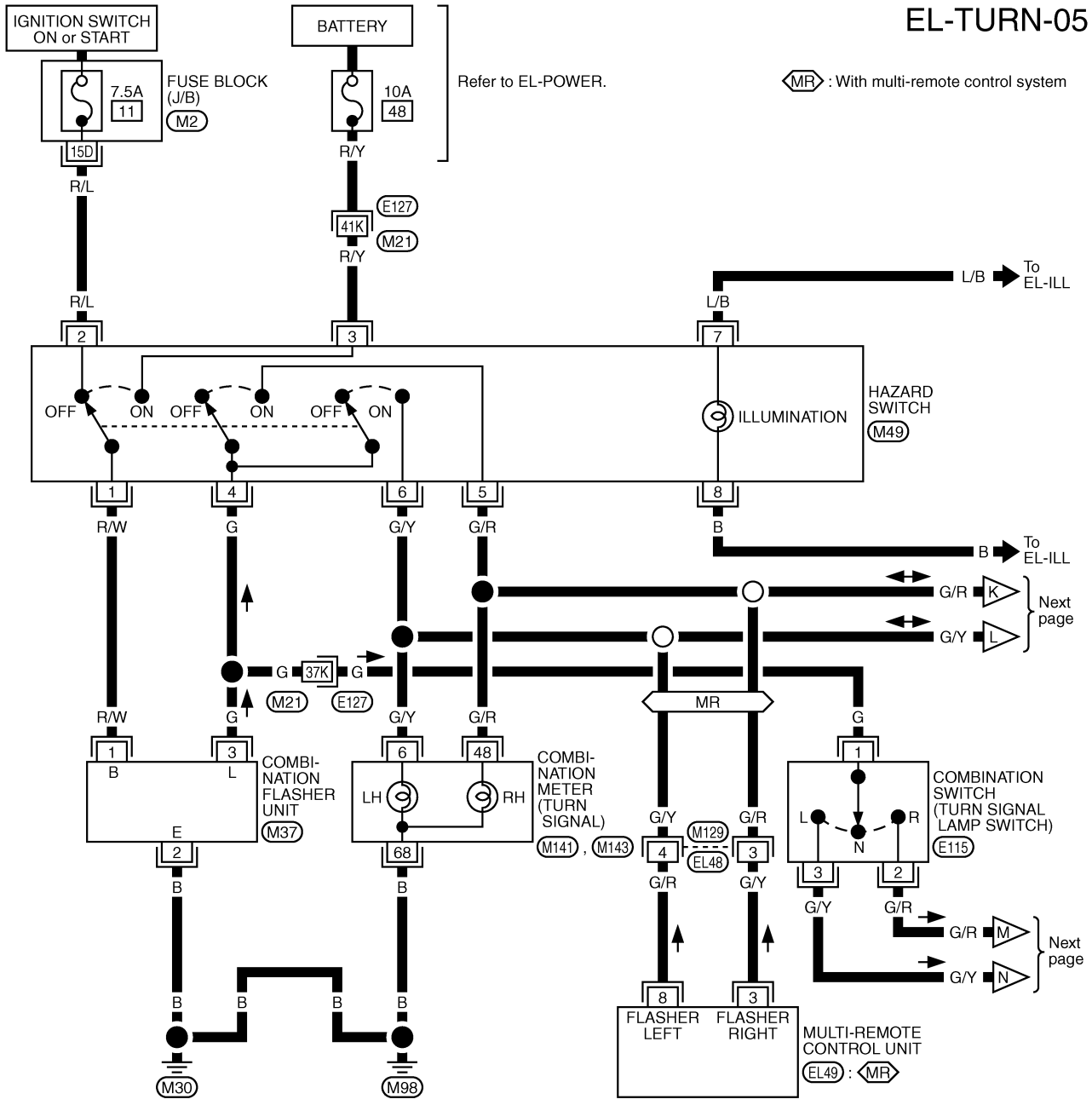
Refer to last page (Foldout page).
M20 , B19
M21 , E127

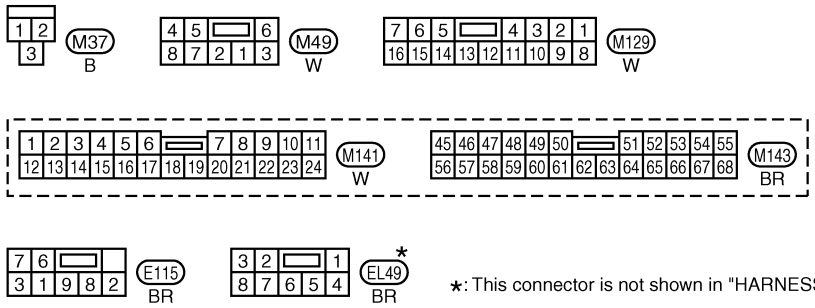
TEL838M

Wiring Diagram — TURN —/Type C (Cont'd)

FOR SOUTH AFRICA

Rear combination lamps are located on rear bumper.





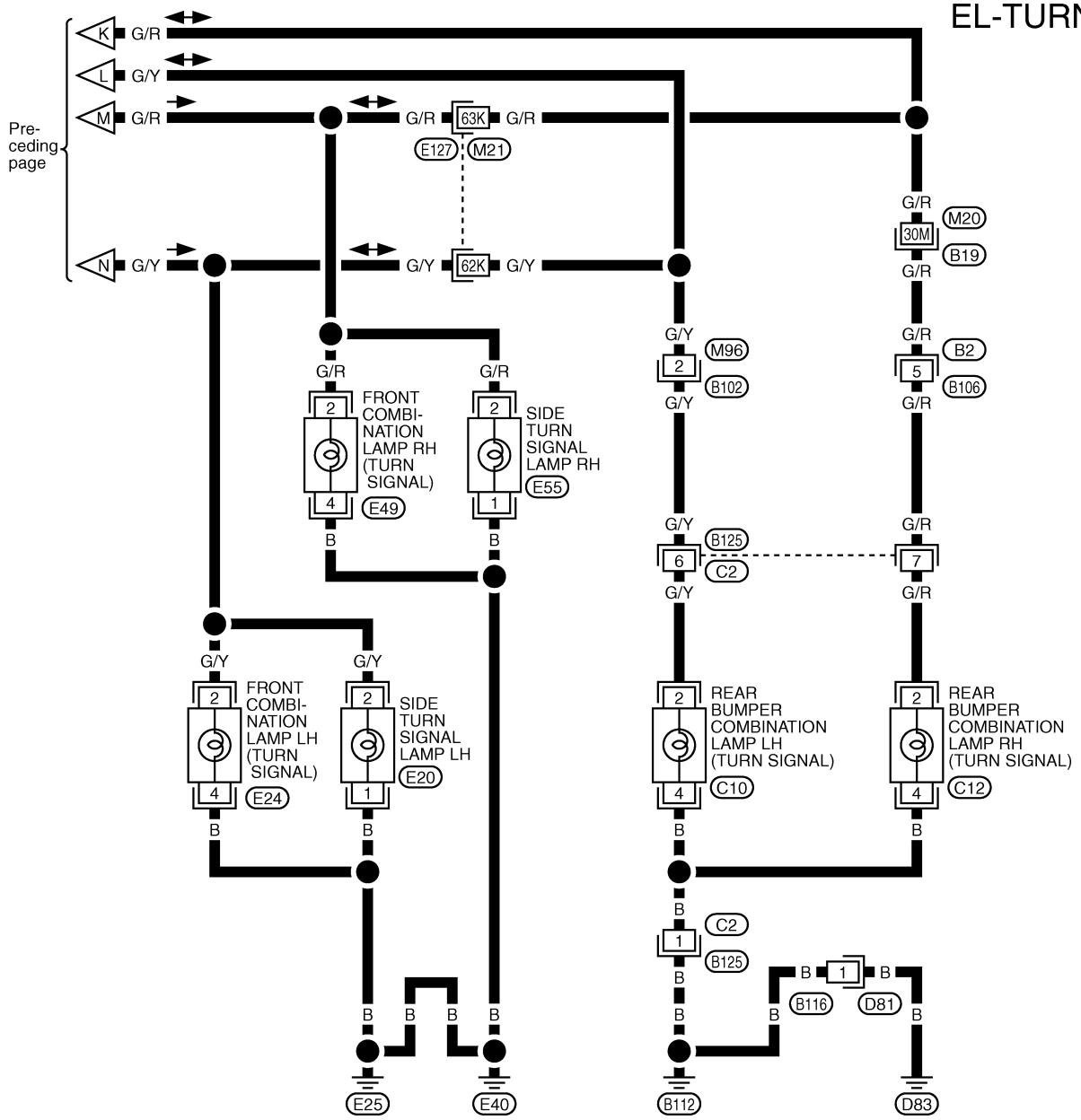
Refer to last page (Foldout page).
M21, E127
M2

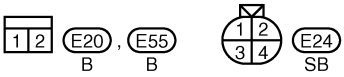
*: This connector is not shown in "HARNESS LAYOUT", EL section.

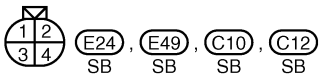
TEL815M

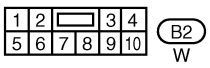
Wiring Diagram — TURN —/Type C (Cont'd)

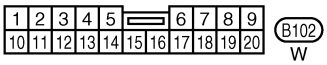
EL-TURN-06

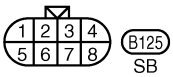


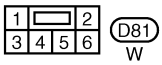












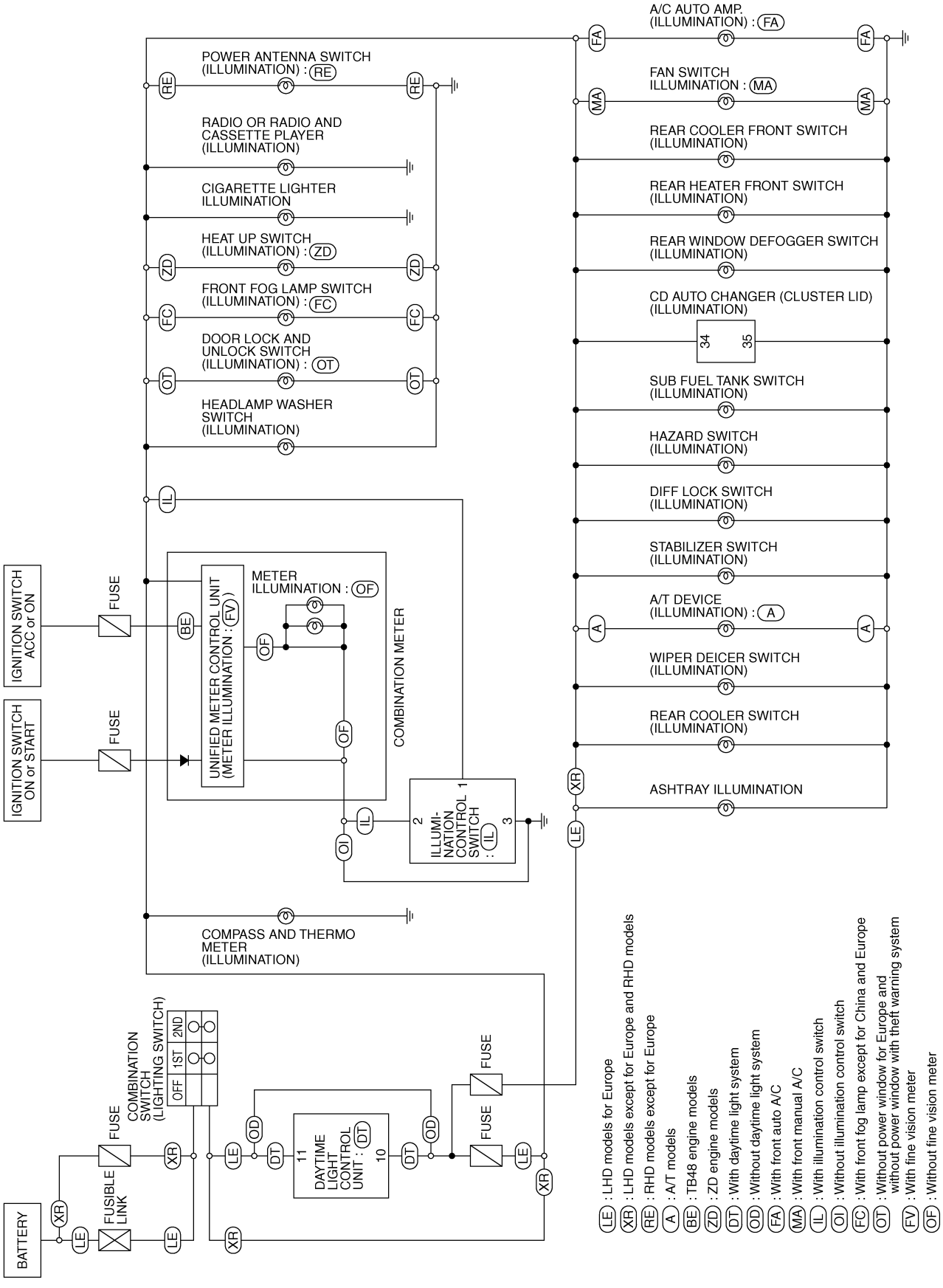
Refer to last page (Foldout page).

M20 , B19

M21 , E127

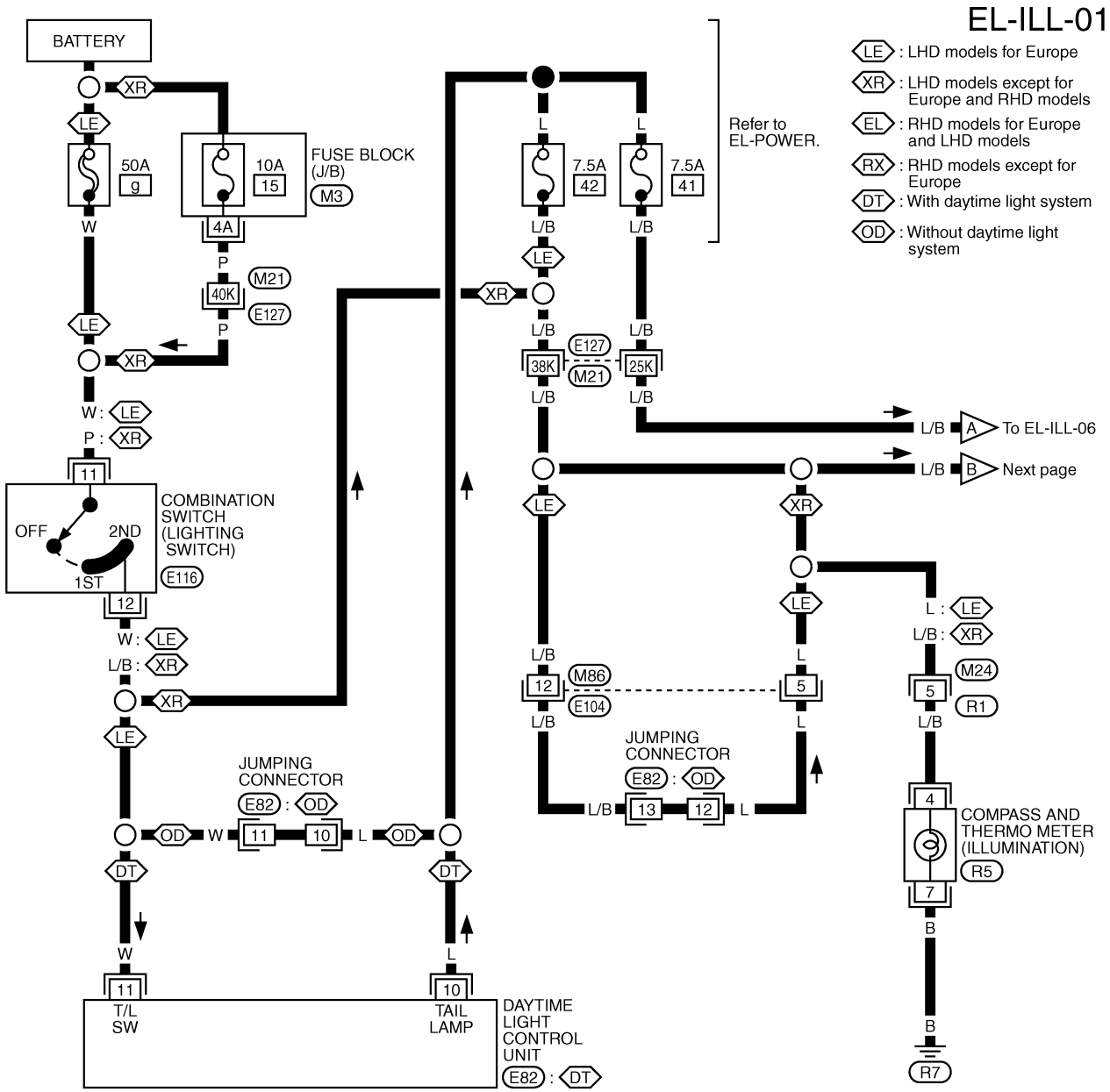
TEL816M

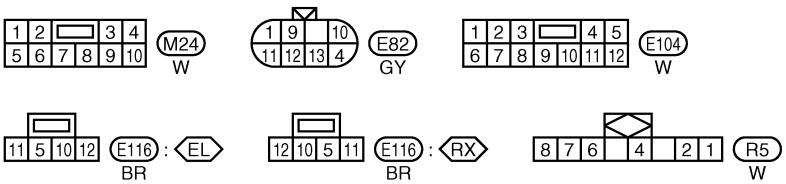
Schematic



TEL667M

Wiring Diagram — ILL —



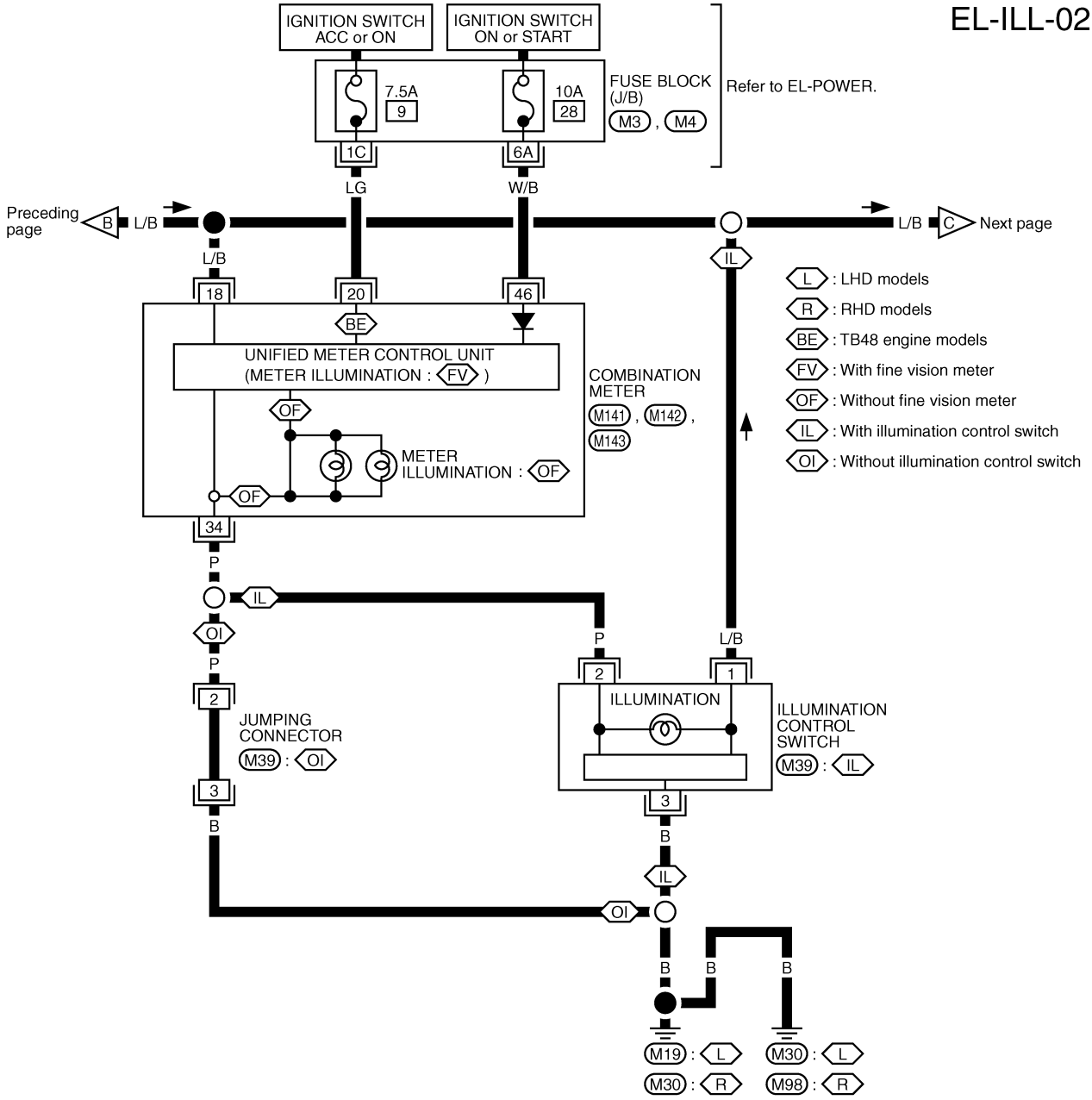


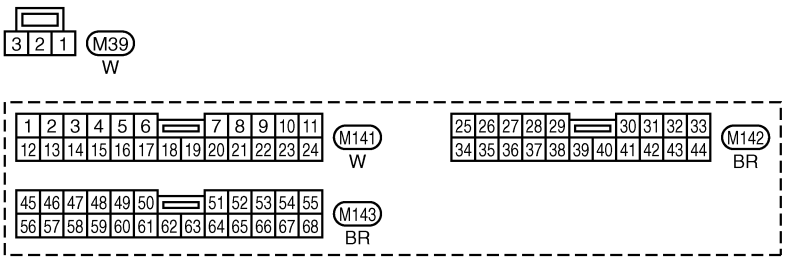
Refer to last page (Foldout page).
M21 , E127
M3

TEL668M

Wiring Diagram — ILL — (Cont'd)

EL-ILL-02





Refer to last page (Foldout page).

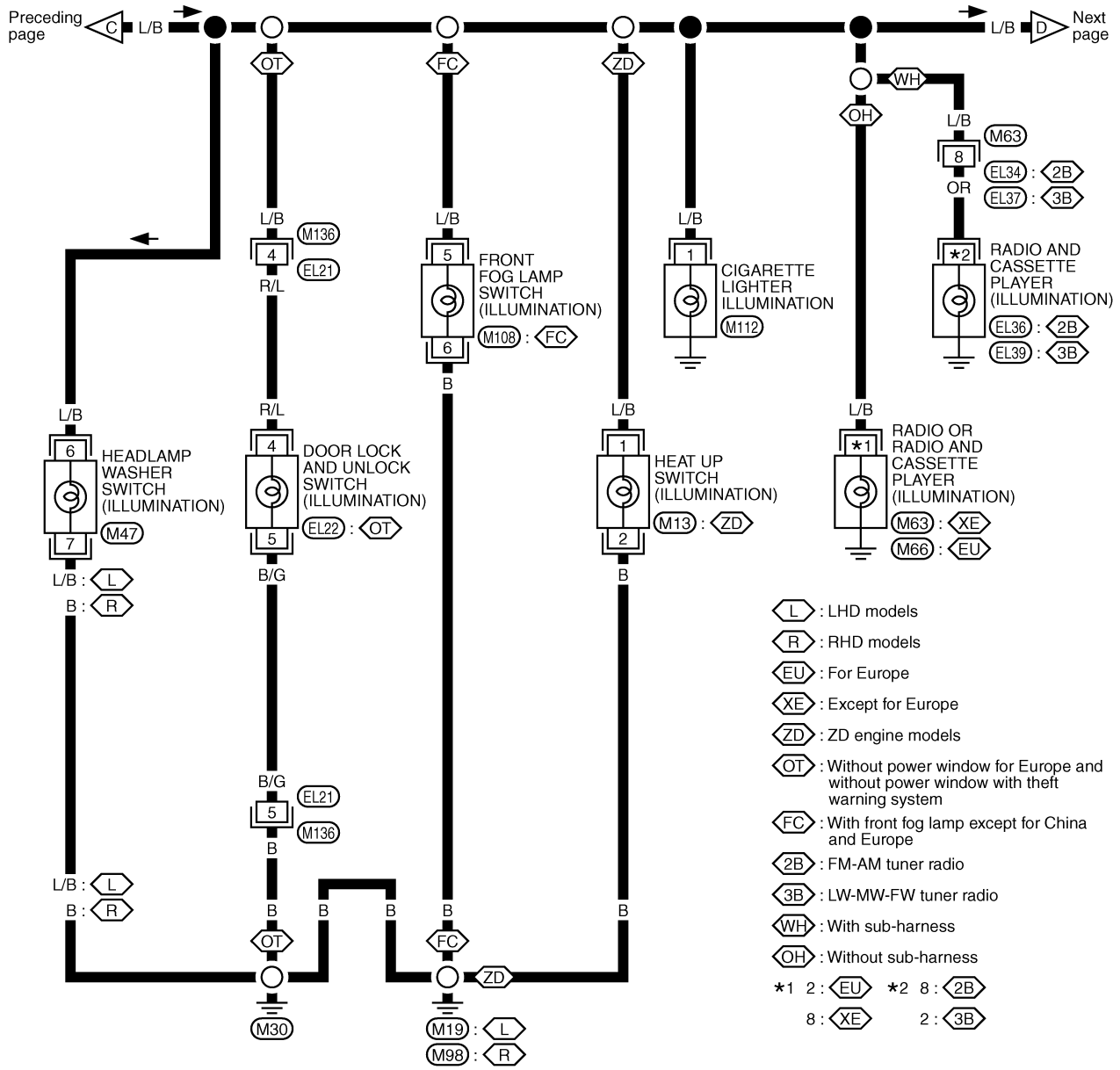
M3

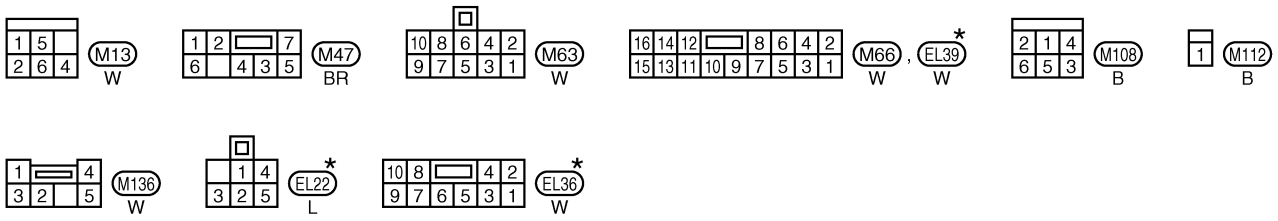
M4

TEL669M

Wiring Diagram — ILL — (Cont'd)

EL-ILL-03



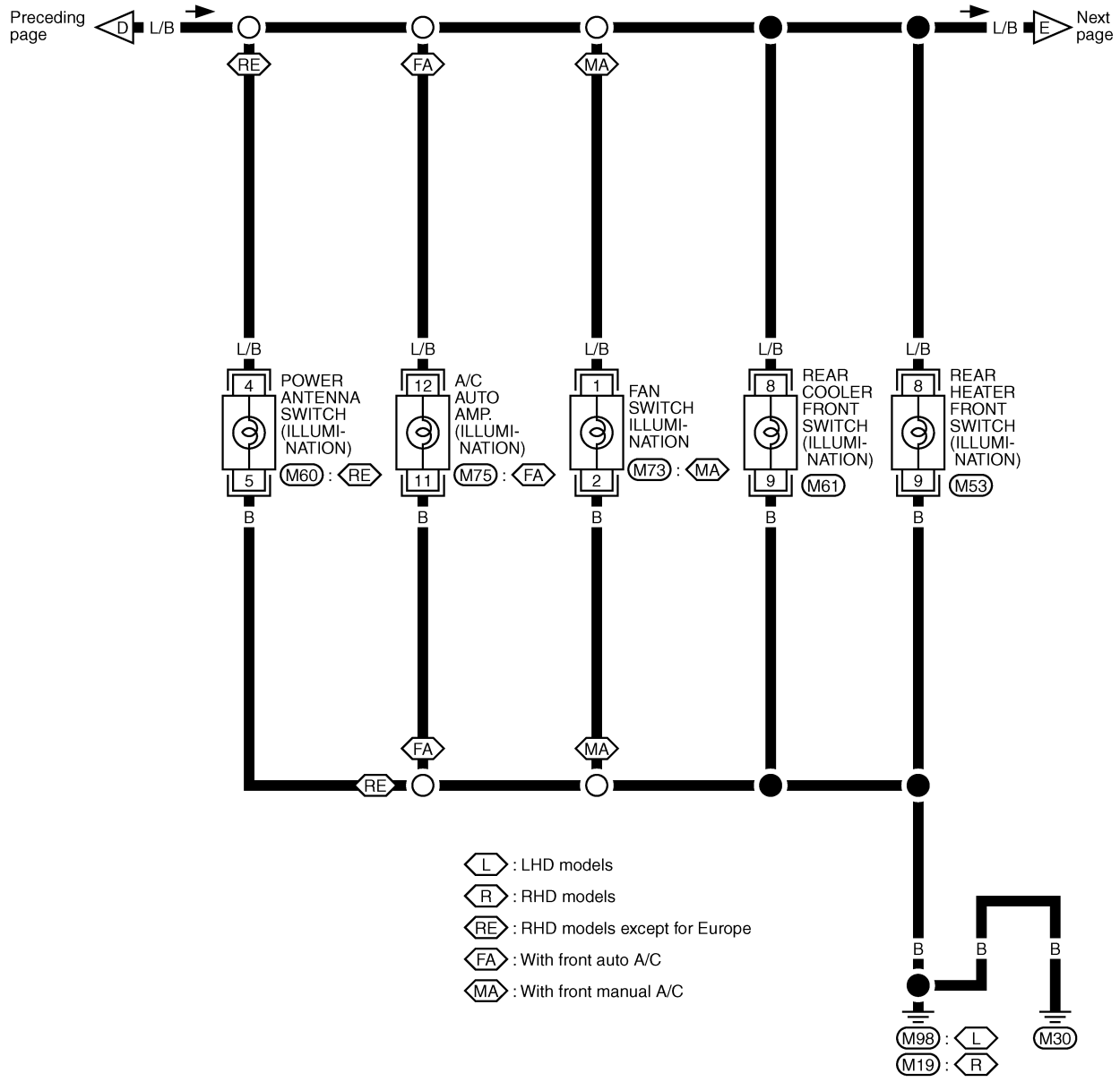


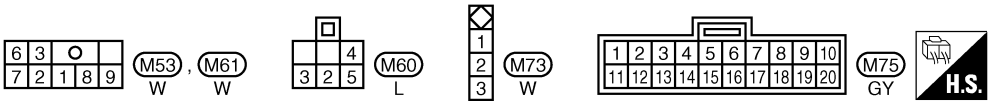
*: This connector is not shown in "HARNESS LAYOUT", EL section.

TEL759M

Wiring Diagram — ILL — (Cont'd)

EL-ILL-04

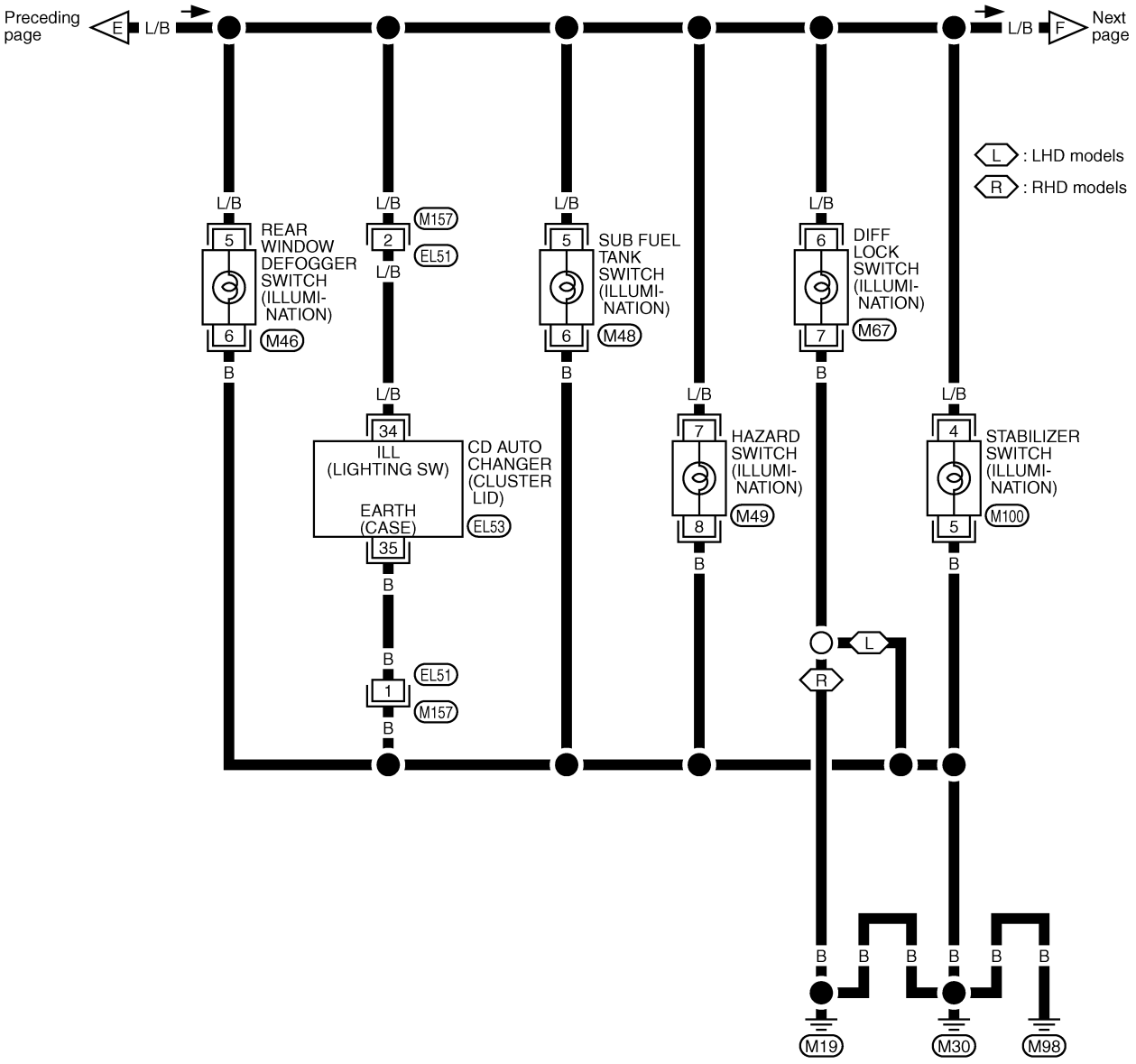


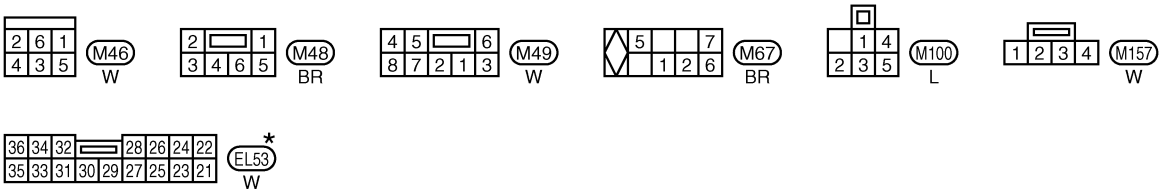


TEL671M

Wiring Diagram — ILL — (Cont'd)

EL-ILL-05



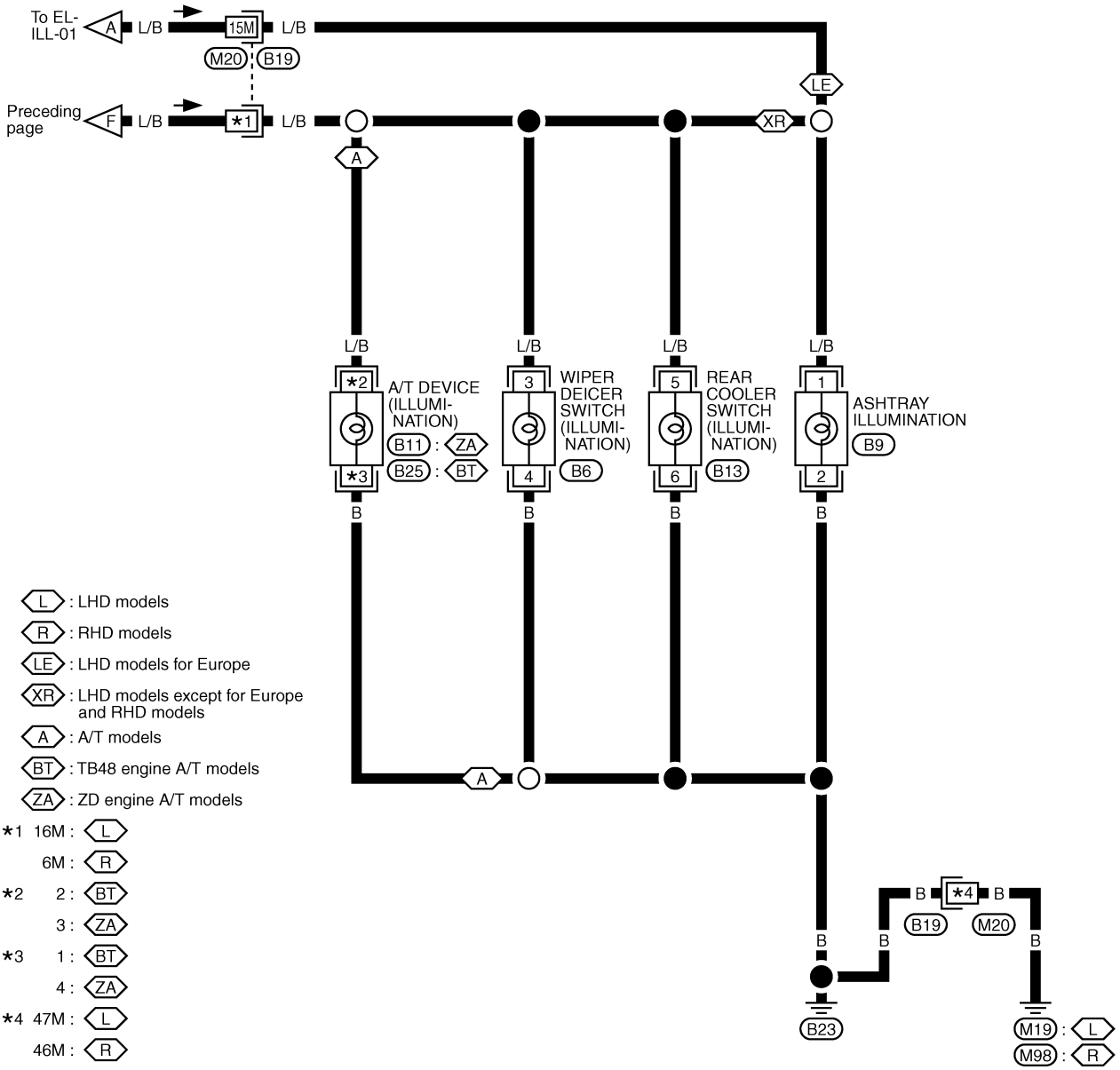


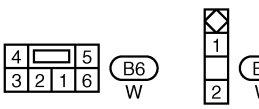
*: This connector is not shown in "HARNESS LAYOUT", EL section.

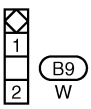
TEL672M

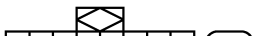
Wiring Diagram — ILL — (Cont'd)

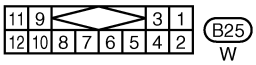
EL-ILL-06









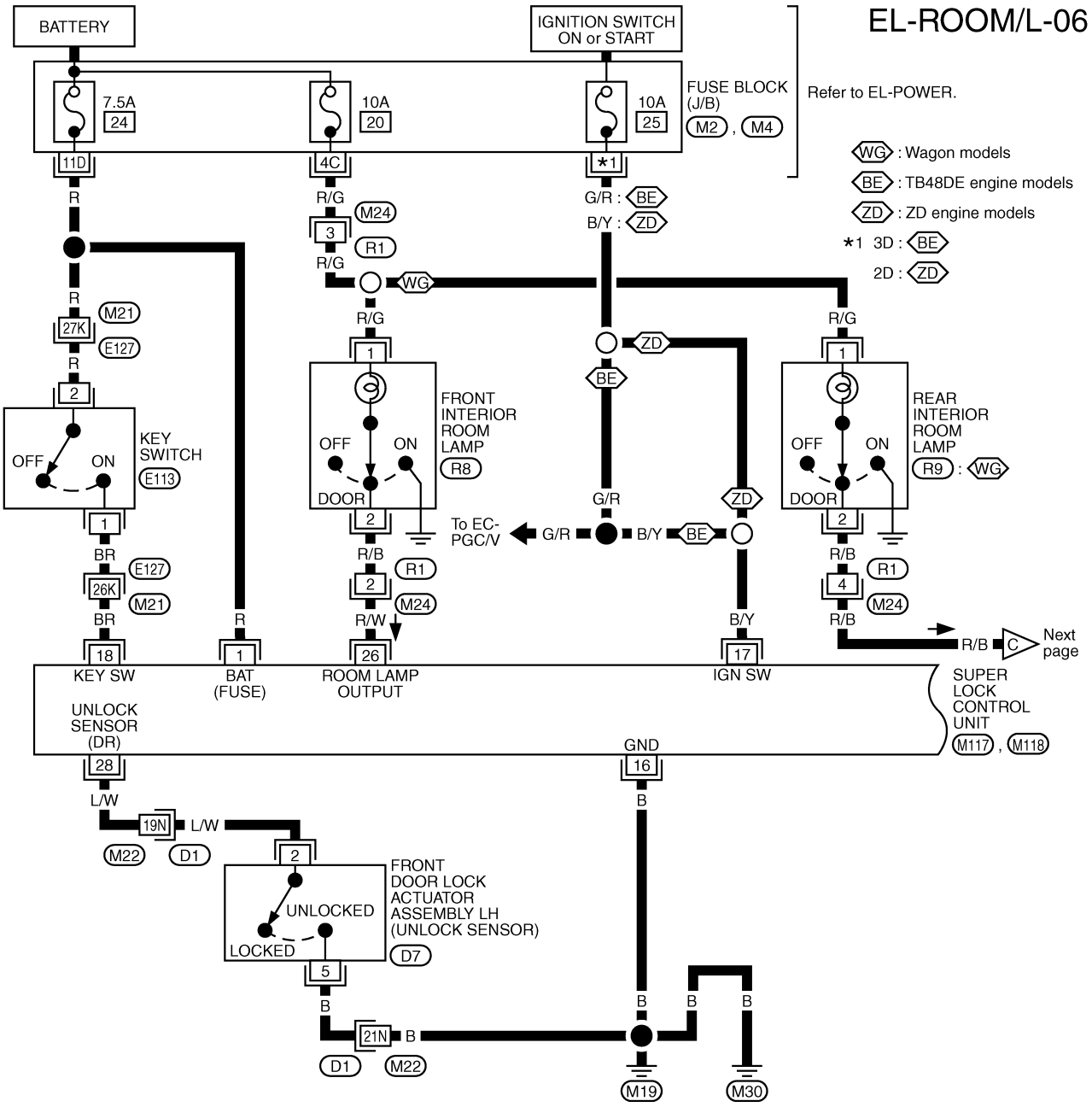


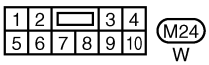
Refer to last page (Foldout page).

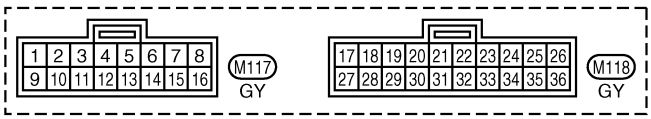
M20 , B19

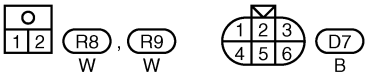
TEL673M

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









Refer to last page (Foldout page).

M21 , E127

M22 , D1

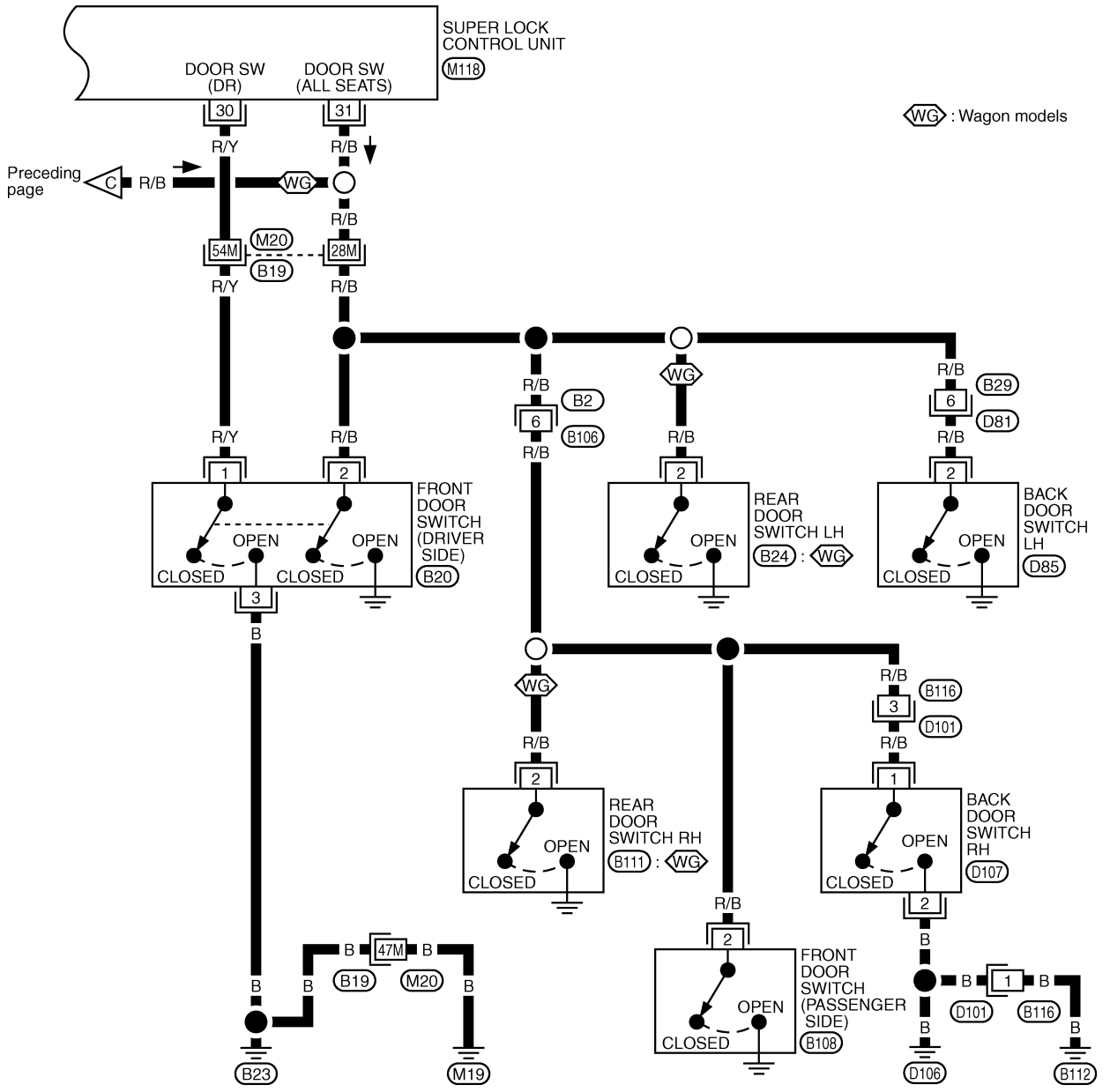
M2

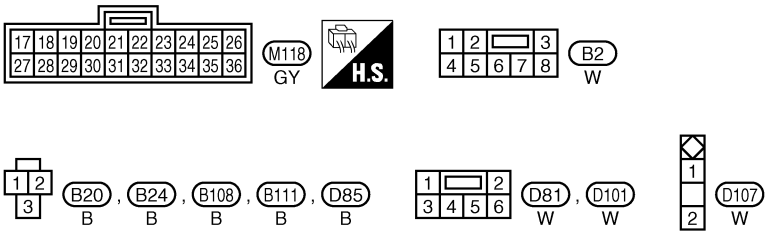
M4

TEL676M

Wiring Diagram — ROOM/L —/LHD Models for Europe (Cont'd)

EL-ROOM/L-07



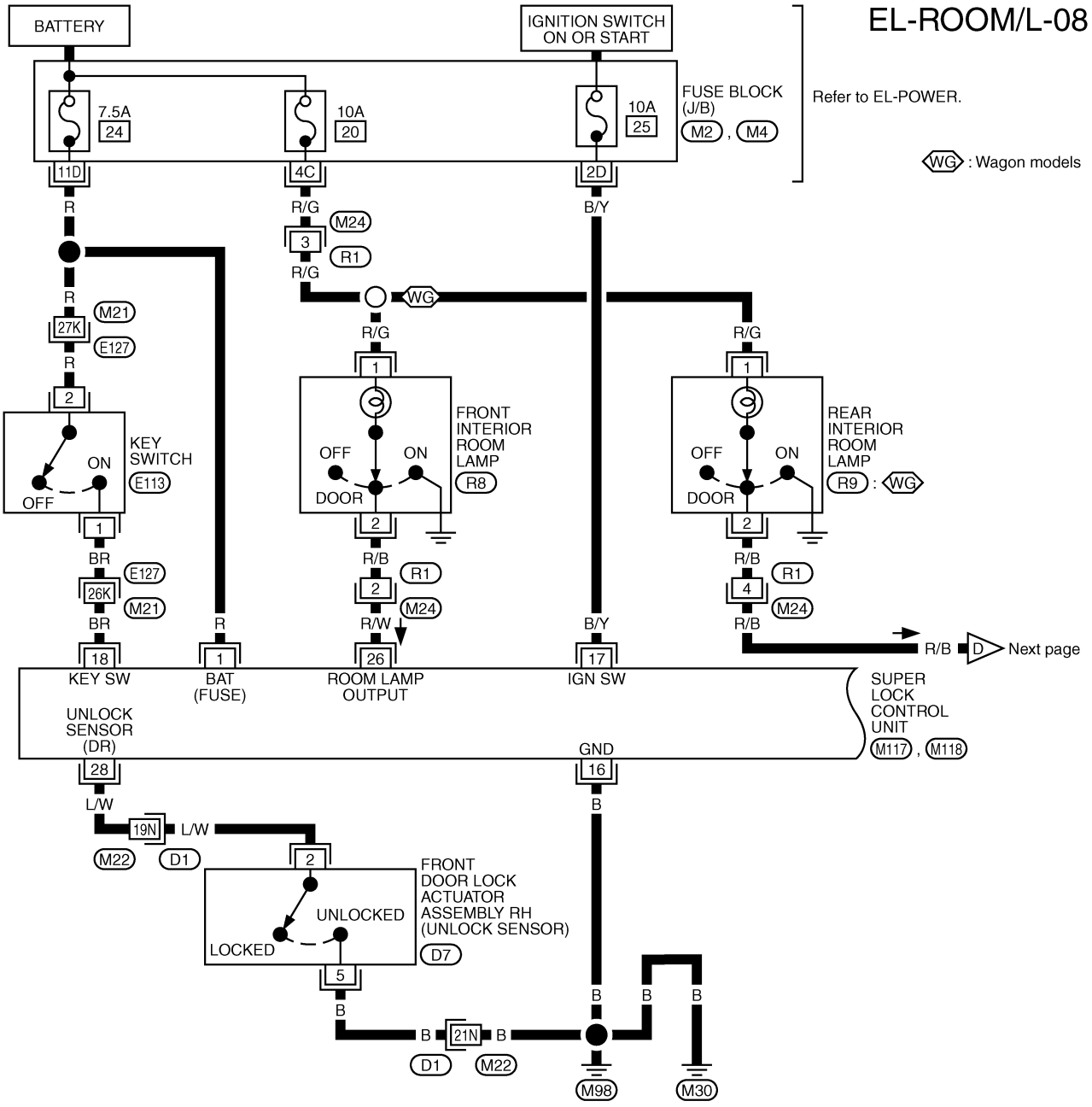


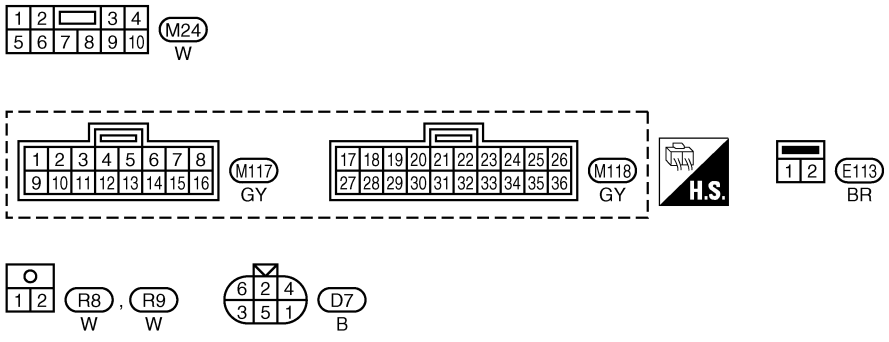
Refer to last page (Foldout page).

M20 , B19

TEL677M

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



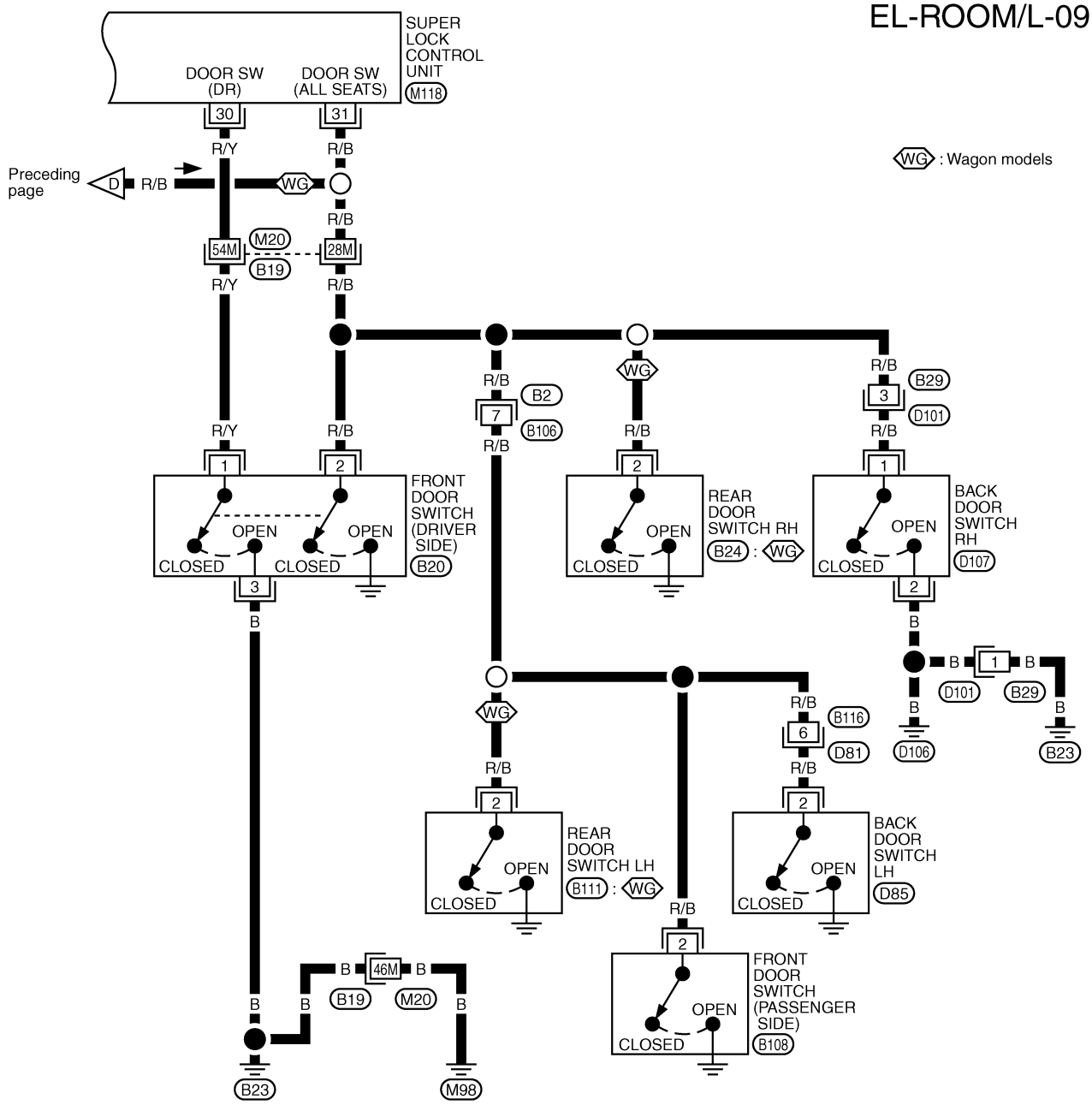


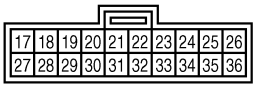
Refer to last page (Foldout page).
M21, E127
M22, D1
M2
M4

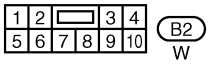
TEL760M

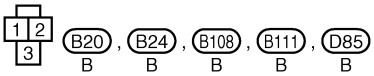
Wiring Diagram — ROOM/L —/RHD Models for Europe (Cont'd)

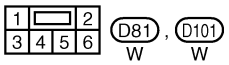
EL-ROOM/L-09

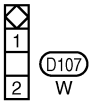










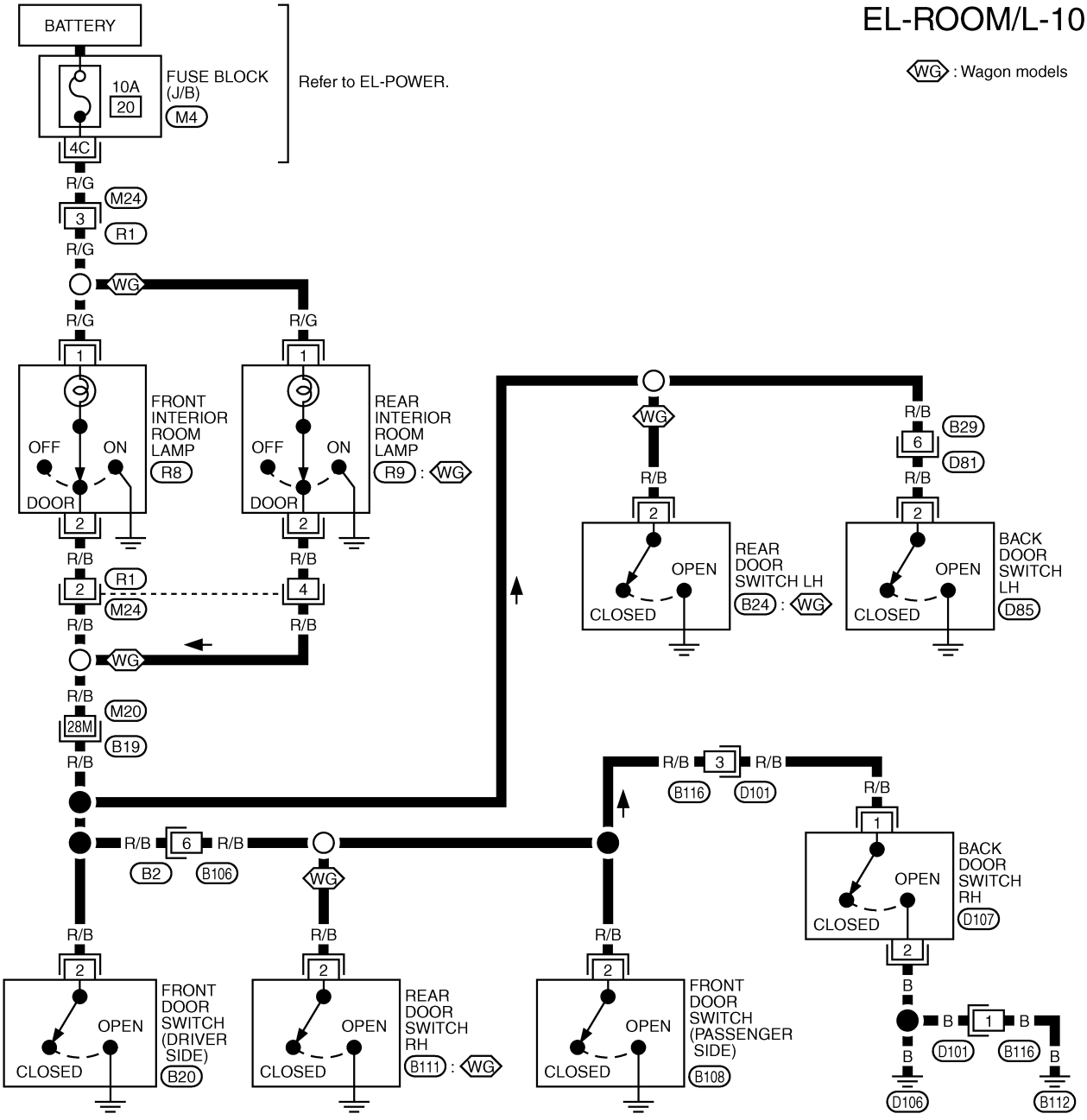


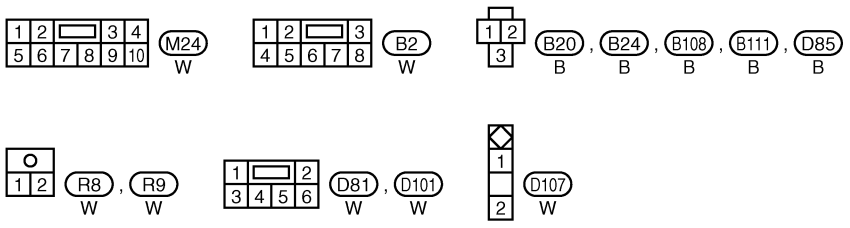
Refer to last page (Foldout page).
M20 , B19

TEL761M

Wiring Diagram — ROOM/L —/LHD Models

EL-ROOM/L-10





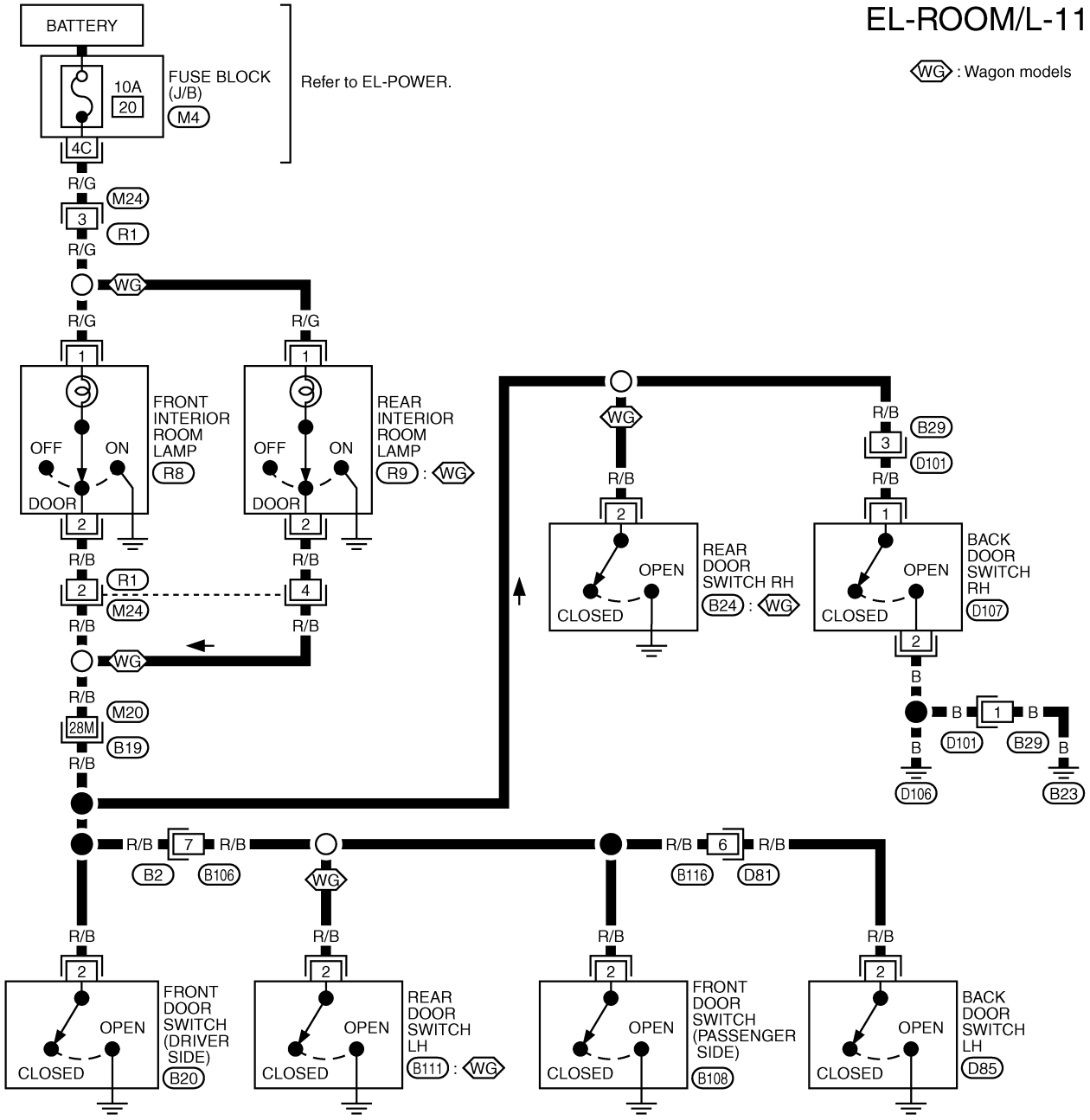
Refer to last page (Foldout page).
M20 , B19
M4

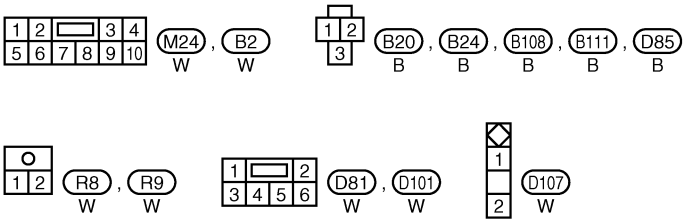
TEL762M

Wiring Diagram — ROOM/L —/RHD Models

EL-ROOM/L-11

WG : Wagon models





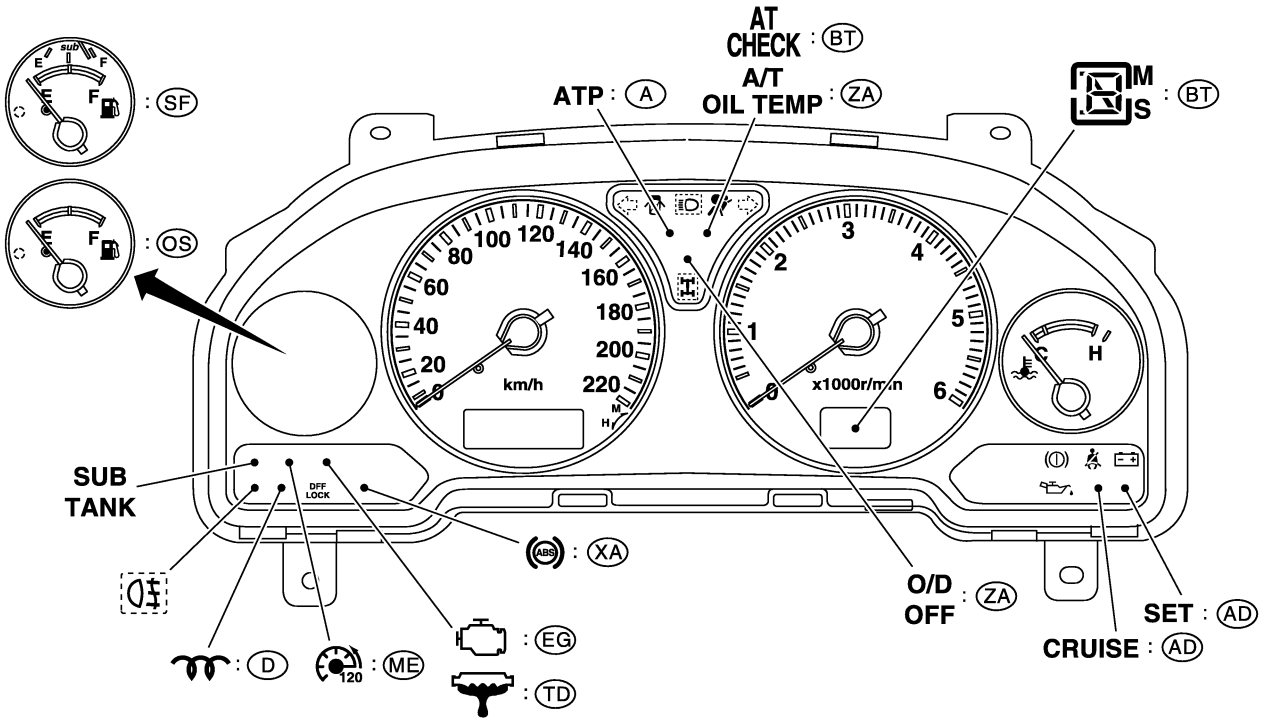
Refer to last page (Foldout page).

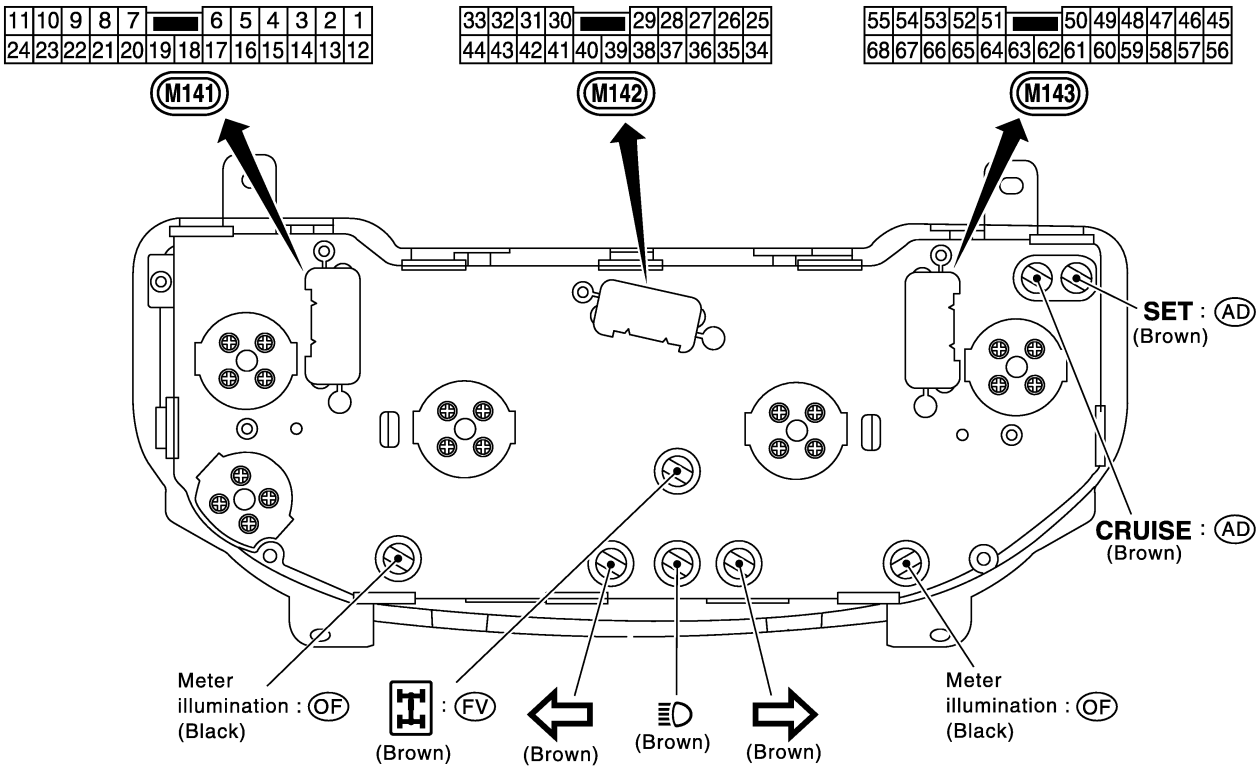
M20 , B19

M4

TEL763M

Combination Meter





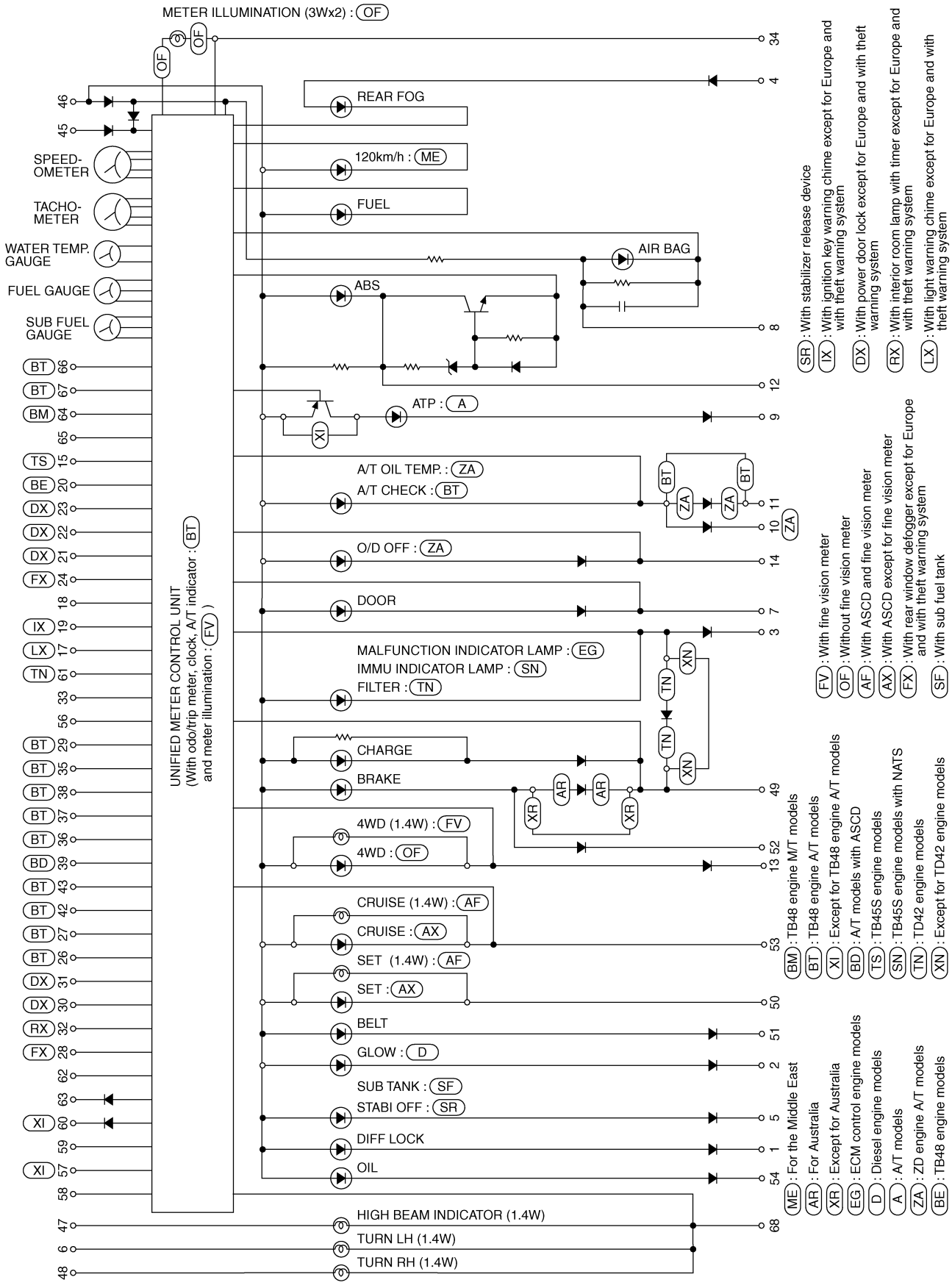
(ME) : For the Middle East
(A) : A/T models
(BT) : TB48 engine A/T models
(ZA) : ZD engine A/T models
(SF) : With sub fuel tank
(OS) : Without sub fuel tank
(FV) : With fine vision meter
(OF) : Without fine vision meter
(XA) : Except for Australia
(D) : Diesel engine models
(EG) : ECM control engine models
(TD) : TD engine models
(AD) : With ASCD

Bulb socket color	Bulb wattage
Brown	1.4W
Black	3.0W

( ) : Warning bulb socket color

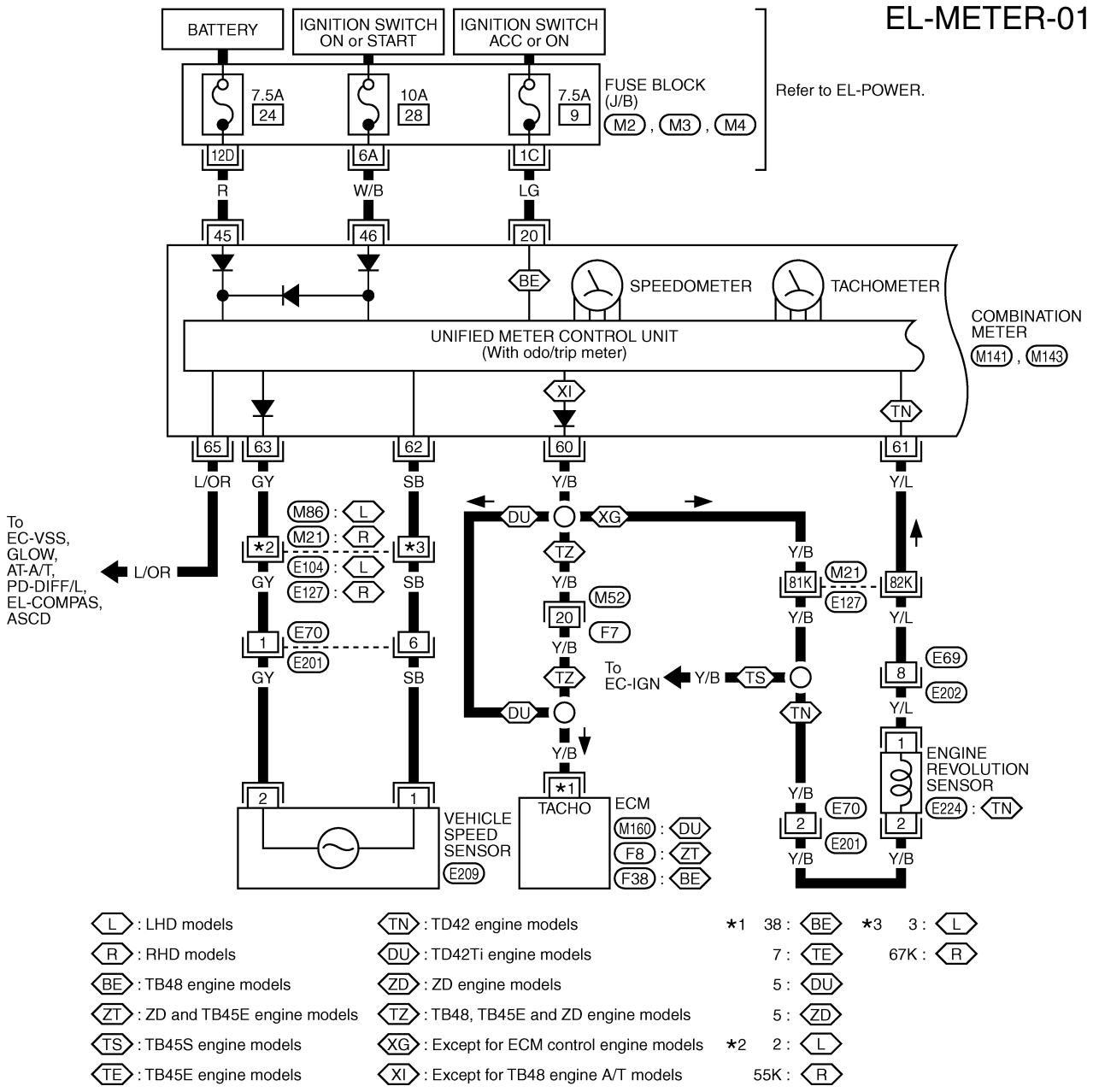
SEL738Y

Schematic



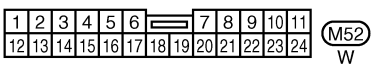
TEL837M

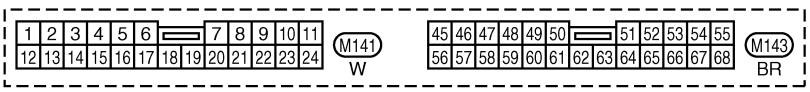
Wiring Diagram — METER —

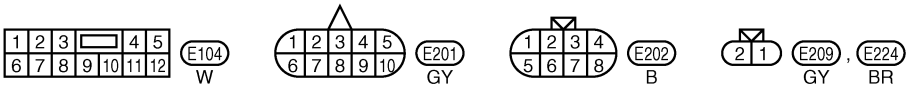


L : LHD models
R : RHD models
BE : TB48 engine models
ZT : ZD and TB45E engine models
TS : TB45S engine models
TE : TB45E engine models
TN : TD42 engine models
DU : TD42Ti engine models
ZD : ZD engine models
TZ : TB48, TB45E and ZD engine models
XG : Except for ECM control engine models
XI : Except for TB48 engine A/T models

*1 38 : BE
7 : TE
5 : DU
5 : ZD
*2 2 : L
55K : R
*3 3 : L
67K : R





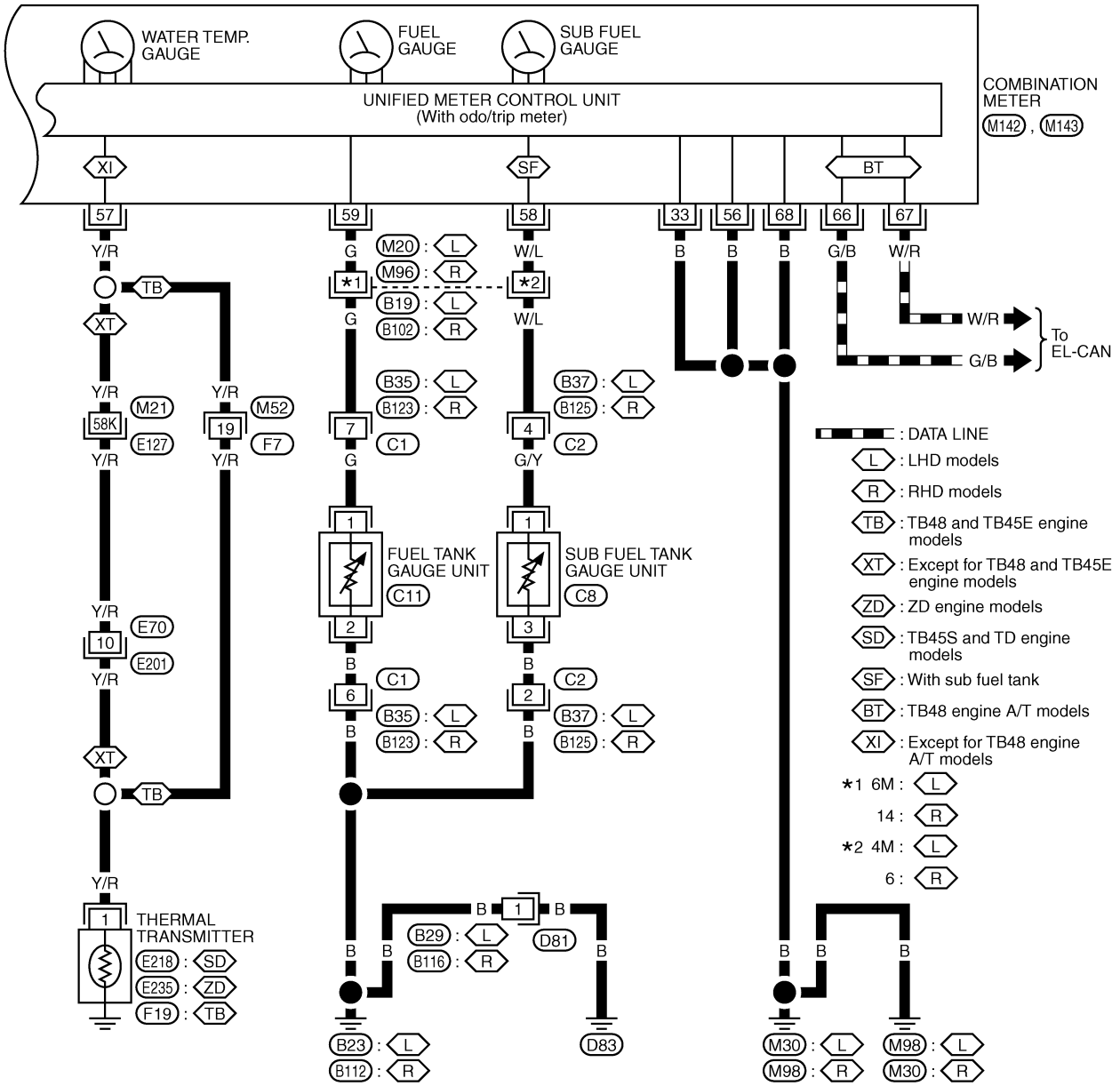


Refer to last page (Foldout page).
M21, E127
M2
M3
M4
M160
F8
F38

TEL764M

Wiring Diagram — METER — (Cont'd)

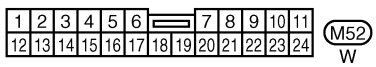
EL-METER-02

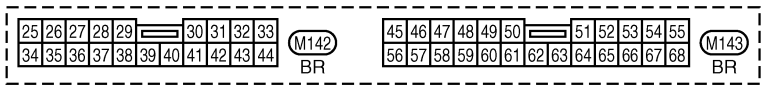


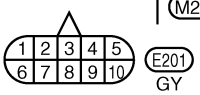
Refer to last page (Foldout page).

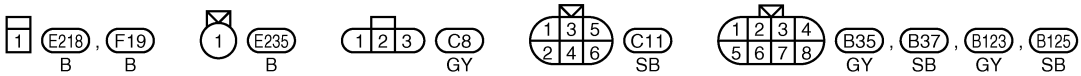
M20 , B19

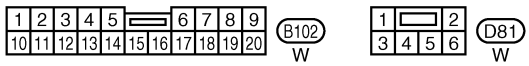
M21 , E127







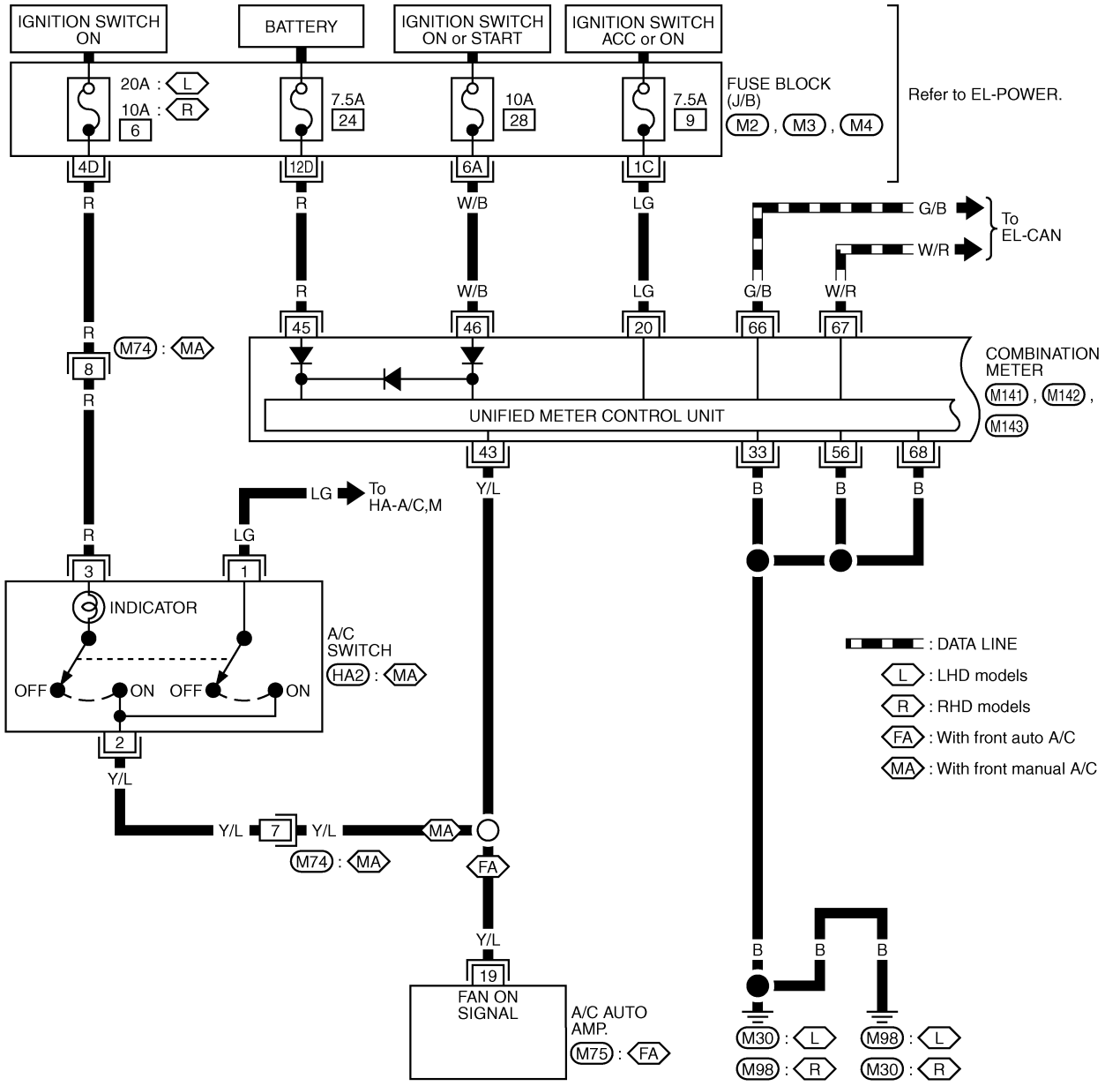


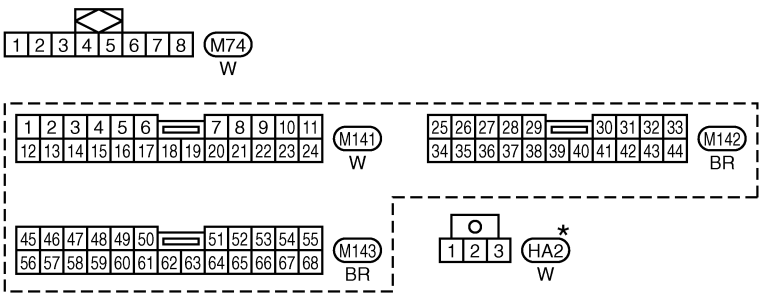


TEL765M

Wiring Diagram — LOAD/S —/TB48 Engine Models with A/T

EL-LOAD/S-01





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

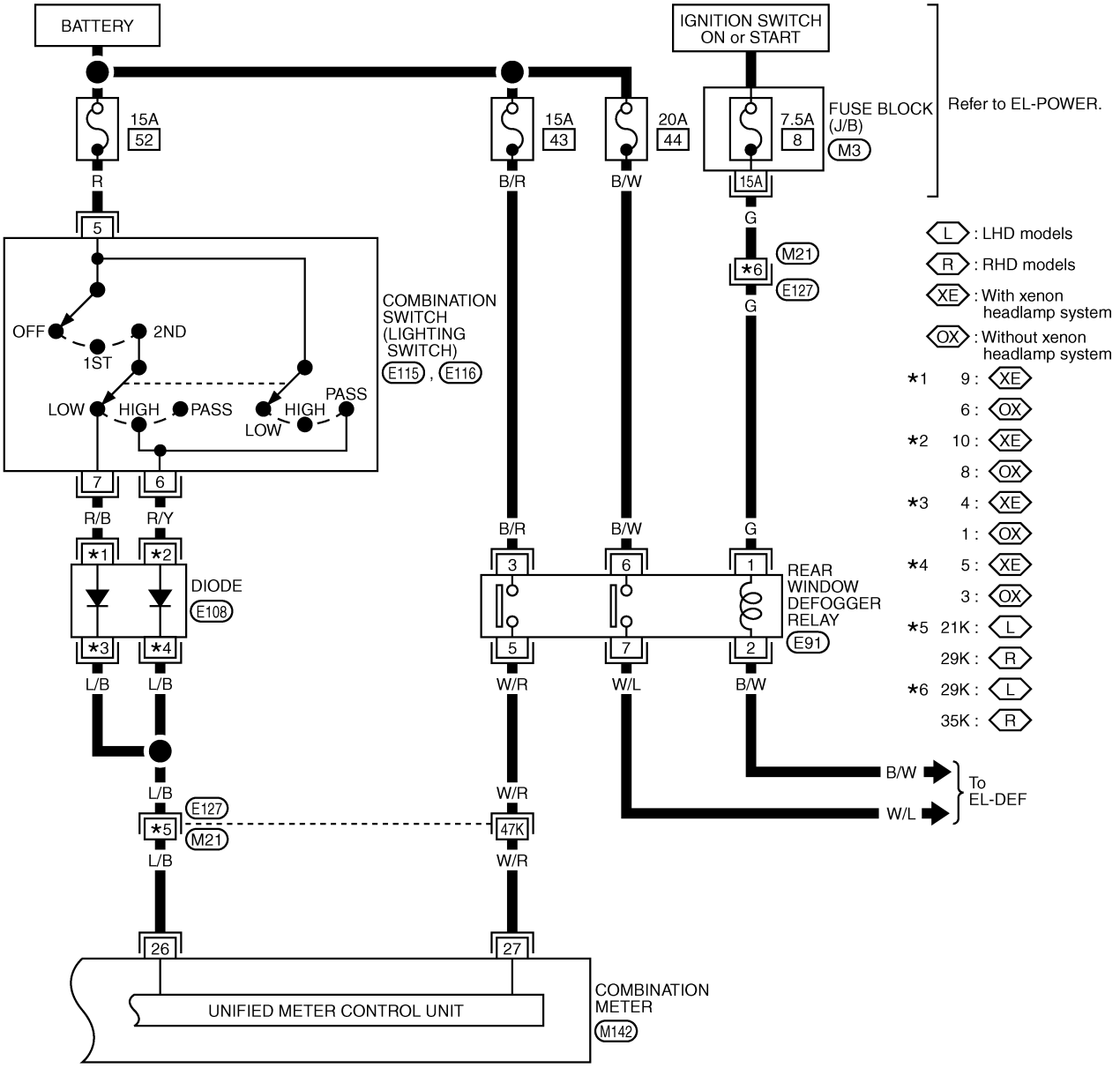
Refer to last page (Foldout page).

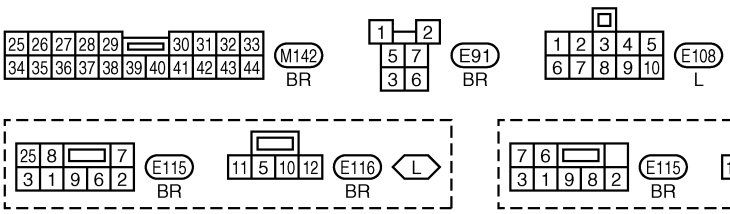
M2
M3
M4
M75

TEL622M

Wiring Diagram — LOAD/S —/TB48 Engine Models with A/T (Cont'd)

EL-LOAD/S-02





Refer to last page (Foldout page).
M21, E127
M3

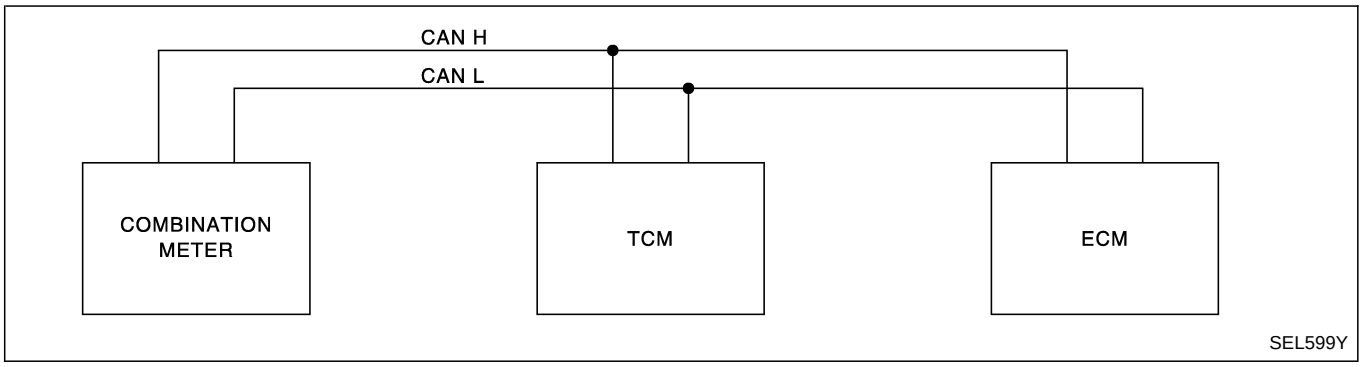
TEL623M

CAN Communication/TB48 Engine Models With A/T

SYSTEM DESCRIPTION

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

System diagram



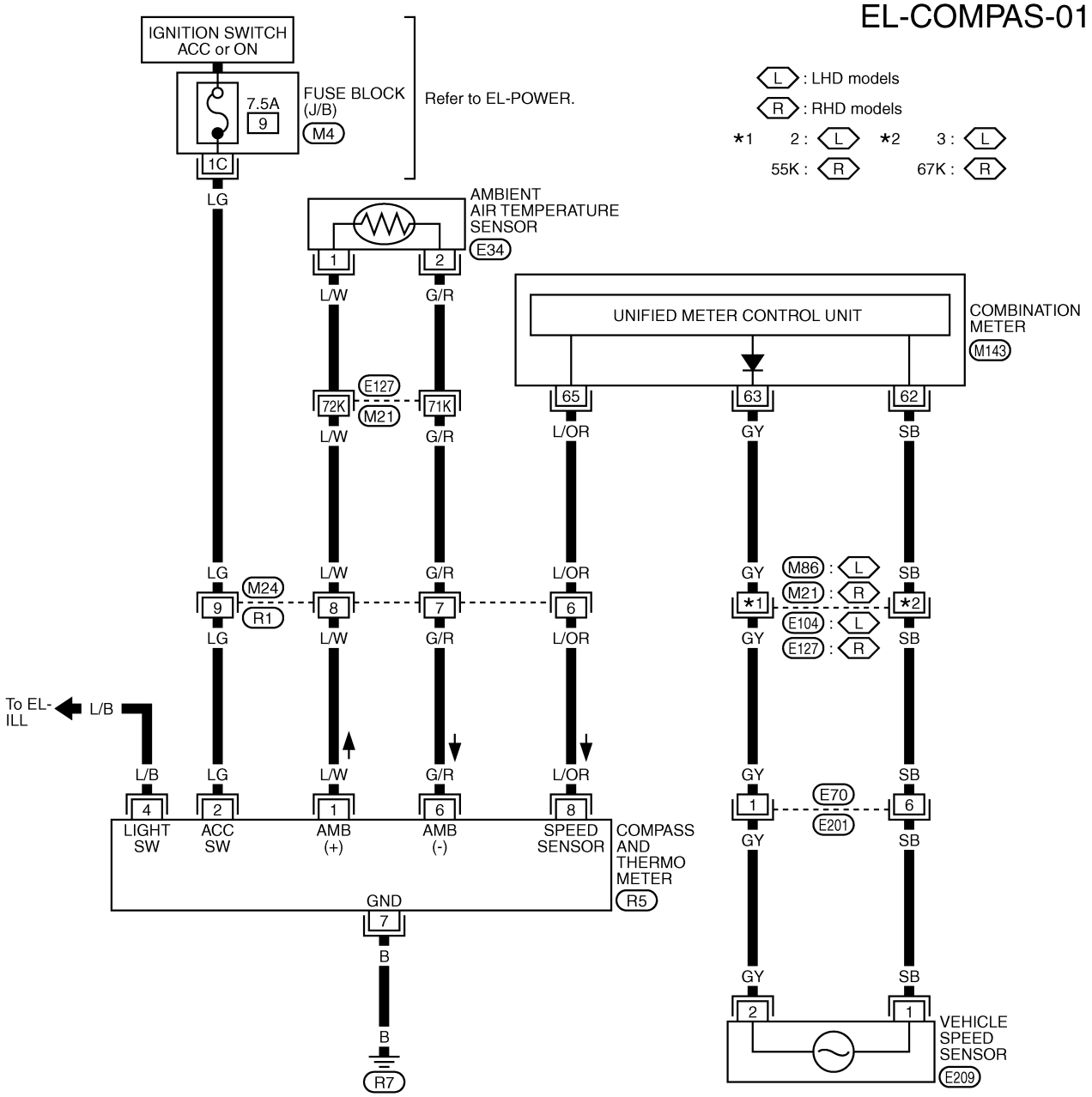
Input/Output signal chart

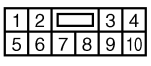
T: Transmit R: Receive

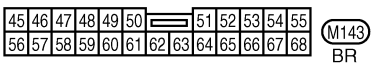
Signals	Combination meter	TCM	ECM
Engine speed signal	R	R	T
Engine coolant temperature signal	R	R	T
Accelerator pedal position signal		R	T
Closed throttle position signal		R	T
Wide open throttle position signal		R	T
A/T fluid temperature warning lamp signal	R	T	R
Current gear position signal	R	T	R
Shift change signal		T	R
Air conditioner switch signal	T		R
Headlamp switch signal	T		R
Rear window defogger switch signal	T		R
Brake switch signal	T	R	
Vehicle speed signal	T	R	R
A/T self diagnosis signal		T	R
Manual mode signal	T	R	

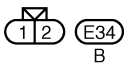
Wiring Diagram — COMPAS —

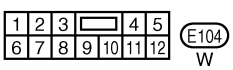
EL-COMPAS-01

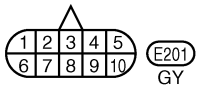


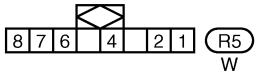








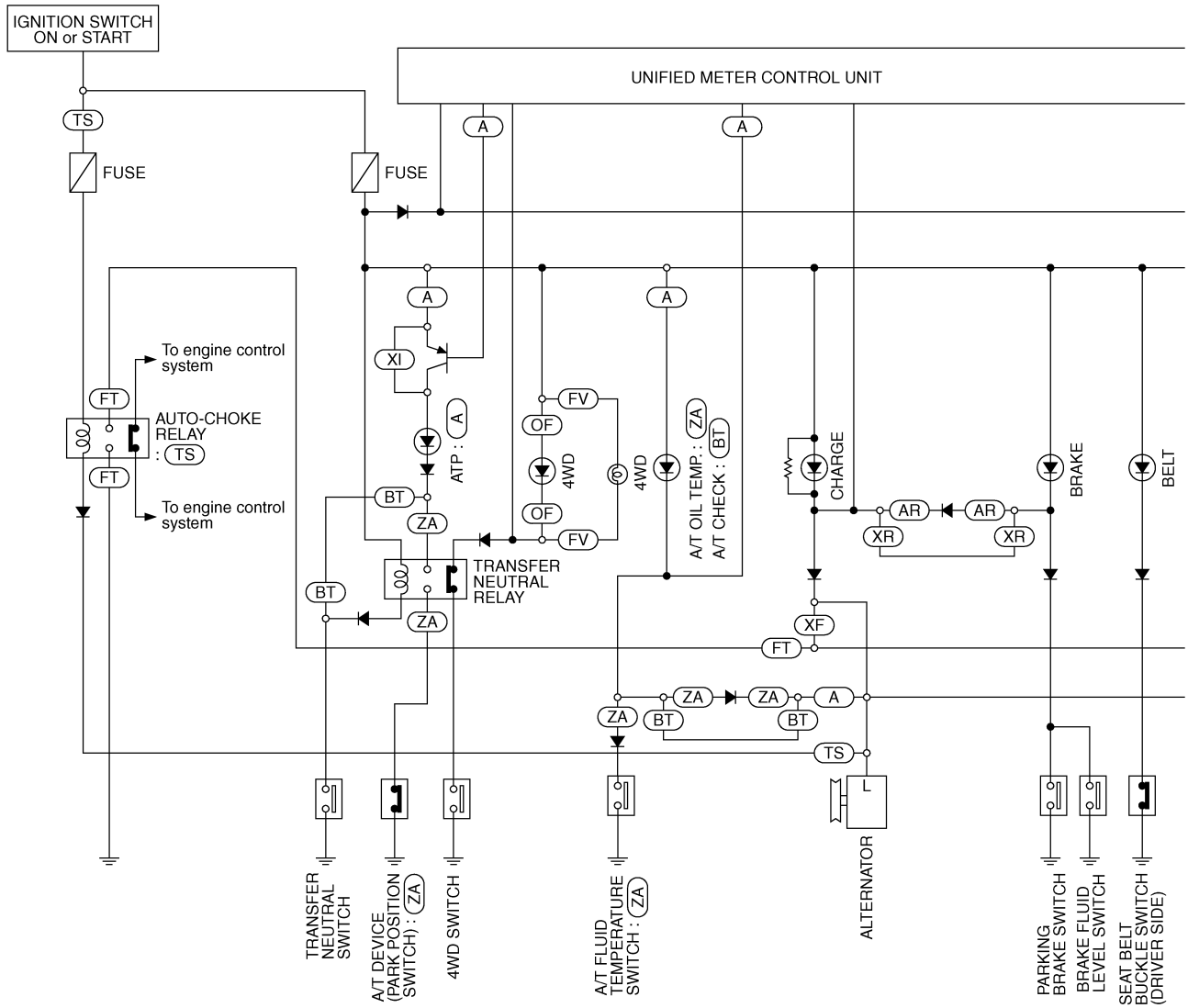




Refer to last page (Foldout page).
M21 , E127
M4

TEL486M

Schematic

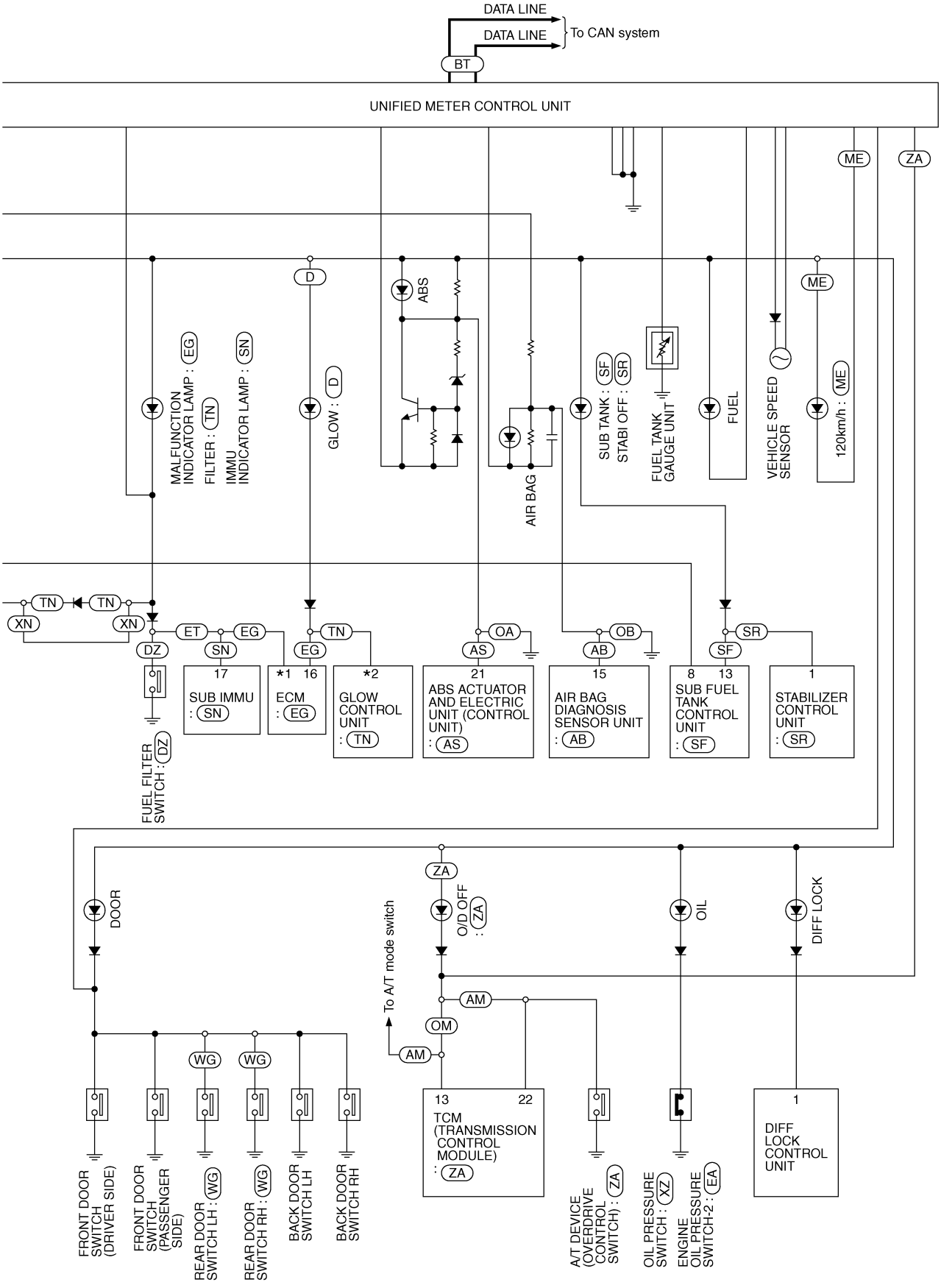


(ME) : For the Middle East
(AR) : For Australia
(XR) : Except for Australia
(A) : A/T models
(BE) : TB48 engine models
(BT) : TB48 engine A/T models
(ZA) : ZD engine A/T models
(TE) : TB45E engine models
(TS) : TB45S engine models
(SN) : TB45S engine models with NATS
(FT) : TB45S engine models with sub fuel tank
(XF) : With sub fuel tank except for TB45S engine models
(XI) : Except for TB48 engine A/T models
(TN) : TD42 engine models
(XN) : Except for TD42 engine models
(TL) : TD42 engine models for cold areas
(XL) : TD42 engine models except for cold areas
(EA) : ZD engine models for Europe and Australia
(XZ) : Except for ZD engine models for Europe and Australia
(EG) : ECM control engine models

(ET) : ECM control engine models and TB45S engine models with NATS
(D) : Diesel engine models
(DZ) : ZD engine models except for Europe and TD engine models
(WG) : Wagon models
(AB) : With air bag
(OB) : Without air bag
(AS) : With ABS
(OA) : Without ABS
(AM) : With A/T mode switch
(OM) : Without A/T mode switch
(FV) : With fine vision meter
(OF) : Without fine vision meter
(SF) : With sub fuel tank
(SR) : With stabilizer release device
*1 18 : (D)
32 : (TE)
35 : (BE)
*2 3 : (XL)
14 : (TL)

TEL766M

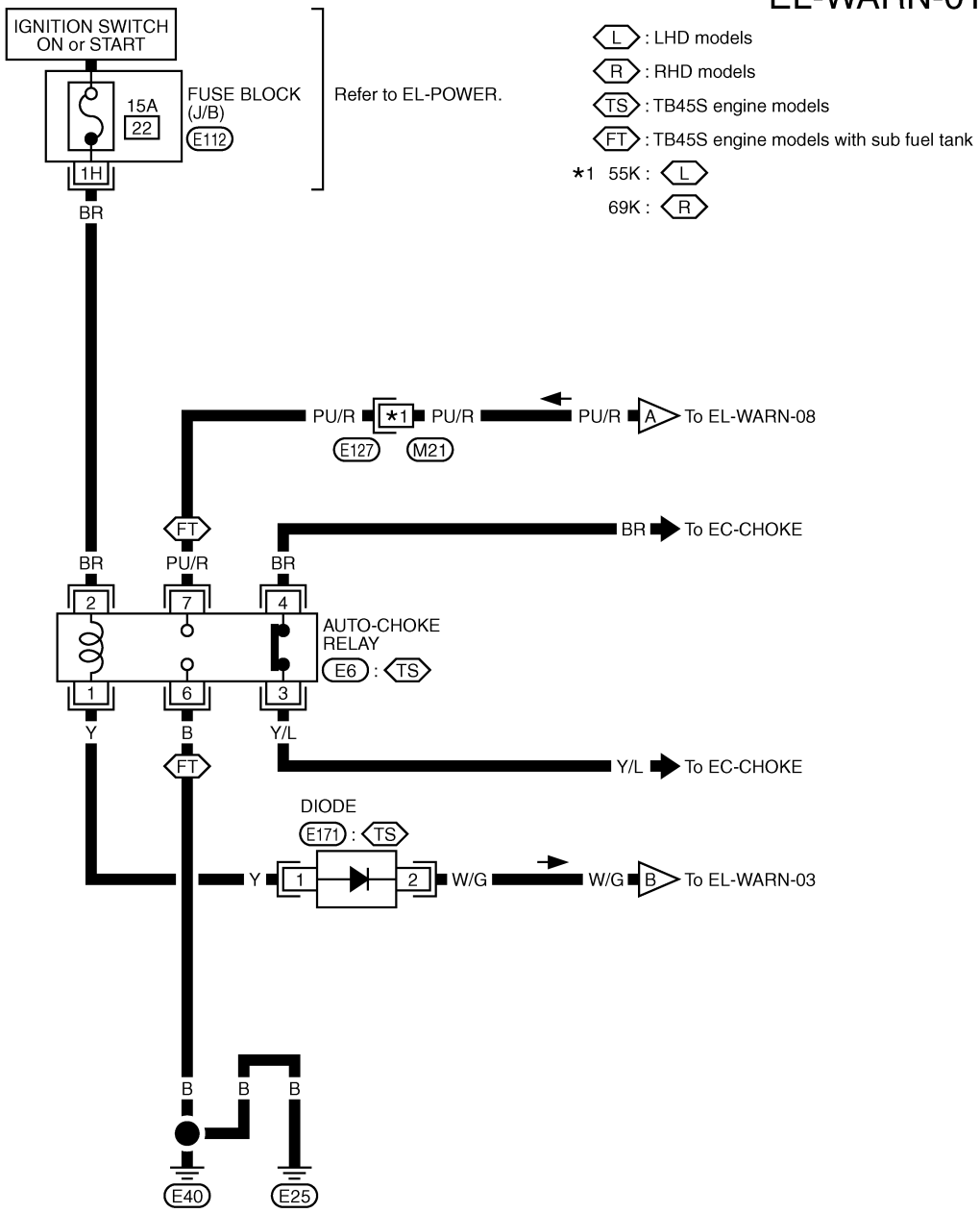
Schematic (Cont'd)

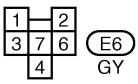


TEL807M

Wiring Diagram — WARN —

EL-WARN-01





Refer to last page (Foldout page).

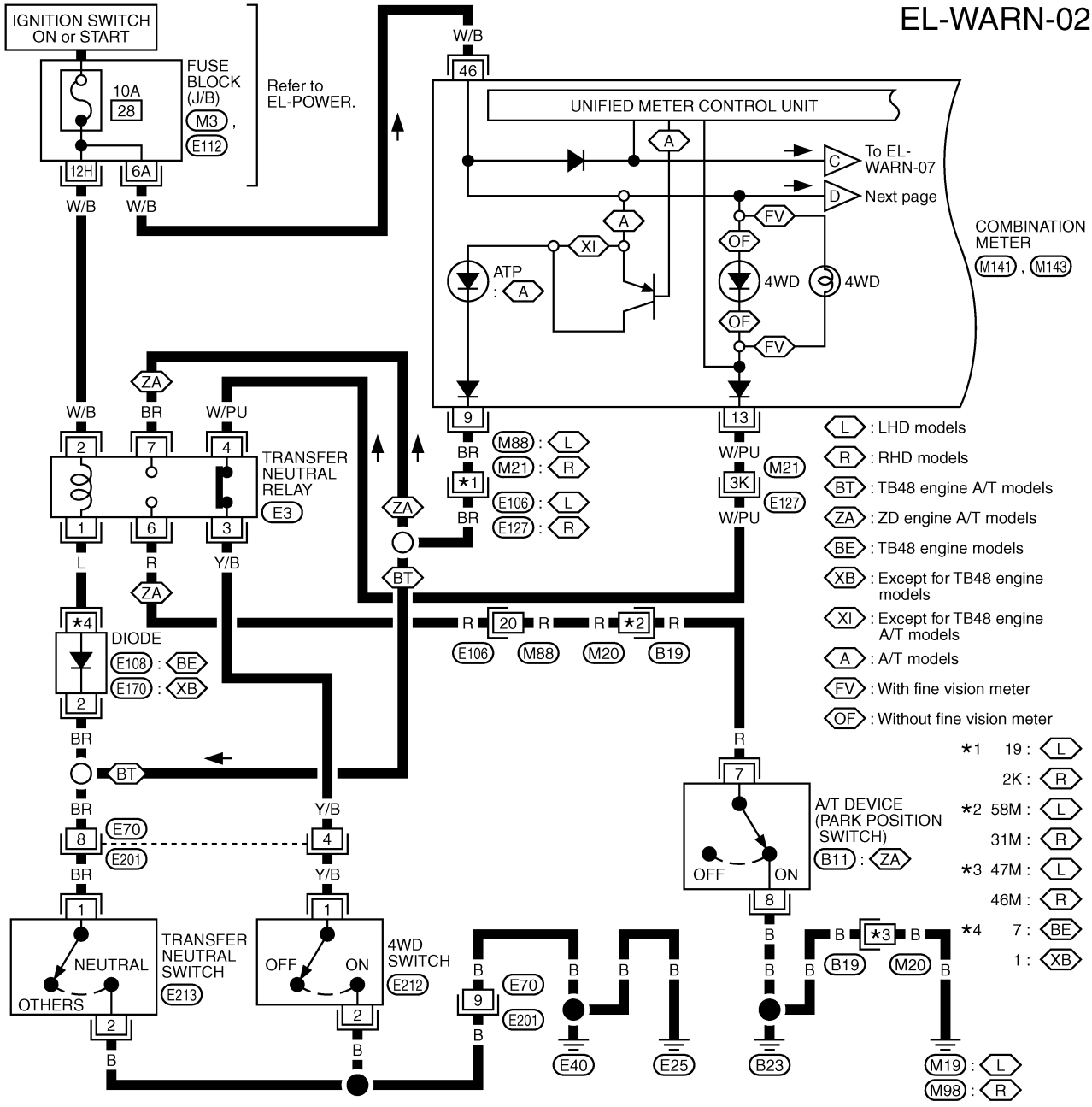
M21 , E127

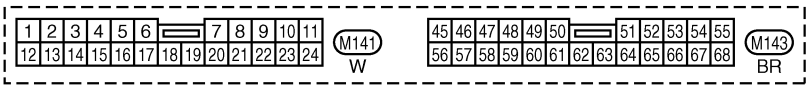
E112

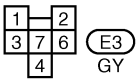
TEL819M

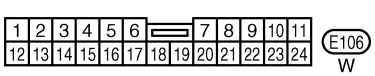
Wiring Diagram — WARN — (Cont'd)

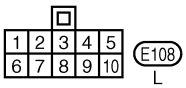
EL-WARN-02

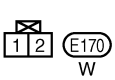


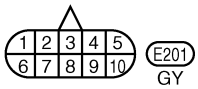


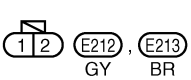


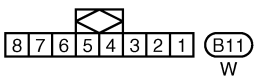












Refer to last page (Foldout page).

M20, B19

M21, E127

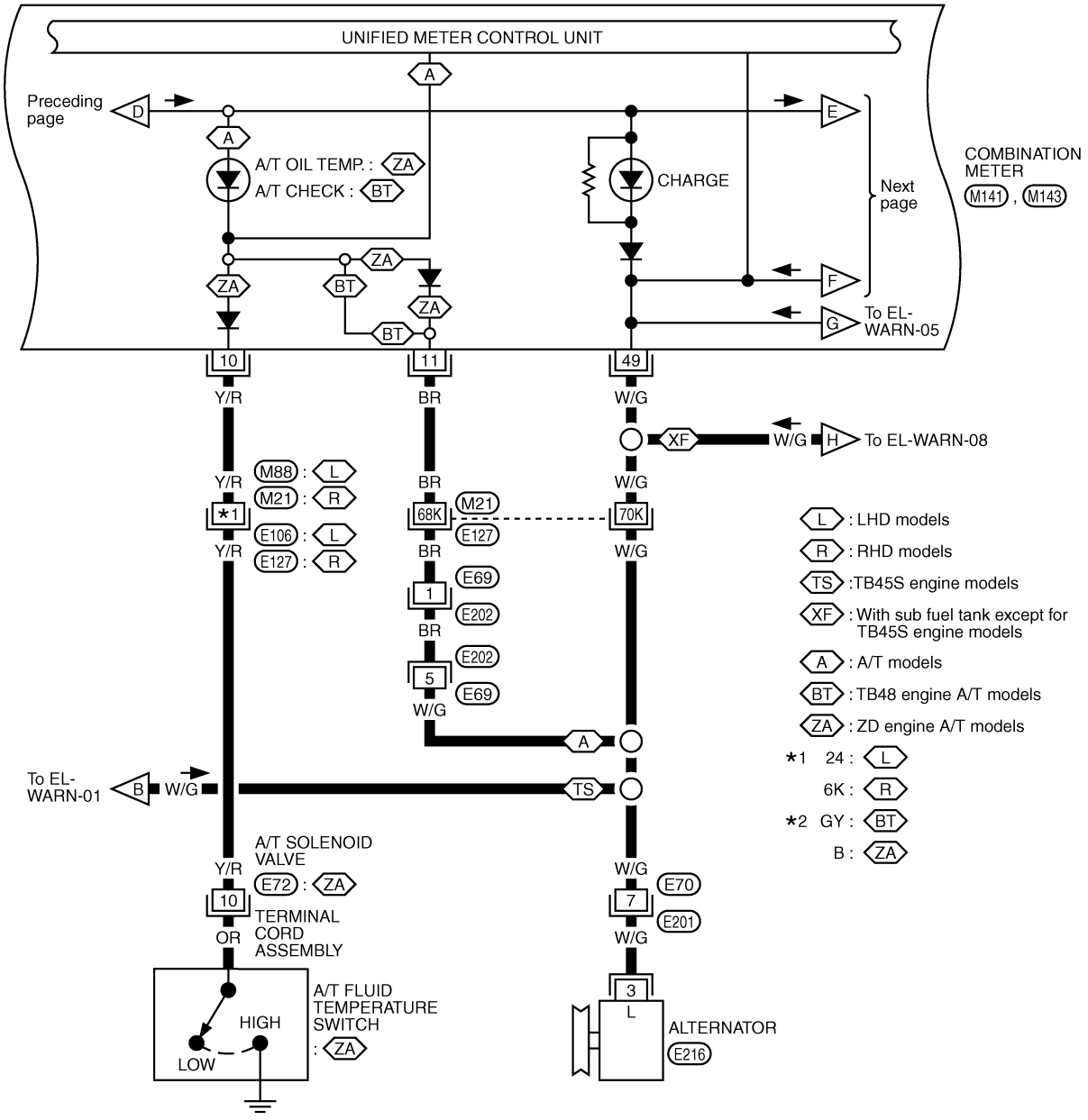
M3

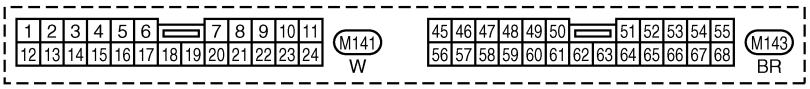
E112

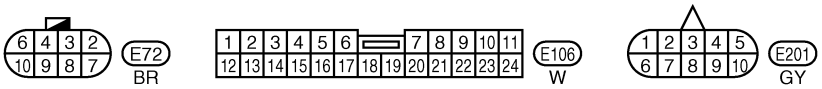
TEL820M

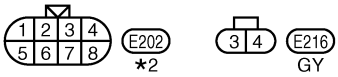
Wiring Diagram — WARN — (Cont'd)

EL-WARN-03







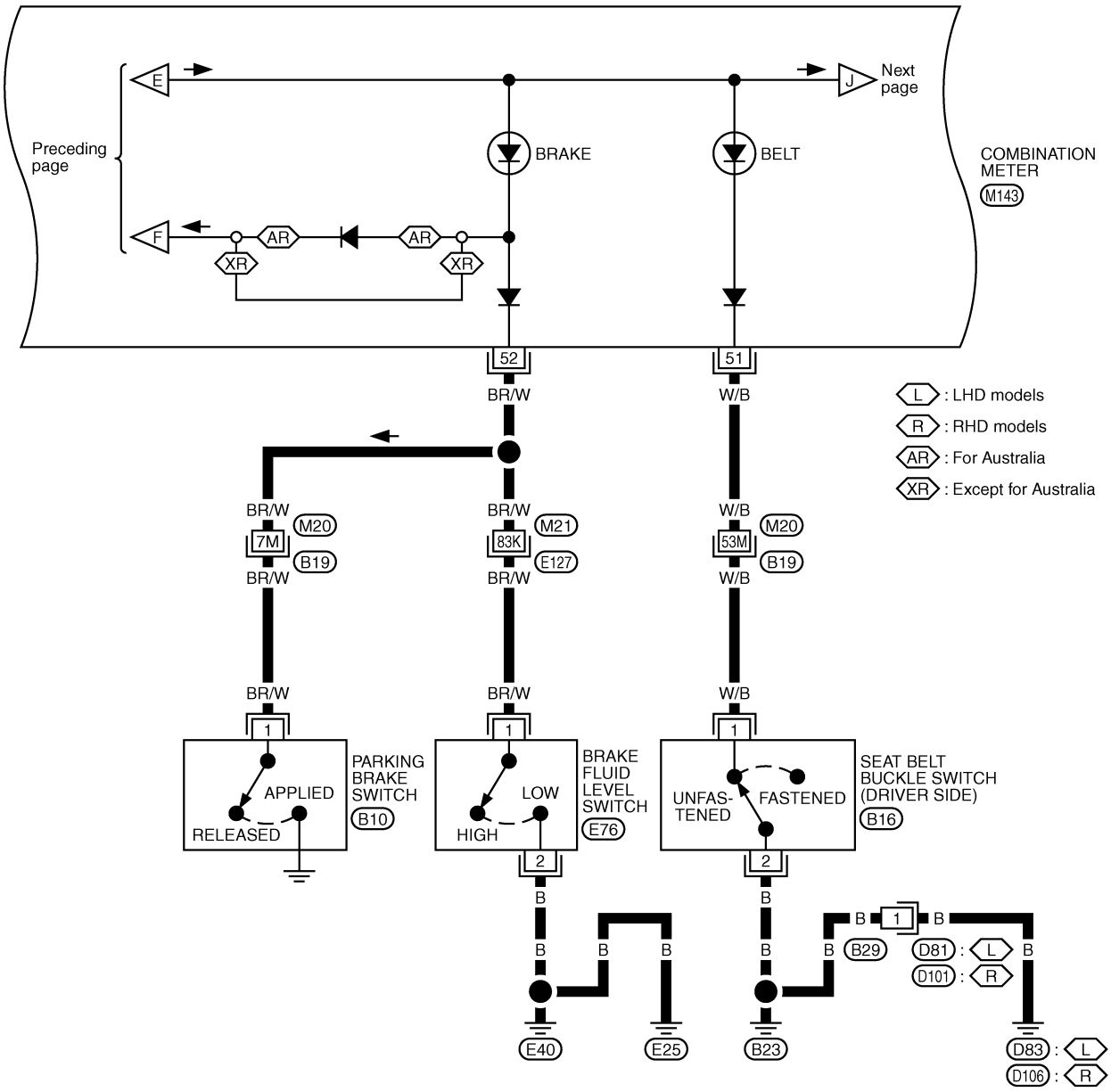


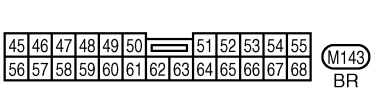
Refer to last page (Foldout page).
M21 , E127

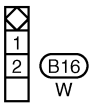
TEL821M

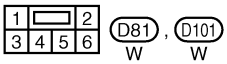
Wiring Diagram — WARN — (Cont'd)

EL-WARN-04









Refer to last page (Foldout page).

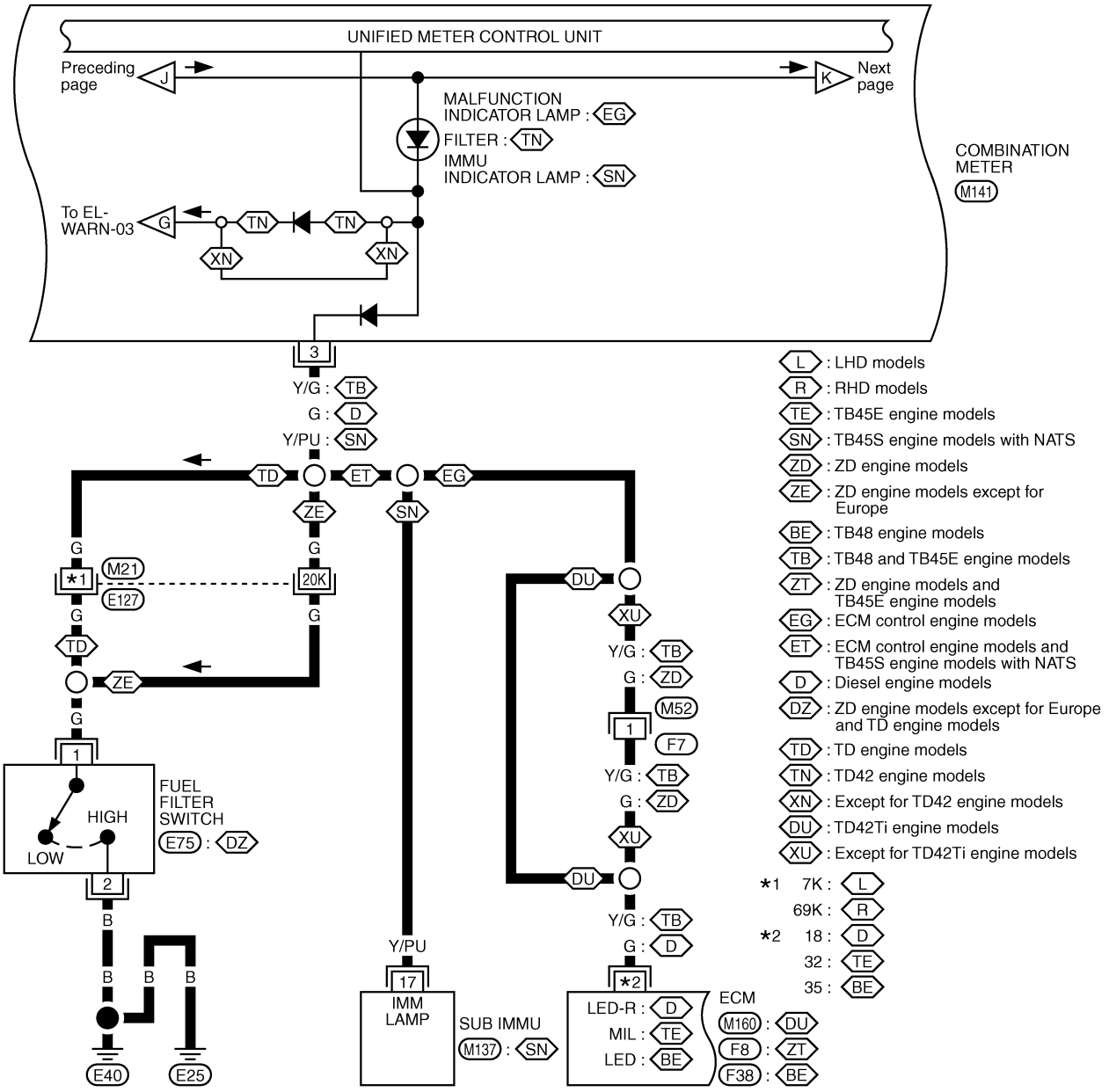
M20 , B19

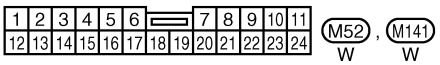
M21 , E127

TEL841M

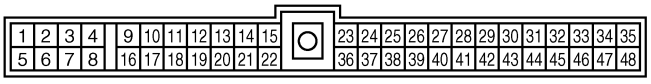
Wiring Diagram — WARN — (Cont'd)

EL-WARN-05





M52 , M141
W W



M137
W

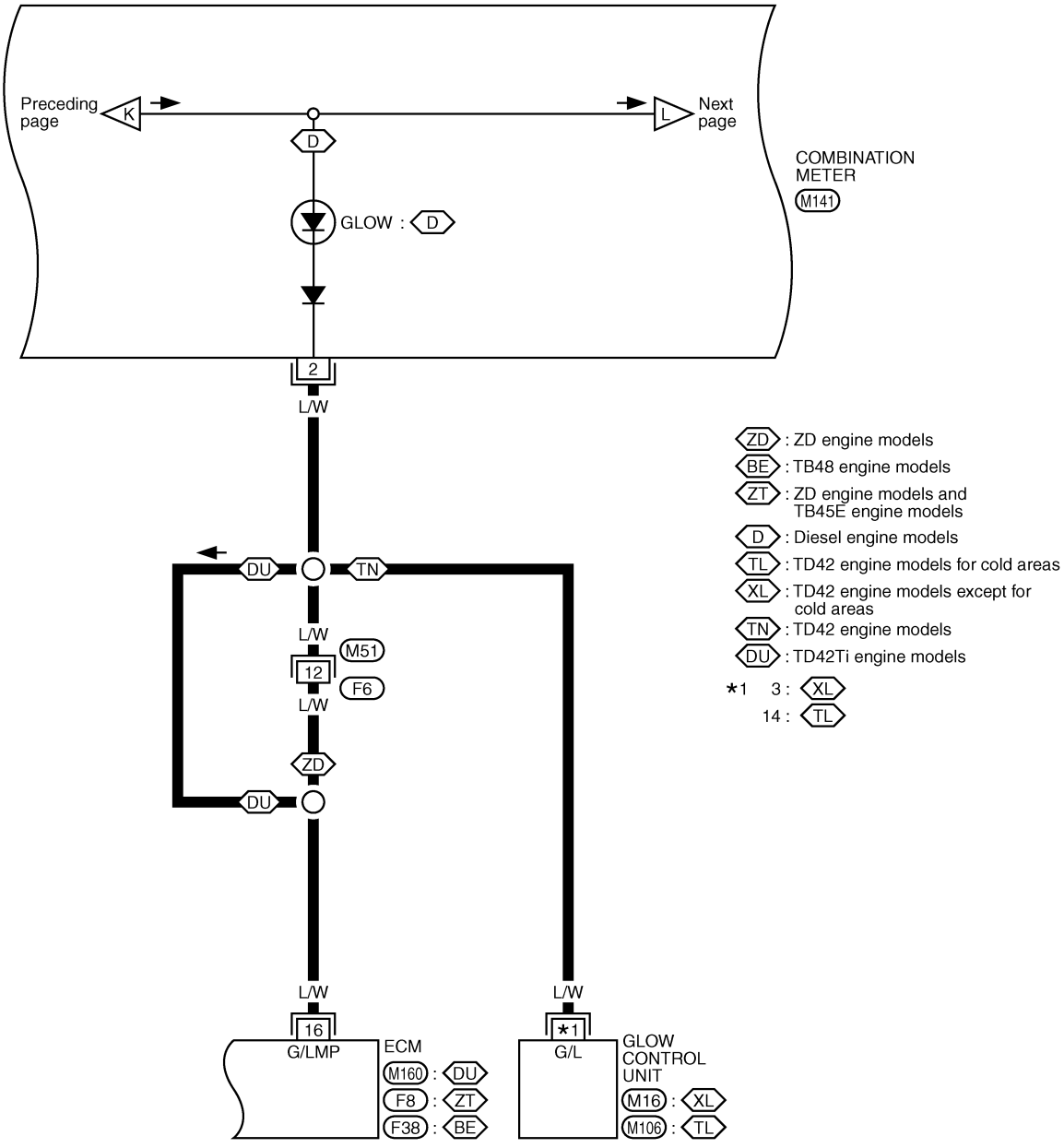
E75
BR

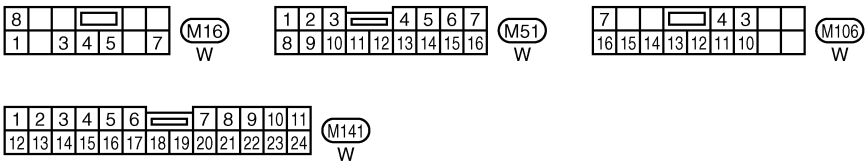
Refer to last page (Foldout page).
M21 , E127
M160
F8
F38

TEL822M

Wiring Diagram — WARN — (Cont'd)

EL-WARN-06





Refer to last page (Foldout page).

M160

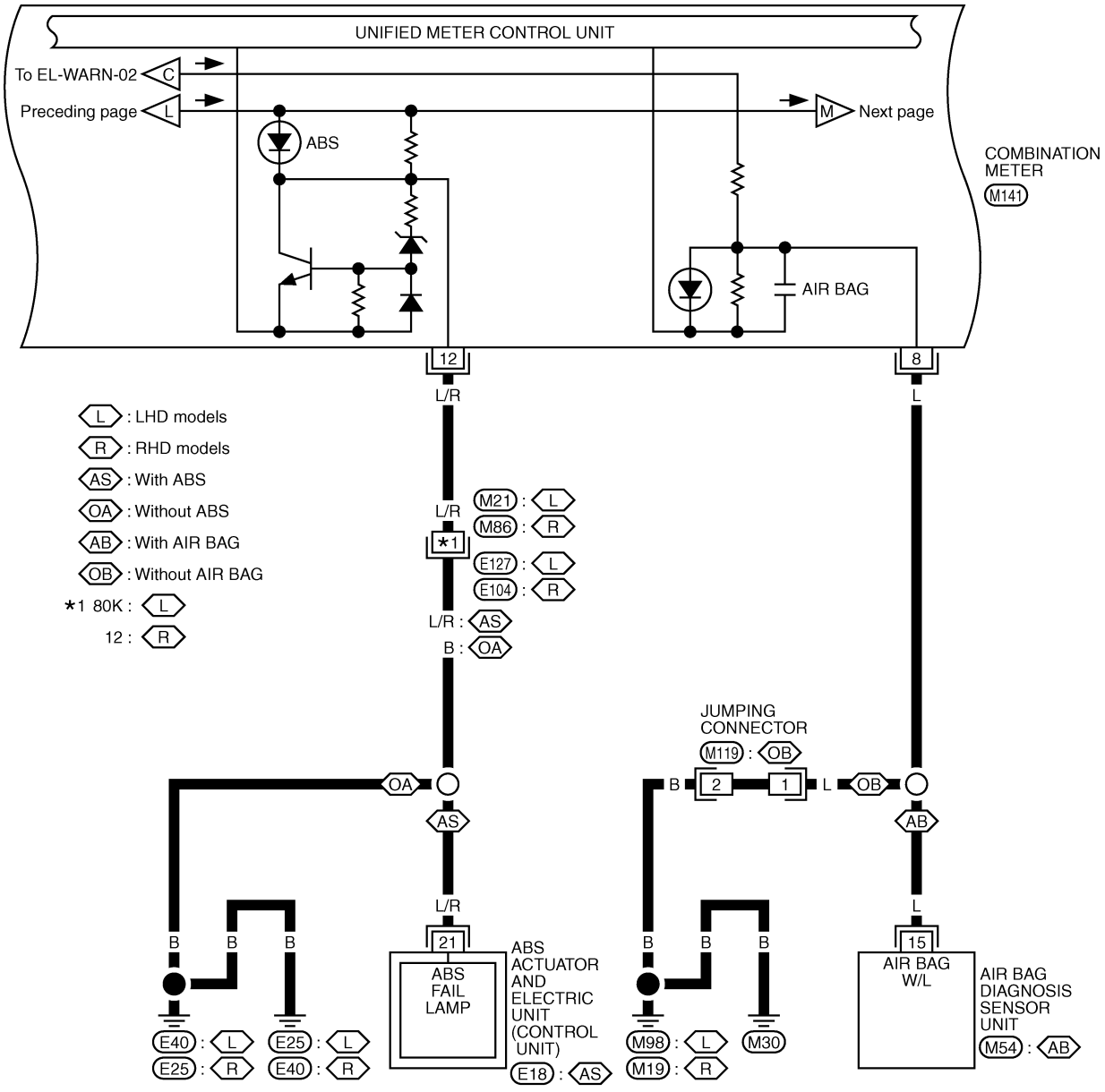
F8

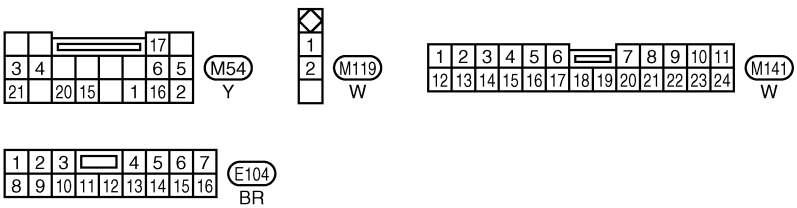
F38

TEL767M

Wiring Diagram — WARN — (Cont'd)

EL-WARN-07

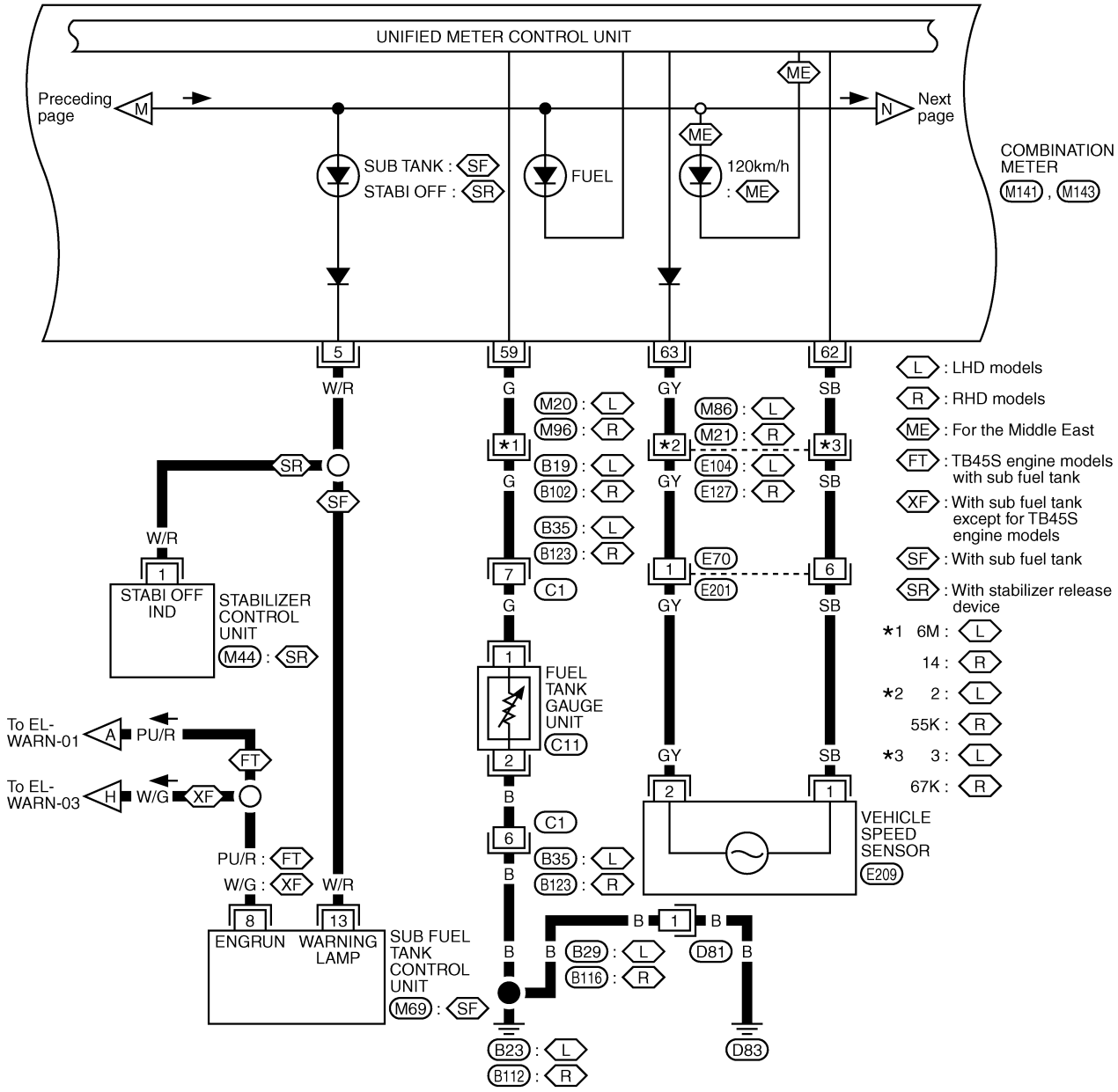


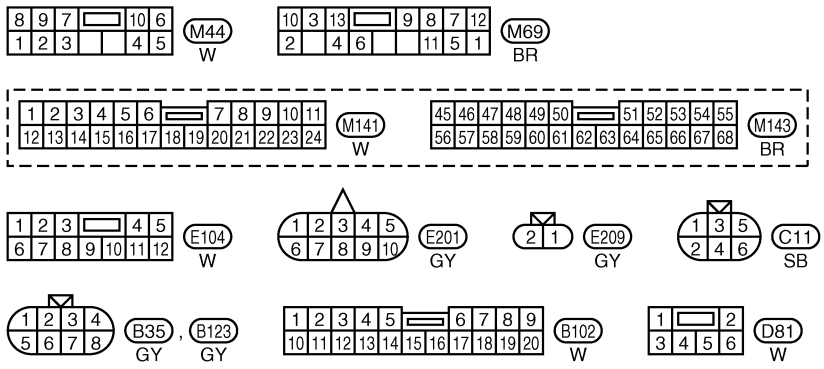


Refer to last page (Foldout page).
M21 , E127
E18

Wiring Diagram — WARN — (Cont'd)

EL-WARN-08



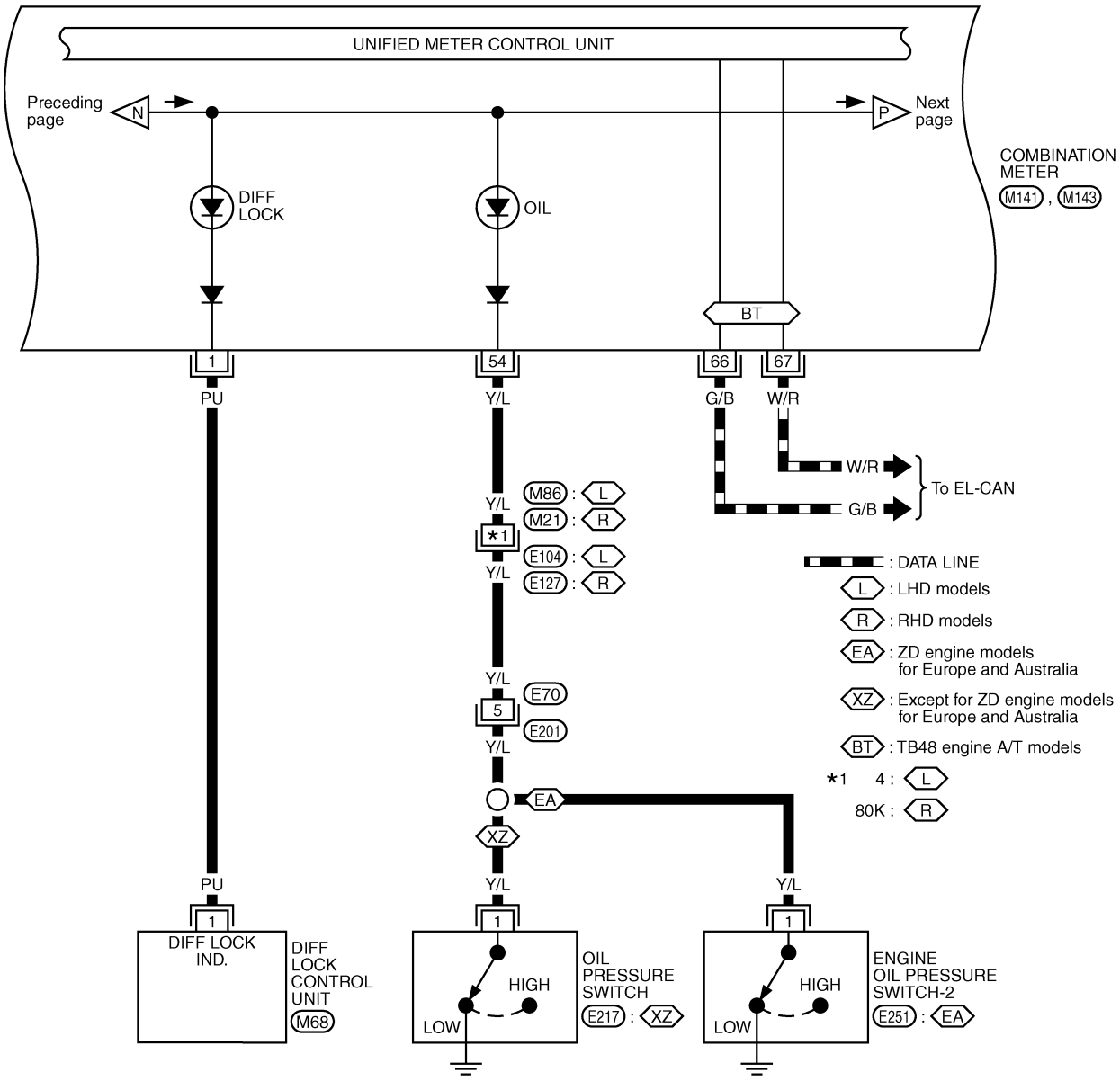


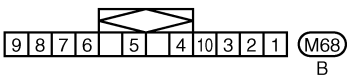
Refer to last page (Foldout page).
M20 , B19
M21 , E127

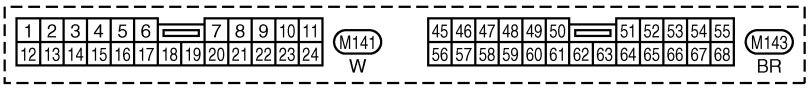
TEL808M

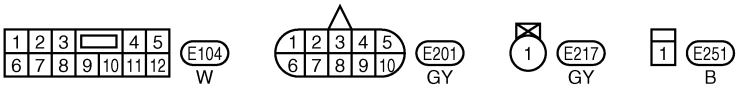
Wiring Diagram — WARN — (Cont'd)

EL-WARN-09









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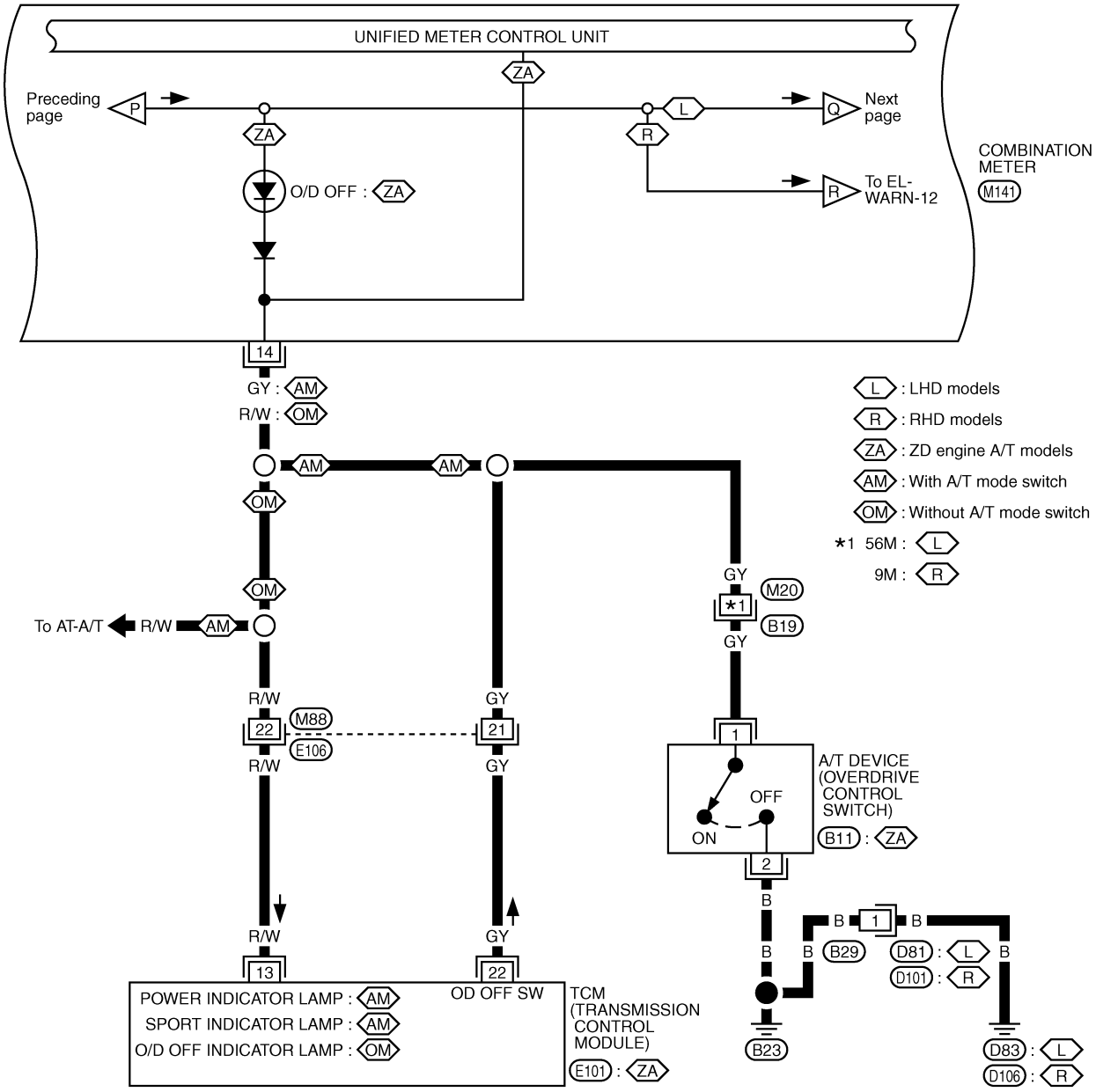
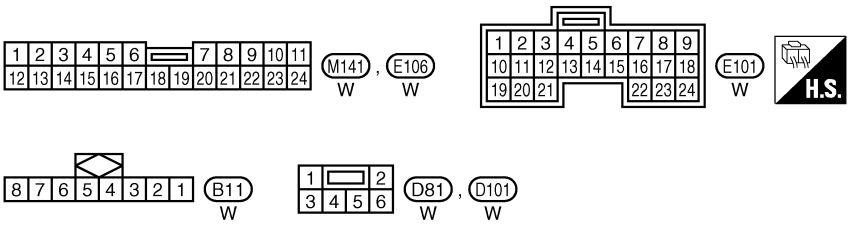
M21 , E127

Wiring Diagram — WARN — (Cont'd)

EL-WARN-10





Refer to last page (Foldout page).
M20 , B19

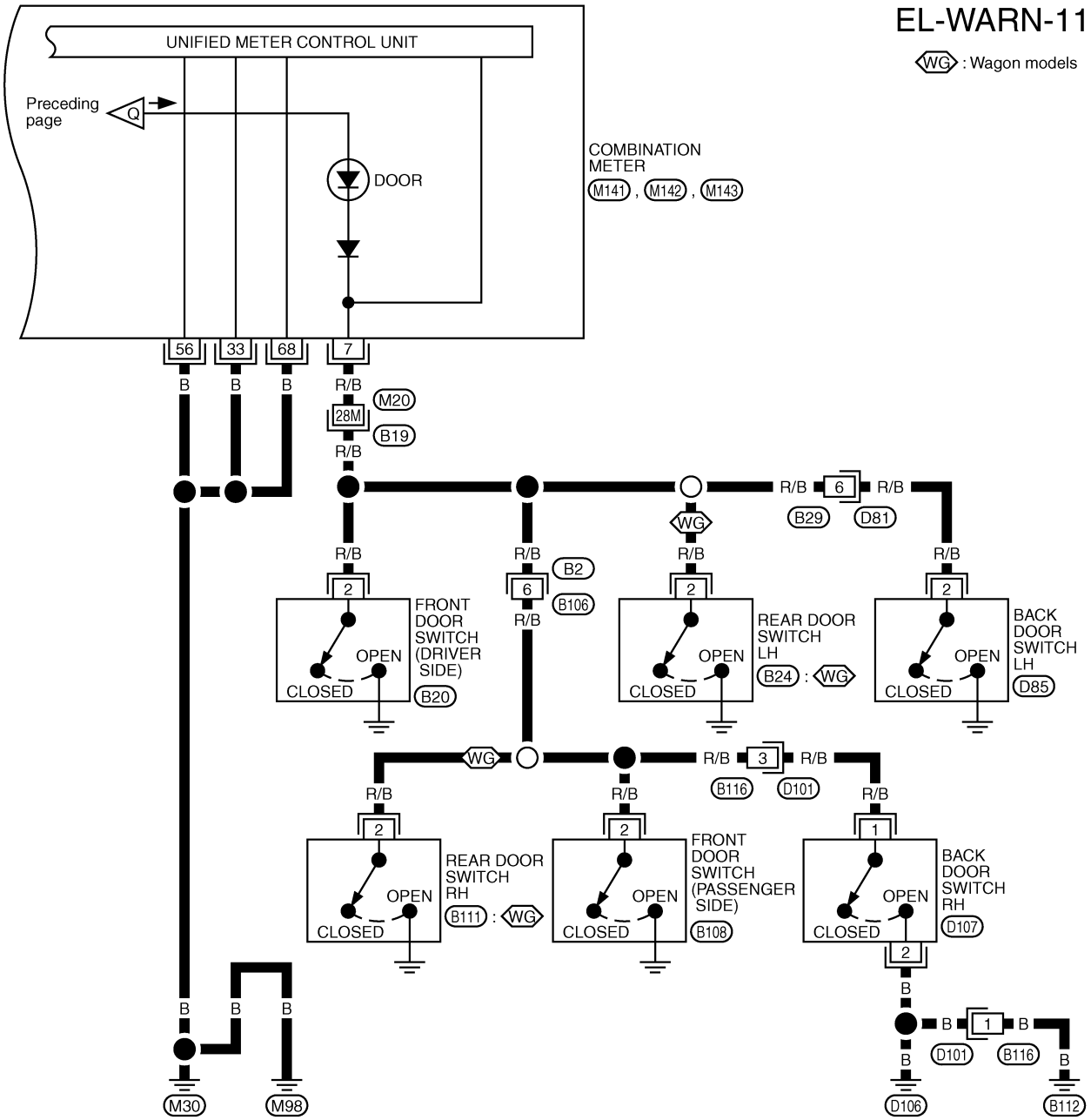
TEL825M

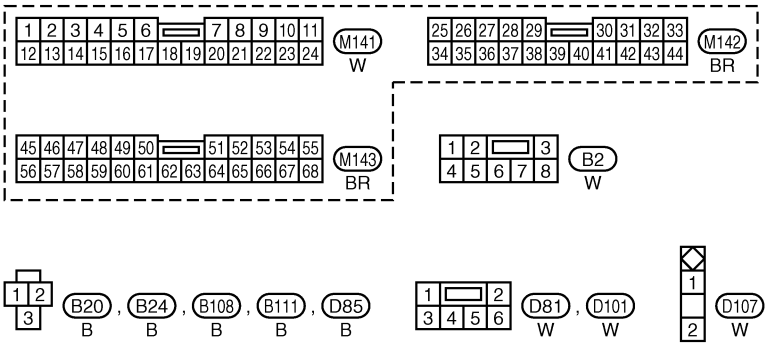
Wiring Diagram — WARN — (Cont'd)

LHD MODELS

EL-WARN-11

WG : Wagon models





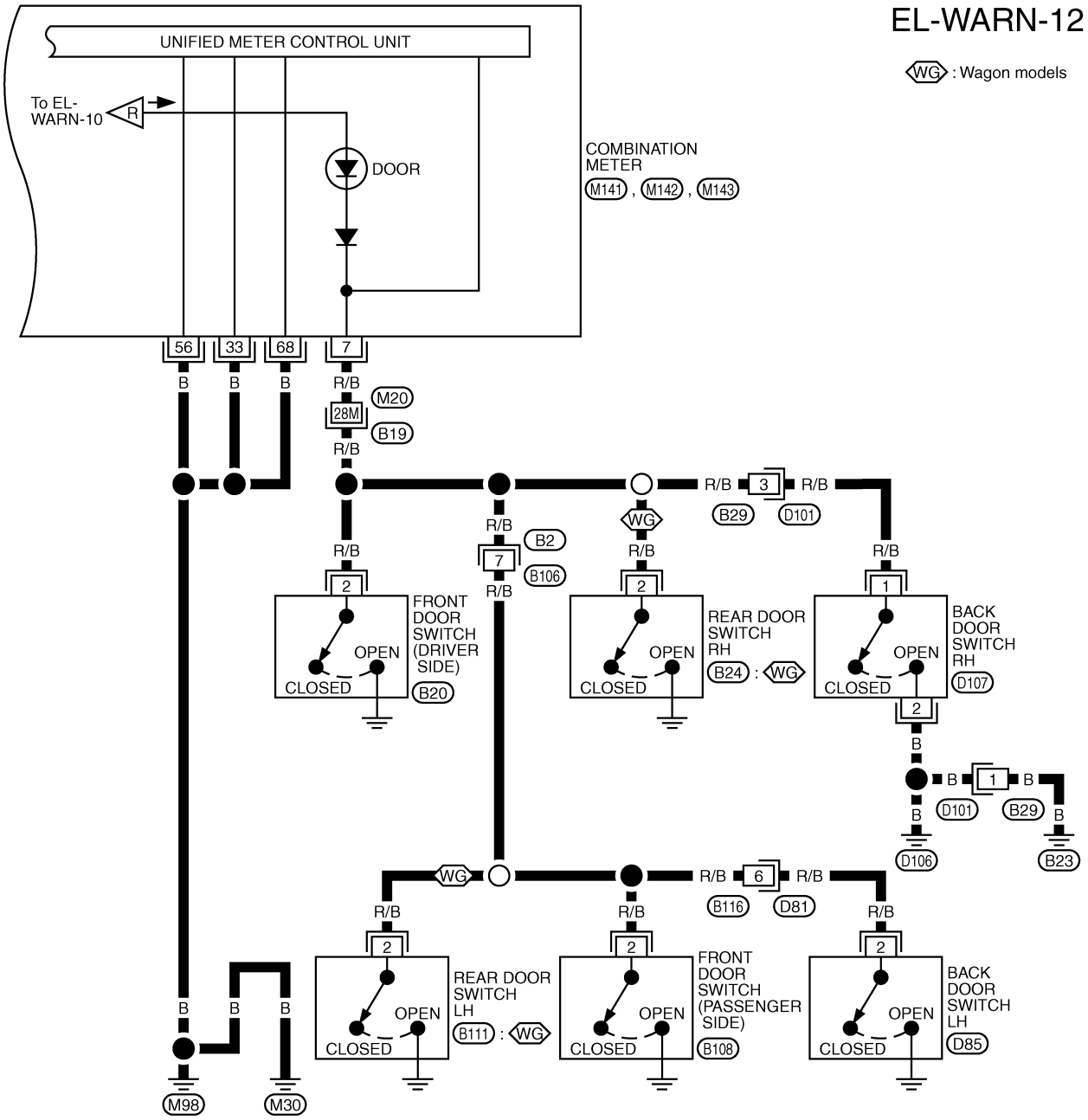
Refer to last page (Foldout page).

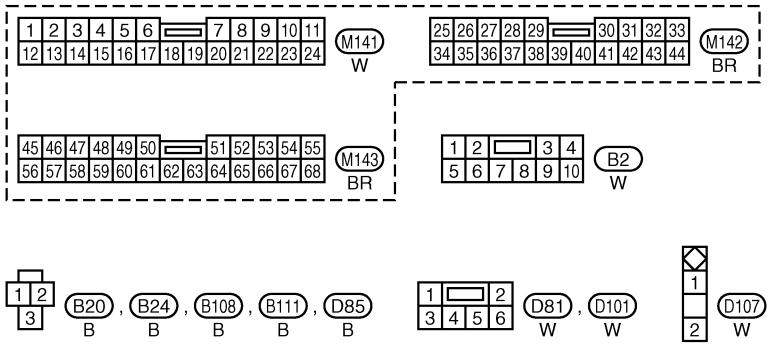
M20 , B19

TEL826M

Wiring Diagram — WARN — (Cont'd)

RHD MODELS

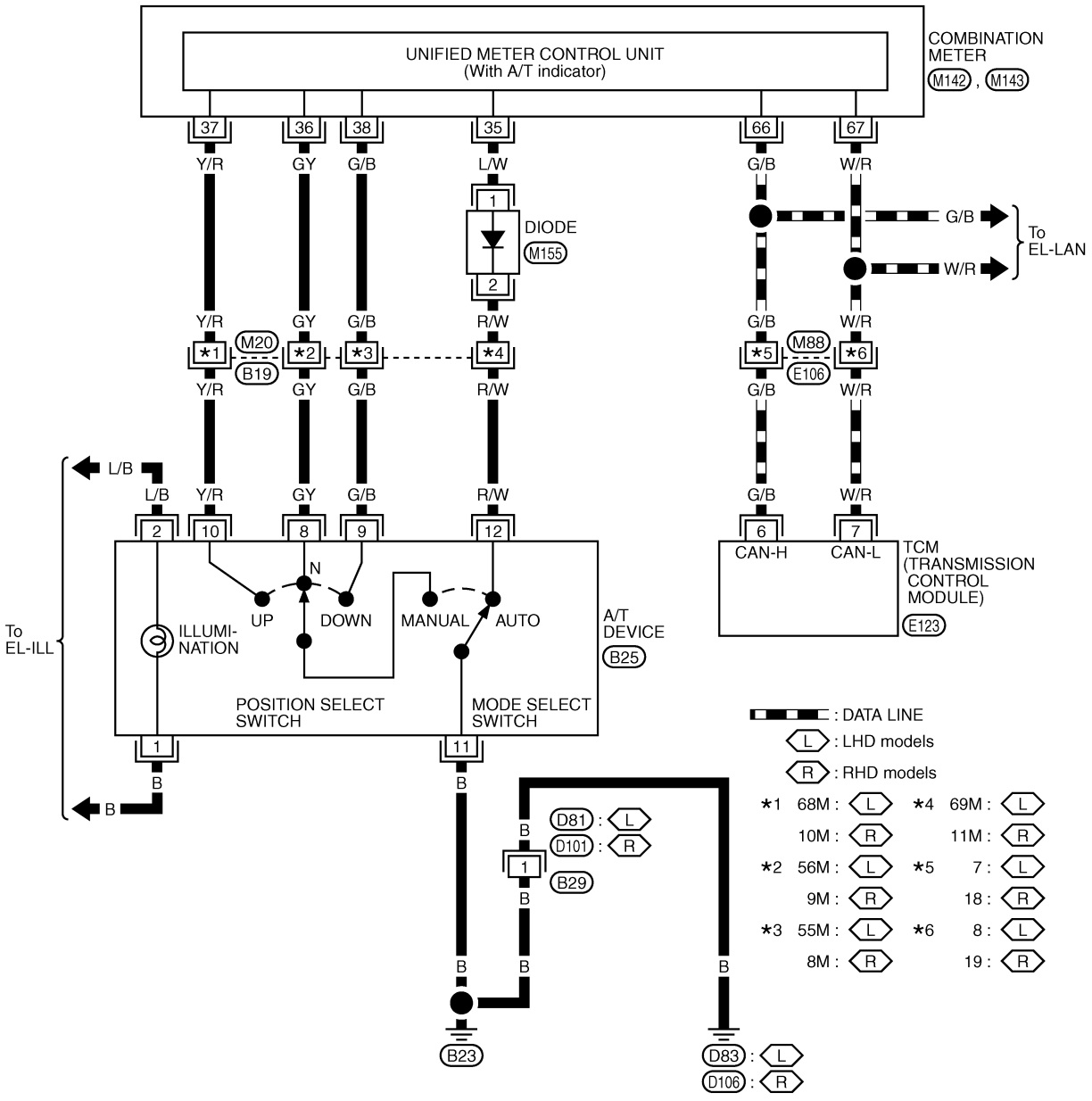


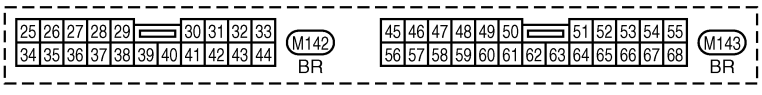


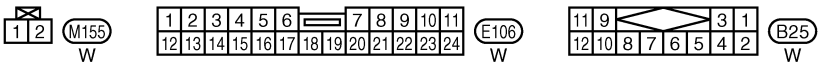
Refer to last page (Foldout page).
M20 , B19

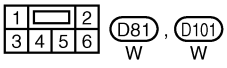
Wiring Diagram — AT/IND —/TB48 Engine Models with A/T

EL-AT/IND-01









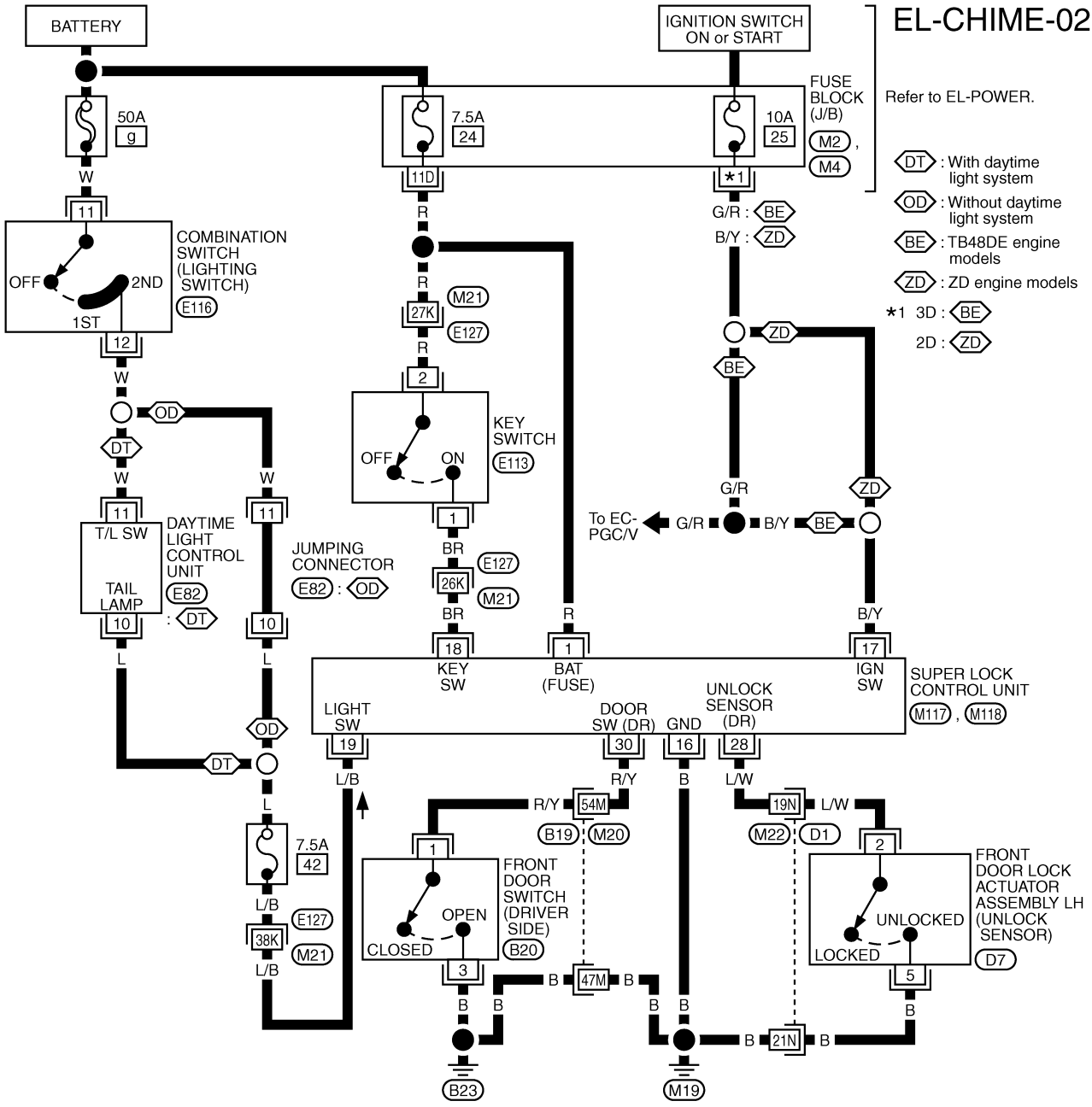
Refer to last page (Foldout page).

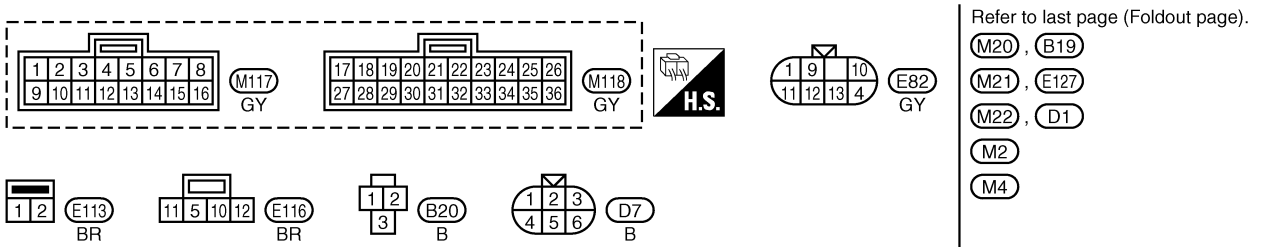
M20 , B19

E123

TEL735M

Wiring Diagram — CHIME —/LHD Models for Europe



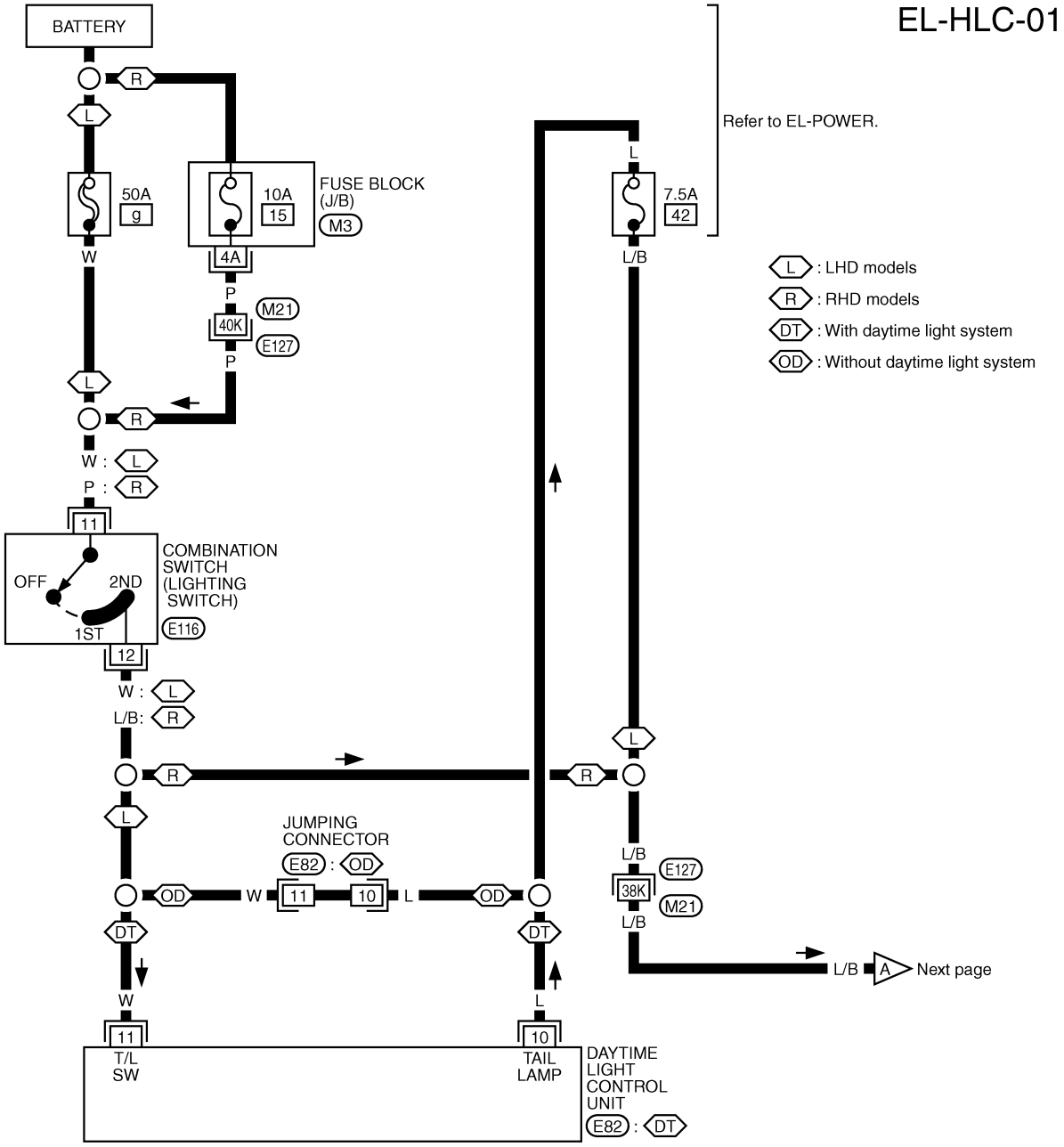


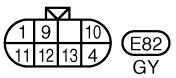
Refer to last page (Foldout page).

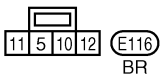
M20, B19
M21, E127
M22, D1
M2
M4

TEL827M

Wiring Diagram — HLC —





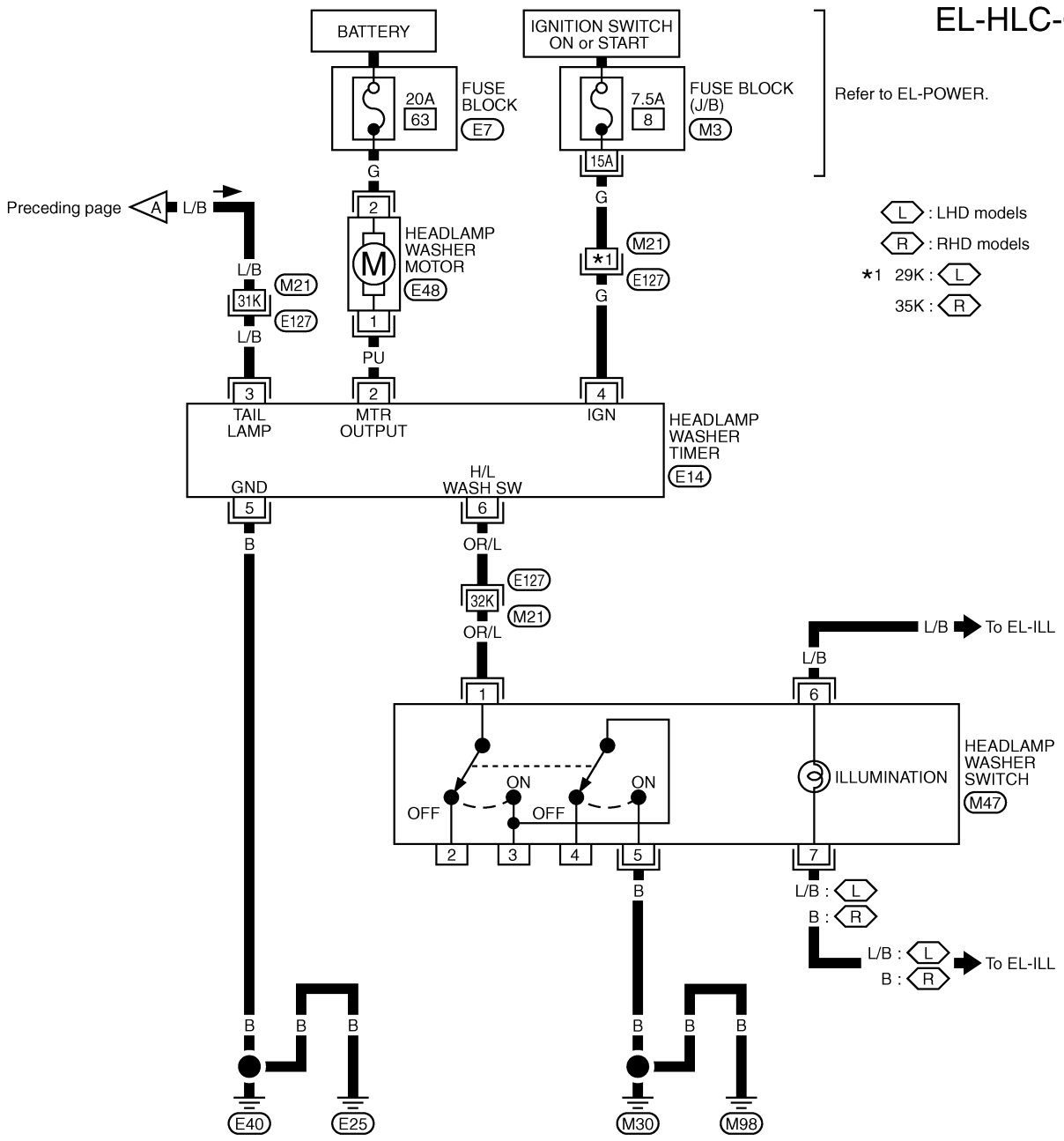


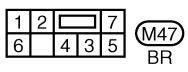
Refer to last page (Foldout page).
M21 , E127
M3

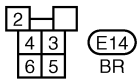
TEL772M

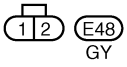
Wiring Diagram — HLC — (Cont'd)

EL-HLC-02



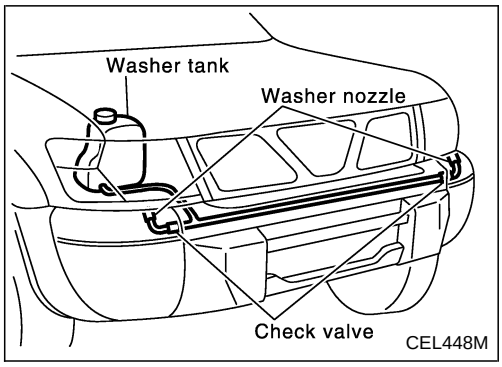






Refer to last page (Foldout page).
M21 , E127
M3
E7

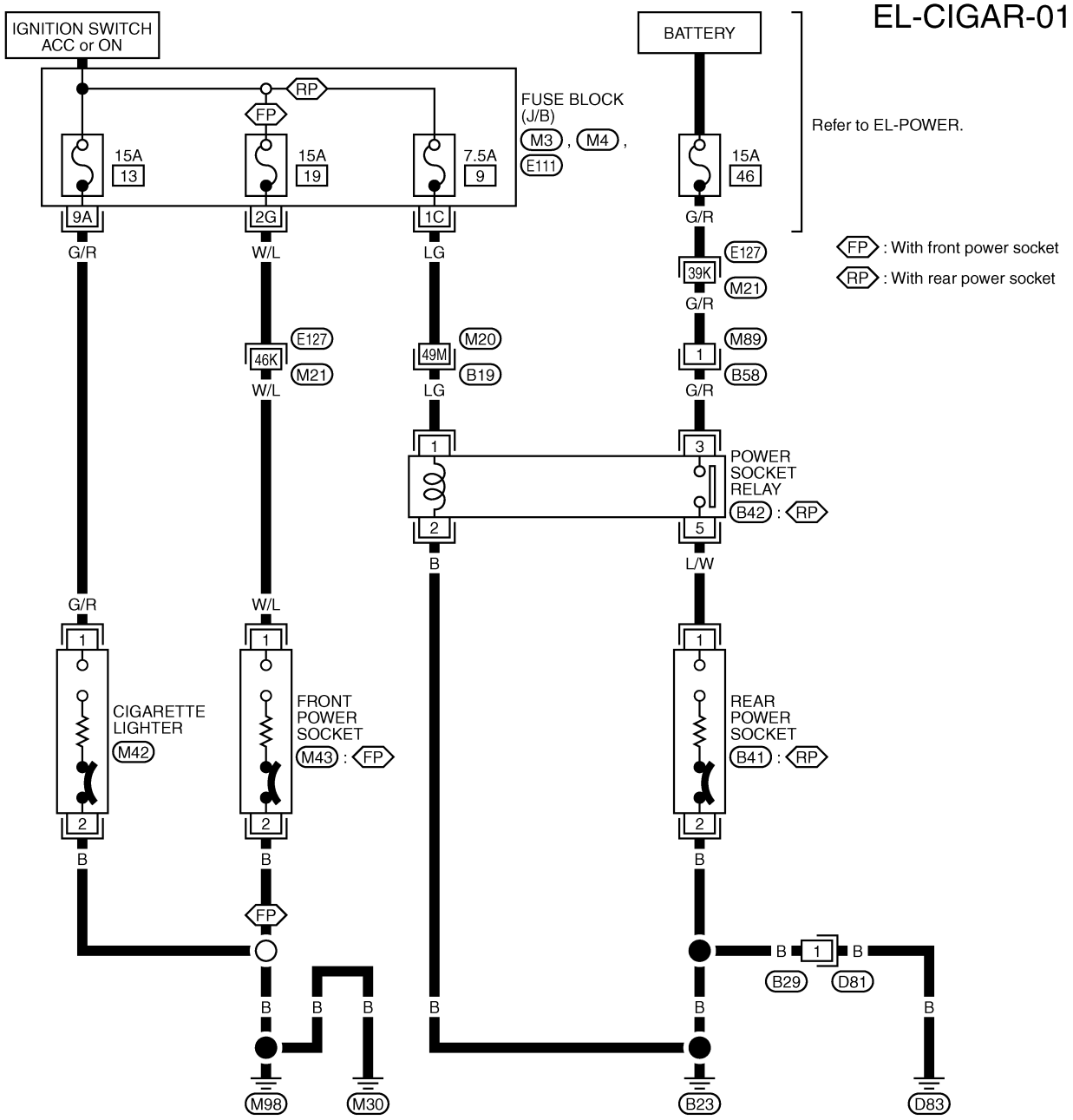
TEL773M



Washer Tube Layout

Wiring Diagram — CIGAR —/LHD Models

EL-CIGAR-01



M42 , M43 , B41 — B, B, B

B42 — L

B58 — BR

D81 — W

Refer to last page (Foldout page).

M20 , B19

M21 , E127

M3

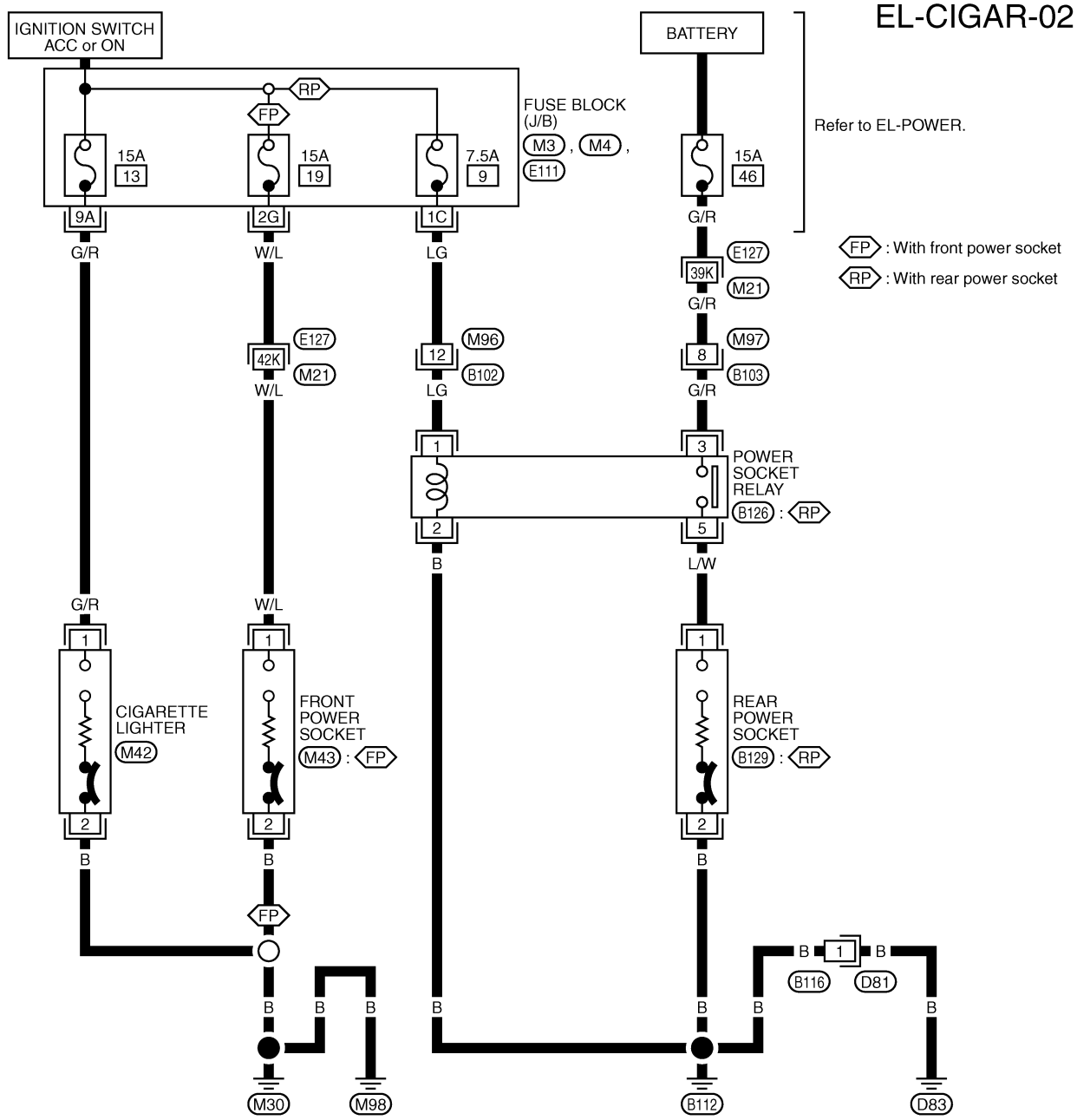
M4

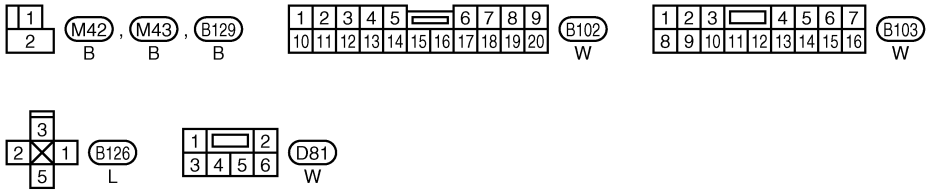
E111

TEL699M

Wiring Diagram — CIGAR —/RHD Models

EL-CIGAR-02





Refer to last page (Foldout page).

M21 , E127

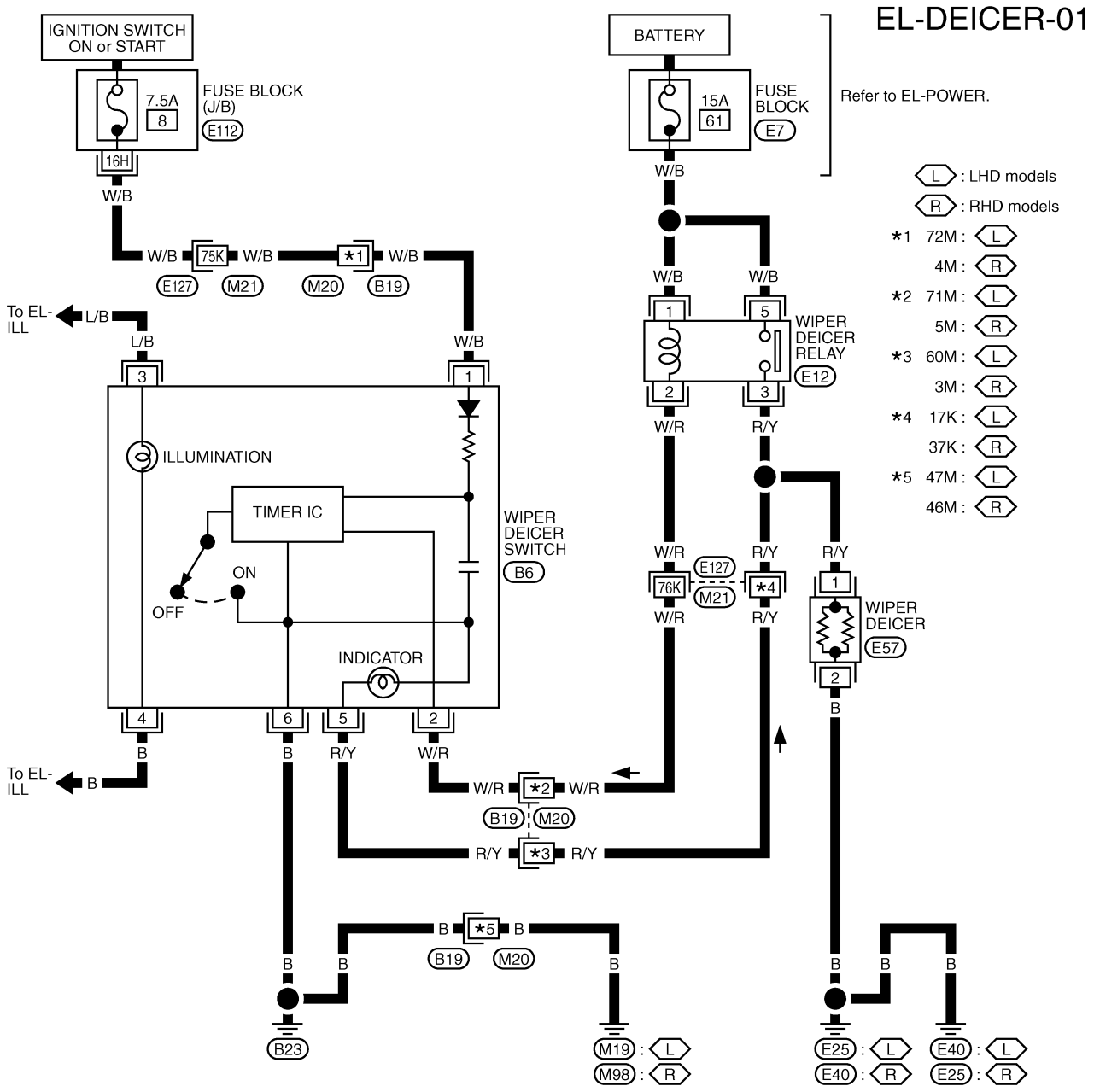
M3

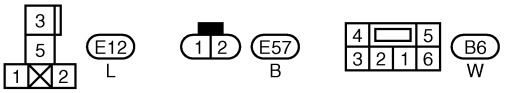
M4

E111

TEL774M

Wiring Diagram — DEICER —





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M20 , B19

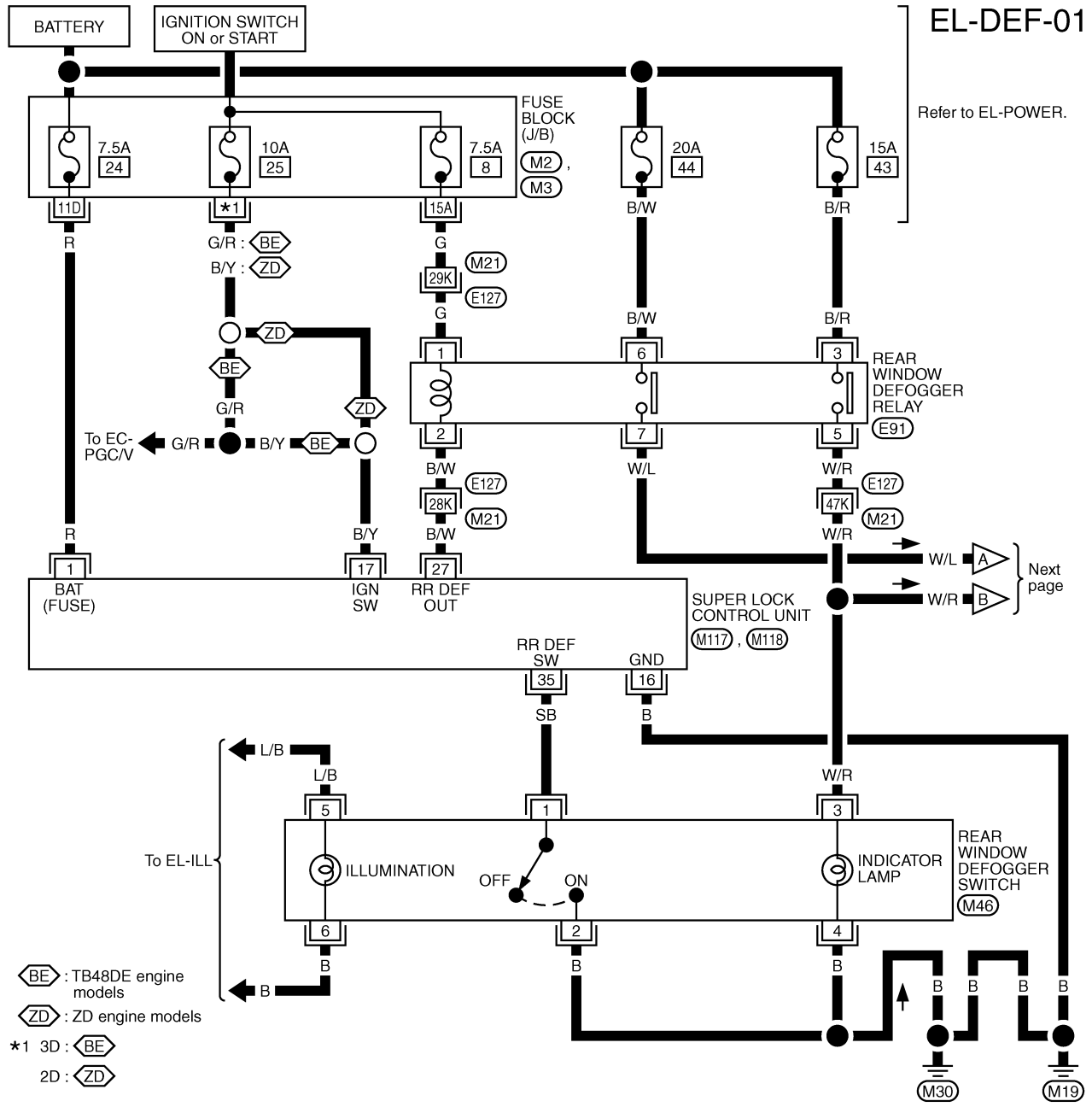
M21 , E127

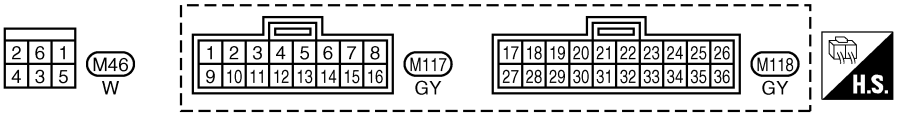
E7

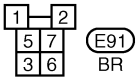
E112

TEL775M

Wiring Diagram — DEF —/LHD Models for Europe







Refer to last page (Foldout page).

M21 , E127

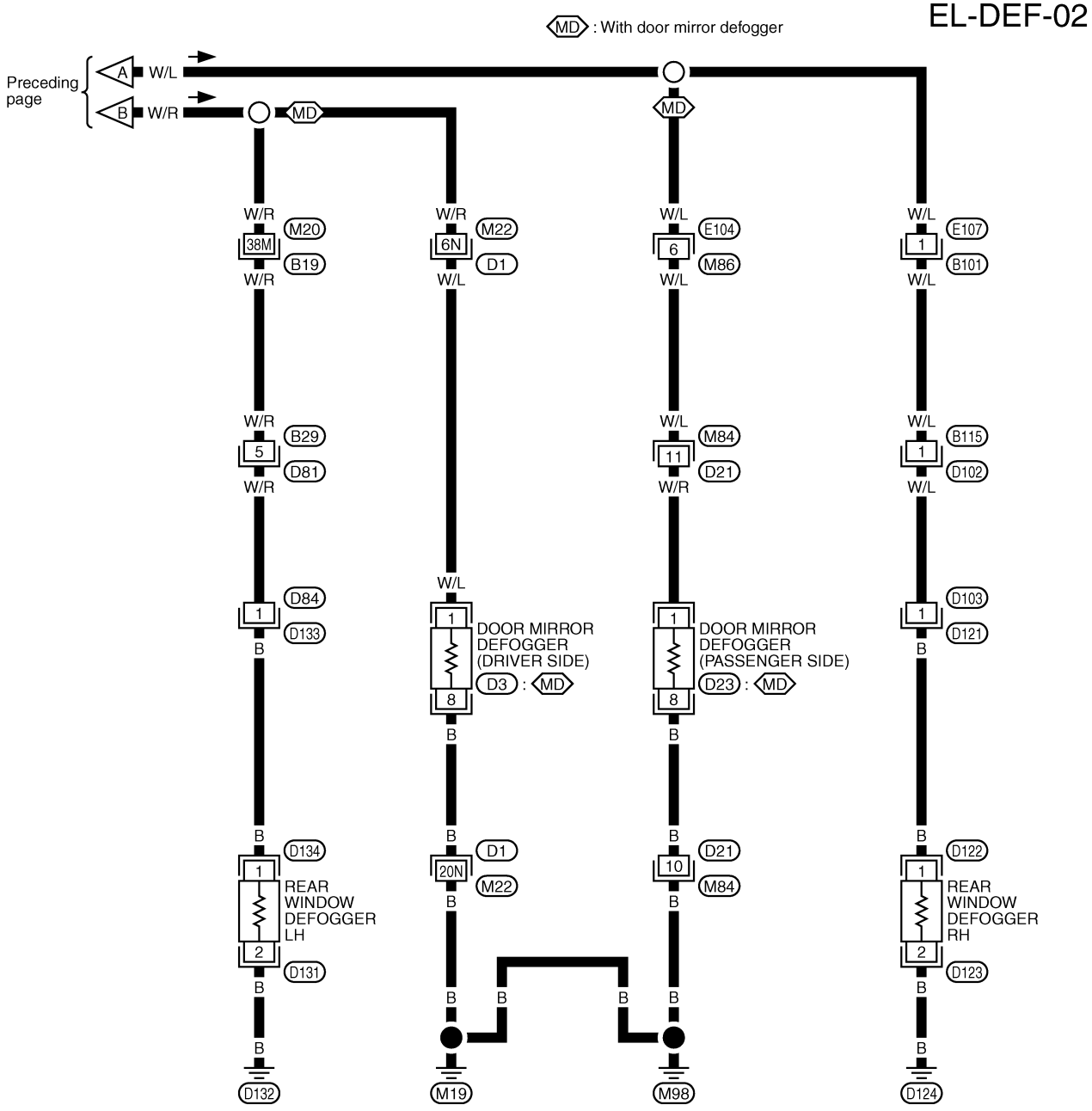
M2

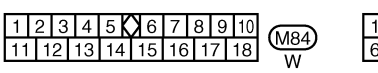
M3

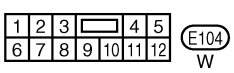
TEL701M

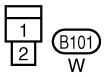
Wiring Diagram — DEF —/LHD Models for Europe (Cont'd)

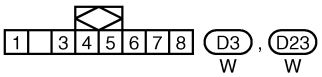
EL-DEF-02

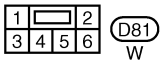


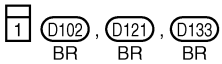


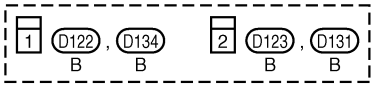












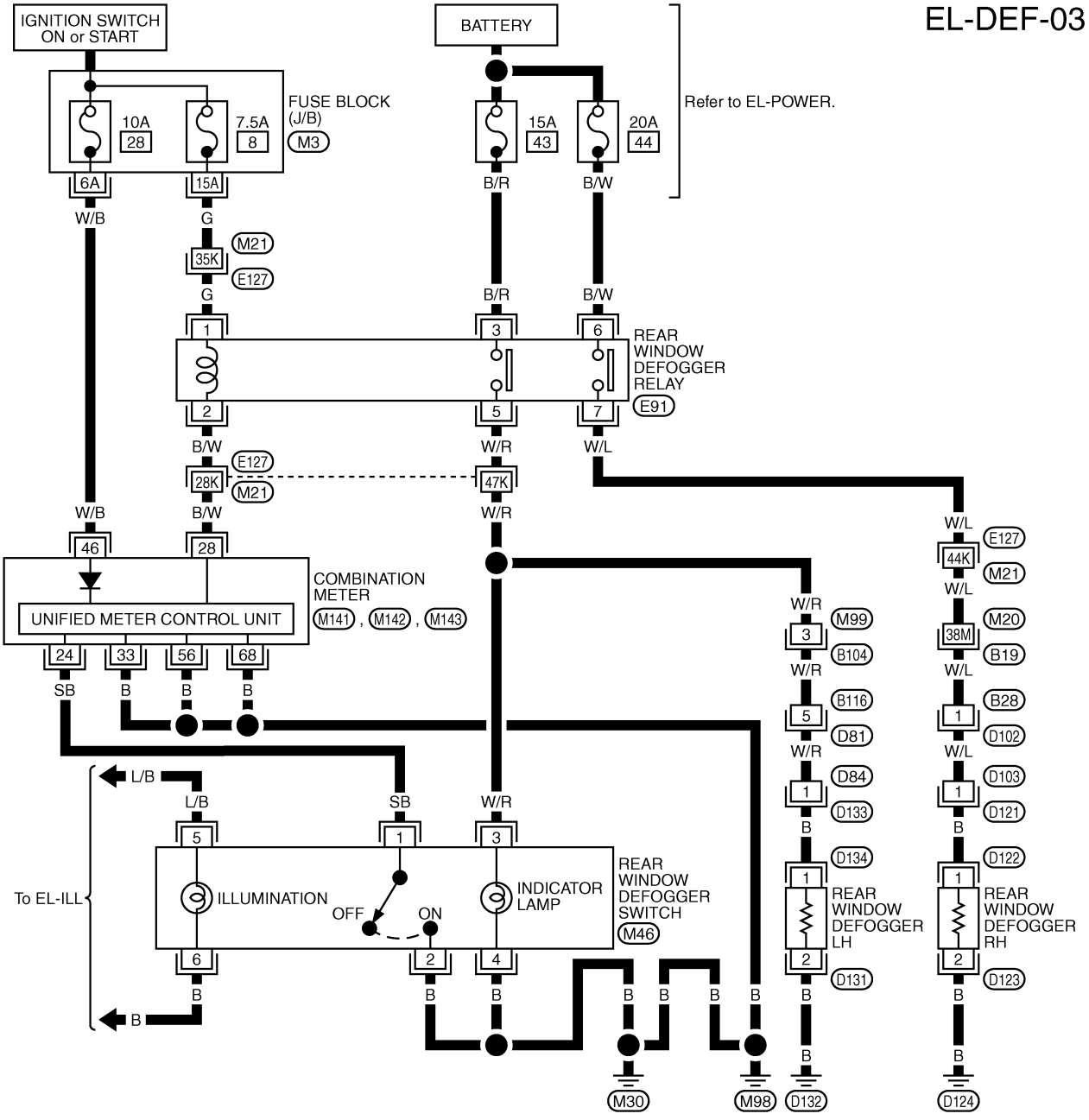
Refer to last page (Foldout page).

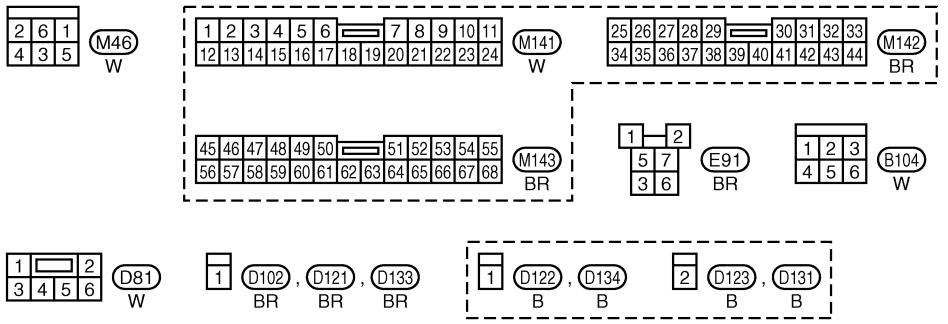
M20 , B19

M22 , D1

Wiring Diagram — DEF —/RHD Models Except for Europe

EL-DEF-03

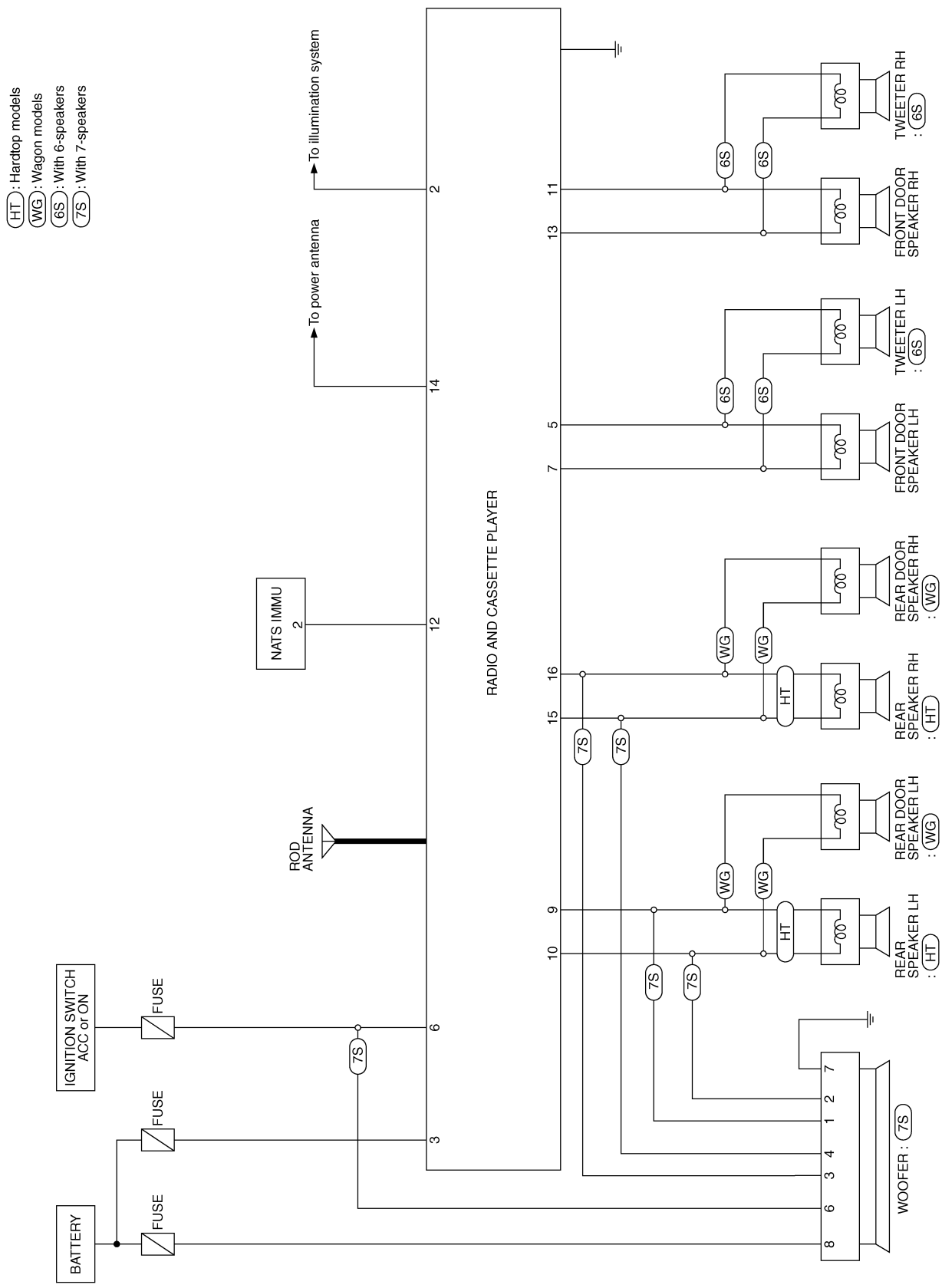




Refer to last page (Foldout page).
M20, B19
M21, E127
M3

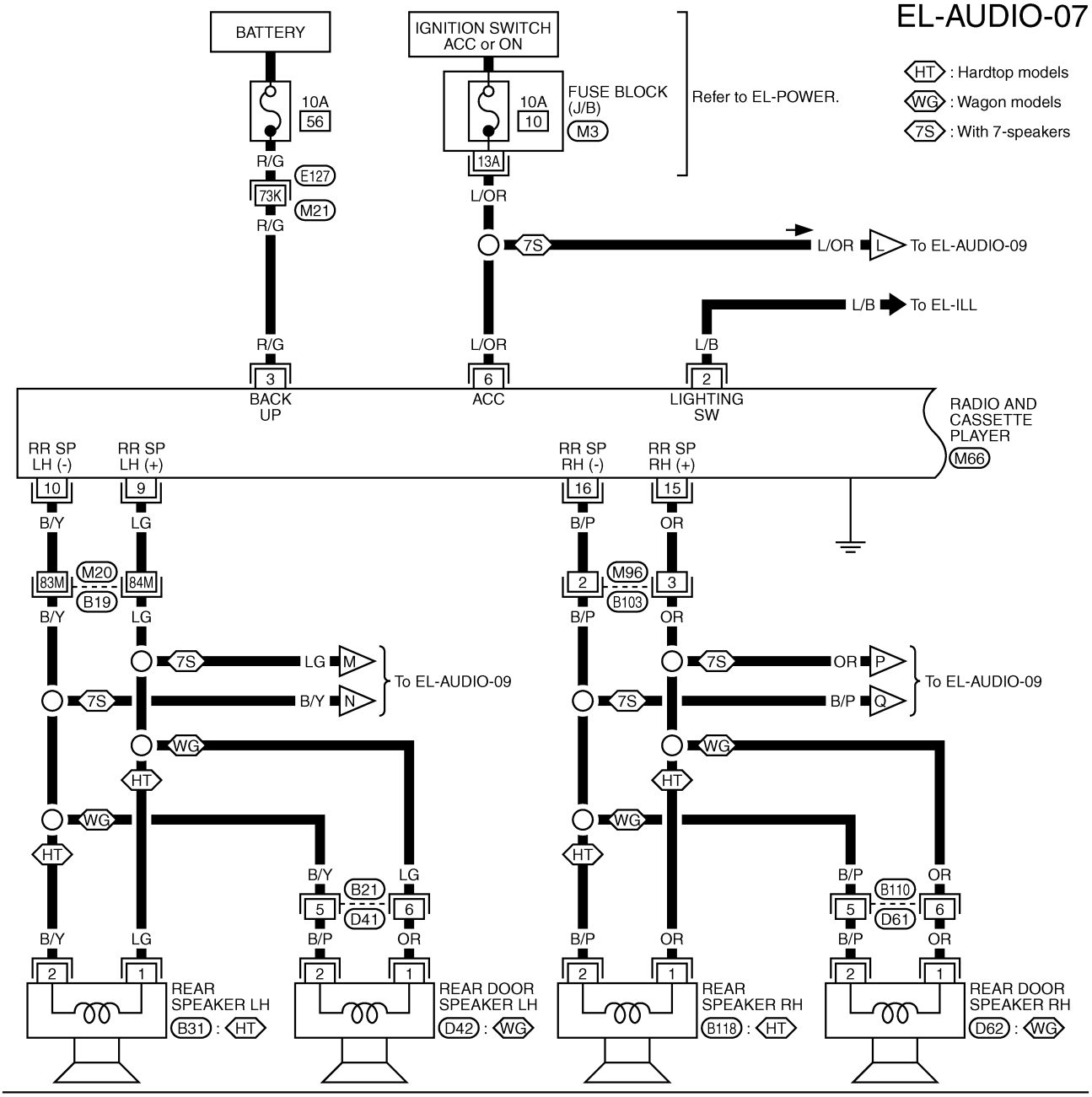
TEL776M

Schematic/For Europe



TEL777M

Wiring Diagram — AUDIO —/LHD Models for Europe



M66 W

B21 , B110 W

B31 , B118 , D42 , D62 BR

B103 W

Refer to last page (Foldout page).

M20 , B19

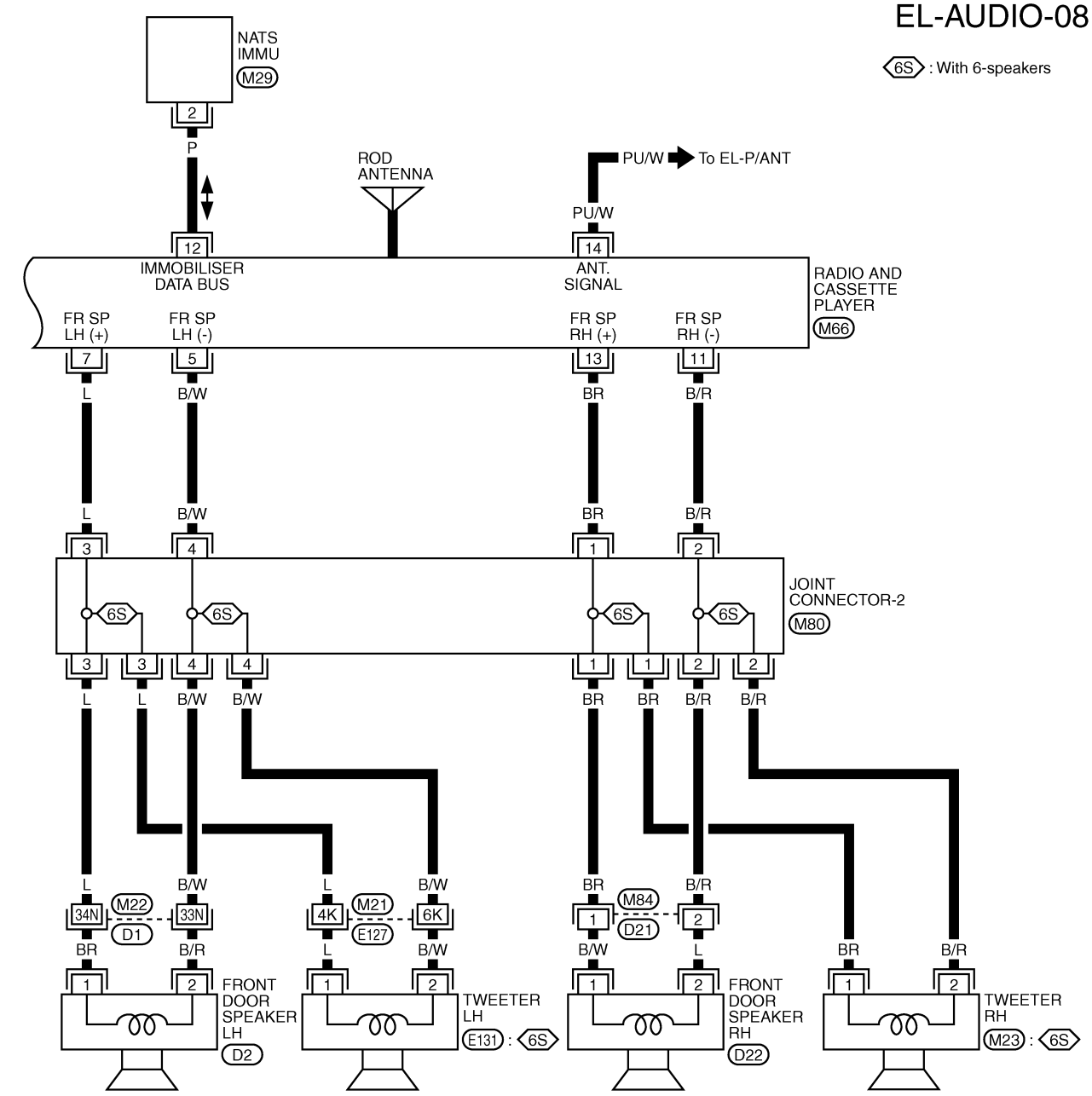
M21 , E127

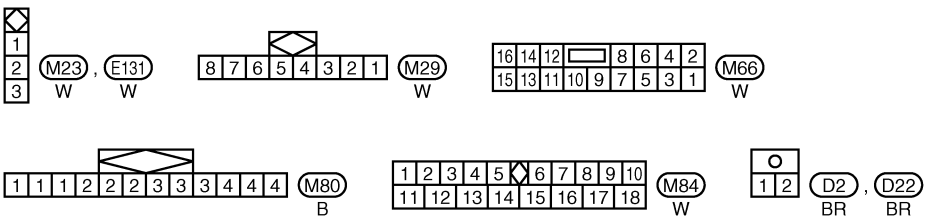
M3

TEL784M

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

EL-AUDIO-08





Refer to last page (Foldout page).

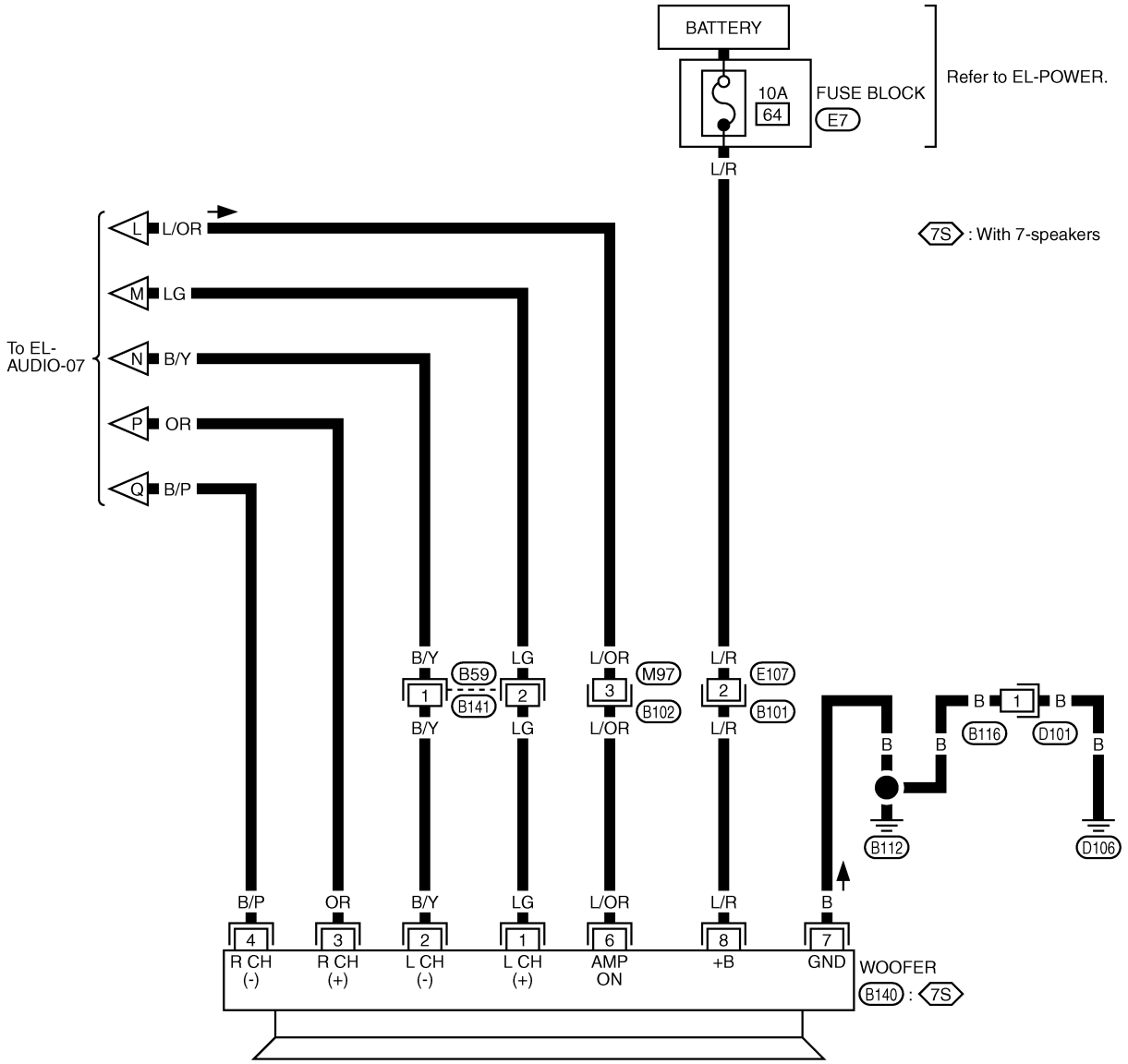
M21 , E127

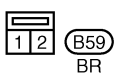
M22 , D1

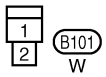
TEL785M

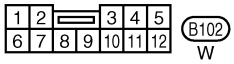
Wiring Diagram — AUDIO —/LHD Models for Europe (Cont'd)

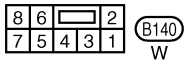
EL-AUDIO-09

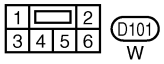










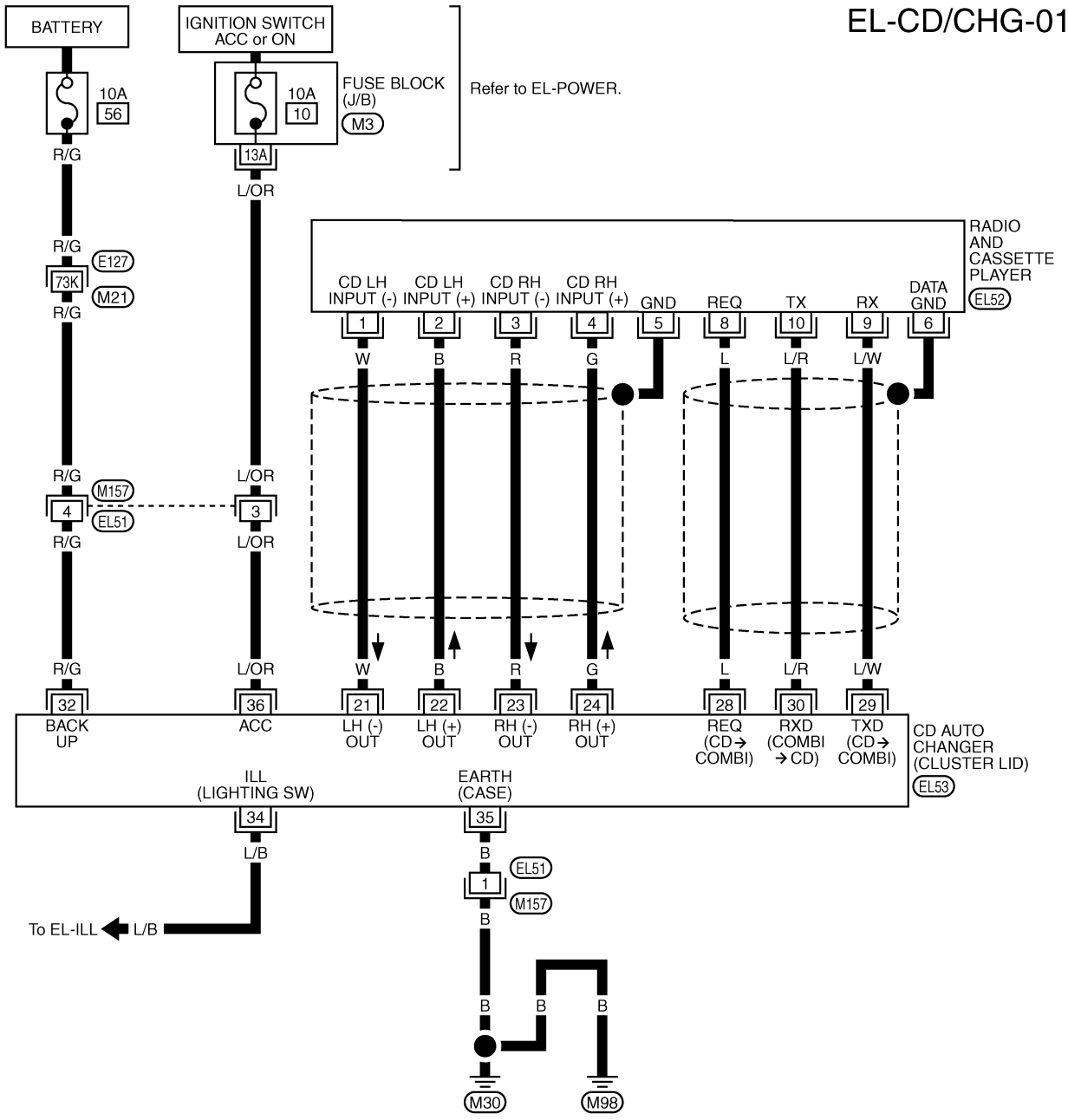


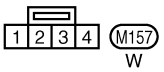
Refer to last page (Foldout page).
E7

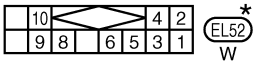
TEL786M

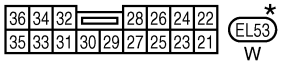
Wiring Diagram — CD/CHG —/With IDIN Type CD Auto Changer

EL-CD/CHG-01









Refer to last page (Foldout page).
M21 , E127
M3

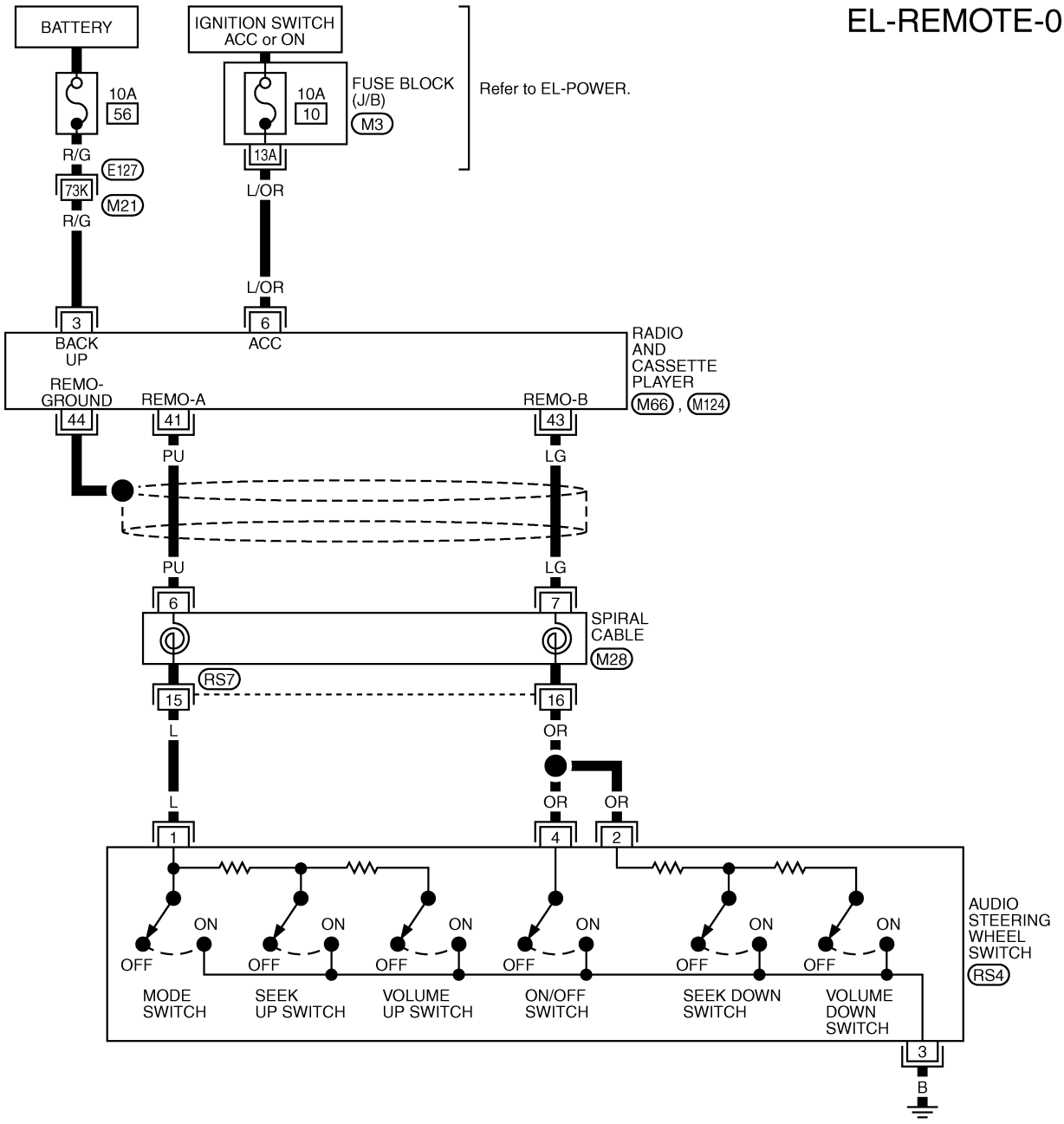
∗: This connector is not shown in "HARNESS LAYOUT", EL section.

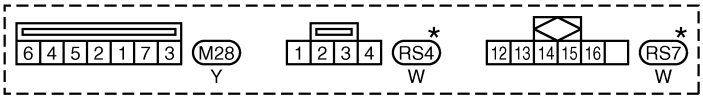
TEL713M

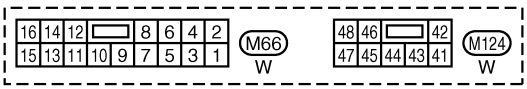
Wiring Diagram — REMOTE —

FM-AM TUNER RADIO WITH SUB-HARNESS

EL-REMOTE-01







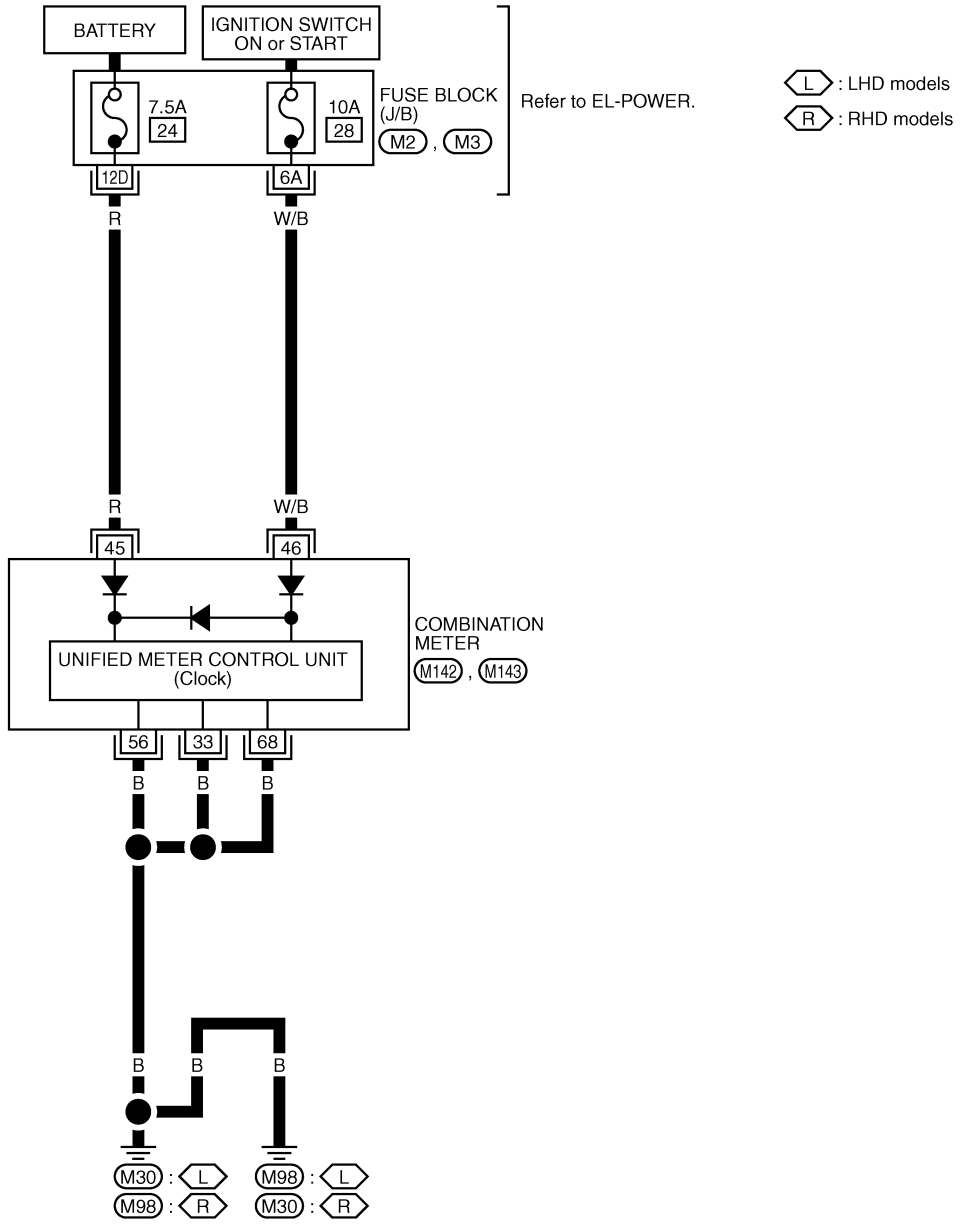
∗: This connector is not shown in "HARNESS LAYOUT", EL section.

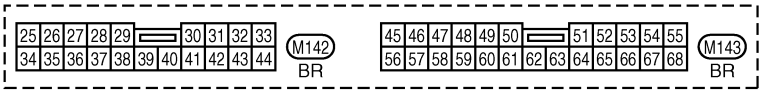
Refer to last page (Foldout page).
M21, E127
M3

TEL840M

Wiring Diagram — CLOCK —

EL-CLOCK-01





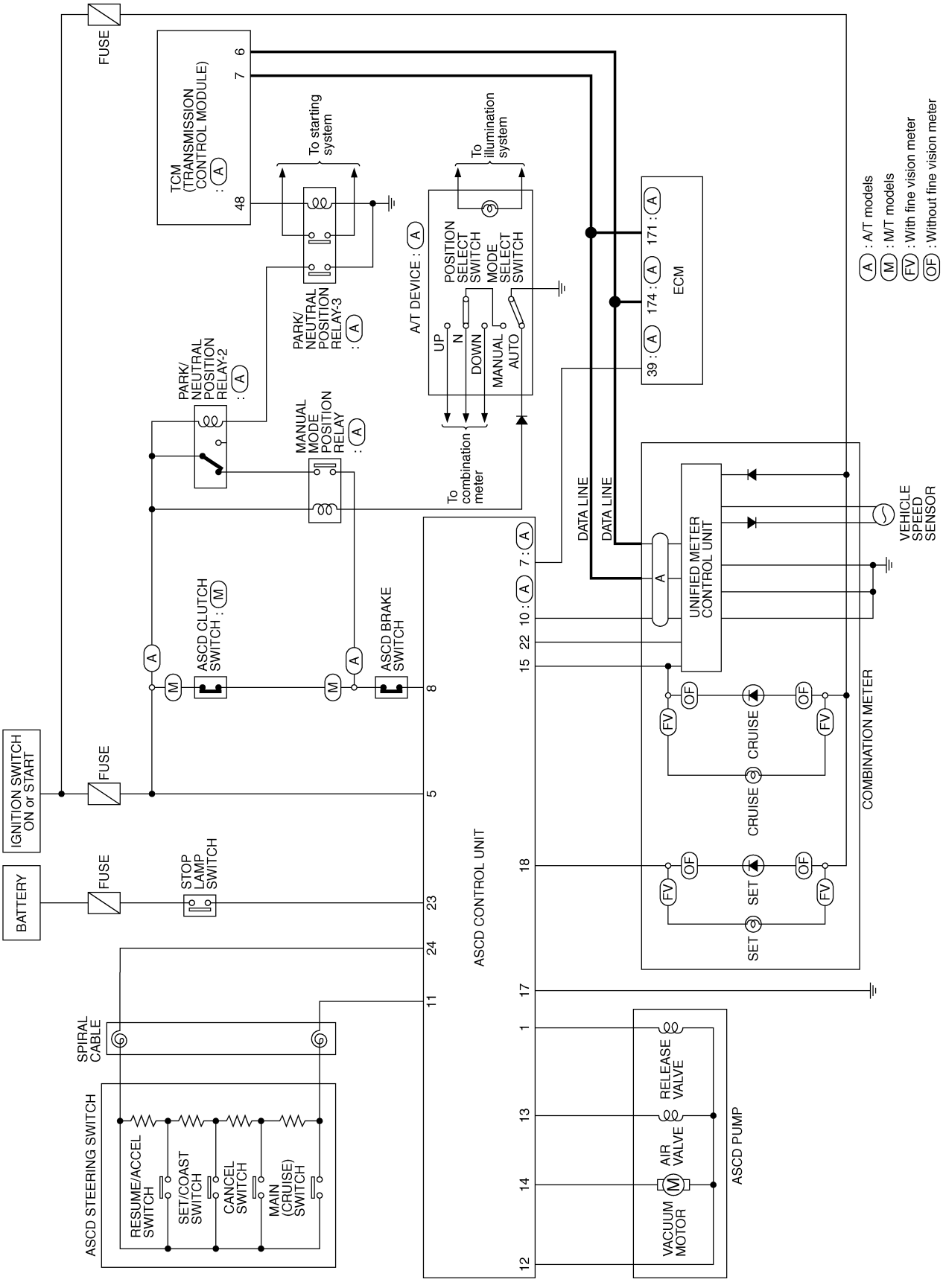
Refer to last page (Foldout page).

M2

M3

TEL828M

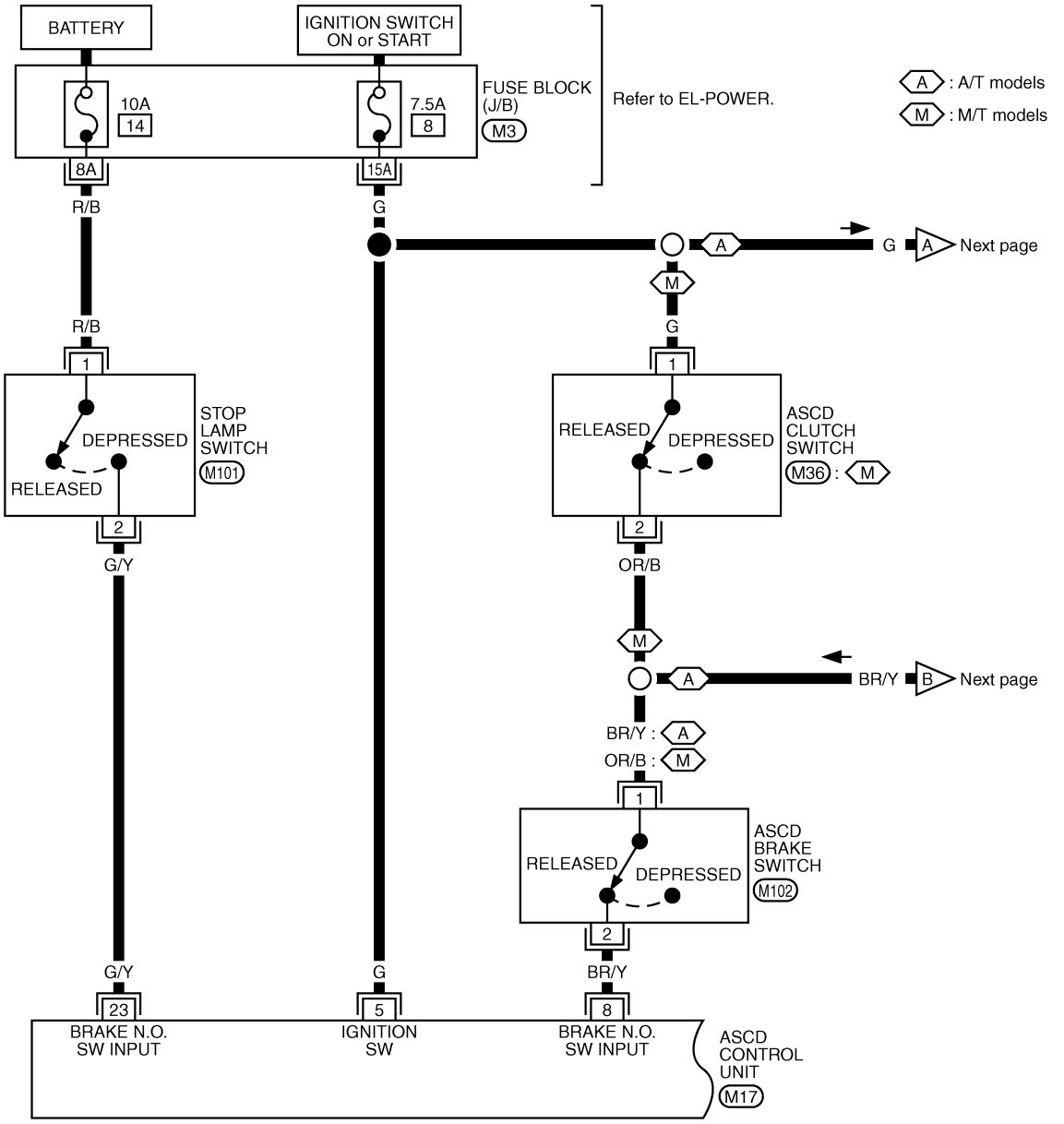
Schematic/TB48 and TD42Ti Engine Models

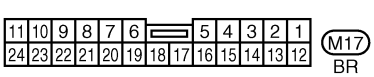


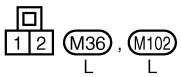
TEL737M

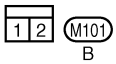
Wiring Diagram — ASCD —/TB48 and TD42Ti Engine Models

EL-ASCD-01







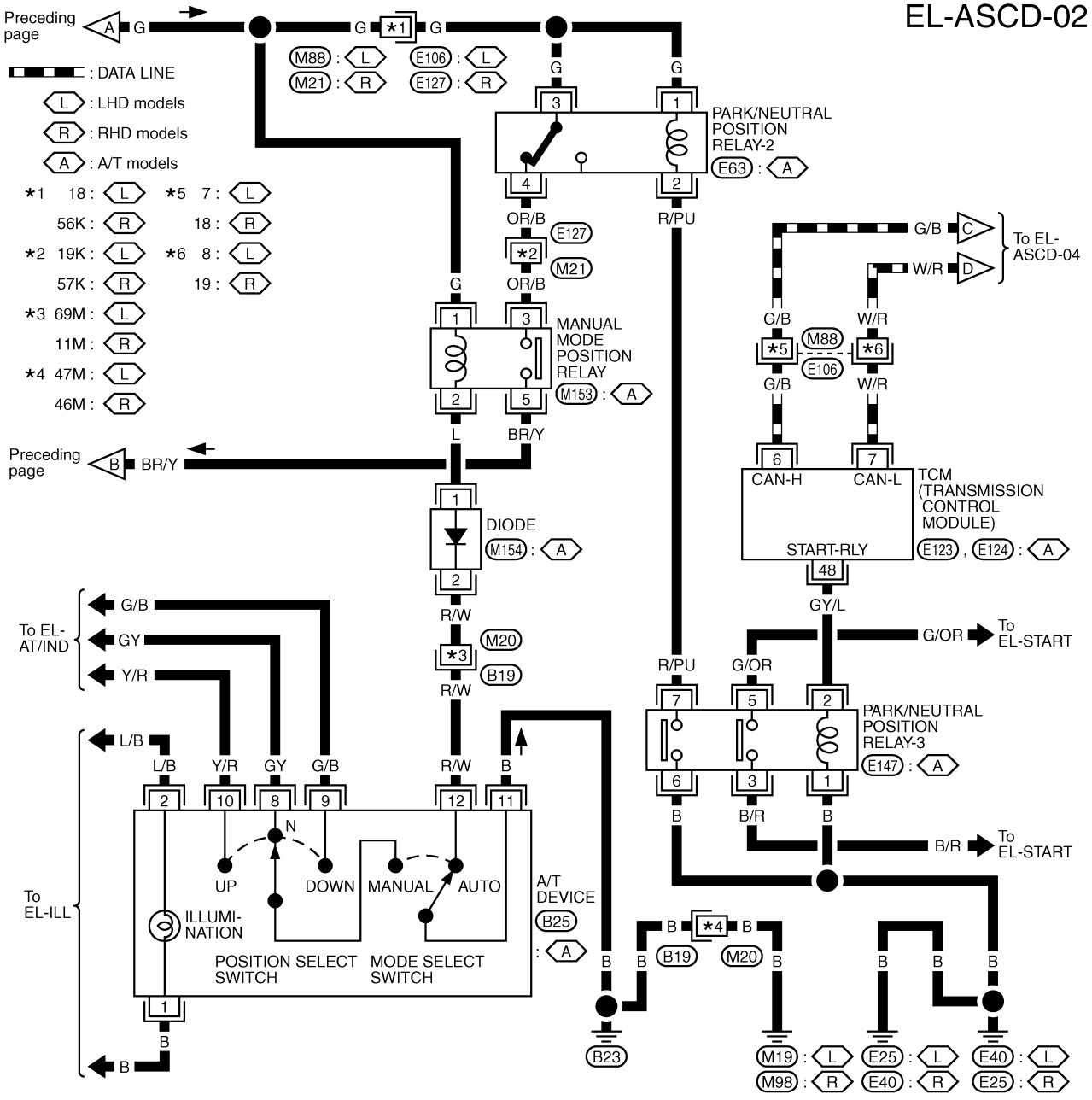


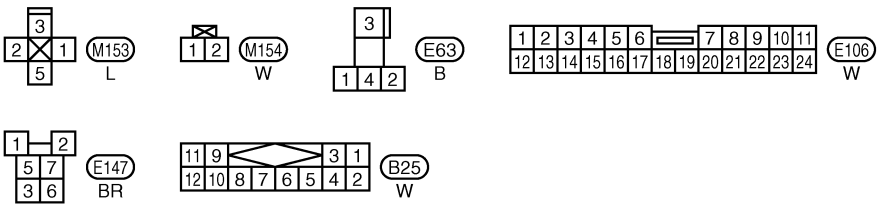
Refer to last page (Foldout page).
M3

TEL569M

Wiring Diagram — ASCD —/TB48 and TD42Ti Engine Models (Cont'd)

EL-ASCD-02





Refer to last page (Foldout page).

M20 , B19

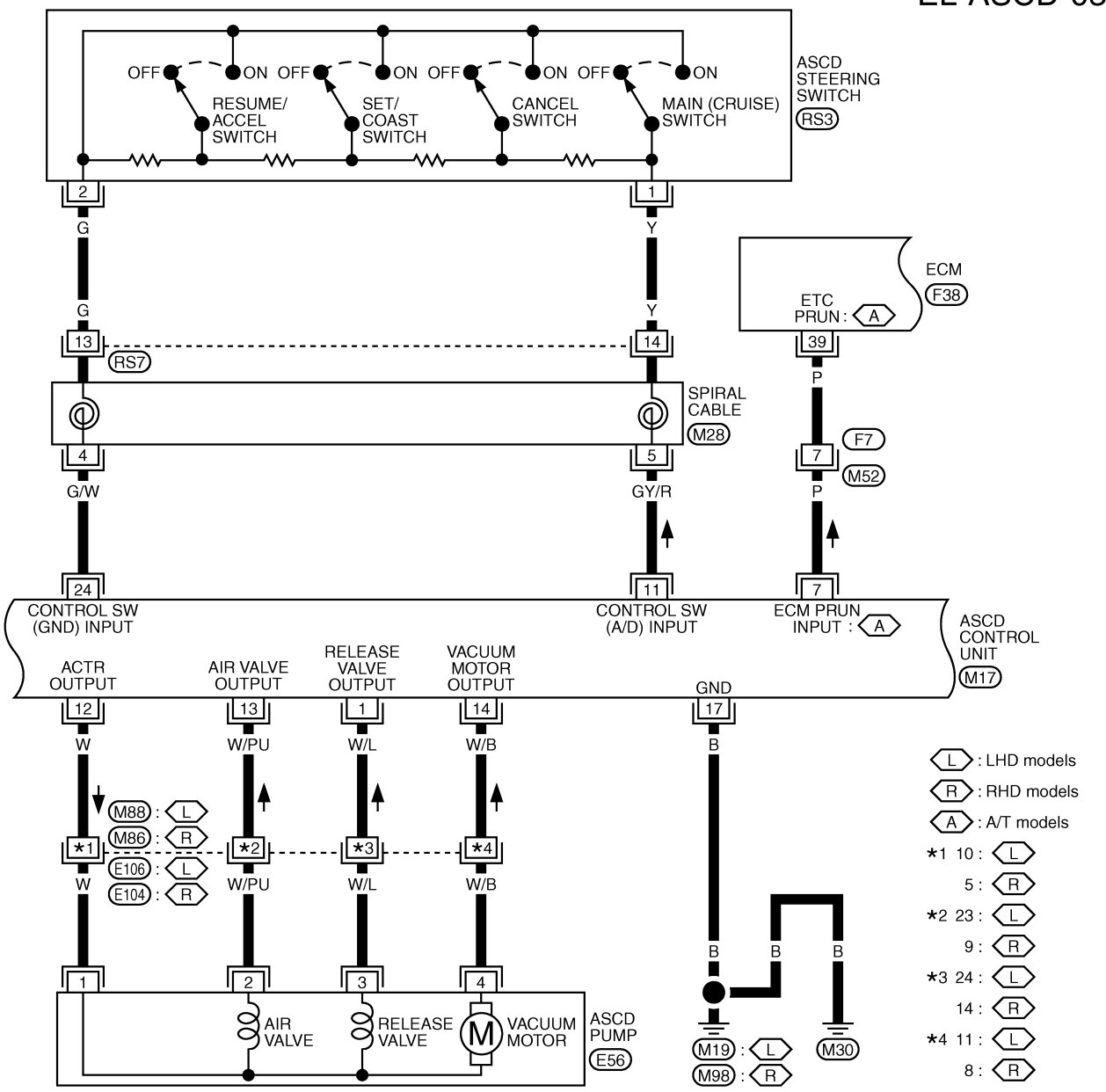
M21 , E127

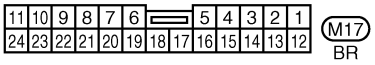
E123

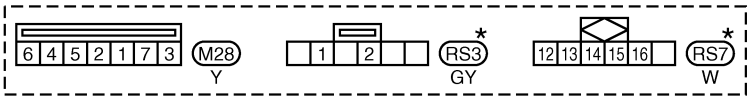
E124

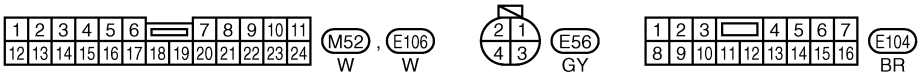
Wiring Diagram — ASCD —/TB48 and TD42Ti Engine Models (Cont'd)

EL-ASCD-03







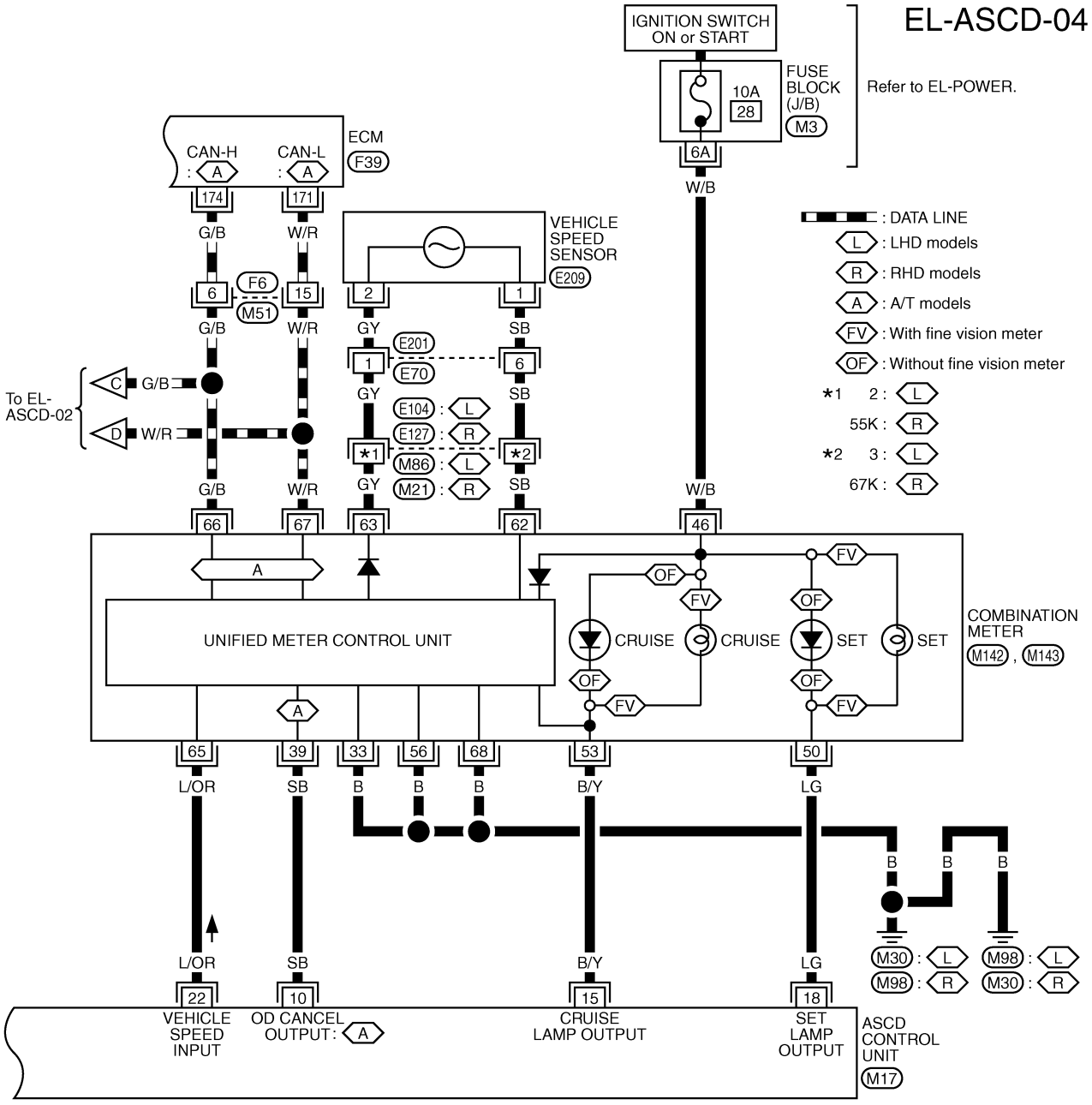


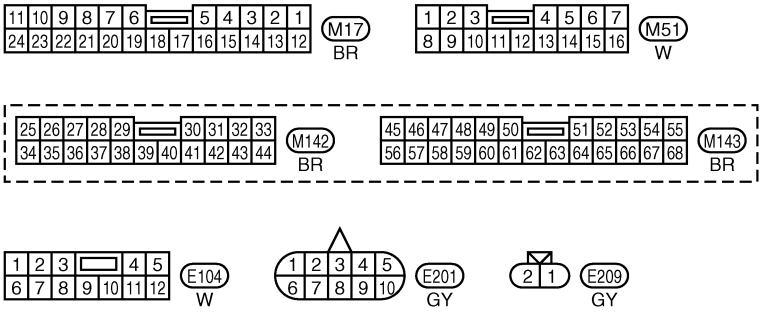
*: This connector is not shown in "HARNESS LAYOUT", EL section.

Refer to last page (Foldout page).
F38

TEL714M

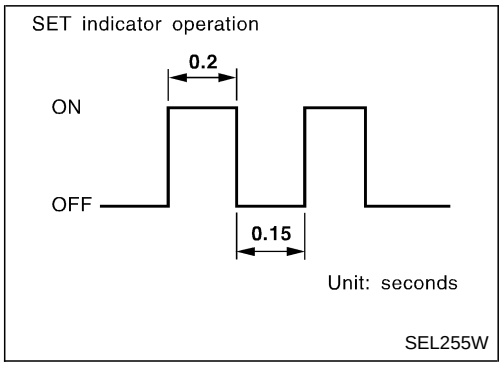
Wiring Diagram — ASCD —/TB48 and TD42Ti Engine Models (Cont'd)





Refer to last page (Foldout page).
M21, E127
M3
F39

TEL738M



Fail-safe System/TB48 Engine Models

DESCRIPTION

When the fail-safe system senses a malfunction, it deactivates ASCD operation. The SET indicator in the combination meter will then flash.

MALFUNCTION DETECTION CONDITIONS

Detection conditions	ASCD operation during malfunction detection
● ASCD steering (RESUME/ACCEL, CANCEL, SET/COAST) switch is stuck. ● Vacuum motor ground circuit or power circuit is open or shorted. ● Air valve ground circuit or power circuit is open or shorted. ● Release valve ground circuit or power circuit is open or shorted. ● Vehicle speed sensor is faulty. ● ASCD control unit internal circuit is malfunctioning.	● ASCD is deactivated. ● Vehicle speed memory is canceled.
● ASCD brake switch or stop lamp switch is faulty.	● ASCD is deactivated. ● Vehicle speed memory is not canceled.

Trouble Diagnoses/TB48 Engine Models

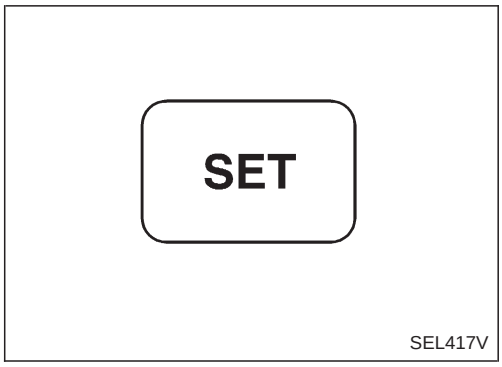
SYMPTOM CHART

PROEDURE	Diagnostic procedure						
REFERENCE PAGE (EL-)	129	130	131	132	133	133	135
SYMPTOM	FAIL-SAFE SYSTEM CHECK	POWER SUPPLY AND GROUND CIRCUIT CHECK	ASCD BRAKE/STOP LAMP SWITCH CHECK	ASCD STEERING SWITCH CHECK	VEHICLE SPEED SENSOR CHECK	ASCD PUMP CIRCUIT CHECK	ASCD ACTUATOR/PUMP CHECK
ASCD cannot be set. (“CRUISE” indicator lamp does not ON.)		X		X★3			
ASCD cannot be set. (“SET” indicator lamp does not blink.)			X	X	X		
ASCD cannot be set. (“SET” indicator lamp blinks.★1)	X		X	X	X	X	
Vehicle speed does not decrease after SET/COAST switch has been pressed.				X			X
Vehicle speed does not return to the set speed after RESUME/ACCEL switch has been pressed.★2				X			X
Vehicle speed does not increase after RESUME/ACCEL switch has been pressed.				X			X
System is not released after CANCEL switch (steering) has been pressed.				X			X
Large difference between set speed and actual vehicle speed.					X	X	X
Deceleration is greatest immediately after ASCD has been set.					X	X	X

★1: It indicates that system is in fail-safe. After completing diagnostic procedures, perform “FAIL-SAFE SYSTEM CHECK” (EL-129) to verify repairs.
★2: If vehicle speed is greater than 48 km/h (30 MPH) after system has been released, pressing RESUME/ACCEL switch returns vehicle speed to the set speed previously achieved. However, doing so when the ASCD main switch is turned to “OFF”, vehicle speed will not return to the set speed since the memory is canceled.
★3: Check only main switch built-in steering switch.

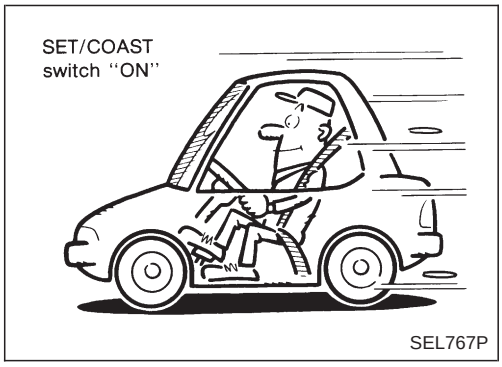
Trouble Diagnoses/TB48 Engine Models (Cont'd)

FAIL-SAFE SYSTEM CHECK



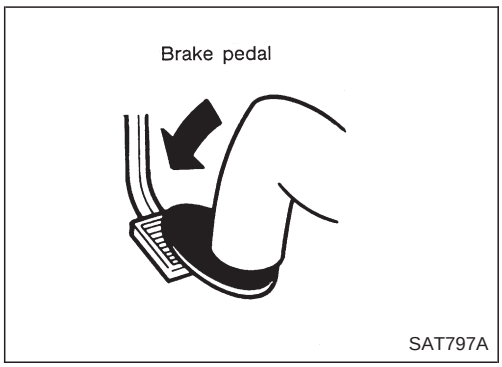
SEL417V

1. Turn ignition switch to ON position.
2. Turn ASCD main switch to ON and check if the "set indicator" blinks.
   If the indicator lamp blinks, check the following.
- ASCD steering switch. Refer to EL-132.



SEL767P

3. Drive the vehicle at more than 48 km/h (30 MPH) and push SET/COAST switch.
   If the indicator lamp blinks, check the following.
- Vehicle speed sensor. Refer to EL-133.
- ASCD pump circuit. Refer to EL-133.
- Replace control unit.



SAT797A

4. Depress brake pedal slowly (brake pedal should be depressed more than 5 seconds).
   If the indicator lamp blinks, check the following.
- ASCD brake/stop lamp switch. Refer to EL-131.

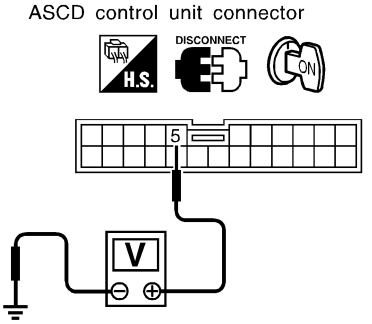
5. END. (System is OK.)

Trouble Diagnoses/TB48 Engine Models (Cont'd)

POWER SUPPLY AND GROUND CIRCUIT CHECK

1	CHECK POWER SUPPLY CIRCUIT FOR ASCD CONTROL UNIT

1. Disconnect ASCD control unit harness connector.
2. Turn ignition switch ON.
3. Check voltage between ASCD control unit harness connector M17 terminal 5 (G) and ground.



Does battery voltage exist?

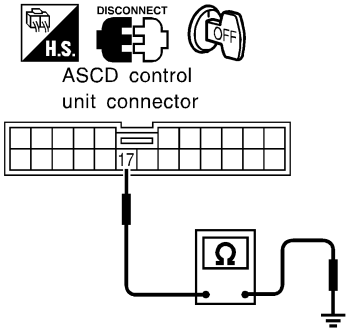
SEL256WD

Yes or No

Yes	►	GO TO 2.
No	►	**Check the following.** ● 7.5A fuse (No. 14 located in the fuse block) ● Harness for open or short

2	CHECK GROUND CIRCUIT FOR ASCD CONTROL UNIT

Check continuity between ASCD control unit harness connector M17 terminal 17 (B) and body ground.



Does continuity exist?

SEL257WD

Yes or No

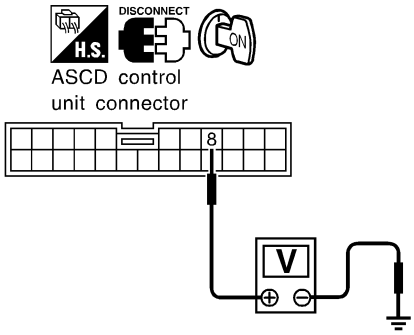
Yes	►	Power supply and ground circuit is OK.
No	►	Repair harness.

Trouble Diagnoses/TB48 Engine Models (Cont'd)

ASCD BRAKE/STOP LAMP SWITCH CHECK

1	CHECK ASCD BRAKE SWITCH CIRCUIT

1. Disconnect ASCD control unit harness connector.
2. Turn ignition switch ON.
3. Check voltage between ASCD control unit harness connector M17 terminal 8 (BR/Y) and ground.



When brake or clutch pedal is depressed (M/T), or when brake pedal is depressed or A/T selector lever is in "N" or "P" range (A/T):
Apporox. 0V
When brake and clutch pedal are released (M/T), or when both brake pedal is released and A/T selector lever is not in "N" or "P" range (A/T):
Battery voltage should exist.

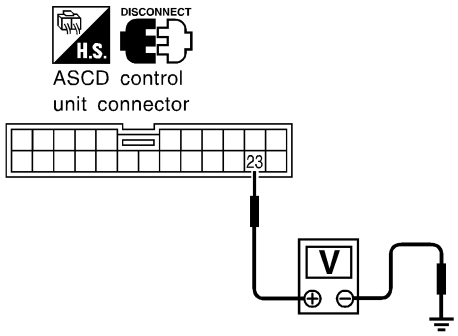
SEL258WG

OK or NG

OK	►	GO TO 2.
NG	►	**Check the following.** ● ASCD brake switch Refer to "Electrical Component Inspection" (EL-137). ● Park/neutral position relay-2 (A/T models) Refer to "Electrical Component Inspection" (EL-137). ● Manual mode position relay (A/T models) Refer to "Electrical Component Inspection" (EL-137). ● ASCD clutch switch (M/T models) Refer to "Electrical Component Inspection" (EL-137). ● Harness for open or short

2	CHECK STOP LAMP SWITCH CIRCUIT

1. Disconnect ASCD control unit harness connector.
2. Check voltage between ASCD control unit harness connector M17 terminal 23 (G/Y) and ground.



Voltage [V]:
Stop lamp switch: Depressed
Approx. 12
Stop lamp switch: Released
0

SEL259WD

OK or NG

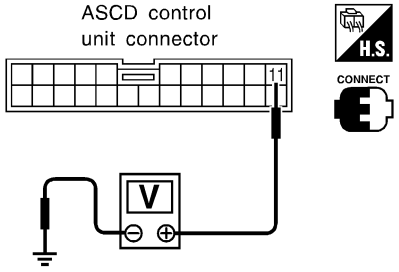
OK	►	ASCD brake/stop lamp switch is OK.
NG	►	**Check the following.** ● 10A fuse [No. 14, located in the fuse block (J/B)] ● Harness for open or short between ASCD control unit and stop lamp switch ● Harness for open or short between fuse and stop lamp switch ● Stop lamp switch Refer to "Electrical Component Inspection" (EL-137).

Trouble Diagnoses/TB48 Engine Models (Cont'd)

ASCD STEERING SWITCH CHECK

1	CHECK ASCD STEERING SWITCH CIRCUIT FOR ASCD CONTROL UNIT

Check voltage between ASCD control unit harness connector M17 terminal 11 (GY/R) and ground.



Switch	Condition	Voltage [V]
MAIN SW	Pressed	0
	Released	Approx. 4.0
SET SW	Pressed	Approx. 2.0
	Released	Approx. 4.0
RESUME/ ACC SW	Pressed	Approx. 3.0
	Released	Approx. 4.0
CANCEL SW	Pressed	Approx. 1.0
	Released	Approx. 4.0

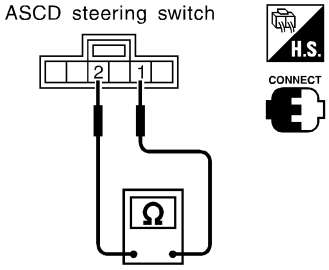
SEL005Y

OK or NG

OK	►	ASCD steering switch is OK.
NG	►	GO TO 2.

2	CHECK ASCD STEERING SWITCH

1. Disconnect ASCD steering switch.
2. Check continuity between RS3 terminals 1 and 2 by pushing each switch.



Switch	Condition	Resistance [Ω]
MAIN SW	Pressed	Approx. 0.3
	Released	Approx. 4,000
SET SW	Pressed	Approx. 661
	Released	Approx. 4,000
RESUME/ ACC SW	Pressed	Approx. 1,486
	Released	Approx. 4,000
CANCEL SW	Pressed	Approx. 249
	Released	Approx. 4,000

SEL196Y

OK or NG

OK	►	Check harness for open or short between ASCD steering switch and ASCD control unit.
NG	►	Replace ASCD steering switch.

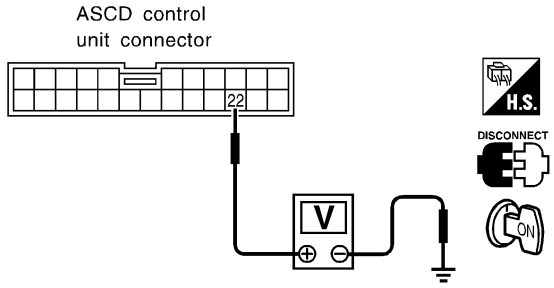
Trouble Diagnoses/TB48 Engine Models (Cont'd)

VEHICLE SPEED SENSOR CHECK

1	CHECK SPEEDOMETER OPERATION	
Does speedometer operate normally?		
Yes	▶	GO TO 2.
No	▶	Check speedometer and vehicle speed sensor circuit.

2	CHECK VEHICLE SPEED INPUT	

1. Apply wheel chocks and jack up drive wheel.
2. Disconnect ASCD control unit harness connector.
3. Check voltage between control unit M17 terminal 22 (L/OR) and ground with turning drive wheel slowly by hand.



Does voltage pointer deflect?

SEL263WD

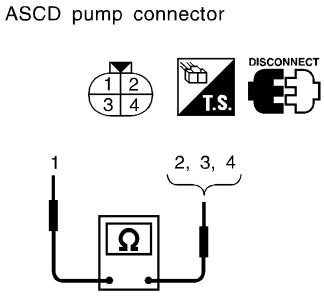
Yes or No

Yes	▶	Vehicle speed sensor is OK.
No	▶	Check harness for open or short between ASCD control unit terminal 22 and combination meter terminal 65.

ASCD PUMP CIRCUIT CHECK

1	CHECK ASCD PUMP	

1. Disconnect ASCD pump connector.
2. Measure resistance between ASCD pump terminals 1 and 2, 3, 4.



Terminals		Resistance Ω
1	2	Approx. 65
	3	Approx. 65
	4	Approx. 3

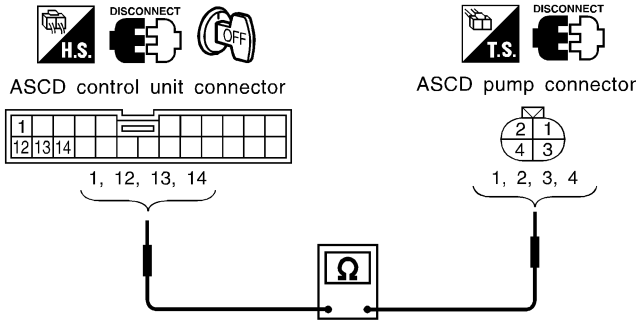
SEL262WC

OK or NG

OK	▶	GO TO 2.
NG	▶	Replace ASCD pump.

2	CHECK ASCD PUMP CIRCUIT

1. Disconnect ASCD control unit harness connector.
2. Check harness for open or short between ASCD control unit and ASCD pump.



Circuit	Terminal	
	ASCD control unit	ASCD pump
ASCD pump power suply	12	1
Air valve	13	2
Release valve	1	3
Vacuum motor	14	4

Continuity should exist.

SEL269WD

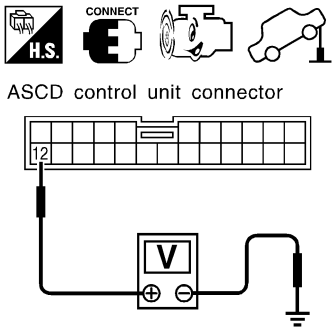
OK or NG

OK	►	GO TO 3.
NG	►	Repair harness.

3	CHECK ASCD PUMP POWER SUPPLY

1. Jack-up the drive wheels.
2 Maintain the conditions below.
- Vehicle speed is more than 48 km/h (30 MPH).
- Main switch (CRUISE lamp) is ON.
- Set/coast switch (SET lamp) is ON.

Check voltage between ASCD control unit harness connector M17 terminal 12 (W) and ground.



Battery voltage should exist.

SEL381WD

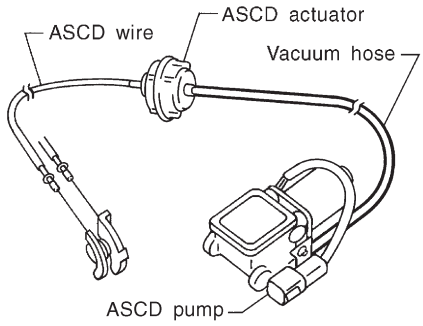
OK or NG

OK	►	ASCD pump power supply is OK.
NG	►	Replace ASCD control unit.

ASCD ACTUATOR/PUMP CHECK

1	CHECK VACUUM HOSE

Check vacuum hose (between ASCD actuator and ASCD pump) for breakage, cracks or fracture.



MEL402G

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair or replace hose.

2	CHECK ASCD WIRE

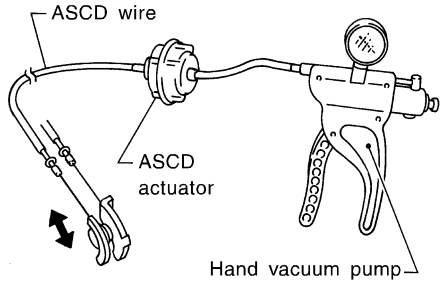
Check wire for improper installation, rust formation or breaks.

OK or NG

OK	▶	GOTO 3.
NG	▶	Repair or replace wire. Refer to "ASCD Wire Adjustment" (EL-138).

3	CHECK ASCD ACTUATOR

1. Disconnect vacuum hose from ASCD actuator.
2. Connect the hose of hand vacuum pump to ASCD actuator.



Apply –40 kPa (–0.402 bar, –0.41 kg/cm^2, –5.8 psi) vacuum to ASCD actuator with hand vacuum pump.
ASCD wire should move to pull throttle drum.
Wait 10 seconds and check for decrease in vacuum pressure.

Vacuum pressure decrease:
Less than 2.7 kPa (0.027 bar, 0.028 kg/cm^2, 0.39 psi)

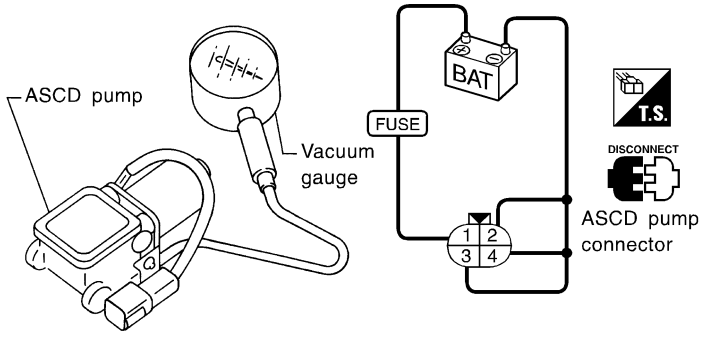
SEL264WE

OK or NG

OK	▶	GO TO 4.
NG	▶	Replace ASCD actuator.

4	CHECK ASCD PUMP

1. Disconnect vacuum hose from ASCD pump and ASCD pump connector.
2. If necessary remove ASCD pump.
3. Connect vacuum gauge to ASCD pump.
4. Apply 12V direct current to ASCD pump and check operation.



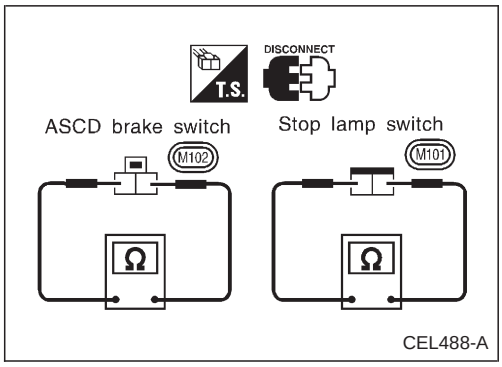
	12V direct current supply terminals		Operation
	(+)	(–)	
Air valve	1	2	Close
Release valve		3	Close
Vacuum motor		4	Operate

A vacuum pressure of at least –40 kPa (–0.402 bar, –0.41 kg/cm^2, –5.8 psi) should be generated.

SEL265WE

OK or NG

OK	▶	INSPECTION END
NG	▶	Replace ASCD pump.

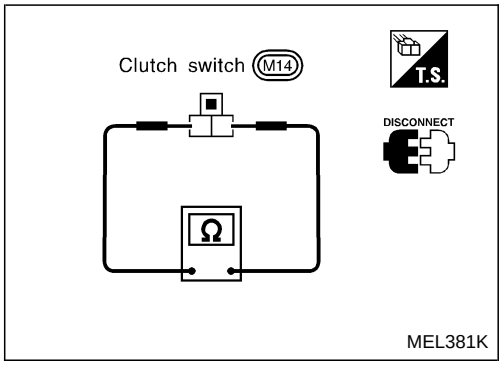


Electrical Component Inspection/TB48 Engine Models

ASCD BRAKE SWITCH AND STOP LAMP SWITCH

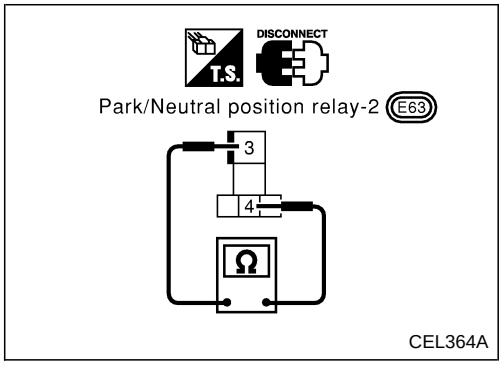
Condition	Continuity	
	ASCD brake switch	Stop lamp switch
When brake pedal is depressed	No	Yes
When brake pedal is released	Yes	No

Check each switch after adjusting brake pedal — refer to BR section.



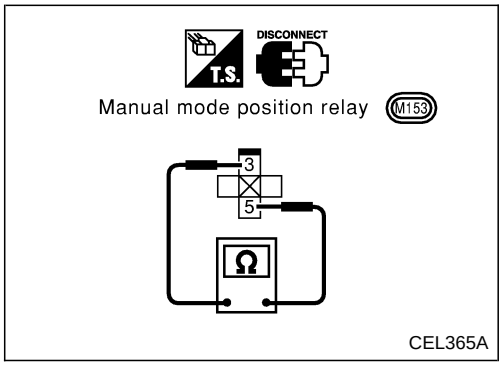
ASCD CLUTCH SWITCH (FOR M/T MODELS)

Condition	Continuity
When clutch pedal is depressed	No
When clutch pedal is released	Yes



PARK/NEUTRAL POSITION RELAY-2 (FOR A/T MODELS)

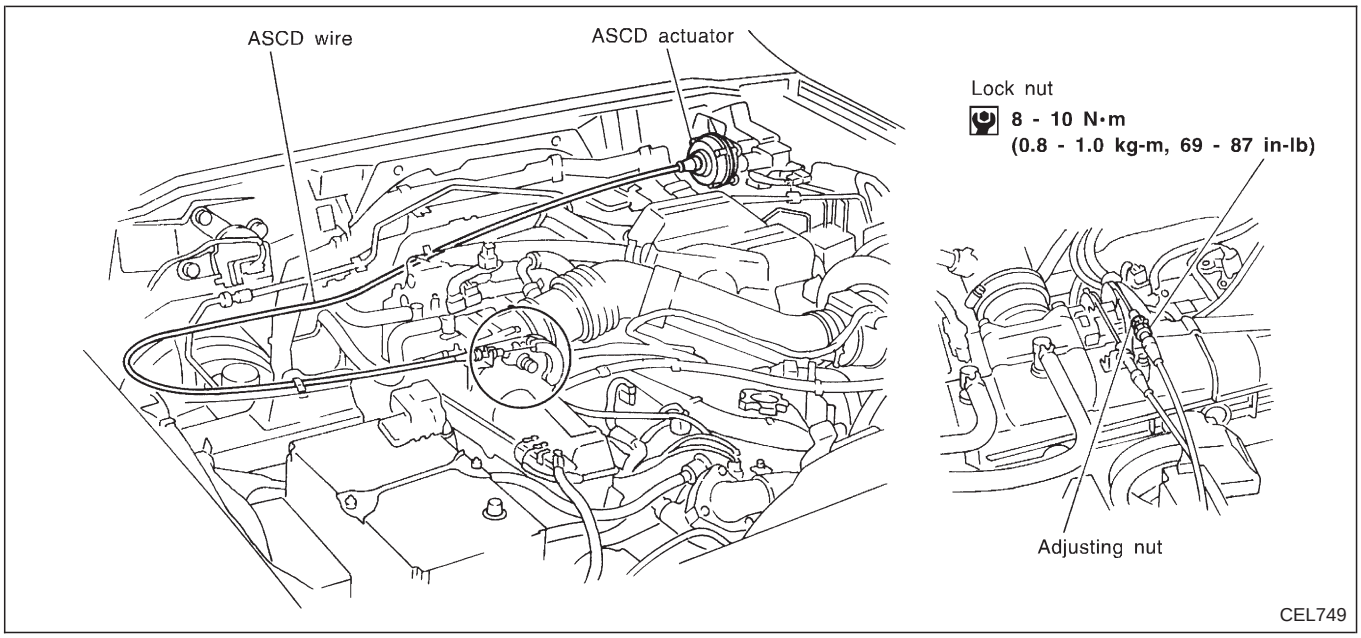
A/T selector lever position	Continuity
	Between terminals 3 and 4
“P”	No
“N”	No
Except “P” and “N”	Yes



MANUAL MODE POSITION RELAY (FOR A/T MODELS)

A/T selector lever position	Continuity
	Between terminals 3 and 5
Manual mode	No
Except manual mode	Yes

ASCD Wire Adjustment/TB48 Engine Models



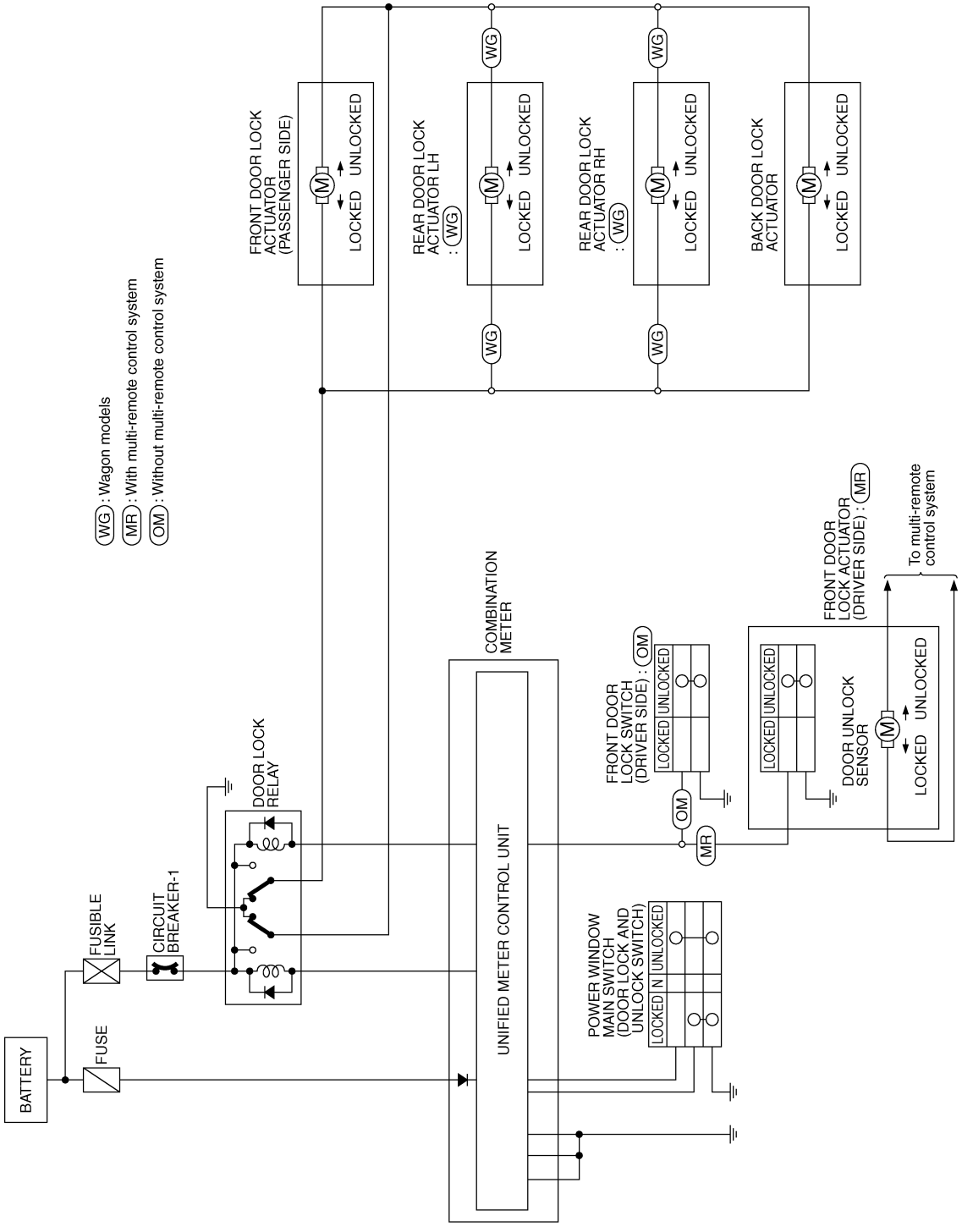
CAUTION:

- **Be careful not to twist ASCD wire when removing it.**
- **Do not tense ASCD wire excessively during adjustment.**

Adjust the tension of ASCD wire in the following manner.

1. Loosen lock nut and adjusting nut.
2. Make sure that accelerator wire is properly adjusted. Refer to FE section, “ACCELERATOR CONTROL SYSTEM”.
4. Tighten adjusting nut just until throttle drum starts to move.
5. Loosen adjusting nut again 1/2 to 1 turn.
6. Tighten lock nut.

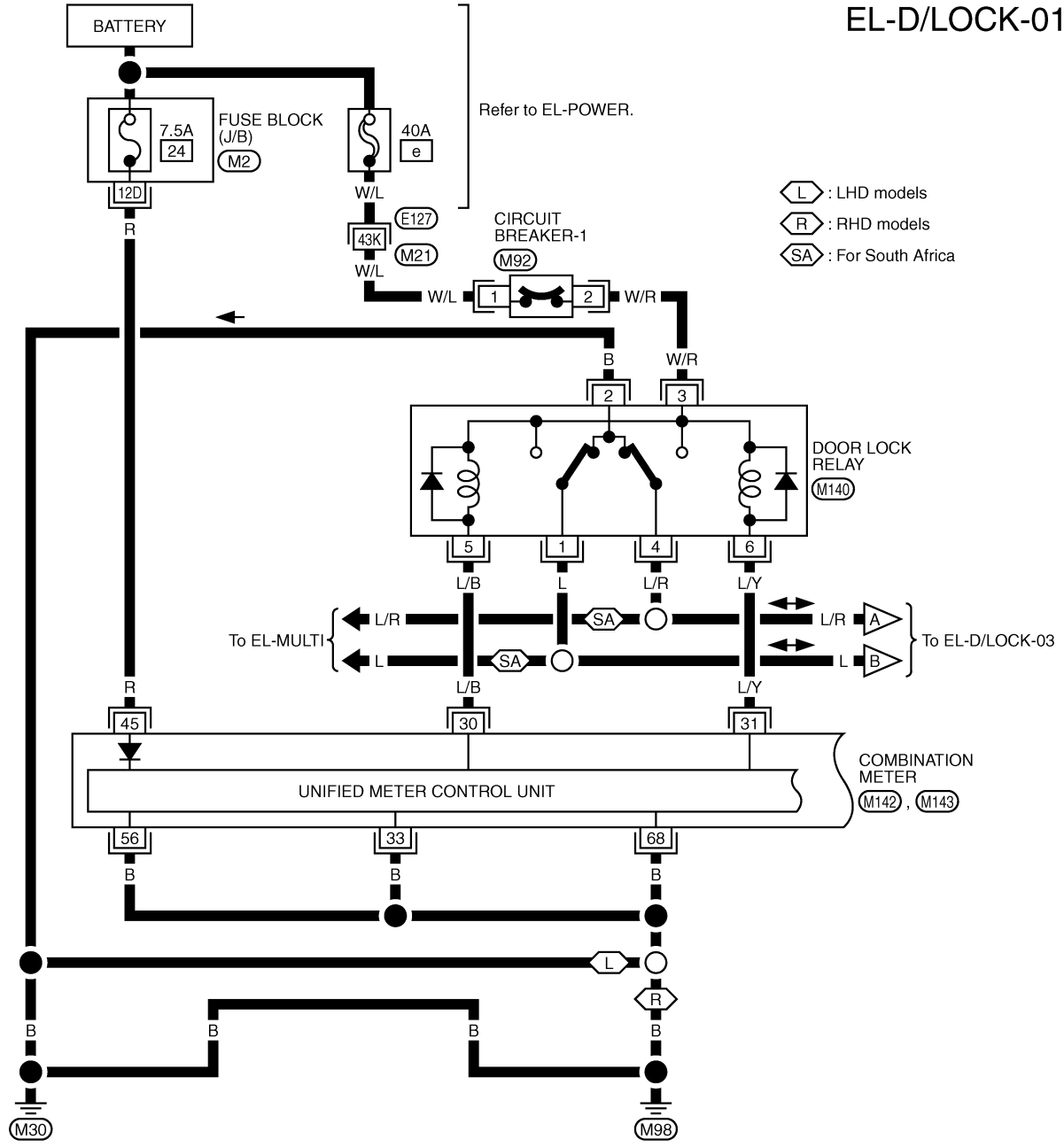
Schematic/Without Theft Warning System Models

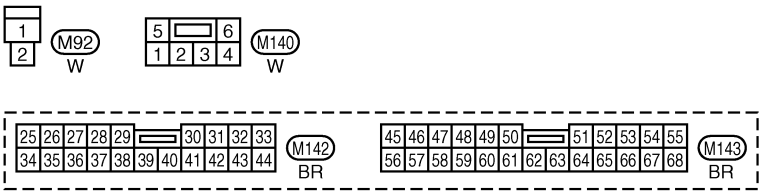


TEL471M

Wiring Diagram — D/LOCK —/Without Theft Warning System Models

EL-D/LOCK-01



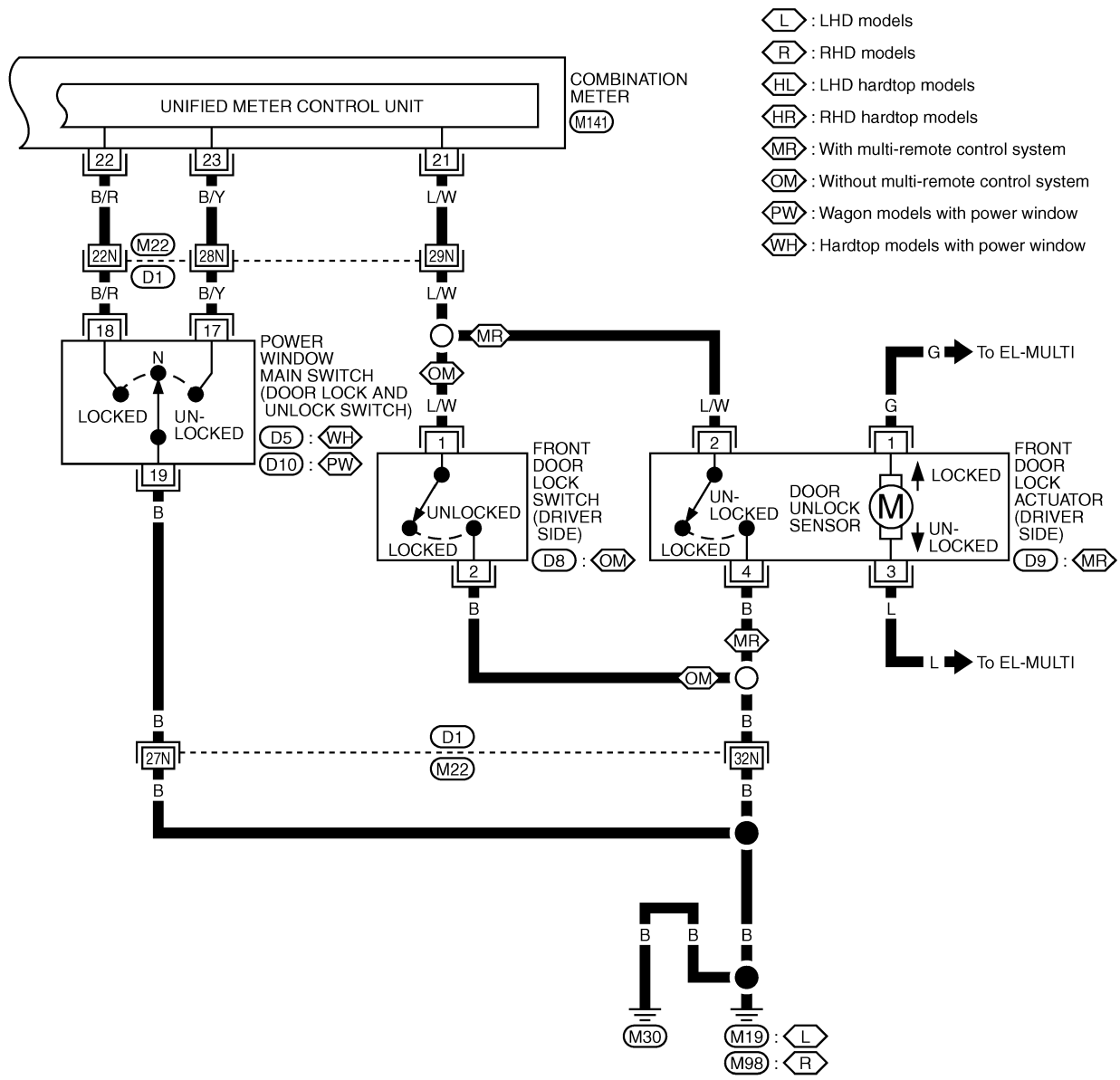


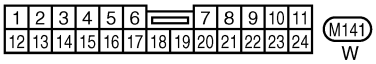
Refer to last page (Foldout page).
M21 , E127
M2

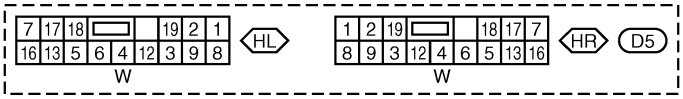
TEL839M

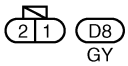
Wiring Diagram — D/LOCK —/Without Theft Warning System Models (Cont'd)

EL-D/LOCK-02







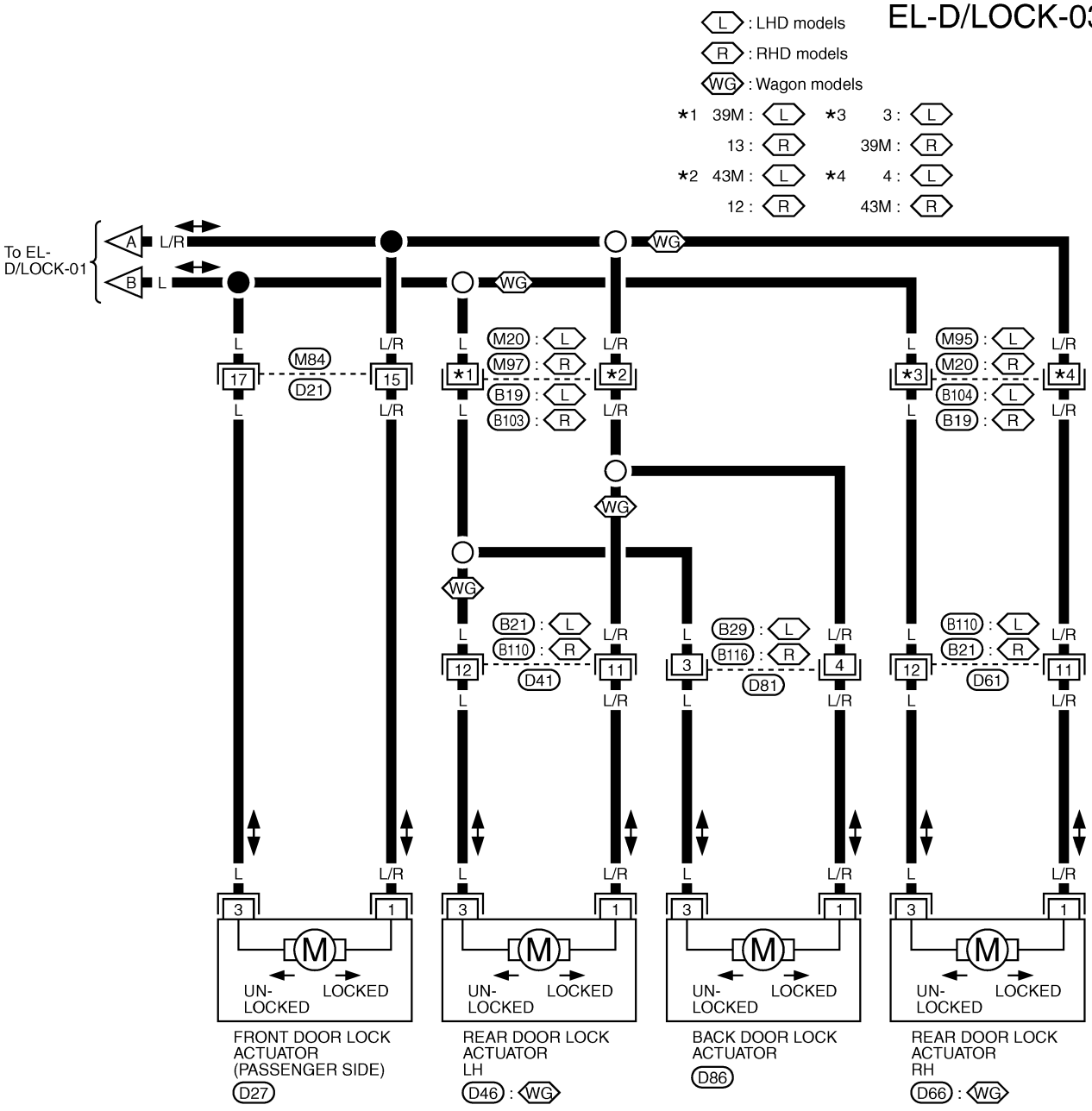


Refer to last page (Foldout page).
M22 , D1

TEL473M

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

EL-D/LOCK-03



M84, B21, B110 W

B103 W

B104 W

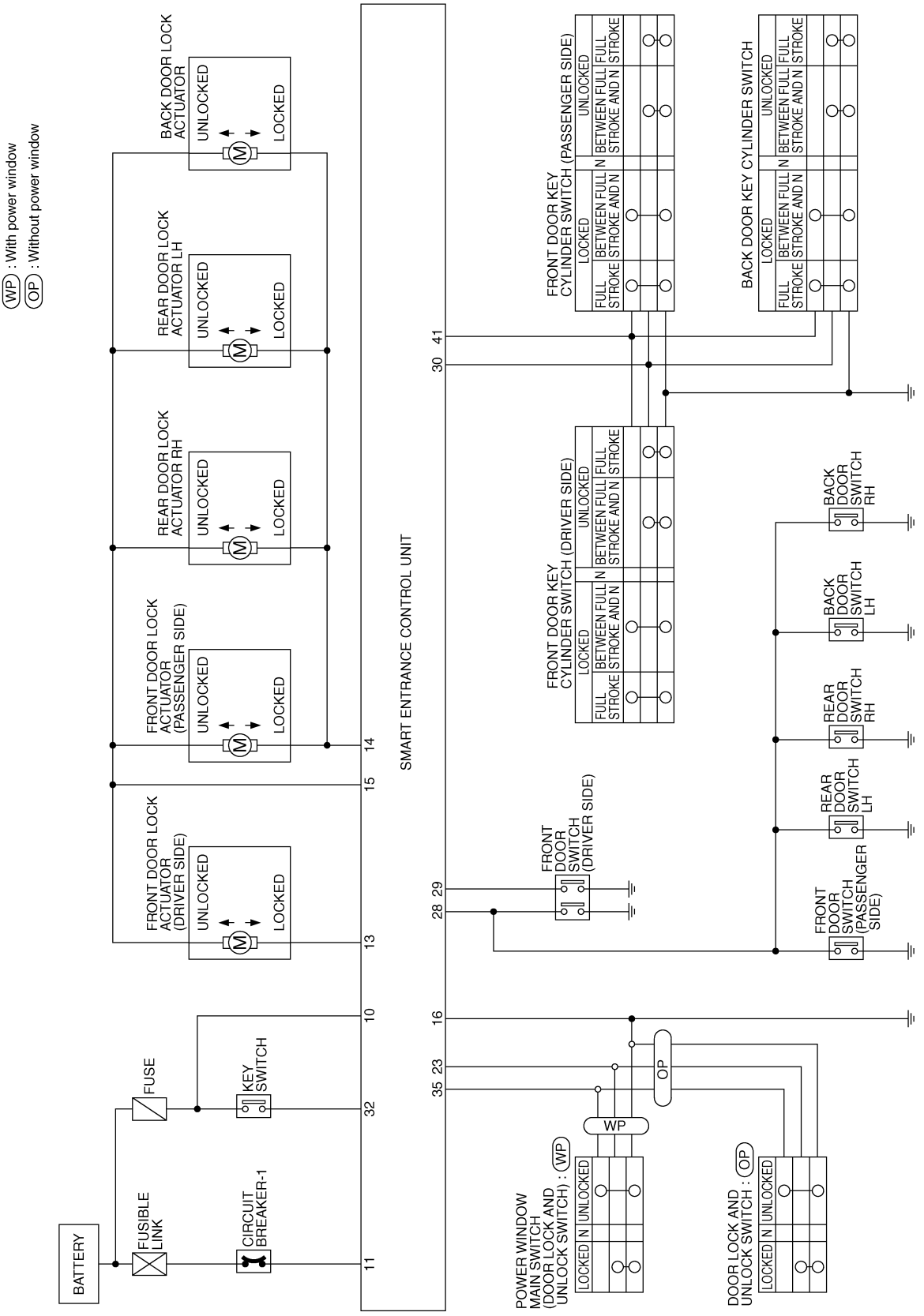
D27, D46, D66, D86 GY

D81 W

Refer to last page (Foldout page).

M20, B19

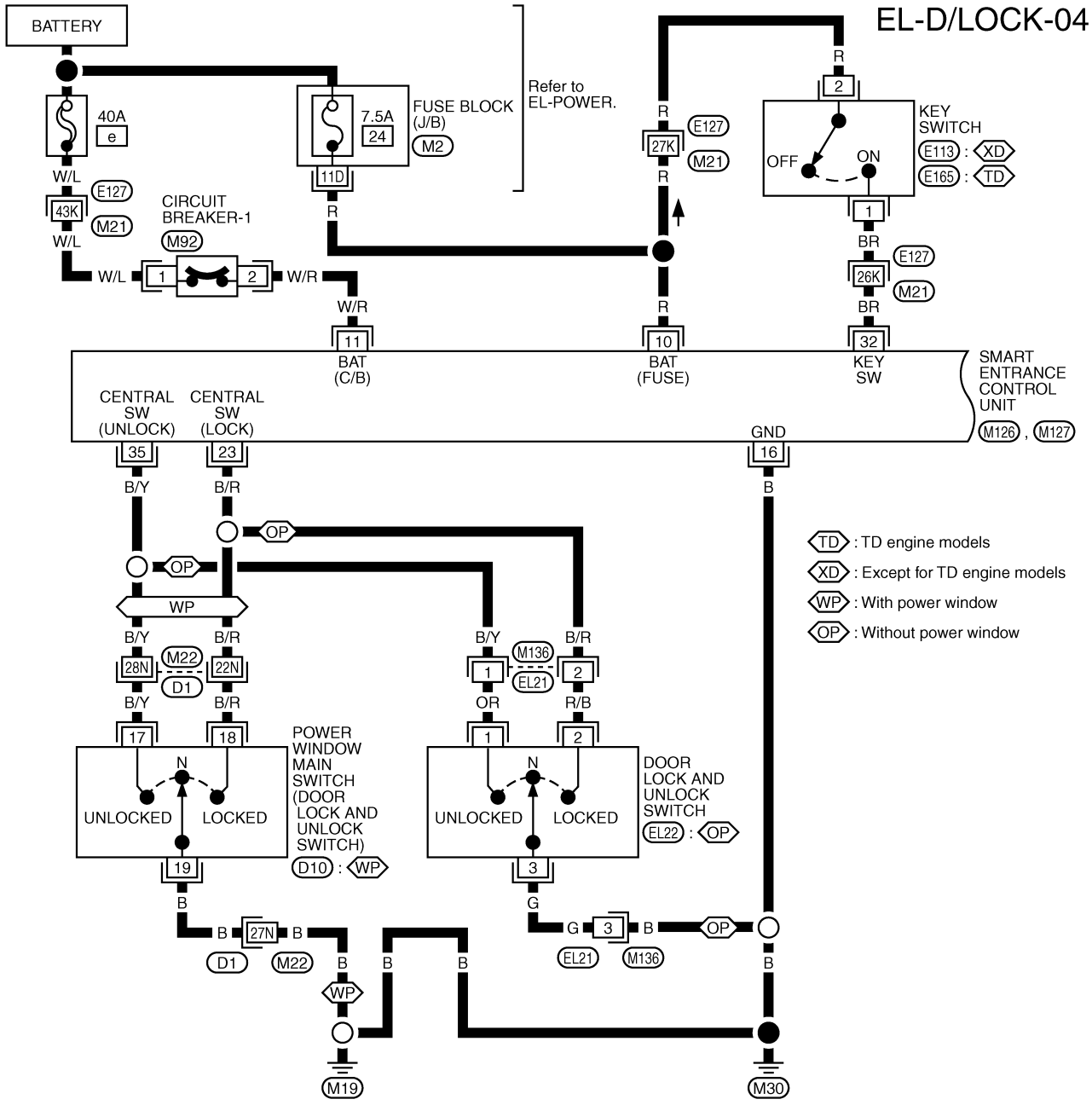
Schematic/With Theft Warning System Models

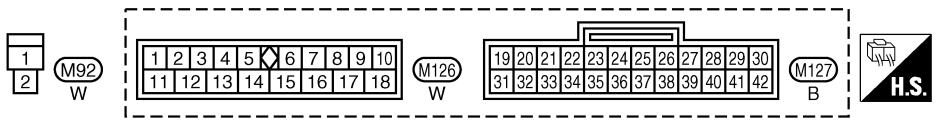


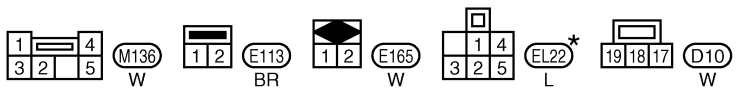
TEL573M

Wiring Diagram — D/LOCK —/With Theft Warning System Models

LHD MODELS







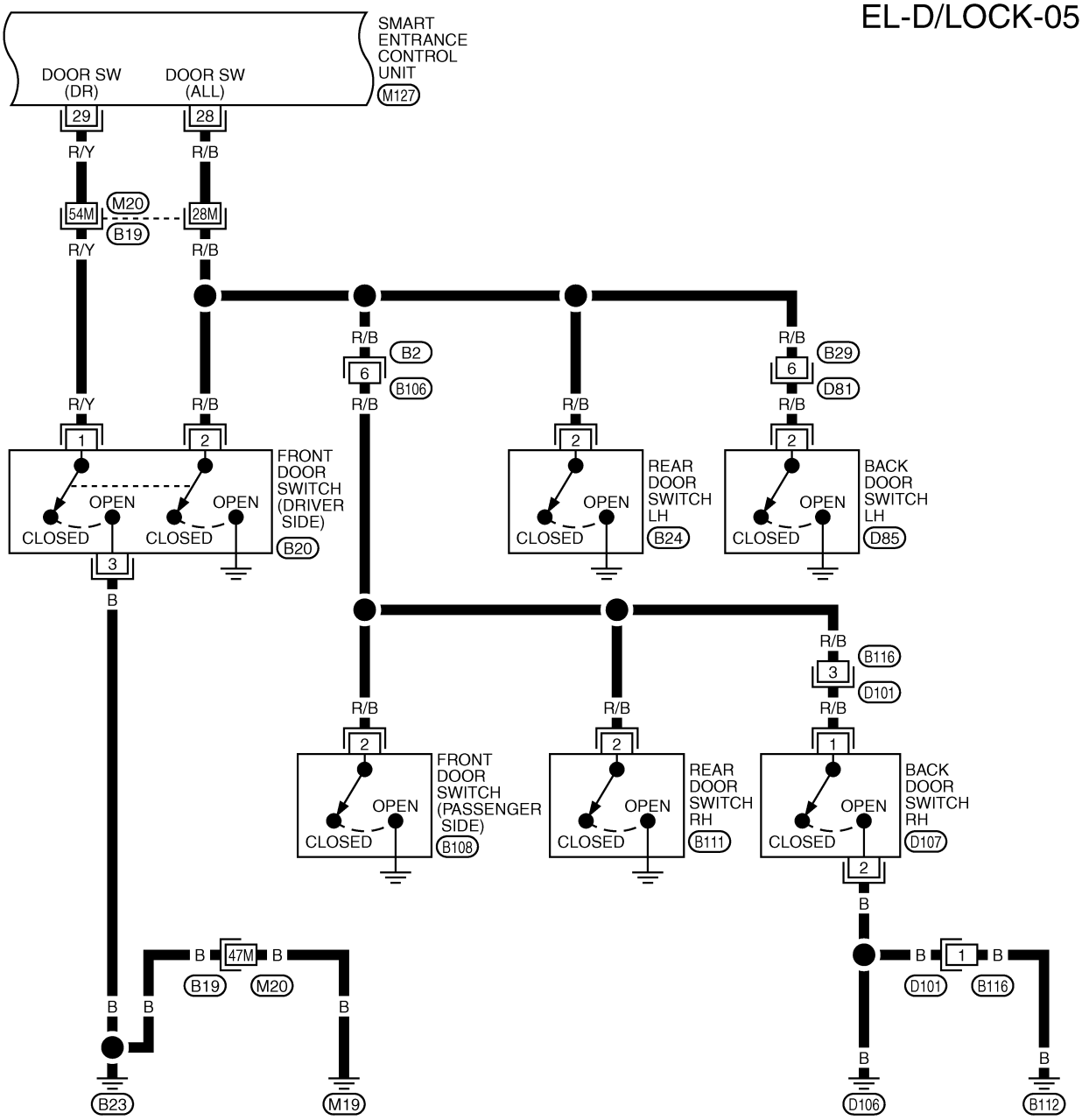
*: This connector is not shown in "HARNESS LAYOUT", EL section.

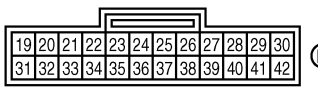
Refer to last page (Foldout page).
M21 , E127
M22 , D1
M2

TEL790M

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

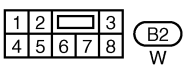
EL-D/LOCK-05



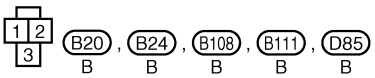


M127
B

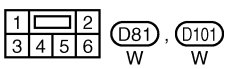
H.S.



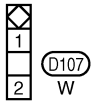
B2
W



B20 , B24 , B108 , B111 , D85
B B B B B



D81 , D101
W W



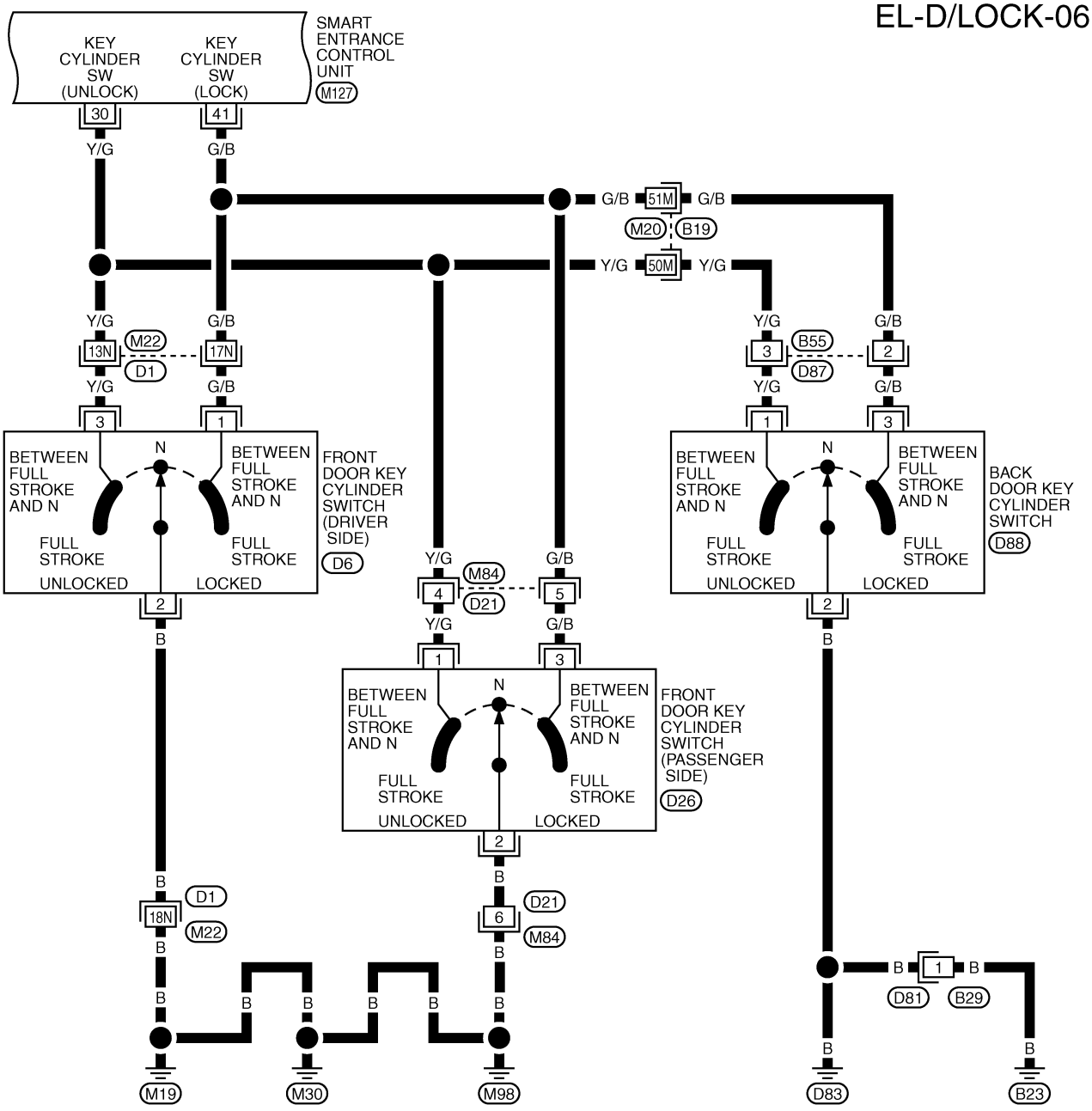
D107
W

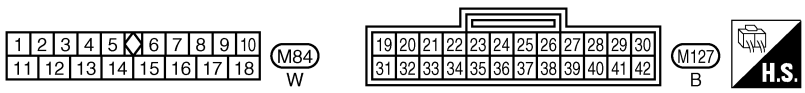
Refer to last page (Foldout page).
M20 , B19

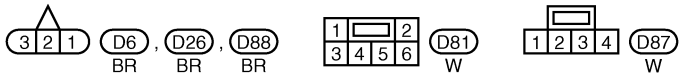
TEL791M

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

EL-D/LOCK-06







Refer to last page (Foldout page).

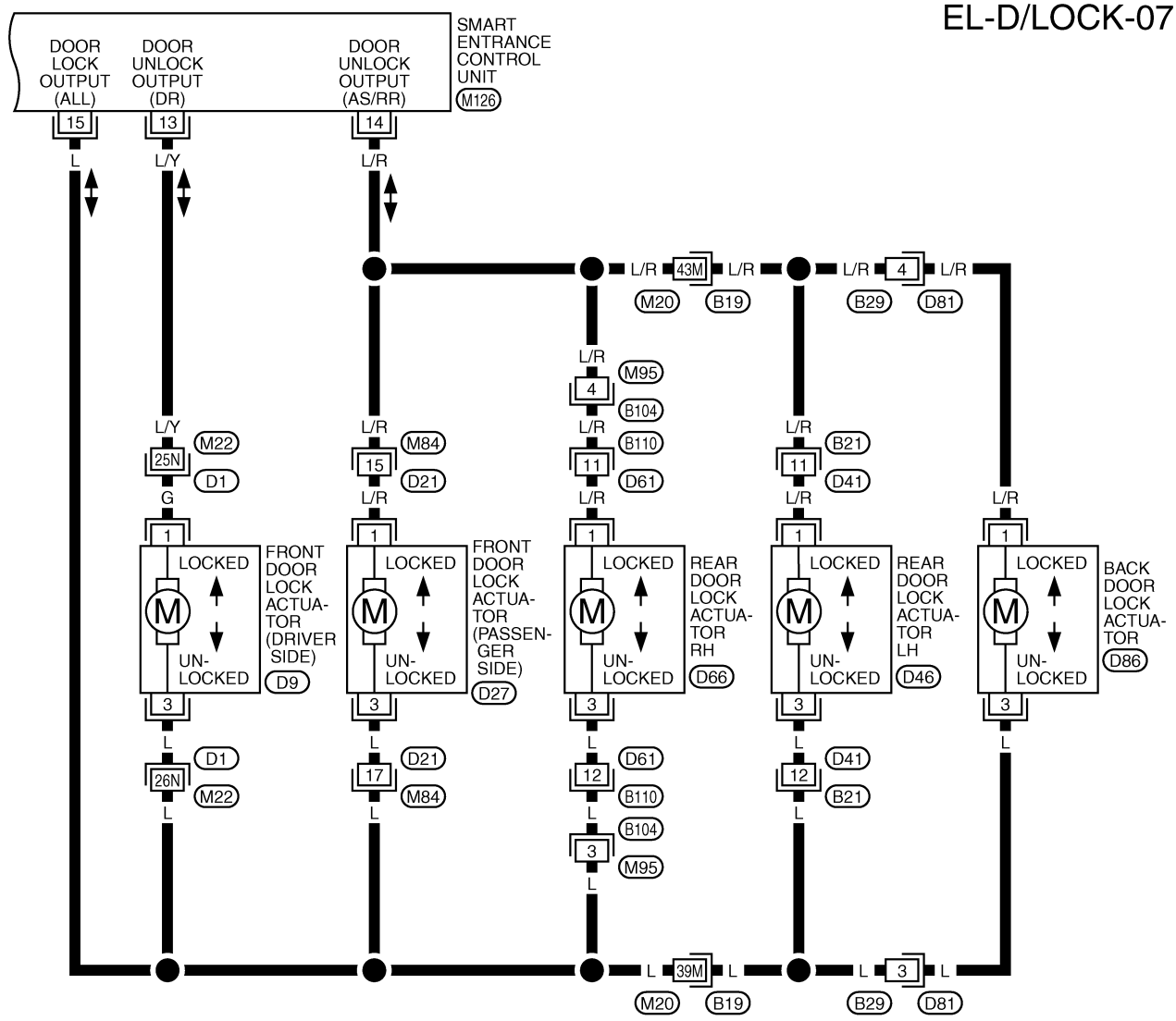
M20 , B19

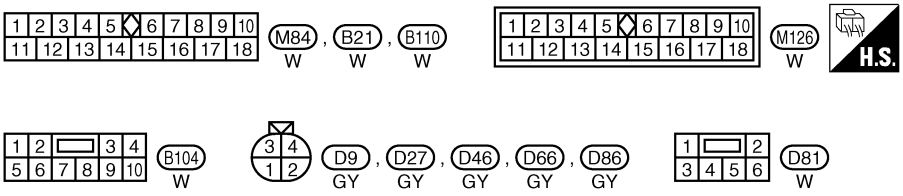
M22 , D1

TEL792M

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

EL-D/LOCK-07





Refer to last page (Foldout page).

M20 , B19

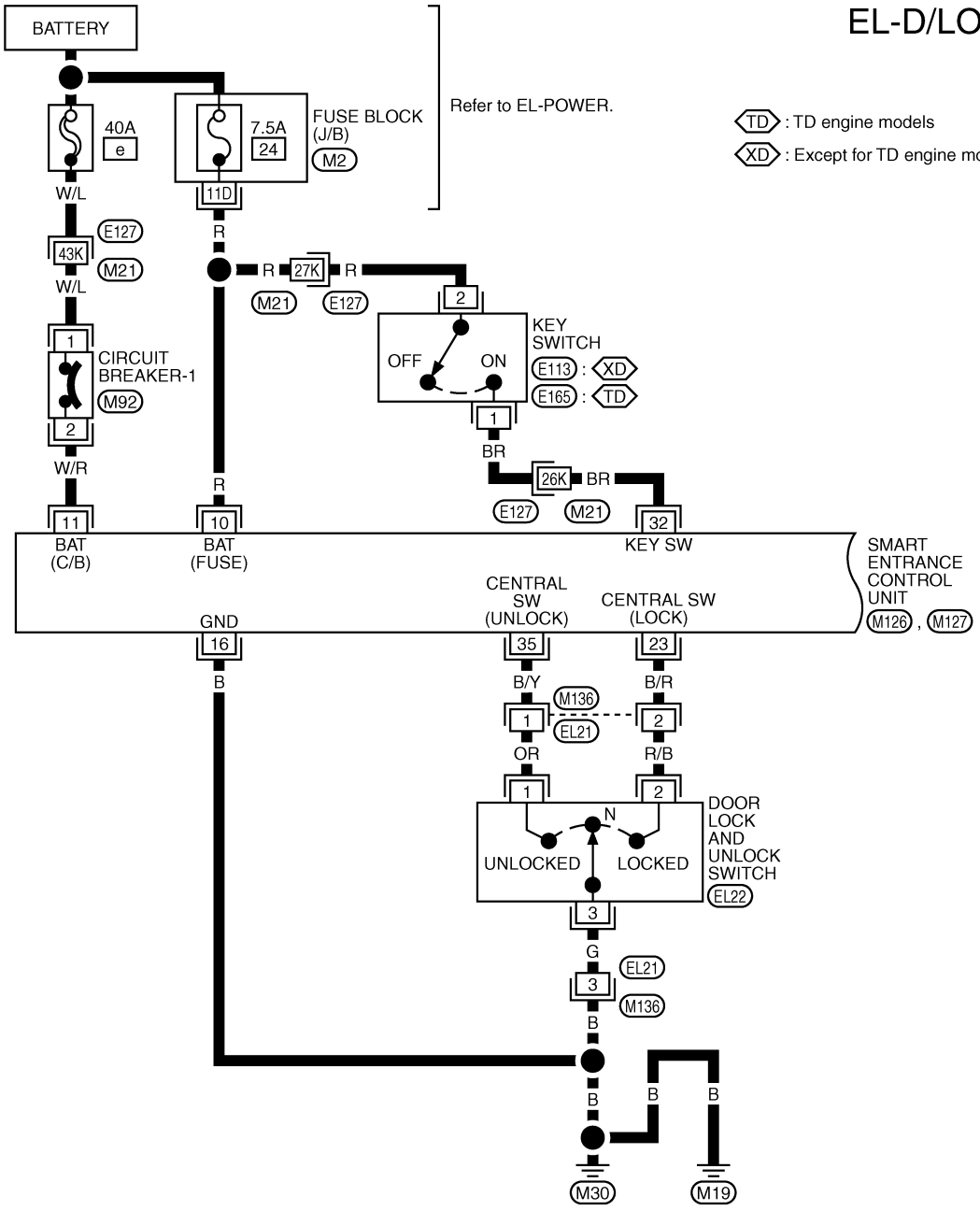
M22 , D1

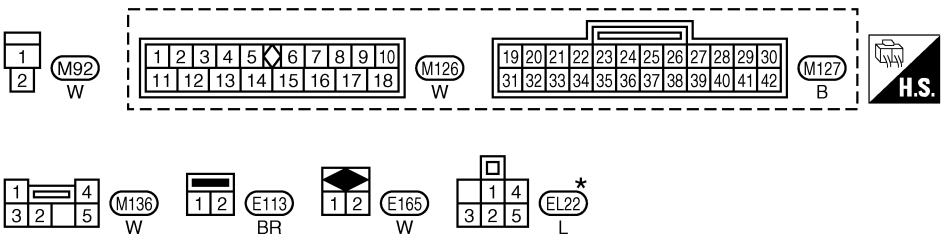
TEL793M

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

RHD MODELS

EL-D/LOCK-08





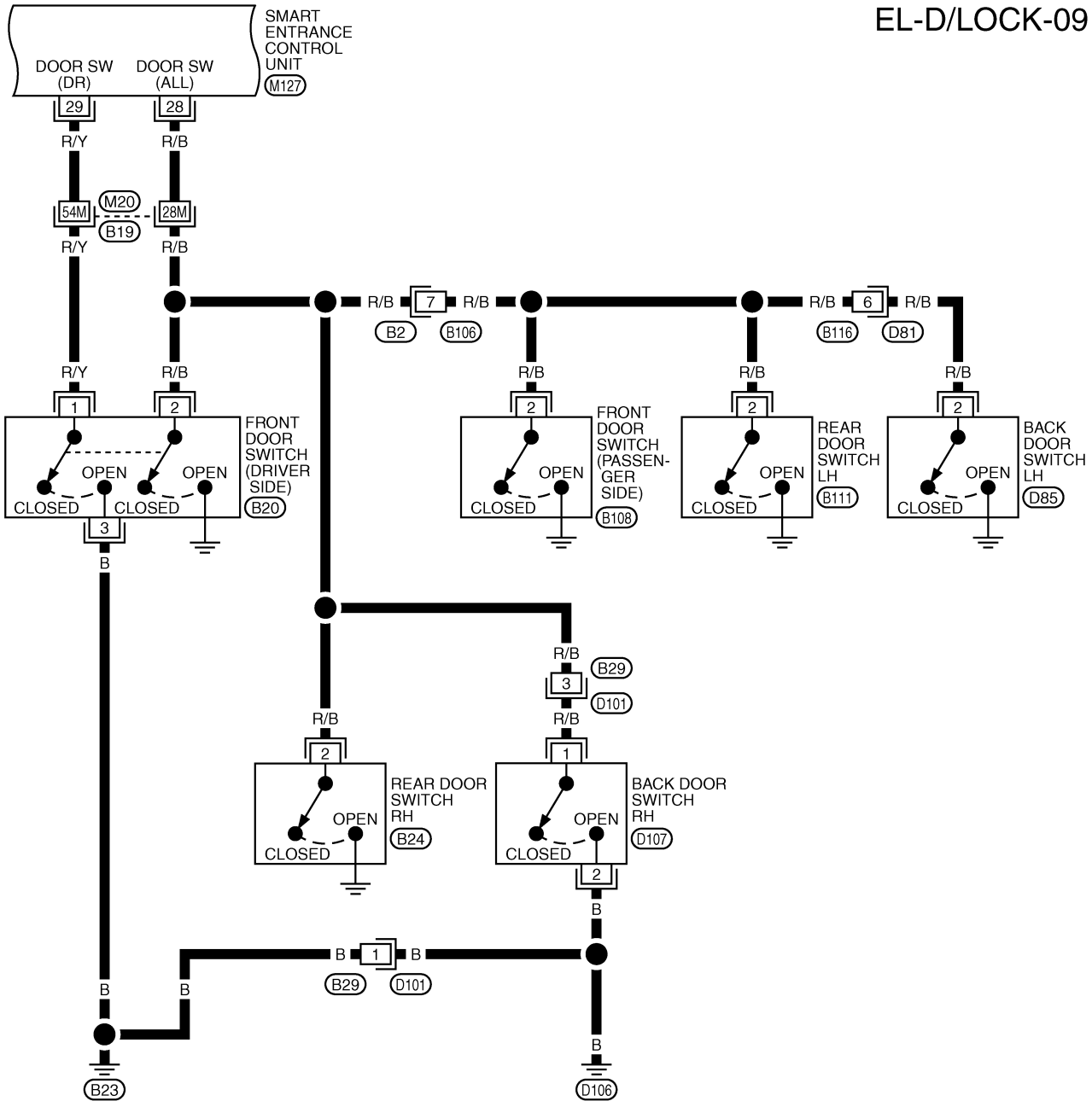
*: This connector is not shown in "HARNESS LAYOUT", EL section.

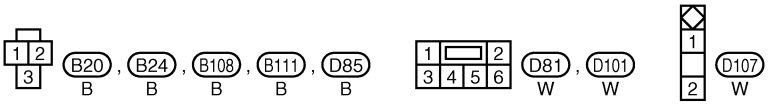
Refer to last page (Foldout page).
M21 , E127
M2

TEL578M

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

EL-D/LOCK-09

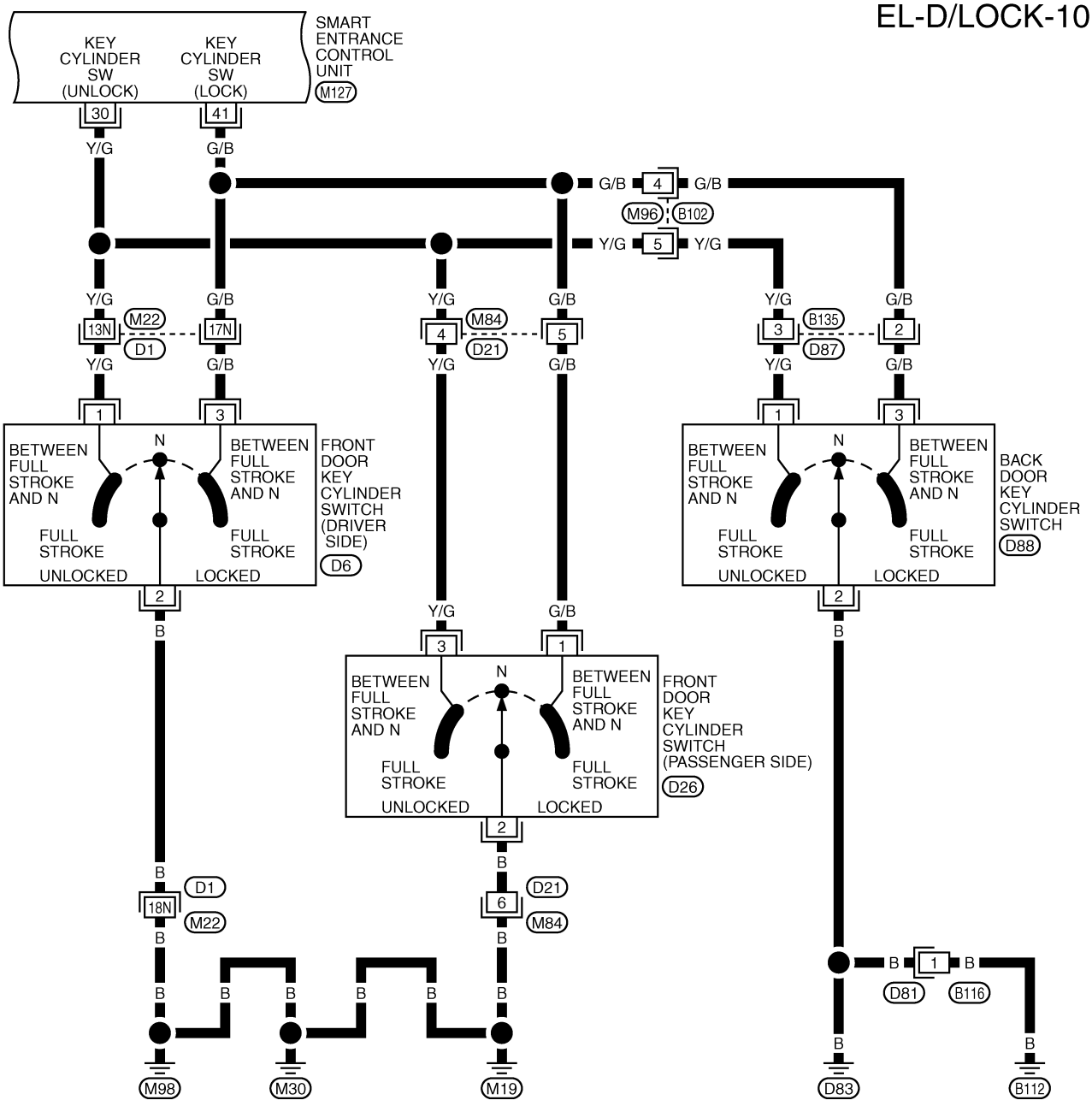


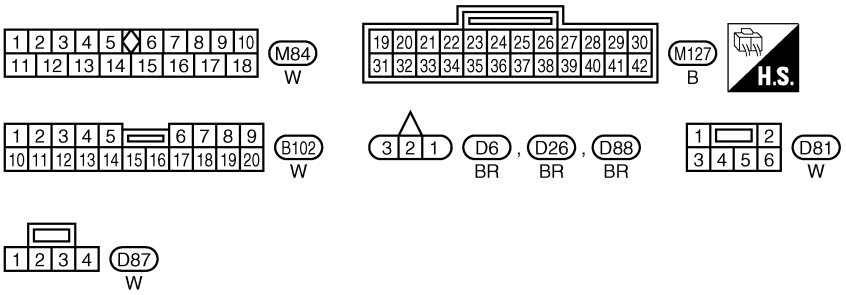


Refer to last page (Foldout page).
M20 , B19

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

EL-D/LOCK-10



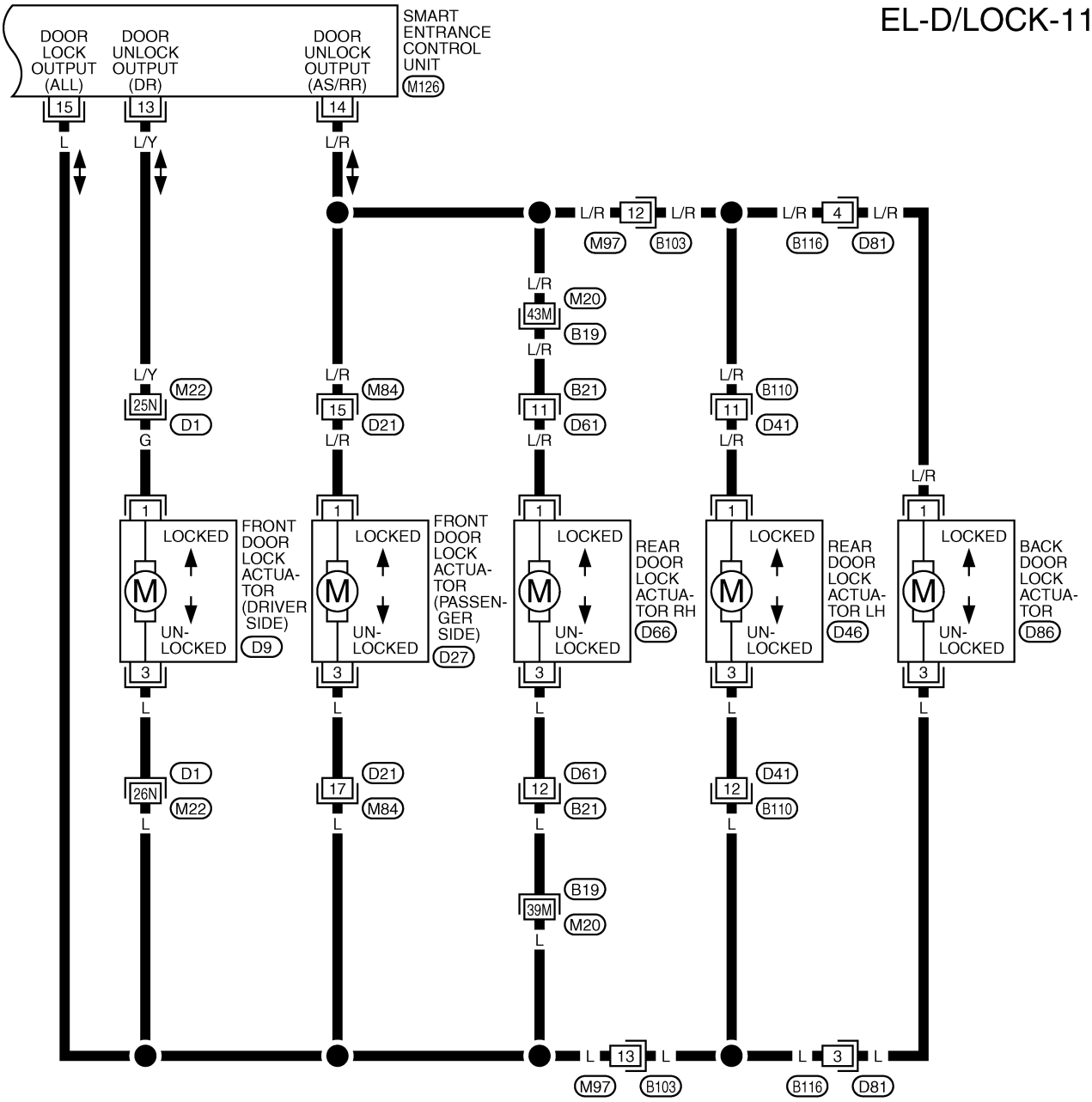


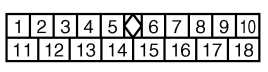
Refer to last page (Foldout page).
M22 , D1

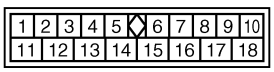
TEL580M

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

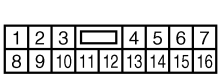
EL-D/LOCK-11



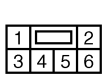

M84, B21, B110
W W W


M126
W

H.S.


B103
W

D9, D27, D46, D66, D86
GY GY GY GY GY


D81
W

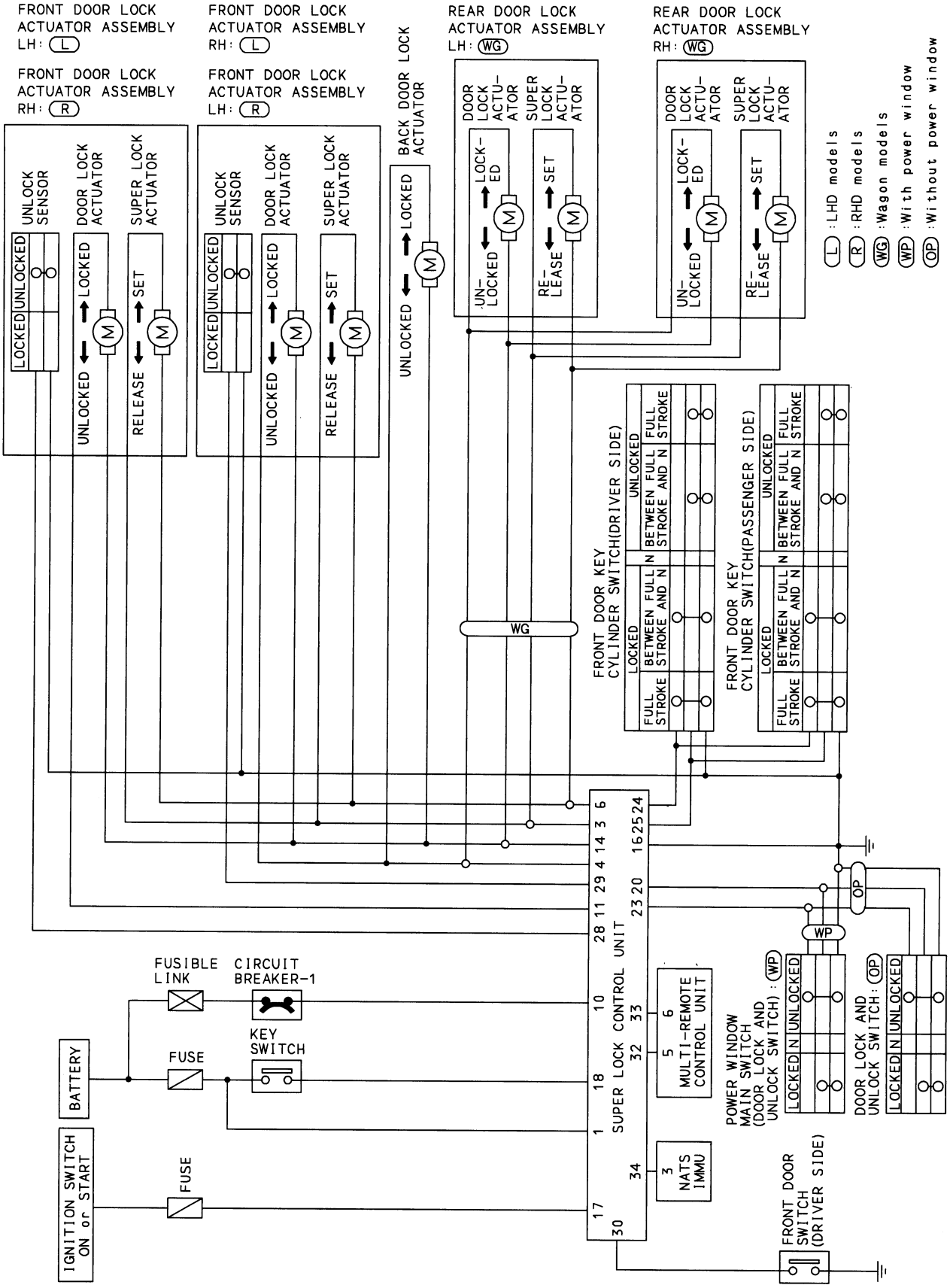
Refer to last page (Foldout page).

M20, B19

M22, D1

TEL581M

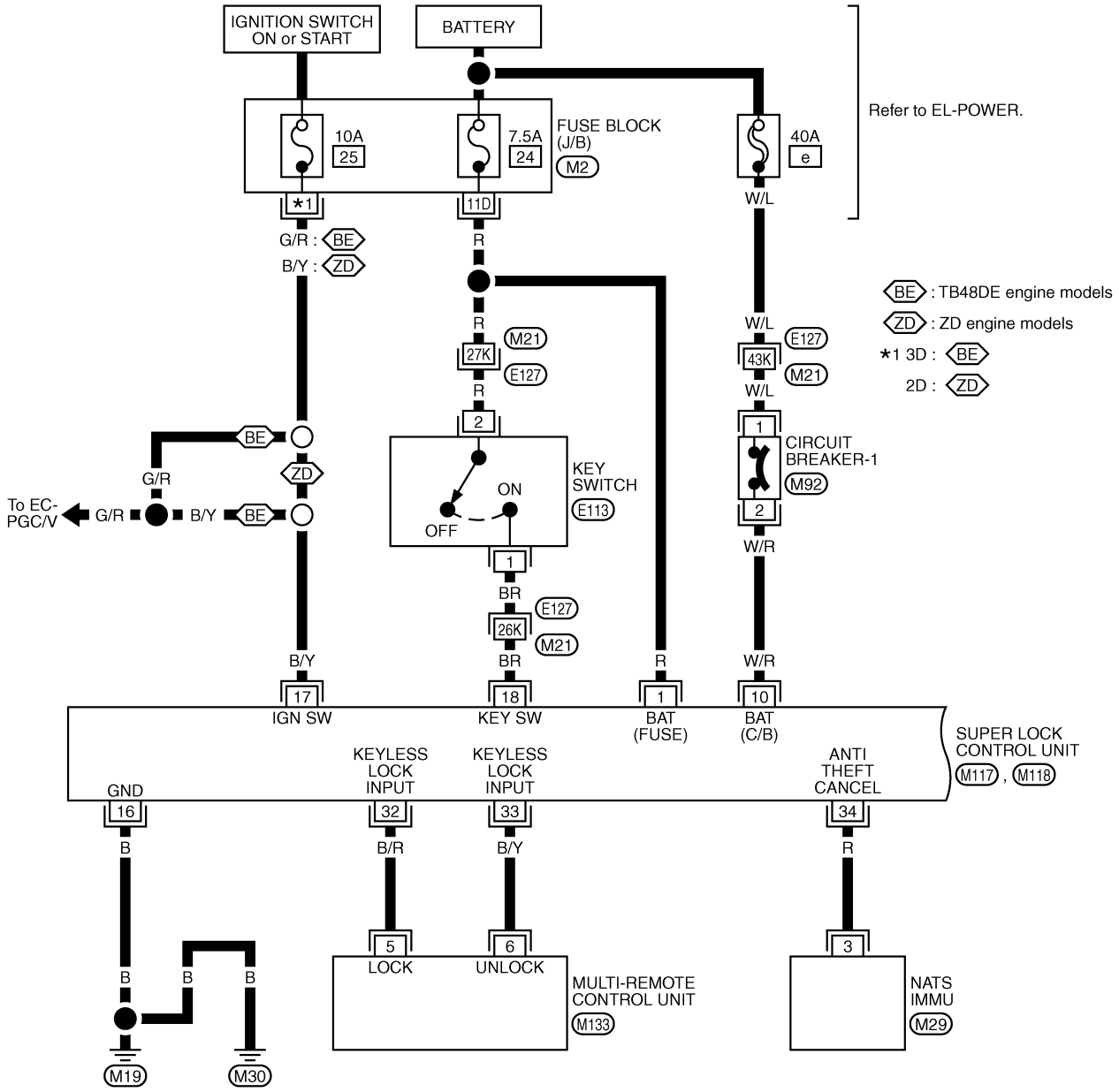
Schematic

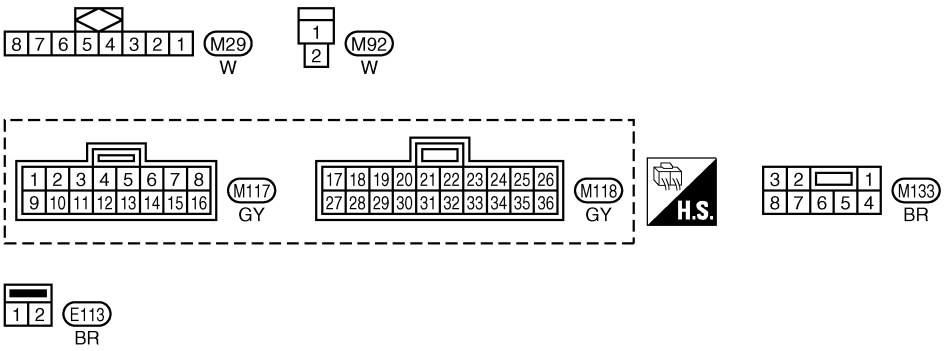


TEL261M

Wiring Diagram — S/LOCK —/LHD Models

EL-S/LOCK-01





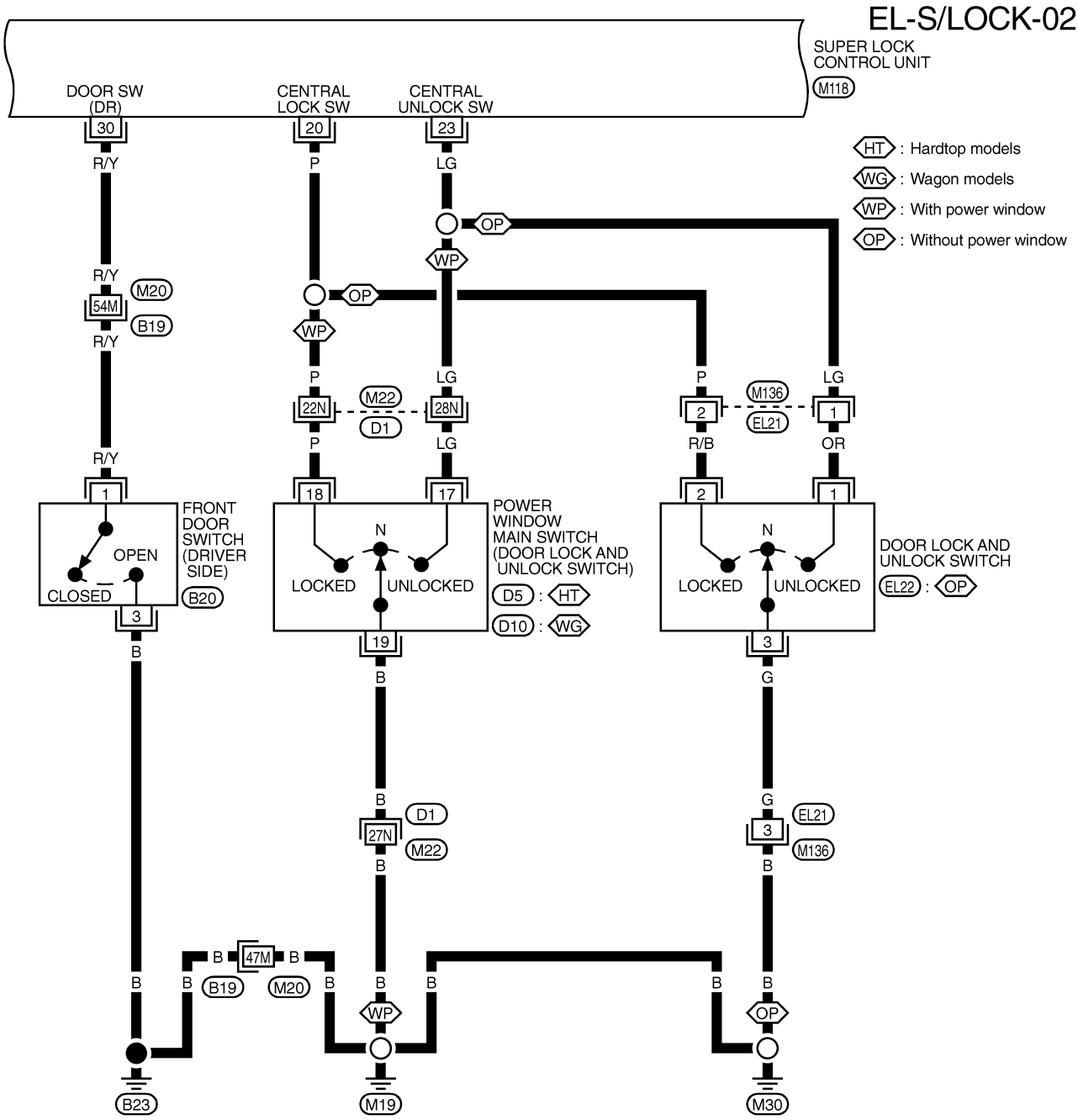
Refer to last page (Foldout page).

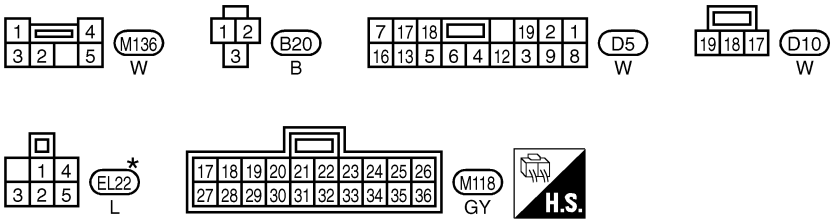
M21, E127

M2

TEL719M

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





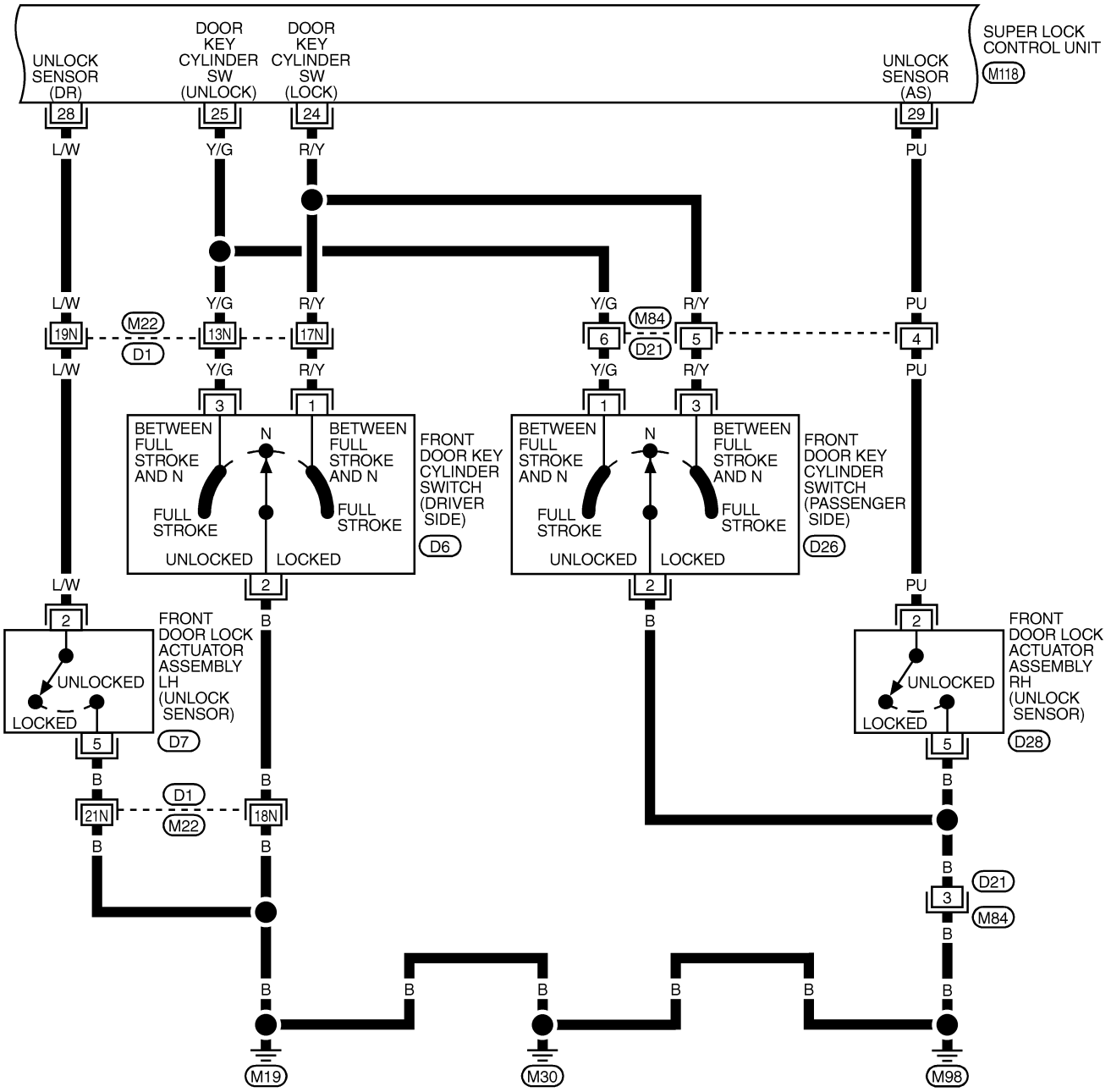
Refer to last page (Foldout page).
M20 , B19
M22 , D1

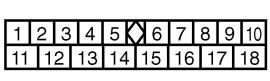
∗: This connector is not shown in "HARNESS LAYOUT", EL section.

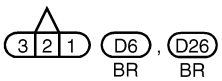
TEL263M

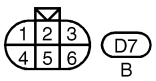
Wiring Diagram — S/LOCK —/LHD Models (Cont'd)

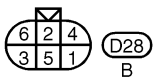
EL-S/LOCK-03

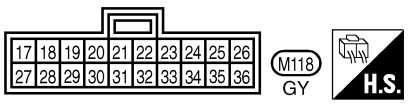












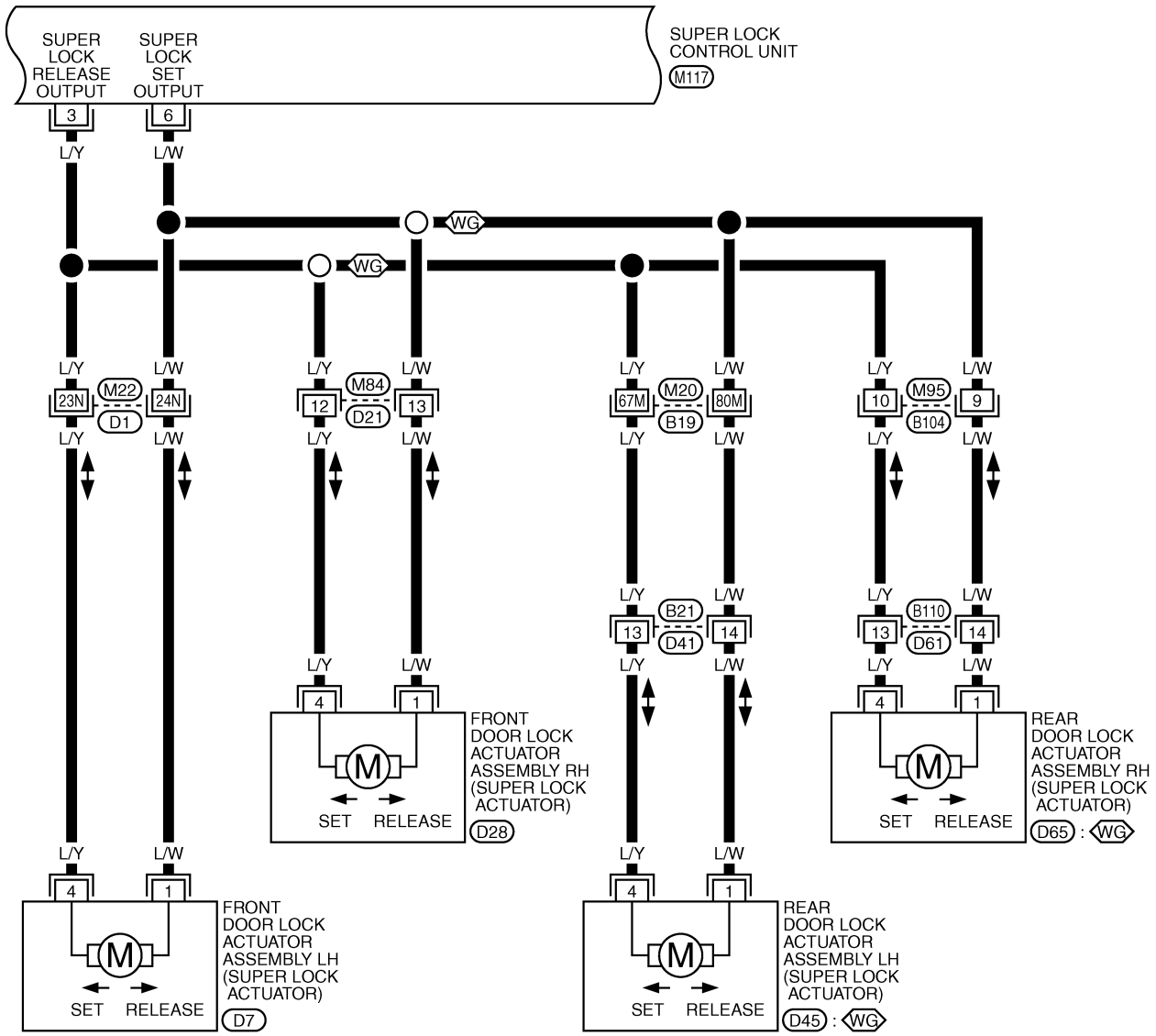
Refer to last page (Foldout page).
M22 , D1

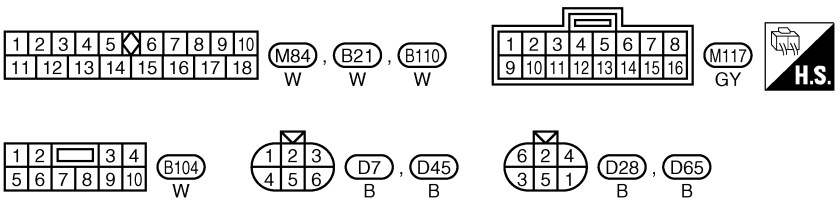
TEL264M

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

EL-S/LOCK-04

WG : Wagon models





Refer to last page (Foldout page).

M20 , B19

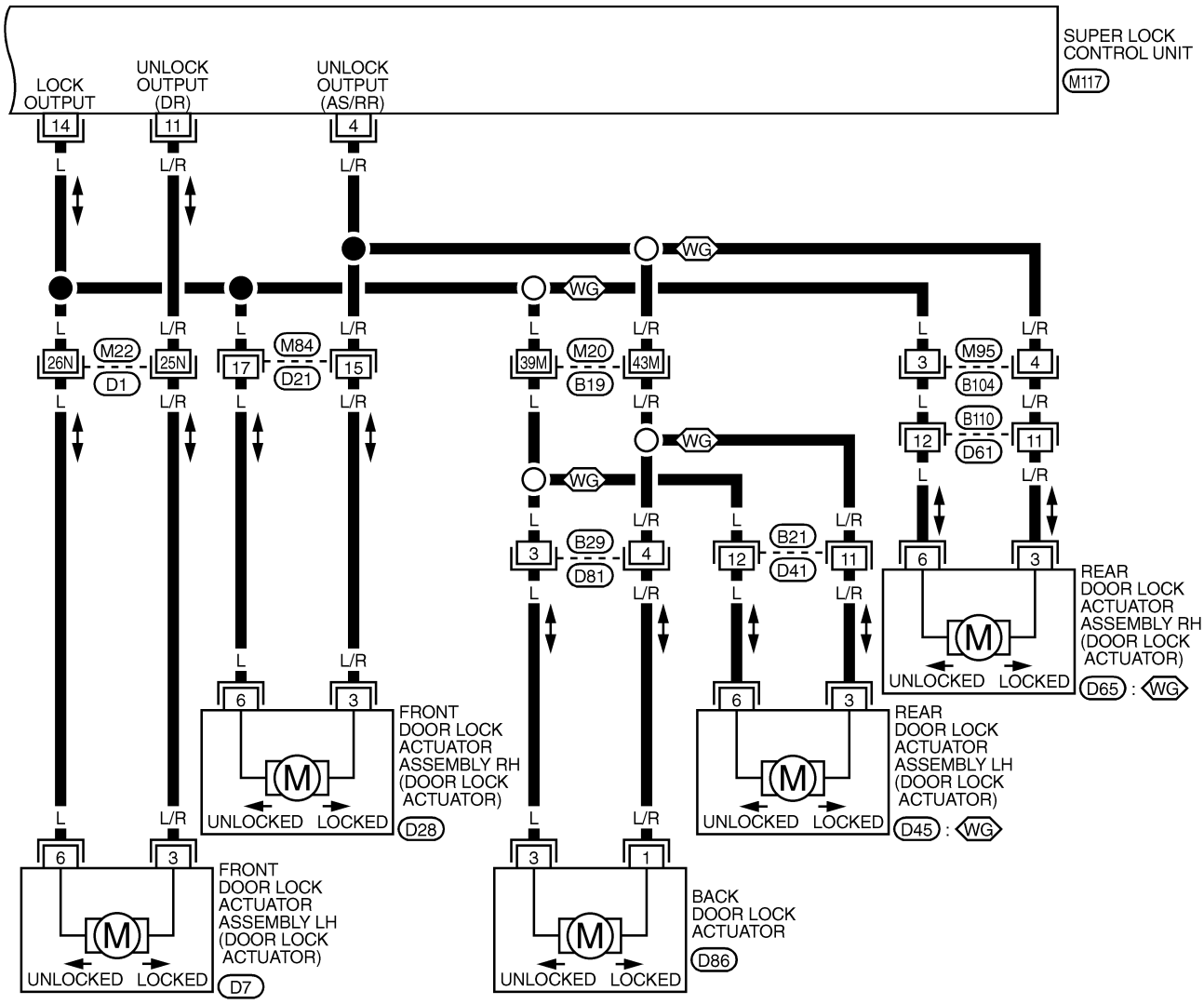
M22 , D1

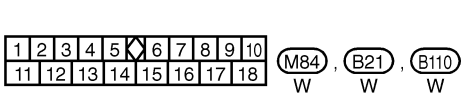
TEL720M

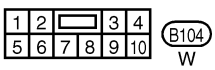
Wiring Diagram — S/LOCK —/LHD Models (Cont'd)

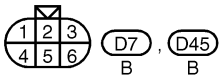
EL-S/LOCK-05

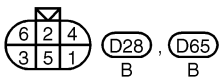
WG : Wagon models

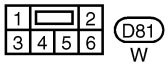


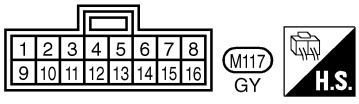










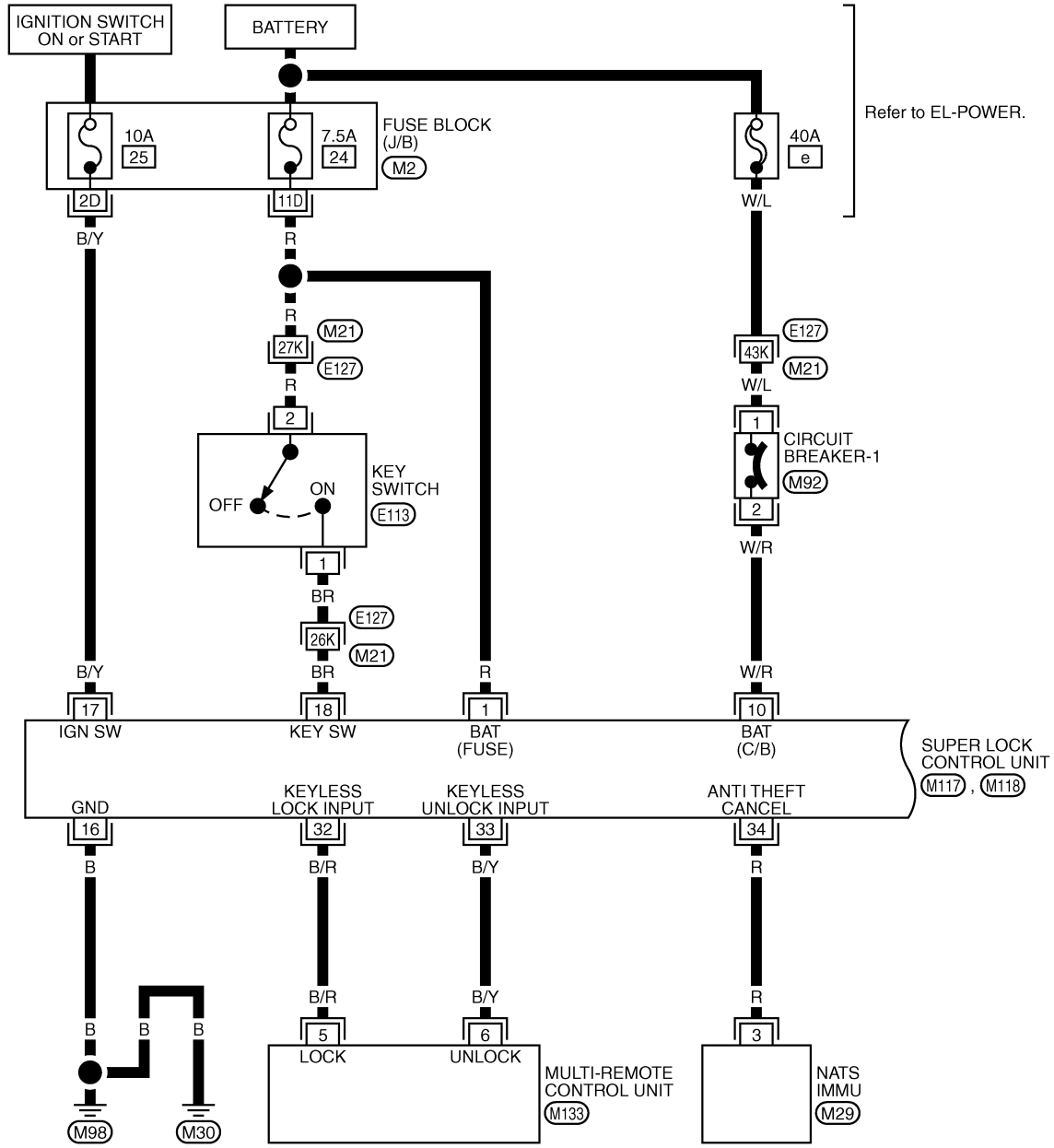


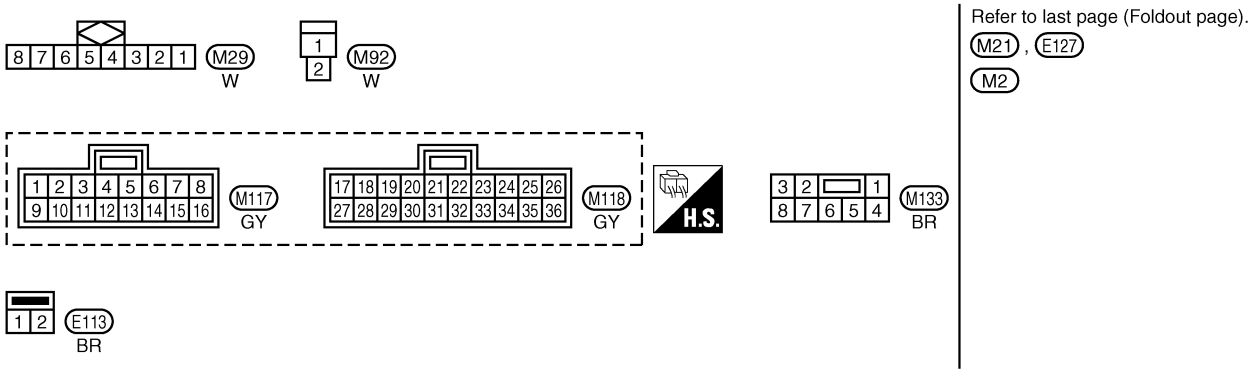
Refer to last page (Foldout page).
M20 , B19
M22 , D1

TEL266M

Wiring Diagram — S/LOCK —/RHD Models

EL-S/LOCK-06



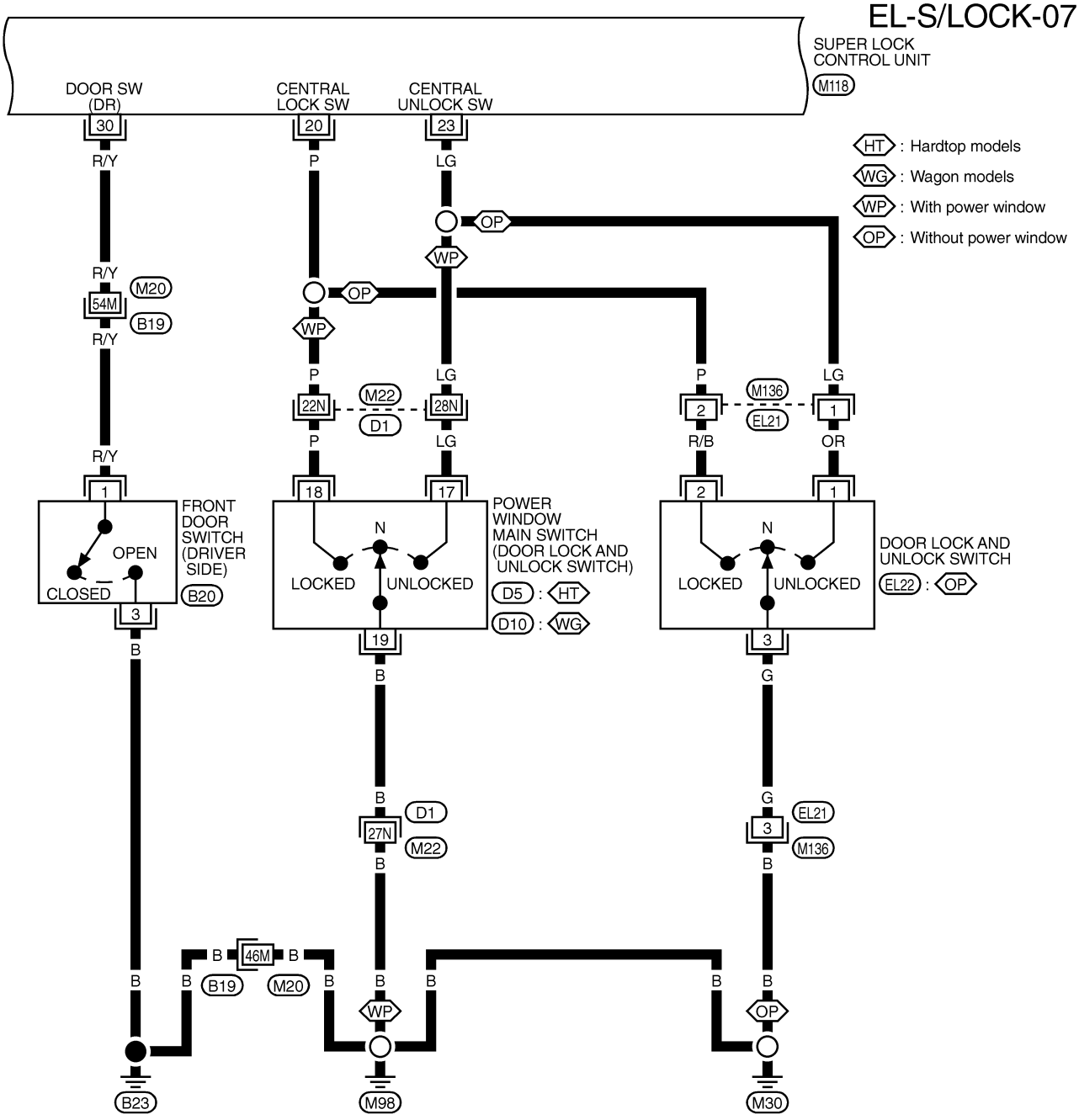


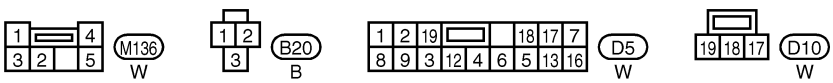
Refer to last page (Foldout page).
M21, E127
M2

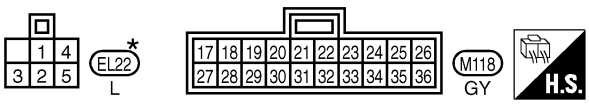
TEL796M

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

EL-S/LOCK-07







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

Refer to last page (Foldout page).

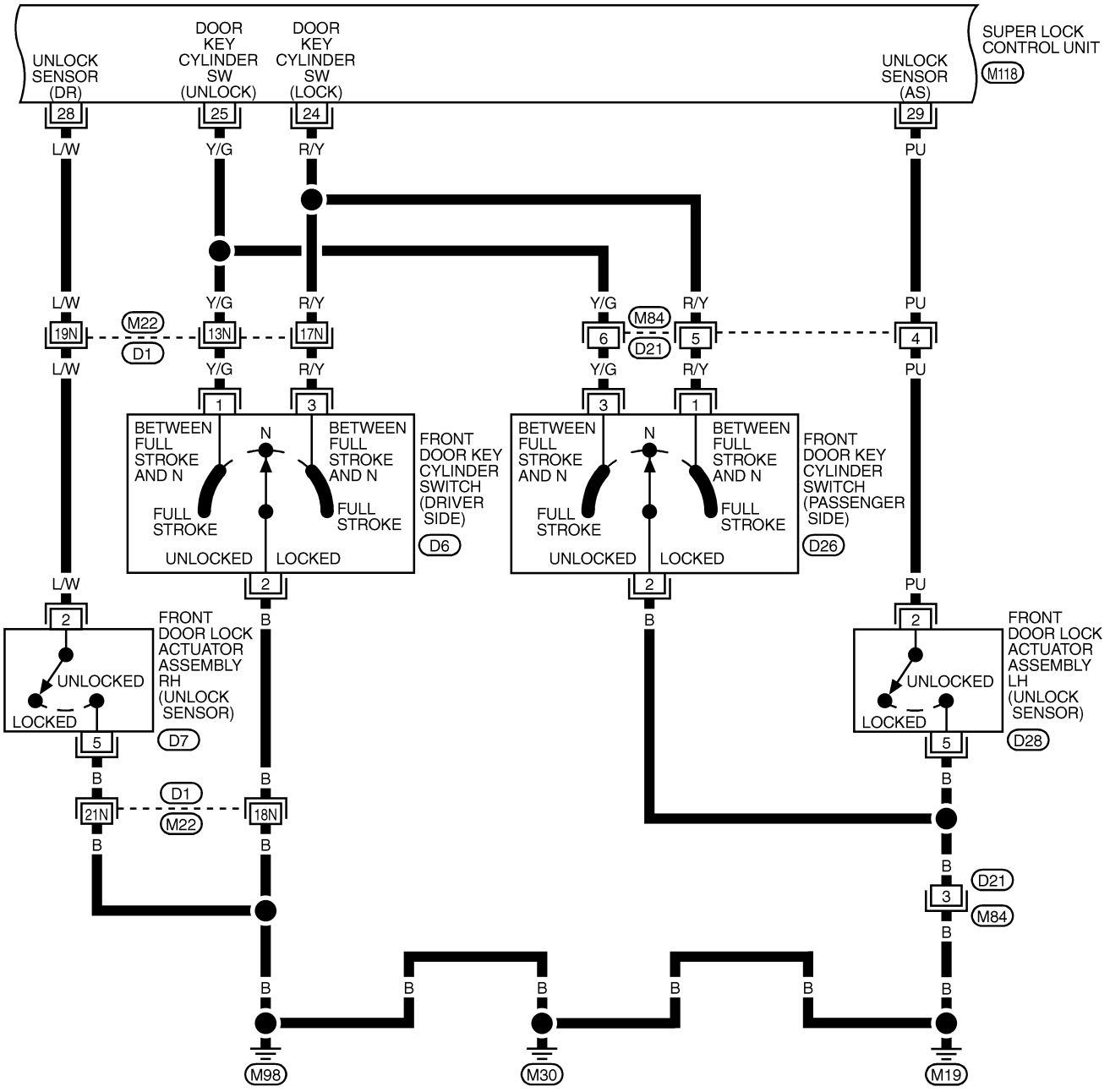
M20 , B19

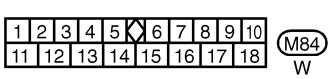
M22 , D1

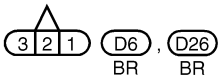
TEL268M

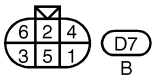
Wiring Diagram — S/LOCK —/RHD Models (Cont'd)

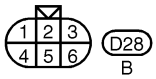
EL-S/LOCK-08

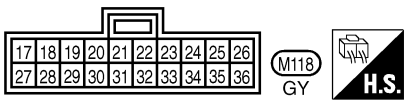












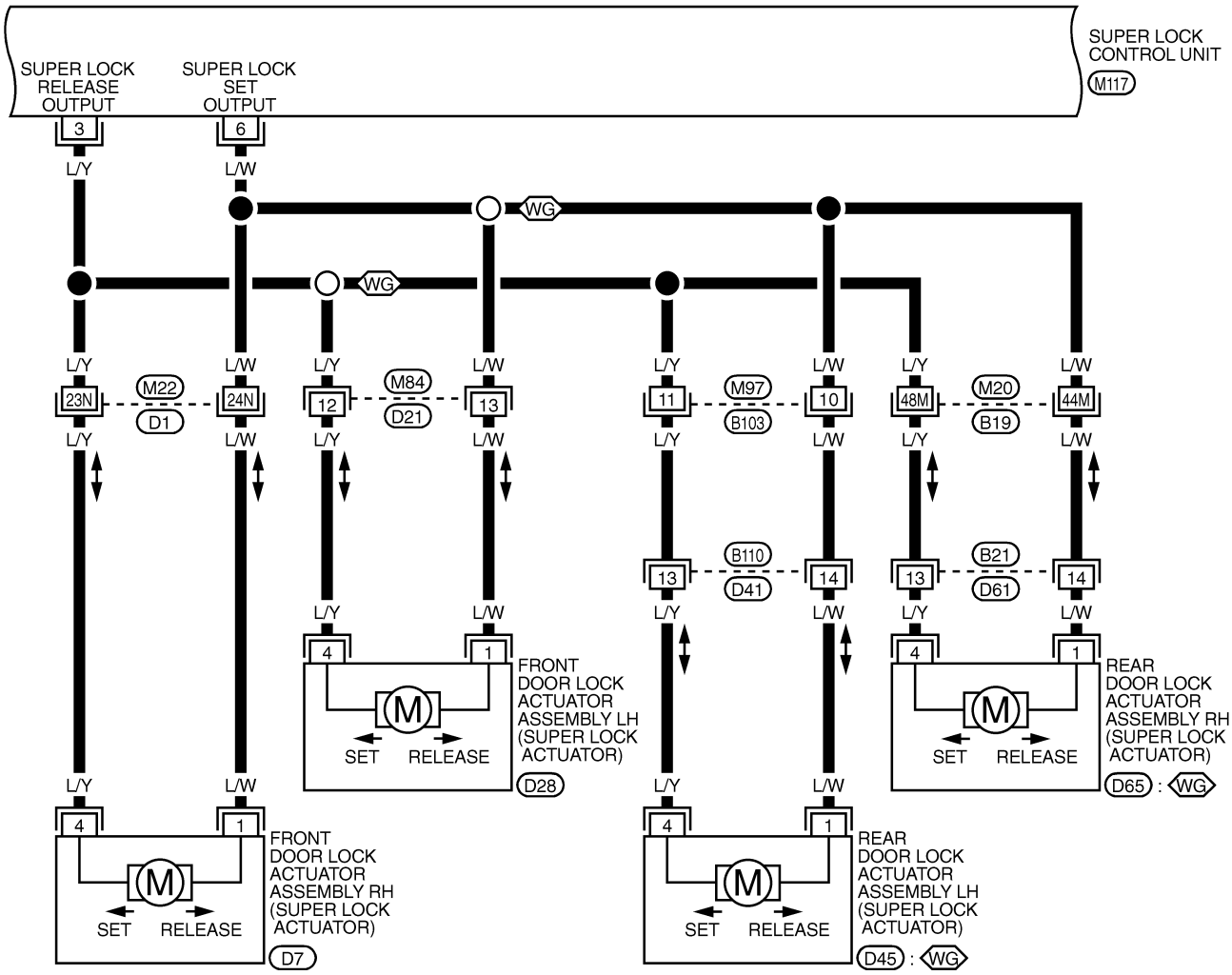
Refer to last page (Foldout page).
M22, D1

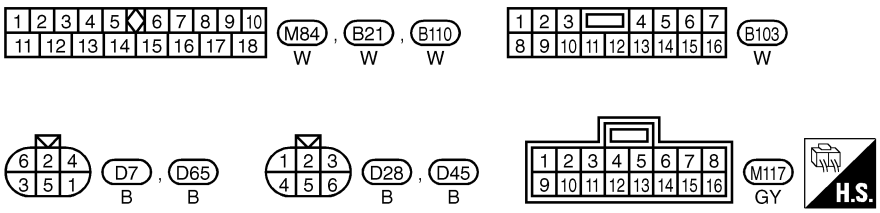
TEL269M

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

EL-S/LOCK-09

WG : Wagon models





Refer to last page (Foldout page).

M20 , B19

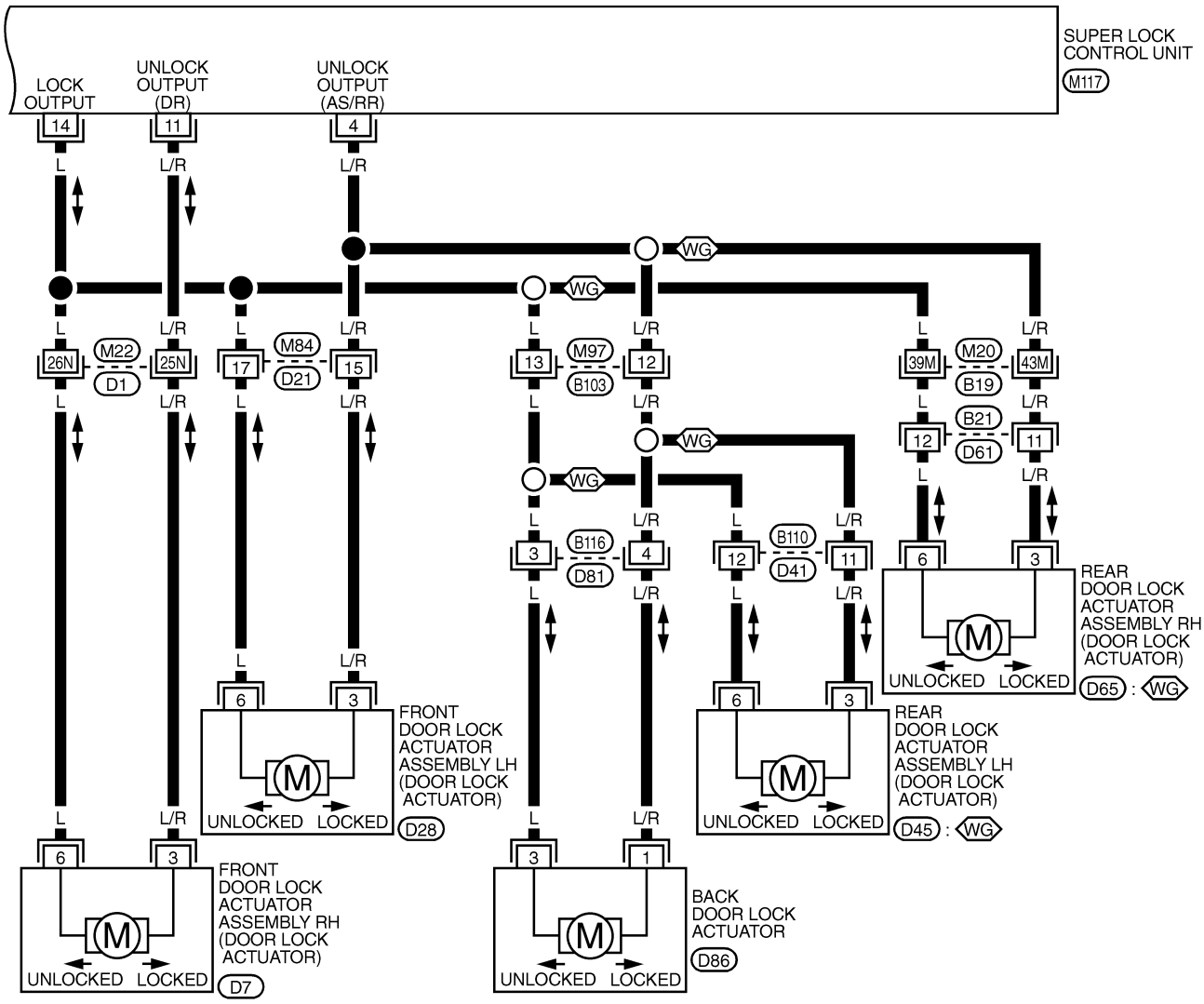
M22 , D1

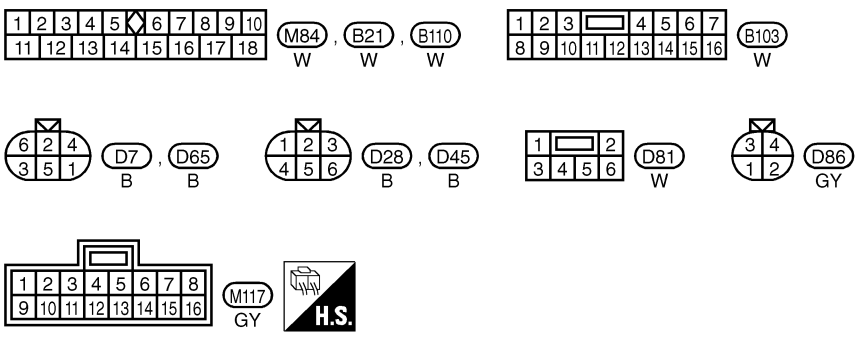
TEL270M

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

EL-S/LOCK-10

WG : Wagon models





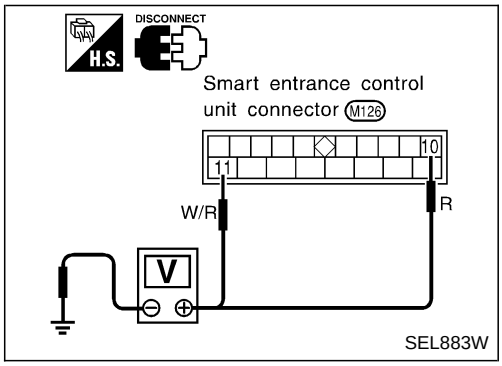
Refer to last page (Foldout page).
M20 , B19
M22 , D1

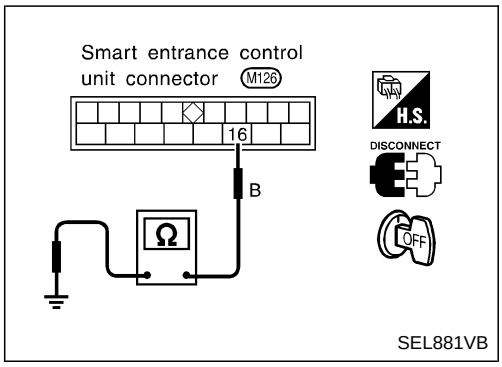
TEL271M

Trouble Diagnoses/With Theft Warning System Models

SYMPTOM CHART

REFERENCE PAGE	EL-163	EL-164	EL-165	EL-166	EL-167	EL-168
SYMPTOM	POWER SUPPLY AND GROUND CIRCUIT CHECK	DIAGNOSTIC PROCEDURE 1 (Door lock/unlock switch check)	DIAGNOSTIC PROCEDURE 2 (Door lock actuator check)	DIAGNOSTIC PROCEDURE 3 (Door key cylinder switch check)	DIAGNOSTIC PROCEDURE 4 (Door switch check)	DIAGNOSTIC PROCEDURE 5 [Key switch (insert) check]
None of the doors lock/unlock when operating any switch.	X		X			
One or more doors are not locked and/or unlocked.			X			
Door lock/unlock switch does not operate.		X				
Door key cylinder does not operate.				X		
Key reminder door system does not operate properly.					X	X





POWER SUPPLY AND GROUND CIRCUIT CHECK
Power supply circuit check

Terminal		Ignition switch		
⊕	⊖	OFF	ACC	ON
⑩	Ground	Battery voltage	Battery voltage	Battery voltage
⑪	Ground			

Ground circuit check

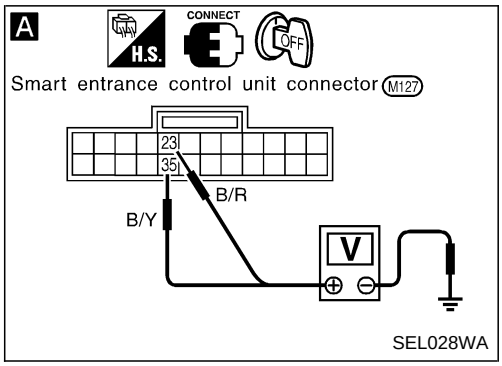
Terminals	Continuity
⑯ - Ground	Yes

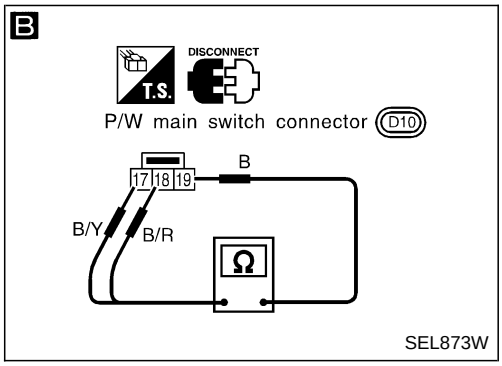
Trouble Diagnoses/With Theft Warning System Models (Cont'd)

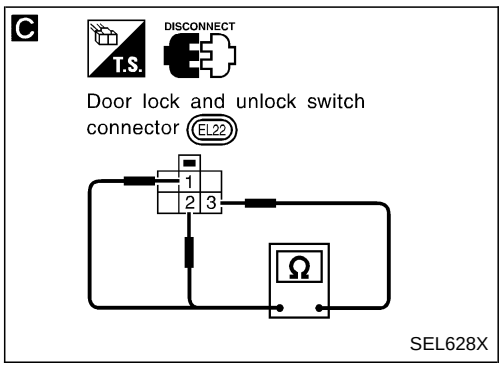
DIAGNOSTIC PROCEDURE 1

(Door lock and unlock switch check)

A







A

CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL.
Check voltage between control unit terminal 23 or 35 and ground.

Terminals	Door lock and unlock switch condition	Voltage (V)
23 - Ground	Lock	0
	N and Unlock	Battery voltage
35 - Ground	Unlock	0
	N and Lock	Battery voltage

OK → Door lock and unlock switch is OK.

NG ↓

B C

CHECK DOOR LOCK AND UNLOCK SWITCH.
1. Disconnect door lock and unlock switch connector.
2. Check continuity between each door lock and unlock switch terminals.

B Power window main switch [Door lock and unlock switch (with power window)]

Condition	Terminals		
	17	18	19
Unlock	○		○
N	No continuity		
Lock		○	○

C Door lock and unlock switch (without power window)

Condition	Terminals		
	1	2	3
Lock		○	○
N	No continuity		
Unlock	○		○

NG → Replace power window main switch (with power window) or door lock and unlock switch (without power window).

OK ↓

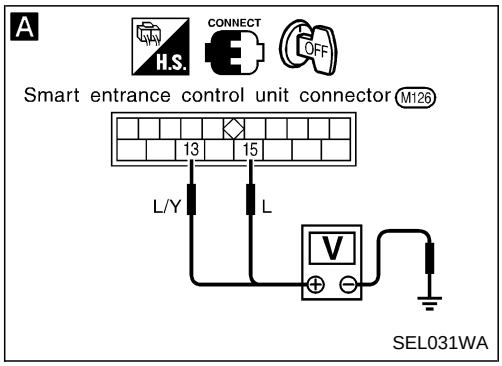
Check the following.
- Ground circuit for power window main switch [Door lock and unlock switch (with power window)] or door lock and unlock switch (without power window)
- Harness for open or short between power window main switch [Door lock and unlock switch (with power window)] or door lock and unlock switch (without power window) and control unit connector

Trouble Diagnoses/With Theft Warning System Models (Cont'd)

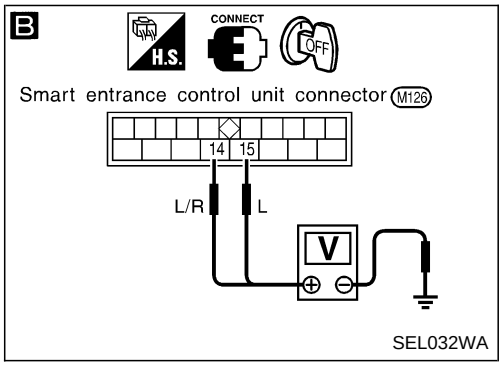
DIAGNOSTIC PROCEDURE 2

(Door lock actuator check)

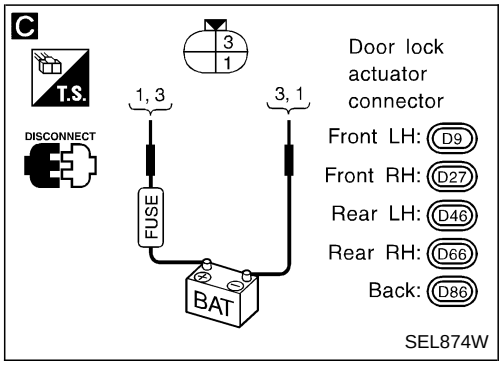
A



B



C



A B

CHECK DOOR LOCK ACTUATOR CIRCUIT.
Check voltage for door lock actuator.

A Door lock actuator front LH

Door lock/unlock switch condition	Terminals ⊕	Terminals ⊖	Voltage (V)
Lock	⑮	Ground	Battery voltage
Unlock	⑬	Ground	

B Door lock actuator front RH, rear and back

Door lock/unlock switch condition	Terminals ⊕	Terminals ⊖	Voltage (V)
Lock	⑮	Ground	Battery voltage
Unlock	⑭	Ground	

NG → Replace smart entrance control unit. (Before replacing control unit, perform DIAGNOSTIC PROCEDURE 1.)

OK ↓

C

CHECK DOOR LOCK ACTUATOR.
1. Disconnect door lock actuator connector.
2. Apply 12V direct current to door lock actuator and check operation.

Door lock actuator operation	Terminals ⊕	Terminals ⊖
Unlocked → Locked	③	①
Locked → Unlocked	①	③

NG → Replace door lock actuator.

OK ↓

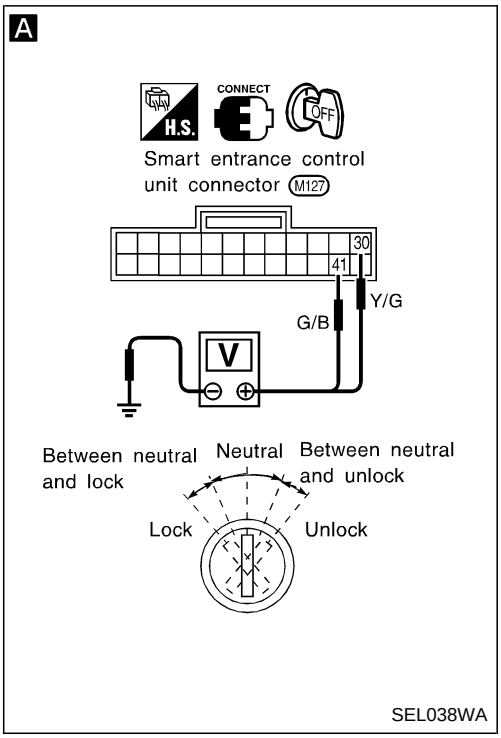
Repair harness between smart entrance control unit connector and door lock actuator.

Trouble Diagnoses/With Theft Warning System Models (Cont'd)

DIAGNOSTIC PROCEDURE 3

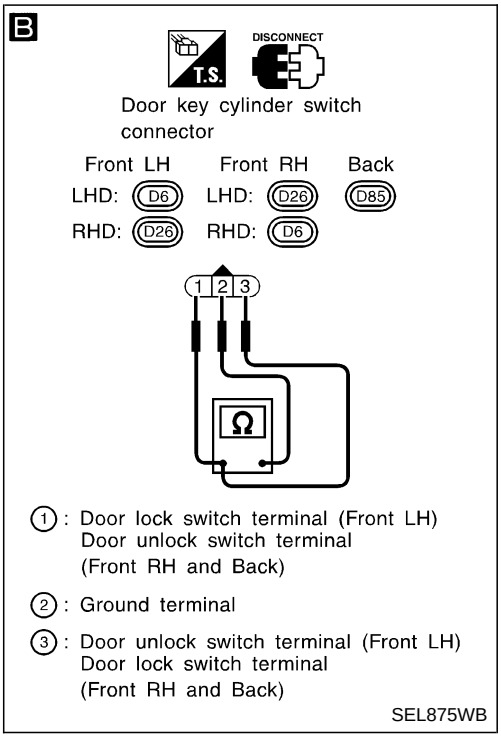
(Door key cylinder switch check)

A



SEL038WA

B



① : Door lock switch terminal (Front LH)
Door unlock switch terminal
(Front RH and Back)

② : Ground terminal

③ : Door unlock switch terminal (Front LH)
Door lock switch terminal
(Front RH and Back)

SEL875WB

A

CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL (LOCK/UNLOCK SIGNAL).
Check voltage between smart entrance control unit terminal ㉚ or ㊶ and ground.

Terminals ⊕	Terminals ⊖	Key position	Voltage [V]
㊶	Ground	Between neutral and lock	0
		Other positions	Approx. 5
㉚	Ground	Between neutral and unlock	0
		Other positions	Approx. 5

OK → Door key cylinder switch is OK.

NG ↓

B

CHECK DOOR KEY CYLINDER SWITCH.
1. Disconnect door key cylinder switch connector.
2. Check continuity between door key cylinder switch terminals.

Terminals	Key position	Continuity
Front LH: ① - ② Front RH and Back: ③ - ②	Neutral	No
	Between neutral and lock	Yes
Front LH: ③ - ② Front RH and Back: ① - ②	Neutral	No
	Between neutral and unlock	Yes

NG → Replace door key cylinder switch.

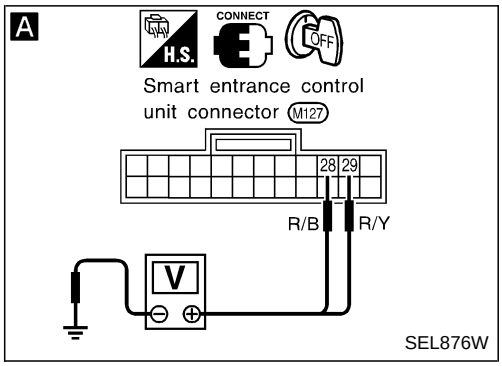
OK ↓

Check the following.
- Door key cylinder switch ground circuit
- Harness for open or short between smart entrance control unit and door key cylinder switch

Trouble Diagnoses/With Theft Warning System Models (Cont'd)

DIAGNOSTIC PROCEDURE 4 (Door switch check)

A



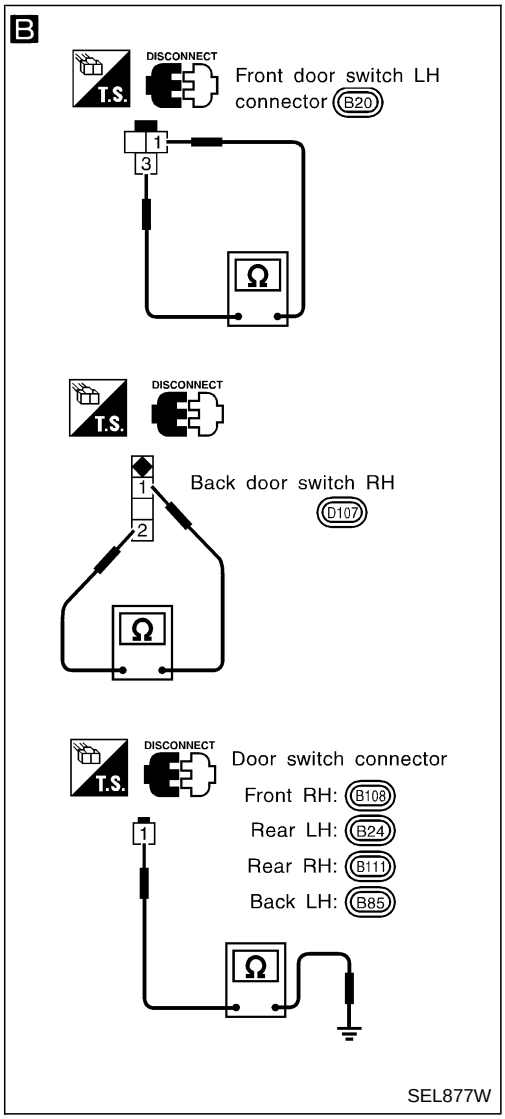
CHECK DOOR SWITCH INPUT SIGNAL.
Check voltage between smart entrance control unit terminal 28 or 29 and ground.

	Terminals ⊕	Terminals ⊖	Condition	Voltage [V]
Front LH door switch	29	Ground	Open	0
			Closed	Approx. 5
Front door, Rear and back door switch	28	Ground	Open	0
			Closed	Approx. 5

OK → Door switch is OK.

NG ↓

B



CHECK DOOR SWITCH.
1. Disconnect door switch connector.
2. Check continuity between door switch terminals.

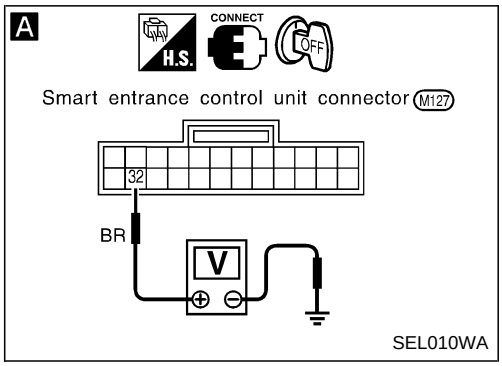
	Terminals	Condition	Continuity
Front LH door switch	1 - 3	Closed	No
		Open	Yes
Back door switch RH	1 - 2	Closed	No
		Open	Yes
Other door switches	1 - Ground	Closed	No
		Open	Yes

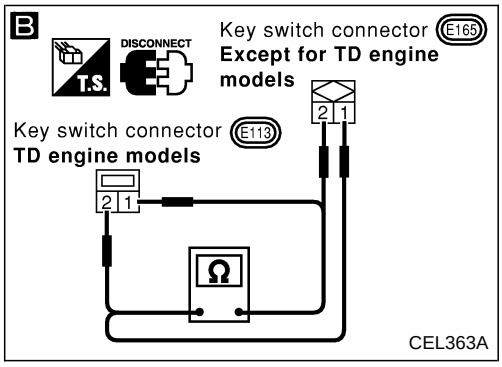
NG → Replace door switch.

OK ↓

Check the following.
- Door switch ground circuit (Front LH, back door RH) or door switch ground condition
- Harness for open or short between smart entrance control unit and door switch

Trouble Diagnoses/With Theft Warning System Models (Cont'd)





DIAGNOSTIC PROCEDURE 5
[Key switch (insert) check]

A

CHECK KEY SWITCH INPUT SIGNAL CHECK.
Check voltage between smart entrance control unit terminal ㉜ and ground.

Condition of key switch	Voltage [V]
Key is inserted.	Approx. 12
Key is removed.	0

OK → Key switch is OK.

NG ↓

B

CHECK KEY SWITCH.
1. Disconnect key switch connector.
2. Check continuity between key switch terminals.

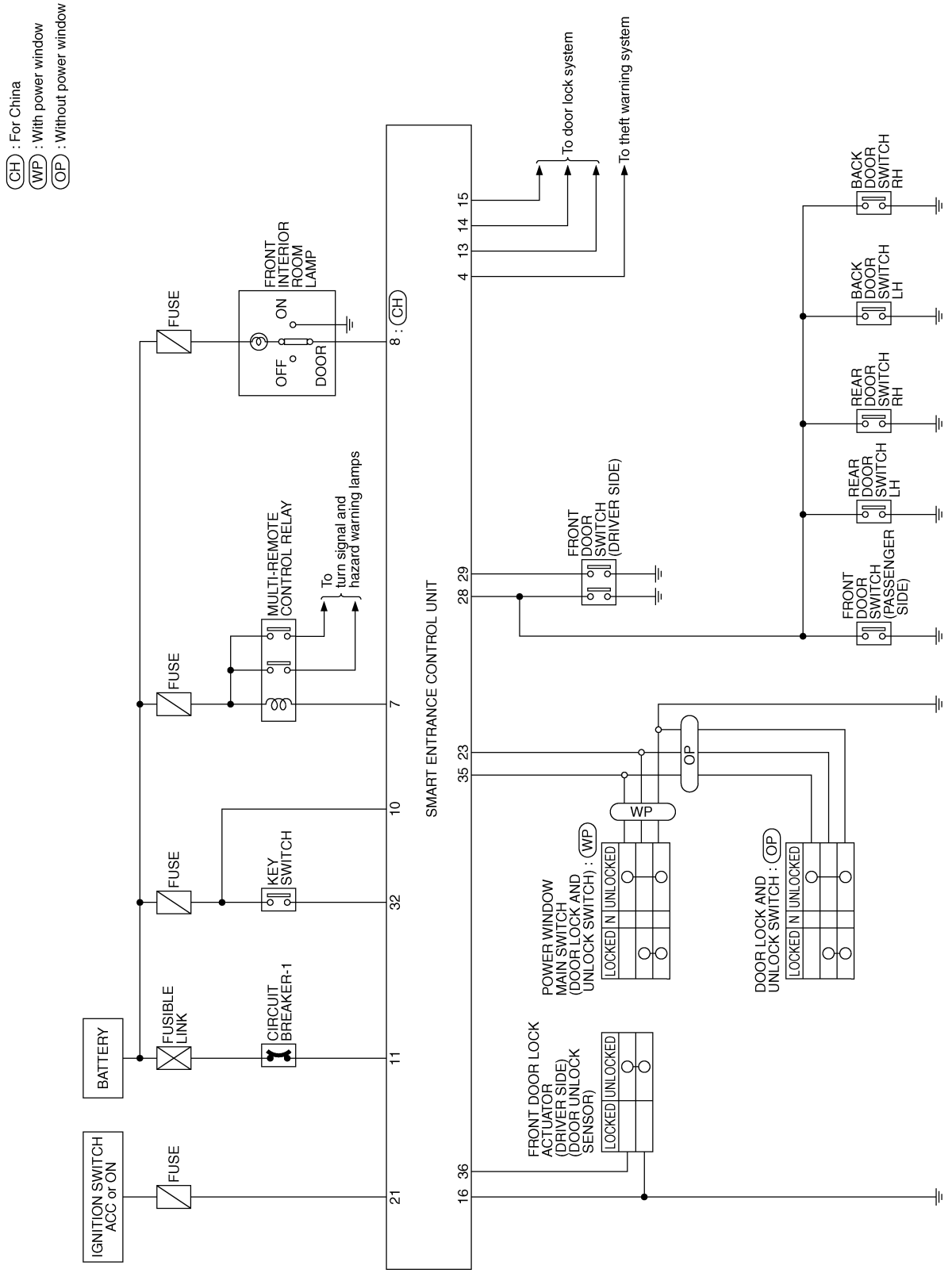
Terminals	Condition	Continuity
① - ②	Key is inserted.	Yes
	Key is removed.	No

NG → Replace key switch.

OK ↓

Check the following.
- 7.5A fuse [No. 24, located in fuse block (J/B)]
- Harness for open or short between key switch and fuse
- Harness for open or short between smart entrance control unit and key switch

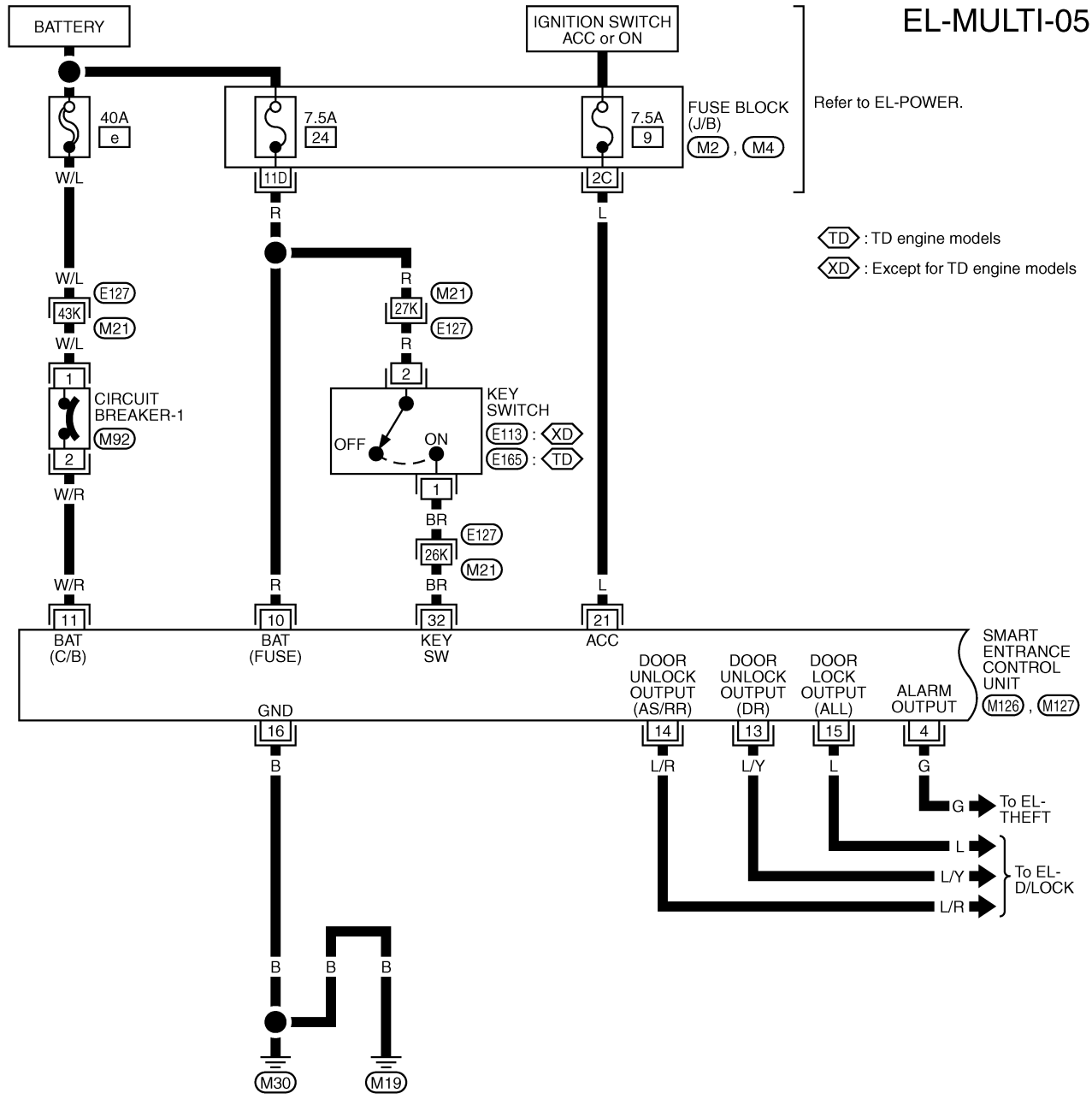
Schematic/With Theft Warning System Models

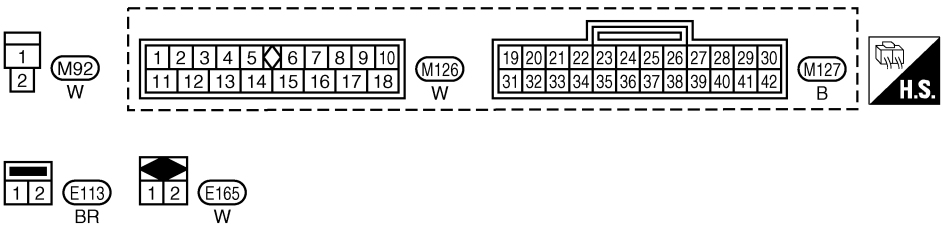


TEL584M

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

EL-MULTI-05



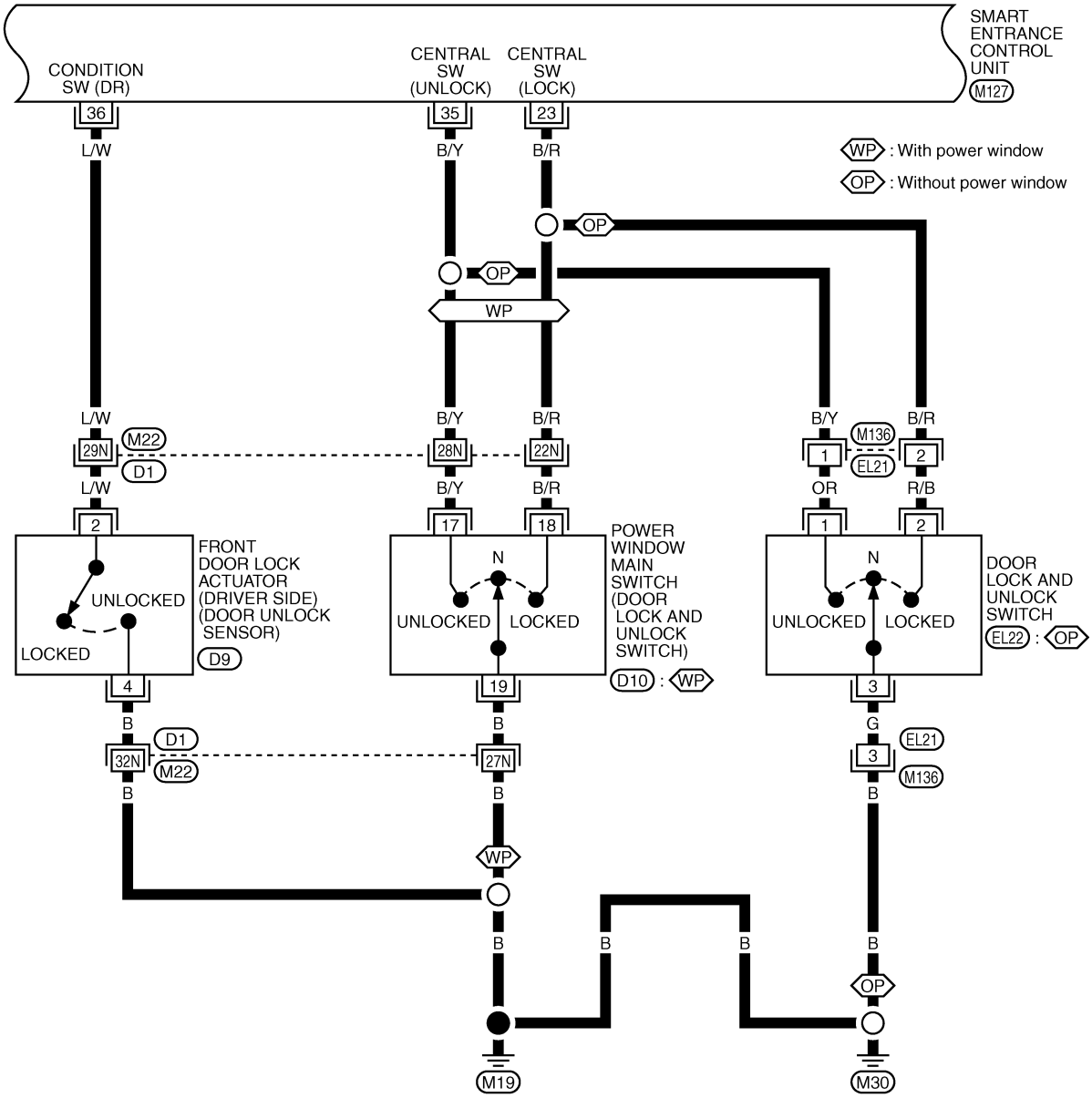


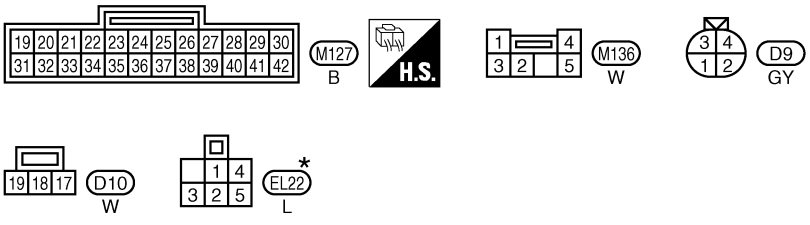
Refer to last page (Foldout page).
M21 , E127
M2
M4

TEL586M

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

EL-MULTI-06



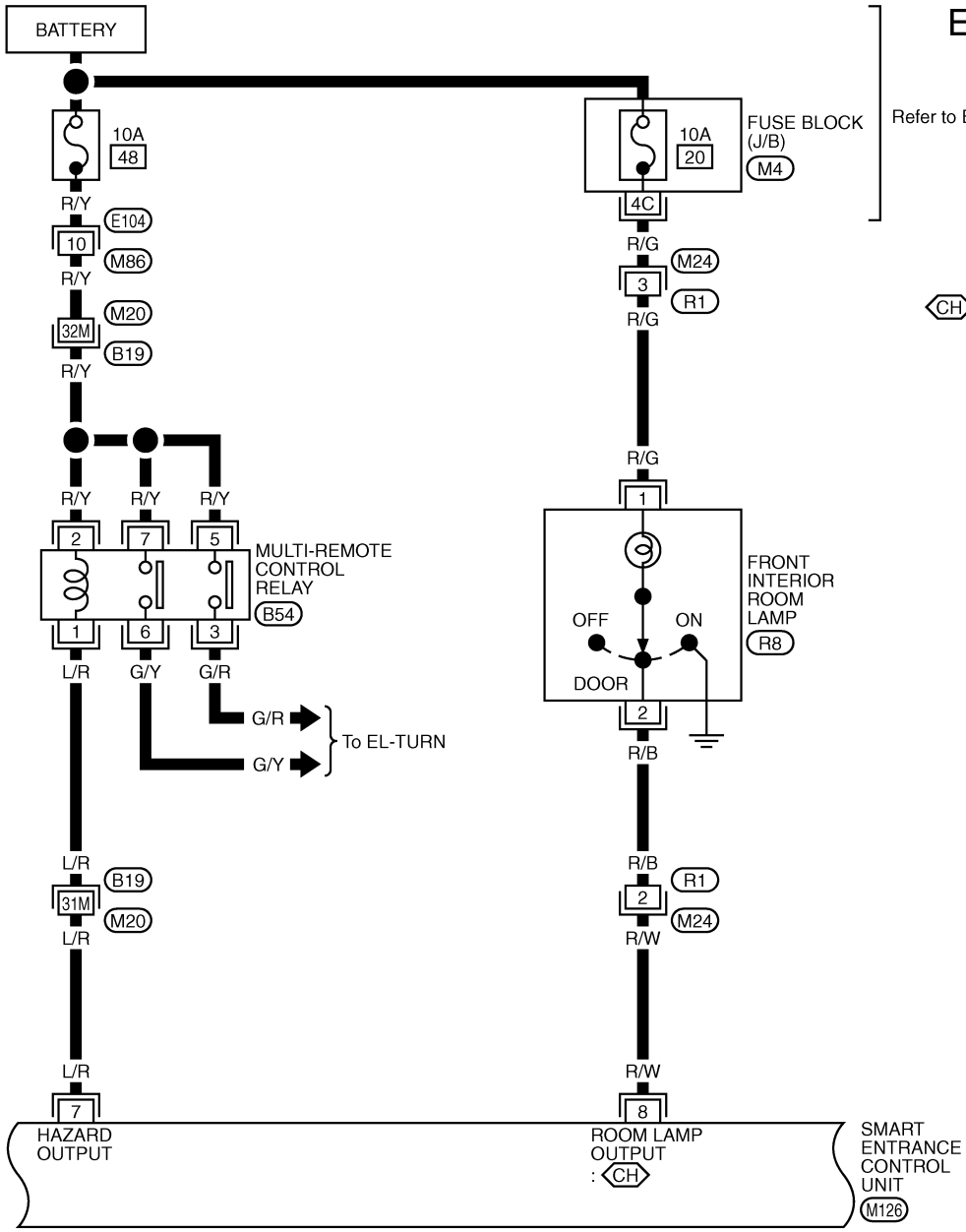


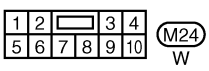
*: This connector is not shown in "HARNESS LAYOUT", EL section.

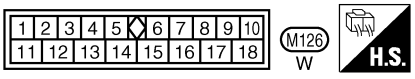
Refer to last page (Foldout page).
M22 , D1

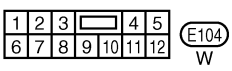
TEL588M

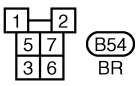
Wiring Diagram — MULTI —/LHD Models with Theft Warning System (Cont'd)

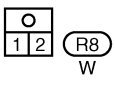










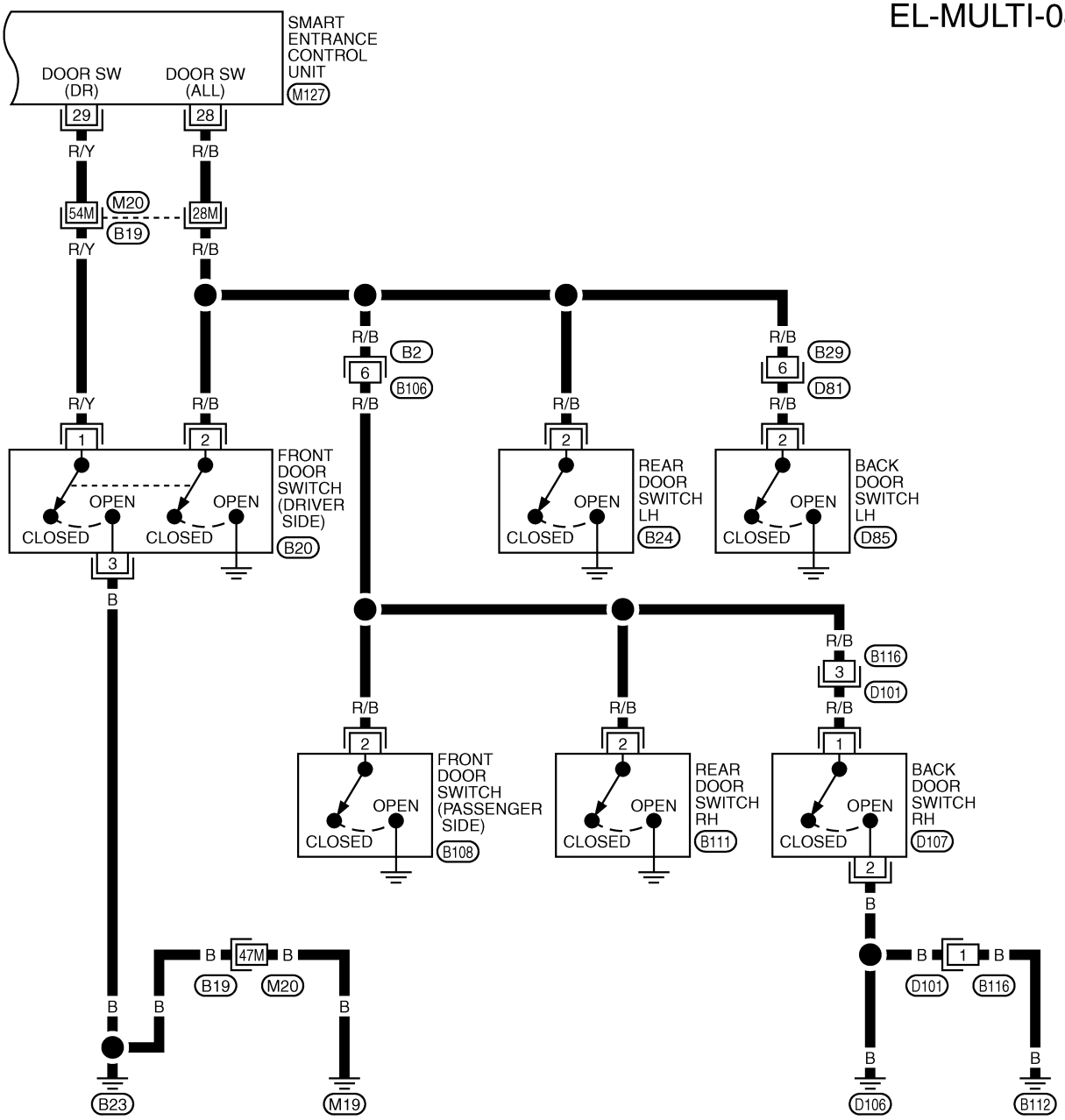


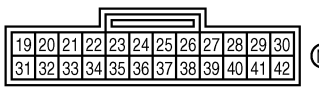
Refer to last page (Foldout page).
M20 , B19
M4

TEL589M

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

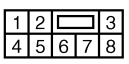
EL-MULTI-08



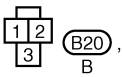


M127
B

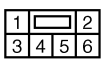
H.S.



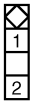
B2
W



B20 , B24 , B108 , B111 , D85
B B B B B



D81 , D101
W W

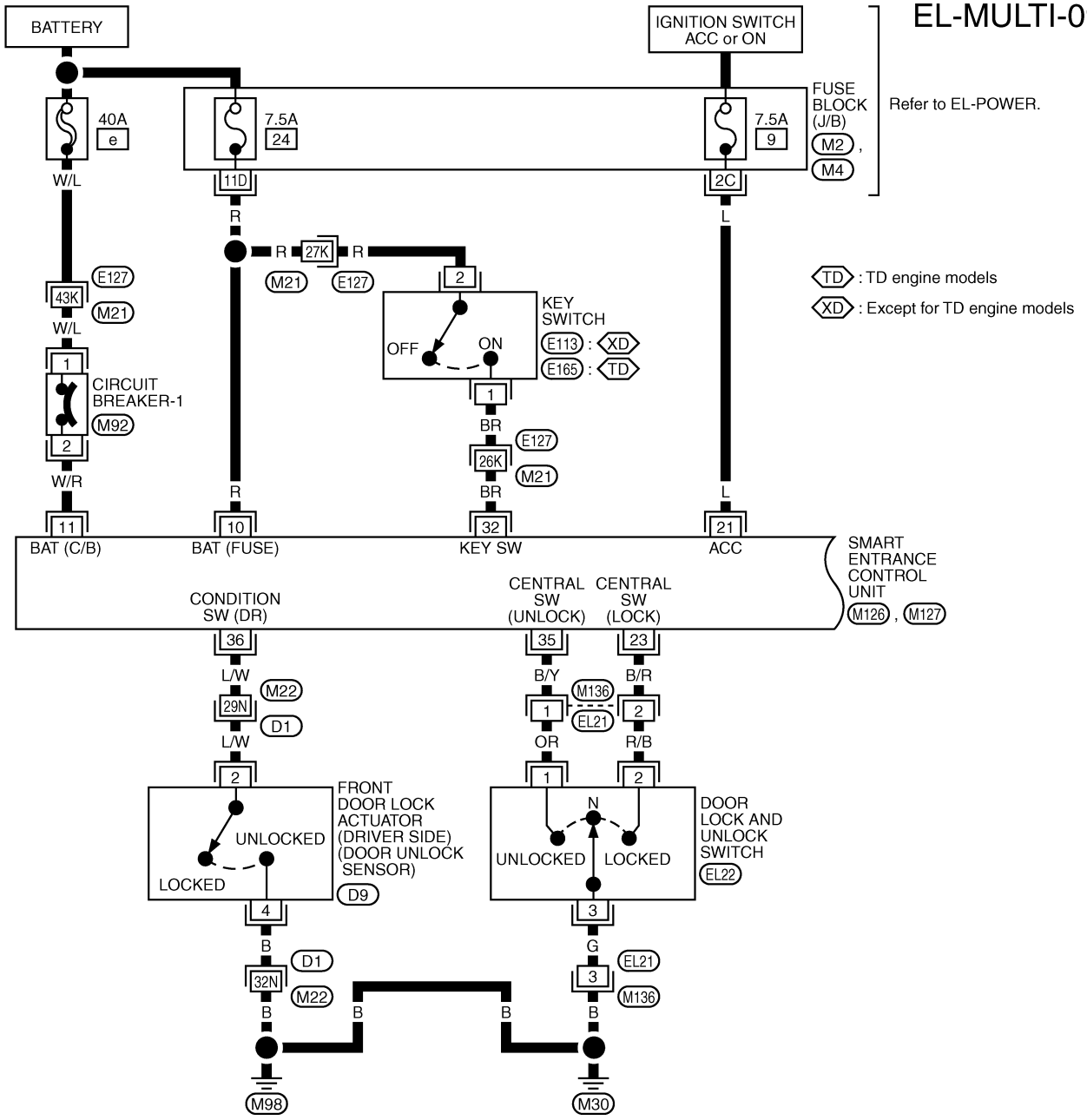


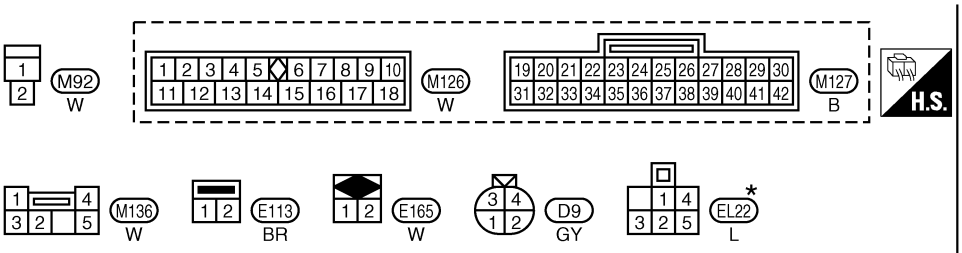
D107
W

Refer to last page (Foldout page).
M20 , B19

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

EL-MULTI-09





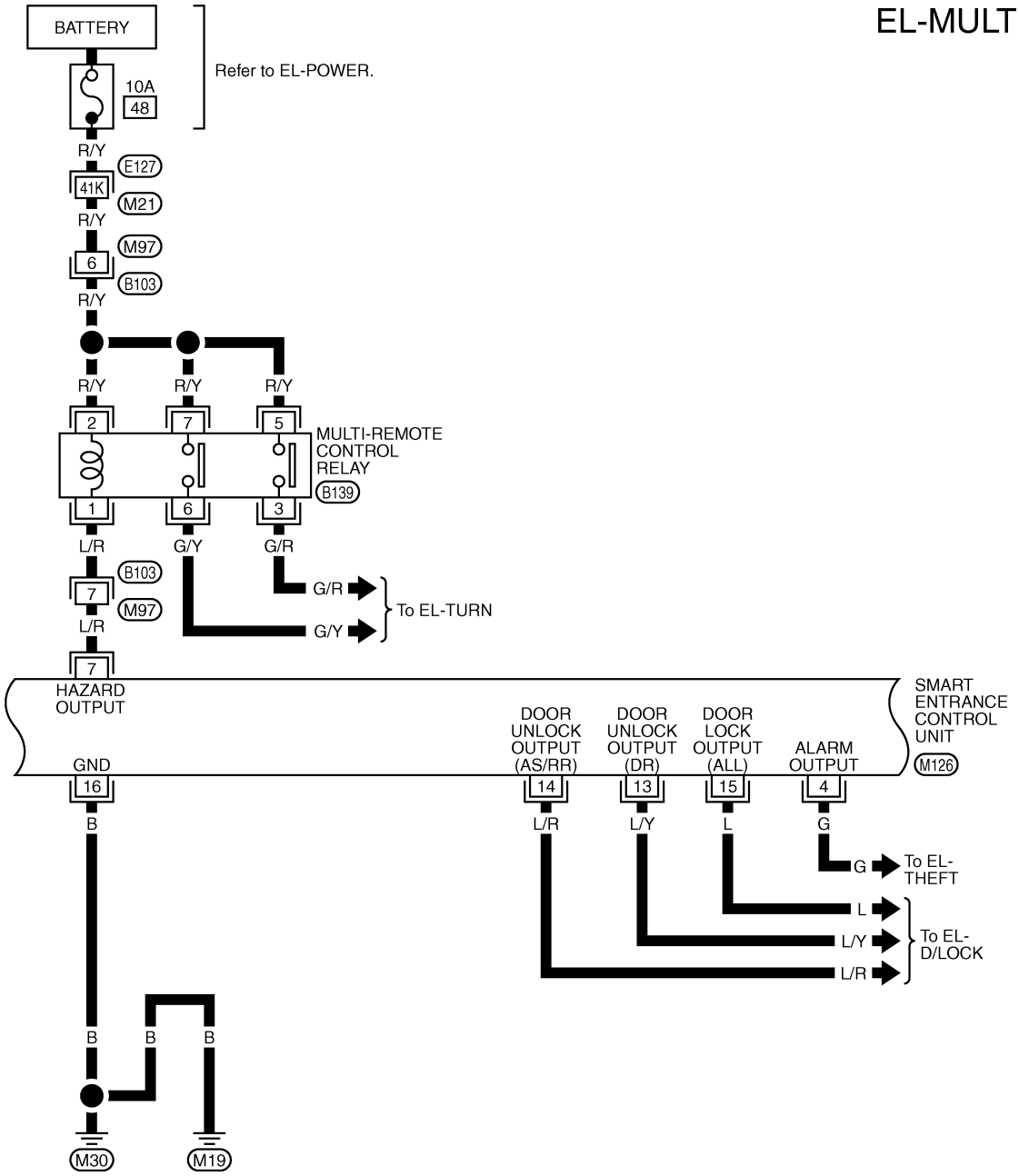
Refer to last page (Foldout page).
M21, E127
M22, D1
M2
M4

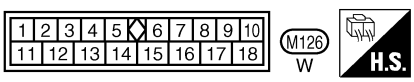
*: This connector is not shown in "HARNESS LAYOUT", EL section.

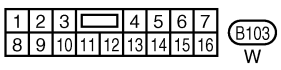
TEL591M

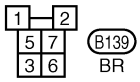
Wiring Diagram — MULTI —/RHD Models with Theft Warning System (Cont'd)

EL-MULTI-10







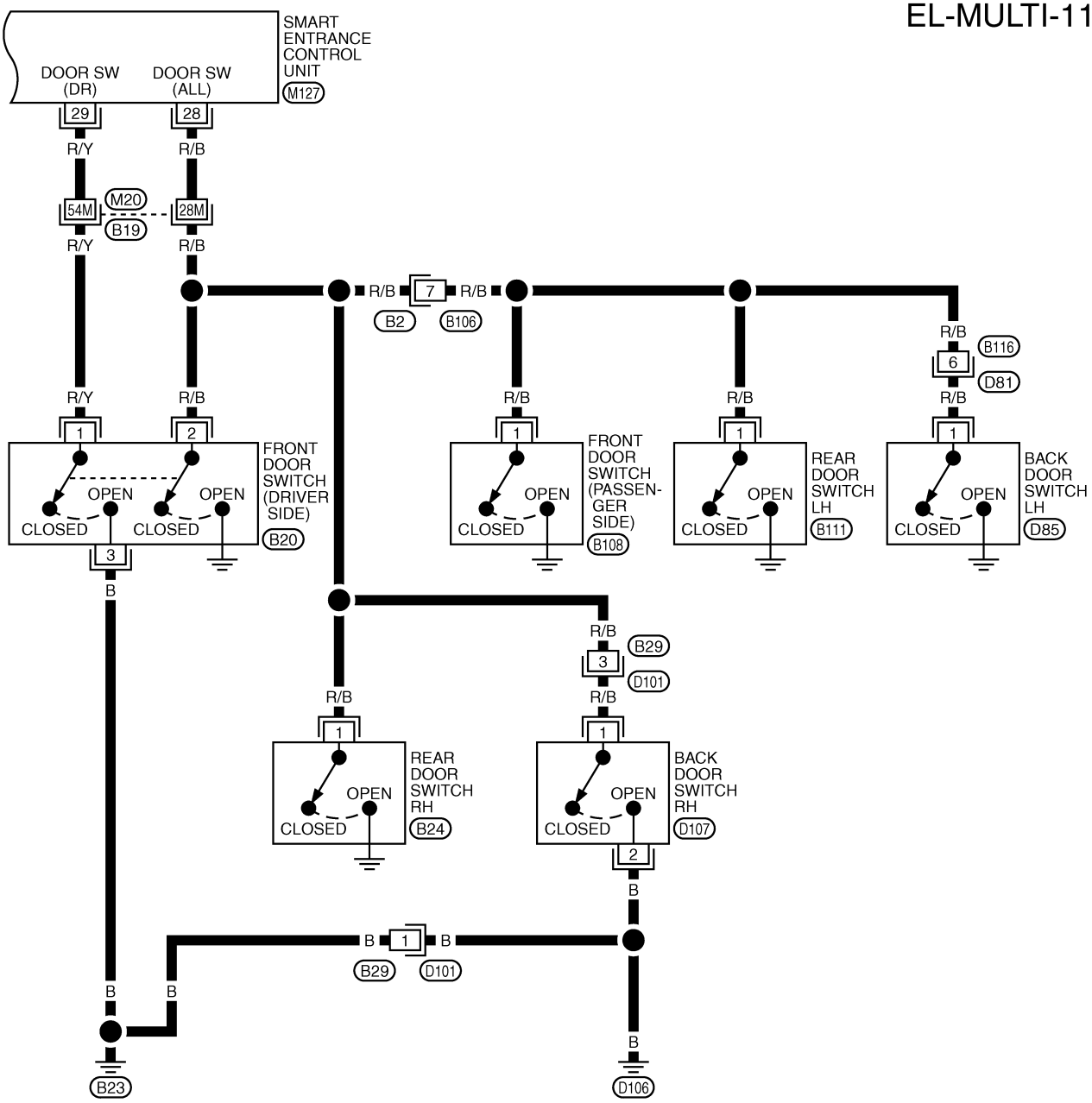


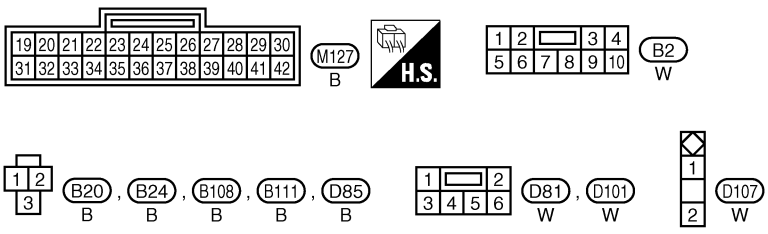
Refer to last page (Foldout page).
M21, E127

TEL592M

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

EL-MULTI-11





Refer to last page (Foldout page).
M20 , B19

Trouble Diagnoses/With Theft Warning System Models

TROUBLE SYMPTOM

- All functions of remote control system do not operate.

CHECK REMOTE CONTROLLER BATTERY.
Refer to DIAGNOSTIC PROCEDURE 1.
→ NG → Replace battery.
↓ OK

Enter the Identity (ID) code of different or new remote controller.

Can the new ID code be entered?
→ No → Go to DIAGNOSTIC PROCEDURE 2.
↓ Yes

Replace with the originally used multi-remote controller.

- Some functions of multi-remote controller do not operate.

① DOOR LOCK OR UNLOCK DOES NOT FUNCTION.
(Pressing lock or unlock button of remote controller normally locks or unlocks all doors.)
- Check if power door lock system functions with door lock & unlock switch.

→ No → Check “POWER DOOR LOCK” system.

OR

② HAZARD INDICATOR DOES NOT FLASH PROPERLY WHEN PRESSING LOCK OR UNLOCK BUTTON OF REMOTE CONTROLLER.
- Check if hazard indicator flashes with hazard switch.

If check is OK, Go to DIAGNOSTIC PROCEDURE 3.

→ No → Check “Hazard indicator lamp” circuit.

OR

③ FRONT INTERIOR ROOM LAMP DOES NOT TURN ON FOR 30 SECONDS WHEN PRESSING UNLOCK BUTTON OF REMOTE CONTROLLER.
- Check if the front interior room lamp switch is in the “door” position, the lamp illuminates when a door is open.

If check is OK, Go to DIAGNOSTIC PROCEDURE 4.

→ No → Check “Front interior room lamp” circuit.

OR

④ PANIC ALARM (HORN AND HEADLAMP) DOES NOT ACTIVATE WHEN PANIC ALARM BUTTON IS CONTINUOUSLY PRESSED FOR MORE THAN 1.5 SECONDS. (With theft warning system)
- Check if horn and headlamps activate when test is conducted as follows:
  1. Open the driver’s window.
  2. Close all doors.
  3. Lock doors with the key.
  4. Wait for about 30 seconds to make sure that the lighted “SECURITY” warning lamp begins to blink.
  5. Manually unlock with driver’s door lock knob, then panic alarm should activate. (The alarm will stop when door is locked and unlocked with the key.)

→ No → Check “THEFT WARNING” system.

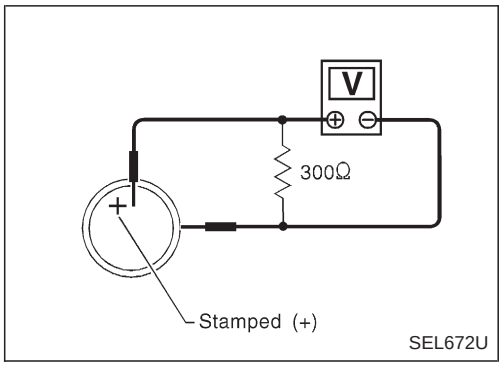
↓ Yes

Enter the identity (ID) code of different or new remote controller and recheck operation to see if the same trouble as indicated above occurs.
→ Yes → Check multi-remote controller operation again.
If necessary, replace Smart Entrance Control Unit.
↓ No

Replace the multi-remote controller.

NOTE:
- **Always check remote controller battery before replacing remote controller.**

Trouble Diagnoses/With Theft Warning System Models (Cont'd)



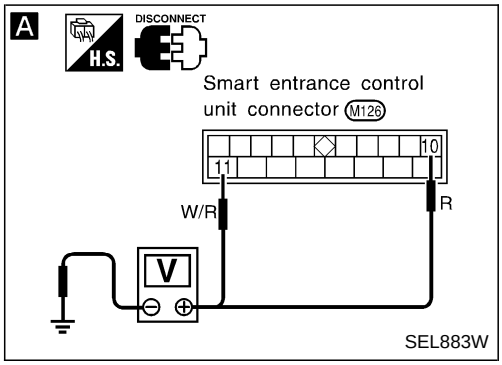
DIAGNOSTIC PROCEDURE 1

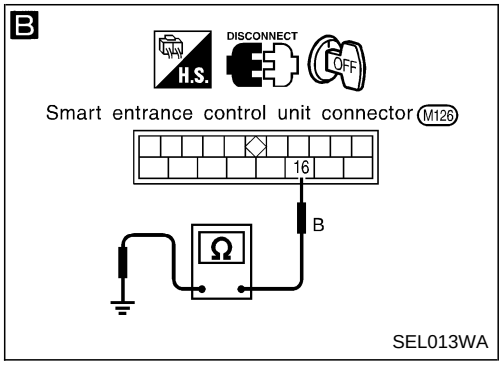
Check remote controller battery.

CHECK REMOTE CONTROLLER BATTERY.
Remove battery and measure voltage between battery positive and negative terminals ⊕ and ⊖.

Measuring terminal		Standard value
⊕	⊖	
Battery positive terminal ⊕	Battery negative terminal ⊖	2.5 - 3.0V

Note:
Remote controller does not function if battery is not set correctly.





DIAGNOSTIC PROCEDURE 2

All remote controls do not function even if remote controller is operated properly.

A

CHECK MAIN POWER SUPPLY AND GROUND CIRCUIT.
1) Remove key from ignition.
2) Disconnect connector from smart entrance control unit. Check voltage between smart entrance control unit terminal ⑩ or ⑪ and GND.
Battery voltage should exist.

Refer to EL-MULTI-05 or 09.

NG →
Check the following.
- 40A fusible link (Letter e , located in fuse and fusible link box)
- 7.5A fuse [No. 24, located in fuse block (J/B)]
- M92 circuit breaker
- Harness for open or short between smart entrance control unit and circuit breaker
- Harness for open or short between circuit breaker and fusible link

OK ↓

B

Check continuity between terminal ⑯ and GND.
Continuity should exist.

Refer to EL-MULTI-05 or 09.

NG →
Check GND harness.

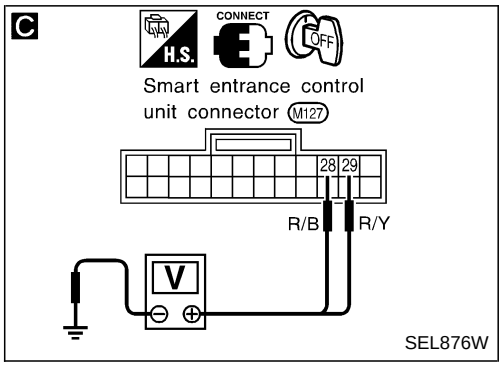
OK ↓

Ⓐ

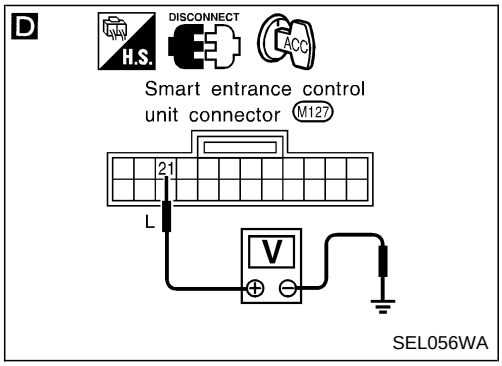
(Go to next page.)

Trouble Diagnoses/With Theft Warning System Models (Cont'd)

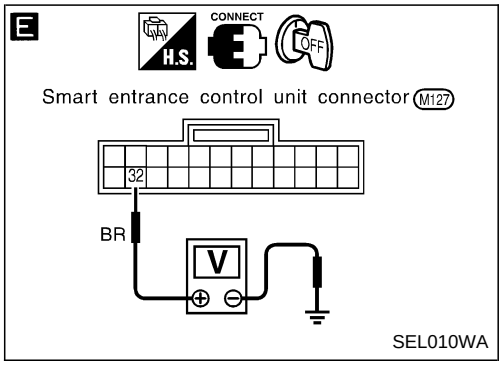
C



D



E



Ⓐ

C

CHECK DOOR SWITCH CIRCUIT.
Check continuity between smart entrance control unit terminal ㉙ and GND, ㉘ and GND.

	Terminals ⊕	Terminals ⊖	Condition	Voltage [V]
Front door switch LH	㉙	GND	Open	0
			Close	Approx. 5
Other door switches	㉘	GND	Open	0
			Close	Approx. 5

Refer to EL-MULTI-08 or 11.

NG → Check the following.
- Door switch
- Door switch ground circuit (Front LH side and back door RH) or door switch case ground condition (Front RH side, rear and back door LH)
- Harness for open or short

OK ↓

D

CHECK IGNITION SWITCH "ACC" CIRCUIT.
Check voltage between smart entrance control unit terminal ㉑ and GND while ignition switch is "ACC".
Does battery voltage exist?

Refer to EL-MULTI-05 or 09.

No → Check the following.
- 7.5A fuse [No. 9, located in fuse block (J/B)]
- Harness for open or short

Yes ↓

E

KEY SWITCH INPUT SIGNAL CHECK.
Check voltage between smart entrance control unit terminal ㉜ and GND.

Condition	Voltage [V]
Key is inserted	Approx. 12
Key is pulled	0

Refer to EL-MULTI-05 or 09.

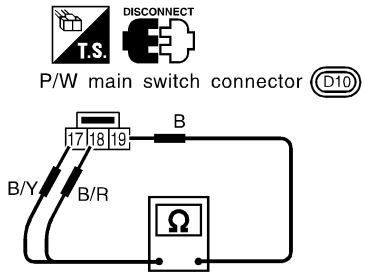
NG → Check the following.
- 7.5A fuse [No. 24, located in fuse block (J/B)]
- Key switch
- Harness for open or short between smart entrance control unit and key switch
- Harness for open or short between key switch and fuse

OK ↓

Ⓑ

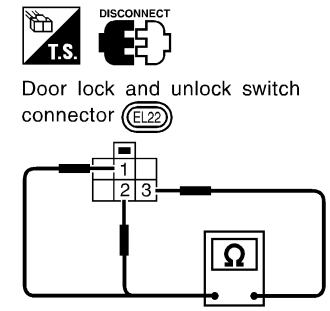
Trouble Diagnoses/With Theft Warning System Models (Cont'd)

F



SEL873W

G



SEL628X

Ⓑ

F G

CHECK DOOR LOCK/UNLOCK SWITCH.
1. Disconnect door lock/unlock switch connector.
2. Check continuity between each door lock/unlock switch terminals.

NG → Replace door lock/unlock switch.

F Power window main switch [Door lock/unlock switch (with power window)]

Condition	Terminals		
	19	17	18
Unlock	○	—○	
N	No continuity		
Lock	○		○

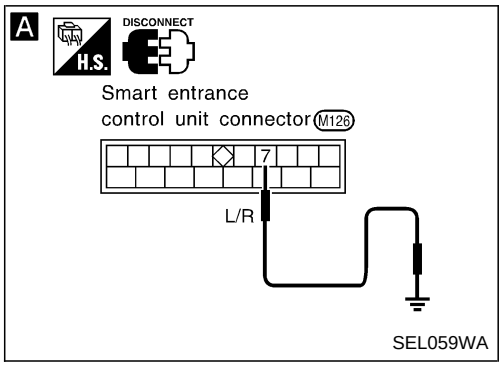
G Door lock and unlock switch (without power window)

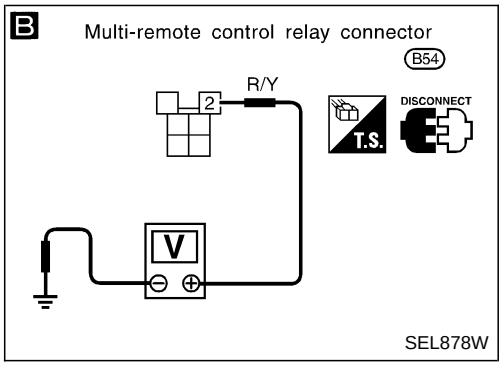
Condition	Terminals		
	1	2	3
Lock		○	—○
N	No continuity		
Unlock	○		○

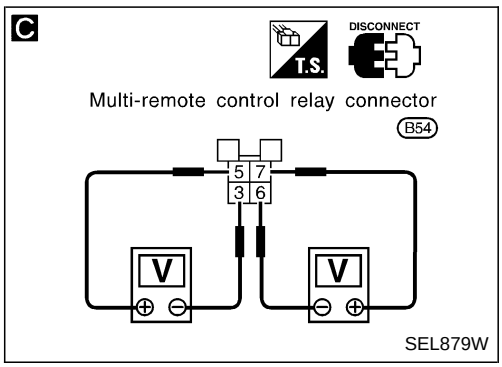
OK

Check operation parts in multi-remote control system for function.

Trouble Diagnoses/With Theft Warning System Models (Cont'd)







DIAGNOSTIC PROCEDURE 3

Hazard indicator does not flash properly when pressing lock or unlock button of remote controller. Everything else functions.

A

CHECK HAZARD INDICATOR OPERATION.
1. Disconnect smart entrance control unit connector.
2. Apply ground to smart entrance control unit terminal ⑦.
   Does hazard indicator illuminate?

   Refer to EL-MULTI-07 or 10.

Yes → Replace smart entrance control unit.

No ↓

Check multi-remote control relay. → NG → Replace.

OK ↓

B

CHECK POWER SUPPLY FOR MULTI-REMOTE CONTROL RELAY.
1. Disconnect multi-remote control relay connector.
2. Measure voltage between terminal ② and body ground.
   Battery voltage should exist.

NG → Check the following.
- 10A fuse (No. 48, located in fuse and fusible link box)
- Harness for open or short

OK ↓

C

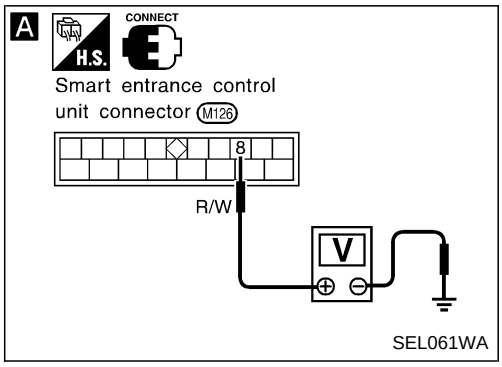
CHECK MULTI-REMOTE CONTROL RELAY CIRCUIT.
1. Disconnect multi-remote control relay connector.
2. Measure voltage between terminals ③ and ⑤.
   Battery voltage should exist.
3. Measure voltage between terminals ⑥ and ⑦.
   Battery voltage should exist.

NG → Check harness for open or short.

OK ↓

Check harness for open or short between smart entrance control unit and multi-remote control relay.

Trouble Diagnoses/With Theft Warning System Models (Cont'd)



DIAGNOSTIC PROCEDURE 4

Front interior room lamp does not turn on for 30 seconds when pressing unlock button of remote controller. Everything else functions.

A

CHECK INTERIOR LAMP CIRCUIT.
When front interior room lamp switch is "DOOR" position, check voltage across smart entrance control unit terminal ⑧ and GND.
Does battery voltage exist?

Refer to EL-MULTI-07.

No → Repair harness between smart entrance control unit connector and front interior room lamp connector.

Yes ↓

A

When all doors are closed and driver's door is locked, push unlock button of remote controller and check voltage across smart entrance control unit terminal ⑧ and GND.
Is voltage approx. 0V?

No → Replace smart entrance control unit.

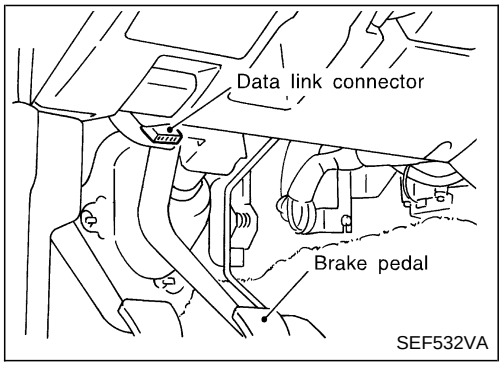
Yes ↓

Check system again.

ID Code Entry Procedure/With Theft Warning System Models

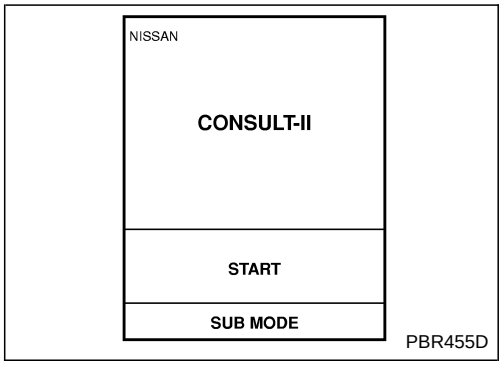
REMOTE CONTROLLER ID SET UP WITH CONSULT-II

NOTE:
If a remote controller is lost, the ID code of the lost remote controller must be erased to prevent unauthorized use. When the ID code of a lost remote controller is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new remote controllers must be re-registered.



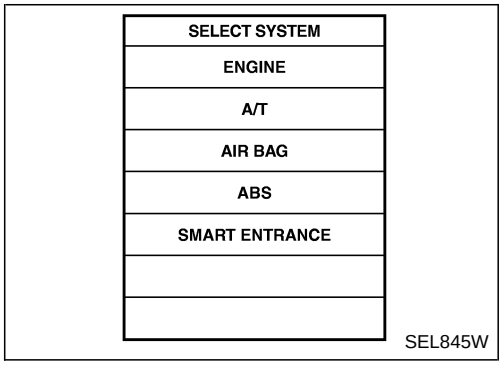
SEF532VA

1. Turn ignition switch “OFF”.
2. Connect CONSULT-II to the data link connector.



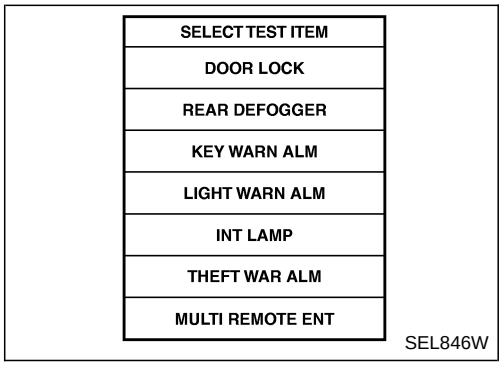
PBR455D

3. Turn ignition switch “ON”.
4. Touch “START”.



SEL845W

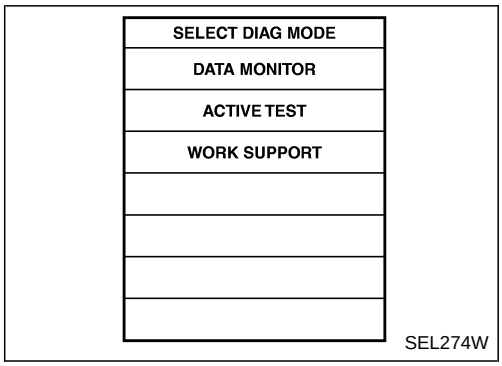
5. Touch “SMART ENTRANCE”.



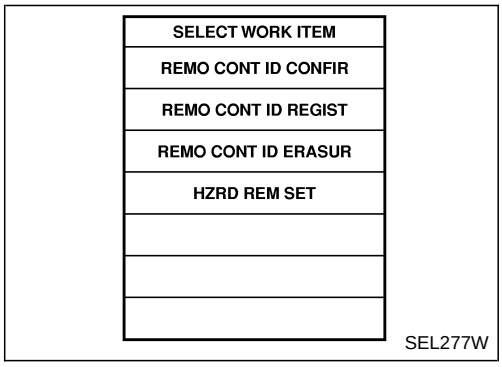
SEL846W

6. Touch “MULTI REMOTE ENT”.

ID Code Entry Procedure/With Theft Warning System Models (Cont'd)



7. Touch "WORK SUPPORT".



8. The items are shown on the figure at left can be set up.

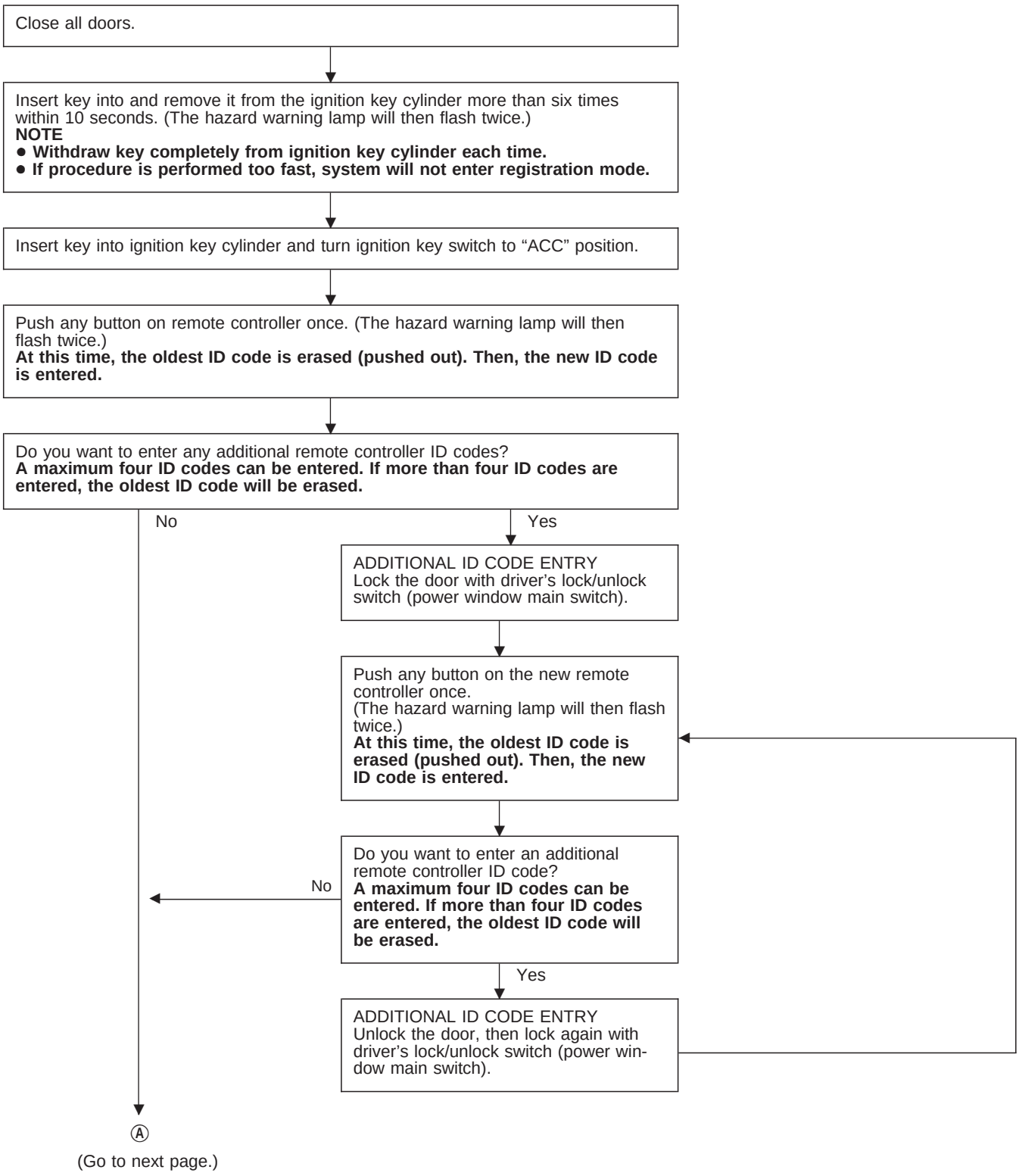
- "REMO CONT ID CONFIR"
  Use this mode to confirm if a remote controller ID code is registered or not.
- "REMO CONT ID REGIST"
  Use this mode to register a remote controller ID code.

NOTE:
Register the ID code when remote controller or smart entrance control unit is replaced, or when additional remote controller is required.

- "REMO CONT ID ERASUR"
  Use this mode to erase a remote controller ID code.
- "HZRD REM SET"
  Use this mode to activate or deactivate the hazard reminder.

ID Code Entry Procedure/With Theft Warning System Models (Cont'd)

REMOTE CONTROLLER ID SETUP WITHOUT CONSULT-II



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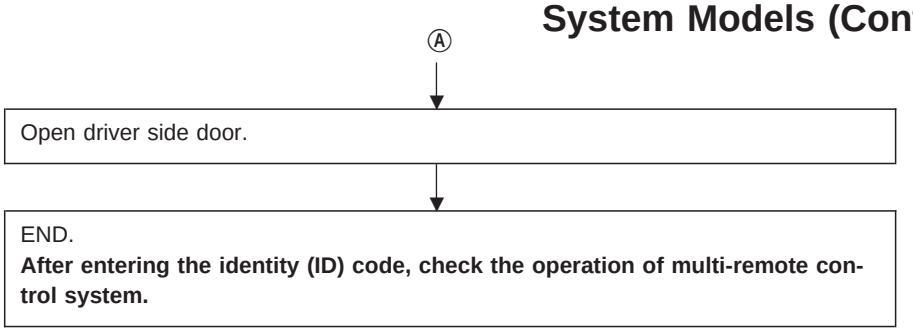
ID Code Entry Procedure/With Theft Warning System Models (Cont'd)



NOTE

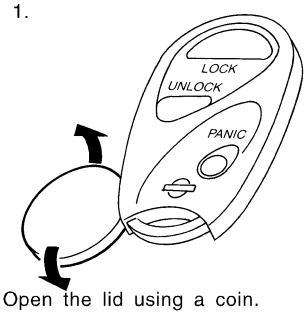
- If a remote controller is lost, the ID code of the lost remote controller must be erased to prevent unauthorized use. When the ID code of a lost remote controller is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new remote controllers must be re-registered.
  To erase all ID codes in memory, register one ID code (remote controller) four times. After all ID codes are erased, the ID codes of all remaining and/or new remote controllers must be re-registered.
- When registering an additional remote controller, the existing ID codes in memory may or may not be erased. If four ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than four ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.
- If you need to activate more than two additional new remote controllers, repeat the procedure "Additional ID code entry" for each new remote controller.
- Entry of maximum four ID codes is allowed. When more than four ID codes are entered, the oldest ID code will be erased.
- Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.

Remote Controller Battery Replacement/With Theft Warning System Models

NOTE:

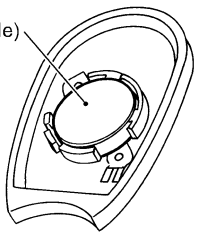
- **Be careful not to touch the circuit board on the battery terminal.**
- **The remote controller is water-resistant. However, if it does get wet, immediately wipe it dry.**

1.



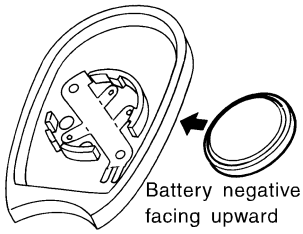
Open the lid using a coin.

2.



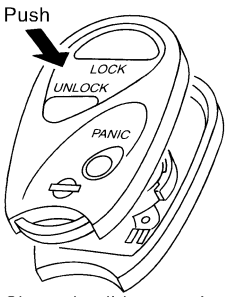
Remove the battery.

3.



Insert the new battery.

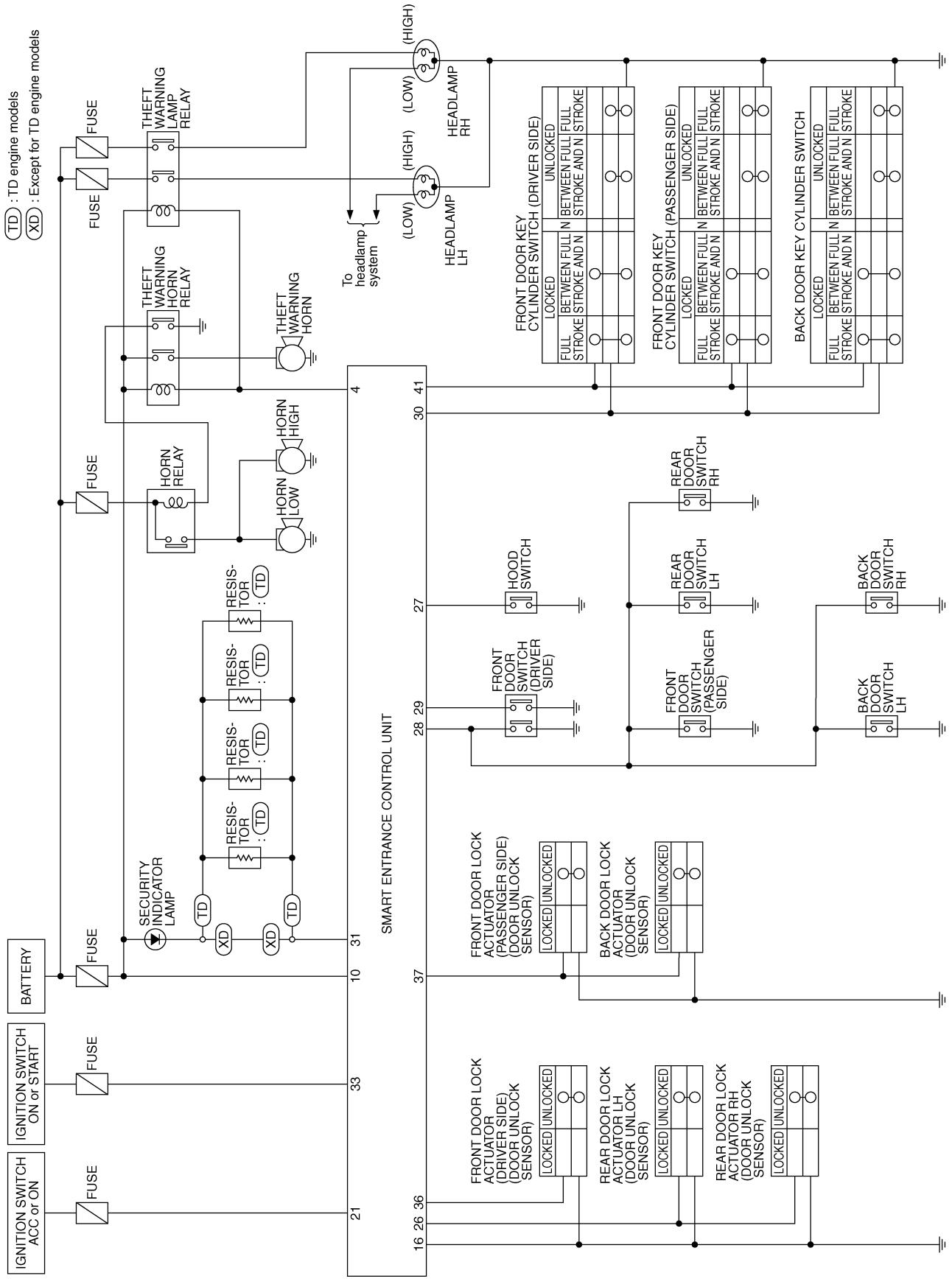
4.



Close the lid securely.
Push the remote controller button two or three times to check its operation.

SEL042X

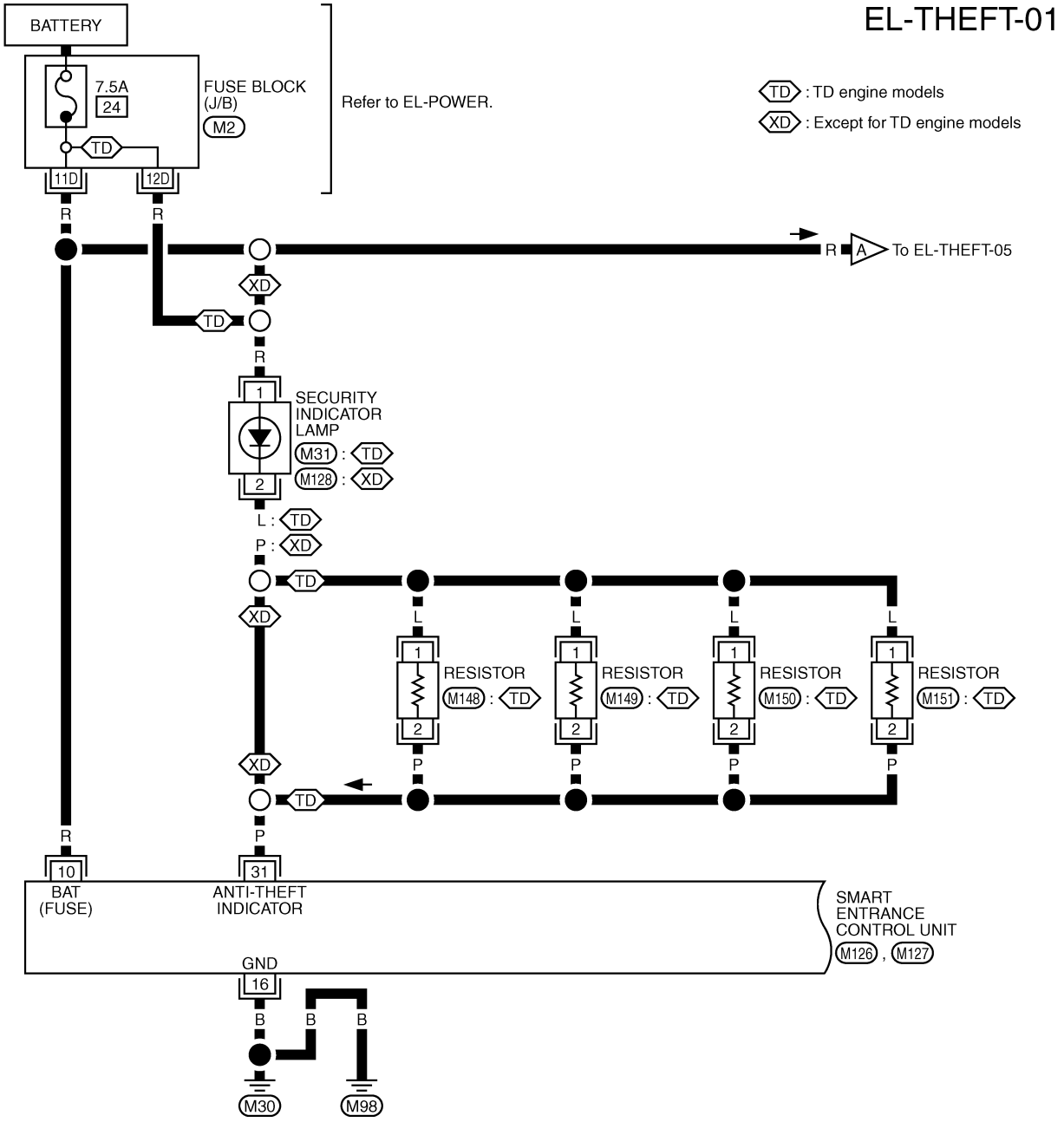
Schematic

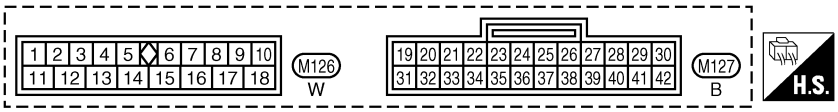


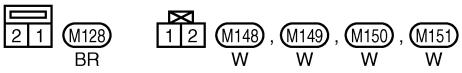
TEL595M

Wiring Diagram — THEFT —/LHD Models

EL-THEFT-01





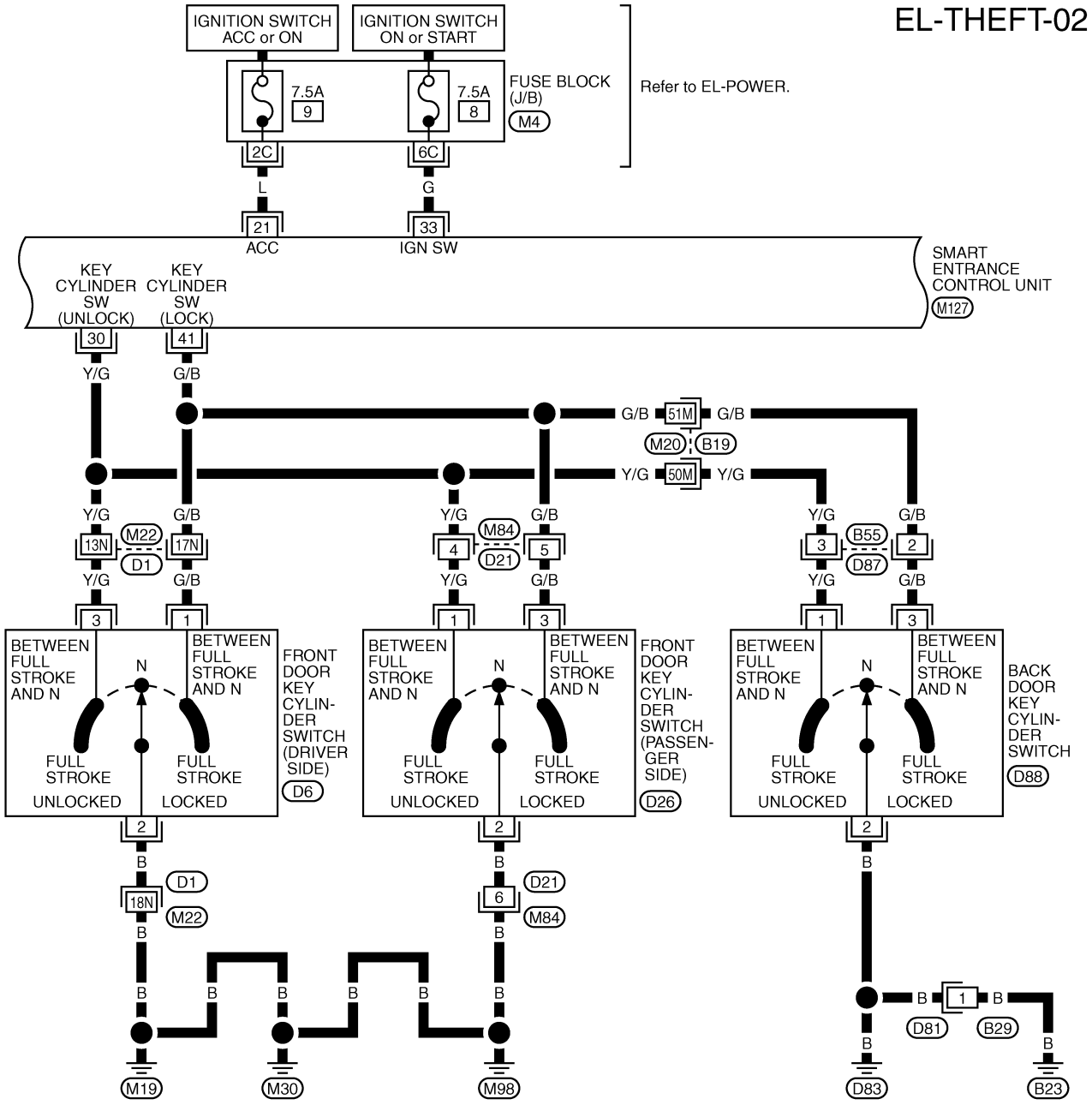


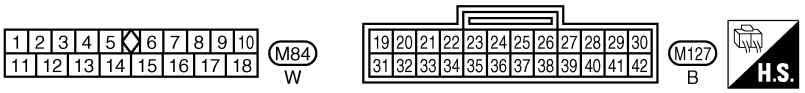
Refer to last page (Foldout page).
M2

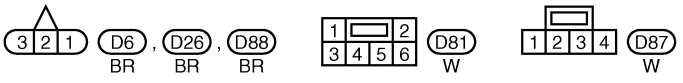
TEL596M

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

EL-THEFT-02







Refer to last page (Foldout page).

M20 , B19

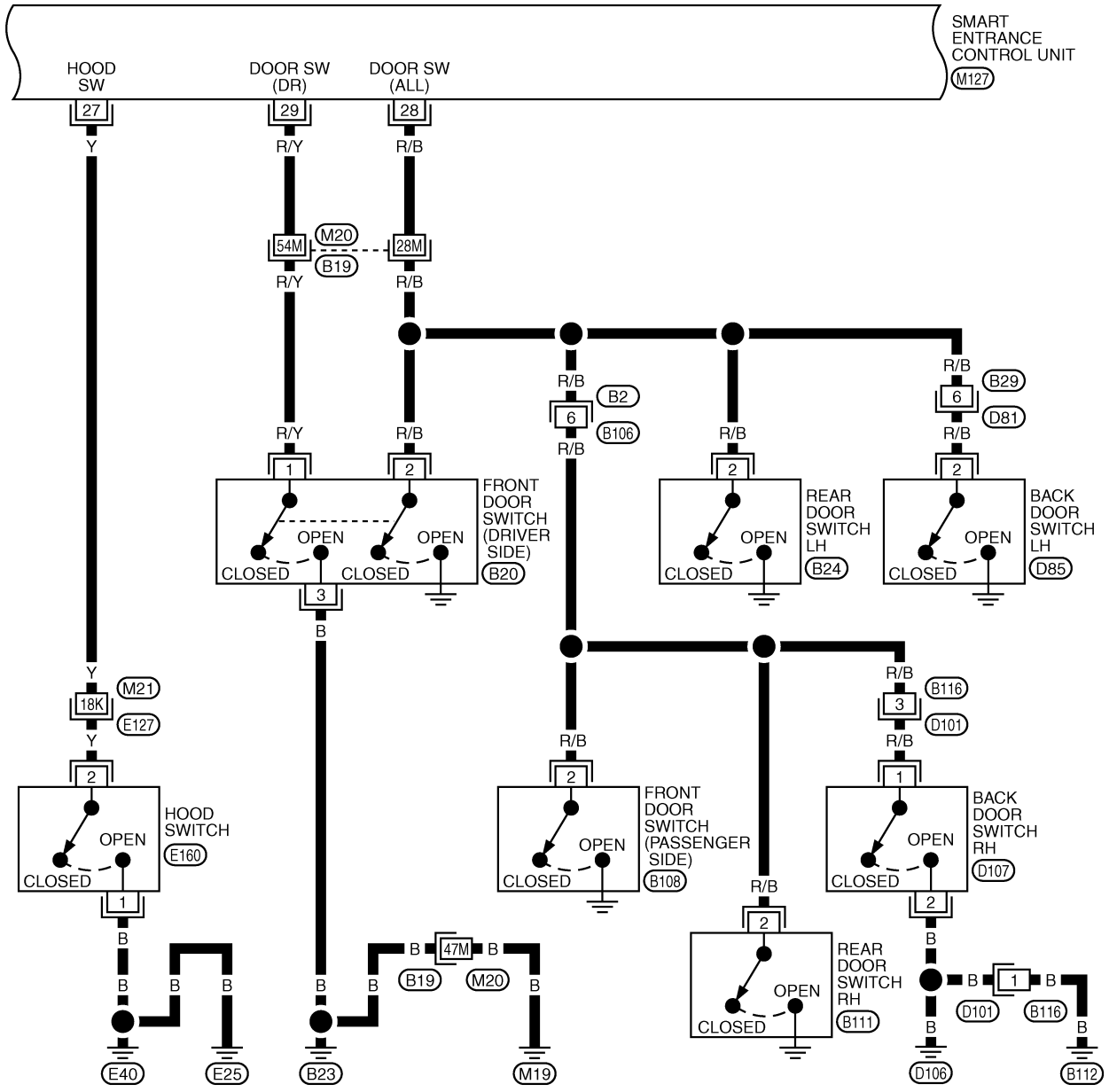
M22 , D1

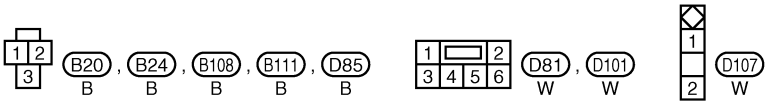
M4

TEL597M

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

EL-THEFT-03





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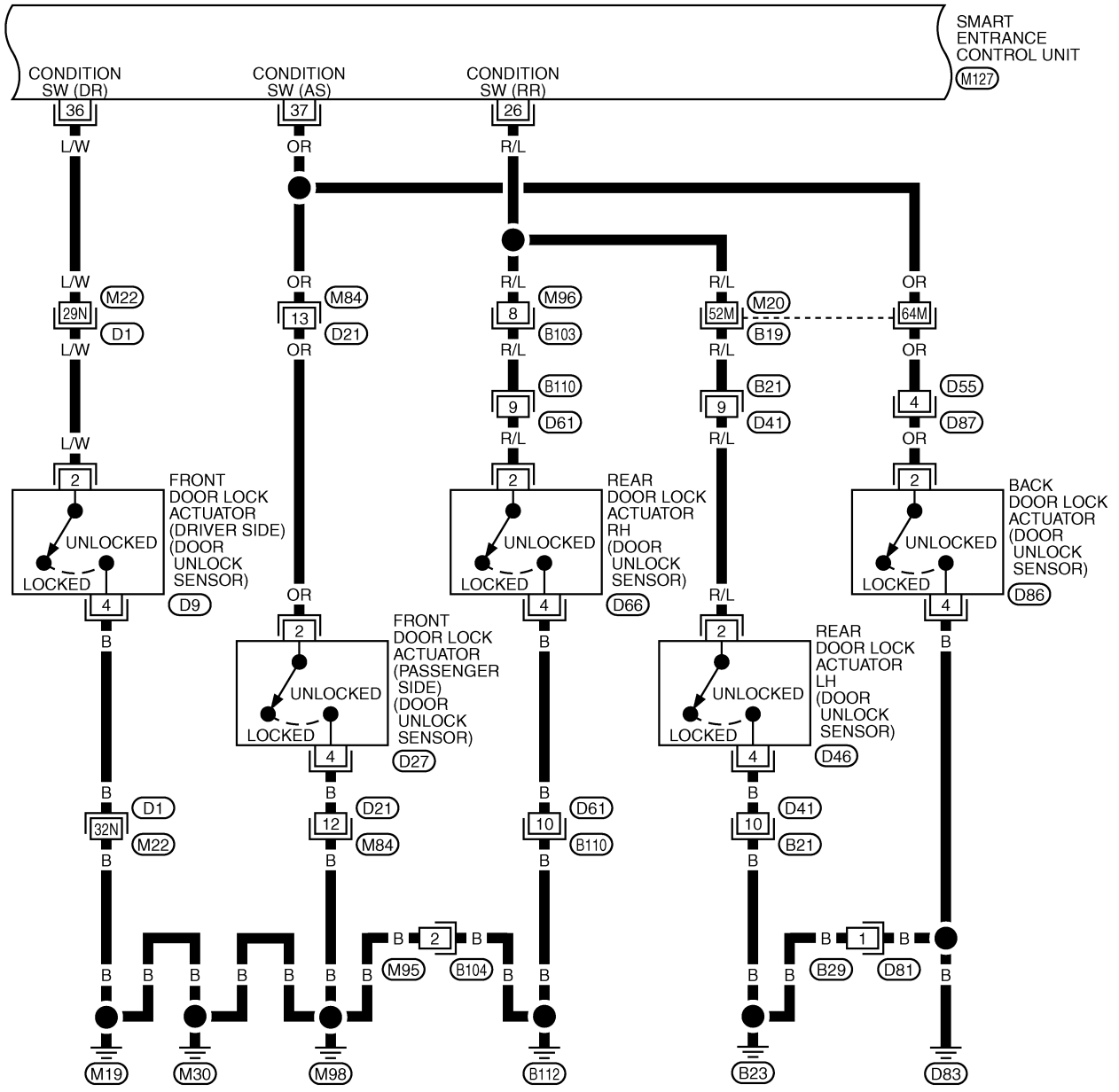
M20 , B19

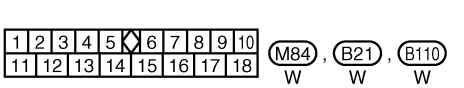
M21 , E127

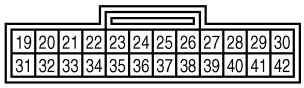
TEL726M

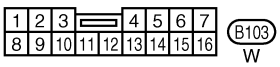
Wiring Diagram — THEFT —/LHD Models (Cont'd)

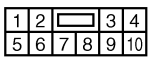
EL-THEFT-04



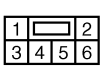

M84, B21, B110 — W

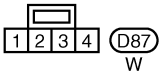

M127 — B


B103 — W


B104 — W

D9, D27, D46, D66, D86 — GY


D81 — W


D87 — W

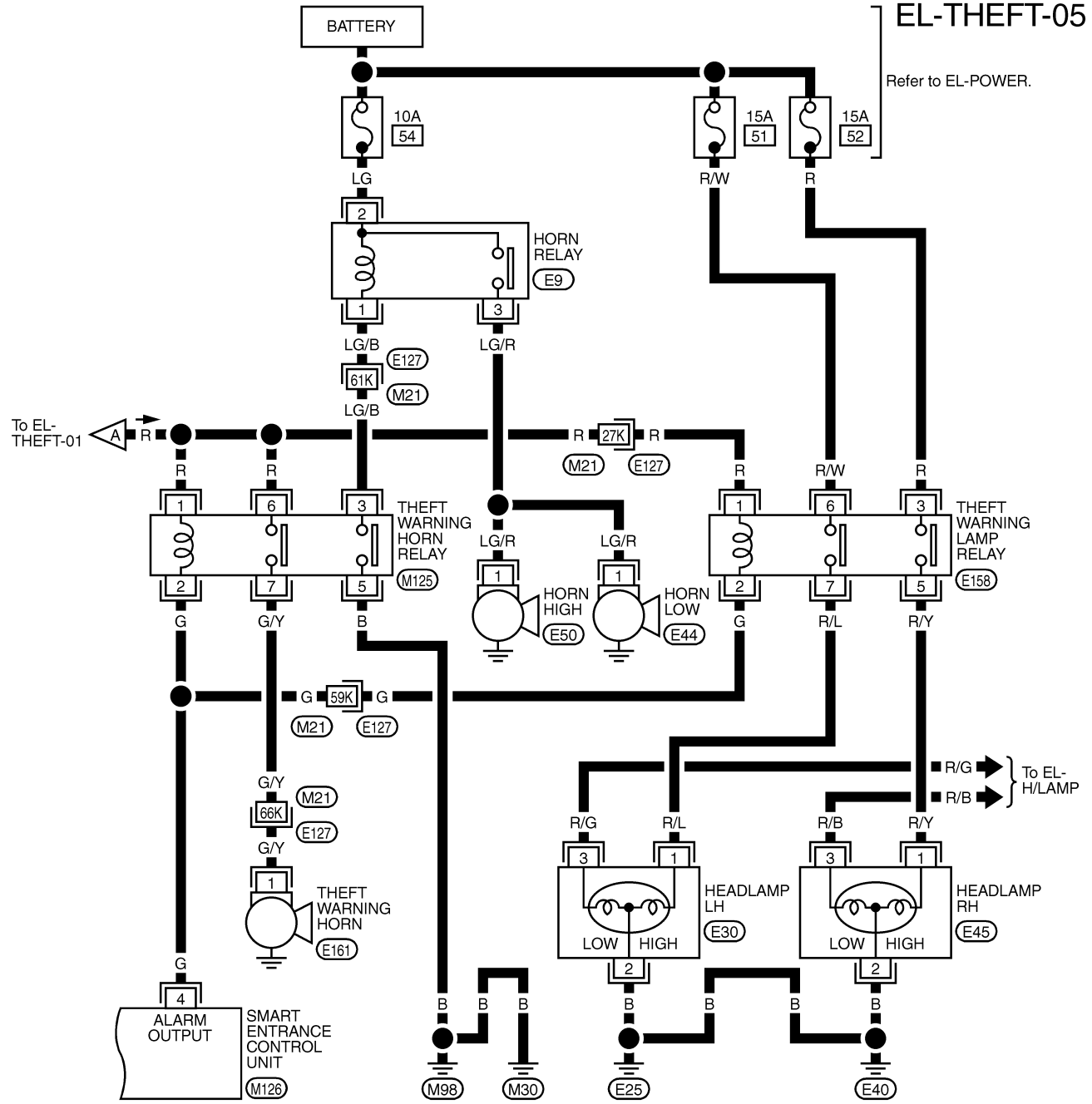
Refer to last page (Foldout page).

M20, B19

M22, D1

TEL599M

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



M125, E158 BR BR

E9 W

E30, E45 B B

E44, E50, E161 B B B

M126 W

H.S.

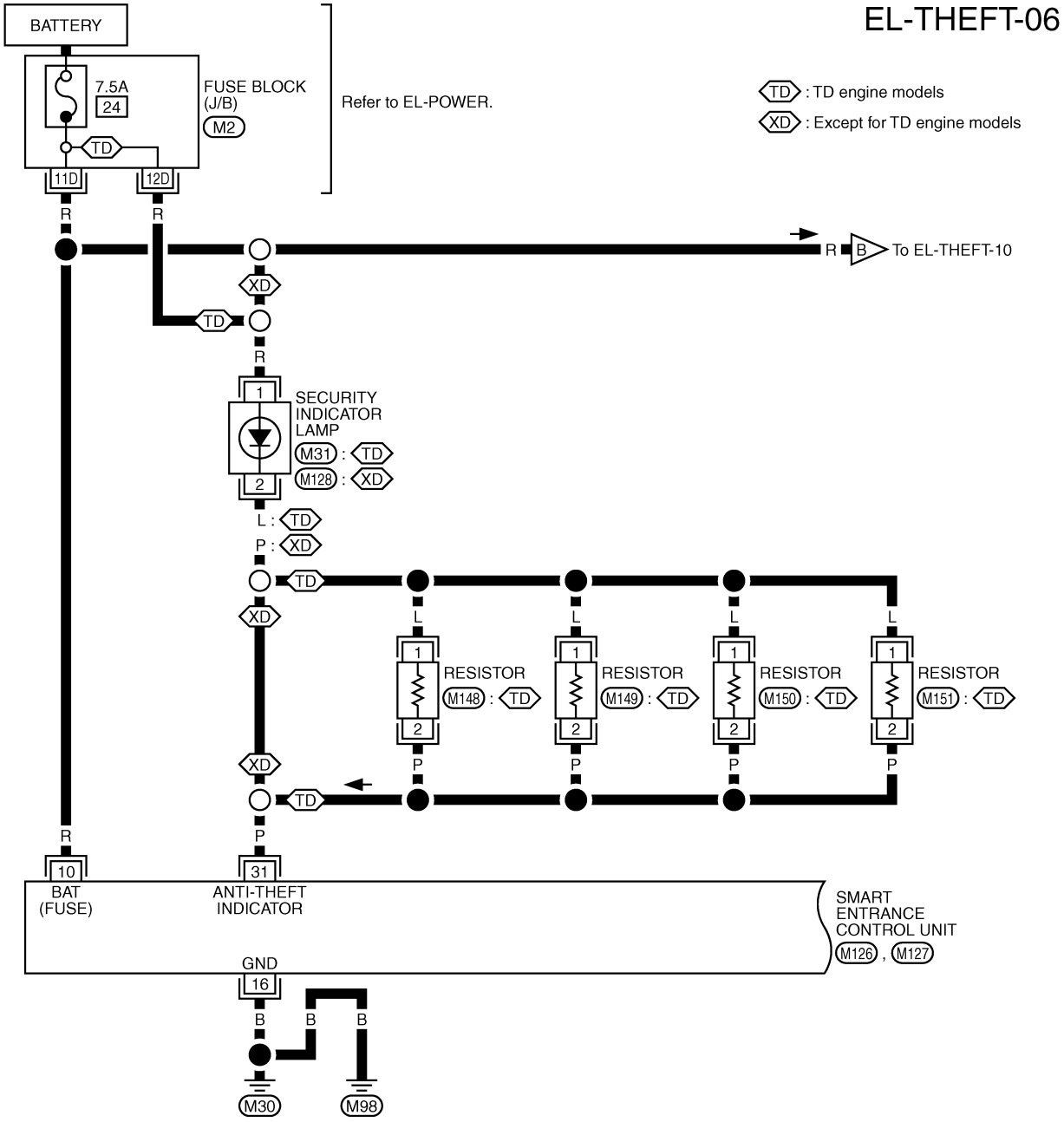
Refer to last page (Foldout page).

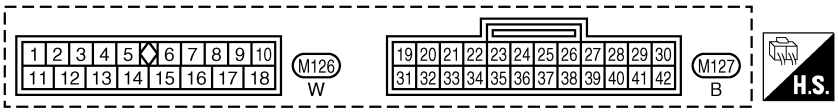
M21, E127

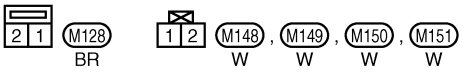
TEL332M

Wiring Diagram — THEFT —/RHD Models

EL-THEFT-06







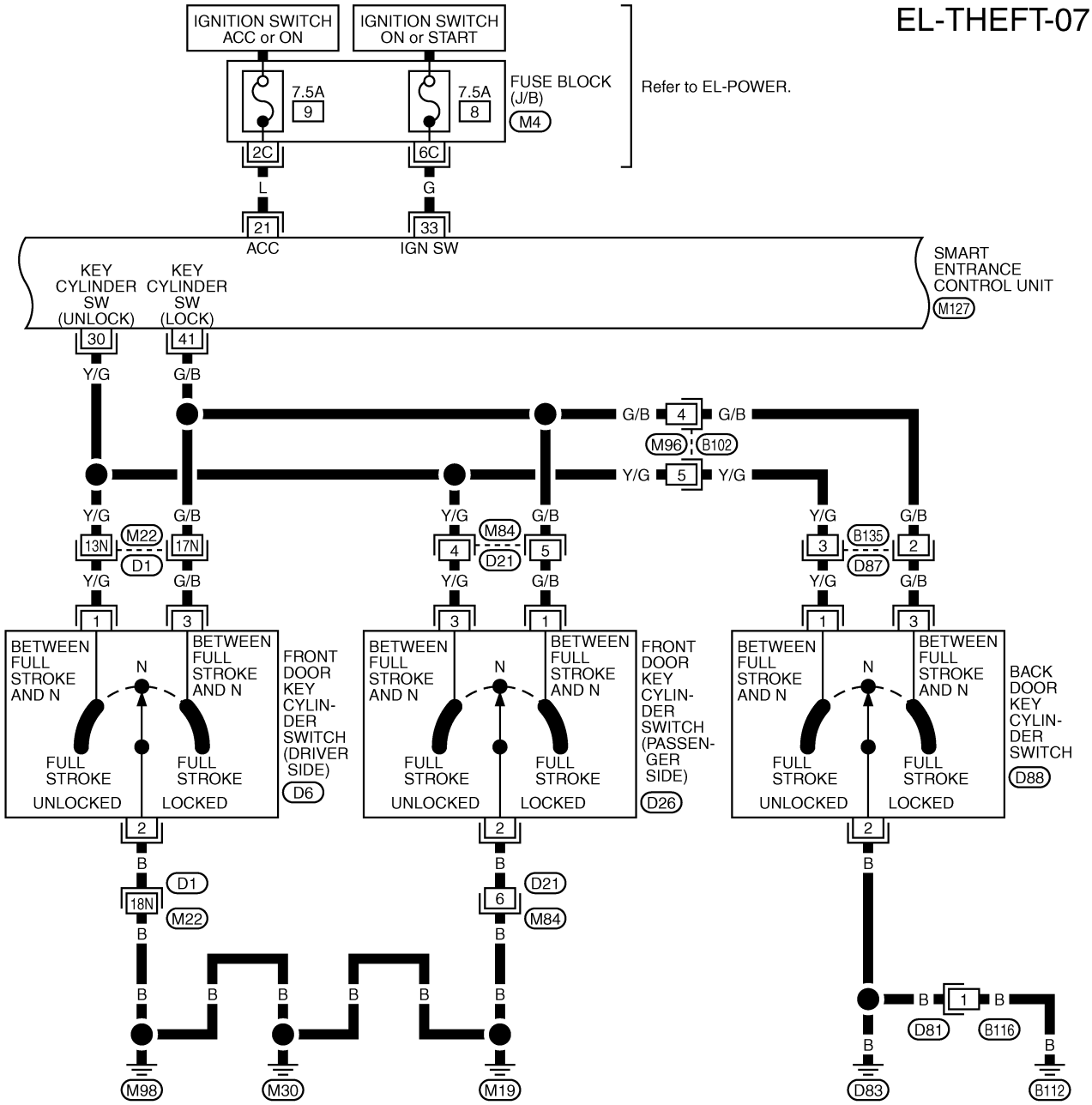
Refer to last page (Foldout page).

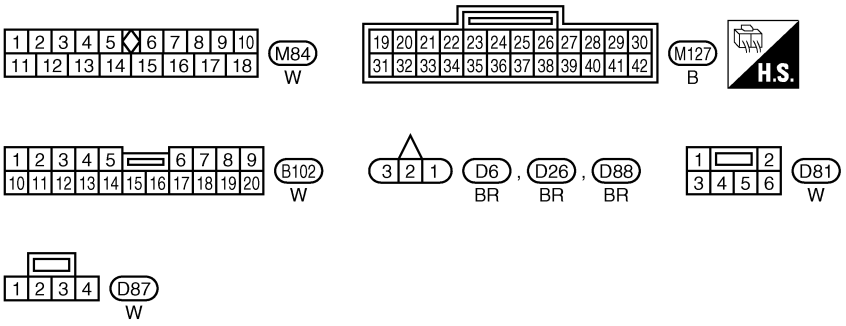
M2

TEL600M

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

EL-THEFT-07



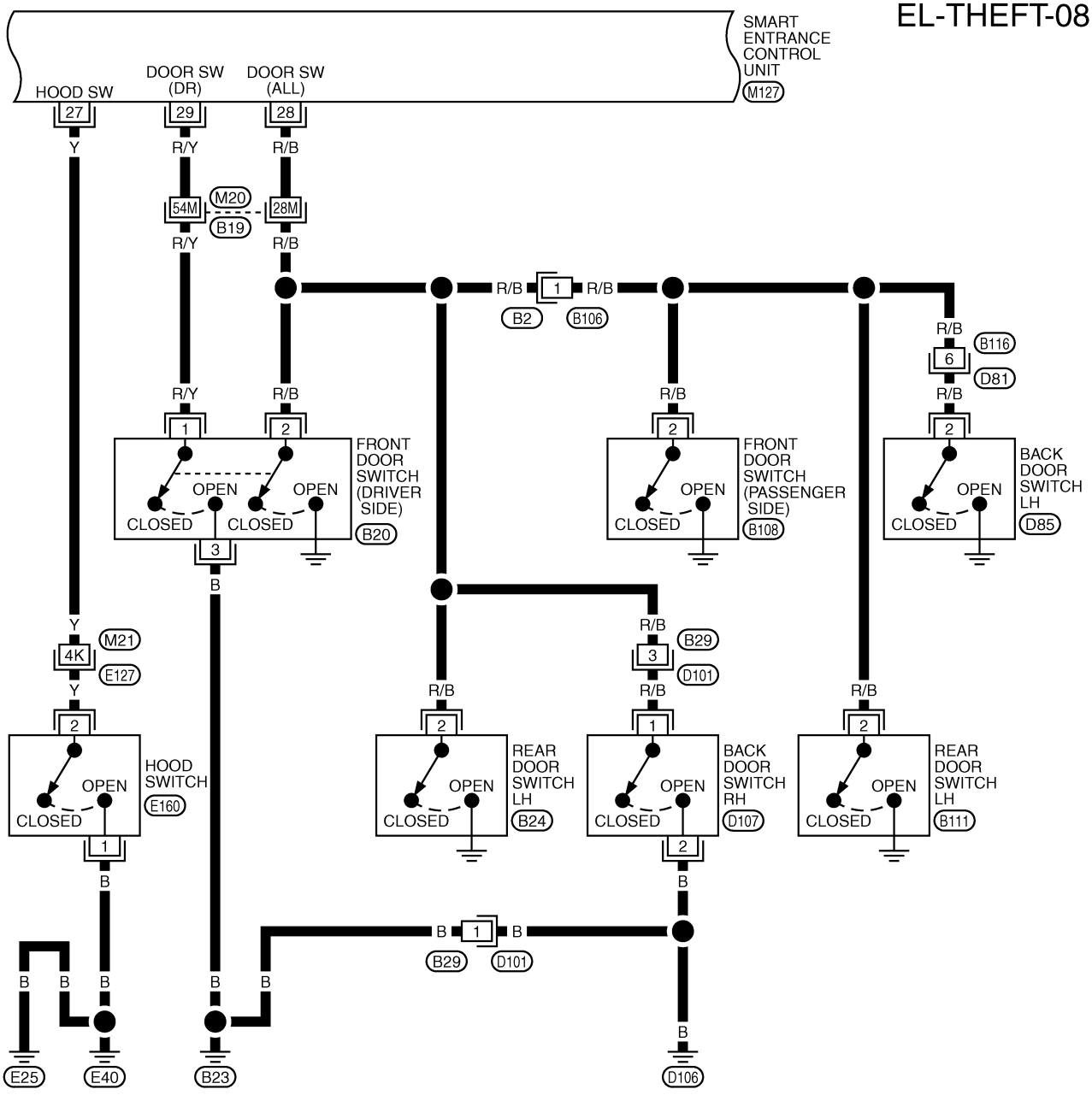


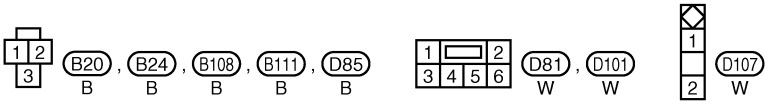
Refer to last page (Foldout page).
M22 , D1
M4

TEL601M

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

EL-THEFT-08





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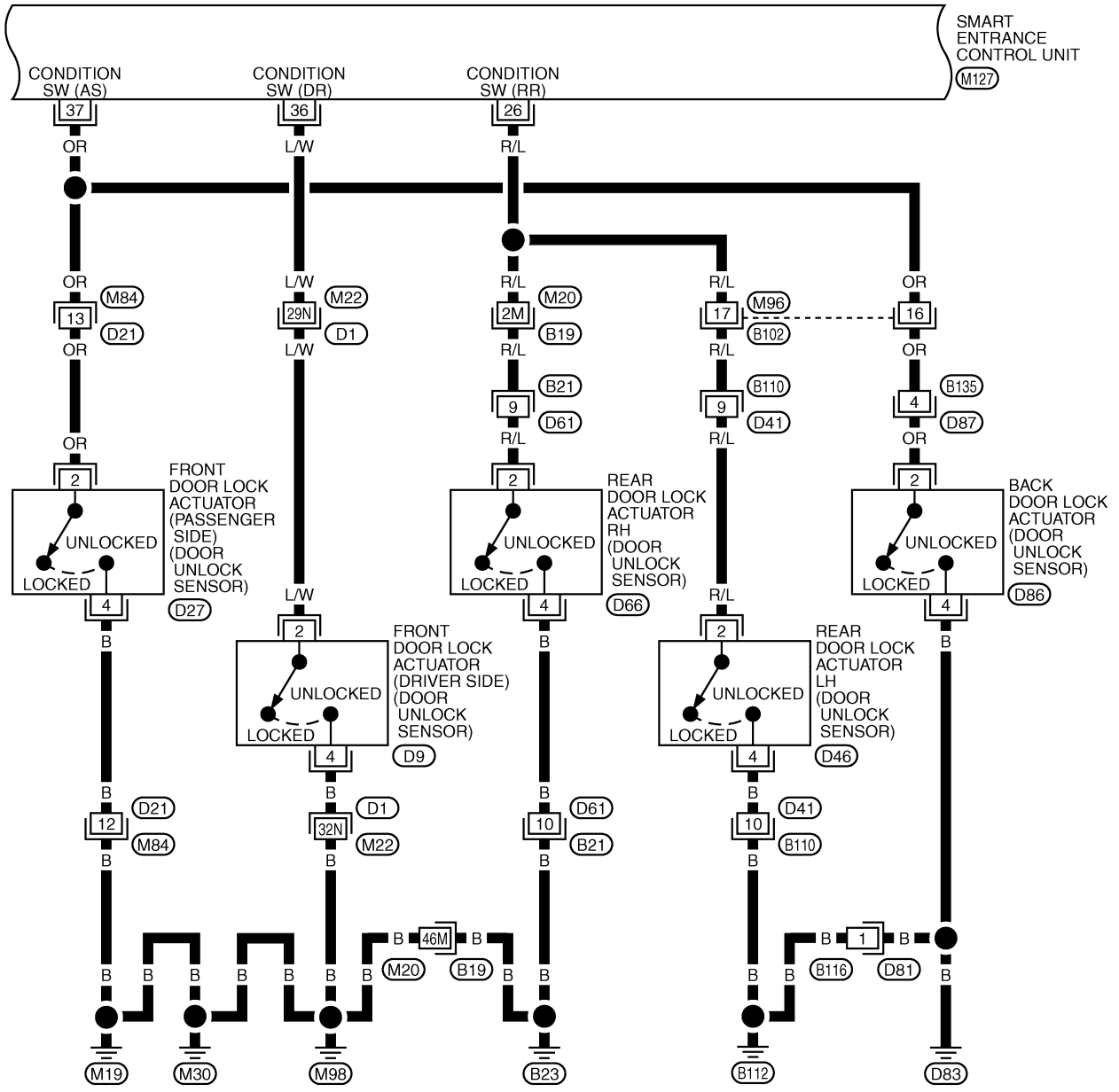
M20 , B19

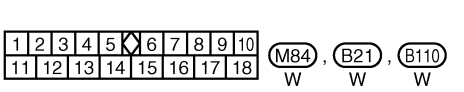
M21 , E127

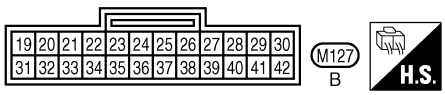
TEL801M

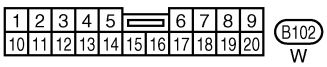
Wiring Diagram — THEFT —/RHD Models (Cont'd)

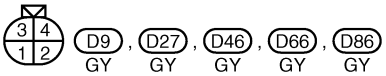
EL-THEFT-09

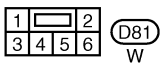


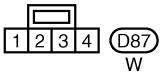












Refer to last page (Foldout page).

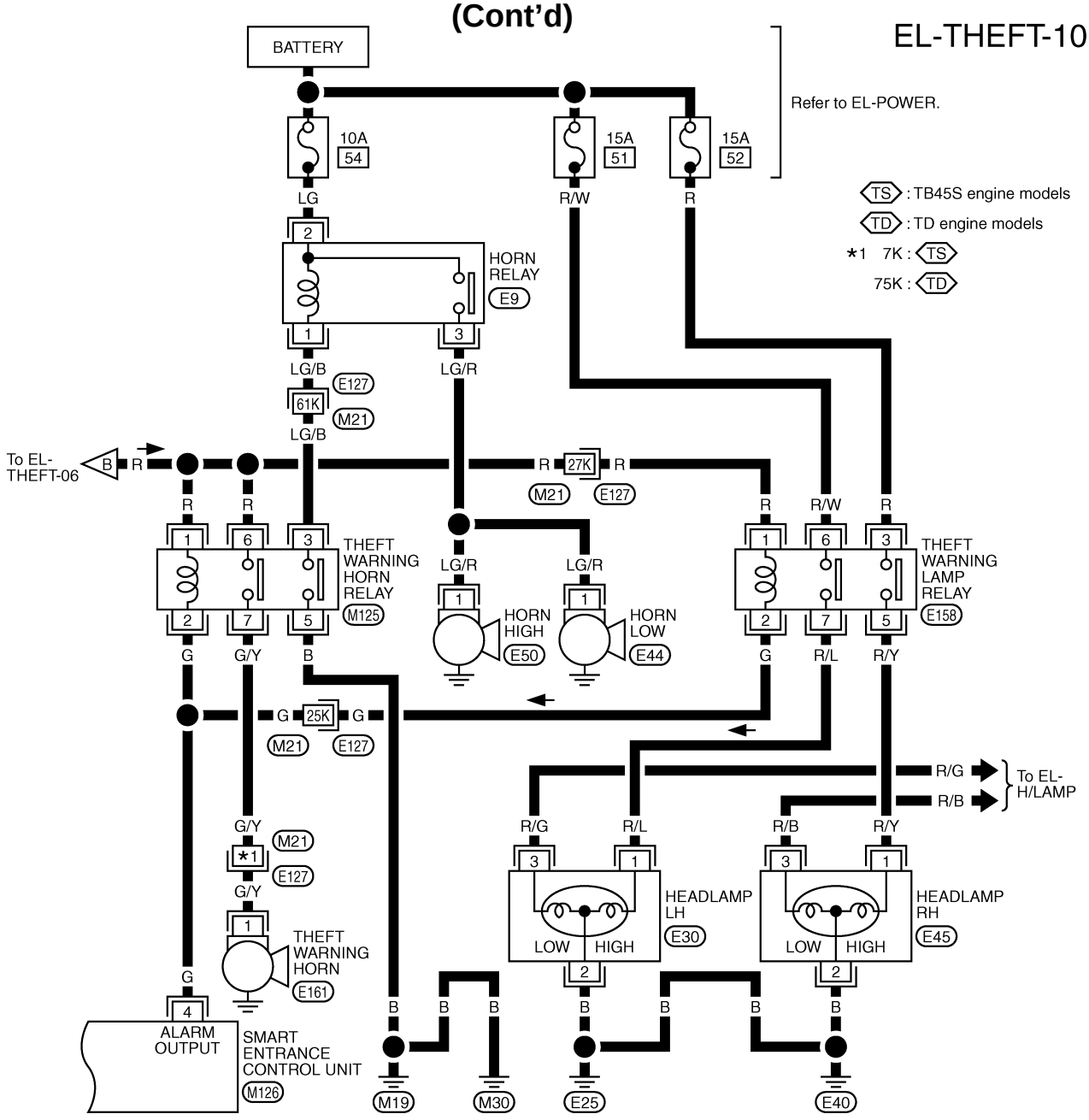
M20 , B19

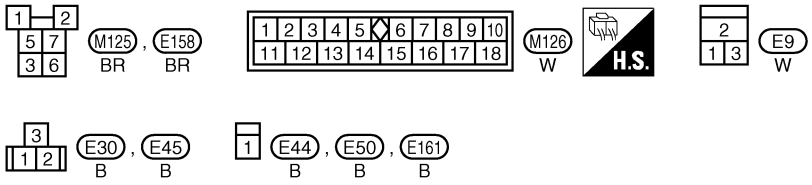
M22 , D1

TEL603M

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

EL-THEFT-10



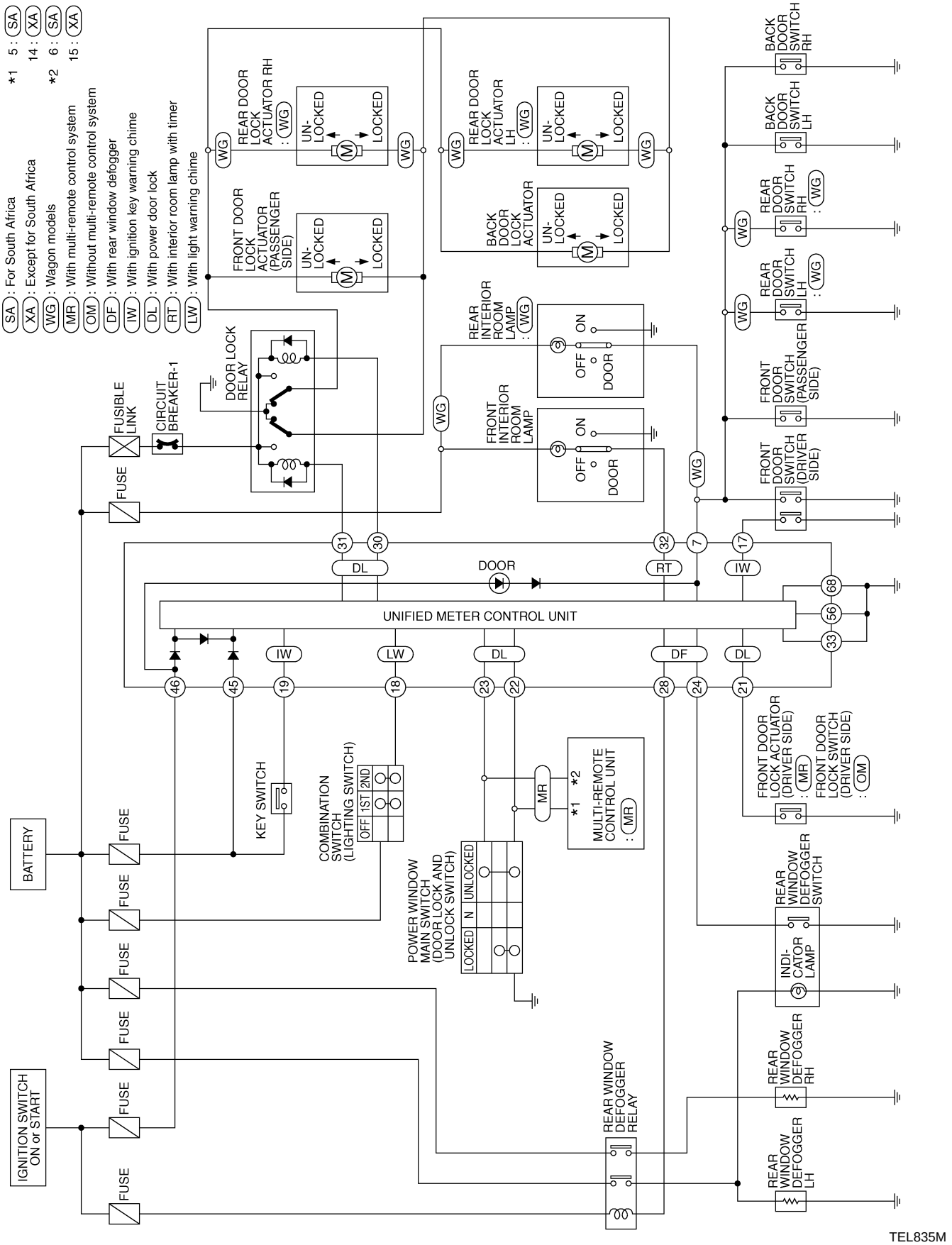


Refer to last page (Foldout page).

M21 , E127

TEL834M

Schematic/Except for Europe and With Theft Warning System Models



TEL835M

System Description

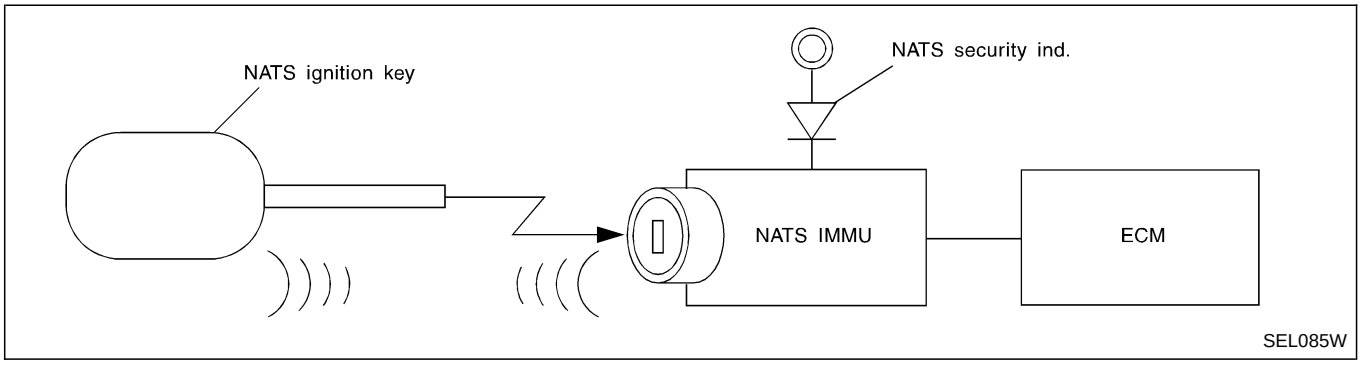
NATS (Nissan Anti-Theft System) has the following immobilizer functions:

- Since only NATS ignition keys, whose ID nos. have been registered into the ECM and IMMU of NATS, 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 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.
- 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.
  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 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 identification. Therefore, be sure to receive ALL KEYS from vehicle owner.**

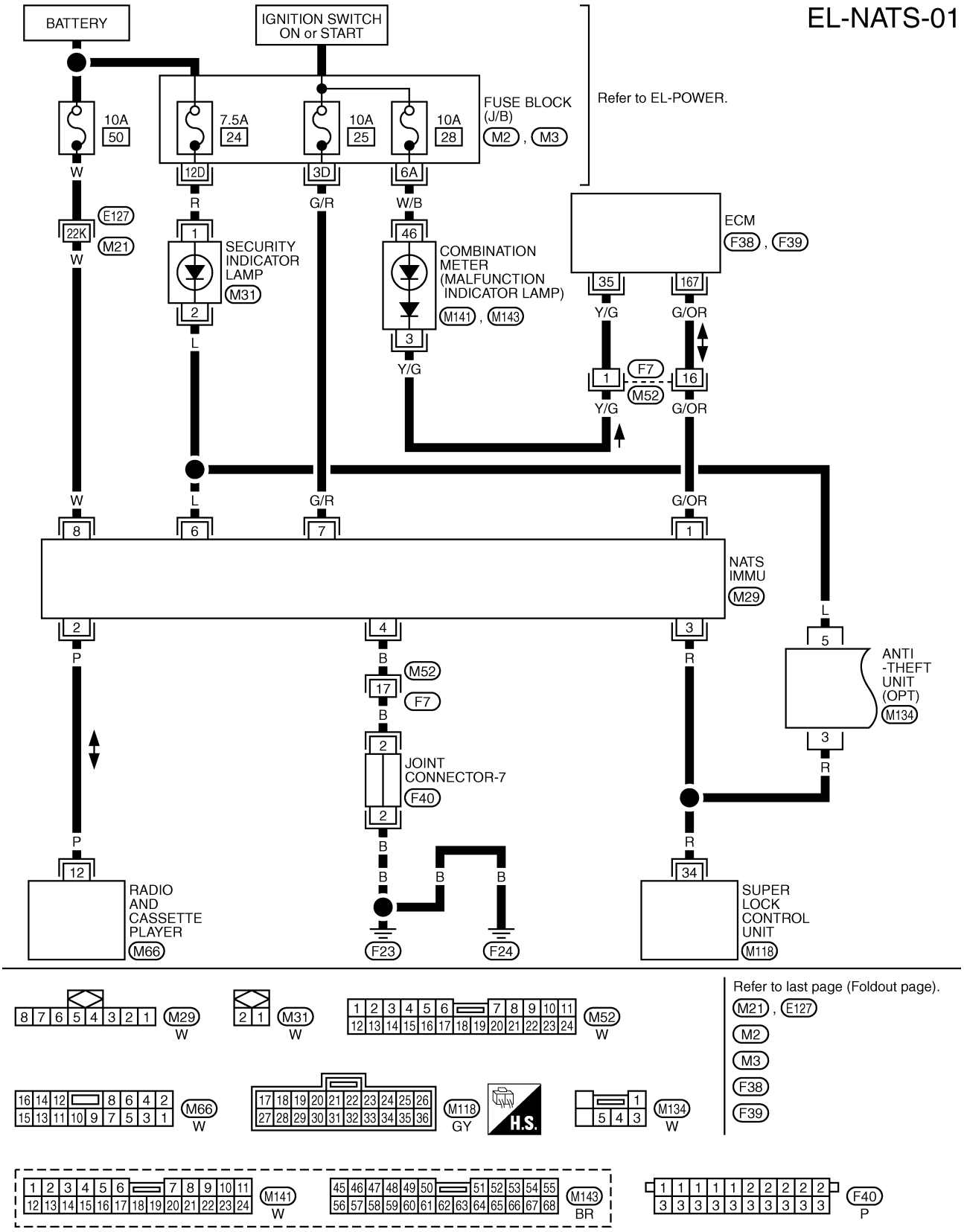
System Composition

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



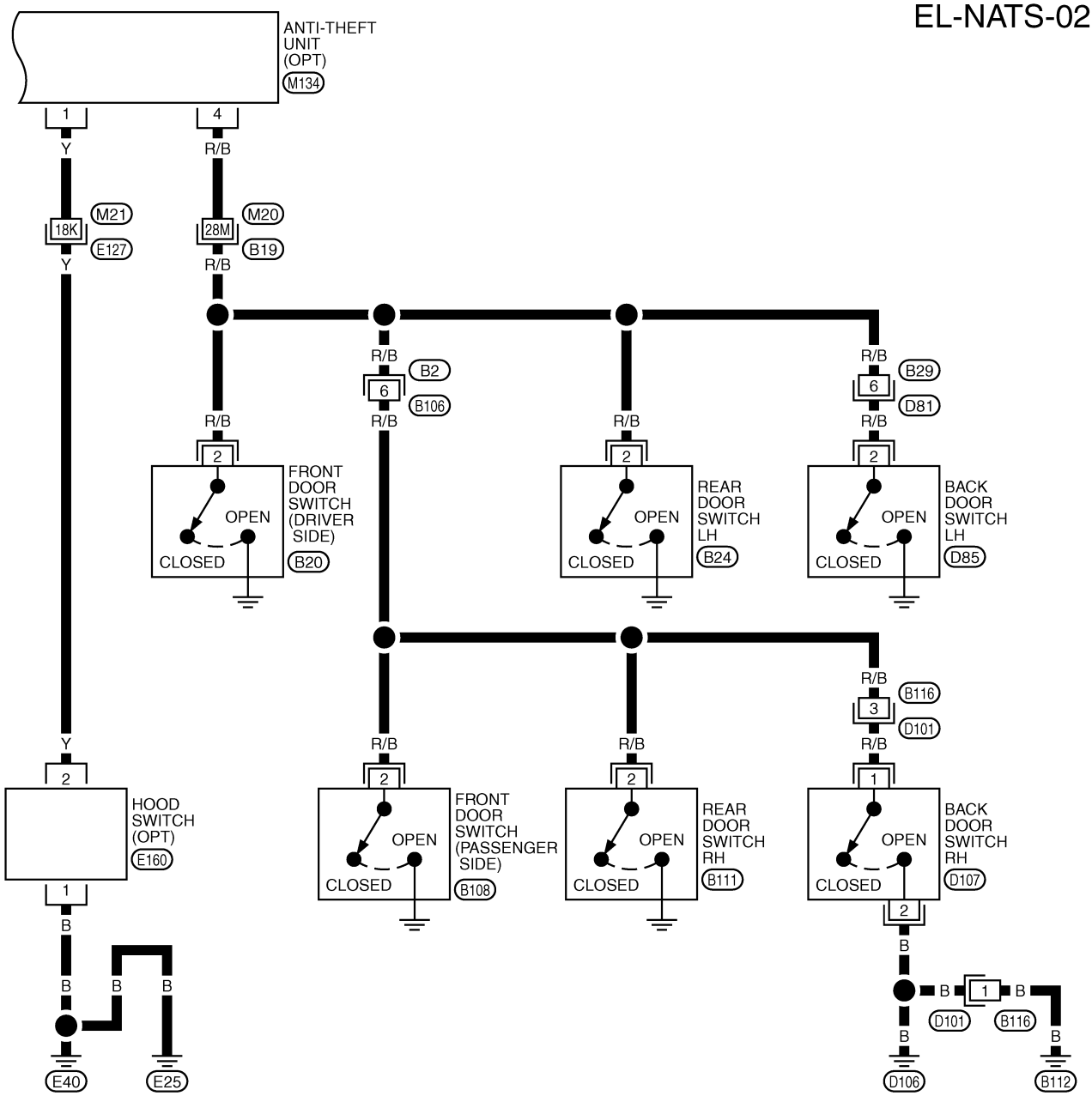
Wiring Diagram — NATS —

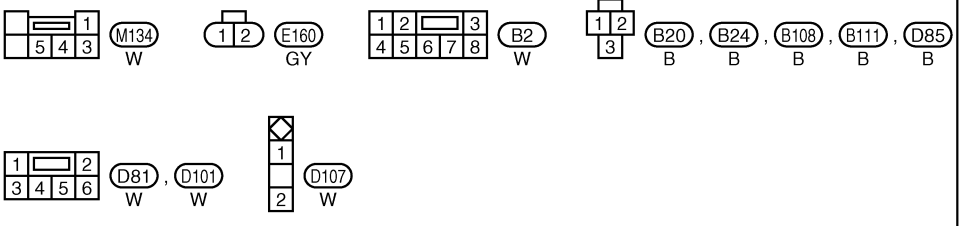


TEL728M

Wiring Diagram — NATS — (Cont'd)

EL-NATS-02



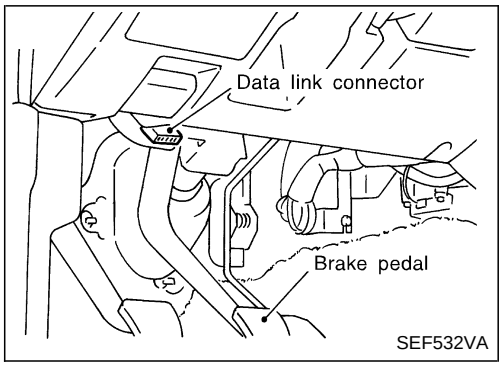


Refer to last page (Foldout page).

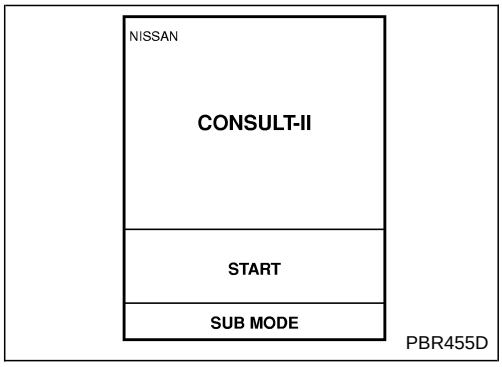
M20 , B19

M21 , E127

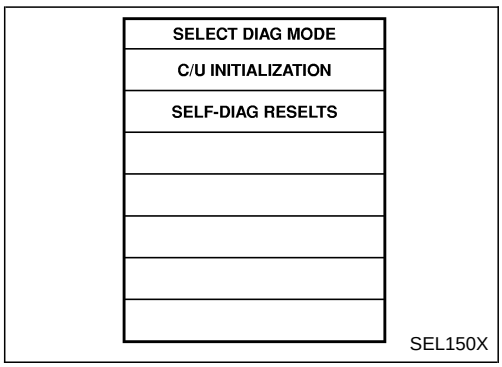
TEL729M



SEF532VA



PBR455D



SEL150X

CONSULT-II

CONSULT-II INSPECTION PROCEDURE

1. Turn ignition switch OFF.
2. Insert NATS program card into CONSULT-II.

Program card
AEN00A/B

3. Connect CONSULT-II to Data link connector which is located behind the fuse box cover.
4. Turn ignition switch ON.
5. Touch “START”.
6. Perform each diagnostic test mode according to each service procedure.

For further information, see the CONSULT-II Operation Manual, NATS.

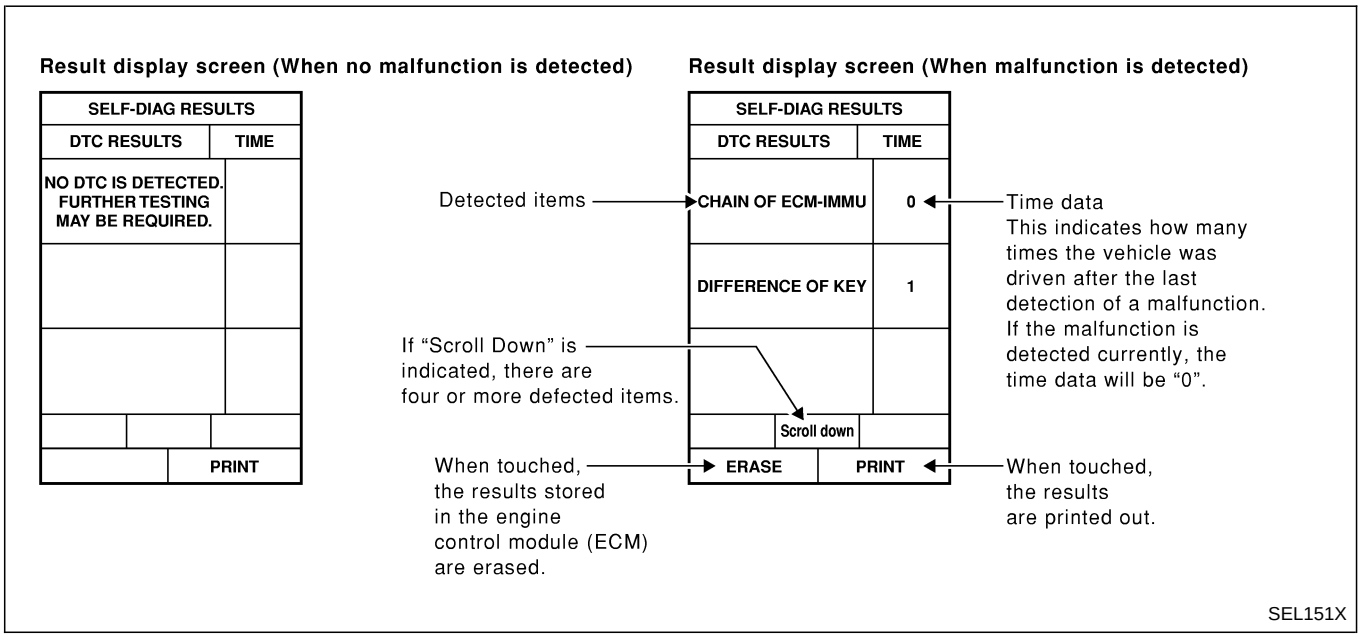
CONSULT-II (Cont'd)

CONSULT-II DIAGNOSTIC TEST MODE FUNCTION

CONSULT-II DIAGNOSTIC TEST MODE	Description
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.

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 "DIFFERENCE OF KEY" or "LOCK MODE" as a self-diagnostic result on the CONSULT-II screen.

HOW TO READ SELF-DIAGNOSTIC RESULTS

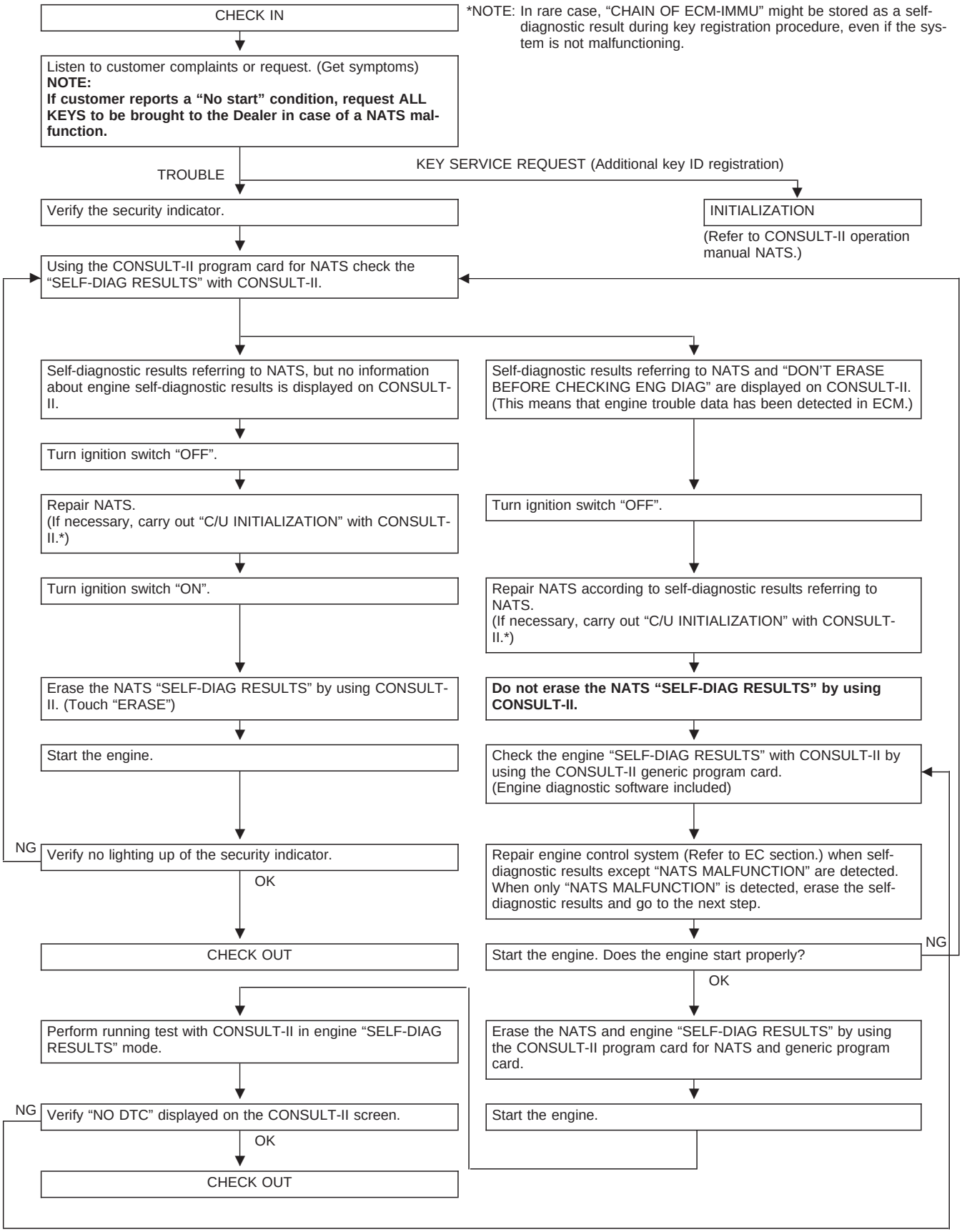


SELF-DIAGNOSTIC RESULTS ITEM CHART

Detected items (Screen terms)	Description	Reference page
ECM INT CIRC-IMMU	The malfunction of ECM internal circuit of IMMU communication line is detected.	EL-207
CHAIN OF ECM-IMMU	Communication impossible between ECM and IMMU. (In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.)	EL-208
DIFFERENCE OF KEY	IMMU can receive the key ID signal but the result of ID verification between key ID and IMMU is NG.	EL-210
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-210
ID DISCORD, IMM-ECM	The result of ID verification between IMMU and ECM is NG. System initialization is required.	EL-211
DON'T ERASE BEFORE CHECKING ENG DIAG	Engine trouble data and NATS trouble data have been detected in ECM.	EL-205
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-212

Trouble Diagnoses

WORK FLOW



SYMPTOM MATRIX CHART 1 (Self-diagnosis related item)

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-II screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON DIAGNOSTIC SYSTEM DIAGRAM
● Security indicator lighting up* ● Engine does not start	ECM INT CIRC-IMMU	PROCEDURE 1 (EL-207)	ECM	B
	CHAIN OF ECM-IMMU	PROCEDURE 2 (EL-208)	In rare case, "CHAIN OF ECM-IMMU might be stored during key registration procedure, even if the system is not malfunctioning.	—
			Open circuit in battery voltage line of IMMU circuit	C1
			Open circuit in ignition line of IMMU circuit	C2
			Open circuit in ground line of IMMU circuit	C3
			Open circuit in communication line between IMMU and ECM	C4
			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	B
			IMMU	A
	DIFFERENCE OF KEY	PROCEDURE 3 (EL-210)	Unregistered key	D
			IMMU	A
	CHAIN OF IMMU-KEY	PROCEDURE 4 (EL-210)	Malfunction of key ID chip	E
			IMMU	A
	ID DISCORD, IMM-ECM	PROCEDURE 5 (EL-211)	System initialization has not yet been completed.	F
			ECM	B
	LOCK MODE	PROCEDURE 6 (EL-212)	LOCK MODE	D
● MIL staying ON ● Security indicator lighting up*	DON'T ERASE BEFORE CHECKING ENG DIAG	WORK FLOW (EL-205)	Engine trouble data and NATS trouble data have been detected in ECM	—

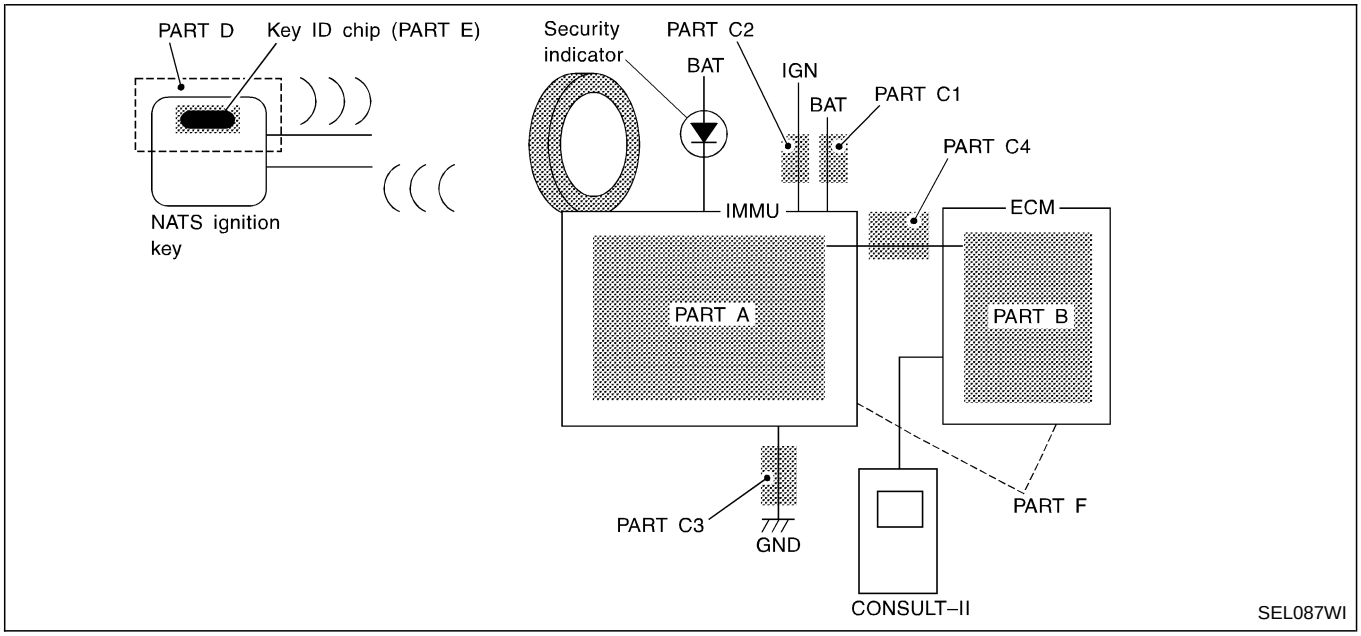
*: When NATS detects trouble, the security indicator lights up while ignition key is in the "ON" position.

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 DIAGNOSTIC SYSTEM DIAGRAM
Security ind. does not light up.	PROCEDURE 7 (EL-213)	Security ind.	—
		Open circuit between Fuse and NATS IMMU	—
		Continuation of initialization mode	—
		NATS IMMU	A

Trouble Diagnoses (Cont'd)

DIAGNOSTIC SYSTEM DIAGRAM



A

SELF-DIAG RESULTS	
DTC RESULTS	TIME
ECM INT CIRC-IMMU	0

SEL152X

DIAGNOSTIC PROCEDURE 1

Self-diagnostic results:
"ECM INT CIRC-IMMU" displayed on CONSULT-II screen

A

Confirm SELF-DIAGNOSTIC RESULTS "ECM INT CIRC-IMMU" displayed on CONSULT-II screen.
Ref. part No. B.

↓

Replace ECM.

↓

Perform initialization with CONSULT-II.
For the operation of initialization, refer to "CONSULT-II operation manual NATS".

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 2

Self-diagnostic results: "CHAIN OF ECM-IMMU" displayed on CONSULT-II screen

A

SELF-DIAG RESULTS	
DTC RESULTS	TIME
CHAIN OF ECM-IMMU	0

SEL153X

A

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF ECM-IMMU"* displayed on CONSULT-II screen.

*: In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.

OK

B

CHECK POWER SUPPLY CIRCUIT FOR IMMU.
Check voltage between terminal ⑧ of IMMU and ground.
Voltage: Battery voltage

NG → Check the following:
- 10A fuse (No. 50, located in the fuse and fusible link box)
- Harness for open or short between fuse and IMMU connector

Ref. part No. C1

OK

C

CHECK IGN SW. ON SIGNAL.
Check voltage between terminal ⑦ of IMMU and ground while ignition switch is in the "ON" position.
Voltage: Battery voltage

NG → Check the following:
- 10A fuse [No. 25, located in the fuse block (J/B)]
- Harness for open or short between fuse and IMMU connector

Ref. part No. C2

OK

D

CHECK GROUND CIRCUIT FOR IMMU.
Check harness continuity between IMMU terminal ④ and ground.
Continuity should exist.

NG → Repair harness.
Ref. part No. C3

OK

E

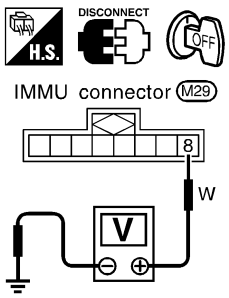
CHECK COMMUNICATION ON OPEN CIRCUIT.
Check harness continuity between ECM terminal 167 and IMMU terminal ①.
Continuity should exist.

NG → Repair harness.
Ref. part No. C4

OK

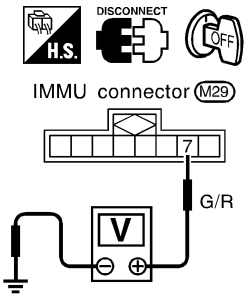
Ⓐ

B



SEL782Y

C



SEL783Y

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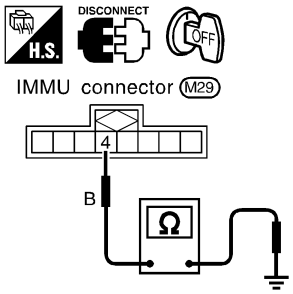
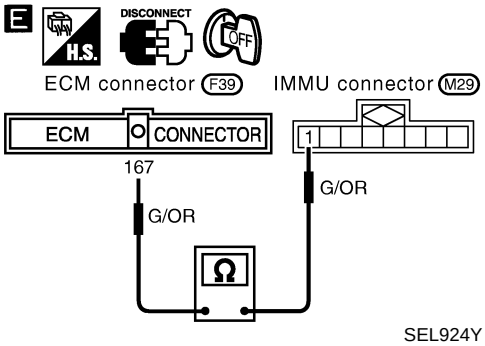


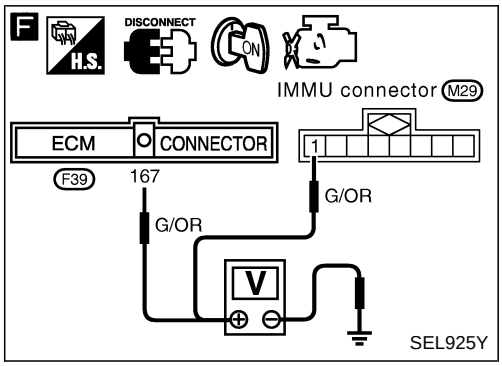
SEL156X

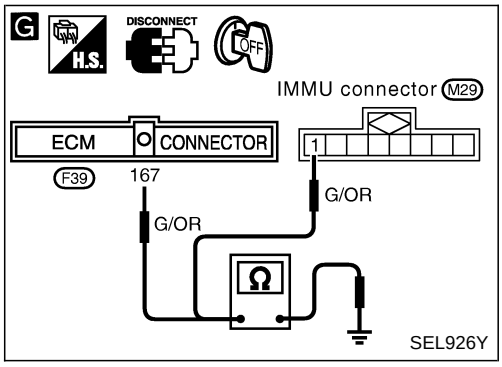
E

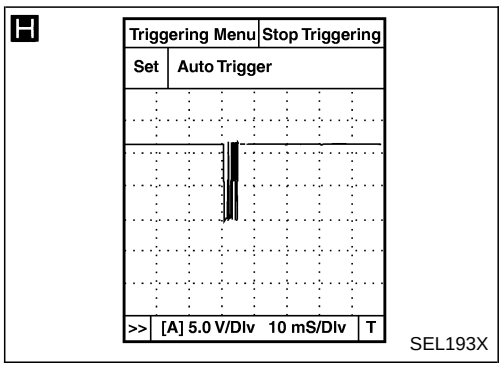


SEL924Y

Trouble Diagnoses (Cont'd)







Ⓐ

F

CHECK COMMUNICATION LINE BATTERY SHORT CIRCUIT.
1. Disconnect ECM connector and IMMU connector.
2. Turn ignition switch to ON.
3. Check voltage between ECM terminal (167) or IMMU terminal ① and ground.
   No voltage should exist.

NG → Repair harness. **Ref. part No. C4**

OK ↓

G

CHECK COMMUNICATION LINE GROUND SHORT CIRCUIT.
1. Turn ignition switch OFF.
2. Check continuity between ECM terminal (167) or IMMU terminal ① and ground.
   Continuity should not exist.

NG → Repair harness. **Ref. part No. C4**

OK ↓

H

SIGNAL FROM ECM TO IMMU CHECK
1. Check the signal between ECM terminal (167) and ground with CONSULT-II or oscilloscope when ignition switch is turned "ON".
2. Make sure signals which are shown in the figure below can be detected during 750 msec. just after ignition switch is turned "ON".

NG →
- ECM is malfunctioning.
1. Replace ECM. **Ref. part No. B**
2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II operation manual NATS".

OK ↓

- IMMU is malfunctioning.
1. Replace IMMU. **Ref. part No. A**
2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II operation manual NATS".

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 3

Self-diagnostic results: "DIFFERENCE OF KEY" displayed on CONSULT-II screen

A

SELF-DIAG RESULTS	
DTC RESULTS	TIME
DIFFERENCE OF KEY	0

SEL163X

B

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL566W

A

Confirm SELF-DIAGNOSTIC RESULTS "DIFFERENCE OF KEY" displayed on CONSULT-II screen.

OK

PERFORM INITIALIZATION.
Perform initialization with CONSULT-II.
Re-register all NATS ignition key IDs.
For the initialization procedure, refer to "CONSULT-II operation manual NATS".

Initialization with CONSULT-II incomplete or failed → B

- IMMU is malfunctioning.

1. Replace IMMU.
   Ref. part No. A
2. Perform initialization with CONSULT-II.
   For the initialization procedure, refer to "CONSULT-II operation manual NATS".

Initialization completed

Start engine.

END.
(The ignition key was unregistered.)
Ref. part No. D

DIAGNOSTIC PROCEDURE 4

Self-diagnostic results: "CHAIN OF IMMU-KEY" displayed on CONSULT-II screen

A

SELF-DIAG RESULTS	
DTC RESULTS	TIME
CHAIN OF IMMU-KEY	0

SEL165X

A

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF IMMU-KEY" displayed on CONSULT-II screen.

OK

CHECK NATS IGNITION KEY ID CHIP.
Start engine with another registered NATS ignition key.
Does the engine start?

Yes →

- Ignition key ID chip is malfunctioning.

1. Replace the ignition key.
   Ref. part No. E
2. Perform initialization with CONSULT-II.
   For the initialization procedure, refer to "CONSULT-II operation manual NATS".

No

- IMMU is malfunctioning.

1. Replace IMMU.
   Ref part No. A
2. Perform initialization with CONSULT-II.
   For the initialization procedure, refer to "CONSULT-II operation manual NATS".

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 5

Self-diagnostic results:
"ID DISCORD, IMM-ECM" displayed on CONSULT-II screen

A

SELF-DIAG RESULTS	
DTC RESULTS	TIME
ID DISCORD, IMM-ECM	0

SEL166X

B

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL566W

A

Confirm SELF-DIAGNOSTIC RESULTS "ID DISCORD, IMM-ECM*" displayed on CONSULT-II screen.

* "ID DISCORD, IMM-ECM": Registered ID of IMMU is in discord with that of ECM.

PERFORM INITIALIZATION.
Perform initialization with CONSULT-II.
Re-register all NATS ignition key IDs.
For the initialization procedure, refer to "CONSULT-II operation manual NATS".

Initialization with CONSULT-II incomplete or failed → B

- ECM is malfunctioning.
1. Replace ECM. **Ref. part No. B**
2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II operation manual NATS".

Initialization completed

Start engine. (END)
(System initialization was not completed. **Ref. part No. F**)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 6

Self-diagnostic results:
"LOCK MODE" displayed on CONSULT-II screen

A

SELF-DIAG RESULTS	
DTC RESULTS	TIME
LOCK MODE	0

SEL167X

B

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL566W

A

Confirm SELF-DIAGNOSTIC RESULTS "LOCK MODE" is displayed on CONSULT-II screen.

1. Turn the ignition switch to OFF position.
2. Turn the ignition key switch to ON position with a registered key. (Do not start engine.) Wait 5 seconds.
3. Return the key to the OFF position.
4. Repeat steps 2 and 3 twice (total of three cycles).
5. Start the engine.

Does the engine start?

Yes → System is OK. (Now the system is escaped from "LOCK MODE".)

No

CHECK NATS IMMU INSTALLATION. Refer to "How to Replace NATS IMMU" in EL-214.

NG → Reinstall NATS IMMU correctly.

OK

PERFORM INITIALIZATION.
Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II operation manual NATS".
Can the system be initialized?
Note: If the initialization is incompleted or failed, CONSULT-II shows B message on the screen.

Yes → System is OK.

No

Go to DIAGNOSTIC PROCEDURE 4, EL-210 to check "CHAIN OF IMMU-KEY".

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 7

"SECURITY IND. DOES NOT LIGHT UP"

Check 7.5A fuse [No. 24, located in the fuse block (J/B)].
- NG → Replace fuse.
- OK ↓

NATS INITIALIZATION
1) Install the 7.5A fuse.
2) Perform initialization with CONSULT-II.
For the operation of initialization, refer to "CONSULT-II operation manual NATS".

↓

Turn ignition switch "OFF".

↓

Start engine and turn ignition switch "OFF".

↓

Check the security ind. lighting.
- OK → END
- NG ↓

A

1. Disconnect security ind. connector.
2. Check voltage between security ind. connector terminal ① and ground.
Voltage: Battery voltage

- NG → Check harness for open or short between fuse and security ind.
- OK ↓

CHECK INDICATOR LAMP.
- NG → Replace security indicator lamp.
- OK ↓

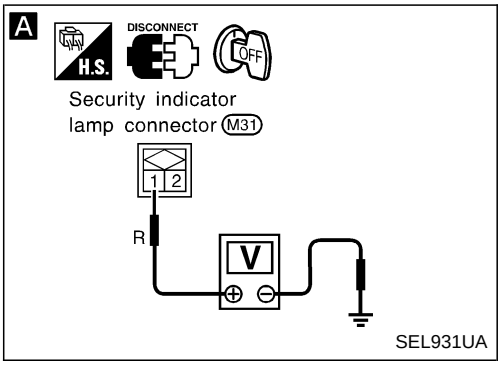
B

CHECK NATS IMMU FUNCTION.
1. Connect security ind. connector.
2. Check continuity between NATS IMMU terminal ⑥ and ground.
Continuity should exist intermittently.

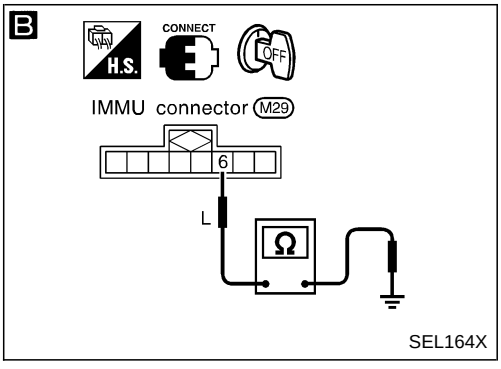
- NG → NATS IMMU is malfunctioning. Replace IMMU.
  - ↓
  - Perform initialization with CONSULT-II.
  For the operation of initialization, refer to "CONSULT-II operation manual NATS".
- OK ↓

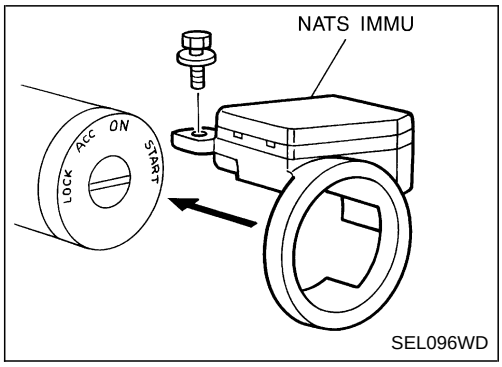
Check harness for open or short between security indicator and NATS IMMU.

A



B





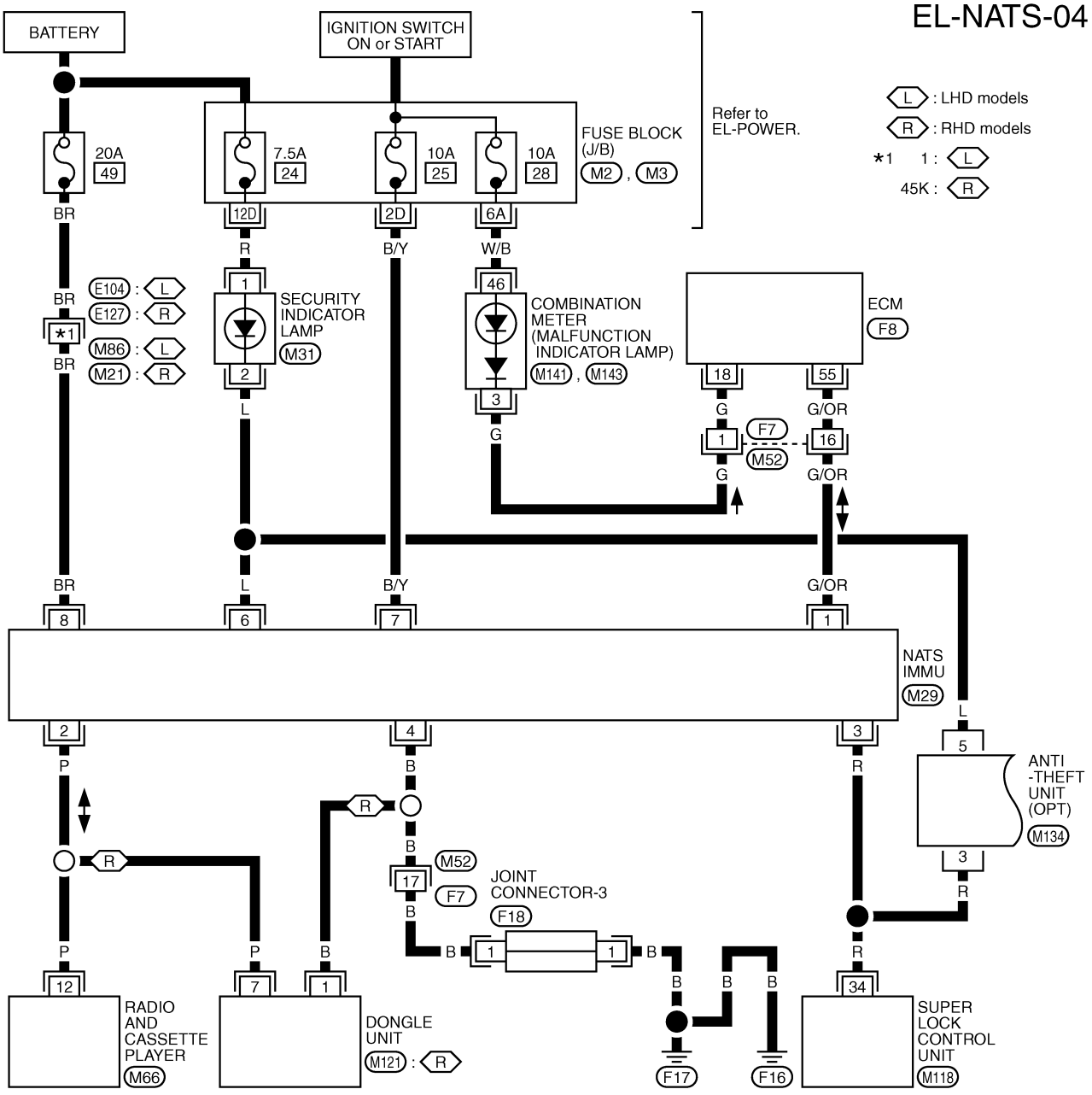
How to Replace NATS IMMU

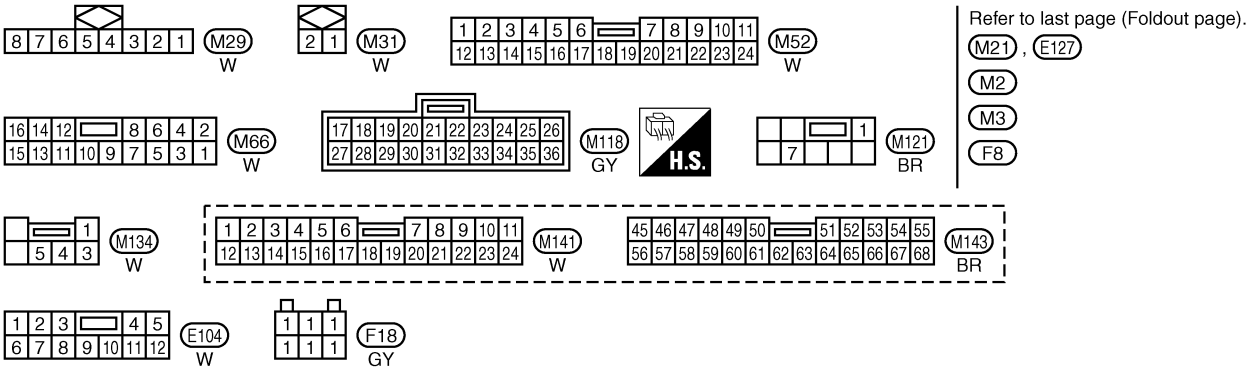
NOTE:

- **If NATS IMMU is not installed correctly, NATS system will not operate properly and SELF-DIAG RESULTS on CONSULT-II screen will show “LOCK MODE”.**

Wiring Diagram — NATS —/For Europe

EL-NATS-04



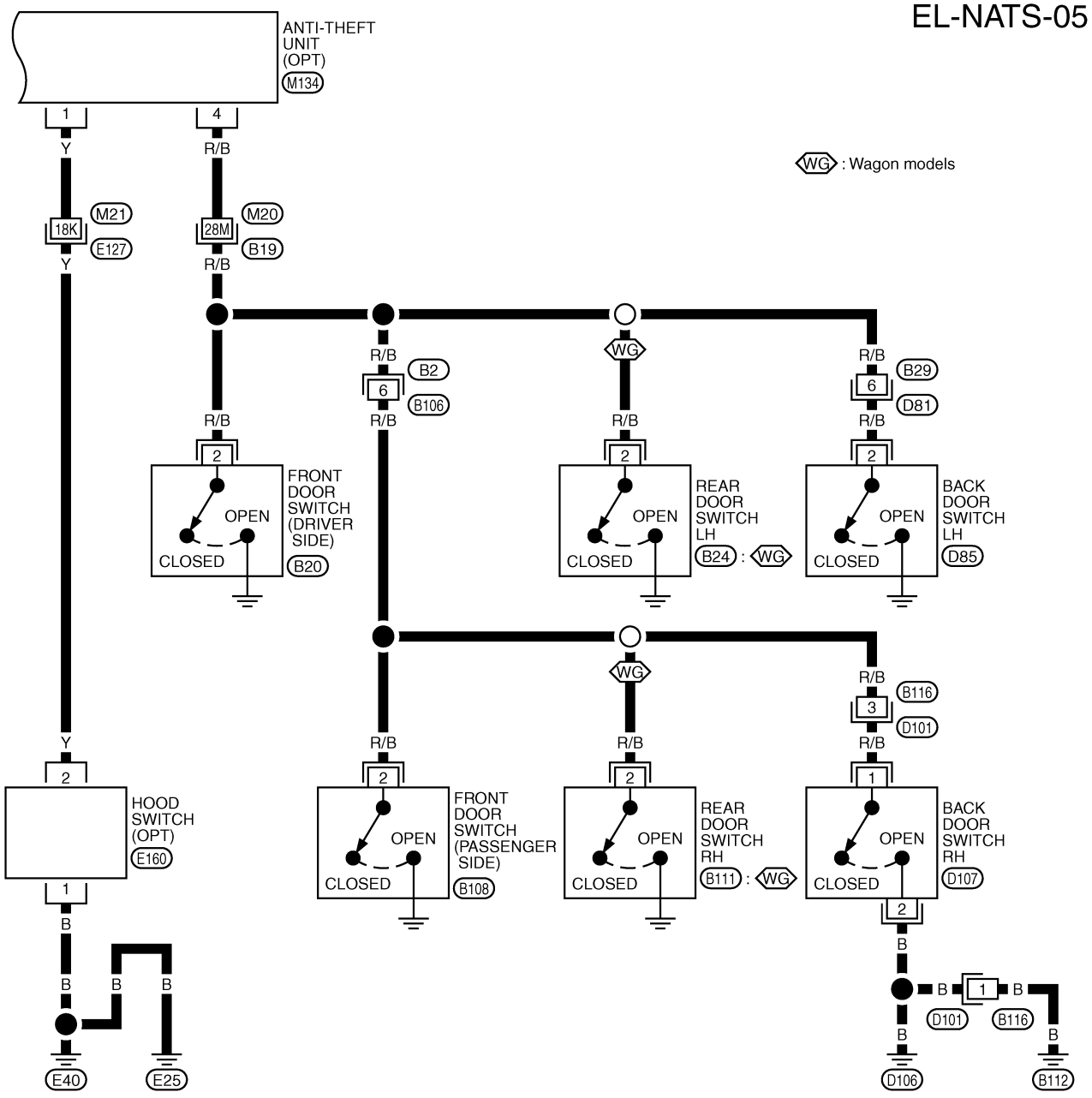


Refer to last page (Foldout page).
M21, E127
M2
M3
F8

TEL731M

Wiring Diagram — NATS —/LHD Models for Europe

EL-NATS-05



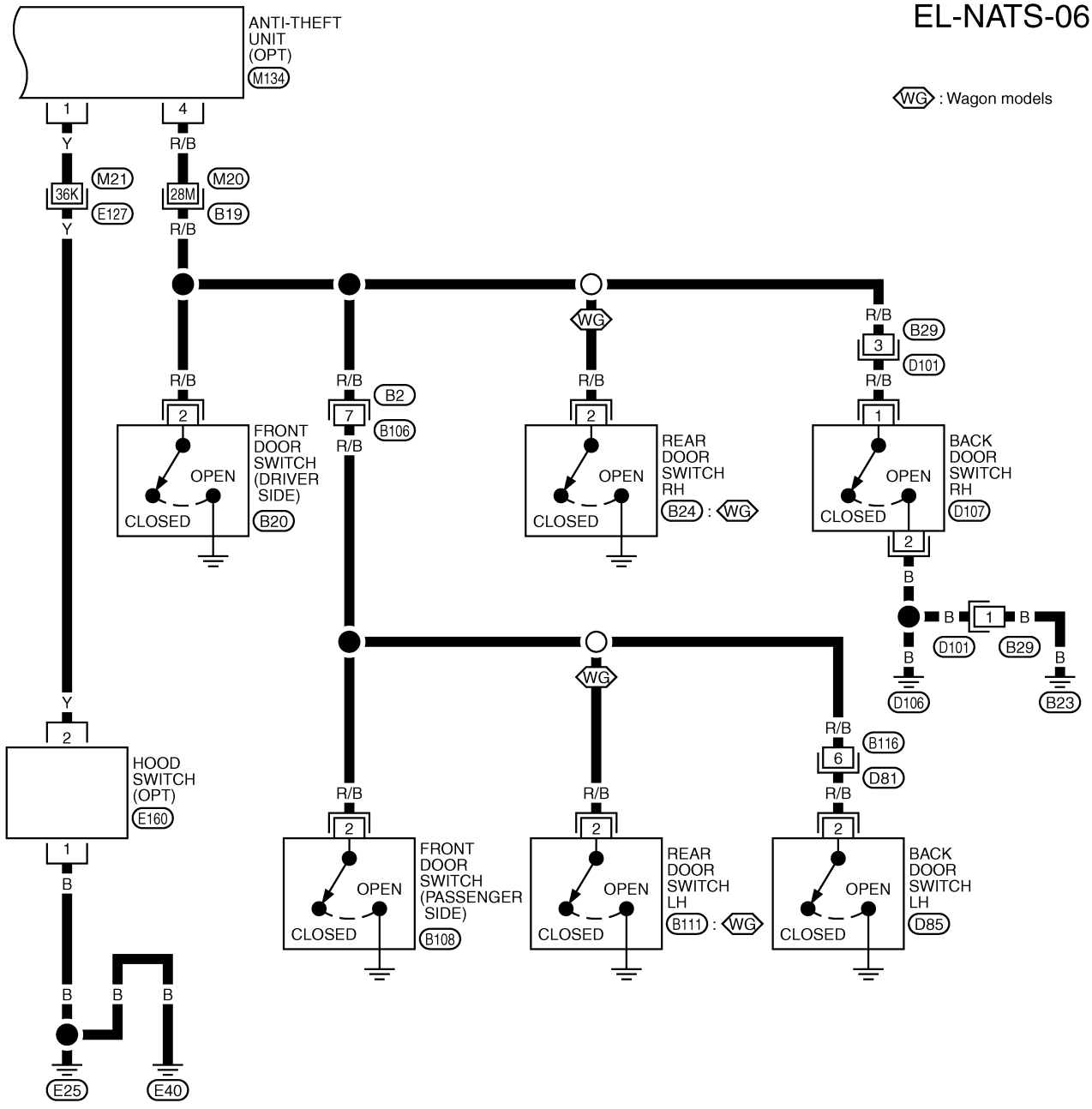
M134 W
E160 GY
B2 W
B20 , B24 , B108 , B111 , D85 B B B B B
D81 , D101 W W
D107 W

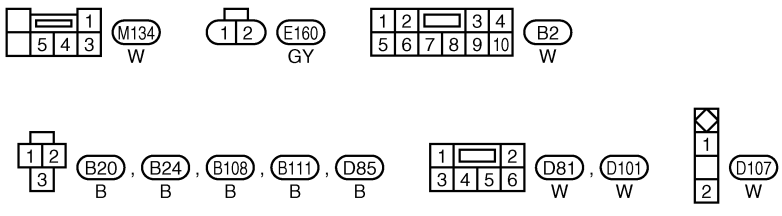
Refer to last page (Foldout page).
M20 , B19
M21 , E127

TEL732M

Wiring Diagram — NATS —/RHD Models for Europe

EL-NATS-06





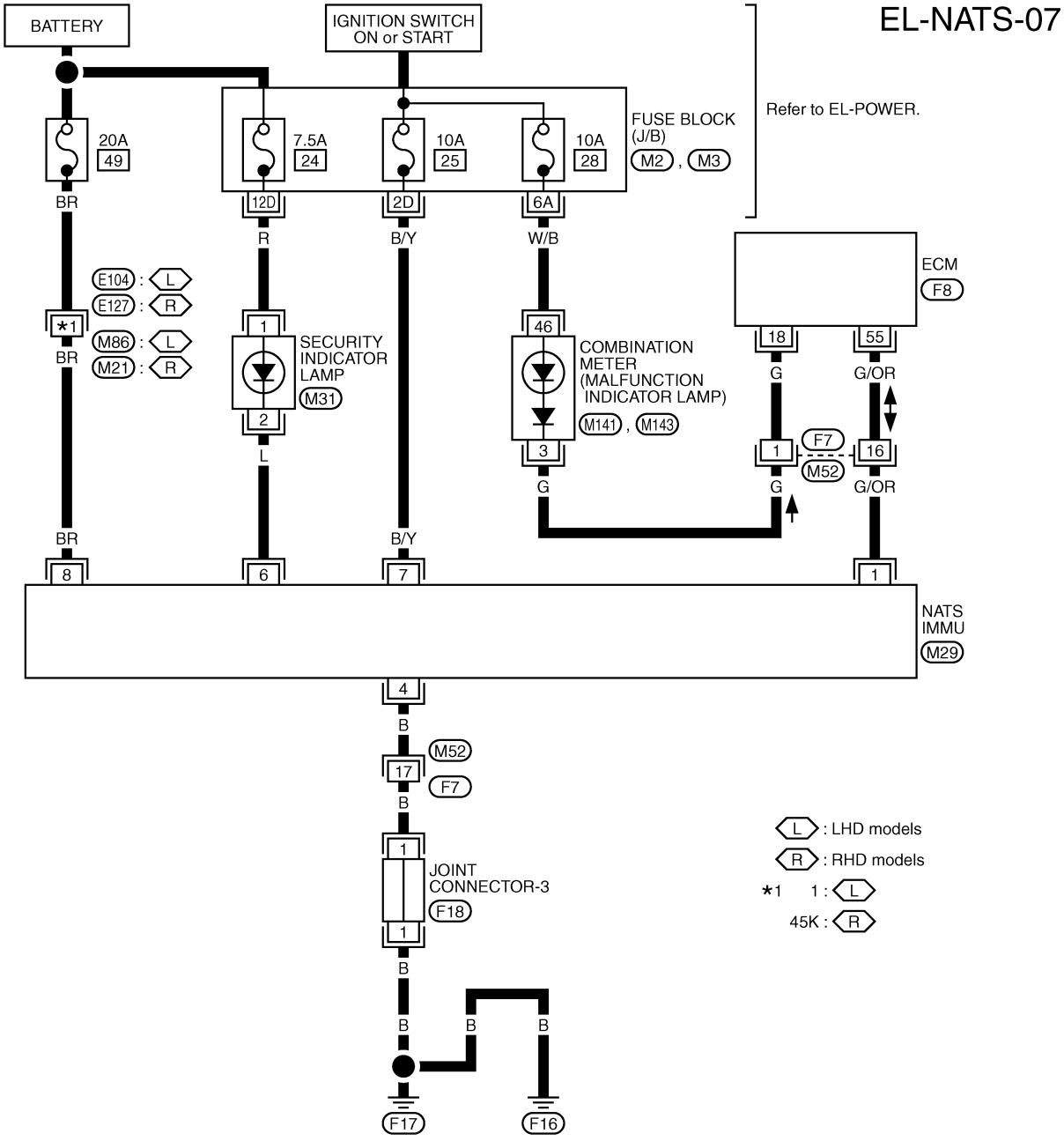
Refer to last page (Foldout page).

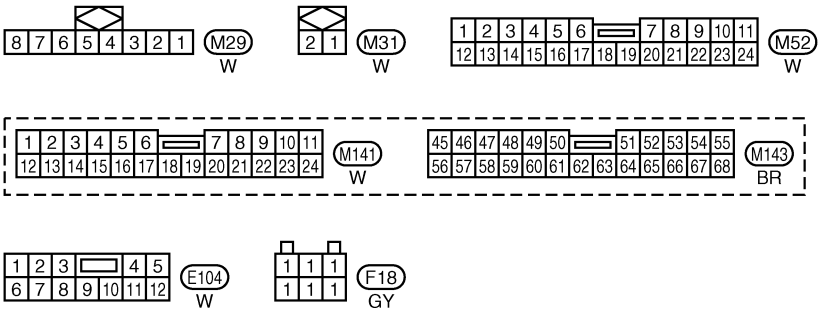
M20 , B19

M21 , E127

TEL805M

Wiring Diagram — NATS —/Except for Europe



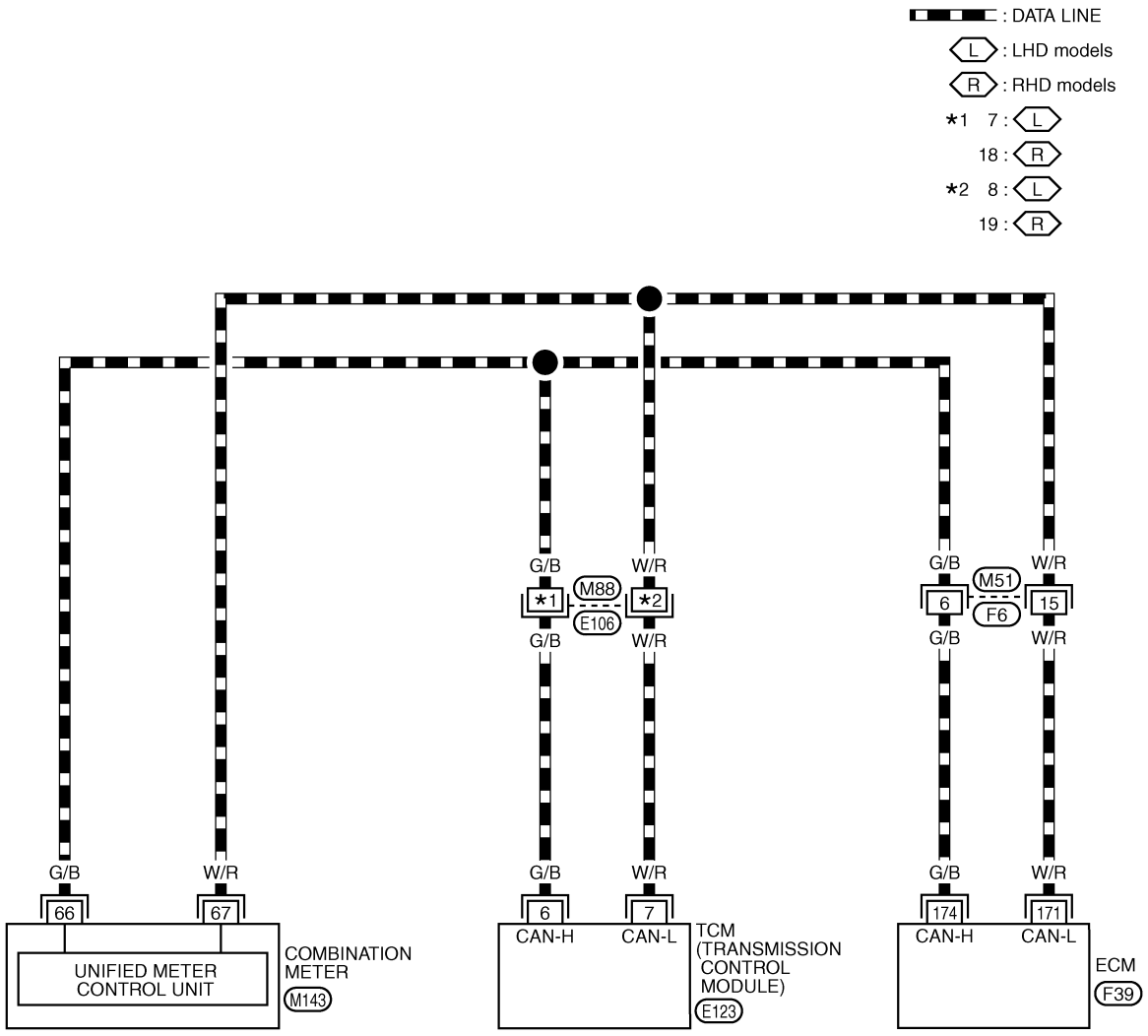


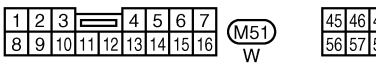
Refer to last page (Foldout page).
M21, E127
M2
M3
F8

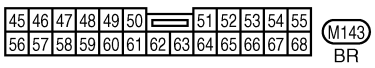
TEL806M

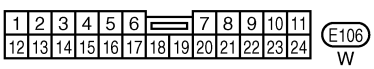
Wiring Diagram — CAN —

EL-CAN-01









Refer to last page (Foldout page).

E123

F39

TEL615M

Trouble Diagnoses

WORK FLOW

1. Print all the data of “SELF-DIAG RESULTS” and “DATA MONITOR” for “ENGINE” and “A/T” displayed on CONSULT-II. Refer to “DTC U1000 CAN COMMUNICATION LINE” (EC section) for “ENGINE” and “DTC U1000 CAN COMMUNICATION LINE” (AT section) for “A/T”.
2. Attach the printed sheet of “SELF-DIAG RESULTS” and “DATA MONITOR” onto the check sheet. Refer to “CHECK SHEET” (EL-221).
3. Based on the data monitor results, put “v” marks onto the items with “UNKWN” or “NG” in the check sheet table. Refer to “CHECK SHEET” (EL-221).

NOTE: If “NG” is displayed on “CAN COMM” for the diagnosed control unit, replace the control unit.

4. According to the check sheet results (example), start inspection. Refer to “CHECK SHEET RESULTS (EXAMPLE)” (EL-222).

Trouble Diagnoses (Cont'd)

CHECK SHEET

Check sheet table

ENGINE	CAN COMM	CAN CIRC 1	—	CAN CIRC 2	CAN CIRC 4
A/T	CAN COMM	CAN CIRC 1	CAN CIRC 2	—	CAN CIRC 4

Symptoms :

Attach copy of
ENGINE SELF-DIAG RESULTS

Attach copy of
A/T SELF-DIAG RESULTS

Attach copy of
ENGINE DATA MONITOR

Attach copy of
A/T DATA MONITOR

SEL601Y

Trouble Diagnoses (Cont'd)

CHECK SHEET RESULTS (EXAMPLE)

Case 1 : Replace ECM

ENGINE	CAN COMM ✓	CAN CIRC 1	—	CAN CIRC 2	CAN CIRC 4
A/T	CAN COMM	CAN CIRC 1	CAN CIRC 2	—	CAN CIRC 4

ENGINE	CAN COMM	CAN CIRC 1	—	CAN CIRC 2 ✓	CAN CIRC 4 ✓
A/T	CAN COMM	CAN CIRC 1	CAN CIRC 2	—	CAN CIRC 4

Case 2 : Replace TCM

ENGINE	CAN COMM	CAN CIRC 1	—	CAN CIRC 2 ✓	CAN CIRC 4
A/T	CAN COMM ✓	CAN CIRC 1	CAN CIRC 2	—	CAN CIRC 4

ENGINE	CAN COMM	CAN CIRC 1	—	CAN CIRC 2	CAN CIRC 4
A/T	CAN COMM	CAN CIRC 1	CAN CIRC 2 ✓	—	CAN CIRC 4 ✓

Case 3

ENGINE	CAN COMM	CAN CIRC 1 ✓	—	CAN CIRC 2	CAN CIRC 4
A/T	CAN COMM	CAN CIRC 1	CAN CIRC 2 ✓	—	CAN CIRC 4

Case 4

ENGINE	CAN COMM	CAN CIRC 1	—	CAN CIRC 2 ✓	CAN CIRC 4
A/T	CAN COMM	CAN CIRC 1 ✓	CAN CIRC 2	—	CAN CIRC 4

Case 5

ENGINE	CAN COMM	CAN CIRC 1	—	CAN CIRC 2	CAN CIRC 4 ✓
A/T	CAN COMM	CAN CIRC 1	CAN CIRC 2	—	CAN CIRC 4 ✓

Case 6

ENGINE	CAN COMM	CAN CIRC 1 ✓	—	CAN CIRC 2 ✓	CAN CIRC 4 ✓
A/T	CAN COMM	CAN CIRC 1 ✓	CAN CIRC 2 ✓	—	CAN CIRC 4 ✓

SEL602Y

NOTE: If "NG" is displayed on "CAN COMM" for the diagnosed control unit, replace the control unit.

Trouble Diagnoses (Cont'd)

INSPECTION

Proceed trouble diagnosis according to the check sheet results (example).
Case 1: Replace ECM.
Case 2: Replace TCM.
Case 3: Check ECM Circuit. Refer to "ECM CIRCUIT CHECK" (EL-223).
Case 4: Check TCM Circuit. Refer to "TCM CIRCUIT CHECK" (EL-223).
Case 5: Check Combination meter Circuit. Refer to "COMBINATION METER CIRCUIT CHECK" (EL-224).
Case 6: Check CAN communication Circuit. Refer to "CAN COMMUNICATION CIRCUIT CHECK" (EL-225).

ECM CIRCUIT CHECK

1	CHECK CONNECTOR

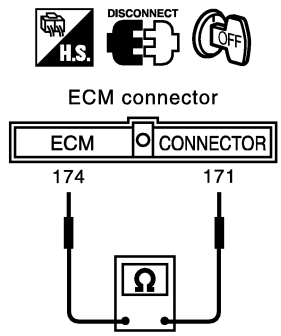
1. Turn ignition switch OFF.
2. Check following terminals and connector for damage, bend and loose connection. (Control module-side and harness-side)
- ECM
- Harness connector F6
- Harness connector M51

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair terminal or connector.

2	CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ECM connector.
2. Check resistance between ECM harness connector F39 terminals 174 (G/B) and 171 (W/R).



SEL603Y

174 (G/B) - 171 (W/R): Approx. 108 - 132Ω

OK or NG

OK	▶	Replace ECM.
NG	▶	Repair harness between ECM and harness connector M88.

TCM CIRCUIT CHECK

1	CHECK CONNECTOR

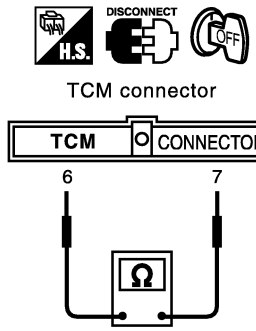
1. Turn ignition switch OFF.
2. Check following terminals and connector for damage, bend and loose connection. (Control module-side and harness-side)
- TCM
- Harness connector E106
- Harness connector M88

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair terminal or connector.

2	CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect TCM connector.
2. Check resistance between TCM harness connector E123 terminals 6 (G/B) and 7 (W/R).



SEL604Y

6 (G/B) - 7 (W/R): Approx. 54 - 66Ω

OK or NG

OK	►	Replace TCM.
NG	►	Repair harness between TCM and harness connector M51.

COMBINATION METER CIRCUIT CHECK

1	CHECK CONNECTOR

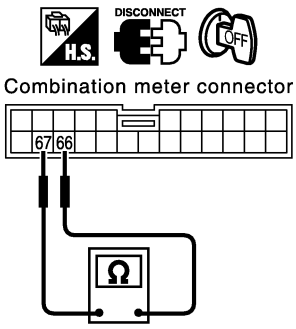
1. Turn ignition switch OFF.
2. Check terminals and connector of combination meter for damage, bend and loose connection. (Meter-side and harness-side)

OK or NG

OK	►	GO TO 2.
NG	►	Repair terminal or connector.

2	CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect combination meter connector.
2. Check resistance between combination meter harness connector M143 terminals 66 (G/B) and 67 (W/R).



SEL605Y

66 (G/B) - 67 (W/R): Approx. 108 -132Ω

OK or NG

OK	►	Replace combination meter.
NG	►	Repair harness between combination meter and harness connector M88.

Trouble Diagnoses (Cont'd)

CAN COMMUNICATION CIRCUIT CHECK

1	CHECK CONNECTOR

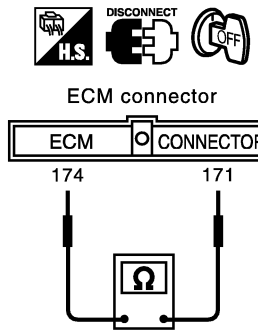
1. Turn ignition switch OFF.
2. Check following terminals and connector for damage, bend and loose connection. (Control module-side, meter-side and harness-side)
- ECM
- TCM
- Combination meter
- Between ECM and TCM

OK or NG

OK	►	GO TO 2.
NG	►	Repair terminal or connector.

2	CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect ECM connector and harness connector F6.
2. Check continuity between ECM harness connector F39 terminals 174 (G/B) and 171 (W/R).



SEL603Y

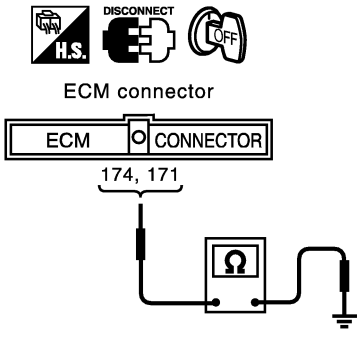
174 (G/B) - 171 (W/R): Continuity should not exist.

OK or NG

OK	►	GO TO 3.
NG	►	Repair harness between ECM and harness connector F6.

3	CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ECM harness connector F39 terminals 174 (G/B), 171 (W/R) and ground.



SEL606Y

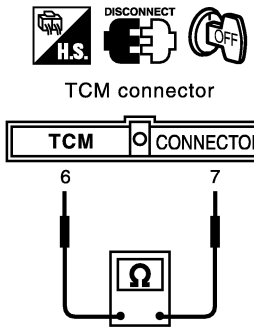
174 (G/B) - Ground: Continuity should not exist.
171 (W/R) - Ground: Continuity should not exist.

OK or NG

OK	►	GO TO 4.
NG	►	Repair harness between ECM and harness connector F6.

4	CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect TCM connector and harness connector E106.
2. Check continuity between TCM harness connector E123 terminals 6 (G/B) and 7 (W/R).



SEL604Y

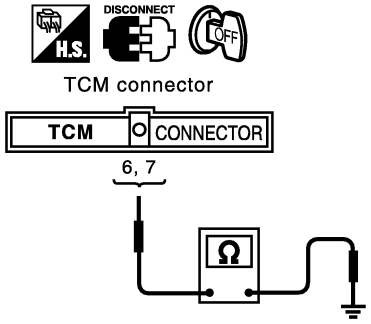
6 (G/B) - 7 (W/R): Continuity should not exist.

OK or NG

OK	▶	GO TO 5.
NG	▶	Repair harness between TCM and harness connector E106.

5	CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between TCM harness connector E123 terminals 6 (G/B), 7 (W/R) and ground.



SEL607Y

6 (G/B) - Ground: Continuity should not exist.
7 (W/R) - Ground: Continuity should not exist.

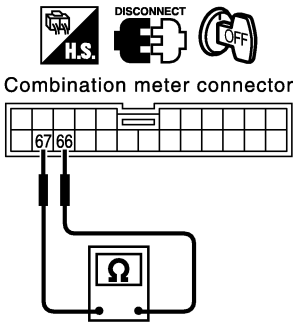
OK or NG

OK	▶	GO TO 6.
NG	▶	Repair harness between TCM and harness connector F106.

Trouble Diagnoses (Cont'd)

6	CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector M143 terminals 66 (G/B) and 67 (W/R).



SEL605Y

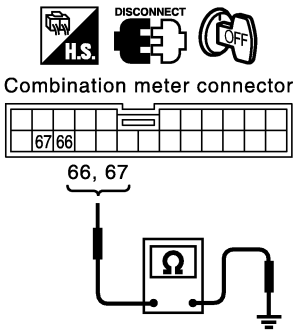
66 (G/B) - 67 (W/R): Continuity should not exist.

OK or NG

OK	▶	GO TO 7.
NG	▶	● Repair harness between combination meter and harness connector M88. ● Repair harness between combination meter and harness connector M51.

7	CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between combination meter harness connector M143 terminals 66 (G/B), 67 (W/R) and ground.



SEL608Y

66 (G/B) - Ground: Continuity should not exist.
67 (W/R) - Ground: Continuity should not exist.

OK or NG

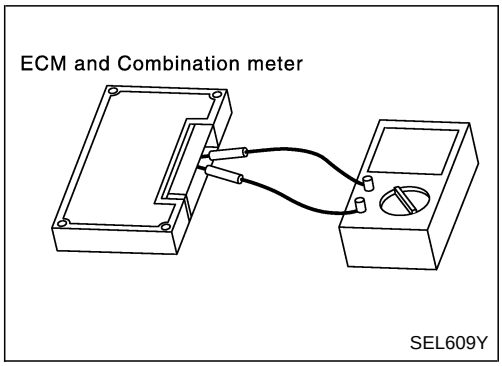
OK	▶	GO TO 8.
NG	▶	● Repair harness between combination meter and harness connector M88. ● Repair harness between combination meter and harness connector M51.

8	ECM/COMBINATION METER INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to "ECM/COMBINATION METER INTERNAL CIRCUIT INSPECTION" (EL-228).

OK or NG

OK	▶	Reconnect all connectors to perform "SELF-DIAG RESULTS" and "DATA MONITOR" for "ENGINE" and "A/T" displayed on CONSULT-II. Refer to "DTC U1000 CAN COMMUNICATION LINE" (EC section) for "ENGINE" and "DTC U1000 CAN COMMUNICATION LINE" (AT section) for "A/T".
NG	▶	Replace ECM and/or combination meter.



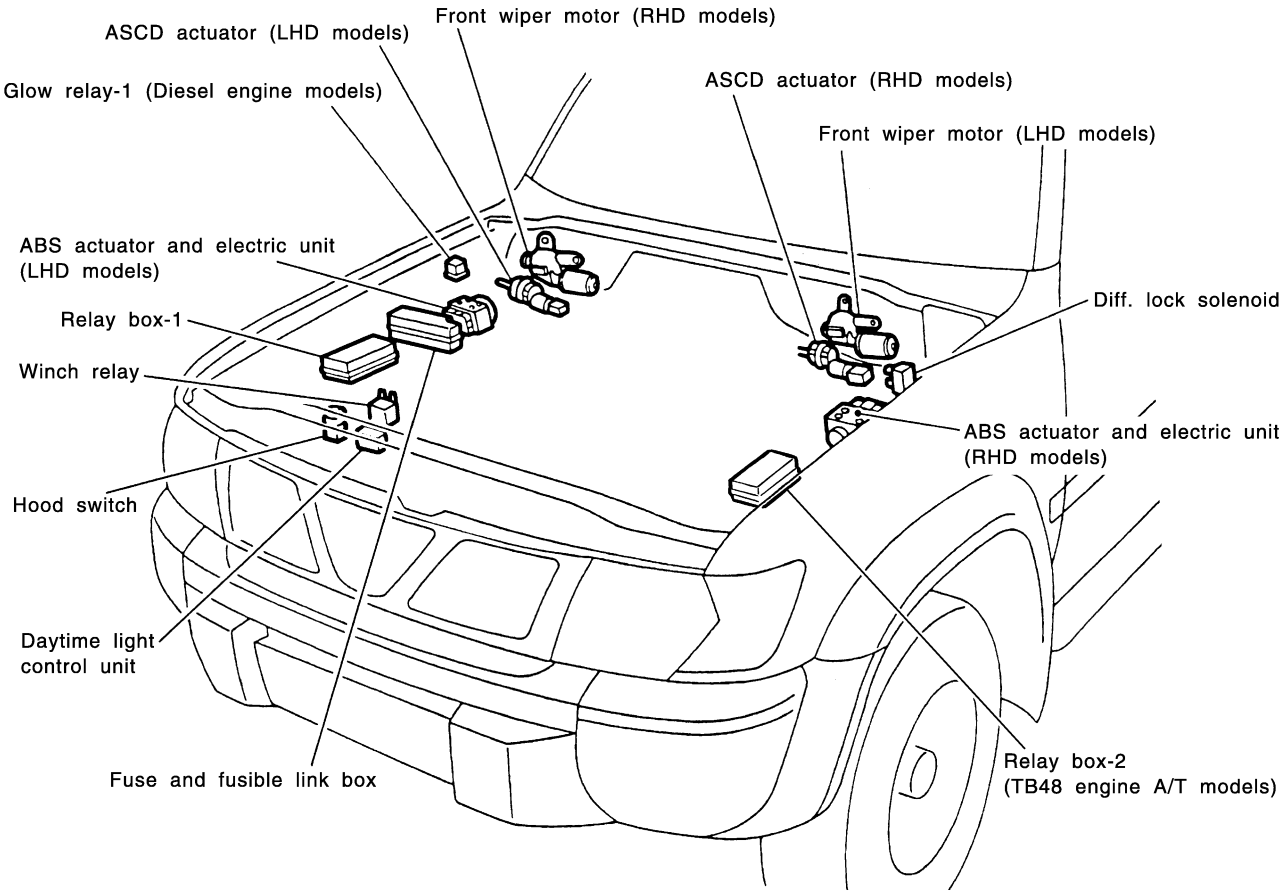
Component Inspection

ECM/COMBINATION METER INTERNAL CIRCUIT INSPECTION

- Remove ECM and combination meter from vehicle.
- Check resistance between ECM terminals 174 and 171.
- Check resistance between combination meter terminals 66 and 67.

Unit	Terminal	Resistance value (Ω)
ECM	174 - 171	Approx. 108 - 132
Combination meter	66 - 67	

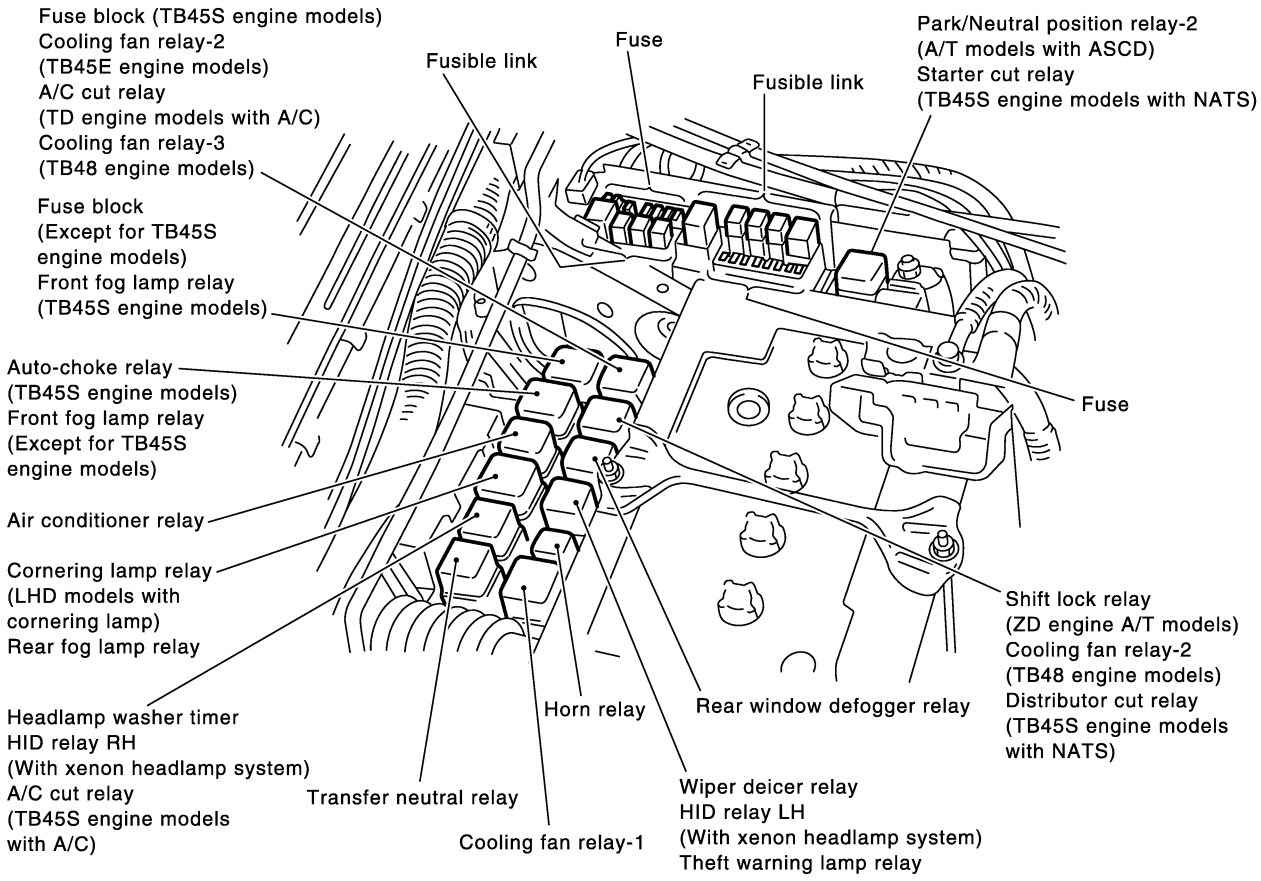
Engine Compartment



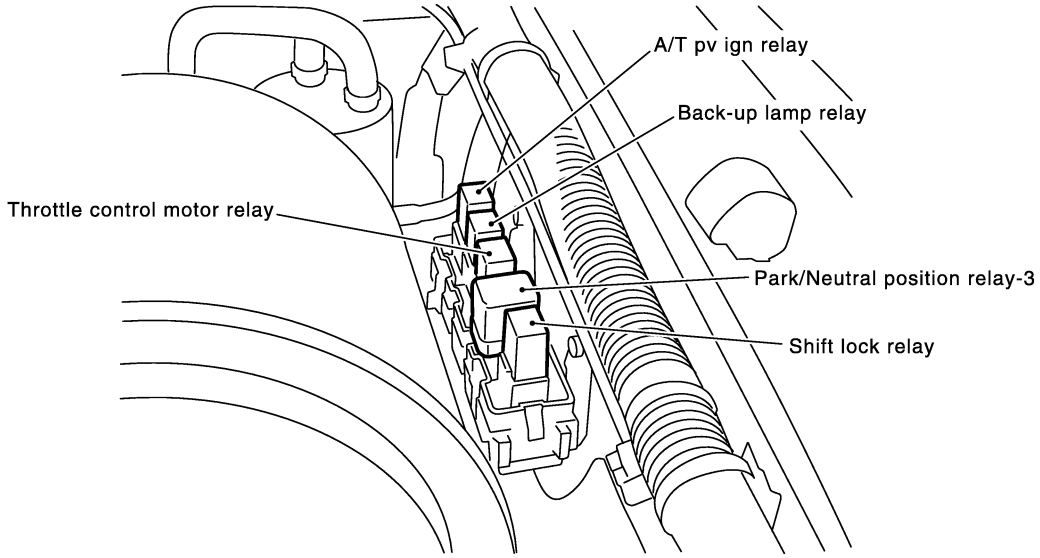
CEL449M

Engine Compartment (Cont'd)

Relay box-1 and Fuse and fusible link box

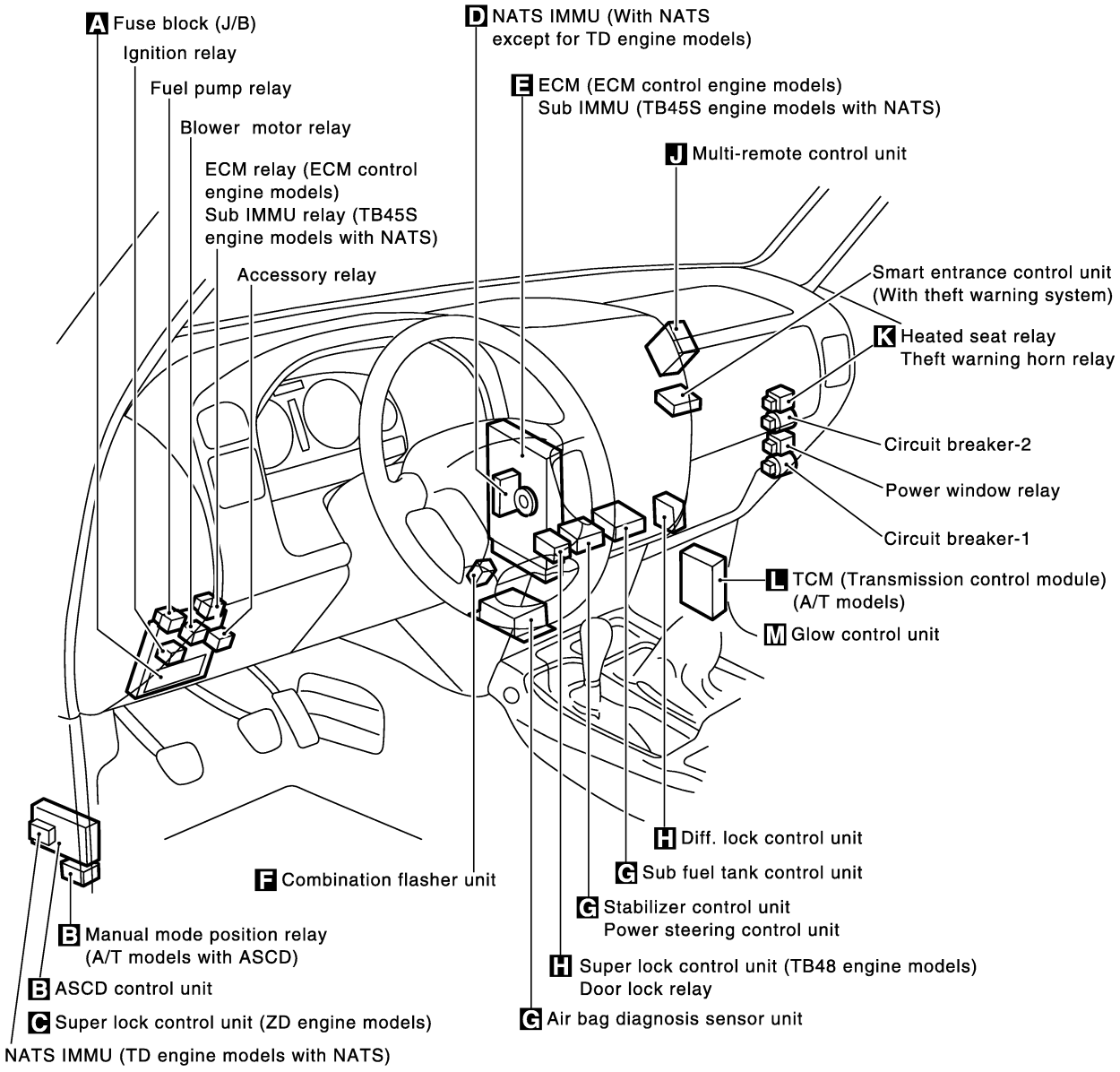


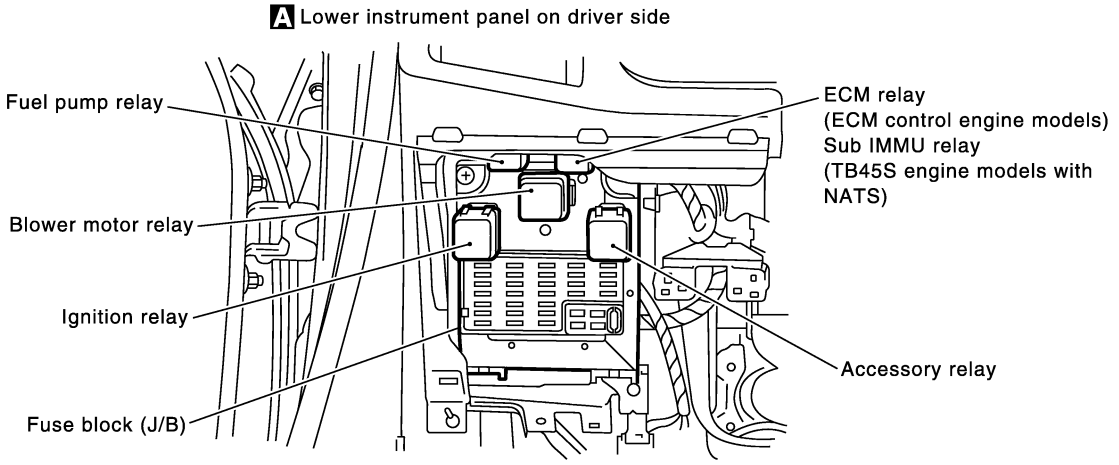
Relay box-2 (TB48 engine A/T models)



CEL450M

Passenger Compartment — LHD Models

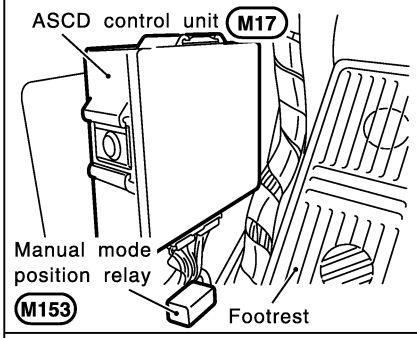




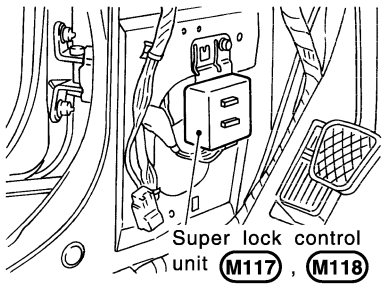
CEL451M

Passenger Compartment — LHD Models (Cont'd)

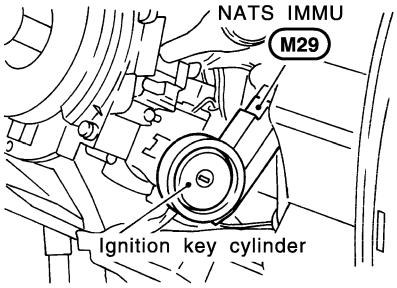
B Driver side view with dash side lower finisher removed



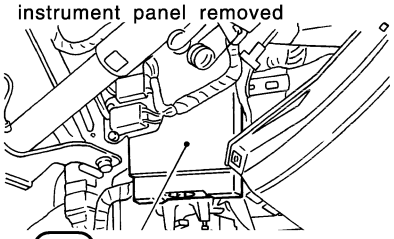
C Driver side view with dash side lower finisher removed



D With NATS except for TD engine models

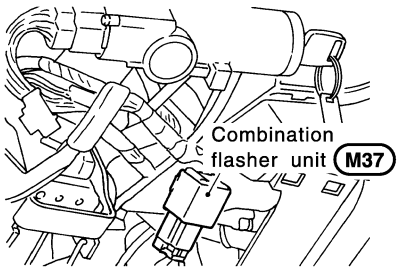


E Driver side view with lower instrument panel removed

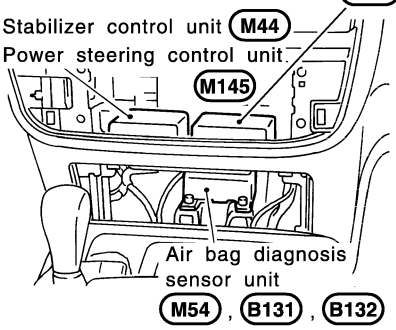


ECM F8 (TB45E, ZD engine models)
F38, F39 (TB48 engine models)
Sub IMMU M137 (TB45S engine models)

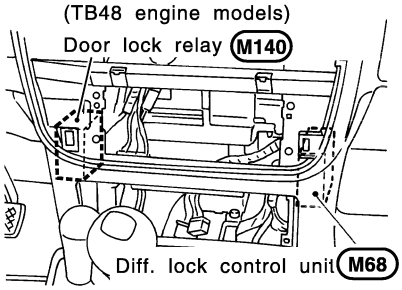
F Driver side view lower instrument panel removed



G Sub fuel tank control unit M69

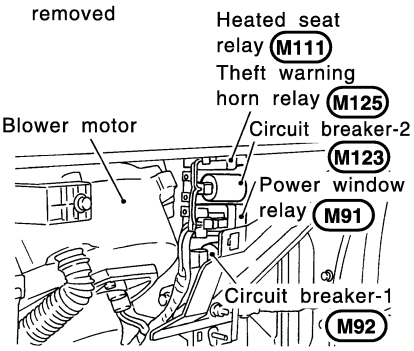


H Super lock control unit M117, M118 (TB48 engine models)

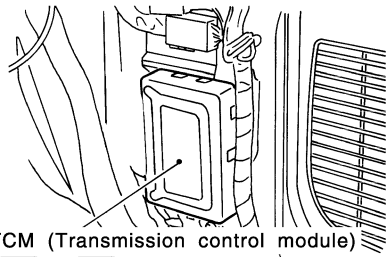


J View with glove box assembly removed

K View with glove box assembly removed

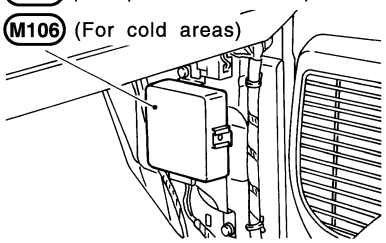


L Passenger side view with dash side lower finisher removed



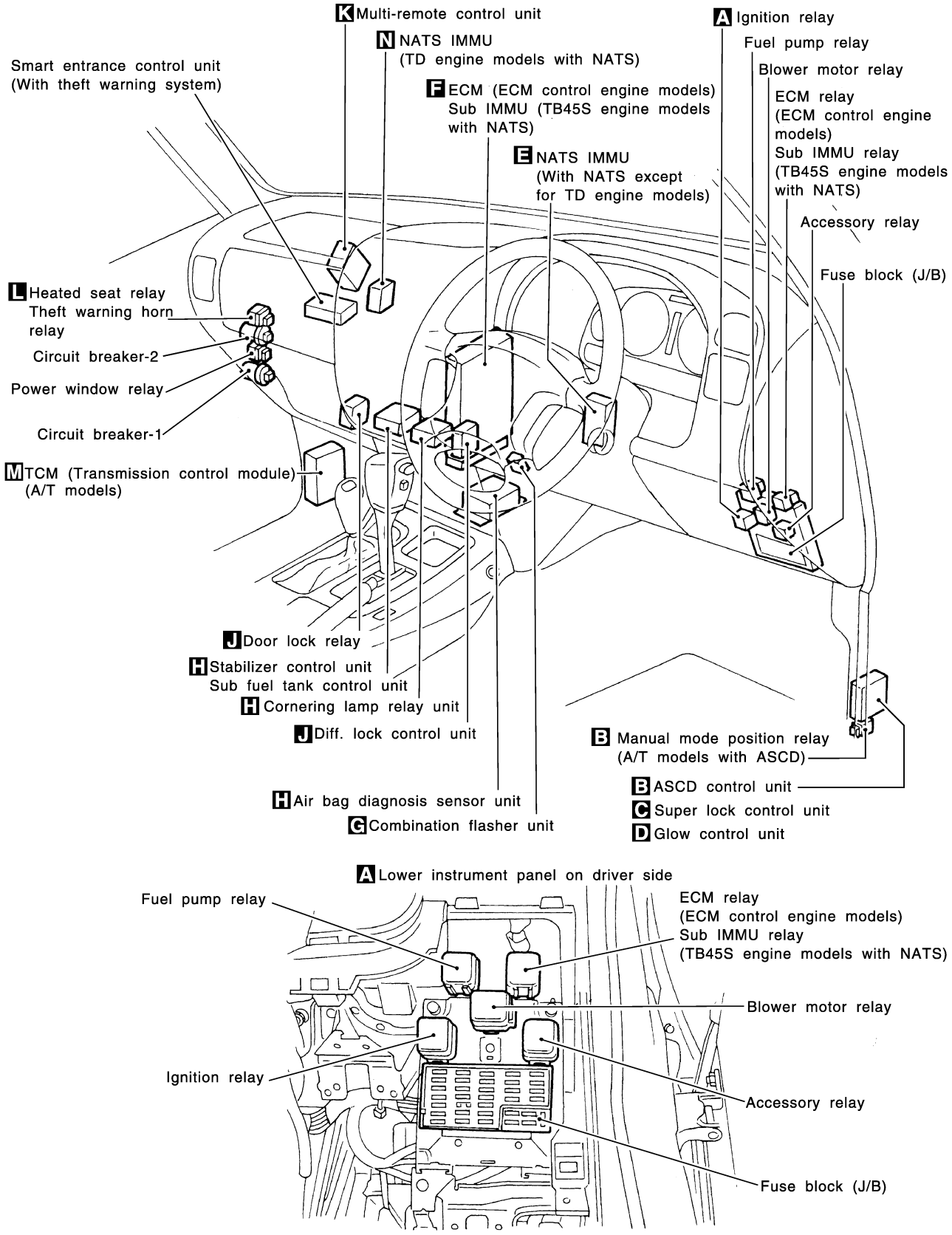
TCM (Transmission control module)
E101, E102 (ZD engine A/T models)
E123, E124 (TB48 engine A/T models)

M Passenger side view with dash side lower finisher removed



CEL452M

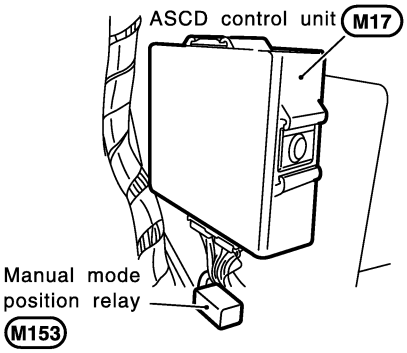
Passenger Compartment — RHD Models



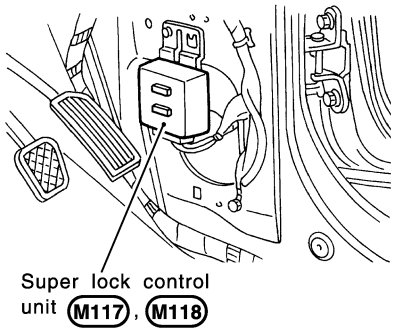
CEL453M

Passenger Compartment — RHD Models (Cont'd)

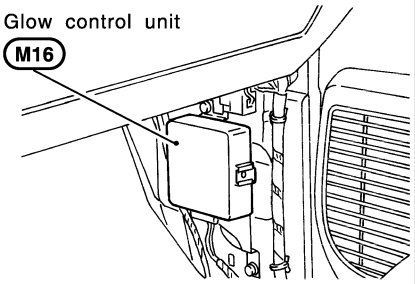
B Driver side view with dash side lower finisher removed



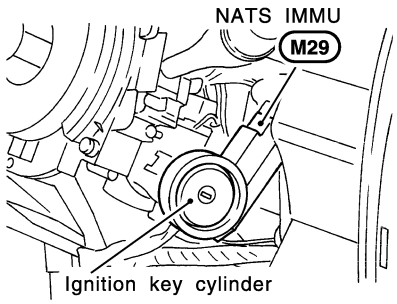
C Driver side view with dash side lower finisher removed



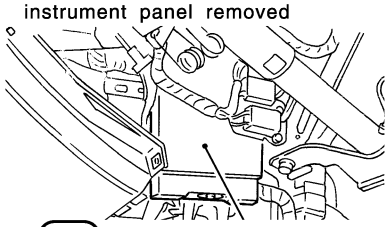
D Driver side view with dash side lower finisher removed



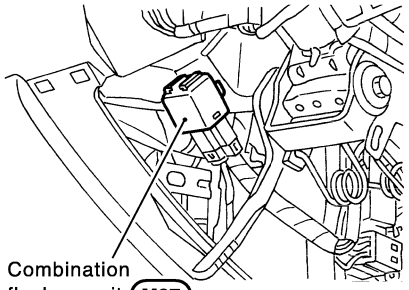
E With NATS except for TD engine models



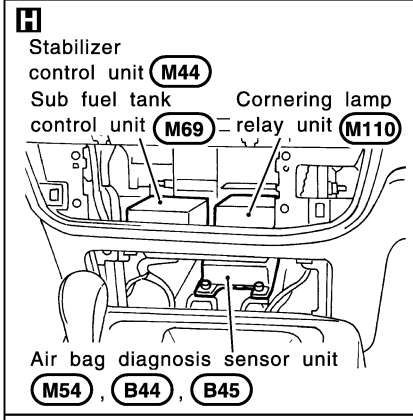
F Driver side view with lower instrument panel removed



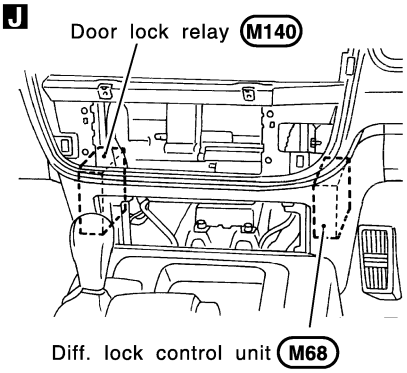
G Driver side view with lower instrument panel removed



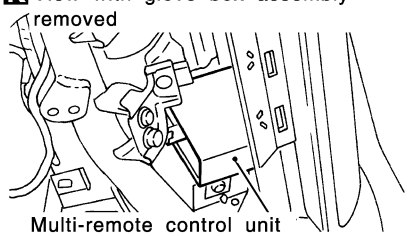
H



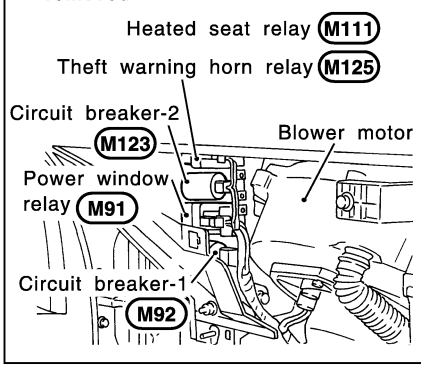
J



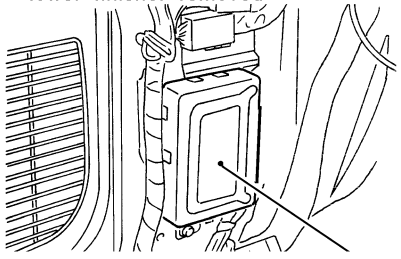
K View with glove box assembly removed



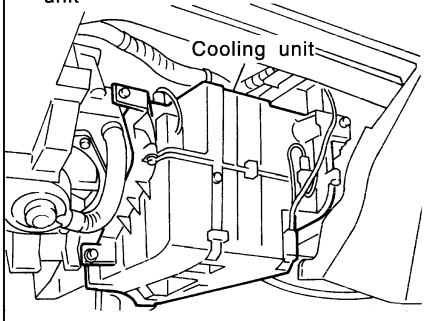
L View with glove box assembly removed



M Passenger side view with dash side lower finisher removed



N NATS IMMU locates behind cooling unit

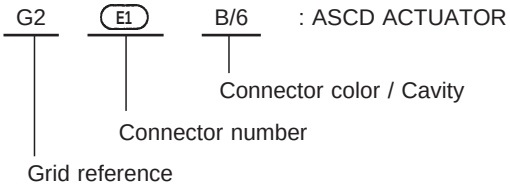


CEL454M

NOTE

How to Read Harness Layout

Example:



The following Harness Layouts use a map style grid to help locate connectors on the drawings:
- Main Harness
- Engine Room Harness (Engine Compartment)

To use the grid reference

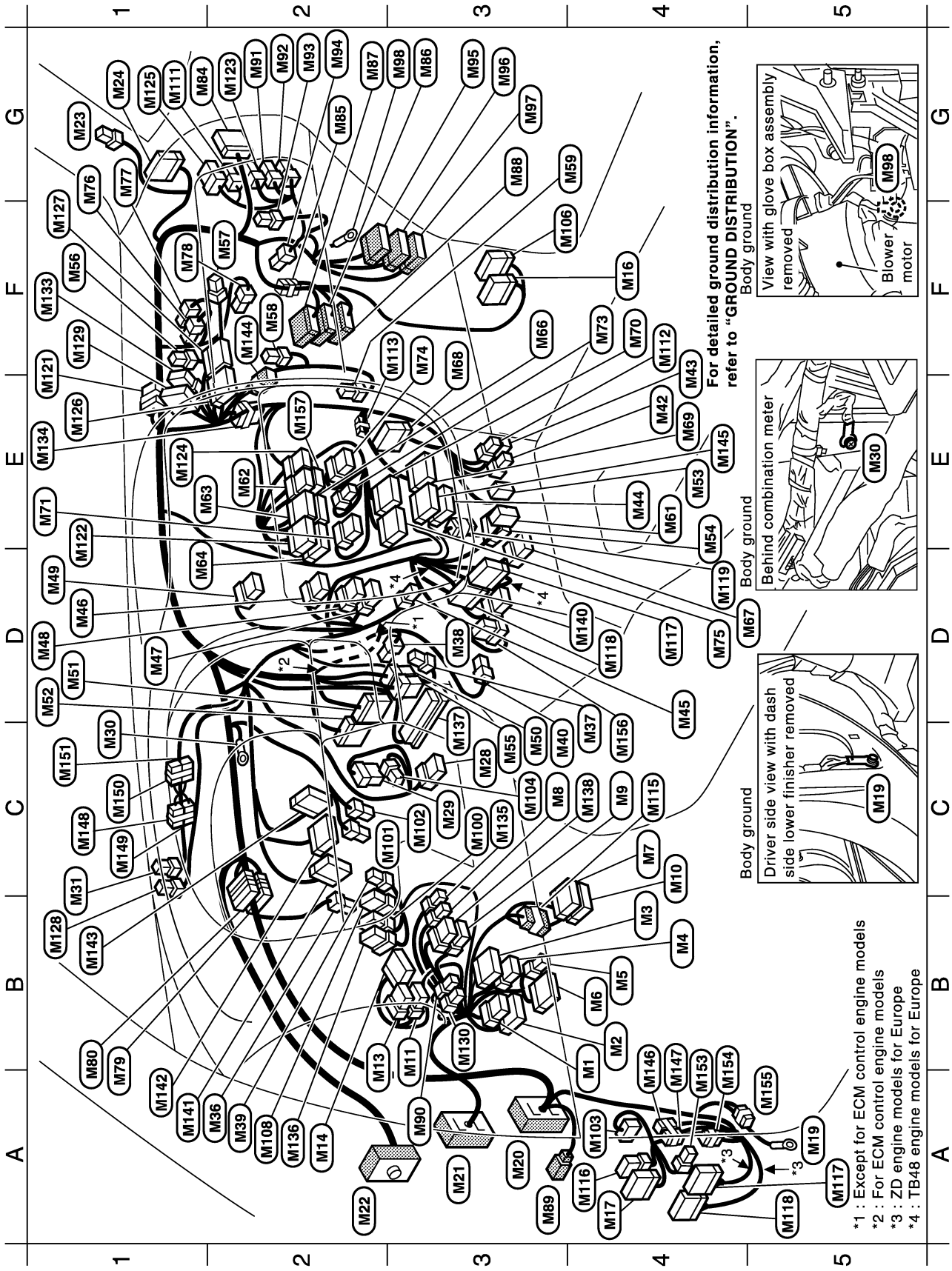
1) Find the desired connector number on the connector list.
2) Find the grid reference.
3) On the drawing, find the crossing of the grid reference letter column and number row.
4) Find the connector number in the crossing zone.
5) Follow the line (if used) to the connector.

CONNECTOR SYMBOL

Main symbols of connector (in Harness Layout) are indicated in the below.

Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
● Cavity: Less than 4 ● Relay connector				
● Cavity: From 5 to 8				
● Cavity: More than 9	—	—		
● Ground terminal etc.	—			

Main Harness/LHD Models



CEL455M

Main Harness/LHD Models (Cont'd)

B4	M1	W/8	: Fuse block (J/B)	E4	M54	Y/20	: Air bag diagnosis sensor unit
B4	M2	BR/16	: Fuse block (J/B)		M55	W/8	: To F35 (TB48 engine models for Europe)
B4	M3	GY/16	: Fuse block (J/B)	F1	M56	B/2	: Sunload sensor (With front auto A/C)
B4	M4	GY/8	: Fuse block (J/B)	F2	M57	Y/2	: Air bag module (Passenger side) (With dual air bag system)
B4	M5	B/2	: Fuse block (J/B)	F2	M58	W/2	: Intake sensor (With front auto A/C)
B4	M6	W/12	: Fuse block (J/B)	G3	M59	W/3	: Thermo control amp. (Except for the Middle East TB48 engine models with front auto A/C)
C4	M7	GY/14	: Data link connector (With CONSULT)	E4	M61	W/8	: Rear cooler front switch
C3	M8	L/4	: ECM relay (TB45E engine models)	E2	M62	W/6	: Radio and cassette player } (Except for Europe)
C4	M9	BR/6	: ECM relay (ZD engine models)	E1	M63	W/10	: Radio or radio and cassette player } (Except for Europe)
C4	M10	W/16	: Date link connector (With CONSULT-II)	D1	M64	W/12	: Radio and cassette player (With CD auto changer except for Europe)
B3	M11	W/8	: Headlamp aiming switch	F3	M66	W/16	: Radio and cassette player (For Europe)
B2	M13	W/6	: Heat up switch	D4	M67	BR/8	: Diff. lock switch
A2	M14	W/10	: Door mirror remote control switch	F3	M68	B/12	: Diff. lock control unit
F4	M16	W/12	: Glow control unit (TD engine models except for cold areas)	E4	M69	BR/16	: Sub fuel tank control unit
A4	M17	BR/24	: ASCD control unit	F4	M70	GY/16	: A/C auto amp. (With front auto A/C)
A5	M19	–	: Body ground	E1	M71	W/6	: Fan switch } (With front manual A/C)
A3	M20	SMJ	: To B19	F4	M73	W/3	: Fan switch illumination } (With front manual A/C)
A3	M21	SMJ	: To E127	F3	M74	W/8	: Recirculation switch, A/C switch (Via sub-harness) } (With front manual A/C)
A2	M22	SMJ	: To D1	D4	M75	GY/20	: A/C auto amp. } (With front auto A/C)
G1	M23	W/3	: Tweeter RH	G1	M76	W/4	: Intake door motor } (With front auto A/C)
G1	M24	W/10	: To R1	G1	M77	W/4	: Intake door motor (With front manual A/C)
	M28	Y/7	: Spiral cable	F1	M78	W/4	: Fan control amp. (With front auto A/C)
C3	M29	W/8	: NATS IMMU (With NATS except for TD engine models)	B1	M79	W/20	: Joint connector-1
C1	M30	–	: Body ground	B1	M80	B/12	: Joint connector-2
C1	M31	W/2	: Security indicator lamp (With NATS except for china and TB45S engine models with theft warning system)	G1	M84	W/18	: To D21
A1	M36	L/2	: ASCD clutch switch (M/T models with ASCD)	G2	M85	W/2	: Diode (With front manual A/C)
D4	M37	B/3	: Combination flasher unit	G3	M86	W/12	: To E104
D3	M38	W/3	: Mode door motor (With front auto A/C)	G2	M87	W/16	: To E105
A1	M39	W/3	: Illumination control switch	G3	M88	W/24	: To E106
D4	M40	W/3	: Air mix door motor (With front auto A/C)	A3	M89	BR/1	: To B58
E4	M42	B/2	: Cigarette lighter	A3	M90	L/4	: Fuel pump relay (TB48 and TB45E engine models)
F4	M43	B/2	: Front power socket	G2	M91	L/4	: Power window relay
E4	M44	W/12	: Stabilizer control unit	G2	M92	W/2	: Circuit breaker-1
D3	M45	W/2	: In-vehicle sensor (With front auto A/C)	G2	M93	BR/4	: Blower resistor (With front manual A/C)
D1	M46	W/6	: Rear window defogger switch	G2	M94	W/2	: Blower motor
D1	M47	BR/8	: Headlamp washer switch	G3	M95	W/10	: To B104
D1	M48	BR/6	: Sub fuel tank switch	G3	M96	W/16	: To B103
D1	M49	W/8	: Hazard switch	G3	M97	W/12	: To B102
D3	M50	W/6	: To F5 (TB48 engine models except for Europe. TB45E and ZD engine models)	G3	M98	–	: Body ground
D1	M51	W/16	: To F6	C3	M100	L/6	: Stabilizer switch
D1	M52	W/24	: To F7	C2	M101	B/2	: Stop lamp switch
E4	M53	W/8	: Rear heater front switch				

CEL456M

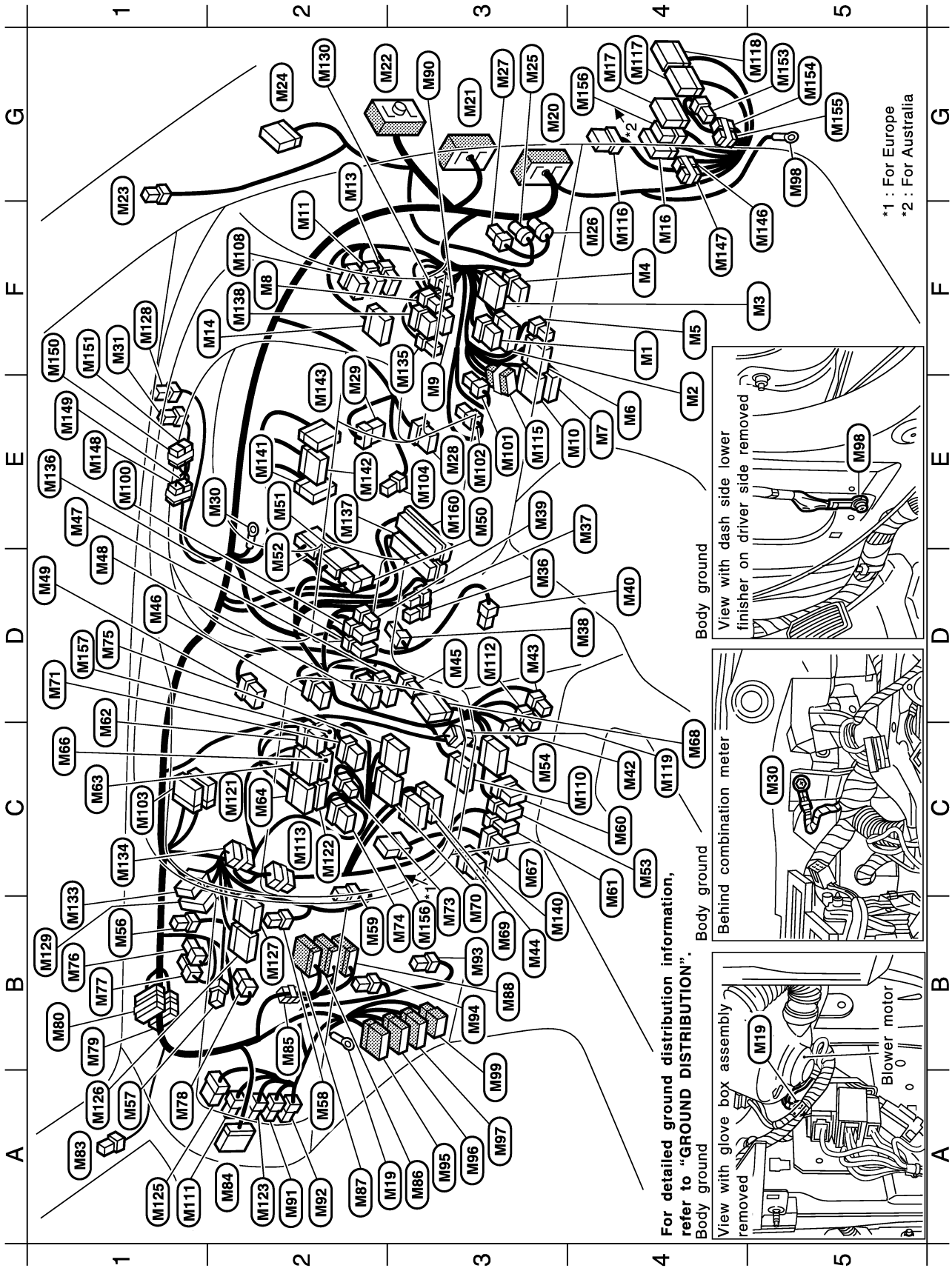
C3 (M102) L/2 : ASCD brake switch
A4 (M103) W/12 : NATS IMMU } (TD engine models with NATS)
C3 (M104) W/4 : NATS antenna amp. }
F3 (M106) W/16 : Glow control unit (TD engine models for cold areas)
A2 (M108) B/6 : Front fog lamp switch
G1 (M111) L/4 : Heated seat relay
E4 (M112) B/1 : Cigarette lighter illumination
F2 (M113) W/2 : Resistor (With diff lock)
C4 (M115) W/8 : Check connector } (TB45S engine models)
A4 (M116) W/6 : Fuel pump control module (FPCM) }
A5 (M117) GY/16 : Super lock control unit (ZD engine models for Europe)
D4 (M117) GY/16 : Super lock control unit (TB48 engine models for Europe)
A5 (M118) GY/20 : Super lock control unit (ZD engine models for Europe)
D4 (M118) GY/20 : Super lock control unit (TB48 engine models for Europe)
D3 (M119) W/3 : Jumping connector
E1 (M121) BR/8 : Not used
E1 (M122) W/16 : Radio and cassette player (With audio steering wheel switch except for Europe)
G2 (M123) W/2 : Circuit breaker-2
(M124) W/8 : Radio and cassette player (With audio steering wheel switch for Europe)
G1 (M125) BR/6 : Theft warning horn relay
E1 (M126) W/18 : Smart entrance control unit } (With theft warning system)
F1 (M127) B/24 : Smart entrance control unit }
B1 (M128) BR/2 : Security indicator lamp (For china and TB45S engine models with theft warning system)
F1 (M129) 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 } (For Europe)
E1 (M134) W/6 : Anti-theft unit (Opt) }
C3 (M135) L/4 : Sub IMMU relay (TB45S engine models with NATS)
A2 (M139) W/6 : Door lock and unlock switch
C3 (M137) SMJ : Sub IMMU (TB45S engine models with NATS)
C4 (M138) BR/6 : ECM Relay (TB48 engine models)
D3 (M140) W/6 : Door lock relay
A1 (M141) W/24 : Combination meter
A1 (M142) BR/20 : Combination meter
B1 (M143) BR/24 : Combination meter
F2 (M144) BR/2 : Not used
E4 (M145) B/12 : Power steering control unit
A4 (M146) W/2 : Diode } (TB45S engine models)
A4 (M147) W/2 : Diode }
C1 (M148) W/2 : Resistor (TD engine models with theft warning system)

C1 (M149) W/2 : Resistor }
C1 (M150) W/2 : Resistor } (TD engine models with theft warning system)
C1 (M151) W/2 : Resistor }
A4 (M153) L/4 : Manual mode position relay } (A/T models with ASCD)
A4 (M154) W/2 : Diode
A4 (M155) W/2 : Diode (TB48 engine A/T models)
(M156) W/4 : Resistor (ZD engine models for Europe)
E2 (M157) W/4 : CD auto changer (Cluster lid) (Via sub-harness (Located in the cluster lid)

CEL457M

NOTE

Main Harness/RHD Models



CEL458M

Main Harness/RHD Models (Cont'd)

F4 (M1) W/8 : Fuse block (J/B)
E4 (M2) BR/16 : Fuse block (J/B)
F4 (M3) GY/16 : Fuse block (J/B)
F4 (M4) GY/8 : Fuse block (J/B)
F4 (M5) B/2 : Fuse block (J/B)
E4 (M6) W/12 : Fuse block (J/B)
E3 (M7) GY/14 : Data link connector (With CONSULT)
(M8) L/4 : ECM relay (TD42Ti engine models)
G2 (M9) BR/6 : ECM relay (ZD engine models)
E4 (M10) W/16 : Data link connector (With CONSULT-II)
D4 (M11) W/8 : Headlamp aiming switch
G2 (M13) W/6 : Heat up switch
F1 (M14) W/10 : Door mirror remote control switch
G4 (M16) W/12 : Glow control unit
G4 (M17) BR/24 : ASCD control unit
A2 (M19) – : Body ground
G3 (M20) SMJ : To (B19)
G3 (M21) SMJ : To (E127)
G2 (M22) SMJ : To (D1)
G1 (M23) W/3 : Tweeter RH
G2 (M24) W/10 : To (R1)
G3 (M25) BR/3 : Accelerator position sensor
F5 (M26) GY/3 : Accelerator position switch
G3 (M27) W/3 : Accelerator switch (F/C)
E3 (M28) Y/7 : Spiral cable
E2 (M29) W/8 : NATS IMMU (With NATS except for TD engine models)
E2 (M30) – : Body ground
E1 (M31) W/2 : Security indicator lamp (With NATS except for TB45S engine models with theft warning system)
D3 (M36) L/2 : ASCD clutch switch (M/T models with ASCD)
E3 (M37) B/3 : Combination flasher unit
D3 (M38) W/3 : Mode door motor (With front auto A/C)
E3 (M39) W/3 : Illumination control switch
D4 (M40) W/3 : Air mix door motor (With front auto A/C)
C4 (M42) B/2 : Cigarette lighter
(M43) B/2 : Front power socket
C4 (M44) W/12 : Stabilizer control unit
(M45) W/2 : In-vehicle sensor (With front auto A/C)

D1 (M46) W/6 : Rear window defogger switch
E1 (M47) BR/8 : Headlamp washer switch
D1 (M48) BR/6 : Sub fuel tank switch
D1 (M49) W/8 : Hazard switch
E2 (M50) W/6 : To (F5)
D2 (M51) W/16 : To (F6)
E2 (M52) W/24 : To (F7)
C1 (M53) W/8 : Rear heater front switch
C3 (M54) Y/20 : Air bag diagnosis sensor unit
B1 (M56) B/2 : Sunload sensor (With front auto A/C)
A1 (M57) Y/2 : Air bag module (Passenger side) (With dual air bag system)
B2 (M58) W/2 : Intake sensor (With front auto A/C)
B2 (M59) W/3 : Thermo control amp.
C2 (M60) L/6 : Power antenna switch
(M61) W/8 : Rear cooler front switch
D1 (M62) W/6 : Radio and cassette player } (Except for Europe)
C1 (M63) W/10 : Radio or radio and cassette player }
C2 (M64) W/12 : Radio and cassette player (With CD auto changer)
D1 (M66) W/16 : Radio and cassette player (For Europe)
C4 (M67) BR/8 : Diff. lock switch
B3 (M68) B/12 : Diff. lock control unit
(M69) BR/16 : Sub fuel tank control unit
C3 (M70) GY/16 : A/C auto amp. (With front auto A/C)
D1 (M71) W/6 : Fan switch } (With front manual A/C)
C3 (M73) W/3 : Fan switch illumination }
B3 (M74) W/8 : Recirculation switch }
D1 (M75) GY/20 : A/C auto amp. } (With front auto A/C)
B1 (M76) W/4 : Intake door motor }
B1 (M77) W/4 : Intake door motor (With front manual A/C)
A1 (M78) W/4 : Fan control amp. (With front auto A/C)
B1 (M79) W/20 : Joint connector-1
B1 (M80) B/12 : Joint connector-2
A1 (M83) W/3 : Tweeter LH
A2 (M84) W/18 : To (D21)
A1 (M85) W/2 : Diode (With front manual A/C)
A3 (M86) BR/16 : To (E104)
A2 (M87) W/16 : To (E105)
B3 (M88) W/24 : To (E106)
(M90) L/4 : Fuel pump relay (TB48 engine models)
A2 (M91) L/4 : Power window relay
A2 (M92) W/2 : Circuit breaker-1
B3 (M93) BR/4 : Blower resistor (With front manual A/C)

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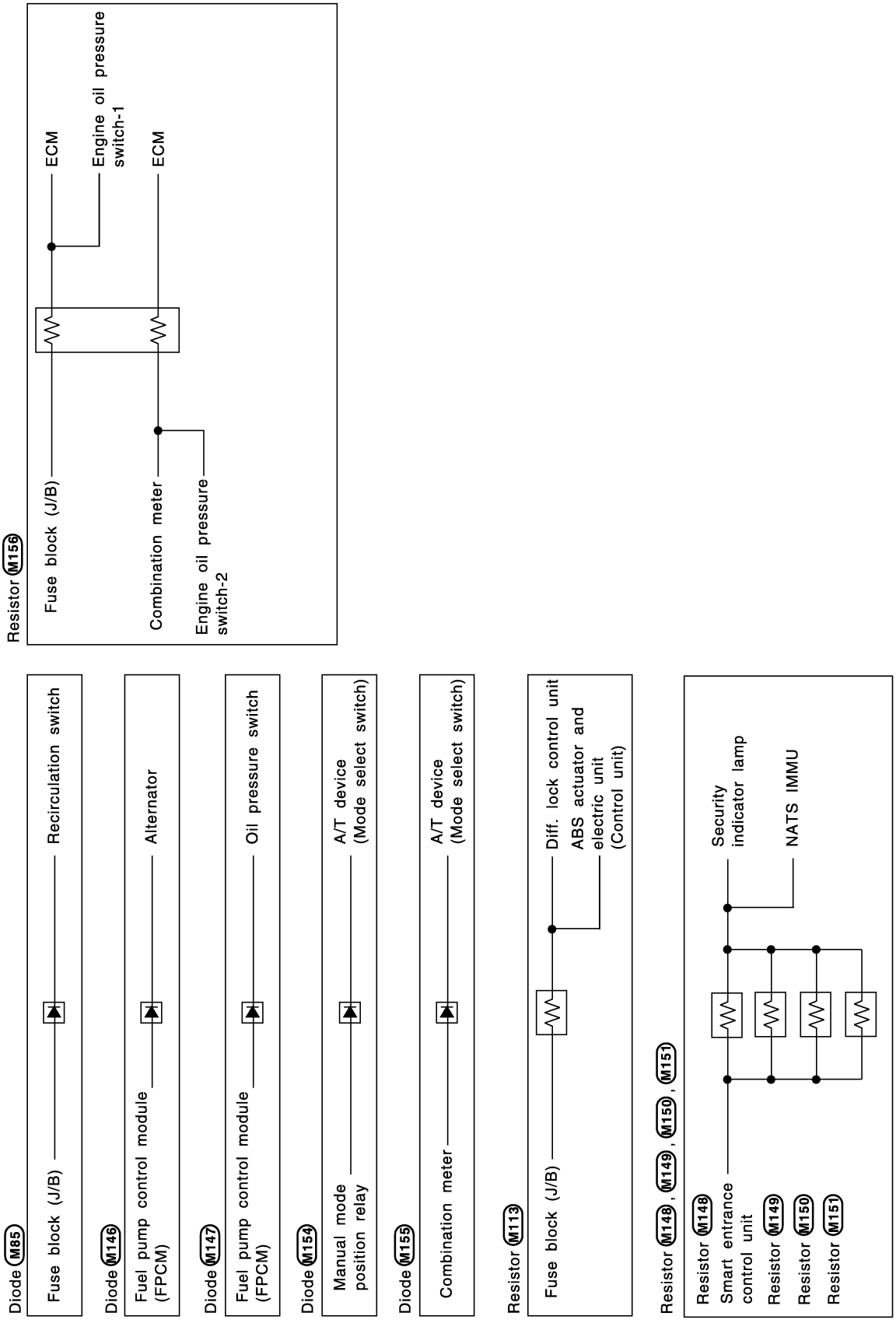
Main Harness/RHD Models (Cont'd)

B3	M94	W/2	: Blower motor	G4	M146	W/2	: Diode } (TB45S engine models)
A3	M95	W/16	: To B101	F4	M147	W/2	: Diode
A3	M96	W/20	: To B102	E1	M148	W/2	: Resistor } (TD engine models with theft warning system)
A3	M97	W/16	: To B103	E1	M149	W/2	: Resistor
G5	M98	–	: Body ground	F1	M150	W/2	: Resistor
B3	M99	W/6	: To B104	F1	M151	W/2	: Resistor
E1	M100	L/6	: Stabilizer switch	G5	M153	L/4	: Manual mode position relay } (A/T models with ASCD)
E3	M101	B/2	: Stop lamp switch	G5	M154	W/2	: Diode
E3	M102	L/2	: ASCD brake switch	G5	M155	W/2	: Diode (TB48 engine A/T models)
C1	M103	W/12	: NATS IMMU } (TD engine models with NATS)	B3,G4	M156	W/4	: Resistor (ZD engine models for Europe and Australia)
E2	M104	W/4	: NATS antenna amp.		M157	W/4	: CD auto changer (Cluster lid) (Via sub-harness) (Located in the cluster lid)
F2	M108	B/6	: Front fog lamp switch				
C3	M110	W/10	: Cornering lamp relay unit		M160	SMJ	: ECM (TD42Ti engine models)
A1	M111	L/4	: Heated seat relay				
D4	M112	B/1	: Cigarette lighter illumination				
B2	M113	W/2	: Resistor (With diff. lock)				
E3	M115	W/8	: Check connector				
G4	M116	W/6	: Fuel pump control module (FPCM) } (TB45S engine models)				
G4	M117	GY/16	: Super lock control unit				
G4	M118	GY/20	: Super lock control unit				
C4	M119	W/3	: Jumping connector				
C2	M121	BR/8	: Dongle unit				
C2	M122	W/16	: Radio and cassette player (With audio steering wheel switch)				
A2	M123	W/2	: Circuit breaker-2				
A1	M125	BR/6	: Theft warning horn relay				
A1	M126	W/18	: Smart entrance control unit } (With theft warning system)				
B2	M127	B/24	: Smart entrance control unit				
F1	M128	BR/2	: Security indicator lamp (TB45S engine models with theft warning system)				
B2	M129	W/16	: Multi-remote control unit (Except for Europe and with theft warning system)				
G2	M130	L/4	: Fuel pump relay (TB45S engine models)				
B1	M133	BR/8	: Multi-remote control unit (For Europe)				
C1	M134	W/6	: Anti-theft unit (Opt)				
F3	M135	L/4	: Sub IMMU relay (TB45S engine models with NATS)				
E1	M136	W/6	: Door lock and unlock switch				
E3	M137	SMJ	: Sub IMMU (TB45S engine models with NATS)				
F2	M138	BR/6	: ECM relay (TB48 engine models)				
	M140	W/6	: Door lock relay				
E2	M141	W/24	: Combination meter				
E2	M142	BR/20	: Combination meter				
F2	M143	BR/24	: Combination meter				

CEL460M

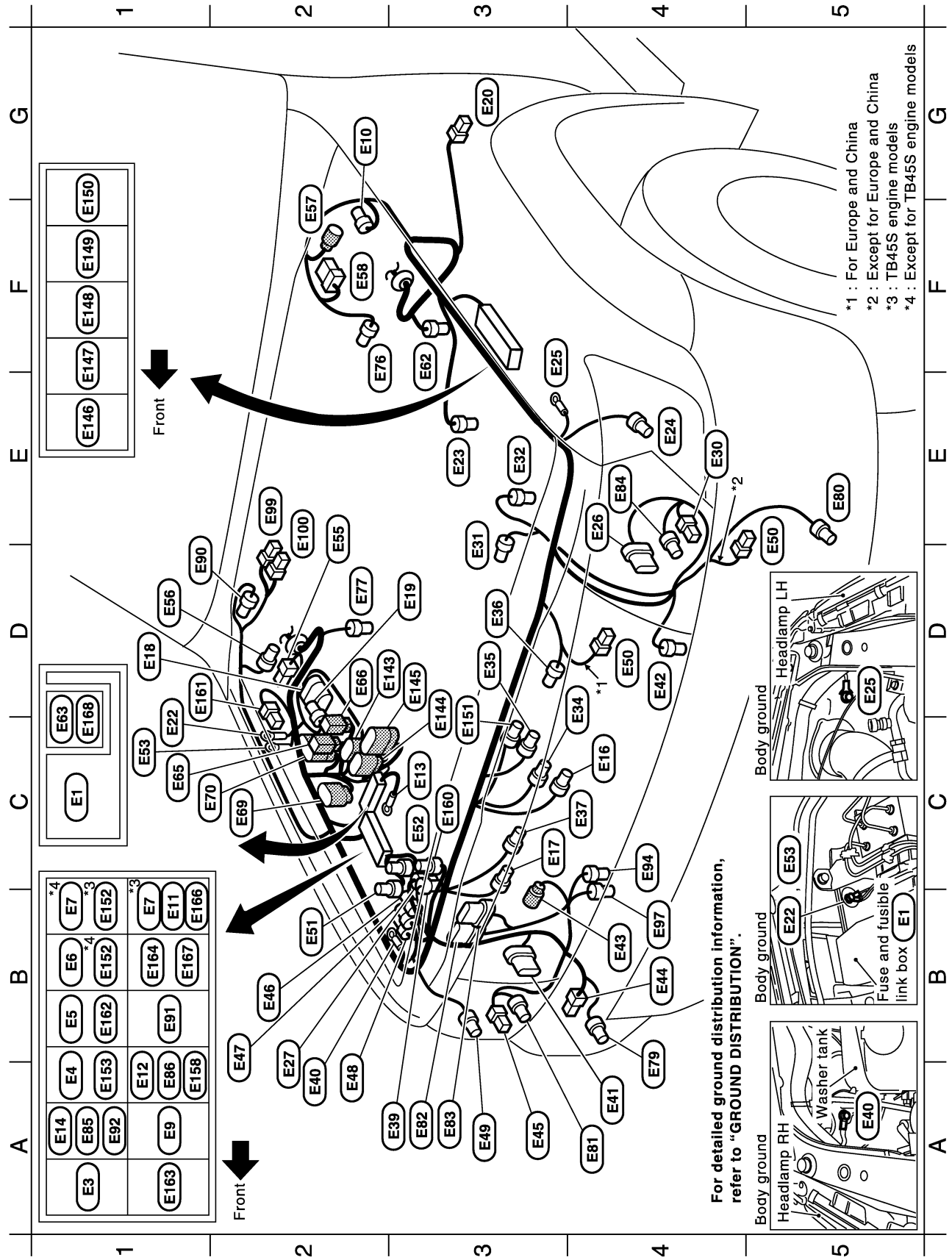
Main Harness/RHD Models (Cont'd)



CEL461M

Engine Room Harness/LHD Models

GASOLINE ENGINE MODELS



CEL462M

Engine Room Harness/LHD Models (Cont'd)

C1 E1 – : Fuse and fusible link box
A1 E3 GY/6 : Transfer neutral relay
A1 E4 L/4 : Cornering lamp relay
B1 E5 BR/6 : Air conditioner relay
B1 E6 GY/6 : Auto-choke relay } (TB45S engine models)
B1 E7 – : Fuse block
A1 E9 W/3 : Horn relay
G2 E10 SB/4 : Diff lock solenoid
B1 E11 L/4 : Cooling fan relay-2 (TB45E engine models)
A1 E12 L/4 : Wiper deicer relay
C3 E13 – : Battery (+)
A1 E14 BR/6 : Headlamp washer timer
C4 E16 B/2 : Ambient sensor (TB48 engine models with front auto A/C)
C3 E17 GY/4 : Cooling fan motor-2 (TB48 engine models)
D1 E18 SMJ : ABS actuator and electric unit
D3 E19 GY/3 : Power antenna
G3 E20 B/2 : Side turn signal lamp LH
C1 E22 – : Body ground (With ABS)
E3 E23 GY/2 : Ignition coil (TB45S engine models)
E4 E24 SB/4 : Front combination lamp LH
E3 E25 – : Body ground
D4 E26 SB/6 : Headlamp aiming motor LH
E27 B/3 : Refrigerant pressure sensor (TB48 engine models for Europe)
E4 E30 B/3 : Headlamp LH (Without xenon headlamp system)
D3 E31 SB/4 : Distributor } (TB45S engine models)
E3 E32 B/1 : Compressor }
C4 E34 B/2 : Ambient air temperature sensor (With compass and thermometer)
D3 E35 B/2 : Ambient sensor (TB45S engine models with front auto A/C)
D3 E36 GY/4 : Cooling fan motor-1
C4 E37 GY/2 : Cooling fan motor-2 (TB45E engine models)
A2 E39 B/2 : Duel-pressure switch (Except for TB48 engine models for Europe)
A2 E40 – : Body ground
A4 E41 SB/6 : Headlamp aiming motor RH
D4 E42 GY/2 : Engine coolant temperature switch-2 (TB45S engine models with A/C)
B4 E43 GY/2 : To E181 (With electrical winch)
B4 E44 B/1 : Horn low
A3 E45 B/3 : Headlamp RH (Without xenon headlamp system)
B2 E46 GY/2 : Front washer motor
A2 E47 BR/2 : Rear washer motor
E48 GY/2 : Headlamp washer motor
A3 E49 SB/4 : Front combination lamp RH

D4,D5 E50 B/1 : Horn high
B2 E51 BR/2 : Park/Neutral position relay-1 } (TB48 engine A/T models and TB45S engine models with NATS)
C3 E52 BR/2 : Park/Neutral position relay-1 }
C1 E53 – : Body ground
D2 E55 B/2 : Side turn signal lamp RH
D1 E56 GY/4 : ASCD pump
E57 B/2 : Wiper deicer
F2 E58 W/6 : Front wiper motor
F3 E62 BR/2 : Front wheel sensor LH (With ABS)
C1 E63 B/5 : Park/Neutral position relay-2 (A/T models with ASCD)
C1 E65 B/2 : To E204 (TB48 and TB45E engine models)
C3 E66 L/2 : To E203
C2 E69 GY/8 : To E202
C1 E70 GY/10 : To E201
E2 E76 GY/2 : Brake fluid level switch
D2 E77 GY/2 : Front wheel sensor RH (With ABS)
B4 E79 BR/2 : Front fog lamp RH
E5 E80 BR/2 : Front fog lamp LH
A3 E81 GY/3 : Headlamp RH (With xenon headlamp system)
E82 GY/8 : Daytime light control unit
E83 GY/6 : Daytime light control unit
E4 E84 GY/3 : Headlamp LH } (With xenon headlamp system)
A1 E85 L/4 : HID relay RH }
A1 E86 L/4 : HID relay LH
D1 E90 GY/2 : Cool box solenoid valve (For the Middle East TB48 and TB45E engine models with cool box)
B1 E91 BR/6 : Rear window defogger relay
A1 E92 B/5 : A/C cut relay } (TB45S engine models with A/C)
B4 E94 GY/2 : Engine coolant temperature switch-1 }
B4 E97 GY/2 : Engine coolant temperature switch (Rear cooler) (TB45E engine models with rear cooler)
D2 E99 B/1 : ISC-FI POT control solenoid valve } (TB45S engine models with A/C)
D2 E100 B/1 : ISC-FI POT control solenoid valve }
D3 E143 GY/8 : To E233
C3 E144 BR/8 : To E234
C3 E145 GY/10 : To E236
E1 E146 B/5 : Shift lock relay
E1 E147 BR/6 : Park/Neutral position relay-3 } (A/T models)
F1 E148 L/4 : Throttle control motor relay
F1 E149 L/4 : Back-up lamp relay
F1 E150 L/4 : A/T pv ign relay

CEL463M

C3	E151	BR/2	:	Ambient air temperature switch (TB48 engine models with front manual A/C and TB45E engine models with rear cooler)
B1	E152	L/4	:	Front fog lamp relay
A1	E153	L/4	:	Rear fog lamp relay
A1	E158	BR/6	:	Theft warning lamp relay
C3	E160	GY/2	:	Hood switch
D1	E161	B/1	:	Theft warning horn
B1	E162	L/4	:	Air conditioner relay (TB48 and TB45E engine models)
A1	E163	BR/6	:	Cooling fan relay-1
B1	E164	BR/6	:	Cooling fan relay-2 } (TB48 engine models)
B1	E166	BR/6	:	Cooling fan relay-3
B1	E167	L/4	:	Distributor cut relay } (TB45S engine models with NATS)
C1	E168	B/5	:	Starter cut relay

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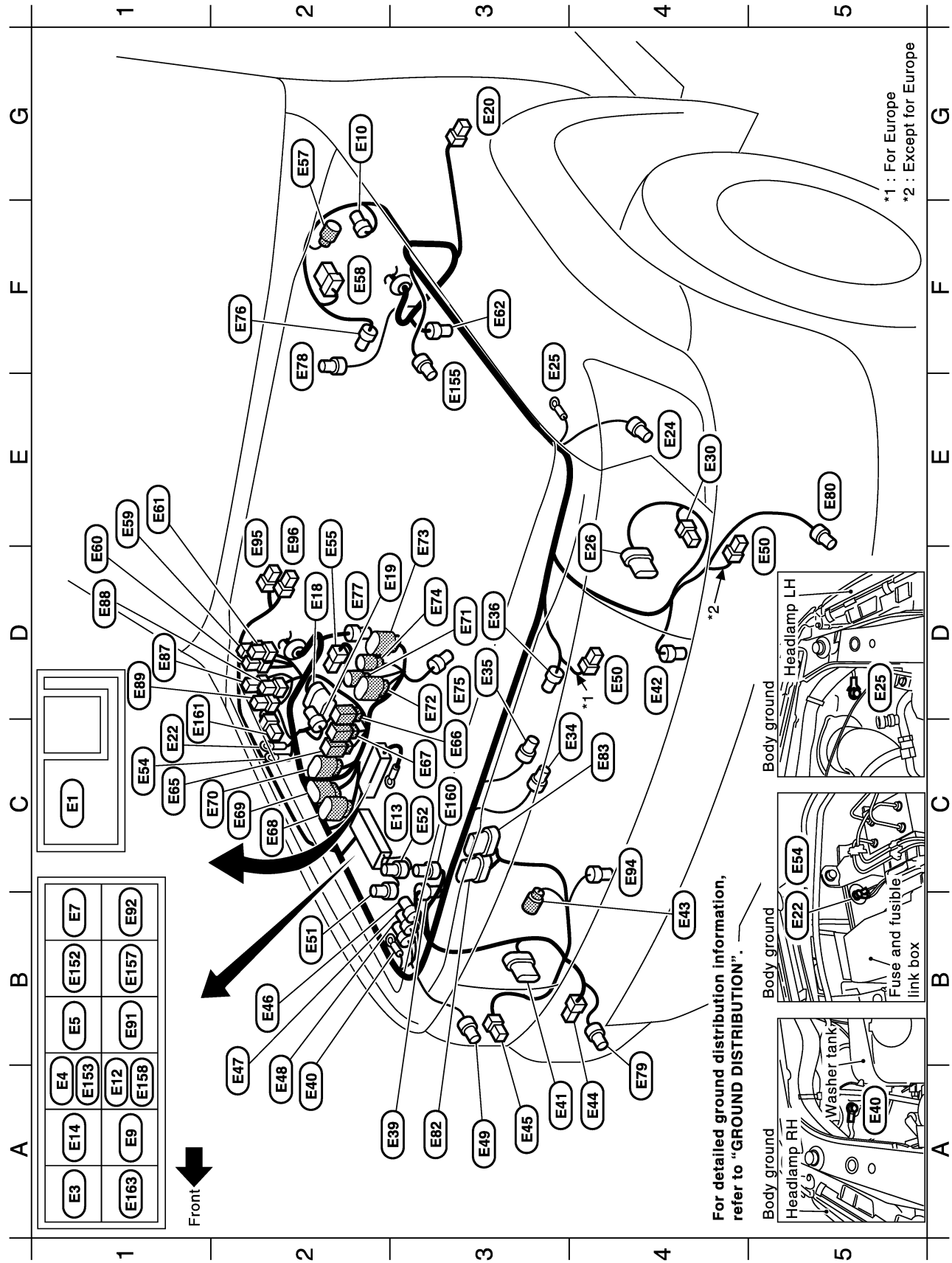
NOTE

Engine Room Harness/LHD Models (Cont'd)

DIESEL ENGINE MODELS



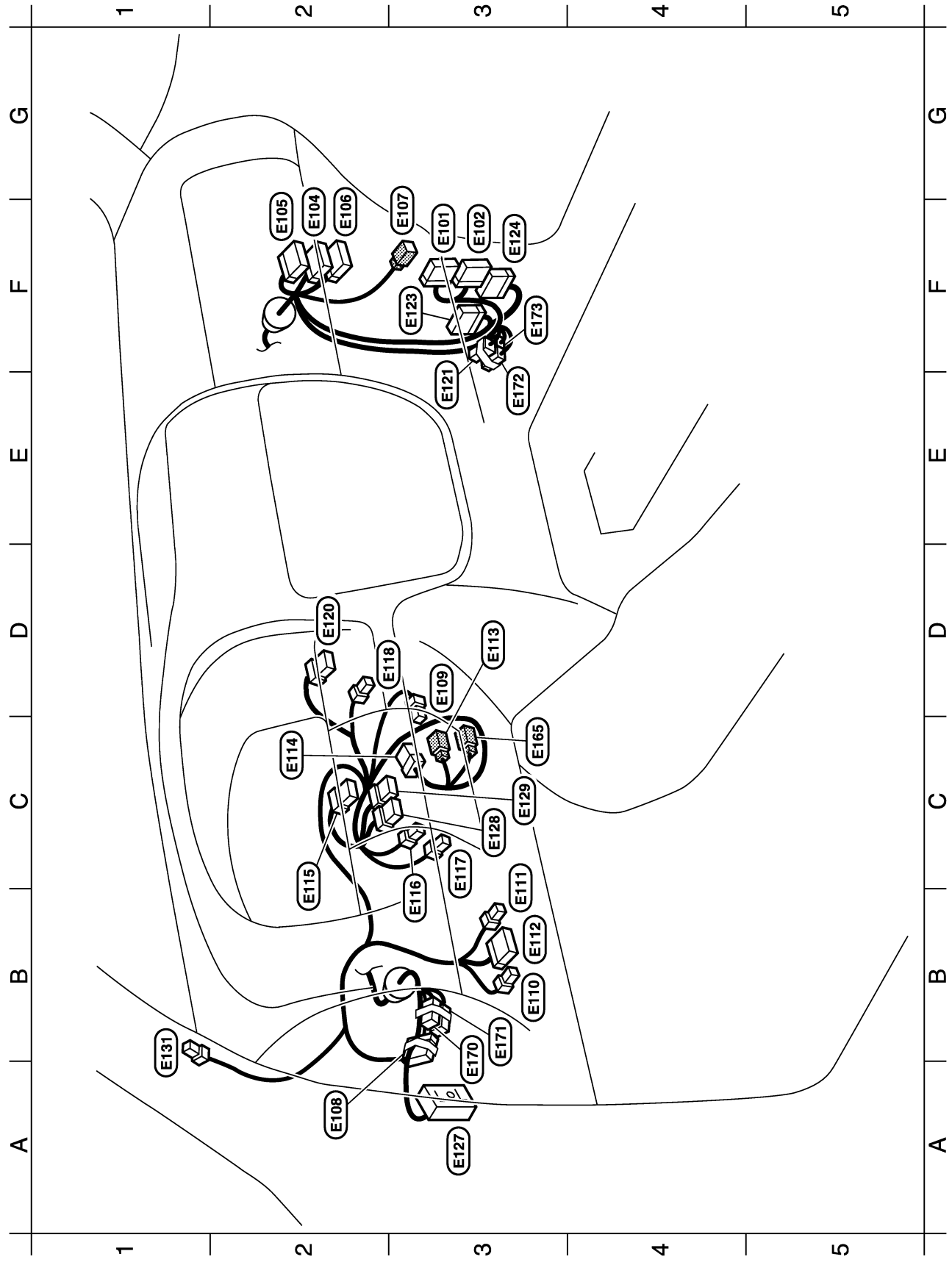
CEL464M

Engine Room Harness/LHD Models (Cont'd)

C1	E1	–	: Fuse and fusible link box	E1	E61	W/1	: Glow relay-1	
A1	E3	GY/6	: Transfer neutral relay	F3	E62	BR/2	: Front wheel sensor LH (With ABS)	
A1	E4	L/4	: Cornering lamp relay	C1	E65	B/2	: To E204	
B1	E5	BR/6	: Air conditioner relay	C3	E66	L/2	: To E203	
B1	E7	–	: Fuse block	C3	E67	R/2	: To E223	
A1	E9	W/3	: Horn relay	C2	E68	SB/8	: To E222 (TD engine models)	
G2	E10	SB/4	: Diff. lock solenoid	C2	E69	GY/8	: To E202	
A1	E12	L/4	: Wiper deicer relay	C2	E70	GY/10	: To E201	
C2	E13	–	: Battery (+)	D3	E71	GY/3	: Revolution sensor	(A/T models)
A1	E14	BR/6	: Headlamp washer timer	D3	E72	BR/8	: A/T solenoid valve	
D2	E18	SMJ	: ABS actuator and electric unit	D3	E73	GY/8	: Park/Neutral position switch	
D3	E19	GY/3	: Power antenna	D3	E74	GY/2	: Park/Neutral position switch	
G3	E20	B/2	: Side turn signal lamp LH	D3	E75	BR/2	: Fuel filter switch (Except for Europe)	
C1	E22	–	: Body ground (With ABS)	F2	E76	GY/2	: Brake fluid level switch	
E4	E24	SB/4	: Front combination lamp LH	D2	E77	GY/2	: Front wheel sensor RH (With ABS)	
F3	E25	–	: Body ground	F2	E78	GY/2	: Dropping resistor (A/T models)	
D4	E26	SB/6	: Headlamp aiming motor LH	C4	E79	BR/2	: Front fog lamp RH	
E4	E30	B/3	: Headlamp LH	D4	E80	BR/2	: Front fog lamp LH	
C3	E34	B/2	: Ambient air temperature sensor (With compass and thermometer)	A3	E82	GY/8	: Daytime light control unit	
D3	E35	B/2	: Ambient sensor (With front auto A/C)	C4	E83	GY/6	: Daytime light control unit	
D3	E36	GY/4	: Cooling fan motor-1	D1	E87	G/2	: Grow relay-2	(TD engine models for cold areas)
A2	E39	B/2	: Dual-pressure switch	D1	E88	W/1	: Grow relay-2	
A2	E40	–	: Body ground	D1	E89	W/1	: Grow relay-2	
A4	E41	SB/6	: Headlamp aiming motor RH	B1	E91	BR/6	: Rear window defogger relay	
D4	E42	GY/2	: Engine coolant temperature switch-2 (TD engine models with A/C)	A1	E92	B/5	: A/C cut relay	
B4	E43	GY/2	: To E181 (With electrical winch)	C4	E94	GY/2	: Engine coolant temperature switch-1	(TD engine models with A/C)
B4	E44	B/1	: Horn low	D2	E95	B/1	: IACV-FICD solenoid valve	
A3	E45	B/3	: Headlamp RH	D2	E96	B/1	: IACV-FICD solenoid valve	
B2	E46	GY/2	: Front washer motor	B1	E152	L/4	: Front fog lamp relay	
A2	E47	BR/2	: Rear washer motor	A1	E153	L/4	: Rear fog lamp relay	
A2	E48	GY/2	: Headlamp washer motor	E3	E155	B/2	: Exhaust gas control valve control solenoid valve (ZD engine models)	
A3	E49	SB/4	: Front combination lamp RH	B1	E157	B/5	: Shift lock relay (A/T models)	
D4	E50	B/1	: Horn high	A1	E158	BR/6	: Theft warning lamp relay	
B2	E51	BR/2	: Park/Neutral position relay-1 (A/T models)	C3	E160	GY/2	: Hood switch	
C3	E52	BR/2	: Park/Neutral position relay-1	C1	E161	B/1	: Theft warning horn	
C1	E54	–	: Body ground	A1	E163	BR/6	: Cooling fan relay-1	
D2	E55	B/2	: Side turn signal lamp RH					
G2	E57	B/2	: Wiper deicer					
F2	E58	W/6	: Front wiper motor					
E1	E59	G/2	: Grow relay-1					
E1	E60	W/1	: Grow relay-1					

CEL465M

PASSENGER COMPARTMENT



CEL466M

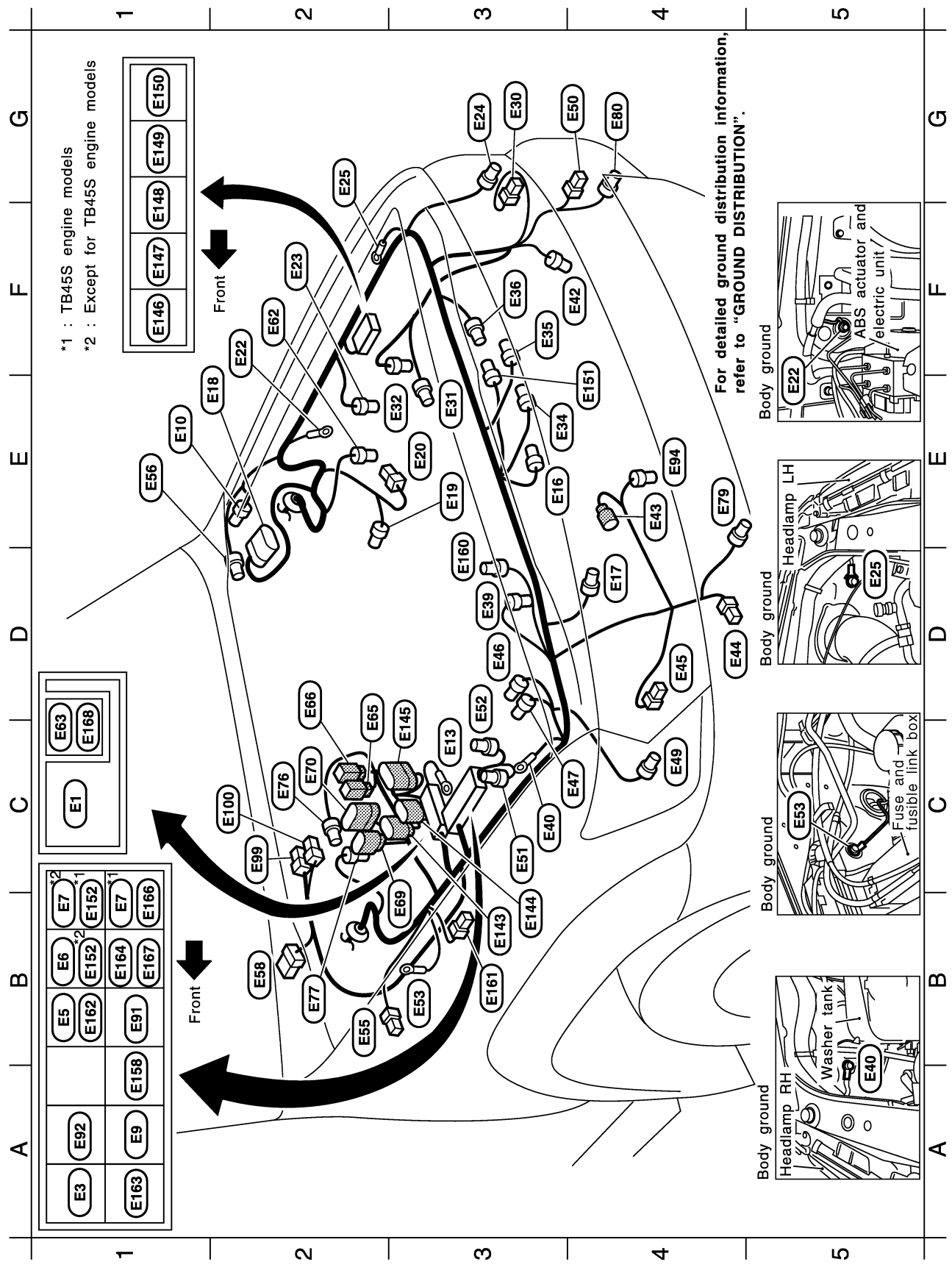
Engine Room Harness/LHD Models (Cont'd)

E101 W/24 : TCM (Transmission control module) } (ZD engine A/T models)
E102 GY/24 : TCM (Transmission control module) }
E104 W/12 : To M86
E105 W/16 : To M87
E106 W/24 : To M88
E107 W/2 : To B101
E108 L/10 : Diode (TB48 engine models)
E109 B/1 : Horn switch (Without air bag)
E110 B/2 : Fuse block (J/B)
E111 W/4 : Fuse block (J/B)
E112 W/16 : Fuse block (J/B)
E113 BR/2 : Key switch (Except for TD engine models with NATS)
E114 W/6 : Ignition switch
E115 BR/8 : Combination switch } (Lighting switch)
E116 BR/4 : Combination switch }
E117 BR/3 : Combination switch (Cornering lamp switch)
E118 W/4 : Combination switch (Rear wiper switch)
E120 GY/8 : Combination switch (Front wiper switch)
E121 GY/2 : Condenser (TB45S engine models)
E123 W/24 : TCM (Transmission control module) } (TB48 engine A/T models)
E124 GY/24 : TCM (Transmission control module) }
E127 SMJ : To M21
E128 W/6 : Combination switch (Rear fog lamp switch)
E129 W/6 : Combination switch (Front and rear fog lamp switch)
E131 W/3 : Tweeter LH
E165 W/2 : Key switch (TD engine models with NATS)
E170 W/2 : Diode (Except for TB48 engine models)
E171 W/2 : Diode (TB45S engine models)
E172 W/2 : Diode } (ZD engine A/T models)
E173 W/2 : Diode }

CEL467M

Engine Room Harness/RHD Models

GASOLINE ENGINE MODELS



CEL468M

Engine Room Harness/RHD Models (Cont'd)

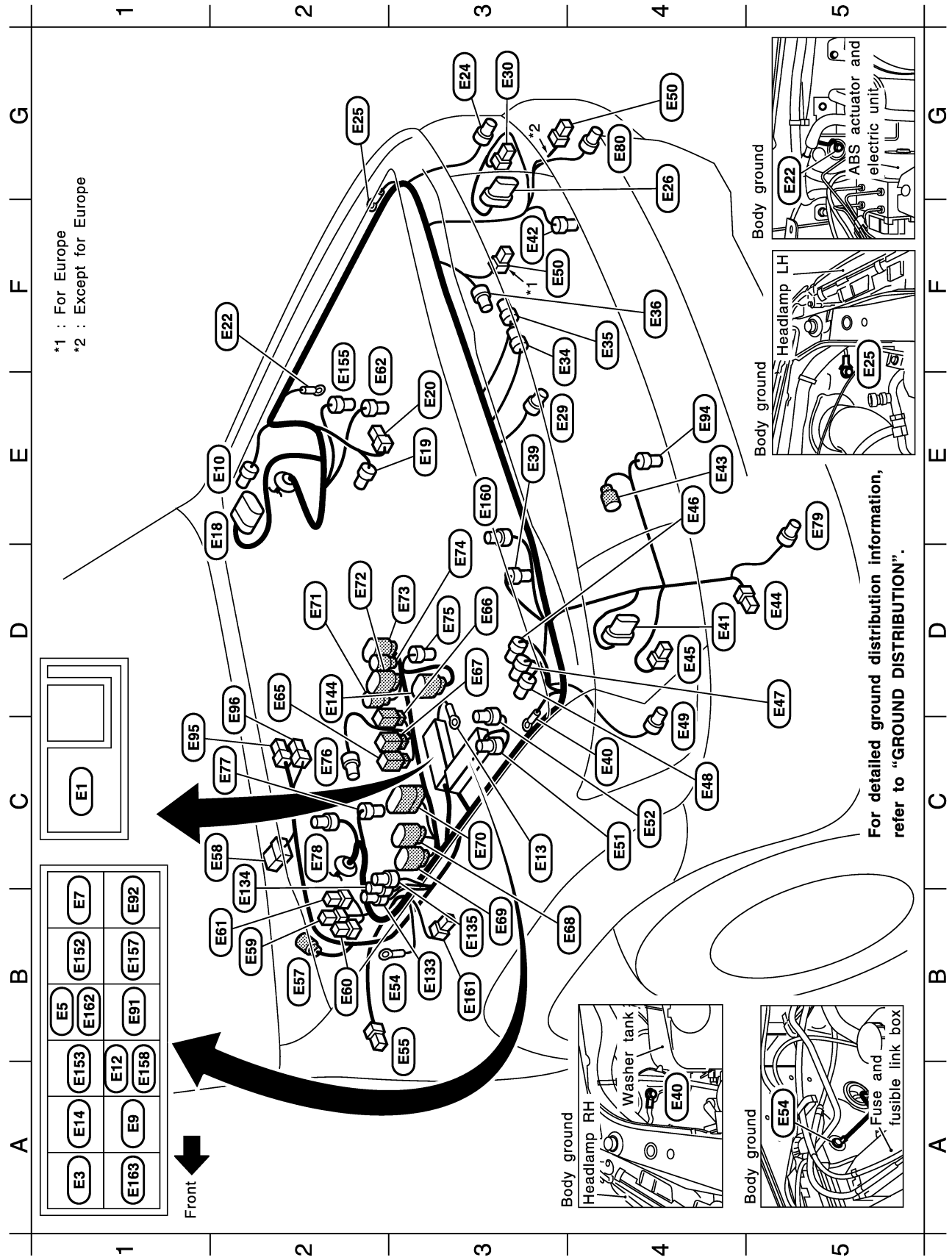
C1 E1 – : Fuse and fusible link box
A1 E3 GY/6 : Transfer neutral relay
B1 E5 BR/6 : Air conditioner relay } (TB45S engine models)
B1 E6 GY/6 : Auto-choke relay
B1 E7 – : Fuse block
A1 E9 W/3 : Horn relay
E1 E10 SB/4 : Diff. lock solenoid
C3 E13 – : Battery (+)
E4 E16 B/2 : Ambient sensor (TB48 engine models with front auto A/C)
D4 E17 GY/4 : Cooling fan motor-2 (TB48 engine models)
E1 E18 SMJ : ABS actuator and electric unit
E3 E19 SB/4 : Power antenna
E3 E20 B/2 : Side turn signal lamp LH
F2 E22 – : Body ground (With ABS)
F2 E23 GY/2 : Ignition coil (TB45S engine models)
G3 E24 SB/4 : Front combination lamp LH
G2 E25 – : Body ground
G3 E30 B/3 : Headlamp LH
E3 E31 SB/4 : Distributor } (TB45S engine models)
E3 E32 B/1 : Compressor
E3 E34 B/2 : Ambient air temperature sensor (With compass and thermometer)
F3 E35 B/2 : Ambient sensor (TB45S engine models with front auto A/C)
F2 E36 GY/4 : Cooling fan motor-1
D3 E39 B/2 : Dual-pressure switch
C3 E40 – : Body ground
F4 E42 GY/2 : Engine coolant temperature switch-2 (TB45S engine models with A/C)
E4 E43 GY/2 : To E181 (With electrical winch)
D4 E44 B/1 : Horn low
D4 E45 B/3 : Headlamp RH
D3 E46 GY/2 : Front washer motor
C3 E47 BR/2 : Rear washer motor
C4 E49 SB/4 : Front combination lamp RH
G4 E50 B/1 : Horn high
C3 E51 BR/2 : Park/Neutral position relay-1 } (TB48 engine A/T models and TB45S engine models with NATS)
C3 E52 BR/2 : Park/Neutral position relay-1

B3 E53 – : Body ground
B2 E55 B/2 : Side turn signal lamp RH
E1 E56 GY/4 : ASCD pump
B2 E58 W/6 : Front wiper motor
F2 E62 BR/2 : Front wheel sensor LH (With ABS)
C1 E63 B/5 : Park/Neutral position relay-2 (A/T models with ASCD)
D3 E65 B/2 : To E204 (TB48 engine models)
C2 E66 L/2 : To E203
B3 E69 GY/8 : To E202
C2 E70 GY/10 : To E201
C2 E76 GY/2 : Brake fluid level switch
B3 E77 GY/2 : Front wheel sensor RH (With ABS)
D4 E79 BR/2 : Front fog lamp RH
F3 E80 BR/2 : Front fog lamp LH
B1 E91 BR/6 : Rear window defogger relay
A1 E92 B/5 : A/C cut relay
E4 E94 GY/2 : Engine coolant temperature switch-1 } (TB45S engine models with A/C)
C2 E99 B/1 : ISC-FI POT control solenoid valve
C2 E100 B/1 : ISC-FI POT control solenoid valve
B3 E143 GY/8 : To E233
B3 E144 BR/8 : To E234
C3 E145 GY/10 : To E236
F1 E146 B/5 : Shift lock relay
F1 E147 BR/6 : Park/Neutral position relay-3 } (A/T models)
F1 E148 L/4 : Throttle control motor relay
G1 E149 L/4 : Back-up lamp relay
G1 E150 L/4 : A/T pv ign relay
E4 E151 BR/2 : Ambient air temperature switch (TB48 engine models with front manual A/C)
B1 E152 L/4 : Front fog lamp relay
A1 E158 BR/6 : Theft warning lamp relay
D3 E160 GY/2 : Hood switch
B3 E161 B/1 : Theft warning horn
B1 E162 L/4 : Air conditioner relay (TB48 engine models)
A1 E163 BR/6 : Cooling fan relay-1
B1 E164 BR/6 : Cooling fan relay-2 } (TB48 engine models)
B1 E166 BR/6 : Cooling fan relay-3
B1 E167 L/4 : Distributor cut relay } (TB45S engine models with NATS)
C1 E168 B/5 : Starter cut relay

CEL469M

Engine Room Harness/RHD Models (Cont'd)

DIESEL ENGINE MODELS



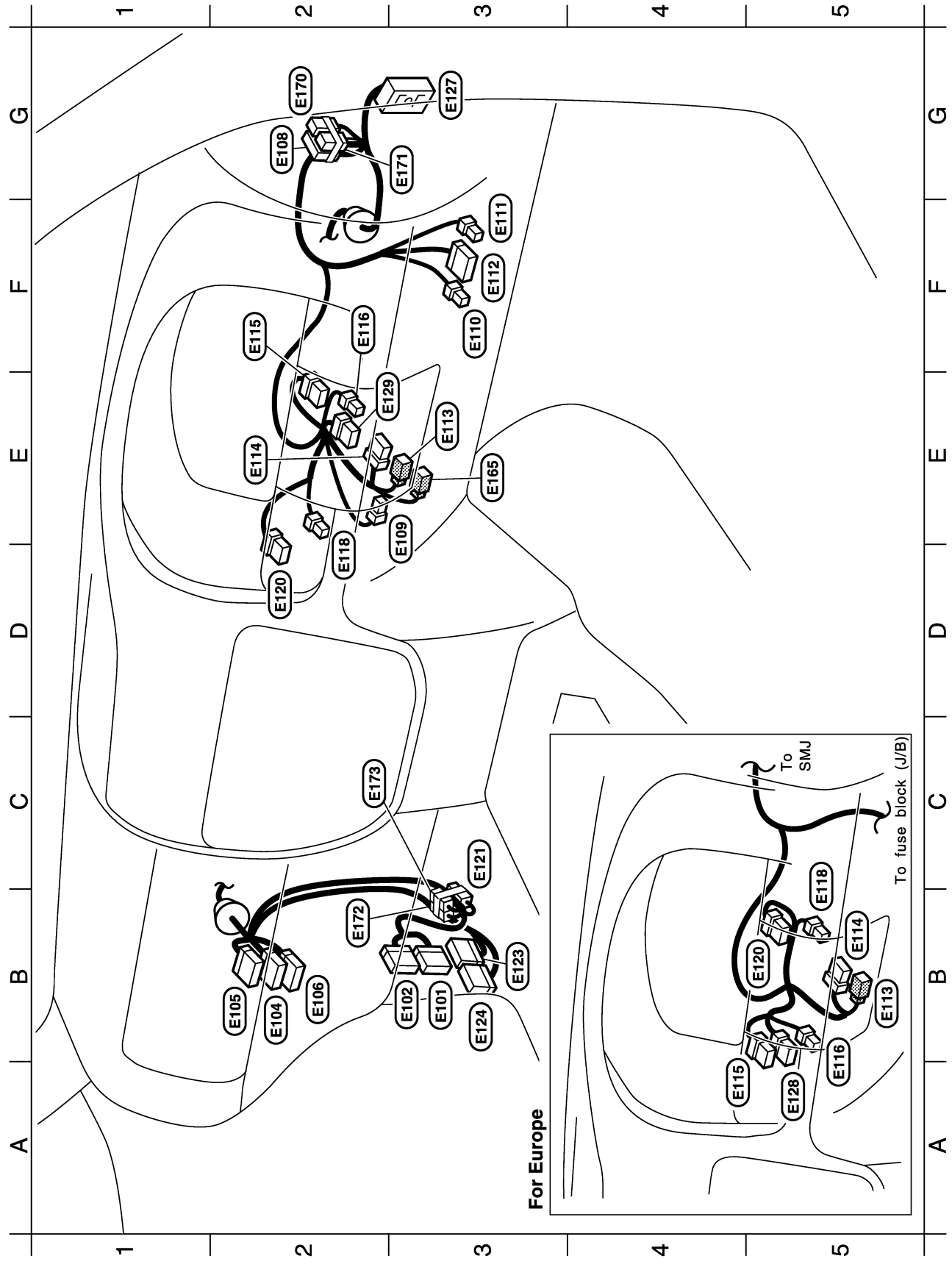
CEL470M

Engine Room Harness/RHD Models (Cont'd)

C1 (E1) – : Fuse and fusible link box
A1 (E3) GY/6 : Transfer neutral relay
B1 (E5) BR/6 : Air conditioner relay (TD42 and ZD engine models)
B1 (E7) – : Fuse block
A1 (E9) W/3 : Horn relay
E2 (E10) SB/4 : Diff. lock solenoid
B1 (E12) L/4 : Wiper deicer relay
C3 (E13) – : Battery (+)
A1 (E14) BR/6 : Headlamp washer timer
E2 (E18) SMJ : ABS actuator and electric unit
E3 (E19) SB/4 : Power antenna
E3 (E20) B/2 : Side turn signal lamp LH
F2 (E22) – : Body ground (With ABS)
G3 (E24) SB/4 : Front combination lamp LH
G2 (E25) – : Body ground
G4 (E26) SB/6 : Headlamp aiming motor LH
(E29) B/2 : Charge air temperature sensor
G3 (E30) B/3 : Headlamp LH
F3 (E34) B/2 : Ambient air temperature sensor (With compass and thermometer)
F4 (E35) B/2 : Ambient sensor (With auto A/C)
F4 (E36) GY/4 : Cooling fan motor-1
E3 (E39) B/2 : Dual-pressure switch
C4 (E40) – : Body ground
D4 (E41) SB/6 : Headlamp aiming motor RH
F3 (E42) GY/2 : Engine coolant temperature switch-2 (TD engine models with A/C)
E4 (E43) GY/2 : To (E181) (With electrical winch)
D5 (E44) B/1 : Horn low
D4 (E45) B/3 : Headlamp RH
E4 (E46) GY/2 : Front washer motor
D5 (E47) BR/2 : Rear washer motor
C4 (E48) GY/2 : Headlamp washer motor
C4 (E49) SB/4 : Front combination lamp RH
F4, G4 (E50) B/1 : Horn high
C4 (E51) BR/2 : Park/Neutral position relay-1 } (A/T models)
C4 (E52) BR/2 : Park/Neutral position relay-1 }
B3 (E54) – : Body ground
B3 (E55) B/2 : Side turn signal lamp RH
B2 (E57) B/2 : Wiper deicer
C2 (E58) W/6 : Front wiper motor
B2 (E59) G/2 : Grow relay-1
B2 (E60) W/1 : Grow relay-1
B2 (E61) W/1 : Grow relay-1
E2 (E62) BR/2 : Front wheel sensor LH (With ABS)
D2 (E65) B/2 : To (E204)
D3 (E66) L/2 : To (E203)
D3 (E67) R/2 : To (E223)
B4 (E68) SB/8 : To (E222) (TD engine models)
B3 (E69) GY/8 : To (E202)
C3 (E70) GY/10 : To (E201)
D2 (E71) GY/3 : Revolution sensor }
D2 (E72) BR/8 : A/T solenoid valve } (A/T models)
D3 (E73) GY/8 : Park/Neutral position switch }
D3 (E74) GY/2 : Park/Neutral position switch
D3 (E75) BR/2 : Fuel filter switch
C2 (E76) GY/2 : Brake fluid level switch
C2 (E77) GY/2 : Front wheel sensor RH (With ABS)
C2 (E78) GY/2 : Dropping resistor (A/T models)
E5 (E79) BR/2 : Front fog lamp RH
G4 (E80) BR/2 : Front fog lamp LH
B1 (E91) BR/6 : Rear window defogger relay
A1 (E92) B/5 : A/C cut relay
E4 (E94) GY/2 : Engine coolant temperature switch-1 } (TD engine models with A/C)
C1 (E95) B/1 : IACV-FICD solenoid valve
C2 (E96) B/1 : IACV-FICD solenoid valve
(E133) BR/2 : EGRC-solenoid valve
(E134) B/2 : Throttle control solenoid valve-1
(E135) B/2 : Throttle control solenoid valve-2
(E144) BR/8 : To (E234)
B1 (E152) L/4 : Front fog lamp relay
A1 (E153) L/4 : Rear fog lamp relay
E2 (E155) B/2 : Exhaust gas control valve control solenoid valve (ZD engine models)
B1 (E157) B/5 : Shift lock relay (A/T models)
A1 (E158) BR/6 : Theft warning lamp relay
E3 (E160) GY/2 : Hood switch
B3 (E161) B/1 : Theft warning horn
A1 (E163) BR/6 : Cooling fan relay-1
B1 (E162) L/4 : Air conditioner relay (TD42Ti engine models)

CEL471M

PASSENGER COMPARTMENT



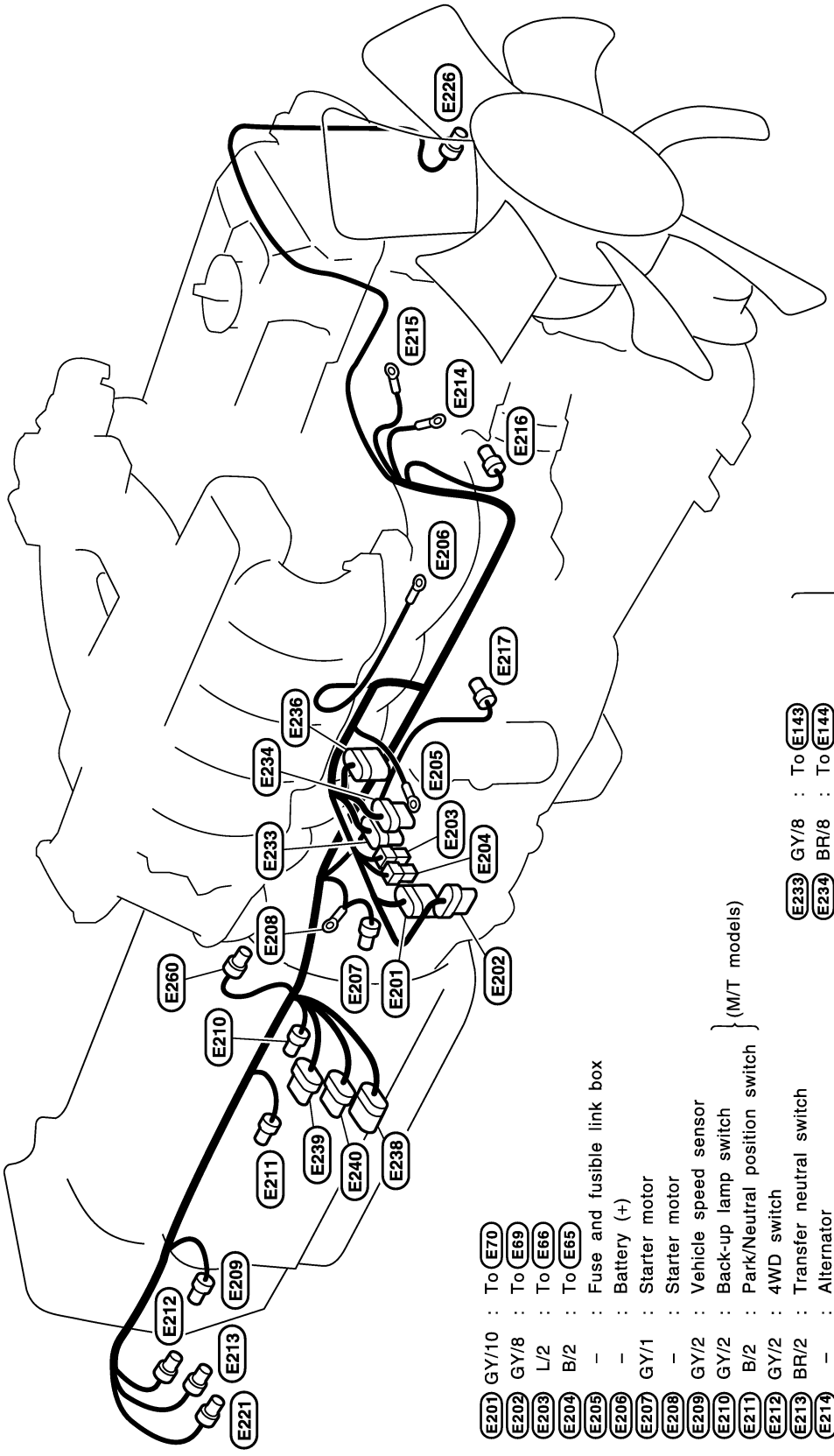
CEL472M

E101 W/24 : TCM (Transmission control module)
E102 GY/24 : TCM (Transmission control module)
(ZD engine A/T models)
E104 BR/16 : To M86
E105 W/16 : To M87
E106 W/24 : To M88
E108 L/10 : Diode (TB48 engine models)
E109 B/1 : Horn switch (Without air bag)
E110 B/2 : Fuse block (J/B)
E111 W/4 : Fuse block (J/B)
E112 W/16 : Fuse block (J/B)
E113 BR/2 : Key switch (Except for TD engine models with NATS)
E114 W/6 : Ignition switch
E115 BR/8 : Combination switch (Lighting switch)
E116 BR/4 : Combination switch
E118 W/4 : Combination switch (Rear wiper switch)
E120 GY/8 : Combination switch (Front wiper switch)
E121 GY/2 : Condenser (TB45S engine models)
E123 W/24 : TCM (Transmission control module)
E124 GY/24 : TCM (Transmission control module)
(TB48 engine A/T models)
E127 SMJ : To M21
E128 W/6 : Combination switch (Rear fog lamp switch)
E129 W/6 : Combination switch (Front and Rear fog lamp switch)
E165 W/2 : Key switch (TD engine models with NATS)
E170 W/2 : Diode (Except for TB48 engine models)
E171 W/2 : Diode (TB45S engine models)
E172 W/2 : Diode
E173 W/2 : Diode
(ZD engine A/T models)
Diode E170
Transfer neutral relay
Transfer neutral switch
Diode E171
Auto-choke relay
Combination meter (Charge)
Alternator
Diode E172
Park/Neutral position switch ("N" Position)
TCM (Transmission control module)
Diode E173
Park/Neutral position switch ("P" Position)
TCM (Transmission control module)
Diode E108
Combination switch (Lighting switch)
M
ECM
A
Combination meter (Unified meter control unit)
Transfer neutral relay
Transfer neutral switch
A : A/T models
M : M/T models

CEL473M

Engine Harness

TB48DE ENGINE



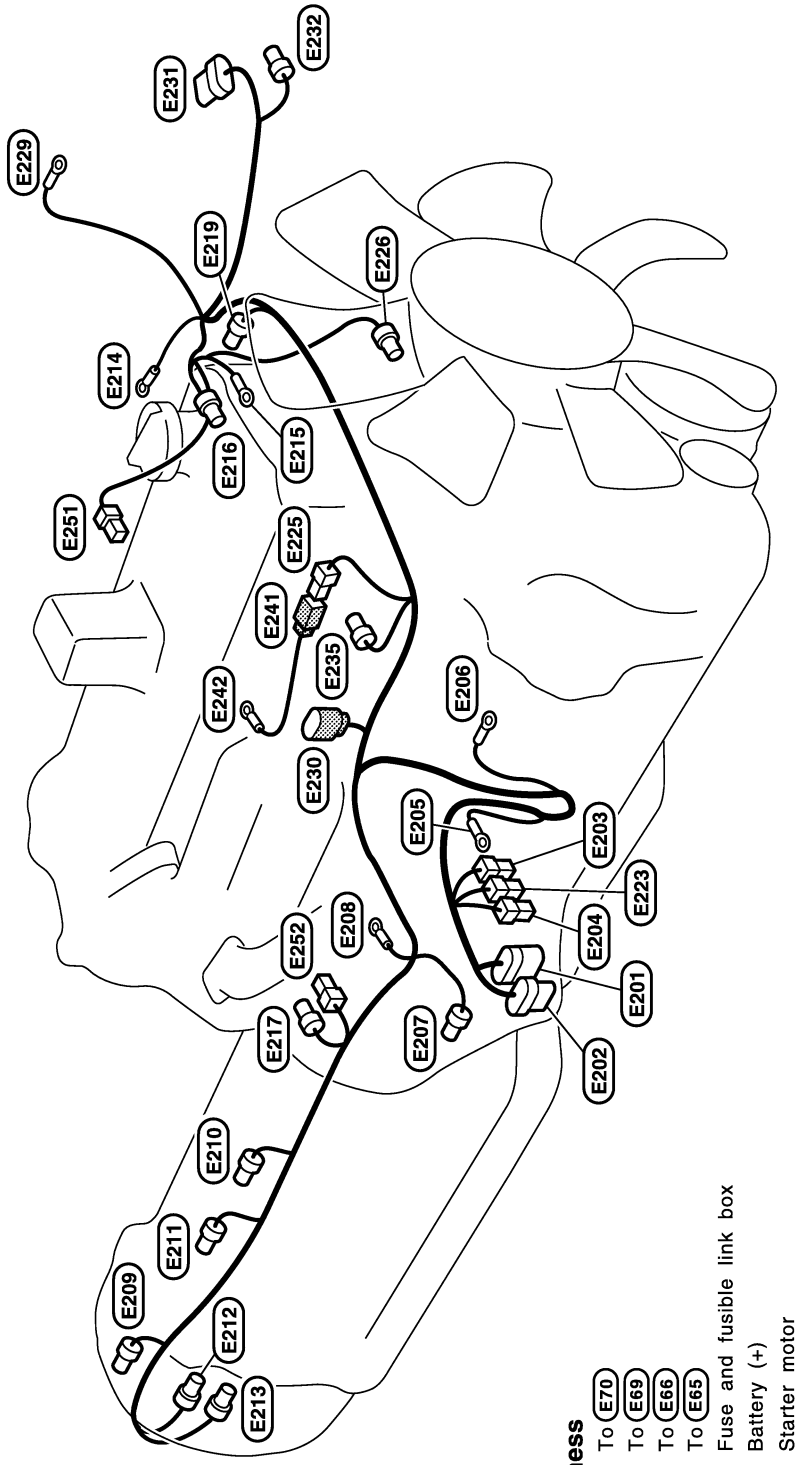
E201 GY/10 : To E70
E202 GY/8 : To E69
E203 L/2 : To E66
E204 B/2 : To E65
E205 – : Fuse and fusible link box
E206 – : Battery (+)
E207 GY/1 : Starter motor
E208 – : Starter motor
E209 GY/2 : Vehicle speed sensor
E210 GY/2 : Back-up lamp switch } (M/T models)
E211 B/2 : Park/Neutral position switch }
E212 GY/2 : 4WD switch
E213 BR/2 : Transfer neutral switch
E214 – : Alternator
E215 – : Alternator
E216 GY/2 : Alternator
E217 GY/1 : Oil pressure switch
E221 B/2 : Transfer 4LO switch (A/T models)
E226 B/1 : Compressor

E233 GY/8 : To E143
E234 BR/8 : To E144
E236 GY/10 : To E145
E238 G/10 : A/T unit assembly
E239 G/8 : A/T unit assembly
E240 B/8 : A/T unit assembly } (A/T models)
E260 GY/2 : Crankshaft position sensor (For Europe)

CEL485M

NOTE

ZD ENGINE



Engine harness

E201	GY/10	: To E70	
E202	B/8	: To E69	
E203	L/2	: To E66	
E204	B/2	: To E65	
E205	–	: Fuse and fusible link box	
E206	–	: Battery (+)	
E207	GY/1	: Starter motor	
E208	–	: Starter motor	
E209	GY/2	: Vehicle speed sensor	
E210	GY/2	: Back-up lamp switch	} (M/T models)
E211	B/2	: Park/Neutral position switch	
E212	GY/2	: 4WD switch	
E213	BR/2	: Transfer neutral switch	
E214	–	: Alternator	
E215	–	: Alternator	
E216	GY/2	: Alternator	
E217	GY/1	: Oil pressure switch (Except for Europe and Australia)	
E219	GY/2	: Engine coolant temperature sensor	
E223	R/2	: To E67	
E225	B/1	: To E241	
E226	B/1	: Compressor	
E229	–	: Battery (+) (For cold areas)	
E230	B/8	: To F12	
E231	GY/5	: Mass air flow sensor	
E232	BR/2	: Variable nozzle turbocharger control solenoid valve	
E235	B/1	: Thermal transmitter	
E251	B/1	: Engine oil pressure switch-2	} (For Europe and Australia)
E252	B/1	: Engine oil pressure switch-1	

Glow sub-harness

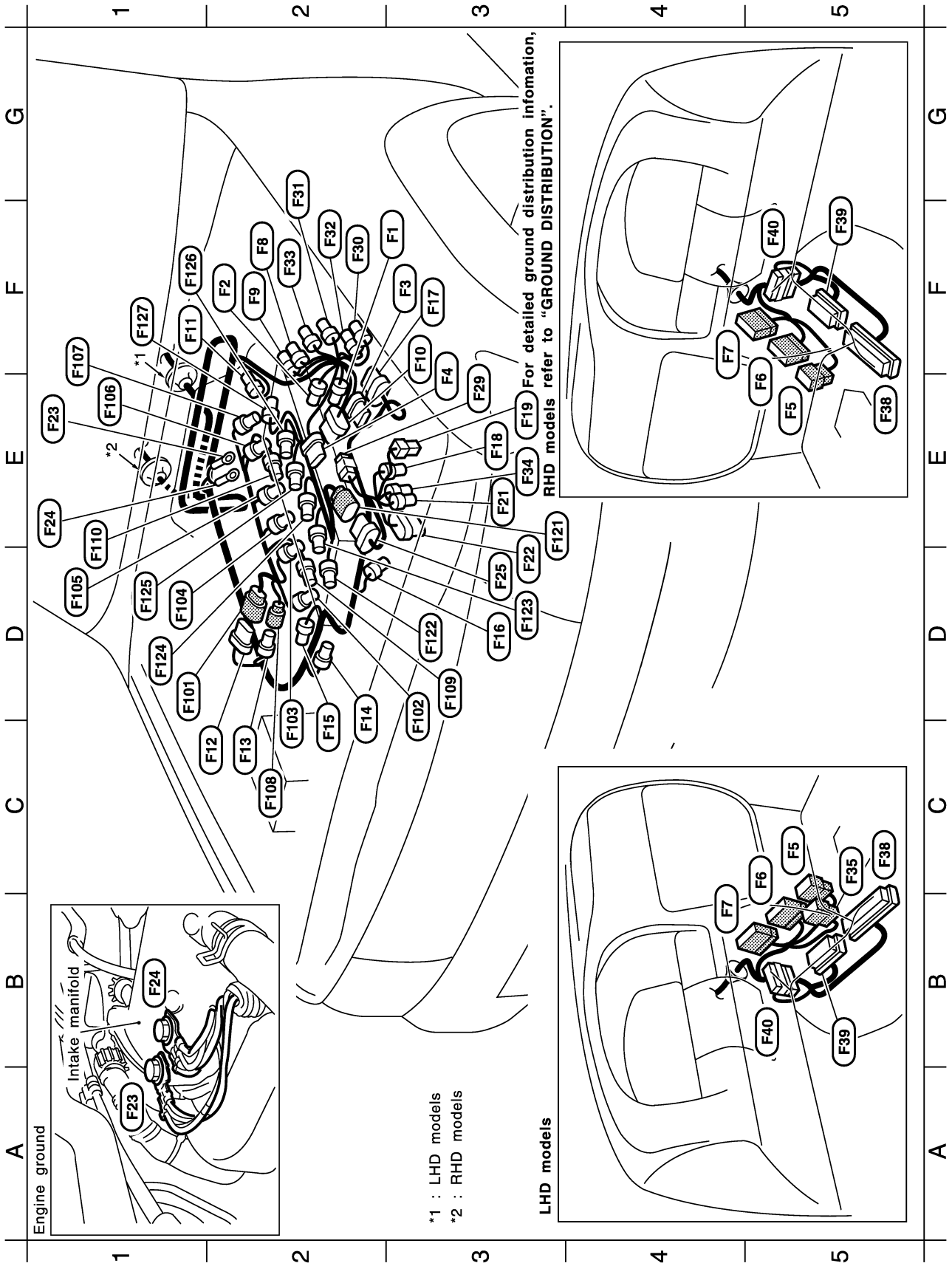
E241	B/1	: To E225
E242	–	: Glow plug

CEL475M

NOTE

Engine Control Harness

TB48DE ENGINE



CEL476M

Engine Control Harness (Cont'd)

Engine control harness

F1	GY/3	:	Throttle position switch (M/T models)
F2	BR/3	:	Throttle position sensor (M/T models)
F3	L/6	:	IACV-AAC valve
F4	L/6	:	Electric throttle control actuator (A/T models)
F5	W/6	:	To M50
F6	W/16	:	To M51
F7	W/24	:	To M52
F8	SB/3	:	Heated oxygen sensor 1 (B1) (With three way catalyst)
F9	SB/3	:	Heated oxygen sensor 1 (B2) except for Europe)
F10	G/6	:	Electric throttle control actuator (A/T models)
F11	B/2	:	VIAS control solenoid valve
F12	SB/8	:	To F101
F13	SB/4	:	To F108
F14	G/2	:	Intake valve timing control solenoid valve
F15	L/2	:	EVAP canister purge volume control solenoid valve
F16	GY/4	:	Camshaft position sensor
F17	GY/5	:	Mass air flow sensor
F18	GY/2	:	Engine coolant temperature sensor
F19	B/1	:	Thermal transmitter
F21	GY/2	:	Power steering oil pressure switch (Except for Europe)
F22	GY/6	:	Power steering stepping motor
F23	–	:	Engine ground
F24	–	:	Engine ground
F25	GY/8	:	To F121
F29	GY/2	:	Condenser
F30	L/4	:	Heated oxygen sensor 1 (B1) (Front) (For Europe)
F31	G/4	:	Heated oxygen sensor 2 (B1) (Rear) (For Europe)
F32	L/4	:	Heated oxygen sensor 1 (B2) (Front) (For Europe)
F33	G/4	:	Heated oxygen sensor 2 (B2) (Rear) (For Europe)
F34	BR/3	:	Power steering pressure sensor (For Europe)
F35	W/8	:	To M55 (For Europe)
F38	SMJ	:	ECM (For Europe)
F39	SMJ	:	ECM (For Europe)
F40	P/20	:	Joint connector-7 (For Europe)

Engine control sub-harness-1

F101	SB/8	:	To F12
F102	GY/2	:	Injector No. 1
F103	GY/2	:	Injector No. 2
F104	GY/2	:	Injector No. 3
F105	GY/2	:	Injector No. 4
F106	GY/2	:	Injector No. 5
F107	GY/2	:	Injector No. 6
F108	GY/4	:	To F13
F109	GY/2	:	Knock sensor-1
F110	GY/2	:	Knock sensor-2

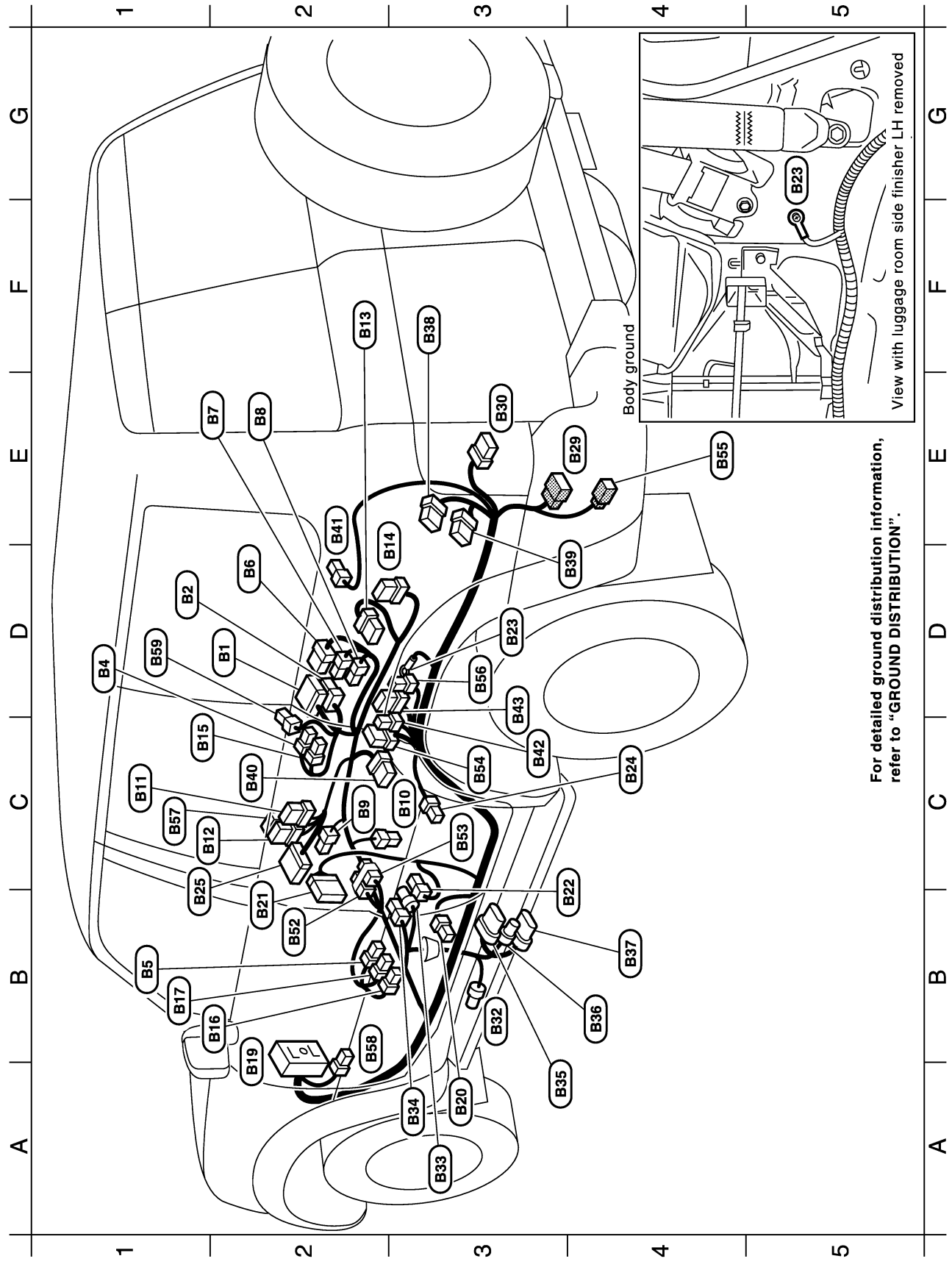
Engine control sub-harness-2

F121	GY/8	:	To F25
F122	GY/3	:	Ignition coil No. 1 (With power transistor)
F123	GY/3	:	Ignition coil No. 2 (With power transistor)
F124	GY/3	:	Ignition coil No. 3 (With power transistor)
F125	GY/3	:	Ignition coil No. 4 (With power transistor)
F126	GY/3	:	Ignition coil No. 5 (With power transistor)
F127	GY/3	:	Ignition coil No. 6 (With power transistor)

CEL477M

Body Harness/LHD Models

WAGON



CEL478M

Body Harness/LHD Models (Cont'd)

B1 W/12 : To B105
B2 W/8 : To B106
B4 W/2 : Power seat (Passenger side)
B5 W/3 : Heated seat LH
B6 W/6 : Wiper deicer switch
B7 W/4 : Heated seat switch LH
B8 L/4 : Heated seat switch RH
B9 W/3 : Ashtray illumination
B10 B/1 : Parking brake switch
B11 W/8 : A/T device (ZD engine A/T models)
B12 W/8 : A/T mode switch (ZD engine A/T models with A/T mode switch)
B13 W/6 : Rear cooler switch
B14 W/6 : Rear fan switch
B15 W/3 : Heated seat RH
B16 W/3 : Seat belt buckle switch
B17 W/2 : Power seat (Driver side)
B19 SMJ : To M20
B20 B/3 : Front door switch (Driver side)
B21 W/18 : To D41
B22 Y/2 : Seat belt pre-tensioner (Driver side)
B23 – : Body ground
B24 B/3 : Rear door switch LH
B25 W/12 : A/T device (TB48 engine A/T models)
B29 W/6 : To D81
B30 BR/6 : Rear combination lamp LH
B32 GY/2 : Rear cooler solenoid valve
B33 BR/2 : G sensor (For Europe with ABS)
B34 GY/2 : G sensor (With ABS)
B35 GY/8 : To C1
B36 SB/4 : To C3
B37 SB/8 : To C2
B38 W/8 : Rear cooler unit
B39 B/6 : Rear cooler unit
B40 W/6 : Cool box
B41 B/2 : Rear power socket
B42 L/4 : Power socket relay
B43 B/5 : Rear cooler cut relay (TB45E engine models with rear cooler)
B52 W/2 : Diode-1 } (A/T models)
B53 W/2 : Diode-2 }

B54 BR/6 : Multi-remote control relay (With theft warning system)
B55 W/4 : To D87 (With theft warning system)
B56 L/4 : Rear cooler cut relay (TB48 engine models with rear cooler)
B57 W/8 : Snow mode switch (TB48 engine A/T models with snow mode switch)
B58 BR/1 : To M89
B59 BR/2 : To B141 (With 7-speakers)

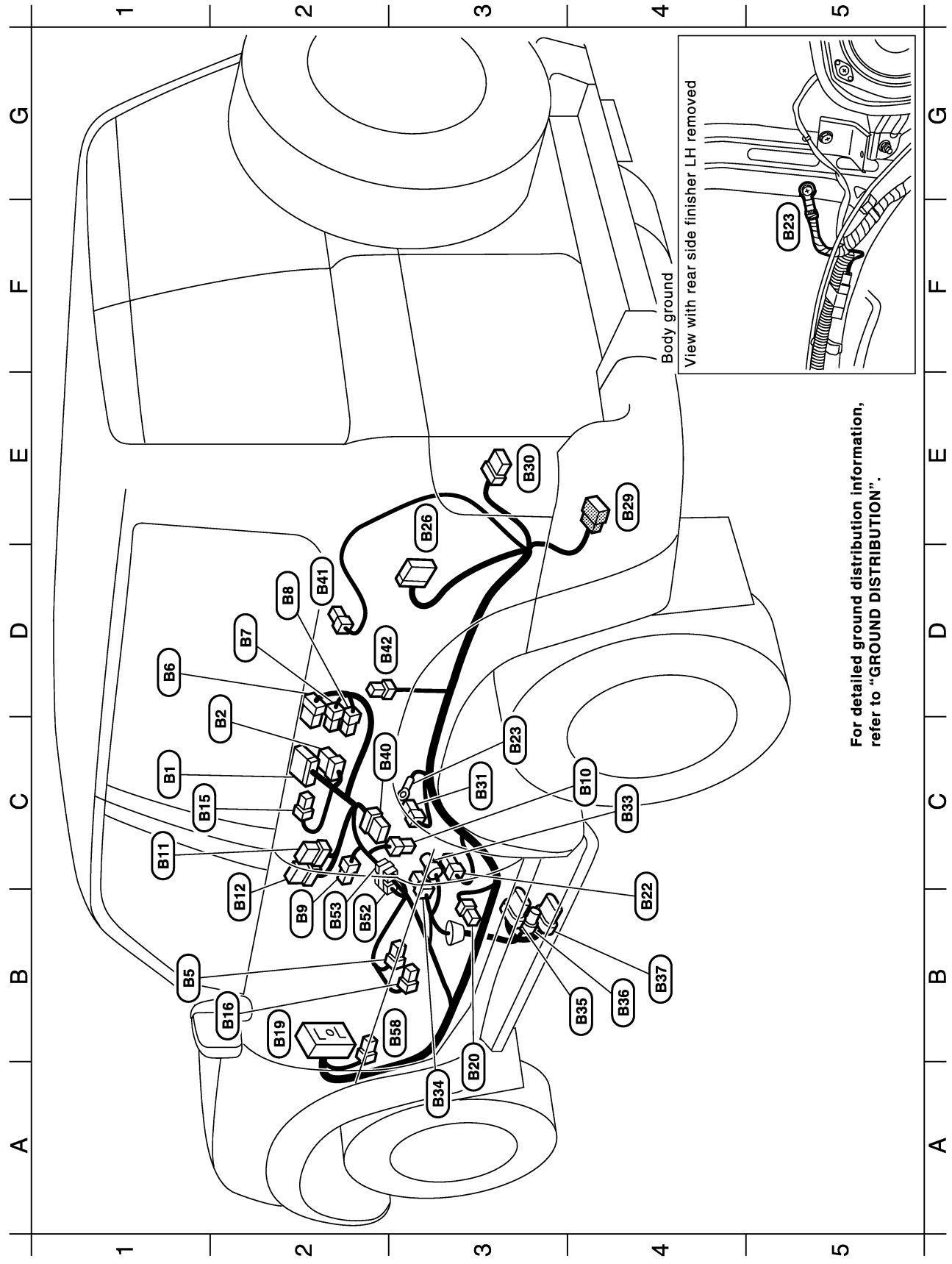
Diode-1 B52
Shift lock relay — A/T device (Park position switch)

Diode-2 B53
A/T device (Shift lock solenoid) — A/T device (Park position switch)

CEL479M

Body Harness/LHD Models (Cont'd)

HARDTOP



CEL487M

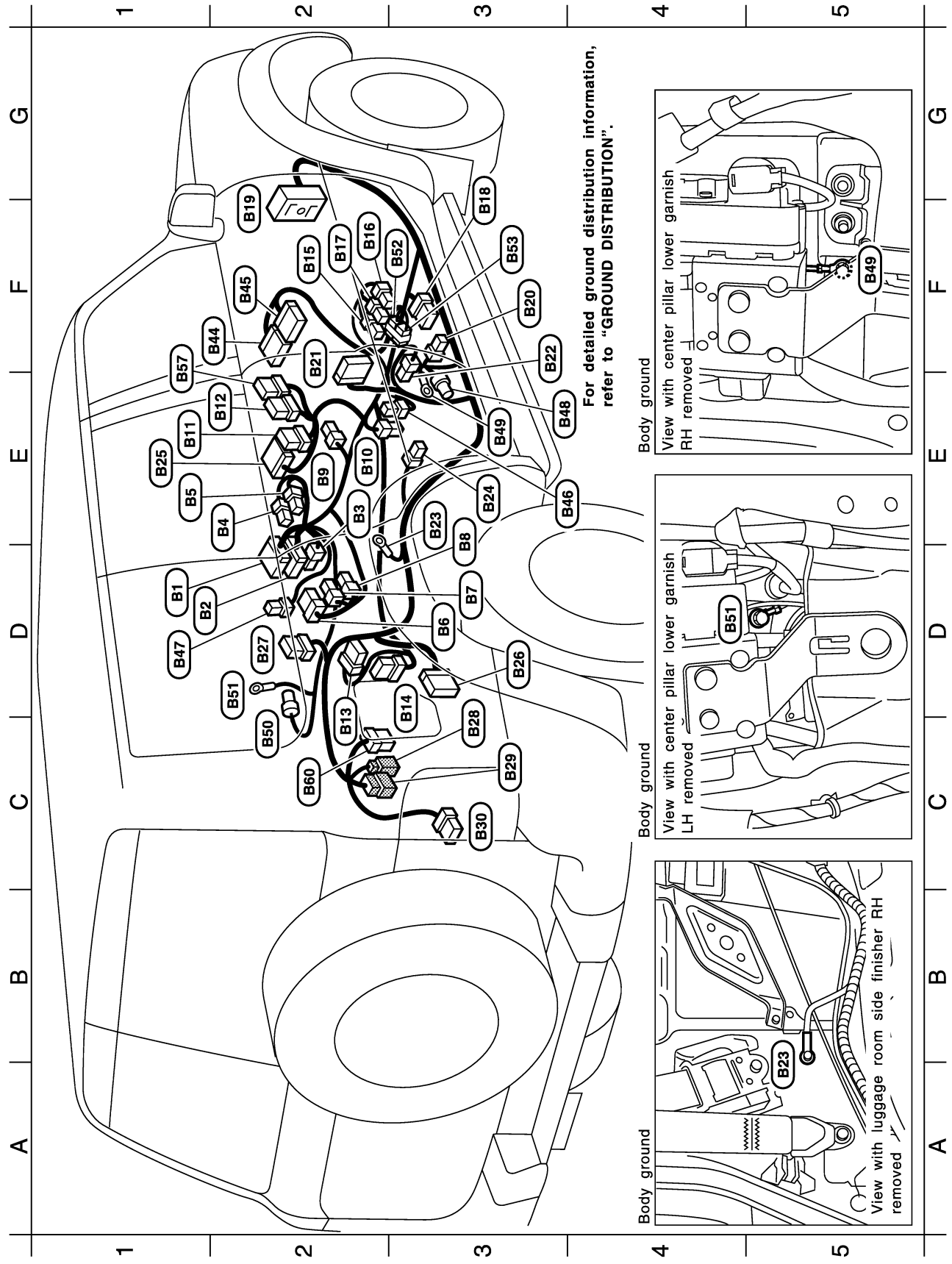
Body Harness/LHD Models (Cont'd)

B1	W/12	:	To B105
B2	W/8	:	To B106
B5	W/3	:	Heated seat LH
B6	W/6	:	Wiper deicer switch
B7	W/4	:	Heated seat switch LH
B8	L/4	:	Heated seat switch RH
B9	W/3	:	Ashtray illumination
B10	B/1	:	Parking brake switch
B11	W/8	:	A/T device
B12	W/8	:	A/T mode switch
B15	W/3	:	Heated seat RH
B16	W/3	:	Seat belt buckle switch
B19	SMJ	:	To M20
B20	B/3	:	Front door switch (Driver side)
B22	Y/2	:	Seat belt pre-tensioner (Driver side)
B23	–	:	Body ground
B26	W/16	:	CD auto changer (Located in the luggage room)
B29	W/6	:	To D81
B30	BR/6	:	Rear combination lamp LH
B31	BR/2	:	Rear speaker LH
B33	BR/2	:	G sensor (For Europe with ABS)
B34	GY/2	:	G sensor (With ABS)
B35	GY/8	:	To C1
B36	SB/4	:	To C3
B37	SB/8	:	To C2
B40	W/6	:	Cool box
B41	B/2	:	Rear power socket
B42	L/4	:	Power socket relay
B52	W/2	:	Diode-1 } (A/T models)
B53	W/2	:	Diode-2 } (A/T models)
B58	BR/1	:	To M89

CEL488M

Body Harness/RHD Models

WAGON



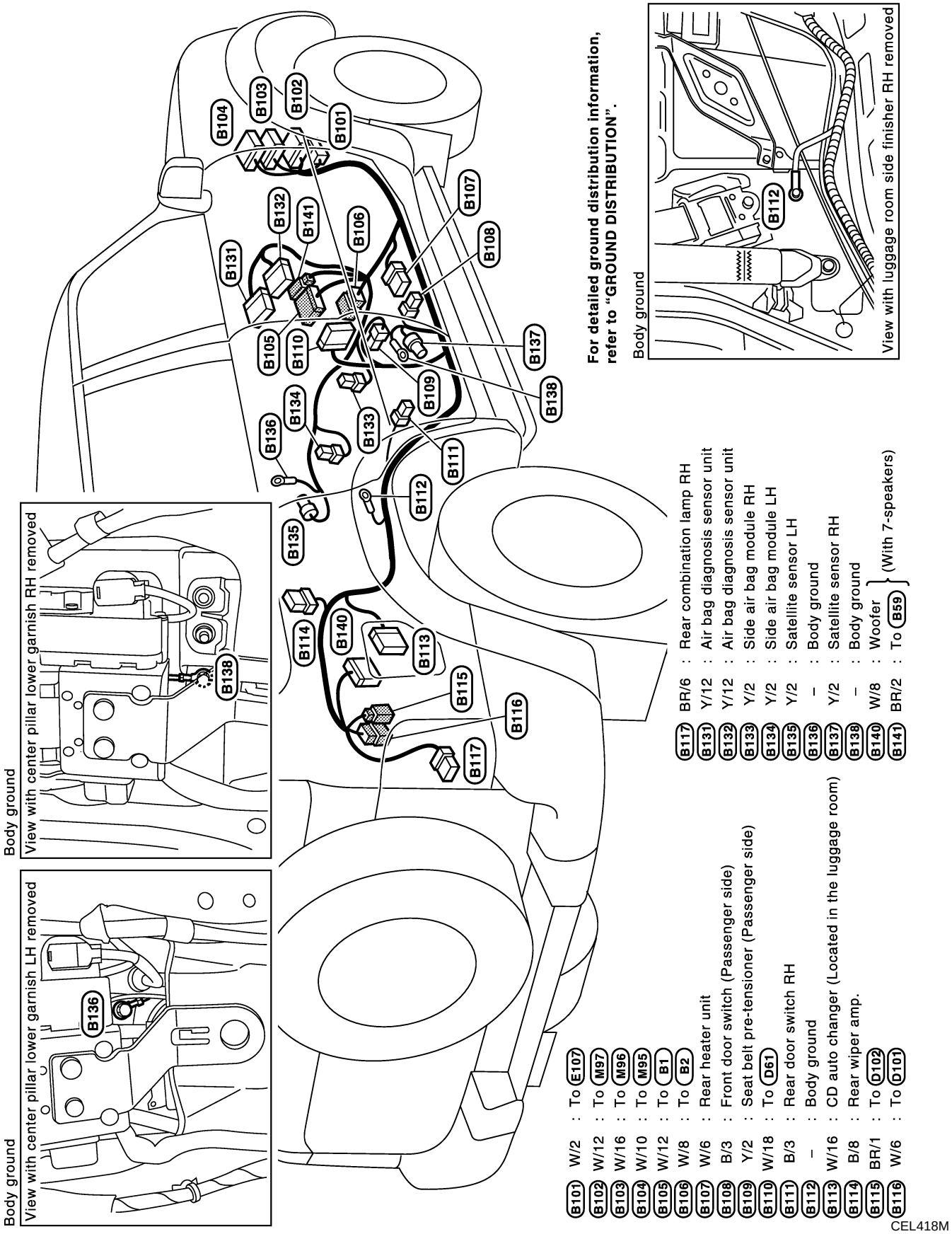
CEL480M

Body Harness/RHD Models (Cont'd)

CEL481M

Body No. 2 Harness/LHD Models

WAGON

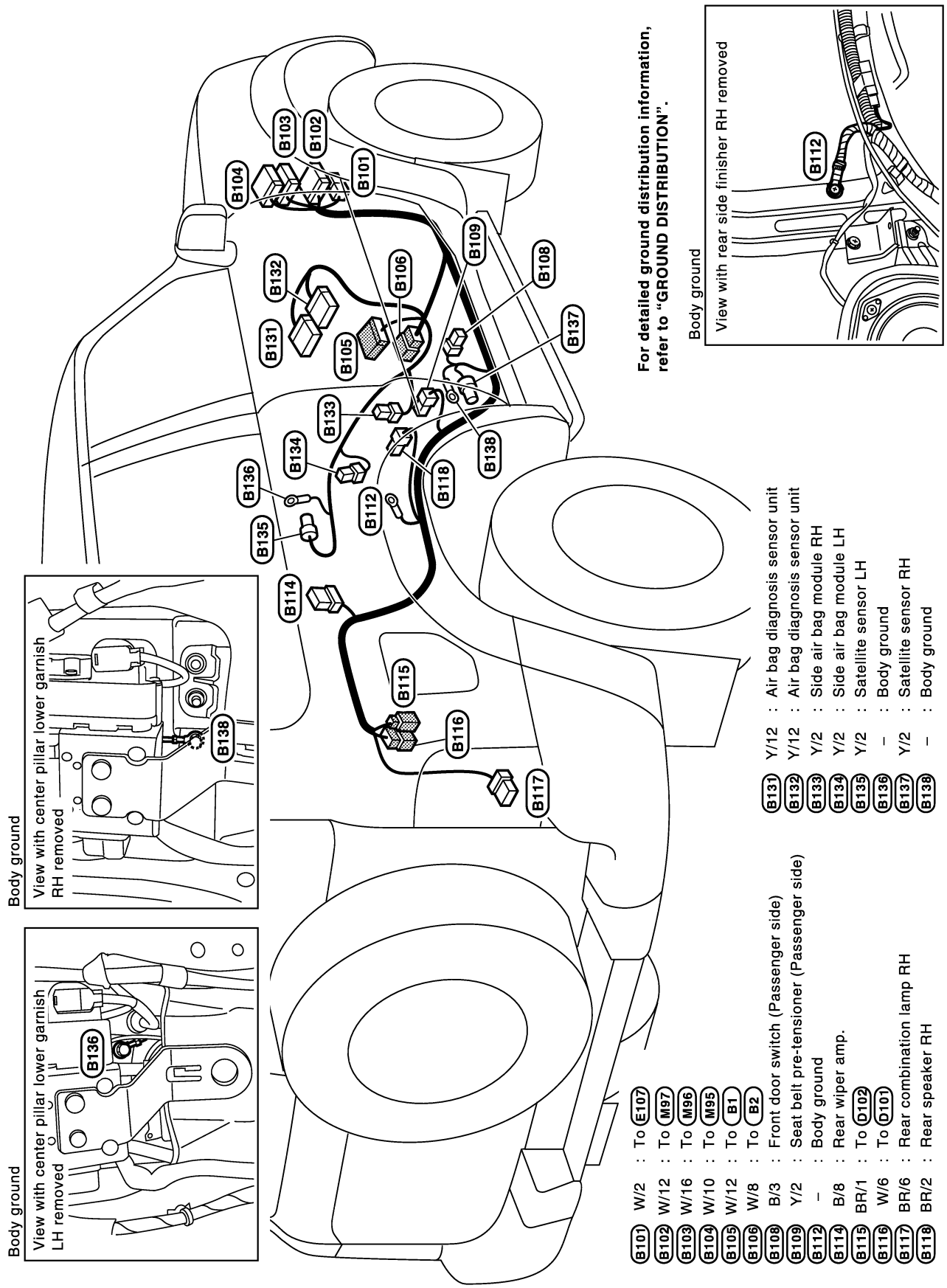


B101	W/2	: To	E107
B102	W/12	: To	M97
B103	W/16	: To	M96
B104	W/10	: To	M95
B105	W/12	: To	B1
B106	W/8	: To	B2
B107	W/6	: Rear heater unit	
B108	B/3	: Front door switch (Passenger side)	
B109	Y/2	: Seat belt pre-tensioner (Passenger side)	
B110	W/18	: To	D61
B111	B/3	: Rear door switch RH	
B112	–	: Body ground	
B113	W/16	: CD auto changer (Located in the luggage room)	
B114	B/8	: Rear wiper amp.	
B115	BR/1	: To	D102
B116	W/6	: To	D101
B117	BR/6	: Rear combination lamp RH	
B131	Y/12	: Air bag diagnosis sensor unit	
B132	Y/12	: Air bag diagnosis sensor unit	
B133	Y/2	: Side air bag module RH	
B134	Y/2	: Side air bag module LH	
B135	Y/2	: Satellite sensor LH	
B136	–	: Body ground	
B137	Y/2	: Satellite sensor RH	
B138	–	: Body ground	
B140	W/8	: Woofer	(With 7-speakers)
B141	BR/2	: To B59	(With 7-speakers)

CEL418M

Body No. 2 Harness/LHD Models (Cont'd)

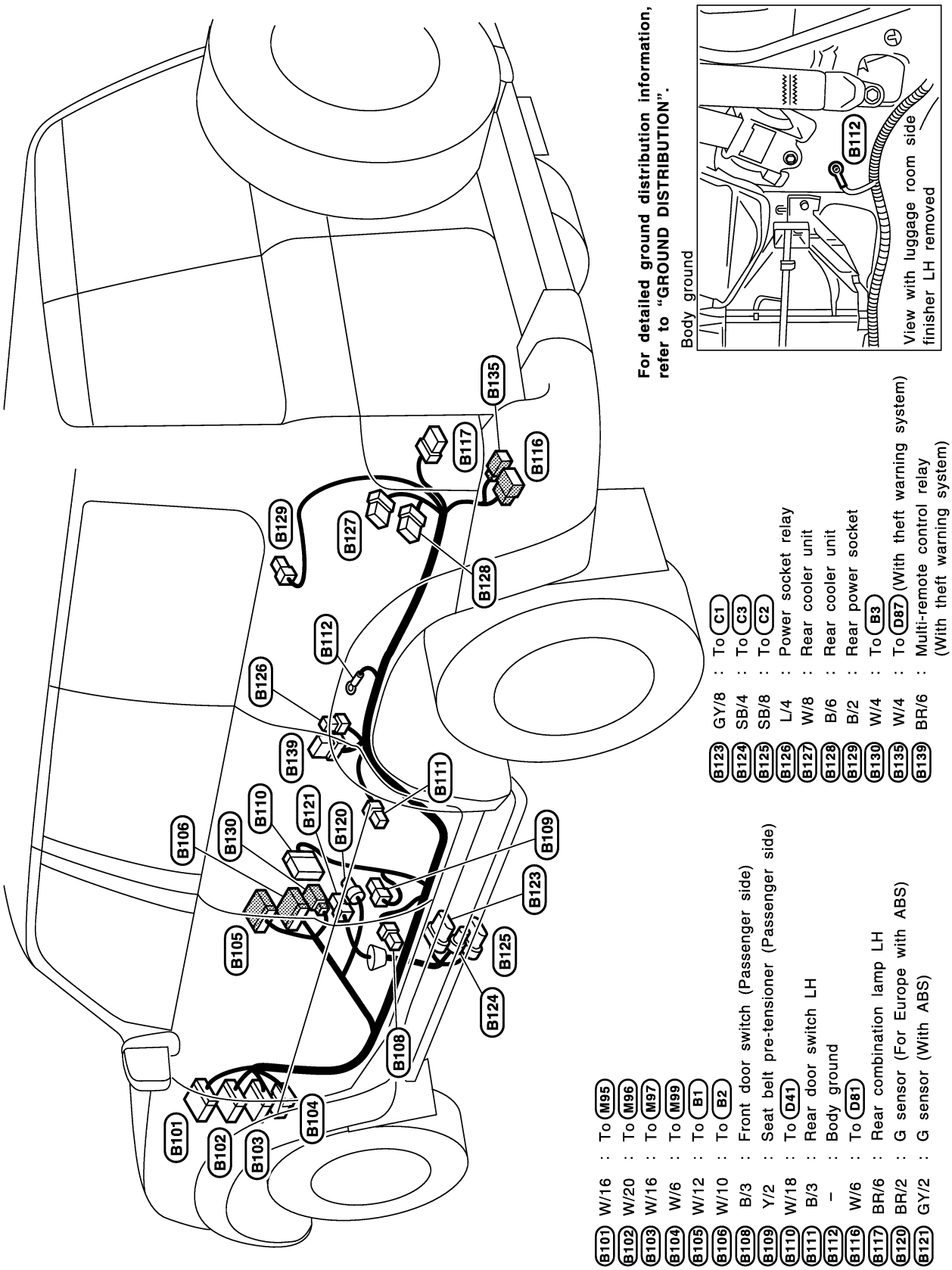
HARDTOP



CEL419M

Body No. 2 Harness/RHD Models

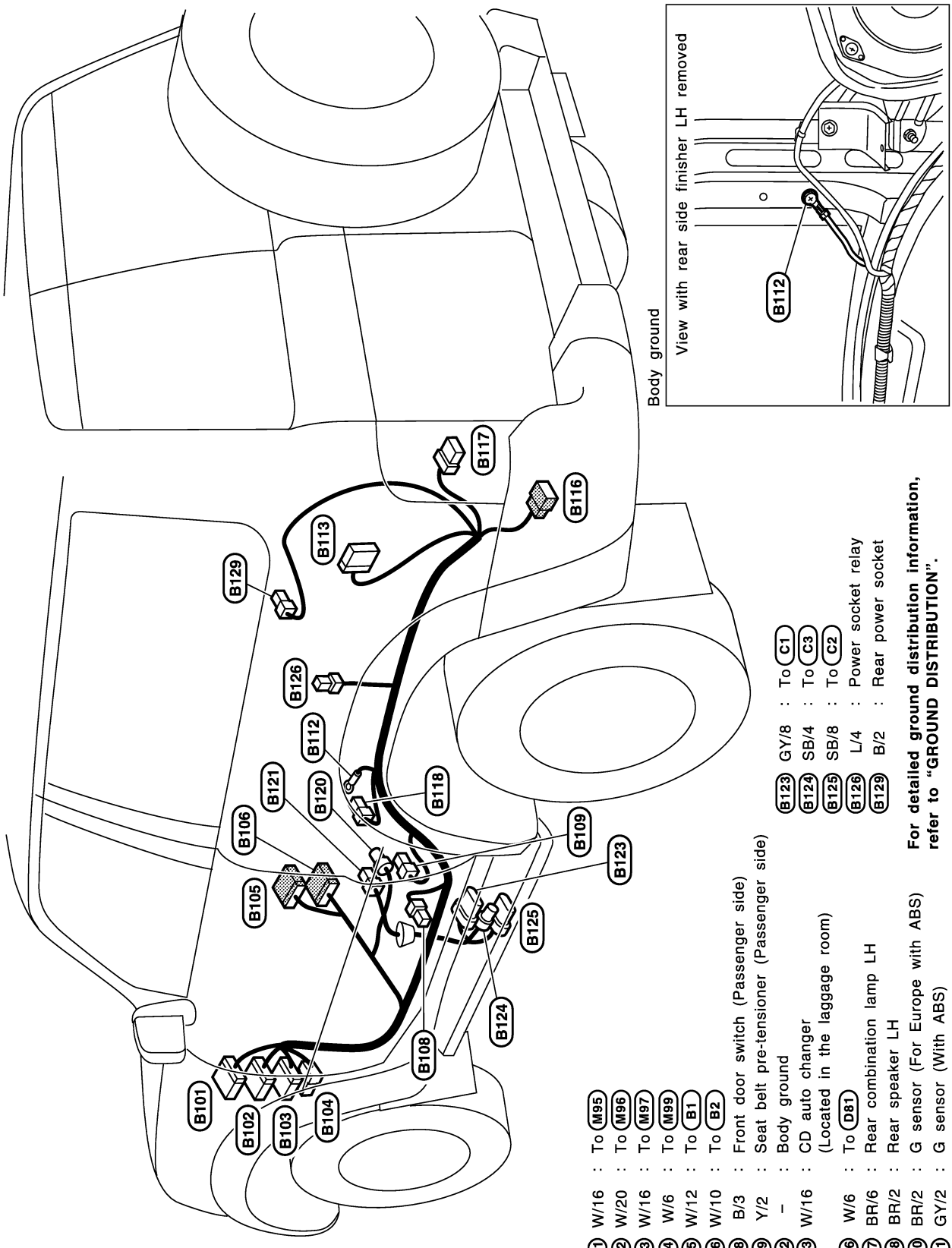
WAGON



CEL482M

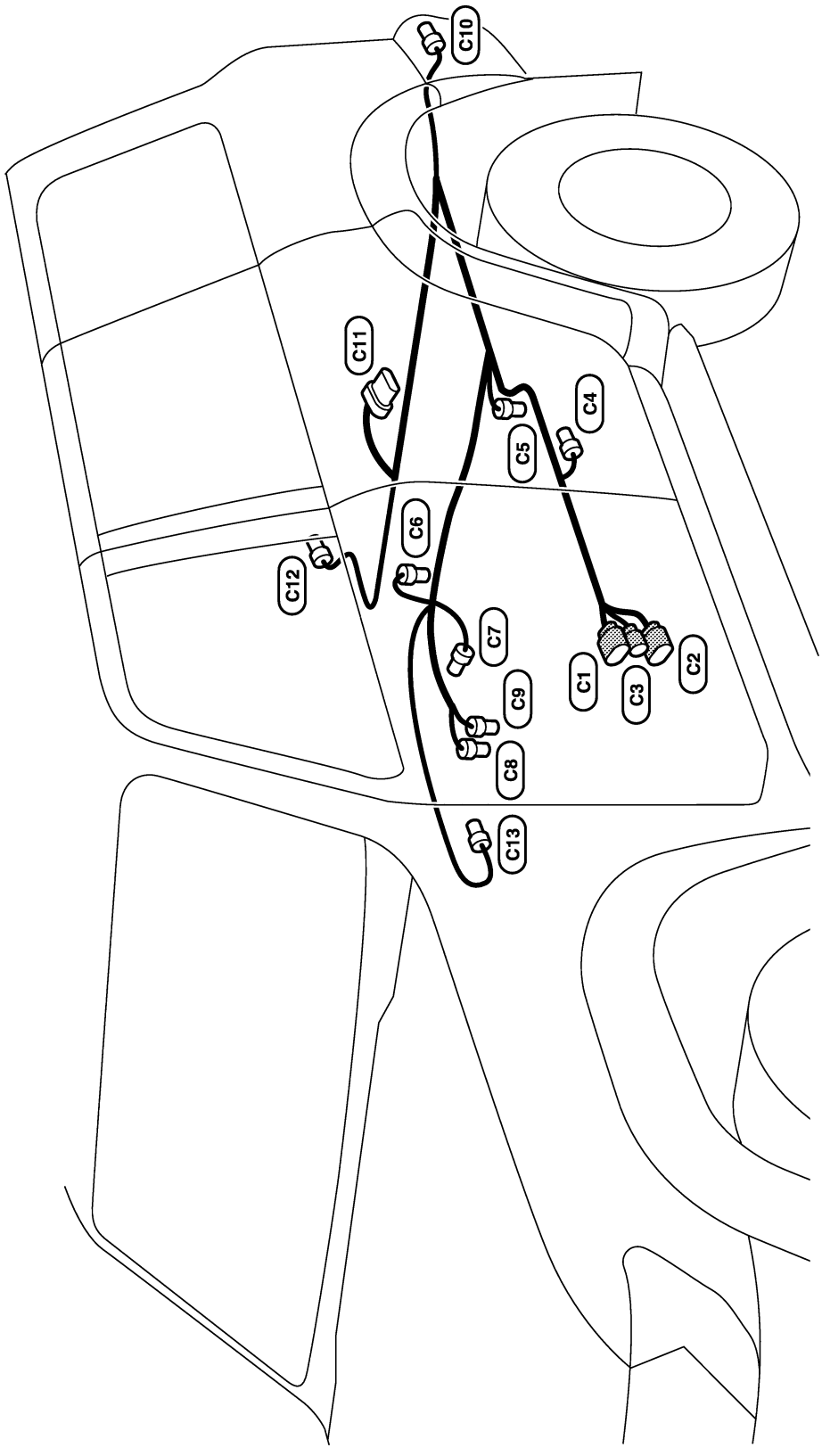
Body No. 2 Harness/RHD Models (Cont'd)

HARDTOP



CEL483M

Chassis Harness



C1 GY/8 : To B35 (LHD models)
To B123 (RHD models)
C2 SB/8 : To B37 (LHD models)
To B125 (RHD models)
C3 GY/4 : To B36 (LHD models)
To B124 (RHD models)
C4 B/3 : Stabilizer actuator
(ZD engine models with stabilizer release device)
C5 BR/2 : Rear wheel sensor LH
C6 GY/2 : Rear wheel sensor RH
C7 BR/2 : Diff lock indicator switch
C8 GY/3 : Sub fuel tank gauge unit
C9 GY/2 : Sub fuel tank gauge unit
C10 SB/4 : Rear bumper combination lamp LH
C11 GY/6 : Fuel tank gauge unit
C12 SB/4 : Rear bumper combination lamp RH
C13 B/3 : Stabilizer actuator (TB48 engine models with stabilizer release device)

CEL489M

Back Door Harness and Rear Window Defogger Harness

BACK DOOR HARNESS LH

- D81 W/6 : To B29 (LHD models)
  To B116 (RHD models)
- D82 W/2 : License plate lamp
- D83 – : Body ground
- D84 BR/1 : To D133
- D85 B/3 : Back door switch LH
- D86 GY/4 : Back door lock actuator
- D87 W/4 : To B55 (LHD models) } (With theft warning system)
  To B135 (RHD models) }
- D88 BR/3 : Back door key cylinder switch

BACK DOOR HARNESS RH

- D101 W/6 : To B116 (LHD models)
  To B29 (RHD models)
- D102 BR/1 : To B115 (LHD models)
  To B28 (RHD models)
- D103 BR/1 : To D121
- D104 W/2 : High-mounted stop lamp
- D105 W/4 : Rear wiper motor
- D106 – : Body ground
- D107 W/3 : Back door switch RH

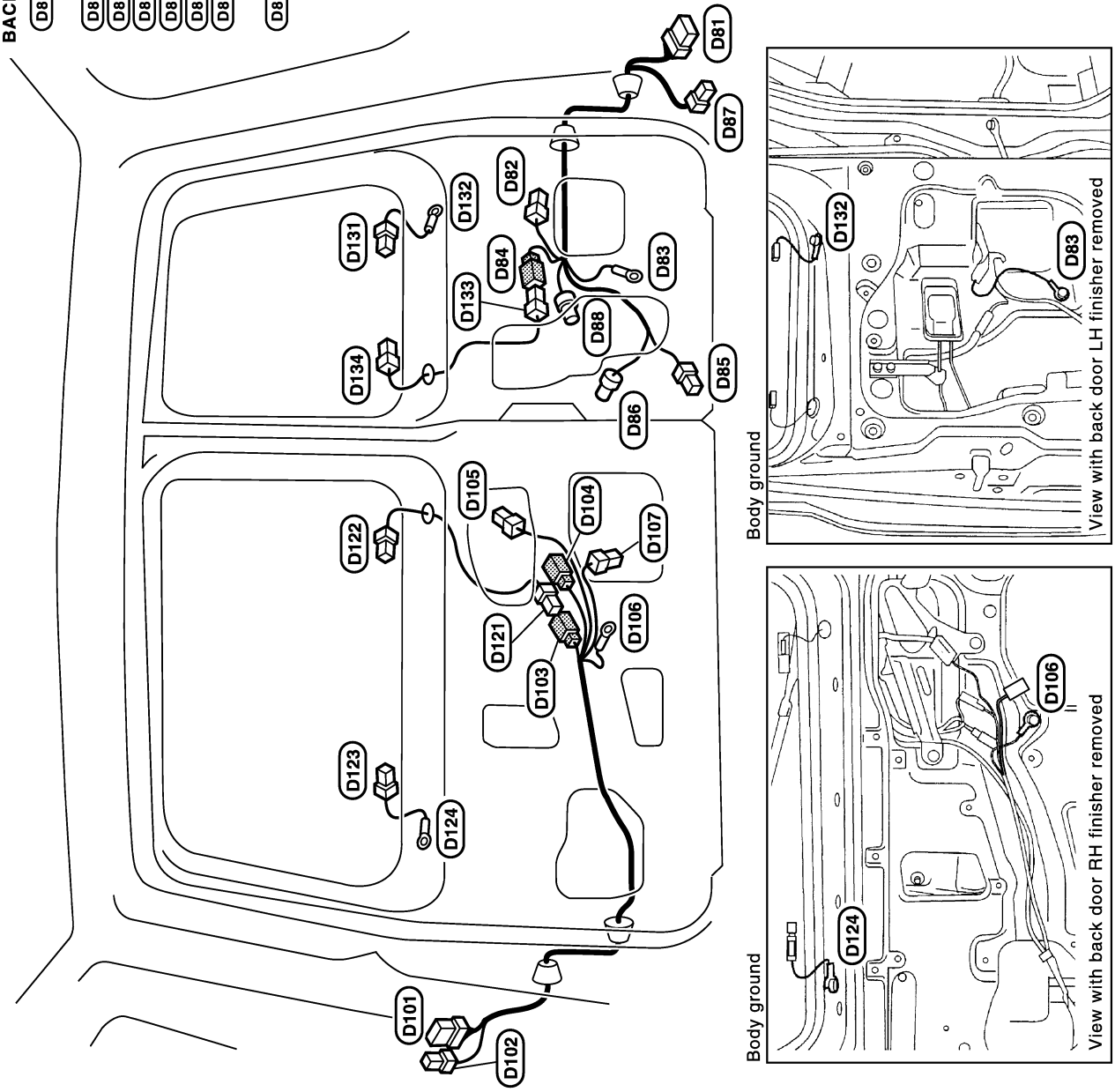
REAR DEFOGGER HARNESS RH

- D121 BR/1 : To D103
- D122 B/1 : Rear window defogger RH (+)
- D123 B/1 : Rear window defogger RH (–)
- D124 – : Body ground

REAR DEFOGGER HARNESS LH

- D131 B/1 : Rear window defogger LH (–)
- D132 – : Body ground
- D133 BR/1 : To D84
- D122 B/1 : Rear window defogger LH (+)

For detailed ground distribution information, refer to "GROUND DISTRIBUTION".



CEL420M

Wiring Diagram Codes (Cell Codes)

Use the chart below to find out what each wiring diagram code stands for.
Refer to the wiring diagram code in the alphabetical index to find the location (Page number) of each wiring diagram.

Code	Section	Wiring Diagram Name
A/C, A	HA	Auto Air Conditioner
A/C, M	HA	Manual Air Conditioner
A/T	AT	A/T
ABS	BR	Anti-lock Brake System
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
APS	EC	Accelerator Position Sensor
ASCD	EL	Automatic Speed Control Device
AT/IND	EL	A/T Indicator Lamp
AUDIO	EL	Audio
BACK/L	EL	Back-up Lamp
BRK/SW	EC	Brake Switch Signal
CAN	AT	CAN Communication Line
CAN	EC	CAN Communication Line
CAN	EL	CAN Communication Line
CD/CHG	EL	CD Auto Changer
CHARGE	EL	Charging System
CHIME	EL	Warning Chime
CIGAR	EL	Cigarette Lighter
CKPS	EC	Crankshaft Position Sensor
CLOCK	EL	Clock
CMPS	EC	Camshaft Position Sensor
COMPAS	EL	Compass and Thermometer
COOL/F	EC	Cooling Fan Control
D/C	AT	Direct Clutch Solenoid Valve
D/CF	AT	Direct Clutch Solenoid Valve
D/LOCK	EL	Power Door Lock
DEF	EL	Rear Window Defogger
DEICER	EL	Wiper Deicer
DIFF/L	PD	Differential Lock
DLC	EC	Data Link Connector
DTRL	EL	Headlamp — Daytime Light System
E/BRE	AT	A/T 1st Engine Braking
ECMRLY	EC	ECM Relay
ECTS	EC	Engine Coolant Temperature Sensor
EGRC/V	EC	EGRC-Solenoid Valve and Throttle Control Solenoid Valve

Code	Section	Wiring Diagram Name
EGVC/V	EC	EGR Volume Control Valve
ETC1	EC	Throttle Control Motor
ETC2	EC	Throttle Control Motor
ETC3	EC	Throttle Control Motor
F/FOG	EL	Front Fog Lamp
F/PUMP	EC	Fuel Pump
FCUT	EC	Fuel Cut System
FICD	EC	IACV-FICD Solenoid Valve
FPSW1	AT	ATF Pressure Switch 1
FPSW3	AT	ATF Pressure Switch 3
FPSW5	AT	ATF Pressure Switch 5
FPSW6	AT	ATF Pressure Switch 6
FR/B	AT	Front Brake Solenoid Valve
FR/BF	AT	Front Brake Solenoid Valve
FTS	AT	A/T Fluid Temperature Sensor Circuit
FUELB1	EC	Fuel Injection System Function (Bank 1)
FUELB2	EC	Fuel Injection System Function (Bank 2)
GLOW	EC	Quick Glow System
H/AIM	EL	Headlamp Aiming Control System
H/LAMP	EL	Headlamp
HLC	EL	Headlamp Washer
HLR/C	AT	High and Low Reverse Clutch Solenoid Valve
HLR/CF	AT	High and Low Reverse Clutch Solenoid Valve
I/C	AT	Input Clutch Solenoid Valve
I/CF	AT	Input Clutch Solenoid Valve
I/LOCK	AT	A/T Interlock
IATS	EC	Intake Air Temperature Sensor
IGNSYS	EC	Ignition Signal
ILL	EL	Illumination
INJECT	EC	Injector
INJPMP	EC	Electronic Control Fuel Injection Pump
INT/V	EC	Intake Air Control Valve Control Solenoid Valve

Wiring Diagram Codes (Cell Codes) (Cont'd)

Code	Section	Wiring Diagram Name
IVC	EC	Intake Valve Timing Control Solenoid Valve
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 Circuit
METER	EL	Meter and Gauges
MIL	EC	Mulfunction 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 Control 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 -
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