

Disclaimer

This is strictly my personal documentation for the wiring modifications I did on my 1993 Mazda RX7 from January 2010 – December 2012. This is not a tutorial. These modifications are mostly NOT NEEDED for the average LS1 swap. Expert knowledge of the factory wiring manual is REQUIRED to follow this document. I am not responsible for any damage that these diagrams may produce to your car or yourself.

Any modifications you see in this document should be thoroughly understood before you attempt to re-create what I have done. Specifically the connectors I added to the various harnesses throughout the RX7's chassis; X-00, X-25, X-26, X-27, and Z-01 through Z-13. All of these connections have been designed, named, and added by me and must be considered when planning your own modifications based on this document.

Notes:

This document is organized as follows:

- Explanation of what factory parts / connectors I've deleted with my modifications
- Explanation of electrical features I've lost and features I've gained.
- Factory diagrams annotated by me to show modifications.
- Documents covering each new connector and the LS1 harness in detail.
- Hand drawn diagrams covering new circuits integrated into existing harnesses.

Wire colors mentioned throughout this document may not be 100% accurate but the pin / connector positions should be 100%. I always recommend using a continuity meter when in doubt.

I made the mistake of labeling new connectors Z-01 through Z-13. These connectors could also be confused with page numbers in the factory wiring manual. However, if I say "see Z-13 for more details" I'm referring to the documents that come after the factory diagrams in the file that cover the extra connectors in detail and NOT page 13 of the factory wiring manual.

Explicit details about my alarm wiring, placement, and consequently full documentation on connector Z-01 is not included in this file for obvious reasons :)

My build thread can be seen at <http://www.norotors.com/index.php?topic=70.0>

I do not offer support for this document but welcome corrections. I can be reached under the username halfspec on norotors.com or by email at halfspec@gmail.com

Thanks / Credit:

Danzan for your stickies on v8rx7forum.com and norotors.com which jumpstarted this process

Pez for your help over PM, email, and phone + your A/C diagram.

digitalsolo for hosting norotors.com and hosting this file :)

SemiSouth Labs for laying off 90+ employees and giving me the 60+ hours it took to put this document together (something that would have otherwise probably never happened).

Electrical parts removed:

120A MAIN Fuse, connector, and Wiring

*A/C Relay

*A/C Pressure Switch

Air Bag

Air Bag Harness and ALL 10 connectors

Air Bag Impact Sensors

Air Bag Diagnostic Module

Air Pump Relay

Bose Speaker + Enclosures / Waveguide

Clockspring and *Steering Wheel

Cruise Control steering wheel switch

Cruise Control Gauge Cluster switch

Circuit Opening Relay

Condenser

Center Speaker Amplifier

Center Speaker

Cruise Control Unit

Cruise Control Actuator

*Door Lock Timer Unit

*ECU

EGI MAIN Relay

EL Unit

Emission Harness

Engine Harness

Exhaust Heat Warning Sensor

*Fan Relays 1-4

*Fuel Pump Relay

Front Relay Box

Front Windshield Washer Motor

Fuel Pump Resistor

Head Unit

*Gauge Cluster

*Horns

*Horn Relay

Option Switch

Radio Relay

*Rear Defroster Relay

Rear Washer Motor

Rear Wiper Motor + Arm.

Starter Cut Relay

*TNS Relay

* = Item was replaced or relocated with a newer or an updated version that supports the LS1 engine swap.

Electrical connectors removed:

A1-03 -> Starter Cut Relay Connector
B1-20 -> EL Unit Connector + Wiring
B1-01 -> ECU Connector + Wiring
B1-02 -> EGI Main Relay Connector + Wiring
B1-03 -> Circuit Opening Relay Connector + Wiring
B1-04 -> Fuel Pump Relay Connector + Wiring
B1-05 -> Fuel Pump Resistor Connector + Wiring
B1-05 -> A/P Relay Connector + Wiring
B1-09 -> Igniter Connector + Wiring
B1-10 -> Condenser Connector + Wiring
B1-45 -> Pressure Sensor Connector + Wiring
B1-52 -> Clutch Switch Connector + Wiring
B2-01 -> Cooling Fan Relay No. 1 Connector + Wiring
B2-02 -> Cooling Fan Relay No. 2 Connector + Wiring
B2-03 -> Cooling Fan Relay No. 3 Connector + Wiring
B2-04 -> Cooling Fan Relay No. 4 Connector + Wiring
B2-05 -> Cooling Fan Motor No. 1 Connector + Wiring
B2-06 -> Cooling Fan Motor No. 2 Connector + Wiring
C1-01 -> Instrument Cluster Connectors + Wiring
C1-02 -> Exhaust Heat Warning Sensor Connector + Wiring
D1-02 -> Front Windshield Washer Motor Connector + Wiring
D1-01 -> Rear Wiper motor connector + Wiring
D2-02 -> Rear Washer motor connector + Wiring
E1-06 -> LH Headlight Connector
E1-07 -> RH Headlight Connector
E1-02 -> RETRACTABLE headlight relay connector
E3-09 -> TNS Relay Connector
E1-05 -> Headlight Relay Connector
F3-03 -> Horn Relay Connector + Wiring.
F3-04 -> Horn Switch Connector
F3-05 -> LH Horn Connector + Wiring
F3-06 -> RH Horn Connector + Wiring
G-03 -> AC Relay Connector + Wiring
G-04 -> A/C Pressure Switch + Wiring
I1-01 - Rear Defroster Relay Connector
J2-01 -> Audio Unit Connector
J2-04 -> Acoustic Wave Guide Assembly connector + Wiring
J2-05 -> Radio Relay Connector + Wiring
J2-07 -> Center Speaker Connector
J2-06 -> Center Speaker Amplifier Connector + Wiring
J2-08 -> Audio Ground Harness Connector + Wiring
J4-04 -> Option Switch Connector + Wiring
K2-01 -> Door Lock Timer Unit Connector
Q-01 -> Cruise Control Unit Connector + Wiring
Q-02 -> Cruise Control Main Switch Connector + Wiring
Q-04 -> Cruise Control Actuator Connector + Wiring
Q-05 -> Cruise Control Steering Wheel Switch Connector + Wiring
U-01 -> Diagnosis Connector + Wiring.
*X-01 -> Main Fuse Box
*X-02 -> Relay Fuse Box
X-05 -> Connector between Front and Emission harnesses
X-09 -> Connector between Front and Air Bag harnesses
X-11 -> Connector between Front and Engine harnesses
X-12 -> Connector between Front and Engine harnesses
X-14 -> Connector between Emission and Dash harnesses
**X-15 -> Connector between Instrument and Hash harnesses
**X-16 -> Connector between Instrument and Dash harnesses
X-18 -> Connector between Instrument and Instrument #2 harnesses
* = Item was replaced or relocated with a newer or an updated version that supports the LS1 engine swap.
** = Cannot be removed without merging some wires to X-17. See X connector index for details.

Features Lost:

Air Bags
A quiet fuel pump
Bose Speaker System
Center Speaker
*Cruise Control
Driver's side control of passenger door lock
Rear Wiper
Windshield Washers

* Adding a stock Camaro cruise control module is an option and is supported by my wiring.

Features Gained:

Programmable Gauge Cluster with Shift and Idiot Lights.
Programmable Dash-top Auxiliary Gauge Pod
Racelogic Traction Control
LS1 PCM Controlled Dual Stage Fan Control
LS1 PCM controlled A/C Compressor Control
Integrated Viper 5901 2way Alarm.
Remote Door Lock/Unlock
Remote Trunk Release
HID Lighting
Louder/Manlier Horns
Integrated AEM UEGO Wideband with built in HPtuners connection
Consolidated Engine Bay Fuse Box
Centrally Relocated Battery
Switched 12V Auxiliary Connector Located by Dome Light
A Fully Documented Wiring Manual :)

Mazda RX-7

1993
Wiring Diagram



+ LS1 Wiring Modifications by Halfspec

MAZDA

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1993 Mazda RX-7 Wiring Diagram

FOREWORD

This wiring diagram incorporates the wiring schematics of the basic vehicle and available optional equipment. Actual vehicle wiring may vary slightly depending on optional equipment or local specifications, or both. All information in this booklet is based on information available at the time of printing. Mazda Motor Corporation reserves the right to make changes without previous notice.

Mazda Motor Corporation
HIROSHIMA, JAPAN

APPLICATION:

This manual applies to vehicles beginning with the Vehicle Identification Numbers (VIN) on the following page.

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SCHEMATIC

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DIAGRAM/
CONNECTOR LOCATIONS

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COMMON CONNECTORS

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COMPLETE WIRING
SYSTEM

JB

PARTS LOCATION

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GENERAL INFORMATION

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VEHICLE IDENTIFICATION NUMBERS (VIN) (CHASSIS NUMBER)

JM1 FD331* P0 200001~

JM1 FD332* P0 200001~

FEDERAL & CALIFORNIA

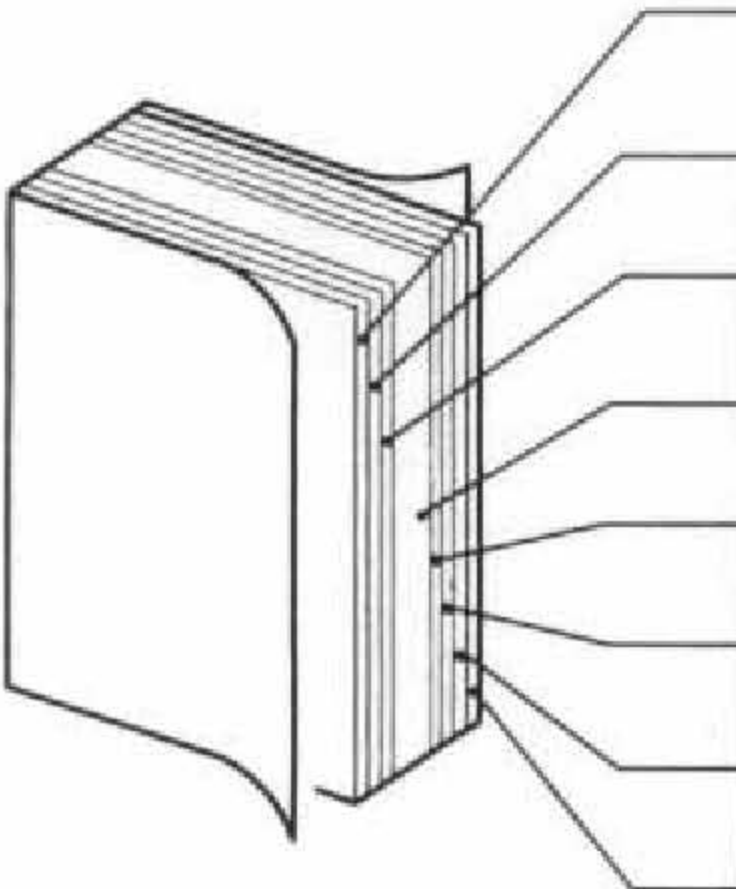
CANADA

WIRING COLOR CODE

Color	Code	Color	Code
Blue	L	Natural	N
Black	B	Orange	O
Brown	BR	Pink	P
Dark Blue	DL	Red	R
Dark Green	DG	Purple	PU
Green	G	Tan	T
Gray	GY	White	W
Light Blue	LB	Yellow	Y
Light Green	LG	Violet	V

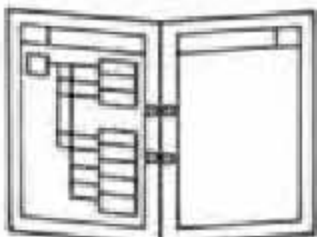
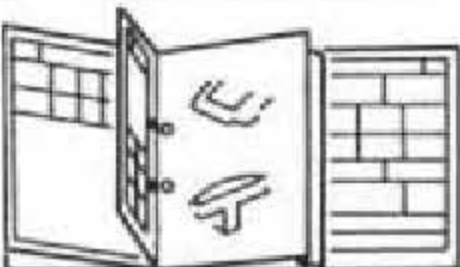
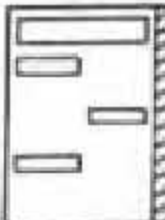
Contents of wiring diagrams

- This document comprises the 8 groups shown below. The main components are summarized in the components location diagram at the end of the document.

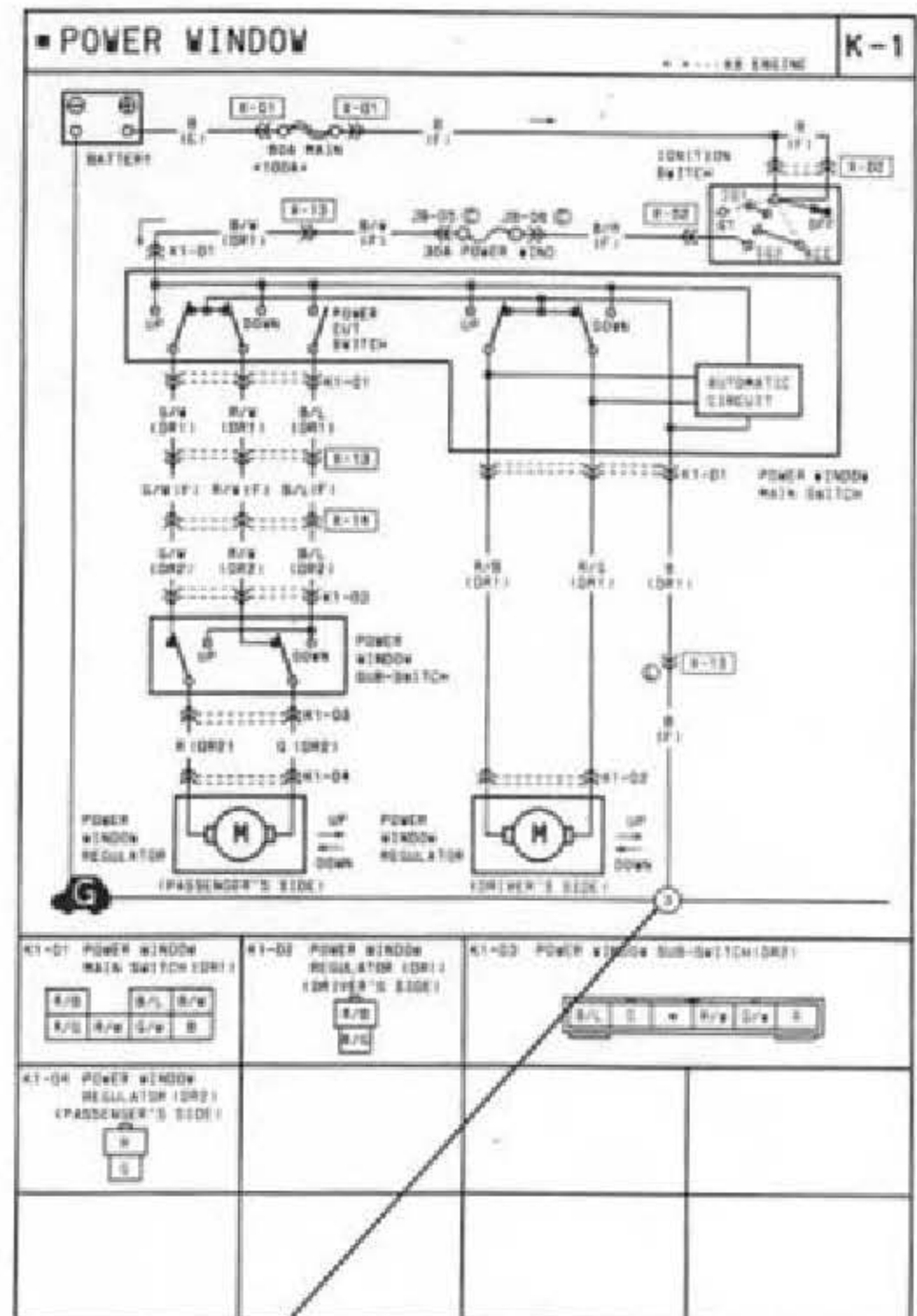
	GI	General Information	A how-to on using and reading wiring diagrams, using test equipment, checking harnesses and connectors, and finding trouble spots
	Y	Ground points	Ground routes from and to the battery
	W	Electrical wiring schematics	Shows main fuses and other fuses for each system
	A~U	Circuit diagrams for individual systems	Shows circuit and connector diagrams and component and connector location diagrams
	X	Common connectors	Shows connectors common throughout system
	JB	Joint box complete wiring system	Shows internal circuits and connectors
	PL	Parts location	Shows location of major electrical parts
	PI	Index	Gives page number of circuit diagram for each component

Using wiring diagrams

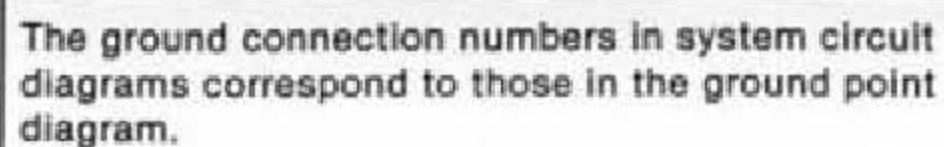
- The use of the wiring diagram depends on its application.

Application	Use	Application	Use
For checking circuits of individual systems	 Open to page with circuit diagram and harness routing to be used and fold out common connector diagram or joint box diagram.	For checking fuse connections	 Open to electrical wiring schematic.
For checking ground circuit of individual systems	 Open to page with ground point diagram and fold out common connector diagram or joint box diagram.	For finding page numbers of systems and components	Parts Index  or System Index  Open to parts index or system index.

- This shows ground points of the harness.



On circuit diagrams and ground points

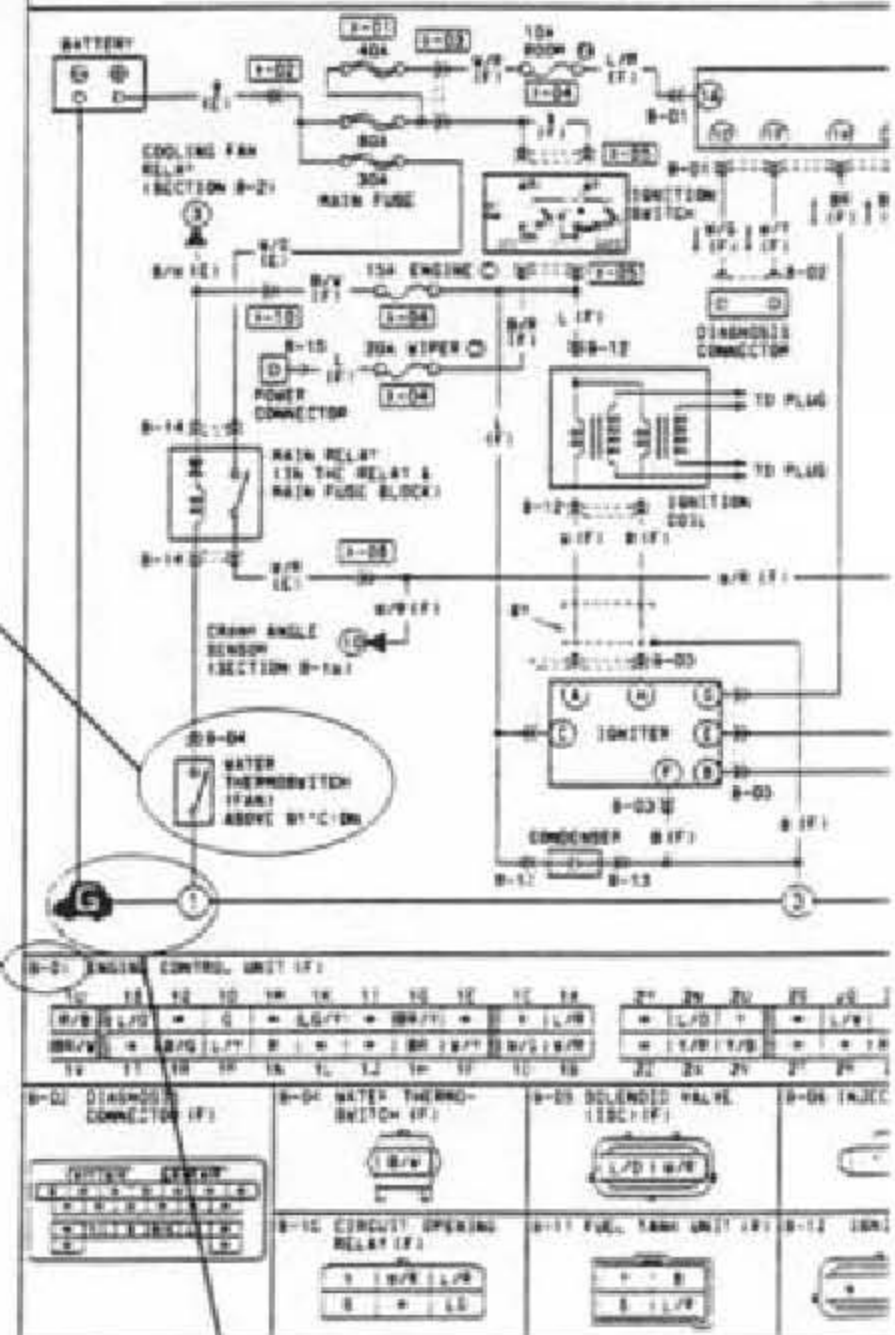


- These show the circuits for each system, from the power supply to the ground. The power supply side is on the upper part of the page, the ground side on the lower part. The diagrams describe circuits with the ignition switch off.

• IGNITION SYSTEM • ENGINE CONTROL

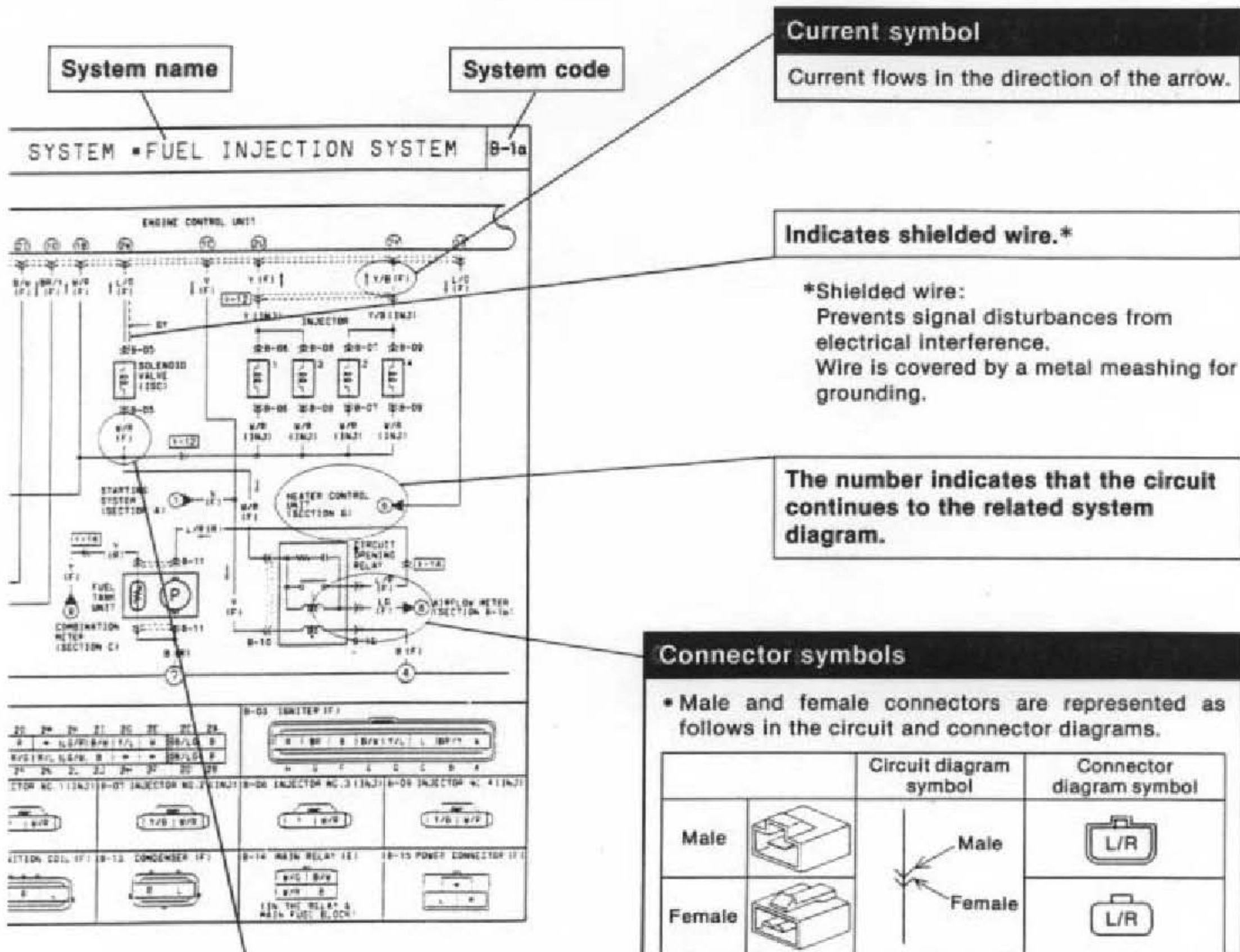
Connector code

JB: Joint box connections
X : Common connectors
A : Charging system/starting system connectors
B : Engine control system connectors
C : Gauge control system connectors
D : Wiper system connectors
E : Lighting system connectors
F : Signal system connectors
G : Air-conditioning system connectors
H : Transmission control system connectors
I : Interior lamp system connectors
J : Audio/radio connectors
K : Power window/power door lock system connectors
L : Remote control mirror system connectors
M : Sliding sunroof system connectors
N : Power steering/4-wheel steering system connectors
O : Anti-lock brake system connectors
P : Power seat/seat heater system connectors
Q : Auto cruise control system connectors
R : Auto adjusting suspension system connectors
S : Passive shoulder belt control/air bag system connectors
T : Others
Y : Ground connector



A harness ground is represented differently than a unit ground.

Types of grounds	Symbol
Harness 	
Unit  Sensor	



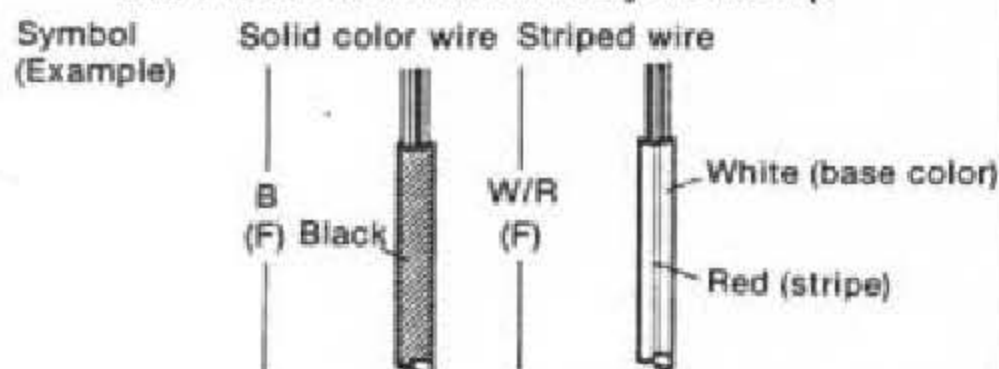
Wire color code (harness symbol)

- Two-color wires are indicated by a two-letter symbol. The first indicates the base color of the wire, the second the color of the stripe.

For example:

W/R is a white wire with a red strip

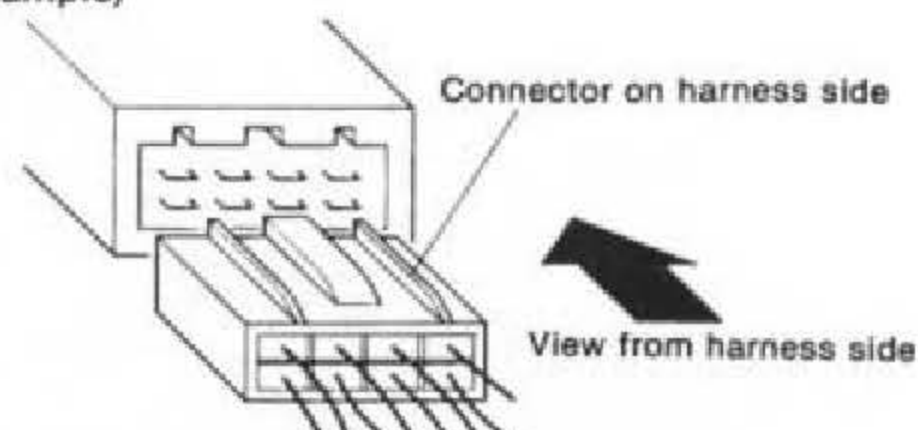
BR/Y is a brown wire with a yellow strip



- The harness symbol is in () following the harness symbols (refer to GI-7.).

- Like connectors are linked by dashed lines between the connector symbols.
- Connector diagrams show connectors on the harness side. The terminal indicates the view from the harness side.

(Example)



- Colors for connectors except milk-white are given in locations.
- Unused terminals are indicated by *.

Routing diagram

- The routing diagram shows where electrical components are on the system circuit diagram by call out line and connector symbols.
- Specified values are listed beside the routing diagram or on the following page.

Connector symbol

Shows the system that uses the connector.

(Example)

Connector	Symbol
Joint box	JB-04
Common connectors	X-19
System connectors	I-03

Component name

Shows the names of components in routing diagrams.

Ground symbol

Shows the ground in system diagrams.

Power Window Motor (RH) I-03

Connector (F) - (DR1) X-15

I-01 Power Window Main Switch

X-16 Connector (F) - (I)

X-19 Connector (F) - (I)

I-02 Power Window Motor (LH)

X-20 Connector (F) - (DR2)

JB-02

JB-04

JB-07

JOINT BOX

Engine control unit terminal (unit side)

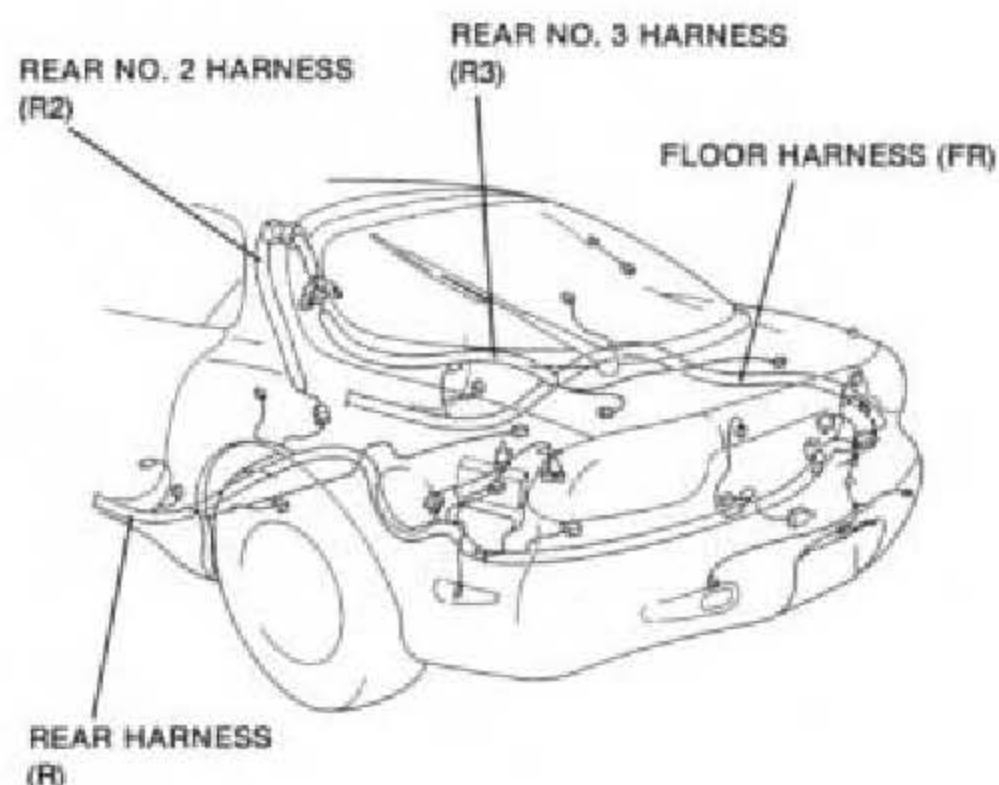
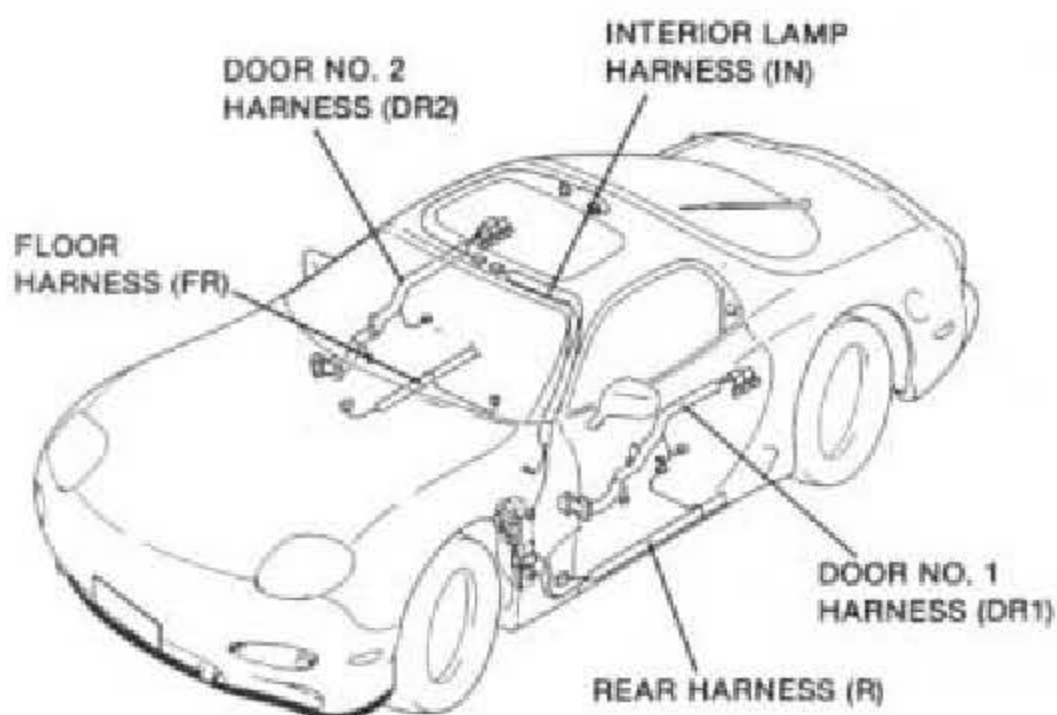
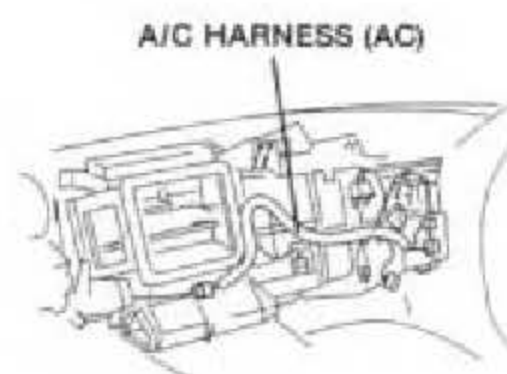
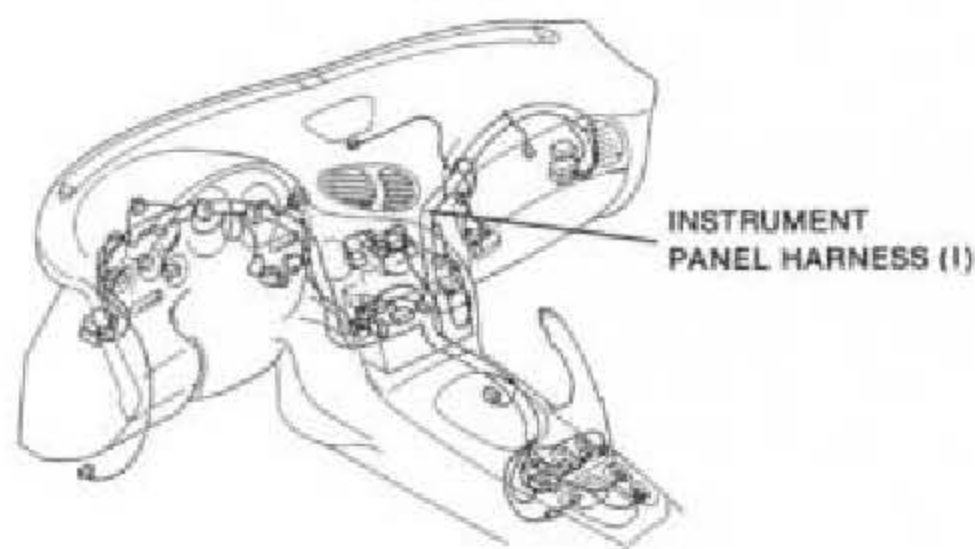
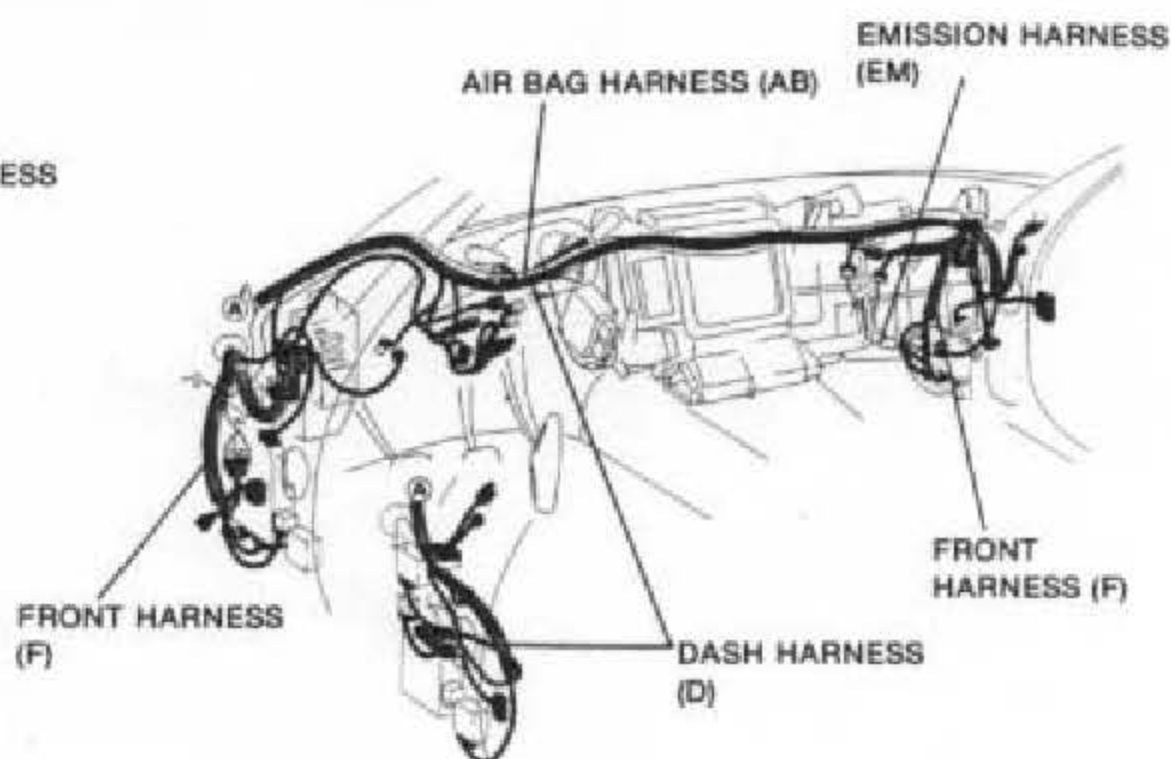
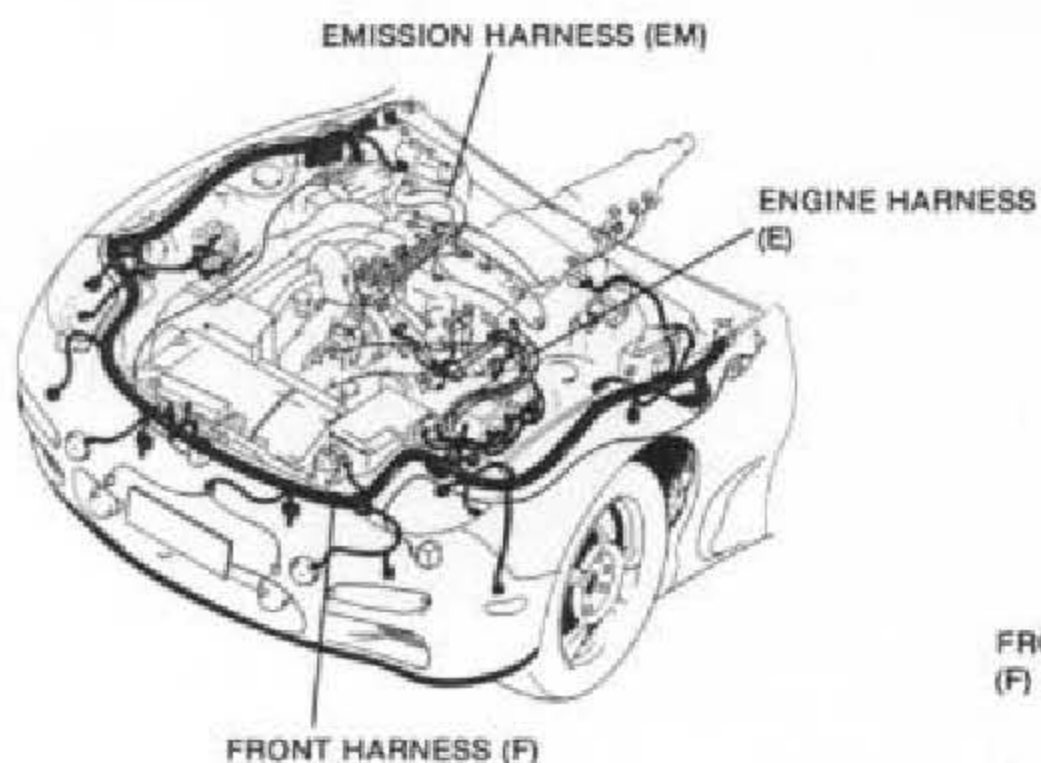
Terminal	Input	Output	Connections to	Test conditions	Voltage	Remark
18	○		Engine speed sensor	At engine speed sensor switch "ON", select "ON"	Approx. 12V	
14	○		Throttle sensor (idle point)	Accelerator pedal released	Approx. 0V	Ignition switch ON
10	○		Brake switch	Accelerator pedal depressed	Approx. 12V	
16	○		P/S pressure switch	Brake pedal released	0V	
12	○		P/S pressure switch	Brake pedal depressed	Approx. 12V	
18	○		Fan switch	Engine switch ON	Approx. 12V	
14	○		Fan switch	P/S ON (at idle)	0V	
10	○		Fan switch	P/S ON (at idle)	Approx. 12V	
16	○		Headlights switch	Fan operating (engine coolant temperature 80°C (176°F) or diagnosis connector terminal TT is grounded)	Approx. 0V	
12	○		Headlights switch	Fan not operating (idle)	Approx. 12V	
14	○		Headlights switch	Headlights ON (Park, parking, low beam or high beam)	Approx. 12V	
10	○		Headlights switch	Headlights OFF	Approx. 0V	
16	○		Neutral or clutch switch	Neutral position or clutch pedal depressed	Approx. 12V	
12	○		Neutral or clutch switch	Other conditions	Approx. 0V	
18	○		Ground (input)	Common	0V	
14	○		Ground (input)	Common	0V	
10	○		Ground (input)	Common	0V	
16	○		Ground (input)	Common	0V	
12	○		Crash angle sensor (no input)	Ignition switch ON	Approx. 0V or 12V	
18	○		Crash angle sensor (no input)	Idle	Approx. 12V	
14	○		Crash angle sensor (no input)	Ignition switch ON	Approx. 0V or 12V	
10	○		Crash angle sensor (no input)	Idle	Approx. 12V	
16	○		Ground	Common	0V	
12	○		Reverse sensor	Common	4.5 - 5.5V	
18	○		Throttle sensor (Power terminal)	Accelerator pedal released	Approx. 0V	
14	○		Throttle sensor (Power terminal)	Accelerator pedal fully depressed	Approx. 12V	
10	○		Clutch sensor	Ignition switch ON	0V	
16	○		Clutch sensor	Idle (K&L engine)	0V	
12	○		Clutch sensor	Idle (After warm up)	0 - 1V	
18	○		Clutch sensor	Engine speed (After warm up)	0.5 - 1V	
14	○		Clutch sensor	Deceleration	0 - 0.5V	
10	○		Reverse sensor	Ignition switch ON	Approx. 0V or 12V	
16	○		Reverse sensor (Power terminal)	Idle	Approx. 0.5V	
12	○		Reverse sensor (Power terminal)	At 20°C (68°F)	Approx. 0.5V	
18	○		Water temperature sensor	Engine coolant temperature 20°C (68°F)	Approx. 0.5V	
14	○		Water temperature sensor	After warm up	Approx. 0.4V	

Specified values

Shows values for determining whether an electrical component is good.

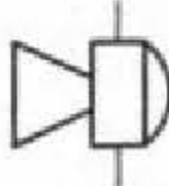
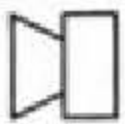
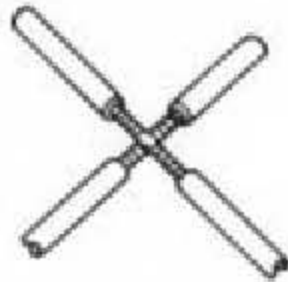
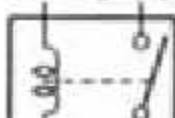
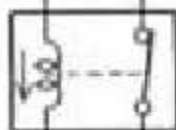
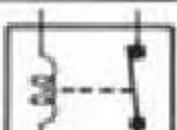
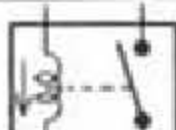
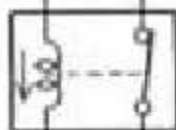
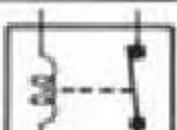
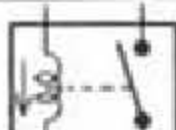
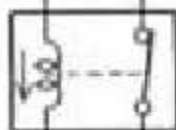
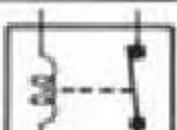
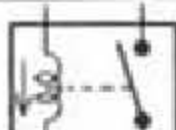
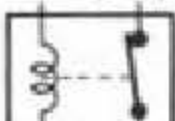
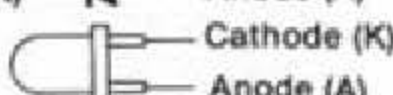
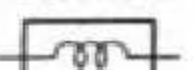
Harness symbols

DESCRIPTION OF HARNESS	COLOR	SYMBOL	DESCRIPTION OF HARNESS	SYMBOL
FRONT HARNESS		(F)	REAR HARNESS	(R)
ENGINE HARNESS		(E)	REAR NO. 2 HARNESS	(R2)
DASH HARNESS		(D)	REAR NO. 3 HARNESS	(R3)
INSTRUMENT PANEL HARNESS		(I)	FLOOR HARNESS	(FR)
EMISSION HARNESS		(EM)	DOOR NO. 1 HARNESS	(DR1)
A/C HARNESS		(AC)	DOOR NO. 2 HARNESS	(DR2)
INTERIOR LAMP HARNESS		(IN)	AIR BAG HARNESS	(AB)

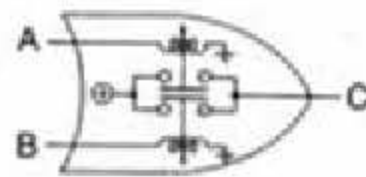
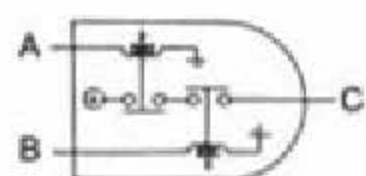
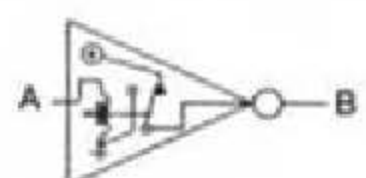
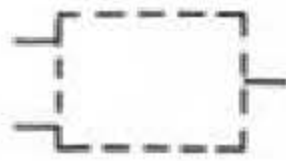
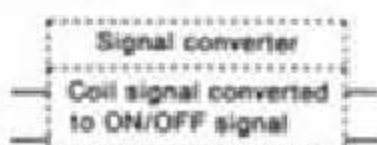


Symbols

Symbol	Meaning	Symbol	Meaning																																																																										
Battery	- Generates electricity through chemical reaction. - Supplies direct current to circuits.	Resistance	- A resistor with a constant value. - Mainly used to protect electrical components in circuits by maintaining rated voltage. - Reading resistance values. <Colored> <table><tr><th rowspan="2">Color</th><th>No. 1</th><th>No. 2</th><th>No. 3</th><th>No. 4</th></tr><tr><th colspan="2">Resistance values</th><th>Multiplier</th><th>Tolerance</th></tr><tr><td>Black</td><td>0</td><td>0</td><td>$\times 10^0$</td><td></td></tr><tr><td>Brown</td><td>1</td><td>1</td><td>$\times 10^1$</td><td></td></tr><tr><td>Red</td><td>2</td><td>2</td><td>$\times 10^2$</td><td></td></tr><tr><td>Orange</td><td>3</td><td>3</td><td>$\times 10^3$</td><td></td></tr><tr><td>Yellow</td><td>4</td><td>4</td><td>$\times 10^4$</td><td></td></tr><tr><td>Green</td><td>5</td><td>5</td><td>$\times 10^5$</td><td></td></tr><tr><td>Blue</td><td>6</td><td>6</td><td>$\times 10^6$</td><td></td></tr><tr><td>Purple</td><td>7</td><td>7</td><td>$\times 10^7$</td><td></td></tr><tr><td>Grey</td><td>8</td><td>8</td><td>$\times 10^8$</td><td></td></tr><tr><td>White</td><td>9</td><td>9</td><td>$\times 10^9$</td><td></td></tr><tr><td>Gold</td><td></td><td></td><td>$\times 10^{-1}$</td><td>$\pm 5\%$</td></tr><tr><td>Silver</td><td></td><td></td><td>$\times 10^{-2}$</td><td>$\pm 10\%$</td></tr><tr><td>—</td><td></td><td></td><td></td><td>$\pm 20\%$</td></tr></table> <Numerical>	Color	No. 1	No. 2	No. 3	No. 4	Resistance values		Multiplier	Tolerance	Black	0	0	$\times 10^0$		Brown	1	1	$\times 10^1$		Red	2	2	$\times 10^2$		Orange	3	3	$\times 10^3$		Yellow	4	4	$\times 10^4$		Green	5	5	$\times 10^5$		Blue	6	6	$\times 10^6$		Purple	7	7	$\times 10^7$		Grey	8	8	$\times 10^8$		White	9	9	$\times 10^9$		Gold			$\times 10^{-1}$	$\pm 5\%$	Silver			$\times 10^{-2}$	$\pm 10\%$	—				$\pm 20\%$
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Ground (1)	- Connecting point to vehicle body or other ground wire where current flows from positive to negative terminal of battery. - Ground (1) indicates a ground point to body through wire harness. - Ground (2) indicates point where component is grounded directly to body. Remarks - Current will not flow through a circuit if ground is faulty.																																																																												
Ground (2)																																																																													
Fuse (1) (box)																																																																													
Fuse (2) (Cartridge)	- Melts when current flow exceeds that specified for circuit, interrupts current flow. Precautions - Do not replace with fuses exceeding specified capacity. <Blade type> <Tube type> <Cartridge type> <Fusible link>																																																																												
Main fuse/ Fusible link																																																																													
Transistor (1) Collector (C) Base (B) Emitter (E) NPN	- Electrical switching component. - Turns on when voltage is applied to the base (B). Collector indication mark Reading code. 2 S C 828 A Semiconductor Number of terminals Revision mark A: High-frequency PNP B: Low-frequency PNP C: High-frequency NPN D: Low-frequency NPN	Motor	Converts electrical energy into mechanical energy.																																																																										
Transistor (2) Collector (C) Base (B) Emitter (E) PNP		Pump	Pulls in and discharges gases and liquids.																																																																										
Lamp		Cigarette lighter	Electrical coil that generates heat.																																																																										

Symbol	Meaning	Symbol	Meaning								
Horn 	• Generates sound when current flows.	Switch (1)  Normally open (NO)	• Allows or breaks current flow by opening and closing circuits.								
Speaker 		Switch (2)  Normally closed (NC)									
Heater 	• Generates heat when current flows.	Harness  (Not connected)	• Unconnected intersecting harness. 								
Speed sensor 	• Movement of magnet in speedometer turns contact within sensor on and off.	 (Connected)	• Connected intersecting harness. 								
Ignition switch 	• Turning ignition key switches circuit to operate various component.										
Relay (1)  Normally open (NO)	• Current flowing through coil produces electromagnetic force causing contact to open or close. <table><tr><td></td><td>No current to coil</td><td>Current to coil</td></tr><tr><td>Normally open relay (NO)</td><td> No flow</td><td> Flow</td></tr><tr><td>Normally closed relay (NC)</td><td> Flow</td><td> No flow</td></tr></table>		No current to coil	Current to coil	Normally open relay (NO)	 No flow	 Flow	Normally closed relay (NC)	 Flow	 No flow	
		No current to coil	Current to coil								
Normally open relay (NO)	 No flow	 Flow									
Normally closed relay (NC)	 Flow	 No flow									
Relay (2)  Normally closed (NC)											
Sensor (variable) 	• Resistance changes with other components operation.	Diode 	• Known as a semiconductor rectifier, the diode allows current flow in one direction only. Cathode (K) — Anode (A) — Flow of electric current K — A K — A K — A K — A								
Sensor (thermistor) 	• Resistance changes with temperature.	Light-emitting diode (LED) 	• A diode that lights when current flows. • Unlike ordinary bulbs, the diode does not generate heat when lit. Cathode (K) — Anode (A)  Cathode (K) Anode (A) Flow of current								
Capacitor 	• Component that temporarily stores electrical charge.	Reference diode (Zener diode) 	• Allows current to flow in one direction up to a certain voltage; allows current to flow in the other direction once that voltage is exceeded.								
Solenoid 	• Current flowing through coil generates electromagnetic force to operate plungers.										

Logic symbols

Types of logic symbols	Operation	Expressing output	Simple relay circuits
OR 	Input to A or B will produce output at C.	Low electrical potential (L) at A and B → no output (L) at C High electrical potential (H) at A or B → output (H) at C	
AND 	Input to A and B will produce output at C.	High electrical potential (H) at A and B → output (H) at C Low electrical potential (L) at A or B → no output (L) at C	
INV 	No input to A will produce an output at B. An input to A will not produce an output at B.	Low electrical potential (L) at A → no ground (H) B High electrical potential (H) at A → grounds (L) B	
PROCESS 	Simplified representation of complex functions within circuit describes main function. 1. Signal detector for engine control unit, cooling unit, and tachometer. 2. Signal converter for turn and hazard flasher unit and igniter unit.		(Examples) Igniters 

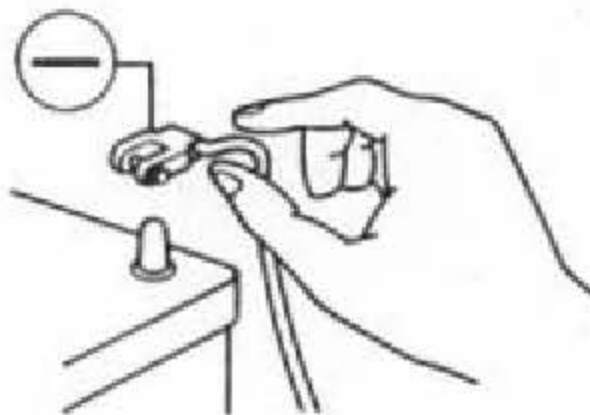
Abbreviations used in this booklet

A	Ampere	ECPS	Electronically Controlled Power Steering	MW	Middle Wave
AAS	Autoadjusting Suspension	ECU	Engine Control Unit	NC	Normally Closed
ABS	Antilock Brake System	EGI	Electronic Gasoline Injection	NO	Normally Open
ACC	Accessory	EGR	Exhaust Gas Recirculation	OD	Overdrive
ACCEL	Accelerator	ELEC	Electric	OFF	Switch Off
ACV	Air Control Valve	ELR	Emergency Locking Retractor	ON	Switch On
ADD	Additional	ETR	Electronic Tuner	P	Power
AE	Acoustic Equilibration	EXH	Exhaust	PRCV	Pressure Regulator Control Solenoid Valve
AIS	Air Injection System	F	Front	PRG	Purge Solenoid Valve
ALL	Automatic Load Leveling	FICB	Fast-Idle Cam Breaker	PTC	Positive Temperature Coefficient Heater
ALT	Alternator	FM	Frequency Modulation	P/S	Power Steering
AM	Amplitude Modulation	F/B	Feedback	QSS	Quick-Start System
AMP	Amplifier	F/I	Fuel Injector	R	Rear
ANT	Antenna	GEN	Generator	REC	Recirculation
AS	Autostop	HEAT	Heater	RF	Right Front
ASV	Air Supply Valve	HEI	High-Energy Ignition	RH	Right Hand
AT	Automatic transmission	HI	High	RPM	Revolutions Per Minute
ATP	Atmospheric Pressure	H/D	Heater/Defroster	RR	Right Rear
ATX	Automatic Transaxle	IG	Ignition	SOL	Solenoid
A/C	Air Conditioner	ILLUM	Illumination	ST	Start
A/F	Air Fuel	INT	Intermittent	SW	Switch
A/R	Auto Reverse	ISC	Idle-Speed Control	TCV	Twin Scroll Turbocharger Solenoid Valve
B	Battery	JB	Joint Box	TEMP	Temperature
BAC	Bypass Air Control Valve	LCD	Liquid Crystal Display	TICS	Triple Induction Control System
B/L	Bilevel	LF	Left Front	TR	Transistor
CARB	Carburetor	LH	Left Hand	TWS	Total Wiring System
CCT	Circuit	LO	Low	V	Volt
CIGAR	Cigarette	LR	Left Rear	VENT	Ventilation
COMBI	Combination	LW	Low Wave	VOL	Volume
CON	Conditioner	M	Motor	VRIS	Variable Resonance Induction System
CONT	Control	MID	Middle	W	Watt(s)
CPU	Central Processing Unit	MIL	Malfunction Indicator Lamp		
CSD	Cold Start Device	MIN	Minute		
DEF	Defroster	MIX	Mixture		
DOHC	Double-Overhead Camshaft	MPX	Multiplex		
EC-ET	Electrically Controlled Automatic Transaxle	MT	Manual Transmission		
		MTR	Mechanical Tuning Radio		
		MTX	Manual Transaxle		

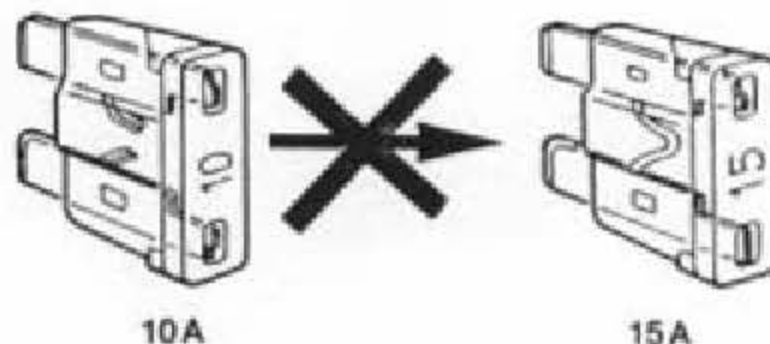
Precautions to take when servicing an electrical system

- Note the following items when servicing the electrical system.
- Do not alter the wiring or electrical equipment in any way; this may damage the vehicle or cause a fire from short-circuiting a circuit or overloading it.

- The negative (–) battery cable must be removed first and installed last.



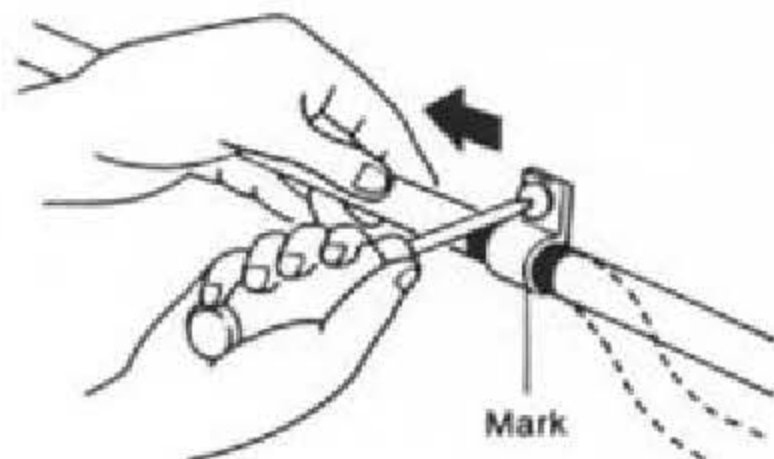
- Do not replace with fuses exceeding specified capacity.



Caution

- Be sure that the ignition and other switches are off before disconnecting or connecting the battery cables. Failure to do so may damage the semiconductor components.

- Secure harnesses with provided clamps to take up slack.

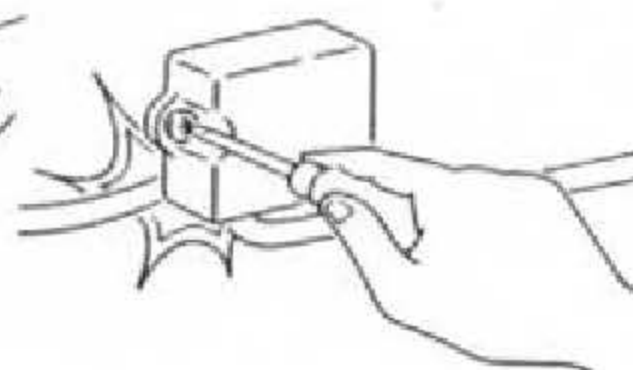
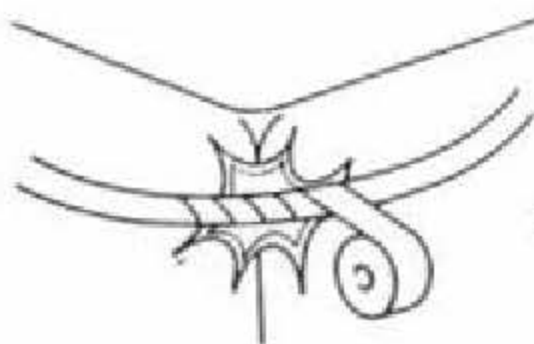


Caution

- Replacing a fuse with one of a larger capacity than designated may damage components or cause a fire.

- Tape areas of the harness that may rub or bump against sharp edges to protect it from damage.

- When mounting components, be sure the harness is not caught or damaged.



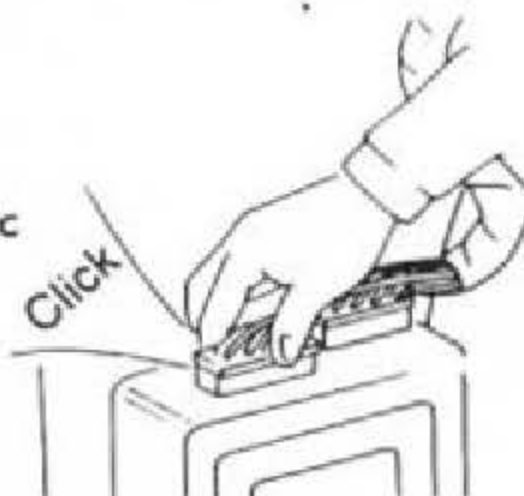
Caution

- Clamp all harnesses near vibrating components (for example, the engine) to remove slack and to prevent contact resulting from vibration.

- Do not handle electrical components roughly or drop them.



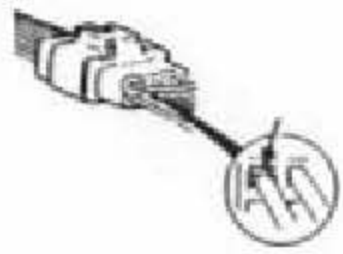
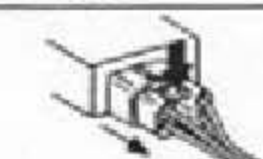
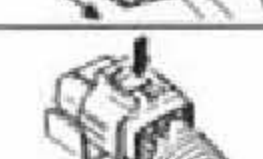
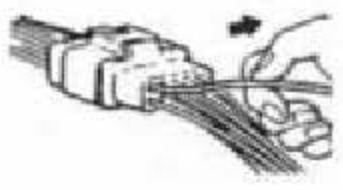
- Disconnect heat-sensitive parts (for example, relays and ECU) when performing maintenance (such as welding) where temperatures may exceed 80°C (176°F).



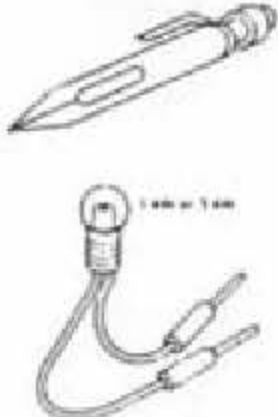
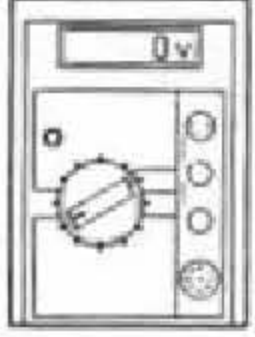
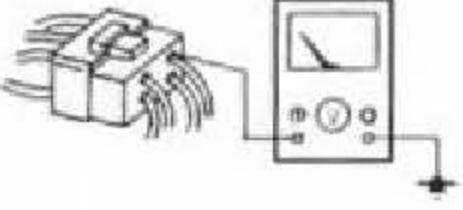
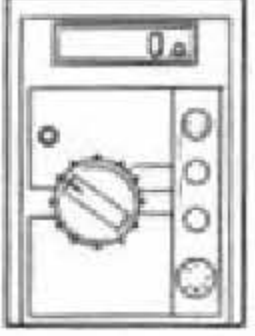
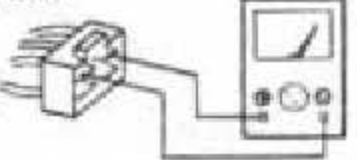
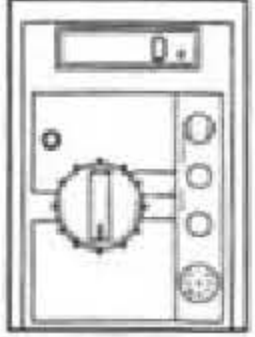
Handling connectors

Caution

- Be sure to grasp the connectors, not the wires, when disconnecting them.

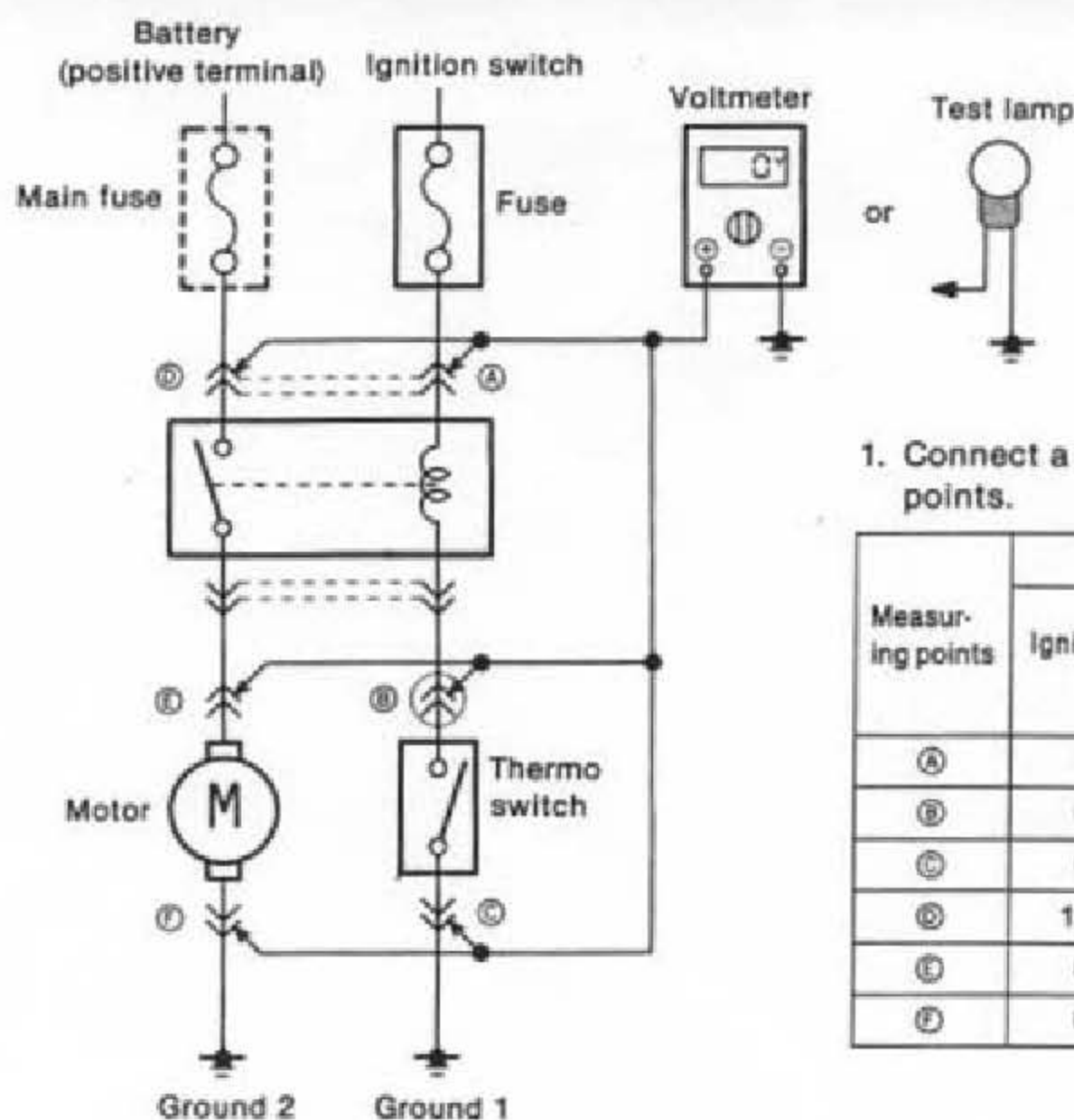
Connector removal		Checking connector contacts	Checking for loose terminals	Replacing terminal
Push type		Caution Improperly engaged connectors will cause poor terminal contact. 	Caution A loose terminal will cause poor terminal contact. 	<CPU connector>  1. Raise the rear cover. 2. Lift the tab with a thin piece of metal and remove the terminal.
				<General connector>  Lift the tab with a thin piece of metal and remove the terminal.
				
				
				
				
				
				
				
				
				
Pull-up type		When using a matching male terminal, make sure there is no looseness in the female terminal.	Make sure the terminals are not pushed out of the connector when engaged. 	<Round connectors>  1. Raise the cover. 2. Lift the terminal to remove it. 3. Make sure the terminal is securely mounted in the connector when installing.
				
				
				
Spring type			Pull lightly on individual wires to check that they are secured in the terminal.	<Common ground connectors>  1. Raise the cover. 2. Remove A. 3. Lift the tab with a thin piece of metal and remove the terminal.

Using electrical measuring equipment

Equipment	Use	Operation	Handling precautions
Test lamp 	Test to find open or shorted circuits.	- Connect the test lamp between the circuit being measured and a ground. - The lamp will light if the circuit is energized to the point tested. 	Test lamps use 12V 1.4W or 3.4W bulbs or light-emitting diodes (LEDs). Using a large-capacity bulb may damage the CPU.
Jumper wire 	Used to create a temporary circuit.	Connect the jumper wire between the terminals of a circuit to bypass a switch. 	Do not connect the jumper wire from the power source line to a ground; this may cause burning or other damage to harnesses or electronic components.
Voltmeter 	Used for measuring the voltage of a circuit to locate possible opens or shorts.	Connect the positive (+) probe to the point where voltage is to be measured and the negative (-) probe to a ground. 	- Connect the voltmeter in parallel with the circuit. - Set the range to the desired voltage. - Use the service hole when measuring the voltage at the diagnosis connector. - Tie a thin wire to the positive (+) probe to access narrow terminals. 
Ohmmeter 	Used to find opens and shorts in the circuit, to confirm continuity and to measure resistance.	- Zero the ohmmeter. - Verify that voltage is not applied to the circuit. - Connect the probes between two points in a circuit. 	- Zero the meter after switching to the measuring range. - Before using the ohmmeter, make sure the ignition switch is off or the negative (-) battery cable is disconnected to prevent burning or otherwise damaging the ohmmeter.
Ammeter 	Used to check alternator output, current supplied to the starter, and dark current within a circuit. Note Dark current is the constant flow of current while the ignition switch is OFF.	Connect the ammeter in series with the circuit by touching the positive (+) probe to the power-side terminal and the negative (-) probe to the ground-side terminal. 	- Set the range to the desired amperage. - Connect the ammeter in series with the circuit. The ammeter may be burned or otherwise damaged if it is connected in parallel.

Measuring voltage

Checks



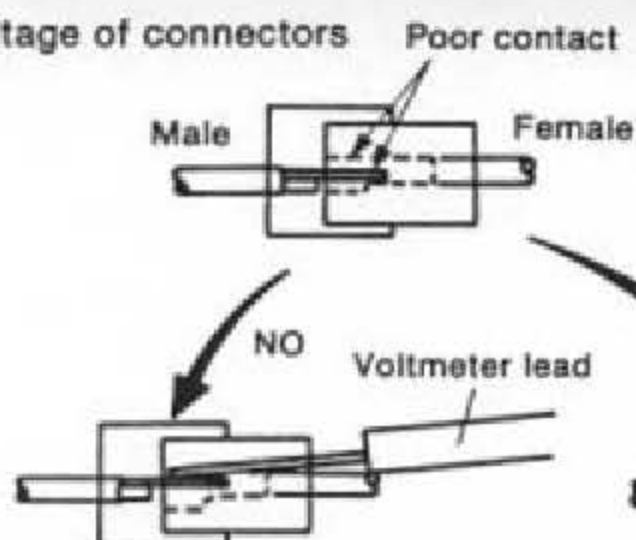
1. Connect a voltmeter or test lamp to the measuring points.

Measuring points	Circuit operation (normal)			
	Ignition switch: OFF	Ignition switch: ON		
		Thermo switch: OFF	Thermo switch: ON	
A	0V $\times$	12V $\odot$	12V $\odot$	
B	0V $\times$	12V $\odot$	0V $\times$	
C	0V $\times$	0V $\times$	0V $\times$	
D	12V $\odot$	12V $\odot$	12V $\odot$	
E	0V $\times$	0V $\times$	12V $\odot$	
F	0V $\times$	0V $\times$	0V $\times$	

$\odot$: Test lamp ON
 $\times$: Test lamp OFF

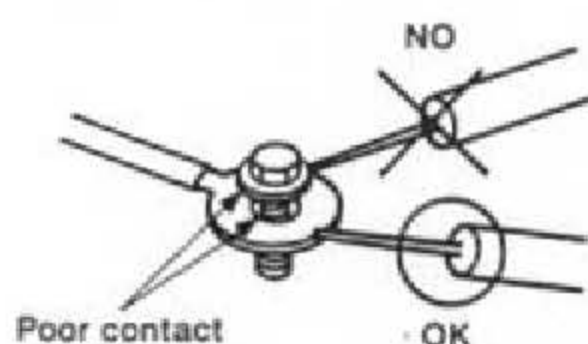
Precautions during checks

Measuring voltage of connectors



A voltmeter probe may momentarily connect a terminal when inserted into the connector and give an erroneous reading when checking for improperly engaged connectors, poor terminal contacts, or loose terminals.

Measuring voltage of ground unit



Touch the voltmeter probe to the ground wire when checking the ground circuit.

Measuring continuity/resistance

Checking switches

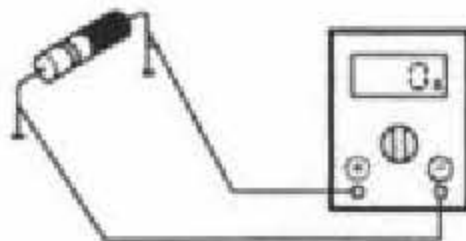


Touch the ohmmeter probes to the switch terminals to check continuity.

Caution

Verify the operating state of the switch before checking continuity because readings vary accordingly.

Checking diodes

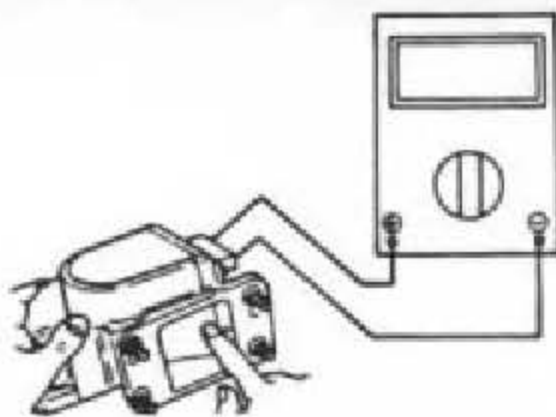


Note
The negative (–) probe of the ohmmeter is connected to the positive terminal of the internal ohmmeter battery, the positive (+) probe to the negative terminal of the battery.

Continuity is checked according to the direction of the positive (+) and negative (–) probes of the ohmmeter in the circuit containing the diode.

Connection	Continuity
	Yes
	No

Checking sensors and solenoid valves

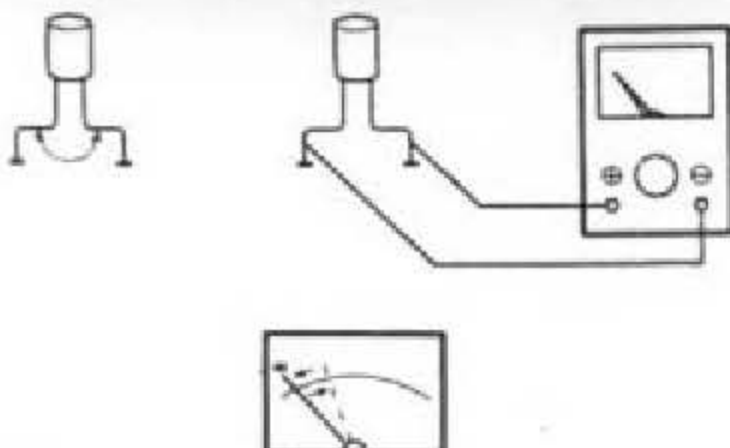


Connect the ohmmeter probes to the sensor or solenoid valve terminals to check resistance.

Caution

Verify the operating state of the sensor before checking resistance because readings vary accordingly.

Checking condensers

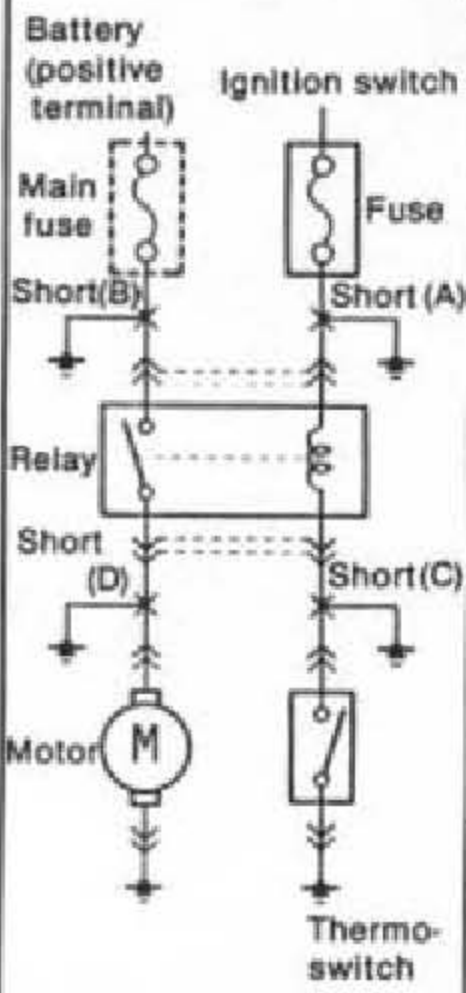


1. Short between the terminals with a jumper wire to discharge the capacitor.
2. Set the ohmmeter range to $\times 10\text{k}\Omega$ and connect it to the capacitor terminals.
3. The capacitor is good if the needle of the ohmmeter swings once and returns to its original position.

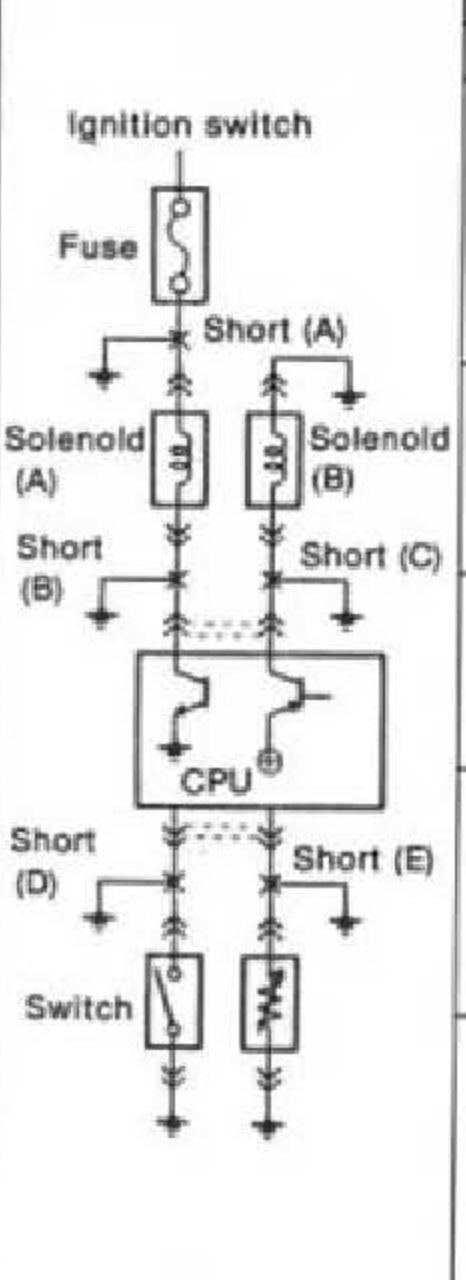
Finding short circuits

Shorts occur between the power (positive) and ground (negative) sides of a circuit. Therefore, finding a short circuit requires determining how the circuit is routed.

Circuits not connected to control unit

	Examples		Finding short circuit
	Short location	Symptom	
	Short (A)	Fuse melts. 	 1. Remove the fuse and main fuse of the circuit. 2. Disconnect all connectors of electrical components in the circuit. 3. Attach a voltmeter or test lamp to the fuse box and reconnect each connector, beginning nearest the power source. 4. Check the voltmeter reading or test lamp as the connectors are connected. A short has occurred where the voltmeter reading changes or the test lamp comes on.
	Short (B)	Main fuse melts. 	
	Short (C)	- The motor operates regardless of whether the thermoswitch is ON or OFF when the ignition switch is ON. - The fuse is not melted.	
	Short (D)	The main fuse melts when the ignition switch and thermoswitch are ON and the relay is operating.	

Circuits connected to control unit

	Examples		Finding short circuit
	Short location	Symptom	
	Short (A)	Fuse melts. 	 1. Remove the fuse and main fuse of the circuit. 2. Disconnect all connectors of electrical components in the circuit. 3. Attach a voltmeter or test lamp to the fuse box and reconnect each connector, beginning nearest to the power source. 4. Check the voltmeter reading or test lamp as the connectors are connected. A short has occurred where the voltmeter reading changes or the test lamp comes on.
	Short (B)	Solenoid A operates when the ignition switch is ON.	
	Short (C)	The CPU transistor burns out when the ignition switch is turned ON.	
	Short (D)	The CPU thinks the switch is ON because the same conditions exist as when the switch is ON.	
	Short (E)	- The CPU senses the sensor to be 0Ω because the same conditions exist as when the resistance value is 0Ω. - The CPU equipped with the self-diagnosis function outputs the code.	

Z WIRING DIAGRAM

Y ■ GROUND POINTS

WIRING ORDER INTO THE JOINT CONNECTOR MAY BE CHANGED

JC-01 JOINT CONNECTOR (F)



JC-02 JOINT CONNECTOR (F)



JC-08 JOINT CONNECTOR (D)

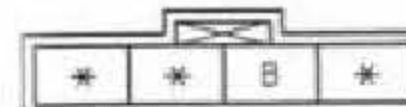


(WITH AUDIO SYSTEM TYPE-2)

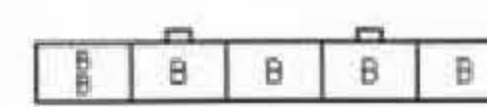
JC-09 JOINT CONNECTOR (AB)



JC-10 JOINT CONNECTOR (AB)



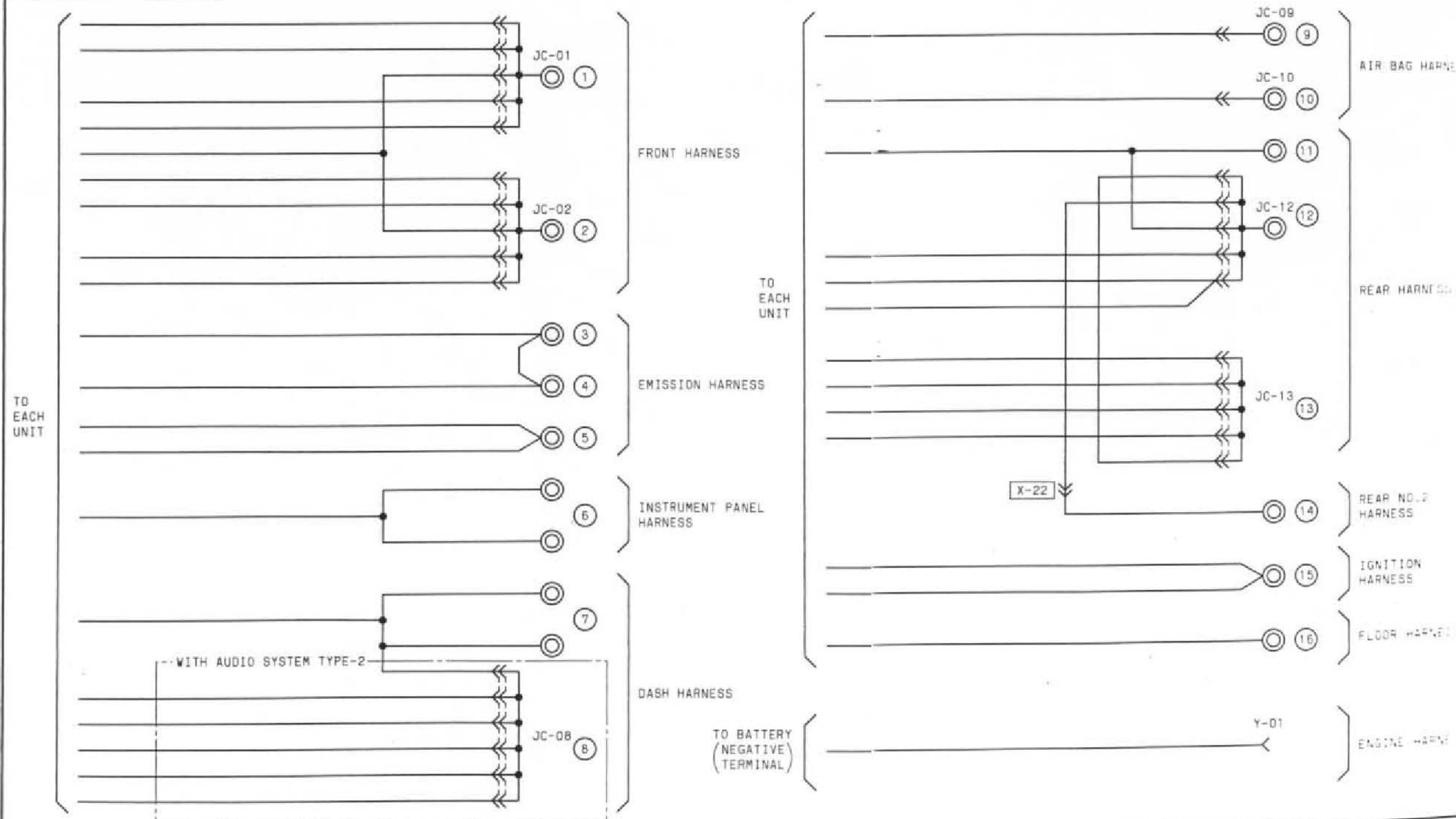
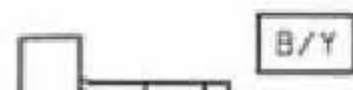
JC-12 JOINT CONNECTOR (R)



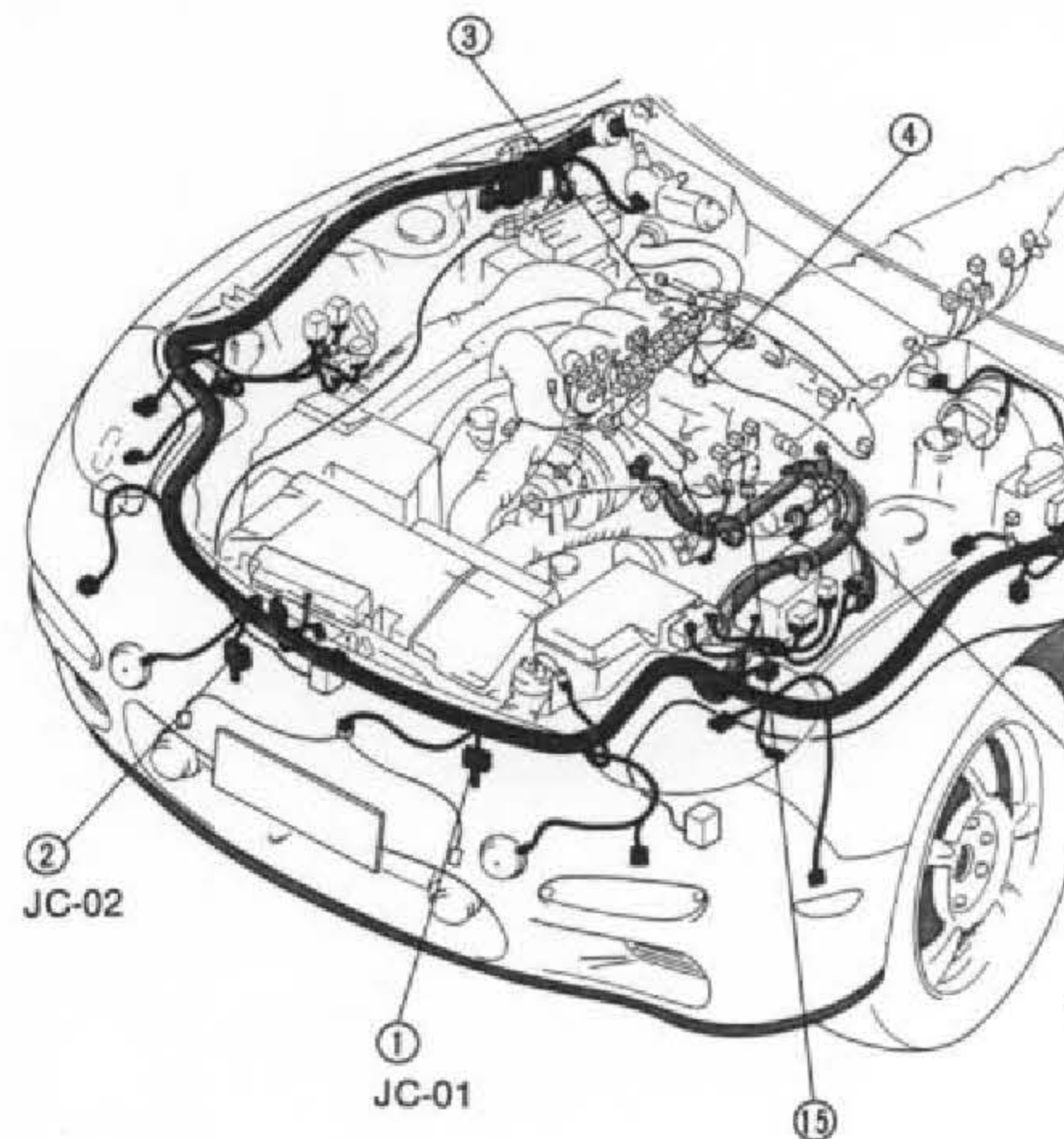
JC-13 JOINT CONNECTOR (R)



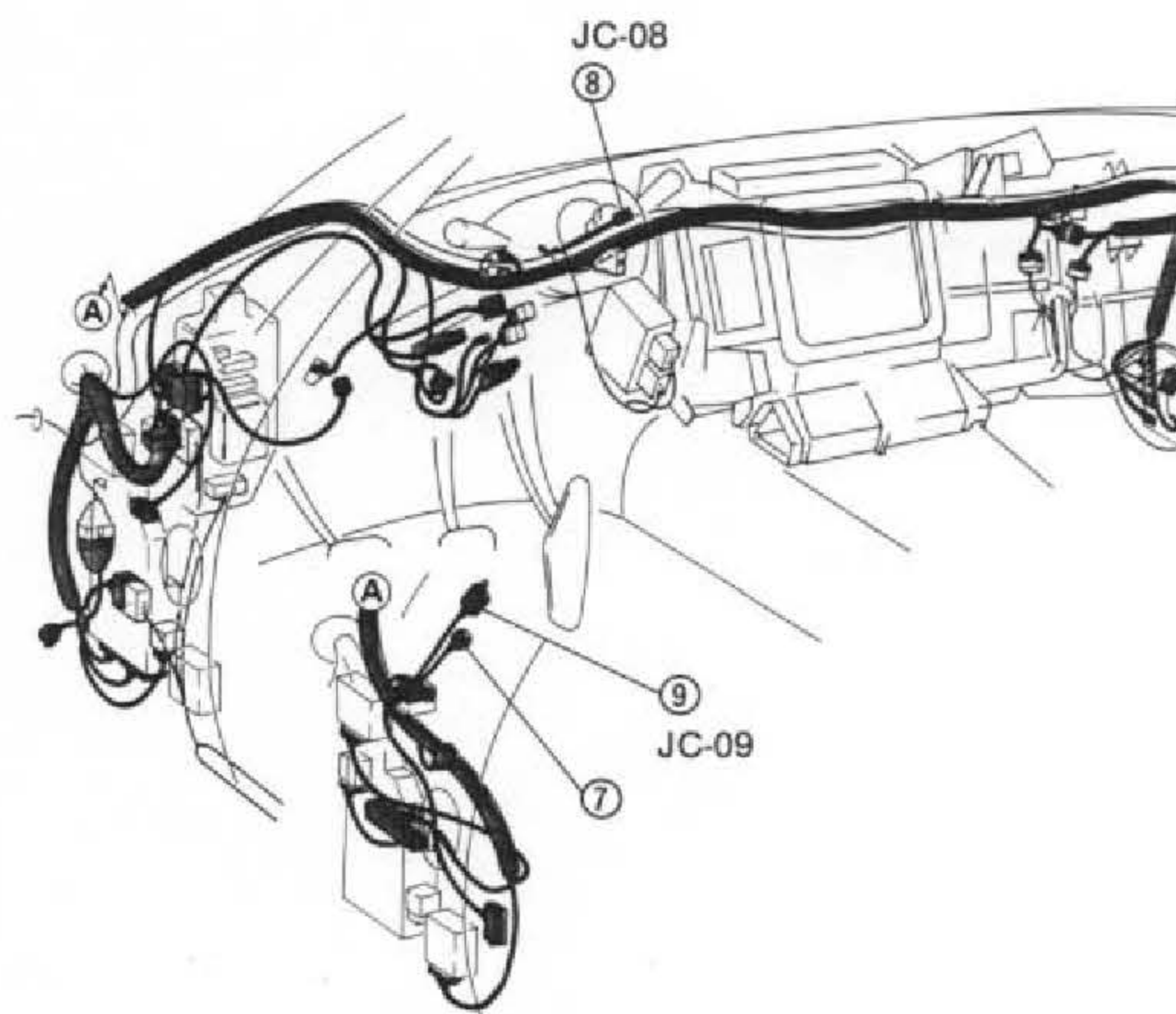
Y-01 GROUND CONNECTOR (E)



Y



Y-01

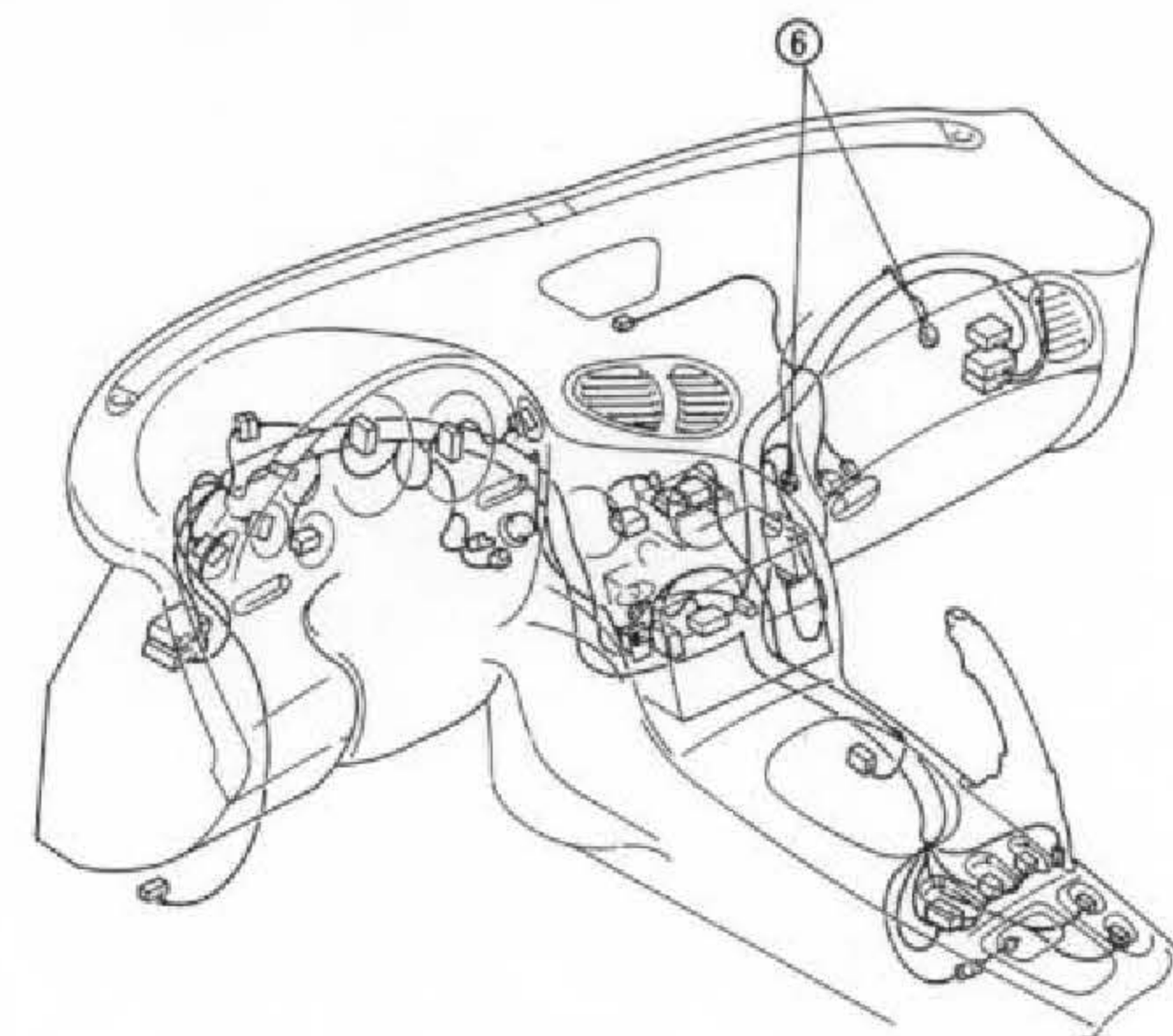


JC-10

10

7

5



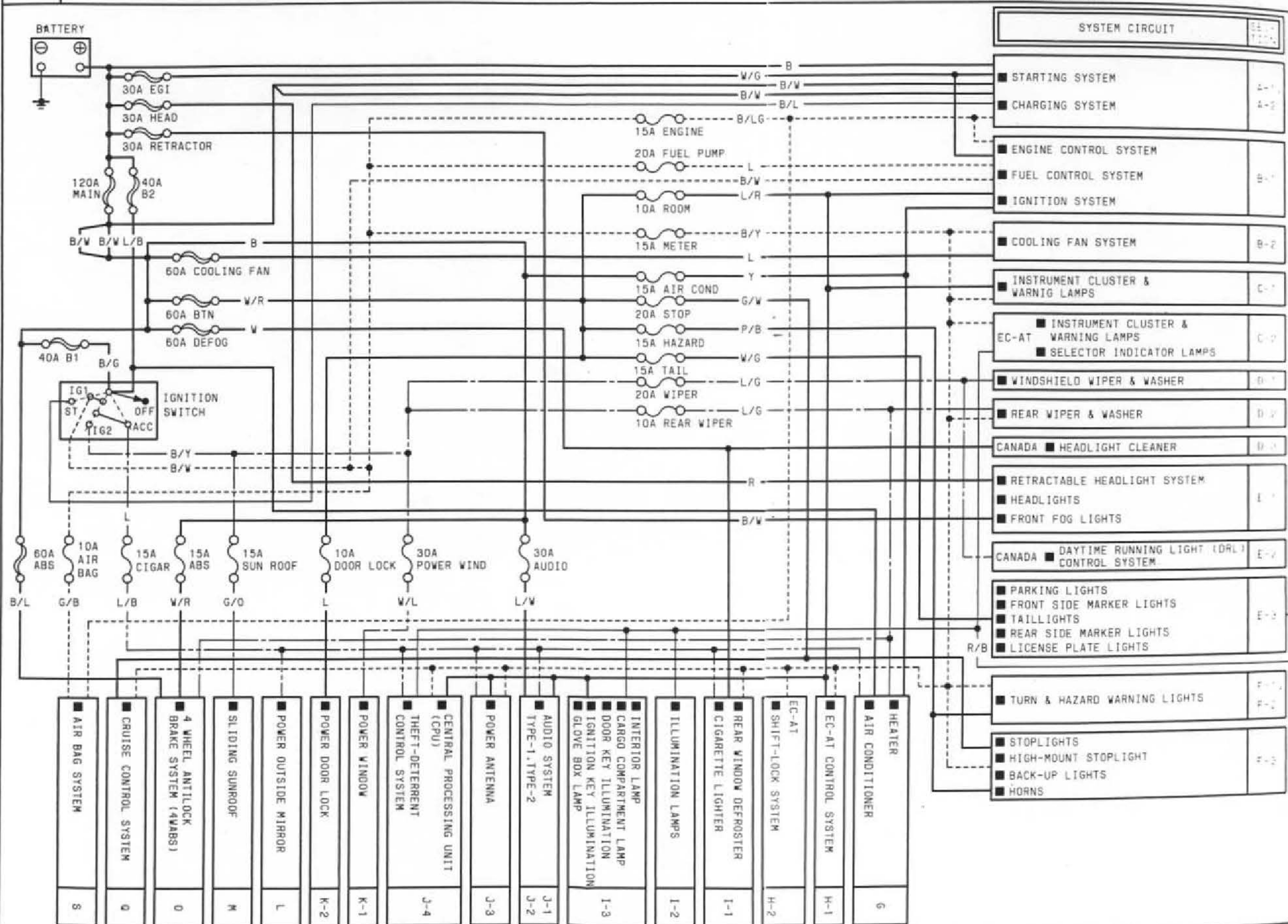
X-22
(R)-(R2)

JC-13

JC-12

W ■ ELECTRICAL WIRING SCHEMATIC

NOTE: ——— CURRENT FROM BATTERY
 - - - - - CURRENT FROM IG1
 - - - - - CURRENT FROM IG2
 ——— OTHERS



SYSTEM CIRCUIT DIAGRAM/ CONNECTOR LOCATIONS

ENGINE-RELATED SYSTEMS

STARTING SYSTEM

MT	Z-24
EC-AT	Z-26

CHARGING SYSTEM

MT	Z-24
EC-AT	Z-26

ENGINE CONTROL SYSTEM

FUEL CONTROL SYSTEM

IGNITION SYSTEM

COOLING FAN SYSTEM.....

CHASSIS-RELATED SYSTEMS

EC-AT CONTROL SYSTEM

SHIFT-LOCK SYSTEM.....

4 WHEEL ANTILOCK BRAKE SYSTEM (4WABS).....

INSTRUMENT CLUSTER-RELATED SYSTEMS

INSTRUMENT CLUSTER & WARNING LAMPS

MT	Z-44
EC-AT	Z-44, Z-48

SELECTOR INDICATOR LAMPS

BODY-RELATED SYSTEMS

WINDSHIELD WIPER & WASHER

REAR WIPER & WASHER.....

HEADLIGHT CLEANER.....

HORNS

KEY INTERLOCK SYSTEM

REAR WINDOW DEFROSTER.....

CENTRAL PROCESSING UNIT (CPU).....

THEFT-DETERRENT

CONTROL SYSTEM.....

POWER WINDOW

POWER DOOR LOCK.....

POWER OUTSIDE MIRROR

SLIDING SUNROOF

CRUISE CONTROL SYSTEM

AIR BAG SYSTEM

INTERIOR LIGHTING SYSTEMS

ILLUMINATION LAMPS

INTERIOR LAMP.....

CARGO COMPARTMENT LAMP

IGNITION KEY ILLUMINATION

GLOVE BOX LAMP.....

EXTERIOR LIGHTING SYSTEMS

RETRACTABLE HEADLIGHT

SYSTEM

HEADLIGHTS.....

FRONT FOG LIGHTS

DAYTIME RUNNING LIGHT (DRL)

CONTROL SYSTEM.....

PARKING LIGHTS

FRONT SIDE MARKER LIGHTS

TAILLIGHTS

REAR SIDE MARKER LIGHTS.....

LICENSE PLATE LIGHTS.....

TURN & HAZARD WARNING LIGHTS

FEDERAL/CALIFORNIA.....

CANADA.....

STOPLIGHTS

HIGH-MOUNT STOPLIGHT

BACK-UP LIGHTS.....

DOOR KEY ILLUMINATION

AIR CONDITIONING-RELATED SYSTEMS

HEATER

AIR CONDITIONER

ACCESSORIES

CIGARETTE LIGHTER.....

AUDIO SYSTEM TYPE-1.....

AUDIO SYSTEM TYPE-2

(BOSE ACOUSTIC WAVE®

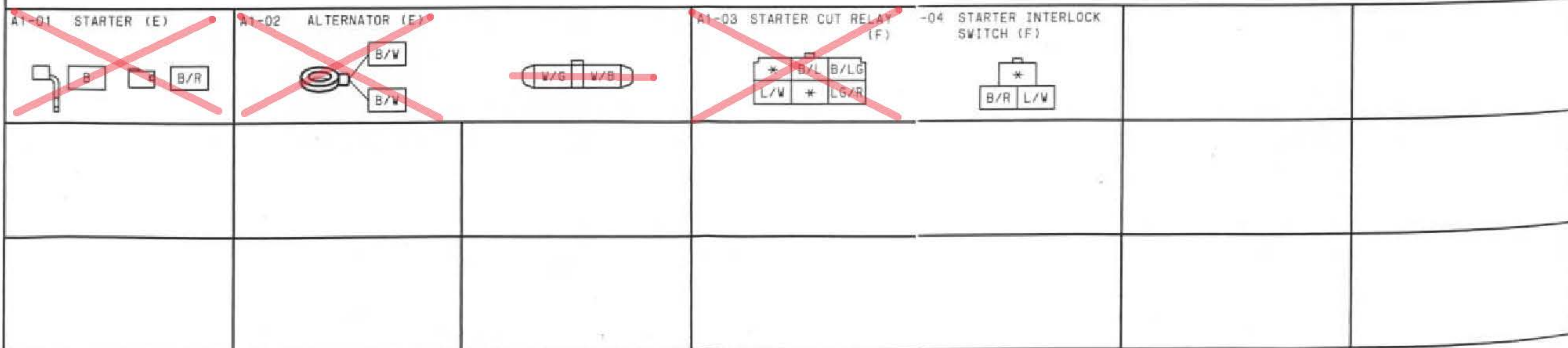
MUSIC SYSTEM).....

POWER ANTENNA.....

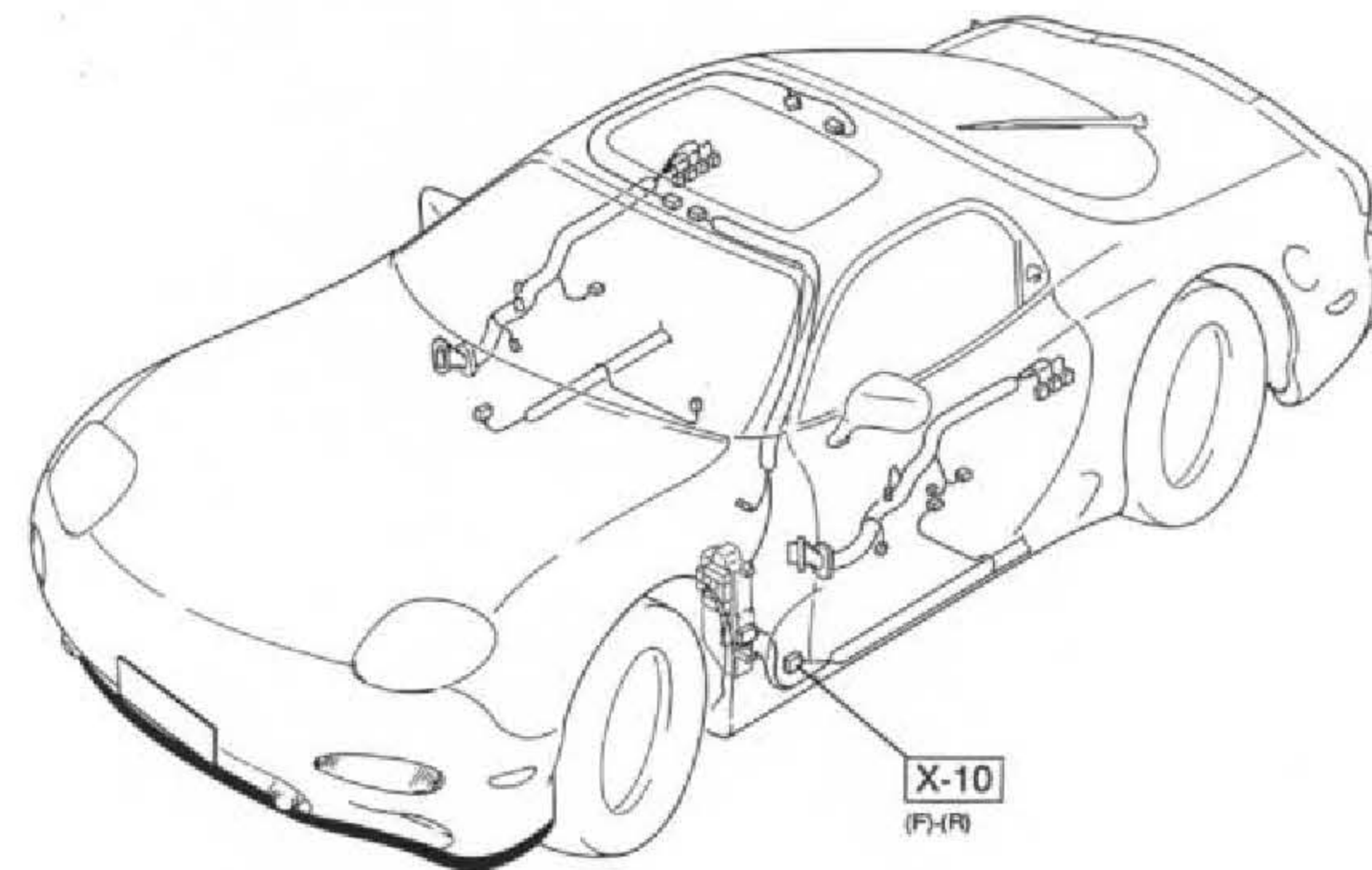
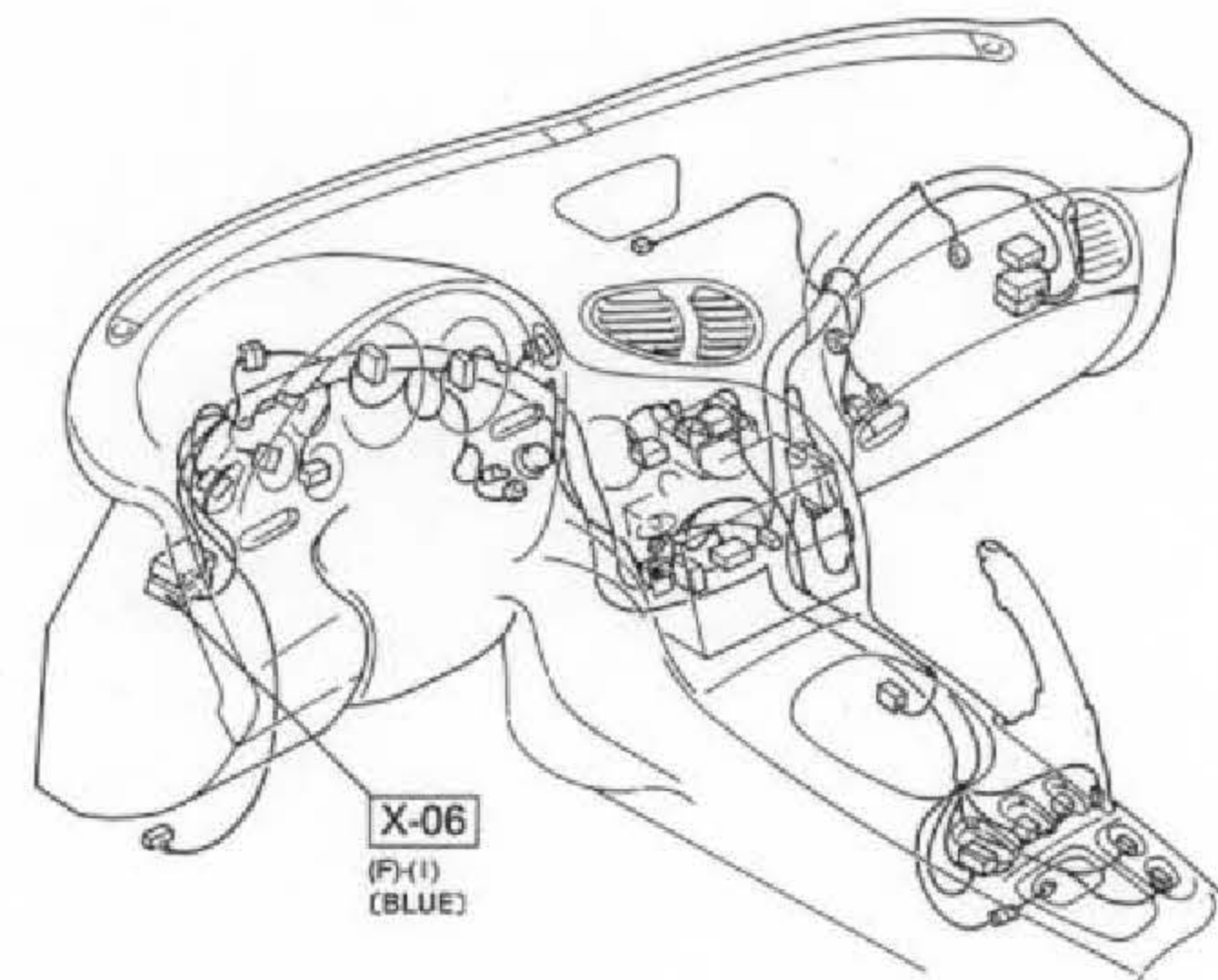
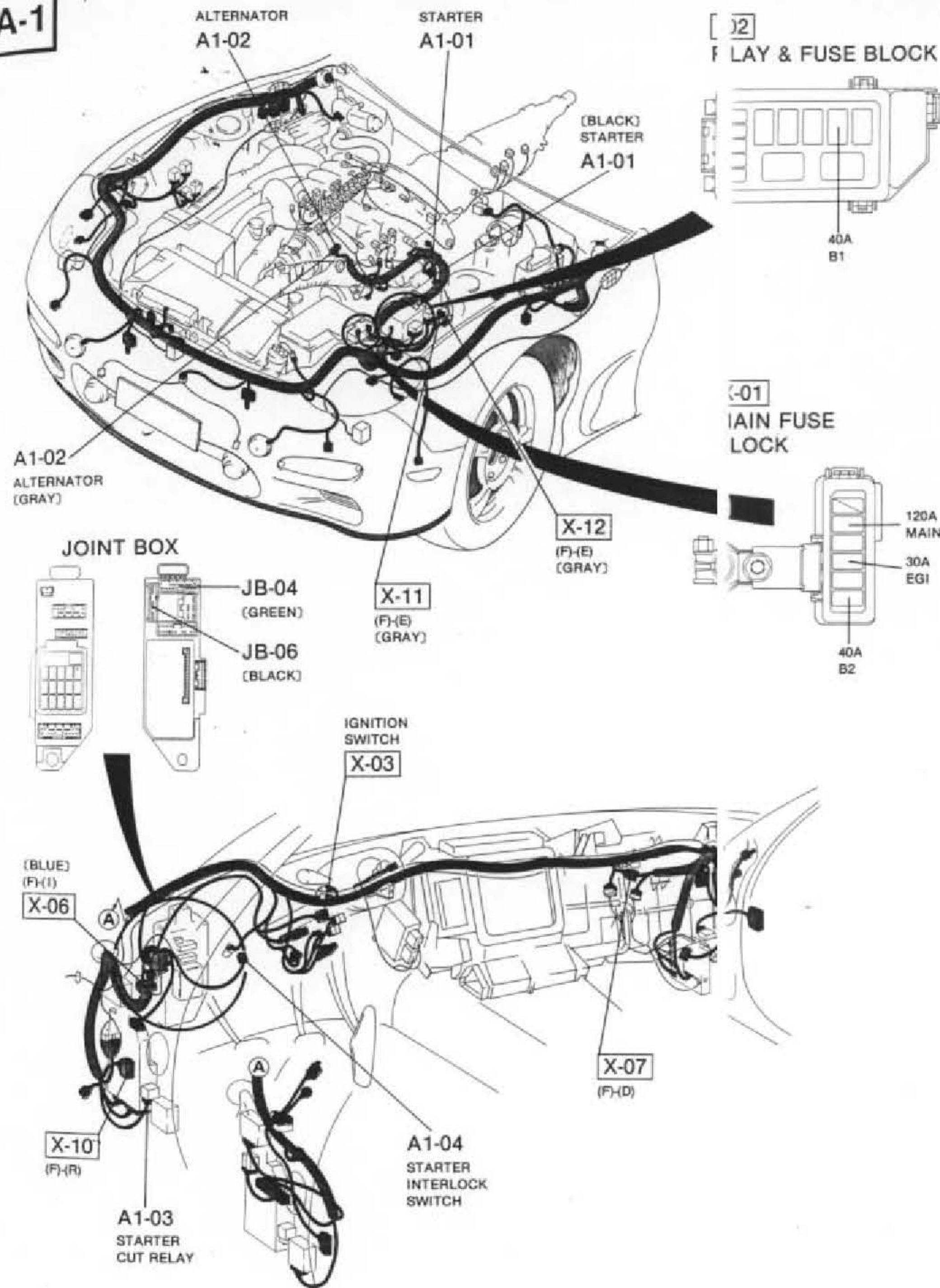
OTHERS

DIAGNOSIS CONNECTOR.....



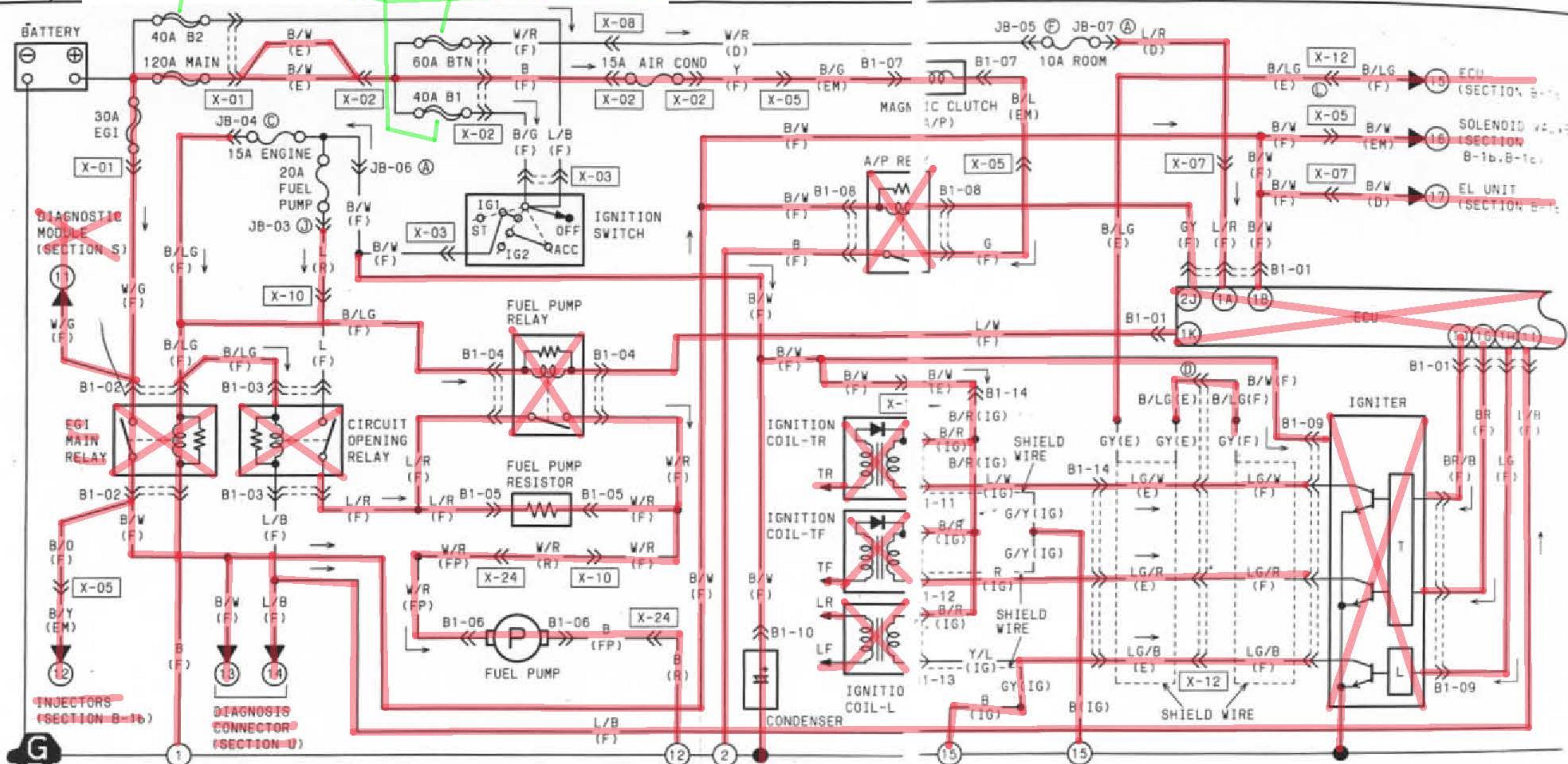


A-1



Bypassed 120A Main fuse and connected straight to battery. Relocated to X-00

L SYSTEM ■ IGNITION SYSTEM



B1-01 ECU (F)

1U	1S	1Q	1O	1M	1K	1J	1G	1E	1C	1A	2K	2I	2G	2E	2C	2A
L	G	L/O (B/O)	G/Y	G/R	L/W	LG/Y	BR	V	B/R	L/R	V/V (W/R)	O/L	(LG/R)	(O/B)	(L)	*
*	L/B	G/W (Y)	*	L/Y	Y/B	BR/B	LG	W/B	W/R	B/W	W/G	GY	*	(B)	(Y/G)	Y/L
1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B	2L	2J	2H	2F	2D	2B

B1-02 EGI MAIN RELAY (F)

-03 CIRCUIT OPENING RELAY (F)

B1-04 FUEL PUMP RELAY (F)

B1-05 FUEL PUMP RESISTOR (F)

B1-06 FUEL PUMP (FP)

B1-07 MAGNETIC CLUTCH(A/P) (EM)

B1-08 A/P RELAY (F)

B1-09 IGNITER (F)

B1-10 CONDENSER (F)

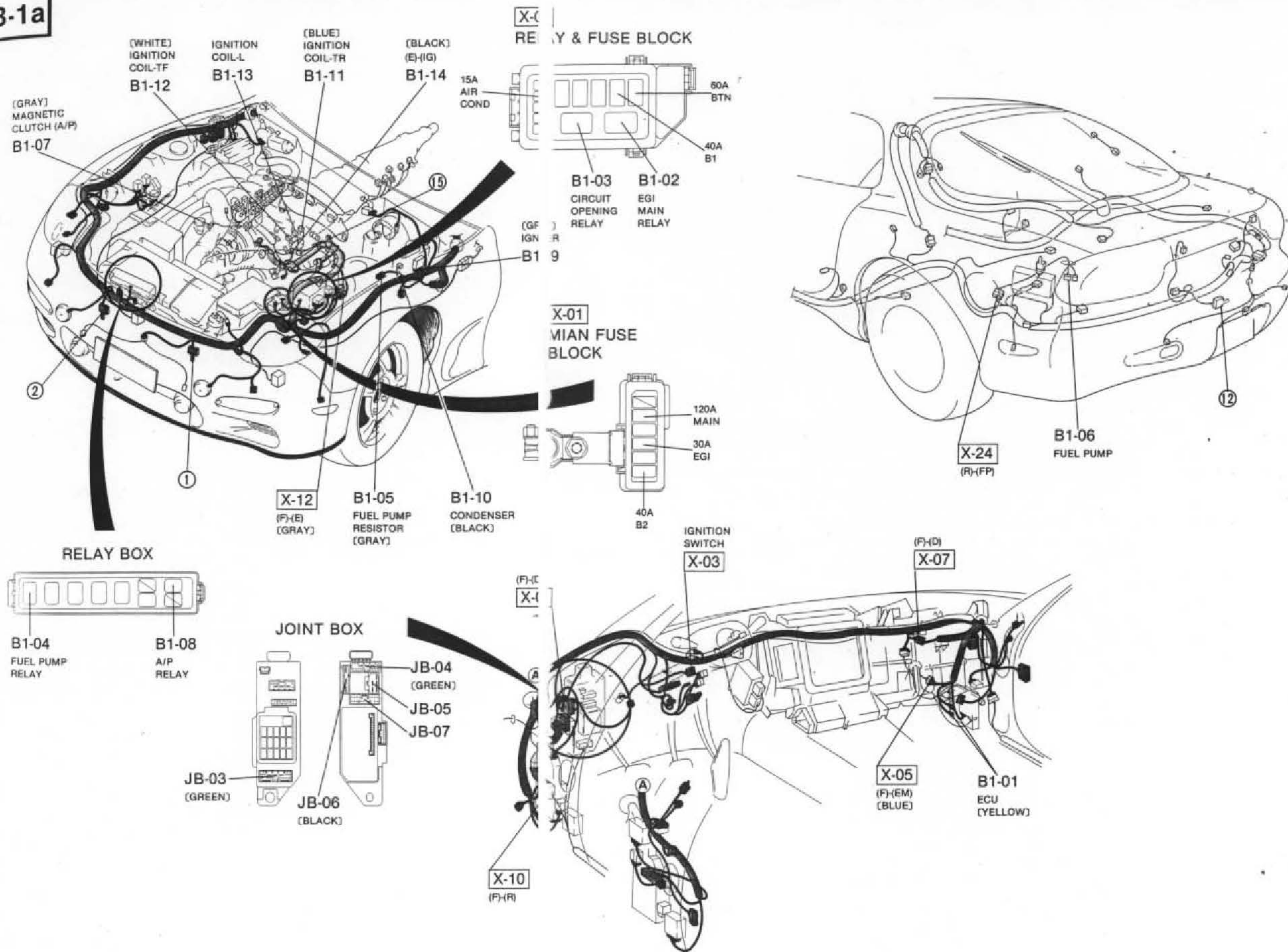
B1-11 IGNITION COIL-TF (IC)

B1-12 IGNITION COIL-LF (IG)

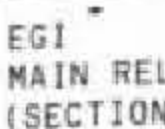
B1-13 IGNITION COIL-L (IG)

B1-14 CONNECTOR BETWEEN ENGINE (E) & IGNITION (IG)

B-1a

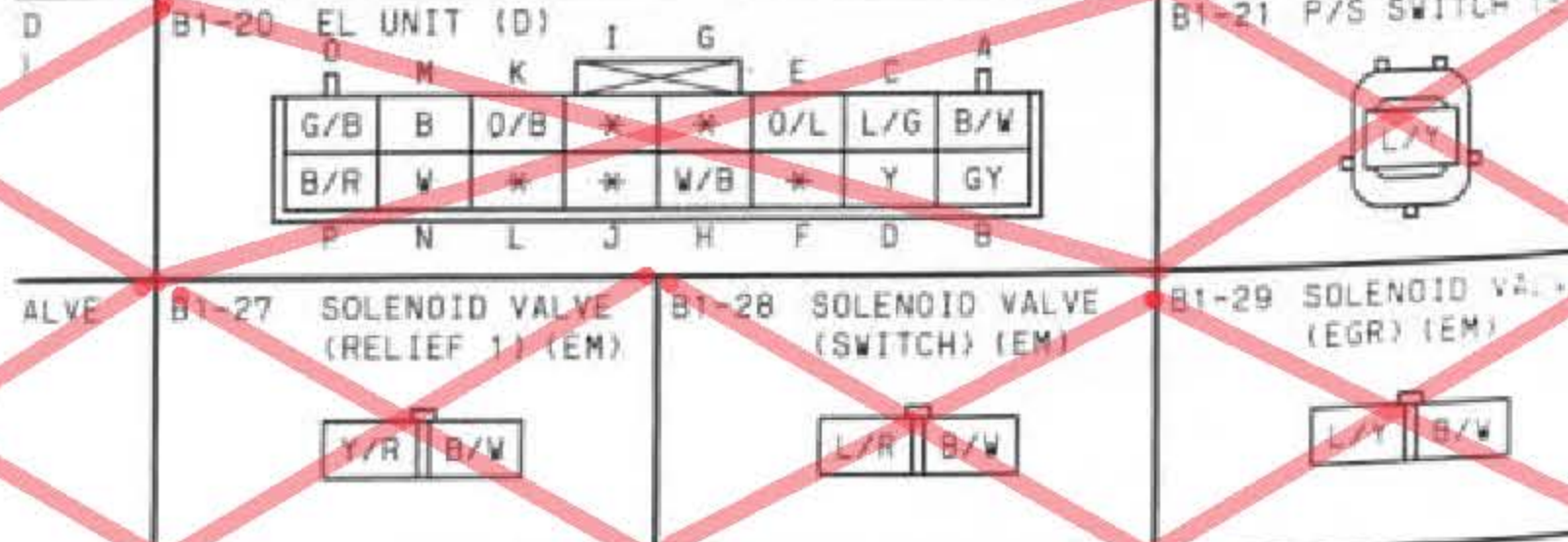


~~B-1b~~

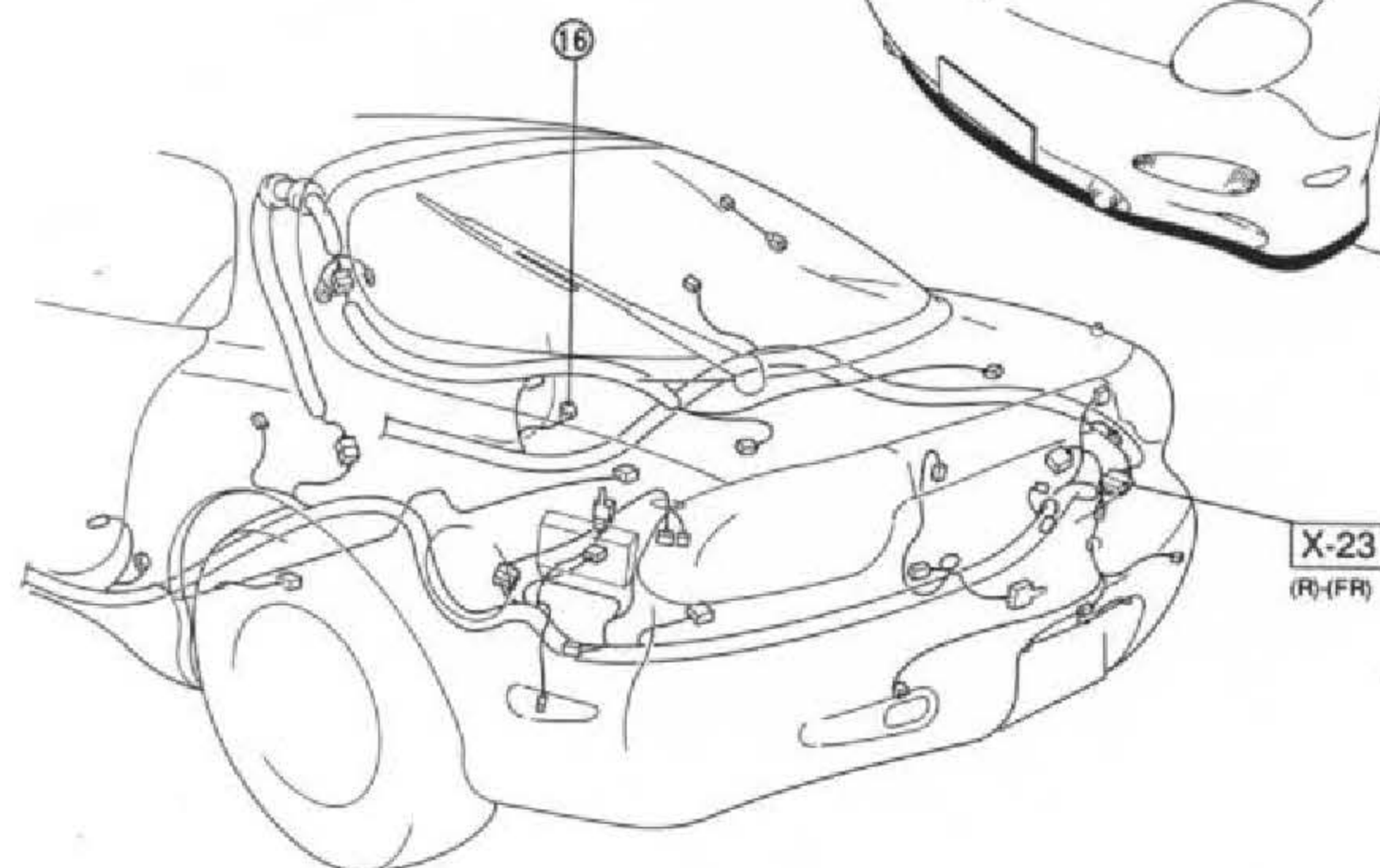
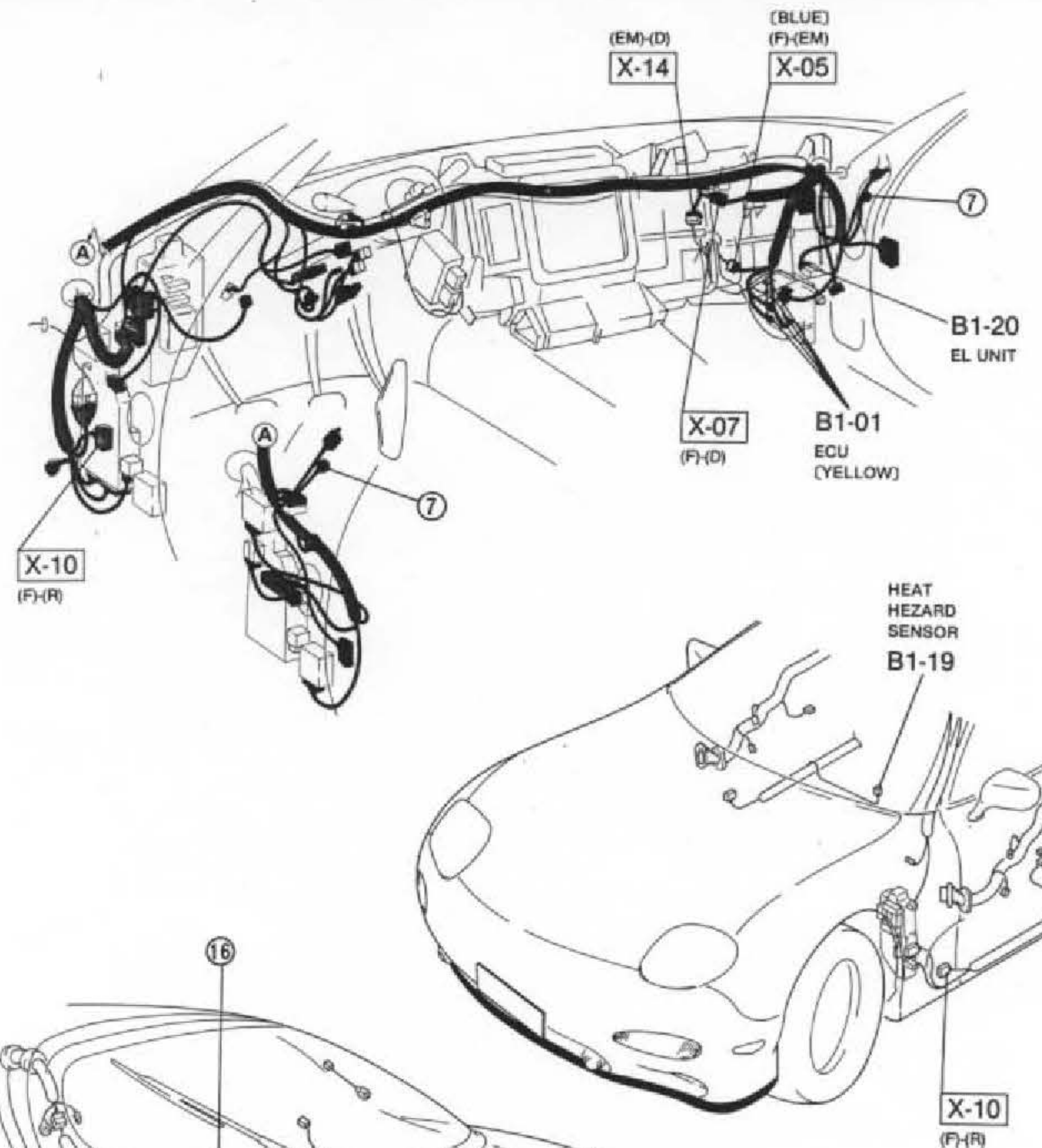
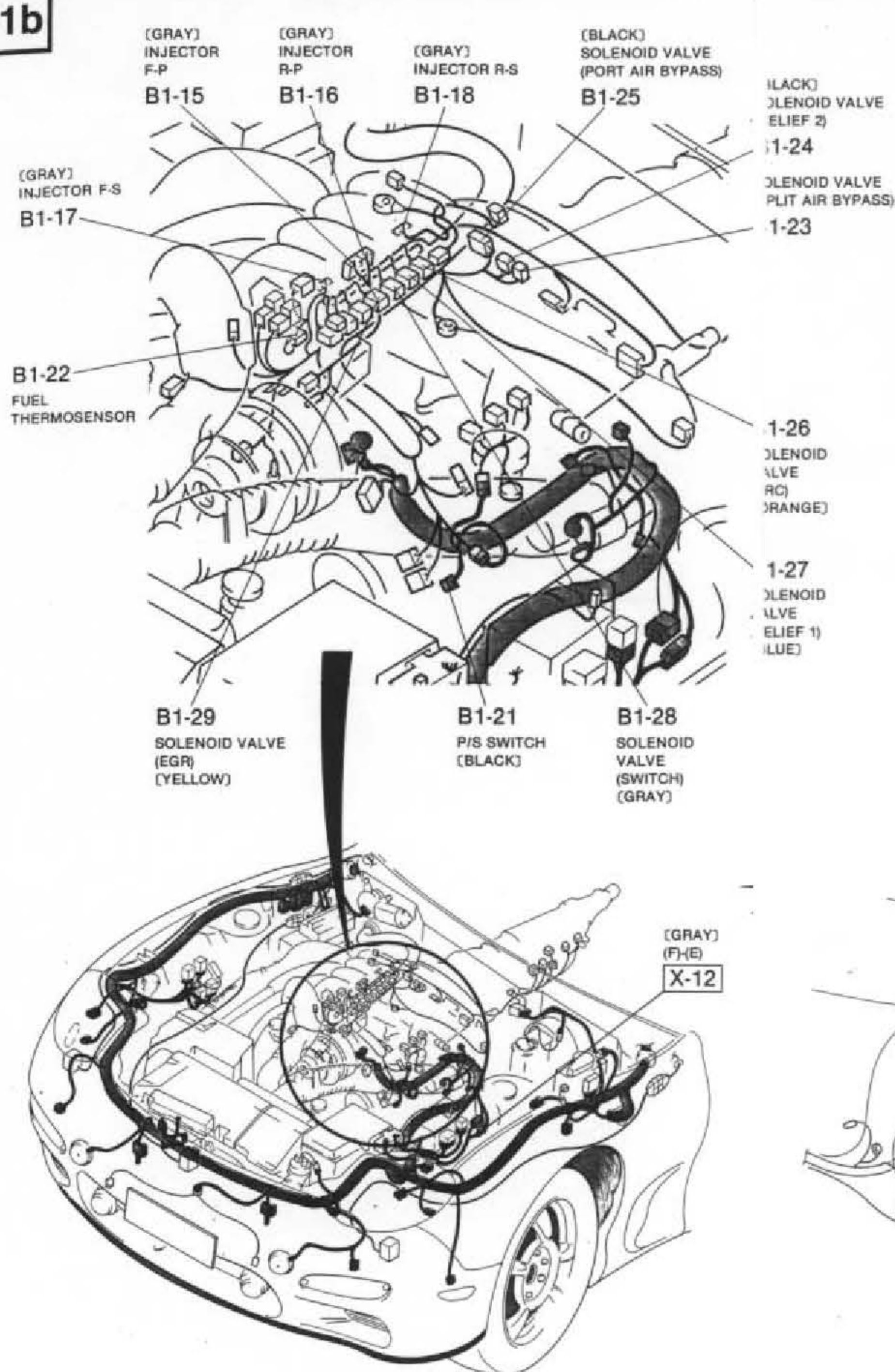


(F)											(F)					(E)					
1U	1S	1Q	1O	1M	1K	1J	1G	1E	1D	1C	1A	2K	2J	2G	2E	2C	2A	3O	3M	3K	3J
L	G	L/O (B/O)	G/Y	G/R	L/W	LG/Y	BR	V	B/R	L/R		V/V (W/R)	O/L	*	(LG/R)	(G/B)	*	B/R	W	G/O	BR/W
*	L/B	G/W (Y)	*	L/Y	Y/B	BR/B	LG	W/B	W/R	B/W		W/G	G/Y	*	(B)	(Y/G)	Y/L	Y/R	L	G	L/G

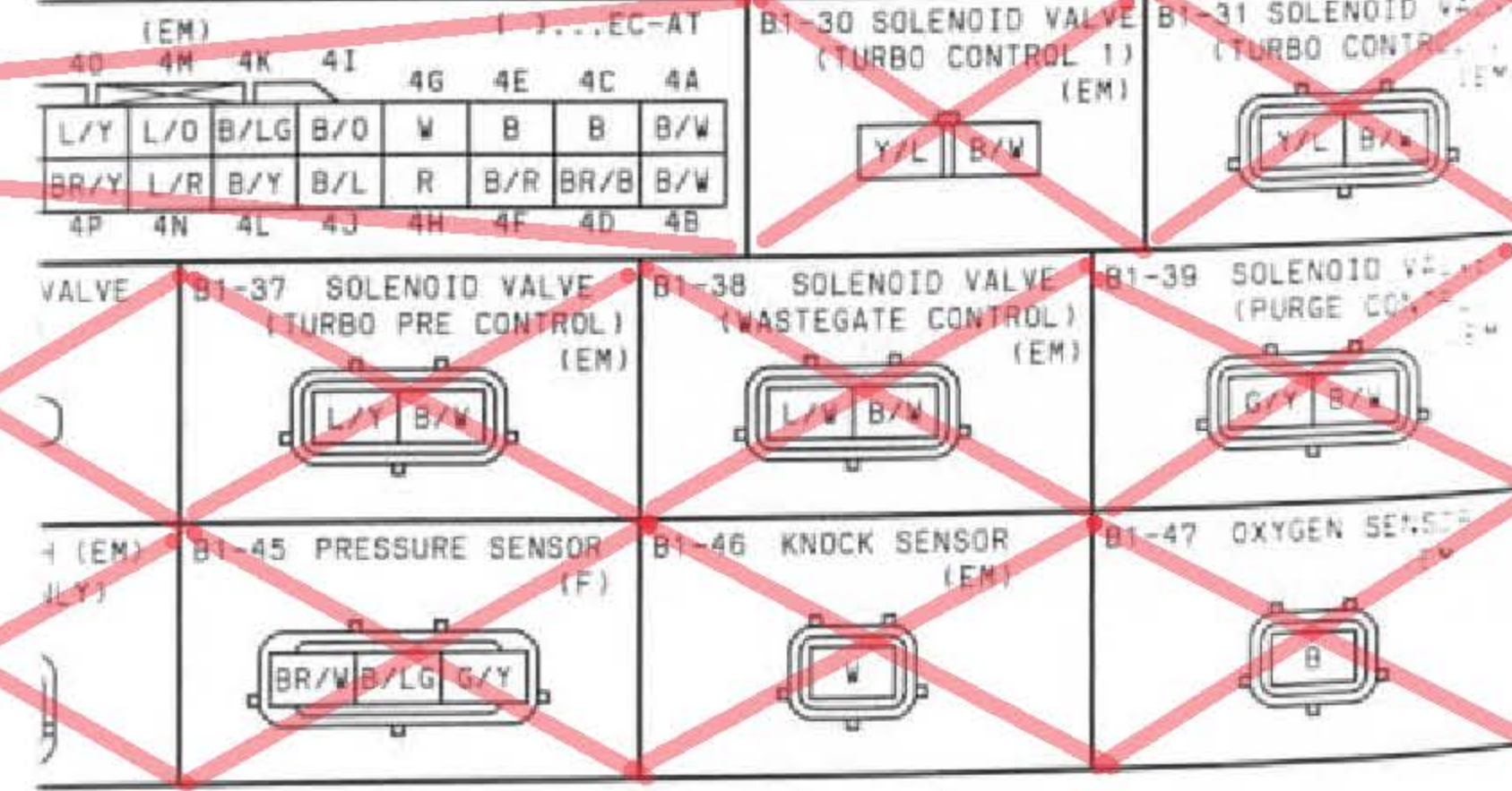
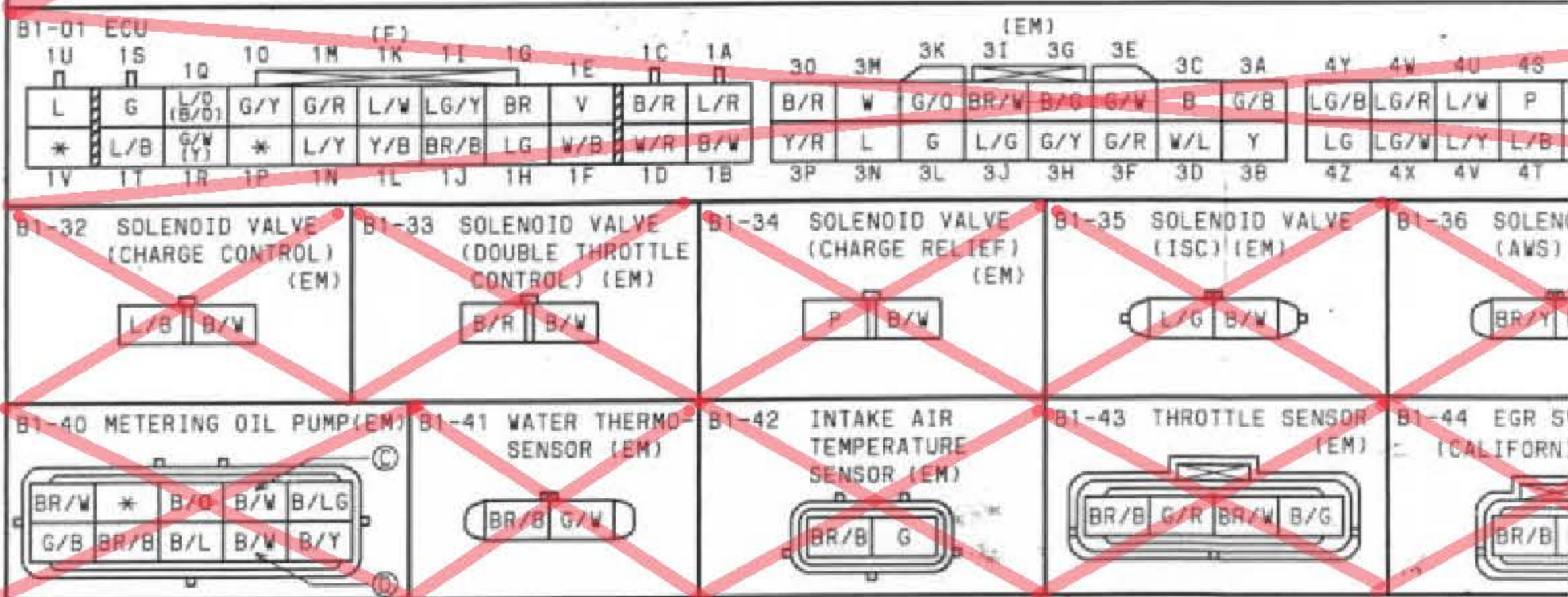
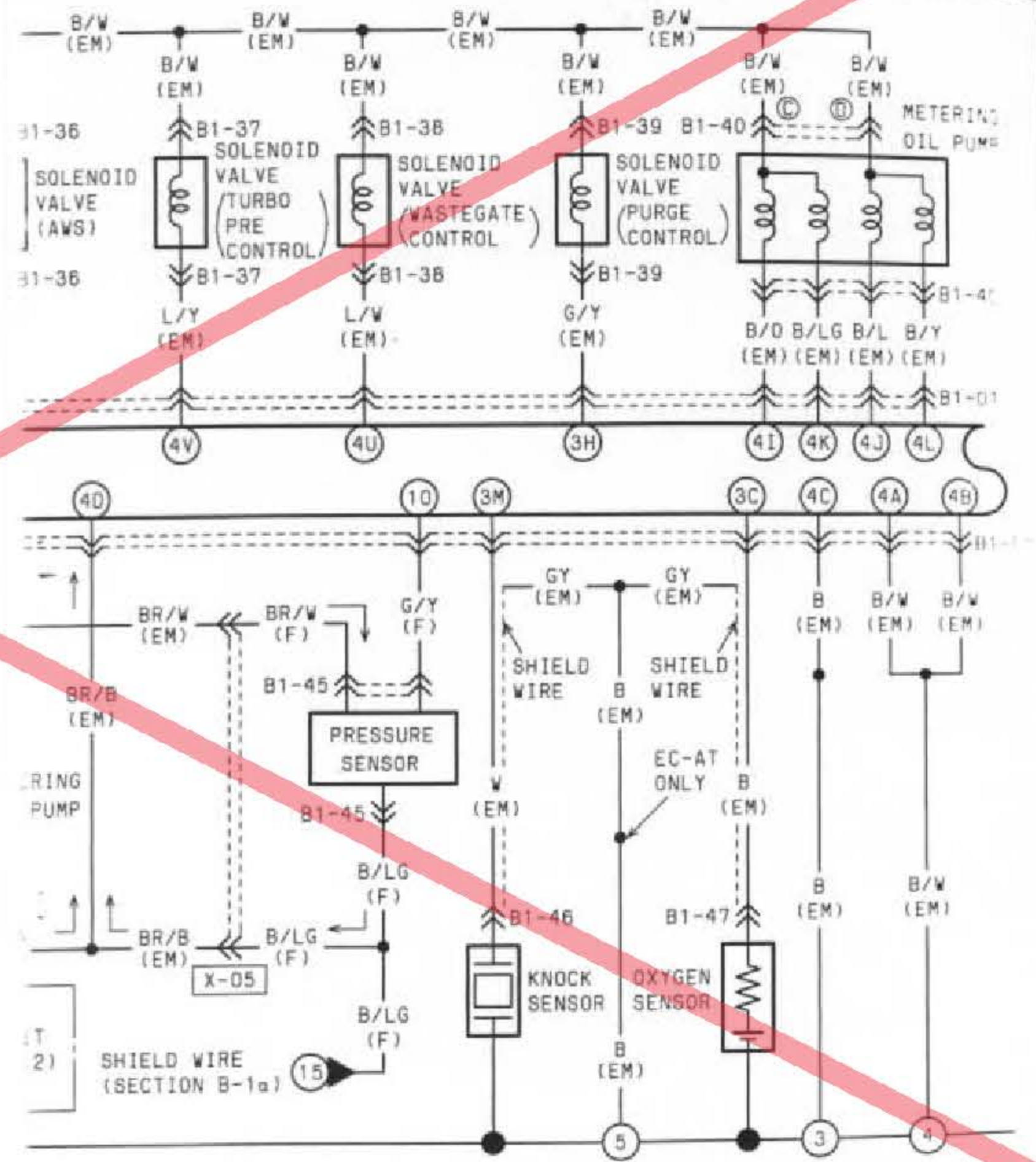
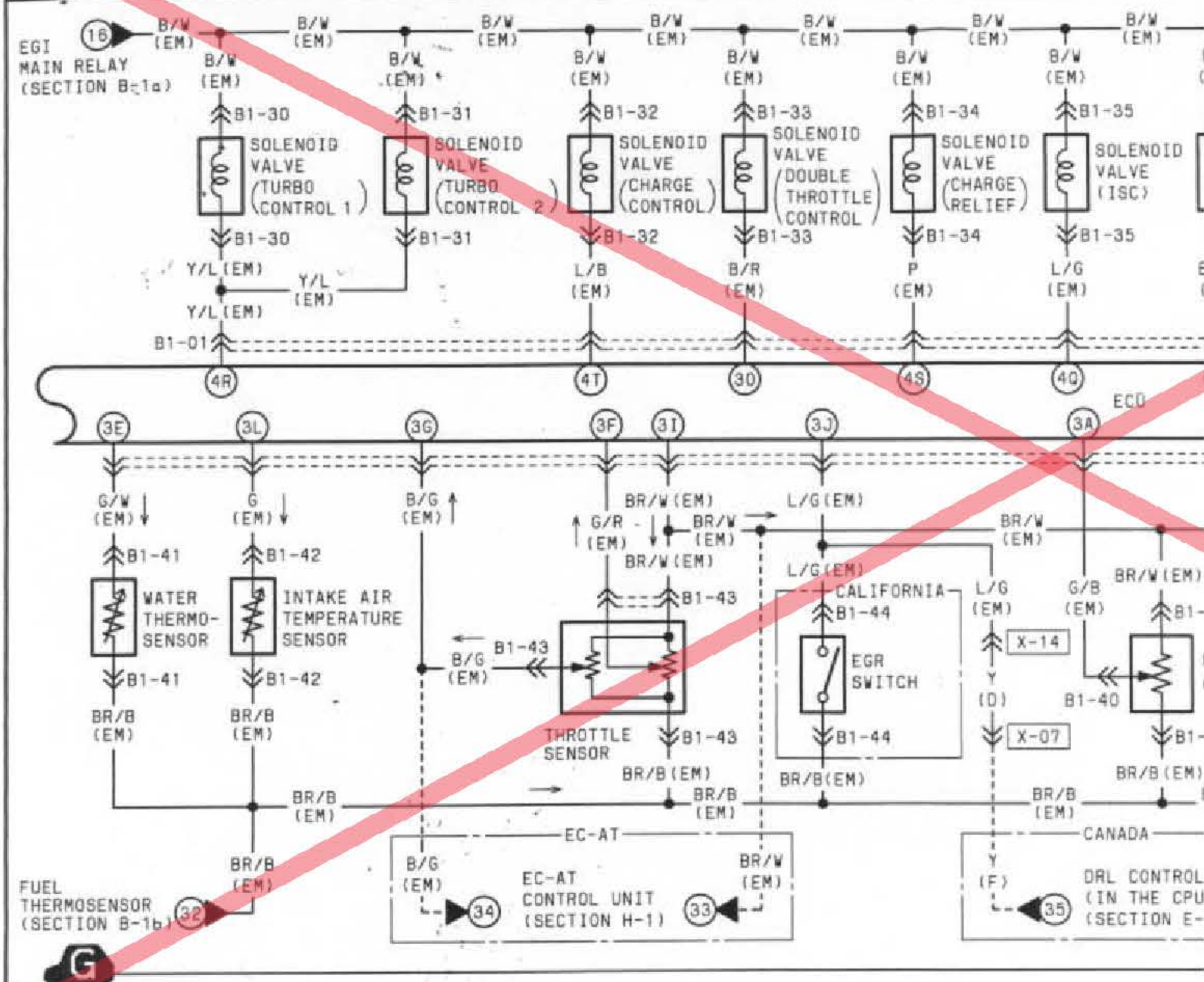
E 3C 3A 4Y 4W 4U 4S 4Q 4O 4M 4K 4I 4G 4E 4C 4A
 /W B G/B LG/B LG/R L/W P L/G L/Y L/O B/LG B/O W B B B/W
 /R W/L Y LG LG/W L/Y L/B Y/L BR/Y L/R B/Y B/L R B/R BR/B B/W
 F 3D 3P 4T 4V 4U 4T 4P 4P 4N 4I 4J 4H 4F 4D 4B



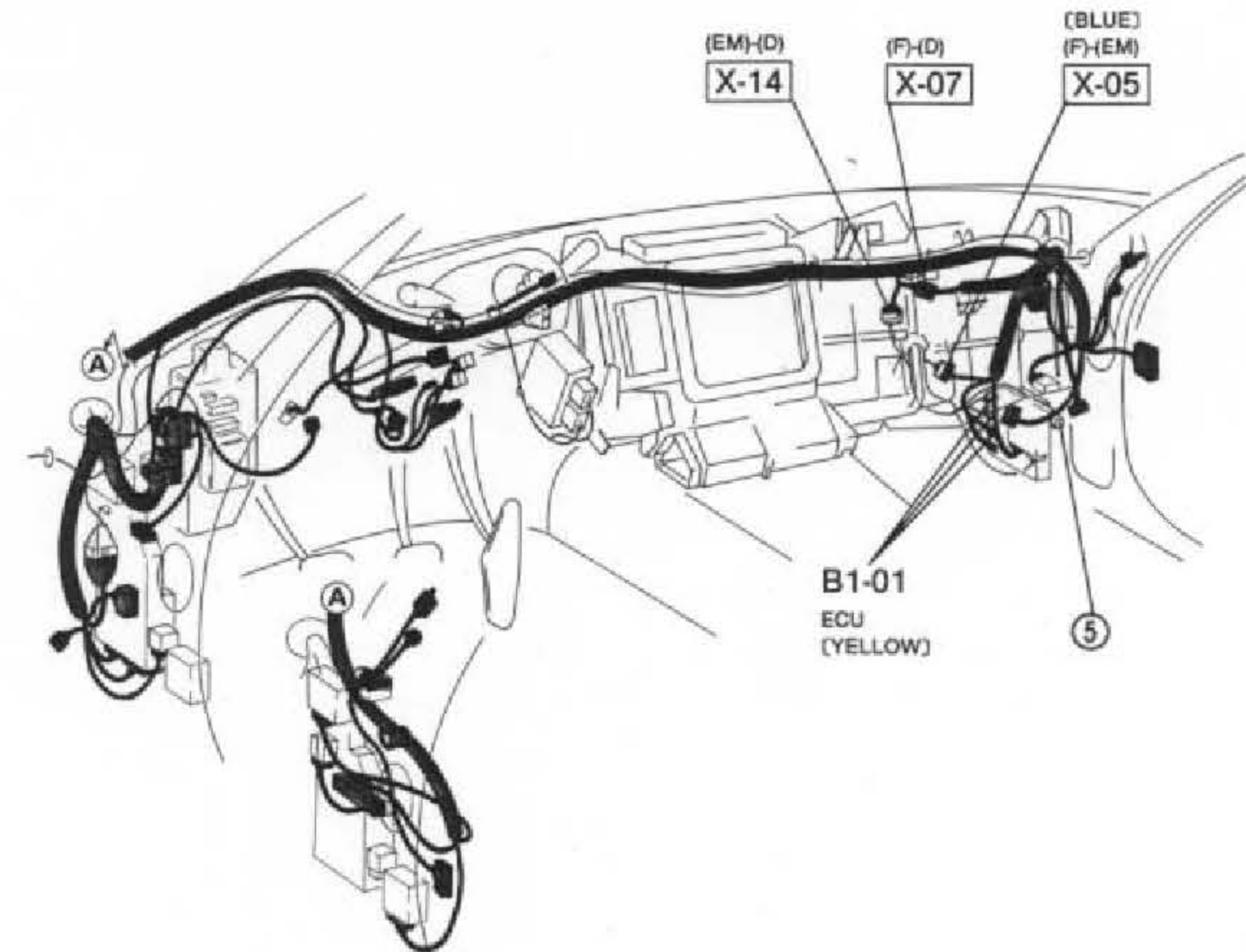
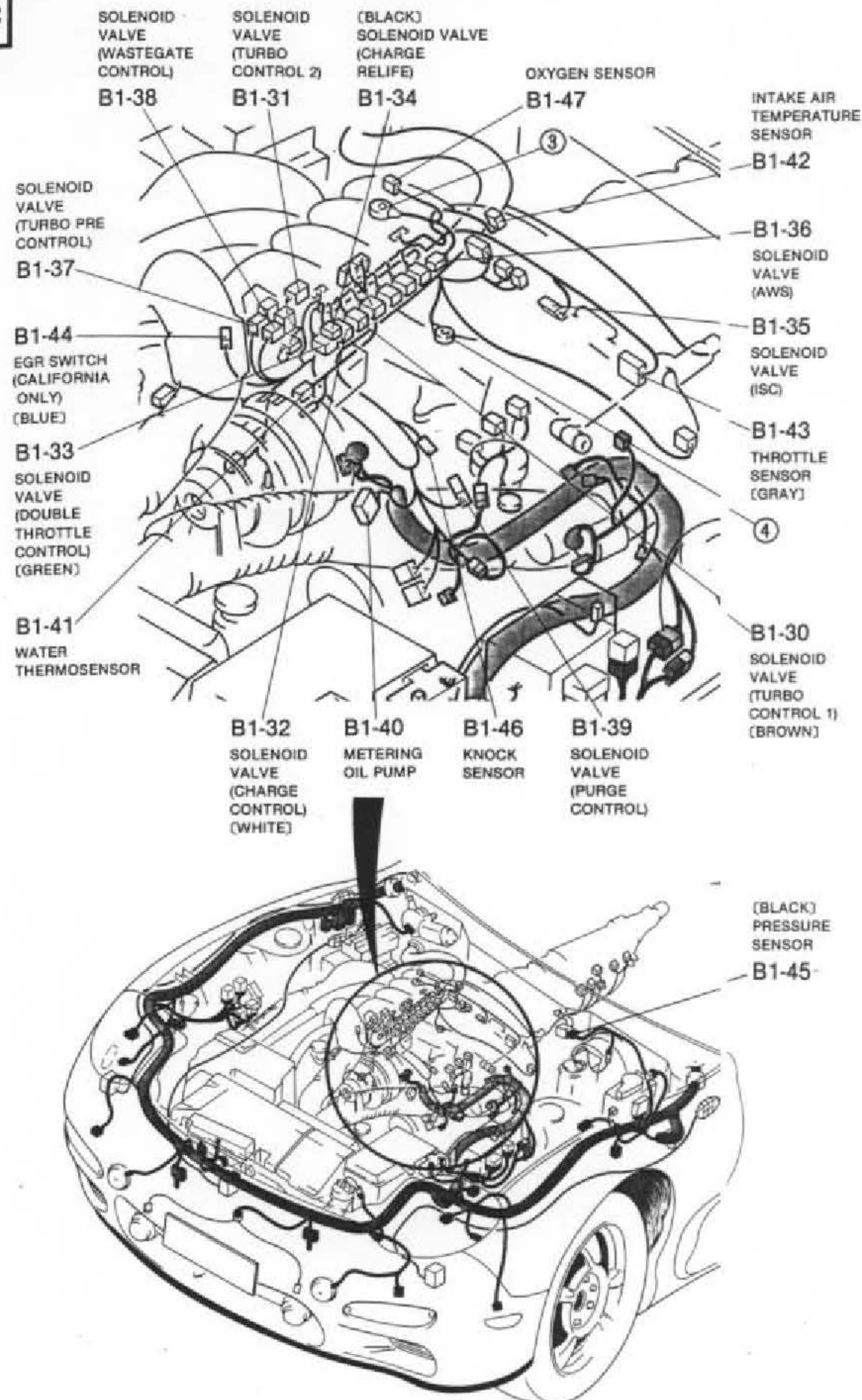
B-1b



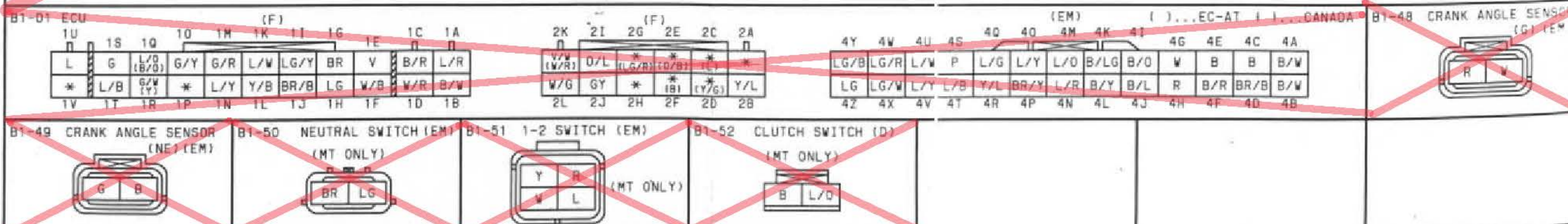
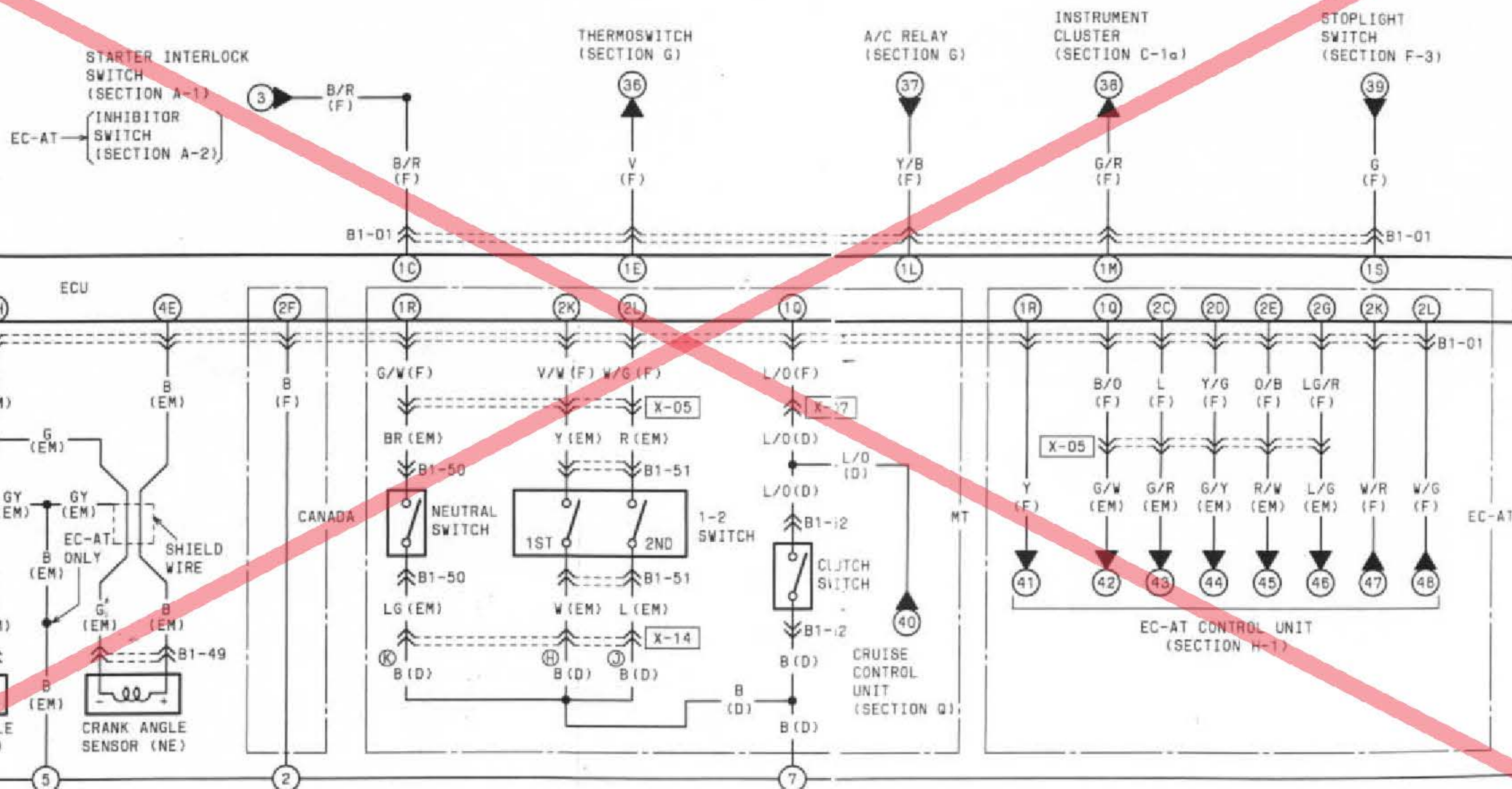
B-1a ■ ENGINE CONTROL SYSTEM



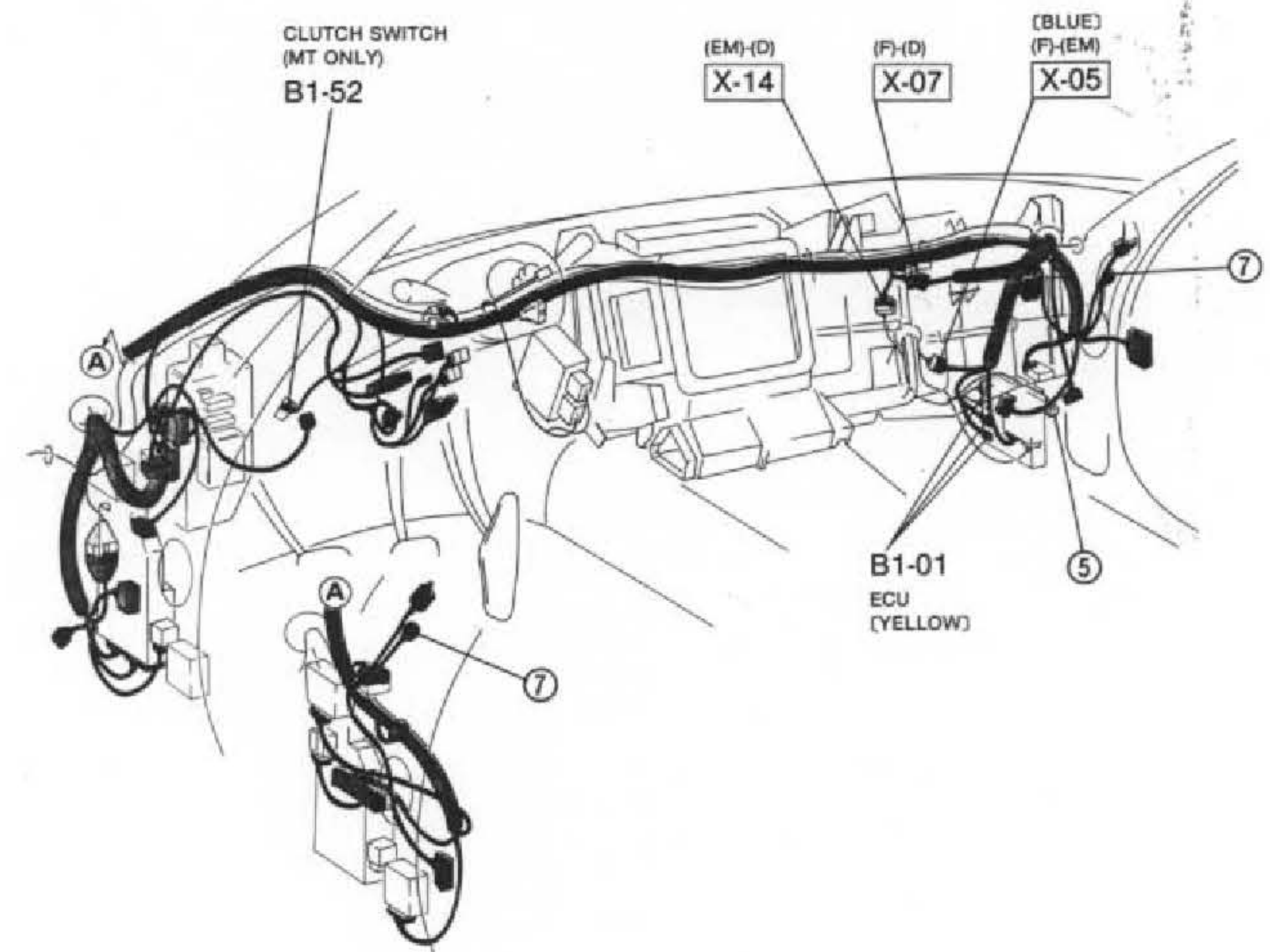
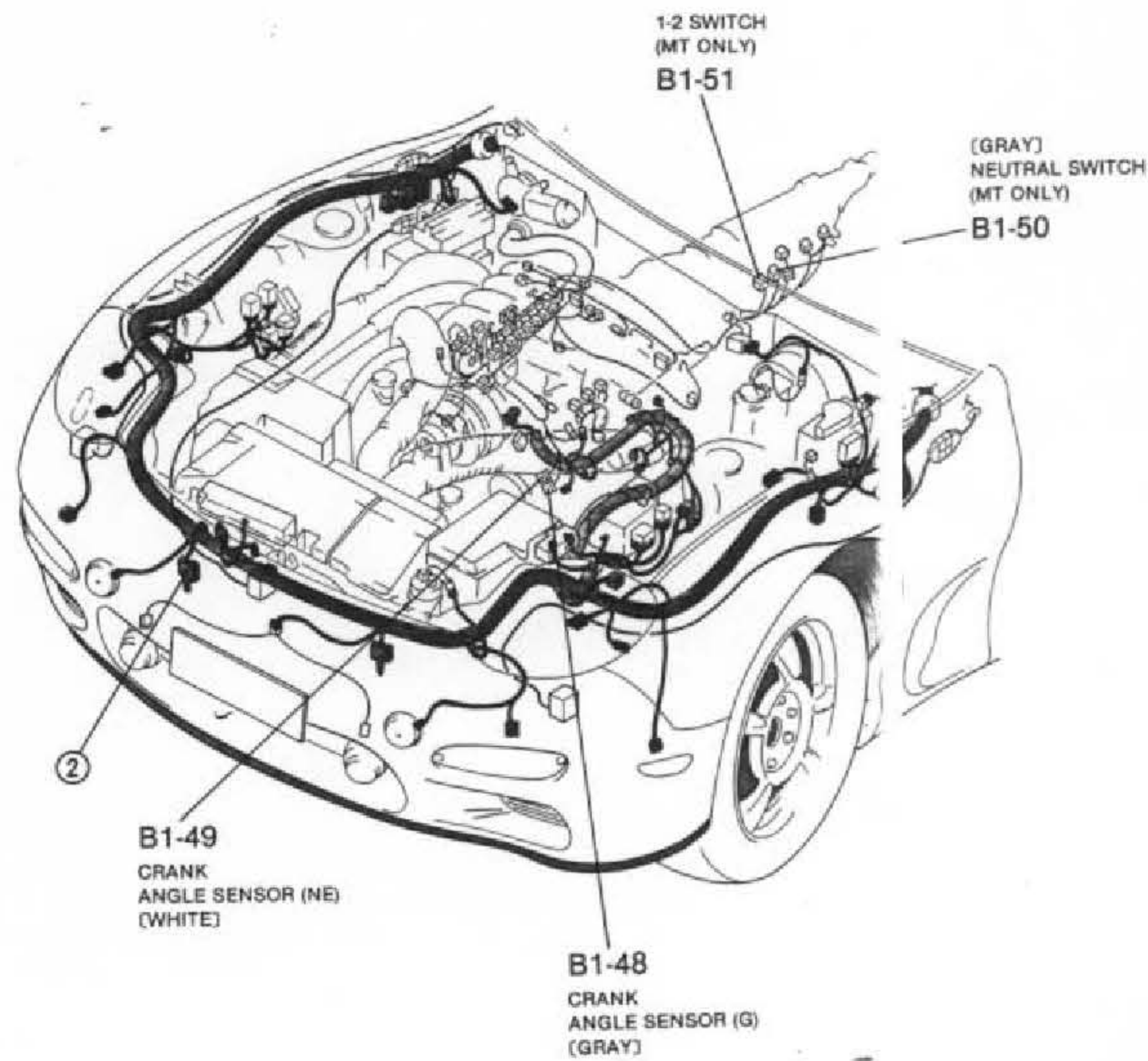
B-1c



B-1d ■ ENGINE CONTROL SYSTEM



B-1d

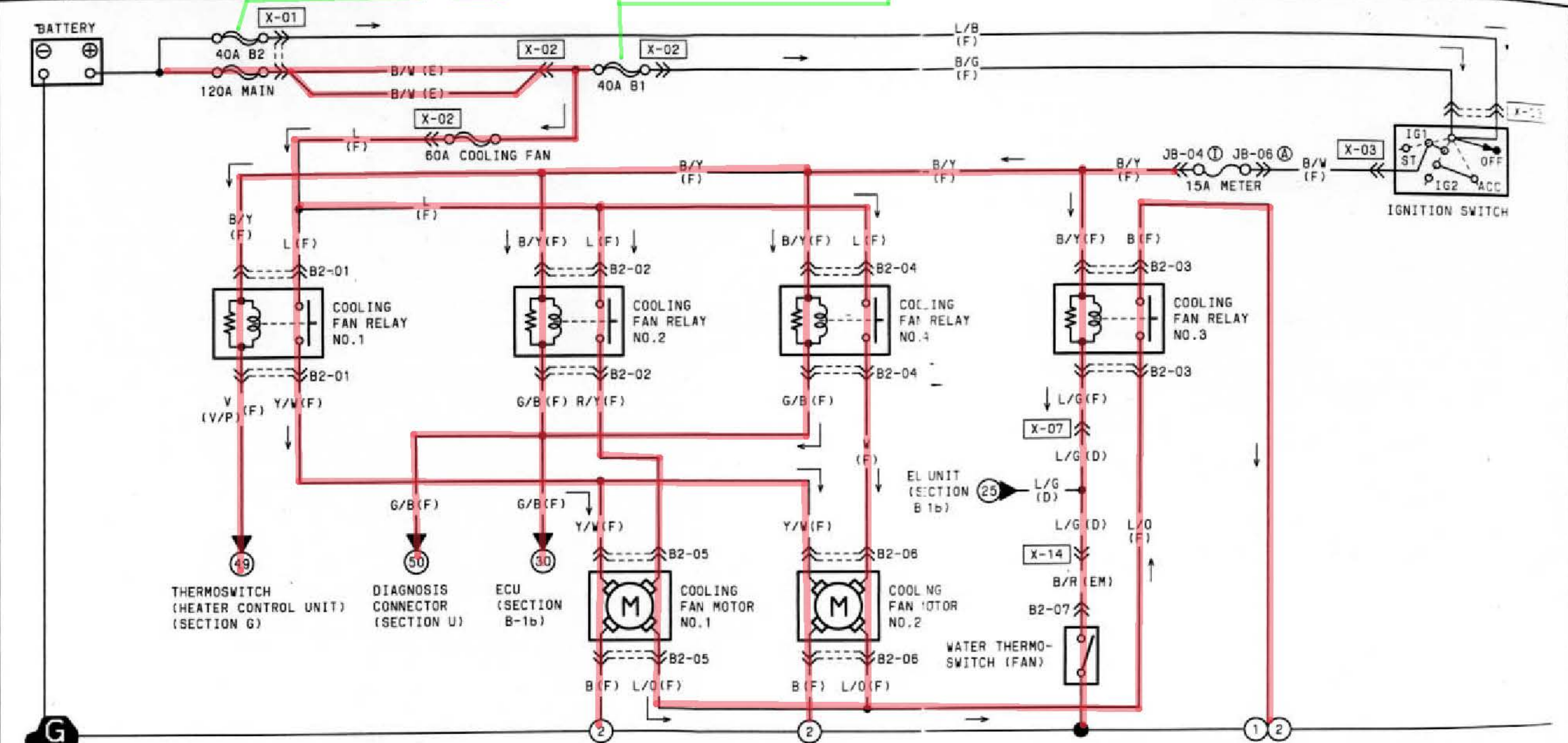


Z WIRING DIAGRAM

B-2 ■ COOLING FAN SYSTEM

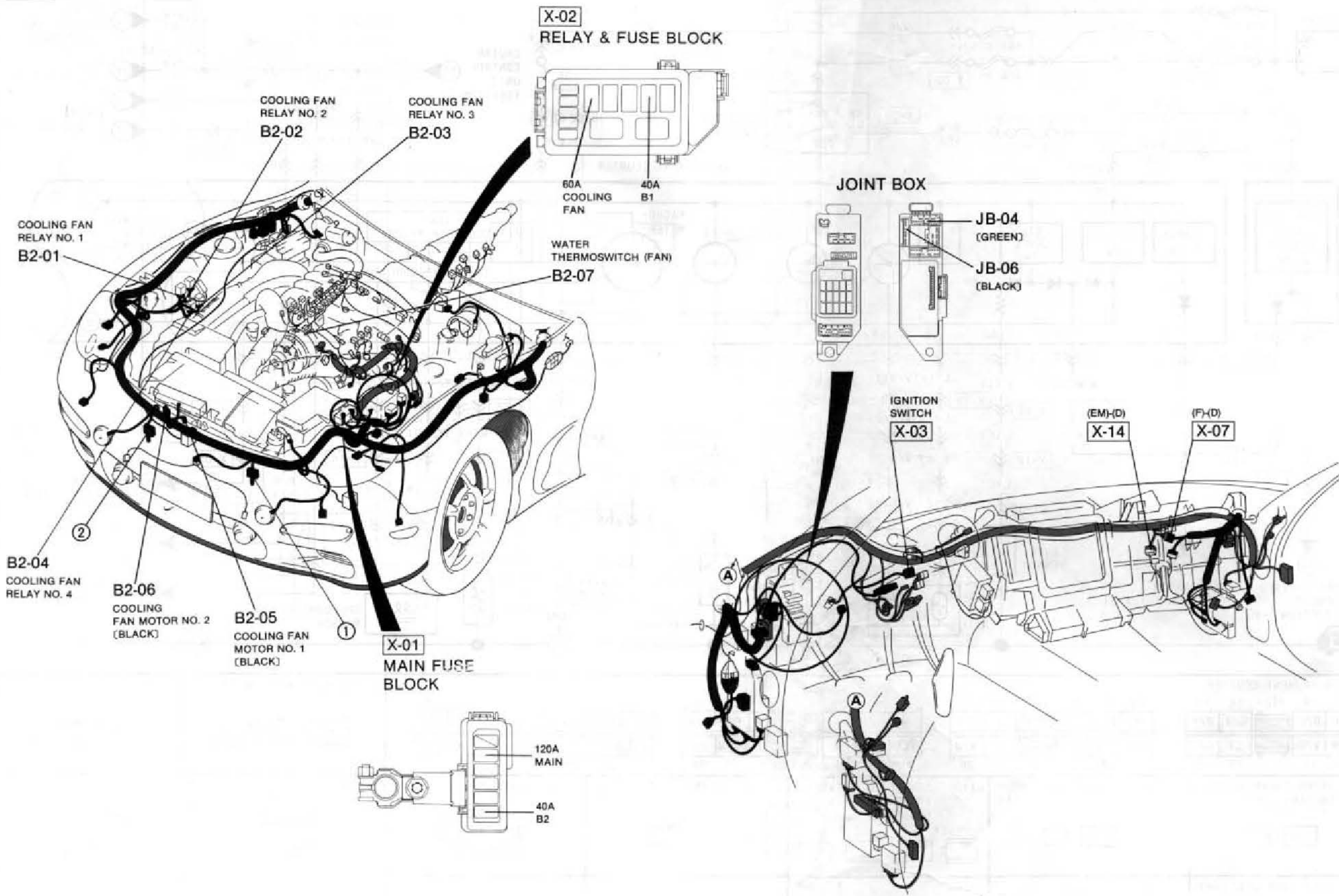
Relocated to
X-00

Bypassed 120A MAIN fuse
and connected B1 straight to battery.
Relocated to X-00



B2-01 COOLING FAN RELAY NO.1 (F)	B2-02 COOLING FAN RELAY NO.2 (F)	B2-03 COOLING FAN RELAY NO.3 (F)	B2-04 COOLING FAN RELAY NO.4 (F)	B2-05 COOLING FAN MOTOR NO.1 (F)	B2-06 COOLING FAN MOTOR NO.2 (F)	B2-07 WATER THERMOSTAT (FAN) (EM)

B-2

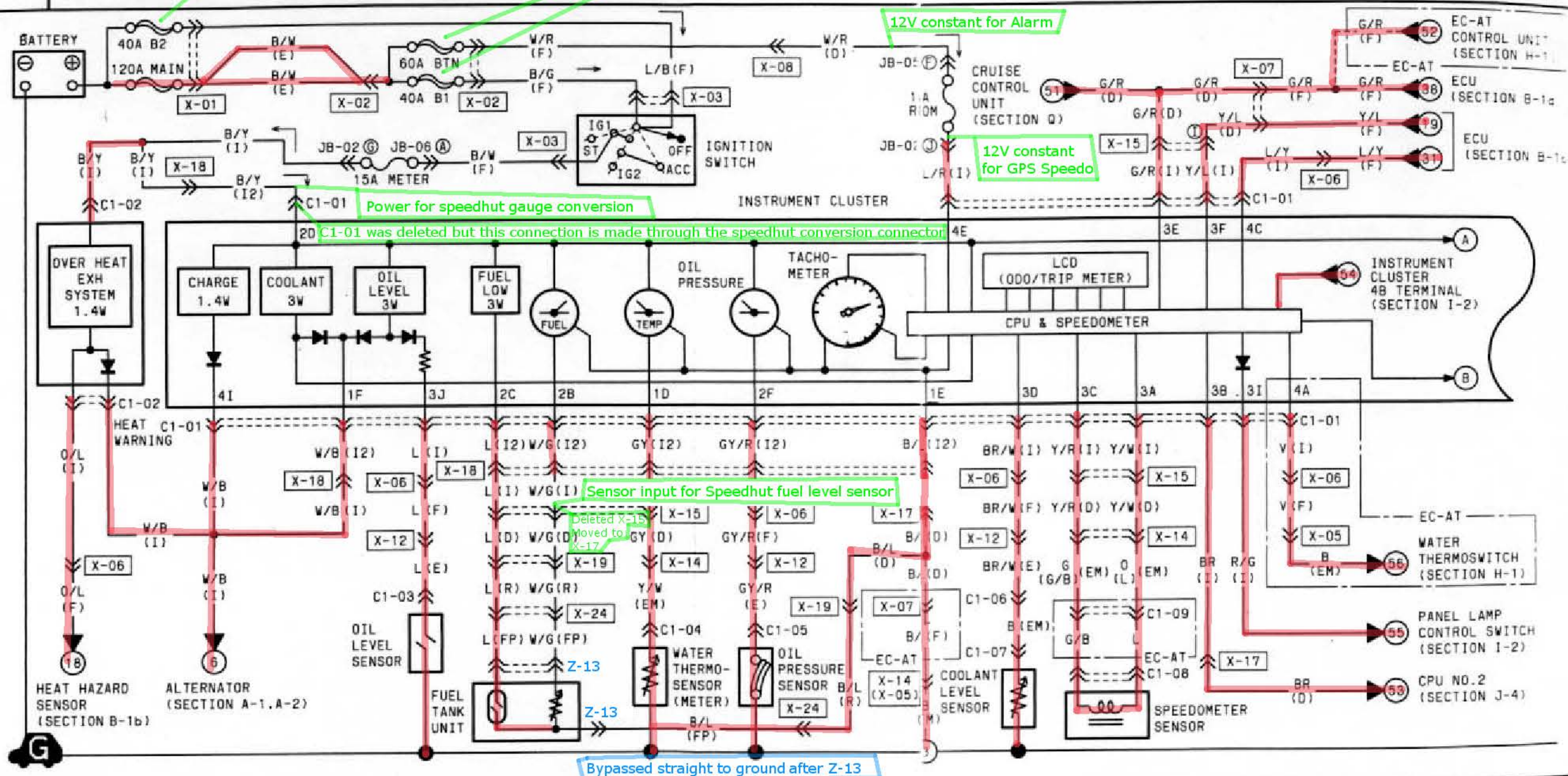


Z WIRING DIAGRAM

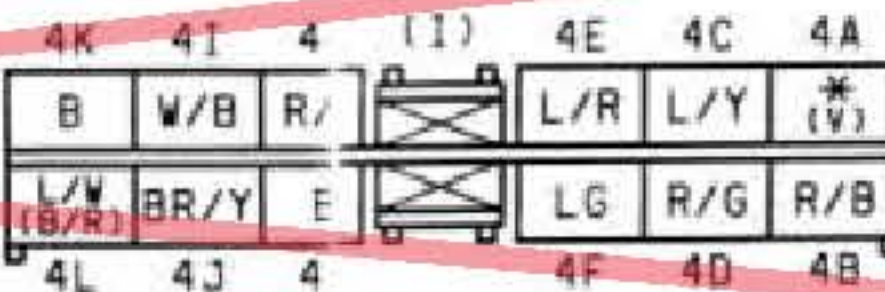
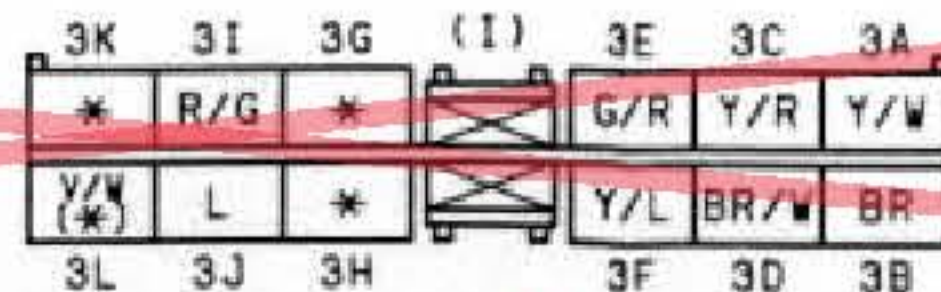
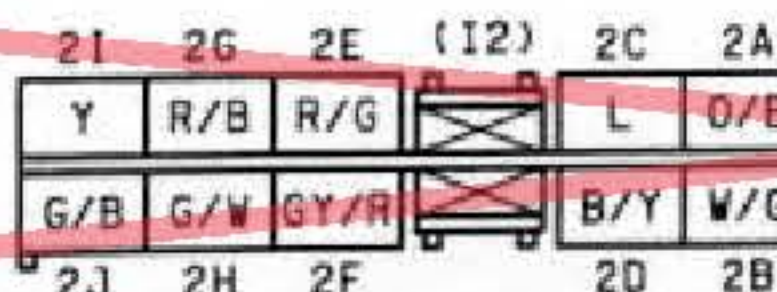
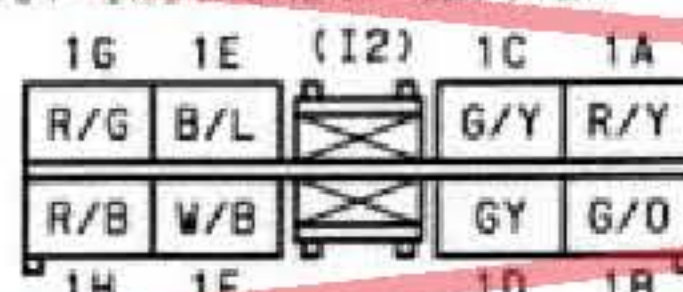
Relocated to X-00

Bypassed 120A MAIN fuse and hard wired to battery. Relocated to X-00

C-1a ■ INSTRUMENT CLUSTER & WARNING LAMPS



C1-01 INSTRUMENT CLUSTER



C1-02 HEAT WARNING (I)



C1-03 OIL LEVEL SENSOR (E)



C1-04 WATER THERMOSENSOR (METER) (EM)



C1-05 OIL PRESSURE SENSOR (E)



C1-06 CONNECTOR BETWEEN EMISSION(EM) & ENGINE(E)



C1-07 COOLANT LEVEL SENSOR (EM)



C1-08 SPEEDOMETER SENSOR (EM)



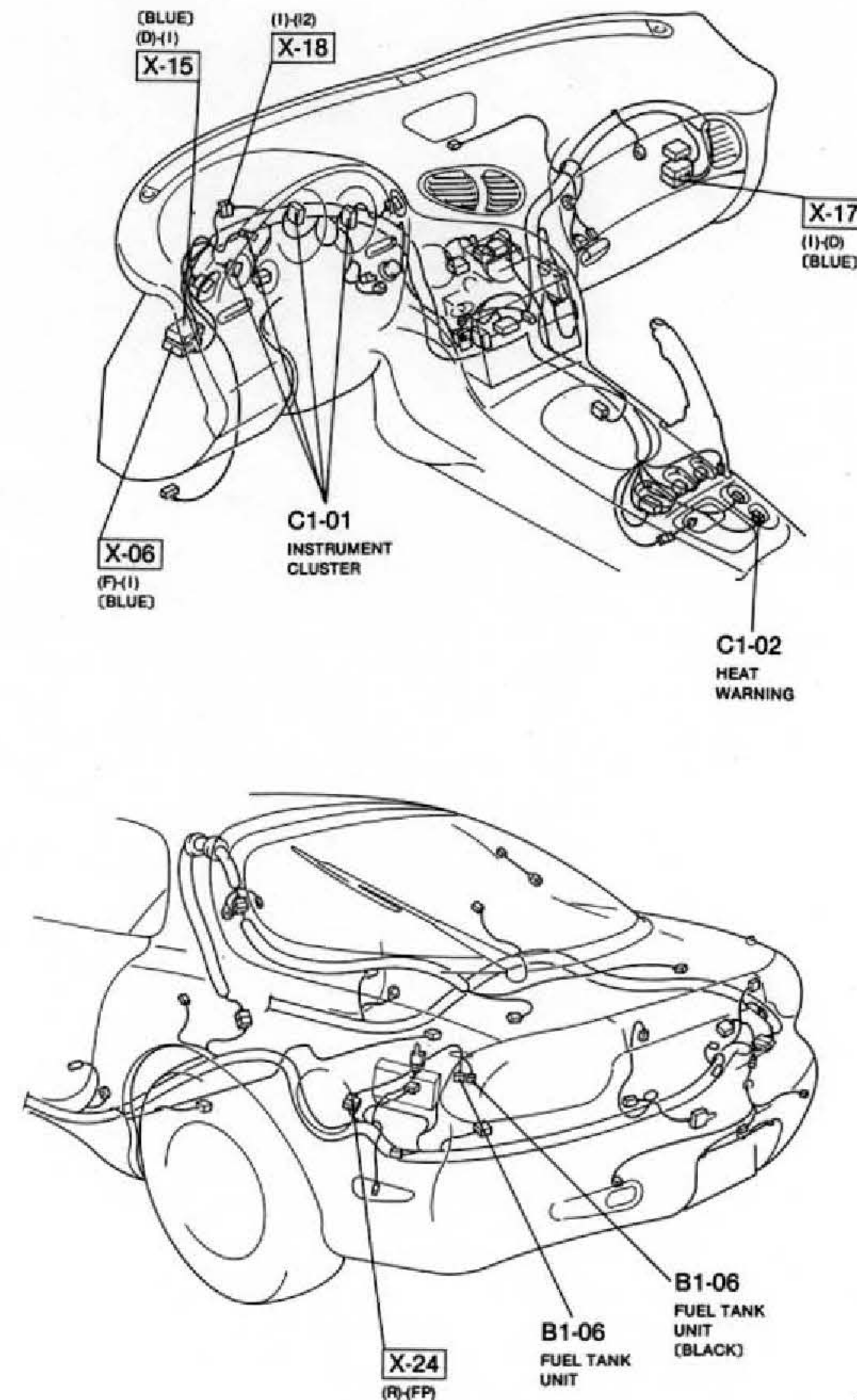
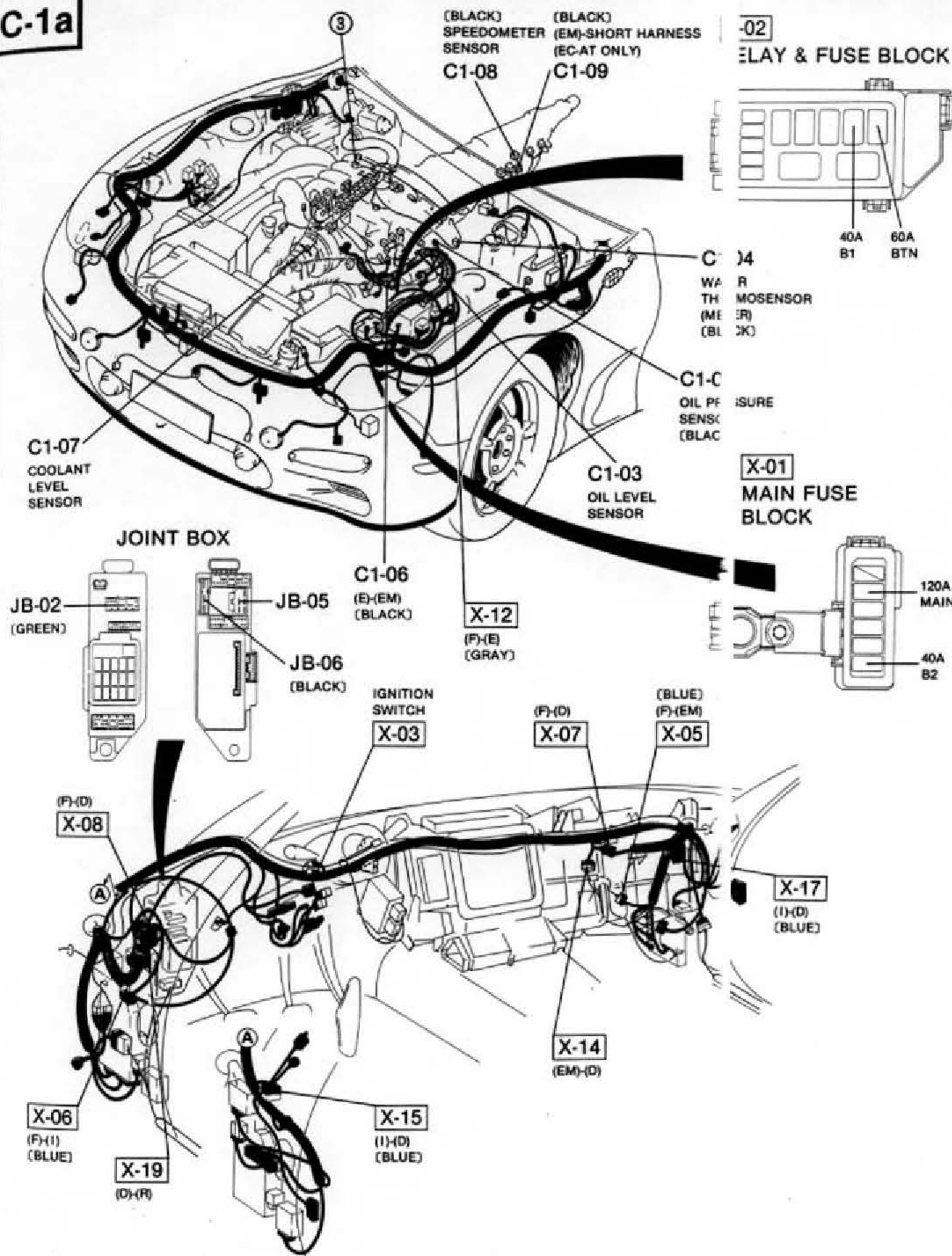
C1-09 CONNECTOR BETWEEN EMISSION (EM) & SHORT HARNESS (EC-AT ONLY)



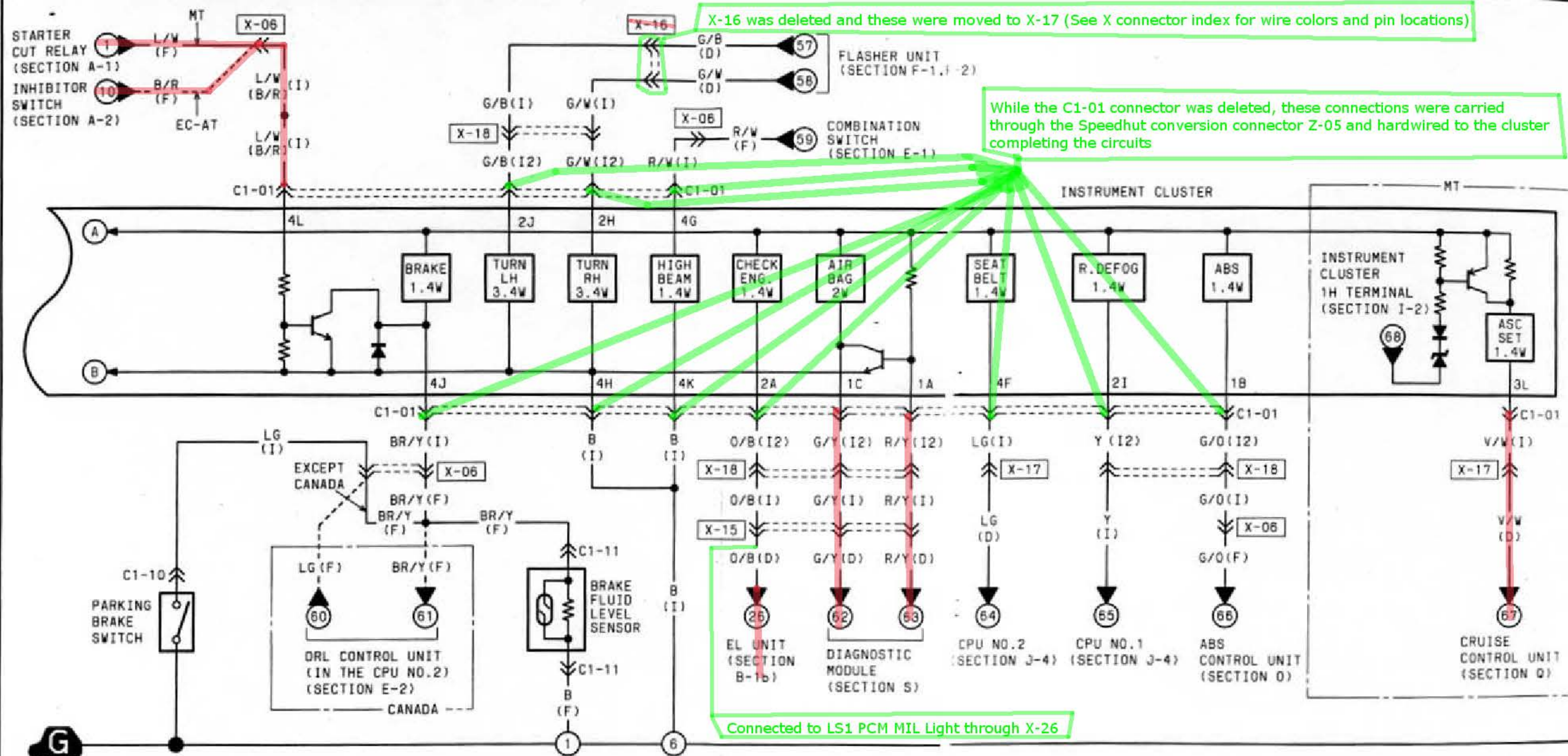
B1-06 FUEL TANK UNIT (FP)



C-1a



C-1b ■ INSTRUMENT CLUSTER & WARNING LAMPS



C1-01 INSTRUMENT CLUSTER

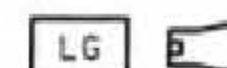
1G	1E	(I2)	1C	1A
R/G	B/L		G/Y	R/Y
R/B	W/B		GY	G/O
1H	1F		1D	1B

2J	2G	2E	(I2)	2C	2A
Y	R/B	R/G		L	O/B
G/B	G/W	GY/R		B/Y	W/G
2J	2H	2F		2D	2B

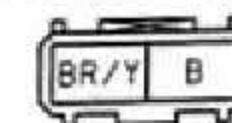
3K	3I	3G	(I)	3E	3C	3A
*	R/G	*		G/R	Y/R	Y/W
Y/W	L	*		Y/L	BR/W	BR
3L	3J	3H		3F	3D	3B

4K	4I	(I)	4E	4C	4A
B	W/B		L/R	L/Y	* (V)
L/V	BR/Y		LG	R/G	R/B
4L	4J		4F	4D	4B

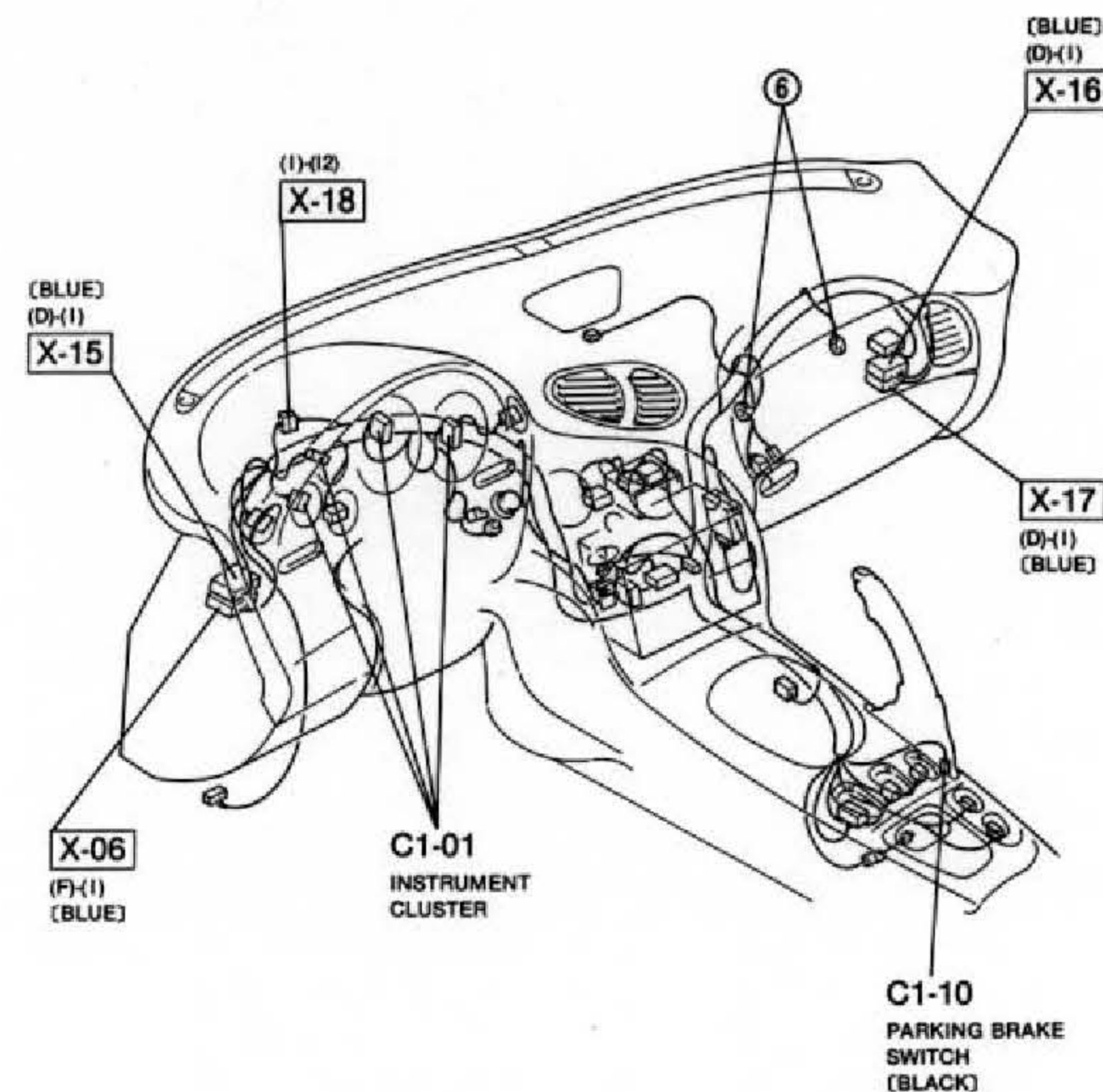
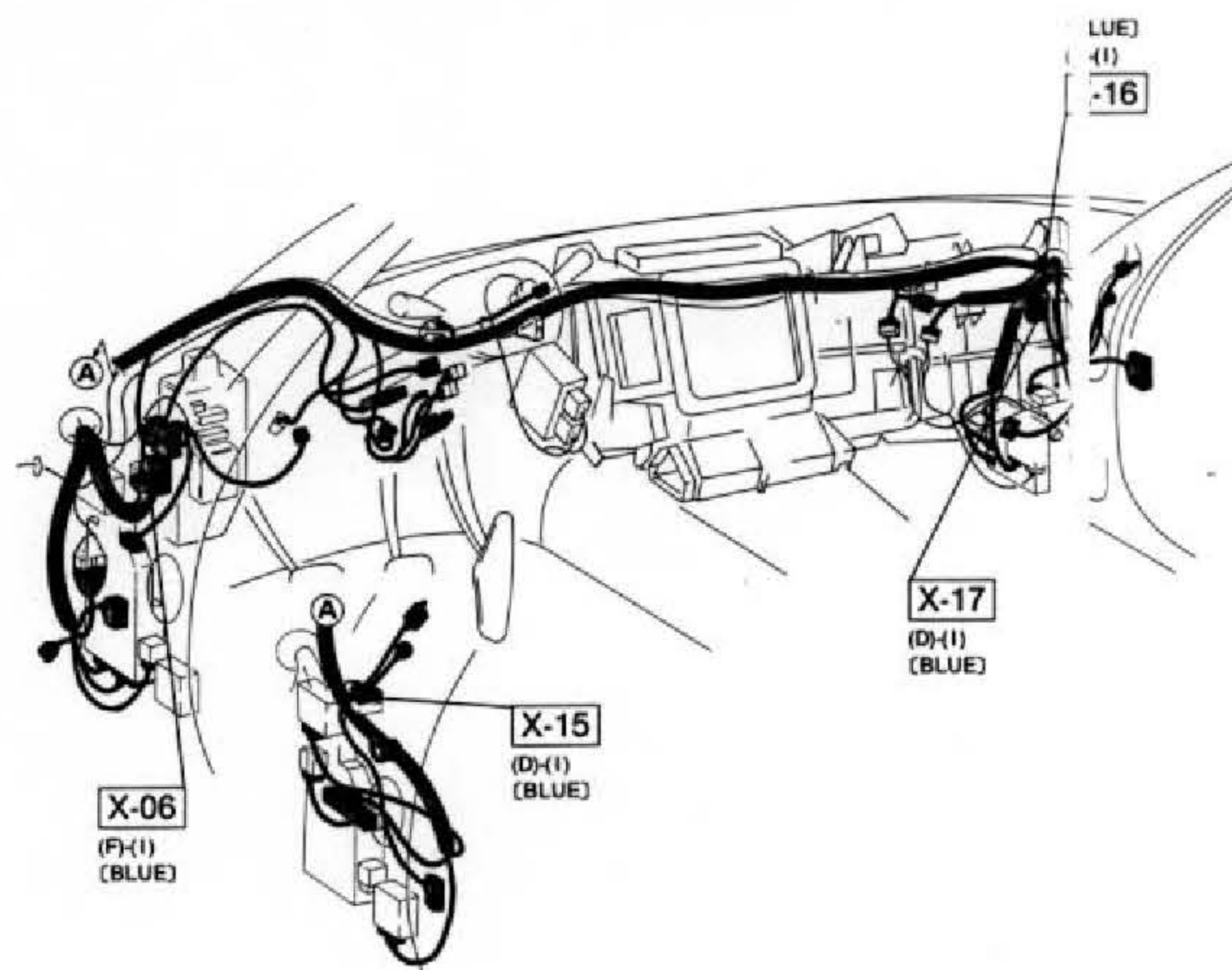
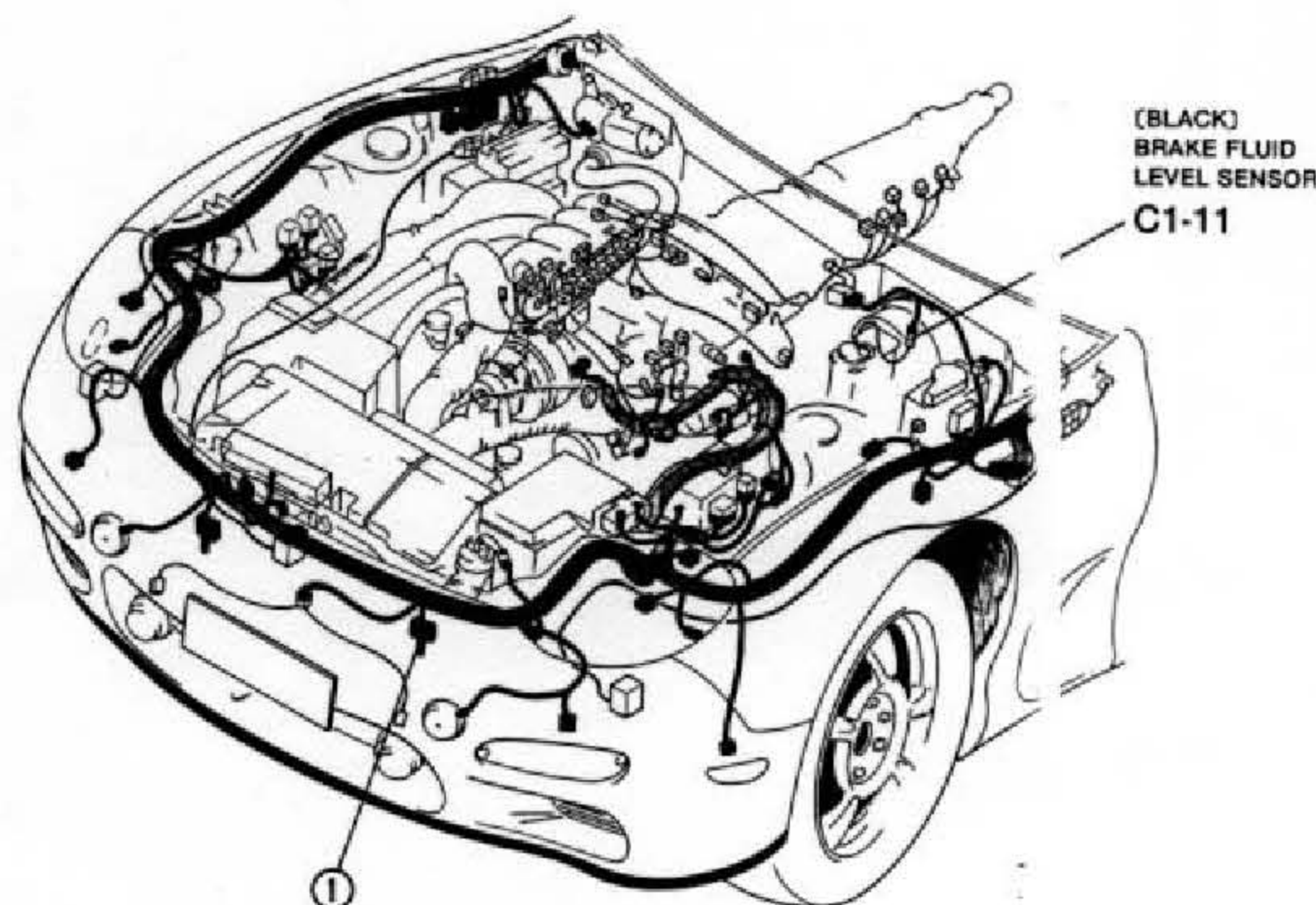
C1-10 PARKING BRAKE SWITCH (I)



C1-11 BRAKE FLUID LEVEL SENSOR (F)

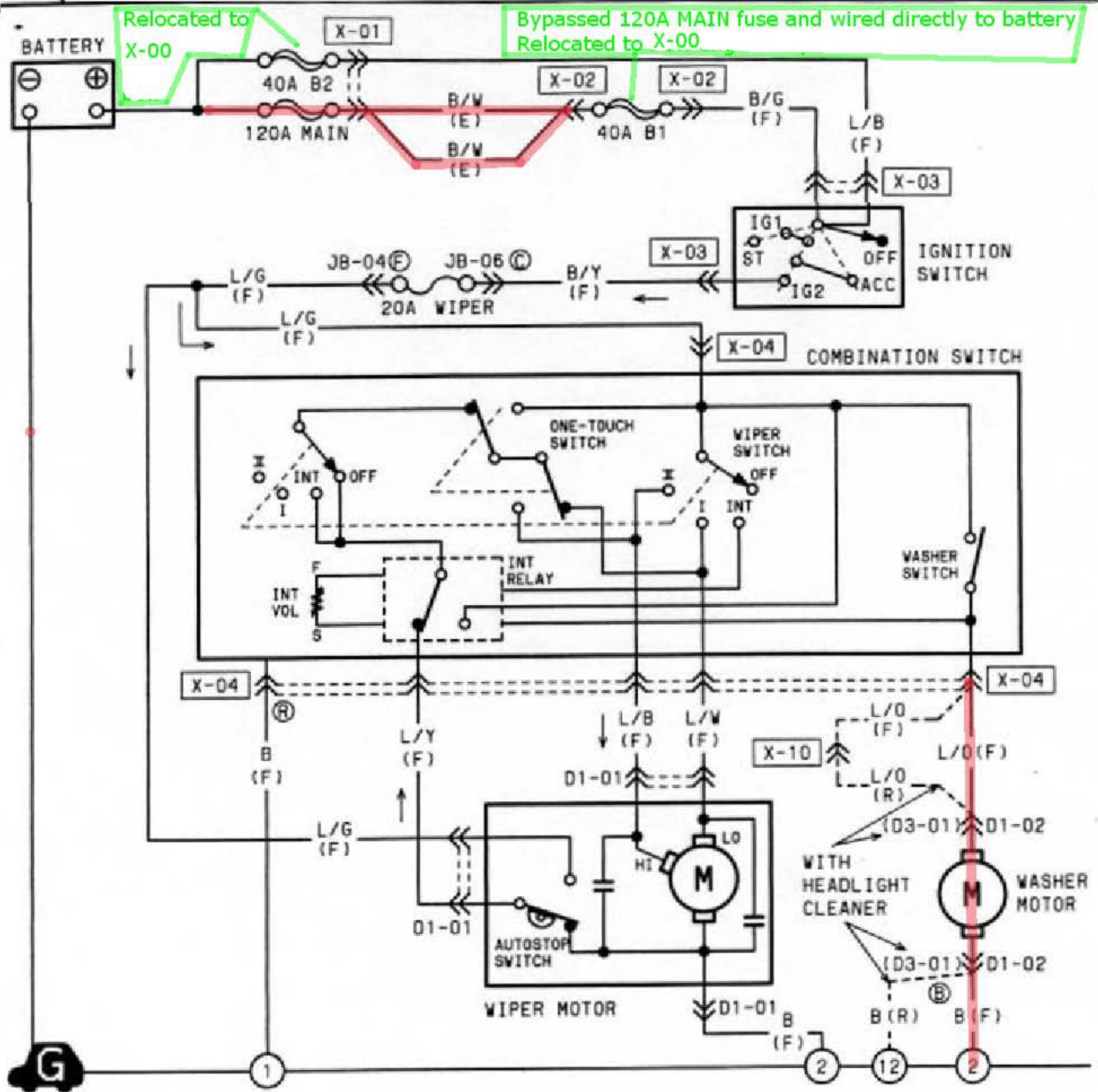


C-1b



Z WIRING DIAGRAM

D-1 ■ WINDSHIELD WIPER & WASHER



D1-01 WIPER MOTOR (F)

B	L/W	L/B
*	L/G	L/Y

D1-02 WASHER MOTOR (F)

B
L/O

(WITHOUT HEADLIGHT CLEANER)

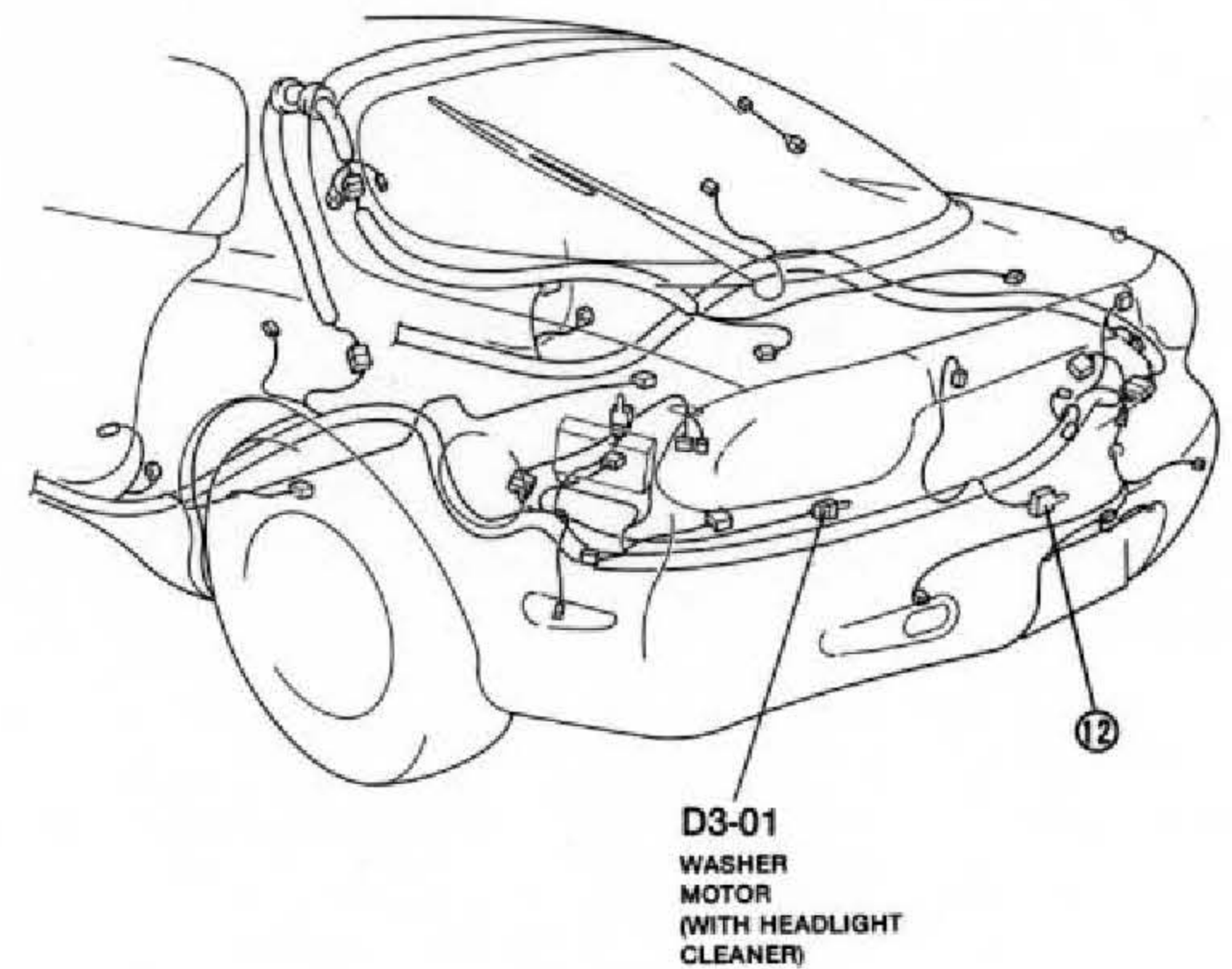
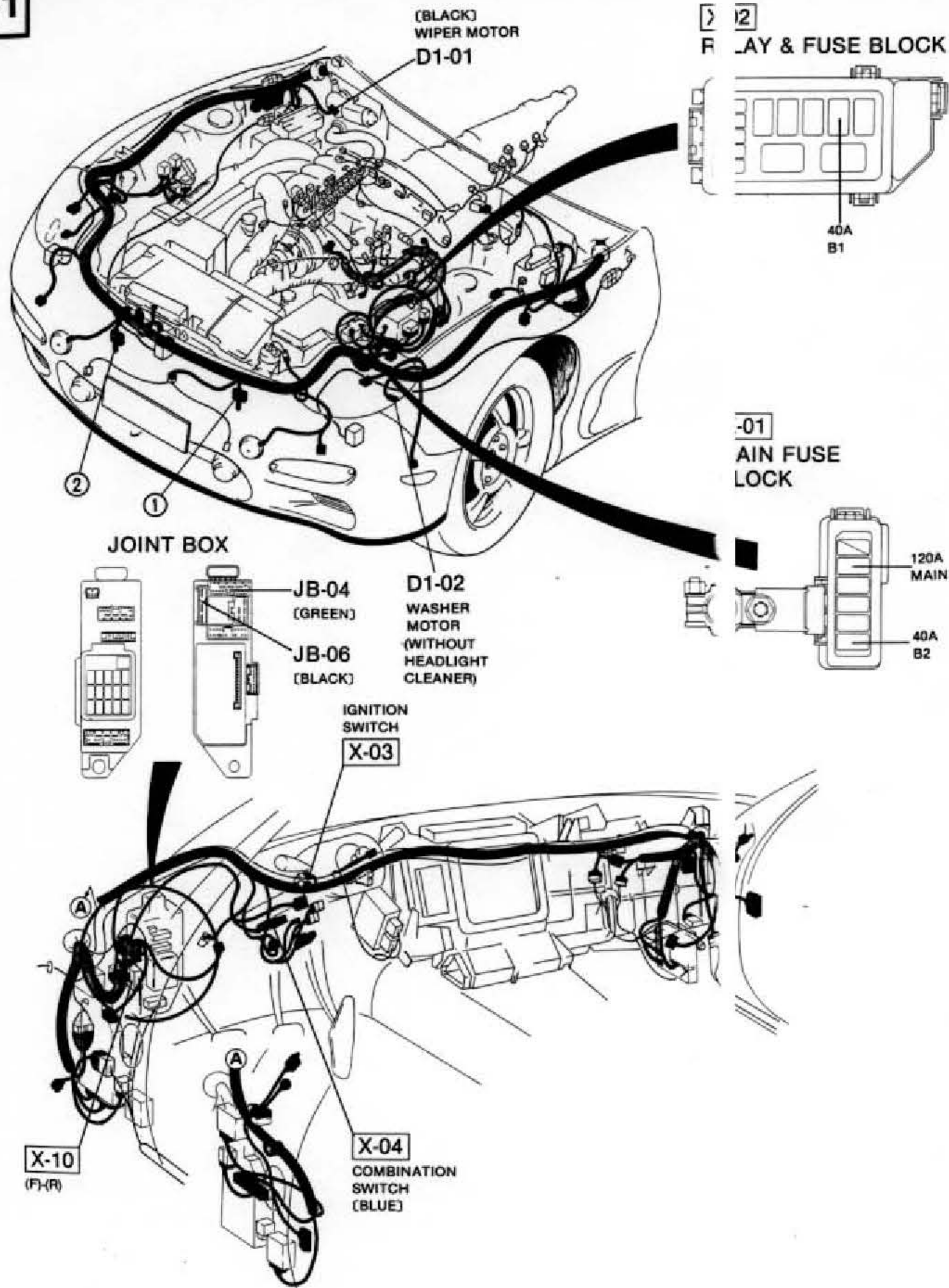
D3-01 WASHER MOTOR (R)

R/W	*	*		*	*	L/O
R/L	W	*		B	B	

(WITH HEADLIGHT CLEANER) ①

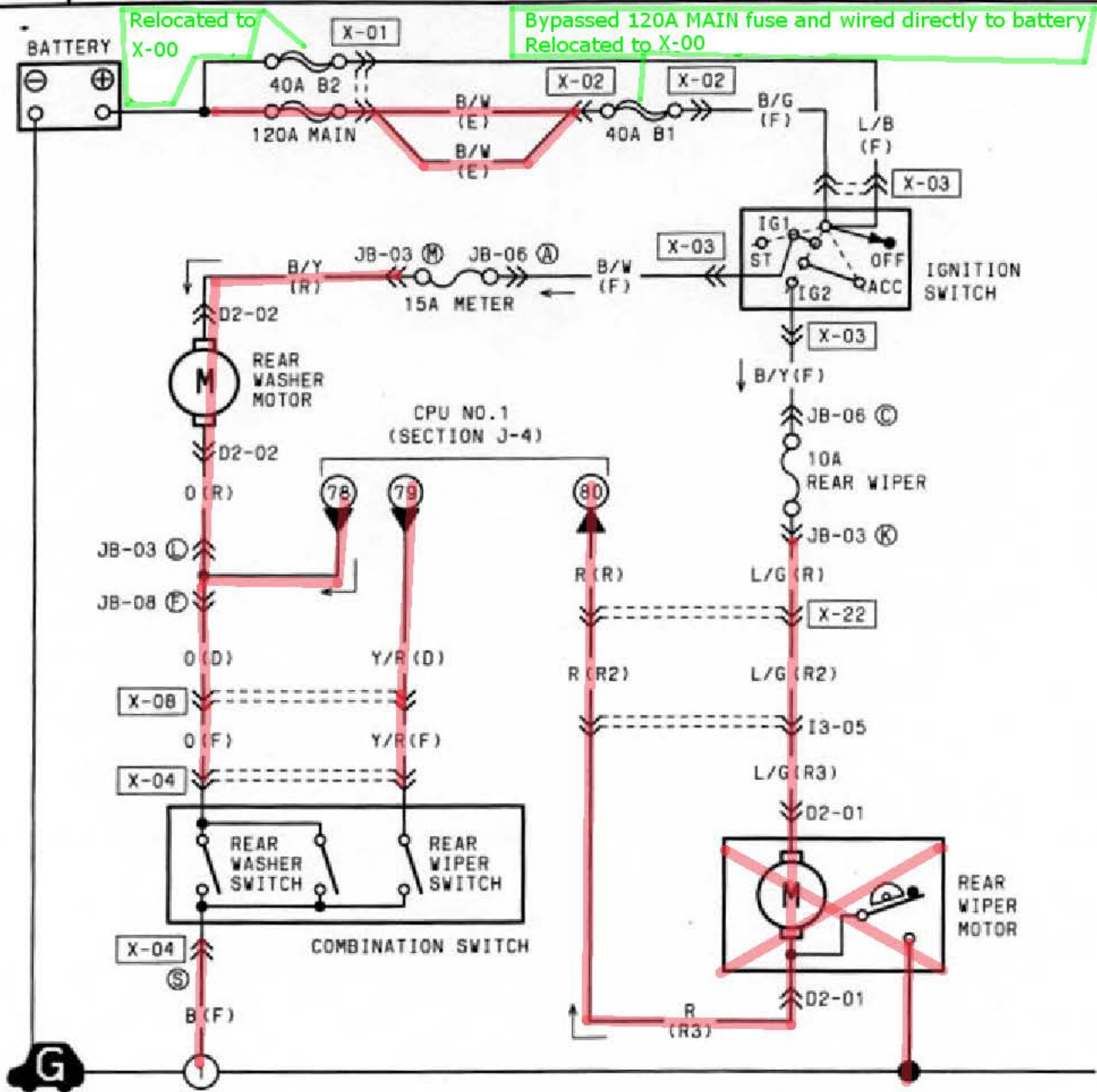
②

D-1



Z WIRING DIAGRAM

D-2 ■ REAR WIPER & WASHER



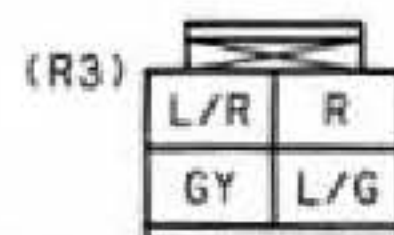
~~D2-01 REAR WIPER MOTOR (R3)~~



~~D2-02 REAR WASHER MOTOR (R)~~

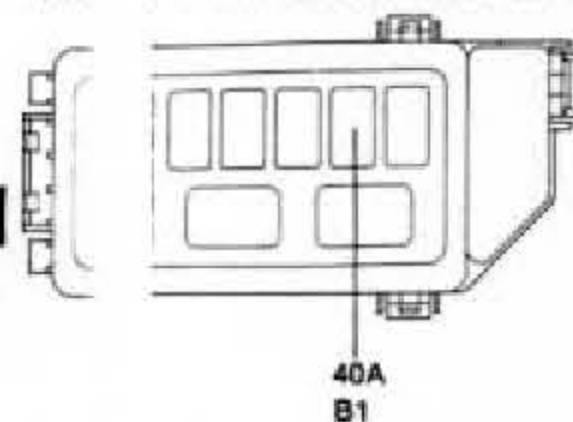


13-05 CONNECTOR BETWEEN REAR NO.2 (R2) & REAR NO.3 (R3)

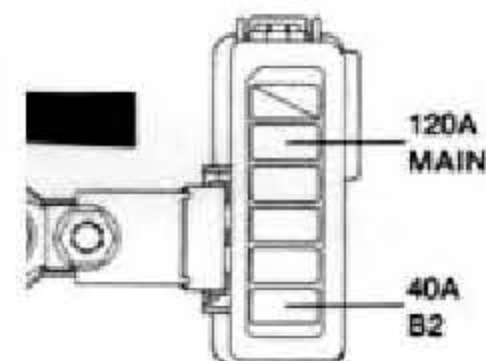


D-2

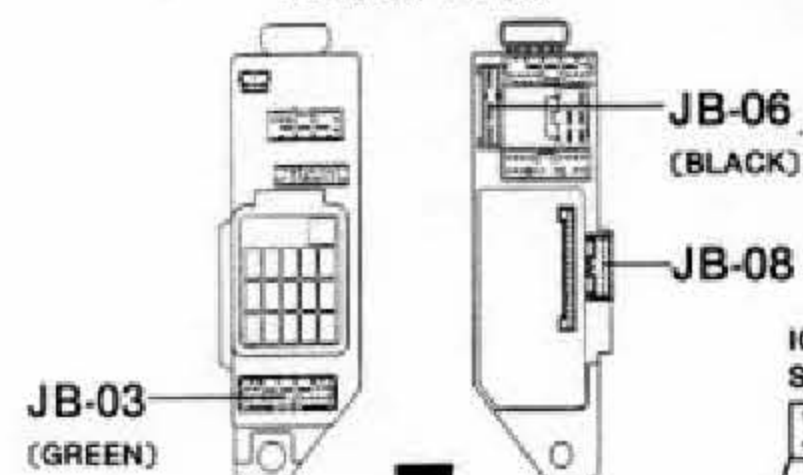
X-1
RELAY & FUSE BLOCK



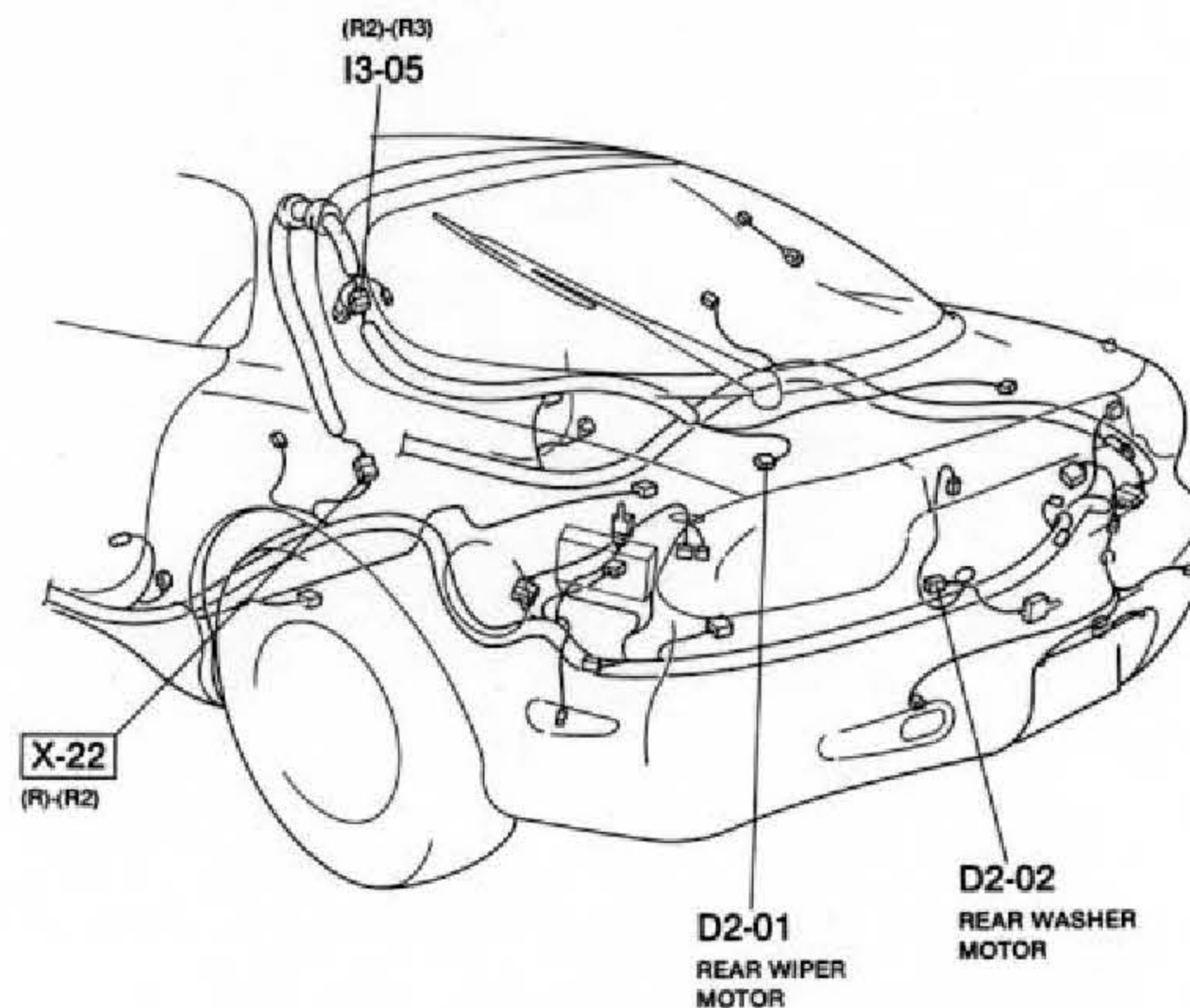
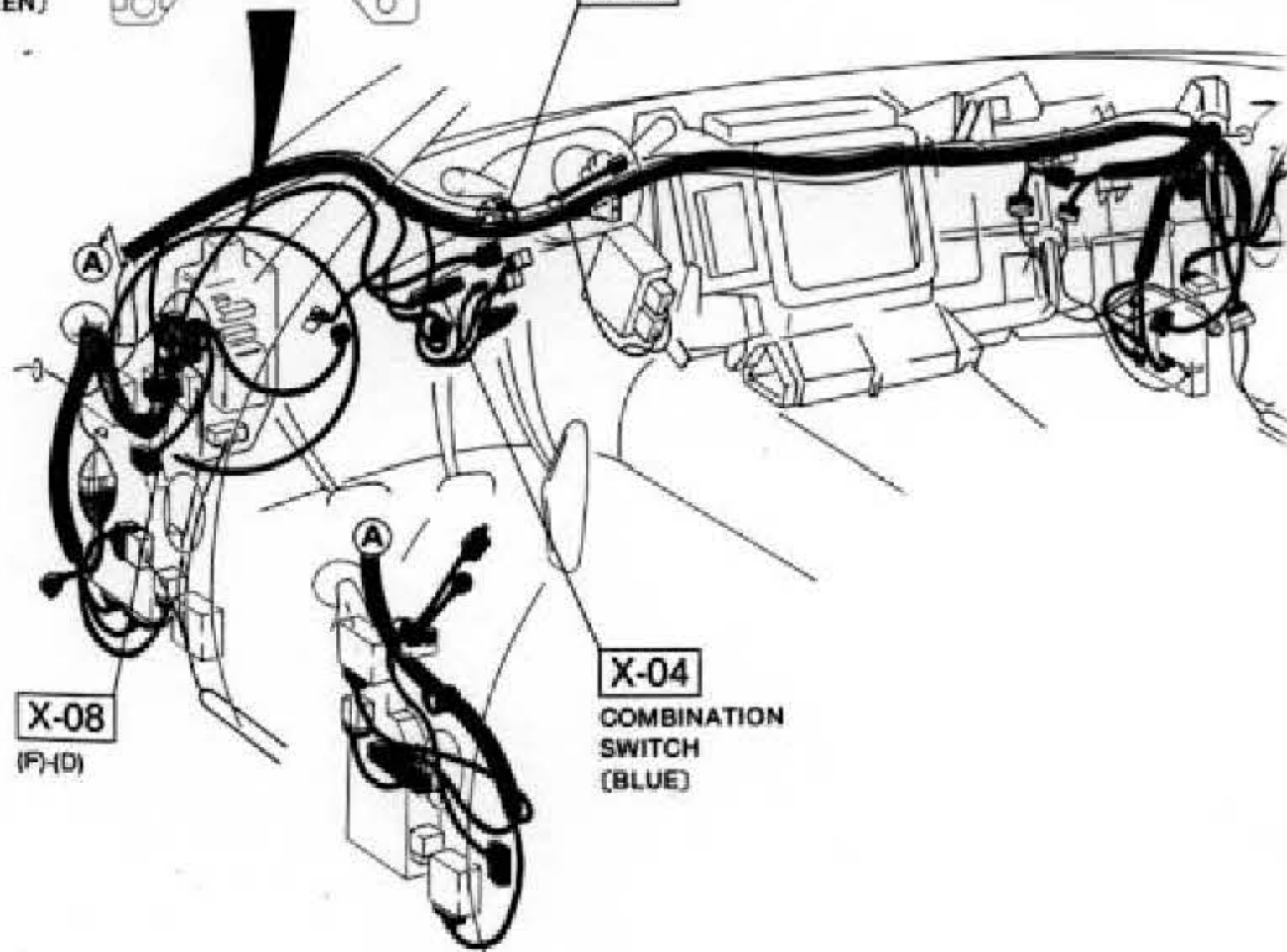
X-01
MAIN FUSE
LOCK



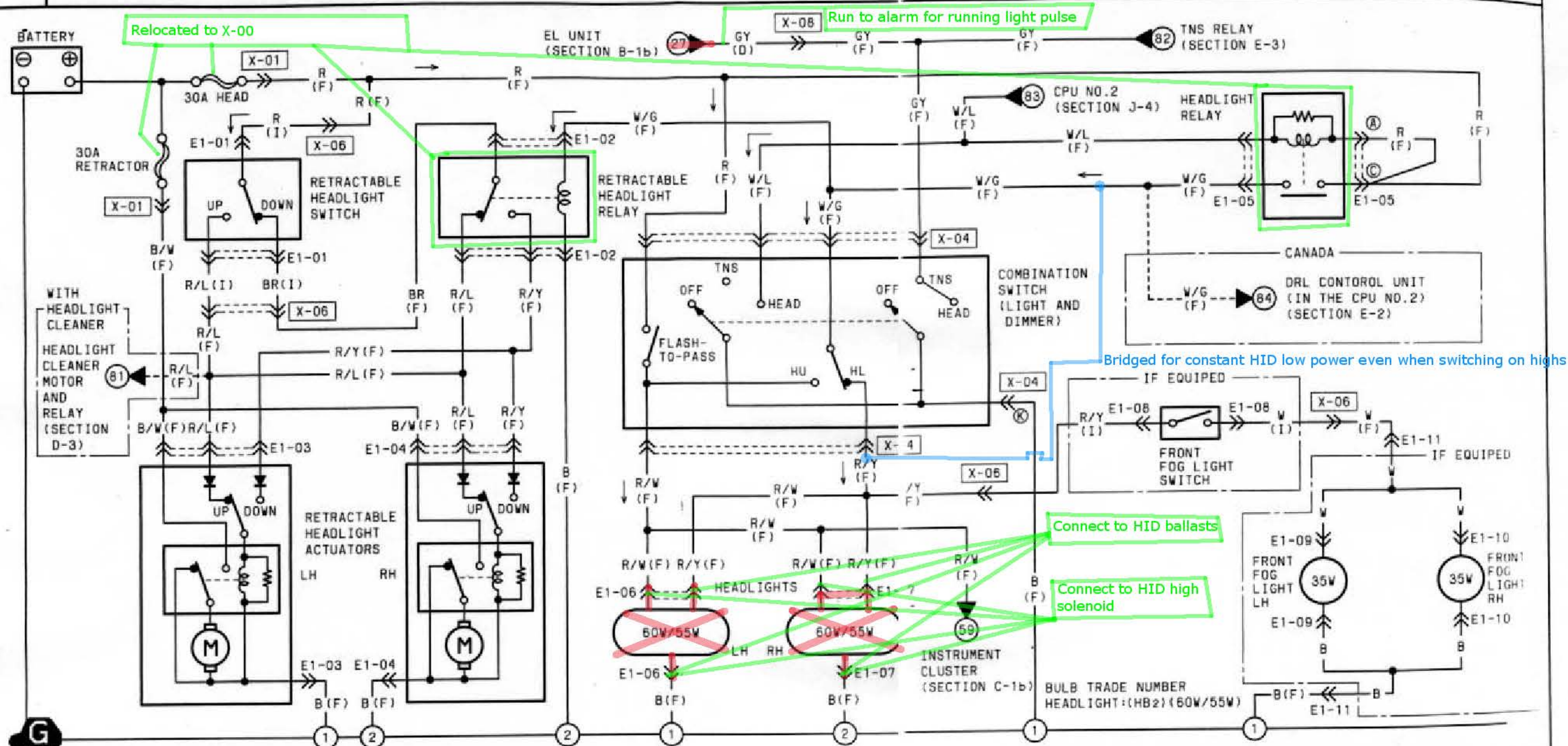
JOINT BOX



IGNITION
SWITCH
X-03

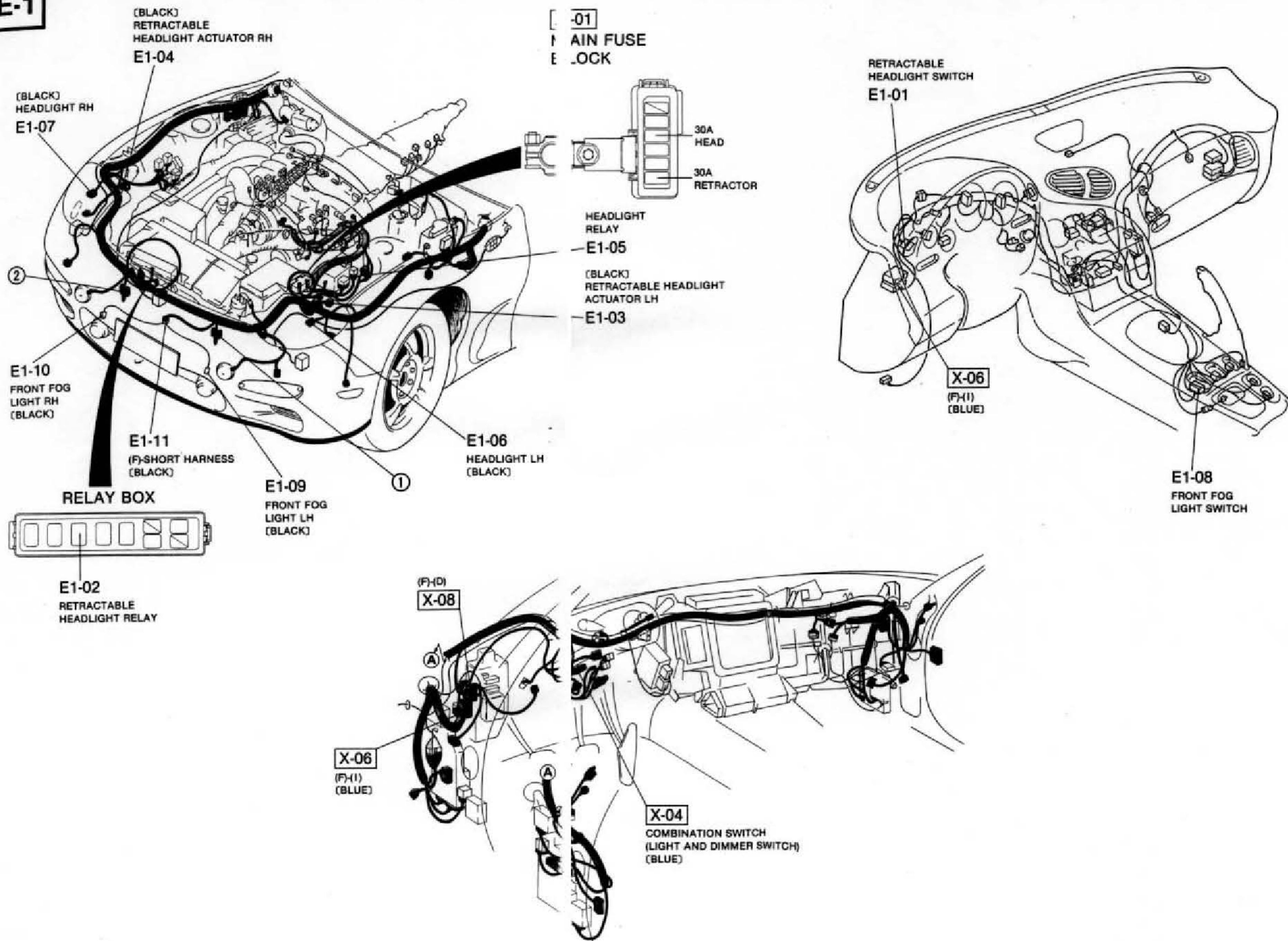


E-1 ■ RETRACTABLE HEADLIGHT SYSTEM ■ HEADLIGHTS ■ FRONT FOG LIGHTS

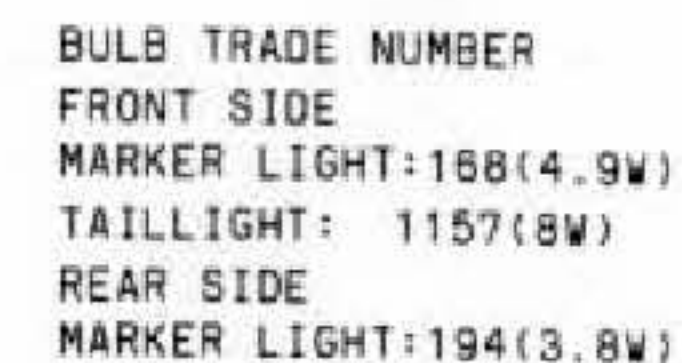


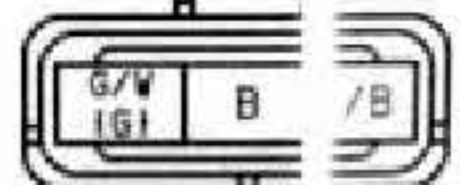
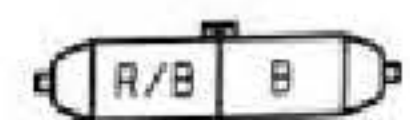
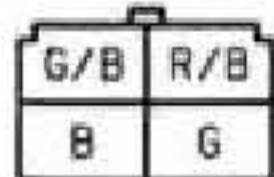
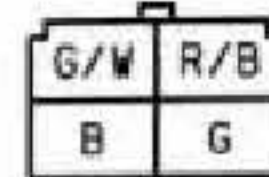
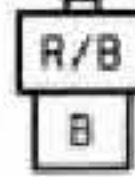
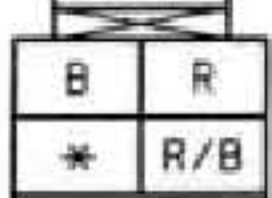
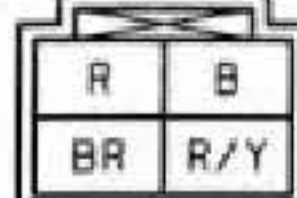
E1-01 RETRACTABLE HEADLIGHT SWITCH (I) 	E1-02 RETRACTABLE HEADLIGHT RELAY (F) 	E1-03 RETRACTABLE HEADLIGHT ACTUATOR LH (F) 	E1-04 RETRACTABLE HEADLIGHT ACTUATOR RH (F) 	E1-05 HEADLIGHT RELAY (F) 	E1-06 HEADLIGHT LH (F) 	E1-07 HEADLIGHT RH (F)
E1-08 FRONT FOG LIGHT SWITCH (I) 	E1-09 FRONT FOG LIGHT LH 	E1-10 FRONT FOG LIGHT RH 	E1-11 CONNECTOR BETWEEN FRONT (F) & SHORT HARNESS 			

E-1

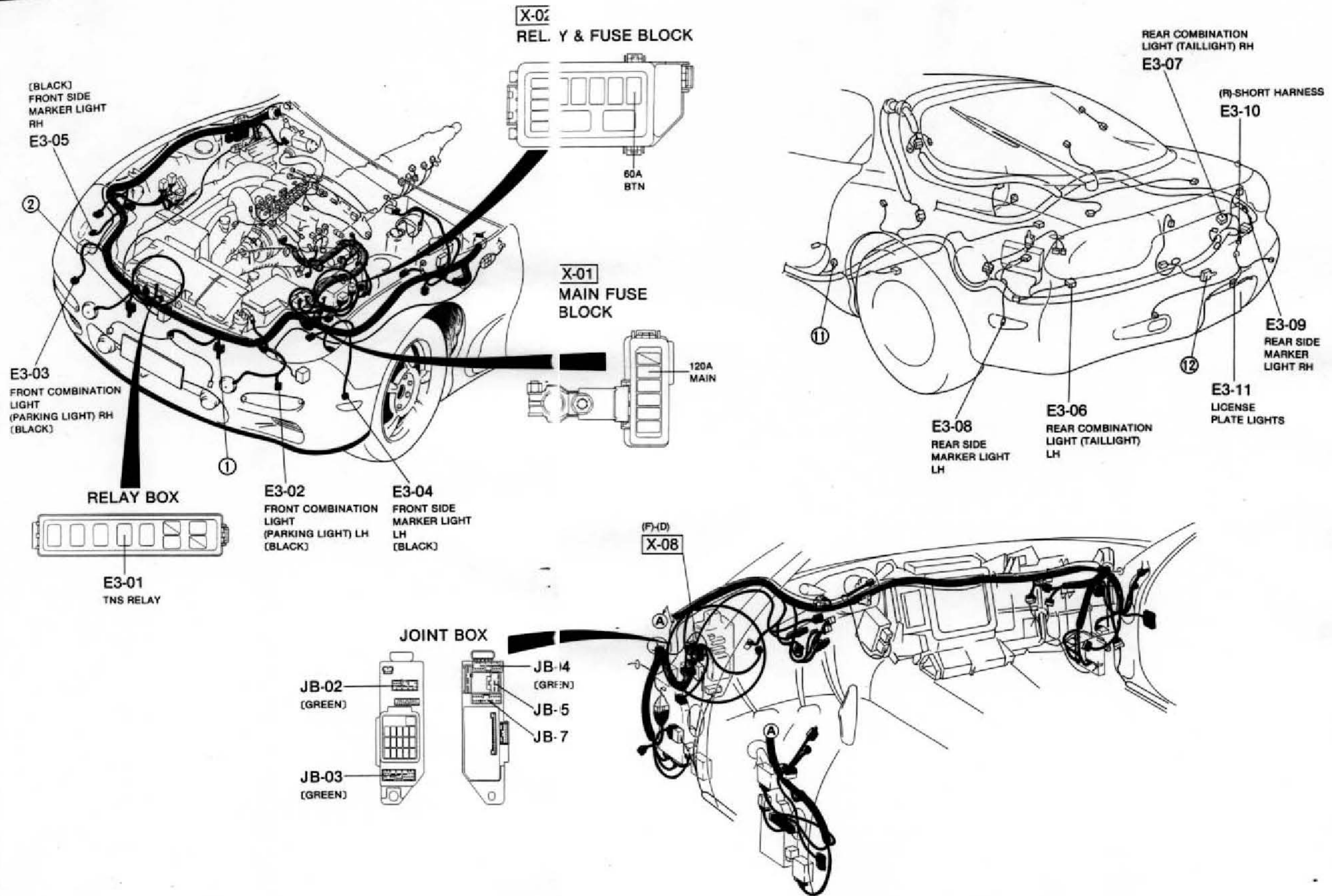


■ PARKING LIGHTS ■ FRONT SIDE MARKER LIGHTS ■ TAILLIGHTS
■ REAR SIDE MARKER LIGHTS ■ LICENSE PLATE LIGHTS



E3-01 TNS RELAY (F) 	E3-02 FRONT COMBINATION LIGHT (PARKING LIGHT) LH (F) 		E3-03 FRONT COMBINATION LIGHT (PARKING LIGHT) RH (F) 		E3-04 FRONT SIDE MARKER LIGHT LH (F) 	E3-05 FRONT SIDE MARKER LIGHT RH (F) 
E3-06 REAR COMBINATION LIGHT (TAILLIGHT) LH (R) 	E3-07 REAR COMBINATION LIGHT (TAILLIGHT) RH (R) 	E3-08 REAR SIDE MARKER LIGHT LH (R) 	E3-09 REAR SIDE MARKER LIGHT RH (R) 	E3-10 CONNECTOR BETWEEN REAR (R) & SHORT HARNESS (R)  		E3-11 LICENSE PLATE LIGHT (R) 

E-3

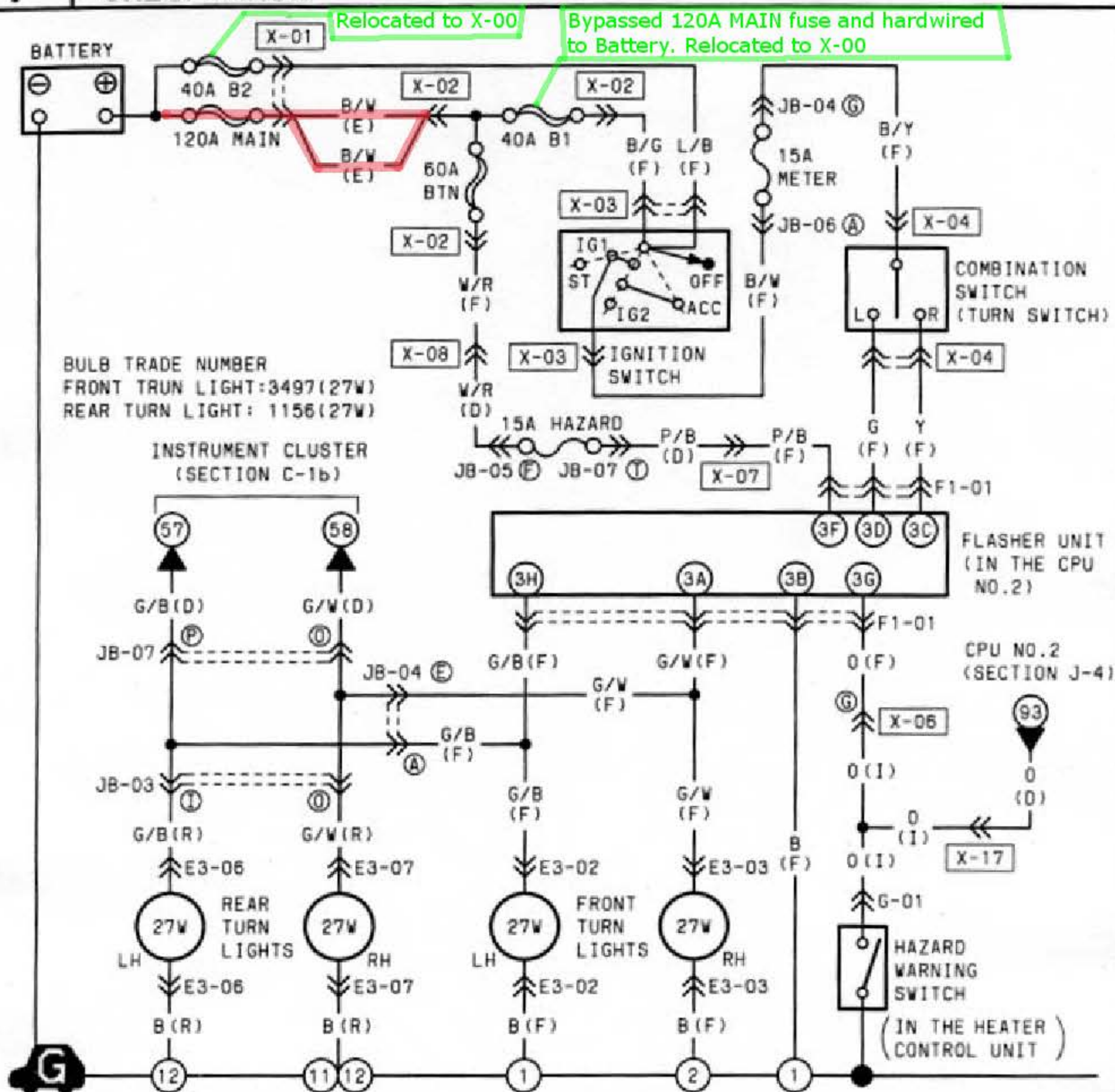


Z WIRING DIAGRAM

F-1

FEDERAL
CALIFORNIA

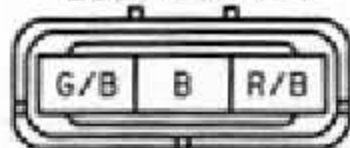
TURN & HAZARD WARNING LIGHTS



F1-01 FLASHER UNIT (F)
(IN THE CPU NO.2)

3G	3C	3A
0	Y	G/W
G/B	P/B	G
3H	3F	3D
3B		

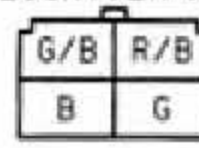
E3-02 FRONT COMBINATION
LIGHT (FRONT TURN
LIGHT) LH (F)



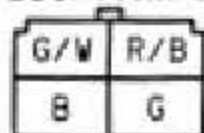
E3-03 FRONT COMBINATION
LIGHT (FRONT TURN
LIGHT) RH (F)



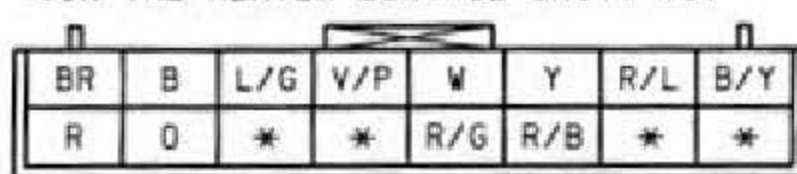
E3-06 REAR COMBINATION
LIGHT (REAR TURN
LIGHT) LH (R)



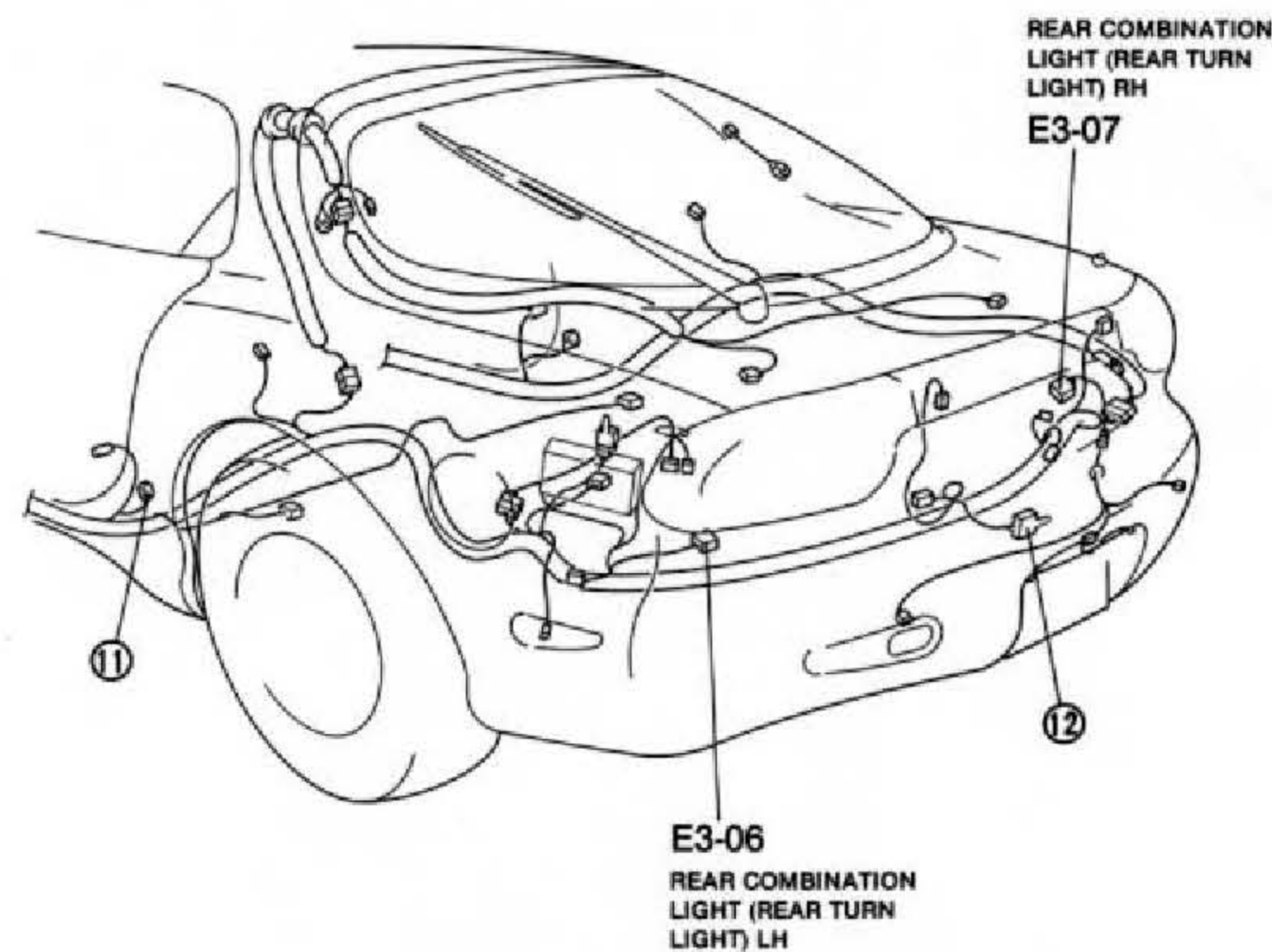
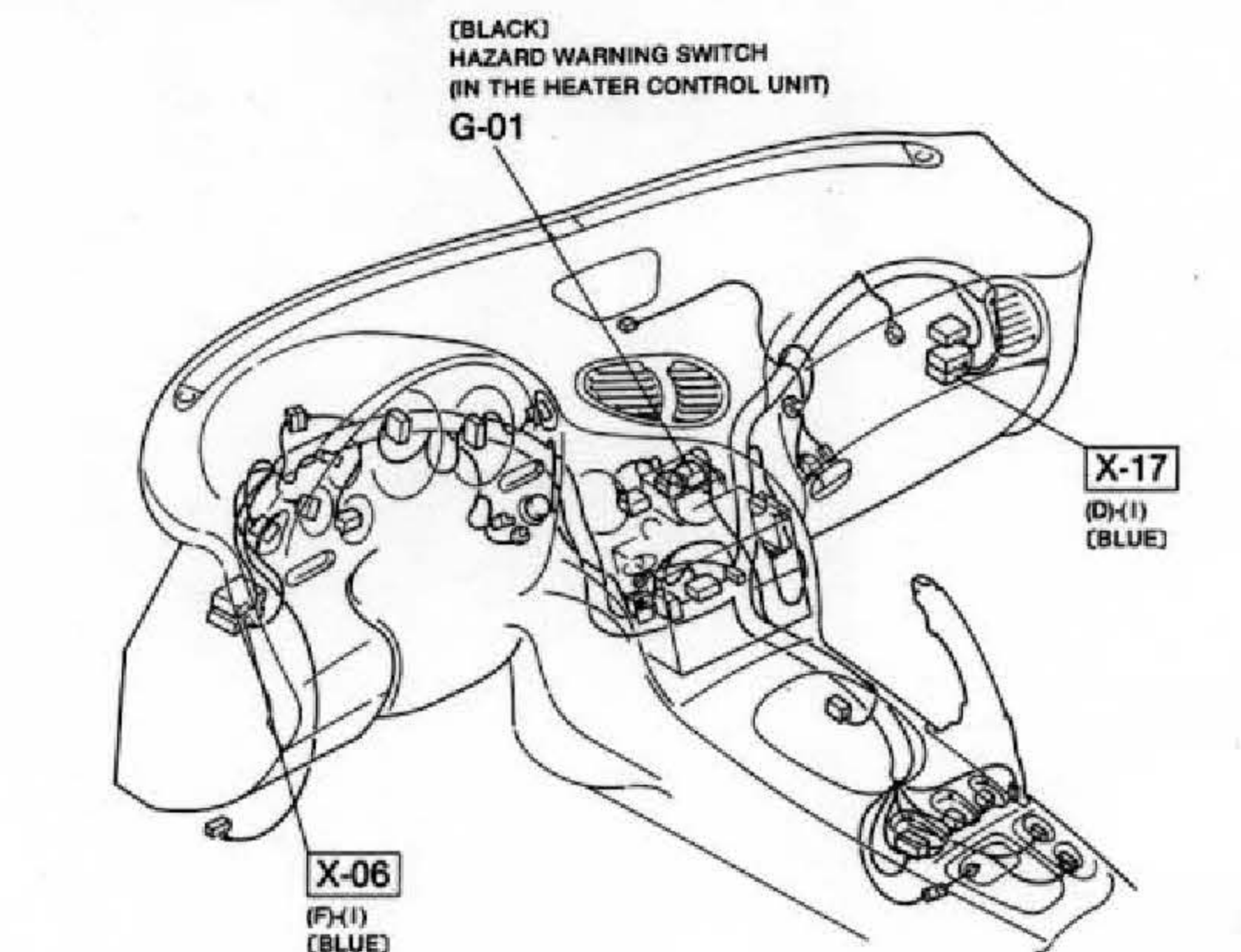
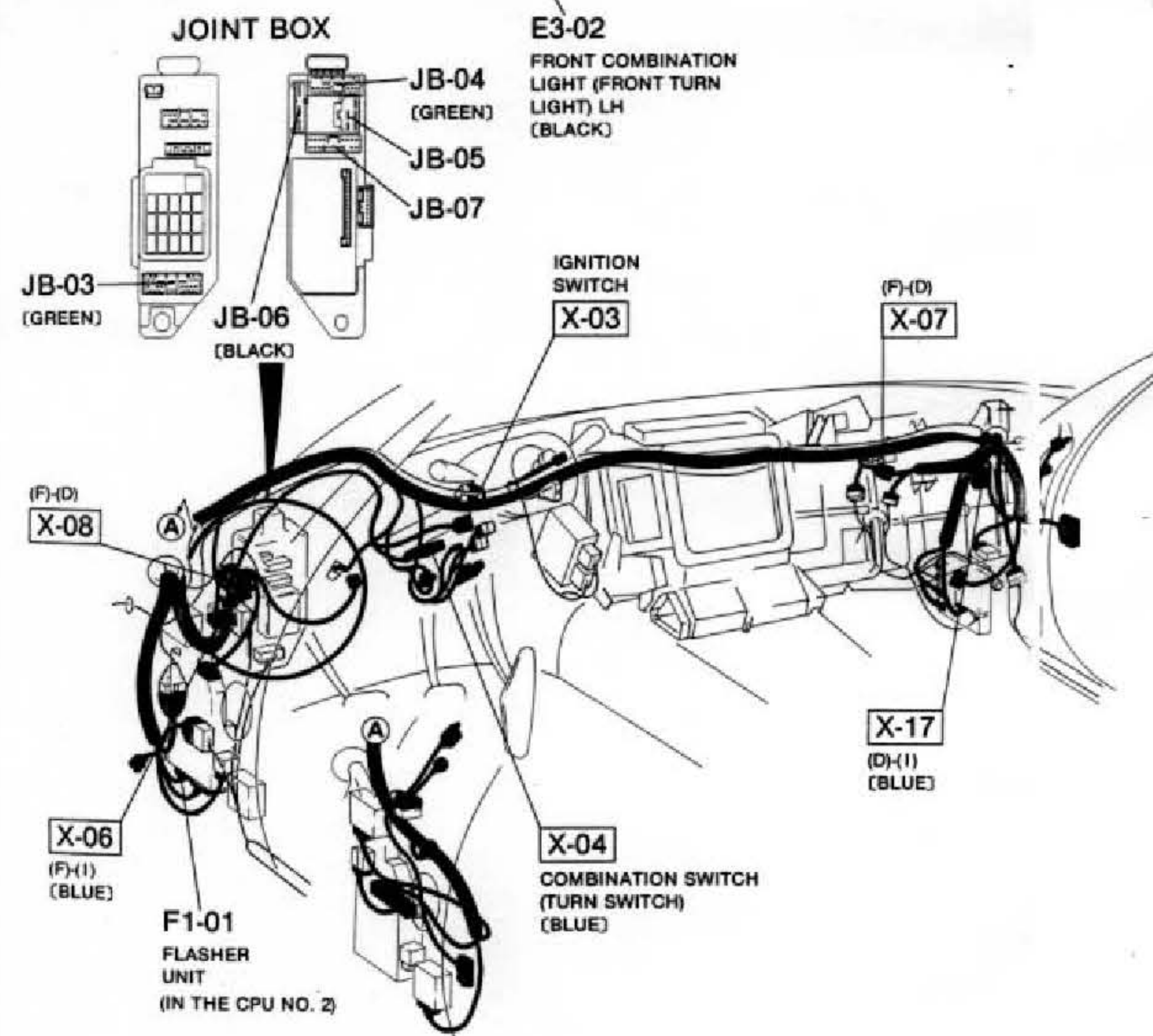
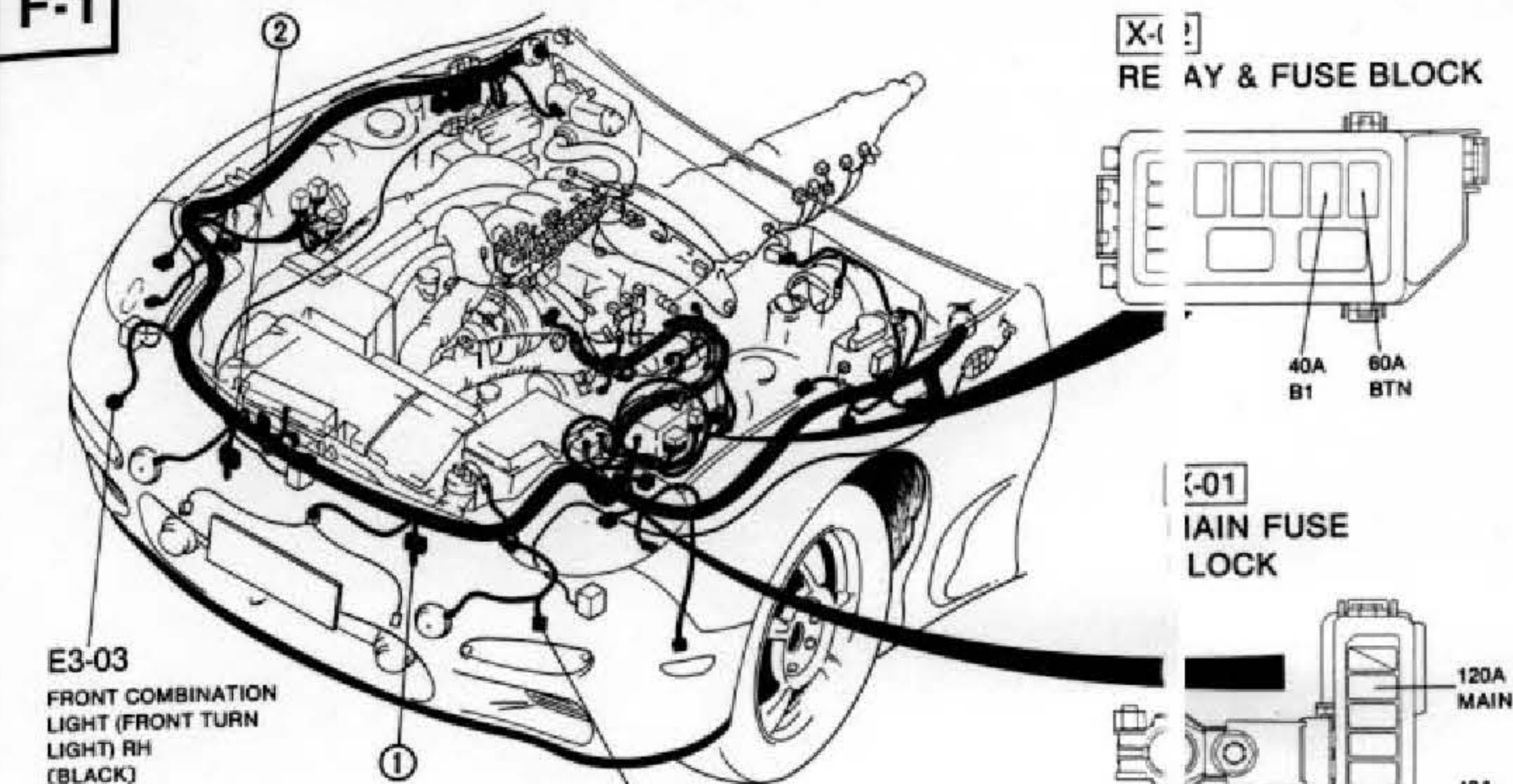
E3-07 REAR COMBINATION
LIGHT (REAR TURN
LIGHT) RH (R)



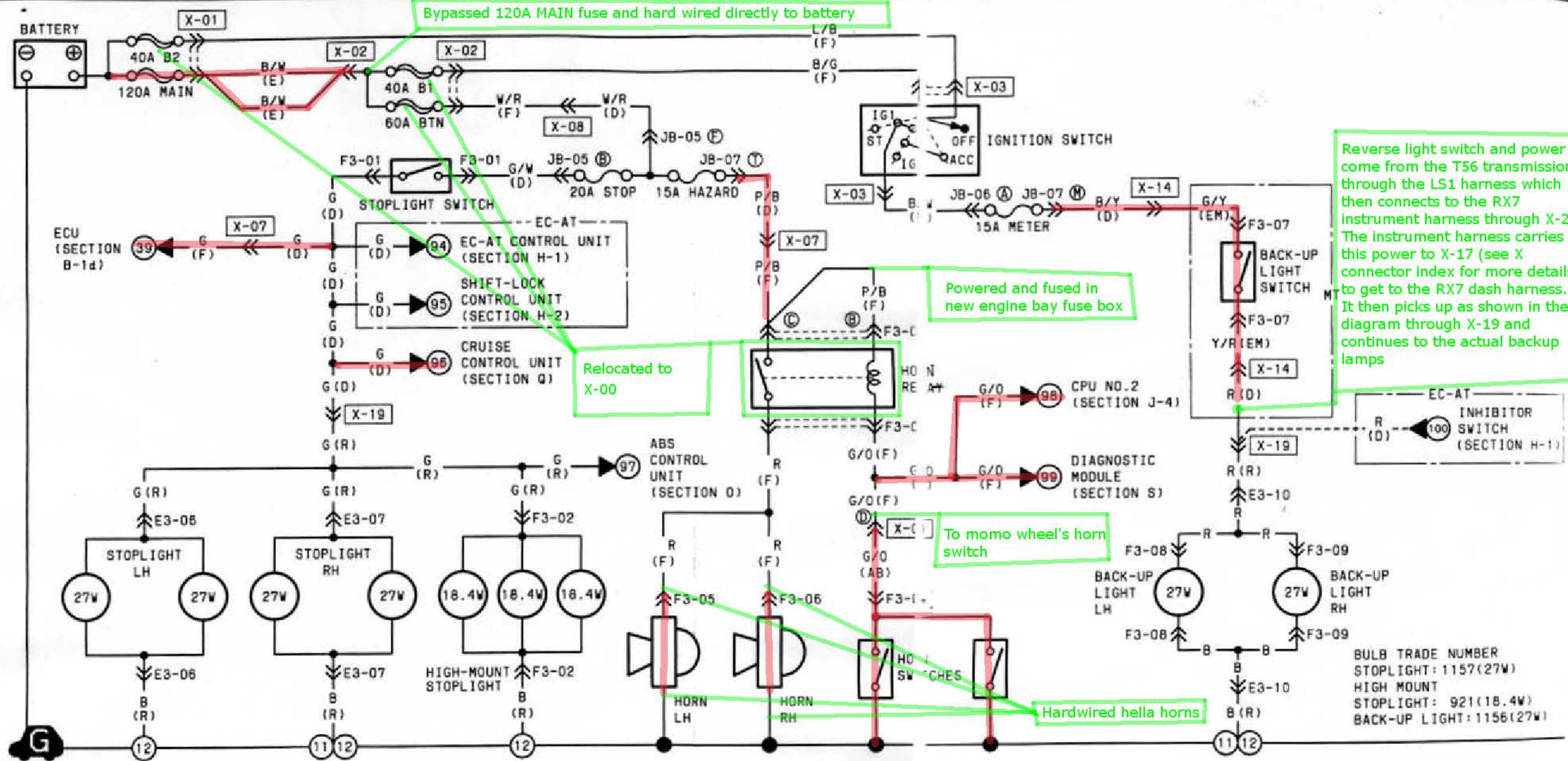
G-01 HAZARD WARNING SWITCH
(IN THE HEATER CONTROL UNIT) (I)



F-1

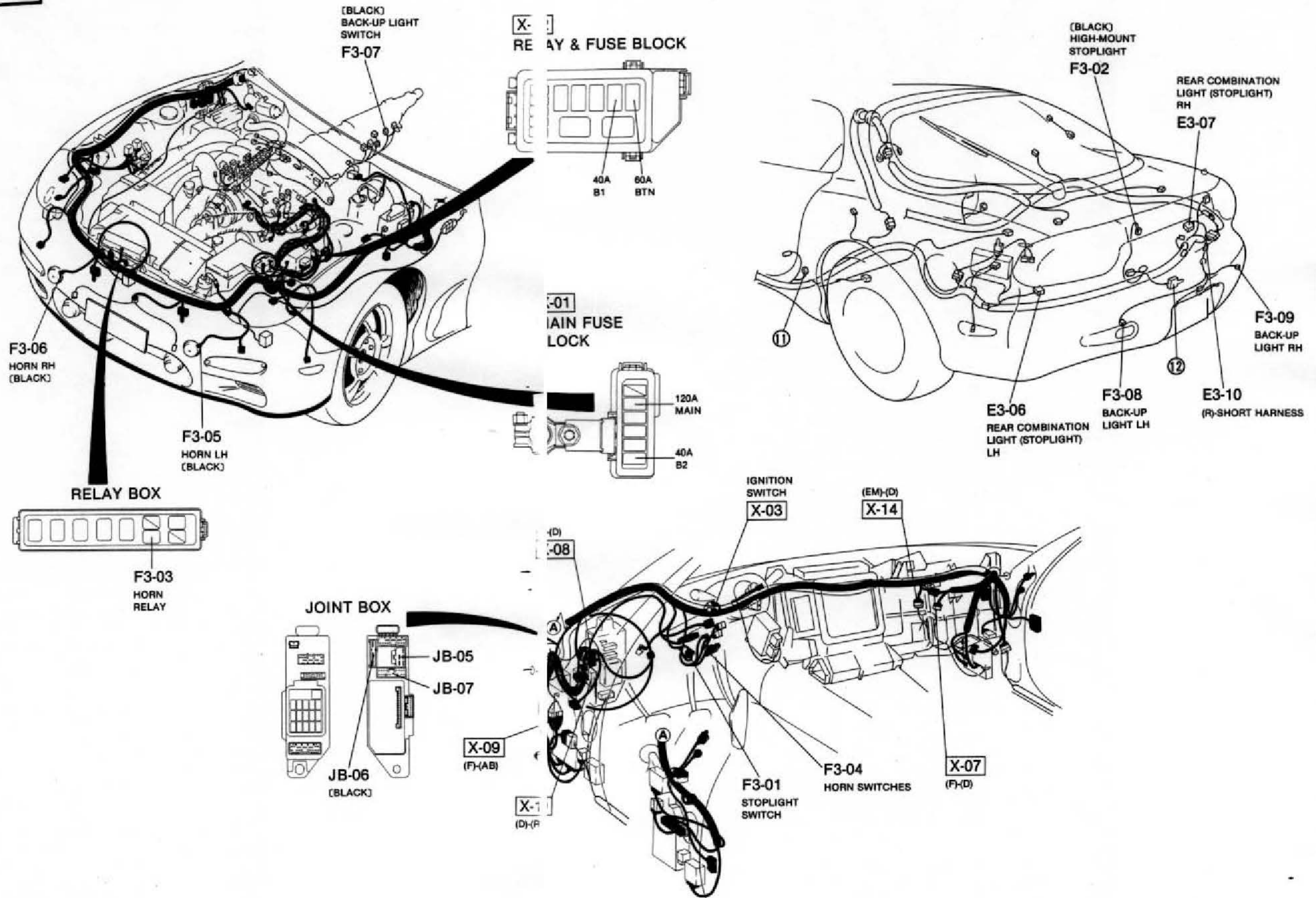


F-3 ■ STOPLIGHTS ■ HIGH-MOUNT STOPLIGHT ■ BACK-UP LIGHTS ■ HORNS



F3-01 STOPLIGHT SWITCH (D)	F3-02 HIGH-MOUNT STOPLIGHT (R)	F3-03 HORN RELAY (F)	F3-04 HORN SWITCHES (AB)	F3-05 HORN LH (F)	F3-06 HORN RH (F)	F3-07 BACK-UP LIGHT SWITCH (EM)
F3-08 BACK-UP LIGHT LH	F3-09 BACK-UP LIGHT RH	E3-06 REAR COMBINATION LIGHT (STOPLIGHT) LH (R)	E3-07 REAR COMBINATION LIGHT (STOPLIGHT) RH (R)	-10 CONNECTOR BETWEEN REAR (R) & SHORT HARNESS (R)		

F-3

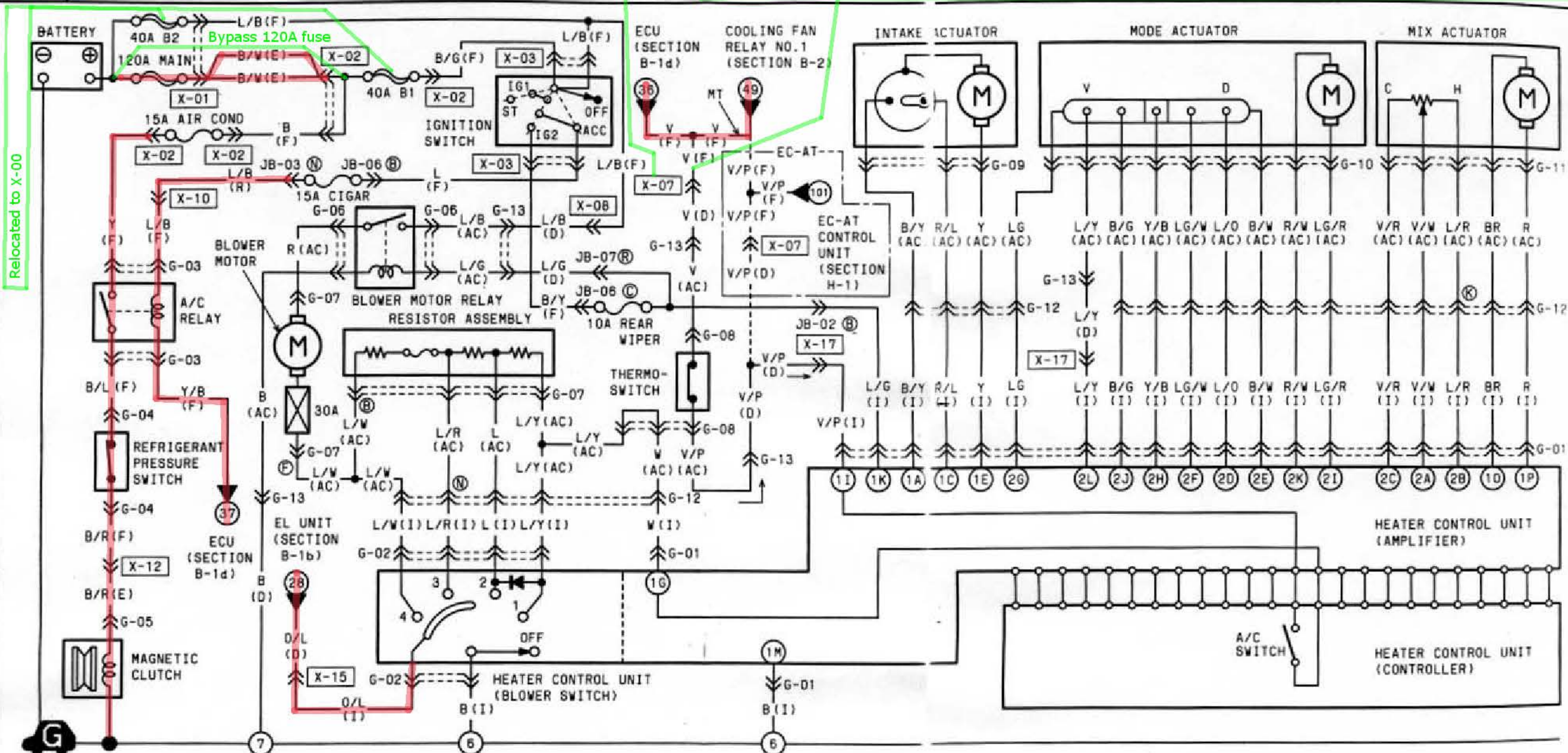


G ■ HEATER ■ AIR CONDITIONER

X-07 connector is deleted and this wire is moved to X-17. See X connector index for more details

Connect to pin 86 of the AC Request relay found in the new engine bay fuse box. See continued AC diagram for more info

Relocated to X-00



G-01 HEATER CONTROL UNIT (AMPLIFIER) (I)

1D	1M	1K	1I	1G	1E	1C	1A
BR	B	L/G	V/P	W	Y	R/L	B/Y
R	O	*	*	R/G	R/B	*	*
1P	1N	1L	1J	1H	1F	1D	1B

2K	2I	2G	2E	2C	2A
R/W	LG/R	LG	B/W	V/R	V/W
L/Y	B/G	Y/B	LG/W	L/O	L/R
2L	2J	2H	2F	2D	2B

G-02 HEATER CONTROL UNIT (BLOWER SWITCH) (I)

B	L	L/W
O/L	L/R	L/Y

G-03 A/C RELAY (F)

Y	L/B
B/L	Y/B

G-04 REFRIGERANT PRESSURE SWITCH (F)

B/R	B/L
-----	-----

G-05 MAGNETIC CLUTCH (E)

B/R

G-06 BLOWER MOTOR RELAY (AC)

L/B	L/G
R	B

G-07 BLOWER MOTOR/RESISTOR ASSEMBLY (AC)

R	L/Y	L/R
L/W	L	L/W

G-08 THERMOSWITCH (AC)

V	W
V/P	L/Y

G-09 INTAKE ACTUATOR (AC)

Y	
R/L	B/Y

G-10 MODE ACTUATOR (AC)

LG/R	B/W	B/G	LG
*	R/W	L/O	LG/W
	Y/B	L/Y	

G-11 MIX ACTUATOR (AC)

BR	V/R
R	V/W
	L/R

G-12 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & A/C (AC)

R	LG	B/G	B/W	LG/R	L/R	BR	W	R/L	B/Y	Y
Y/B	LG/W	L/O	R/W	L	L/W	L/R	V/R	V/W	L/Y	

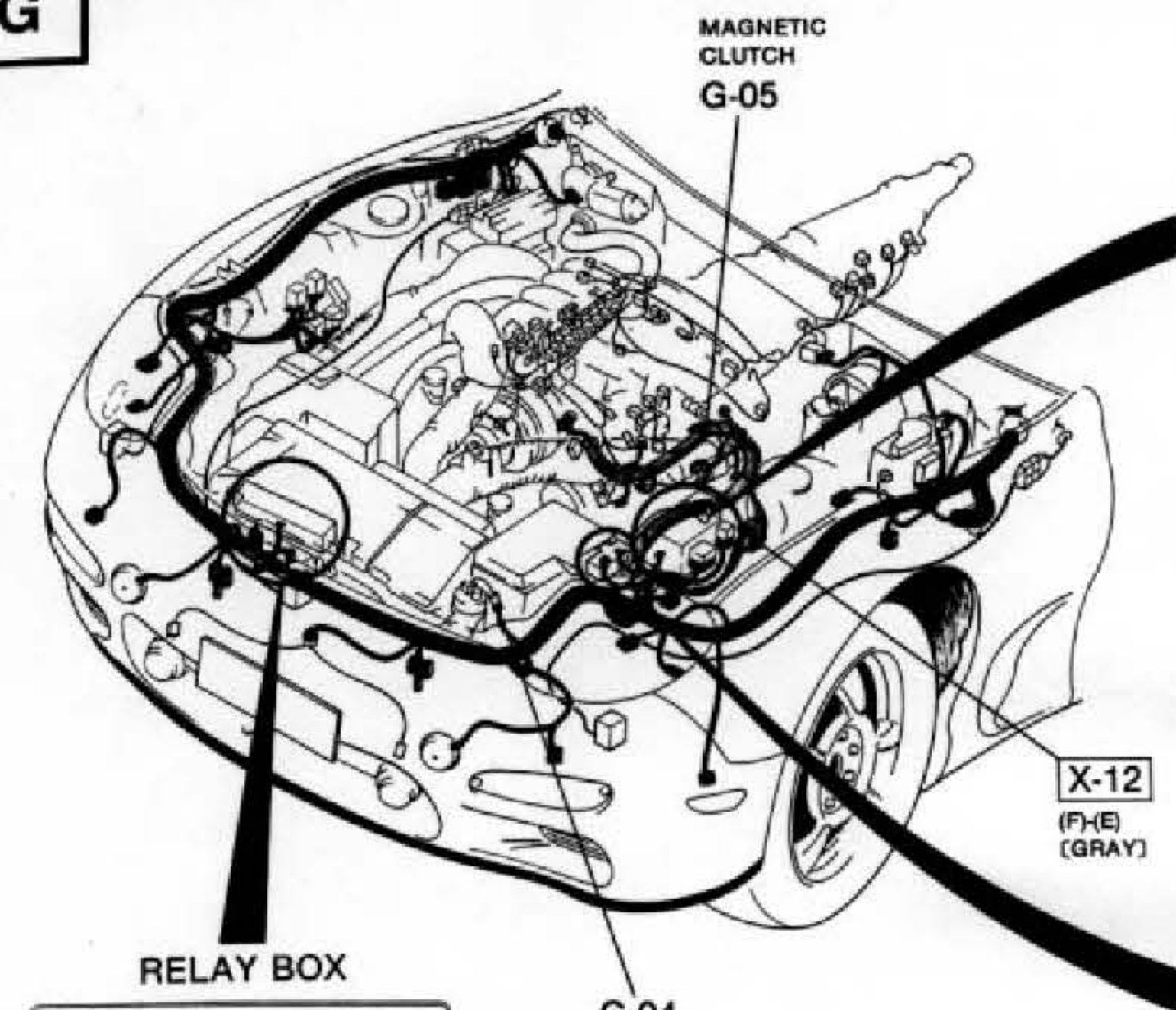
G-13 CONNECTOR BETWEEN DASH (D) & A/C (AC)

Y	B/Y	R/L	W	BR	L/R	LG/R	B/W	B/G	LG
L/Y	V/W	V/R	L/R	L/W	L	R/W	L/O	LG/W	

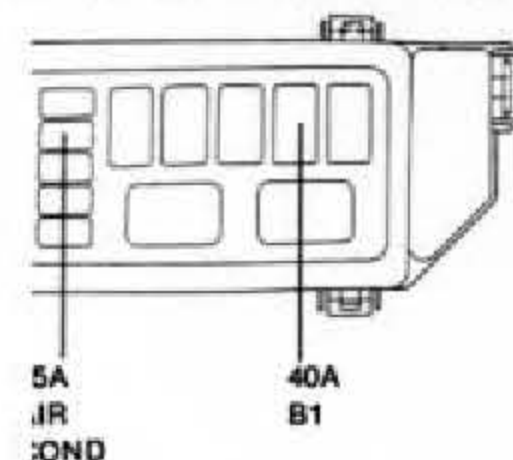
G-13 CONNECTOR BETWEEN DASH (D) & A/C (AC)

B	L/B	B
*	L/G	L/Y
	V/P	V

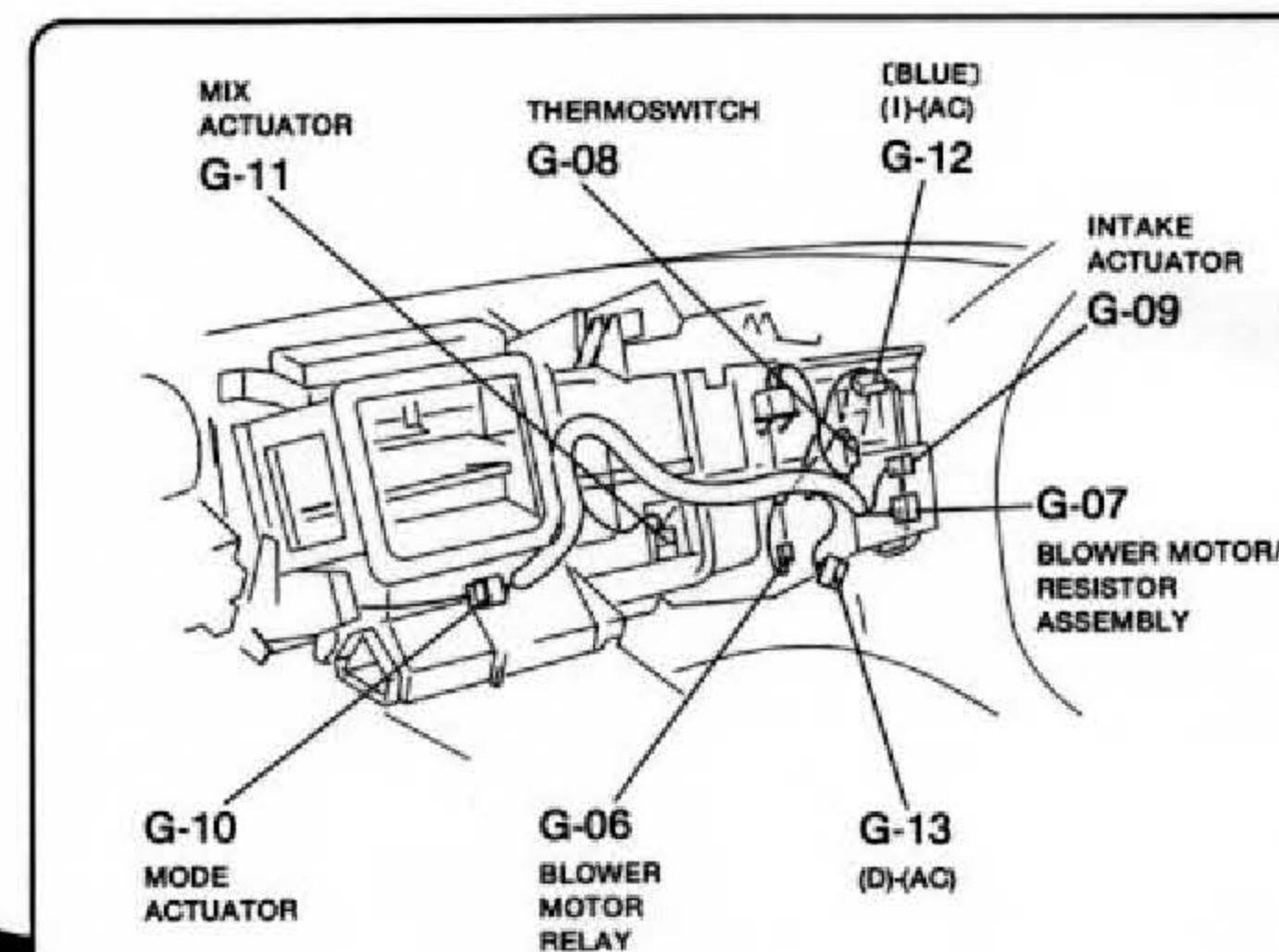
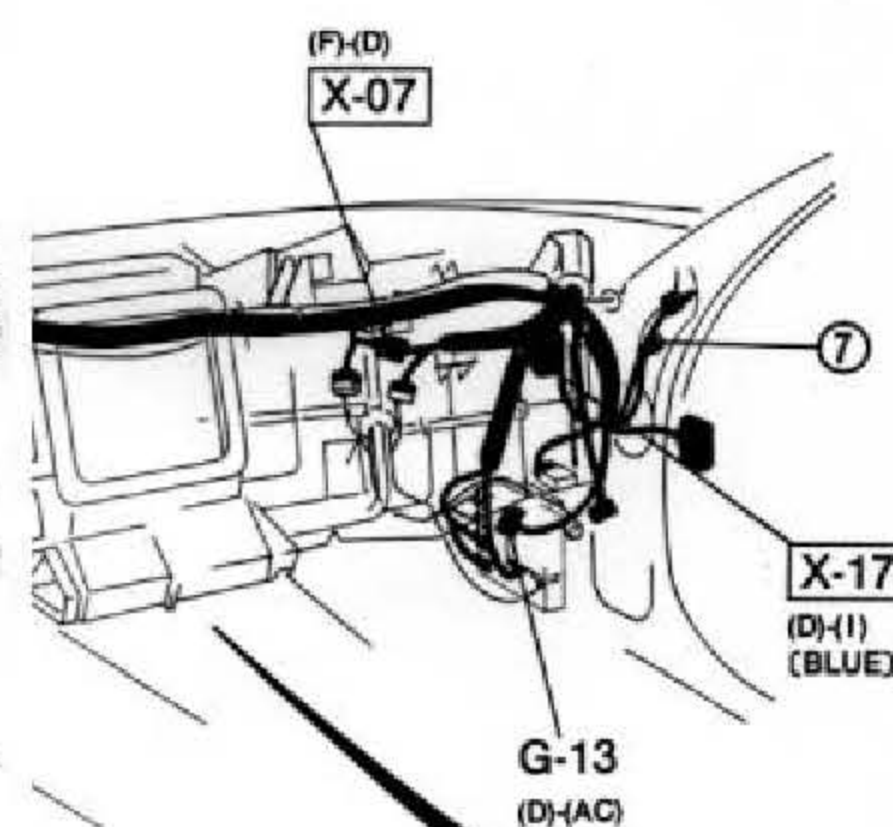
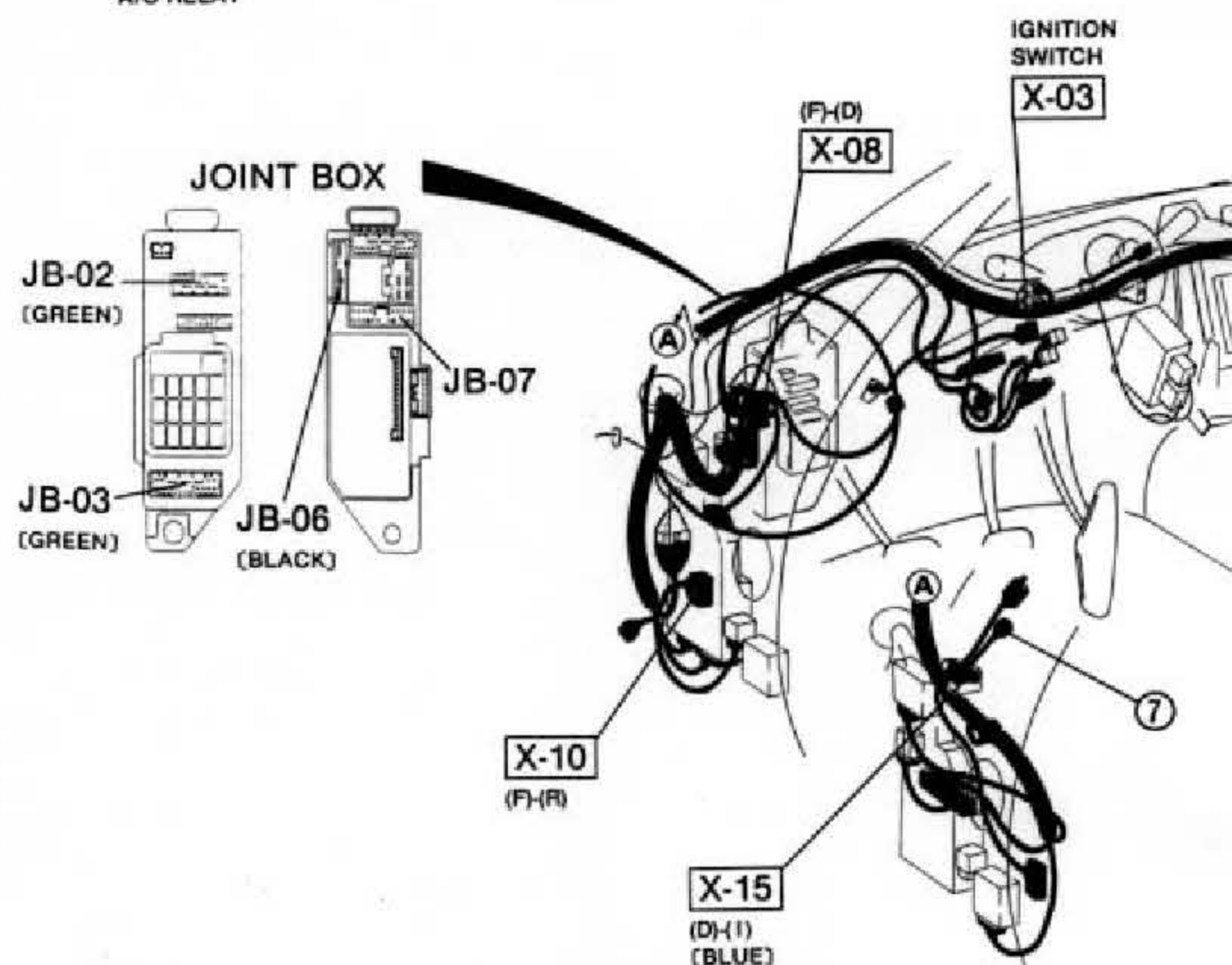
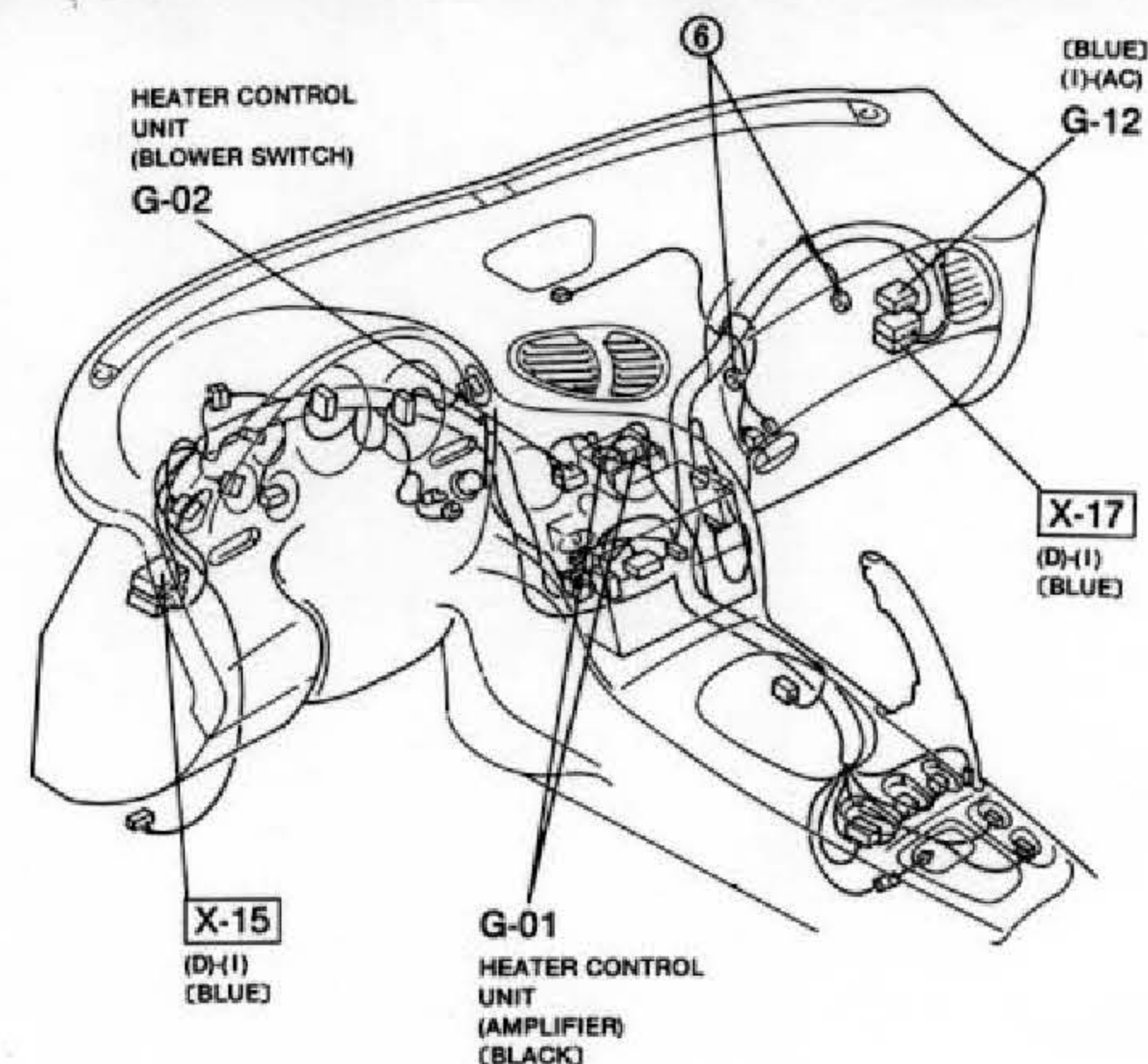
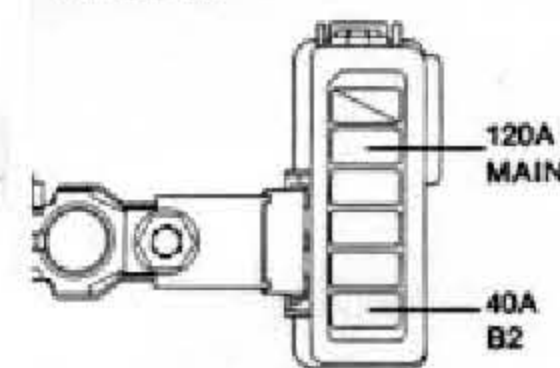
G



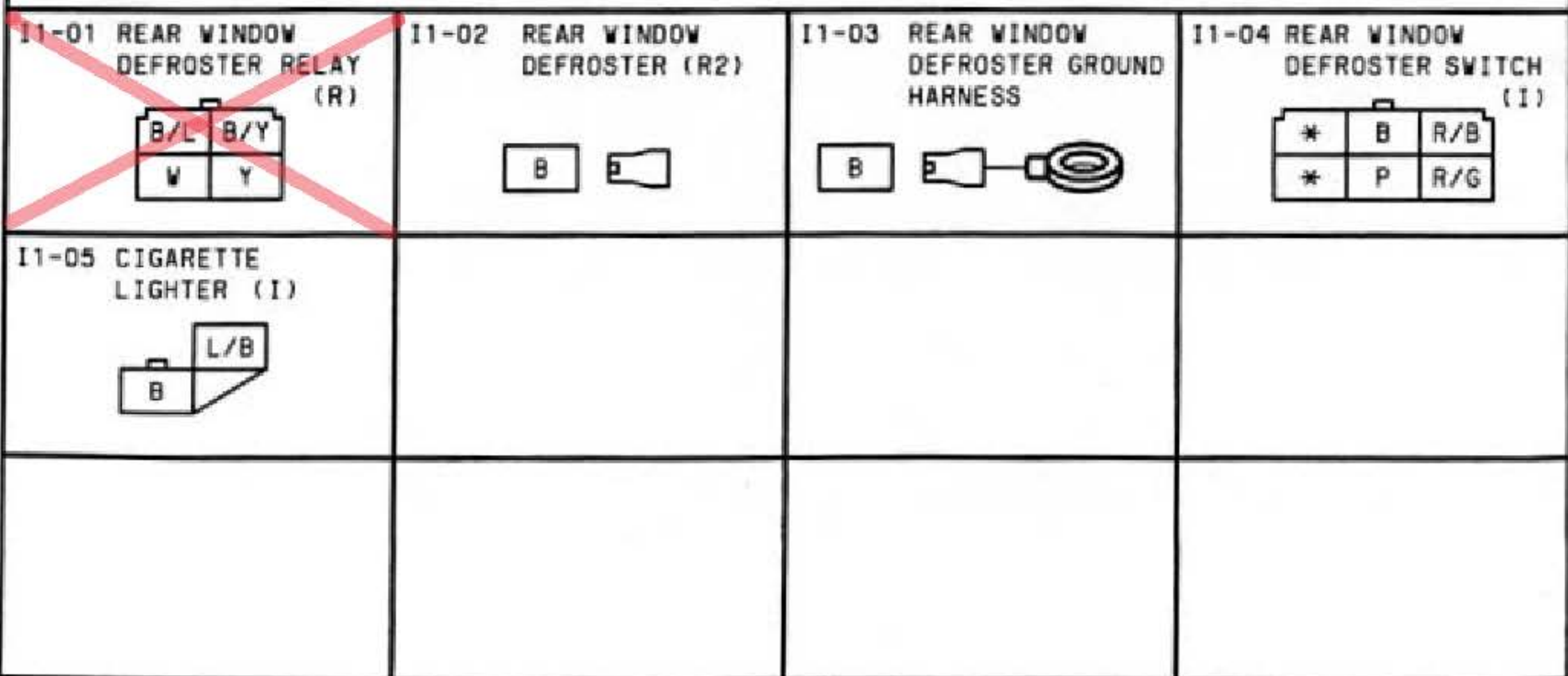
-02 RELAY & FUSE BLOCK



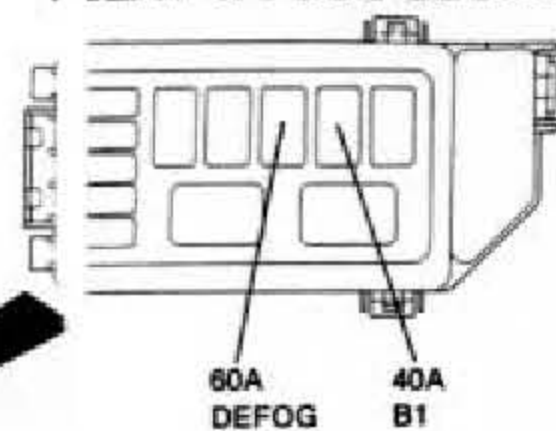
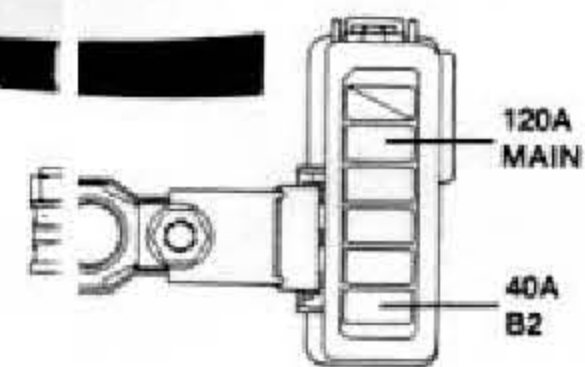
X-01 MAIN FUSE BLOCK



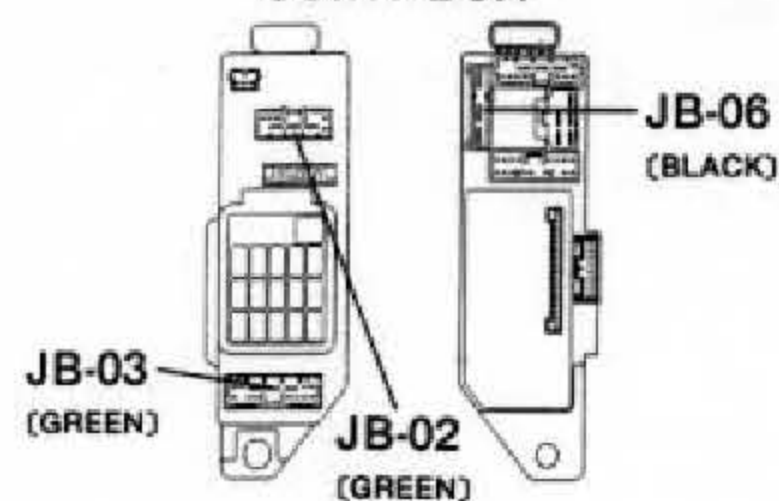
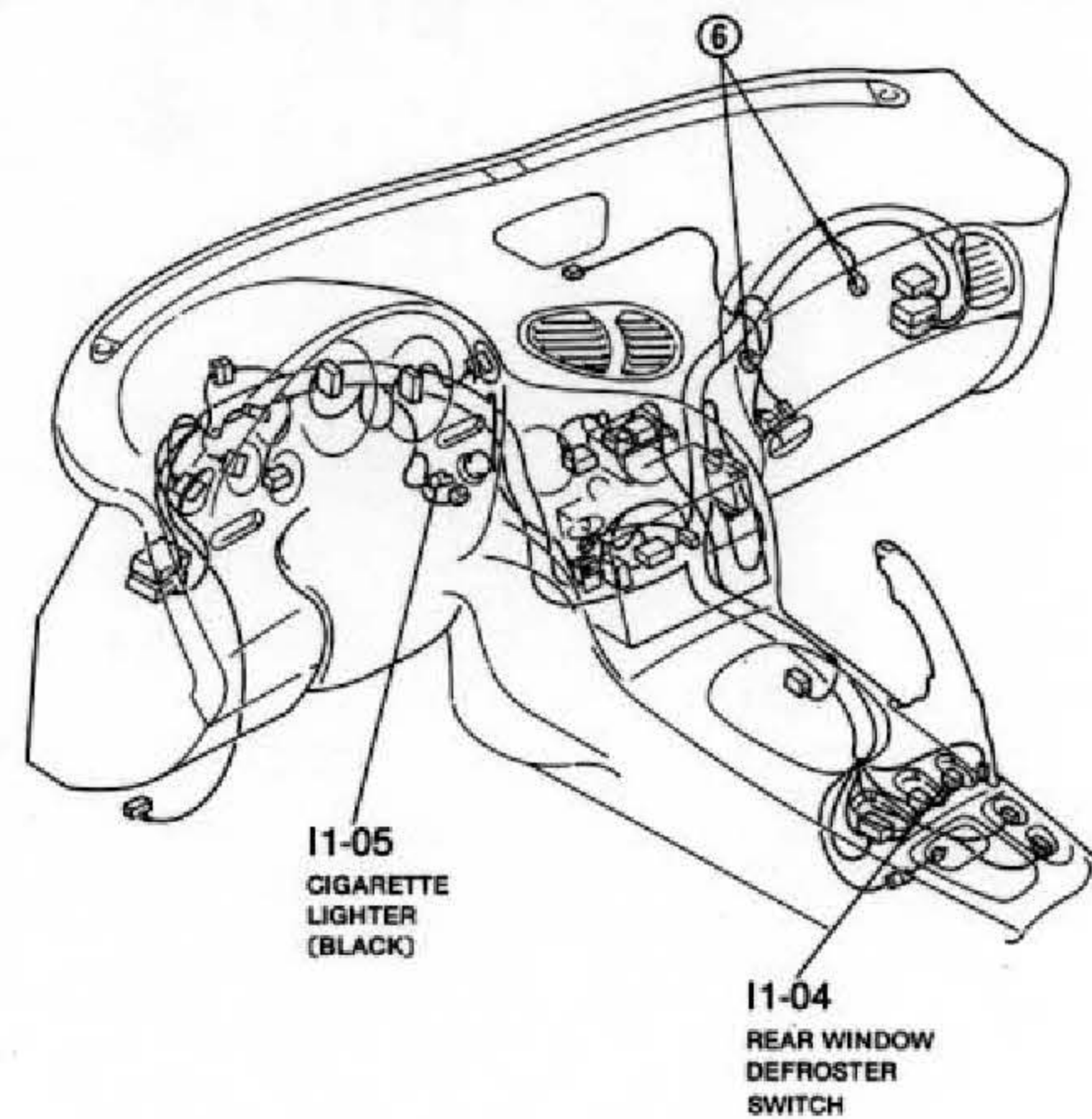
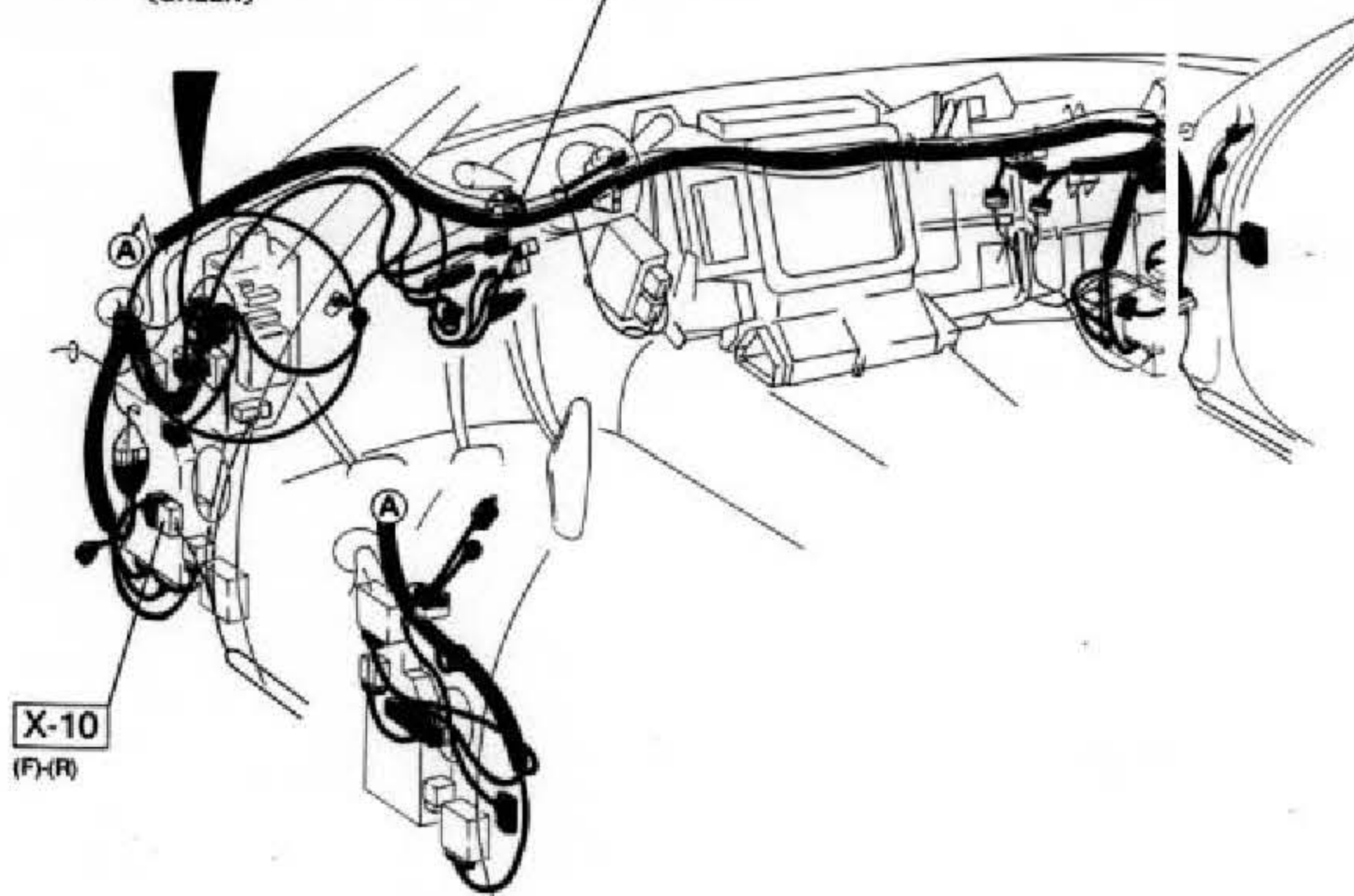
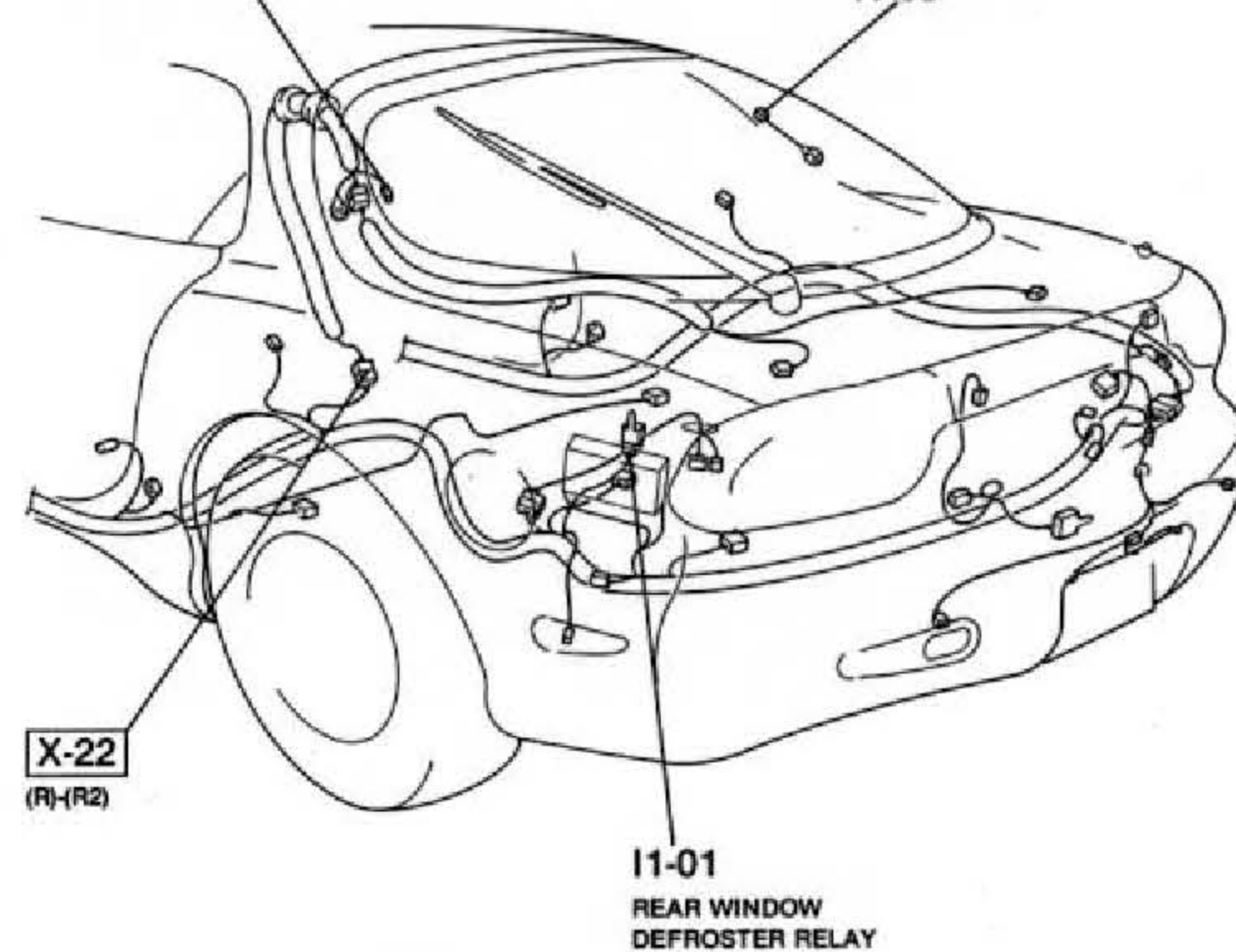
I-1 ■ REAR WINDOW DEFROSTER ■ CIGARETTE LIGHTER

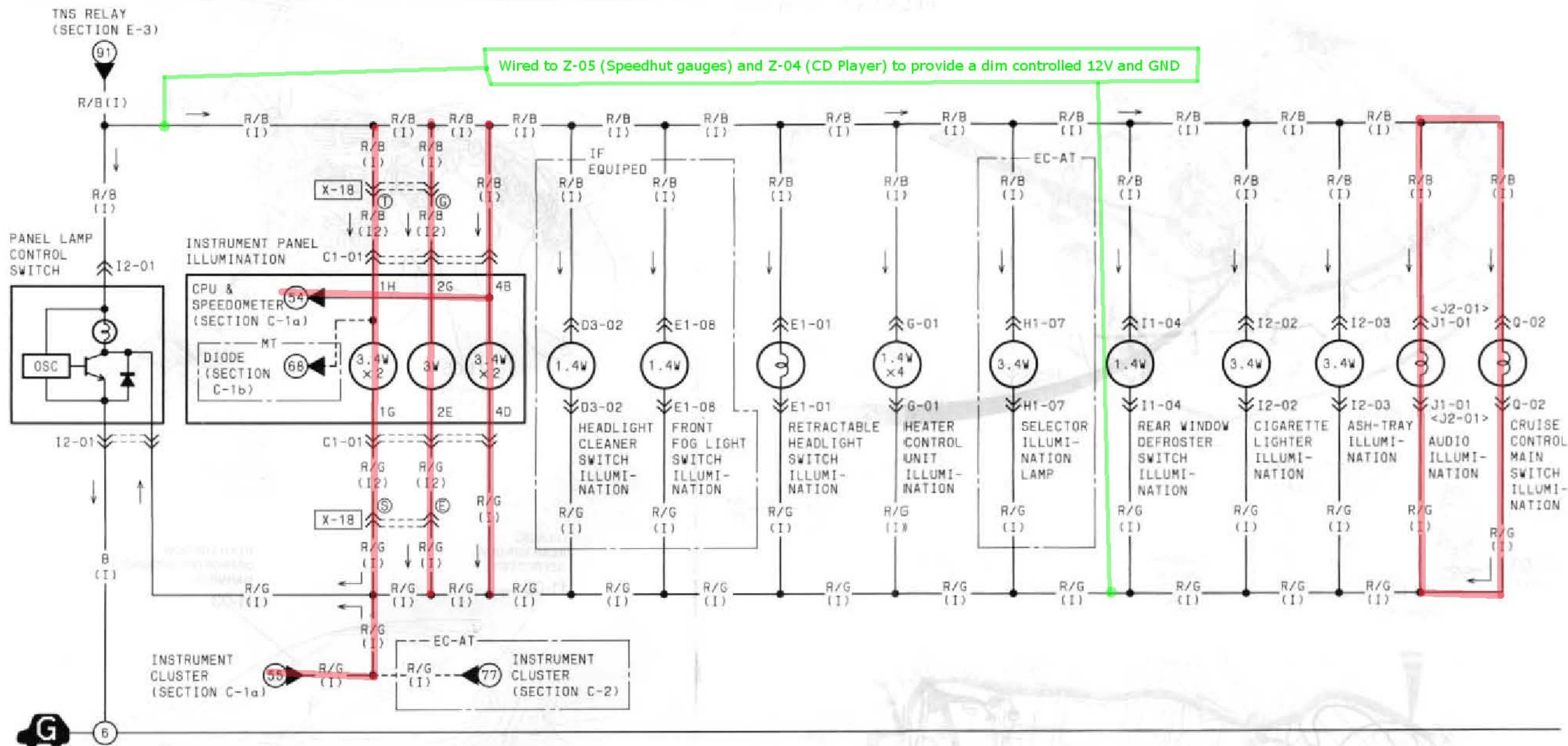


I-1

[02]
RELAY & FUSE BLOCKX-01
MAIN FUSE BLOCK

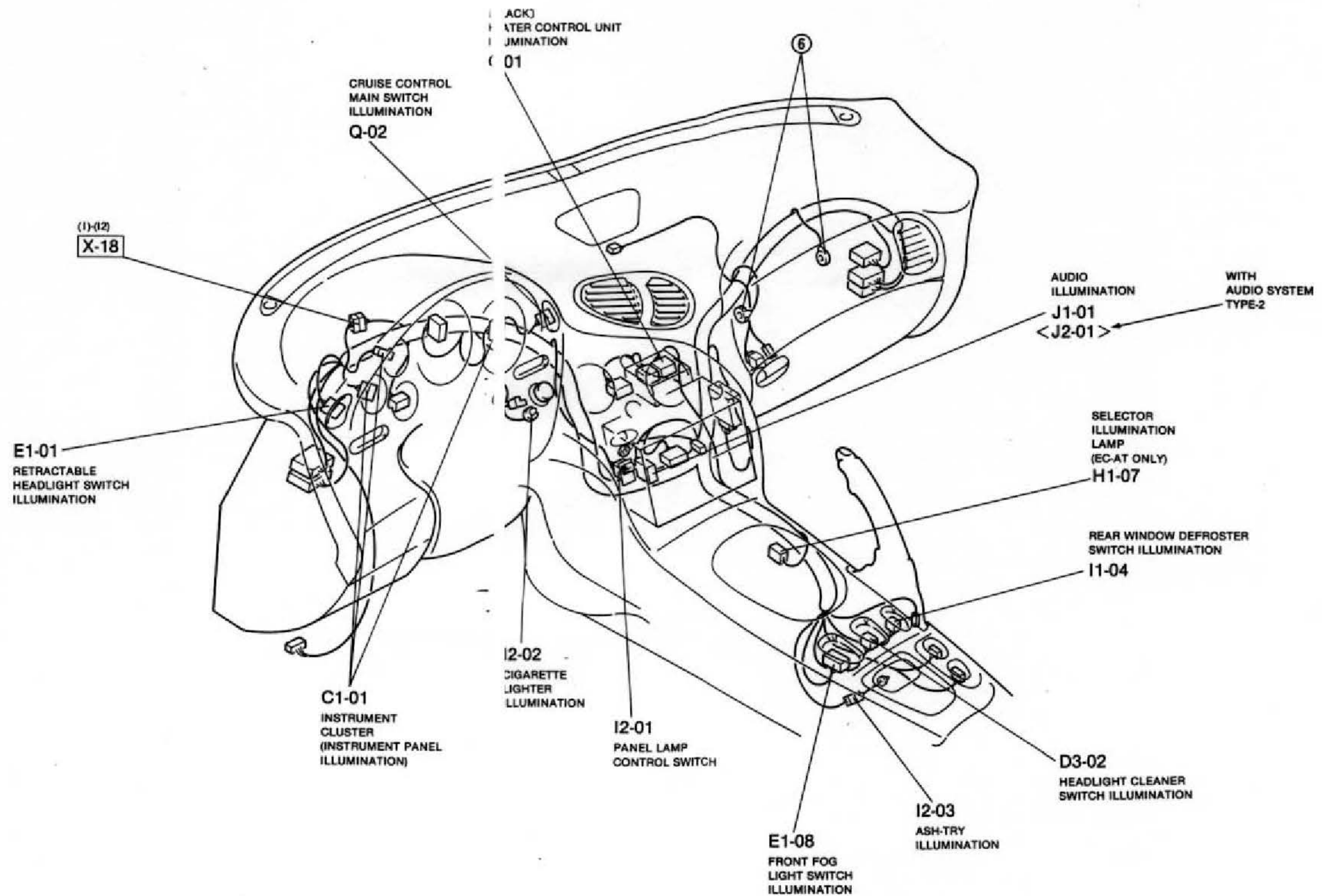
JOINT BOX

IGNITION SWITCH
X-03[BLACK] REAR WINDOW DEFROSTER
I1-02REAR WINDOW DEFROSTER GROUND HARNESS
I1-03



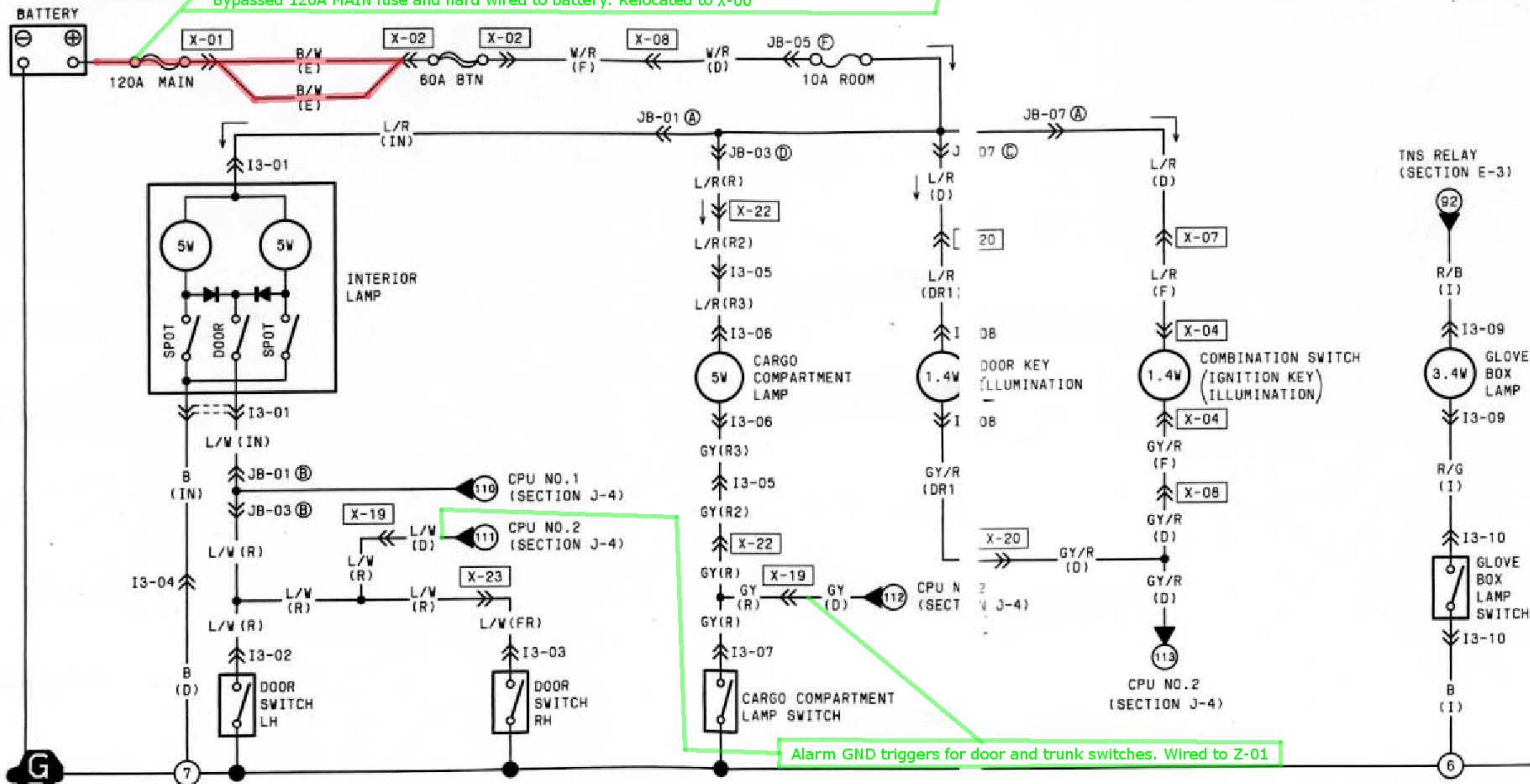
12-01 PANEL LAMP CONTROL SWITCH (I) 	12-02 CIGARETTE LIGHTER ILLUMINATION (I) 	12-03 ASH-TRAY ILLUMINATION (I) 	C1-01 INSTRUMENT CLUSTER (INSTRUMENT PANEL ILLUMINATION) (I)...EC-AT
D3-02 HEADLIGHT CLEANER SWITCH ILLUMINATION (I) 	E1-01 RETRACTABLE HEADLIGHT SWITCH ILLUMINATION (I) 	E1-08 FRONT FOG LIGHT SWITCH ILLUMINATION (I) 	G-01 HEATER CONTROL UNIT ILLUMINATION (I)
H1-07 SELECTOR ILLUMINATION LAMP (I) 	I1-04 REAR WINDOW DEFROSTER SWITCH ILLUMINATION (I) 	J1-01 AUDIO ILLUMINATION (I) <J2-01> 	Q-02 CRUISE CONTROL MAIN SWITCH ILLUMINATION (I)

I-2



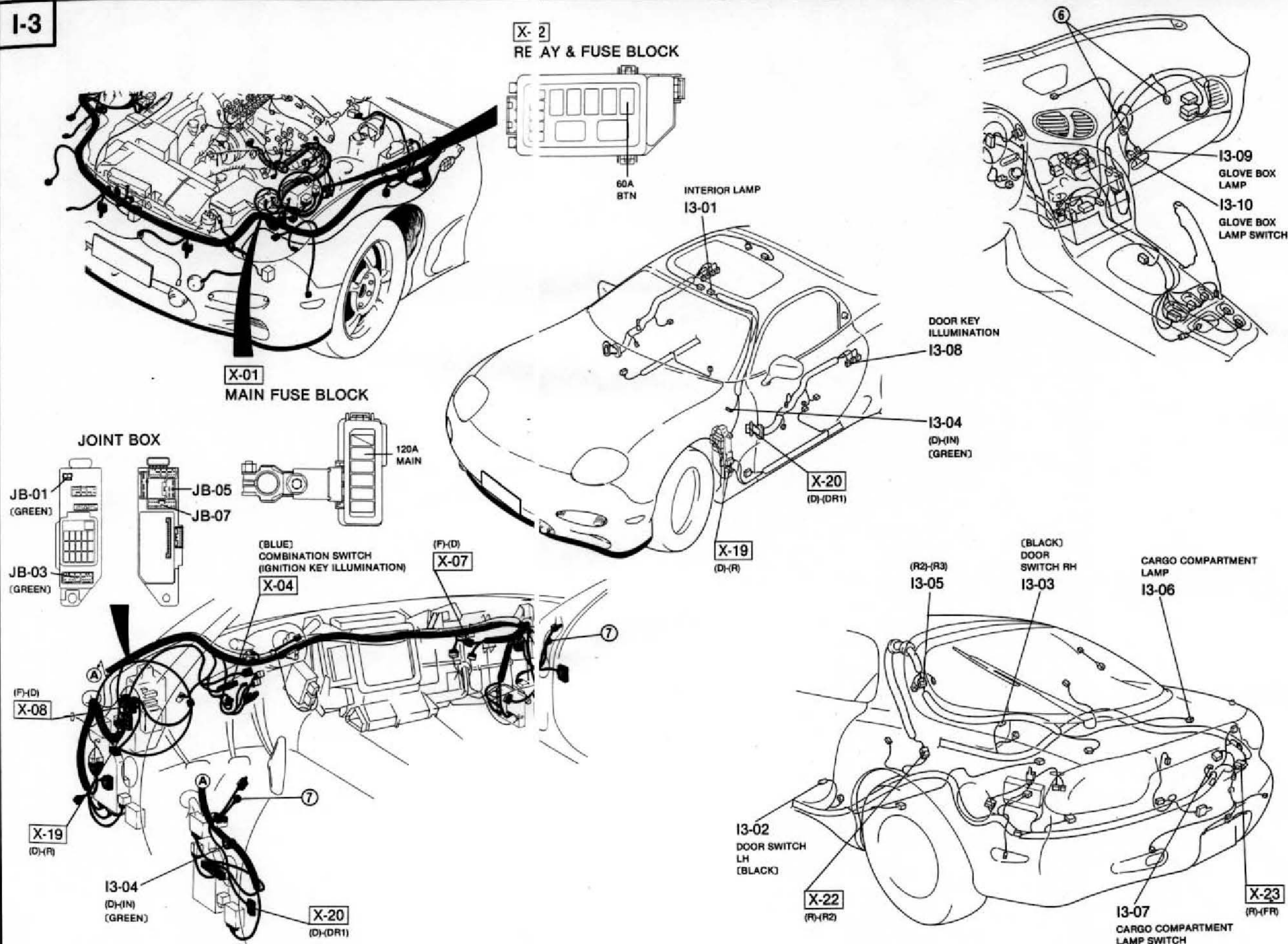
I-3 ■ INTERIOR LAMP ■ CARGO COMPARTMENT LAMP ■ DOOR KEY ILLUMINATION ■ IGNITION KEY ILLUMINATION ■ GLOVE BOX LAMP

Bypassed 120A MAIN fuse and hard wired to battery. Relocated to X-00

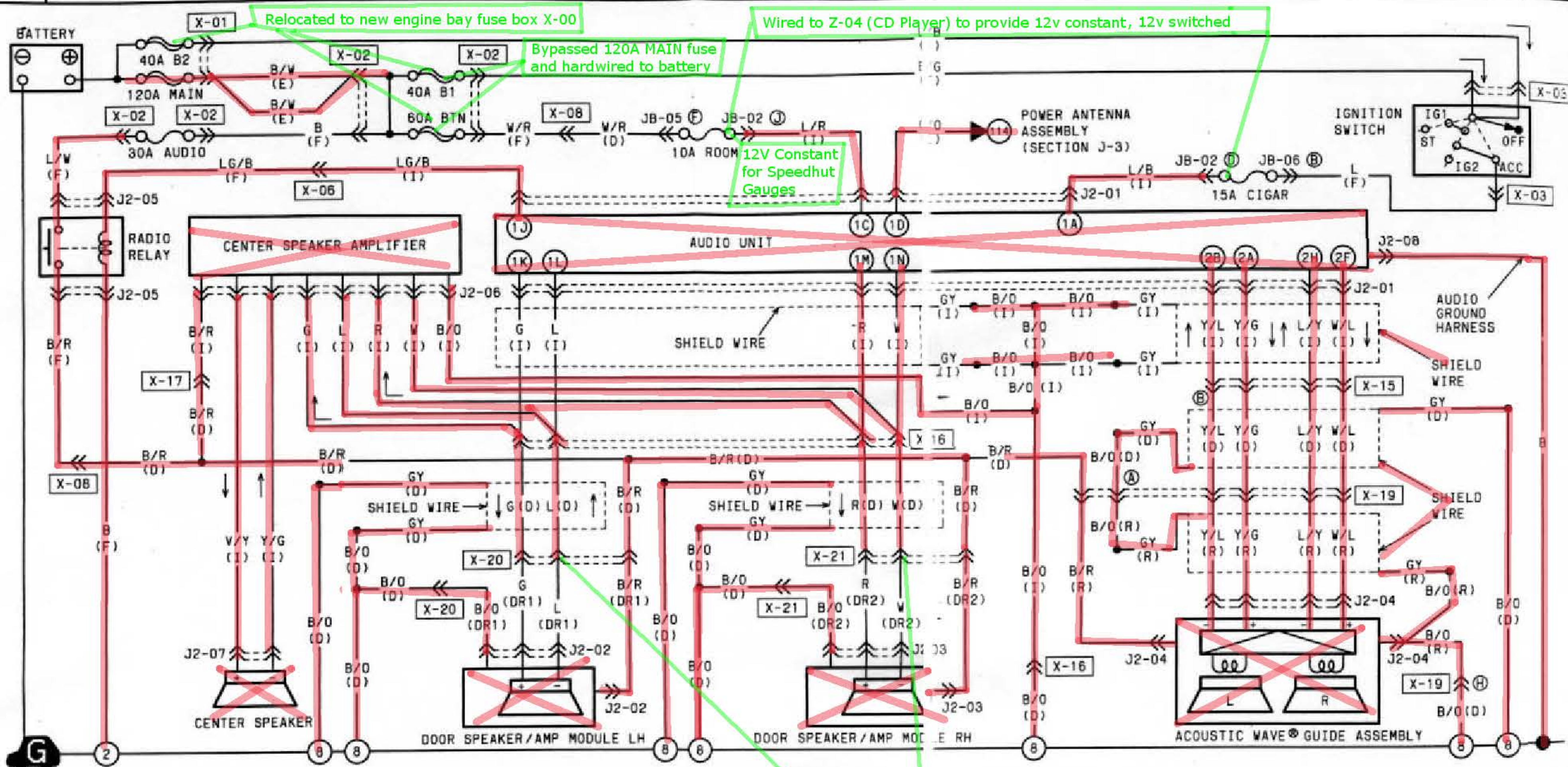


I3-01 INTERIOR LAMP (IN) ()...WITH SLIDING SUNROOF	I3-02 DOOR SWITCH LH (R)	I3-03 DOOR SWITCH RH (FR)	I3-04 CONNECTOR BETWEEN DASH(D) & INTERIOR LAMP (IN)	I3-05 CONNECTOR BETWEEN REAR NO.2 (R2) & REAR NO.3 (R3) ()...WITH REAR WIPER & WASHER	I3-06 CARGO COMPARTMENT LAMP (R3)
I3-07 CARGO COMPARTMENT LAMP SWITCH (R)	I3-08 DOOR KEY ILLUMINATION (DR1)	I3-09 GLOVE BOX LAMP (I)	I3-10 GLOVE BOX LAMP SWITCH (I)		

I-3

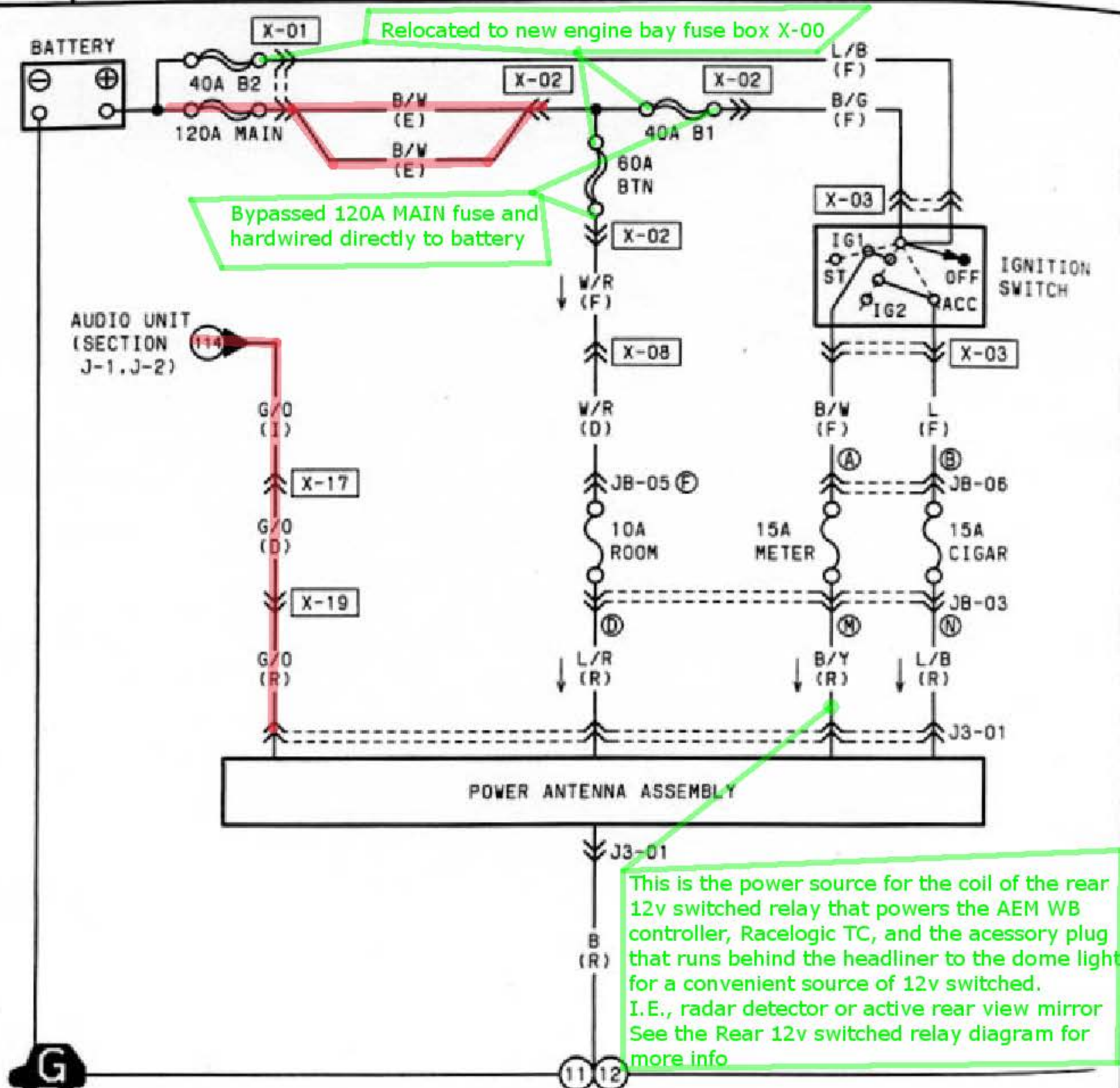


J-2 ■ AUDIO SYSTEM TYPE-2 (BOSE ACOUSTIC WAVE® MUSIC SYSTEM)

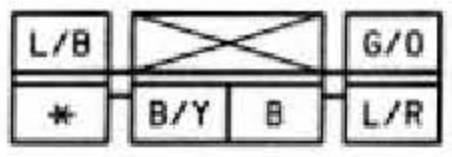


Z-87

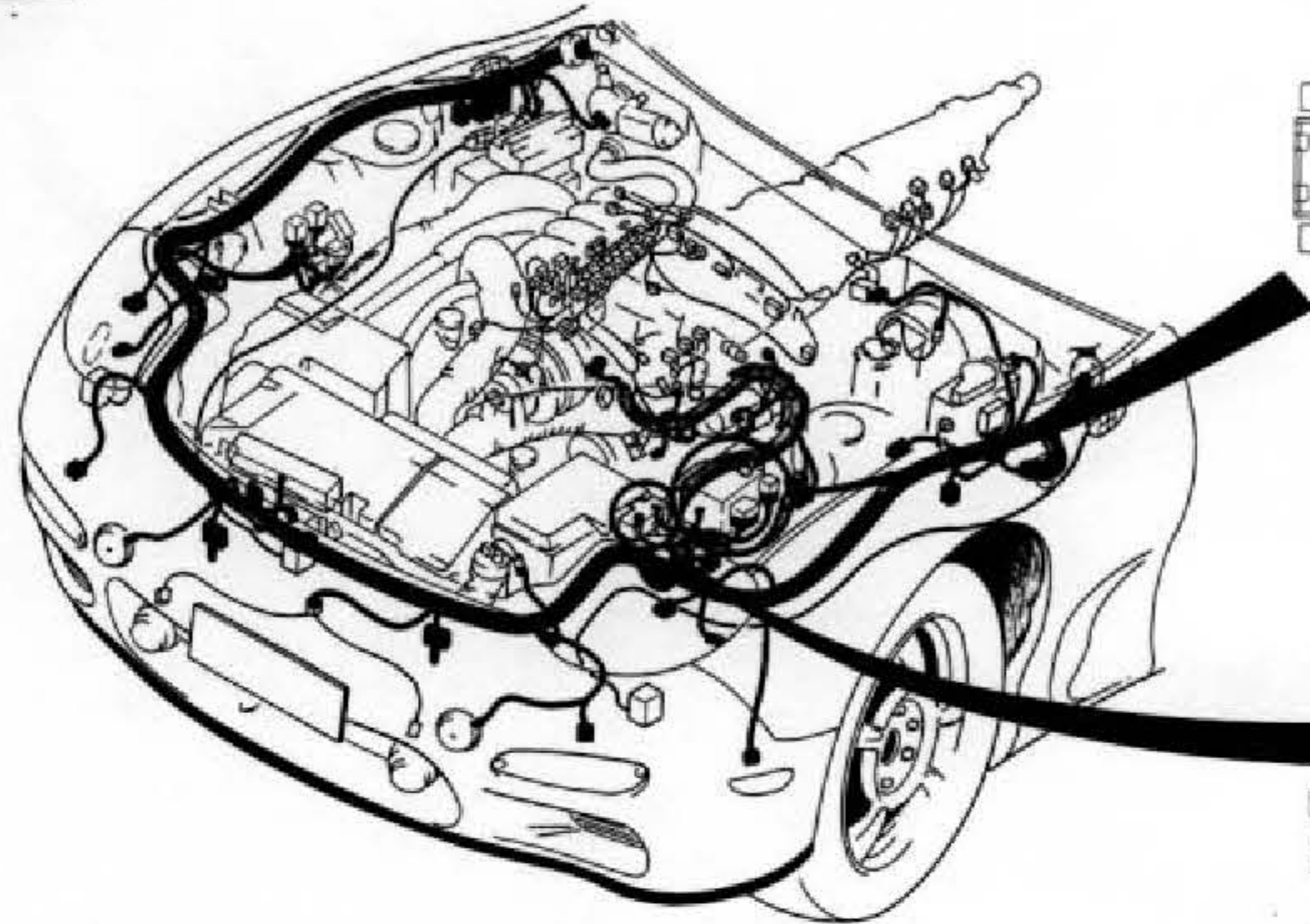
J-3 ■ POWER ANTENNA



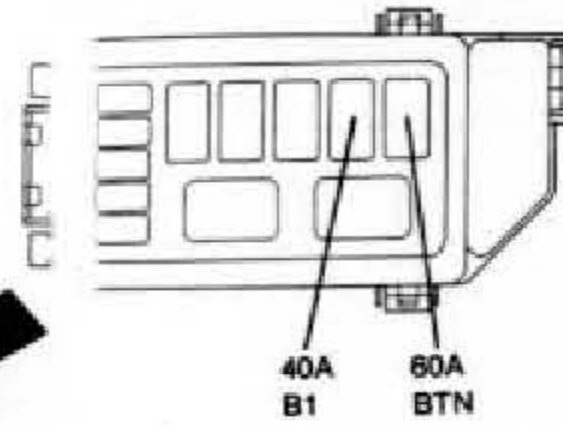
J3-01 POWER ANTENNA ASSEMBLY (R)



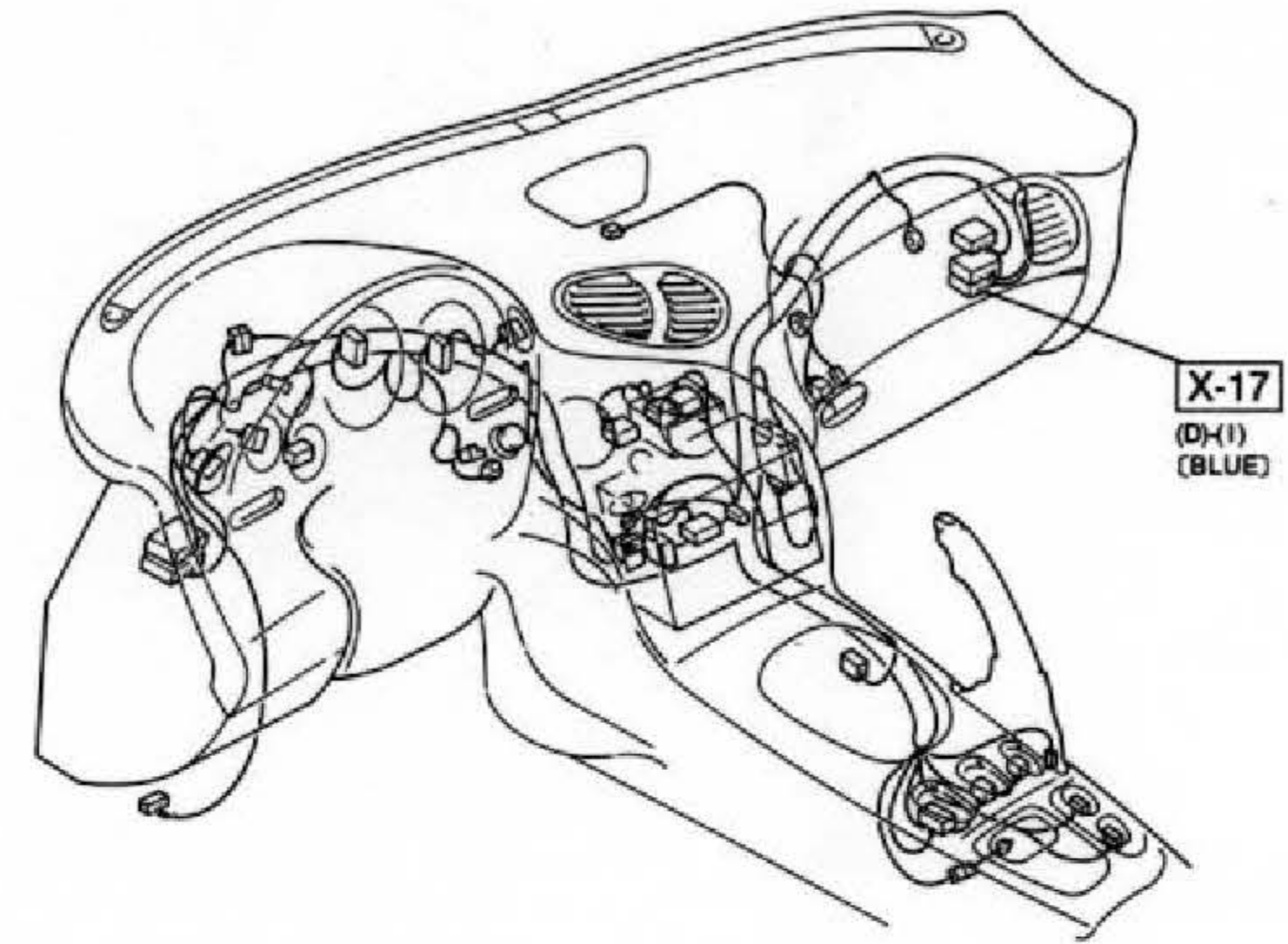
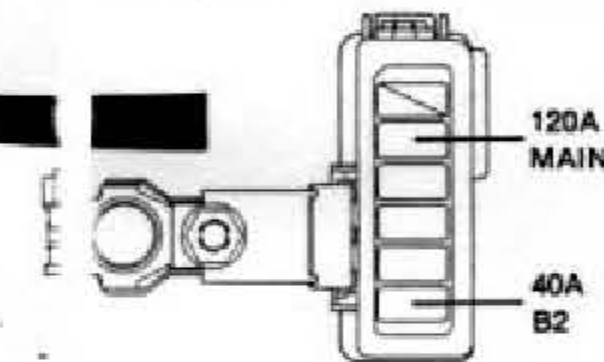
J-3



-02
RELAY & FUSE BLOCK

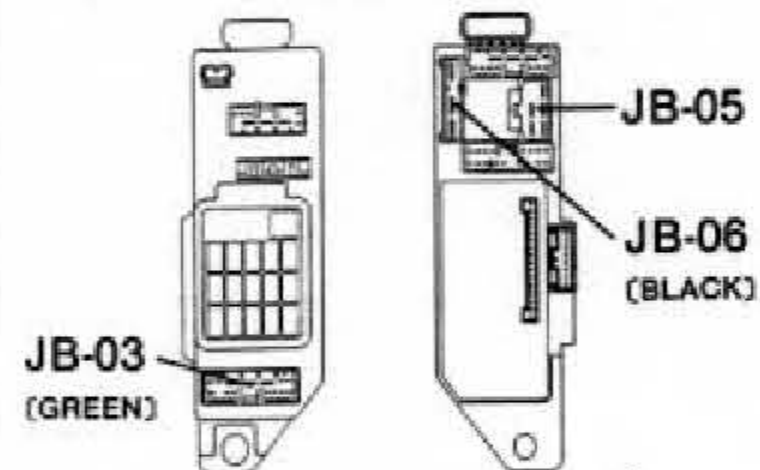


X-01
MAIN FUSE BLOCK

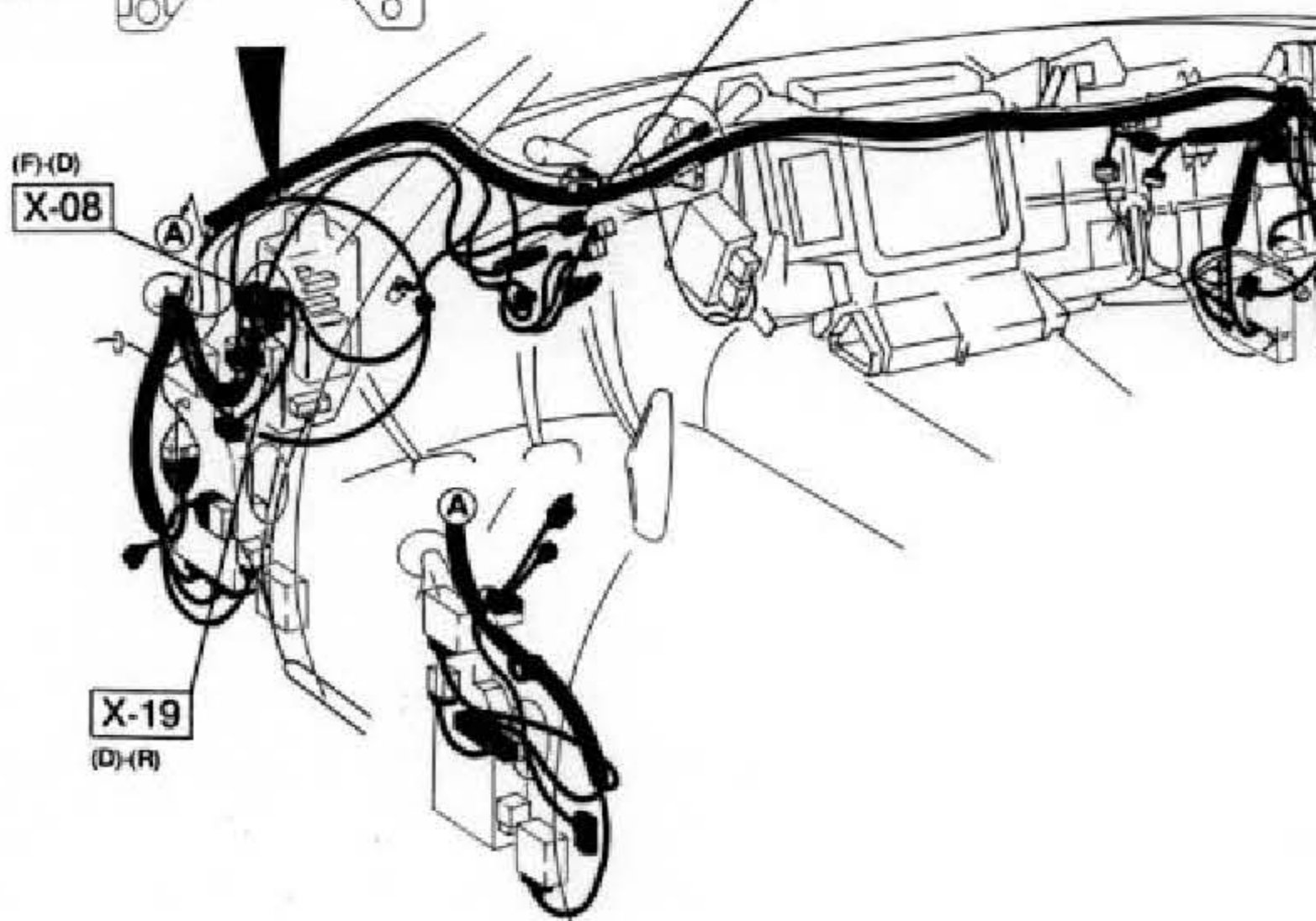


X-17
(D-I)
(BLUE)

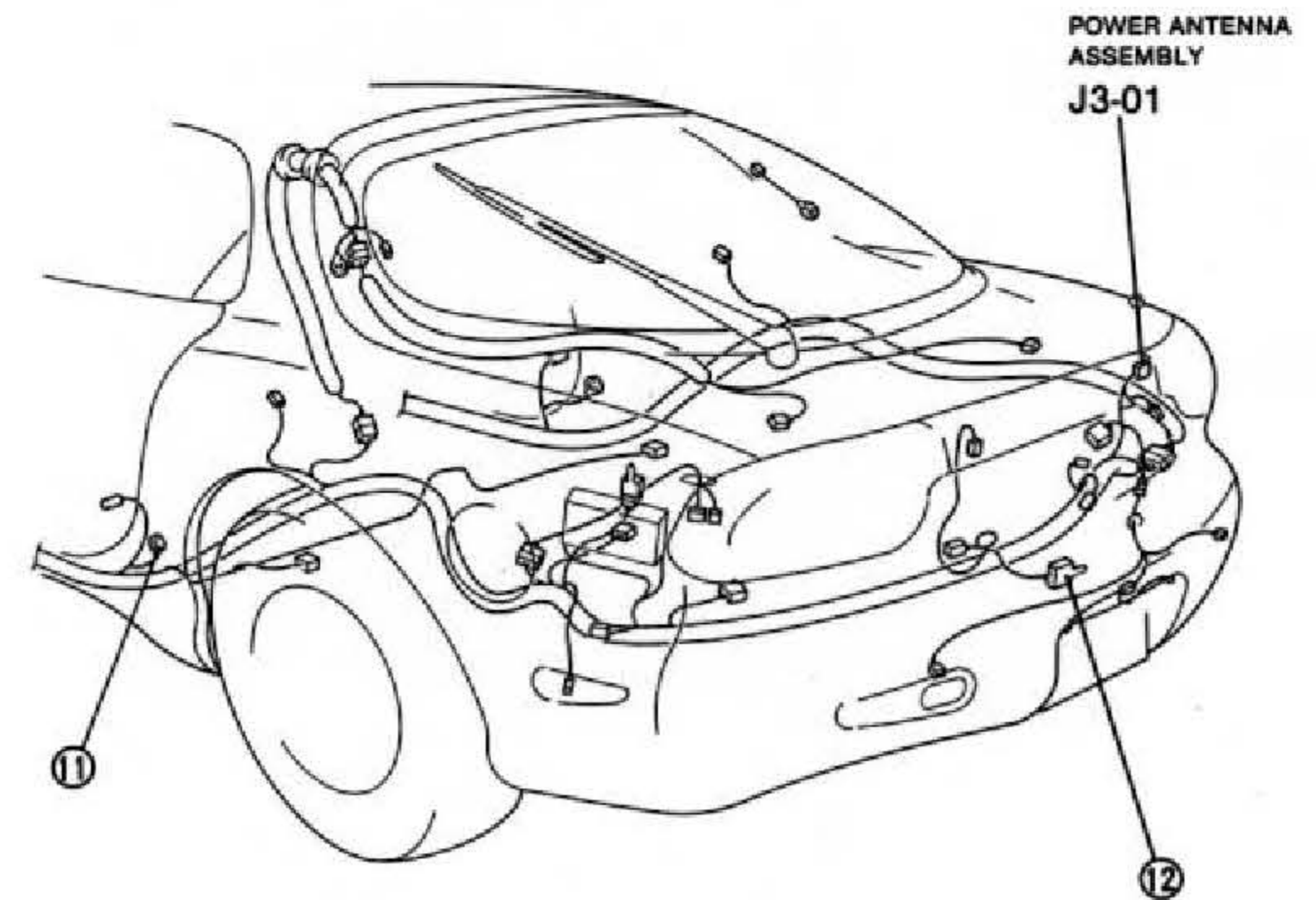
JOINT BOX



IGNITION
SWITCH
X-03

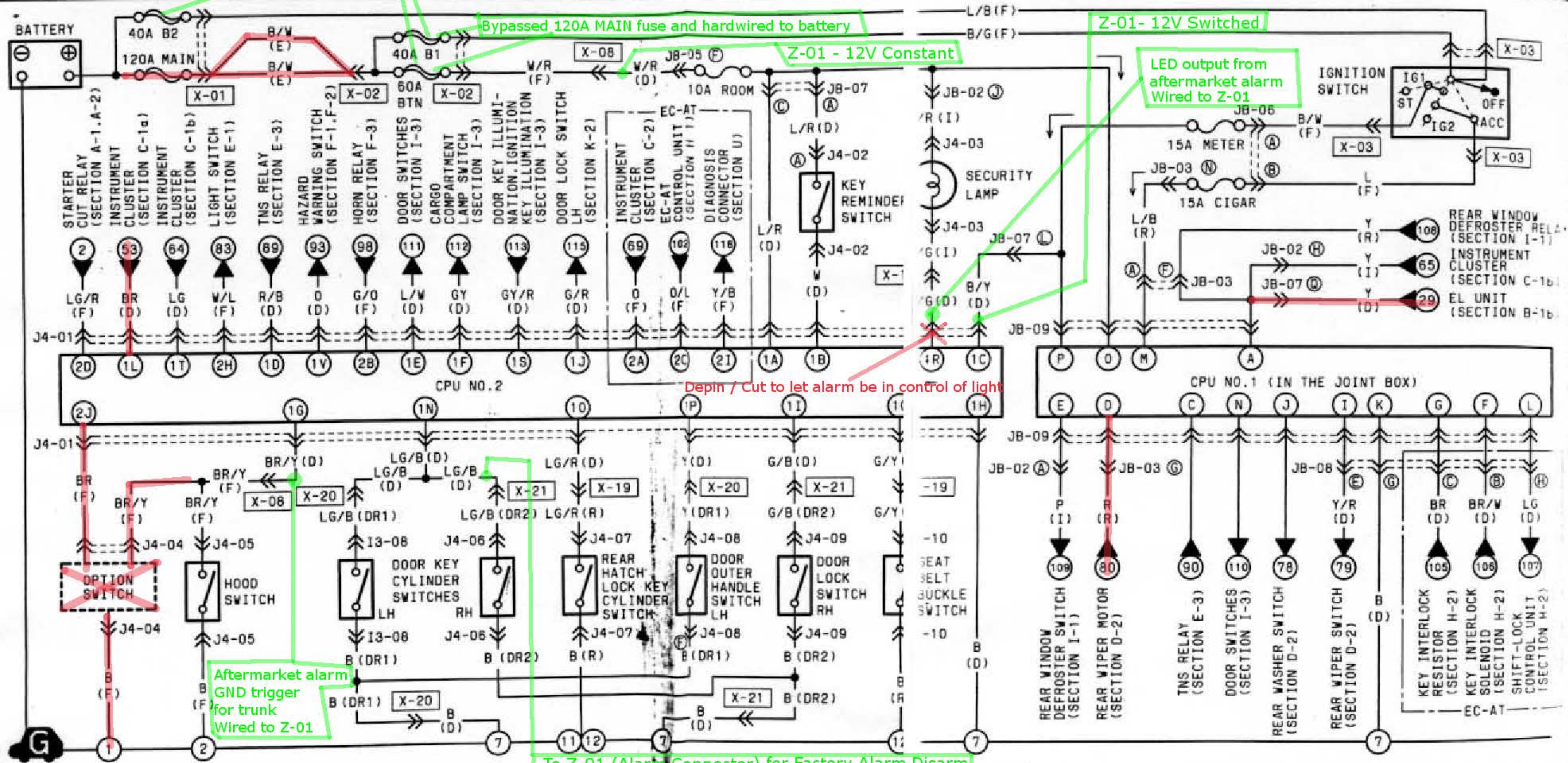


X-17
(D-I)
(BLUE)



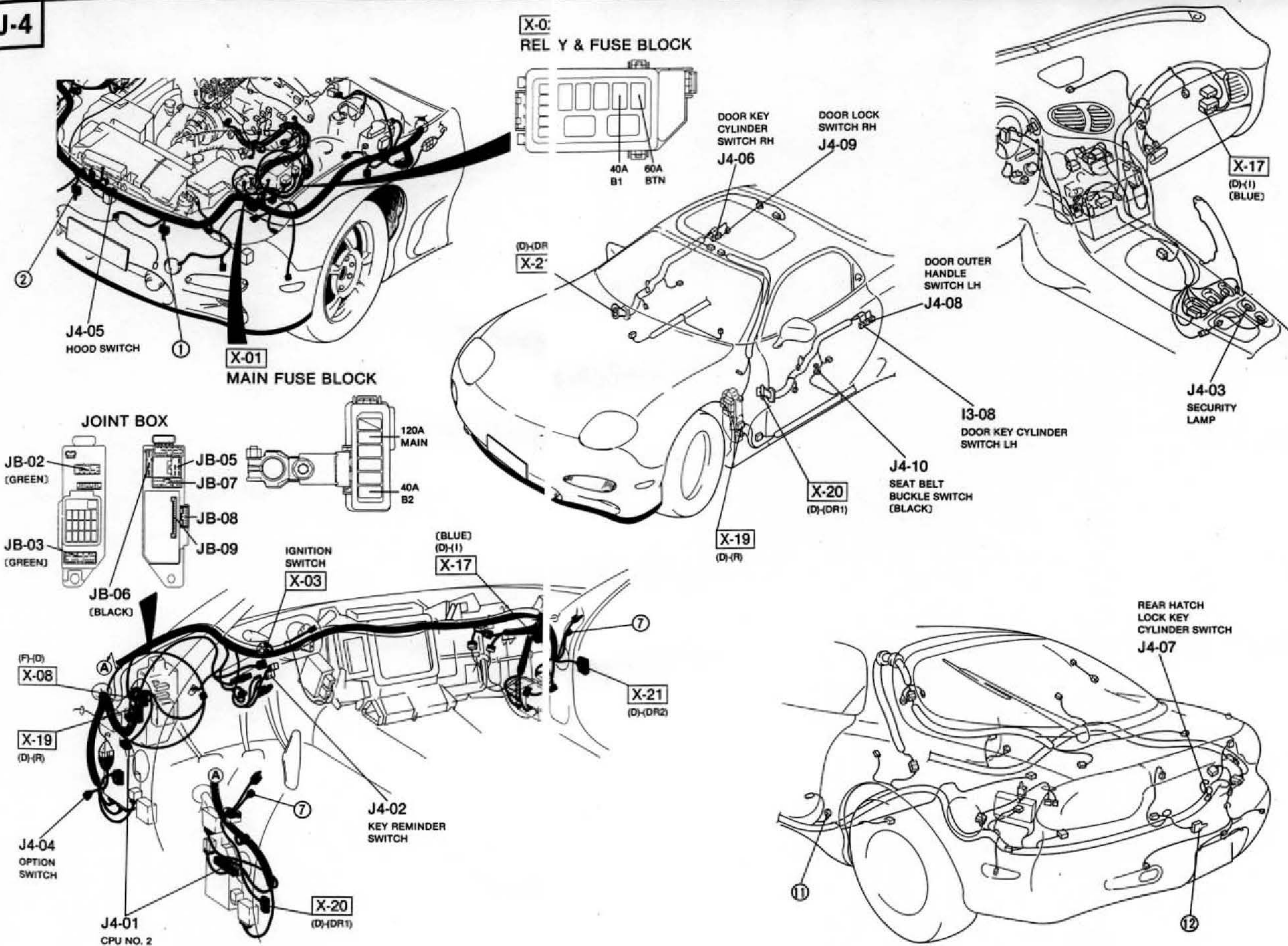
POWER ANTENNA
ASSEMBLY
J3-01

J-4



J4-01 CPU NO.2 ()...EC-AT (D) <table><tr><td>1U</td><td>1S</td><td>1Q</td><td>1D</td><td colspan="2"></td><td>1I</td><td>1G</td><td>1E</td><td>1C</td><td>1A</td></tr><tr><td>*</td><td>GY/R</td><td>G/Y</td><td>LG/R</td><td colspan="2"></td><td>G/B</td><td>BR/Y</td><td>L/W</td><td>B/Y</td><td>L/R</td></tr><tr><td>0</td><td>LG</td><td>V/G</td><td>Y</td><td>LG/B</td><td>BR</td><td>G/R</td><td>B</td><td>GY</td><td>R/B</td><td>W</td></tr><tr><td>1V</td><td>1T</td><td>1R</td><td>1P</td><td>1N</td><td>1L</td><td>1J</td><td>1H</td><td>1F</td><td>1D</td><td>1B</td></tr></table>		1U	1S	1Q	1D			1I	1G	1E	1C	1A	*	GY/R	G/Y	LG/R			G/B	BR/Y	L/W	B/Y	L/R	0	LG	V/G	Y	LG/B	BR	G/R	B	GY	R/B	W	1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B	(F) <table><tr><td>2I</td><td colspan="2"></td><td>2C</td><td>2A</td></tr><tr><td>(Y/B)</td><td colspan="2"></td><td>(D/L)</td><td>(D)</td></tr><tr><td>BR</td><td>W/L</td><td>*</td><td>LG/R</td><td>G/O</td></tr><tr><td>2J</td><td>2H</td><td>2F</td><td>2D</td><td>2B</td></tr></table>		2I			2C	2A	(Y/B)			(D/L)	(D)	BR	W/L	*	LG/R	G/O	2J	2H	2F	2D	2B	J4-02 KEY REMINDER SWITCH (D) <table><tr><td colspan="2">A</td><td colspan="2">B</td></tr><tr><td>L/R</td><td>(L/R)</td><td>BR/V</td><td>W</td></tr></table>		A		B		L/R	(L/R)	BR/V	W	J3 SECURITY LAMP (I) <table><tr><td>*</td><td>V/G</td><td>L/R</td></tr></table>		*	V/G	L/R	J4-04 OPTION SWITCH (F) <table><tr><td colspan="2">BR</td></tr><tr><td>B</td><td>BR/Y</td></tr></table>		BR		B	BR/Y	J4-05 HOOD SWITCH (F) <table><tr><td>BR/Y</td><td>B</td></tr></table>		BR/Y	B
1U	1S	1Q	1D			1I	1G	1E	1C	1A																																																																																		
*	GY/R	G/Y	LG/R			G/B	BR/Y	L/W	B/Y	L/R																																																																																		
0	LG	V/G	Y	LG/B	BR	G/R	B	GY	R/B	W																																																																																		
1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B																																																																																		
2I			2C	2A																																																																																								
(Y/B)			(D/L)	(D)																																																																																								
BR	W/L	*	LG/R	G/O																																																																																								
2J	2H	2F	2D	2B																																																																																								
A		B																																																																																										
L/R	(L/R)	BR/V	W																																																																																									
*	V/G	L/R																																																																																										
BR																																																																																												
B	BR/Y																																																																																											
BR/Y	B																																																																																											
J4-06 DOOR KEY CYLINDER SWITCH RH (DR2) <table><tr><td>B</td><td>LG/B</td></tr></table>		B	LG/B	J4-07 REAR HATCH LOCK KEY CYLINDER SWITCH (R) <table><tr><td>LG/R</td><td>*</td><td>B</td></tr></table>		LG/R	*	B	J4-08 DOOR OUTER HANDLE SWITCH LH (DR1) <table><tr><td>Y</td><td>G/R</td><td>B</td></tr><tr><td>B</td><td>*</td><td>G/Y</td></tr></table>		Y	G/R	B	B	*	G/Y	J4-09 DOOR LOCK SWITCH RH (DR2) <table><tr><td>G/B</td><td>O</td></tr><tr><td>B</td><td>G</td></tr></table>		G/B	O	B	G	0 SEAT BELT BUCKLE SWITCH (R) <table><tr><td>B</td></tr><tr><td>G/Y</td></tr></table>		B	G/Y	J3-08 DOOR KEY CYLINDER SWITCH LH (DR1) <table><tr><td>GY/R</td><td>L/R</td></tr><tr><td>B</td><td>LG/B</td></tr></table>		GY/R	L/R	B	LG/B																																																												
B	LG/B																																																																																											
LG/R	*	B																																																																																										
Y	G/R	B																																																																																										
B	*	G/Y																																																																																										
G/B	O																																																																																											
B	G																																																																																											
B																																																																																												
G/Y																																																																																												
GY/R	L/R																																																																																											
B	LG/B																																																																																											

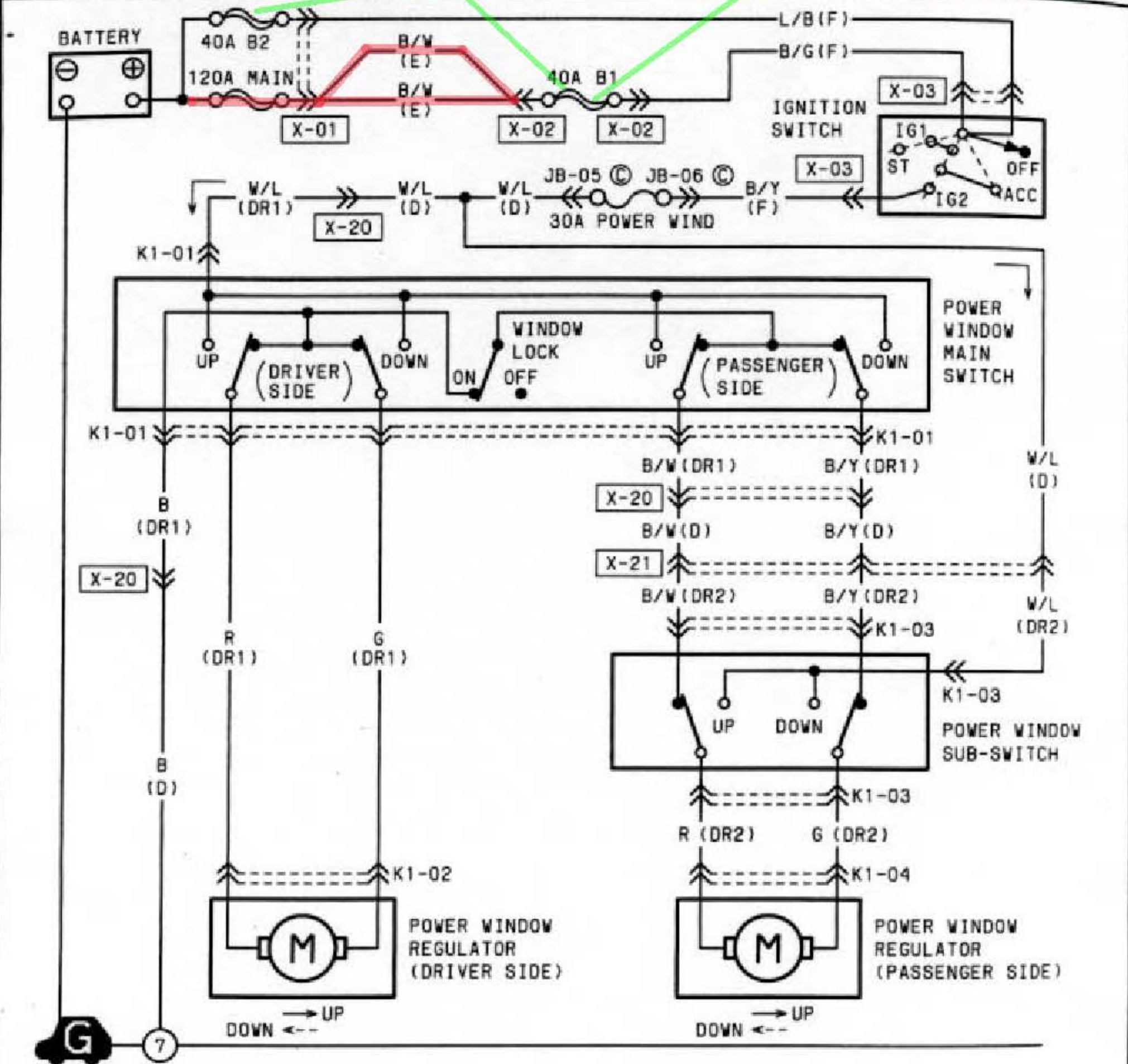
J-4



Z WIRING DIAGRAM

K-1 ■ POWER WINDOW

Relocated to new engine bay fuse box X-00
Bypassed 120A MAIN fuse and hardwired to battery



K1-01 POWER WINDOW MAIN SWITCH (DR1)

R		*	W/L
G	B/Y	B/W	B

K1-02 POWER WINDOW REGULATOR (DRIVER SIDE) (DR1)

R
G

K1-03 POWER WINDOW SUB-SWITCH (DR2)

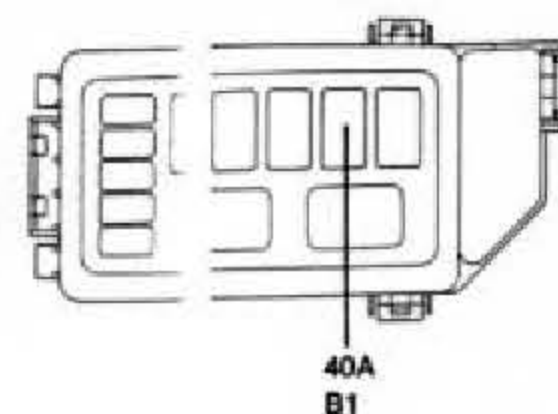
W/L			B/W
G	B/Y	*	R

K1-04 POWER WINDOW REGULATOR (PASSENGER SIDE) (DR2)

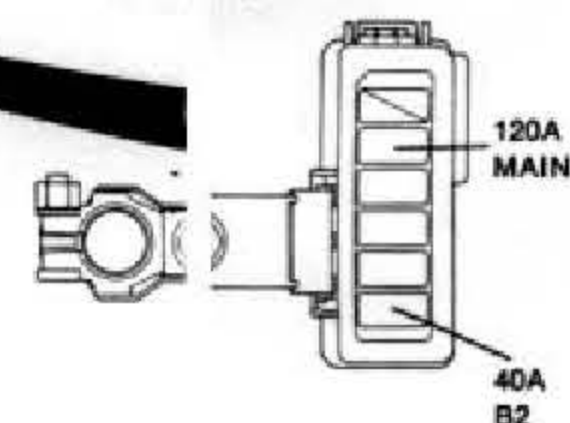
R
G

K-1

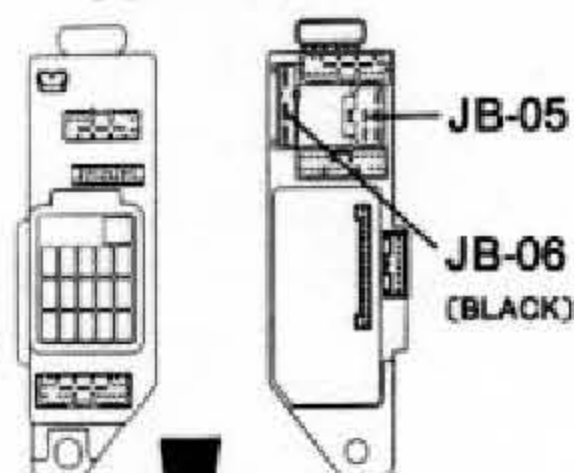
X-02
RELAY & FUSE BLOCK



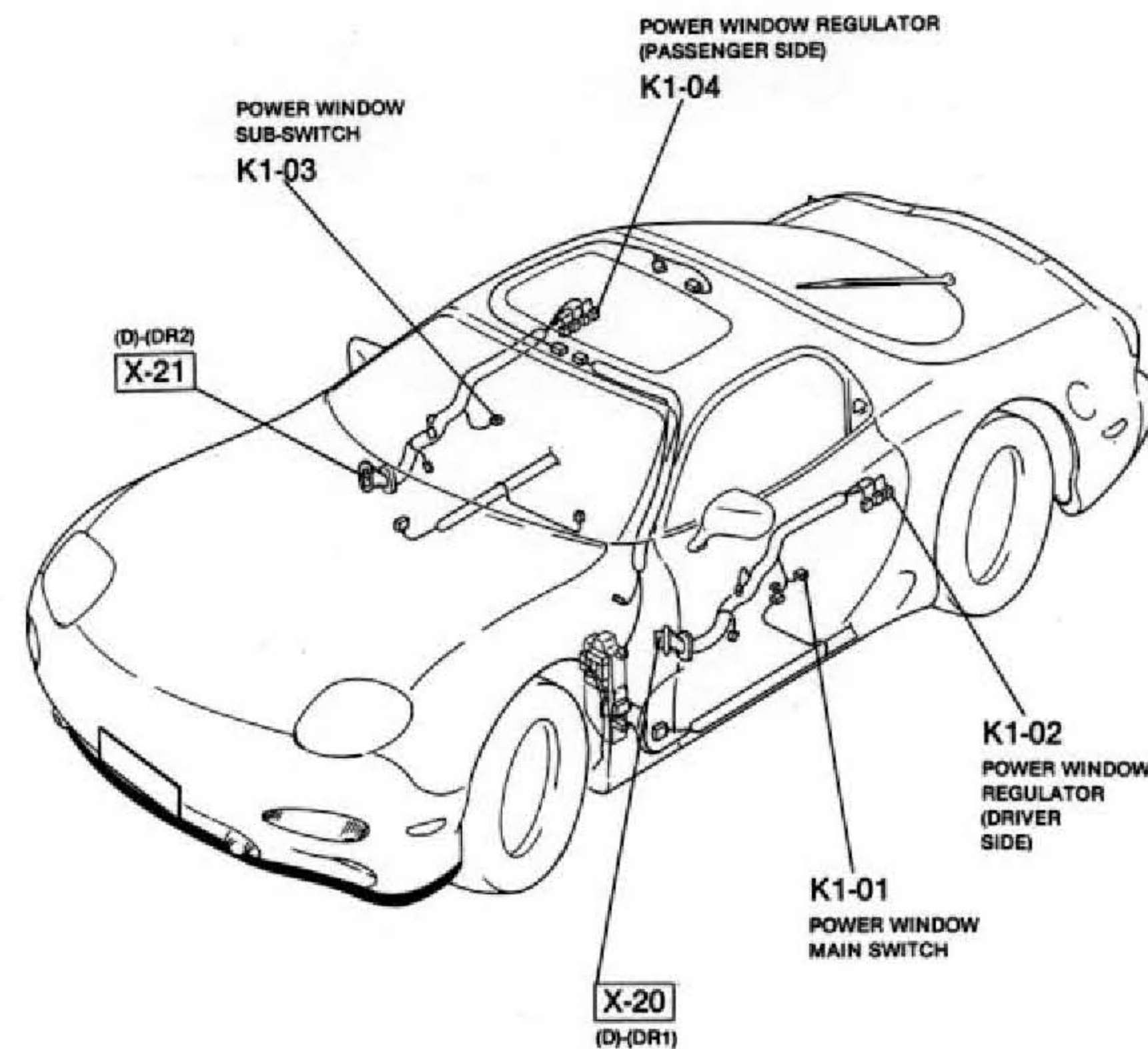
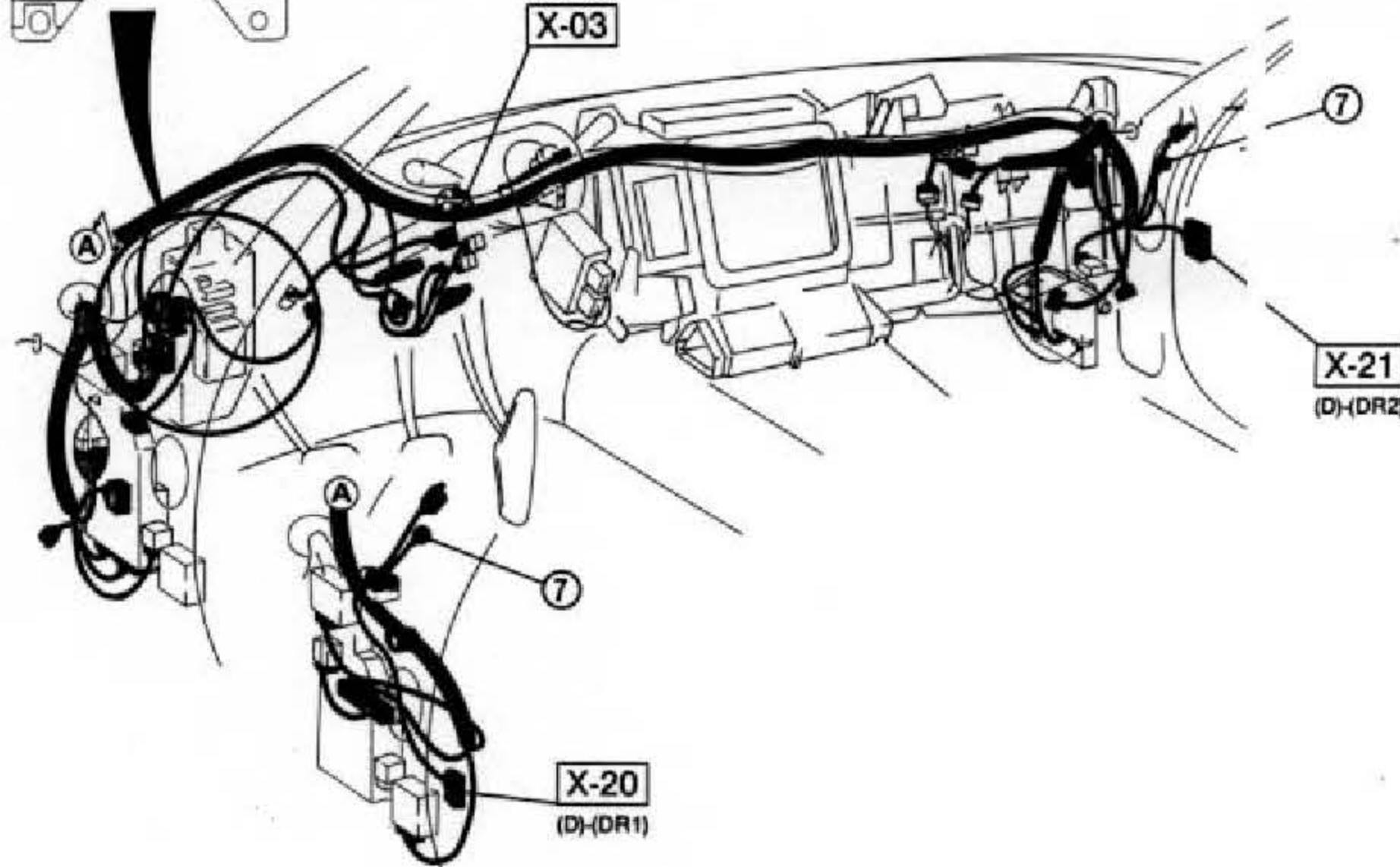
X-0
MAIN FUSE
BLOCK



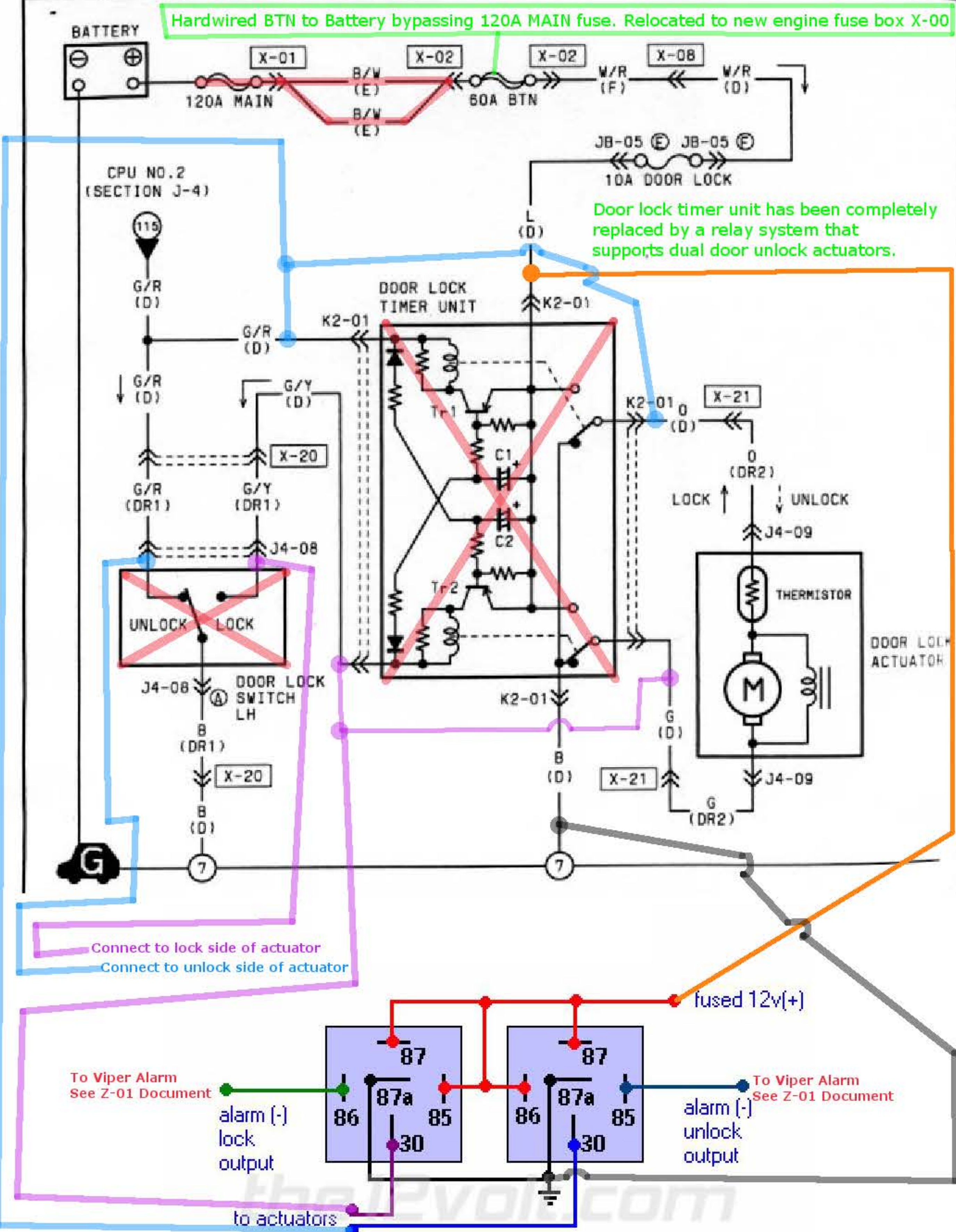
JOINT BOX



IGNITION
SWITCH
X-03



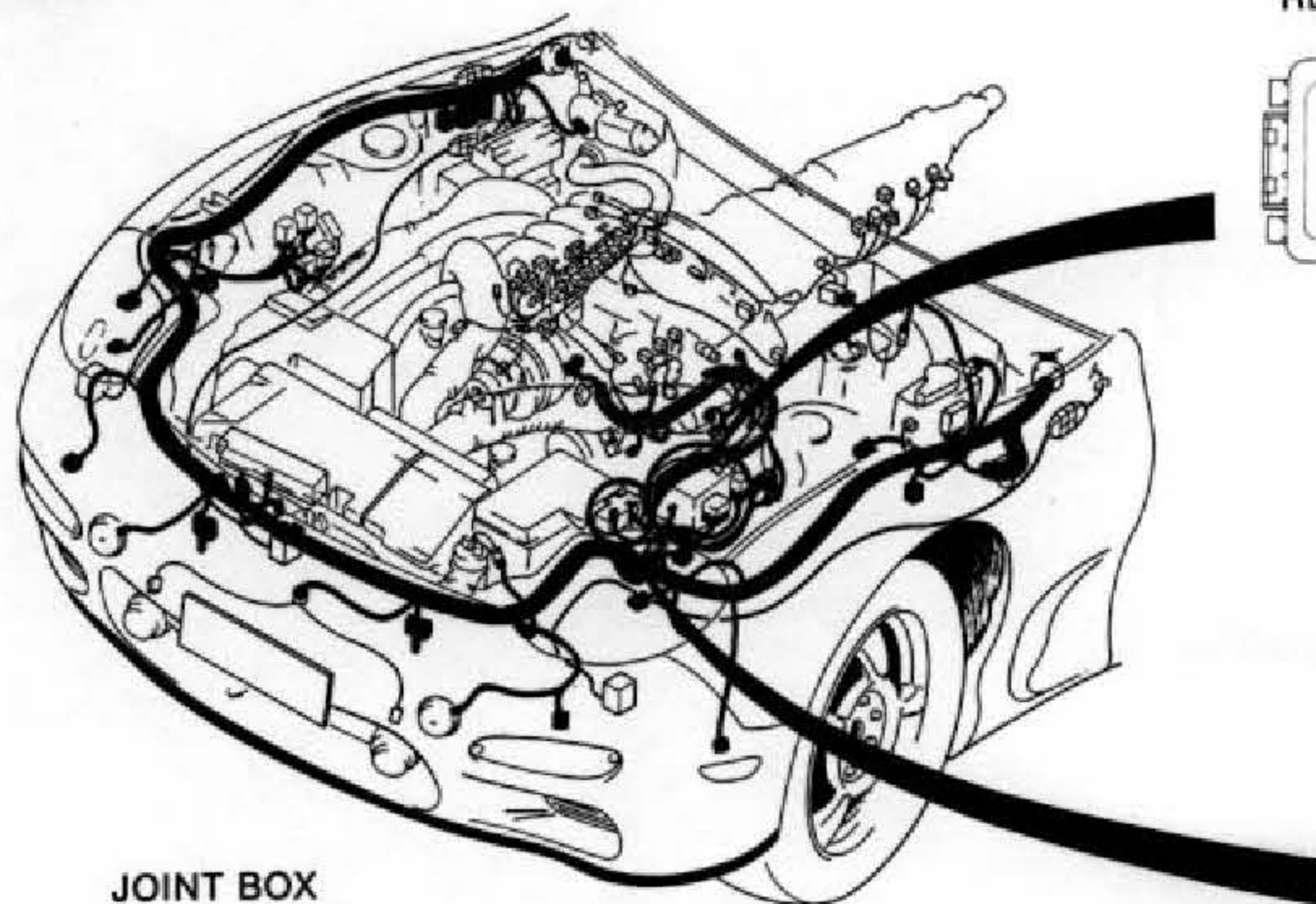
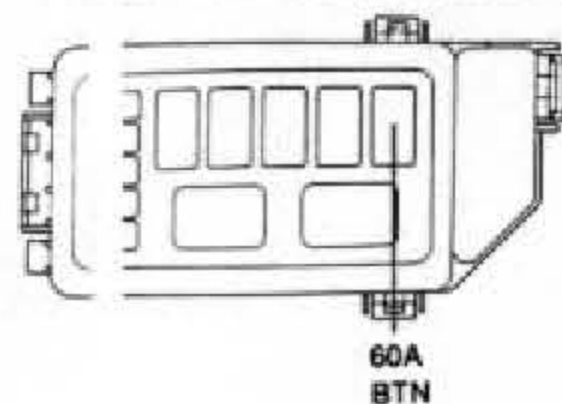
K-2 ■ POWER DOOR LOCK



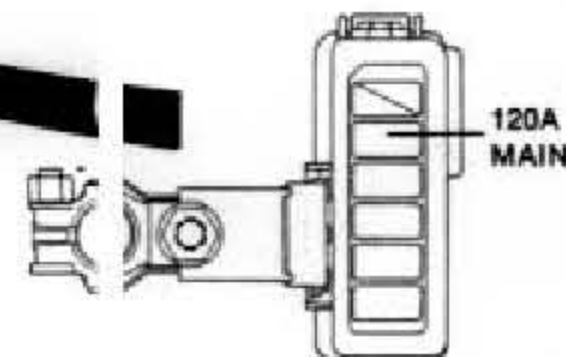
K2-01 DOOR LOCK TIMER UNIT (D) <table><tr><td>*</td><td>G</td><td>G/R</td><td>B</td></tr><tr><td>*</td><td>O</td><td>G/Y</td><td>L</td></tr></table>	*	G	G/R	B	*	O	G/Y	L	J4-08 DOOR LOCK SWITCH LH (DR1) <table><tr><td>Y</td><td>G/R</td><td>B</td></tr><tr><td>B</td><td>*</td><td>G/Y</td></tr></table> Ⓐ Ⓔ	Y	G/R	B	B	*	G/Y	J4-09 DOOR LOCK ACTUATOR (DR2) <table><tr><td>G/B</td><td>O</td></tr><tr><td>B</td><td>G</td></tr></table>	G/B	O	B	G	
*	G	G/R	B																		
*	O	G/Y	L																		
Y	G/R	B																			
B	*	G/Y																			
G/B	O																				
B	G																				

K-2

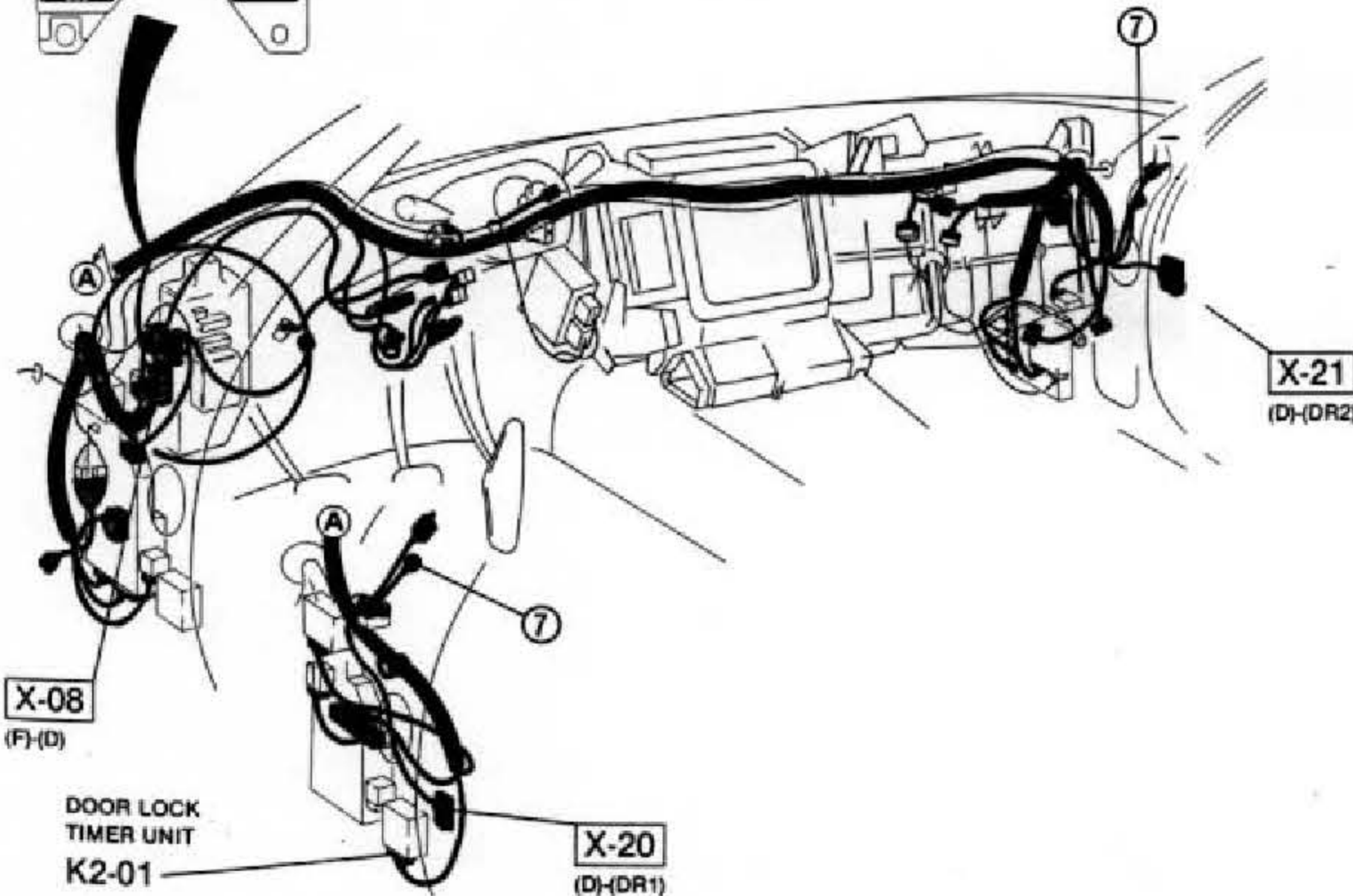
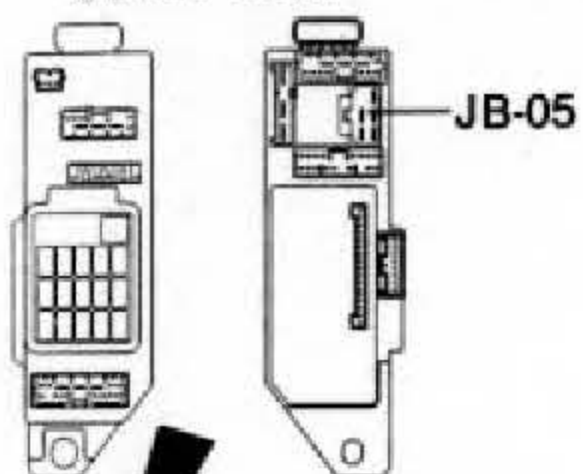
X-2
RELAY & FUSE BLOCK



K-01
MAIN FUSE
BLOCK

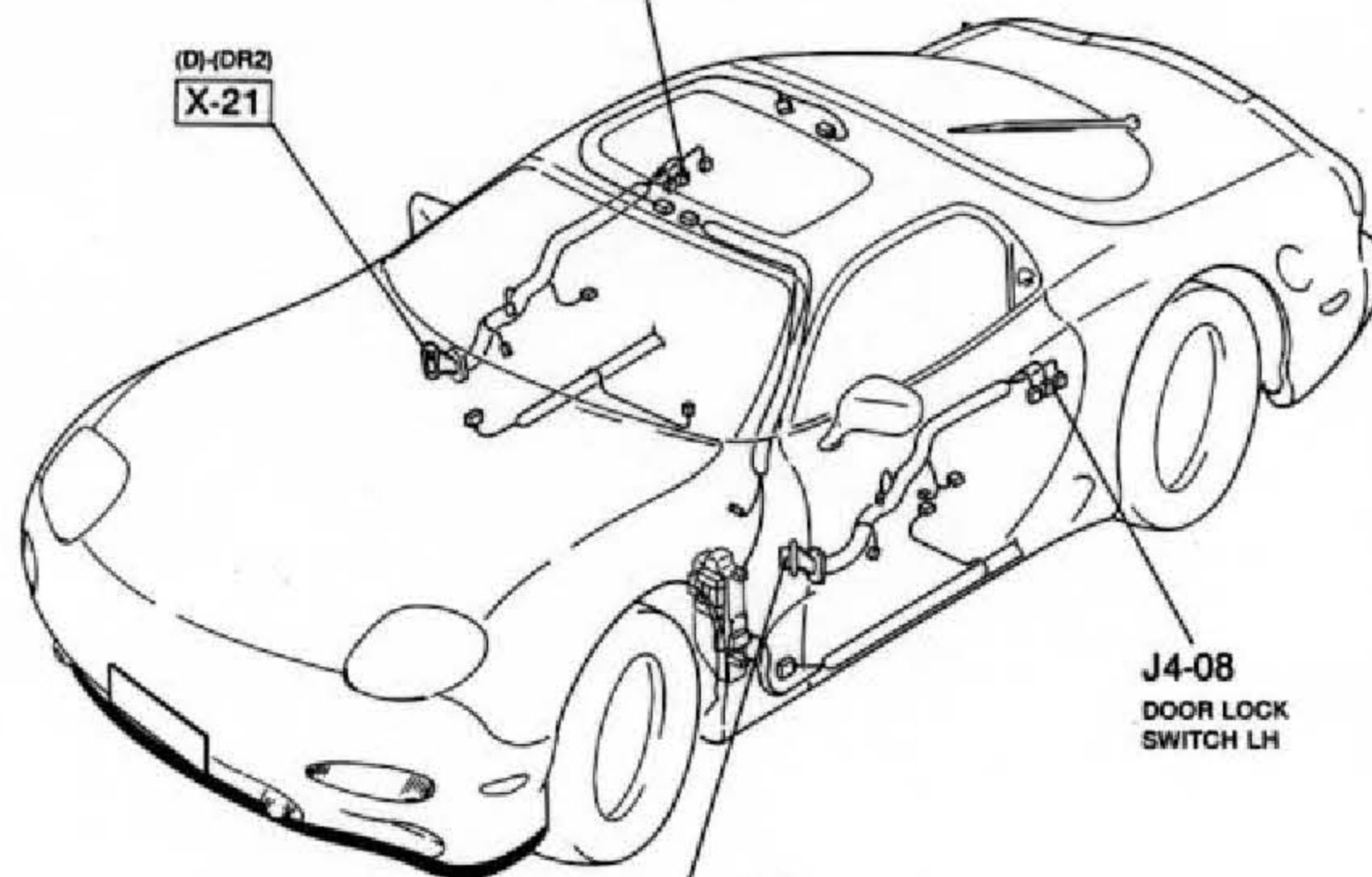


JOINT BOX



DOOR LOCK
ACTUATOR
J4-09

(D)-(DR2)
X-21



J4-08
DOOR LOCK
SWITCH LH

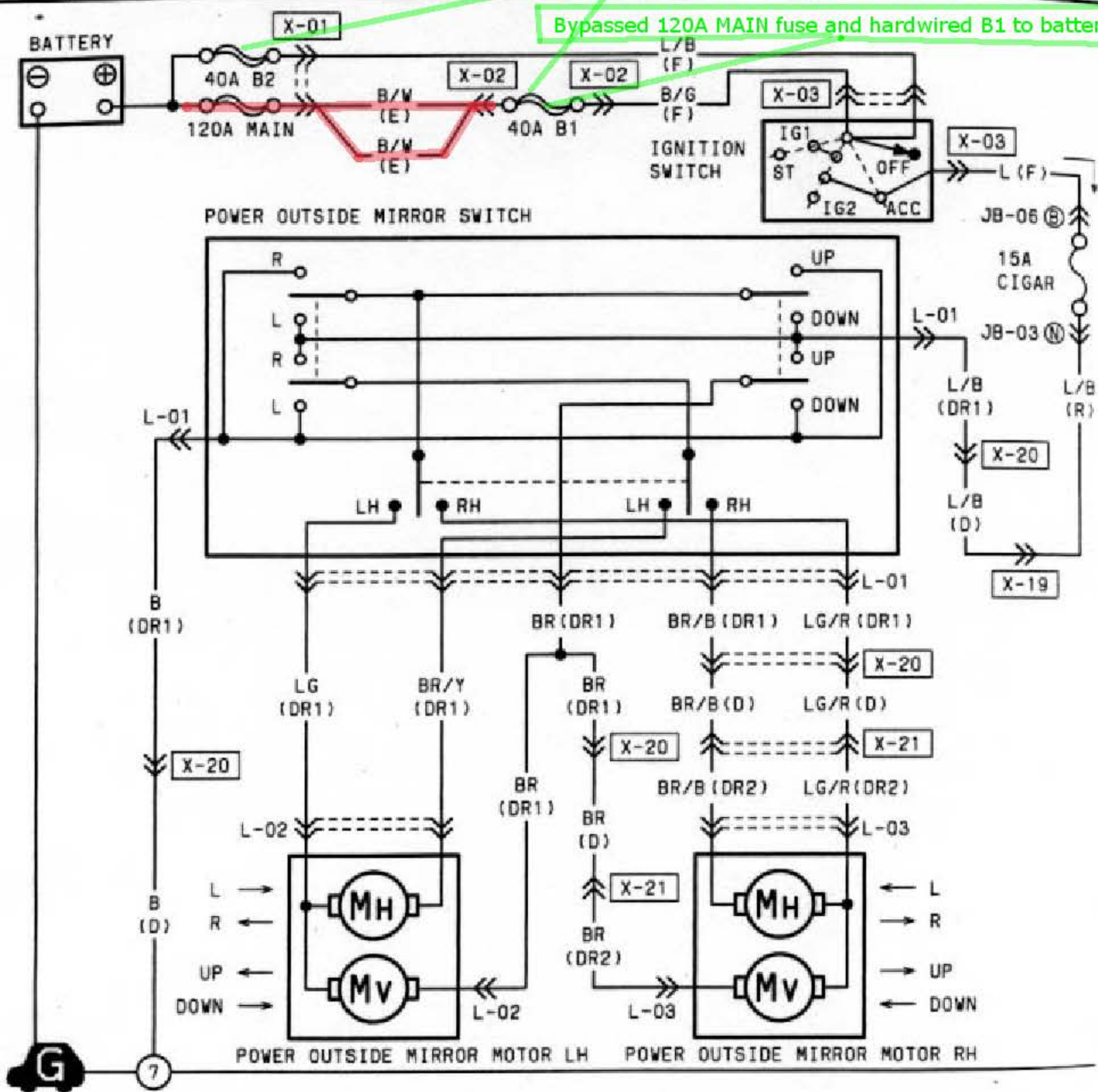
X-20
(D)-(DR1)

Z WIRING DIAGRAM

L ■ POWER OUTSIDE MIRROR

Relocated B2 and B1 to engine bay fuse box X-00

Bypassed 120A MAIN fuse and hardwired B1 to battery



L-01 POWER OUTSIDE MIRROR SWITCH (DR1)

*	L/B		LG	LG/R
BR	B	BR/Y	BR/B	*

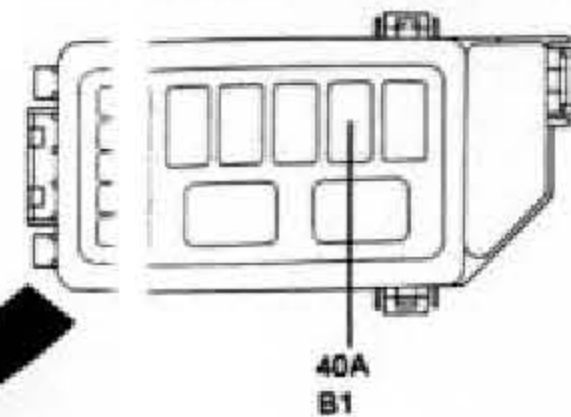
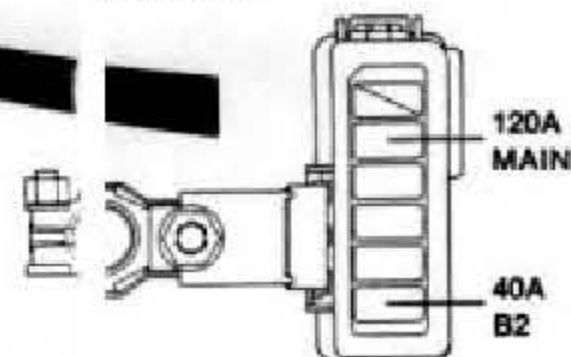
L-02 POWER OUTSIDE MIRROR MOTOR LH (DR1)

BR	BR/Y
LG	

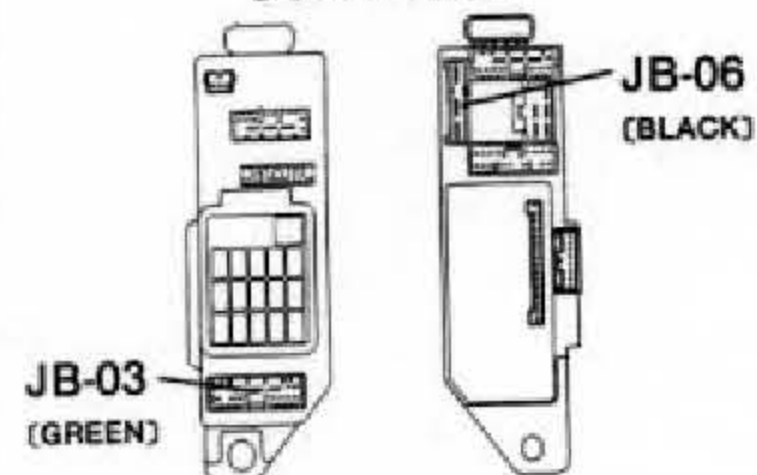
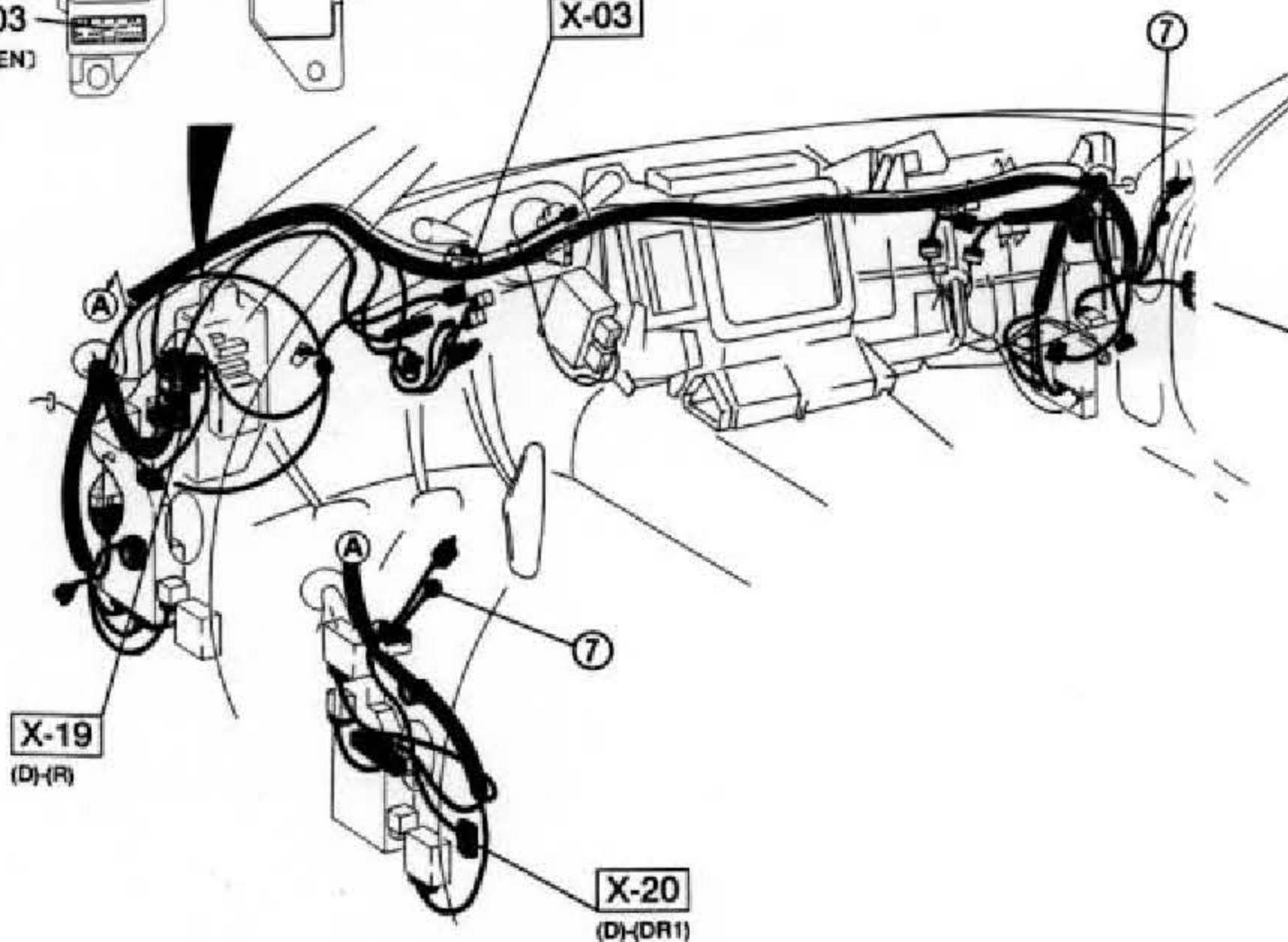
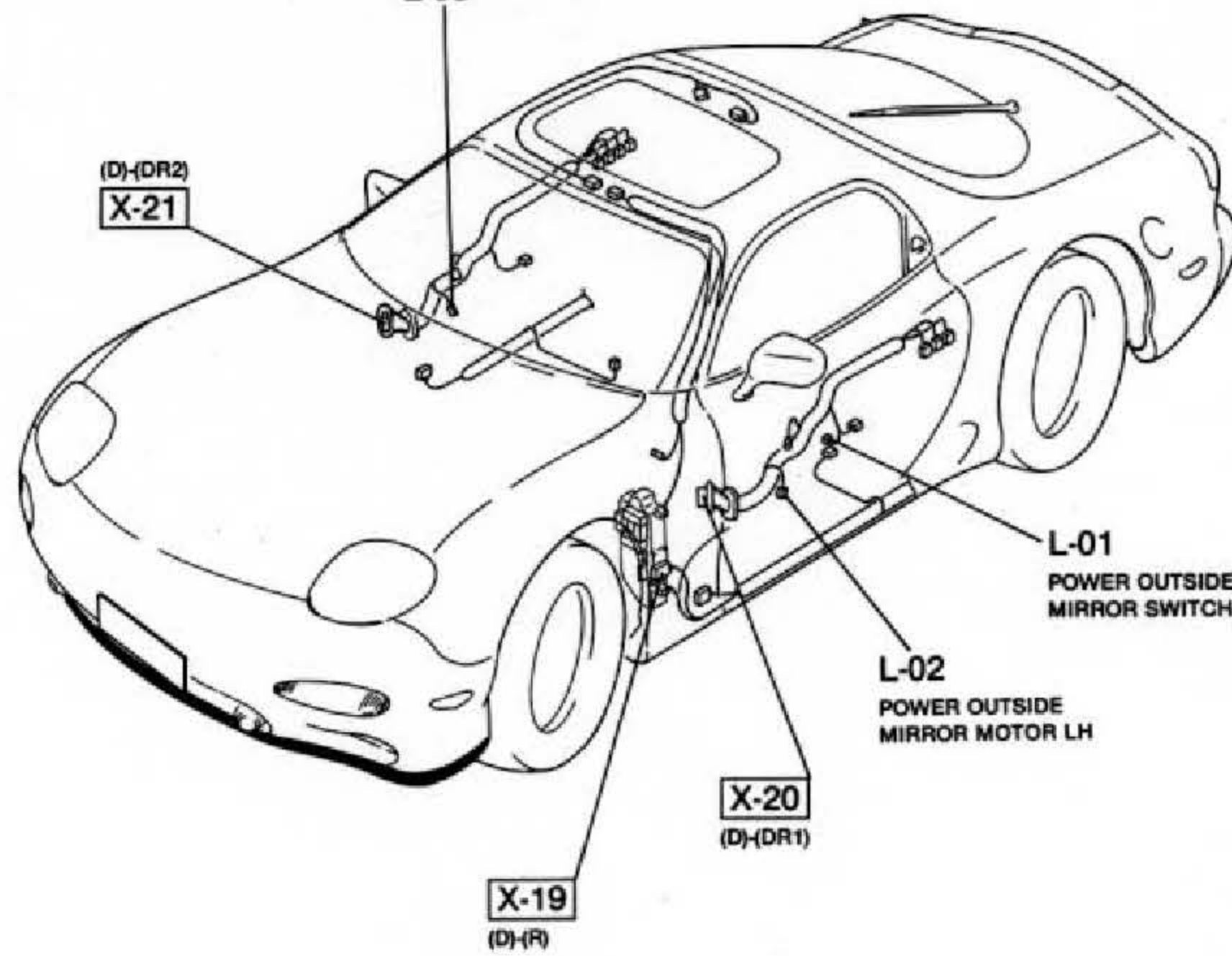
L-03 POWER OUTSIDE MIRROR MOTOR RH (DR2)

BR	BR/B
LG/R	

L

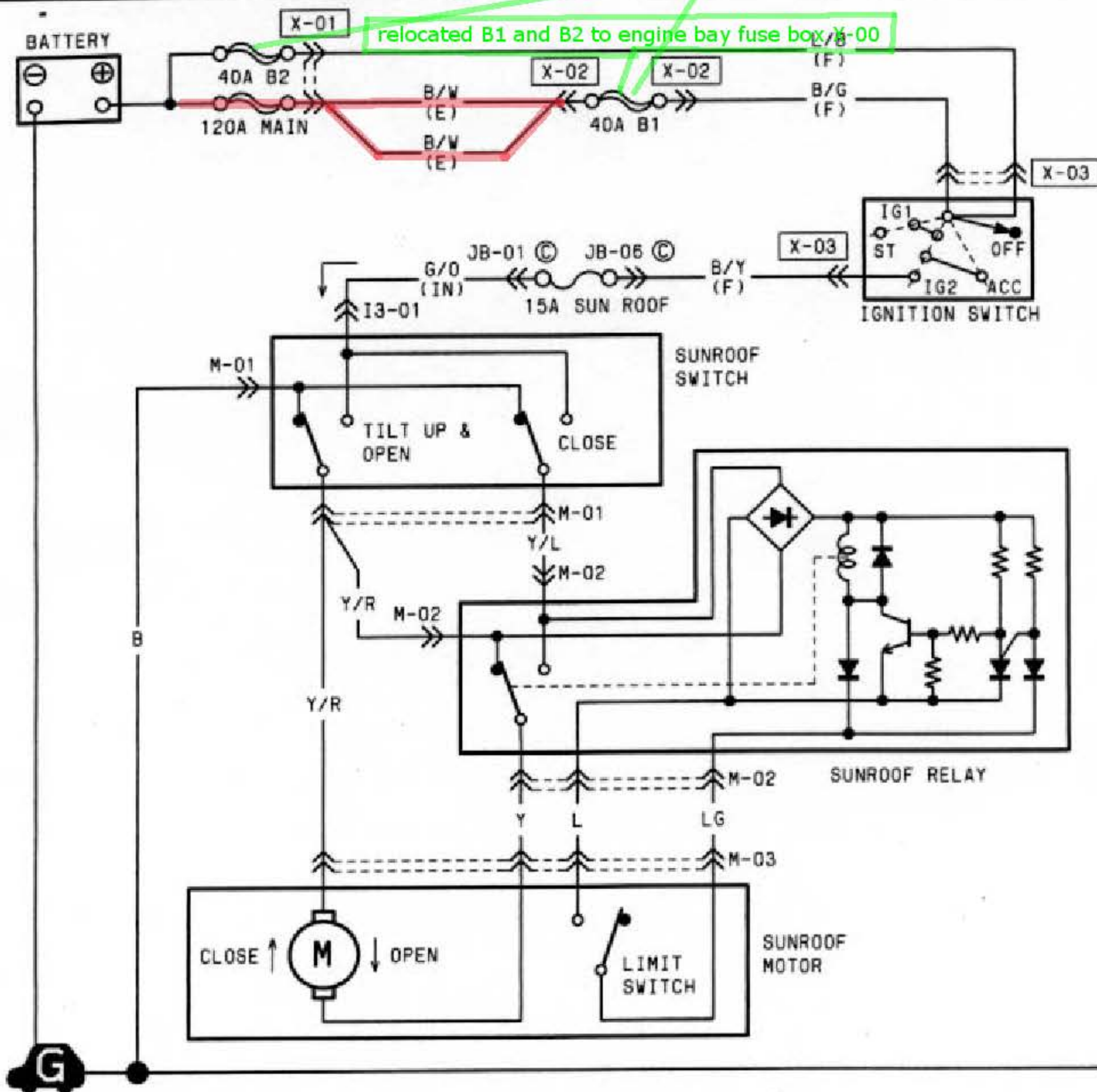
X-2
RELAY & FUSE BLOCK

X-01
MAIN FUSE BLOCK


JOINT BOX

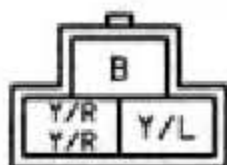

IGNITION SWITCH
X-03

POWER OUTSIDE
MIRROR MOTOR RH
L-03


Z WIRING DIAGRAM

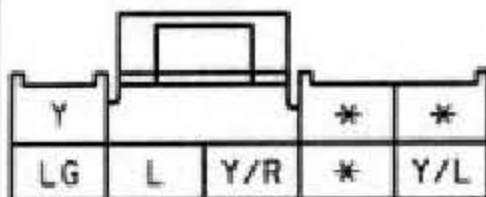
M ■ SLIDING SUNROOF Bypassed 120A MAIN fuse and hardwired B1 to battery



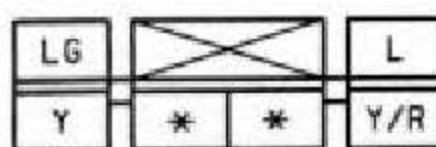
M-01 SUNROOF SWITCH



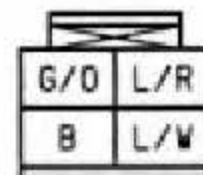
M-02 SUNROOF RELAY



M-03 SUNROOF MOTOR

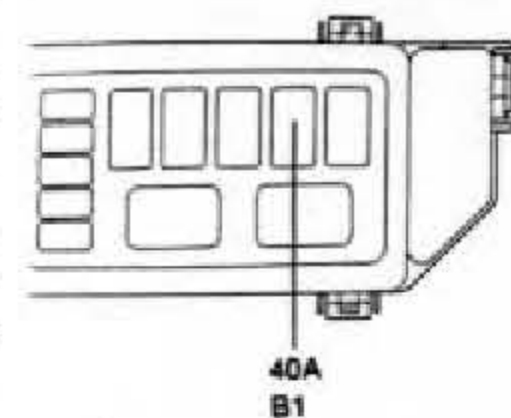


13-01 SUNROOF SWITCH (IN)

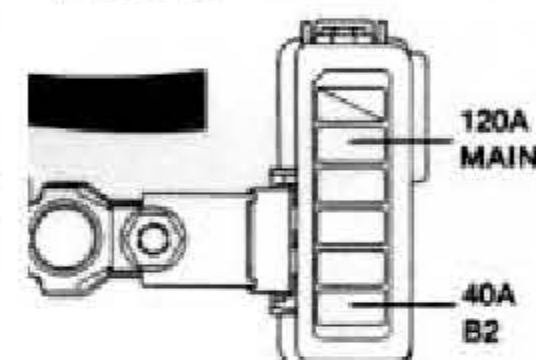


M

-02
RELAY & FUSE BLOCK



X-01
MAIN FUSE
BLOCK

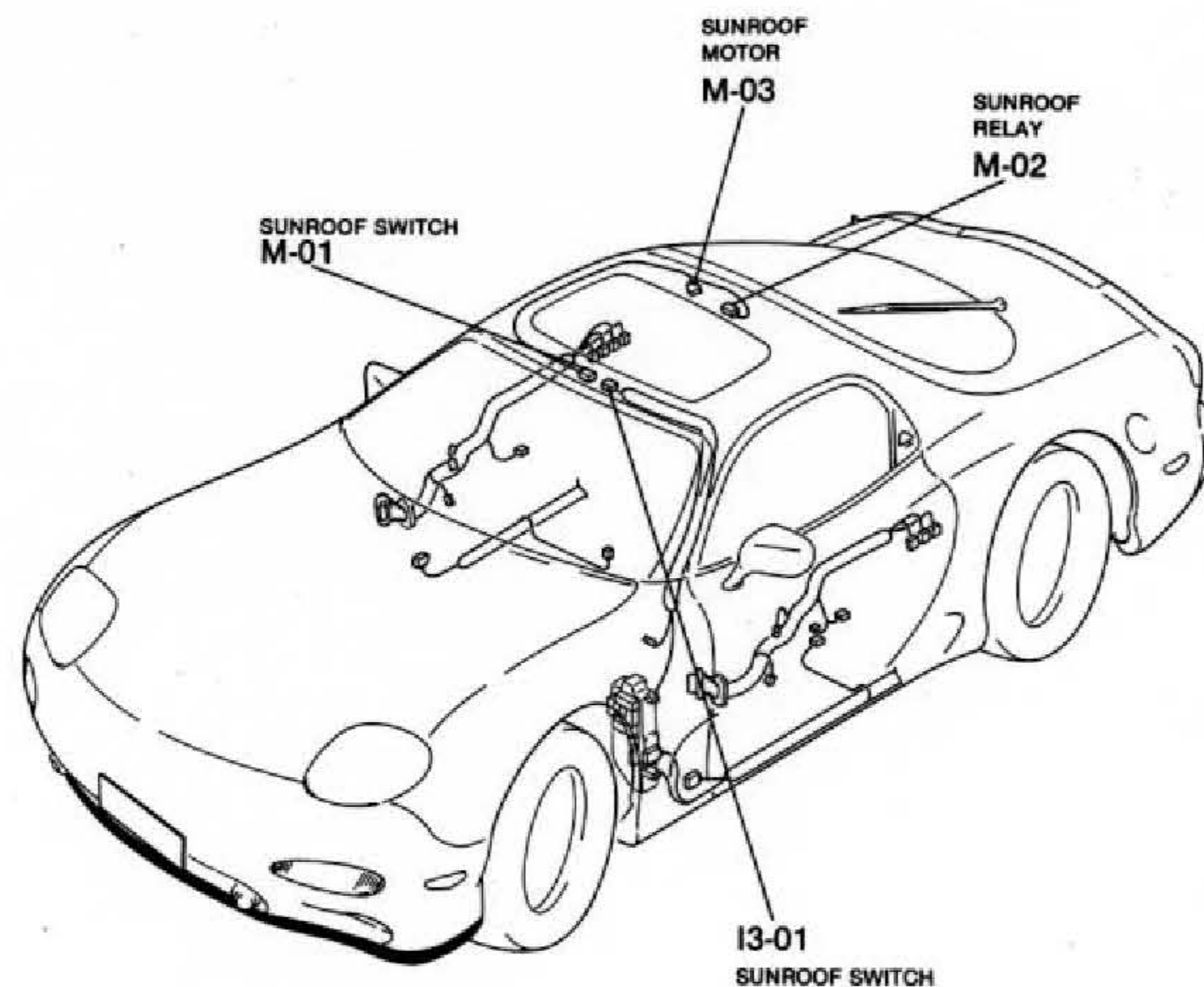


JOINT BOX

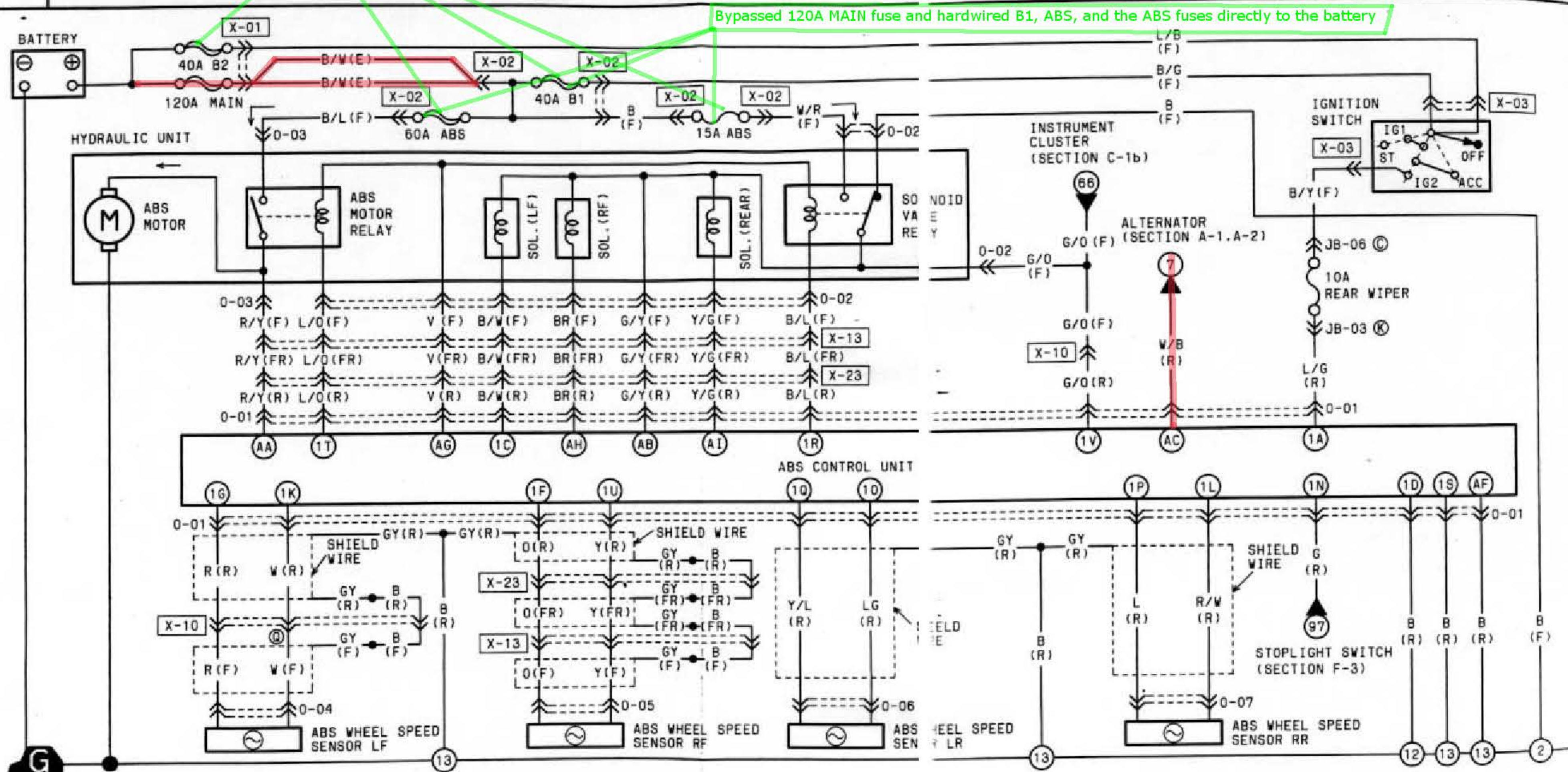
JB-01
(GREEN)

JB-06
(BLACK)

IGNITION
SWITCH
X-03



0 ■ 4 WHEEL ANTILOCK BRAKE SYSTEM (4WABS)



0-01 ABS CONTROL UNIT (R)

AI	AG	AE	AC	AA	1Y	1W	1U	1S	1Q	1O	1M	1K	1J	1G	1E	1C	1A
Y/G	V	*	W/B	R/Y	*	*	Y	B	Y/L	LG	*	W	*	R	*	B/W	L/G
BR	B	*	G/Y	*	*	G/O	L/O	B/L	L	G	R/W	*	*	O	B	*	
AH	AF	AD	AB	12	1X	1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B	

0-05 ABS WHEEL SPEED SENSOR RF (F)



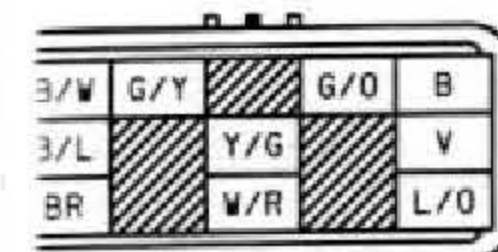
0-06 ABS WHEEL SPEED SENSOR LR (R)



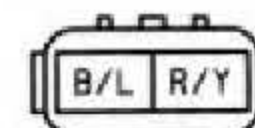
0-07 ABS WHEEL SPEED SENSOR RR (R)



0-02 HYDRAULIC UNIT (F)



0-03 HYDRAULIC UNIT (F)



0-04 ABS WHEEL SPEED SENSOR LF (F)



O

(BLACK)
ABS WHEEL
SPEED SENSOR
RF

O-05

(GRAY)
HYDRAULIC UNIT

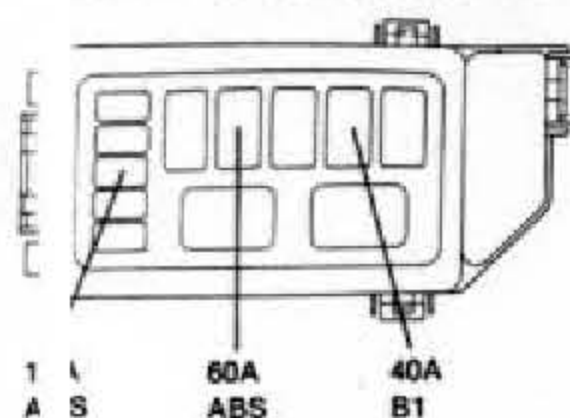
O-02

(GRAY)
HYDRAULIC UNIT

O-03

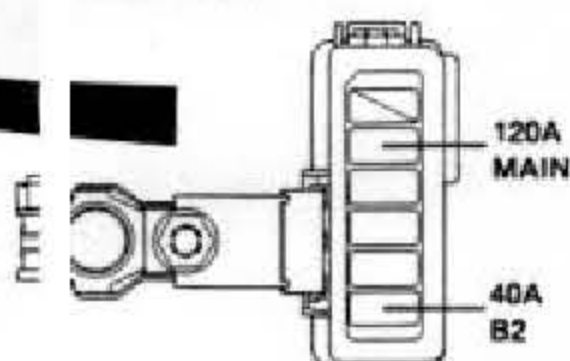
X-02

RELAY & FUSE BLOCK



X-01

MAIN FUSE
BLOCK



JOINT BOX

JB-06
(BLACK)

JB-03
(GREEN)

IGNITION
SWITCH
X-03

O-04
ABS WHEEL
SPEED SENSOR
LF
(BLACK)

X-13
(F)(FR)

X-10
(F)(R)

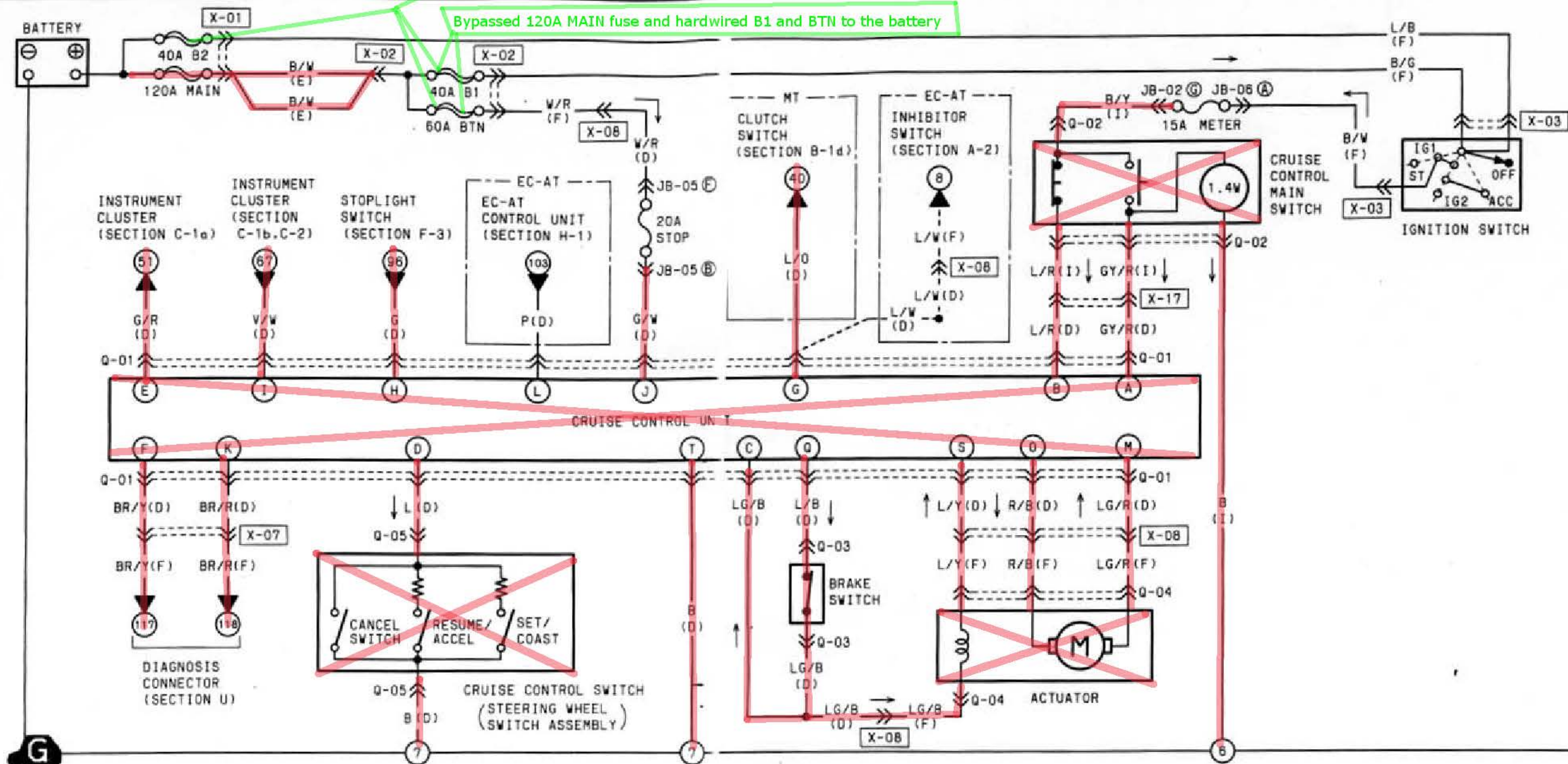
ABS WHEEL
SPEED SENSOR RR
O-07

(R)(FR)
X-23

O-06
ABS WHEEL
SPEED SENSOR
LR

O-01
ABS CONTROL
UNIT

Q



Q-01 CRUISE CONTROL UNIT (D) ()...EC-AT

S	Q	Q	M	K	I	G	E	C	A
L/Y	L/B	R/B	LG/R	BR/R	V/W	L/O (L/W)	G/R	LG/B	GY/R
B	*	*	*	(P)	G/W	G	BR/Y	L	L/R
T	R	P	N	L	J	H	F	D	B

Q-02 CRUISE CONTROL MAIN SWITCH (I)

R/G	L/R	B/Y	GY/P	B	R/B
-----	-----	-----	------	---	-----

Q-03 BRAKE SWITCH (D)

LG/B	L/B
------	-----

Q-04 ACTUATOR (F)

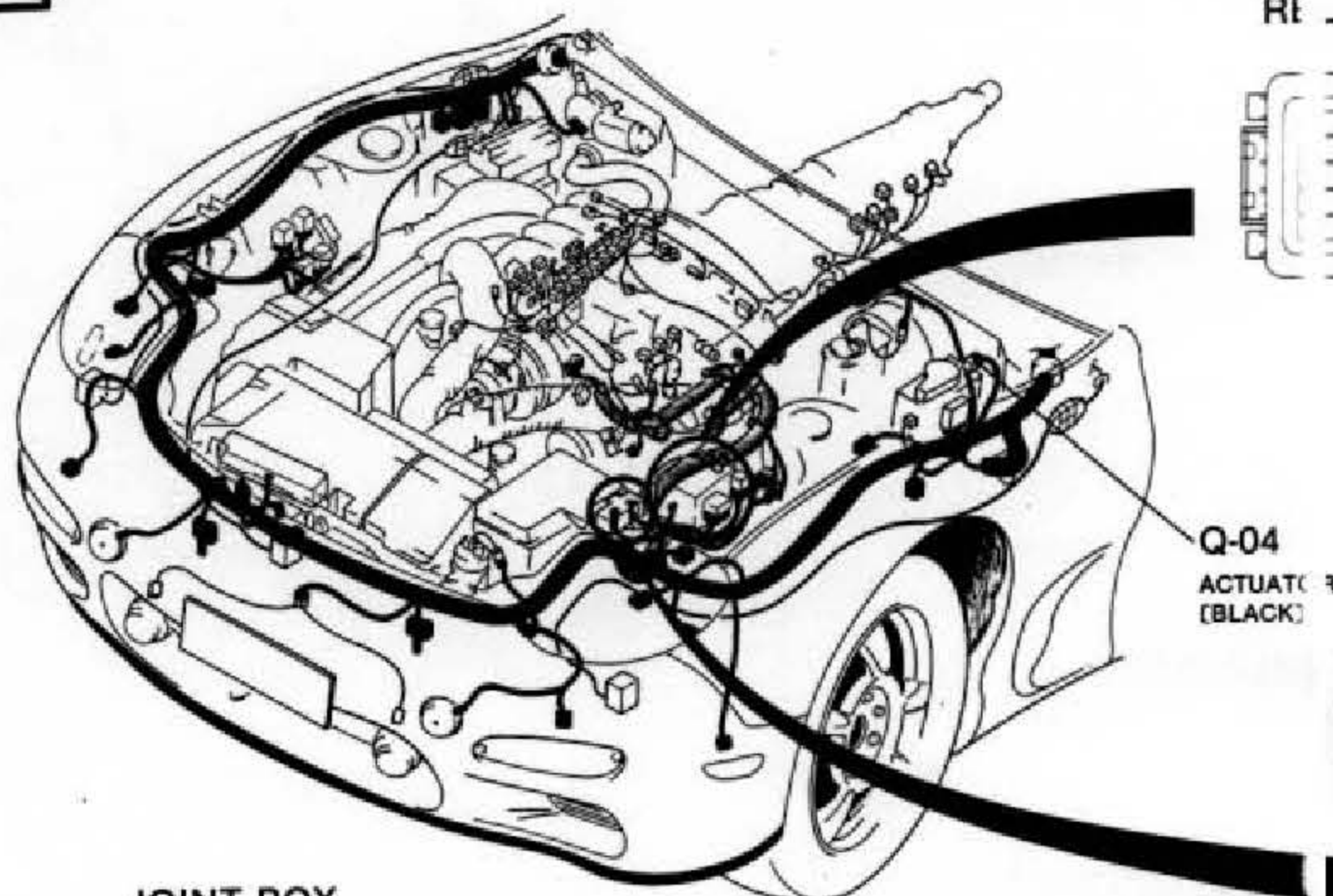
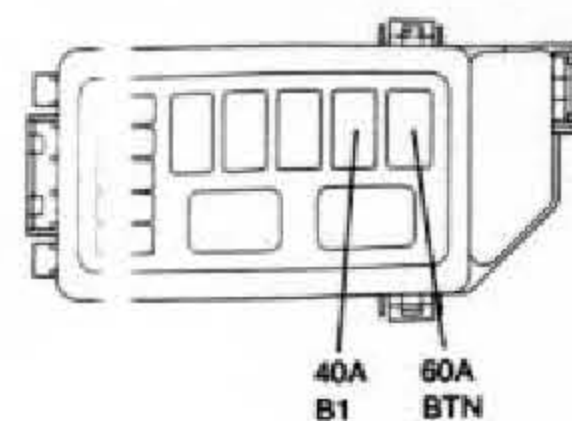
LG/B	L/Y
LG/R	R/B

Q-05 CRUISE CONTROL SWITCH (STEERING WHEEL SWITCH ASSEMBLY) (D)

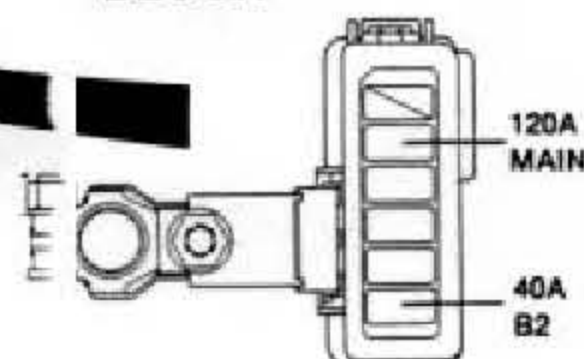
L	B	*
---	---	---

Q

X-12
RELAY & FUSE BLOCK



X-01
MAIN FUSE BLOCK

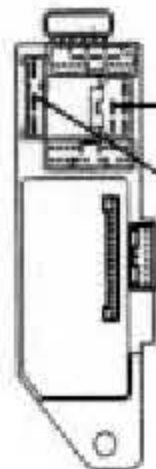


JOINT BOX

JB-02
(GREEN)



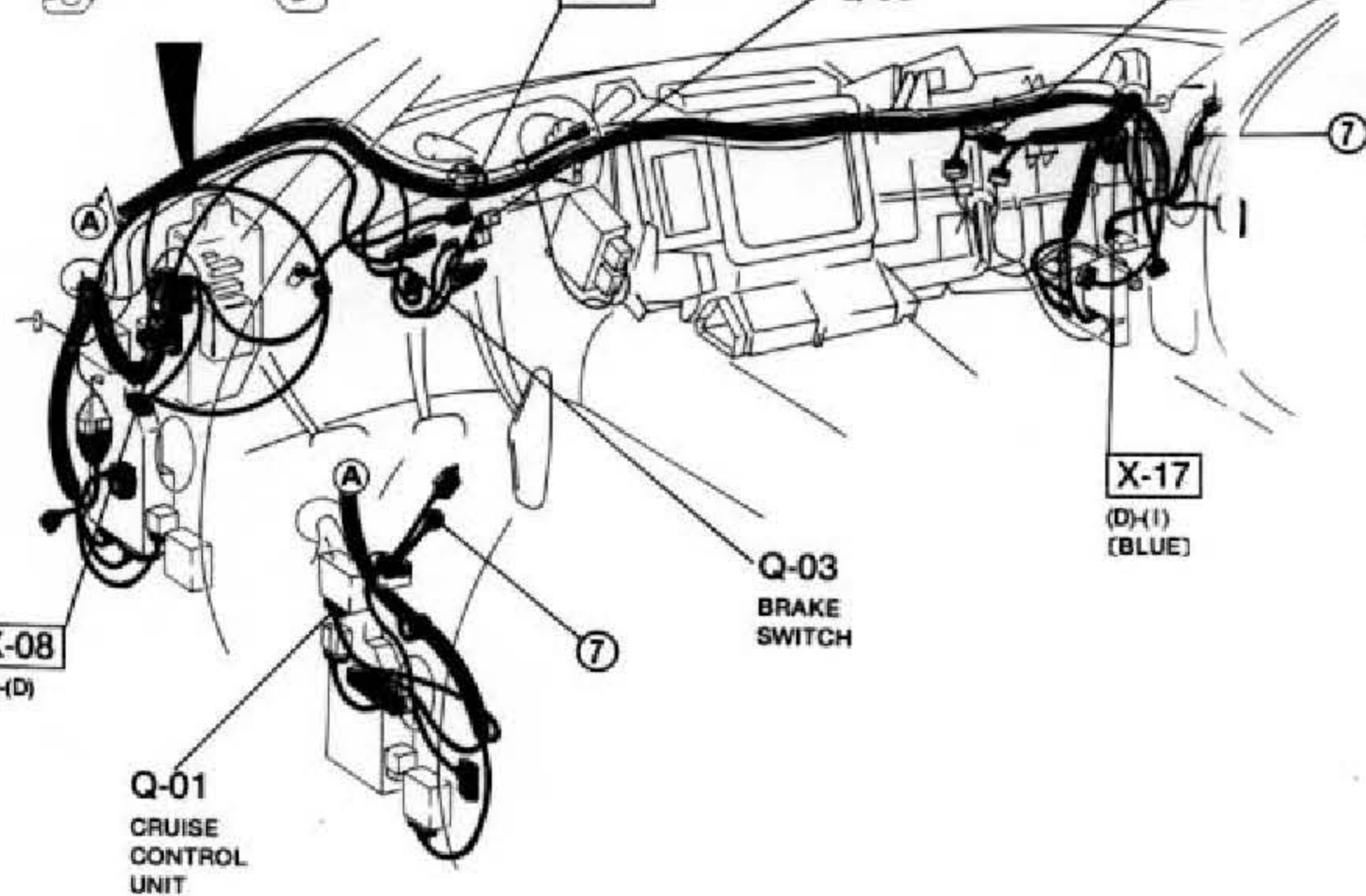
JB-05
JB-06
(BLACK)



IGNITION SWITCH
X-03

CRUISE CONTROL SWITCH
(STEERING WHEEL SWITCH ASSEMBLY)
Q-05

(F)-(D)
X-07



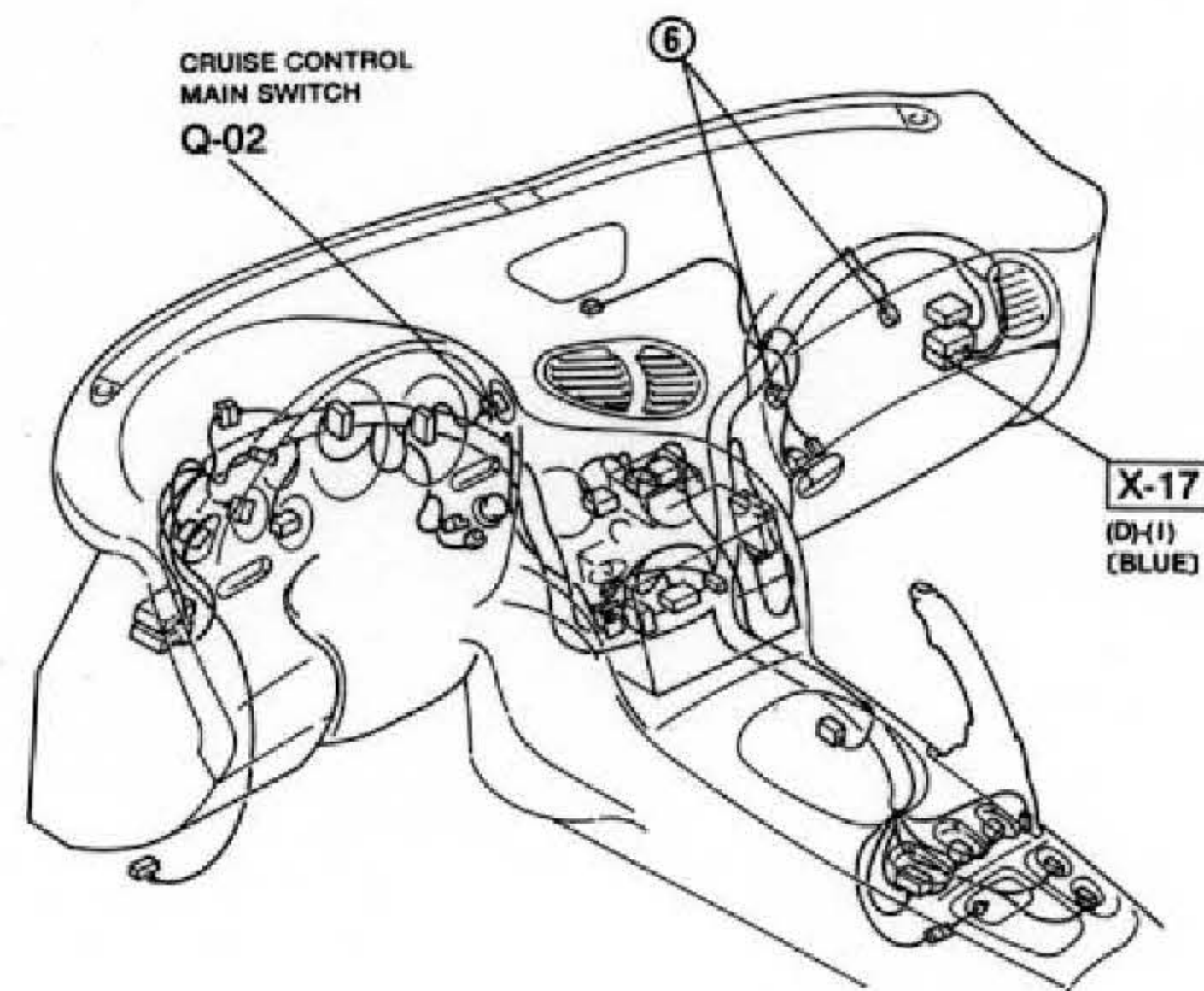
X-08
(F)-(D)

Q-01
CRUISE CONTROL UNIT

Q-03
BRAKE SWITCH

X-17
(D)-(I)
(BLUE)

CRUISE CONTROL MAIN SWITCH
Q-02



X-17
(D)-(I)
(BLUE)

Relocated to new engine bay fuse box X-00



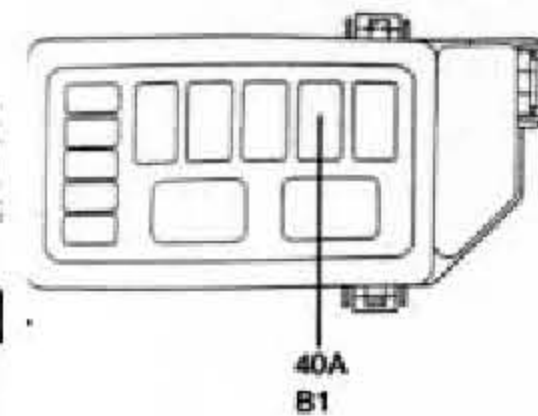
Z-110

S

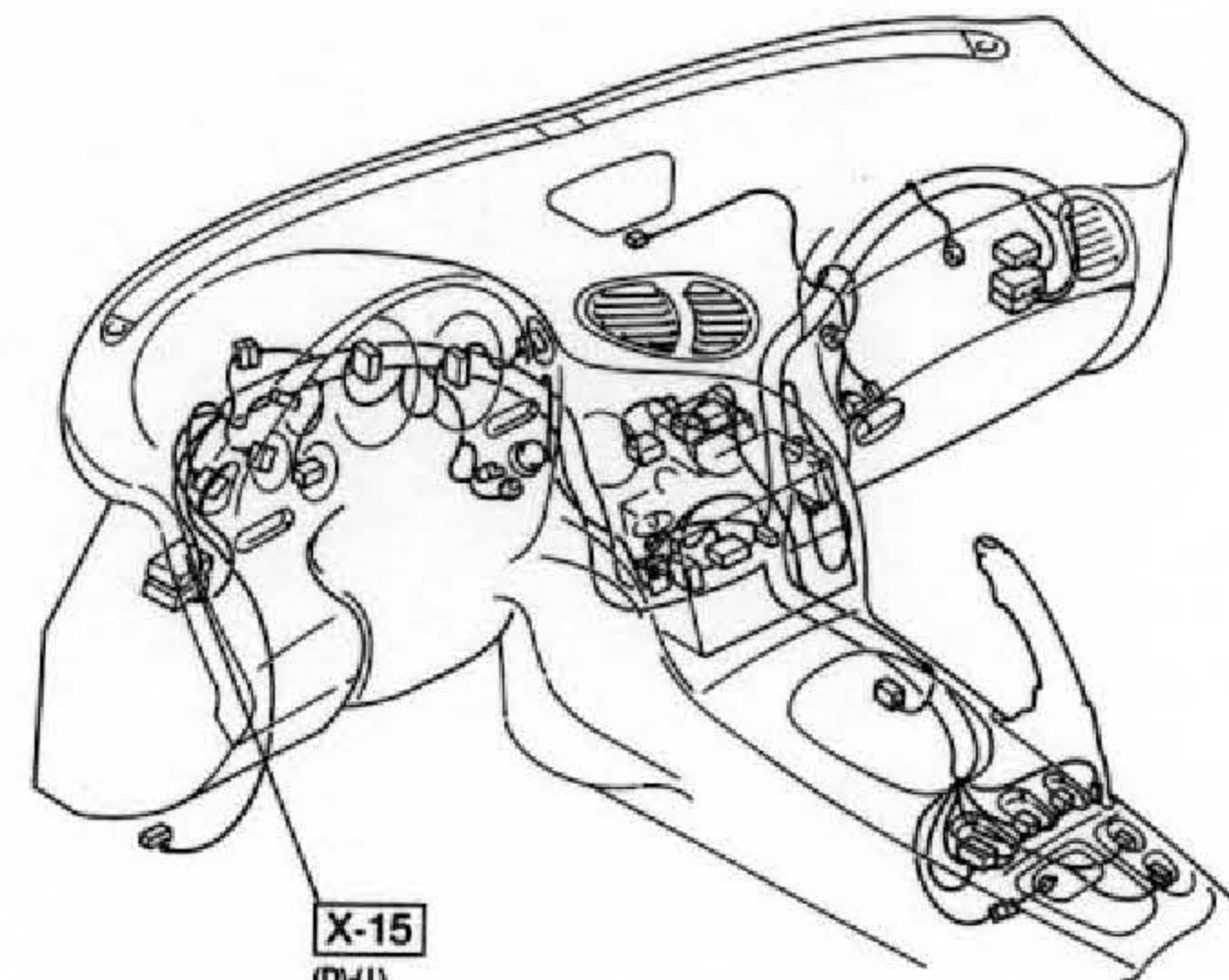
CRASH SENSOR
CENTER (D-SENSOR)
S-03

CRASH SENSOR
RH (D-SENSOR)
S-04

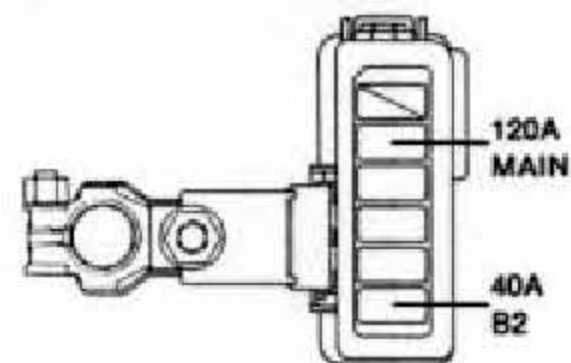
X-02
RELAY & FUSE BLOCK



S-02
CRASH SENSOR
LH (D-SENSOR)

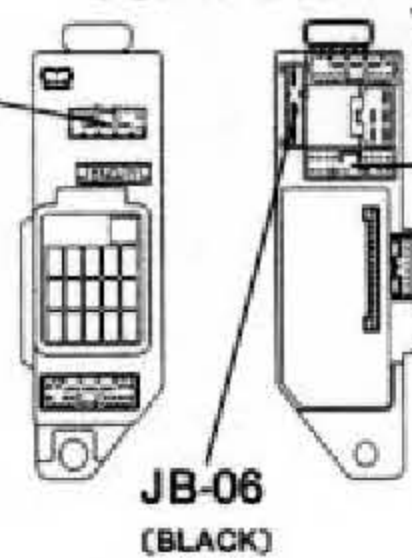


X-01
MAIN FUSE BLOCK



JOINT BOX

JB-02
(GREEN)



AIR BAG
MODULE
S-09

(F)-(D)
X-08

IGNITION
SWITCH
X-03

(D)-(AB)
S-08

(D)-(AB)
S-06

CRASH SENSOR
(S-SENSOR)
S-05

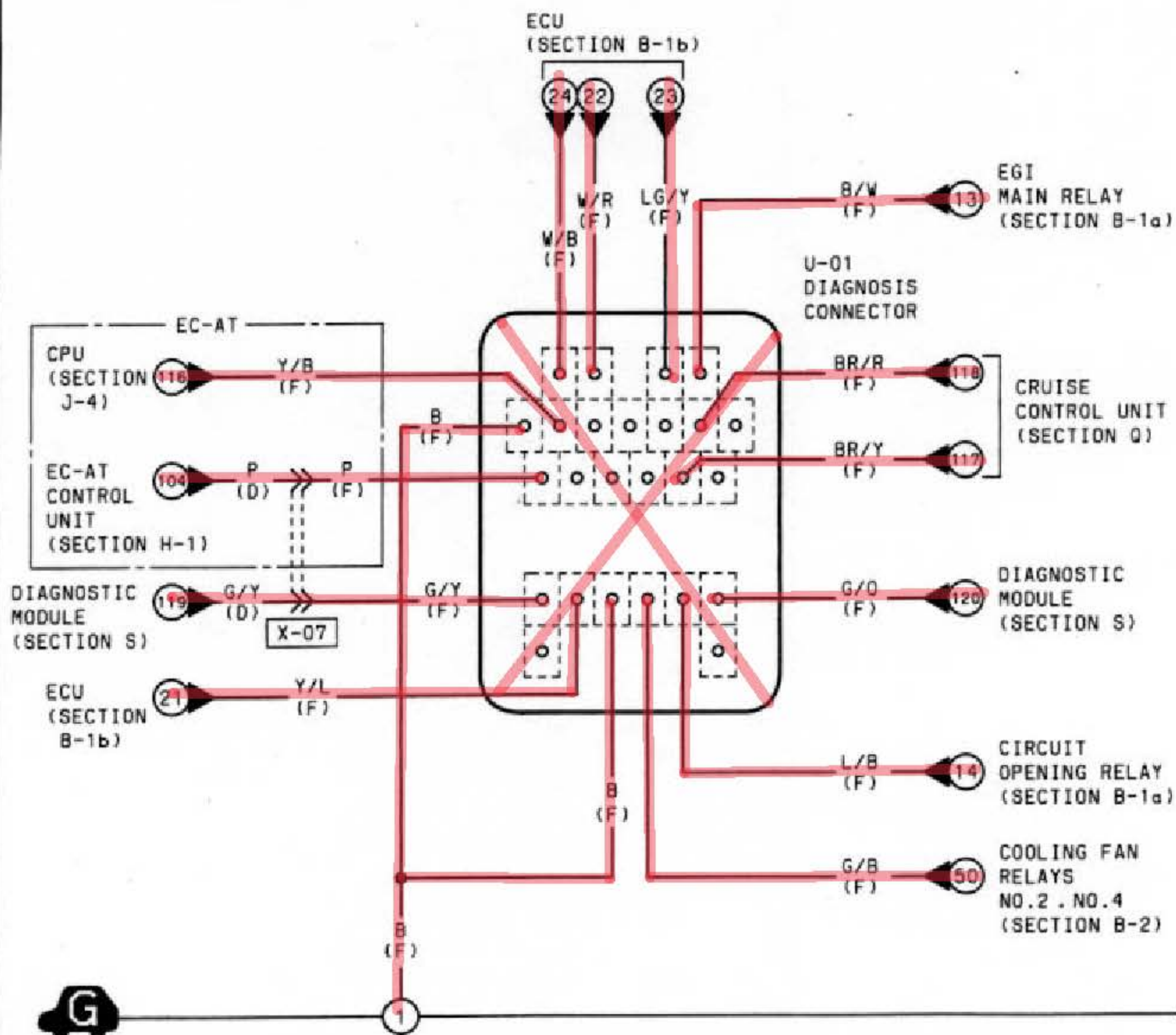
DIAGNOSTIC
MODULE
S-01

(D)-(AB)
S-07

F3-04
AIR BAG
MODULE

X-15
(D)-(I)
(BLUE)

U ■ DIAGNOSIS CONNECTOR



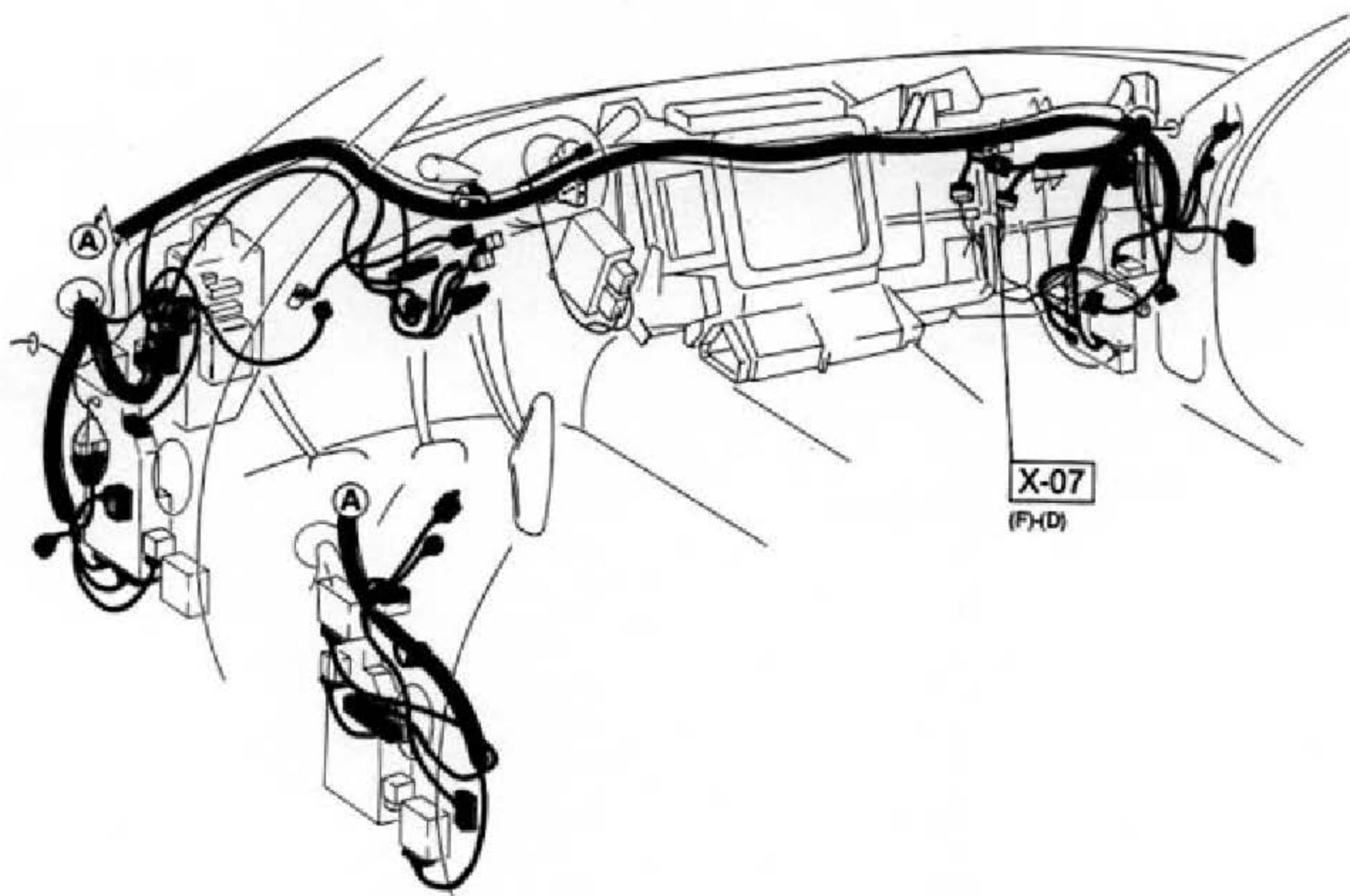
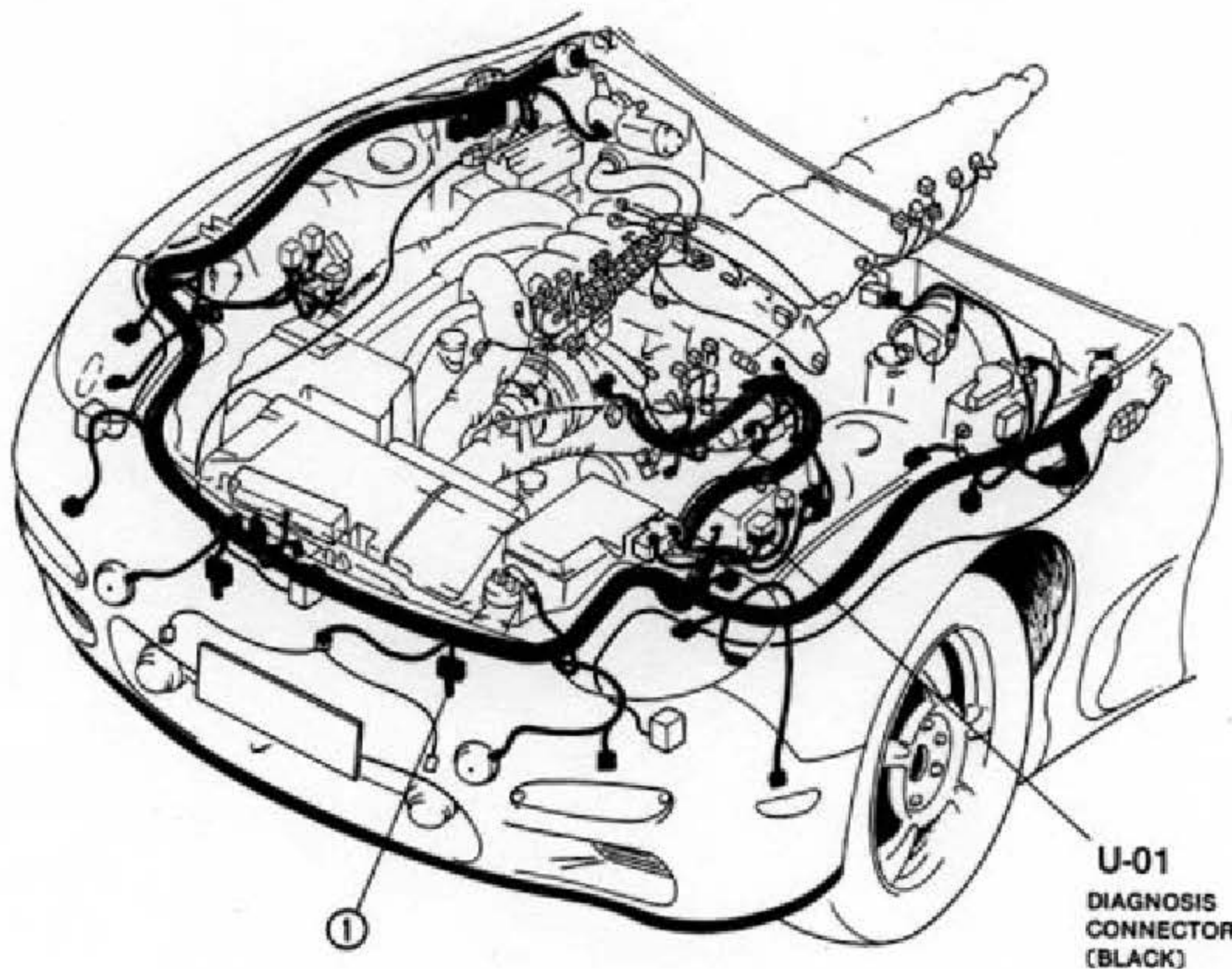
U-01 DIAGNOSIS CONNECTOR (F)

FEN	MEN	TEN	+B
GND	FAT	FAC	FSC
TAT	TAC	TSC	
FAB	IG-	GND	TFA
			F/P
			TAB

W/B	W/R	LG/Y	B/W
B	(Y/B)	*	*
*	(P)	*	*
G/Y	Y/L	B	G/B
*			*

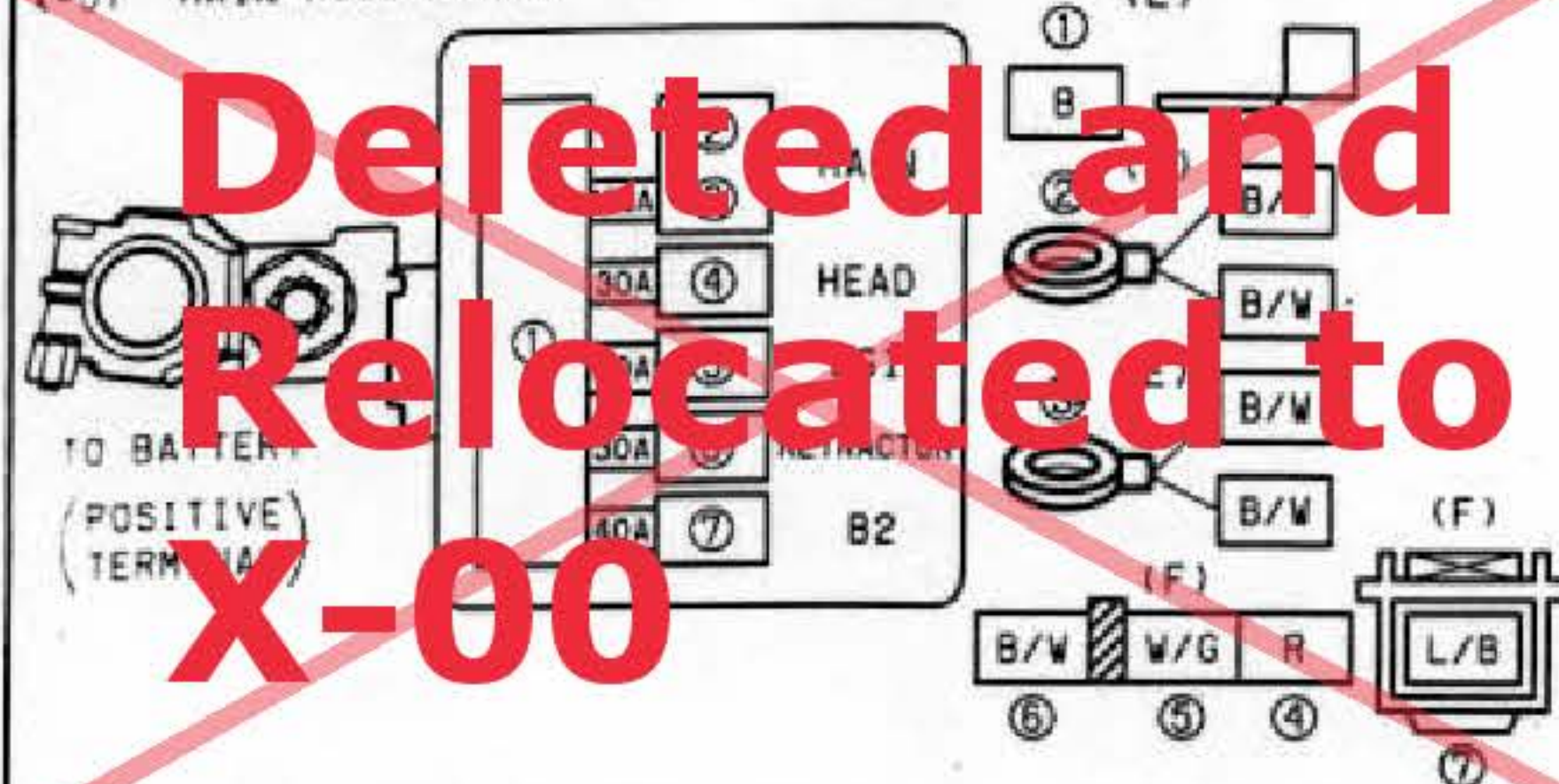
NOTES: THIS IS THE CONNECTOR AS SEEN FROM THE TERMINAL SIDE.
()...EC-AT

U

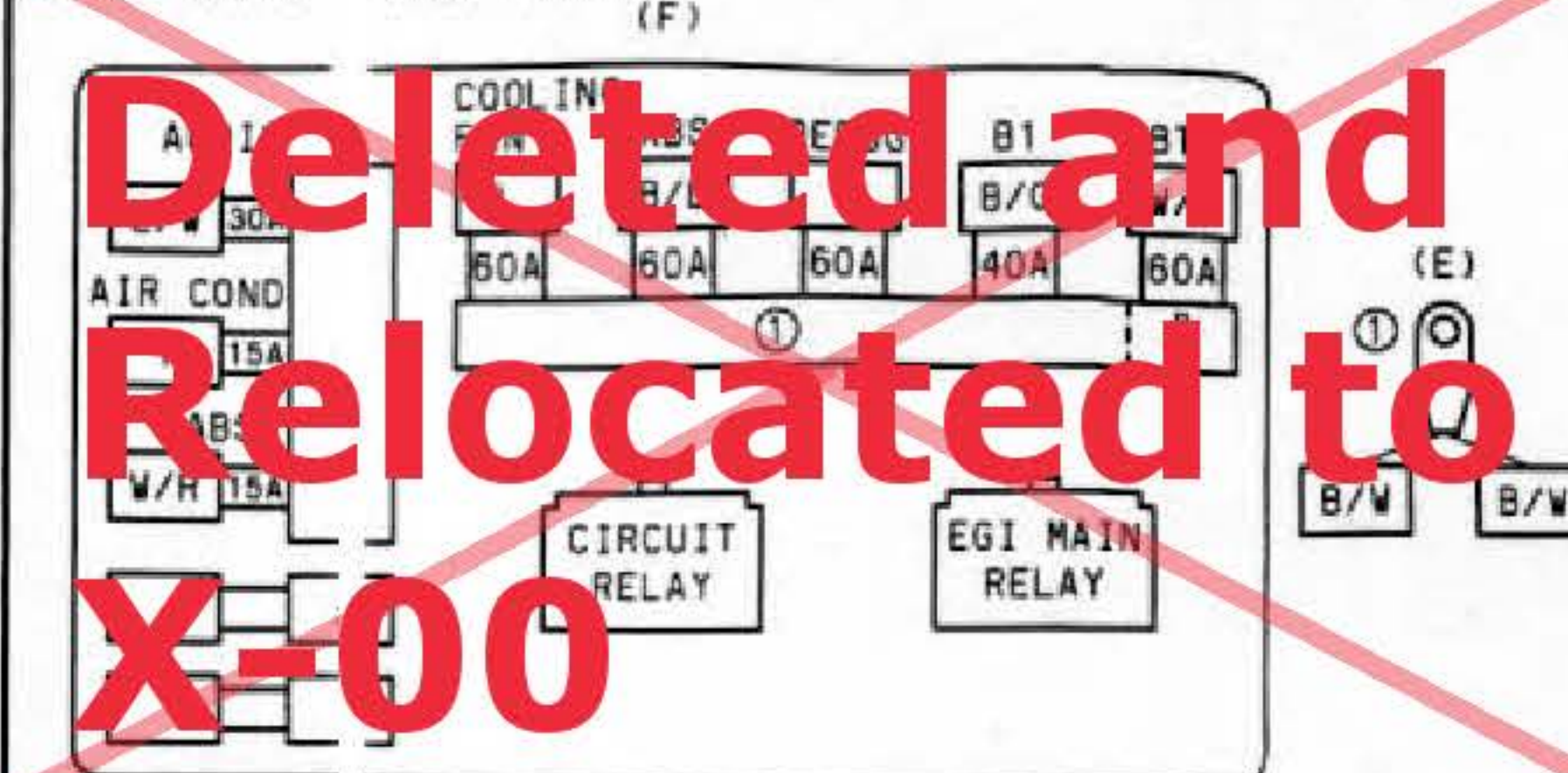


X-1 ■ COMMON CONNECTOR LIST

X-01 MAIN FUSE BLOCK



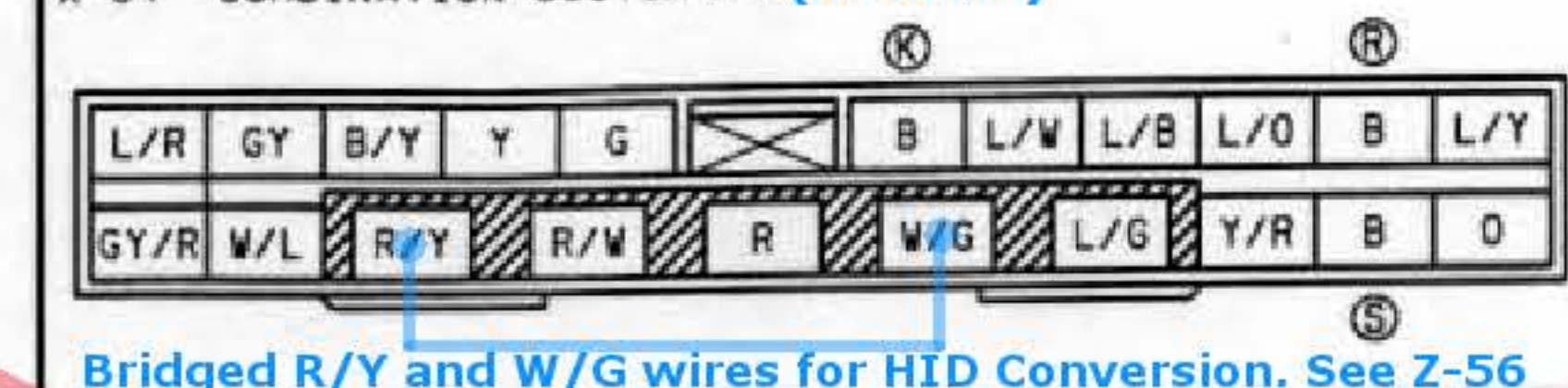
X-02 RELAY FUSE BLOCK



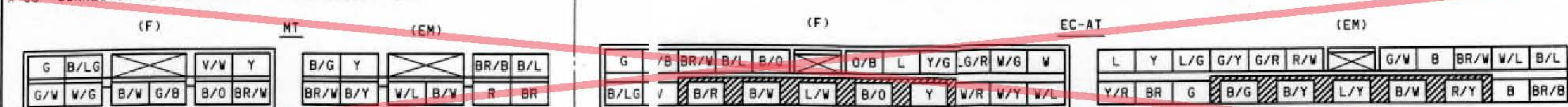
X-03 IGNITION SWITCH (F)



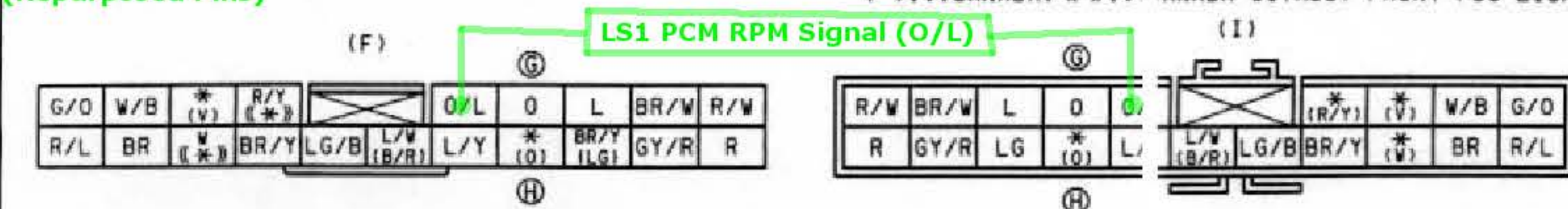
X-04 COMBINATION SWITCH (F) (Modified)



X-05 CONNECTOR BETWEEN FRONT (F) & EMISSION (EM)



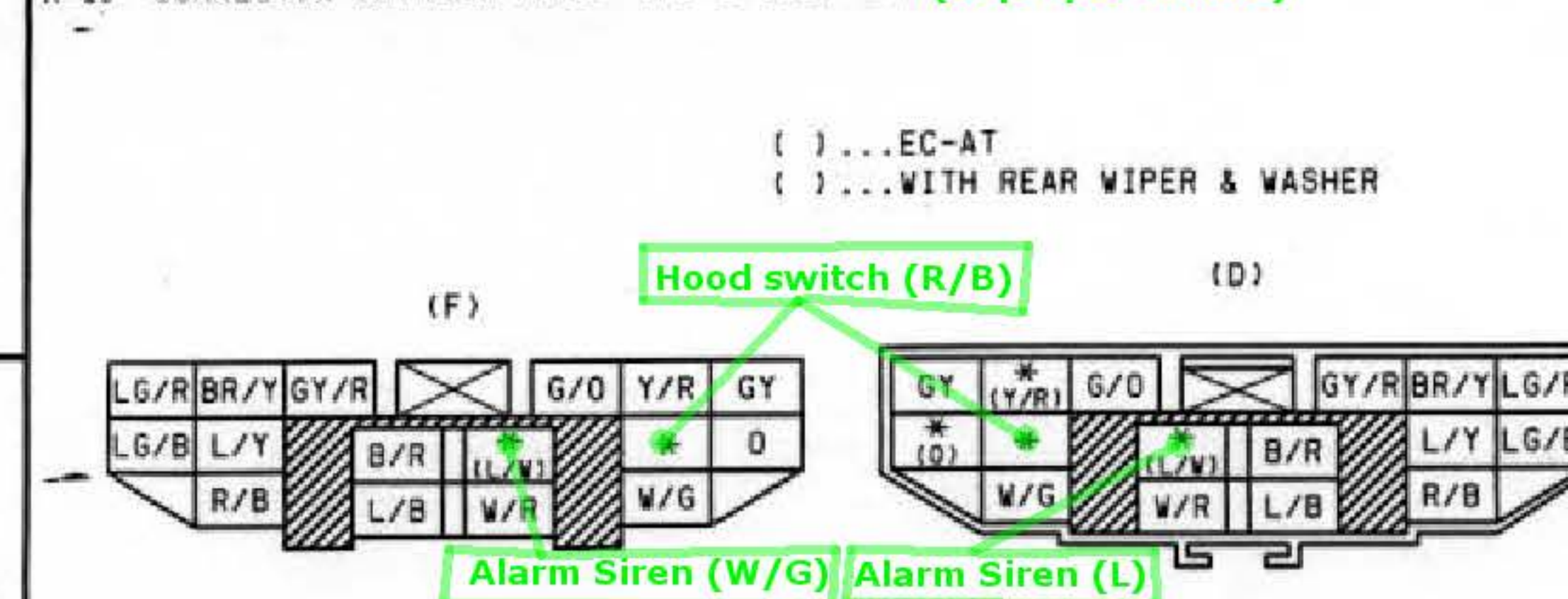
X-06 CONNECTOR BETWEEN FRONT (F) & INSTRUMENT PANEL (I) ()...EC-AT, ()...CANADA. ()...CANADA WITHOUT FRONT FOG LIGHT



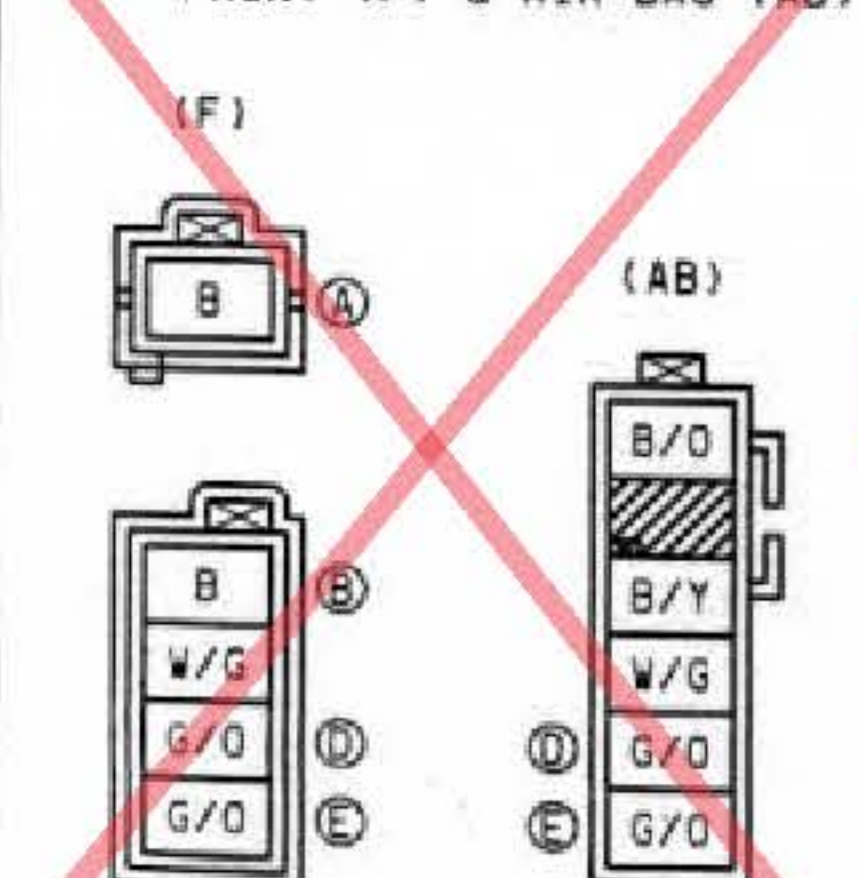
X-07 CONNECTOR BETWEEN FRONT (F) & DASH (D)



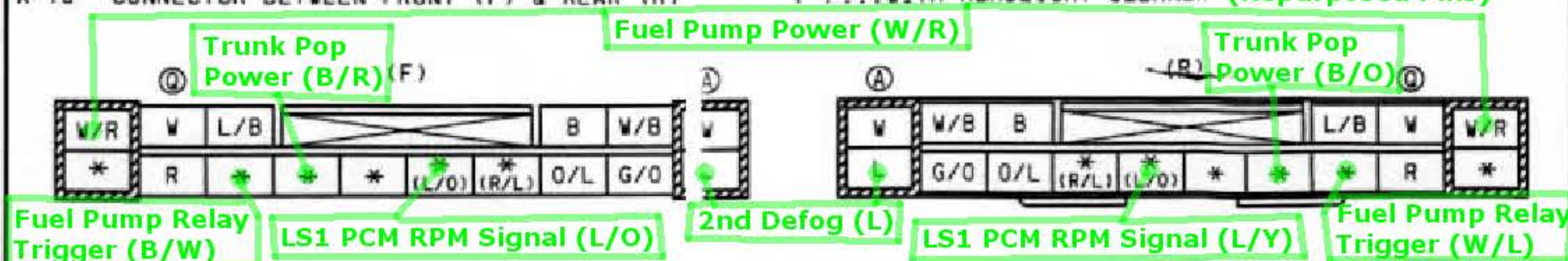
X-08 CONNECTOR BETWEEN FRONT (F) & DASH (D) (Repurposed Pins)



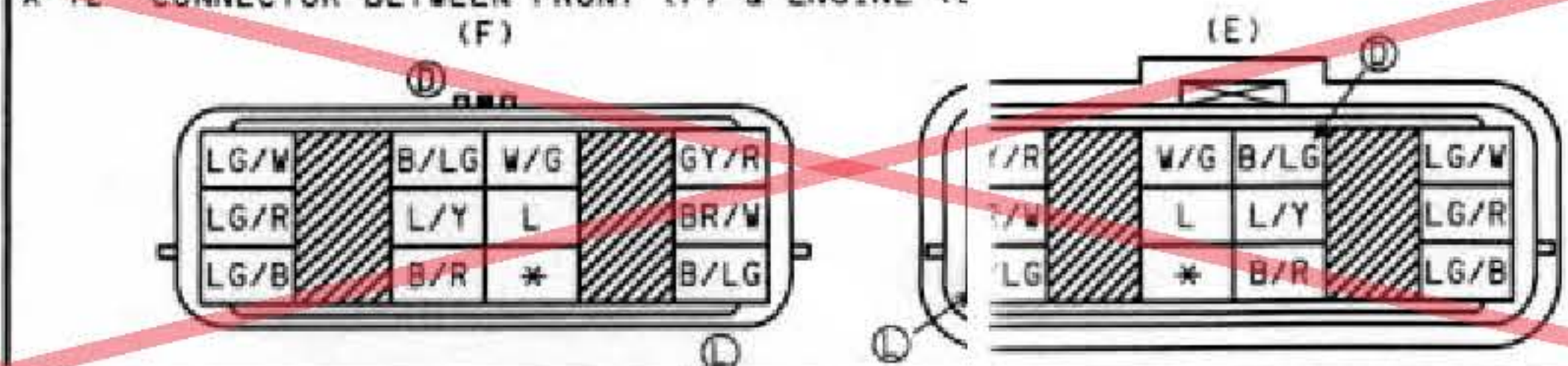
X-09 CONNECTOR BETWEEN FRONT (F) & AIR BAG (AB)



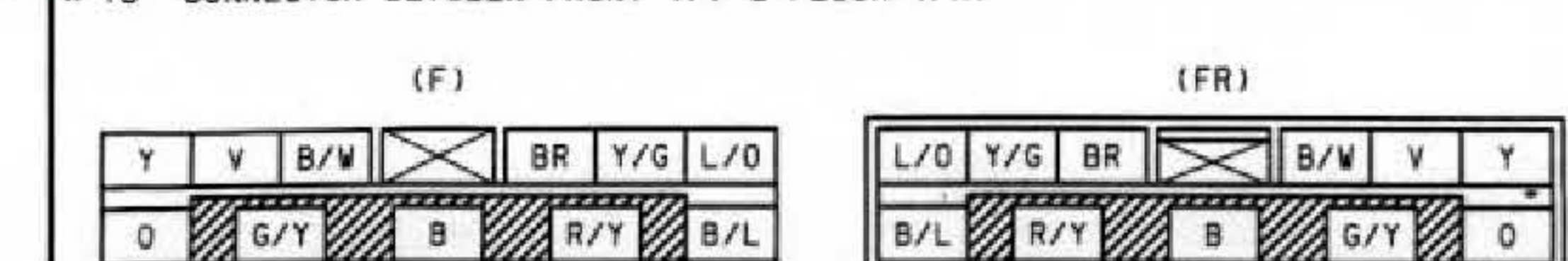
X-10 CONNECTOR BETWEEN FRONT (F) & REAR (R)



X-12 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)

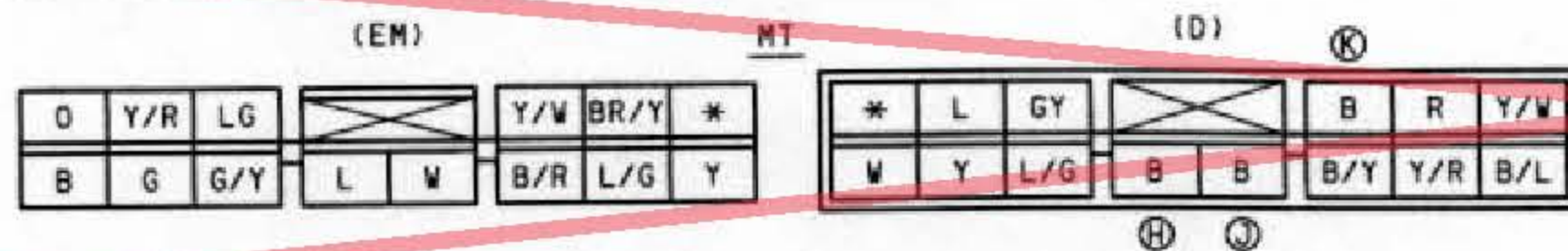


X-13 CONNECTOR BETWEEN FRONT (F) & FLOOR (FR)



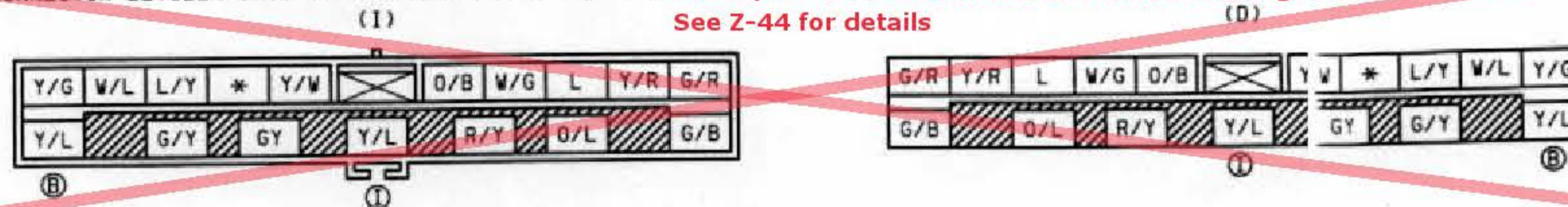
X-2 ■ COMMON CONNECTOR LIST

X-14 CONNECTOR BETWEEN EMISSION (EM) & DASH (D)

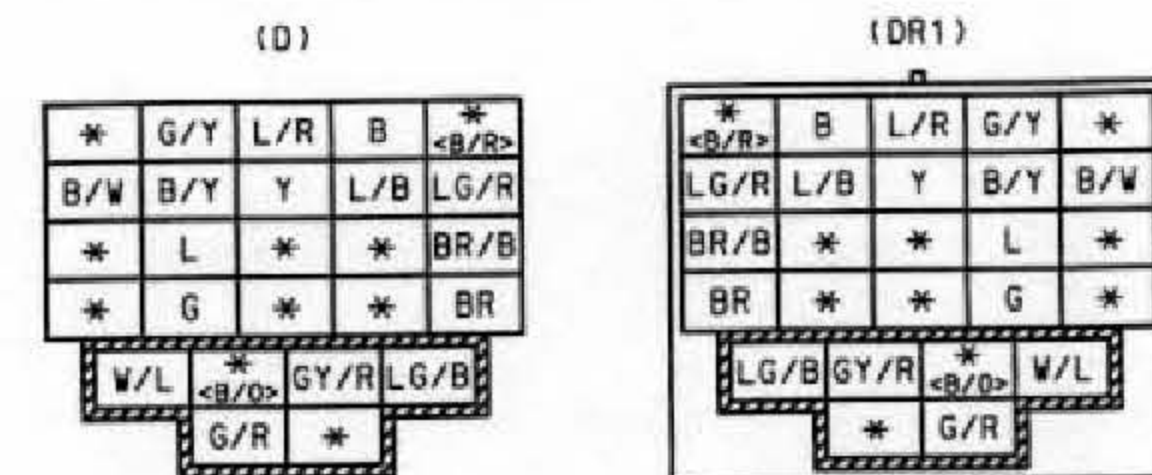


X-15 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & DASH (D) Some pins were moved to X-17 before deleting X-15

See Z-44 for details



X-20 CONNECTOR BETWEEN DASH (D) & DOOR NO.1 (DR1)

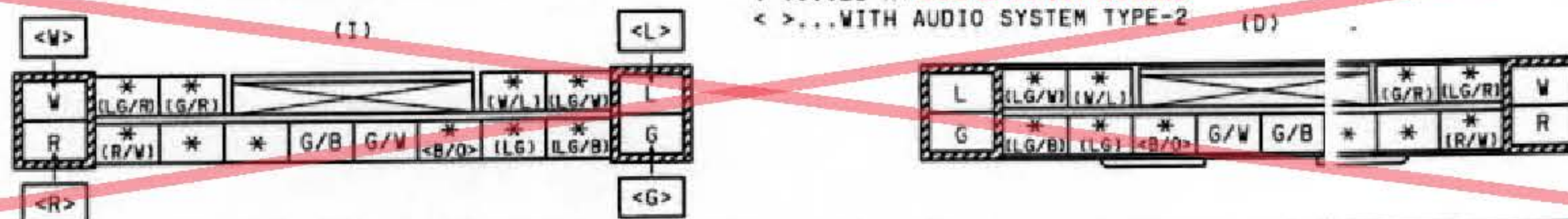


< >...WITH AUDIO SYSTEM TYPE-2

X-16 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & DASH (D) Some pins were moved to X-17 before deleting X-16

(I)...EC-AT See Z-46 for details

< >...WITH AUDIO SYSTEM TYPE-2



X-17 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & DASH (D) (Repurposed Pins)

RH Turn Signal (G/W)

LH Turn Signal (G/B)

(I)...EC-AT
< >...WITH AUDIO SYSTEM TYPE-2

LH Turn Signal (G/B)

RH Turn Signal (G/W)

Fuel Level (L)

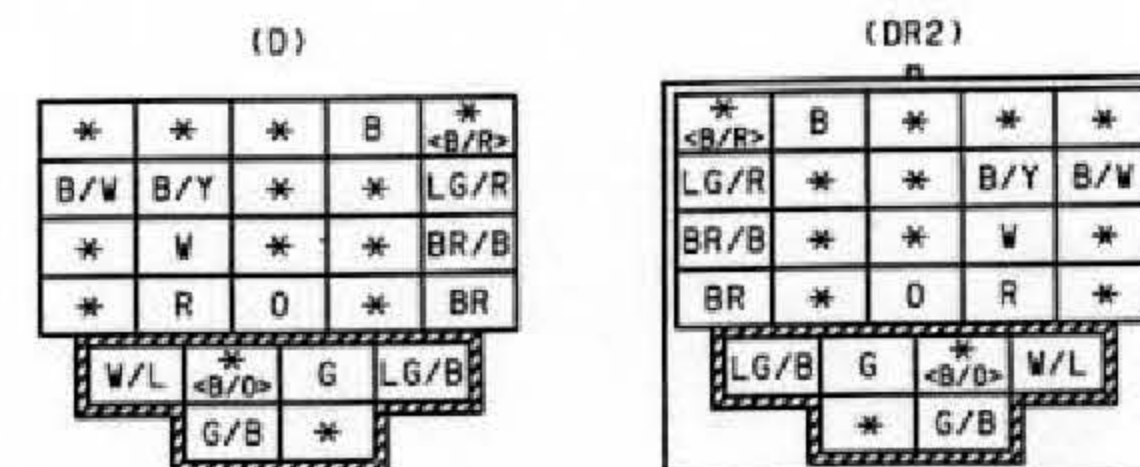
Rev Lights (L)

AC Request (V)

Rev Lights (R)

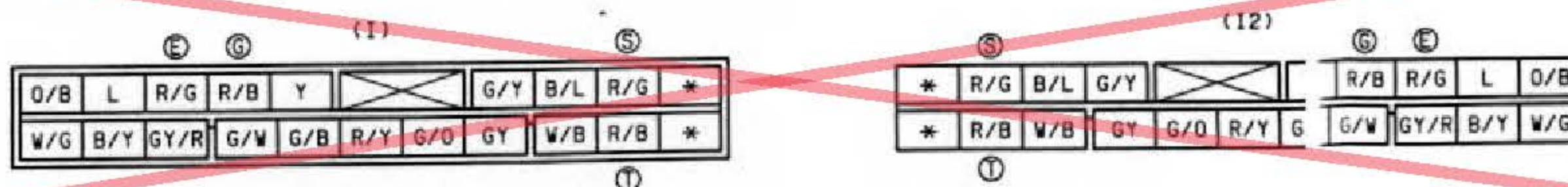
Fuel Level (W/G)

X-21 CONNECTOR BETWEEN DASH (D) & DOOR NO.2 (DR2)



< >...WITH AUDIO SYSTEM TYPE-2

X-18 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & INSTRUMENT PANEL NO.2 (I2)



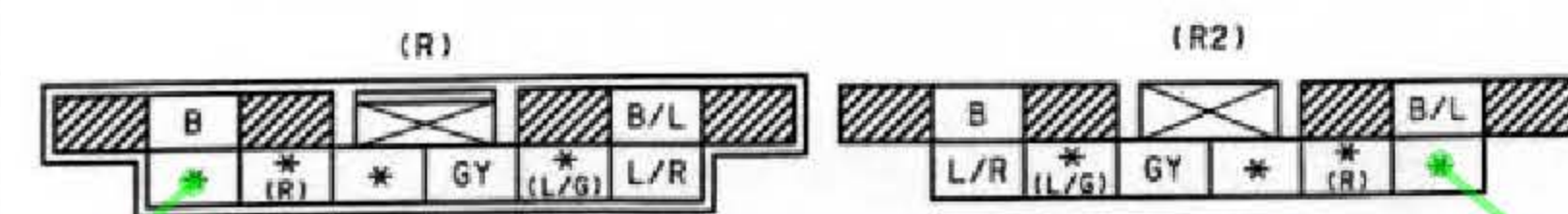
X-19 CONNECTOR BETWEEN DASH (D) & REAR (R) (Repurposed Pins)

< >...WITH AUDIO SYSTEM TYPE-2
(I)...WITH HEADLIGHT CLEANER



Trunk Pop Relay Trigger (Y/G)

X-22 CONNECTOR BETWEEN REAR (R) & REAR NO.2 (R2) (Repurposed Pins)



12V Switched from rear relay routed through X-22 to dome light

X-23 CONNECTOR BETWEEN REAR (R) & FLOOR (FR) (Repurposed Pins)

Rear 12v relay trigger (B/Y)

12V Switched from rear relay (B/W)

Rear 12v relay trigger (B/Y)

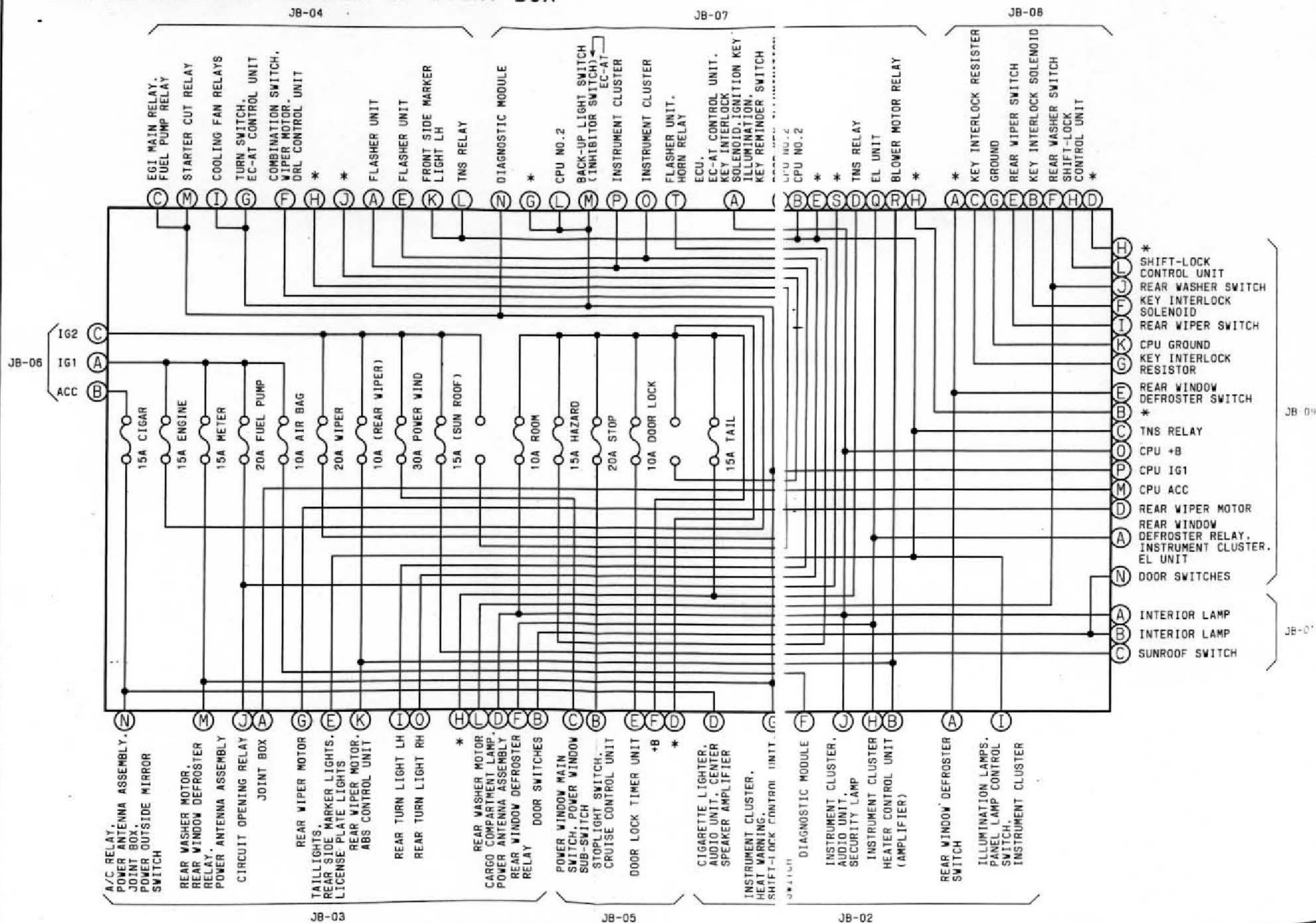
12V Switched from rear relay (B/R)



X-24 CONNECTOR BETWEEN REAR (R) & FUEL PUMP (FP)

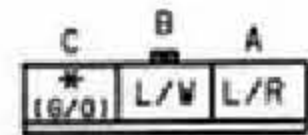


INTERCONNECTING DIAGRAM OF JOINT BOX



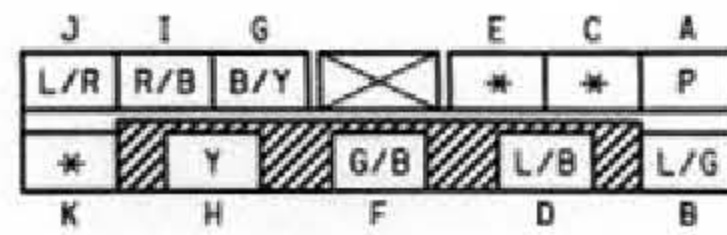
JB ■ JOINT BOX

JB-01 INTERIOR LAMP HARNESS (IN)



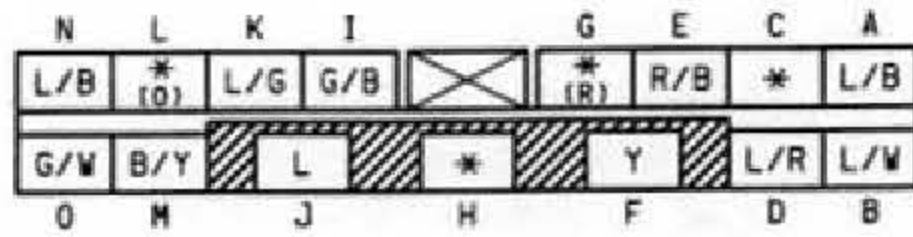
()...WITH SLIDING SUNROOF

JB-02 INSTRUMENT PANEL HARNESS (I)

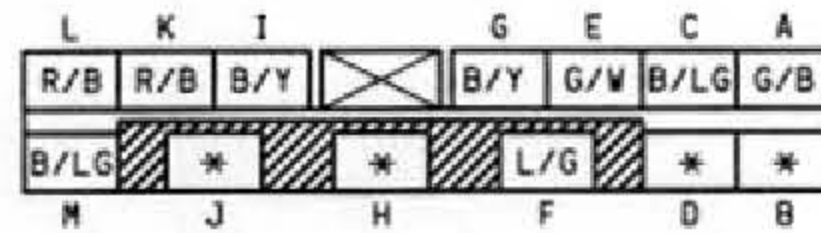


JB-03 REAR HARNESS (R)

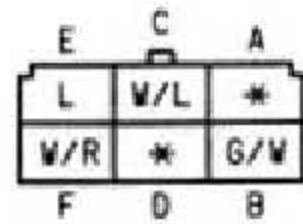
()...WITH REAR WIPER & WASHER



JB-04 FRONT HARNESS (F)



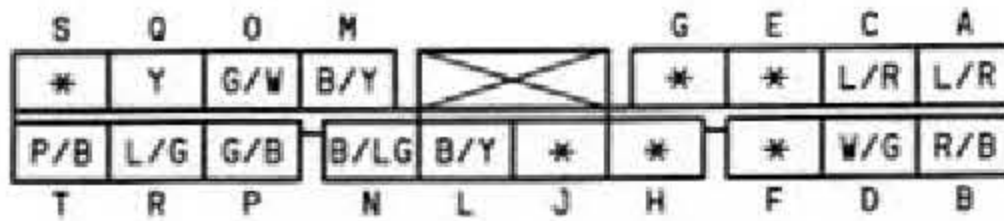
JB-05 DASH HARNESS (D)



JB-06 FRONT HARNESS (F)

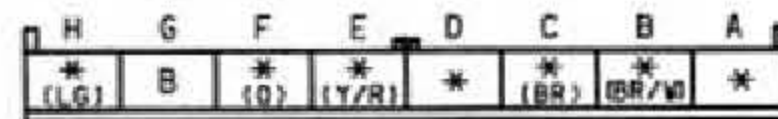


JB-07 DASH HARNESS (D)

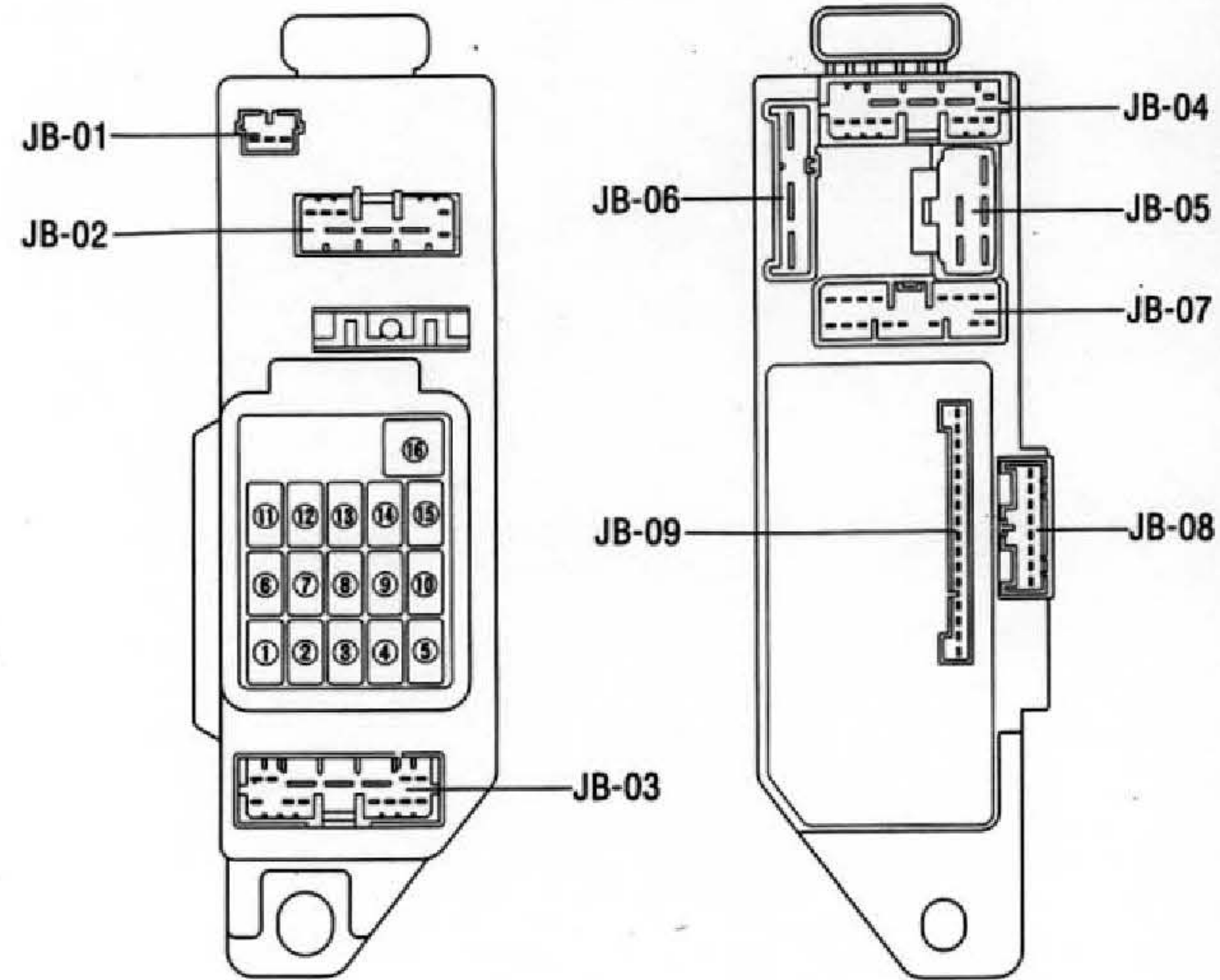
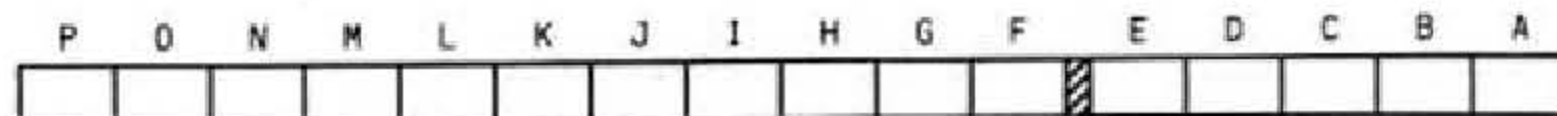


JB-08 DASH HARNESS (D)

()...EC-AT
()...WITH REAR WIPER & WASHER

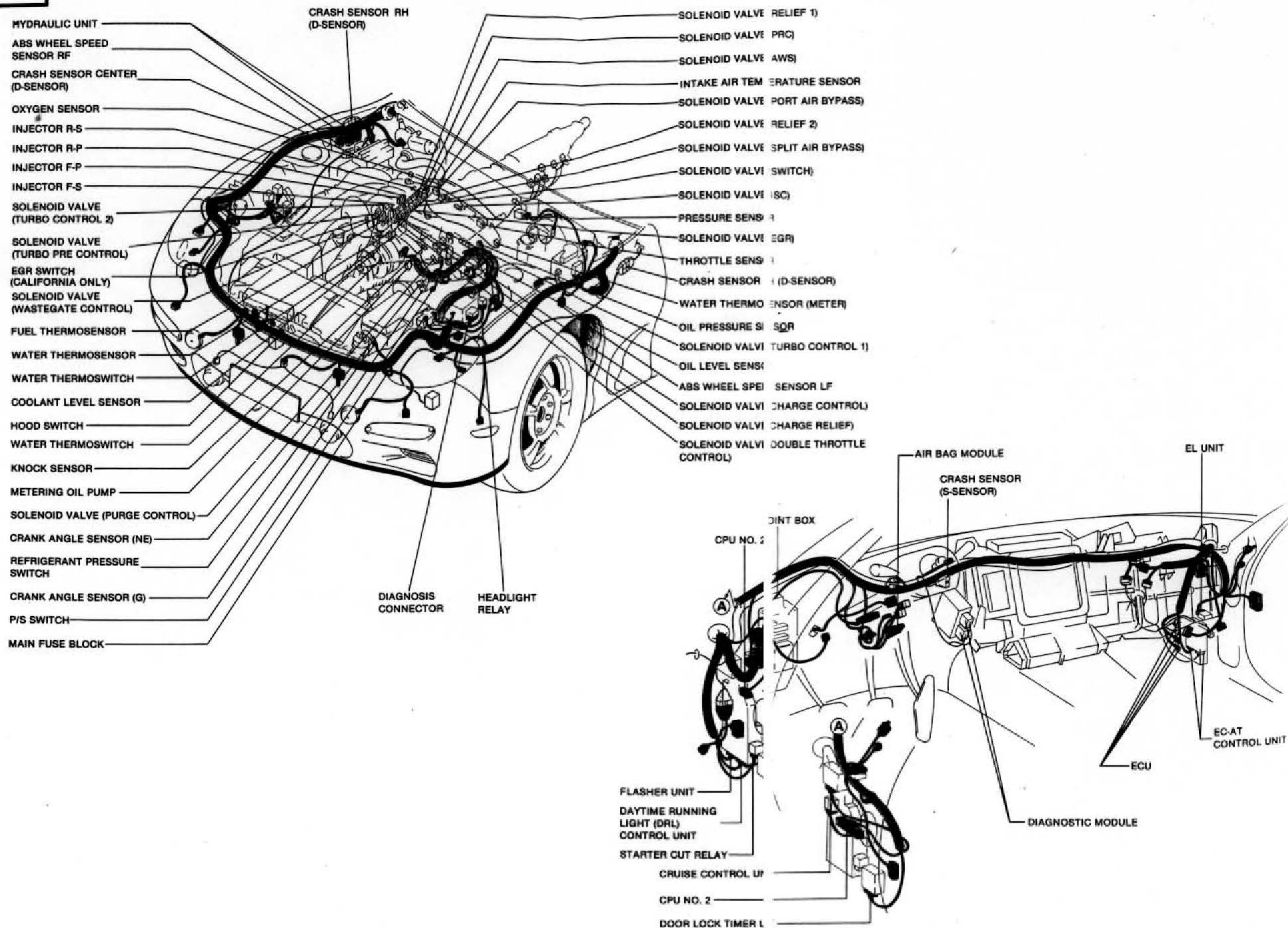


JB-09 CPU NO.1 (IN THE JOINT BOX)

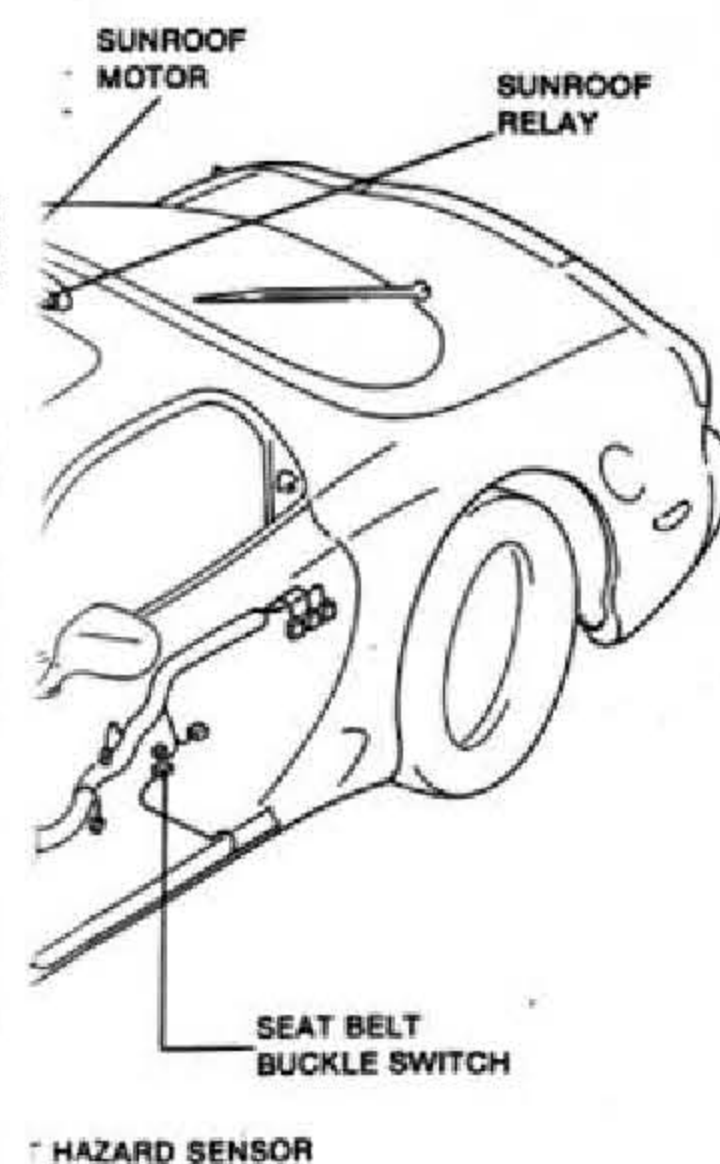
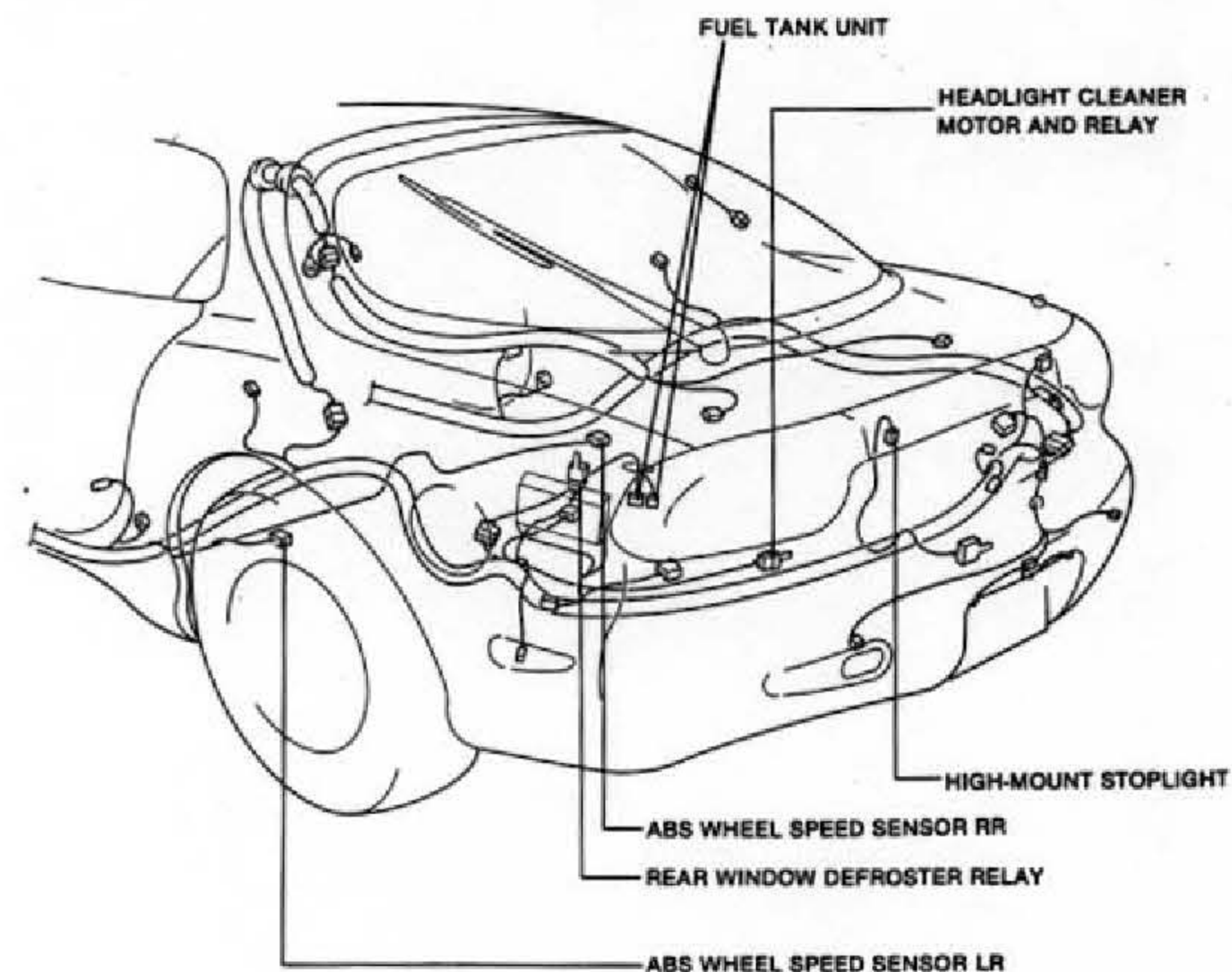
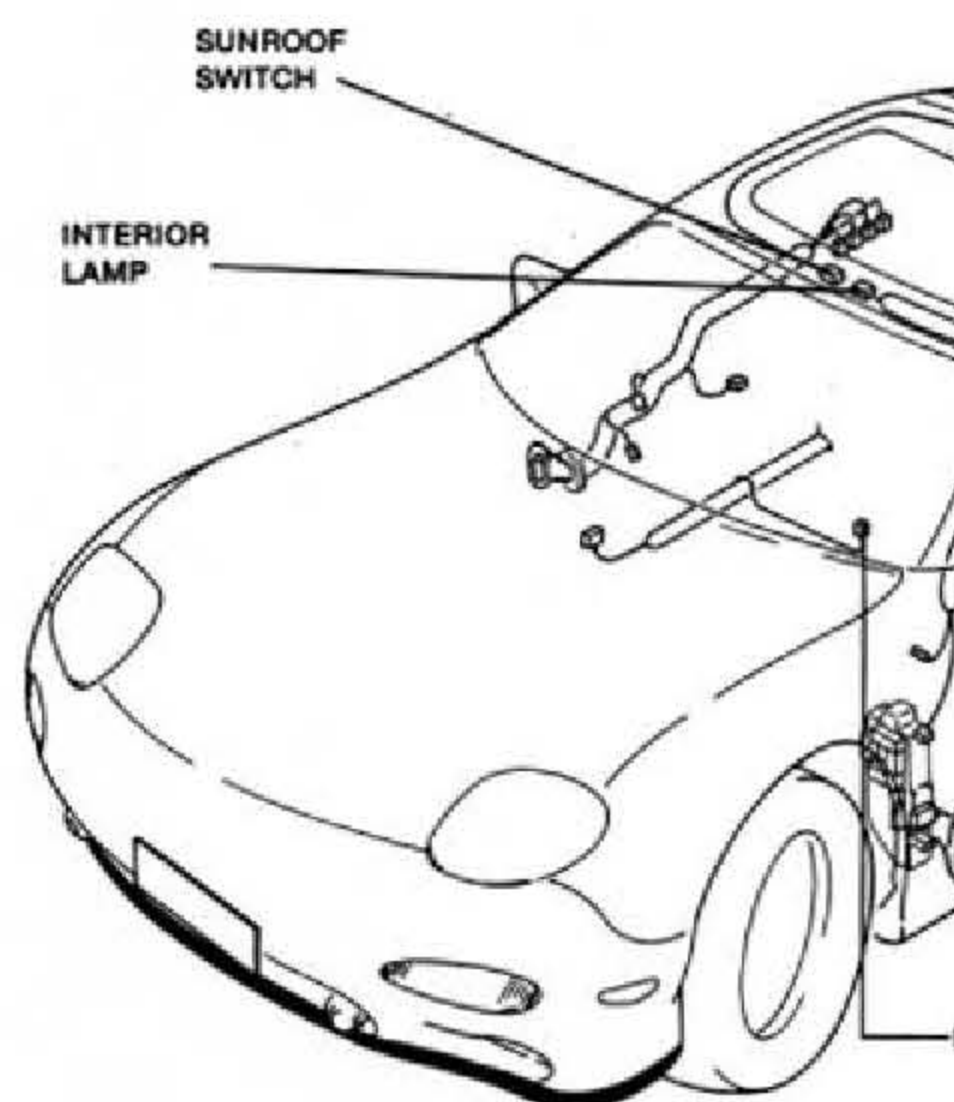
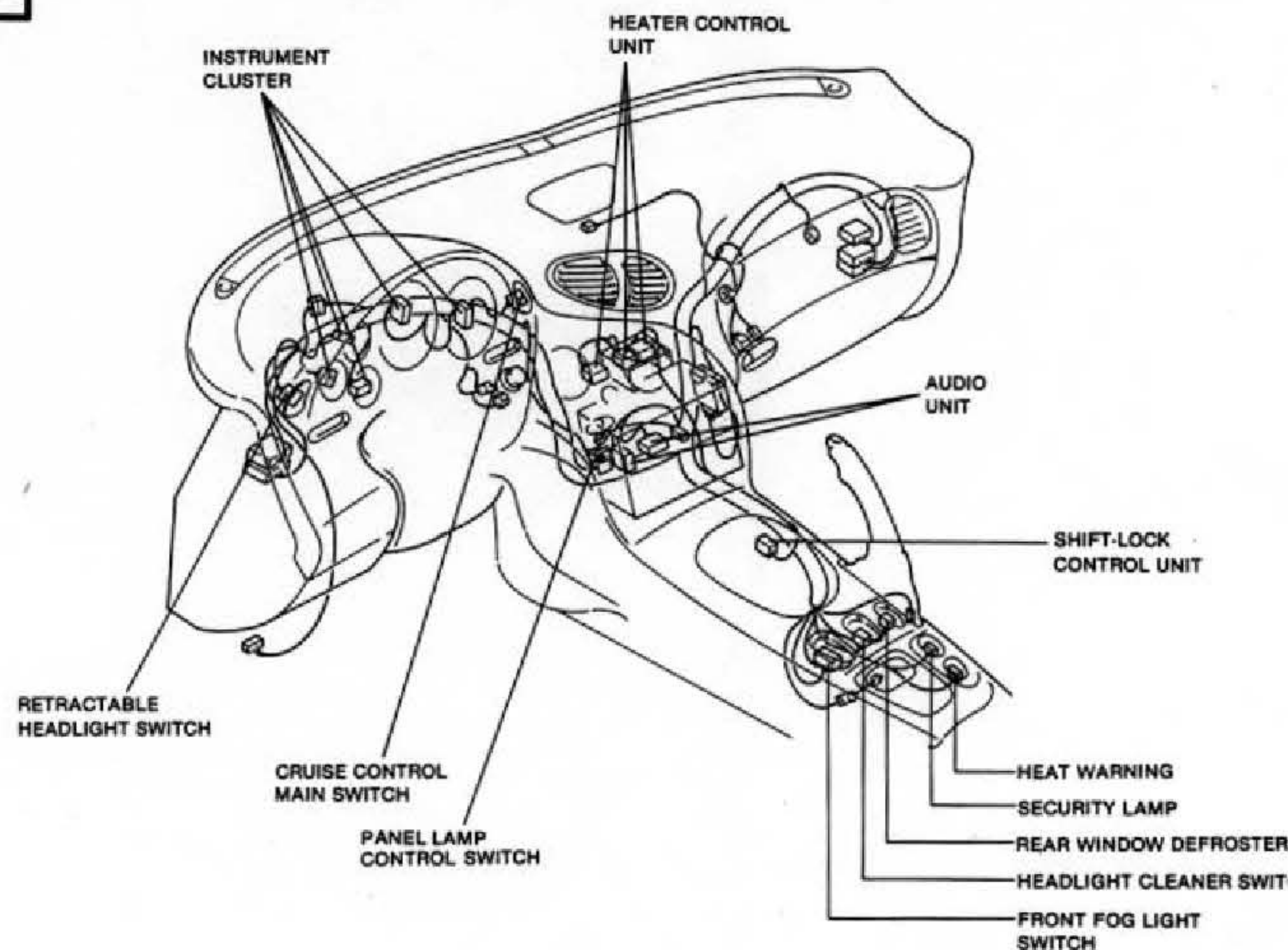


No.	CIRCUIT NAME	FUSE	COLOR CODE	No.	CIRCUIT NAME	FUSE	COLOR CODE
①	(REAR WIPER)	10A	R	⑩	METER	15A	L
②	HAZARD	15A	L	⑪	WIPER	20A	Y
③	ROOM	10A	R	⑫	STOP	20A	Y
④	ENGINE	15A	L	⑬	-	-	-
⑤	CIGAR	15A	L	⑭	(SUN ROOF)	15A	L
⑥	DOOR LOCK	10A	R	⑮	FUEL PUMP	20A	Y
⑦	TAIL	15A	L	⑯	AIR BAG	10A	R
⑧	POWER WIND	30A	G	⑰	-	-	-

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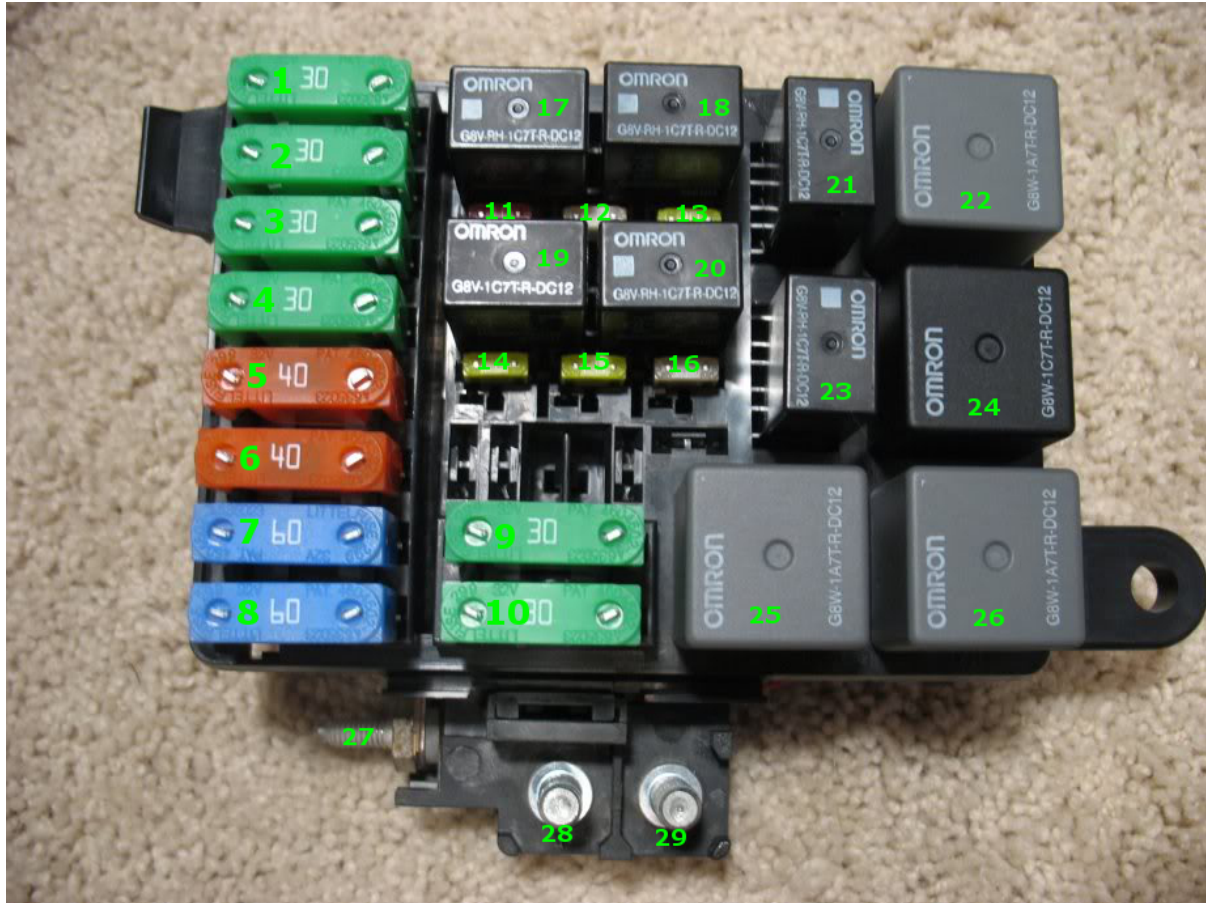
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X-00 – Engine Bay Fuse and Relay Box

Purpose: Factory fuse and relay boxes X-01 and X-02 were relocated to this fuse box. Additionally, supporting circuits were added.



1. RETRACTOR 30A Fuse. See Z-56 for details
2. HEAD 30A Fuse. See Z-56 for details
3. #1 30A Radiator Fan Fuse. See Samberg Dual Fan Control diagram for details
4. #2 30A Radiator Fan Fuse. See Samberg Dual Fan Control diagram for details
5. B1 40A Fuse. Relocated from X-02
6. B2 40A Fuse. Relocated from X-01
7. BTN 60A Fuse. Relocated from X-02
8. ABS 60A Fuse. Relocated from X-02. See Z-102 for details
9. Defog 30A #1 Fuse. See Rear Relay Control diagram for details
10. Defog 30A #2 Fuse. See Rear Relay Control diagram for details
11. Constant 5A 12V Fuse. See 12v Switched Relay and Constant 12V diagram for details
12. A/C 25A Fuse. See A/C diagram for details
13. Horn 20A Fuse. See Hella Horns diagram for details
14. Fuel Pump 20A Fuse. See Rear Relay Control diagram for details
15. ABS Fuse 15A. See Z-102 for details

16. 12V Switched 25A Fuse. See 12v Switched Relay and Constant 12V diagram for details
17. A/C Request Relay. See A/C diagram for details
18. A/C Compressor Relay. See A/C diagram for details.
19. Retractor Relay. See Z-56 for details
20. Headlight Relay. See Z-56 for details
21. Horn Relay. See Hella Horns diagram for details
22. Fan #1 Relay. See Samberg Dual Fan Control diagram for details
23. TNS Relay. See Z-60 for details
24. Fan Helper Relay. See Samberg Dual Fan Control diagram for details
25. 12V Switched Relay. See 12v Switched Relay and Constant 12V diagram for details
26. Fan #2 Relay. See Samberg Dual Fan Control diagram for details
27. MAIN 12V battery input to fuse box.
28. Aux output for Defog #1 fuse (#9). See Rear Relay Control diagram for details
29. Aux output for Defog #2 fuse (#10). See Rear Relay Control diagram for details

Part numbers (mouser.com)

Fuse Box:

Inner Holder – 12146281
Lower Cover – 12146286
Lid(a) – 12162365
Lid(b) – 12160765
Secondary Lock – 12077532
Secondary Lock – 12146283
Secondary Lock – 12146284

Terminals:

800 Series Terminals (for Maxi fuses) - 12110127-L
Relays Terminals - 12110844, 12129424
Mini Fuse Terminals – 12110646

Relays

Omron SPDT Micro = 653-G8V-RH-1C7TRDC12
Omron SPST Mini = 653-G8W1A7TRDC12
Omron SPDT Mini = 653-G8W1C7TRDC12

Fuses:

Maxi:

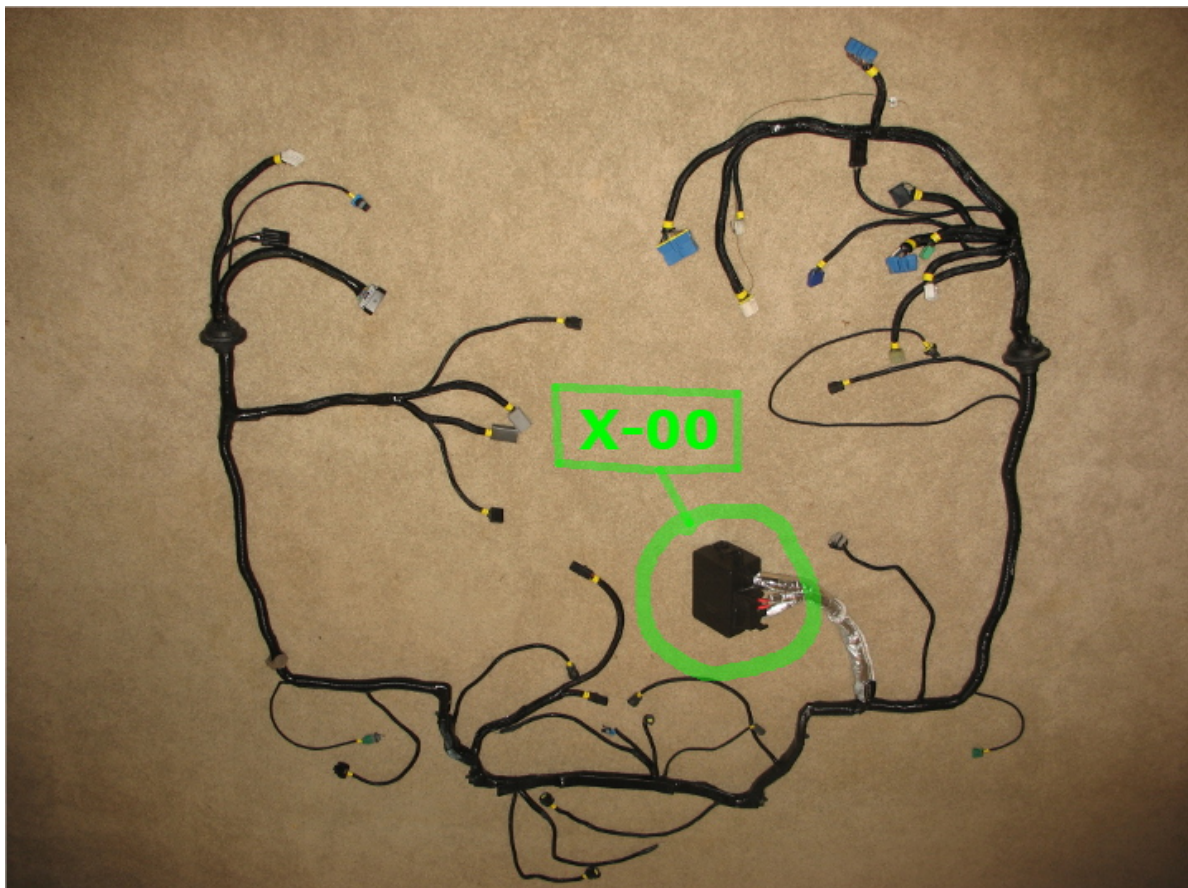
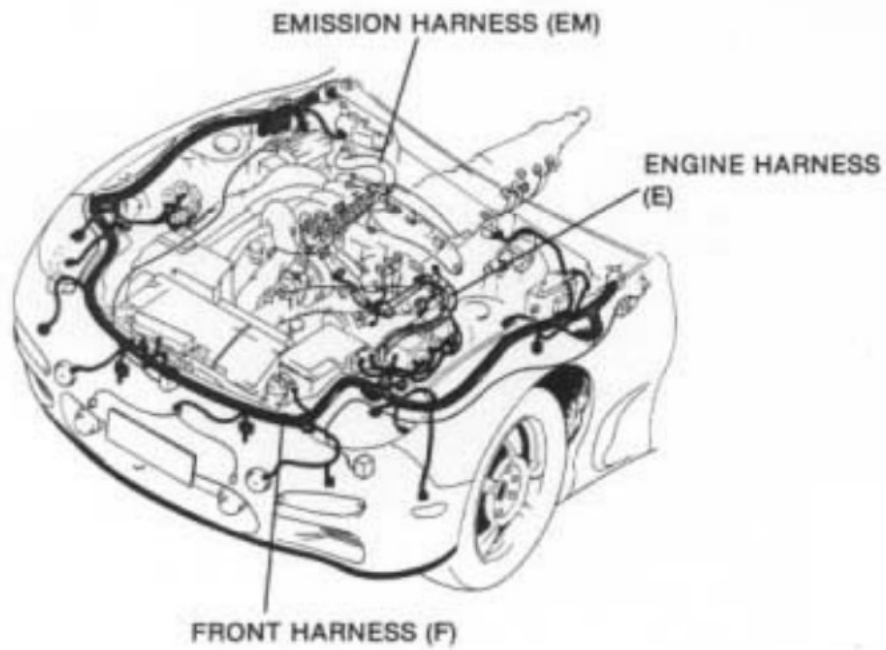
576-0299030.ZXNV - 30A
576-0299040.ZXNV - 40A
576-0299060.ZXNV - 60A

Mini:

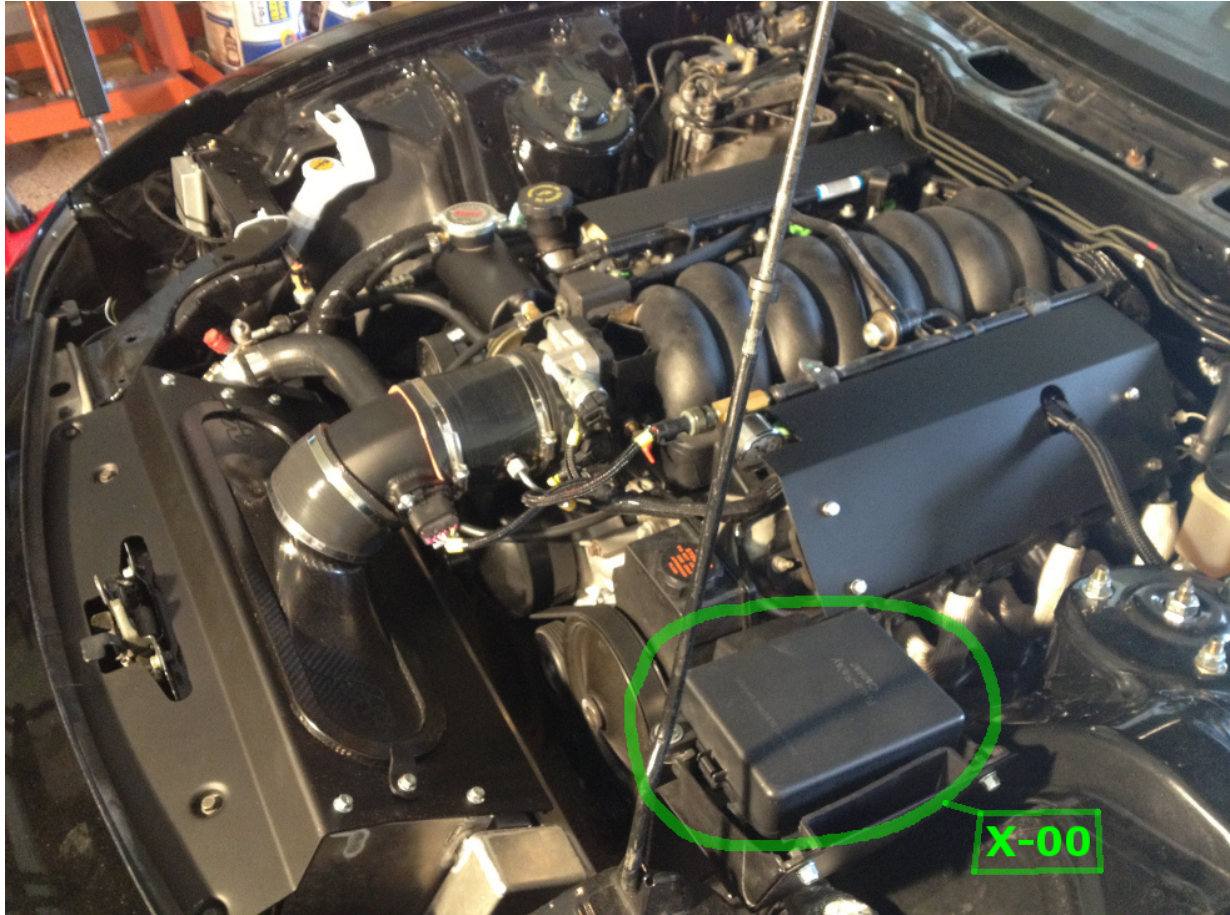
576-0297010.WXNV - 10A
576-0297015.WXNV - 15A
576-0297020.WXNV - 20A
576-0297025.WXNV - 25A
576-0297030.WXNV - 30A

Location:

X-00 is integrated into the RX7 Front harness

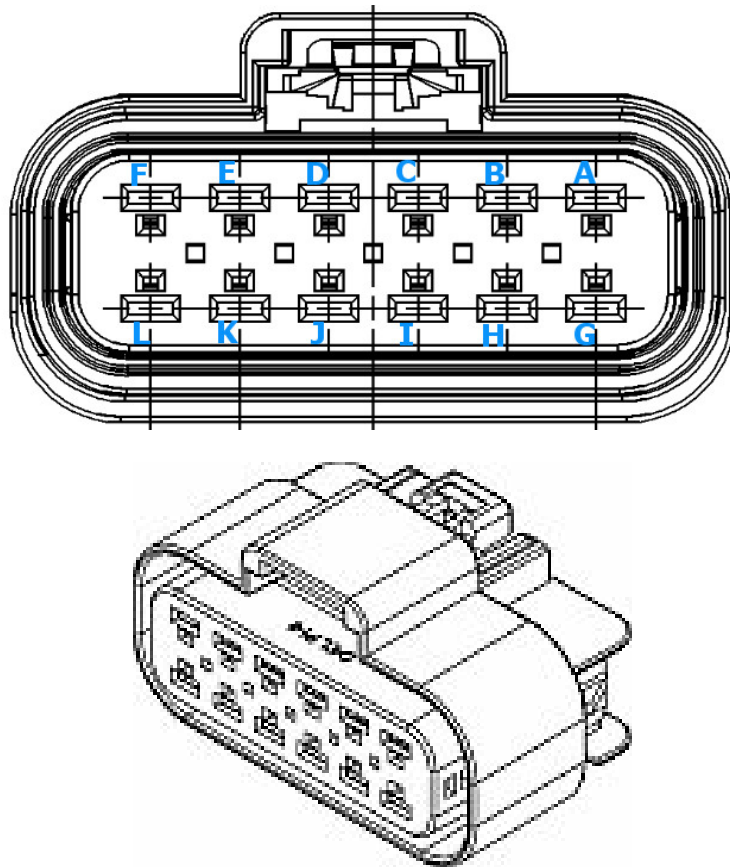


The actual fuse box is located above the driver's front tire in the engine bay.



X-25 – LS1 Harness to Front Harness Connector

Purpose: The fuse / relay box X-00 is located in the RX7 front harness. Power and control of the Fans, A/C, Starter, and Fuel Pump are passed from the front harness to the LS1 harness through this connector.



- A: (L) – AC Request from RX7 G-13 (Leads to A/C button). See A/C Diagram for details
- B: (Y) – Fan high speed control from LS1 PCM C2 #33. See Samberg Radiator Dual Fan Control diagram for details
- C: BLANK
- D: (L) – AC Request from LS1 PCM C1 # 17. See A/C Diagram for details
- E: (V) – Fan low speed control from LS1 PCM C1 #42. See Samberg Radiator Dual Fan Control diagram for details
- F: (R) - From RX7 Starting Circuit to LS1 Starter. See Z-24 for details
- G: (G) - 12v Switched for LS1 PCM. See 12V Switched relay and Constant 12v diagram for details.
- H: (L) – LS1 PCM A/C Control C1 #43. See A/C Diagram for details
- I: (V) – Fuel Pump Relay control from LS1 PCM C2 #9. See Rear Relay Control diagram for details.
- J: BLANK
- K: (Y) 12v Constant for LS1 PCM. See 12V Switched relay and Constant 12v diagram for details.
- L: (G) – LS1 A/C Compressor input and C2 #18. See A/C Diagram for details.

Part numbers (mouser.com)

Connector – 15326910

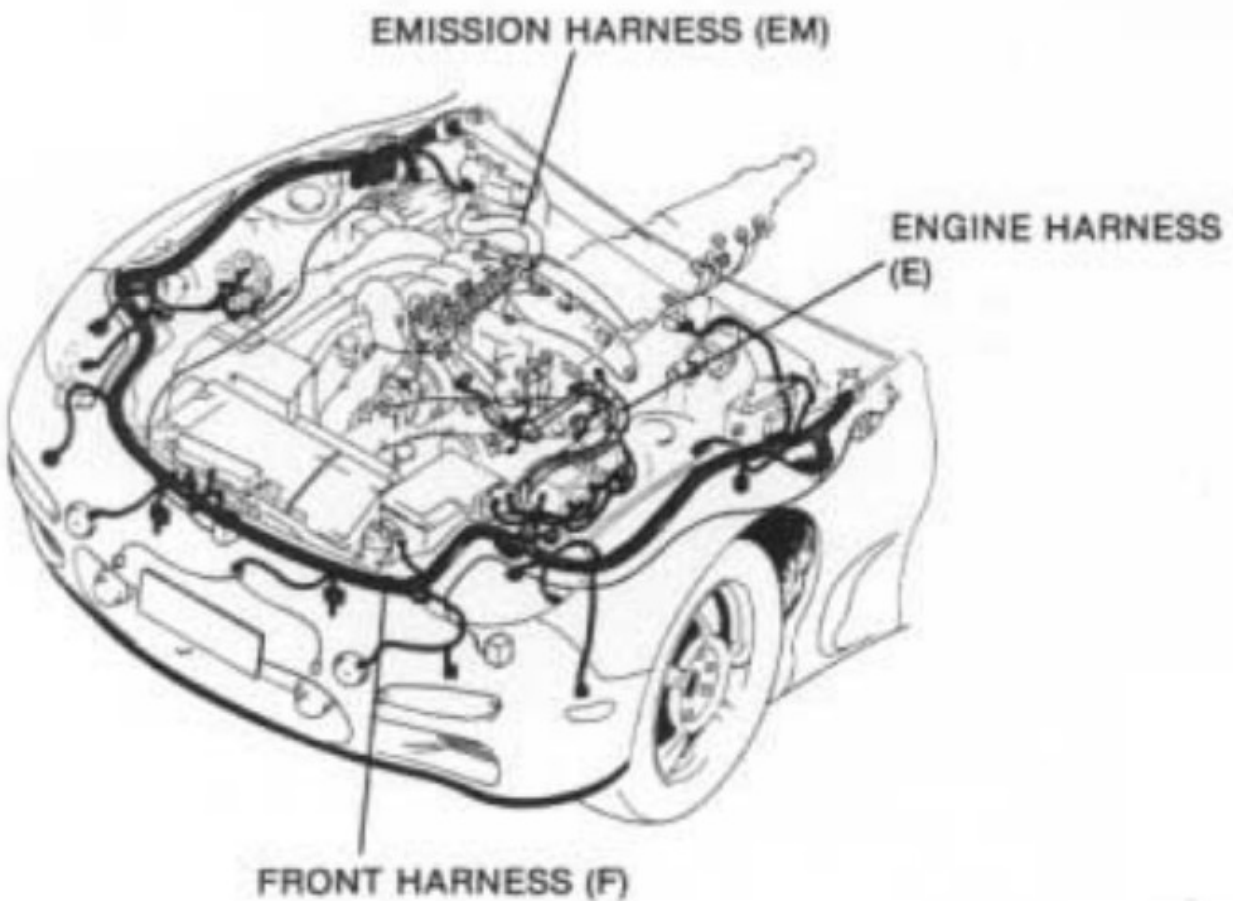
Terminals – 15304720

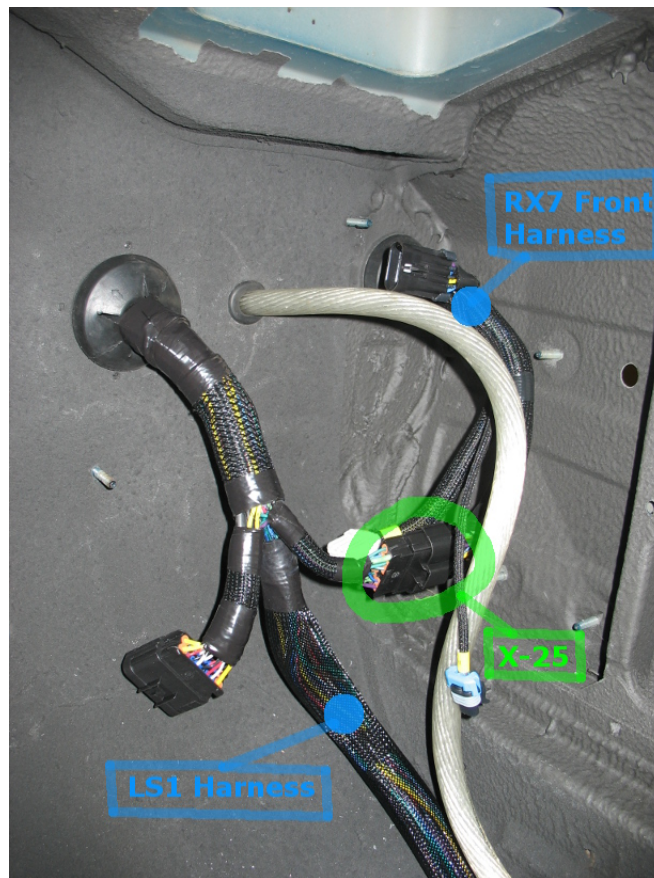
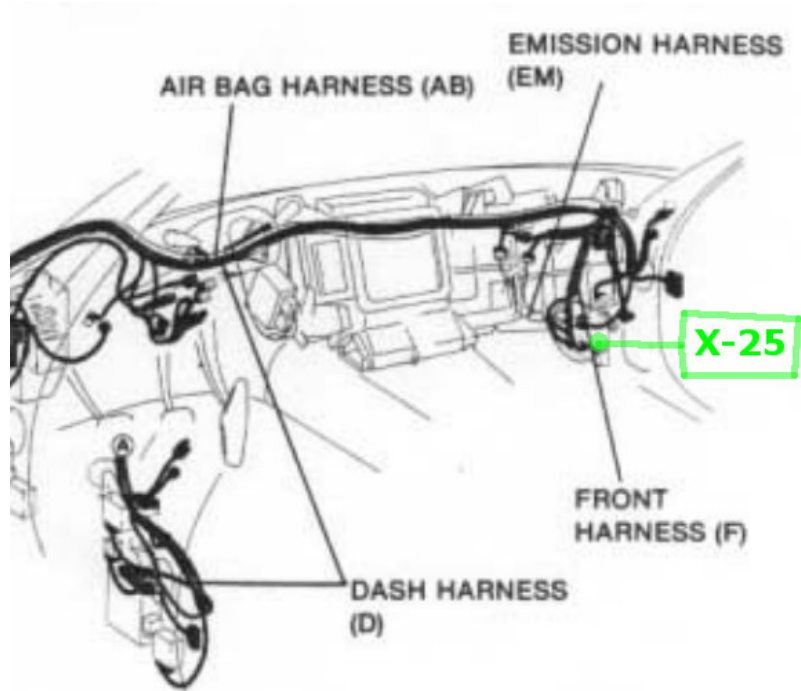
Mating Connector – 15326915

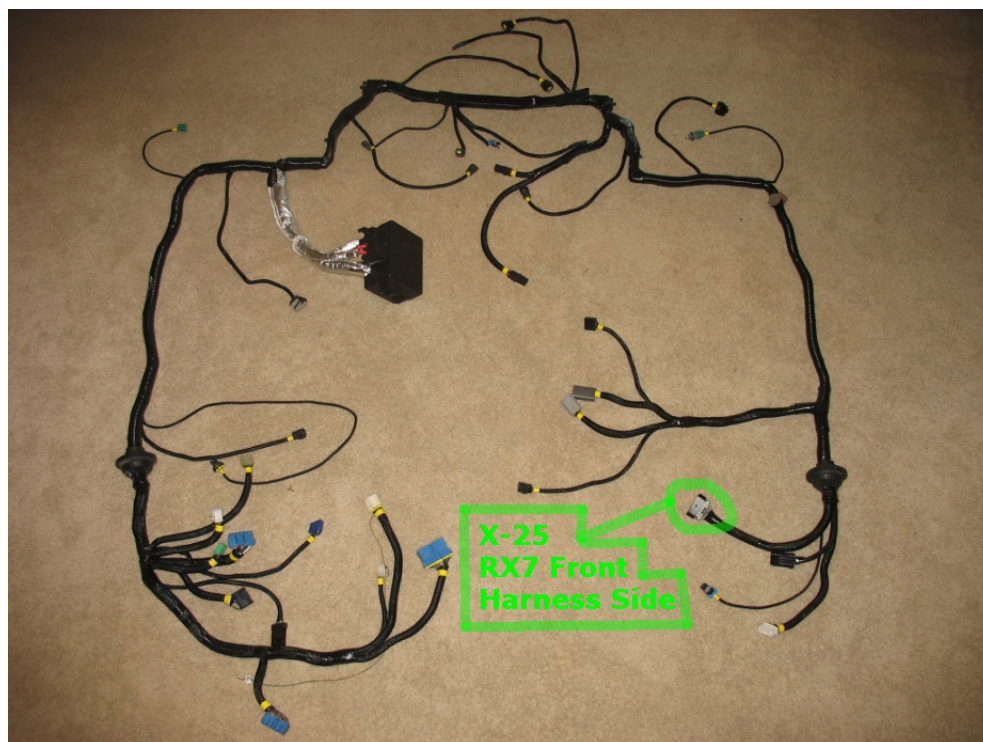
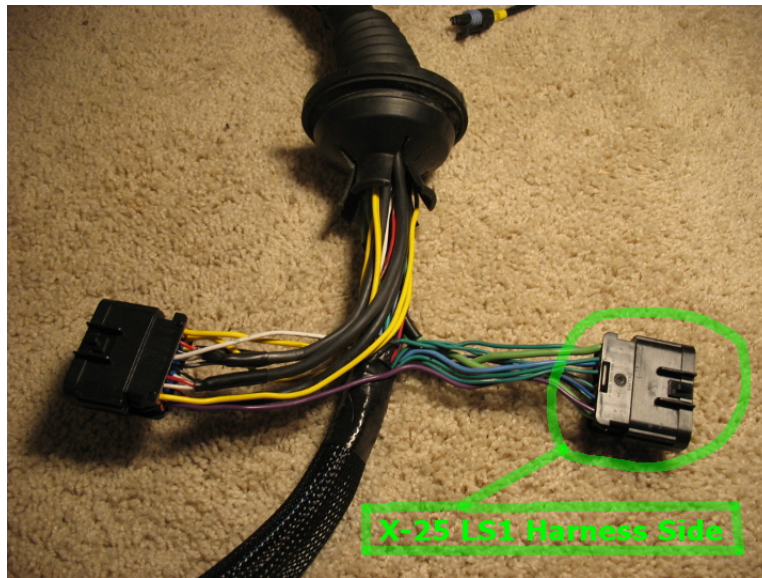
Terminals - 15304732

Location:

X-25 is integrated into the RX7 Front harness and connects to the LS1 harness on the cabin side of the firewall in the passenger kick panel area.

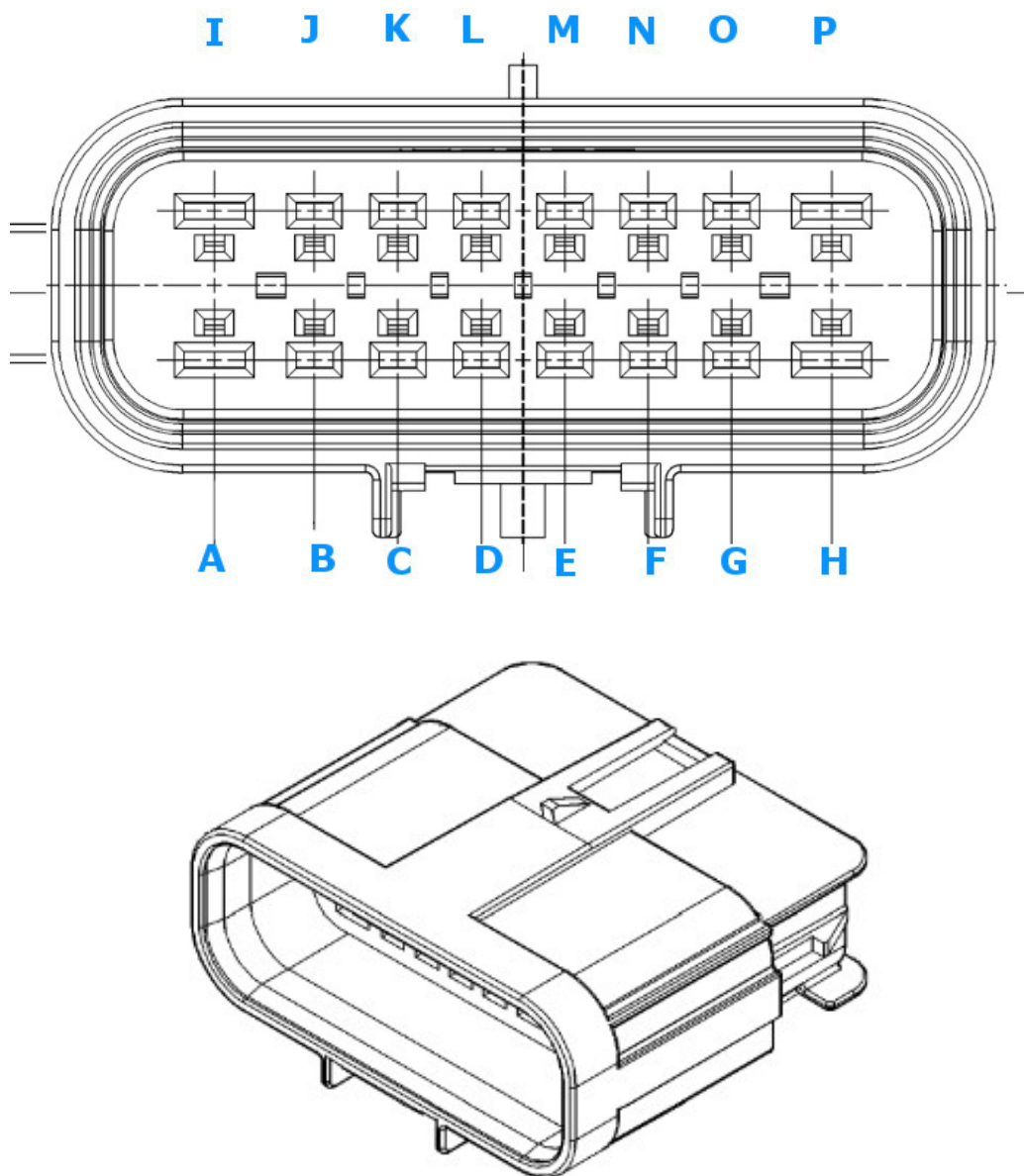






X-26 – LS1 Harness to RX7 Instrument Harness Connector

Purpose: This connection's primary purpose is to pass sensor signals from the speedhut gauge senders integrated into the LS1 engine harness to the instrument harness which leads to the gauges themselves. Namely, the Oil Pressure, Coolant Temp, IAT, and Fuel Pressure sensors. Other responsibilities include passing A/C Requests, Rev switch for backup lights, MIL Light, Tach signal, and 12v switched power.



A: (Y) – Reverse Light Switch from T56 Transmission. See Rev Lights diagram for details
B: (W) – Speedhut Fuel Pressure Gauge sender signal wire. Also see Z-05
C: (R) - Speedhut Fuel Pressure Gauge sender 5v wire. Also see Z-05
D: (B) - Speedhut Fuel Pressure Gauge sender GND wire. Also see Z-05
E: (W) - Tach Signal. See Racelogic Traction Control diagram (5a) and Z-05 for details.
F: (B) – Speedhut Coolant Temp Gauge sender GND wire. Also see Z-05
G: (R) – Speedhut Intake Temp Gauge sender 5v wire. Also see Z-05
H: (Y) – 12V Switched. See 12V Switched relay and Constant 12v diagram for details.
I: (P) - AC Request from RX7 G-13 (Leads to A/C button). See A/C Diagram for details
J: (B) – Speedhut Oil Pressure Gauge sender GND wire. Also see Z-05
K: (R) – Speedhut Oil Pressure Gauge sender 5v wire. Also see Z-05
L: (W) – Speedhut Oil Pressure Gauge sender signal wire. Also see Z-05
M: (B/W) – LS1 PCM MIL light to Check Engine Light wire. See MIL Light diagram for details.
N: (W) – Speedhut Coolant Temp Gauge sender signal wire. Also see Z-05
O: (Y) – Speedhut Intake Temp Gauge sender signal wire. Also see Z-05
P: (Y) – Reverse Light Switch from T56 Transmission. See Rev Lights diagram for details

Delphi Packard Part numbers

Connector = 15326085

Secondary Lock = 15326059

Male Pins = 15326268

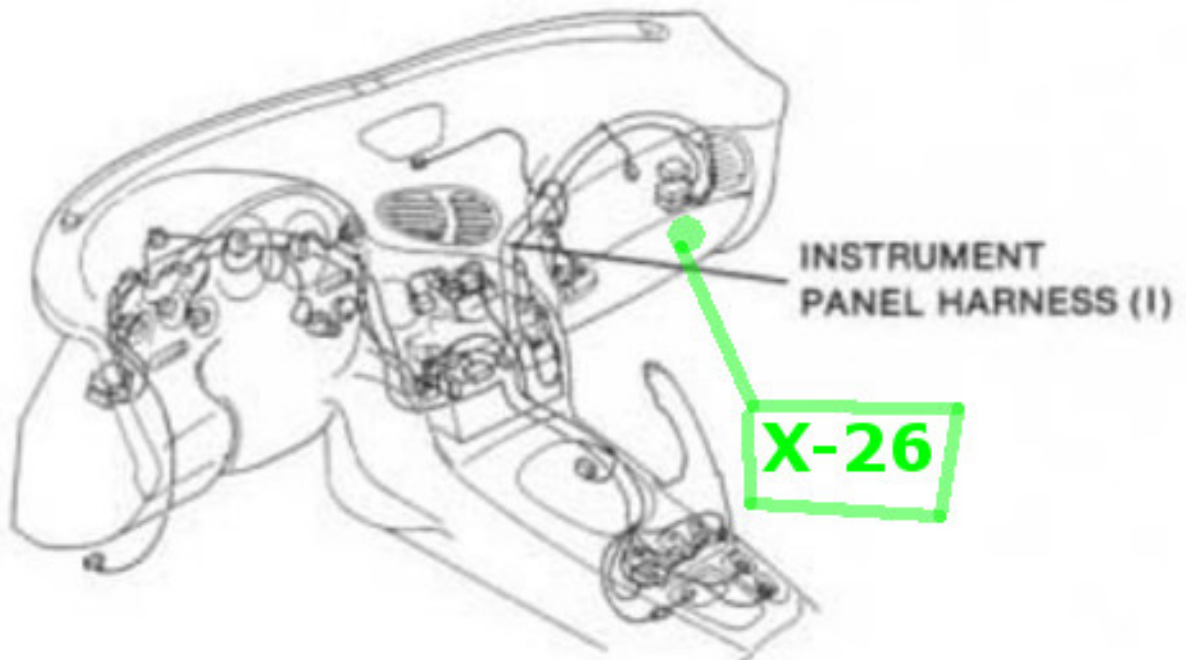
Mating Connector = 15326084

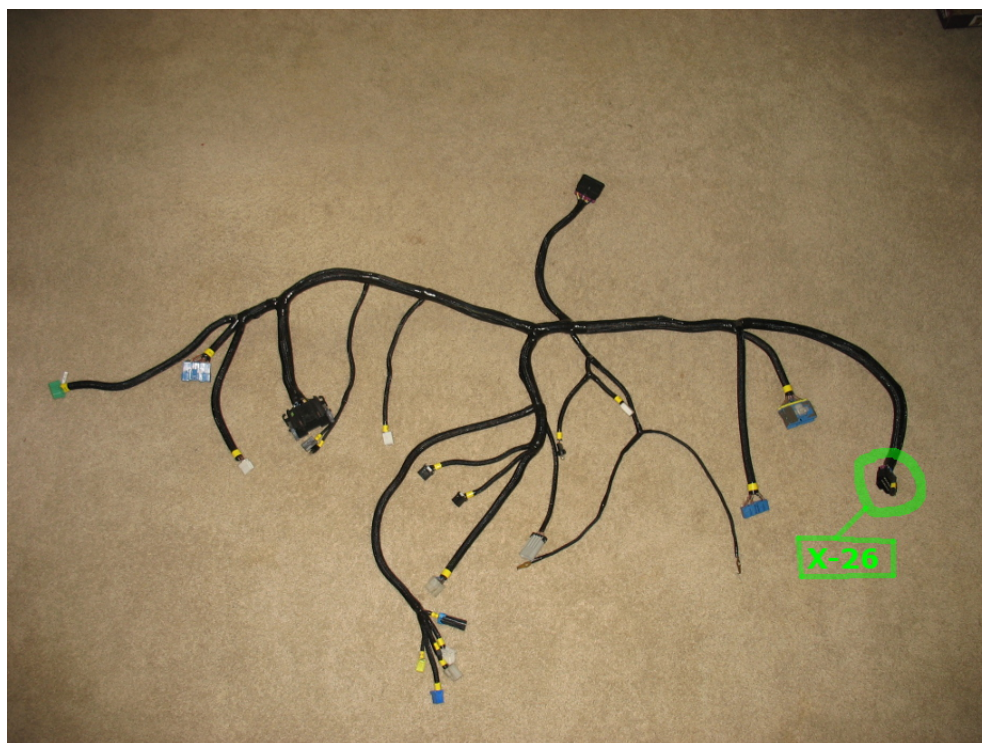
Secondary Lock = 15326059

Female Pins = 12191818

Location:

Z-02 is integrated into the LS1 engine harness and the RX7 instrument harness

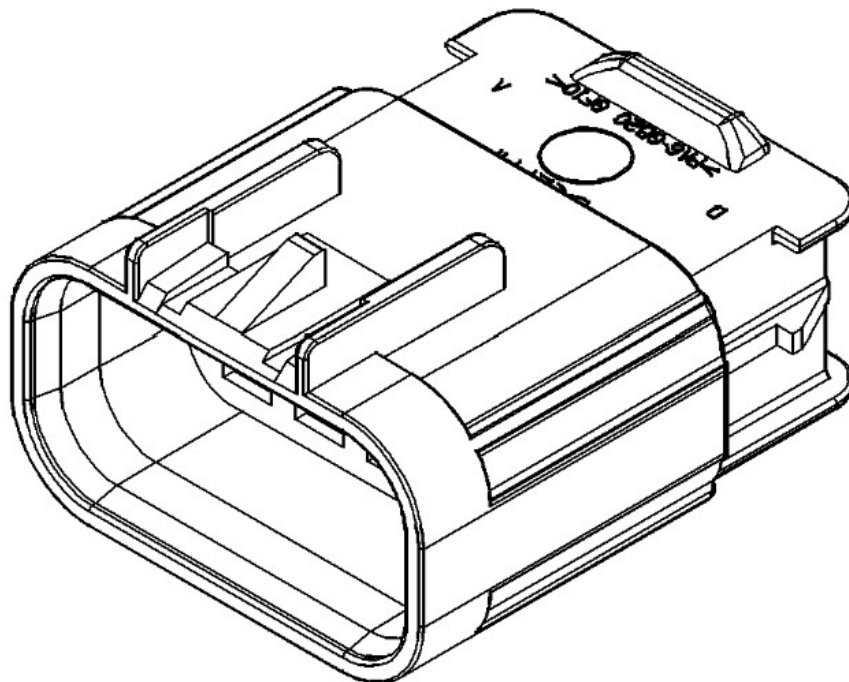
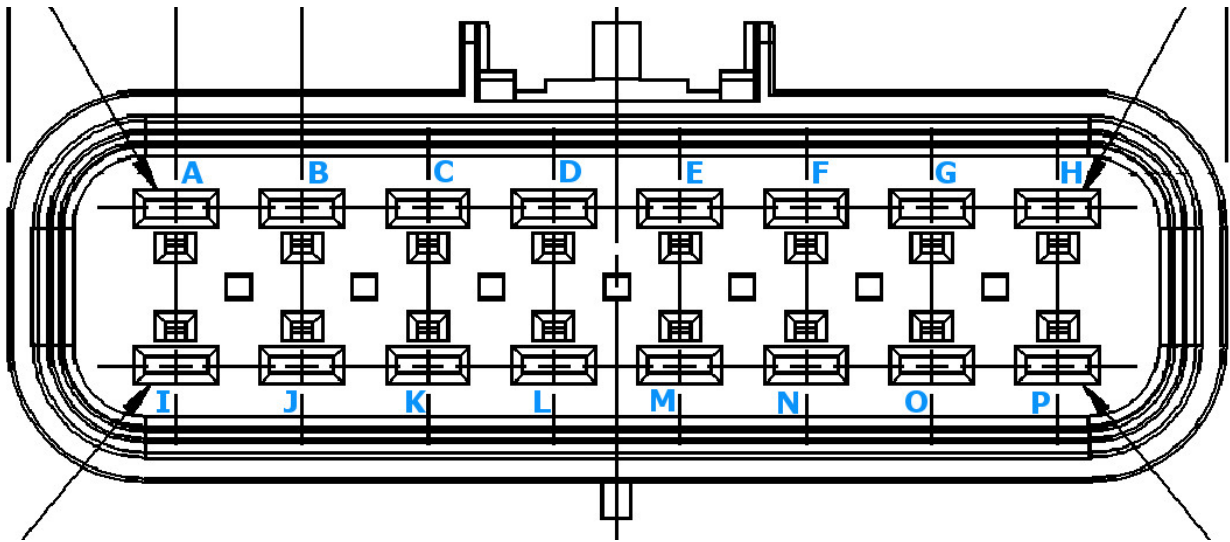






X-27 – LS1 Harness Injector Breakout for TC.

Purpose: This connector is strictly a break in the injector signals from the LS1 PCM. The purpose is to give access to the Racelogic Traction Control computer which needs these signals. Its secondary purpose is to provide a way to quickly disconnect the Racelogic system and jumper the connector with the terminator plug (see below) which disables traction control and restores the factory connection between the LS1 PCM and injectors.



A: (DL/W) - To Injector #8 through the LS1 Harness. See Racelogic Traction Control Diagram for details
B: (B/W) – To Injector # 5 through the LS1 Harness. See Racelogic Traction Control Diagram for details
C: (Y/B) – To Injector #6 through the LS1 Harness. See Racelogic Traction Control Diagram for details
D: (B) – To Injector #1 through the LS1 Harness. See Racelogic Traction Control Diagram for details
E: (L/B) – To Injector #4 through the LS1 Harness. See Racelogic Traction Control Diagram for details
F: (R/B) – To Injector #7 through the LS1 Harness. See Racelogic Traction Control Diagram for details
G: (LG/B) – To Injector #2 through the LS1 Harness. See Racelogic Traction Control Diagram for details
H: (P/B) – To Injector #3 through the LS1 Harness. See Racelogic Traction Control Diagram for details
I: (DL/W) – To PCM C1 #77 through LS1 Harness. See Racelogic Traction Control Diagram for details
J: (B/W) – To PCM C1 #76 through LS1 Harness. See Racelogic Traction Control Diagram for details
K: (Y/B) – To PCM C1 #37 through LS1 Harness. See Racelogic Traction Control Diagram for details
L: (B) – To PCM C1 #36 through LS1 Harness. See Racelogic Traction Control Diagram for details
M: (L/B) – To PCM C1 #44 through LS1 Harness. See Racelogic Traction Control Diagram for details
N: (R/B) – To PCM C1 #43 through LS1 Harness. See Racelogic Traction Control Diagram for details
O: (LG/B) – To PCM C1 #4 through LS1 Harness. See Racelogic Traction Control Diagram for details
P: (P/B) – To PCM C1 #3 through LS1 Harness. See Racelogic Traction Control Diagram for details

Part numbers (mouser.com)

Connector –15326667

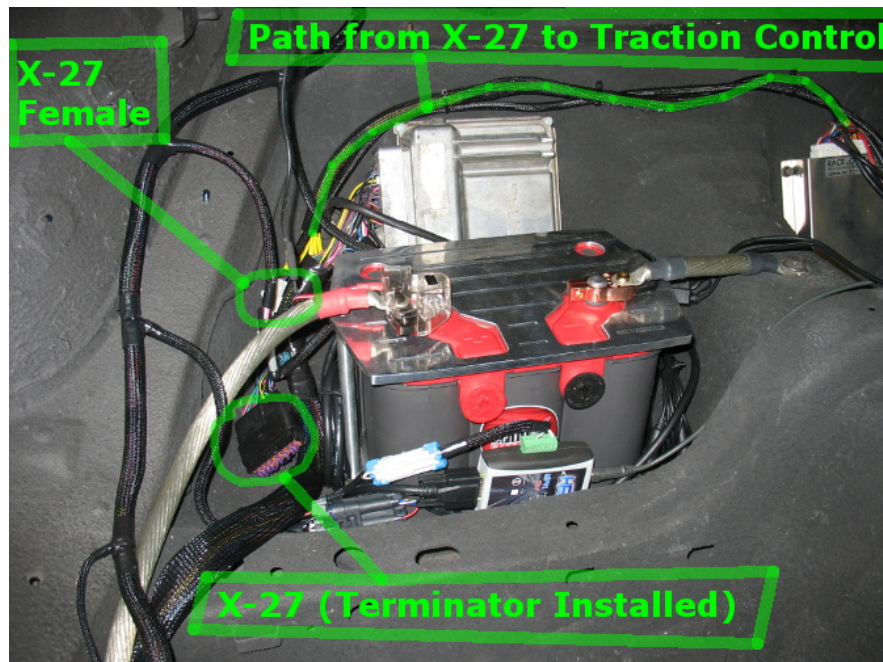
Terminals – 15304720

Mating Connector –15326666

Terminals - 15326915

Location:

X-27 is integrated into the LS1 Engine Harness and is accessible in the passenger side rear bin / battery compartment.



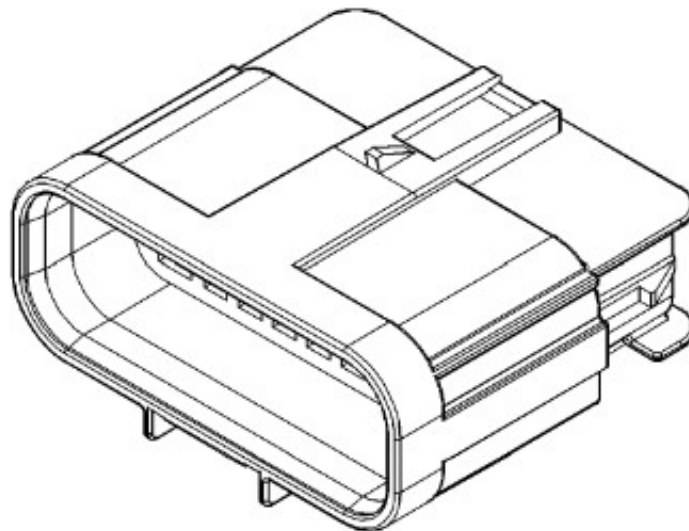
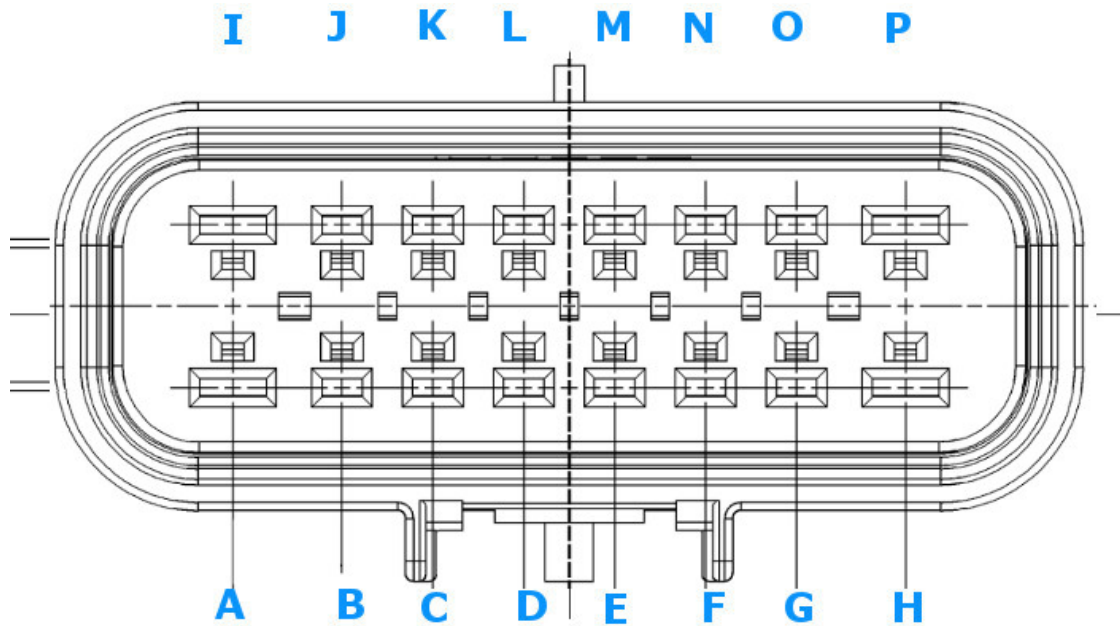




X-27 Terminator Plug

Z-02 – Dash Top Gauge Connector

Description: Z-02 is a quick disconnect between the instrument harness and the gauges mounted on top of the dash.



A: (L) – Illumination Ground. See page Z-80

B: - BLANK

C: (Y) – Thermocouple (Intake Temp sensor) GND. Wired to X-26 (LS1 engine harness) then to sensor.

D: (R) – Thermocouple (Intake Temp sensor) SIGNAL. Wired to X-26 (LS1 engine harness) then to sensor.

E: - BLANK

F: (B/Y) – Switched 12V. Fused through JB-02 at the 15A METER fuse.

G: - BLANK

H: (L) – Wideband signal. This is wired through the instrument harness and connects through a single pin connector close to X-26 to the Floor Harness, where it is carried to just behind the passenger door to Z-03 which connects directly to the AEM UEGO wideband controller located in the passenger bin / battery compartment.

I: (B) – Ground

J: - BLANK

K: - BLANK

L: (R) – Fuel Pressure Sensor 5V. Wired to X-26 (LS1 engine harness) then to sensor.

M: (W) - Fuel Pressure Sensor SIGNAL. Wired to X-26 (LS1 engine harness) then to sensor.

N: (B) - Fuel Pressure Sensor GND. Wired to X-26 (LS1 engine harness) then to sensor.

O: - BLANK

P: (Y) – Illumination 12V. See page Z-80

Delphi Packard Part numbers

Connector = 15326085

Secondary Lock = 15326059

Male Pins = 15326268

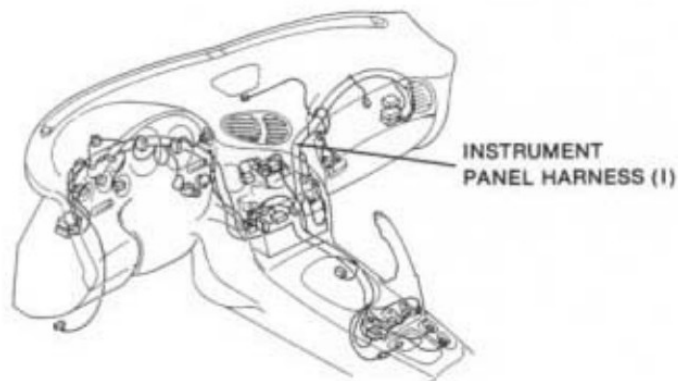
Mating Connector = 15326084

Secondary Lock = 15326059

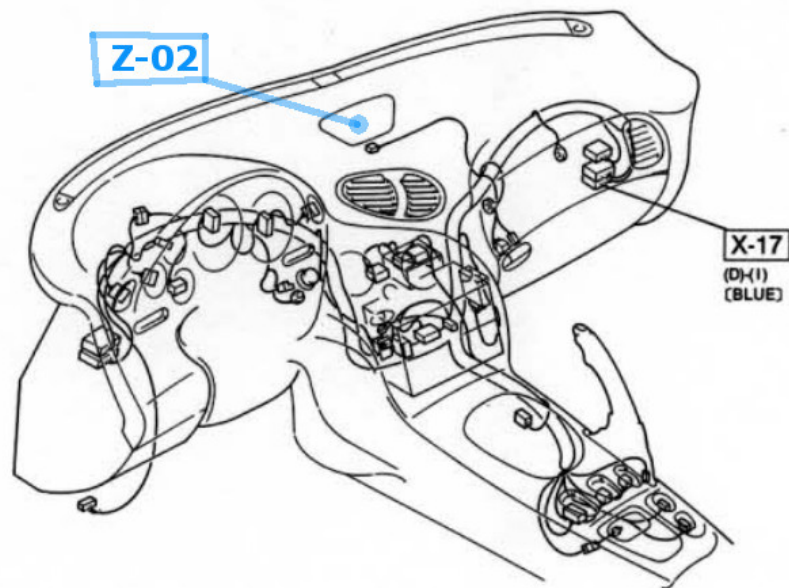
Female Pins = 12191818

Location:

Z-02 is integrated into the RX7 instrument harness

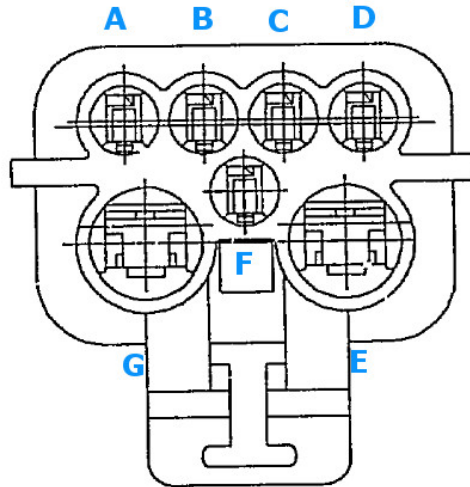


The actual connector is located near the center speaker pod on the top of the dash.



Z-03 – Wide Band Connector

Description: Z-03 is a quick disconnect between the AEM UEGO Wideband controller and the Floor Harness.



A: - BLANK

B: - BLANK

C: (W) – Wideband output to HPTuners EIO interface

D: (W) – Wideband output to dash top speedhut gauge. This is wired through the Floor Harness and connects through a single pin connector close to X-26 to the Instrument Harness, where it is carried to the top of the dash to Z-02 which is the connector for the dash top speedhut gauges.

E: (G) – 12V Switched. This is fused and powered by the Rear 12v Switched network. See **Rear 12v Switched Network** documentation for more info.

F: - BLANK

G: (B) – Ground

Delphi Packard Part numbers

Connector = 12059472

Secondary Lock = 12052199

Female Pins = 12052139, 12084200

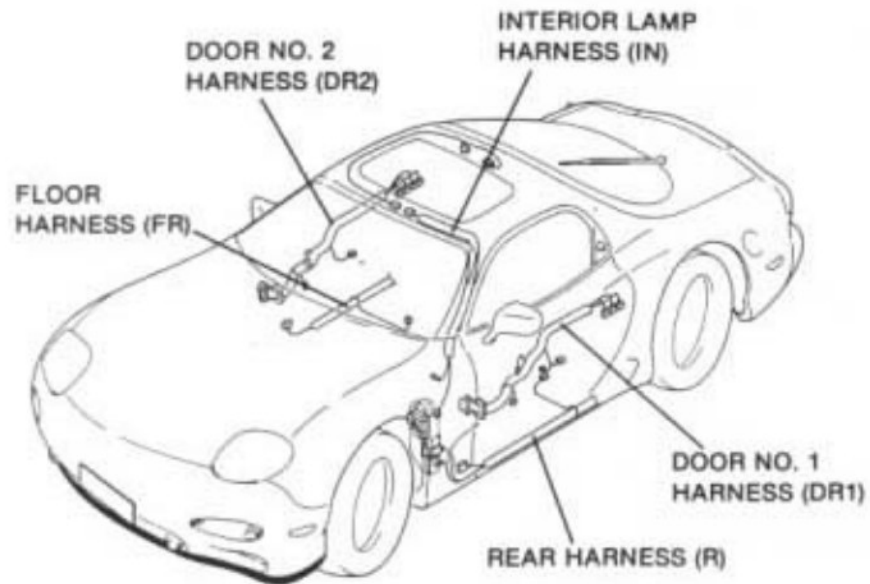
Mating Connector = 12052200-B

Secondary Lock = 12052199

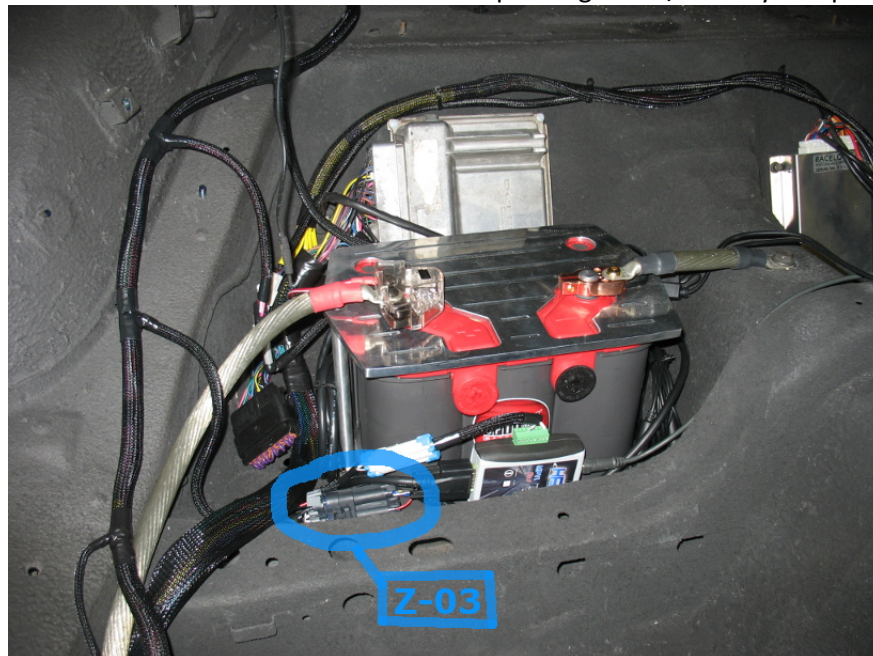
Male Pins = 12033820, 12077628

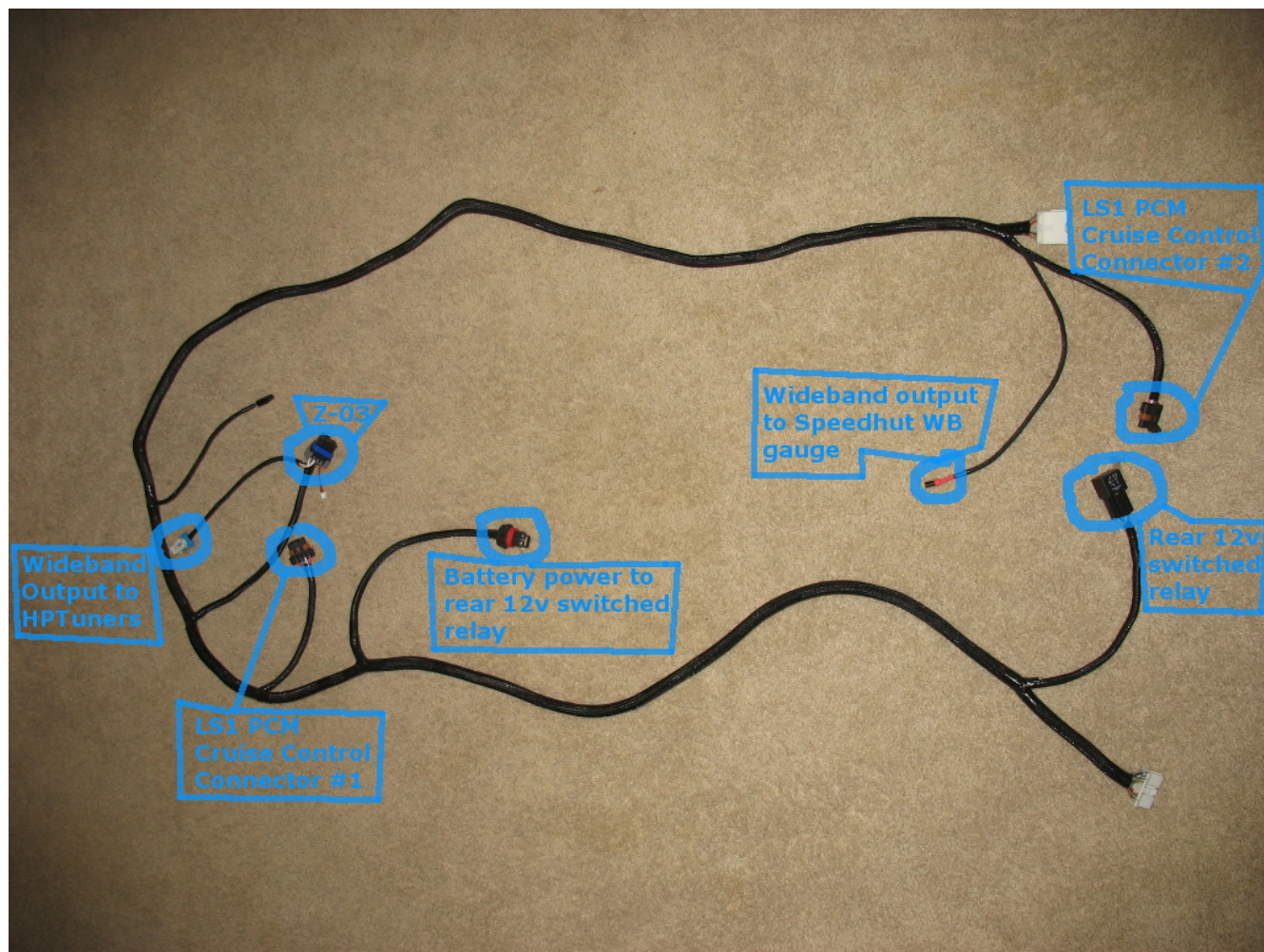
Location:

Z-03 is integrated into the RX7 Floor Harness



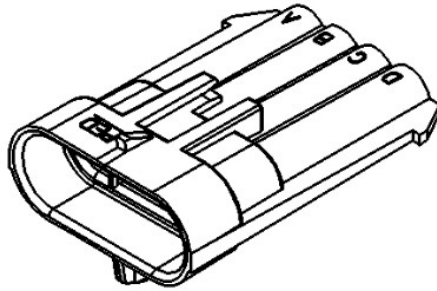
The actual connector is located inside the rear passenger bin / battery compartment.





Z-04 – Head Unit Connector

Description: Z-04 is a connector for future head unit installs. It provides the bare minimum wiring to power an aftermarket headunit.



A: (L/B) – 12V Switched supply. Fused through JB-02 at the 15A CIGAR fuse. See page Z-86

B: (R/B) – Illumination 12V. Fused through JB-07 at 15A TAIL fuse See pages Z-80 and Z-60

C: (R/G) – Illumination Ground. See page Z-80

D: (L/R) – 12V Constant supply. Fused through JB-02 at the 10A ROOM fuse. See page Z-86

Delphi Packard Part numbers

Connector = 12162102

Secondary Lock = 12047948

Male Pins = 12077628

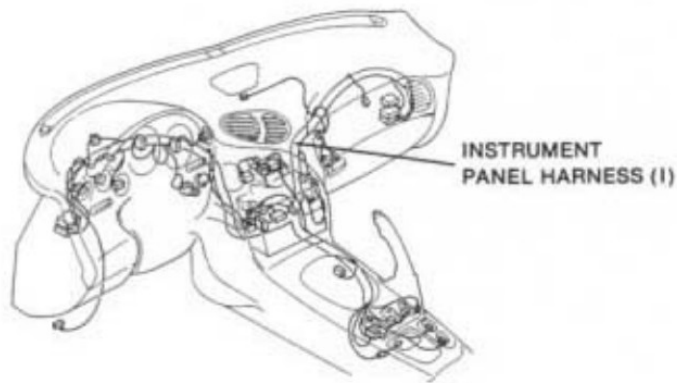
Mating Connector = 12162144

Secondary Lock = 12047948

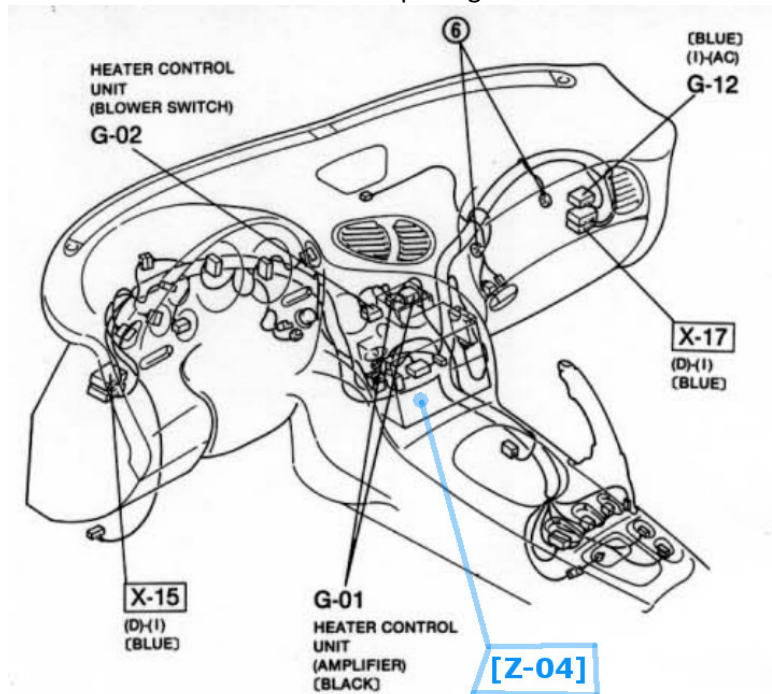
Female Pins = 12084200

Location:

Z-04 is integrated into the RX7 instrument harness

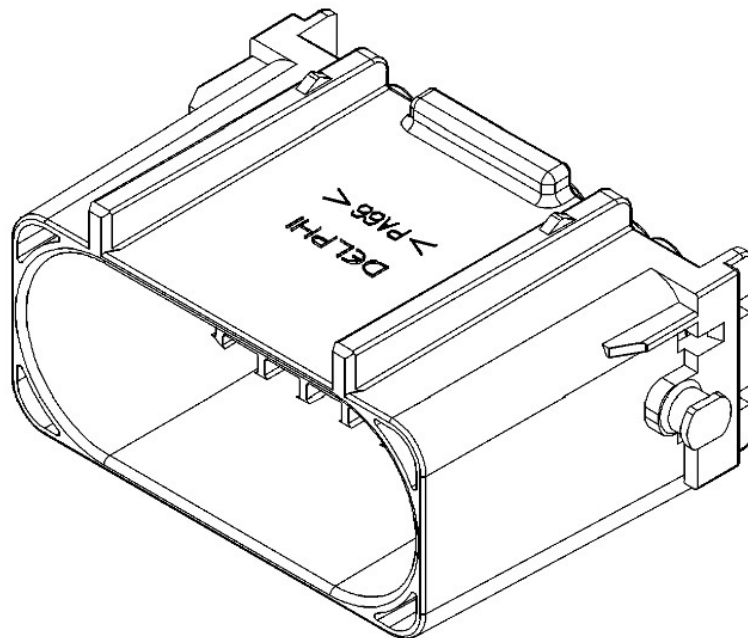
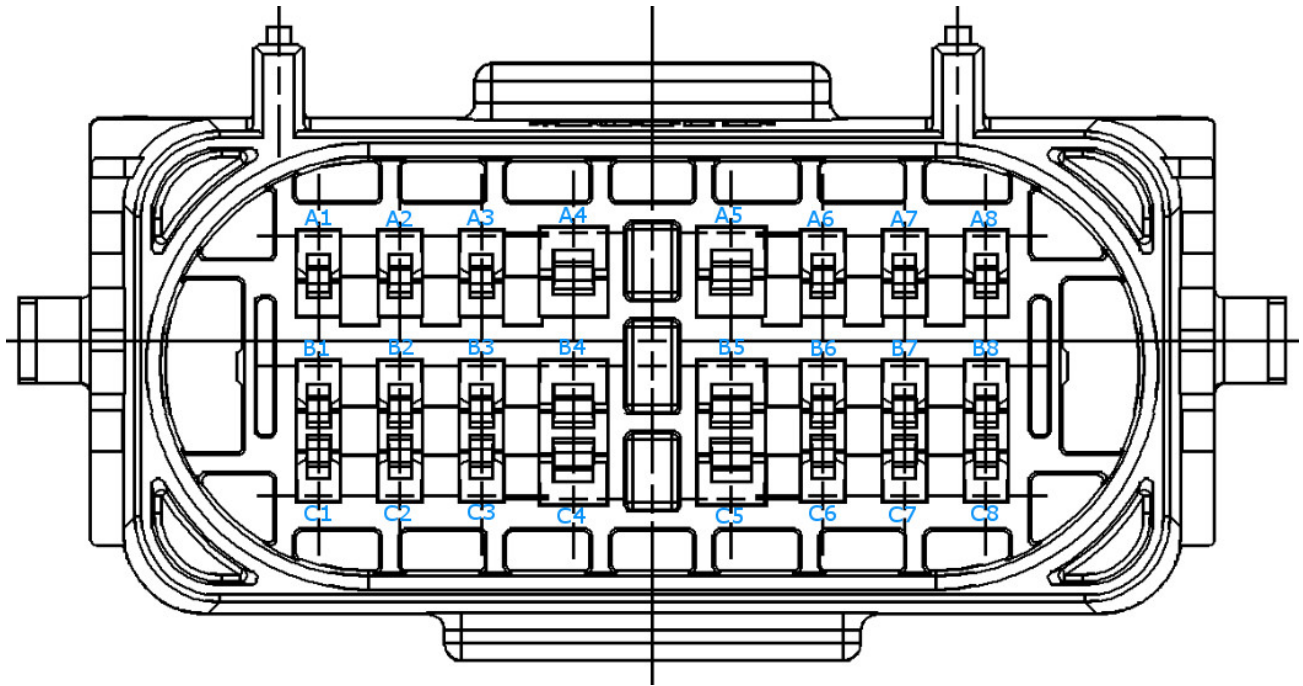


The actual connector is located near the Head Unit opening in the dash.



Z-05 – Gauge Cluster Connector

Description: Z-05 is a quick disconnect between the gauge cluster and the instrument harness.



A1: (G/B) LH Turn Signal Light + Signal. See Z-46 for details.
A2: (G/W) RD Turn Signal Light + Signal. See Z-46 for details.
A3: (R/G) Illumination Ground. See Z-80 for details
A4: (B/Y) 12V Switched See Z-44 for details.
A5: Blank
A6: (R) Fuel Level Sensor. See Z-44 for details
A7: (R) Coolant Temp Sensor. Also see X-26
A8: (B) Coolant Temp Sensor. Also see X-26
B1: (BR/Y) Brake Light - Signal. See Z-46 for details.
B2: (R/W) High Beam Light + Signal. See Z-46 for details.
B3: (R/B) Illumination 12v. See Z-80 for details
B4: Blank
B5: Blank
B6: (B) Oil Pressure Sensor. Also see X-26
B7: (R) Oil Pressure Sensor. Also see X-26
B8: (G) Oil Pressure Sensor. Also see X-26
C1: (LG) Seat Belt Light - Signal. See Z-46 for details.
C2: (L/R) Speedometer 12v Constant Supply. See Z-86 for details
C3: (W) Tach Signal. See Racelogic Traction Control diagram (5a) for details.
C4: (B) Ground.
C5: Blank
C6: (G/O) ABS Light - Signal. See Z-46 for details.
C7: (B/W) MIL Light – Signal. Also see X-26
C8: (Y) Defrost Light – Signal. See Z-46 for details.

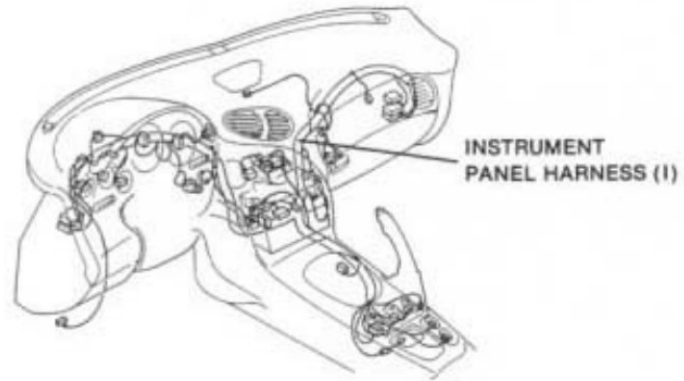
Delphi Packard Part numbers

Connector = 15336173
Lock = 15355357
Lock = 15373421
Terminals = 15326269, 15304732

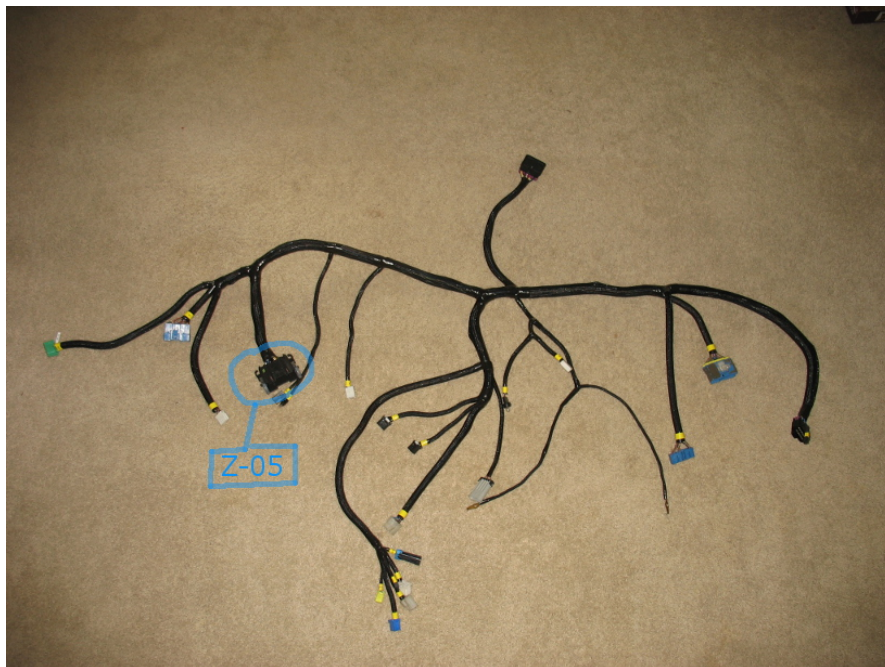
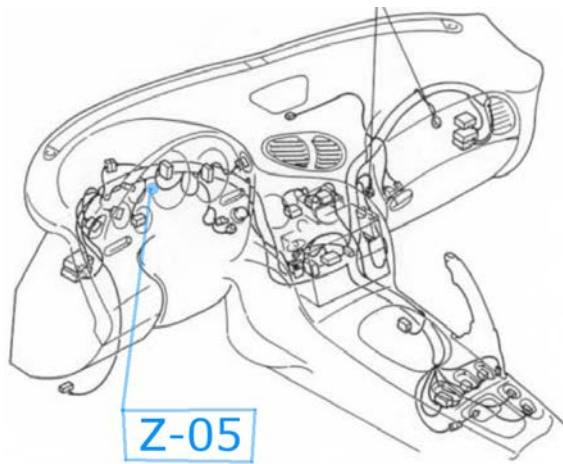
Mating Connector = 15366099
Lever = 13869381
Lock = 15355359
Lock = 15373422
Terminals = 13528779, 12191819

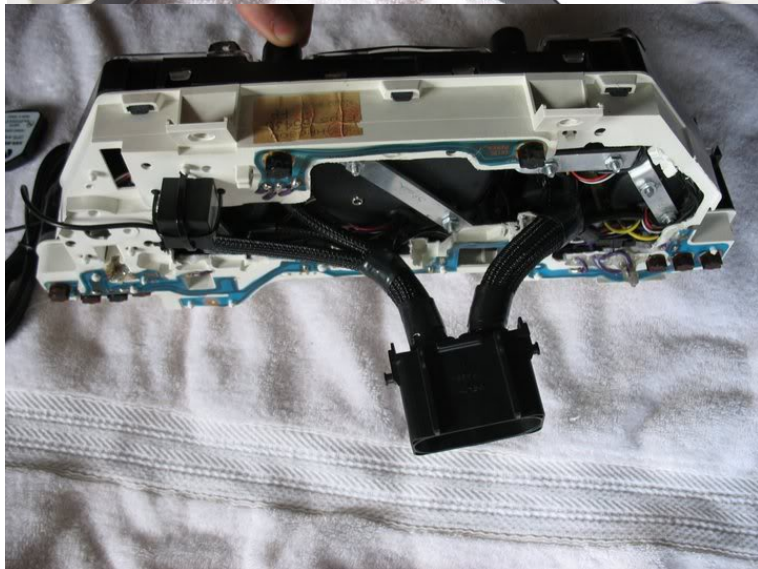
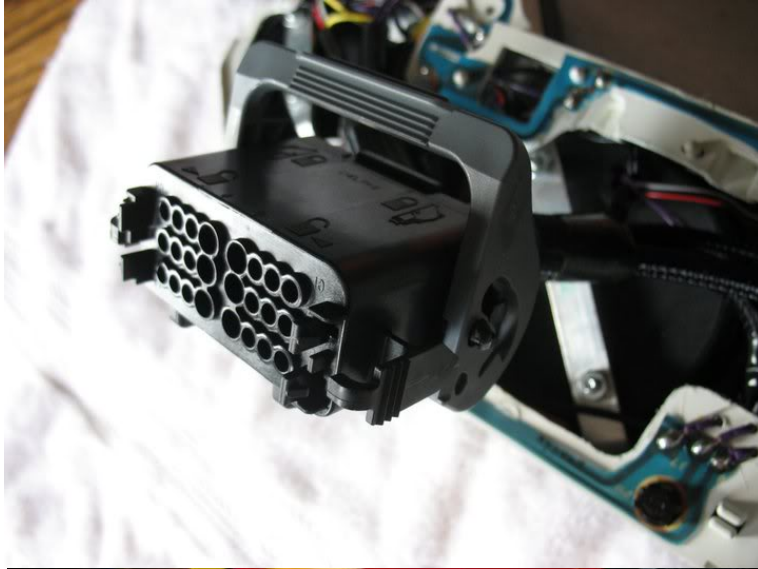
Location:

Z-05 is integrated into the RX7 instrument harness



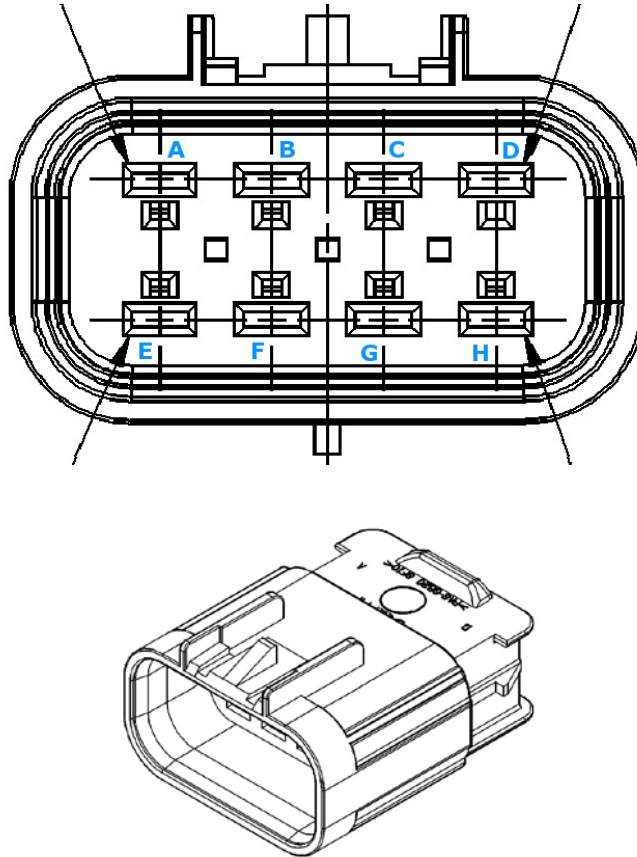
The actual connector is located behind the gauge cluster:





Z-06 – Racelogic Traction Control Digital Adjuster

Description: Z-06 is a quick disconnect between the Racelogic Traction Control Main unit and its Digital Adjuster.



- A: (R) – To Racelogic TC B5 – DIAG TX. See Racelogic Traction Control diagram for details
- B: (L) - To Racelogic TC B6 – DIAG RX. See Racelogic Traction Control diagram for details
- C: (G) - To Racelogic TC B7 – GND. See Racelogic Traction Control diagram for details
- D: (Y) - To Racelogic TC B15 – 12v. See Racelogic Traction Control diagram for details
- E: (R) - **To 15A Meter Fuse for 12V Switched power**. See Racelogic Traction Control diagram for details
- F: (L) - To Racelogic TC A16 – GND. See Racelogic Traction Control diagram for details
- G: (G) - To Racelogic TC A3 – POT. See Racelogic Traction Control diagram for details
- H: (Y) - To Racelogic TC B14 – GSHIFT. See Racelogic Traction Control diagram for details

Part numbers (mouser.com)

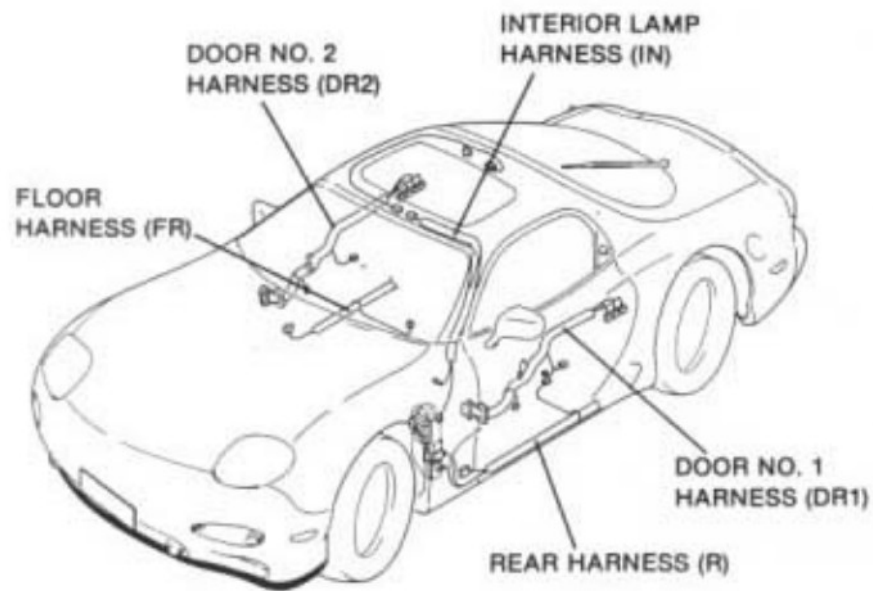
Connector – 15326655

Terminals – 15304720

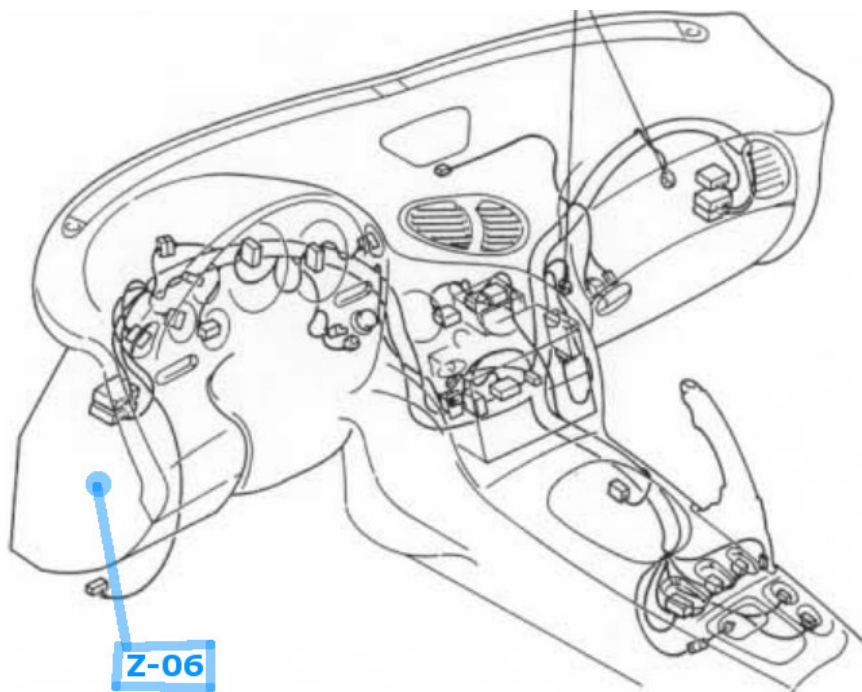
Mating Connector – 15326654
Terminals - 15326915

Location:

Z-06 is integrated into the RX7's rear harness



The actual connector is located behind the driver's side kick panel

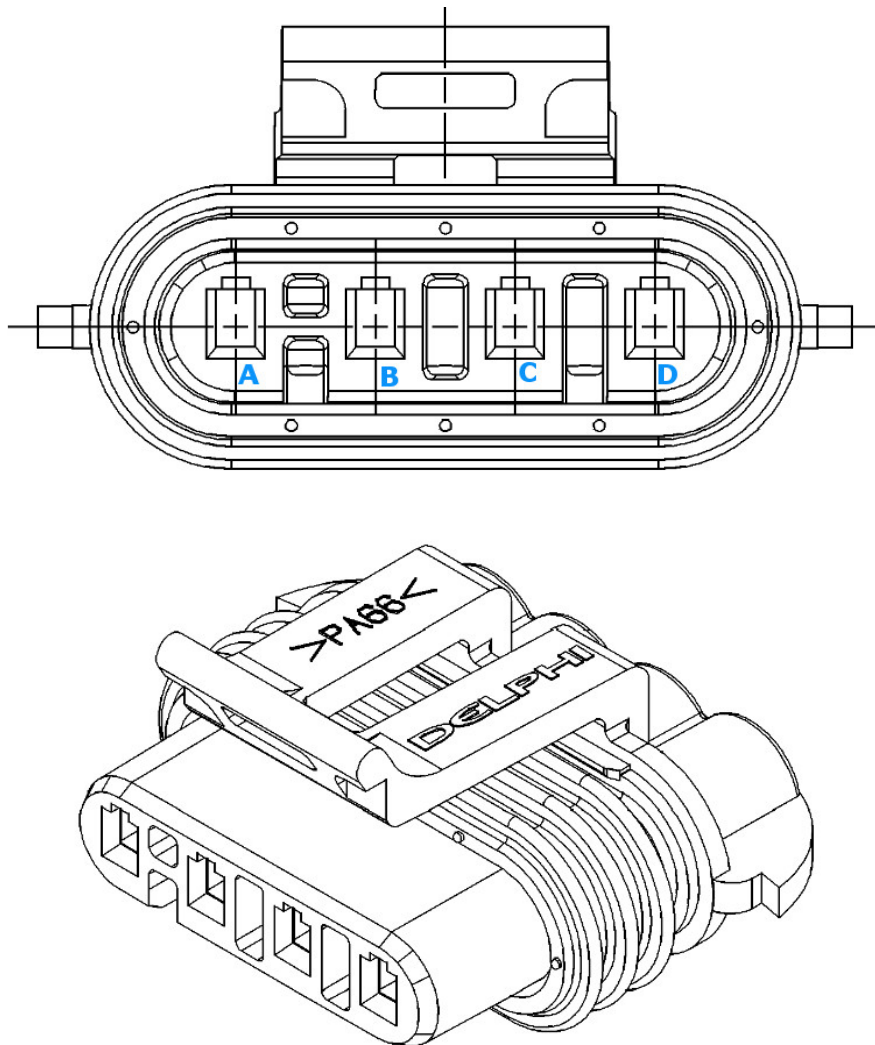






Z-07 & Z-08 – Cruise Control Signal Extension

Description: Z-07 is a connector that pulls signals straight from the LS1 PCM connectors. The signals are then routed through the RX7's floor harness to the passenger kick panel area and terminate through Z-08. Z-08 is made to connect to Z-09. The idea being that these signals could be transmitted to the front harness axillary extension made up of Z-09 and Z-10 so the PCM signals can be routed from Z-09 and the switch signals can be routed from Z-10 to a Camaro cruise control module located somewhere along the front harness path. See document for Z-09 and Z-10 for additional information.



- A: (P) LS1 PCM C1 # 32 – Clutch Pedal Position Switch Signal.
- B: (W) LS1 PCM C2 # 50 – Vehicle Speed Sensor Signal.
- C: (B) LS1 PCM C2 # 37 – Cruise Control Inhibit.
- D: (R) LS1 PCM C2 # 13 – Cruise Control Enable Signal

Delphi Packard Part Numbers:

Connector = 12186568

Secondary Lock = 12047948

Female Pins = 12084200

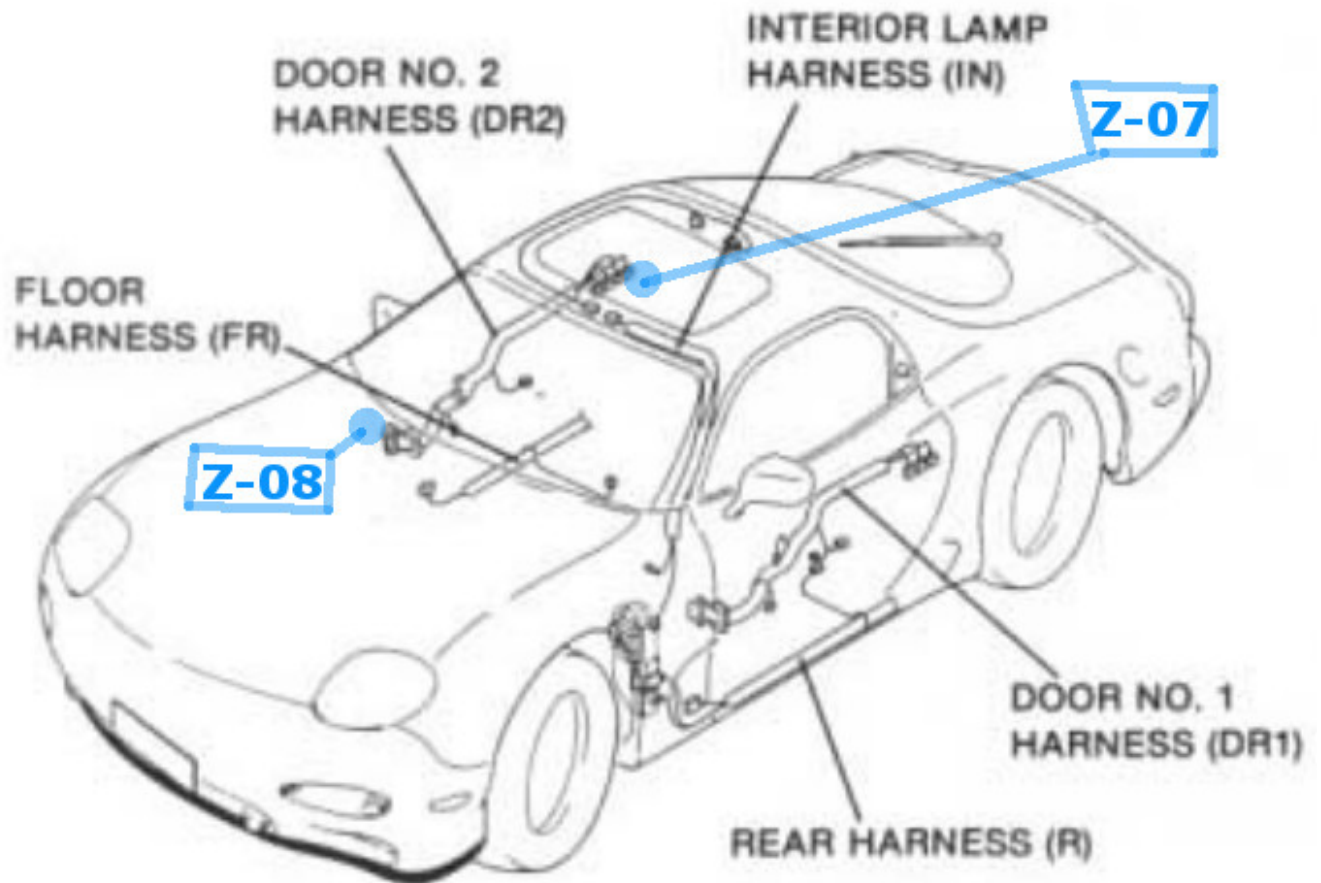
Mating Connector = 12186271

Secondary Lock = 12047948

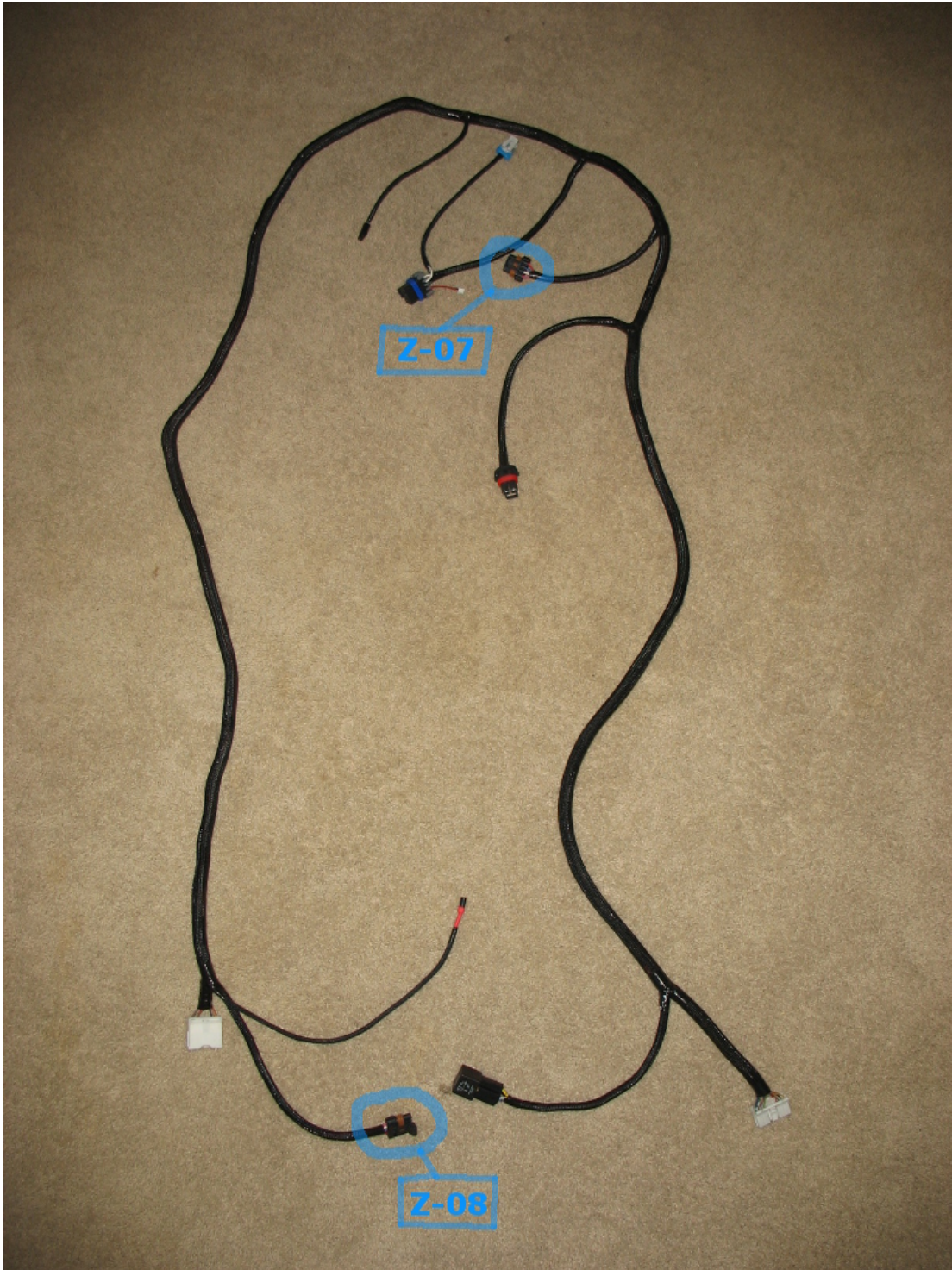
Male Pins = 12045773

Location:

Z-07 and Z-08 are integrated into the RX7's floor harness

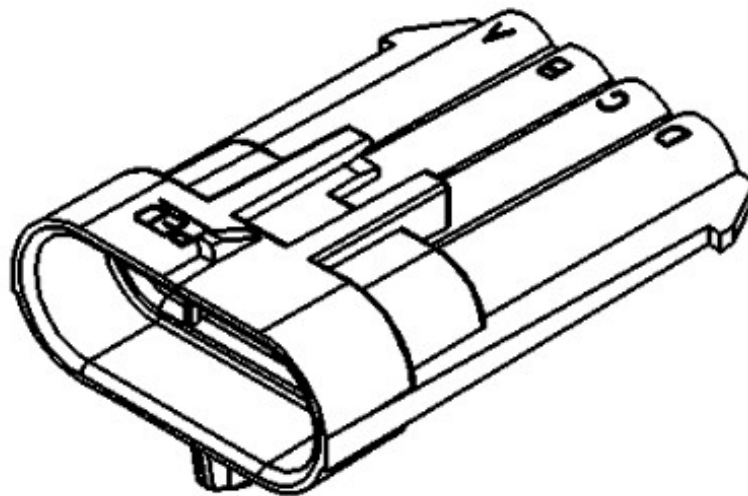


Z-07 is located in the passenger rear bin / battery compartment. Z-08 is located in the passenger kick panel.



Z-09 & Z-10 – Front Harness Aux Wiring

Description: Z-09 and Z-10 are simply an auxiliary wiring loop that runs within the front harness that allows 4 wires to be available to run from the passenger's side kick panel to the driver's side kick panel and vice versa. At the time of this document, this connection is NOT being used at all. Future plans may involve the use of this harness. Specifically, the addition of a Camaro cruise control. The idea being that these signals could be transmitted to the front harness axillary extension made up of Z-09 and Z-10 from Z-07 and Z-08 so the PCM signals can be routed from Z-09 and the switch signals can be routed from Z-10 to a Camaro cruise control module located somewhere along the front harness path. See document for Z-07 and Z-8 for additional information.



A: (L) Connects Z-09 and Z-10's A terminal
B: (Y) Connects Z-09 and Z-10's B terminal
C: (L) Connects Z-09 and Z-10's C terminal
D: (P) Connects Z-09 and Z-10's D terminal

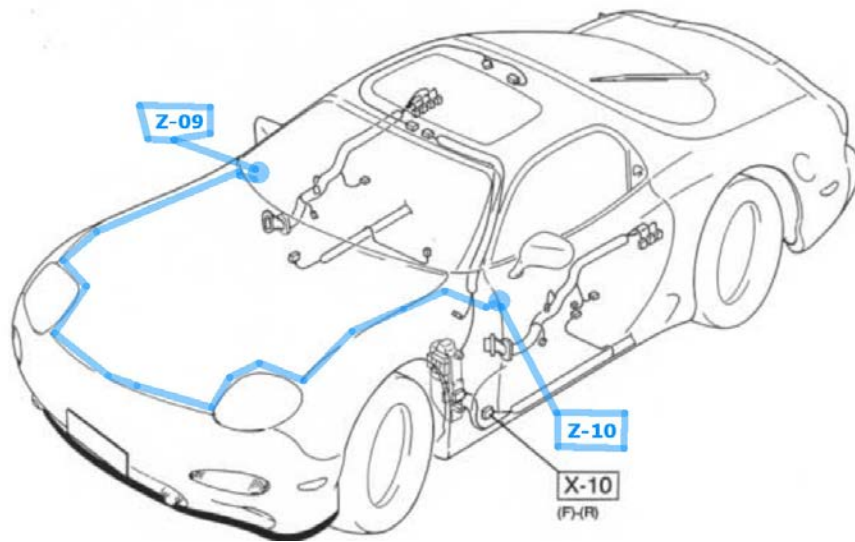
Delphi Packard Part Numbers:

Connector = 12186271
Secondary Lock = 12047948
Female Pins = 12045773

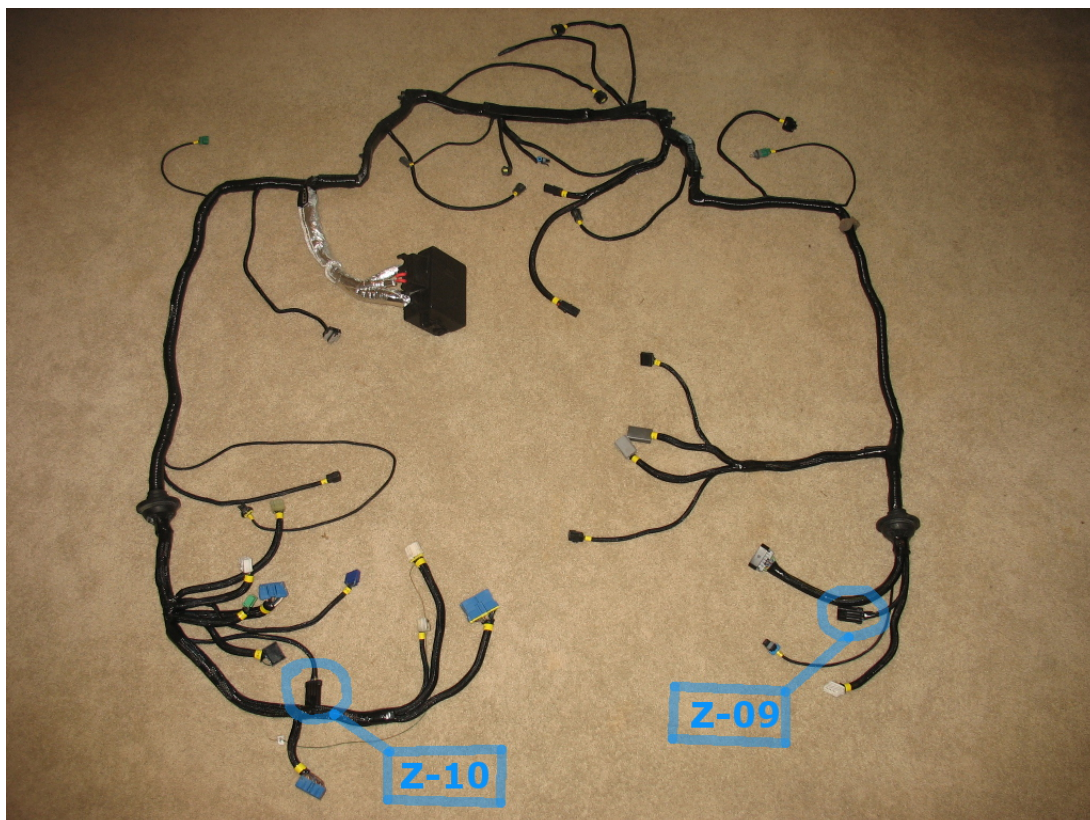
Mating Connector = 12186568
Secondary Lock = 12047948
Male Pins = 12084200

Location:

Z-09 and Z-10 are integrated into the RX7's front harness

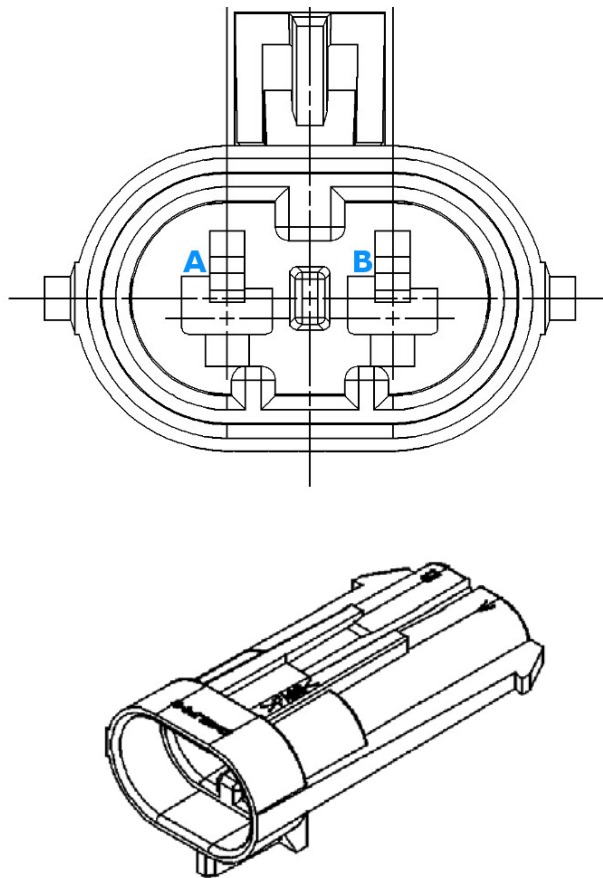


Z-09 is located in the passenger's kick panel. Z-10 is located in the driver's kick panel.



Z-11 – Battery Connection for Rear 12V Switched Relay

Description: Z-11 is a connector that takes power and ground straight from the battery and delivers it to the 12V Switched rear relay. See the Power Distribution (Rear) diagram for details.



A: (B) Connects directly to Battery Ground

B: (R/W) Connects to external 30A blade fuse then to Positive Battery Terminal

Delphi Packard Part Numbers:

Connector = 12065863

Secondary Lock = 12059897

Male Pins = 12052172-L

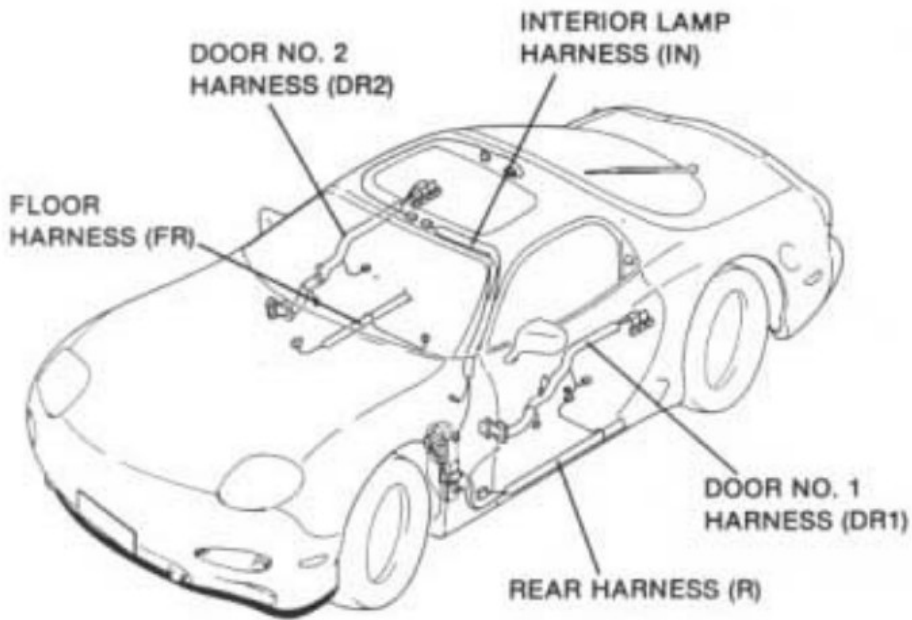
Mating Connector = 12052613

Secondary Lock = 12059897

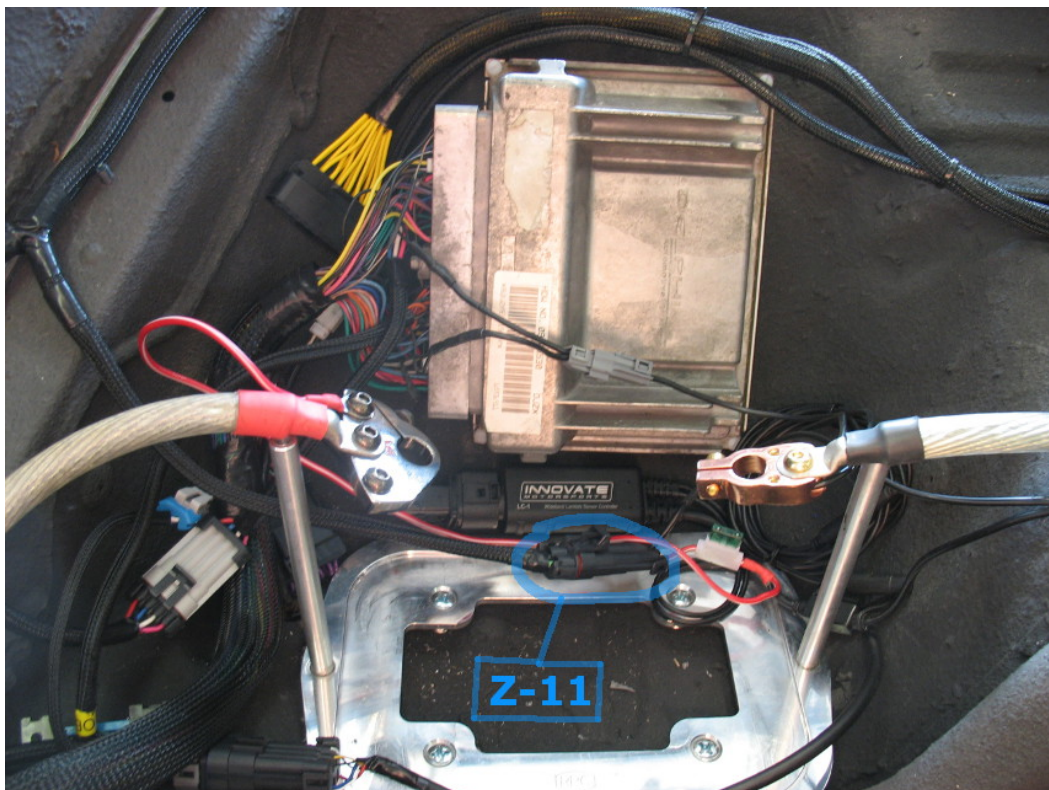
Female Pins = 12052139-L

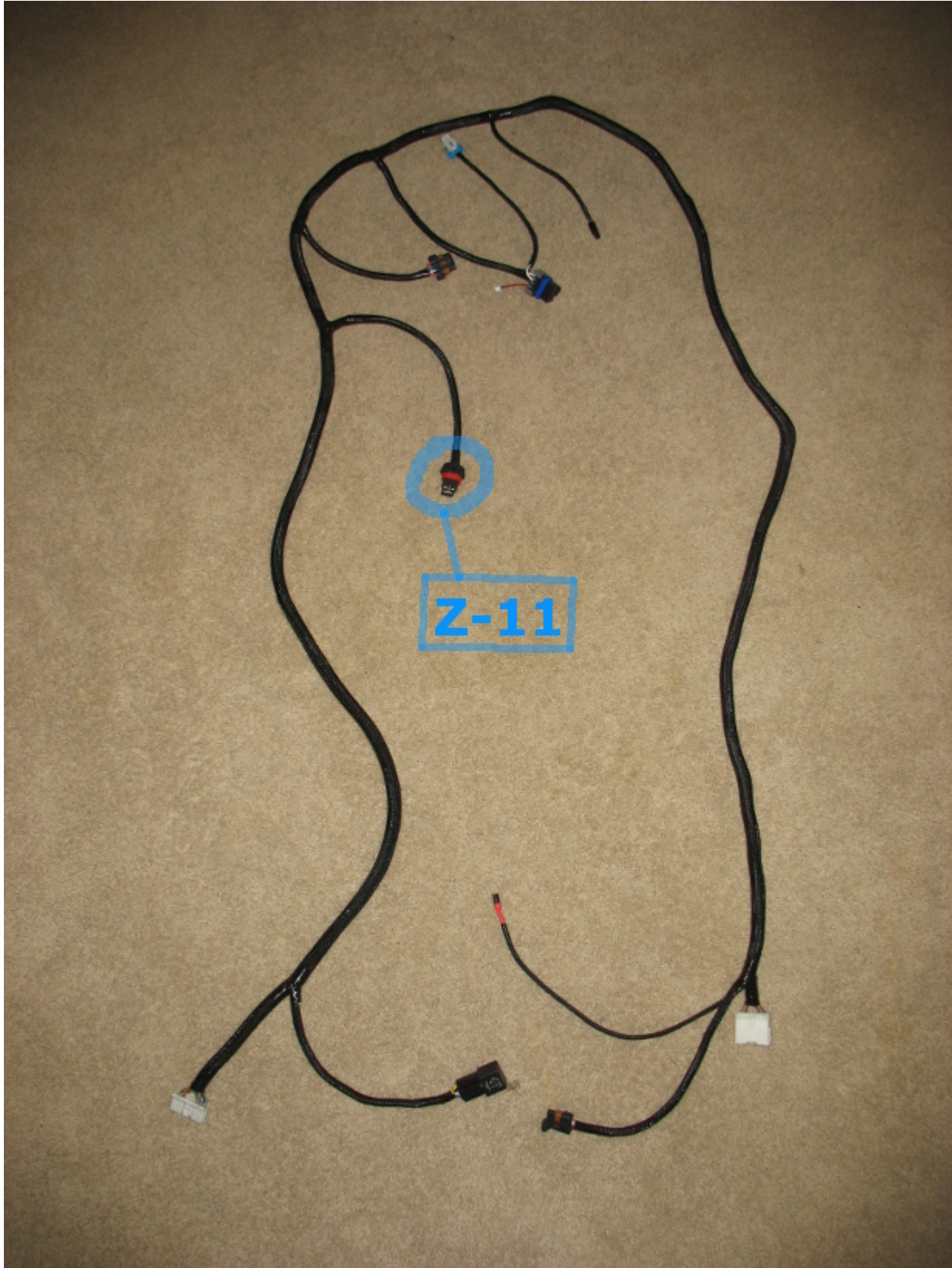
Location:

Z-11 is integrated into the RX7's floor harness



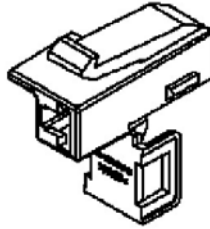
Z-11 is located in the passenger's side rear bin / battery compartment.





Z-12 – Fuel Pump Power Connection

Description: Z-12 is the last connector in the chain to supply power to the external Bosch 044 fuel pump. See Rear Relay Control diagram for more details.



A: (R) Connects directly to Bosch 044's + stud. See Rear Relay Control diagram for more details.

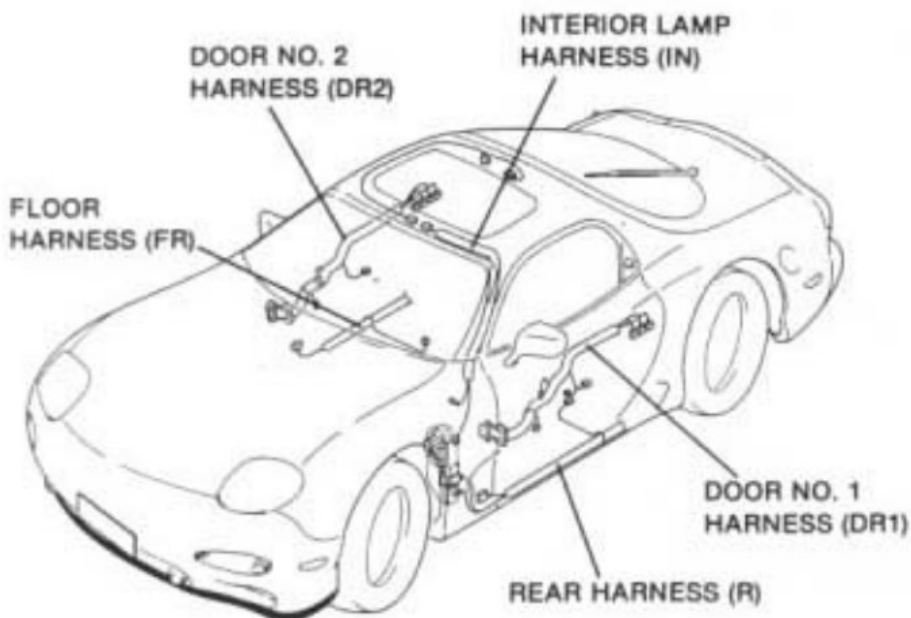
Delphi Packard Part Numbers:

Connector = 12015952
Female Pins = 12052139-L

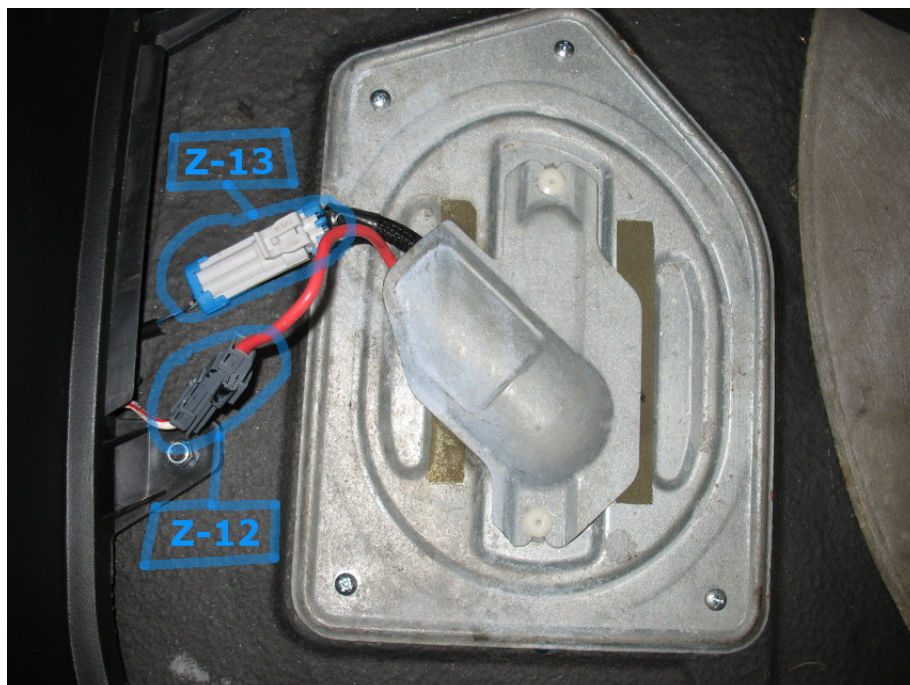
Mating Connector = 12015987
Male Pins = 12052172-L

Location:

Z-12 is integrated into the RX7's rear harness

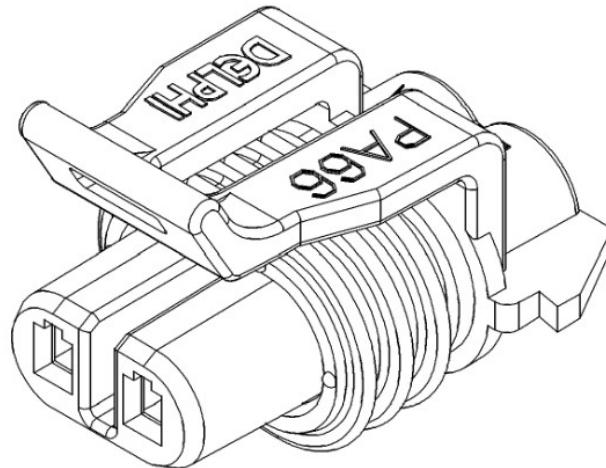
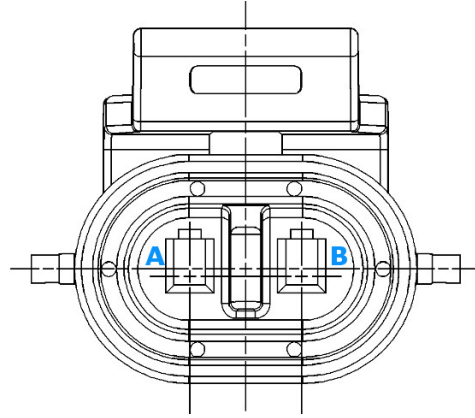


Z-12 is located on the driver's side of the rear cargo bay.



Z-13 – Fuel Level Sensor Connector

Description: Z-13 connects the rear harness directly to the fuel level sensor. See Z-44 for more details.



A: (L) Connects to the ground side of the RX7's Fuel Level Sensor. See Z-44 for more details.

B: (W/G) Connects to the signal side of the RX7's Fuel Level Sensor. See Z-44 for more details.

Delphi Packard Part Numbers:

Connector = 12052641

Secondary Lock = 12052634

Female Pins = 12048074

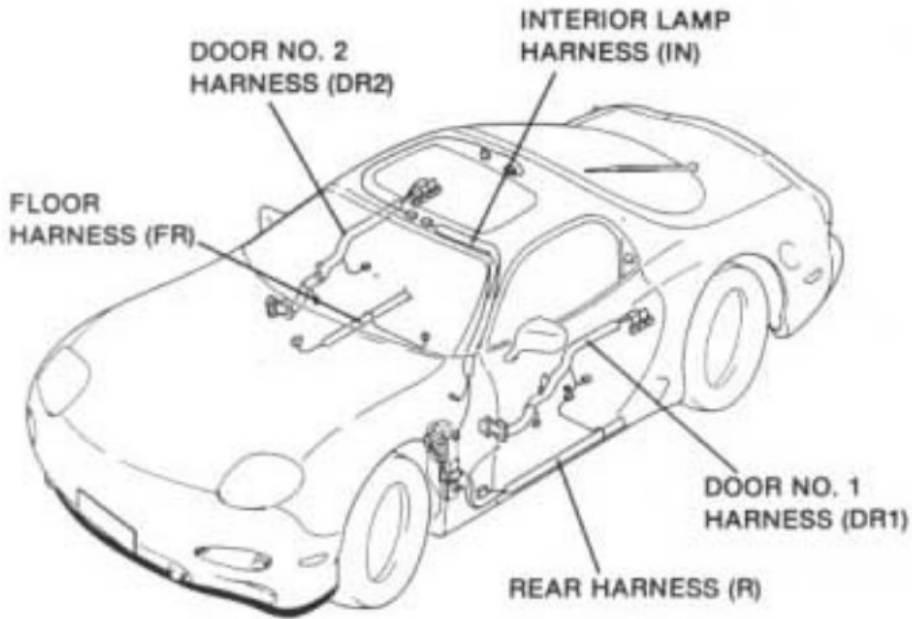
Mating Connector = 12162000

Secondary Lock = 12052634

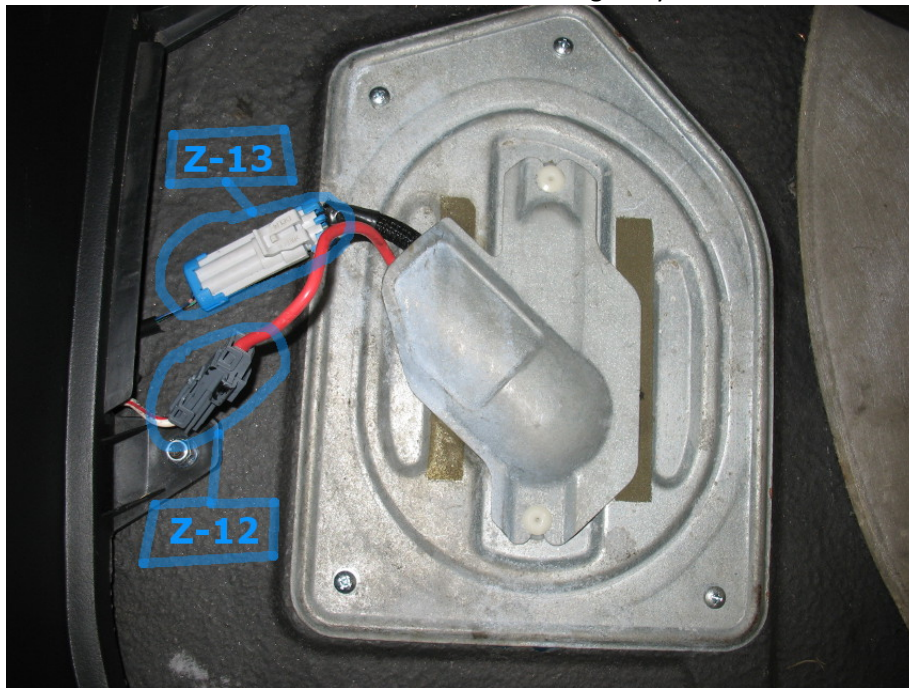
Male Pins = 12045773

Location:

Z-13 is integrated into the RX7's rear harness



Z-13 is located on the driver's side of the rear cargo bay.





Driver's Door Lock Actuator:

Purpose: The FD3 RX7 was built with only 1 lock actuator located in the passenger's door. In order to add remote unlock/lock capabilities to the RX7 via an aftermarket alarm it was necessary to add a lock actuator in the driver's door and a new dual relay control system. See page Z-97 for a full diagram.

Part Numbers:

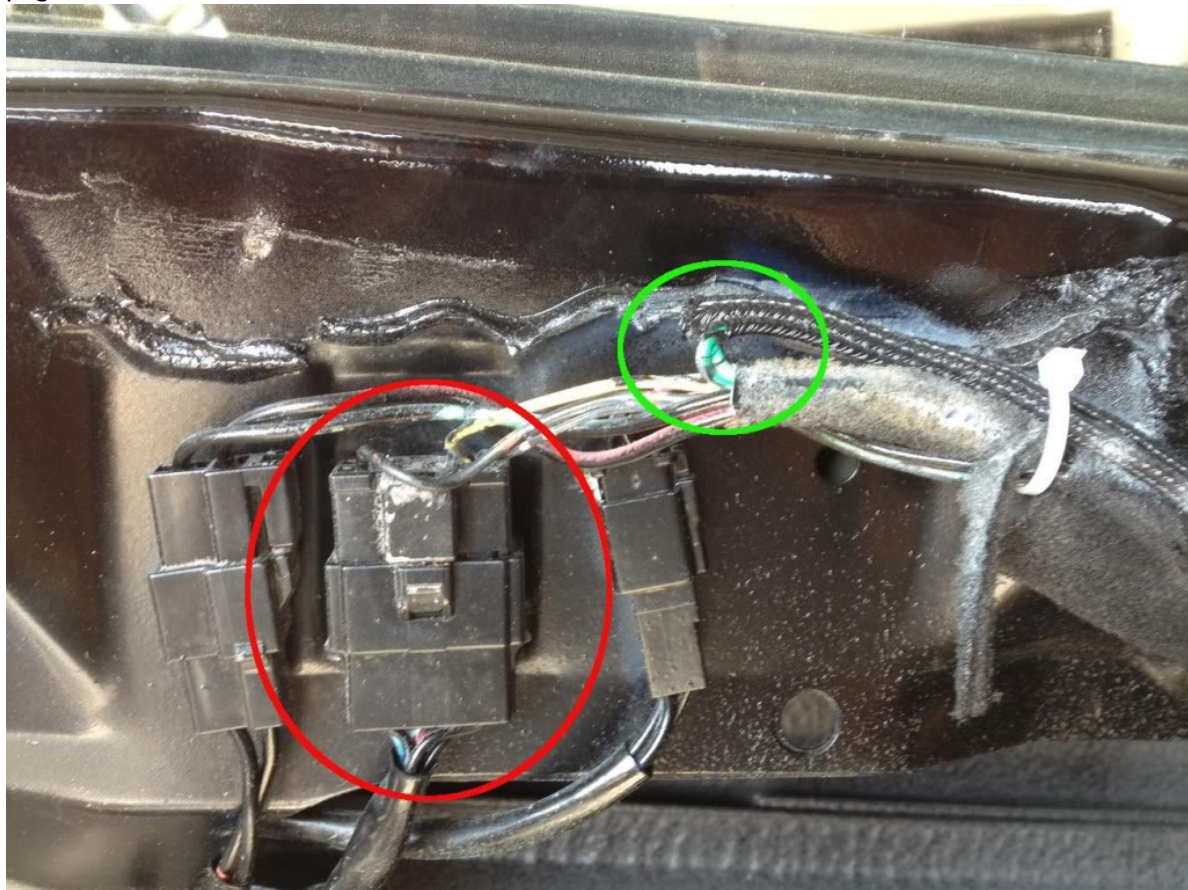
Relay Sockets = SRS105

Tyco Relays = 1432791-1

Actuator = 524N

Location:

K2-01 located at the top of the driver's door. Also shown are modifications according to the diagram on page Z-97



Location of two relays used to actuate both door's actuators. Located near the driver's side kick panel:



Location of the new actuator in the driver's side door.



Rear Relay Box

Purpose: This auxiliary relay box houses relays for the fuel pump, trunk popper, and rear defroster.



- A: Rear Defroster Relay #1. See Rear Relay Control Diagram for details
- B: Rear Defroster Relay #2. See Rear Relay Control Diagram for details
- C: Trunk Popper Relay. See Rear Relay Control Diagram for details
- D: Fuel Pump Relay. See Rear Relay Control Diagram for details

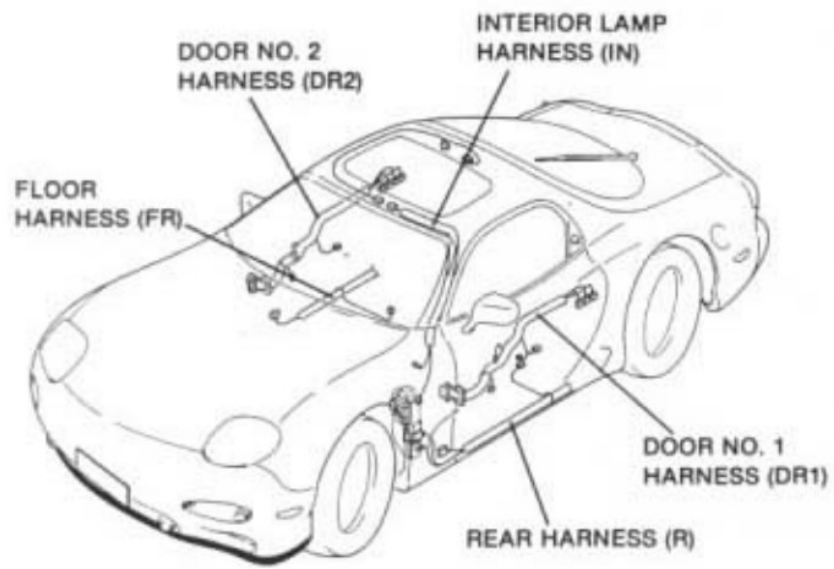
Part Numbers:

Hella 4 Relay Enclosure Kit = H84988001

Tyco Relays = 1432791-1

Location:

The rear relay box integrated into the RX7's rear harness and is located underneath the driver's side rear bin.



The actual connector is located under the driver's side rear bin.



LS1 Engine Harness Mod Notes

The LS1 engine harness and PCM used in my car originally came out of a 99 firebird with an automatic transmission. I purchased the FD chassis after the harness had already been modified by Hinson Supercars. I performed extensive modifications to the harness myself and have documented Hinson's changes along with my own below:

- Two connectors were added to the harness located at the firewall on the inner cabin section of the harness. Those two connectors are called X-25 and X-26 and have their own documentation.
- The harness received a ~5ft extension to relocate the PCM to the passenger side rear bin / battery compartment.
- Rear O2 Sensors were deleted
- Automatic Transmission connectors were deleted and PCM was flashed for a manual transmission application.
- Skip Shift / CAGS connector = Deleted.
- VATS = Deleted
- Deleted Alternator Excite wiring. Added Self Exciting Regulator to Alternator
- Extended O2 wire harnesses for longtube headers.
- Relocated OBD2 Connector to the passenger side rear bin / battery compartment.
- Integrated X-27 into the harness for Racelogic Traction Control. See X-27 documentation for more details.

- Added Z-07 to facilitate the breakout of cruise control signals. See Z-07 documentation for details.
- Integrated Speedhut gauge sensor wiring. See X-26 and Z-05 documents for more details.
- Wrapped harness in nylon sleeving. Wrapped sections that will be exposed to heat in fiberglass / aluminum heat shielding.
- Labeled all connectors
- Tailored wire lengths to the LS1 RX7 engine bay.

Fbody Specific Connector Mods:

C-100 – Black 10 pin connector

- A- Pink (Bank 1 Ignition/Injector switched power in). Relocated to X-25 – Switched 12V. See X-25 documentation for more details
- G- Pink (Transmission/EVAP switched power in) Relocated to X-25 – Switched 12V. See X-25 documentation for more details.
- J- Dark Green (Low Speed relay control output from PCM). Relocated to X-25. See X-25 documentation for more details.

C101 - Gray 10 pin connector.

- B - Pink (Bank 2 Ignition/Injection switched power in). Relocated to X-25 – Switched 12V. See X-25 documentation for more details.
- D - Dark Green / White (Fuel Pump Relay Control Output from PCM). Relocated to X-25. See X-25 documentation for details.
- E – Pink / Black (Switched 12v power for PCM). Relocated to X-25 – Switched 12V. See X-25 documentation for more details.
- G - Orange (Constant power for PCM). Relocated to X-25 – Constant 12V. See X-25 documentation for details.
- H – Black / White (Ground). Grounded at battery.

C102

- A - Purple (From Starter Solenoid). Relocated to X-25. See documentation for X-25 for more details.

C105 - black 8 pin connector.

- B - Pink (Transmission / Stop lamp / Heated O2s /MAF switched power). Relocated to X-25 – Constant 12V. See X-25 documentation for more details

G - White (Tach Signal from PCM). Relocated to X-26. See X-26 documentation for details.

C220 - Natural color 10 pin connector.

E- Black / White (Ground). Grounded at battery.

G- Brown (Back-up lite switch input). Relocated to X-26. See X-26 documentation for details.

H- Light green (Back-up lite switch output). Relocated to X-26. See X-26 documentation for details.

K- Dark Green / White (VSS Signal). Relocated to Z-07. See Z-07 documentation for details.

C230 - Blue 10 pin connector.

B- Brown / White (MIL light). Relocated to X-26. See X-26 documentation for details.

LS1 Engine Harness Connector Pinouts:

Circuit Number C1 (Blue)

This table contains all of the Pin connections, Wire colors, and Functions of Connector C1 (Blue). There are 80 pins on this connector

Pin	Wire Color	Function
1	BLK	PCM GROUND
2	LT GRN	CRANK. POS. SENSOR B+ SUPPLY
3	PNK/BLK	INJECTOR 3 CONTROL
4	LT GRN/BLK	INJECTOR 2 CONTROL
5	-	NOT USED
6	-	NOT USED
7	-	NOT USED
8	GRA	TP SENSOR 5V REF
9	-	NOT USED
10	-	NOT USED
11	LT BLU	KNOCK SENSOR REAR
12	DK BLU/WHT	CRANKSHAFT POS. SIGNAL
13	-	NOT USED
14	-	NOT USED
15	-	NOT USED
16	-	NOT USED
17	DK BLU	TRANS. RANGE SIGNAL B
18	RED	TRANS. RANGE SIGNAL C
19	PNK	IGNITION. POS. VOLT.
20	ORG	BAT. POS. VOLT
21	YEL/BLK	CRANK POS. REF. LOW
22	-	NOT USED
23	GRA	FUEL TANK PRESSURE SENSOR /FUEL TANK SENDER GROUND
24	-	NOT USED
25	TAN	HO2S SIGNAL LOW BANK 2 SENSOR 2
26	TAN	HO2S SIGNAL LOW BANK 2 SENSOR 1
27	-	NOT USED
28	TAN/WHT	HO2S SIGNAL LOW BANK 1 SENSOR 2
29	TAN/WHT	HO2S SIGNAL LOW BANK 1 SENSOR 1

30	-	NOT USED
31	-	NOT USED
32	GRY	CLUTCH PEDAL POSITION. SWITCH SIGNAL
33	PPL	TCC BRAKE SWITCH
34	ORN/BLK	PNP SWITCH SIGNAL
35	-	NOT USED
36	BLK	INJECTOR 1 CONTROL
37	YEL/BLK	INJECTOR 6 CONTROL
38	-	NOT USED
39	-	NOT USED
40	BLK	PCM GROUND
41	BLK	EGR PINTLE POSITION. SENSOR GROUND
42	DK GRN	ENG. COOLING FAN RELAY 1 CONTROL
43	RED/BLK	INJECTOR 7 CONTROL
44	LT BLU/BLK	INJECTOR 4 CONTROL
45	GRA	A/C REFRIG. PRESS. SENSOR 5V REF
46	GRA	FUEL TANK PRESS. SENSOR 5V REF
47	GRA	EGR PINTLE POS. SENSOR 5V REF
48	GRA	MAP SENSOR 5V REF
49	-	NOT USED
50	-	NOT USED
51	DK BLU	KNOCK SENSOR SIGNAL FRONT
52	-	NOT USED
53	BLK	TRAN. TEMP. SENSOR GROUND
54	ORG/BLK	MAP SENSOR GROUND
55	BRN	EGR PINTLE POSITION. SENSOR SIGNAL
56	-	NOT USED
57	ORG	BAT. POS. VOLT
58	DRK GRN	SERIAL DATA
59	-	NOT USED
60	BLK	TP SENSOR GROUND
61	PNK/BLK	CAMSHAFT POS. SENSOR REF. LOW
62	-	NOT USED
63	-	NOT USED
64	-	NOT USED
65	PPL	HO2S SIGNAL HIGH BANK 2 SENSOR 2
66	PPL	HO2S SIGNAL HIGH BANK 2 SENSOR 1
67	-	NOT USED
68	PPL/WHT	HO2S SIGNAL HIGH BANK 1 SENSOR 2
69	PPL/WHT	HO2S SIGNAL HIGH BANK 1 SENSOR 1
70	BRN	LOW OIL LEVEL SWITCH
71	-	NOT USED
72	-	NOT USED
73	BRN/WHT	CAMSHAFT POS. SENSOR SIGNAL
74	YEL	ENG. COOLLANT TEMP.SENSOR SIGNAL
75	-	NOT USED
76	BLK/WHT	INJECTOR 5 CONTROL
77	DK BLU/WHT	INJECTOR 8 CONTROL
78	-	NOT USED
79	GRA OR WHT	SKIP SHIFT SELENOID CNTROL (M/T) OR 2&3 SHIFT SELENOID CONTROL (A/T)
80	BLK	ENG. COLOLANT TEMP. SENSOR GROUND

Circuit Number C2 (Red)

This table contains all of the 1999 Pin connections, Wire colors, and Functions of Connector C2 (Red). There are 80 pins on this connector

Pin	Wire Color	Function
1	BLK	PCM GROUND
2	BRN	TCC CONTROL SOLENOID
3	-	NOT USED
4	PPL	AIR SELENOID CONTROL
5	-	NOT USED
6	RED/BLK	TRANS. PRESS.CONTROL SELENOID CONTROL HIGH
7	RED	EGR CONTROL
8	LT BLU/WHT	TRANS. PRESS.CONTROL SELENOID CONTROL LOW
9	DK/GRN	FUEL PUMP RELAY CONTROL
10	WHT	ENG. SPEED (TACH) OUTPUT SIGNAL
11	-	NOT USED
12	-	NOT USED
13	WHT	CRUISE CONTROL ENABLE SIGNAL
14	RED/BLK	A/C REFRIG. PRESS. SENSOR SIGNAL
15	RED	ALTERNATOR TERMINAL
16	-	NOT USED
17	DRK GRN/WHT	A/C REQUEST SIGNAL
18	DK GRN	A/C STATUS SIGNAL
19	-	NOT USED
20	LT GRN/BLK	VSS REFERENCE LOW
21	PPL/WHT	
22	-	NOT USED
23	-	NOT USED
24	DK BLU	TP SENSOR SIGNAL
25	TAN	IAT SENSOR SIGNAL
26	PPL	INGNITION CONTROL 1
27	RED	INGNITION CONTROL 7
28	LT BLU/WHT	INGNITION CONTROL 6
29	DK GRN/WHT	INGNITION CONTROL 4
30	DK BLU	VDT FUEL ENABLE SIGNAL
31	YEL	MAF SENSOR SIGNAL
32	LT GRN	MAP SENSOR SIGNAL
33	DK BLU	ENG. COOLING FAN RELAY 2 & 3 CONTROL
34	DK GRN/WHT	EVAP PURGE CANISTER VALVE CONTROL
35	-	NOT USED
36	BRN	AIR PUMP RELAY CONTROL
37	DK GRN	CRUISE CONTROL INHIBIT
38	-	NOT USED
39	RED	CAMSHAFT POS. SENSOR B+ SUPPLY
40	BLK	PCM GROUND

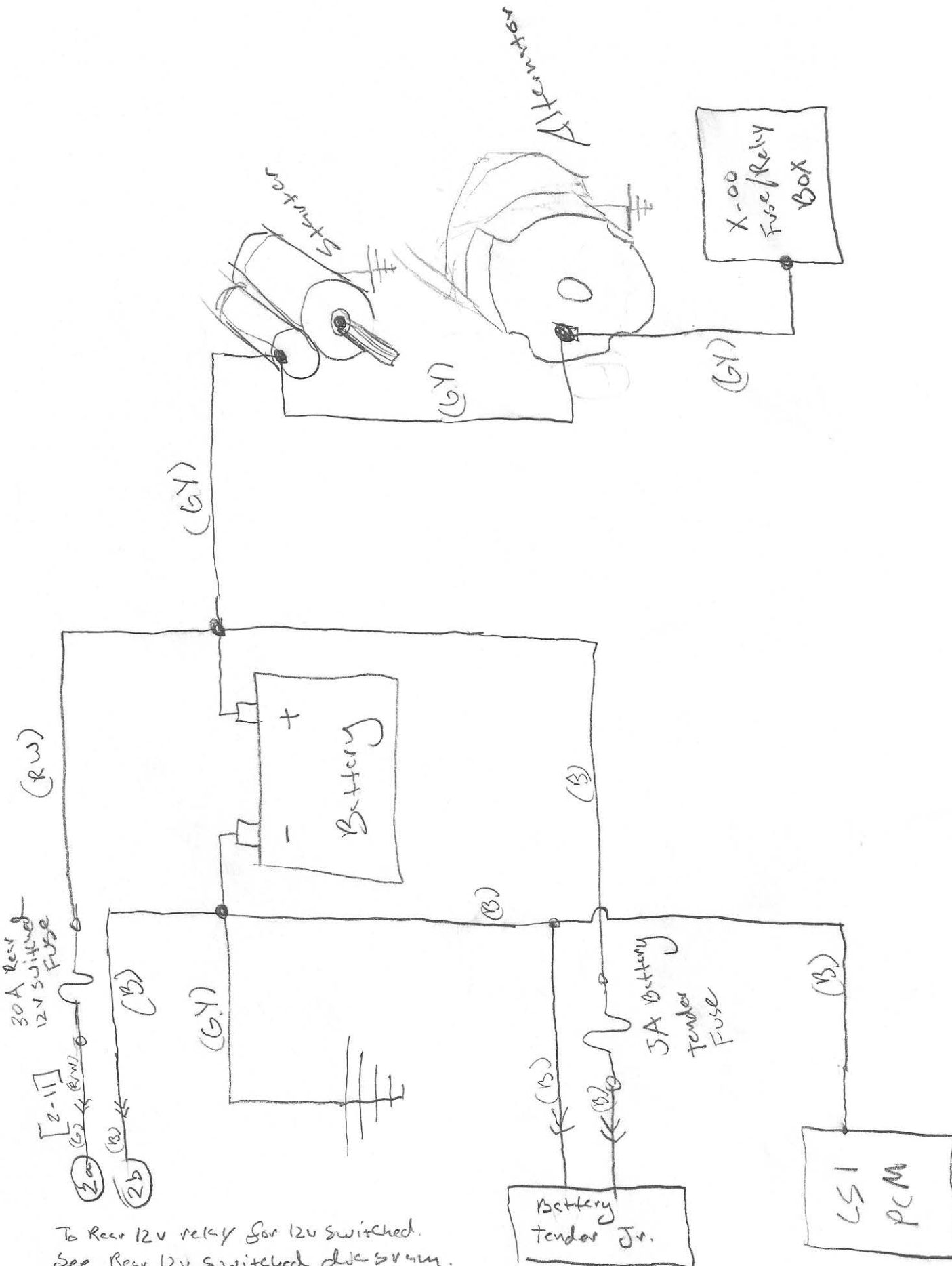
Continued on next page

Circuit Number C2 (Red)

Table continued.

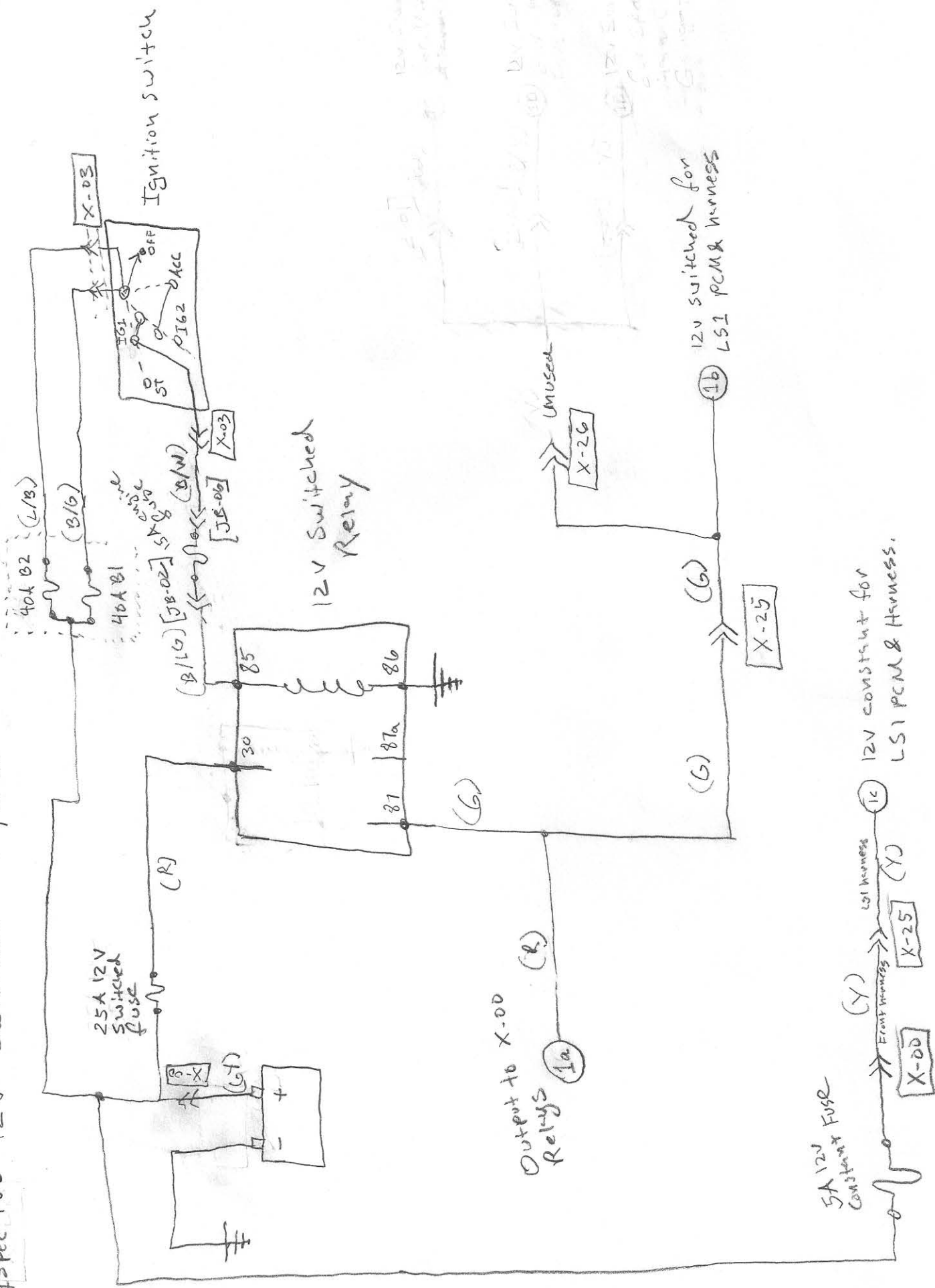
Pin	Wire Color	Function
41	GRA	EGR POSITION SENSOR GROUND
42	TAN/BLK	TCC ENABLE CIRCUIT
43	DK GRN/WHT	A/C CLUTCH RELAY CONTROL
44	LT GRN	REV. INHIBIT SOLENOID CONTROL
45	WHT	EVAP CANISTER VENT VALVE CONTROL
46	BRN/WHT	MALFUNCTION INDICATOR LAMP CONTROL
47	YEL/BLK	TRANSMISSION, SHIFT SOLENOID B
48	LT GRN	TRANSMISSION, SHIFT SOLENOID A
49	-	NOT USED
50	DK GRN/WHT	VEHICLE SPEED OUTPUT CIRCUIT
51	YEL/BLK	TRANS. TEMP. SENSOR SIGNAL
52	-	NOT USED
53	GRA/BLK	SPARK RETARD SIGNAL
54	PPL	FUEL LEVEL SENSOR SIGNAL
55	-	NOT USED
56	-	NOT USED
57	PPL	IAT SENSOR GROUND
58	-	NOT USED
59	-	NOT USED
60	BRN	IGNITION CONTROL REFERENCE LOW BANK 1
61	BRN/WHT	IGNITION CONTROL REFERENCE LOW BANK 2
62	-	NOT USED
63	PNK	TRANS RANGE SIGNAL A
64	DK GRN	FUEL TANK PRESSURE SENSOR SIGNAL
65	-	NOT USED
66	PPL/WHT	IGNITION CONTROL 8
67	RED/WHT	IGNITION CONTROL 2
68	DK GRN	IGNITION CONTROL 5
69	LT BLU	IGNITION CONTROL 3
70	-	NOT USED
71	-	NOT USED
72	-	NOT USED
73	-	NOT USED
74	-	NOT USED
75	-	NOT USED
76	LT GRN/WHT	IAC COIL B HIGH
77	LT GRN/BLK	IAC COIL B LOW
78	LT BLU/BLK	IAC COIL A LOW
79	LT BLU/WHT	IAC COIL A HIGH
80	-	NOT USED

$f_{c1} = 1 \text{ sec}$ FD3 Power Distribution (Front)

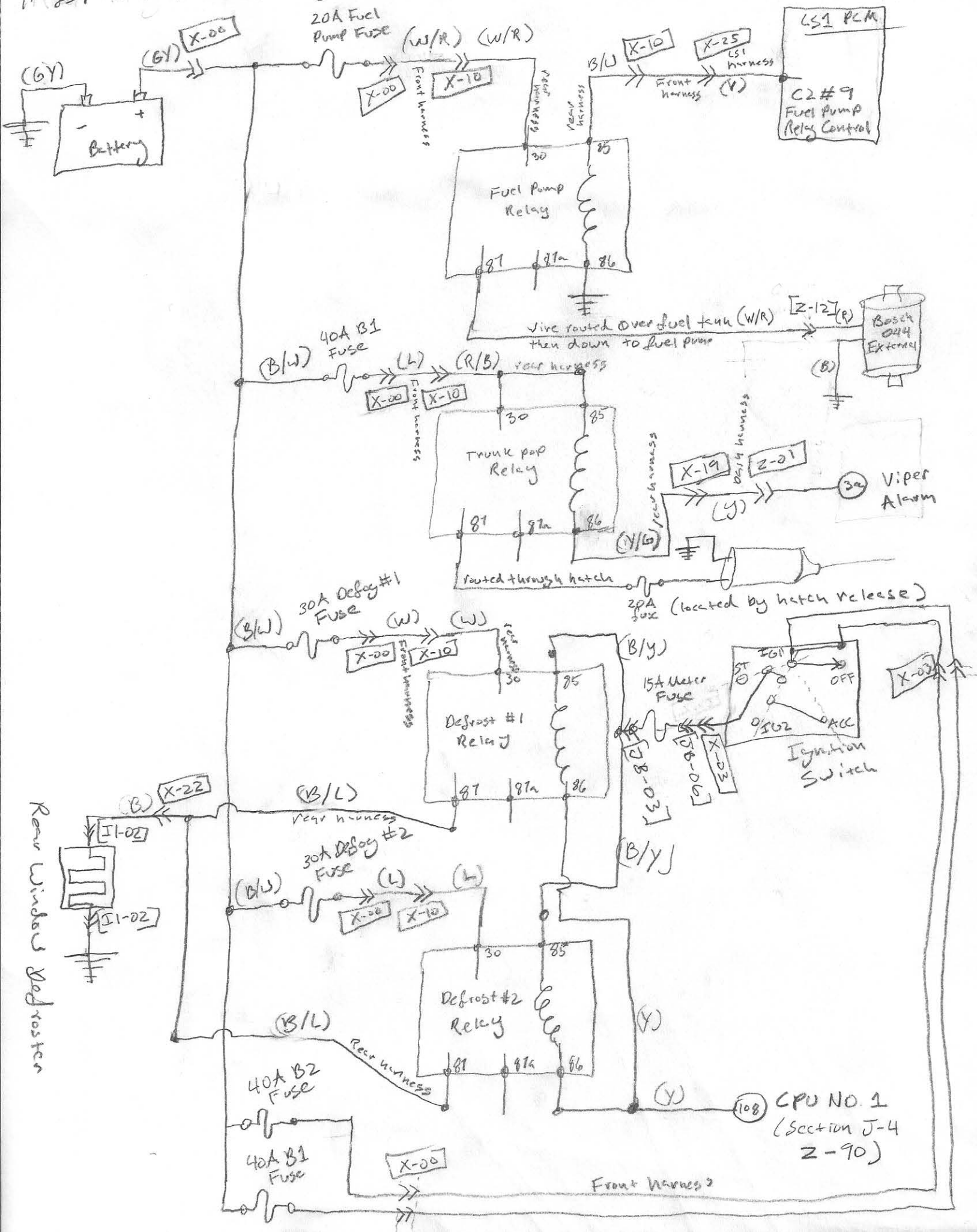


To Rear 12v relay for 12v switched.
See Rear 12v switched disconn.

Helpspec F03 12V Switched relay and constant 12V diagram

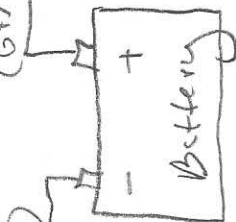


Halfspec F03 - Rear Relay Control (Located Under Drivers Side Rear Bin)



25A Fuse
A/C Fuse

(GN) X-00



(R)



C2 #18

C1 #43

C1 #17

LS1 PCM

(DK Grn)

(DK Grn/Whit)

(DK Grn/Whit)

(G)

(L)

(L)

LS1 harness

Front harness

X-00

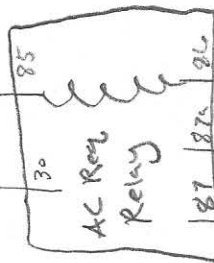
X-25

X-00

From 12v Switched relay and
12v Constant diagram

1a

(R)



X-00 Front (L)

X-25 LS1 (V)

X-26 Instrument

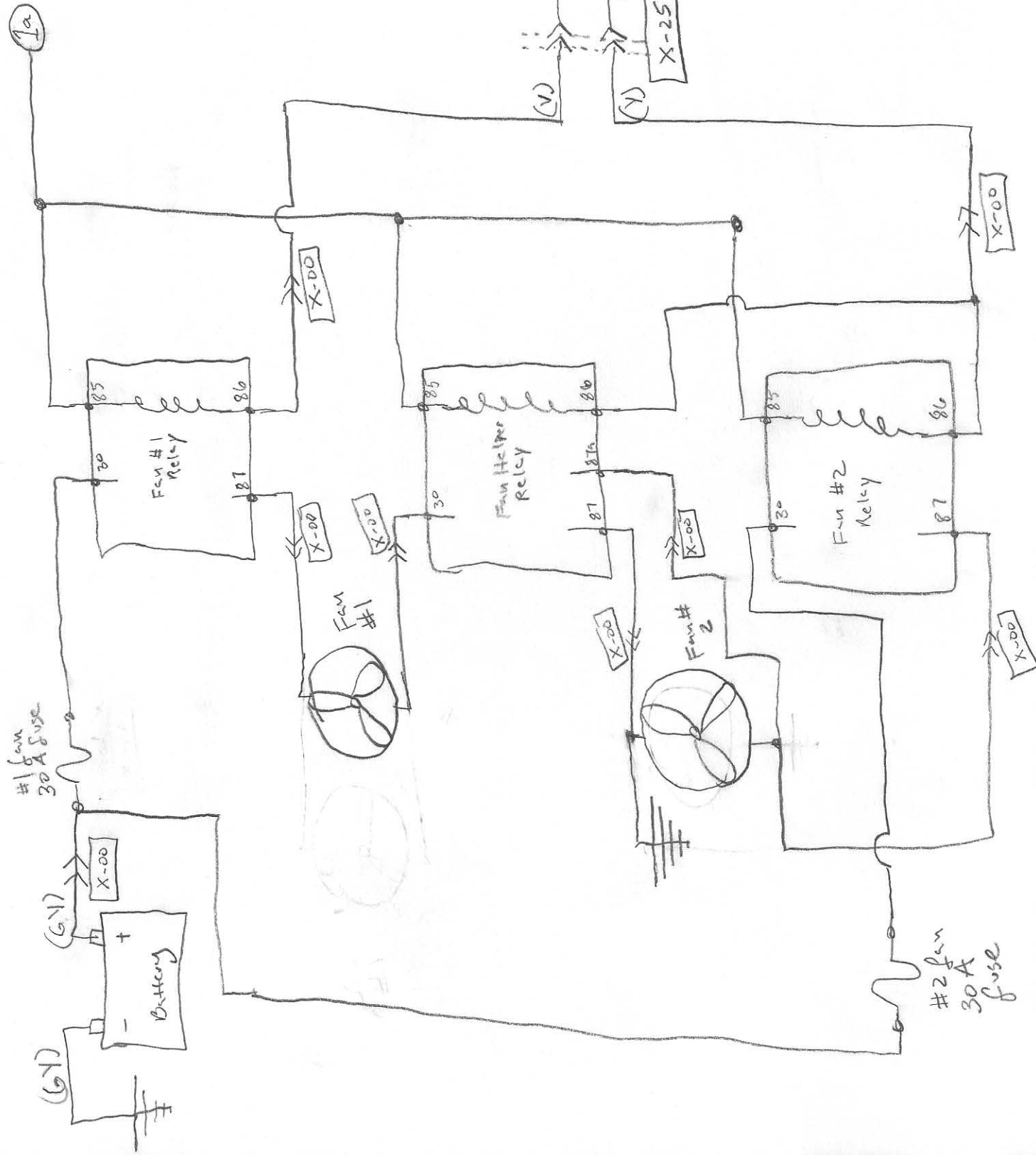
X-17 Dash

G-13

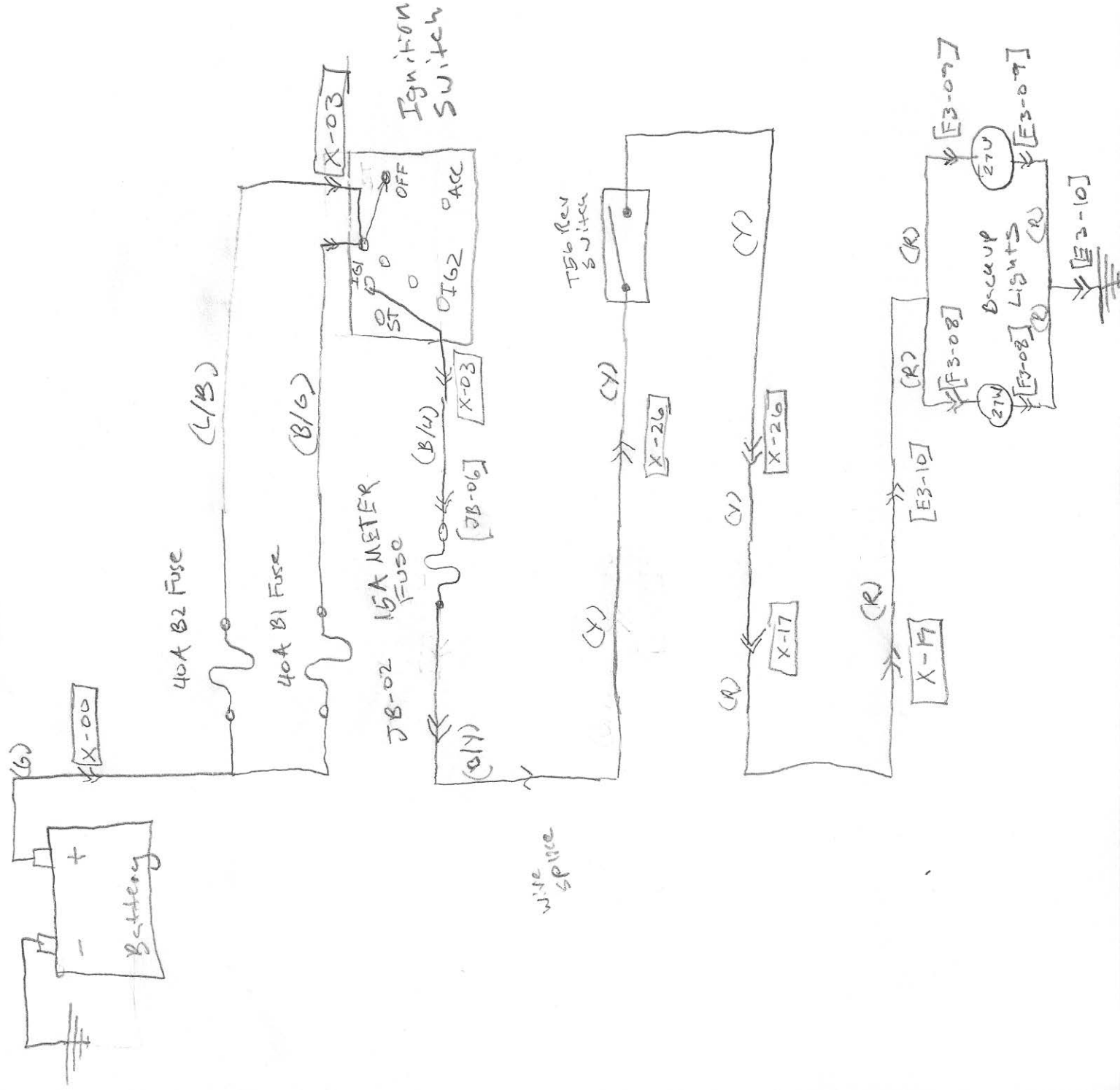
To A/C Switch
See
Z-68

Halfspec FD3 - Samberg Radiator Dual Fan Control Diagram

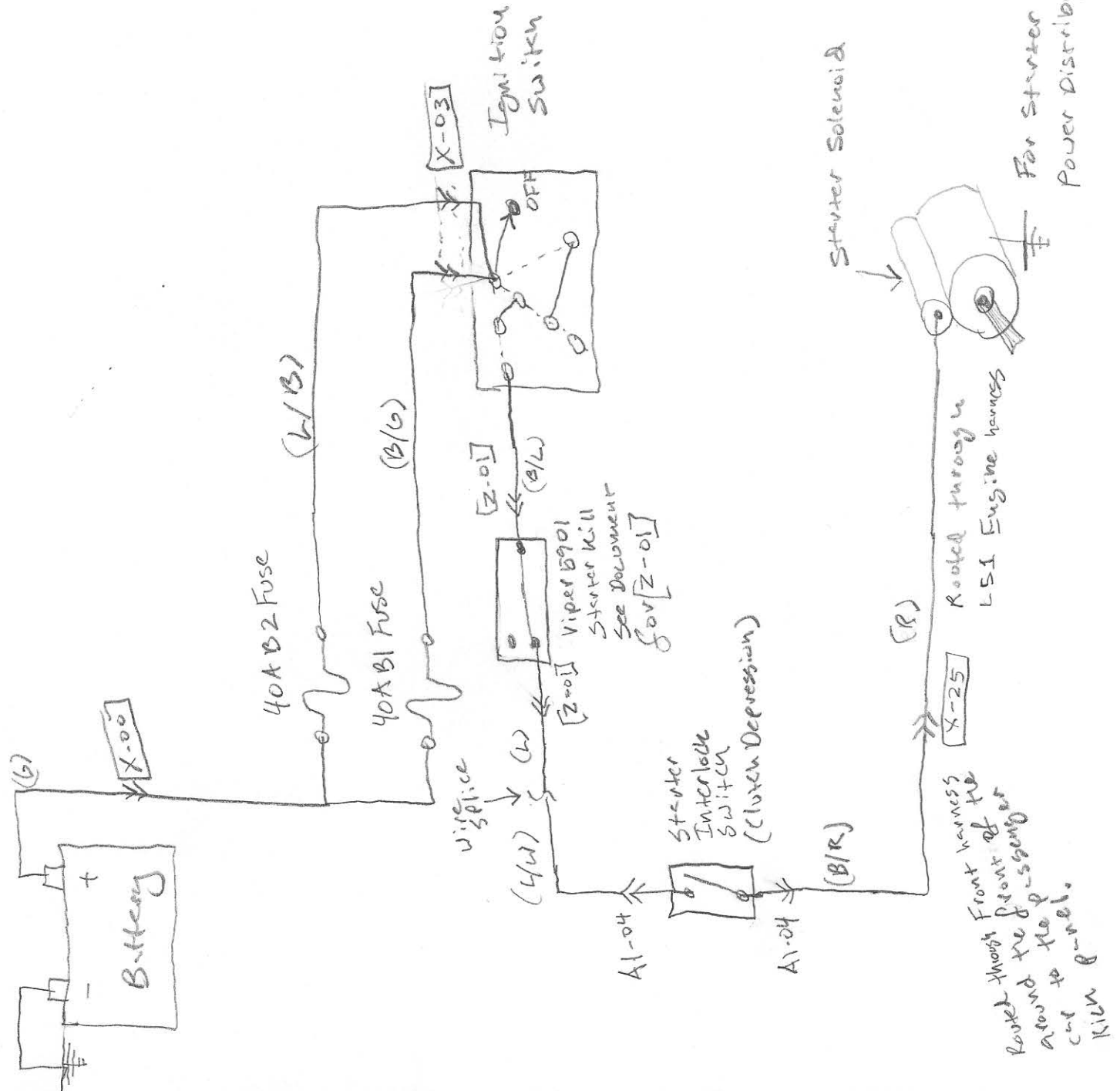
12V switched
See 12V switched
diagram for details



Hilfspec F03 - LS1 Rented Circuit Diagrams - Backup Lights

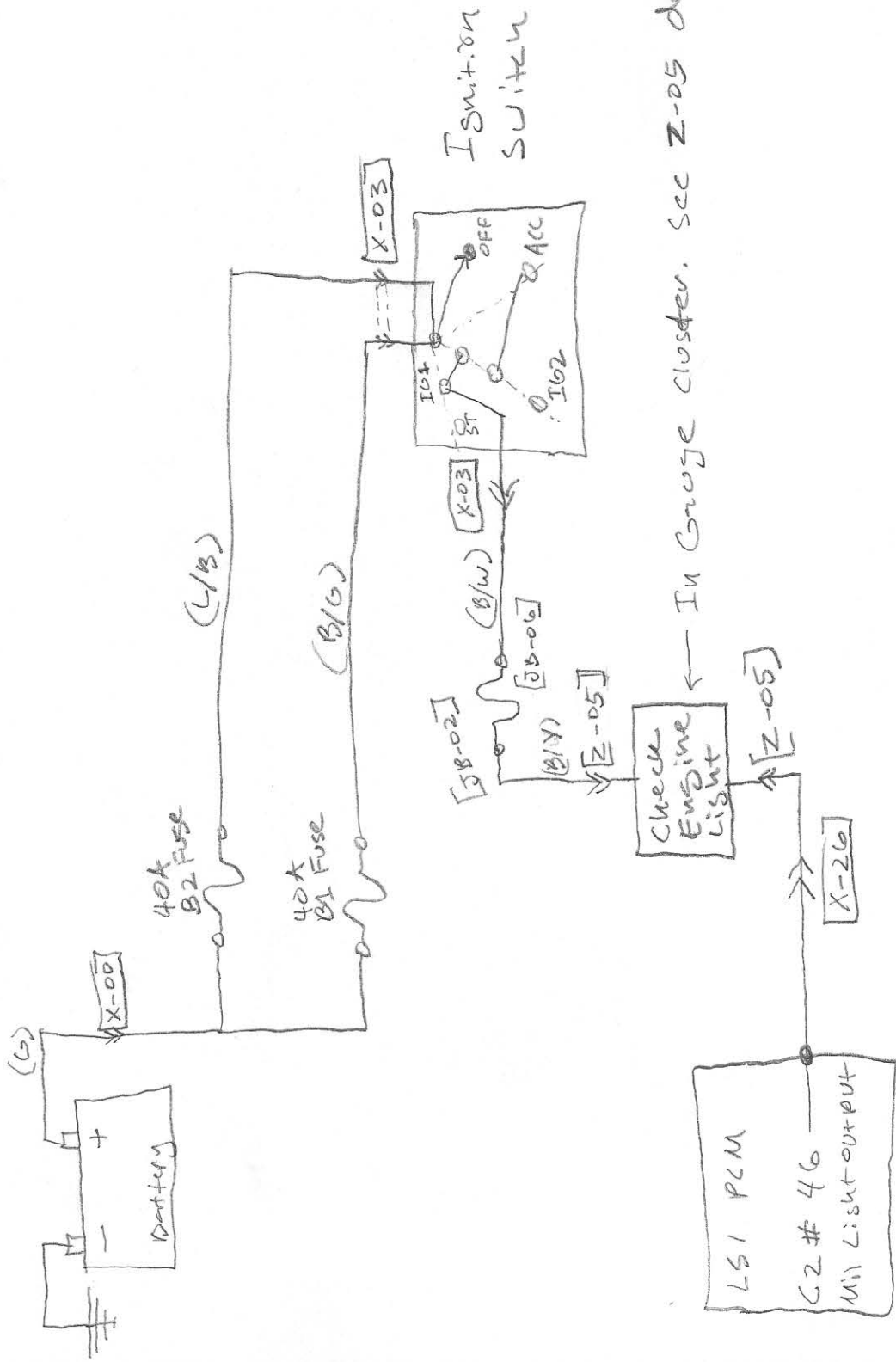


H-115 spec F03 - L51 Related Circuit Diagrams - Starter

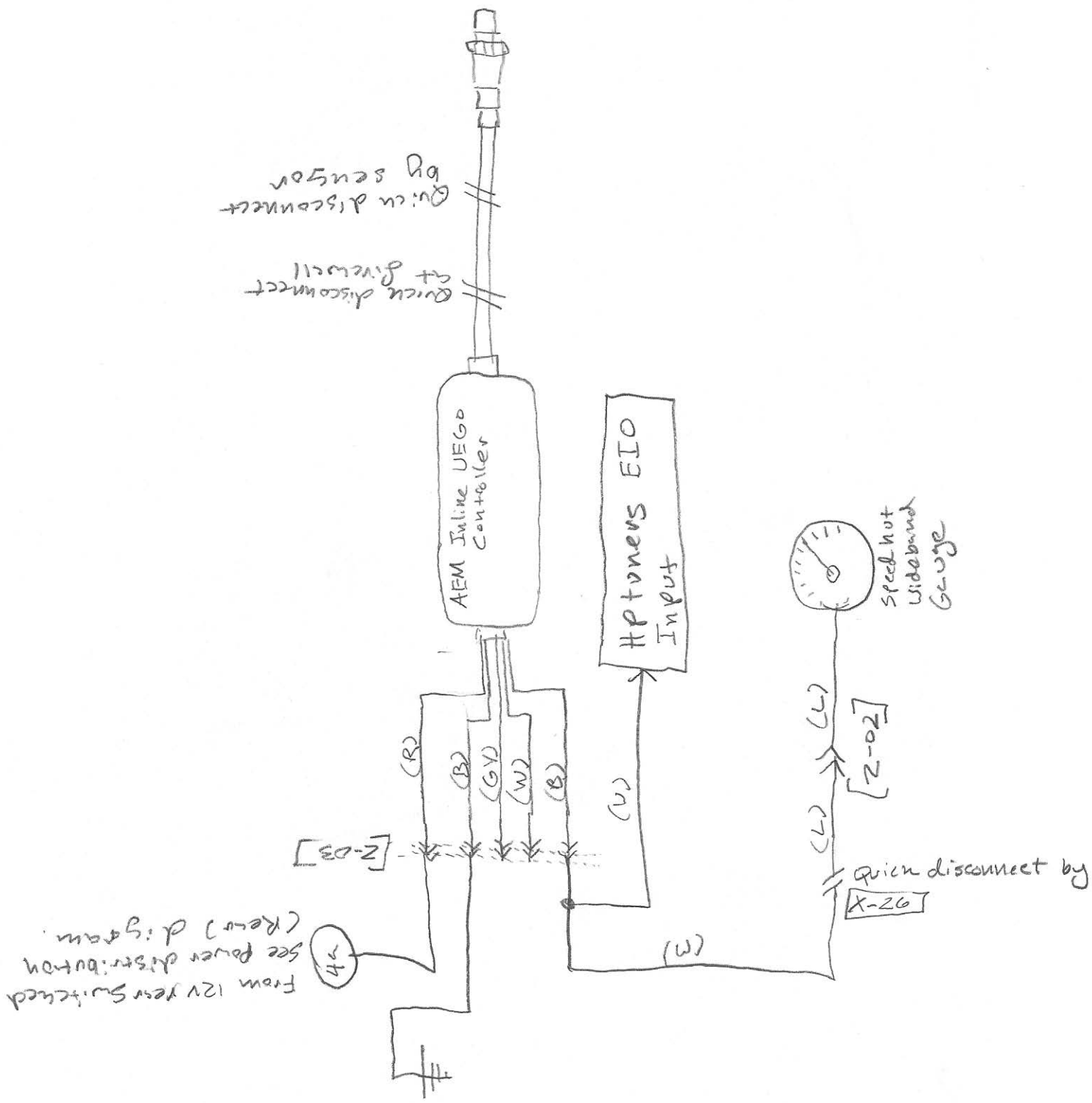


For Starter power distribution info see Power Distribution (Front) diagram.

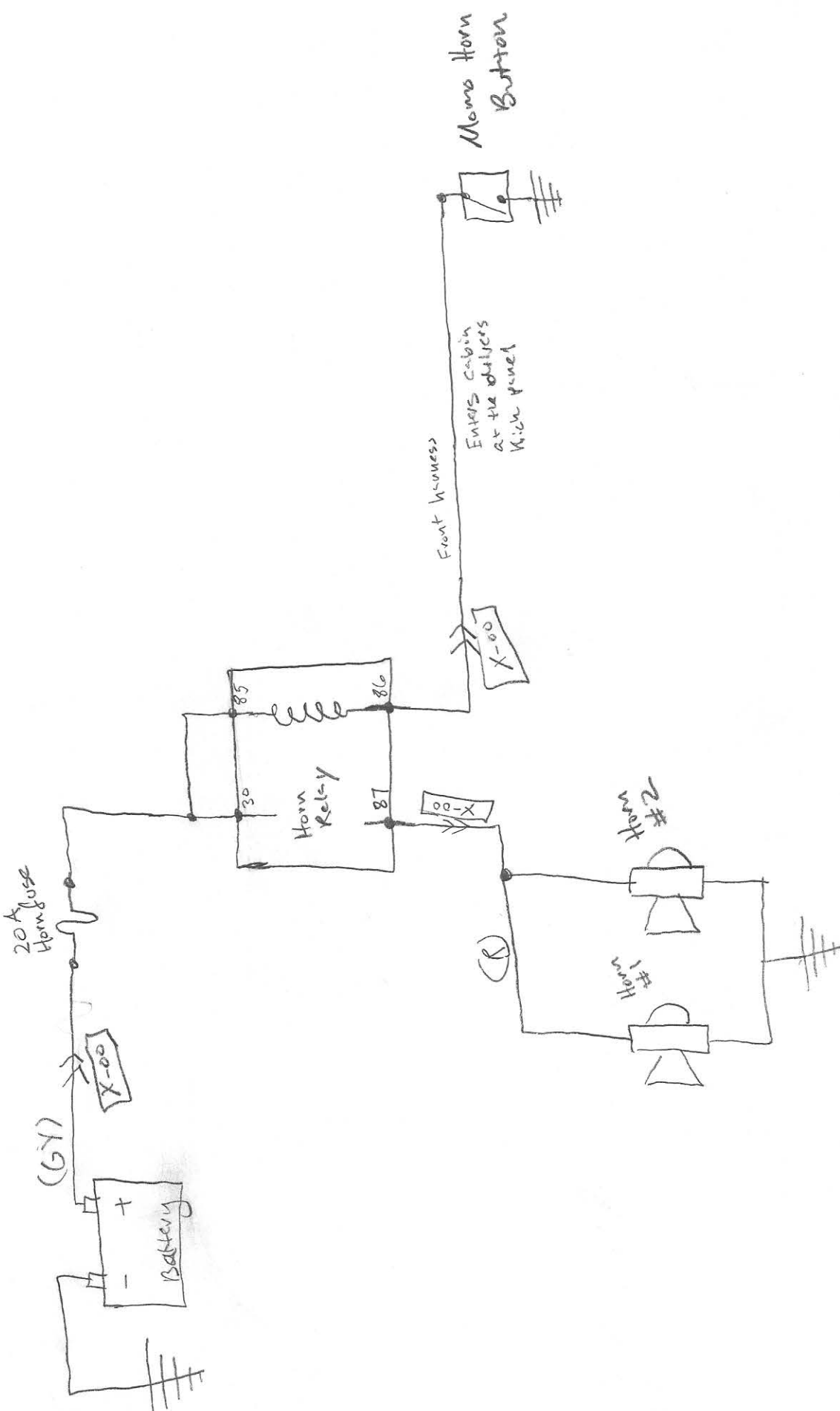
H-18 spec F03 - LSI Related Circuit Diagrams - MIL/Check Engine Light



Halfspec F03 Wideband controller diagram



HalSpecFD3 Hello Nouns



to Injectors

