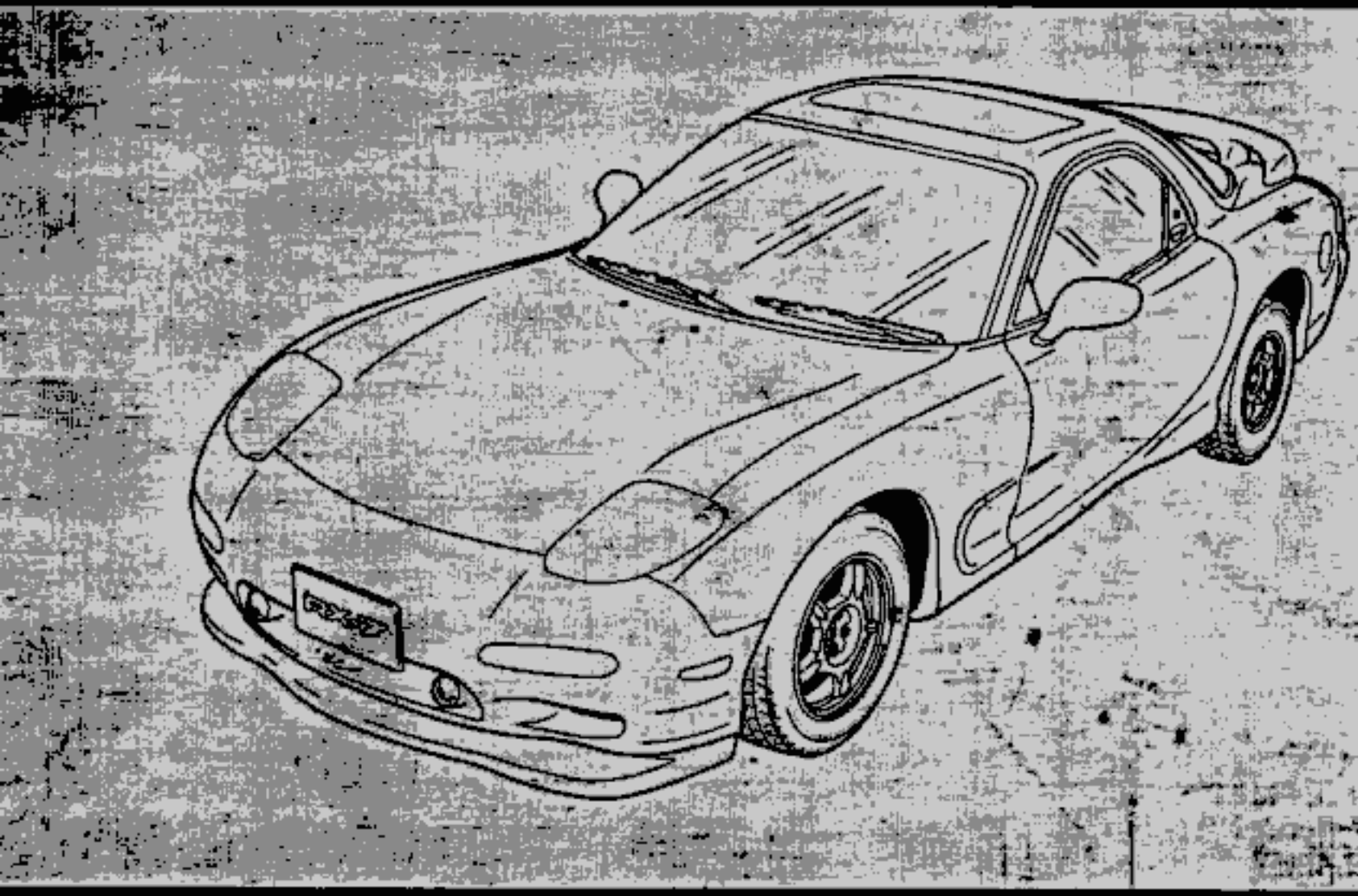
This file is available for free download at http://www.iluvmyrx7.com

This file was not scanned to deprive Mazda of any money – it was scanned due to the rareness of the original manuals and the overwhelming need of the RX-7 owner to have this information so that they can accurately troubleshoot problems. Perhaps if Mazda's dealerships could support the Rotary Engine it wouldn't be so necessary for the owners to do so.

Mazda RX-7

1993
Wiring Diagram



mazda

SYSTEM INDEX

Z

1993
Mazda RX-7
Wiring Diagram

CONTENTS

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 Corpotation reserves the right to make changes without previous notice.

Mazda Motor Corporation
HIROSHIMA, JAPAN

APPLICATION:
This manual appies to vehicles beginning with he Vehicle identification Numbers (VIN) on the ollowing page.

PRINTED IN JAPAN, DEC. '91
5210-10-91H

GENERAL INFORMATION

Wiring Diagrams

Reading Wiring Diagrams

Troubleshooting

VEHICLE IDENTIFICATION NUMBERS (VIN) (CHASSIS NUMBER)

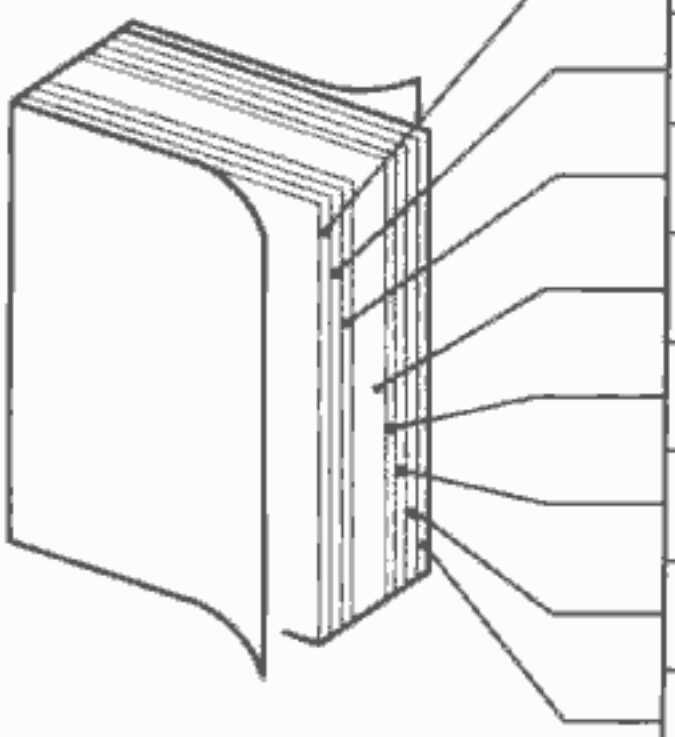
JM1 FD331* P0 200001~	FEDERAL & CALIFORNIA
JM1 FD332* P0 200001~	CANADA

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

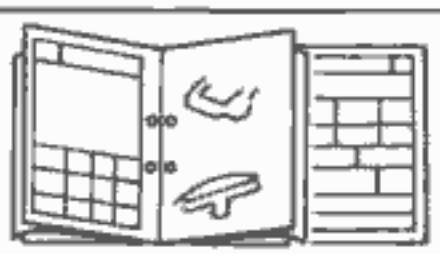
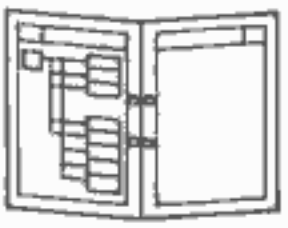
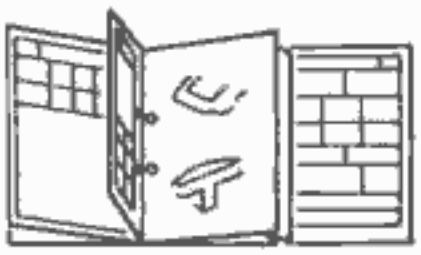
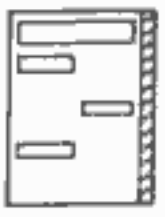
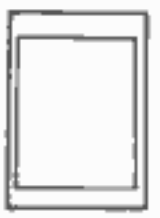
- This document comprises the 8 groups shown below. The main components are summarized in the components location diagram at the end of the document.



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

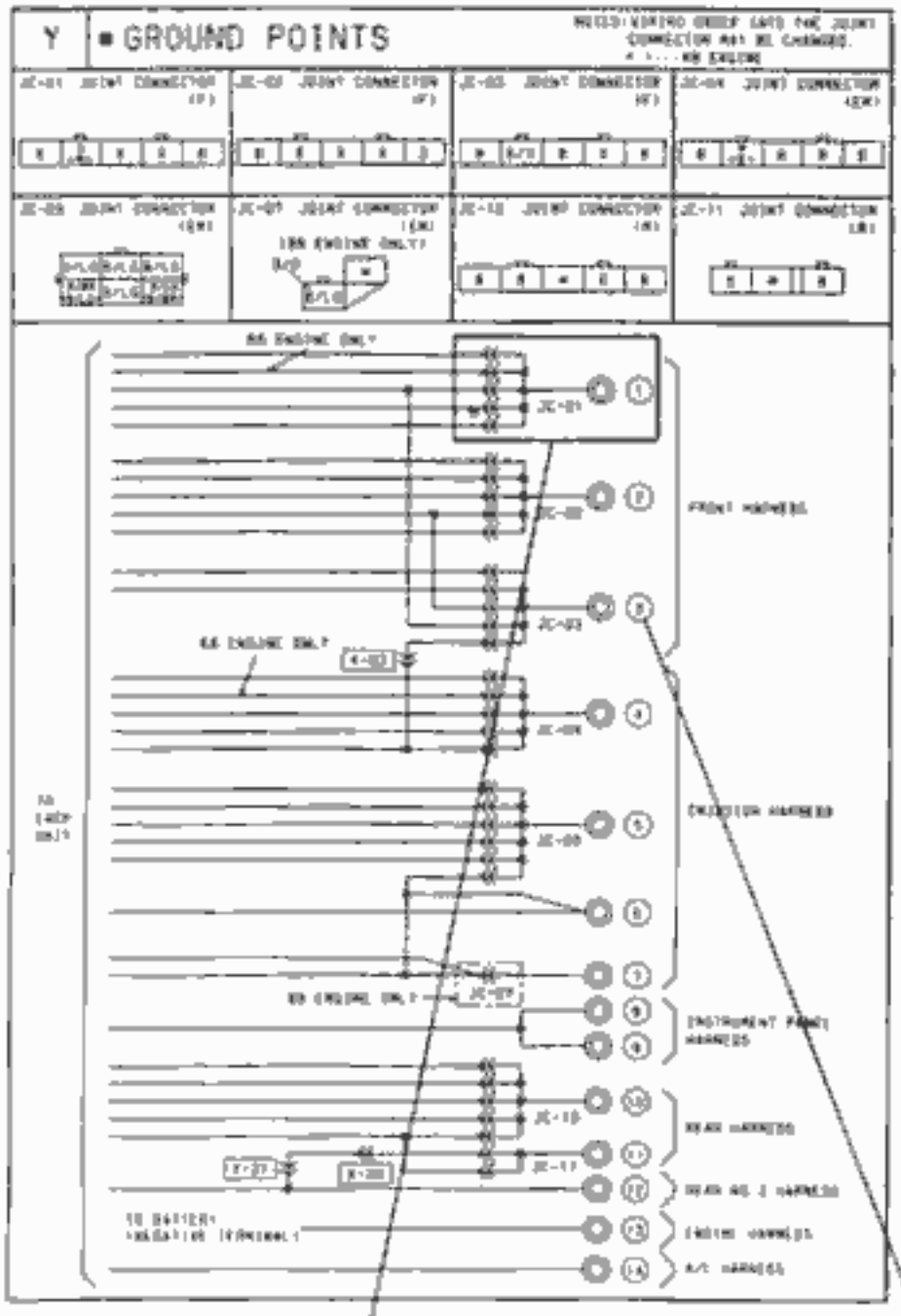
Using wiring diagrams

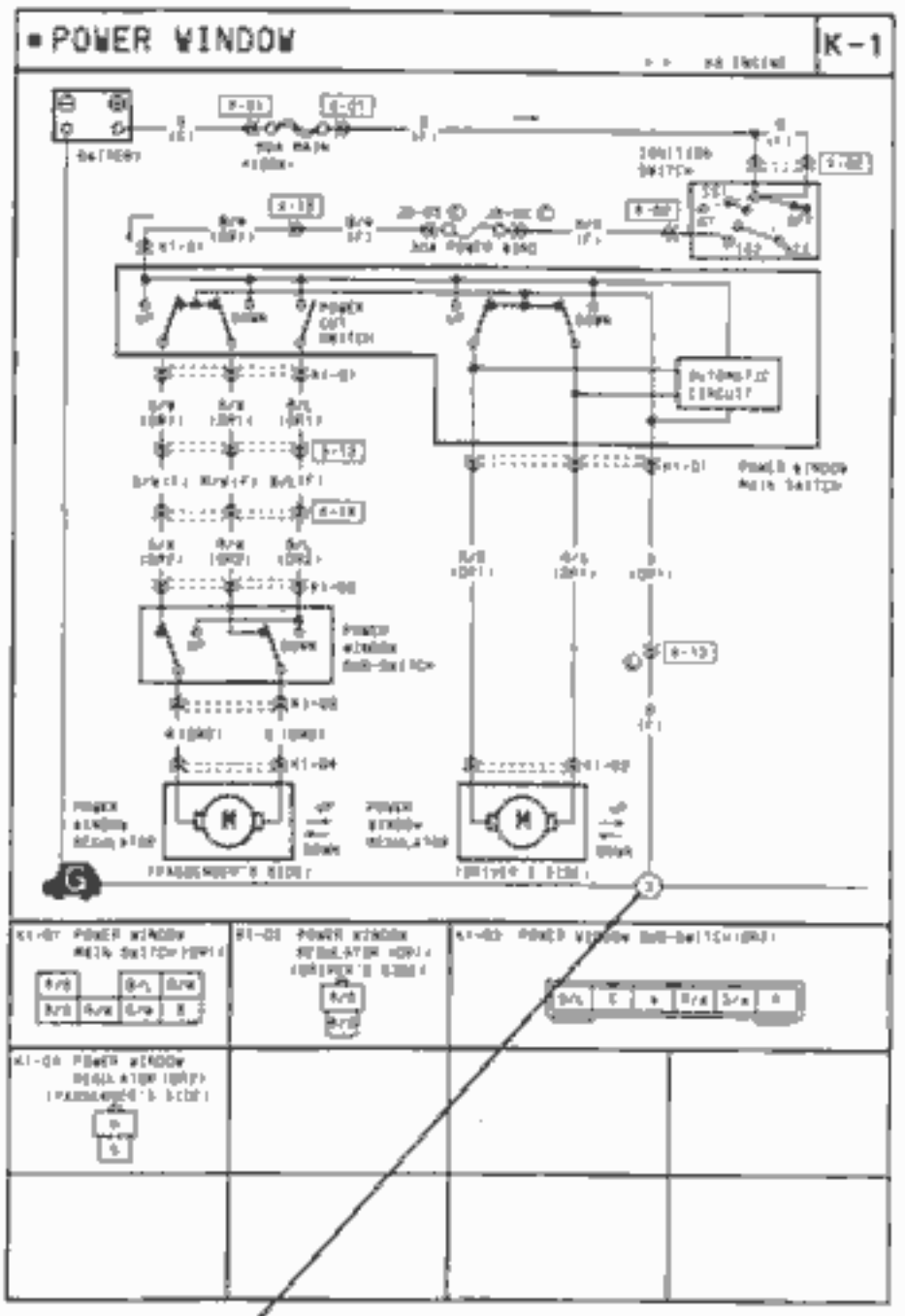
- The use of the wiring diagram depends on its application.

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.

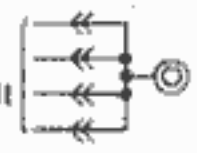
Ground points

- This shows ground points of the harness.





Ground indication

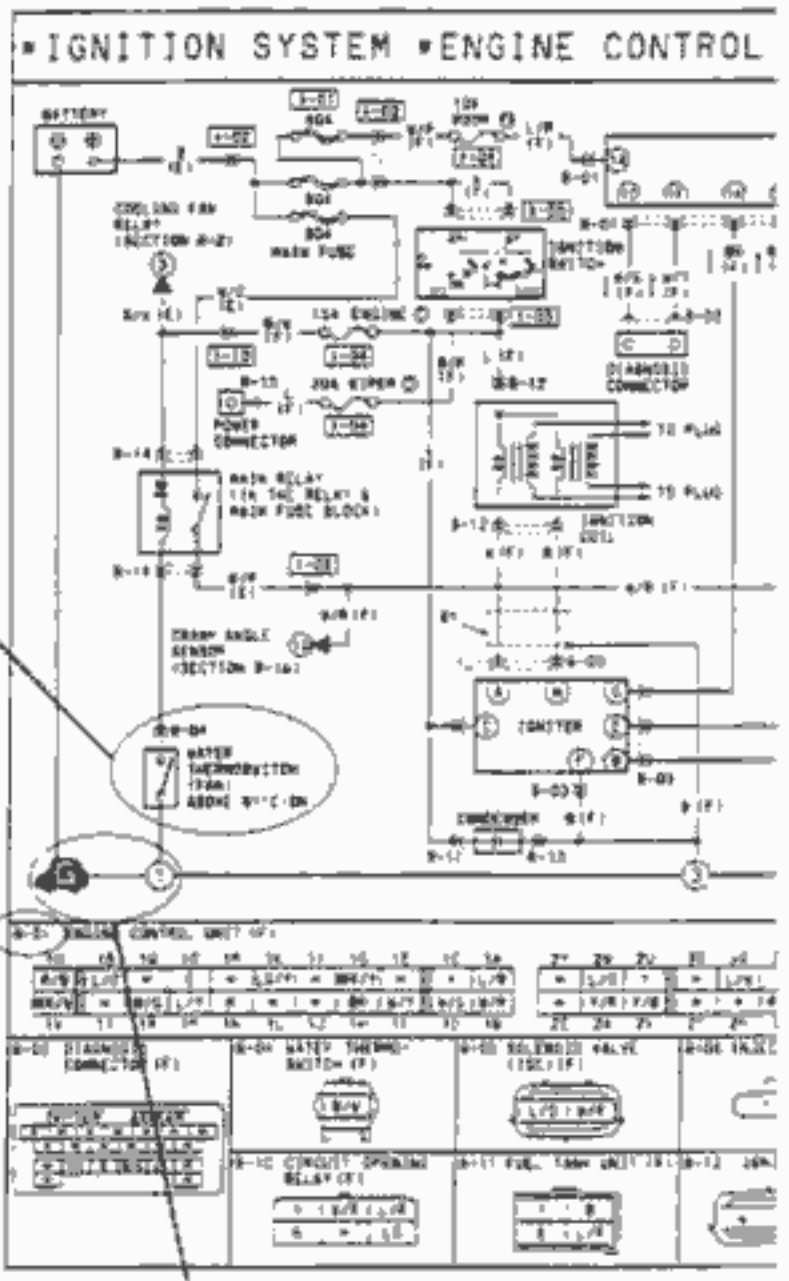
On vehicle	Indication
	To circuit 

On circuit diagrams and ground points

The ground connection numbers in system circuit diagrams correspond to those in the ground point diagram.

System circuit diagram/connector diagram

- 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.
  Below is an explanation of the various points in the diagram.



Indicates operating conditions for switches.

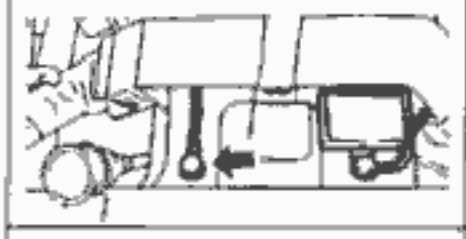
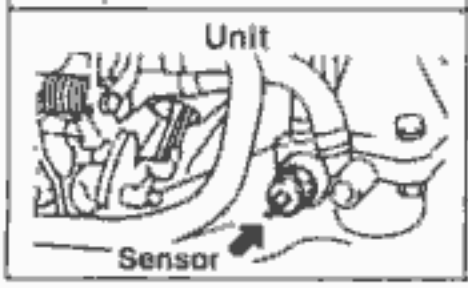
Connector code

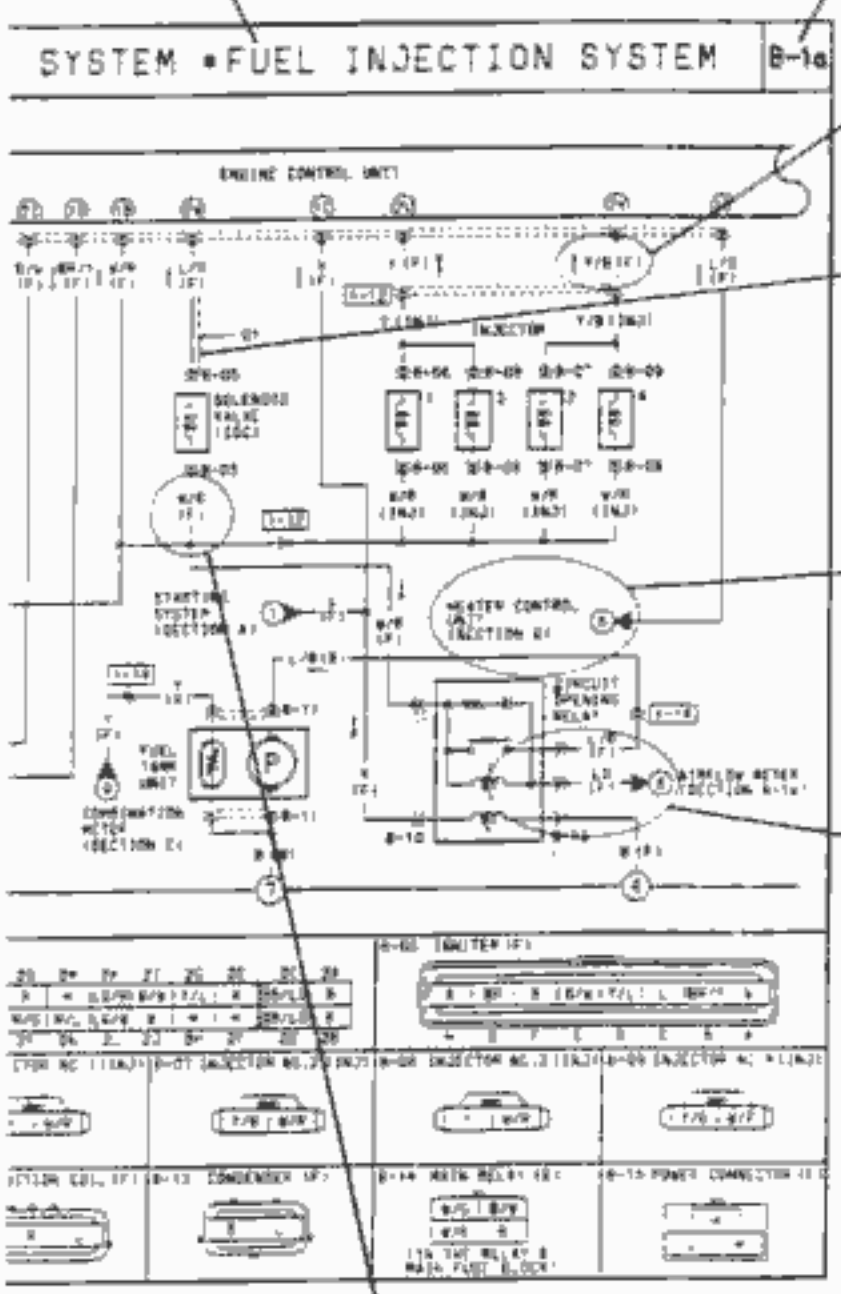
The prefix letter indicates the system in which the connector is used.

- 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

Ground numbers

A harness ground is represented differently than a unit ground.

Types of grounds	Symbol
Harness 	
Unit 	



Current symbol

Current flows in the direction of the arrow.

Indicates shielded wire.*

*Shielded wire:
Prevents signal disturbances from electrical interference.
Wire is covered by a metal meashing for grounding.

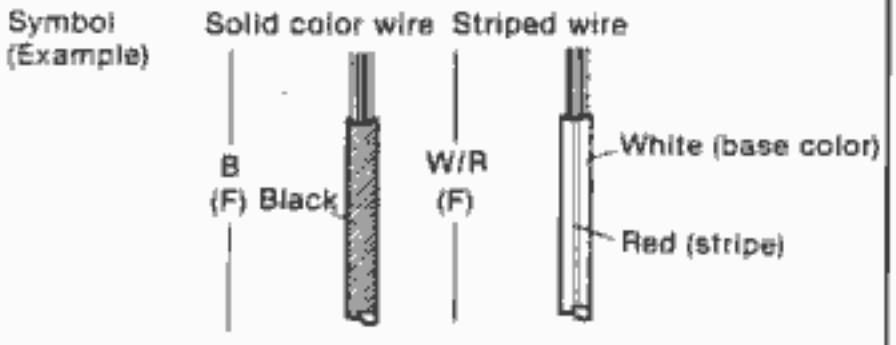
The number indicates that the circuit continues to the related system diagram.

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:

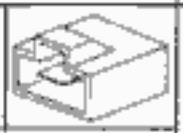
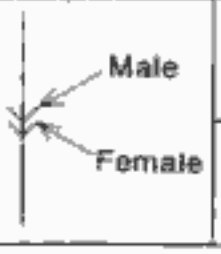
  W/R is a white wire with a red strip
  BR/Y is a brown wire with a yellow strip



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

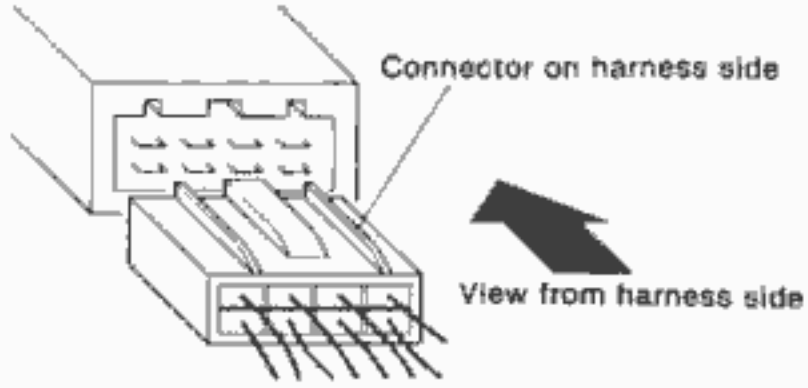
Connector symbols

- Male and female connectors are represented as follows in the circuit and connector diagrams.

		Circuit diagram symbol	Connector diagram symbol
Male			
Female			

- 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)

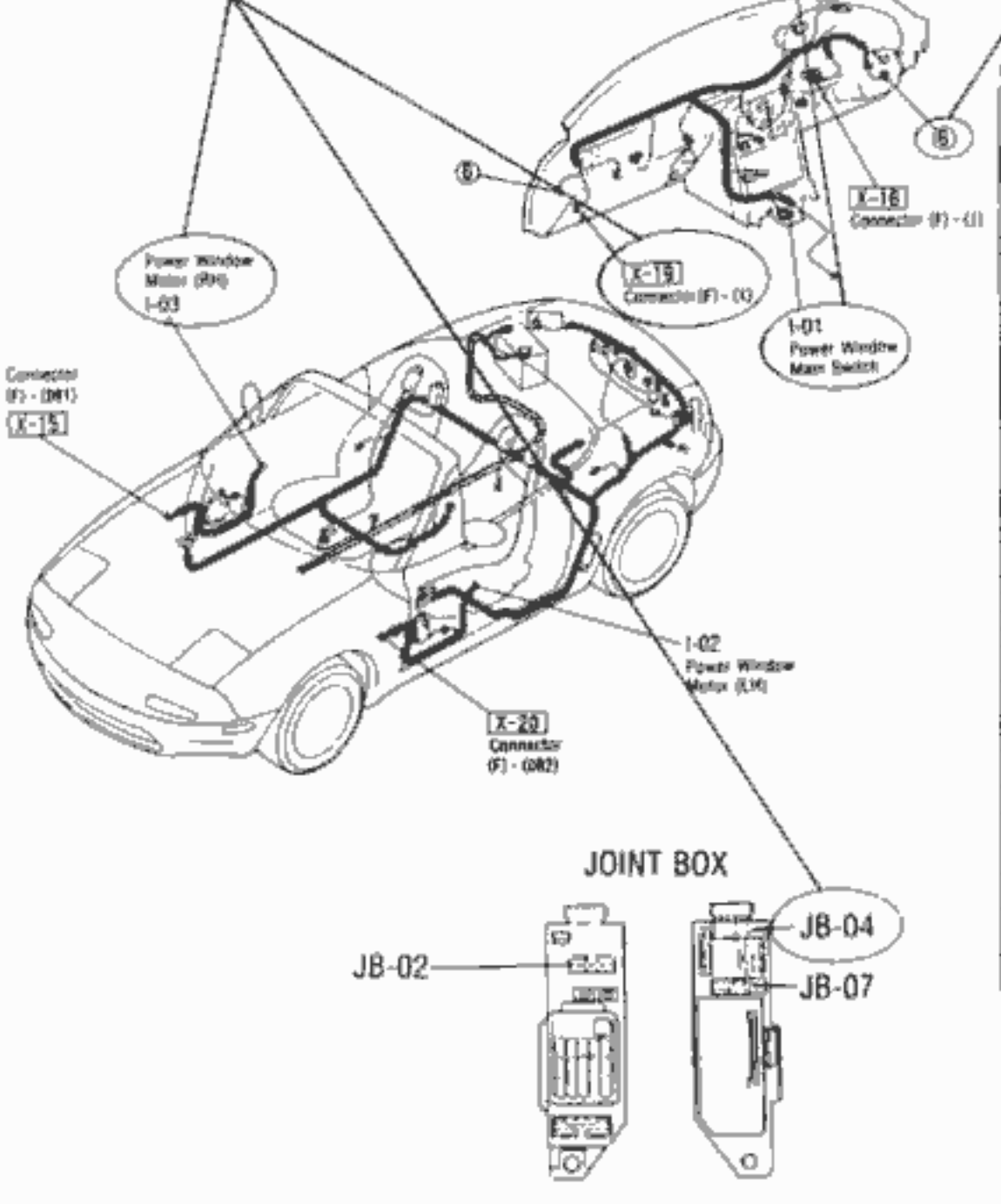
Connector	Symbol
Joint box	JB-04
Common connectors	X-19
System connectors	I-03

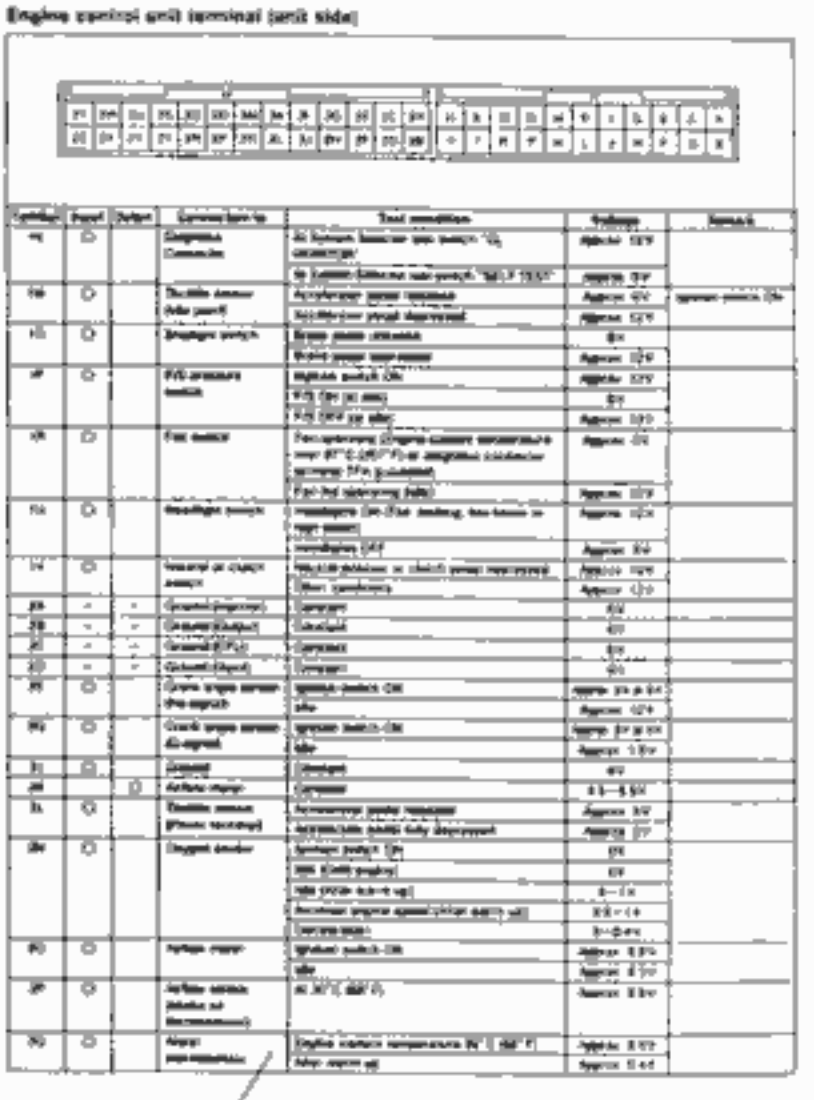
Component name

Shows the names of components in routing diagrams.

Ground symbol

Shows the ground in system diagrams.



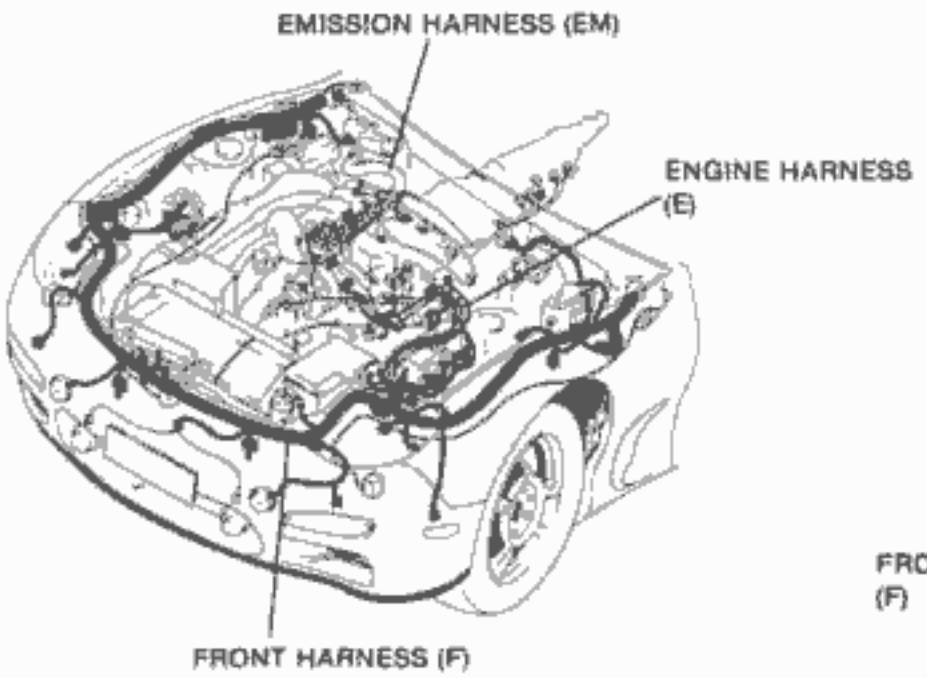


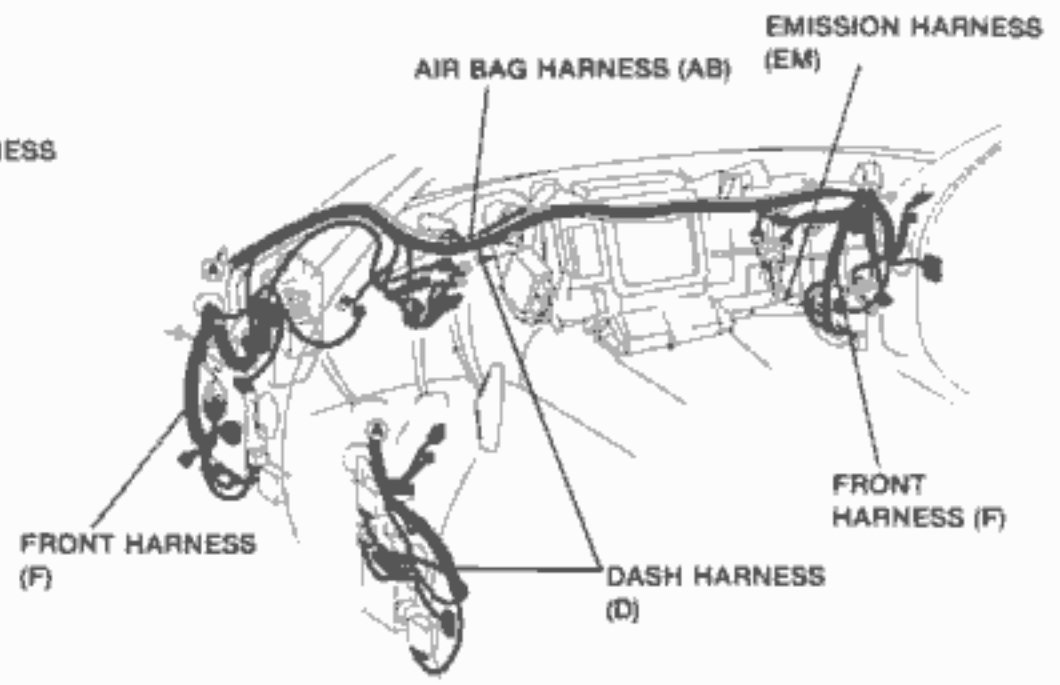
Specified values

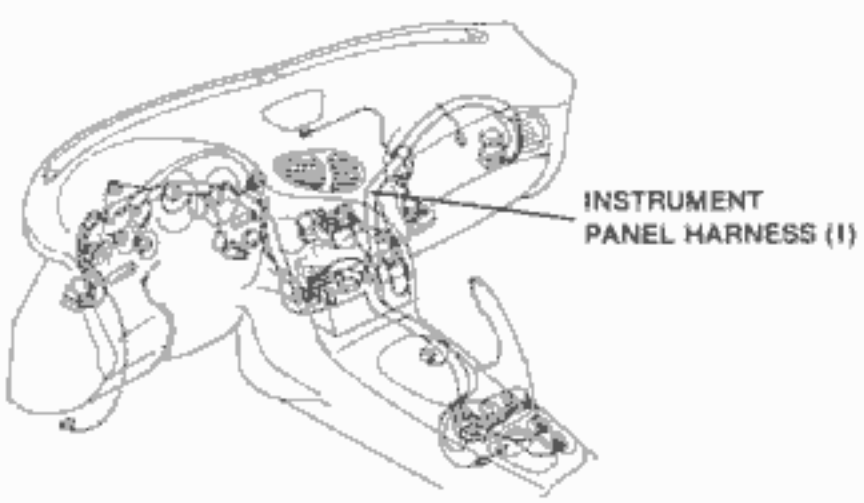
Shows values for determining whether an electrical component is good.

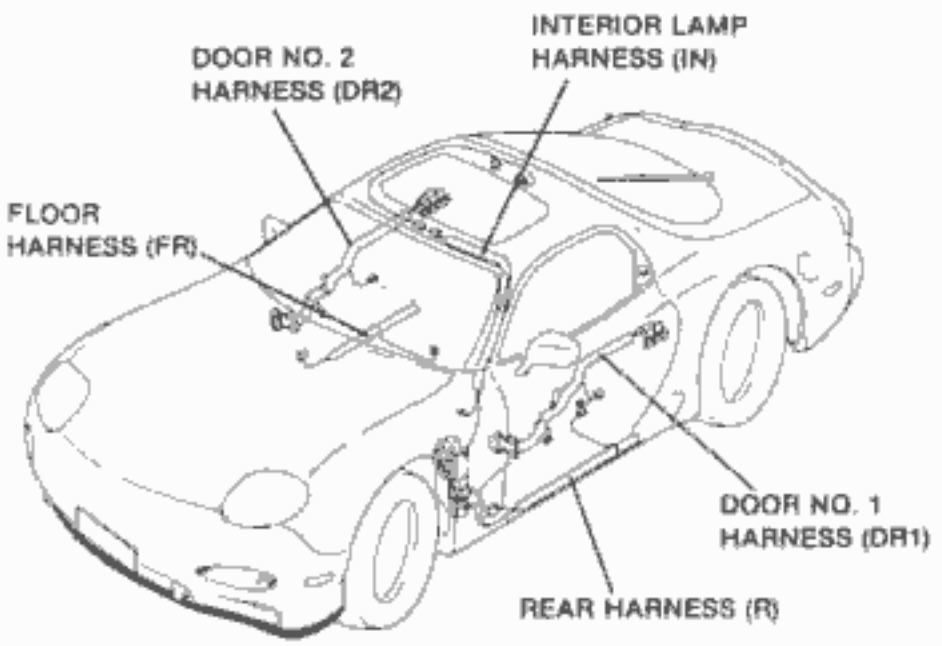
Harness symbols

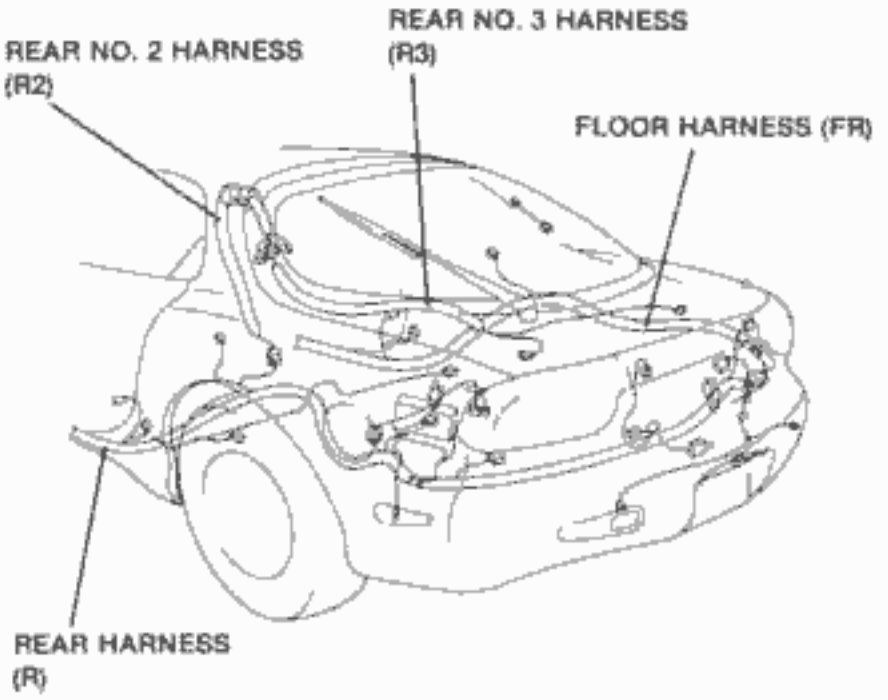
DESCRIPTION OF HARNESS	COLOR	SYMBOL	DESCRIPTION OF HARNESS	SYMBOL
FRONT HARNESS		(F)	REAR HARNESS	(R)
ENGINE HARNESS		(E)	REAR NO. 2 HARNESS	(R2)
DASH HARNESS		(D)	REAR NO. 3 HARNESS	(R3)
INSTRUMENT PANEL HARNESS		(I)	FLOOR HARNESS	(FR)
EMISSION HARNESS		(EM)	DOOR NO. 1 HARNESS	(DR1)
A/C HARNESS		(AC)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









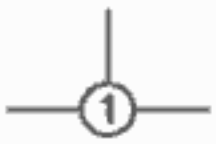


Symbols

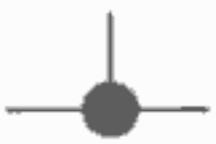
Battery

- Generates electricity through chemical reaction.
- Supplies direct current to circuits.

Ground (1)



Ground (2)



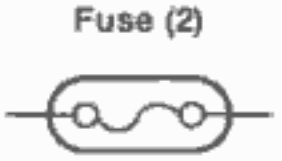
- Connecting point to vehicle body or other ground wire where current flows from positive to negative terminal of battery.
- Ground (1) indicates a ground point to body through wire harness.
- Ground (2) indicates point where component is grounded directly to body.

Remarks
- Current will not flow through a circult if ground is faulty.

Fuse (1)

(box)

Fuse (2)



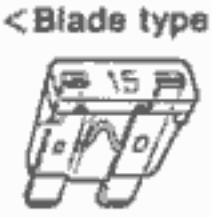
(Cartridge)

Main fuse/ Fusible link

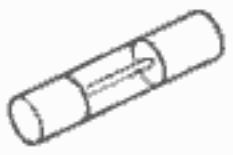
- Melts when current flow exceeds that specified for circuit, interrupts current flow.

Precautions
- Do not replace with fuses exceeding specified capacity.

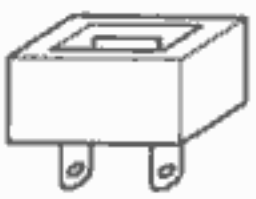
<Blade type>



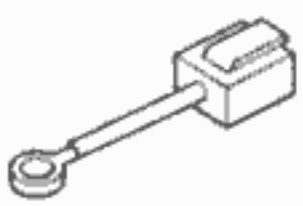
<Tube type>



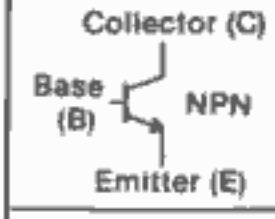
<Cartridge type>



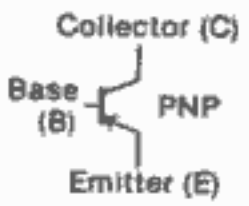
<Fusible link>



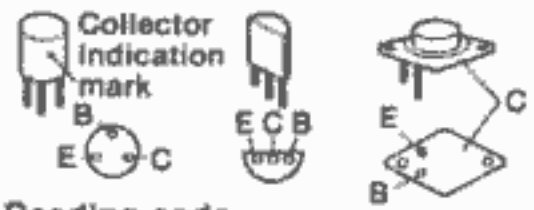
Transistor (1)



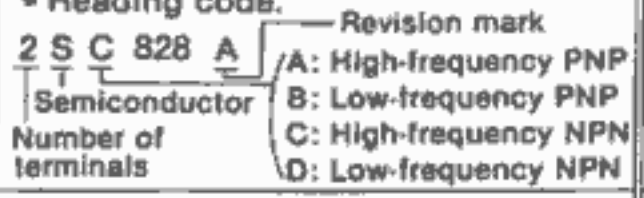
Transistor (2)



- Electrical switching component.
- Turns on when voltage is applied to the base (B).



- Reading code.



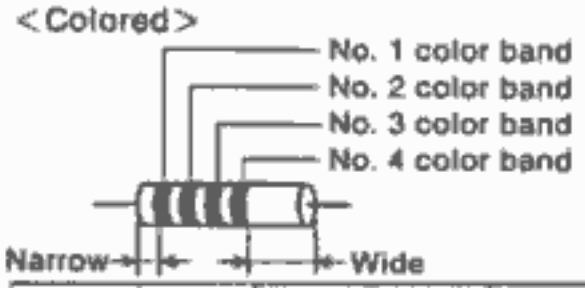
Lamp

- Emits light and generates heat when current flows through filament.

Resistance

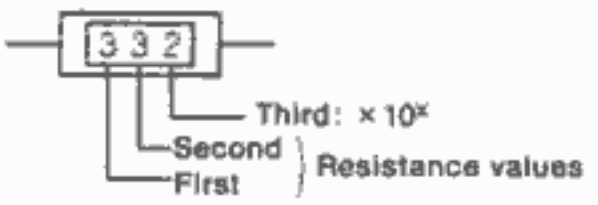
- A resistor with a constant value.
- Mainly used to protect electrical components in circuits by maintaining rated voltage.
- Reading resistance values.

<Colored>



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			$\times 10^{-1}$	±5%
Silver			$\times 10^{-2}$	±10%
—				±20%

<Numerical>



Motor

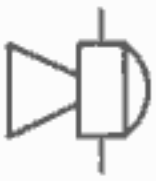
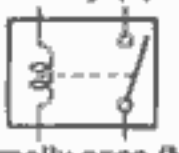
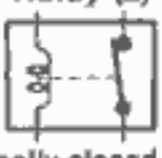
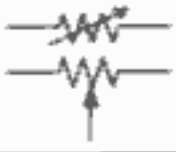
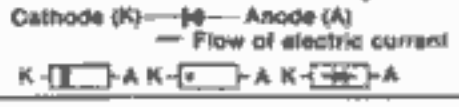
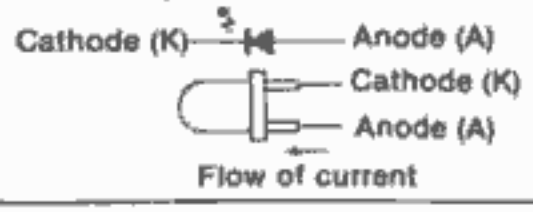
- Converts electrical energy into mechanical energy.

Pump

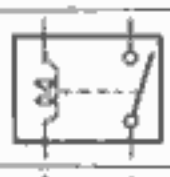
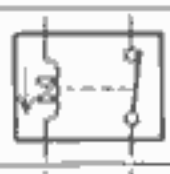
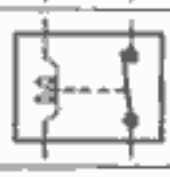
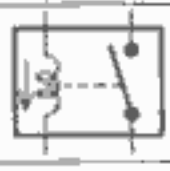
- Pulls in and discharges gases and liquids.

Cigarette lighter

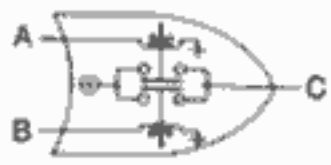
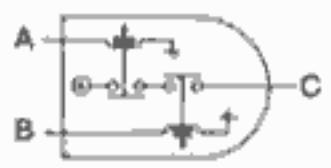
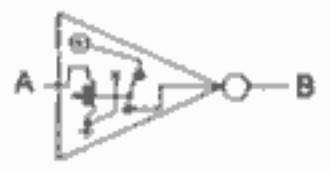
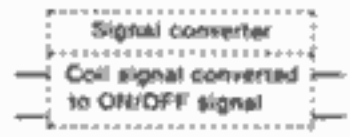
- Electrical coil that generates heat.

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)  (Connected)	• Unconnected intersecting harness.  • Connected intersecting harness. 
Speed sensor 	• Movement of magnet in speedometer turns contact within sensor on and off.		
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.		
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. 
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. 
Capacitor 	• Component that temporarily stores electrical charge.		
Solenoid 	• Current flowing through coil generates electromagnetic force to operate plungers.	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.

Relay (1) / Relay (2)

	No current to coil	Current to coil
Normally open relay (NO)	 No flow	 Flow
Normally closed relay (NC)	 Flow	 No flow

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

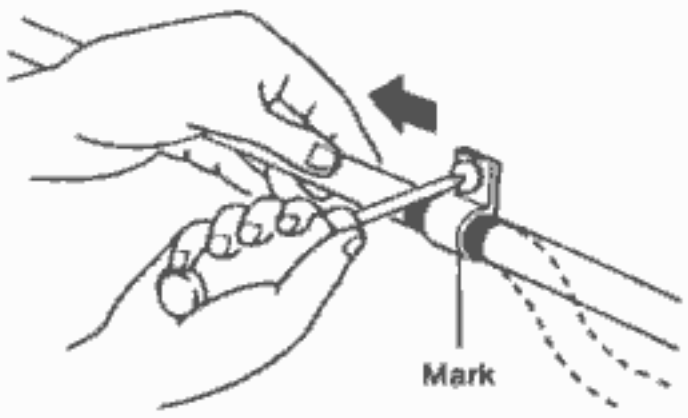
Precautions to take when servicing an electrical system

- 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.

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.

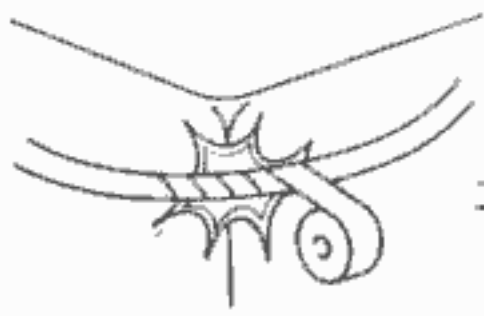


- Do not replace with fuses exceeding specified capacity.

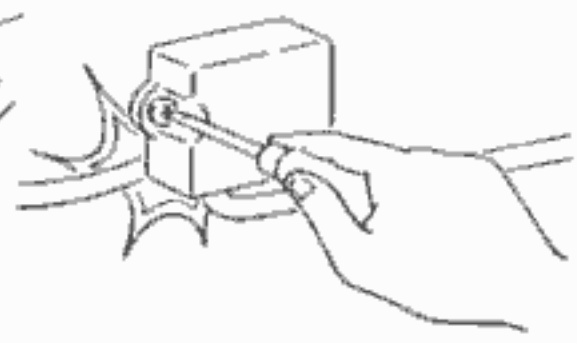
10A 15A

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.



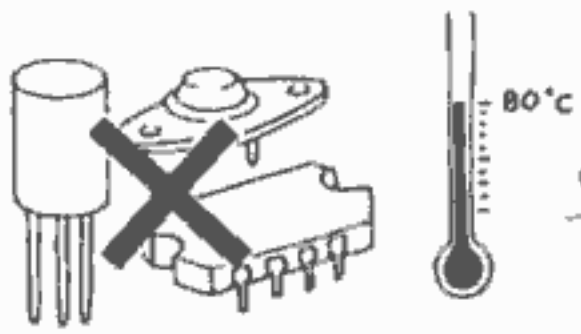
- When mounting components, be sure the harness is not caught or damaged.



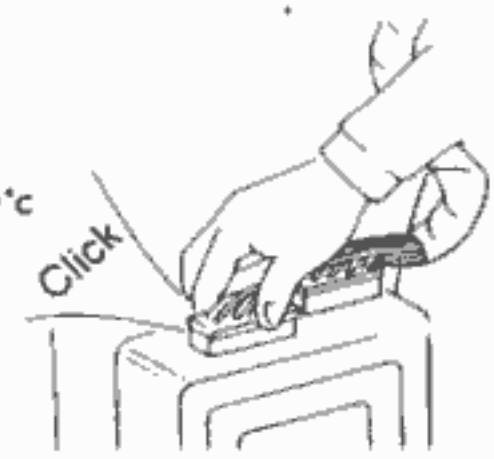
Caution
- Clamp all harnesses near vibrating components (for example, the engine) to remove slack and to prevent contact resulting from vibration.

- 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).

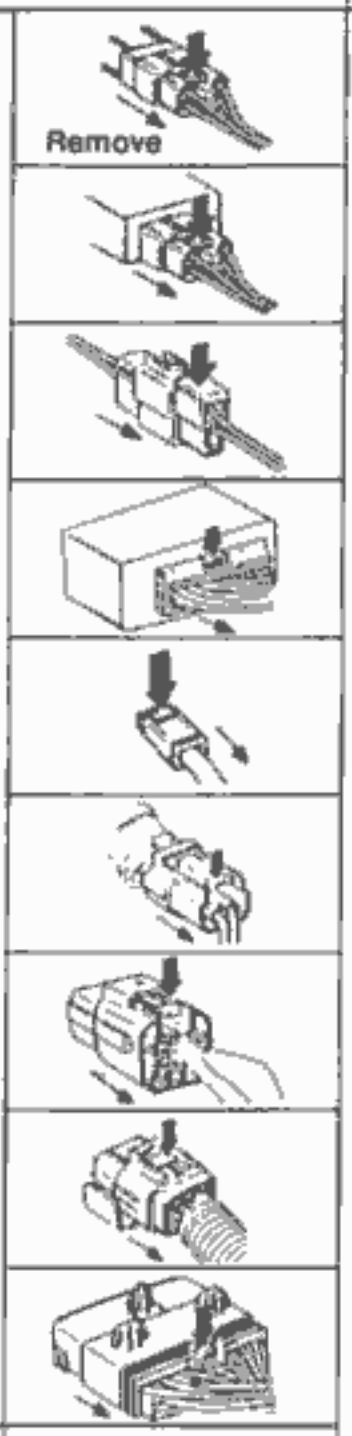
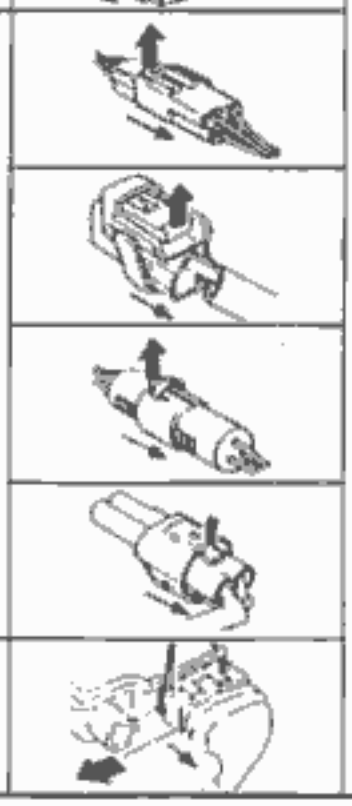
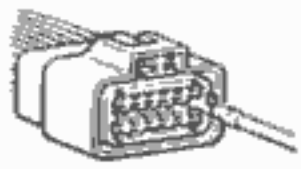
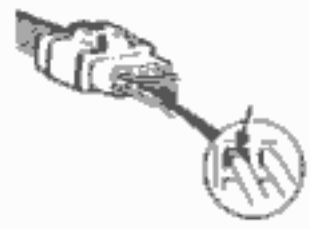
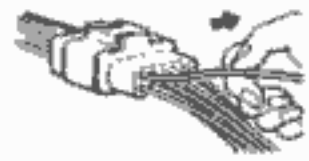
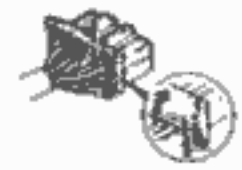
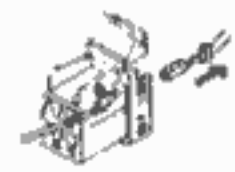
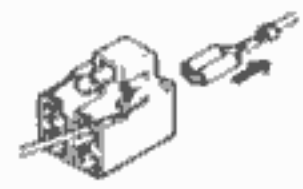
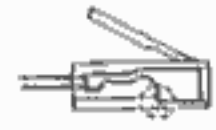


- Make sure that the connectors are securely connected when installed.

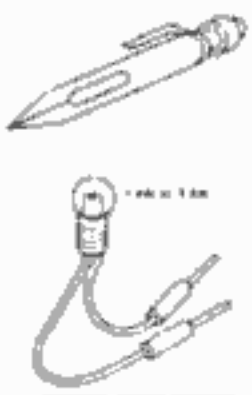
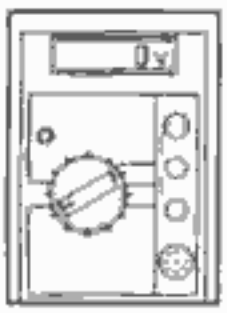
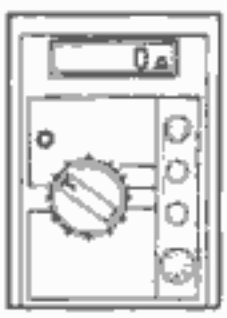
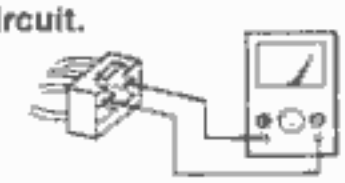
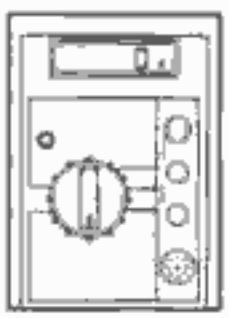
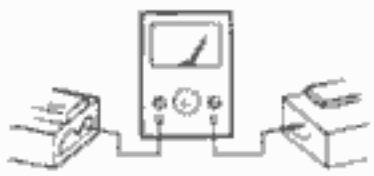


Handling connectors

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

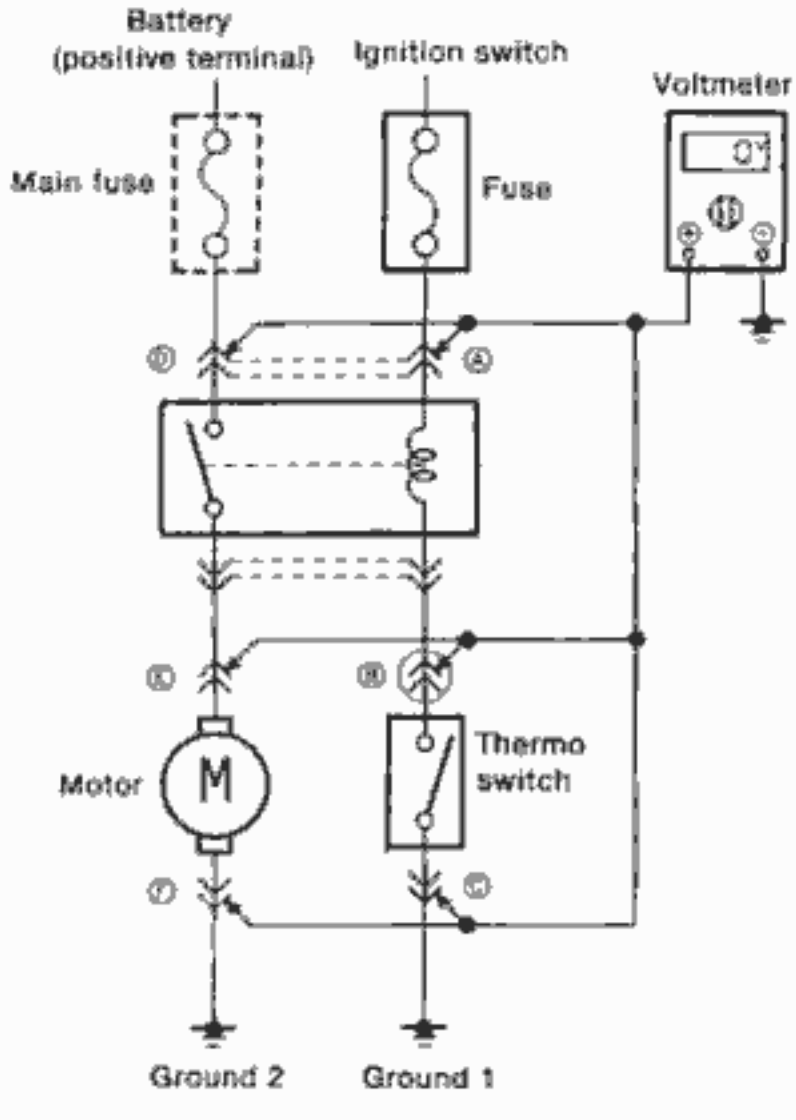
Connector removal	Checking connector contacts	Checking for loose terminals	Replacing terminal
Push type  Pull-up type  Spring type 	Caution Improperly engaged connectors will cause poor terminal contact.  When using a matching male terminal, make sure there is no looseness in the female terminal.	Caution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

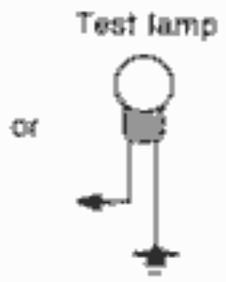
Using electrical measuring equipment

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





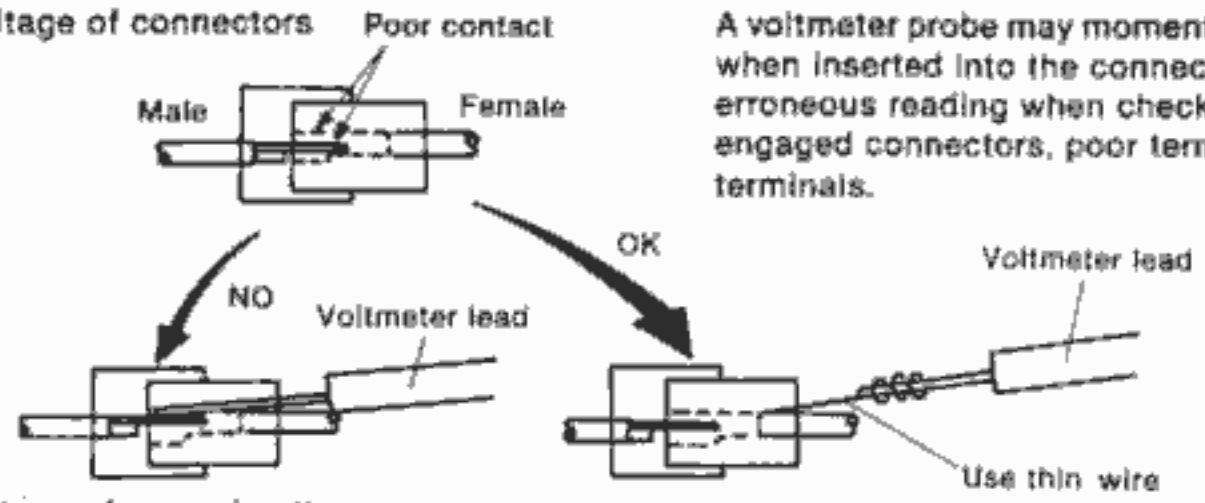
1. Connect a voltmeter or test lamp to the measuring points.

Measuring points	Circuit operation (normal)					
	Ignition switch: OFF		Ignition switch: ON			
			Thermo switch: OFF		Thermo switch: ON	
Ⓐ	0V	×	12V	○	12V	○
Ⓑ	0V	×	12V	○	0V	×
Ⓒ	0V	×	0V	×	0V	×
Ⓓ	12V	○	12V	○	12V	○
Ⓔ	0V	×	0V	×	12V	○
Ⓕ	0V	×	0V	×	0V	×

"○" : Test lamp ON
× : Test lamp OFF

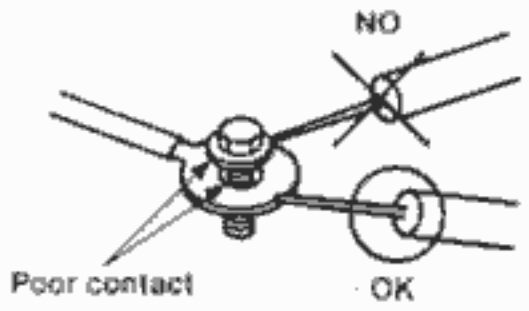
Precautions during checks

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.

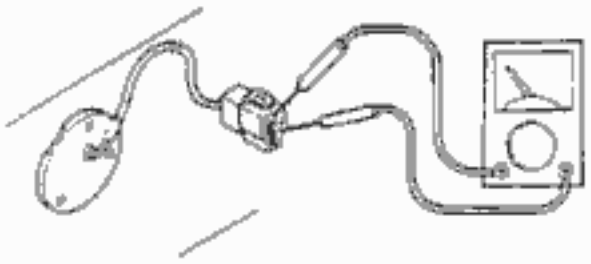
Measuring voltage of ground unit



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

Measuring continuity/resistance

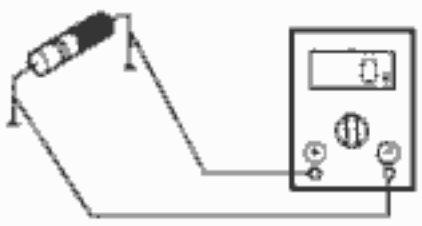
Checking switches



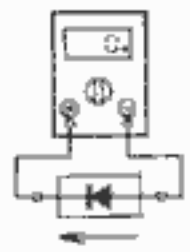
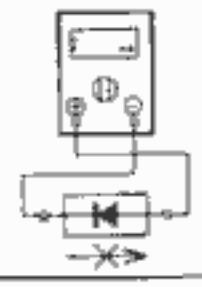
Touch the ohmmeter probes to the switch terminals to check continuity.

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

Checking diodes

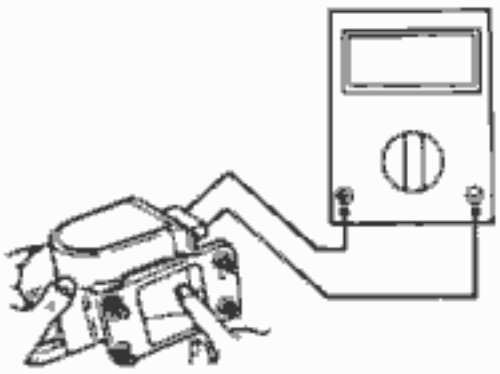


Continuity is checked according to the direction of the positive (+) and negative (−) probes of the ohmmeter in the circuit containing the diode.

Connection	Continuity
	Yes
	No

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.

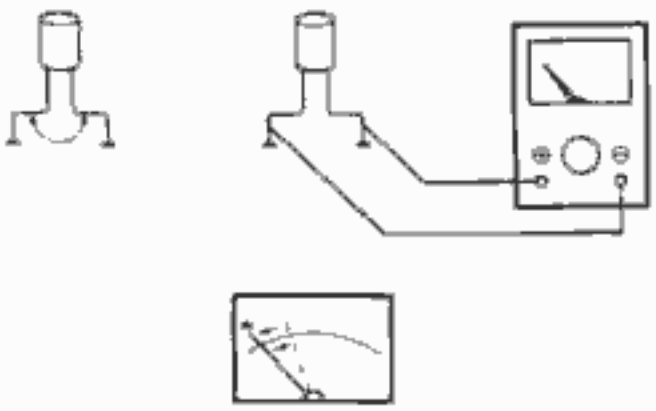
Checking sensors and solenoid valves



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

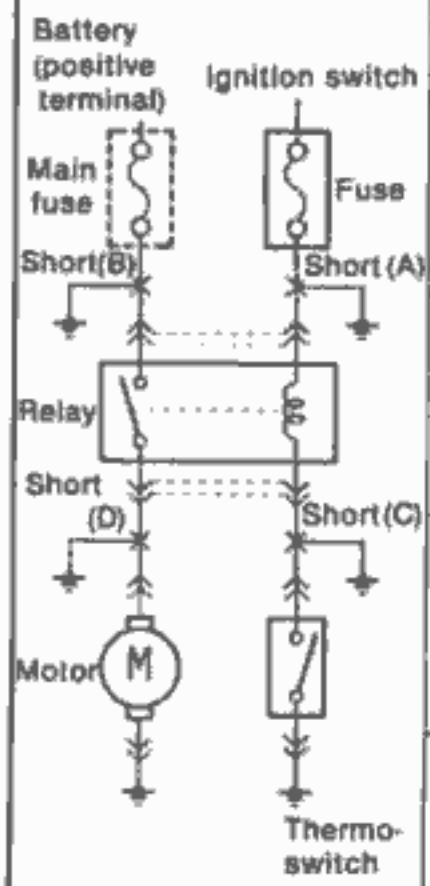


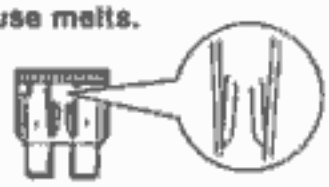
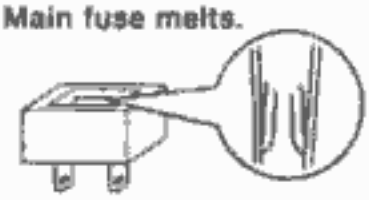
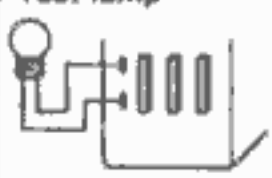
1. Short between the terminals with a jumper wire to discharge the capacitor.
2. Set the ohmmeter range to × 10kΩ and connect it to the capacitor terminals.
3. The capacitor is good if the needle of the ohmmeter swings once and returns to its original position.

Finding short circuits

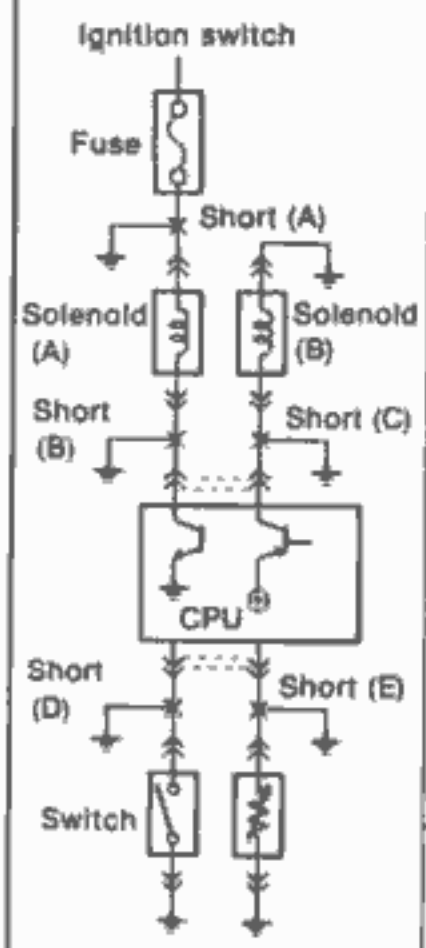
Shorts occur between the power (positive) and ground (negative) sides of a circuit. Therefore, finding a short circuit requires determining how the circuit is routed.

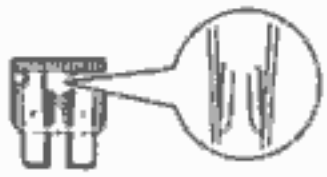
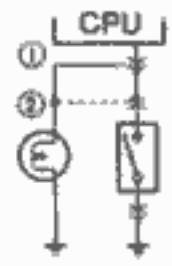
Circuits not connected to control unit



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.
Short (B)	• Main fuse melts. 	Test lamp 
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.	A short has occurred where the voltmeter reading changes or the test lamp comes on.
Short (D)	• The main fuse melts when the ignition switch and thermoswitch are ON and the relay is operating.	

Circuits connected to control unit



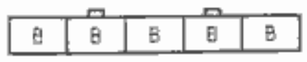
Examples		Finding short circuit
Short location	Symptom	
Short (A)	• Fuse melts. 	 1. Remove the fuse and main fuse of the circuit. 2. Disconnect all connectors of electrical components in the circuit. 3. Attach a voltmeter or test lamp to the fuse box and reconnect each connector, beginning nearest to the power source. 4. Check the voltmeter reading or test lamp as the connectors are connected.
Short (B)	• Solenoid A operates when the ignition switch is ON.	Test lamp 
Short (C)	• The CPU transistor burns out when the ignition switch is turned ON.	A short has occurred where the voltmeter reading changes or the test lamp comes on.
Short (D)	• The CPU thinks the switch is ON because the same conditions exist as when the switch is ON.	Sensor/switch  1. Attach the test lamp or voltmeter to the CPU connector. 2. Connect to the switch/ sensor connector. 3. Check the voltmeter reading or test lamp.
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.	A short has occurred where the voltmeter reads 0V or the test lamp goes out.

Y ■ GROUND POINTS

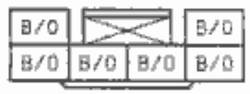
WIRING ORDER INTO THE JOINT CONNECTOR MAY BE C-

JC-01 JOINT CONNECTOR (F)

JC-02 JOINT CONNECTOR (F)



JC-08 JOINT CONNECTOR (D)



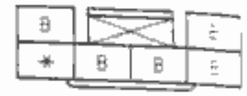
(WITH AUDIO SYSTEM TYPE-2)

JC-09 JOINT CONNECTOR (AB)

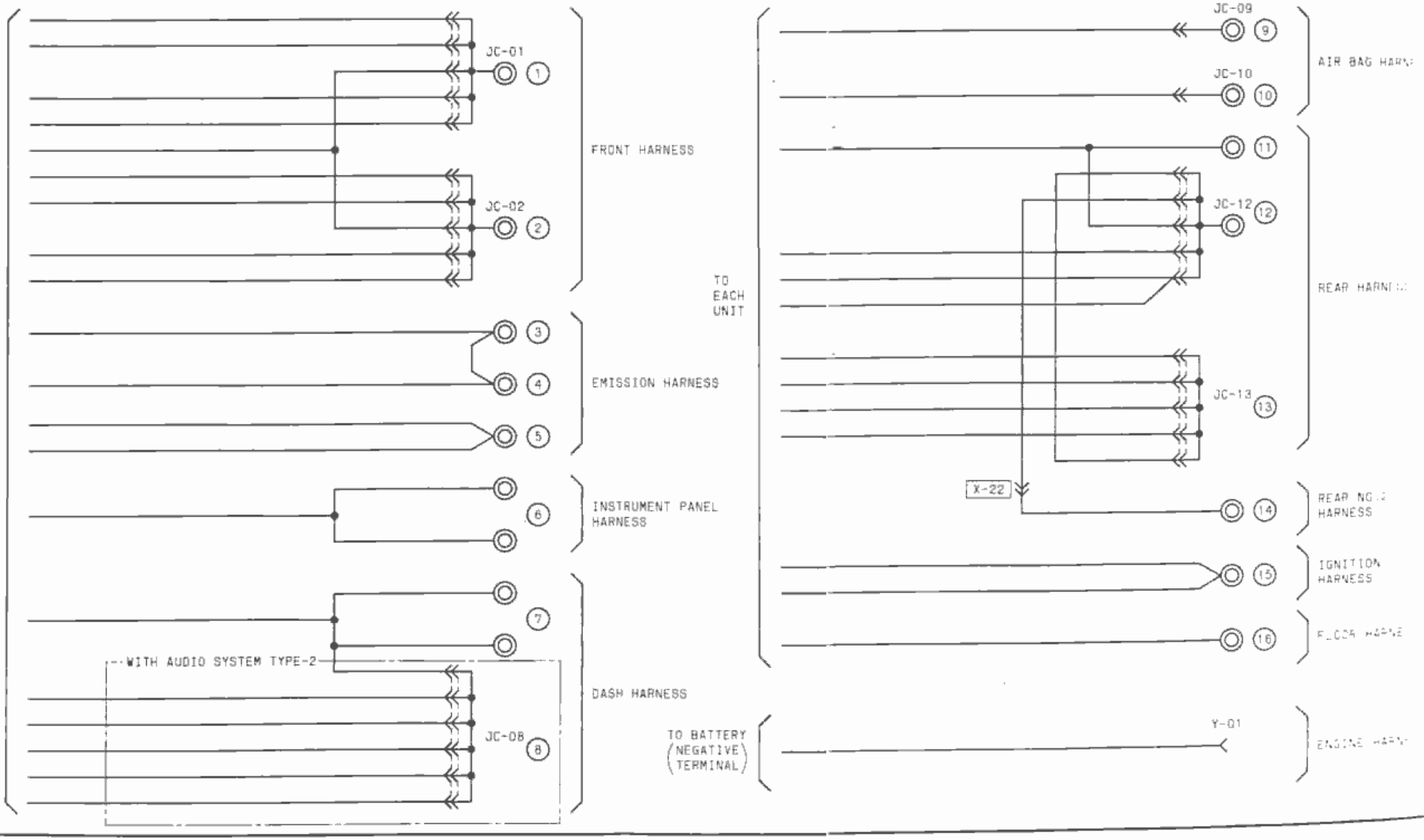
JC-10 JOINT CONNECTOR (AB)

JC-12 JOINT CONNECTOR (R)

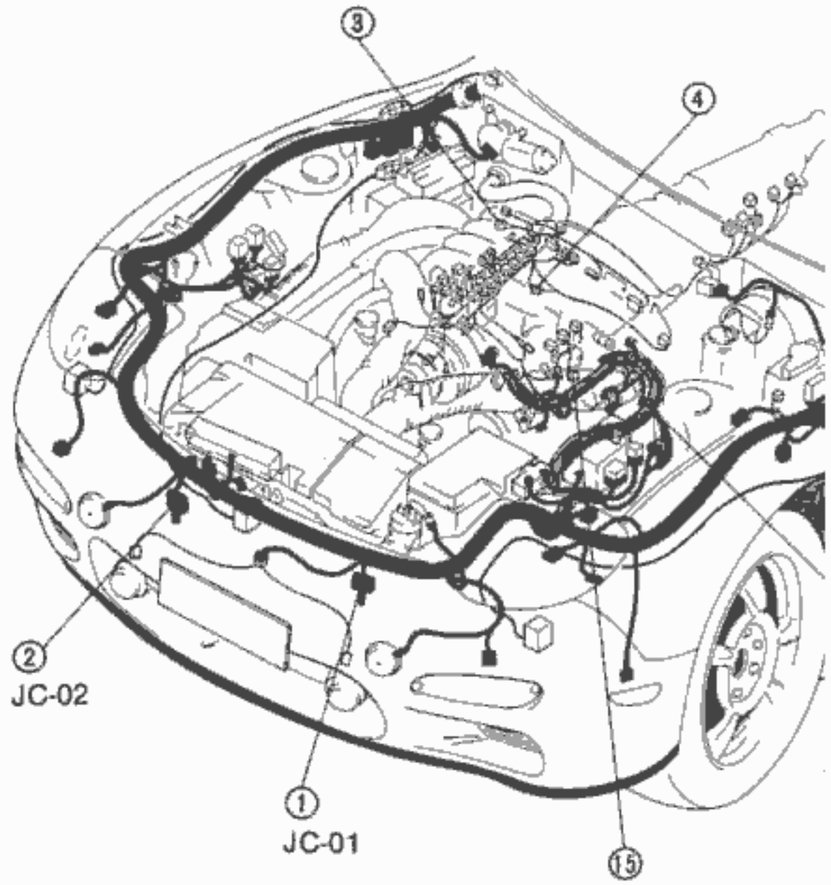
JC-13 JOINT CONNECTOR



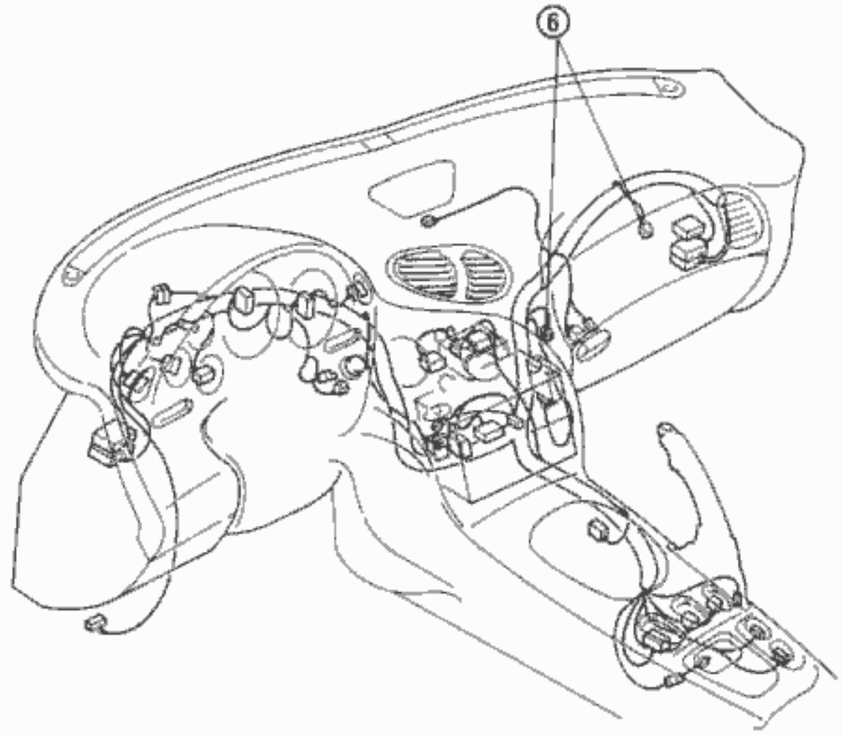
Y-01 GROUND CONNECTOR (E)

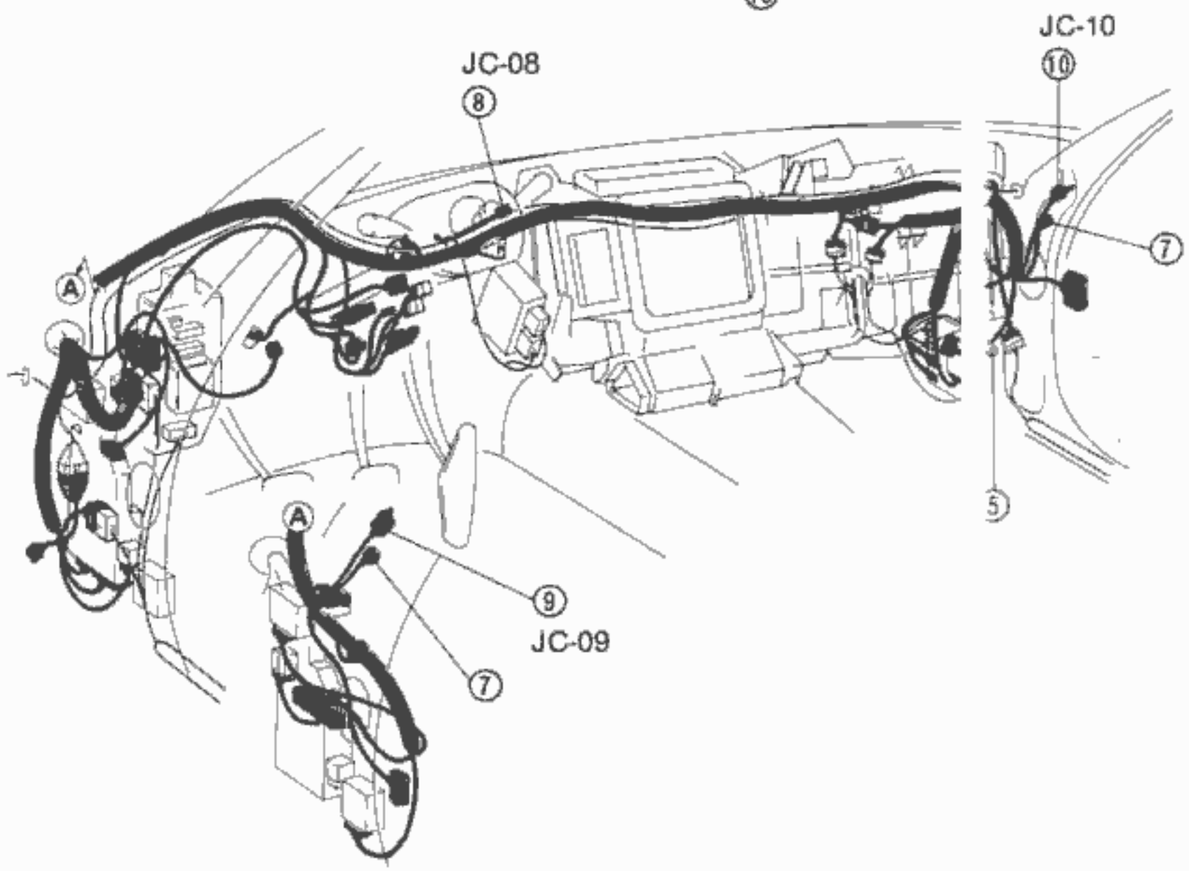


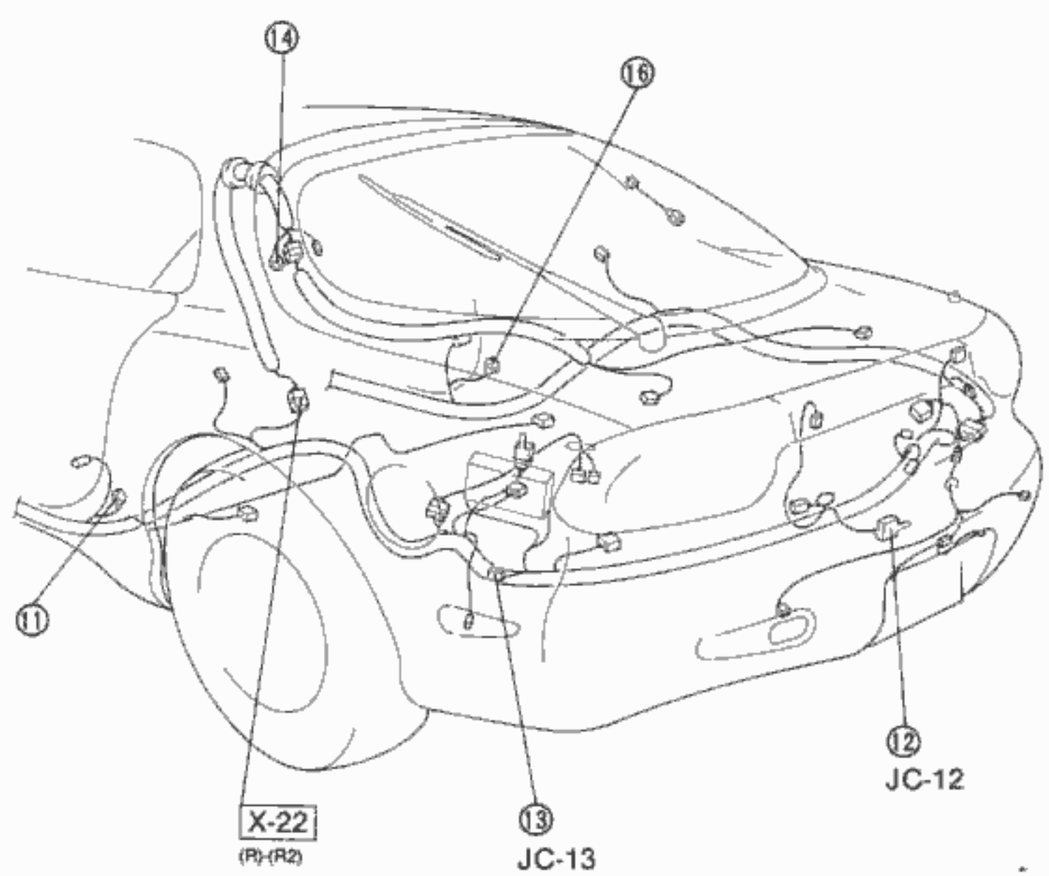
Y


3
4
2
JC-02
1
JC-01
15

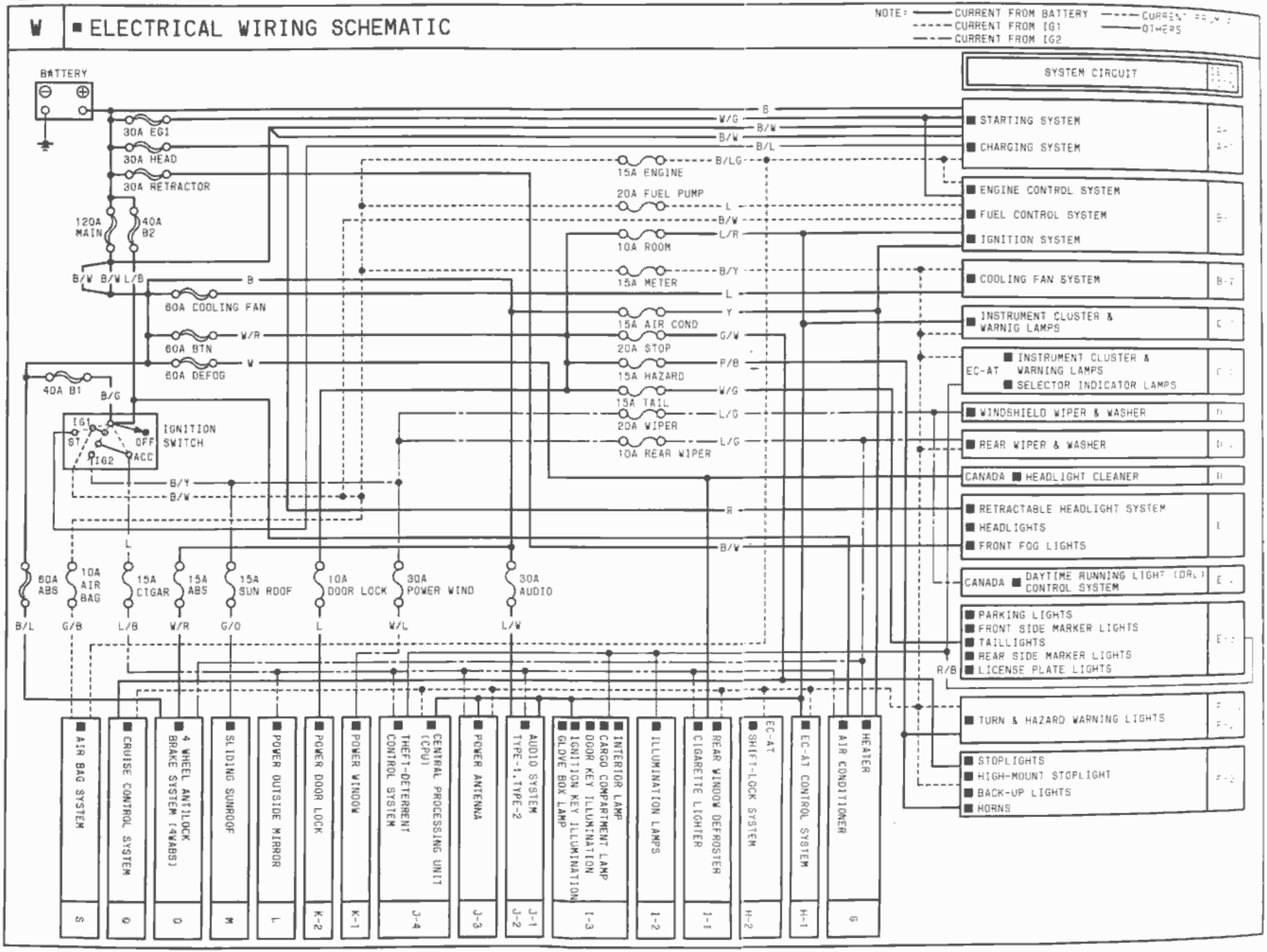

Y-01


6


JC-08
8
A
A
9
JC-09
7
JC-10
10
7
5


14
16
11
X-22
(R)-(R2)
12
JC-12
13
JC-13

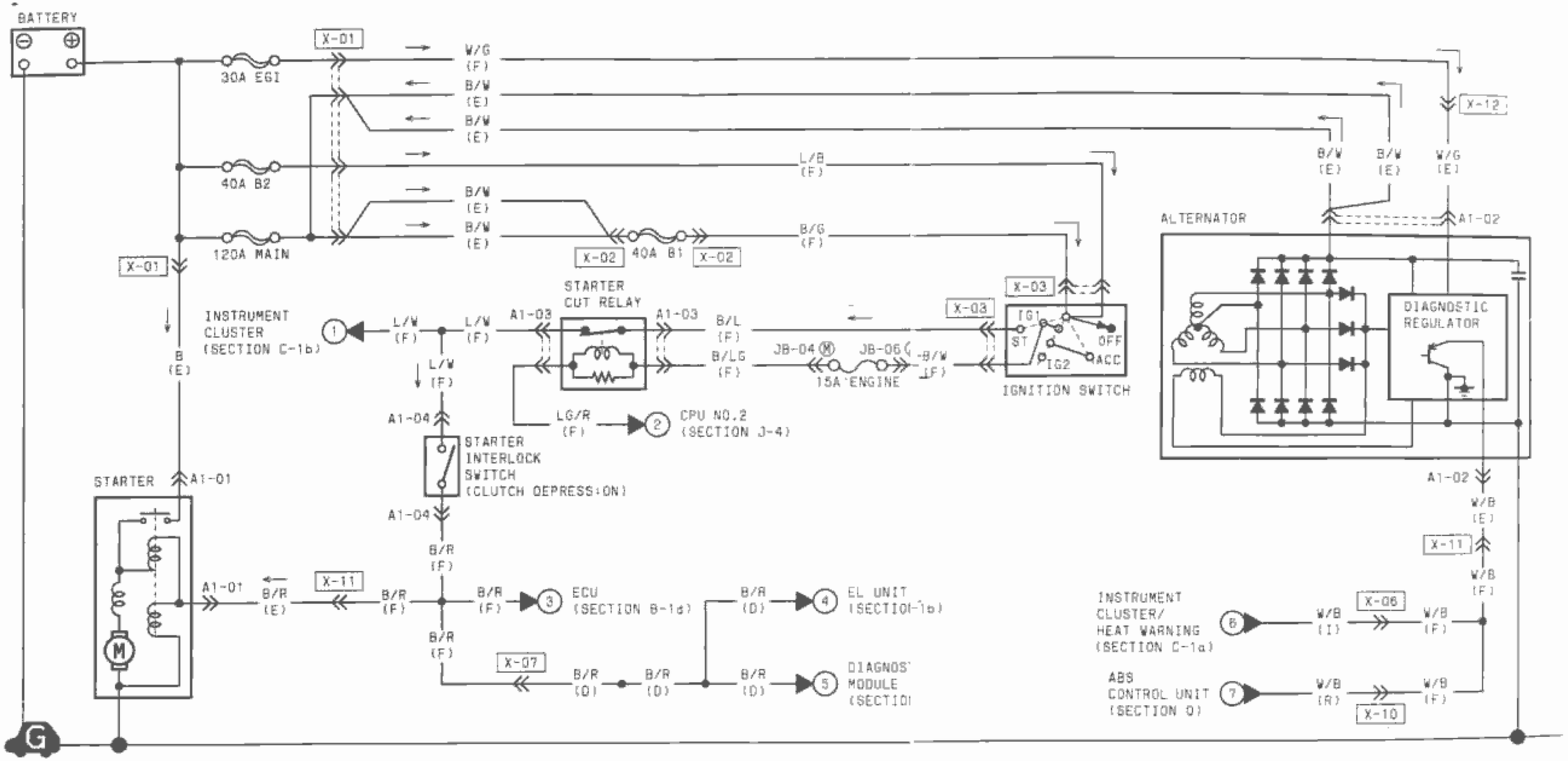
W ■ ELECTRICAL WIRING SCHEMATIC



SYSTEM CIRCUIT DIAGRAM/ CONNECTOR LOCATIONS

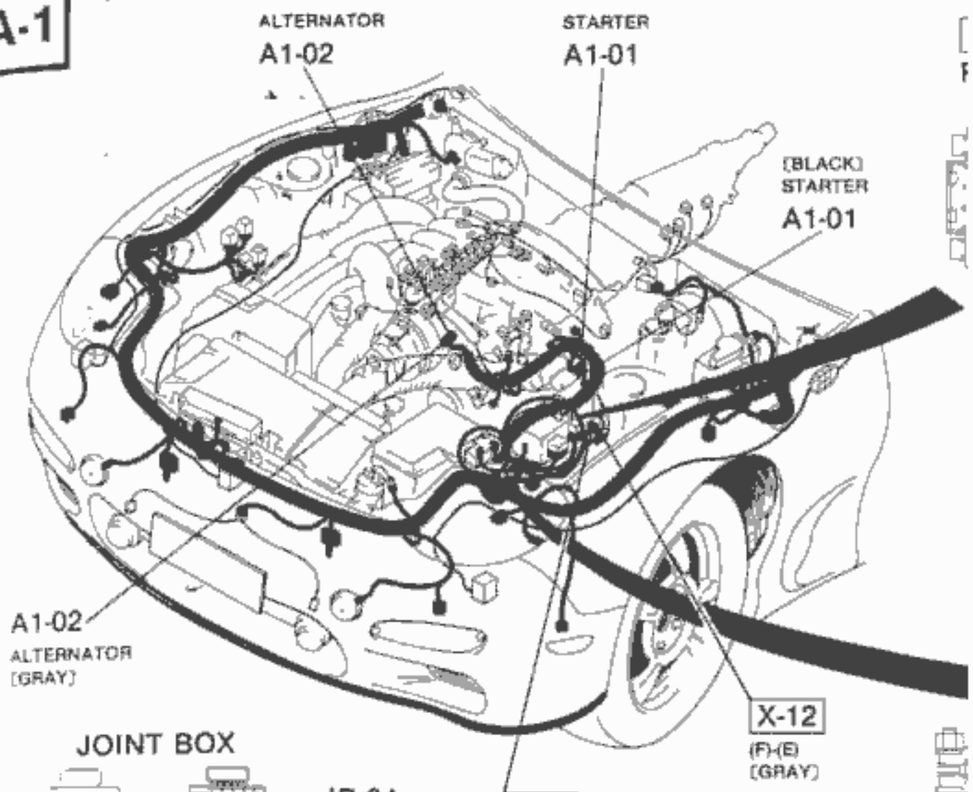
A~U

A-1 MT ■ STARTING SYSTEM ■ CHARGING SYSTEM

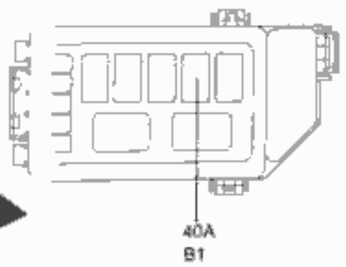


A1-01 STARTER (E) B B/R	A1-02 ALTERNATOR (E) B/W B/W W/G W/B		A1-03 STARTER CUT RELAY (F) * B/L B/LG L/W * LG/R	-04 STARTER INTERLOCK SWITCH (F) * B/R L/W	

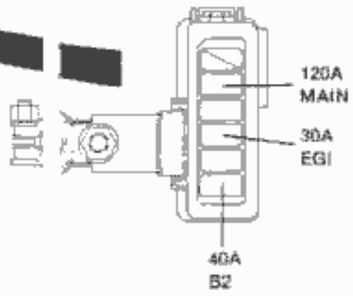
A-1

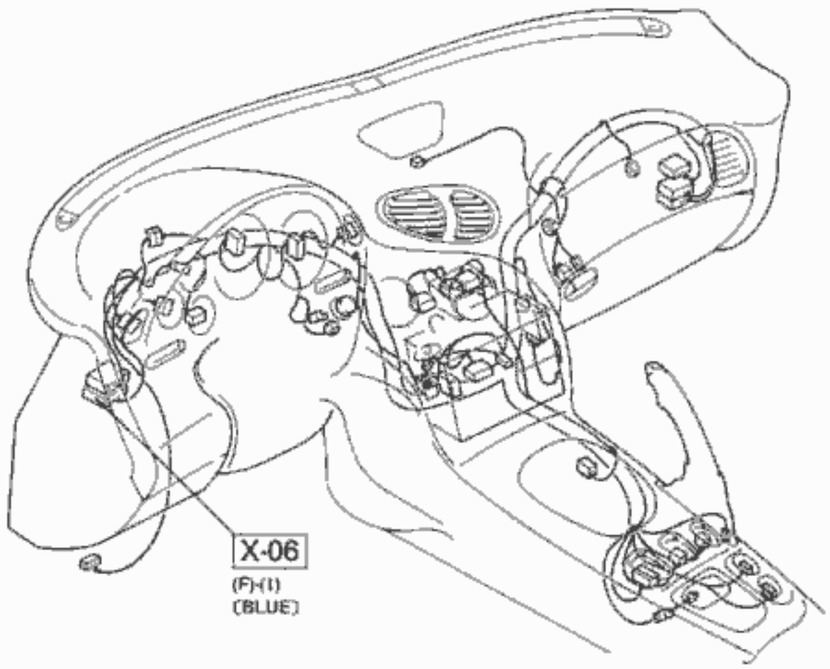


)2
LAY & FUSE BLOCK

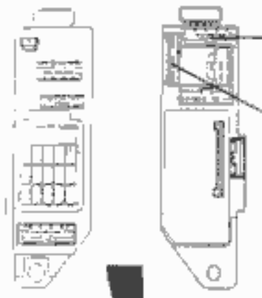


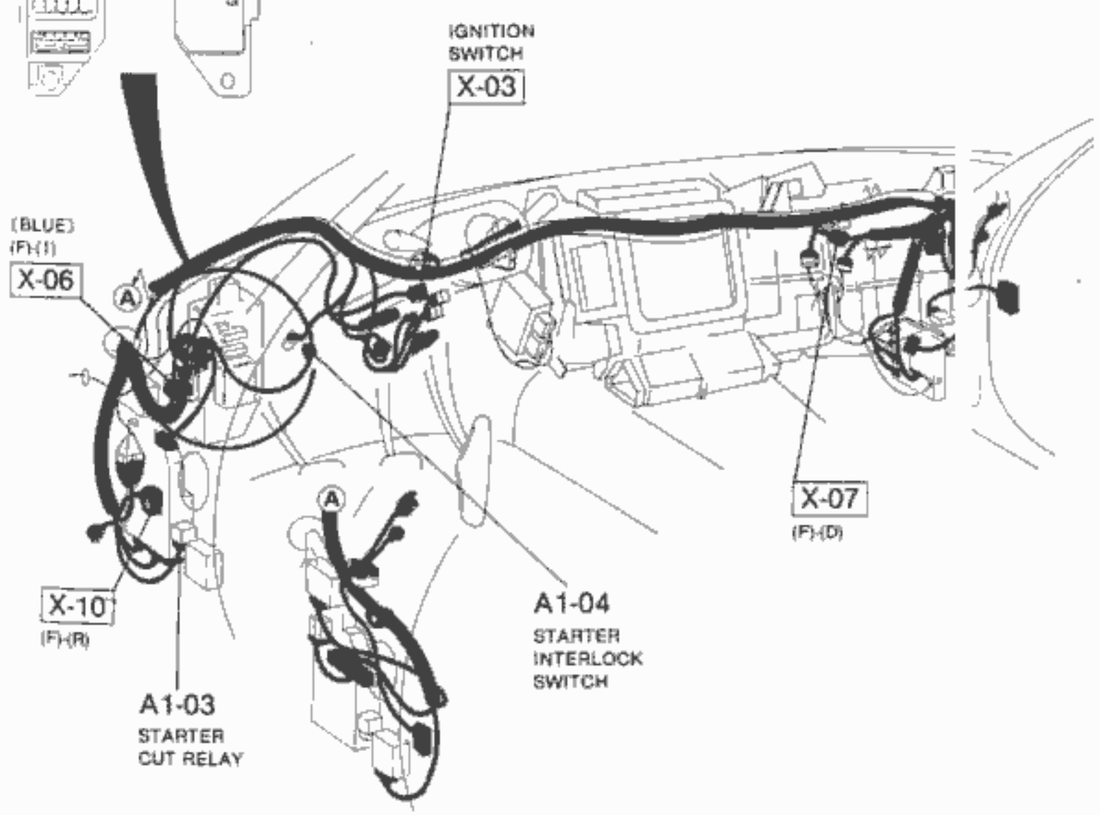
-01
AIN FUSE
LOCK

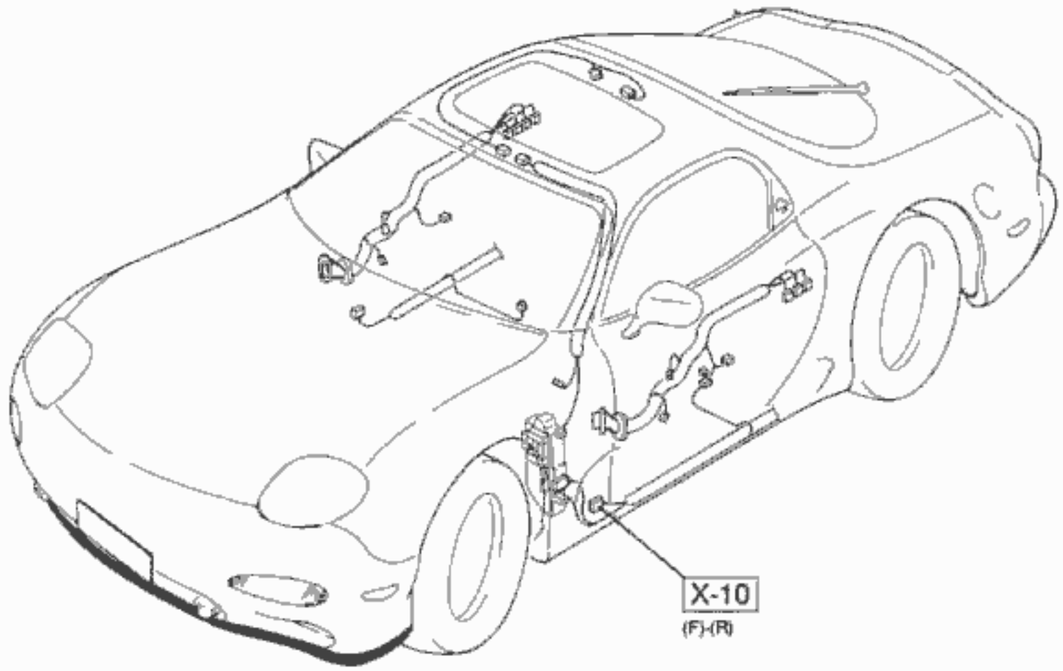




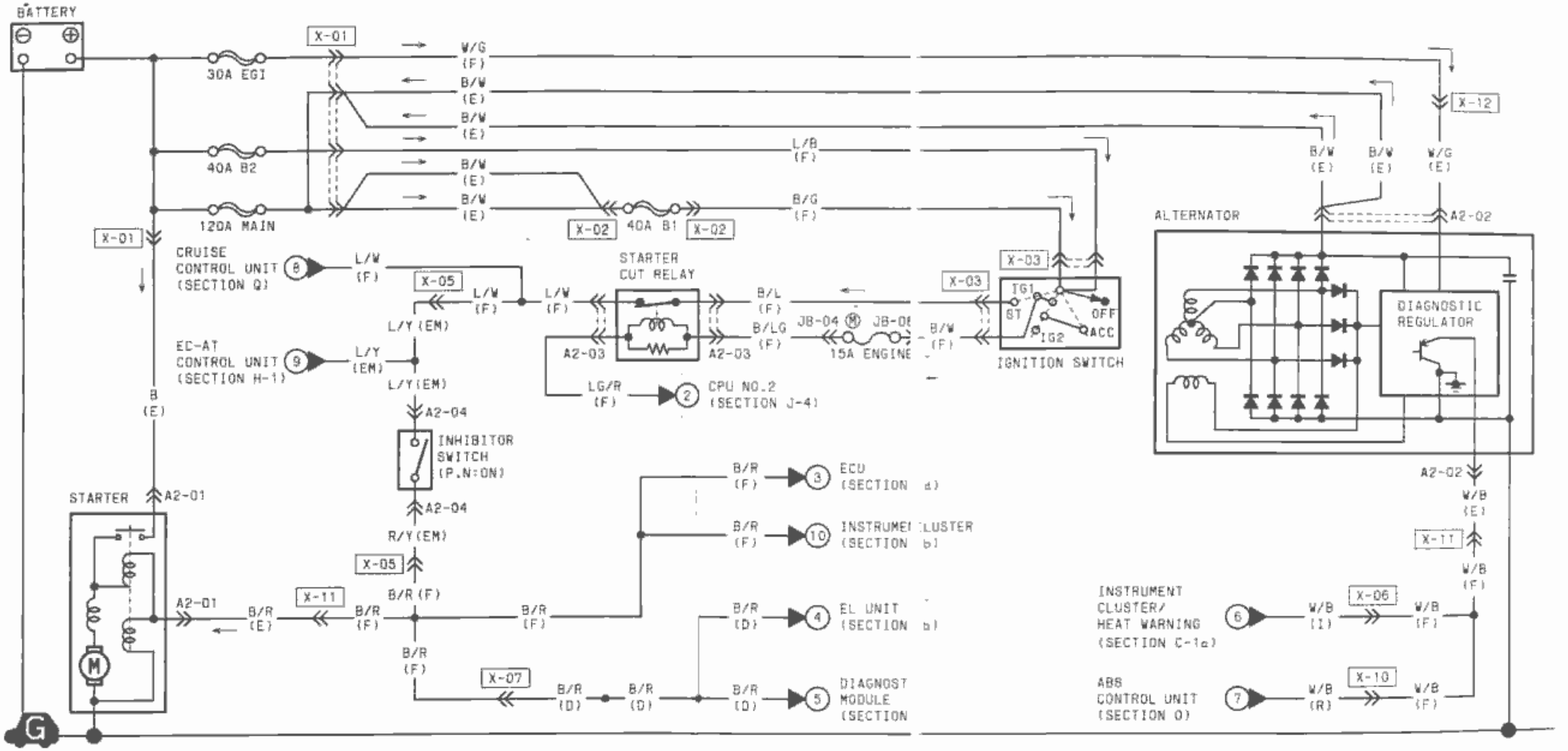
JOINT BOX







A-2 EC-AT ■ STARTING SYSTEM ■ CHARGING SYSTEM

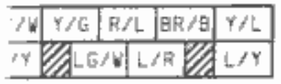


A2-01 STARTER (E)

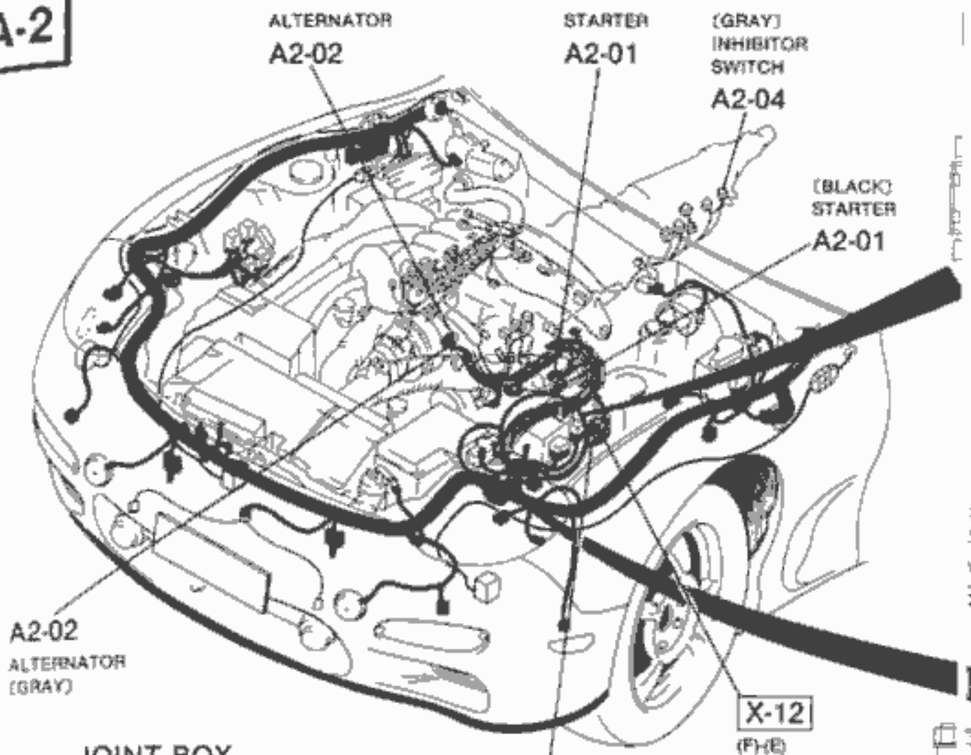
A2-02 ALTERNATOR (E)

A2-03 STARTER CUT RELAY (F)

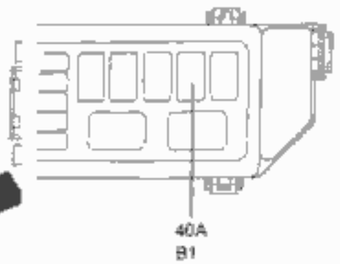
04 INHIBITOR SWITCH (EM)



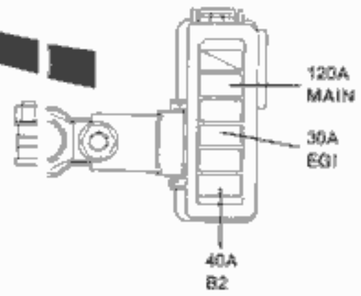
A-2

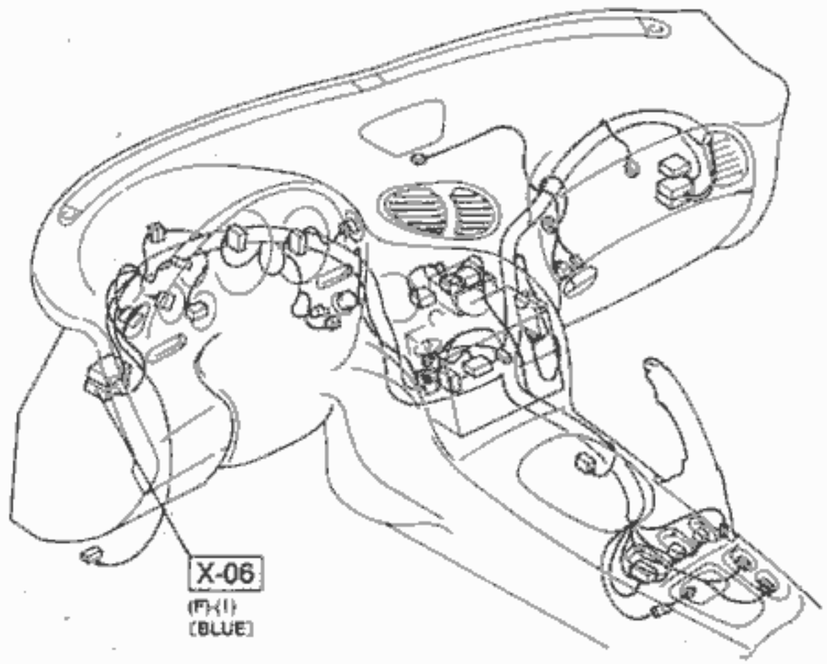


02
ELAY & FUSE BLOCK

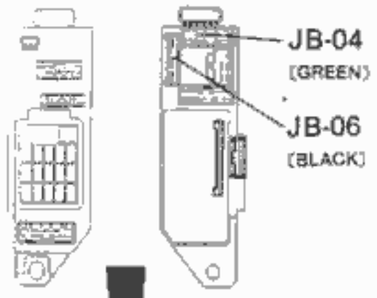


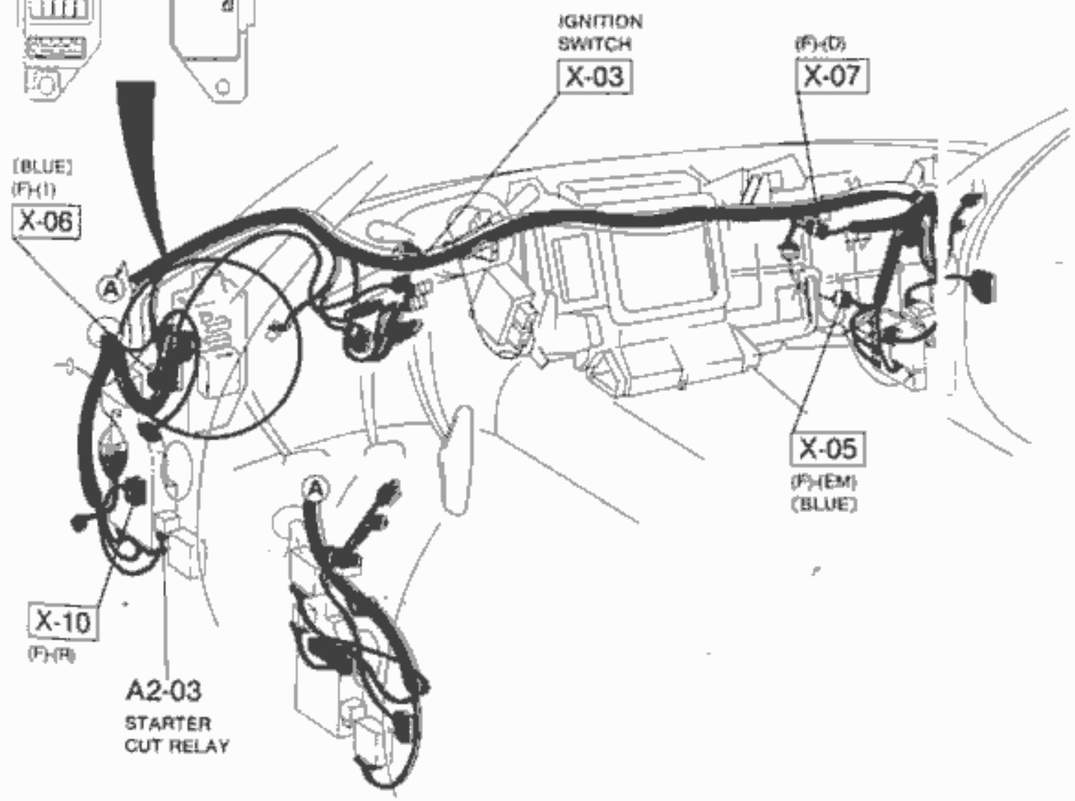
X-01
MAIN FUSE
BLOCK

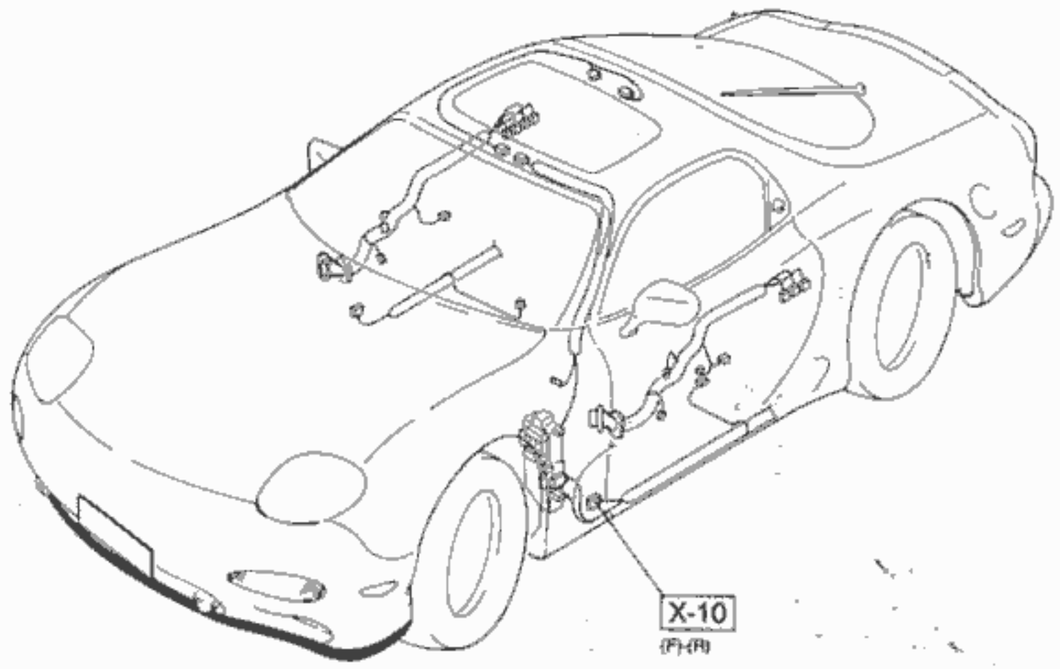




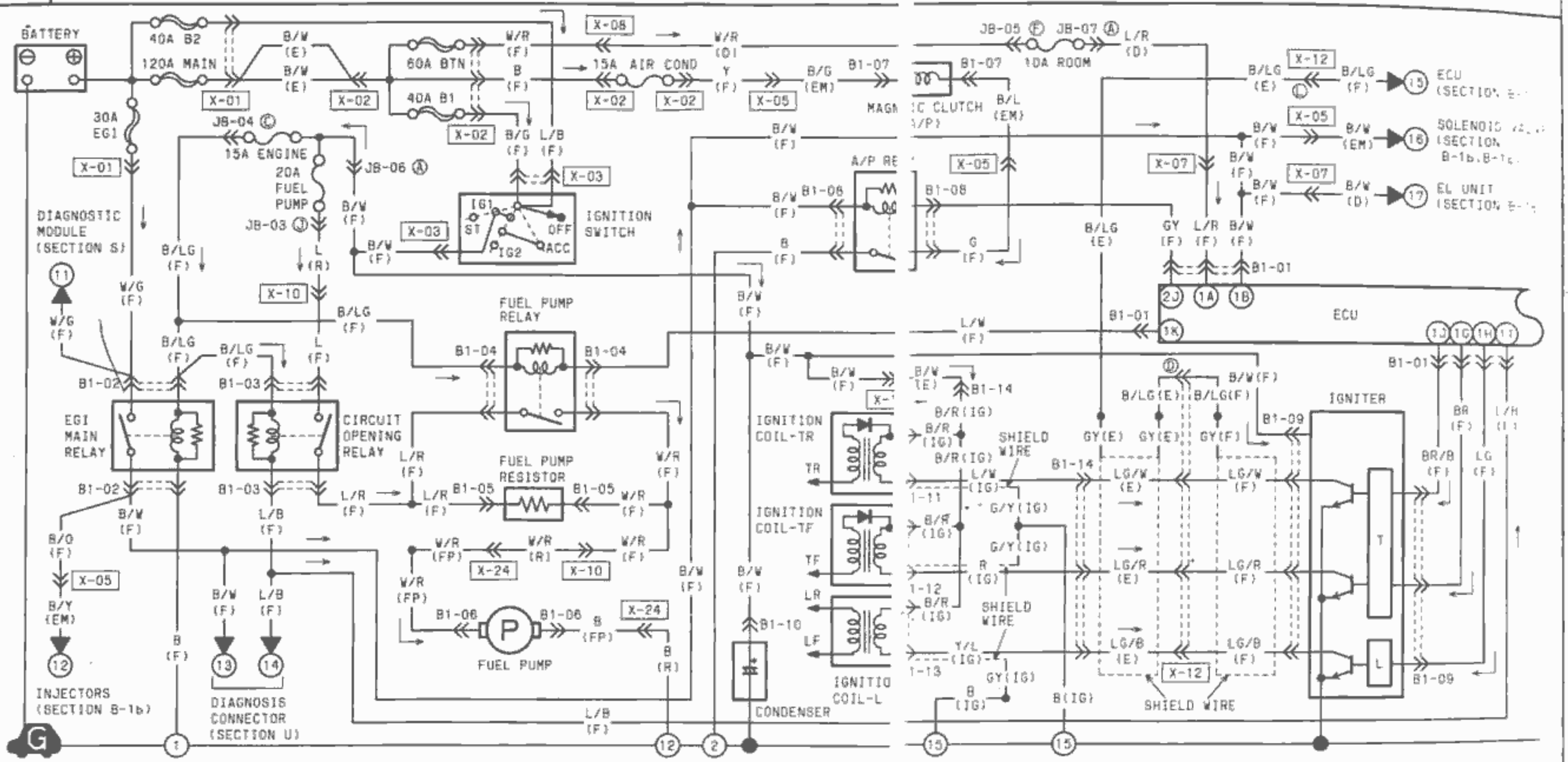
JOINT BOX







B-1a ■ ENGINE CONTROL SYSTEM ■ FUEL CONTROL SYSTEM ■ IGNITION SYSTEM



B1-01 ECU (F)

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

( )...EC-AT. [ ]...CANADA

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

B1-02 EGI MAIN RELAY (F)

W/G B/W	B/LG B/LG
B/W B/O	B

B1-03 CIRCUIT OPENING RELAY (F)

L	B/LG
L/R	L/B

B1-04 FUEL PUMP RELAY (F)

L/R	B/LG
W/R	L/W

B1-05 FUEL PUMP RESISTOR (F)

L/R	W/R

B1-06 FUEL PUMP (FP)

W/G	L
B	W/R

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

B/G	B/L

B1-08 A/P RELAY (F)

G	B/W	B
	GY	

B1-09 IGNITER (F)

*	LG/B	LG	LG/W

BR/B	LG/R	BR	

B1-10 CONDENSER (F)

B/W

B1-11 IGNITION COIL-TF (IG)

L/W	B/R

B1-12 IGNITION COIL-TF (IG)

R	B/R

B1-13 IGNITION COIL-L (IG)

Y/L	B/R

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

(E)

LG/B	LG/R
B/W	LG/W

(IG)

R	Y/L
L/W	B/R

B-1a

(WHITE)
IGNITION
COIL-TF
B1-12

IGNITION
COIL-L
B1-13

(BLUE)
IGNITION
COIL-TR
B1-11

(BLACK)
(E)-(IG)
B1-14

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

X-(
RE Y & FUSE BLOCK

15A
AIR
COND

60A
BTN

40A
B1

B1-03
CIRCUIT
OPENING
RELAY

B1-02
EGI
MAIN
RELAY

(GR)
IGN R
B1 9

X-01
MIAN FUSE
BLOCK

120A
MAIN

30A
EGI

40A
B2

X-12
(F)-(E)
(GRAY)

B1-05
FUEL PUMP
RESISTOR
(GRAY)

B1-10
CONDENSER
(BLACK)

RELAY BOX

B1-04
FUEL PUMP
RELAY

B1-08
A/P
RELAY

JOINT BOX

JB-04
(GREEN)

JB-05

JB-07

JB-03
(GREEN)

JB-06
(BLACK)

(F)-(I
X-(

X-10
(F)-(R)

IGNITION
SWITCH
X-03

(F)-(D)
X-07

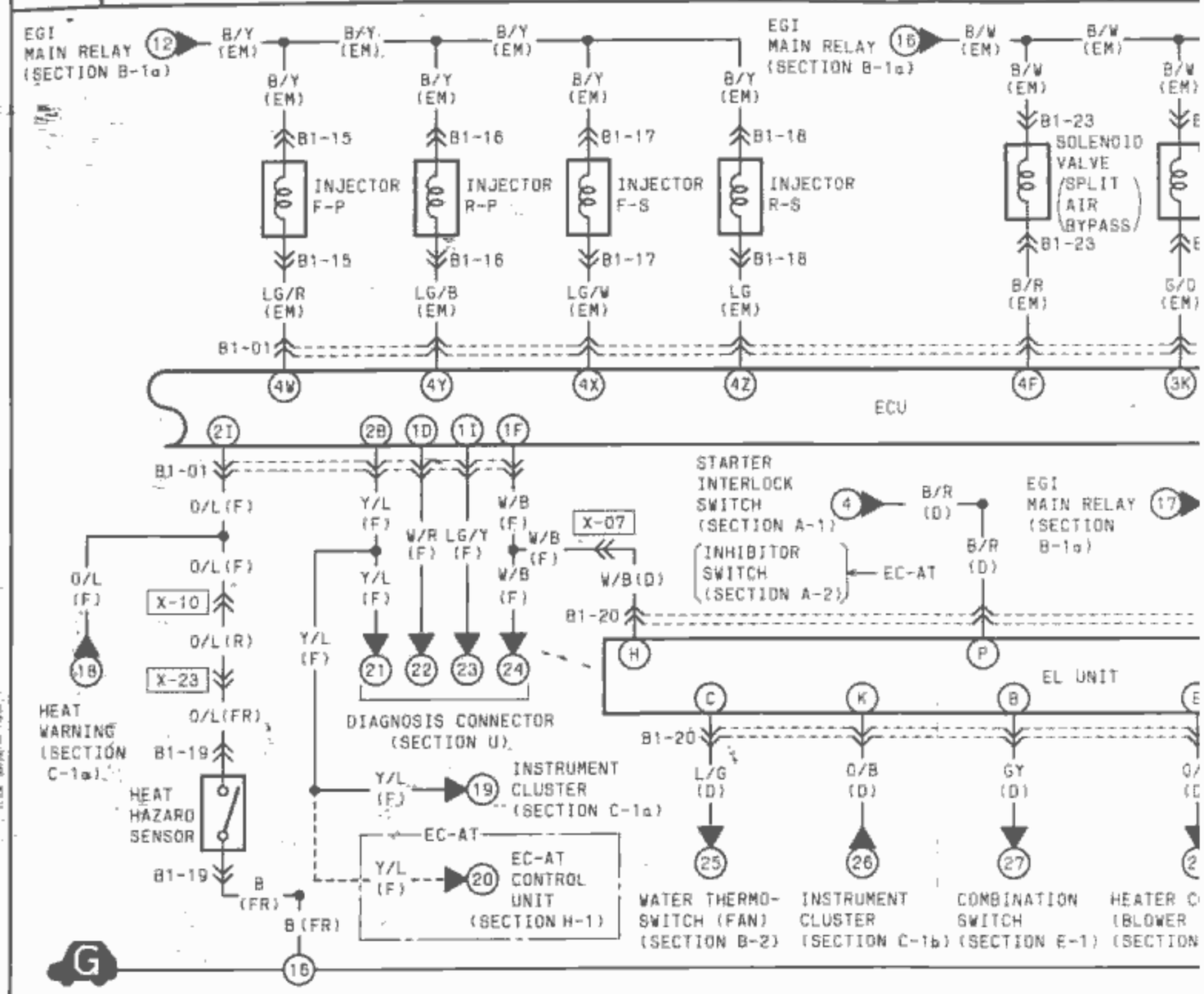
X-05
(F)-(EM)
(BLUE)

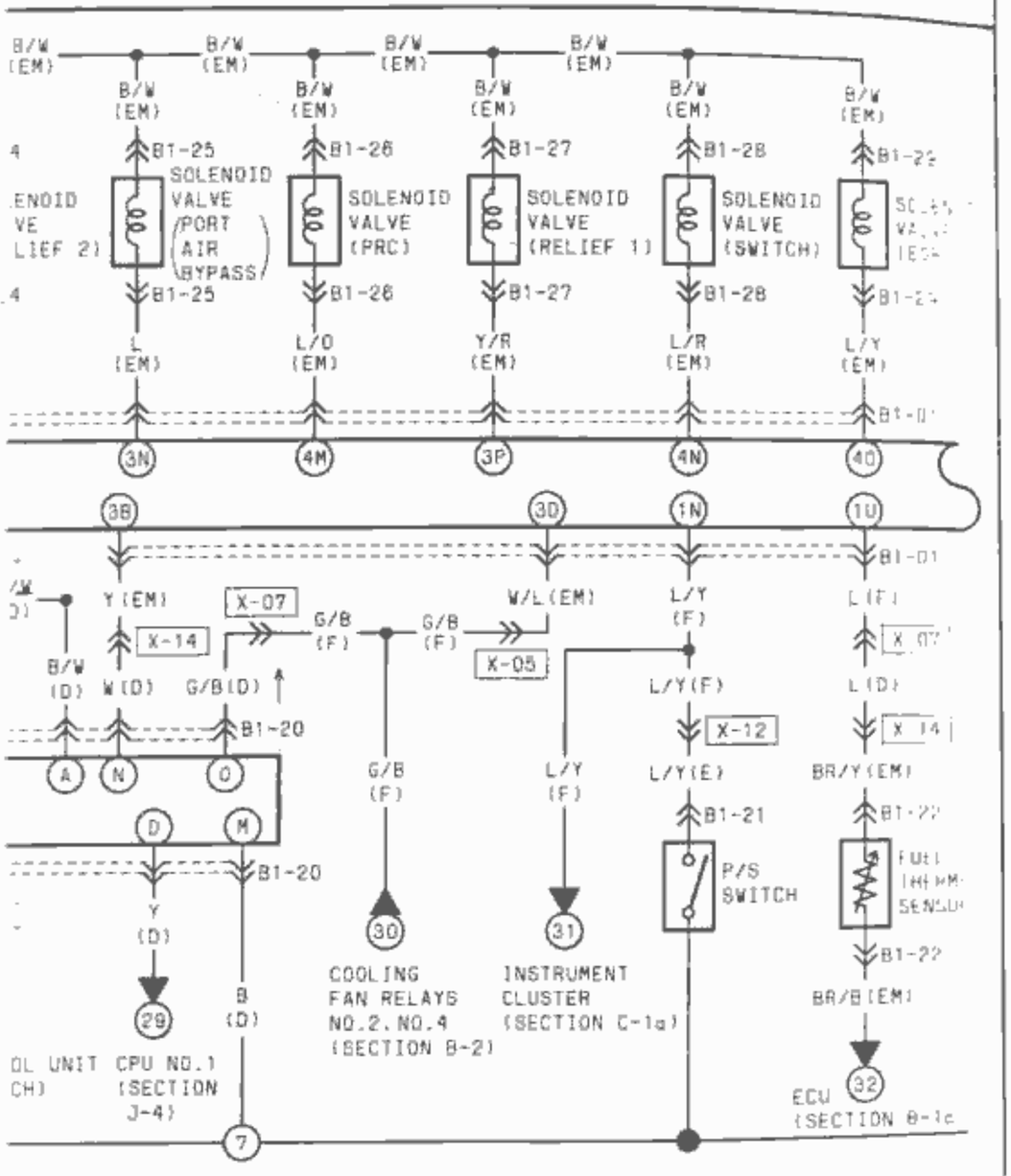
B1-01
ECU
(YELLOW)

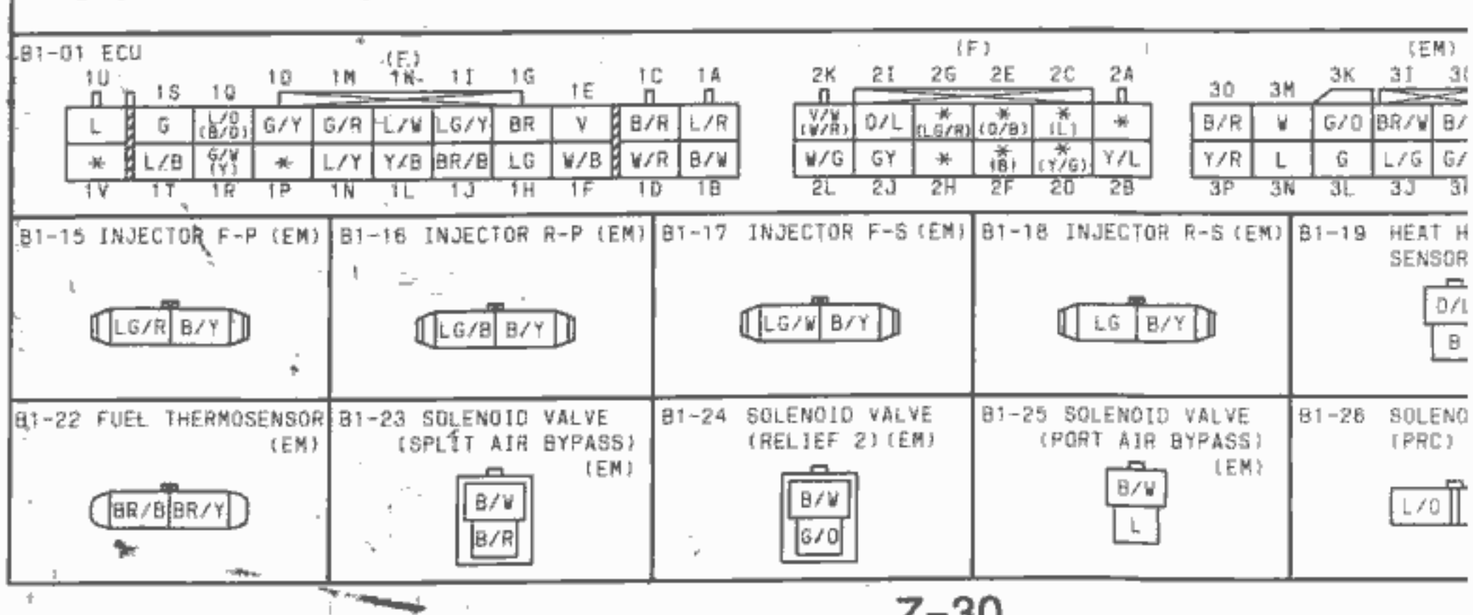
B1-06
FUEL PUMP

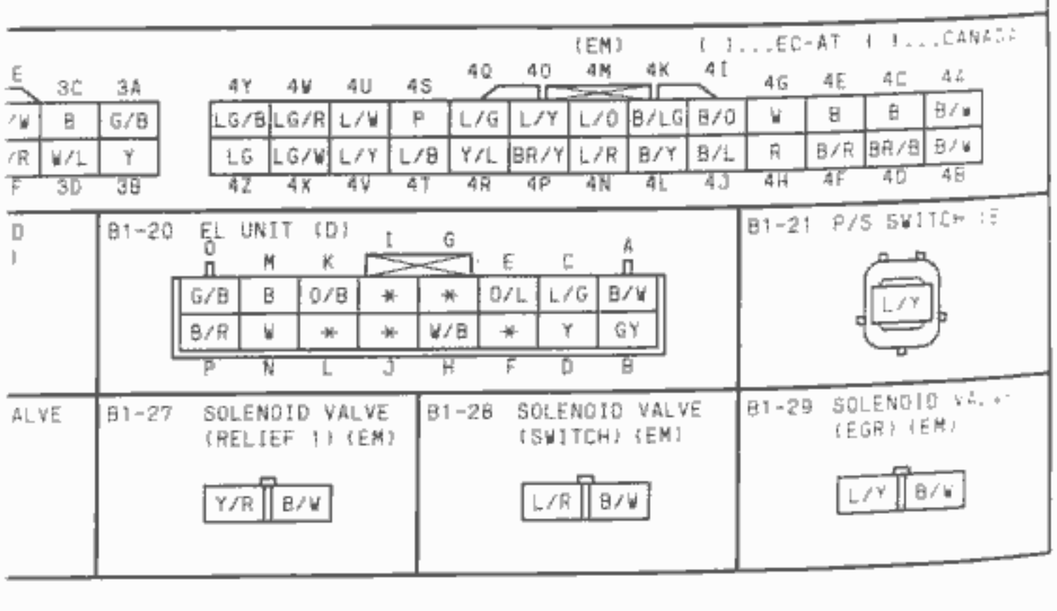
X-24
(R)-(FP)

B-1b ■ ENGINE CONTROL SYSTEM ■ FUEL CONTROL SYSTEM

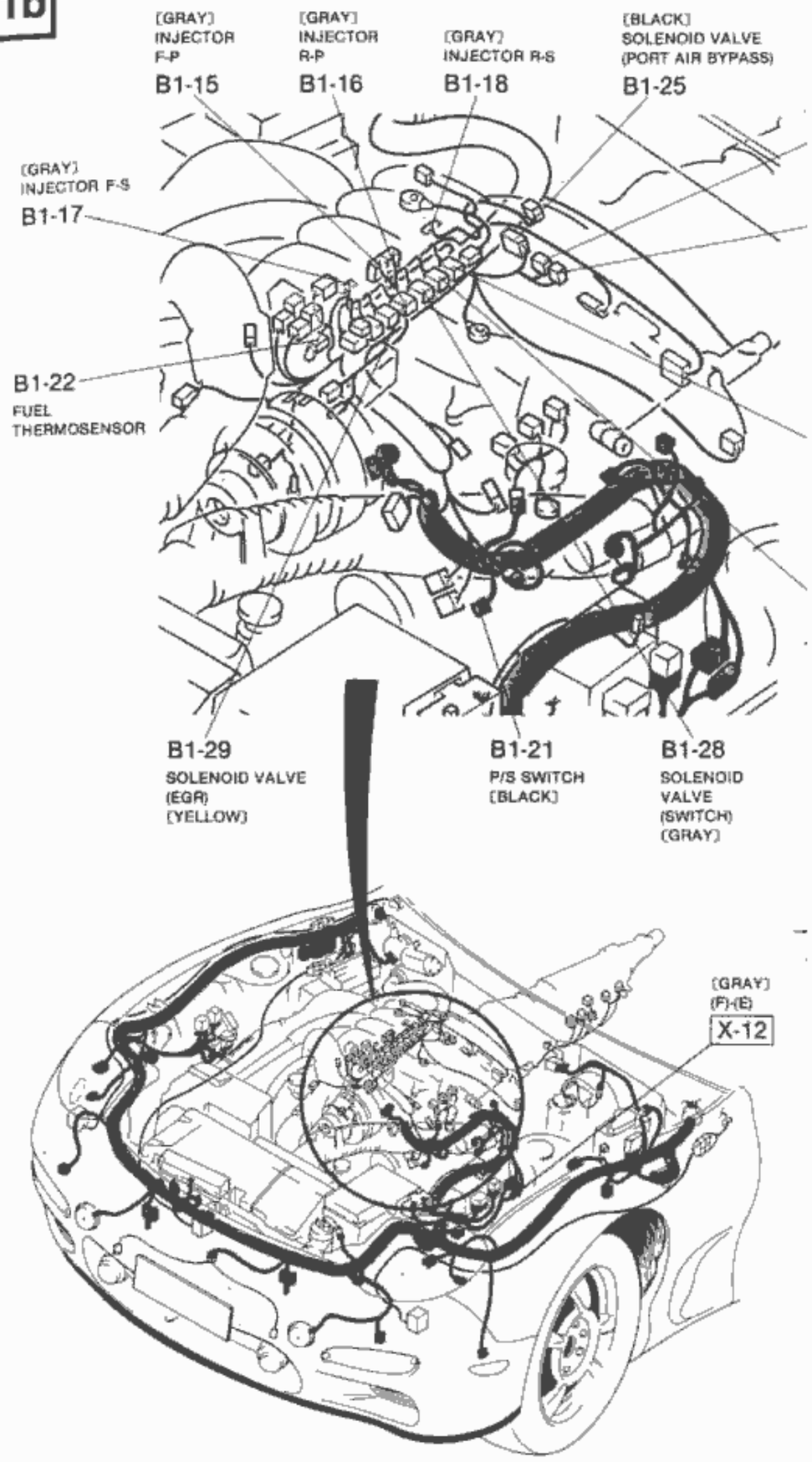


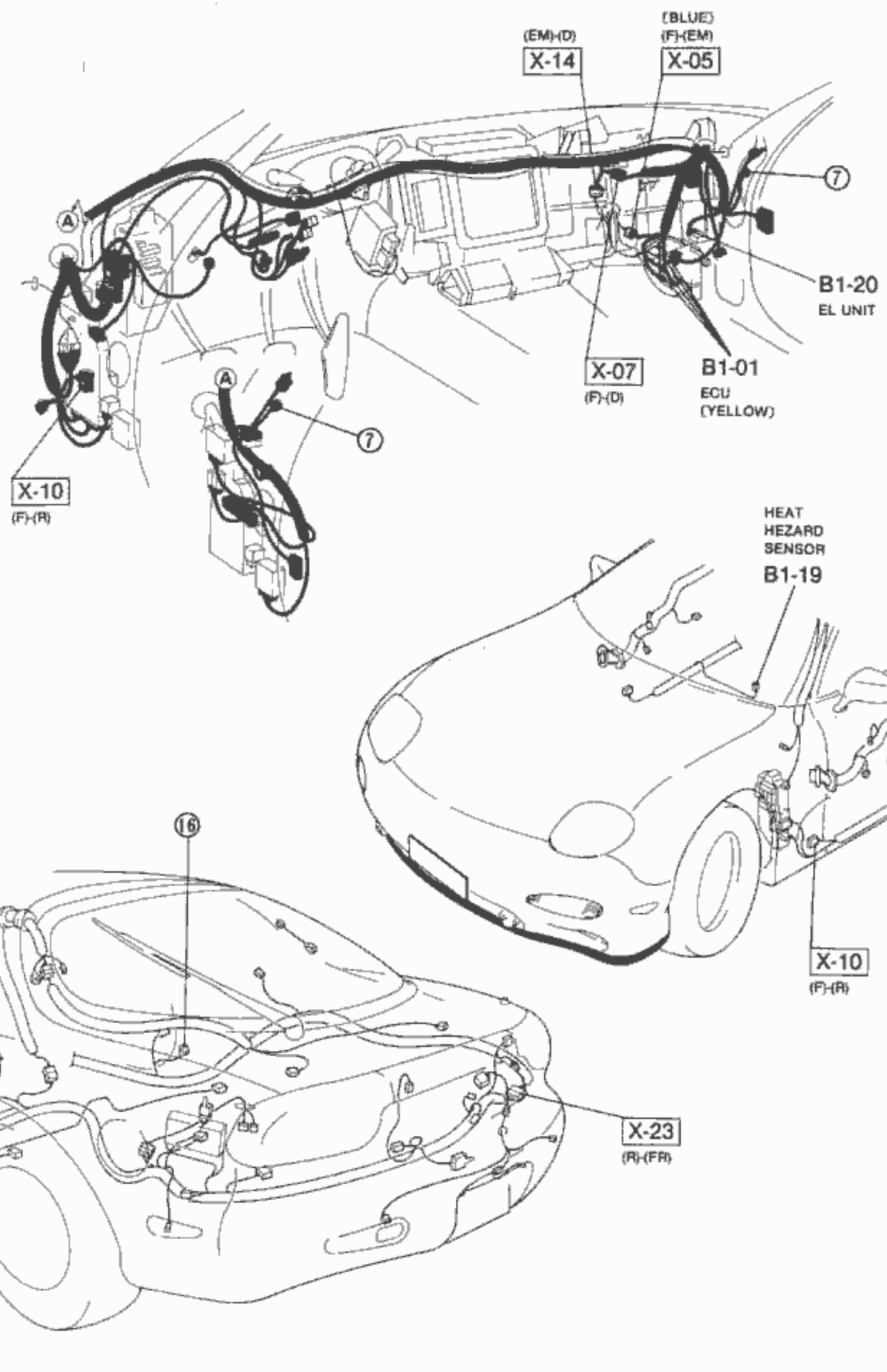




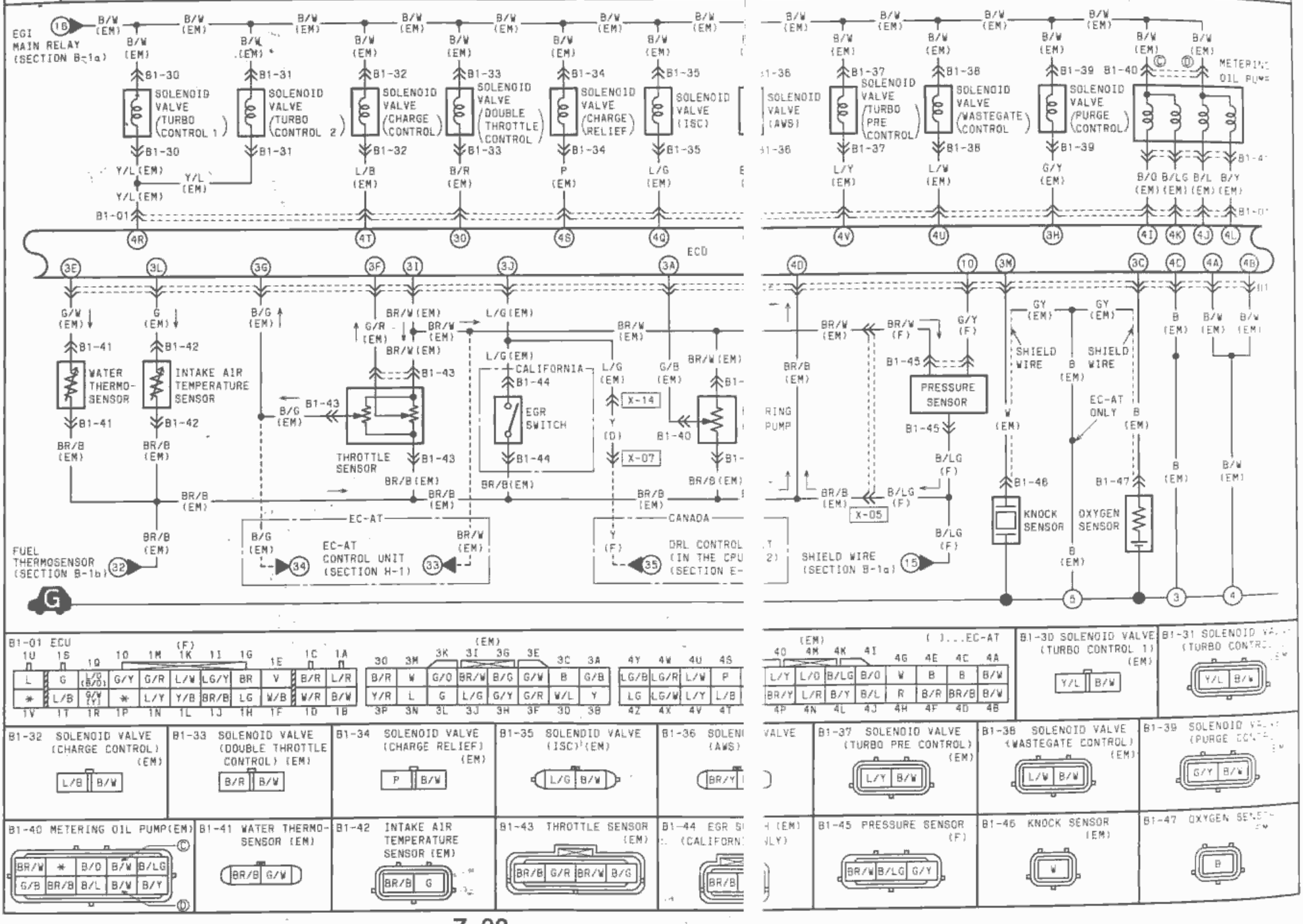


B-1b

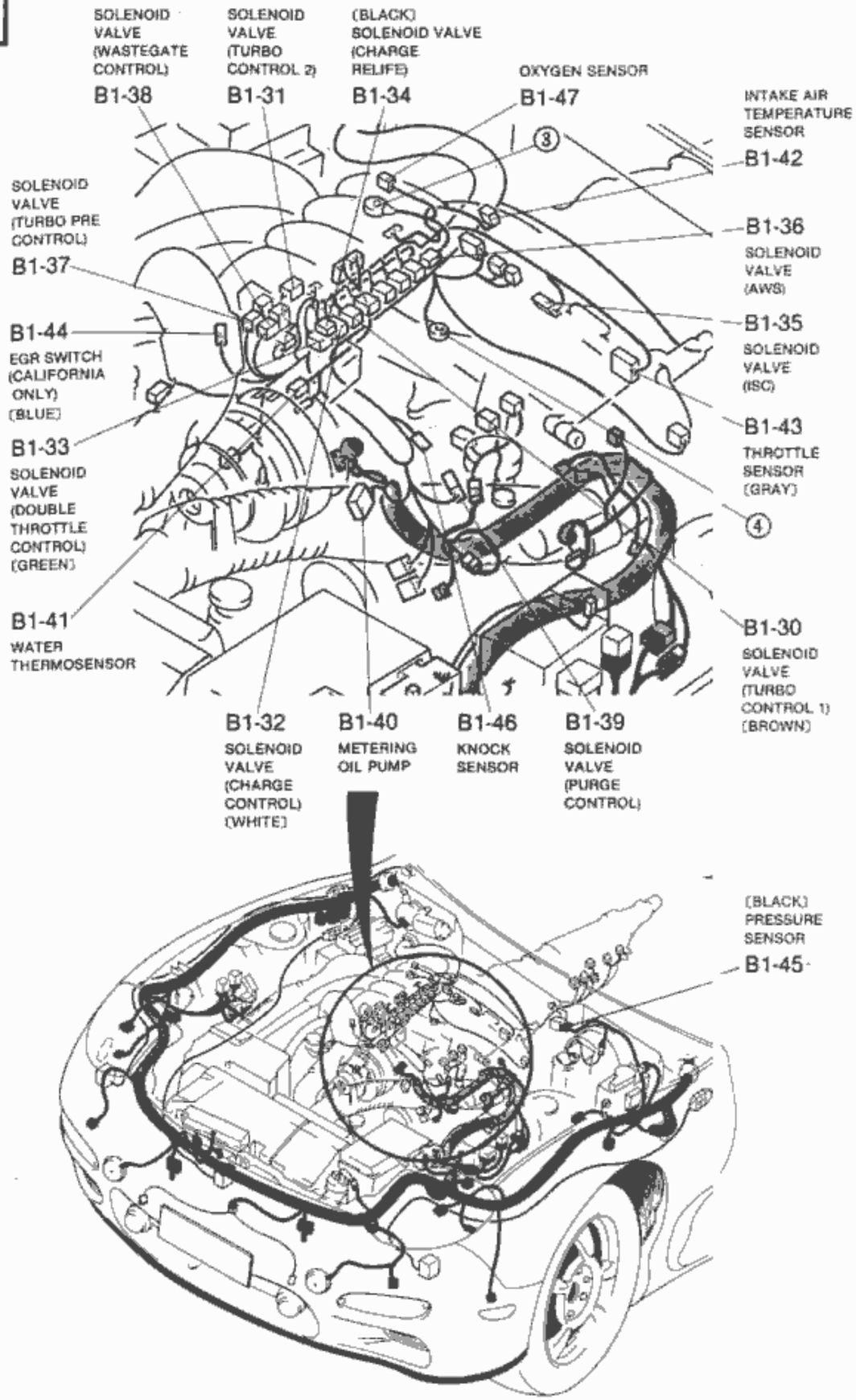

[GRAY]
INJECTOR
F-P
B1-15
[GRAY]
INJECTOR
R-P
B1-16
[GRAY]
INJECTOR R-S
B1-18
[BLACK]
SOLENOID VALVE
(PORT AIR BYPASS)
B1-25
[GRAY]
INJECTOR F-S
B1-17
B1-22
FUEL
THERMOSENSOR
1-24
1-23
1-26
1-27
B1-29
SOLENOID VALVE
(EGR)
[YELLOW]
B1-21
P/S SWITCH
[BLACK]
B1-28
SOLENOID
VALVE
(SWITCH)
[GRAY]
[GRAY]
(F)-(E)
X-12


(EM)-(D)
X-14
[BLUE]
(F)-(EM)
X-05
B1-20
EL UNIT
X-07
(F)-(D)
B1-01
ECU
(YELLOW)
X-10
(F)-(R)
HEAT
HEZARD
SENSOR
B1-19
X-10
(F)-(R)
X-23
(R)-(FR)

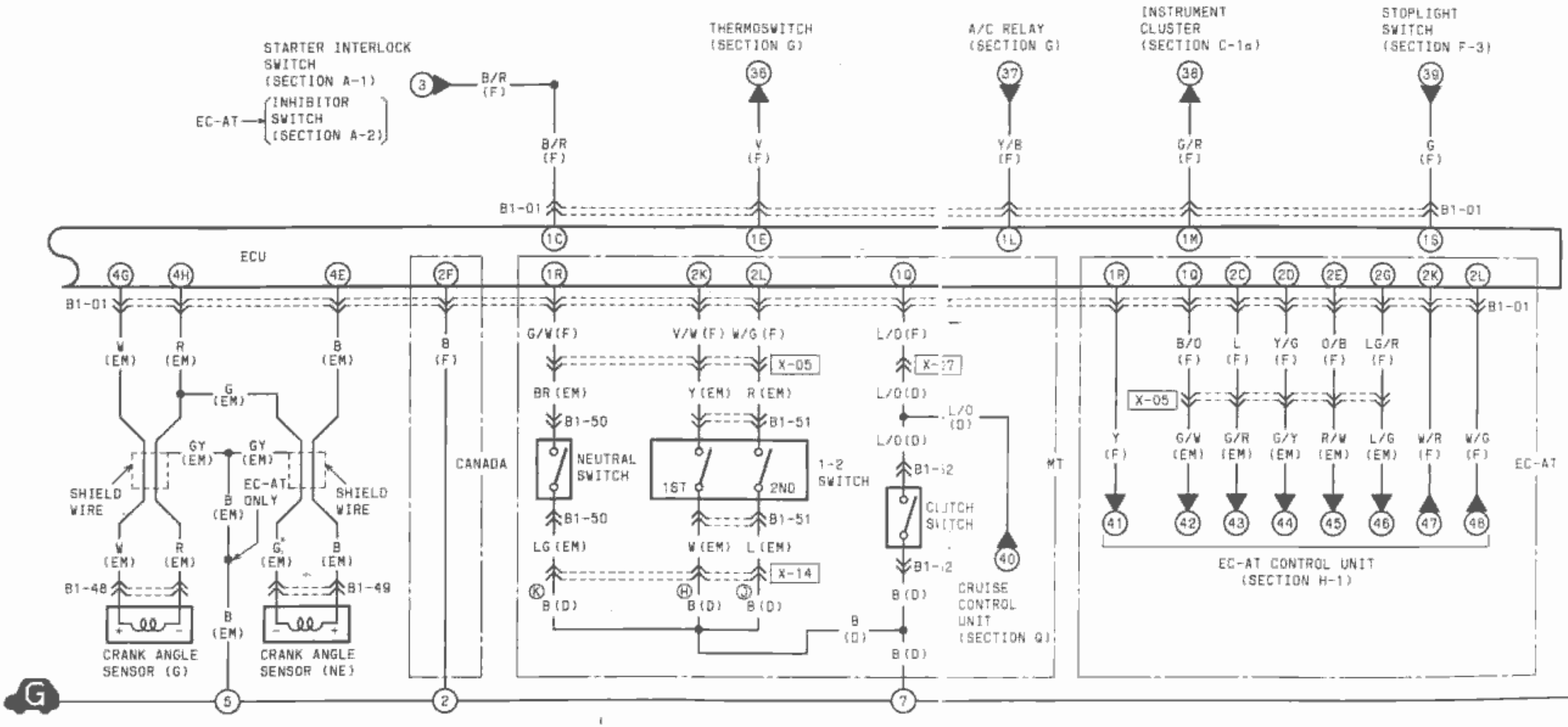
B-1c ■ ENGINE CONTROL SYSTEM

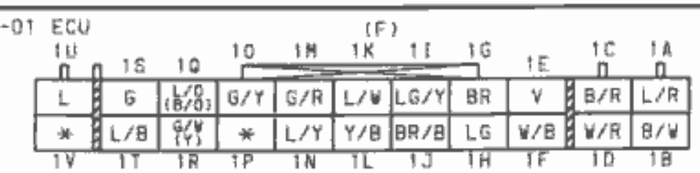


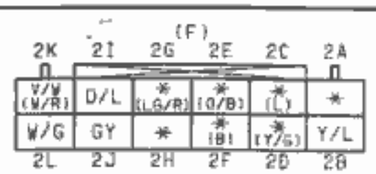
B-1c

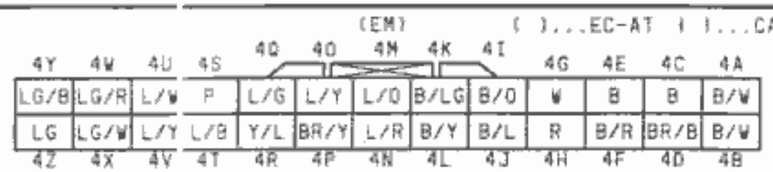

SOLENOID VALVE (WASTEGATE CONTROL)
B1-38
SOLENOID VALVE (TURBO CONTROL 2)
B1-31
(BLACK) SOLENOID VALVE (CHARGE RELIEF)
B1-34
OXYGEN SENSOR
B1-47
INTAKE AIR TEMPERATURE SENSOR
B1-42
SOLENOID VALVE (TURBO PRE CONTROL)
B1-37
B1-36
SOLENOID VALVE (AWS)
B1-44
EGR SWITCH (CALIFORNIA ONLY) (BLUE)
B1-35
SOLENOID VALVE (ISC)
B1-33
SOLENOID VALVE (DOUBLE THROTTLE CONTROL) (GREEN)
B1-43
THROTTLE SENSOR (GRAY)
B1-41
WATER THERMOSENSOR
B1-30
SOLENOID VALVE (TURBO CONTROL 1) (BROWN)
B1-32
SOLENOID VALVE (CHARGE CONTROL) (WHITE)
B1-40
METERING OIL PUMP
B1-46
KNOCK SENSOR
B1-39
SOLENOID VALVE (PURGE CONTROL)
(BLACK) PRESSURE SENSOR
B1-45
(EM)-(D)
X-14
(F)-(D)
X-07
(BLUE) (F)-(EM)
X-05
B1-01
ECU (YELLOW)

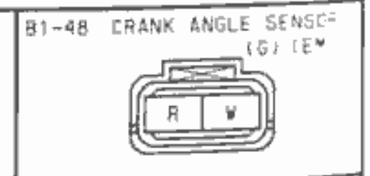
B-1d ■ ENGINE CONTROL SYSTEM

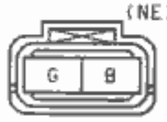




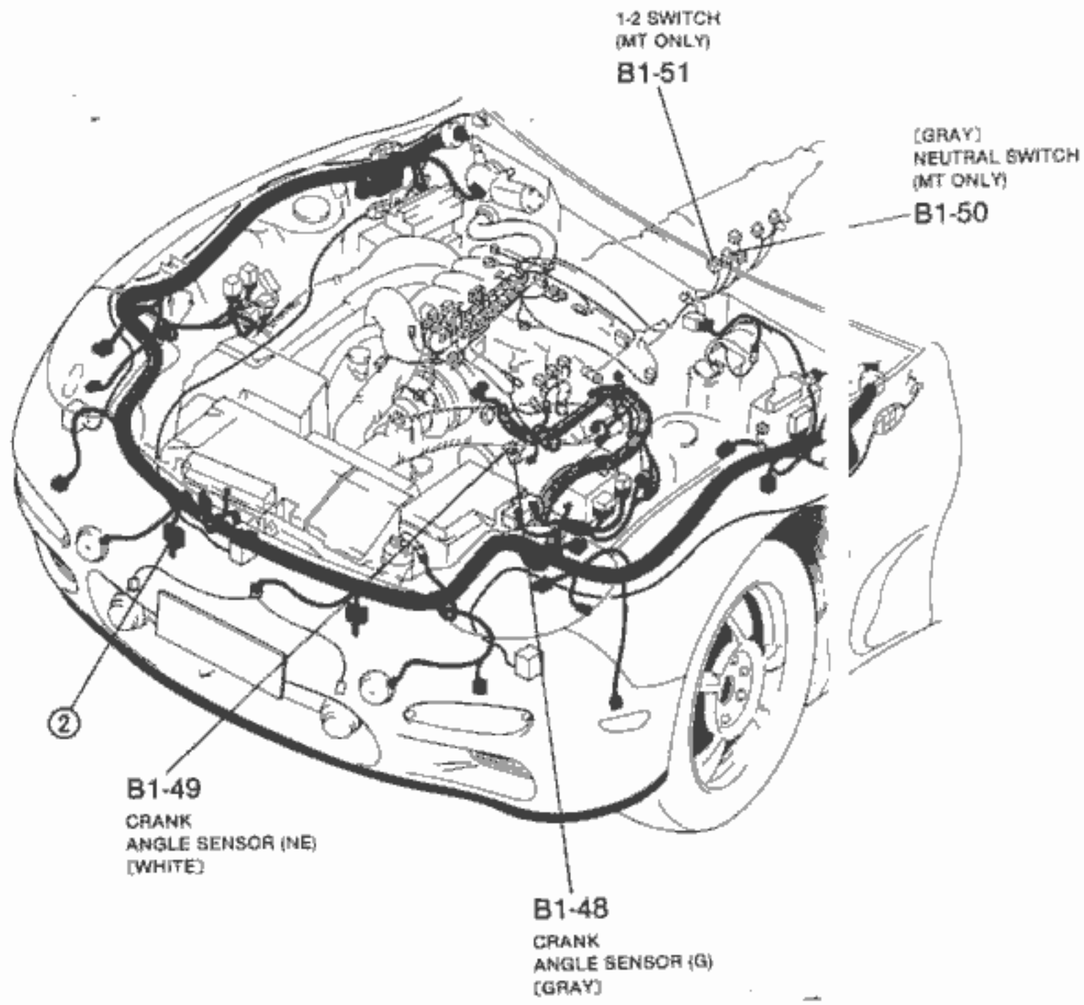


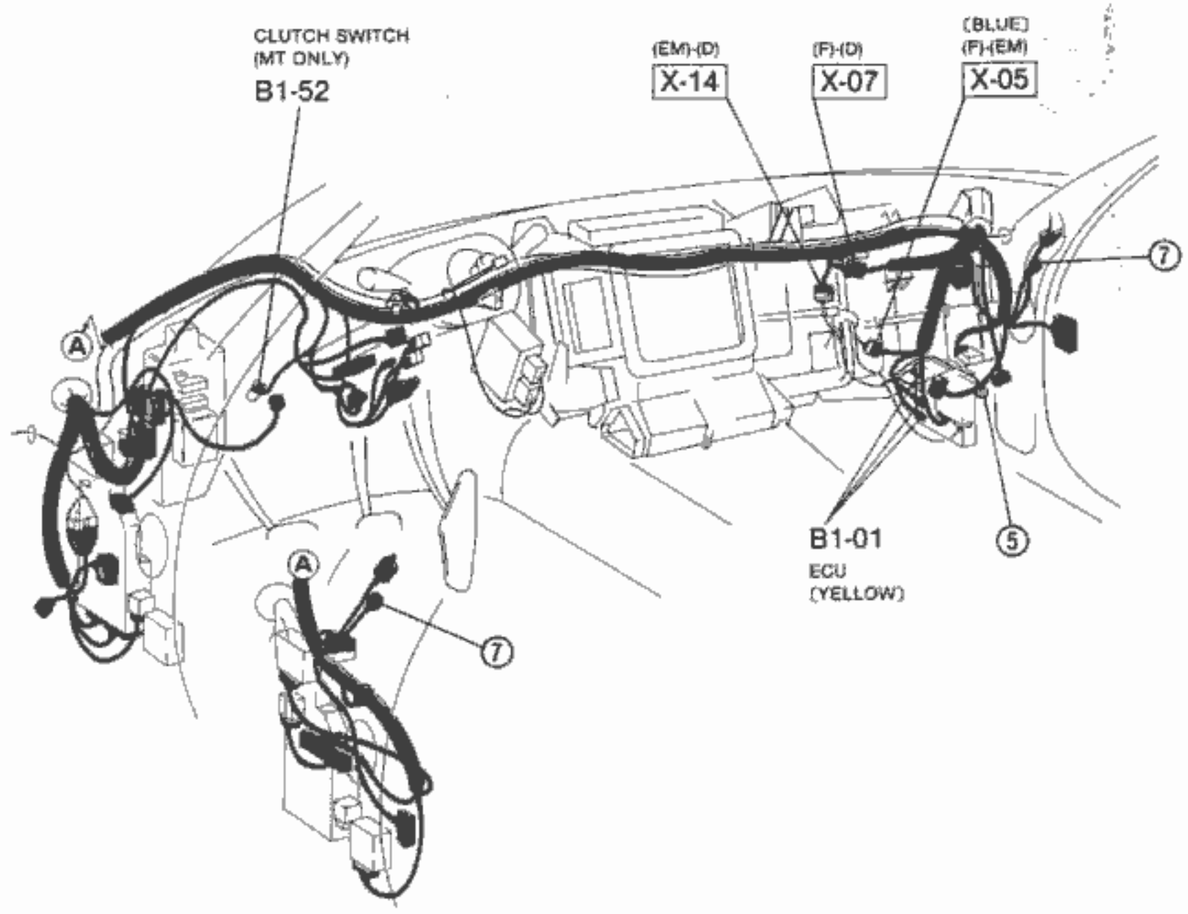






B-1d


1-2 SWITCH
(MT ONLY)
B1-51
[GRAY]
NEUTRAL SWITCH
(MT ONLY)
B1-50
②
B1-49
CRANK
ANGLE SENSOR (NE)
[WHITE]
B1-48
CRANK
ANGLE SENSOR (G)
[GRAY]

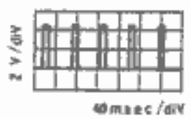

CLUTCH SWITCH
(MT ONLY)
B1-52
(EM)-(D)
X-14
(F)-(D)
X-07
(BLUE)
(F)-(EM)
X-05
⑦
Ⓐ
Ⓐ
⑦
B1-01
ECU
(YELLOW)
⑤

B-1

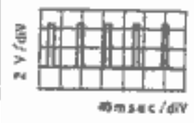
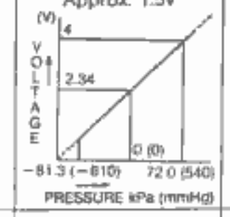
Terminal voltage

1. Using the engine signal monitor

V_B: Battery voltage

Terminal	Input	Output	Connected to	Test condition		Correct voltage	Remark
1A	–	–	Battery	Constant		V_B	For backup
1B	○		Main relay (FUEL INJ relay)	Ignition switch	OFF	0V	–
					ON	V_B	
1C	○		Ignition switch (START)	While cranking		V_B	–
				Ignition switch ON		Below 1.0V	
1D		○	Self-Diagnosis checker (monitor lamp)	Test switch at SELF TEST Lamp illuminated for 3 sec. after ignition switch OFF → ON		4.5–5.5V	With Self-Diagnosis checker and System Selector
				Lamp not illuminated after 3 sec.		V_B	
				Test switch at O_2 MONITOR Lamp illuminated		4.5–5.5V	
				Test switch at O_2 MONITOR Lamp not illuminated		V_B	
1E	○		A/C switch	A/C switch ON		Below 3.0V	• With Blower SW ON • Ignition switch ON
				A/C switch OFF		V_B	
1F		○	Self-Diagnosis checker (code number)	Buzzer sounded for 3 sec. after ignition switch OFF → ON		Below 2.5V	• With Self-Diagnosis checker and System Selector • With System Selector test switch at SELF TEST
				Buzzer not sounded for after 3 sec.		V_B	
				Buzzer sounded		Below 2.5V	
				Buzzer not sounded		V_B	
1G		○	Igniter (Trailing) Front rotor	Ignition switch ON		0V	–
				Idle Oscilloscope		0.2–0.5V (Reference) 	
				Engine speed: above 2,500 rpm		0.5–0.8V (Reference)	Initial acceleration
1H		○	Igniter (Leading)	Ignition switch ON		0V	–
				Idle Oscilloscope		0.2–0.5V (Reference) 	
				Engine speed: above 2,500 rpm		0.8–1.2V (Reference)	Initial acceleration

V_B: Battery voltage

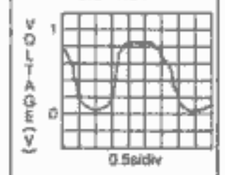
Terminal	Input	Output	Connected to	Test condition		Correct condition	Remark
1I	○		Diagnosis connector (TEN terminal)	System Selector test switch at O_2 MONITOR		V_B	• With System Selector • Ignition switch ON
				System Selector test switch at SELF TEST		0V	
1J			Igniter (Trailing) Rear rotor	Ignition switch ON		0V	–
				Idle Oscilloscope		0.2–0.5V (Reference) 	
				Engine speed: above 2500 rpm		0.5–0.8V (Reference)	Initial acceleration
1K			Fuel pump relay	Ignition switch ON		Below 1.0V	
				While cranking		Below 1.0V	
				Idle	Solenoid valve (PRC) does not operate	V_B	
					Solenoid valve (PRC) operates	Below 1.0V	
1L			A/C relay	While cranking		V_B	A/C switch, Blower switch ON
				Idle		Below 1.0V	
				During acceleration (Running)		V_B	
1M	○		Speedometer sensor	Ignition switch ON		4.0–5.0V	–
				Driving		2.0–2.5V	
1N	○		P/S pressure switch	P/S OFF at idle		V_B	–
				P/S ON at idle		Below 1.0V	
			Mileage switch	Under 20,000 miles (34,000 km)		Below 1.5V	Ignition switch ON after 2 seconds
				Over 20,000 miles (34,000 km)		V_B	
1O	○		Pressure sensor	Ignition switch ON		Approx. 2.6V	–
				Idle		Approx. 1.5V 	
1P	–		–	–		–	–

B-1

V_B: Battery voltage

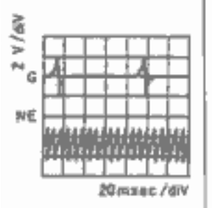
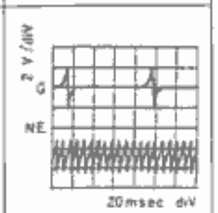
Terminal	Input	Output	Connected to	Test condition	Correct voltage	Remark
1Q	○		Clutch switch (MT)	Clutch pedal: released	V_B	gnition switch ON
				Clutch pedal: depressed	Below 1.0V	
			EC-AT control unit (AT)	Idle	V_B	leduce torque ignal
				When shifting from 1st to 2nd or from 2nd to 3rd with the throttle opening above 1.5/8	Below 1.0V	
				Idle	V_B	ip lock up signal
				When slip lockup with the throttle opening below 0.5/8	Below 1.0V	
1R	○		Neutral switch (MT)	Neutral	Below 1.0V	gnition switch ON
				In gear	V_B	
			EC-AT control unit (AT)	Por N range	Below 1.0V	inhibitor signal Ignition switch ON
				Other	V_B	
1S	○		Stoplight switch	Brake pedal released	Below 1.0V	gnition switch ON
				Brake pedal depressed	V_B	
1T		○	Circuit opening relay	Ignition switch ON	V_B	–
				Idle	Below 1.0V	
1U	○		Fuel thermosensor	Idle (after warm-up)	1.5–3.0V	
1V	–	–	–	–	–	–
2A	–	–	–	–	–	–
2B		○	Diagnosis connector (IG-terminal)	Ignition switch ON	0V	
				Idle	0.3–0.8 (Reference)	–
				Engine speed: 3,000 rpm	1.8–2.2V (Reference)	itial acceleration
2C		○	EC-AT control unit (AT)	Idle	V_B	ip lock up OFF gnal
				Engine speed: hold 3,000 rpm (after 5 seconds)	Below 1.0V	itial acceleration
2D		○	EC-AT control unit (AT)	Ignition switch ON	2–4.5V	tmosphric ressure gnal
2E		○	EC-AT control unit (AT)	Idle	Below 1.0V	le signal
				Other	Approx 5V	
2F		○	Open (ex. Canada)	Constant	1–2.5V	–
			Ground (Canada)	Constant	0V	
2G		○	EC-AT control unit (AT)	Idle	V_B	orque reduced gnal
				Throttle opening above 1/8 (Engine coolant temp. below 40°C (104°F))	Below 1.0V	
2H	–	–	–	–	–	–
2I	○		Heat Hazard Sensor	Ignition switch ON	Below 2.0V	
				Idle (Temp.: Below 100°C (212°F))	V_B	
				Idle (Temp: Above 100°C (212°F))	Below 1.0V	
2J		○	A/P relay	Engine speed Idle–Below 3,250 rpm	Below 1.0V	
				Engine speed above 3,250 rpm	V_B	

V_B: Battery voltage

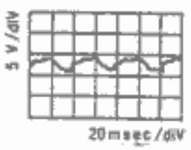
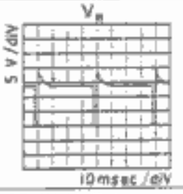
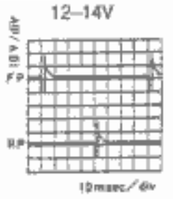
Terminal	Input	Output	Connected to	Test condition		Correct voltage	Remark
2K	○		1–2 switch (MT)	1st position		V_B	Ignition switch ON
				Other		Below 1.0V	
			EC–AT CU (AT)	2nd or 3rd position		Below 1.0V	While running
				Other		V_B	
2L	○		1–2 switch (MT)	2nd position		Below 1.0V	Ignition switch ON
				Other		V_B	
			EC–AT CU (AT)	3rd or O/D position		Below 1.0V	While running
				Other		V_B	
3A	○		Metering oil pump position sensor	Ignition switch ON		1.0–4.2V	Voltage increase when accelerating
				Idle		Approx. 1.1V	
				Accelerator pedal depressed		1.1–4.2V	
3B	○		E/L unit	Headlight switch position I, II, Blower motor position III, IV, Rear defroster switch ON		Below 4.0V	
				Headlight switch, Blower motor, rear defroster switch are OFF		5V	
3C	○		Oxygen sensor	Idle	Cold engine	Approx 0V	
					After warm up	0.0–1.0V	
					Oscilloscope		
				Acceleration (after warm up)		0.5–1.0V	
				Deceleration (after warm-up)		0.0–0.4V	
3D		○	Cooling fan relay	Idle	During electrical cooling fan operating	V_B	
					Electrical cooling fan does not oprate	Below 1.0V	
				TFA terminal of diagnosis connector is grounded		Below 1.0V	Ignition switch ON
3E	○		Water thermosensor	Engine coolant temperature 20°C (68°F)		Approx. 2.5V	Ignition switch ON
				After warm up		Below 0.5V	
3F	○		Throttle sensor (Narrow range)	Accelerator pedal released		0.75–1.25	• Ignition switch ON • After warm-up
				Accelerator pedal fully depressed		4.6–5.0	
3G	○		Throttle sensor (Full range)	Accelerator pedal released		0.1–0.7	• Ignition switch ON • After warm-up
				Accelerator pedal fully depressed		4.2–4.6	
3H		○	Solenoid valve (purge control)	Ignition switch ON		V_B	
				Idle			
				Engine speed: 1,500–3,300 rpm		4–10V	While running
3I	○		Throttle sensor	Constant		Approx. 5.0V	Ignition switch ON
3J	○		EGR switch	EGR valve operates		V_B	California only
				EGR valve does not operate		Below 1.0V	
	○		DRL relay	Idle	Pull the parking brake (Turnlight OFF)	0V	Canada only
					Release the parking brake (Turnlight ON)	V_B	
3K		○	Solenoid valve (Relief2)	Ignition switch ON		V_B	
				Idle	Before warm up approx. 40°C (104°F)	Below 1.0V	
					After warm up	V_B	
3L	○		Intake air thermosensor	Ambient air temperature 20°C (68°F)		Approx. 2.5V	Ignition switch ON
				After warm up		Approx. 0.6V	

B-1

V_B: Battery voltage

Terminal	Input	Output	Connected to	Test condition		Correct voltage	Remark
3M	○		Knock sensor	Ignition switch ON		Approx. 2.5V	
				Knocking occur (Tap the engine hanger with hammer)		2.6–2.8V (Reference)	Ignition switch ON
3N		○	Solenoid valve (Port air by-pass)	Ignition switch ON		V_B	
				After warm up Engine speed: 1,500–3,000 rpm		Below 1.0V	While running
3O		○	Solenoid valve (Double throttle control)	Engine coolant temperature below 80°C (176°F)		Below 1.0V	Ignition switch ON
				After warm up		V_B	
3P		○	Solenoid valve (Relief1)	Idle		V_B	• After warm-up • While running
				Engine speed: 2,700–3,200 rpm		Below 1.0V	
4A	–	–	Ground (Output)	Constant		0V	–
4B	–	–	Ground (Output)	Constant		0V	–
4C	–	–	Ground (CPU)	Constant		0V	–
4D	–	–	Ground (Input)	Constant		0V	–
4E	○		Crank angle sensor [NE + signal]	Ignition switch ON		Below 1.0V	Engine signal monitor: Red lamp flash
				Idle	Oscilloscope		
					Voltmeter	0.1–0.4V (Reference)	
4F		○	Solenoid valve (Split air by-pass)	Idle		V_B	
				5th position (MT), OD (AT)		Below 1.0V	• After warm-up • While running
4G	○		Crank angle sensor [G signal]	Ignition switch ON		Below 1.0V	
				Idle	Oscilloscope		–
					Voltmeter	0.1–0.4V (Reference)	
4H	○		Crank angle sensor	Constant		Below 1.0V	–
4I		○	Stepping motor (Metering oil pump)	Ignition switch ON		V_B	
4J 4K 4L				Idle		3 terminals / 4 terminals V_B Other terminal 5–9V	
4M		○	Solenoid valve (Pressure regulator control)	Idle		V_B	
				Idle after hot start		Below 1.0V	approx. 1 minute
4N		○	Solenoid valve (Switching)	Ignition switch ON/Idle		V_B	
				Engine speed: above 3,200 rpm (After warm up)		Below 1.0V	Initial acceleration
4O		○	Solenoid valve (EGR)	Idle		V_B	
				5th position (MT)/OD (AT)		Below 1.0V	While running

V_B: Battery voltage

Terminal	Input	Output	Connected to	Test condition	Correct voltage	Remark
4P		○	Solenoid valve (AWS)	Before warm up approx. 40°C (104°F)	Below 1.0V	Idle
				After warm up	V_B	
4Q		○	Solenoid valve (ISC)	Ignition switch ON	8.0–11.0V	Reference valve • Cranking 99% • Idle 32–65% • Initial set 38%
				Idle	5.0–11.0 (Reference)	
				Oscilloscope		
4R		○	Solenoid valve (Turbo control)	Idle	V_B	
				Engine speed: above 5,500 rpm (MT) Engine speed: above 5,250 rpm (AT)	Below 1.0V	Initial acceleration
4S		○	Solenoid valve (Charge relief)	Idle	V_B	
				Engine speed: 4,000–5,500 rpm (MT) for 8 sec. 3,500–5,000 (AT) for 4 sec.	Below 1.0V	Initial acceleration
				Engine speed: above 5,500 rpm (MT) above 5,250 rpm (AT)		
4T		○	Solenoid valve (Charge control)	Idle	Below 1.0V	
				Engine speed: above 5,500 rpm (MT) Engine speed: above 5,250 rpm (AT)	V_B	Initial acceleration
4U		○	Solenoid valve (Wastegate control)	Ignition switch ON	V_B	Reference valve • Idle 5% • Solenoid valve (Turbo control) before operates 95%
				Idle	V_B	
				Oscilloscope		
				Initial acceleration	5.0–11.0 V	
4V		○	Solenoid valve (Turbo precontrol)	Ignition switch ON	V_B	Reference valve • Idle 5% • Solenoid valve (Turbo control) after operates 5%
				Idle	V_B	
				Oscilloscope		
				Engine speed: above 3,000 rpm	4.0–10.0V (Reference)	Initial acceleration
4W		○	Injector (Front primary)	Ignition switch ON	V_B	• Secondary injector not working at no load condition * Engine Signal Monitor: Green lamp flash
4X		○	Injector (Front secondary)	Idle*	12–14V	
4Y		○	Injector (Rear primary)	Oscilloscope		
4Z		○	Injector (Rear secondary)			

Control Unit Connector (Control Unit Side)

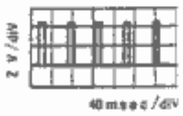
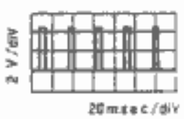
B-1

Using the DT-S1000

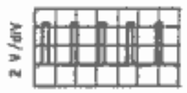
DT-S 1000 mark terminal can use the DT-S1000, if no mark use the circuit tester or osc

oscope.

V_B: Battery voltage

Terminal	Input	Output	Connected to	Test condition		Correct condition	Remark
1A	–	–	Battery	Constant		V_B	For backup
1B DT-S 1000	○		Main relay (FUEL INJ relay)	Ignition switch	OFF	11–13V	–
					ON	12–14V	
1C DT-S 1000	○		Ignition switch (START)	While cranking		OFF	–
				Ignition switch ON		ON	
1D		○	Self-Diagnosis Checker (monitor lamp)	Test switch at SELF TEST Lamp illuminated for 3 sec. after ignition switch OFF → ON		4.5–5.5V	With Self-Diagnosis Checker and System Selector
				Lamp not illuminated after 3 sec.		V_B	
				Test switch at O_2 MONITOR Lamp illuminated		4.5–5.5V	
				Test switch at O_2 MONITOR Lamp not illuminated		V_B	
1E DT-S 1000	○		A/C switch	A/C switch ON		ON	• With Blower SW ON • Ignition switch ON
				A/C switch OFF		OFF	
1F		○	Self-Diagnosis Checker (code number)	Buzzer sounded for 3 sec. after ignition switch OFF → ON		Below 2.5V	• With Self-Diagnosis Checker and System Selector • With System Selector test switch at SELF TEST
				Buzzer not sounded after 3 sec.		V_B	
				Buzzer sounded		Below 2.5V	
				Buzzer not sounded		V_B	
1G DT-S 1000		○	Igniter (Trailing) Front rotor	Idle (No load)		BTDC –20°CA  Oscilloscope	–
				Engine speed: 2,500 rpm		BTDC 15–35°CA	Initial acceleration
1H DT-S 1000		○	Igniter (Leading)	Idle		BTDC –5°CA  Oscilloscope	
				Engine speed: above 2,500 rpm		BTDC 15–35°CA	Initial acceleration

V_B: Battery voltage

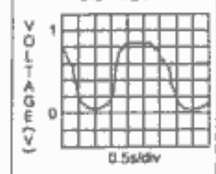
Terminal	Input	Output	Connected to	Test condition		Correct condition	Remark
1I	○		Diagnosis connector (TEN terminal)	System Selector test switch at O_2 MONITOR		V_B	• With System Selector • Ignition switch ON
				System Selector test switch at SELF TEST		0V	
1J		○	Igniter (Trailing) Rear rotor	Ignition switch ON		0V	
				Idle		0.2–0.5V (Reference)  Oscilloscope	
				Engine speed: above 2,500 rpm		0.5–0.8V (Reference)	Initial acceleration
1K DT-S 1000		○	Fuel pump relay	Ignition switch ON		ON	
				While cranking		ON	
				Idle	Solenoid valve (PRC) does not operate	OFF	
					Solenoid valve (PRC) operates	ON	
1L DT-S 1000		○	A/C relay	While cranking		OFF	
				Idle		ON	A/C switch, Blower switch ON
				During acceleration (Running)		OFF	
1M DT-S 1000	○		Speedometer sensor	Ignition switch ON		0 km/h	–
				Driving (20km/h)		18–22 km/h	
1N DT-S 1000	○		P/S pressure switch	P/S OFF at idle		OFF	–
				P/S ON at idle		ON	
			Mileage switch	Under 20,000 miles (34,000 km)		Below 1.5V	Ignition switch ON after 2 seconds
				Over 20,000 miles (34,000 km)		V_B	
1O DT-S 1000	○		Pressure sensor	Idle		– 64—66.7 kPa	• After warm-up • Initial acceleration
				Engine speed: 1,000 rpm		– 46.7—60 kPa	
				Engine speed: 2,000 rpm		– 26.7—46.7 kPa	
1P	–	–	–	–		–	–

B-1

V_B: Battery voltage

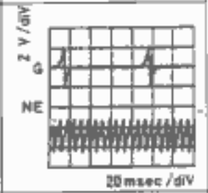
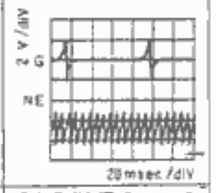
Terminal	Input	Output	Connected to	Test condition	Correct condition	Remark
1O (DT-S 1000)	○		Clutch switch (MT)	Clutch pedal: released	OFF	Ignition switch ON
				Clutch pedal: depressed	ON	
			EC-AT control unit (AT)	Idle	OFF	Reduce torque signal
				When shifting from 1st to 2nd or from 2nd to 3rd with the throttle opening above 1.5/8	ON	
				Idle	OFF	Slip lock up signal
				When slip lockup with the throttle opening below 0.5/8	ON	
1R (DT-S 1000)	○		Neutral switch (MT)	Neutral	ON	Ignition switch ON
				In gear	OFF	
			EC-AT control unit (AT)	P or N range	ON	• Inhibitor signal • Ignition switch ON
				Other	OFF	
1S (DT-S 1000)	○		Stoplight switch	Brake pedal released	OFF	Ignition switch ON
				Brake pedal depressed	ON	
1T (DT-S 1000)		○	Circuit opening relay	Ignition switch ON	OFF	–
				Idle	ON	
1U (DT-S 1000)	○		Fuel thermosensor	Fuel temperature 20°C	20°C	
				Fuel temperature 40°C	40°C	
				Fuel temperature 60°C	60°C	
1V	–	–	–	–	–	–
2A	–	–	–	–	–	–
2B (DT-S 1000)		○	Diagnosis Connector (IG-terminal)	Idle	700–750 rpm	• After warm-up • No electrical load
2C (DT-S 1000)		○	EC-AT control unit (AT)	Idle	OFF	Slip lock up OFF signal
				Engine speed: hold 3,000 rpm (after 5 seconds)	ON	Initial acceleration
2D		○	EC-AT control unit (AT)	Ignition switch ON	2–4.5V	Atmosphric pressure signal
2E (DT-S 1000)		○	EC-AT control unit (AT)	Idle	ON	Idle signal
				Other	OFF	
2F (DT-S 1000)		○	Open (ex. Canada)	Constant	OFF	–
			Ground (Canada)	Constant	ON	
2G (DT-S 1000)		○	EC-AT control unit (AT)	Idle	OFF	Torque reduced signal
				Throttle opening above 1/8 (Engine coolant temp. below 40°C (104°F))	ON	
2H	–	–	–	–	–	–
2I (DT-S 1000)	○		Heat Hazard Sensor	Ignition switch ON	ON	
				Idle (Temp: Below 100°C (212°F))	OFF	
				Idle (Temp: Above 100°C (212°F))	ON	
2J (DT-S 1000)		○	A/P relay	Engine speed Idle-below 3,750 rpm	ON	
				Engine speed above 3,750 rpm	OFF	

V_B: Battery voltage

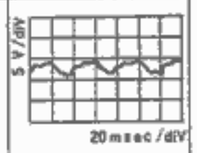
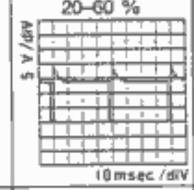
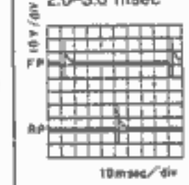
Terminal	Input	Output	Connected to	Test condition		Correct condition	Remark
2K (DT-S 1000)	○		1-2 switch (MT)	1st position		ON	Ignition switch ON
				Other		OFF	
			EC-AT CU (AT)	2nd or 3rd position		OFF	While running
				Other		ON	
2L (DT-S 1000)	○		1-2 switch (MT)	2nd position		ON	Ignition switch ON
				Other		OFF	
			EC-AT CU (AT)	3rd or O/D position		OFF	While running
				Other		ON	
3A (DT-S 1000)	○		Metering Oil pump position sensor	Ignition switch ON		1.0–4.2V	Voltage increase while accelerating
				Idle		Approx. 1.1V	
				Accelerator pedal depressed		1.1–4.2V	
3B (DT-S 1000)	○		E/L unit	Headlight switch position I, II,		ON	
				Blower motor position III, IV,		ON	
				Rear defrostor switch ON		ON	
				Headlight switch, Blower motor, rear defroster switch are OFF		OFF	
3C (DT-S 1000)	○		Oxygen sensor	Idle	Cold engine	Approx. 0V	
					After warm up	0.0–1.0V	
					Oscilloscope		
				Acceleration (After warm up)		0.5–1.0V	
				Deceleration (After warm up)		0.0–0.4V	
3D (DT-S 1000)			Cooling fan relay	Idle	During electrical cooling fan operating	OFF	–
					Electrical cooling fan does not oprate	ON	
3E (DT-S 1000)	○		Water thermosensor	Engine coolant temperature 20°C		20°C	Ignition switch ON
				Engine coolant temperqture 60°C		60°C	
3F (DT-S 1000)	○		Throttle sensor (Narrow range)	Accelerator pedal released		0.75–1.25V	• Ignition switch ON • After warm-up
				Accelerator pedal fully depressed		4.8–5.0V	
3G (DT-S 1000)	○		Throttle sensor (full range)	Accelerator pedal released		0.1–0.7V	• Ignition switch ON • After warm-up
				Accelerator pedal fully depressed		4.2–4.6V	
3H (DT-S 1000)			Solenoid valve (purge control)	Idle		0 %	
				Engine speed 1,500–3,300 rpm		5–70 % (Reference)	While running
3I	○		Throttle sensor	Constant		Approx. 5.0V	Ignition switch ON
3J (DT-S 1000)	○		EGR switch	EGR valve operates		ON	California only
				EGR valve does not operate		OFF	
	○		DRL relay	Idle	Pull the parking brake (Turnlight OFF)	OFF	Canada only
					Release the parking brake (Turnlight ON)	ON	
3K (DT-S 1000)			Solenoid valve (Relief2)	Ignition switch ON		OFF	
				Idle	Befor warm up approx. 40°C (104°F)	ON	
					After warm up	OFF	

B-1

V_B: Battery voltage

Terminal	Input	Output	Connected to	Test condition	Correct condition	Remark
3L DT-S 1000	○		Intake air thermosensor	Ambient air temperature 20°C (68°F)	20°C	ition switch ON
3M	○		Knock sensor	Ignition switch ON	Approx. 2.5V	ition switch ON
				Knocking occur (Tap the engine hunger with hammer)	2.6–2.8V (Reference)	
3N DT-S 1000		○	Solenoid valve (Port air by-pass)	Ignition switch ON	OFF	
				After warm up Engine speed: 1,500–3,000 rpm	ON	hile running
3O DT-S 1000		○	Solenoid valve (Doulbe throttle control)	Engine coolant temperature below 80°C (176°F)	ON	ition switch ON
				After warm up	OFF	
3P DT-S 1000		○	Solenoid valve (Relief)	Idle	OFF	
				Engine speed: 2,700–3,200 rpm	ON	After warm-up While running
4A	–	–	Ground (Output)	Constant	0V	–
4B	–	–	Ground (Output)	Constant	0V	–
4C	–	–	Ground (CPU)	Constant	0V	–
4D	–	–	Ground (Input)	Constant	0V	–
4E DT-S 1000	○		Crank angle sensor [NE + signal]	Idle	700–750 rpm	
				Oscilloscope		–
4F DT-S 1000		○	Solenoid valve (Split air by-pass)	Idle	OFF	
				5th position (MT), OD (AT)	ON	After warm-up While running
4G	○		Crank angle sensor [G signal]	Ignition switch ON	Below 1.0V	
				Idle — Oscilloscope		–
				Idle — Voltmeter	0.1–0.4V (Reference)	
4H	○		Crank angle sensor	Constant	below 1.0V	
4I 4J 4K 4L		○	Stepping motor (Metering oil pump)	Ignition switch ON	V_B	
				Idle	3 terminals / 4 terminals V_B Other terminal 5–9V	
4M DT-S 1000		○	Solenoid valve (Pressure regulator control)	Idle	OFF	
				Idle after hot start	ON	pprox. 1 minute
4N DT-S 1000		○	Solenoid valve (Switching)	Ignition switch ON/Idle	OFF	
				Engine speed: above 3,200 rpm (After warm up)	ON	tial acceleration
4O DT-S 1000		○	Solenoid valve (EGR)	Idle	OFF	
				5th position (MT)/OD (AT)	ON	hile running
4P DT-S 1000		○	Solenoid valve (AWS)	Before warm up approx. 40°C (104°F)	ON	le
				After warm up	OFF	

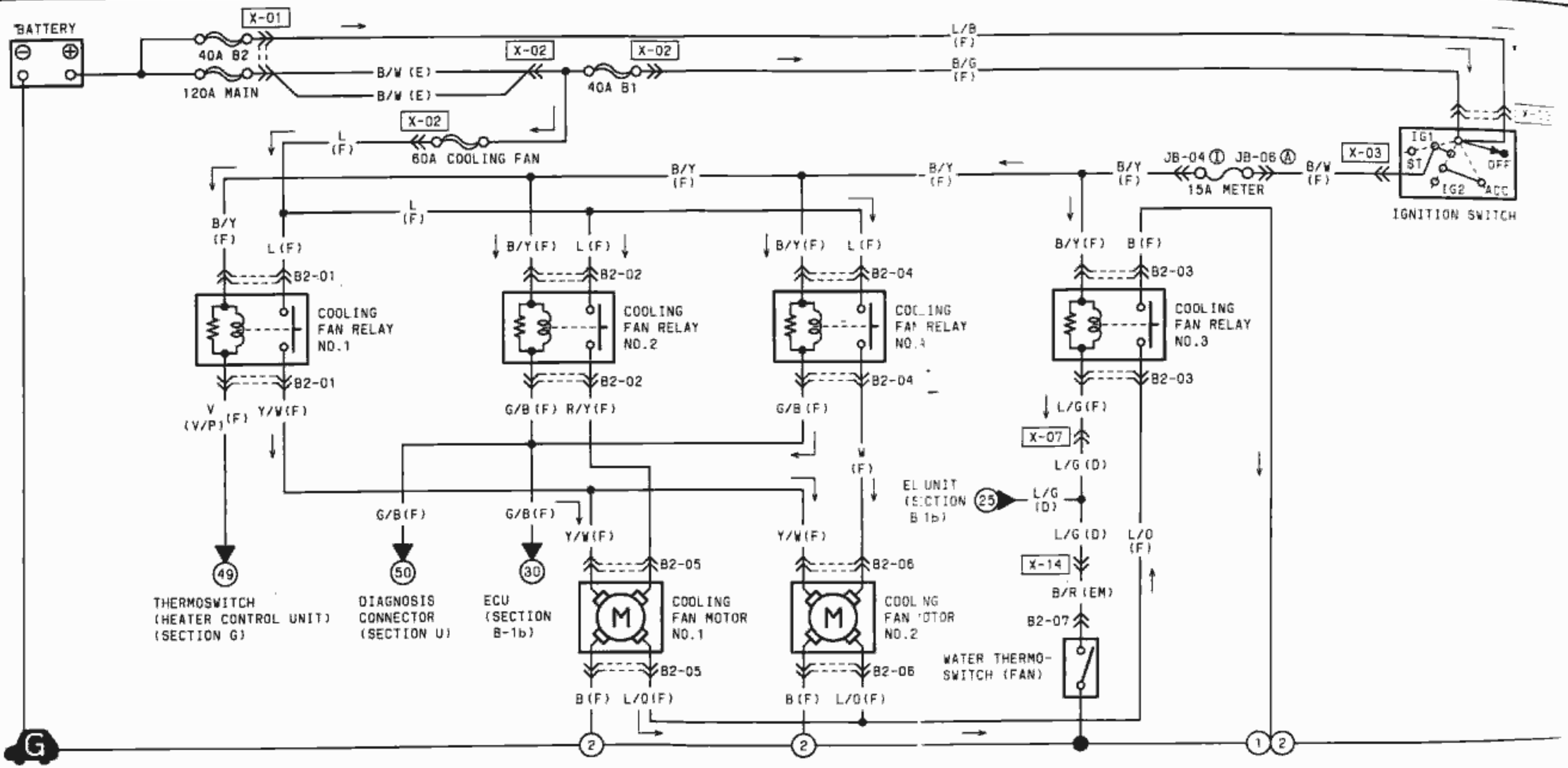
V_B: Battery voltage

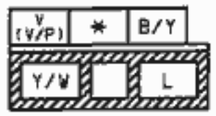
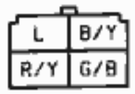
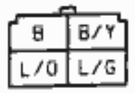
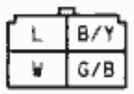
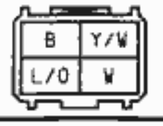
Terminal	Input	Output	Connected to	Test condition	Correct condition	Remark
4O DT-S 1000		○	Solenoid valve (ISC)	While cranking	99 %	
				Idle after warm up	32–65 %	No electrical load
				Oscilloscope		Reference valve • Initial set 38 %
4R DT-S 1000		○	Solenoid valve (Turbo control)	Idle	OFF	
				Engine speed: above 5,500 rpm (MT)	ON	Initial acceleration
				Engine speed: above 5,250 rpm (AT)		
4S DT-S 1000		○	Solenoid valve (charge relief)	Idle	OFF	
				Engine speed: 4,000–5,500 rpm (MT) for 8 sec. 3,500–5,000 (AT) for 4 sec.	ON	Initial acceleration
				Engine speed: above 5,500 rpm (MT) above 5,250 rpm (AT)		
4T DT-S 1000		○	Solenoid valve (Charge control)	Idle	ON	
				Engine speed: above 5,500 rpm (MT)	OFF	Initial acceleration
				Engine speed: above 5,250 rpm (AT)		
4U DT-S 1000		○	Solenoid valve (Wastegate control)	Idle	5 %	Reference valve • Solenoid valve (Turbo control) before operates 95 %
				Initial acceleration	40–95 %	
				Oscilloscope		
4V DT-S 1000		○	Solenoid valve (turbo pre-control)	Idle	5 %	Reference valve • Solenoid valve (Turbo control) after operates 5 %
				Engine speed: above 3,000 rpm (Initial acceleration)	20–60 %	
				Oscilloscope		
4W DT-S 1000		○	Injector (Front primary)	Idle*	2.0–3.0 msec	• Secondary injection not working at no load condition * Engine Signal Monitor: Green lamp flash
4X DT-S 1000		○	Injector (Front secondary)			
4Y DT-S 1000		○	Injector (Rear primary)			
4Z DT-S 1000		○	Injector (Rear secondary)			
				Oscilloscope		

16E0F2-219

Control Unit Connector (Control Unit Side)

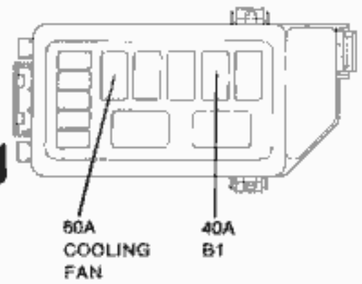
B-2 ■ COOLING FAN SYSTEM



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)	B-05 COOLING FAN MOTOR NO.1 (F)	B2-06 COOLING FAN MOTOR NO.2 (F)	B2-07 WATER THERMOSWITCH (FAN) (EM)
						

B-2

X-02
RELAY & FUSE BLOCK

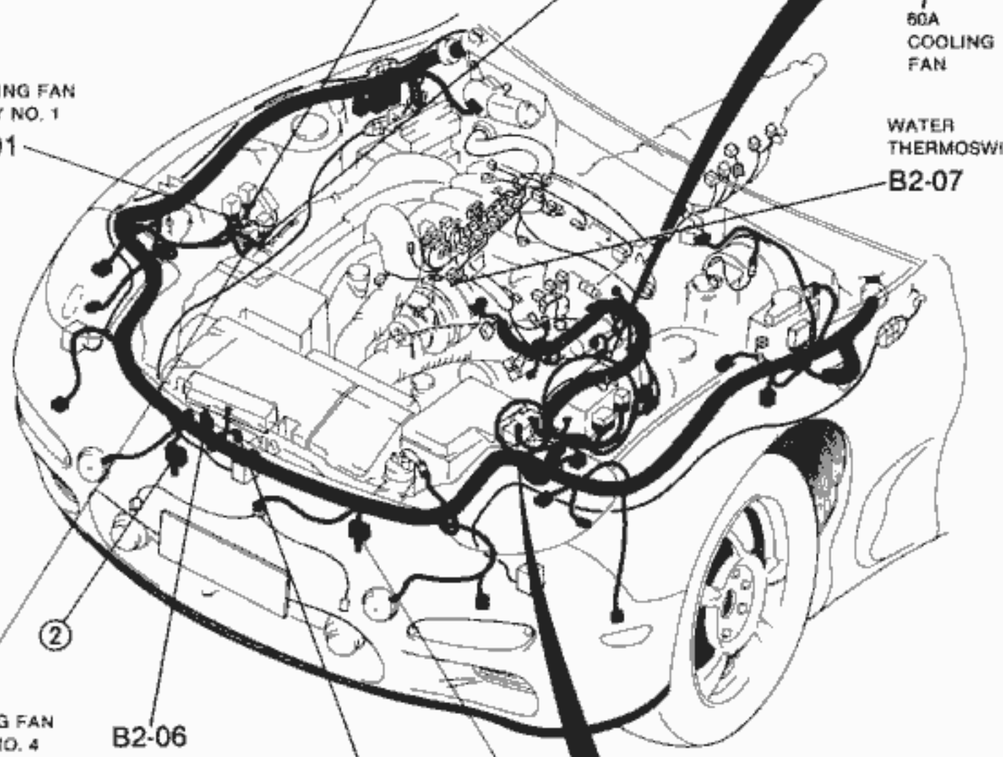


COOLING FAN
RELAY NO. 2
B2-02

COOLING FAN
RELAY NO. 3
B2-03

COOLING FAN
RELAY NO. 1
B2-01

WATER
THERMOSWITCH (FAN)
B2-07

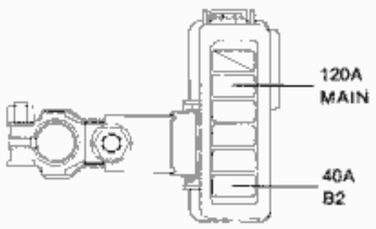


B2-04
COOLING FAN
RELAY NO. 4

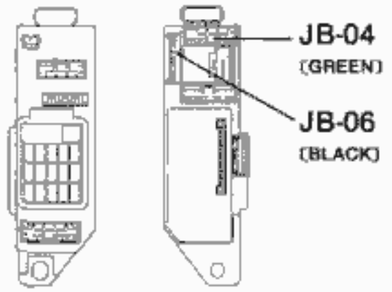
B2-06
COOLING
FAN MOTOR NO. 2
(BLACK)

B2-05
COOLING FAN
MOTOR NO. 1
(BLACK)

X-01
MAIN FUSE
BLOCK



JOINT BOX



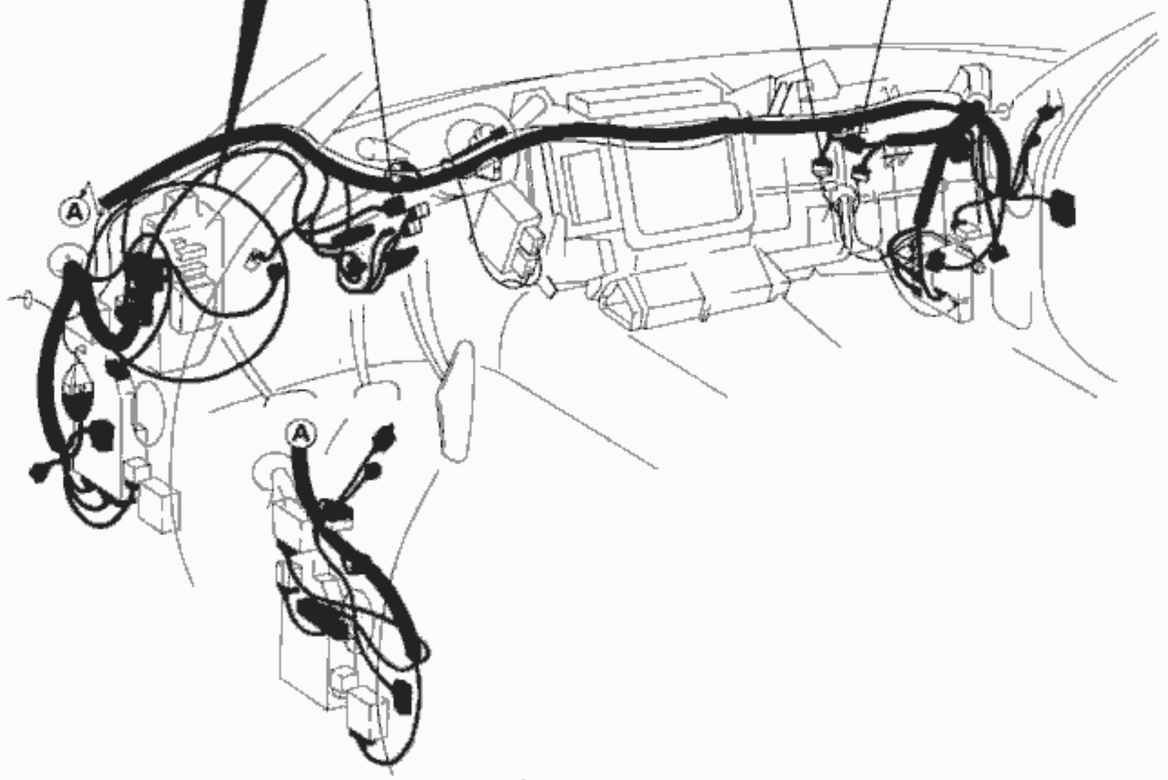
JB-04
(GREEN)

JB-06
(BLACK)

IGNITION
SWITCH
X-03

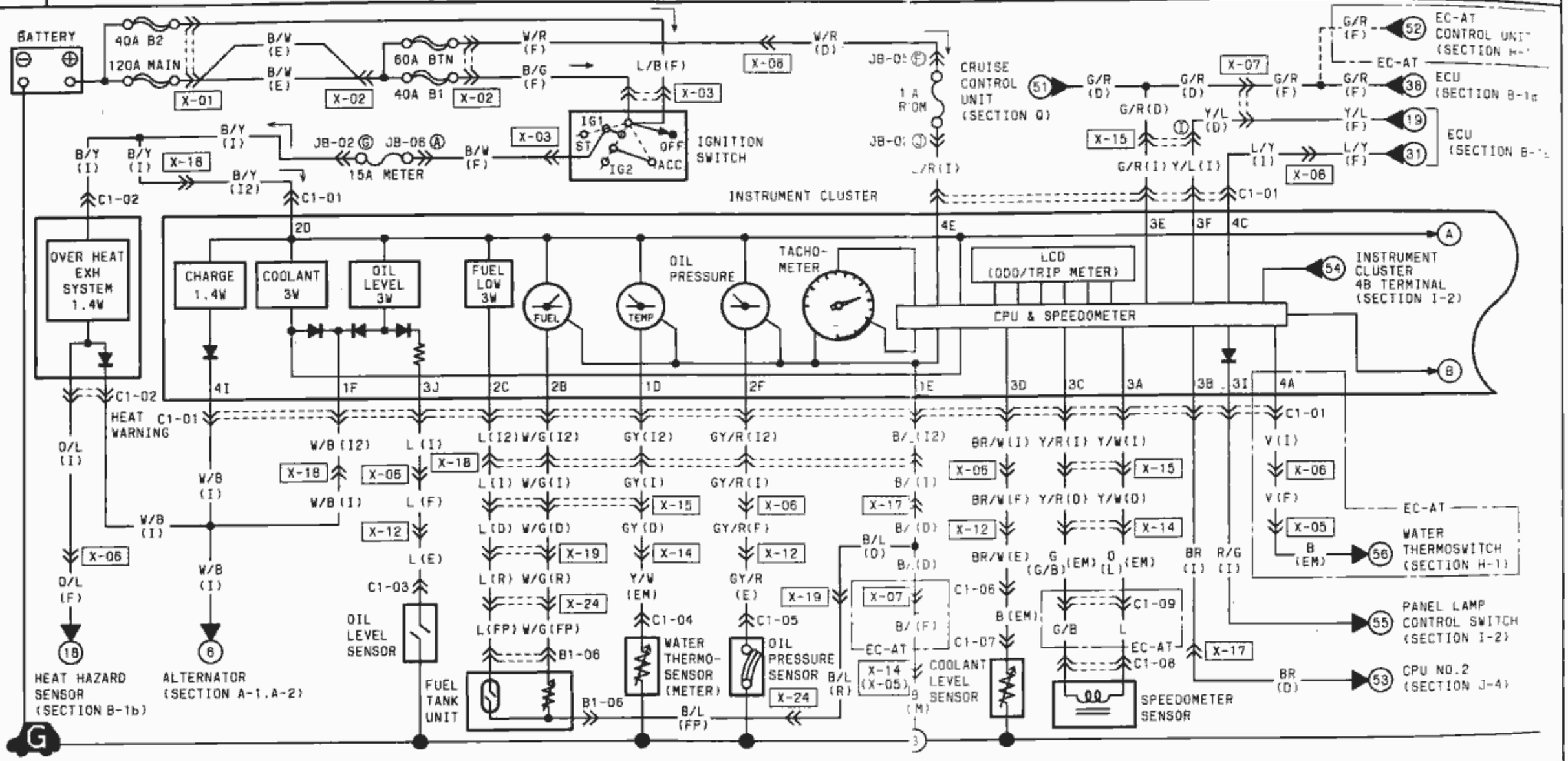
(EM)-(D)
X-14

(F)-(D)
X-07

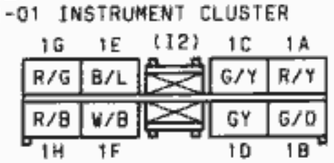


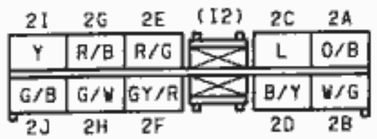
C-1a ■ INSTRUMENT CLUSTER & WARNING LAMPS

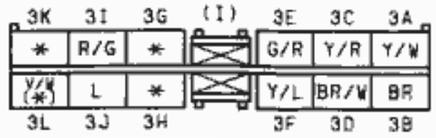
( )...EC-AT

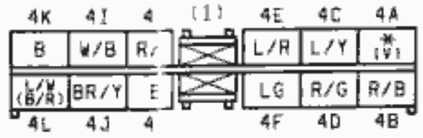


C1-01 INSTRUMENT CLUSTER



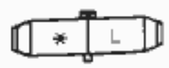






C1-02 HEAT WARNING (I)

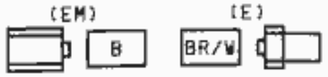
C1-03 OIL LEVEL SENSOR



C1-04 WATER THERMOSENSOR (METER) (EM)

C1-05 OIL PRESSURE SENSOR (E)

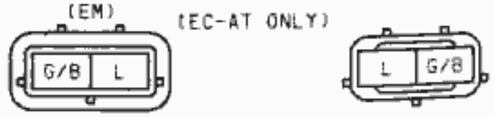
C1-06 CONNECTOR BETWEEN EMISSION(EM) & ENGINE(E)



C1-07 COOLANT LEVEL SENSOR (EM)

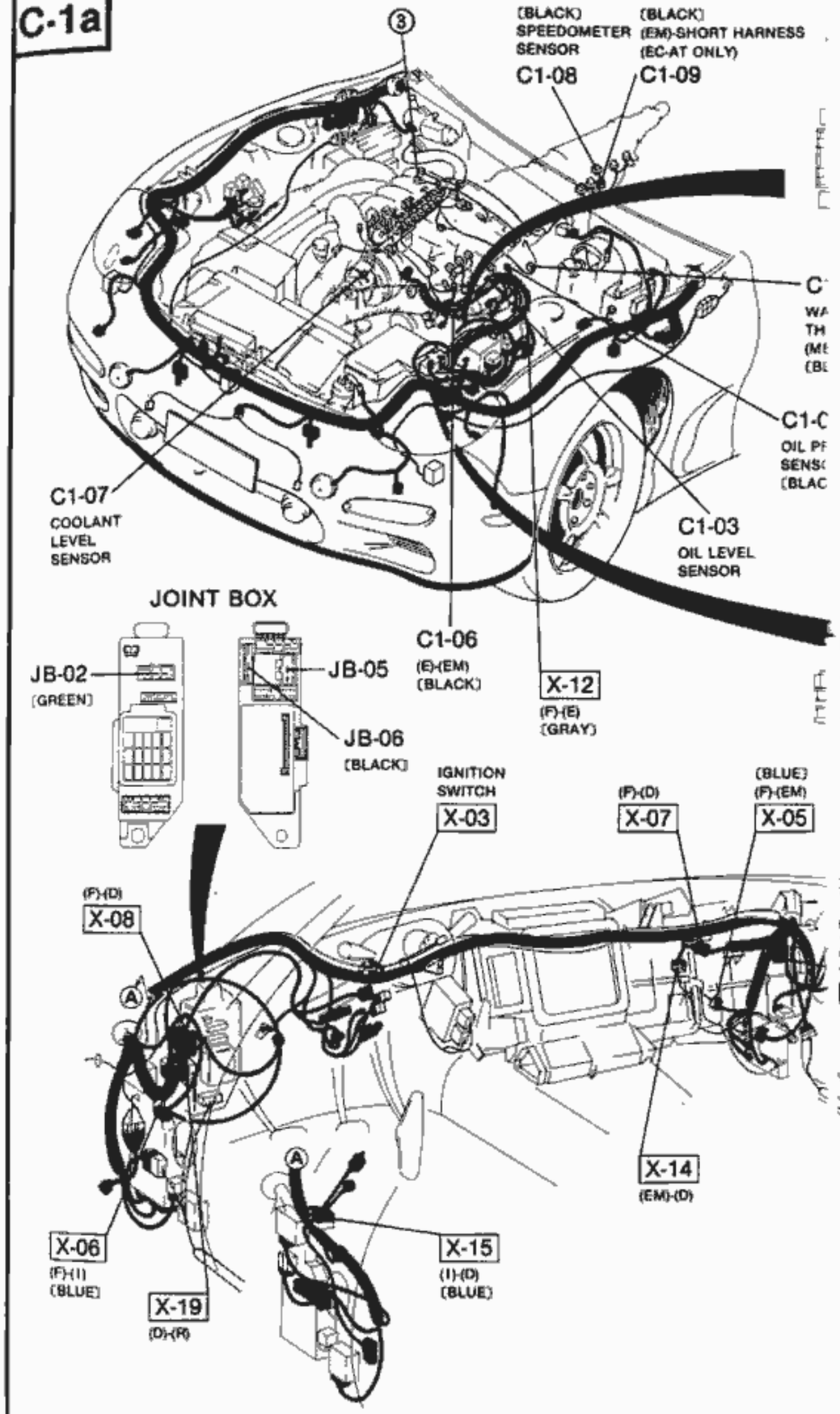
C 08 SPEEDOMETER SENSOR (EM) MT

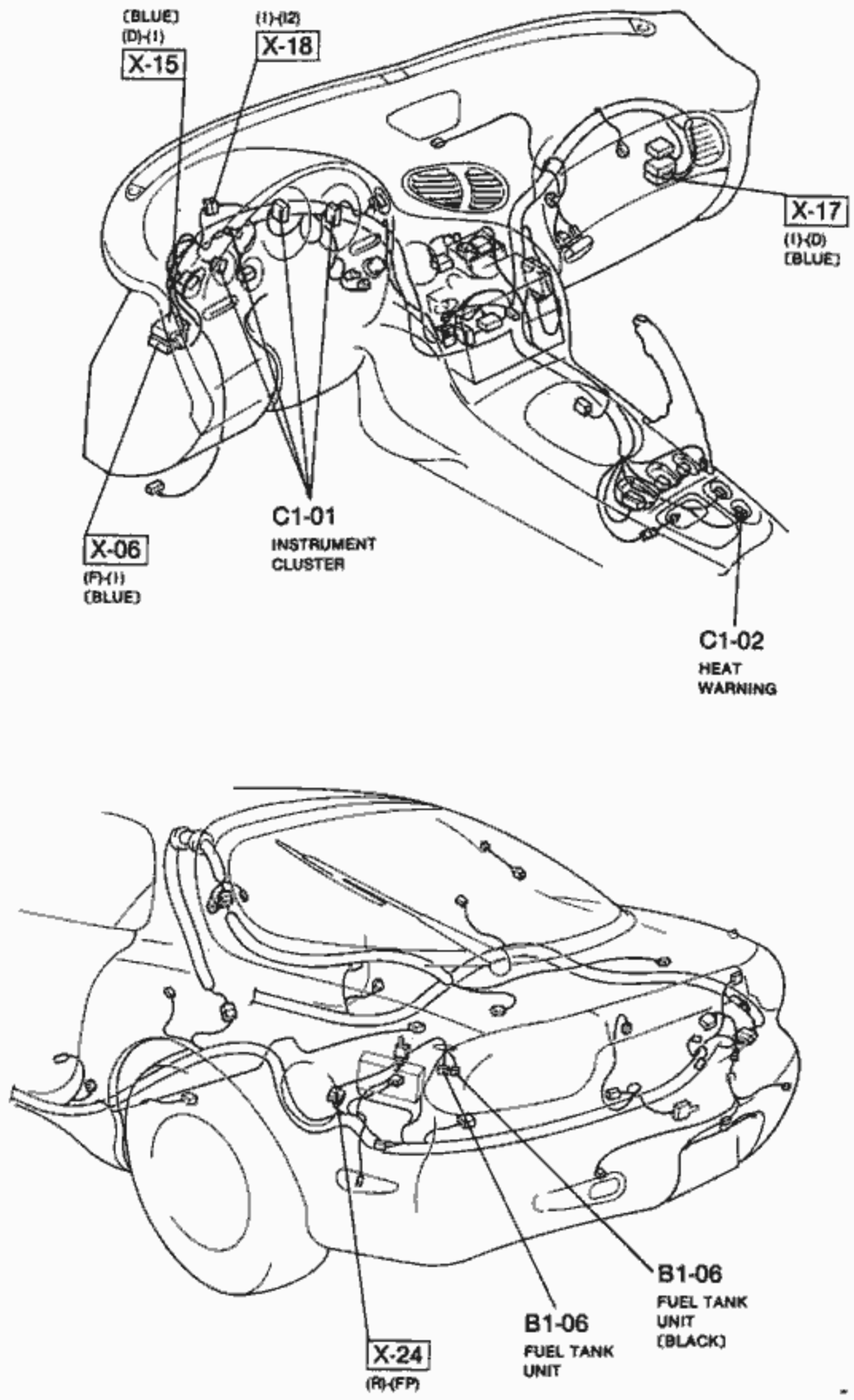
C1-09 CONNECTOR BETWEEN EMISSION (EM) & SHORT HARNESS



B1-06 FUEL TANK UNIT (FP)

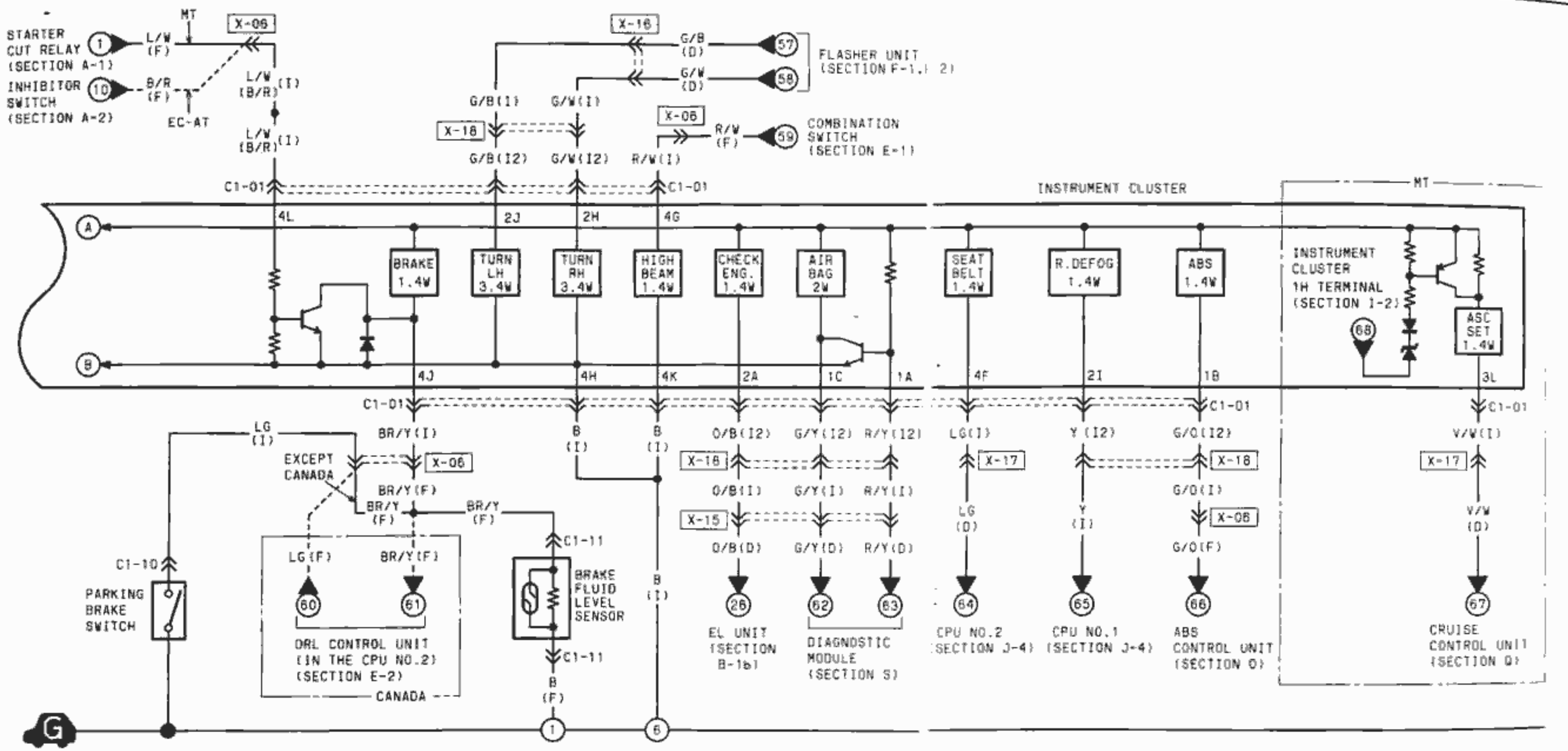
C-1a


(BLACK)
SPEEDOMETER SENSOR
C1-08
(BLACK)
(EM)-SHORT HARNESS
(EC-AT ONLY)
C1-09
C1-07
COOLANT LEVEL SENSOR
C1-03
OIL LEVEL SENSOR
C1-06
(E)-(EM)
(BLACK)
X-12
(F)-(E)
(GRAY)
JOINT BOX
JB-02
(GREEN)
JB-05
JB-06
(BLACK)
IGNITION SWITCH
X-03
(F)-(D)
X-07
(BLUE)
(F)-(EM)
X-05
(F)-(D)
X-08
X-17
(I)-(D)
(BLUE)
X-14
(EM)-(D)
X-06
(F)-(I)
(BLUE)
X-19
(D)-(R)
X-15
(I)-(D)
(BLUE)
-02
ELAY & FUSE BLOCK
40A
B1
50A
BTN
X-01
MAIN FUSE BLOCK
120A
MAIN
40A
B2
(BLUE)


(BLUE)
(D)-(I)
X-15
(I)-(I2)
X-18
X-17
(I)-(D)
(BLUE)
X-06
(F)-(I)
(BLUE)
C1-01
INSTRUMENT CLUSTER
C1-02
HEAT WARNING

X-24
(R)-(FP)
B1-06
FUEL TANK UNIT
B1-06
FUEL TANK UNIT
(BLACK)

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

2I	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/W (B/R)	BR/Y		LG	R/G	R/B
4L	4J		4F	4D	4B

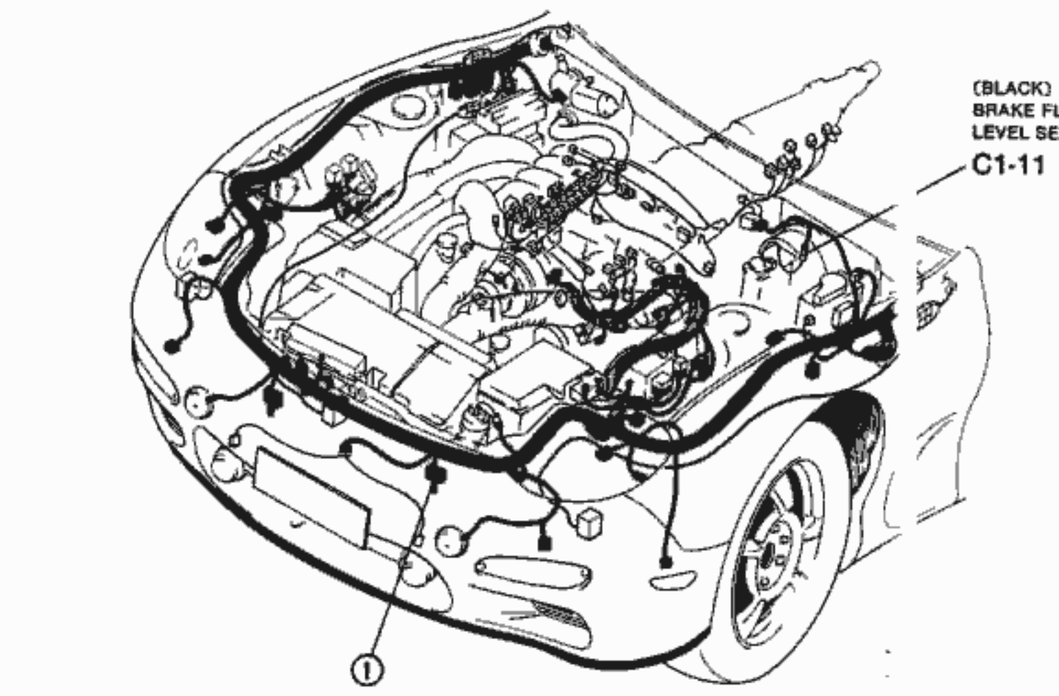
C1-10 PARKING BRAKE SWITCH (I)

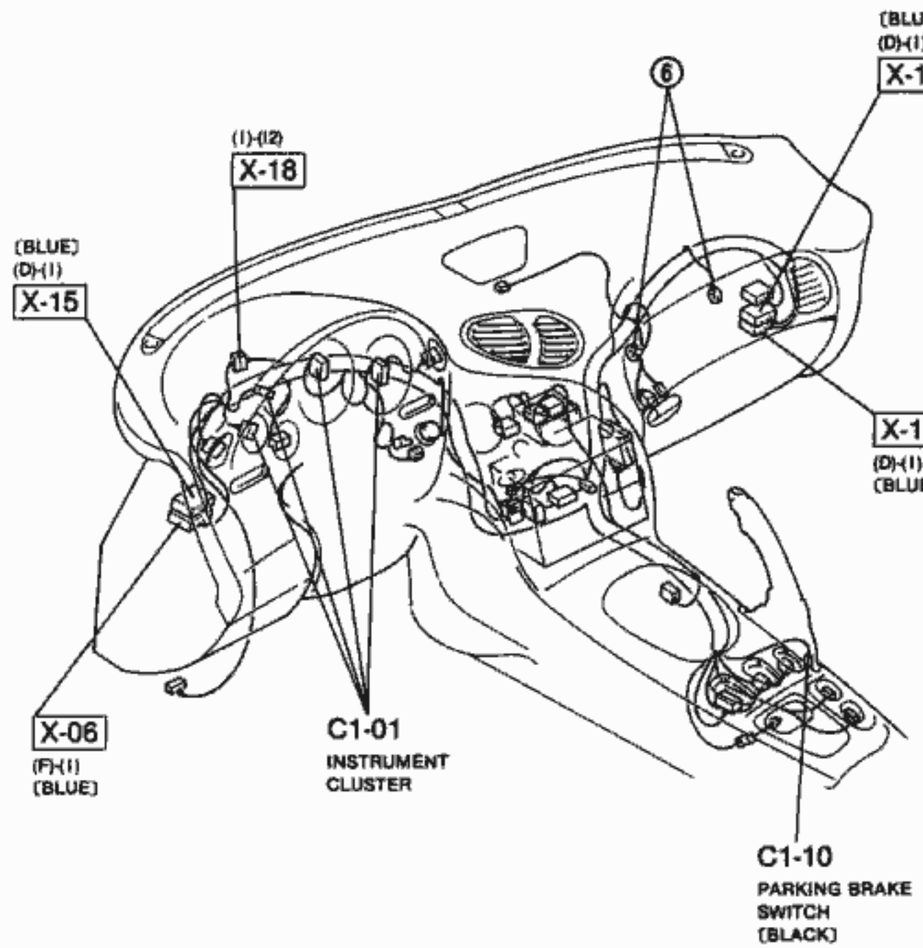
LG	B

C1-11 BRAKE FLUID LEVEL SENSOR 1F

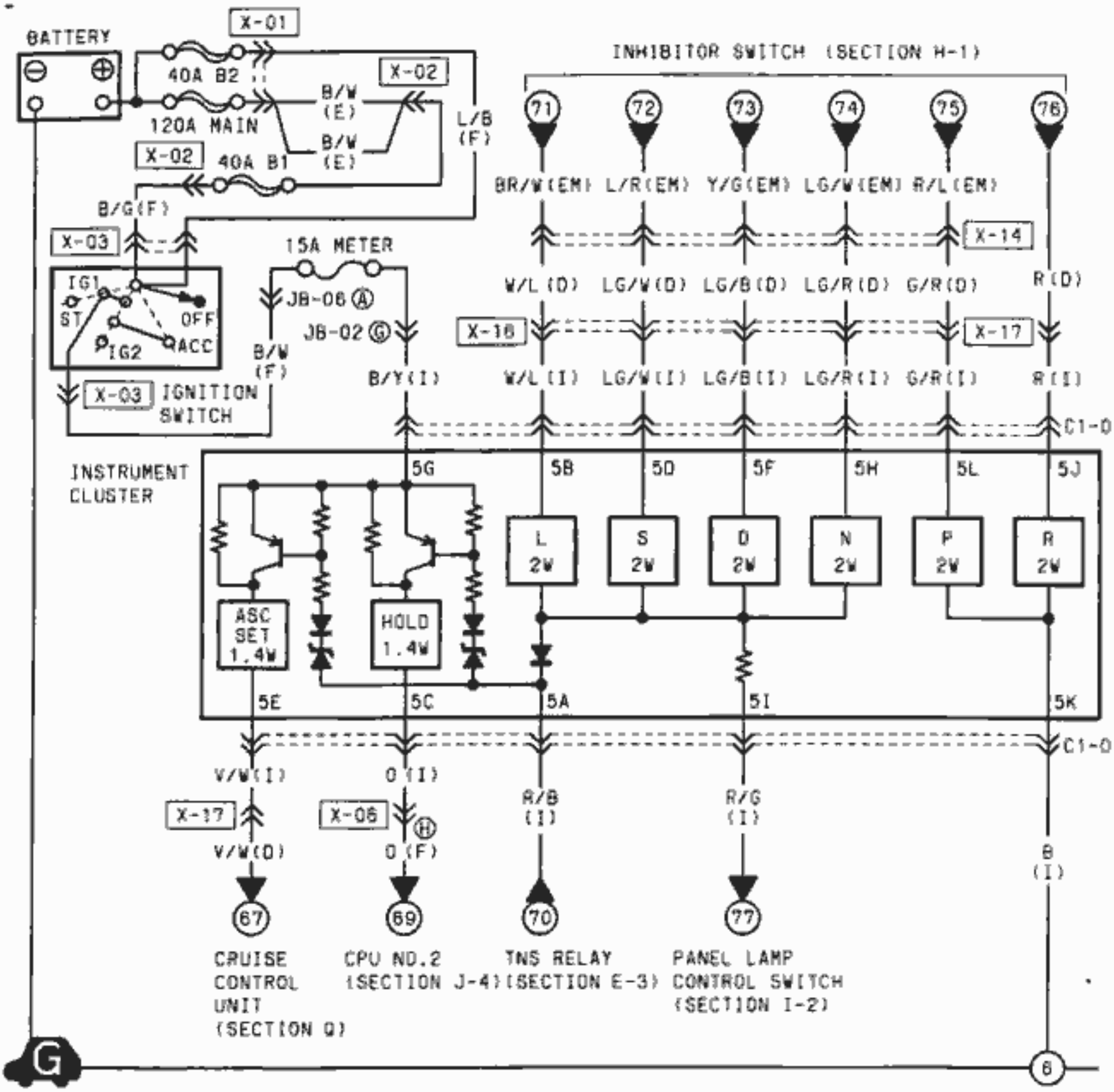
BR/Y	B

C-1b


(BLACK)
BRAKE FLUID
LEVEL SENSOR
C1-11
1
LUE)
(I)
-16
X-17
(D)-(I)
(BLUE)
A
X-15
(D)-(I)
(BLUE)
X-06
(F)-(I)
(BLUE)


(BLUE)
(D)-(I)
X-16
6
(I)-(12)
X-18
(BLUE)
(D)-(I)
X-15
X-17
(D)-(I)
(BLUE)
X-06
(F)-(I)
(BLUE)
C1-01
INSTRUMENT
CLUSTER
C1-10
PARKING BRAKE
SWITCH
(BLACK)

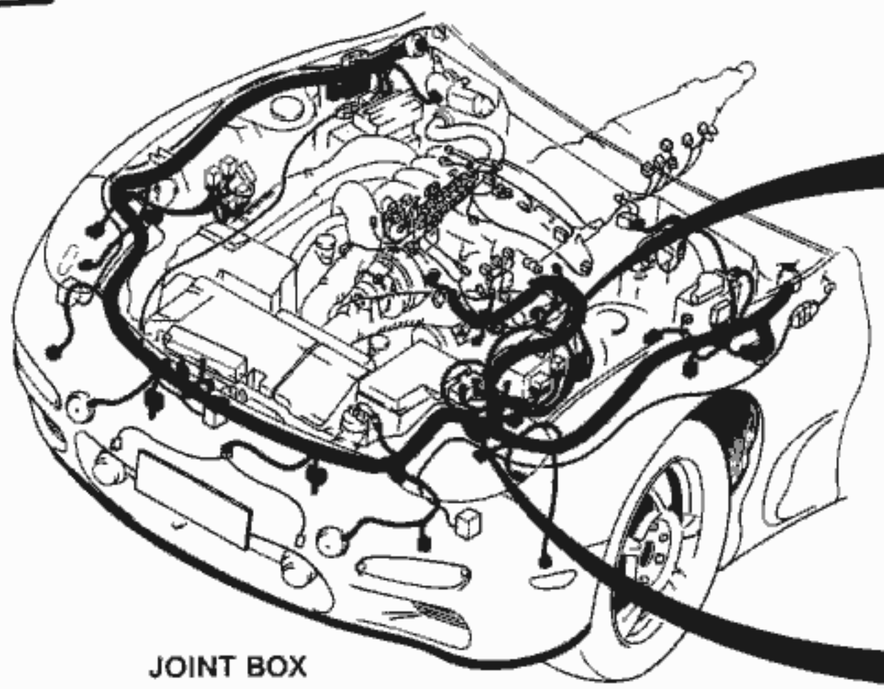
C-2 EC-AT ■ INSTRUMENT CLUSTER & WARNING LAMPS ■ SELECTOR INDICATOR LAMPS



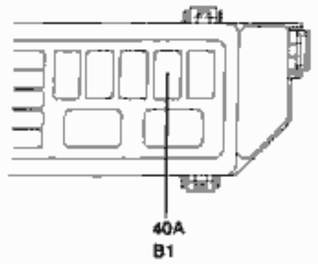
C1-01 INSTRUMENT CLUSTER (I)

5K	5I	5G	5E	5C	5A
B	R/G	B/Y	V/W	O	R/B
G/R	R	LG/R	LG/B	LG/W	W/L
5L	5J	5H	5F	5D	5B

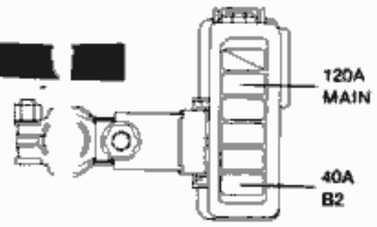
C-2



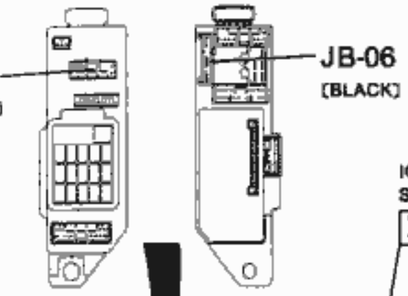
02]
ELAY & FUSE BLOCK

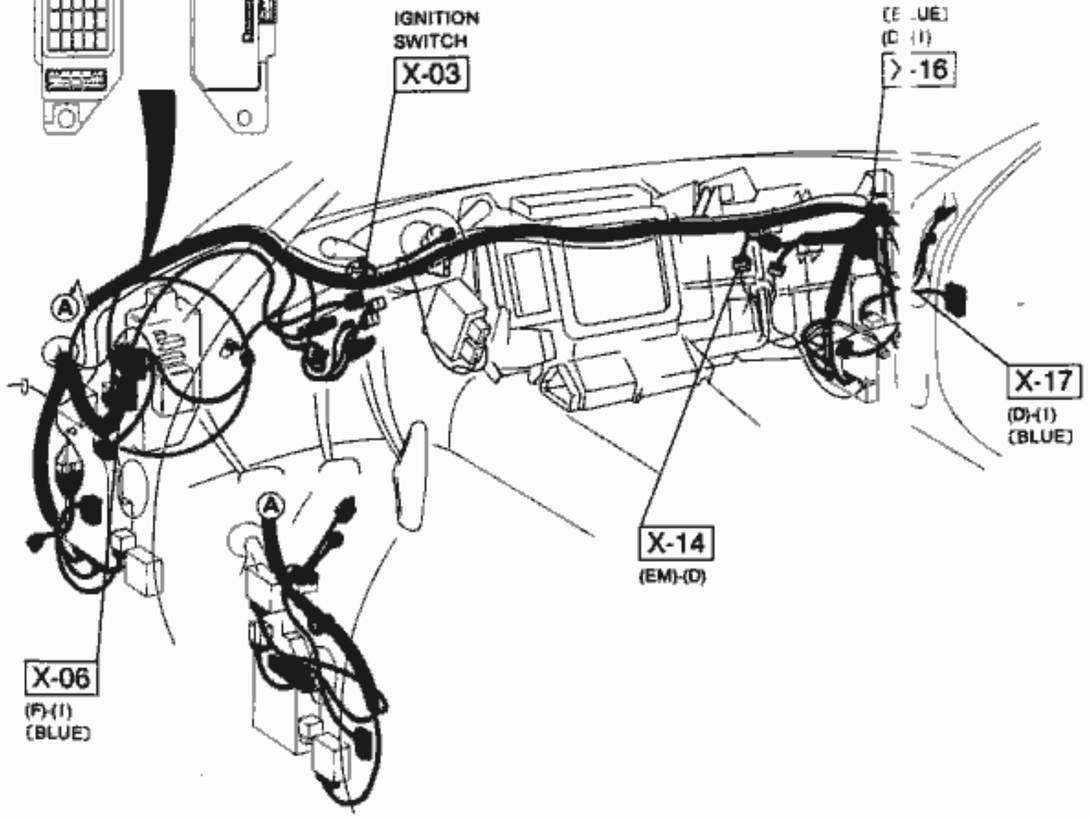


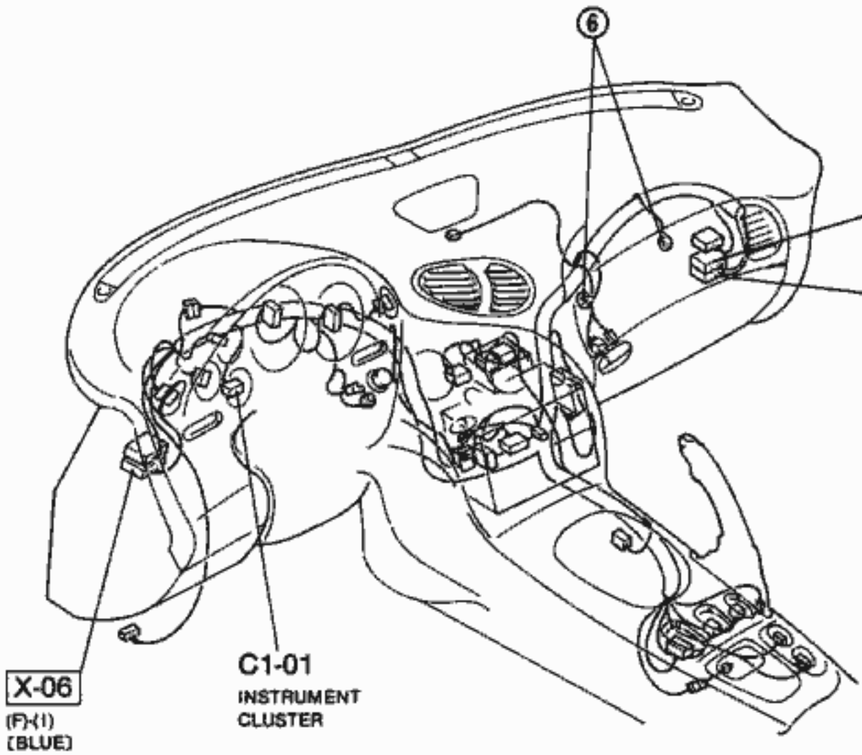
X-01]
MAIN FUSE
BLOCK



JOINT BOX

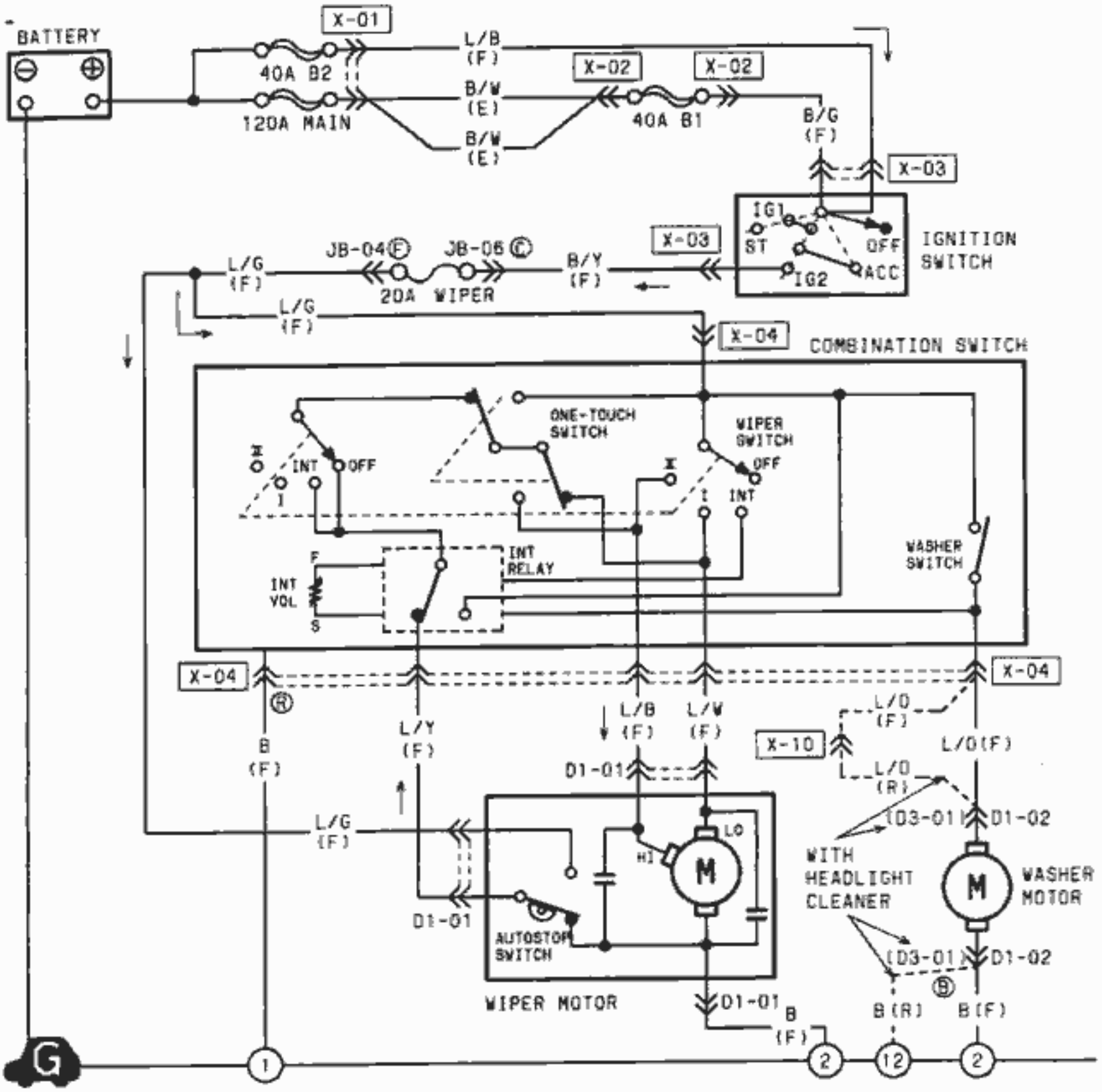






Z WIRING DIAGRAM

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

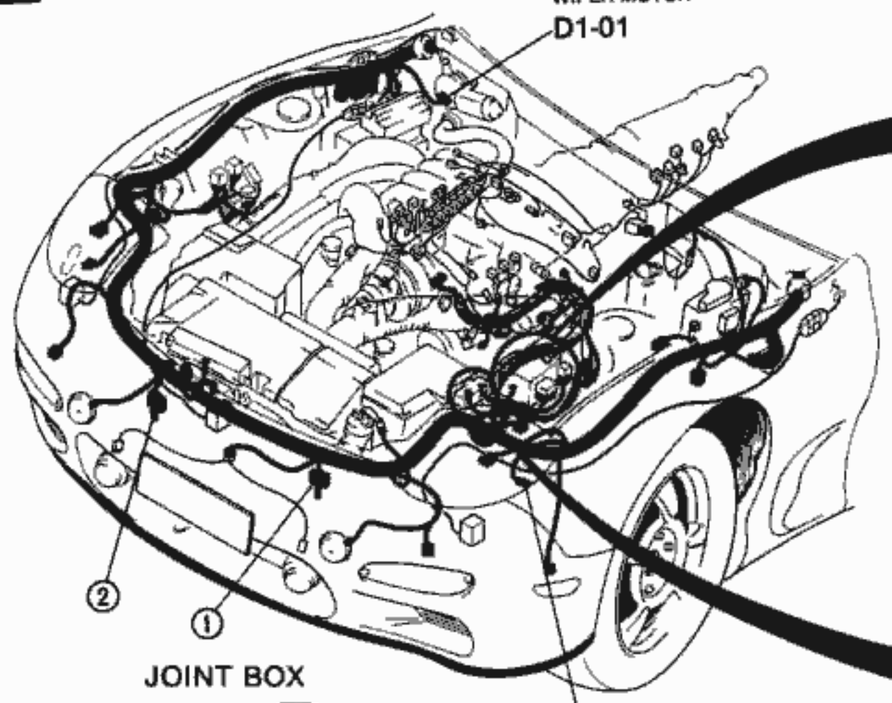
(WITHOUT HEADLIGHT CLEANER)

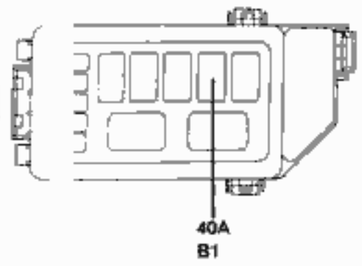
D3-01 WASHER MOTOR (R)

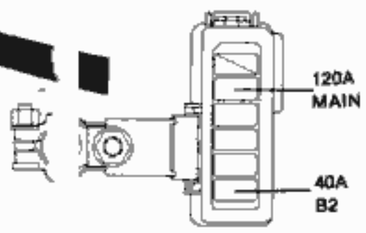
R/W	*	*		*	*	L/O
R/L	W		*	B		B

(WITH HEADLIGHT CLEANER) Ⓓ Ⓑ

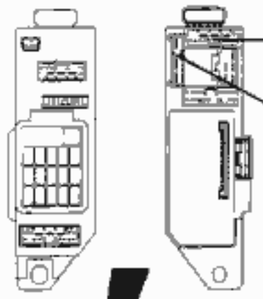
D-1







JOINT BOX

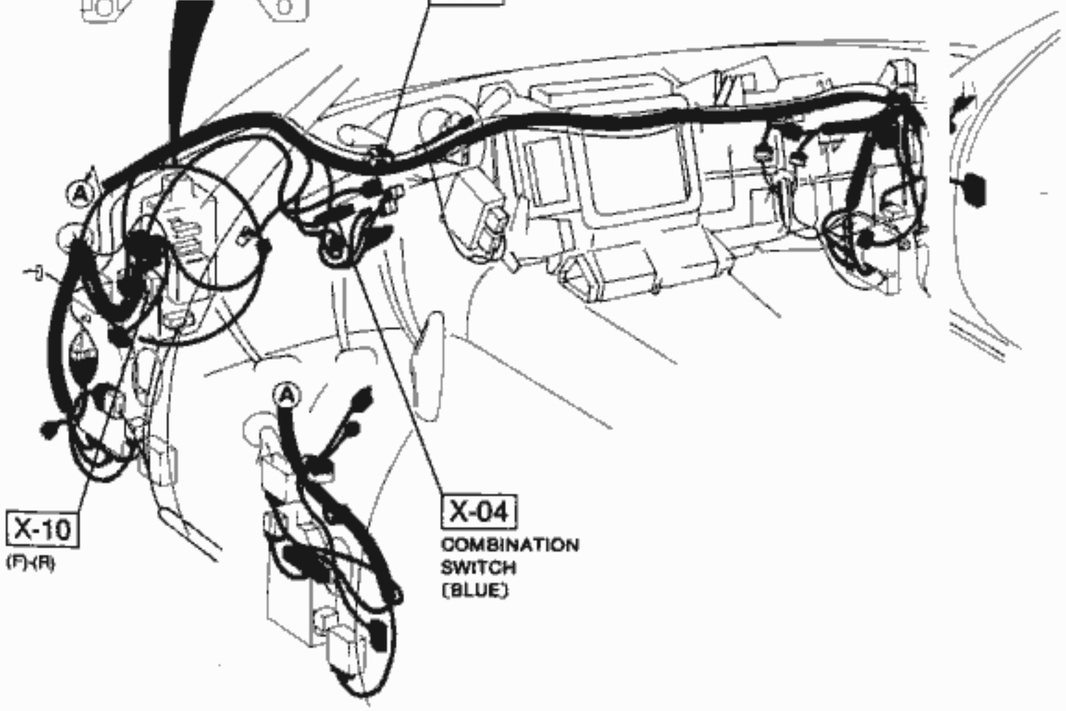


JB-04
(GREEN)

JB-06
(BLACK)

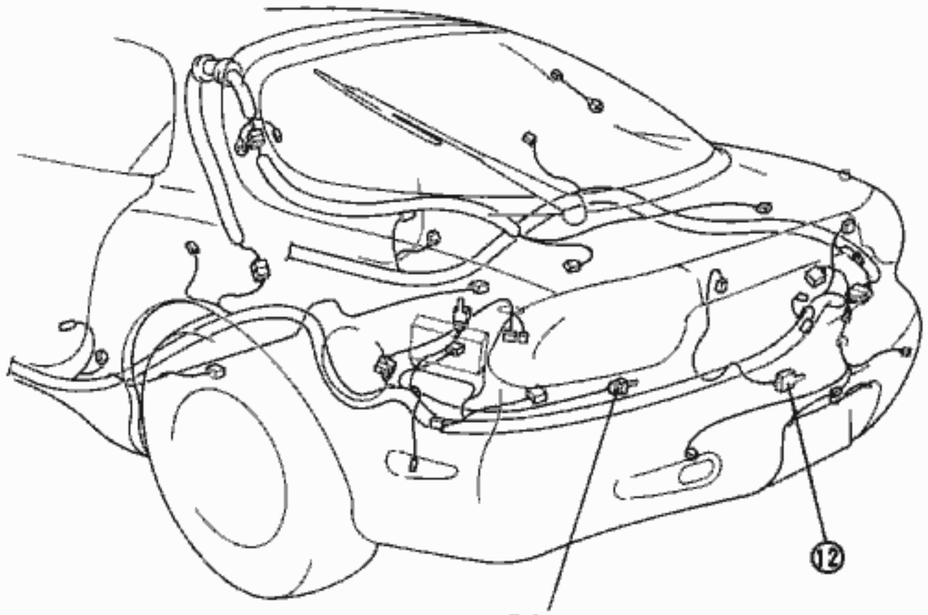
D1-02
WASHER
MOTOR
(WITHOUT
HEADLIGHT
CLEANER)

IGNITION
SWITCH
X-03



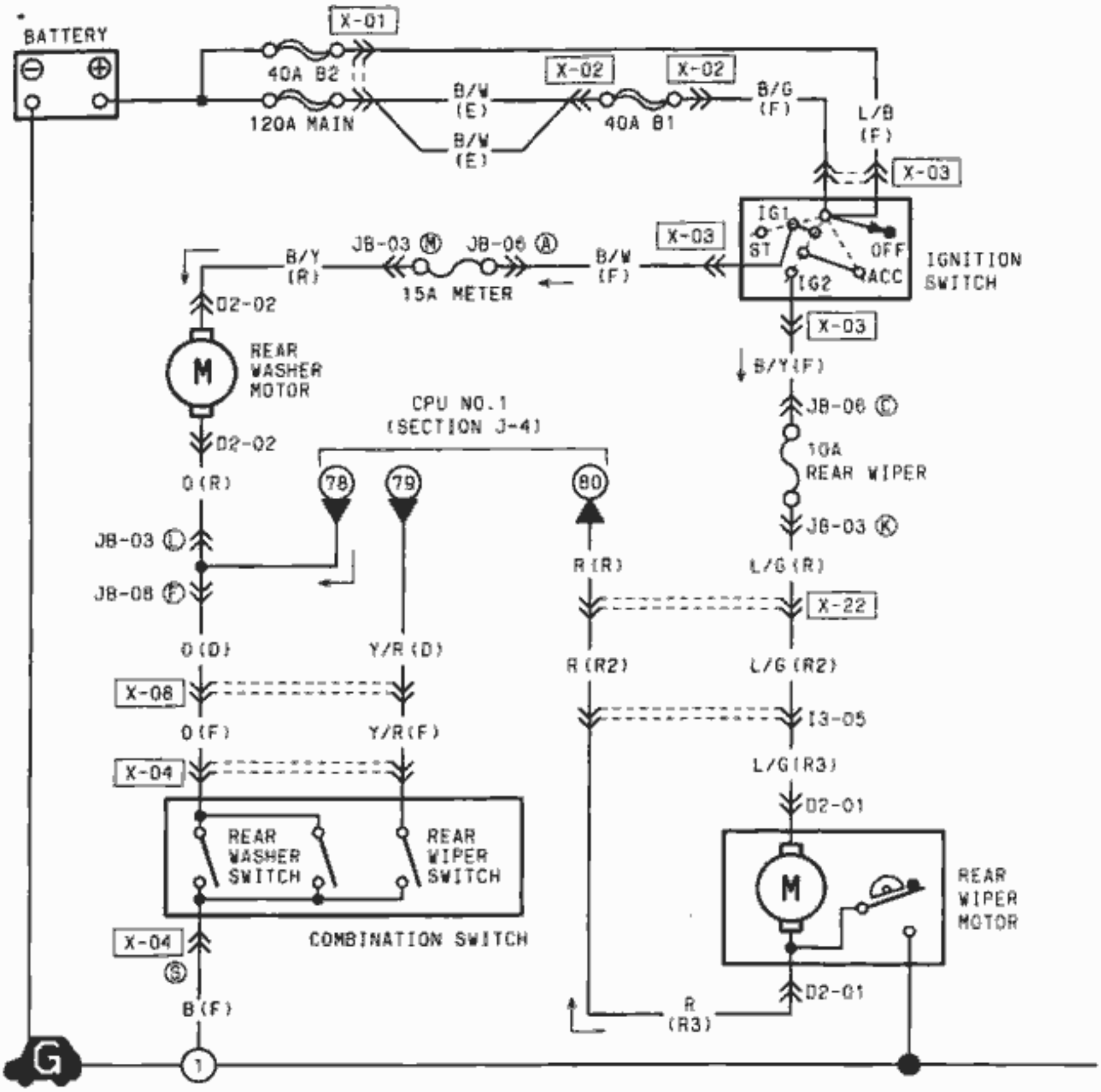
X-10
(F)-(R)

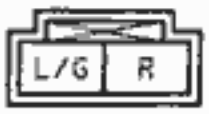
X-04
COMBINATION
SWITCH
(BLUE)



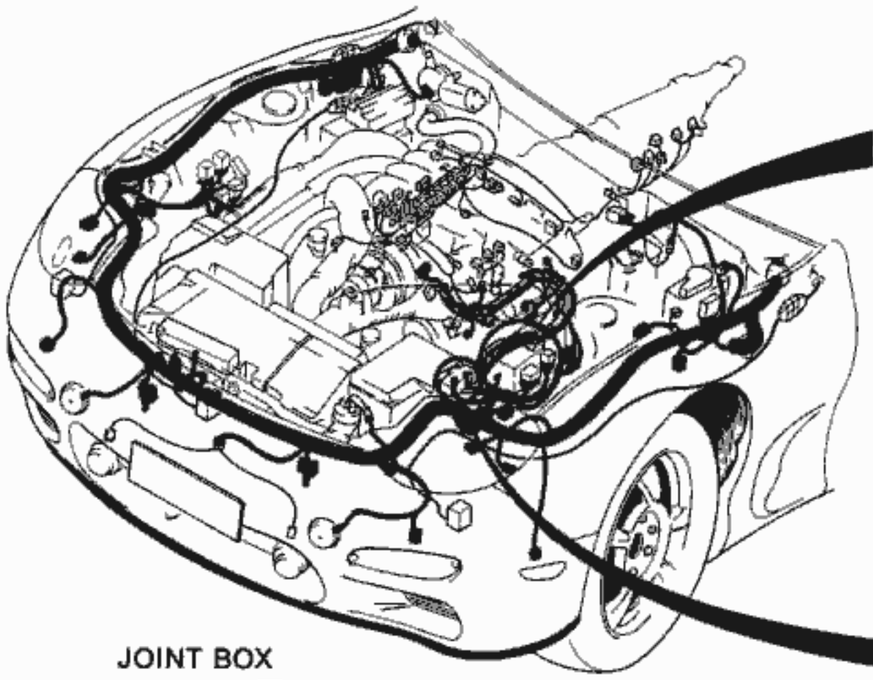
D3-01
WASHER
MOTOR
(WITH HEADLIGHT
CLEANER)

D-2 ■ REAR WIPER & WASHER

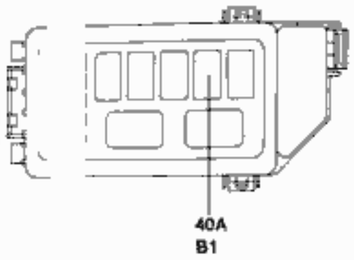


D2-01 REAR WIPER MOTOR (R3)	D2-02 REAR WASHER MOTOR (R)	I3-05 CONNECTOR BETWEEN REAR NO.2 (R2) & REAR NO.3 (R3)	
			

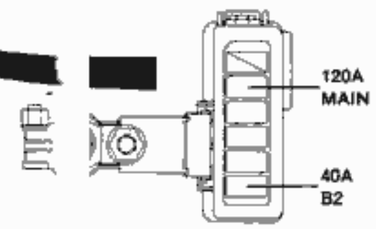
D-2



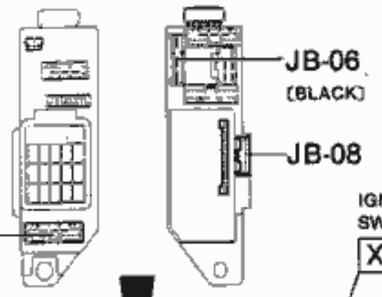
X-
RE AY & FUSE BLOCK



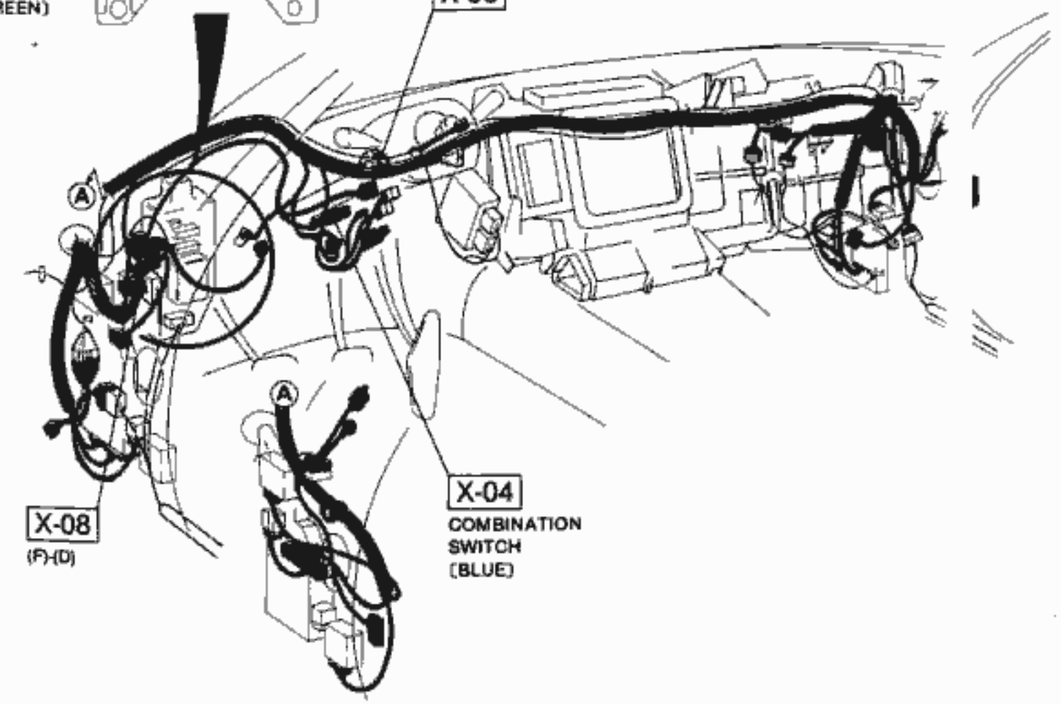
X-01
MAIN FUSE
BLOCK



JOINT BOX



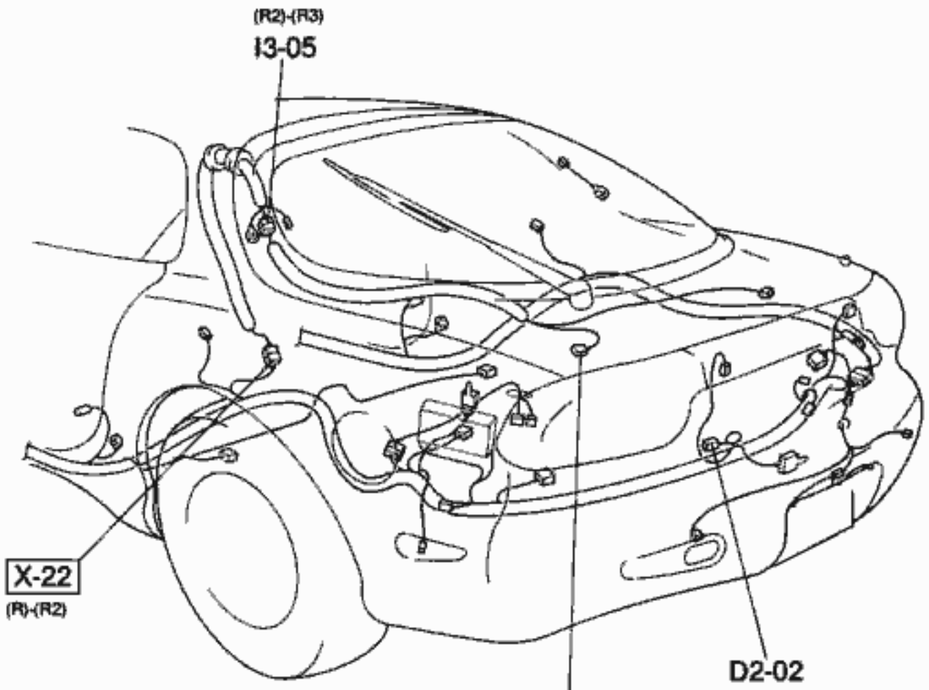
IGNITION SWITCH
X-03



X-08
(F)-(D)

X-04
COMBINATION SWITCH
(BLUE)

(R2)-(R3)
I3-05

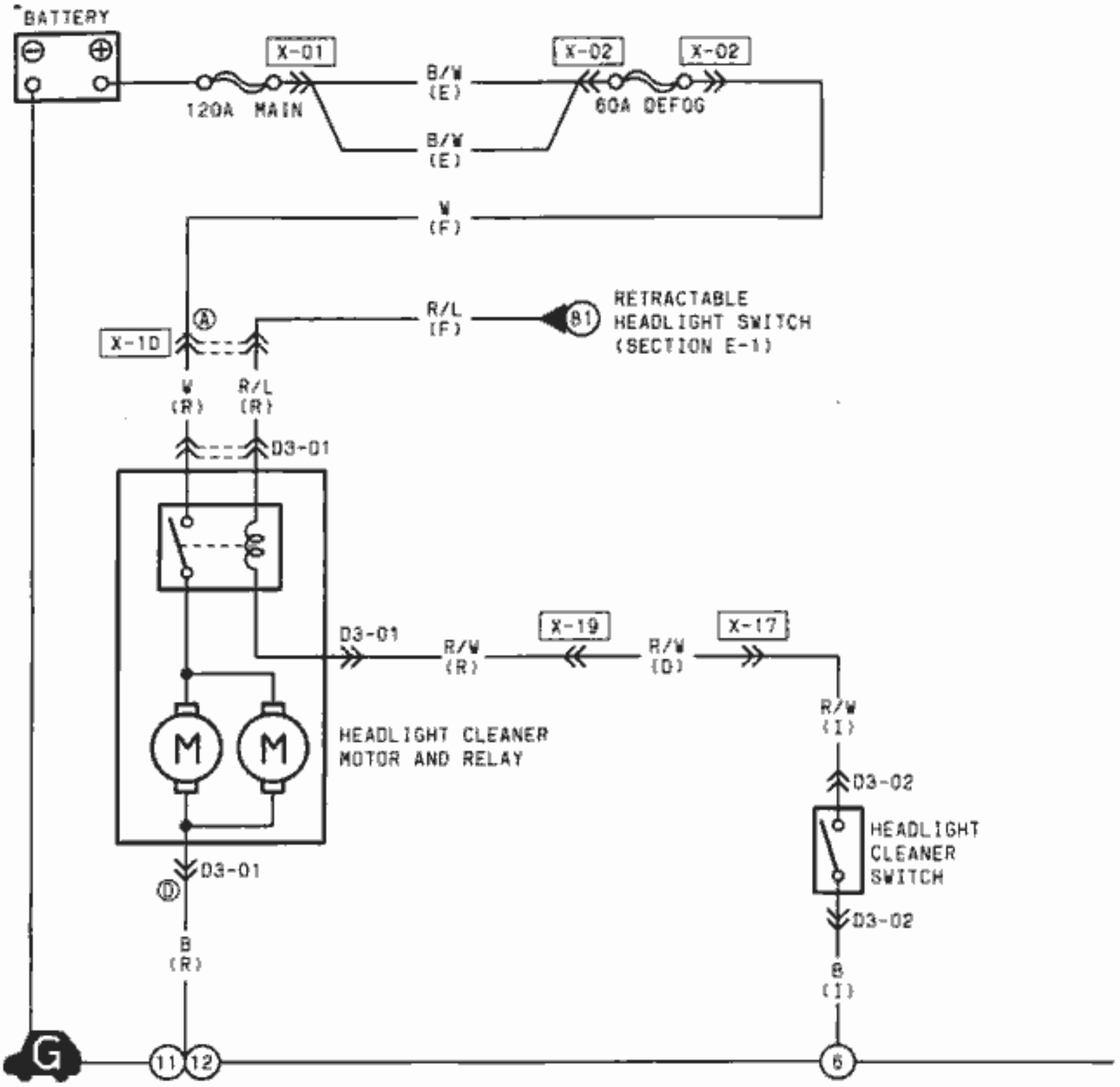


X-22
(R)-(R2)

D2-01
REAR WIPER MOTOR

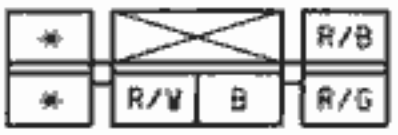
D2-02
REAR WASHER MOTOR

D-3 CANADA ■ HEADLIGHT CLEANER

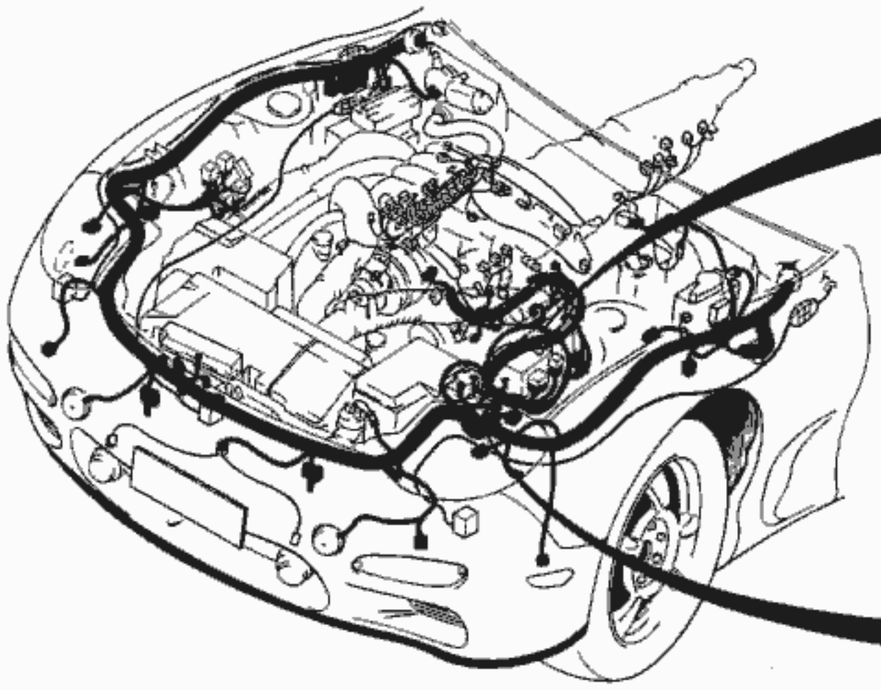


D3-01 HEADLIGHT CLEANER MOTOR AND RELAY (R)

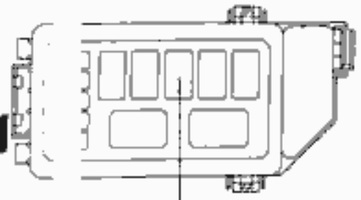
D3-02 HEADLIGHT CLEANER SWITCH (I)



D-3

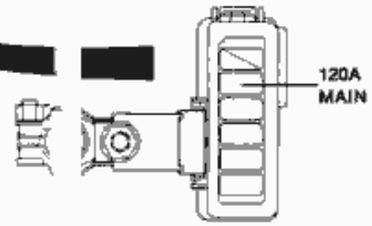


X 2
RI AY & FUSE BLOCK

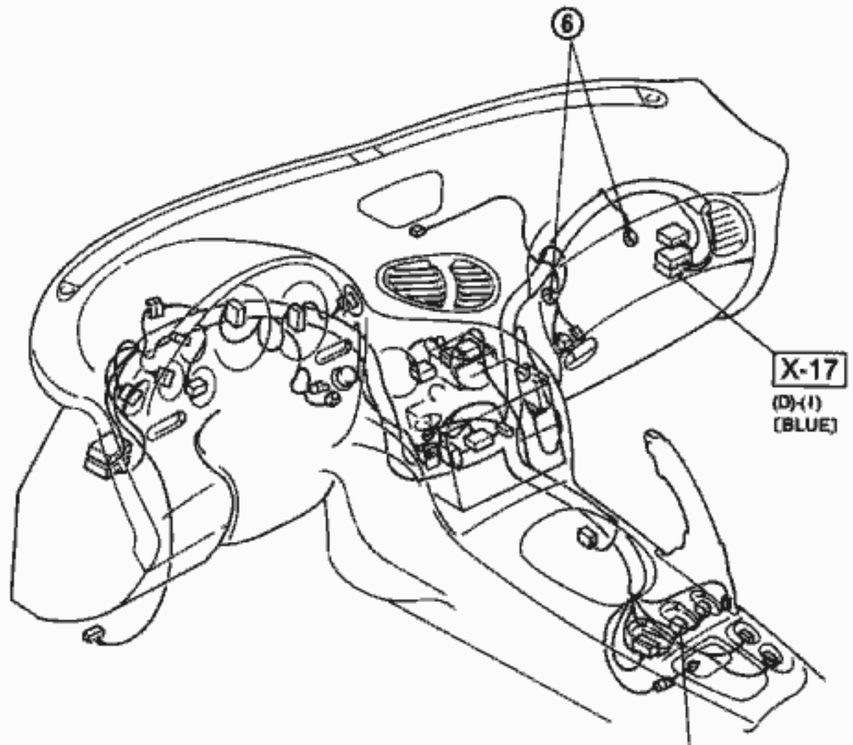


60A
DEFOG

-01
IAIN FUSE
LOCK

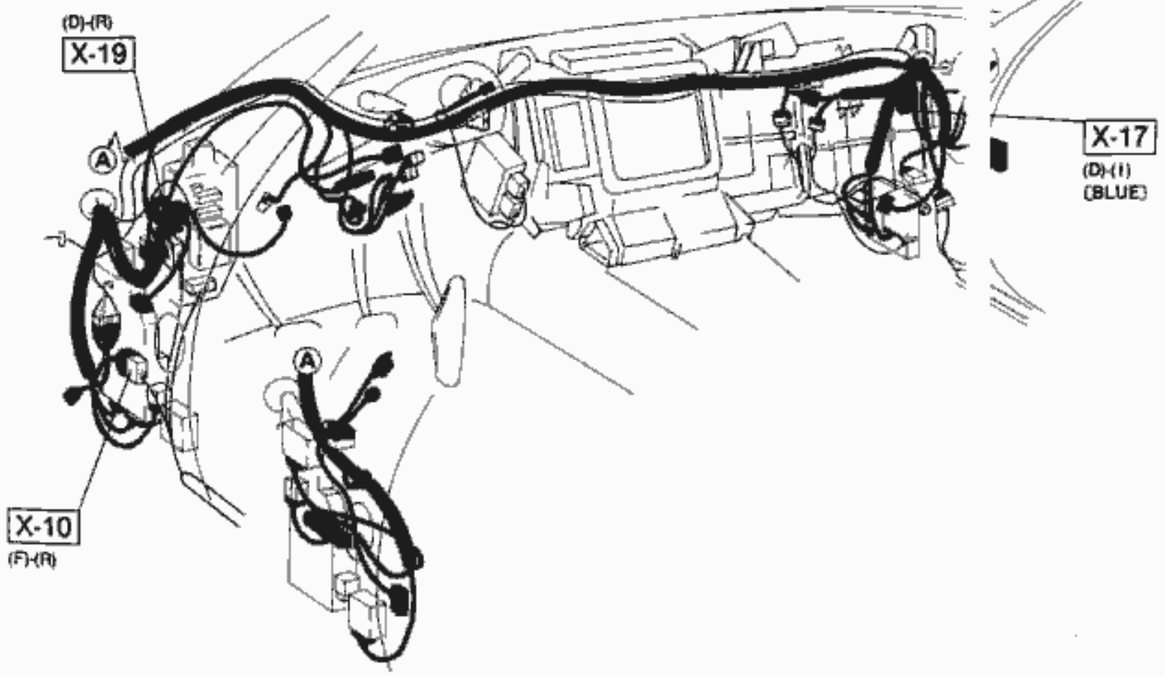


120A
MAIN



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

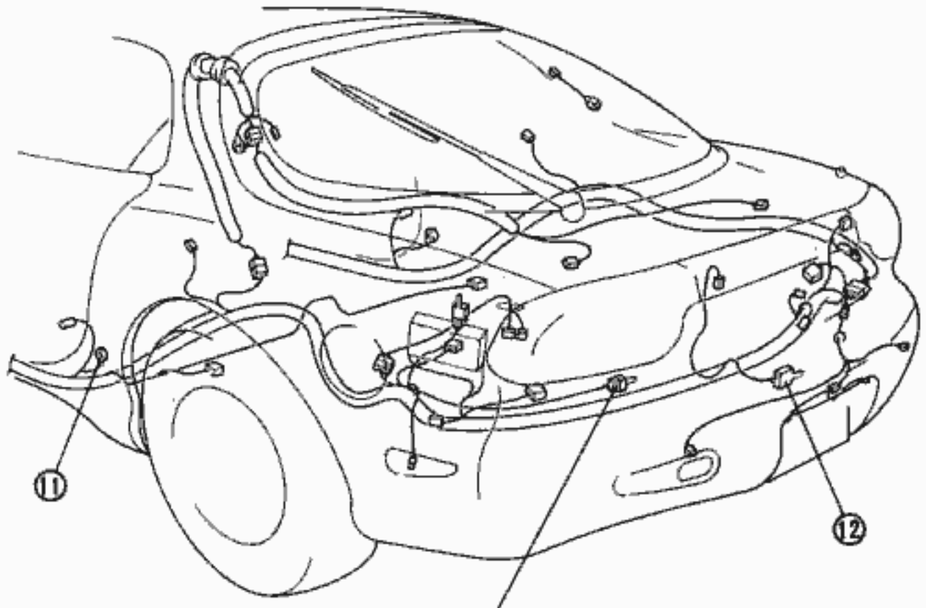
D3-02
HEAD LIGHT
CLEANER SWITCH



(D)-(R)
X-19

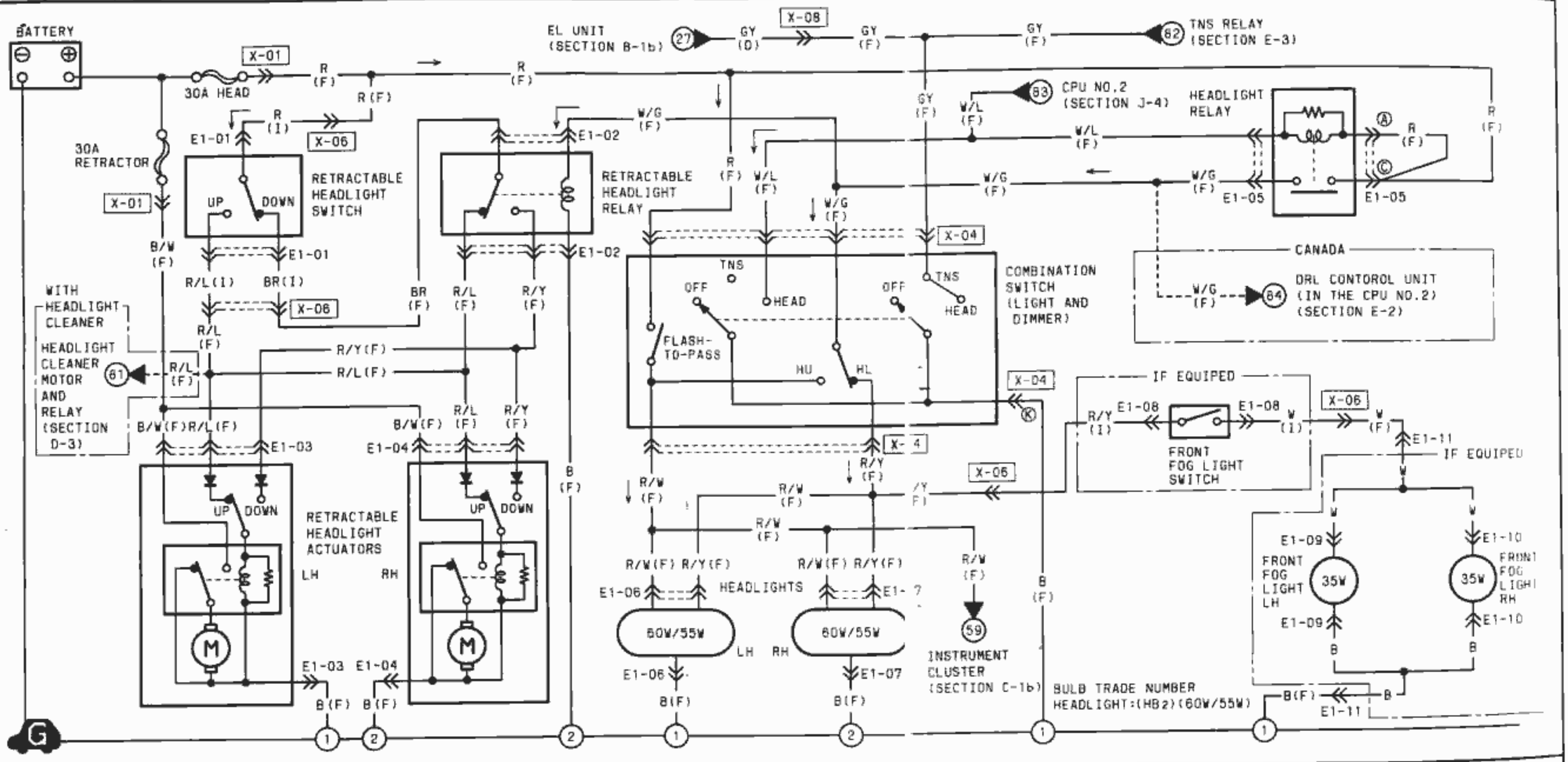
X-17
(D)-(I)
(BLUE)

X-10
(F)-(R)



D3-01
HEADLIGHT
CLEANER MOTOR
AND RELAY

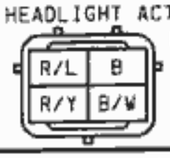
E-1 ■ RETRACTABLE HEADLIGHT SYSTEM ■ HEADLIGHTS ■ FRONT FOG LIGHTS



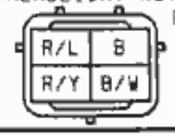
E1-01 RETRACTABLE HEADLIGHT SWITCH (I)

E1-02 RETRACTABLE HEADLIGHT RELAY (F)

E1-03 RETRACTABLE HEADLIGHT ACTUATOR LH (F)

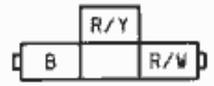


E1-04 RETRACTABLE HEADLIGHT ACTUATOR RH (F)

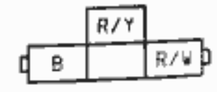


E1-05 HEADLIGHT RELAY (F)

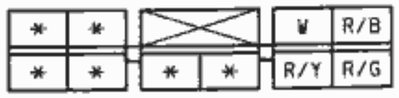
E1-06 HEADLIGHT LH (F)



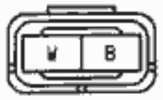
E1-07 HEADLIGHT RH (F)



E1-08 FRONT FOG LIGHT SWITCH (I)



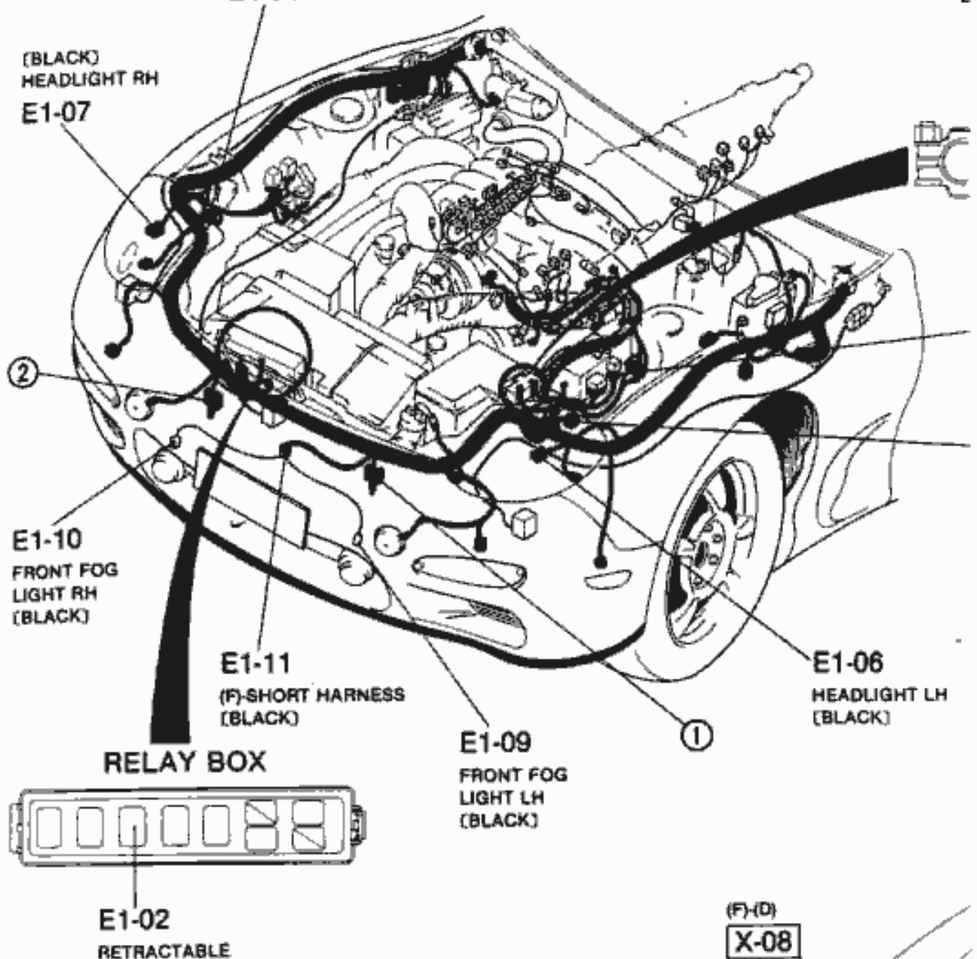
E1-09 FRONT FOG LIGHT LH

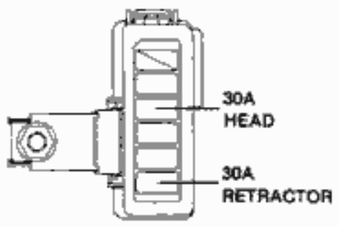


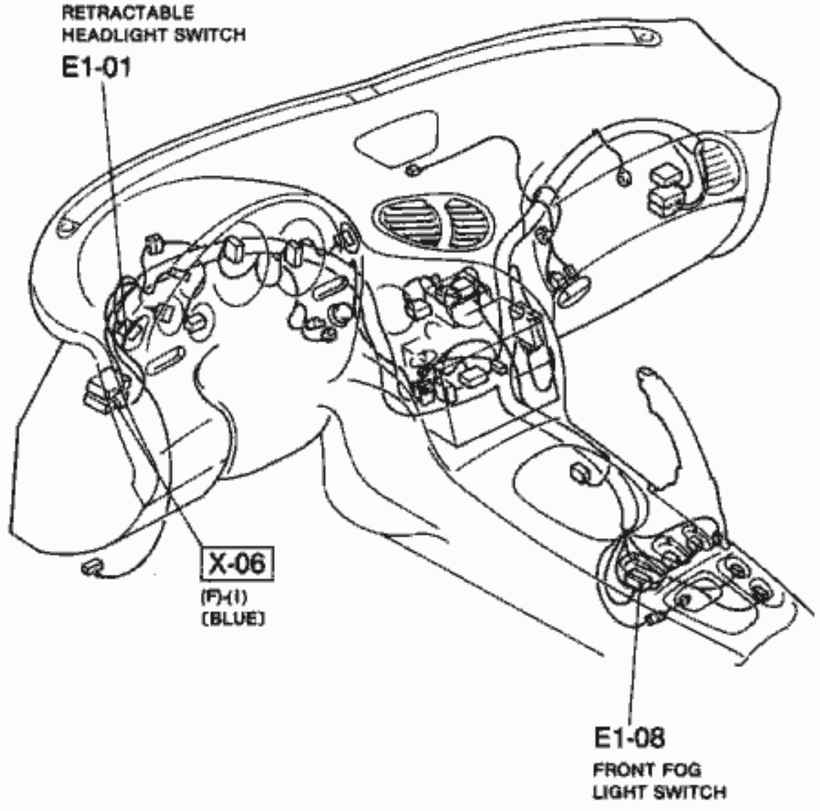
E1-10 FRONT FOG LIGHT RH

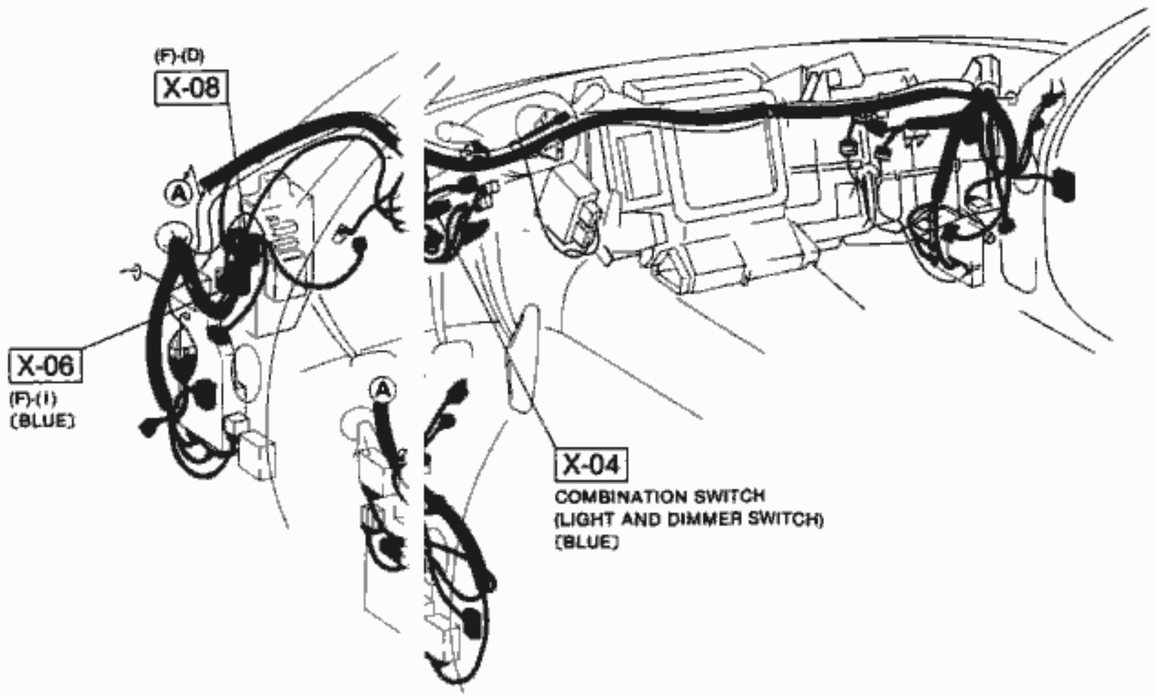
E-11 CONNECTOR BETWEEN FRONT (F) & SHORT HARNESS

E-1

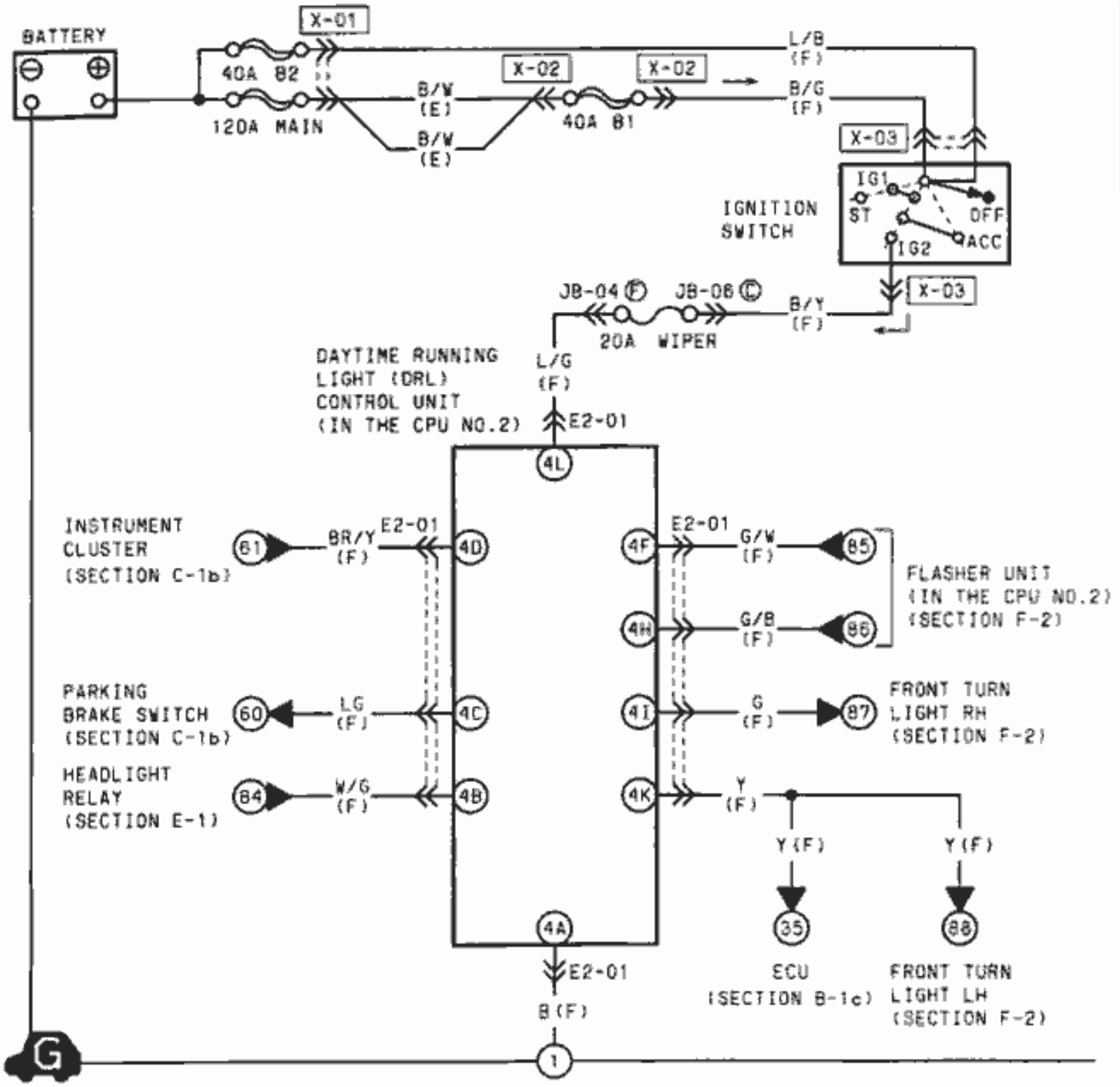

(BLACK)
RETRACTABLE
HEADLIGHT ACTUATOR RH
E1-04
(BLACK)
HEADLIGHT RH
E1-07
E1-10
FRONT FOG
LIGHT RH
(BLACK)
E1-11
(F)-SHORT HARNESS
(BLACK)
E1-09
FRONT FOG
LIGHT LH
(BLACK)
E1-06
HEADLIGHT LH
(BLACK)
RELAY BOX
E1-02
RETRACTABLE
HEADLIGHT RELAY


-01
AIN FUSE
OCK
30A
HEAD
30A
RETRACTOR
HEADLIGHT
RELAY
—E1-05
(BLACK)
RETRACTABLE HEADLIGHT
ACTUATOR LH
—E1-03


RETRACTABLE
HEADLIGHT SWITCH
E1-01
X-06
(F)-(I)
(BLUE)
E1-08
FRONT FOG
LIGHT SWITCH


(F)-(D)
X-08
X-06
(F)-(I)
(BLUE)
X-04
COMBINATION SWITCH
(LIGHT AND DIMMER SWITCH)
(BLUE)

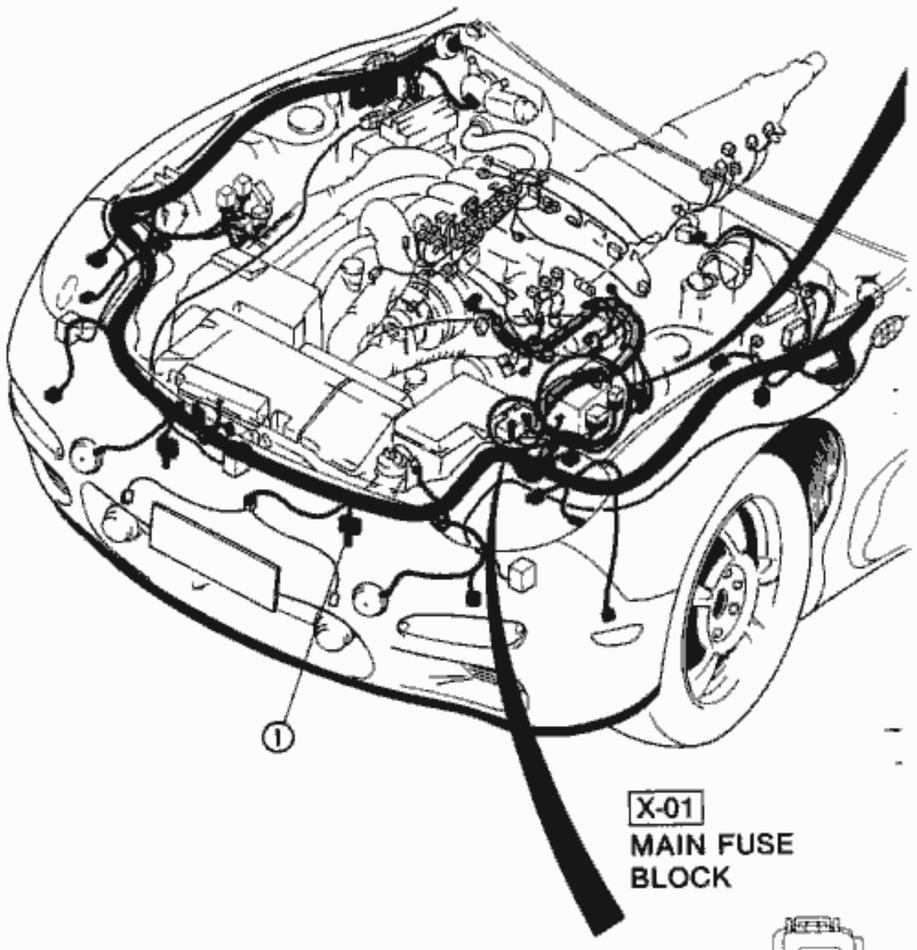
E-2 CANADA ■ DAYTIME RUNNING LIGHT (DRL) CONTROL SYSTEM



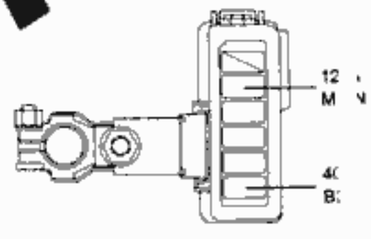
E2-01 DAYTIME RUNNING LIGHT (DRL) CONTROL UNIT (IN THE CPU NO.2) (F)

4K	4I		4C	4A
Y	G		LG	B
L/G	*	G/B G/W	BR/Y	W/G
4L	4J	4H 4F	4D	4B

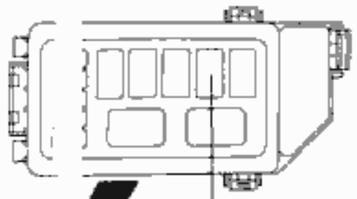
E-2



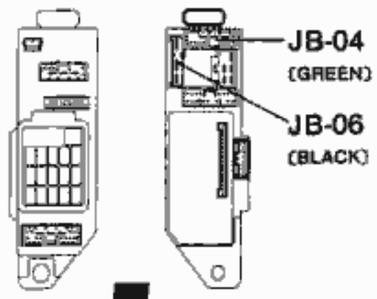
X-01
MAIN FUSE BLOCK



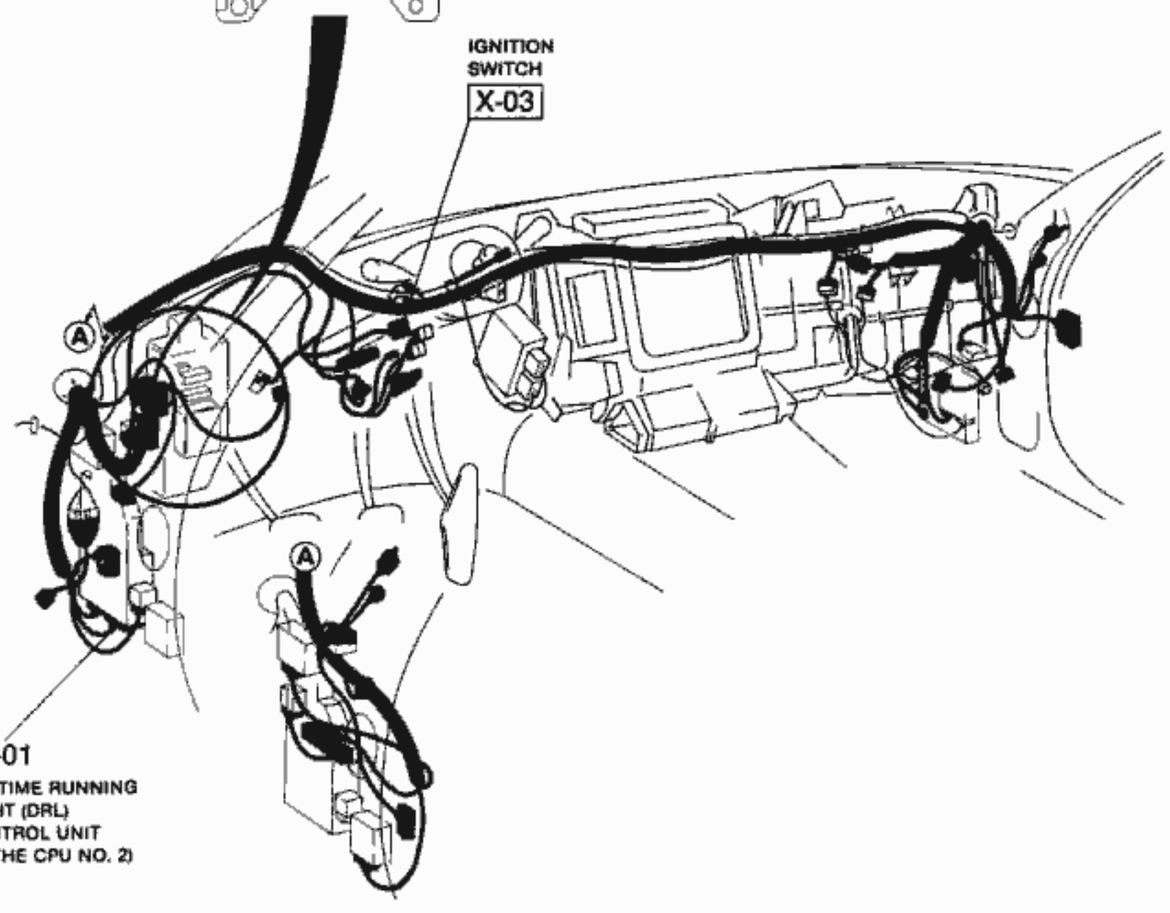
X-02
RELAY & FUSE BLOCK



JOINT BOX



IGNITION SWITCH
X-03



E2-01
DAYTIME RUNNING LIGHT (DRL) CONTROL UNIT (IN THE CPU NO. 2)

E-3 ■ PARKING LIGHTS ■ FRONT SIDE MARKER LIGHTS ■ TAILLIGHTS ■ REAR SIDE MARKER LIGHTS ■ LICENSE PLATE LIGHTS

BULB TRADE NUMBER
FRONT SIDE
MARKER LIGHT:168(4.9W)
TAILLIGHT: 1157(8W)
REAR SIDE
MARKER LIGHT:194(3.8W)

BATTERY
120A MAIN
X-01
B/W (E)
B/W (E)
60A BTN
X-02
X-02
W/R (F)
X-08
X-08
W/G (D)
JB-07 Ⓓ JB-05 Ⓕ
15A TAIL
W/R (D)
W/G (F)
W/G (F) Ⓐ Ⓒ E3-01
TNS RELAY
E3-01
GY (F)
92 COMBINATION SWITCH (SECTION E-1)
EC-AT
INSTRUMENT CLUSTER (SECTION C-2) 70 R/B (I)
JB-07Ⓑ
89 CPU NO.2 (SECTION J-4)
90 CPU NO.1 (SECTION J-4)
91 ILLUMINATION LAMPS/ PANEL LAMP CONTROL SWITCH (SECTION I-2)
92 GLOVE BOX LAMP (SECTION I-3)
R/B (I)
JB-04
JB-02 Ⓘ
JB-03 Ⓔ
R/B (F)
R/B (R)
E3-04 4.9W FRONT SIDE MARKER LIGHT LH E3-04
E3-02 5W PARKING LIGHT LH E3-02
E3-03 5W PARKING LIGHT RH E3-03
E3-05 4.9W FRONT SIDE MARKER LIGHT RH E3-05
E3- 3.8W E3-
TAILLIGHT LH E3-06 8W 8W E3-06
E3-10
BR LICENSE PLATE LIGHTS E3-11 5W 5W E3-11
TAILLIGHT RH E3-07 8W 8W E3-07
E3-09 3.8W REAR SIDE MARKER LIGHT RH E3-09
B (F)
B (R)
G
1 1 2 2 12 12 11 12 11 12 11 12

E3-01 TNS RELAY (F)
Ⓒ Ⓐ
R/B | W/G W/G | W/G
* | * | GY

E3-02 FRONT COMBINATION LIGHT (PARKING LIGHT) LH (F)
G/B (Y) | B | R/B
1 1...CANADA

E3-03 FRONT COMBINATION LIGH (PARKING LIGHT) RH (F)
G/W (G) | B | /B
1 1...CANADA

E3-04 FRONT SIDE MARKER LIGHT LH (F)
R/B | B

E3-05 FRONT SIDE MARKER LIGHT RH (F)
R/B | B

E3-06 REAR COMBINATION LIGHT(TAILLIGHT) LH (R)
G/B | R/B
B | G

E3-07 REAR COMBINATION LIGHT(TAILLIGHT) RH (R)
G/W | R/B
B | G

E3-08 REAR SIDE MARKER LIGHT LH (R)
R/B
B

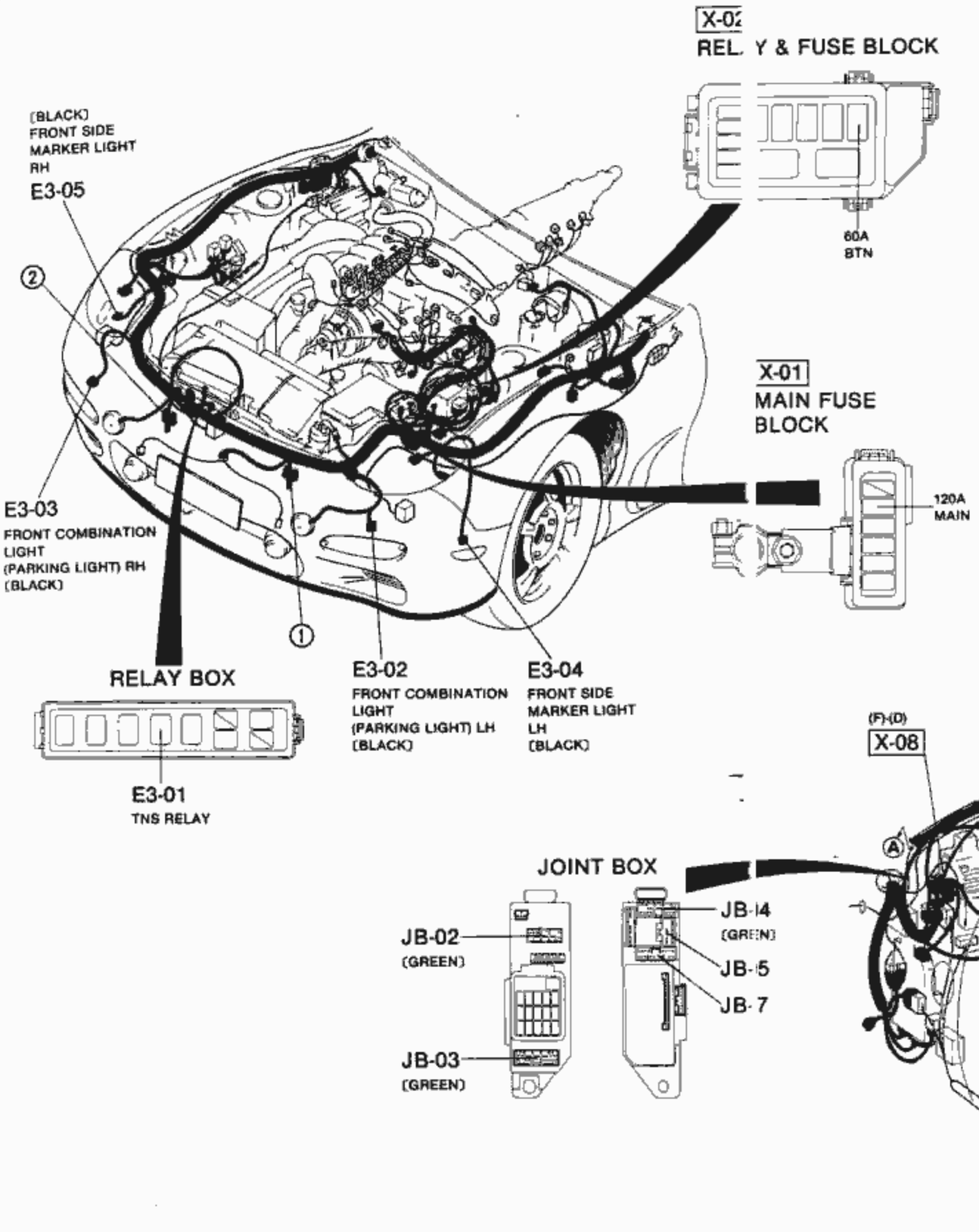
E3-09 REAR SIDE MARKER LIGHT RH (R)
R/B
B

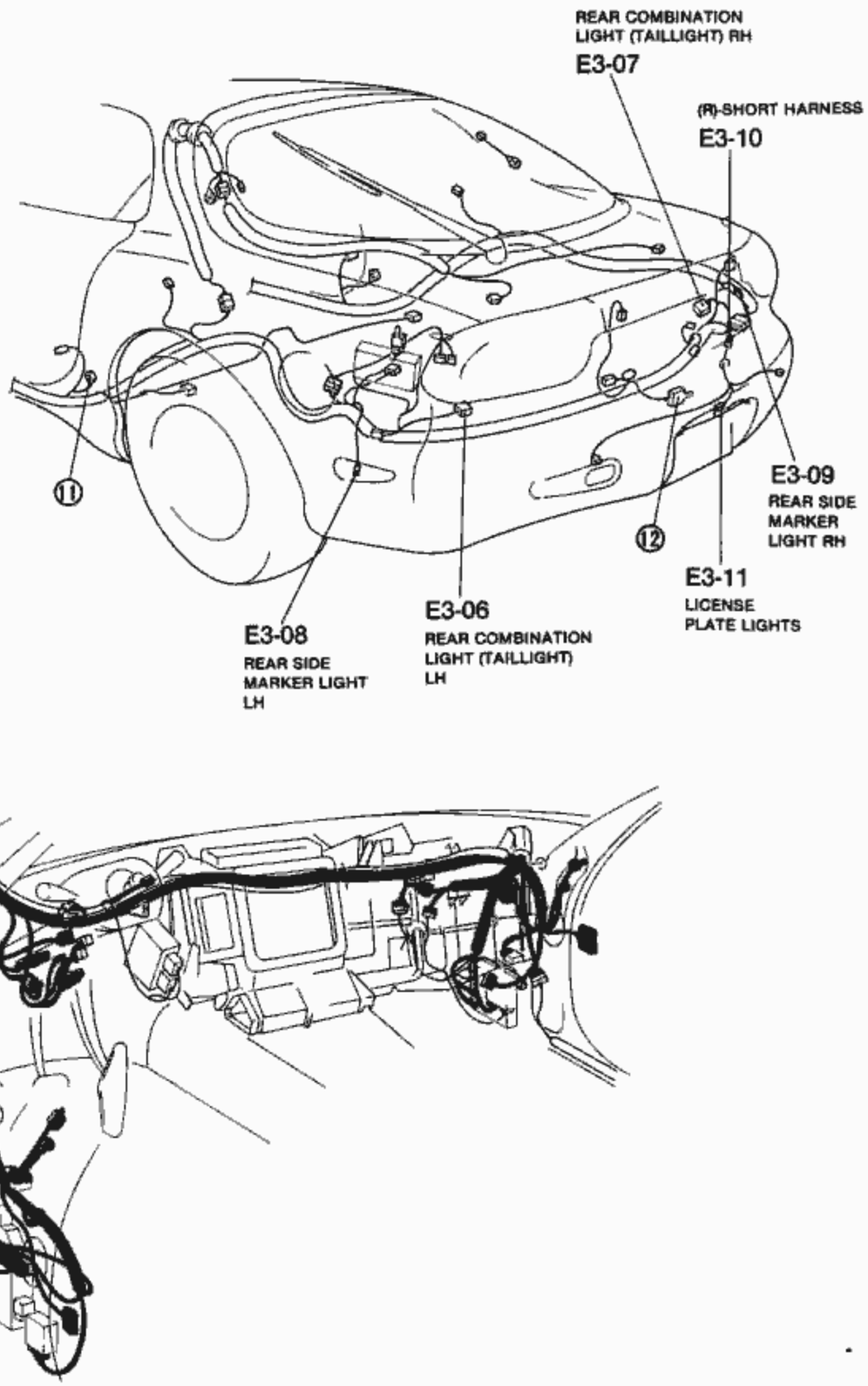
E3-10 CONNECTOR BETWEEN REAR (R) & SHORT HARNESS
(R)
B | R
* | R/B

R | B
BR | R/Y

E3-11 LICENSE PLATE LIG-
BR | B

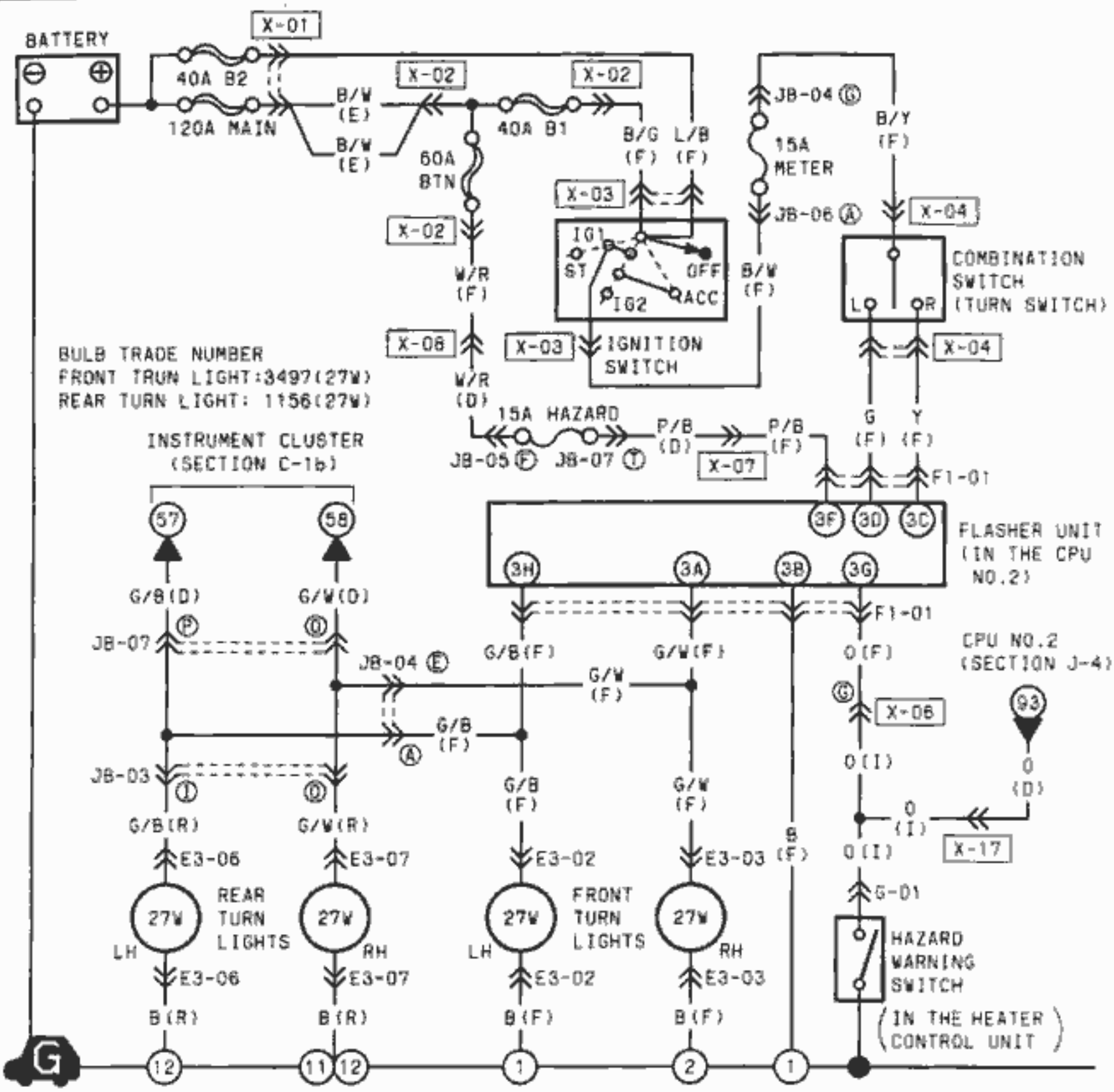
E-3


X-02
REL Y & FUSE BLOCK
60A
BTN
(BLACK)
FRONT SIDE
MARKER LIGHT
RH
E3-05
X-01
MAIN FUSE
BLOCK
120A
MAIN
E3-03
FRONT COMBINATION
LIGHT
(PARKING LIGHT) RH
(BLACK)
RELAY BOX
E3-01
TNS RELAY
E3-02
FRONT COMBINATION
LIGHT
(PARKING LIGHT) LH
(BLACK)
E3-04
FRONT SIDE
MARKER LIGHT
LH
(BLACK)
JOINT BOX
JB-02
(GREEN)
JB-03
(GREEN)
JB-4
(GREEN)
JB-5
JB-7


REAR COMBINATION
LIGHT (TAILLIGHT) RH
E3-07
(R)-SHORT HARNESS
E3-10
E3-09
REAR SIDE
MARKER
LIGHT RH
E3-11
LICENSE
PLATE LIGHTS
E3-08
REAR SIDE
MARKER LIGHT
LH
E3-06
REAR COMBINATION
LIGHT (TAILLIGHT)
LH

(F)-(D)
X-08

F-1 FEDERAL CALIFORNIA ■ TURN & HAZARD WARNING LIGHTS



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

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

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

G/B	B	R/B

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

G/W	B	R/B

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

G/B	R/B
B	G

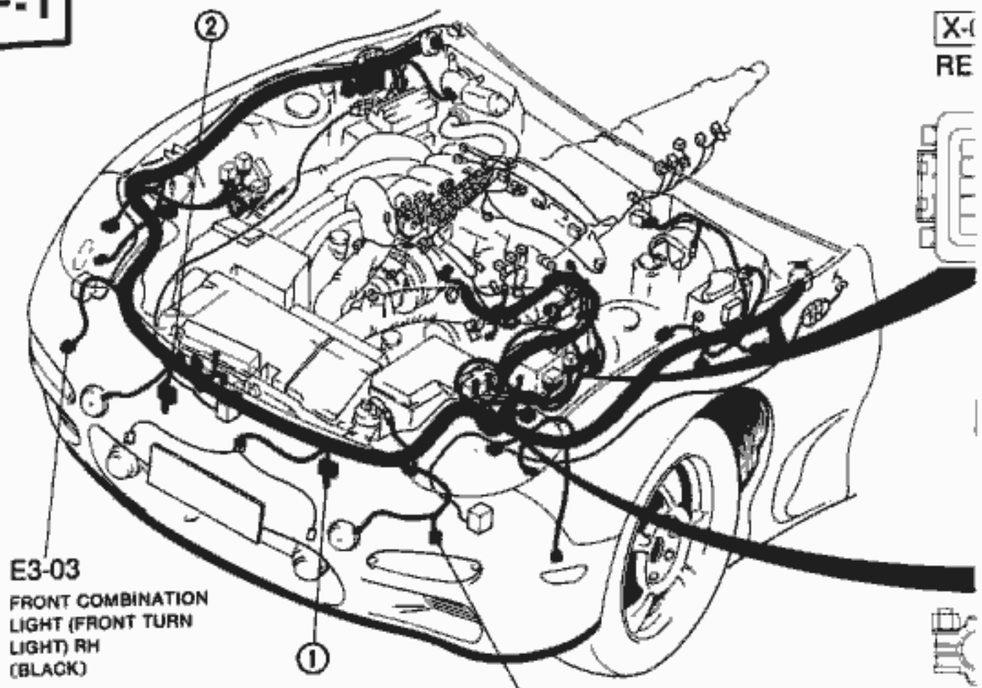
E3-07 REAR COMBINATION LIGHT(REAR TURN LIGHT)RH (R)

G/W	R/B
B	G

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

BR	B	L/G	V/P	W	Y	R/L	B/Y
R	O	*	*	R/G	R/B	*	*

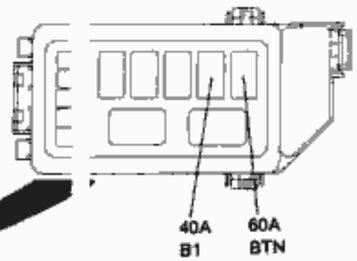
F-1



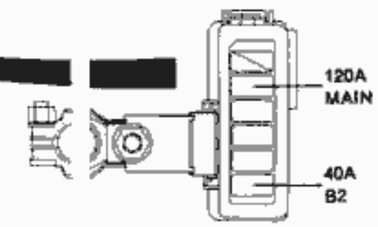
E3-03
FRONT COMBINATION LIGHT (FRONT TURN LIGHT) RH (BLACK)

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

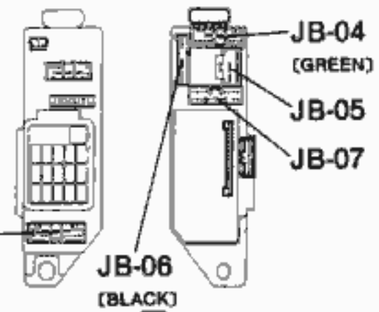
X-( )
RE AY & FUSE BLOCK



-01
IAIN FUSE
LOCK



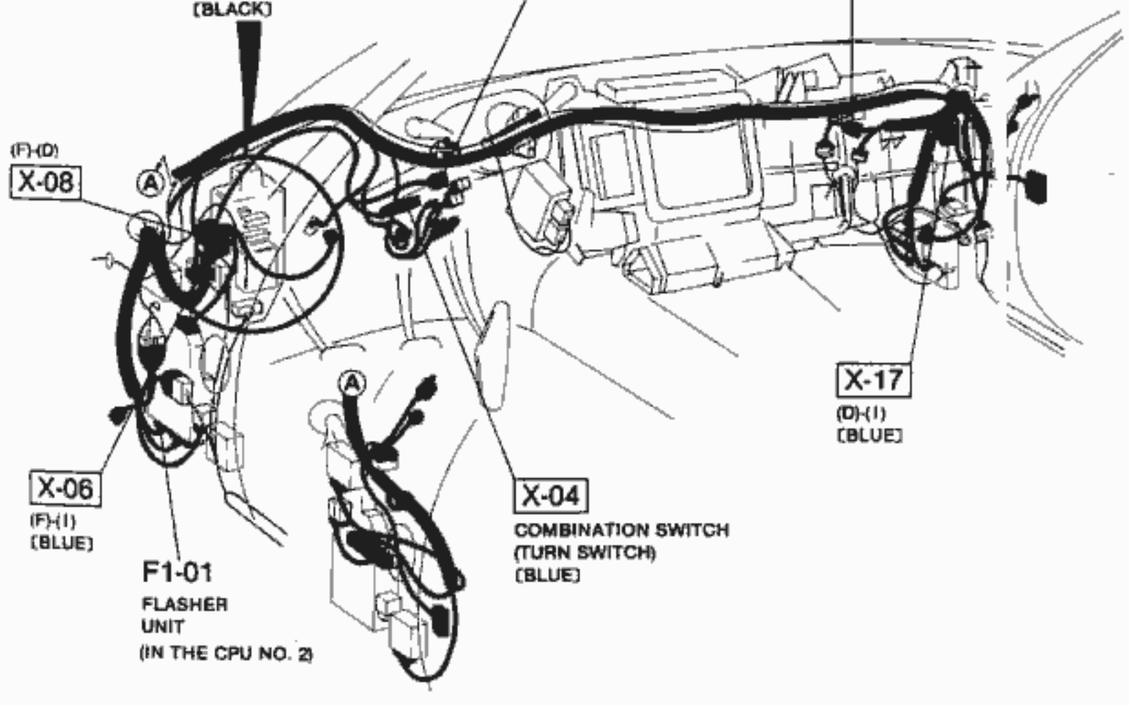
JOINT BOX



IGNITION SWITCH
X-03

(F)-(D)
X-07

(F)-(D)
X-08



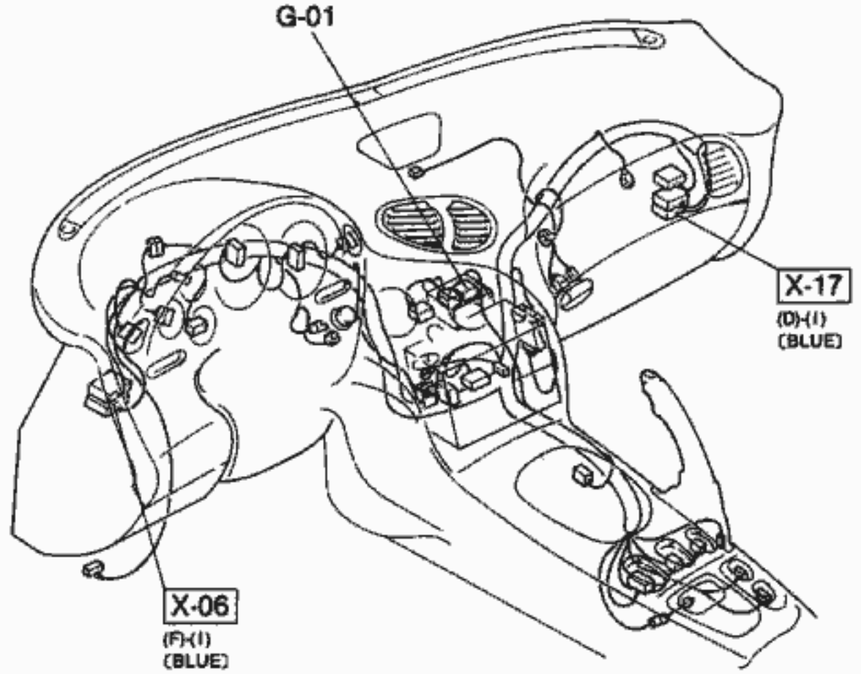
X-17
(D)-(I)
(BLUE)

X-06
(F)-(I)
(BLUE)

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

X-04
COMBINATION SWITCH (TURN SWITCH)
(BLUE)

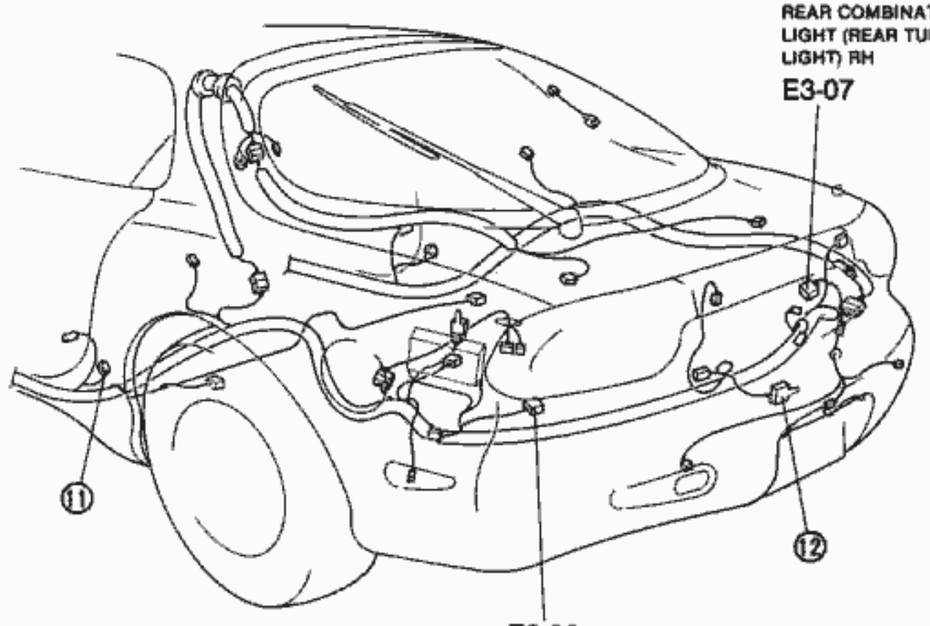
(BLACK)
HAZARD WARNING SWITCH
(IN THE HEATER CONTROL UNIT)
G-01



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

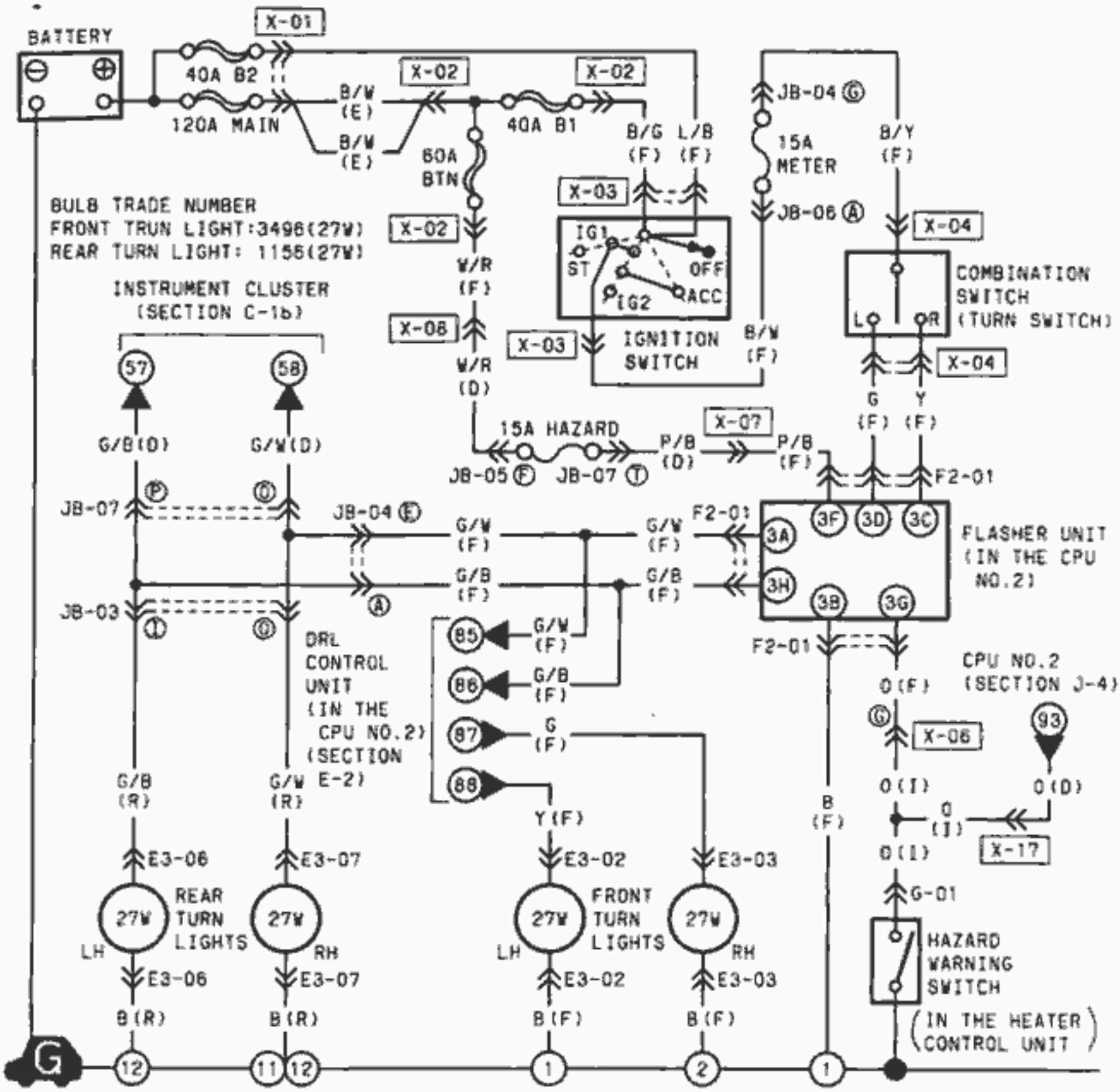
X-06
(F)-(I)
(BLUE)

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



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

F-2 CANADA ■ TURN & HAZARD WARNING LIGHTS



F2-01 FLASHER UNIT (F) (IN THE CPU NO.2)

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

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

Y	B	R/B

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

G	B	R/B

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

G/B	R/B
B	G

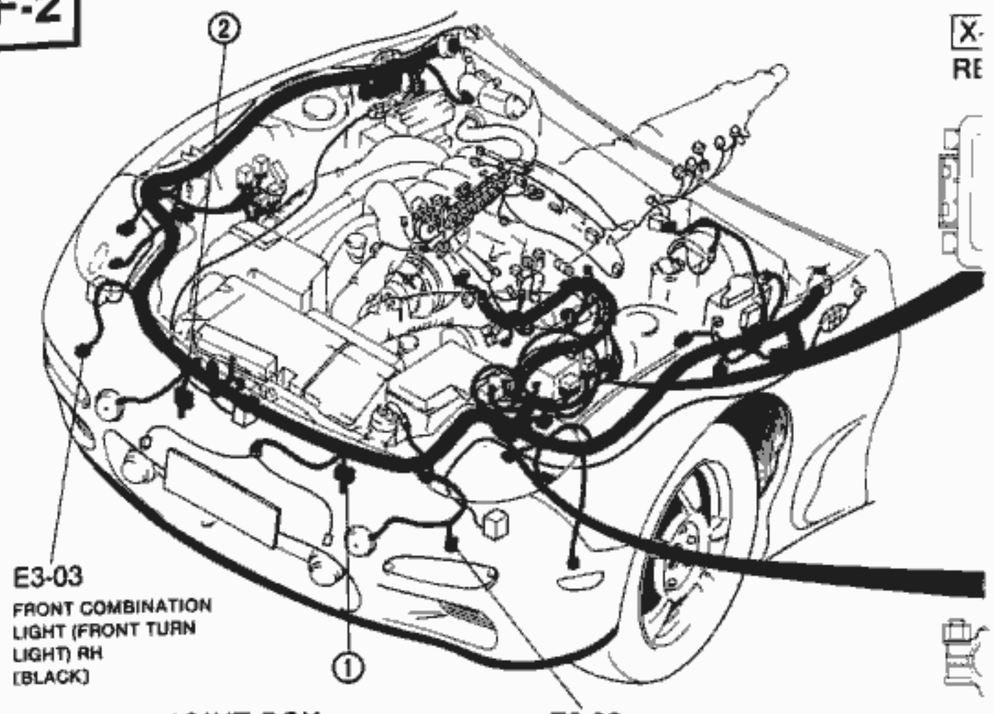
E3-07 REAR COMBINATION LIGHT (REAR TURN LIGHT) RH (R)

G/W	R/B
B	G

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

BR	B	L/G	V/P	W	Y	R/L	B/Y
R	O	*	*	R/G	R/B	*	*

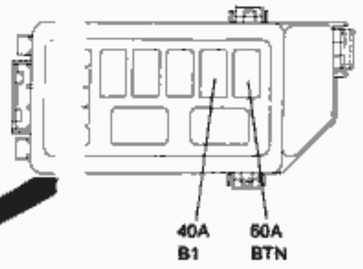
F-2



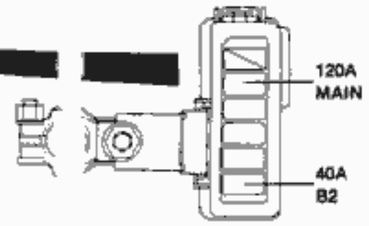
E3-03
FRONT COMBINATION LIGHT (FRONT TURN LIGHT) RH
(BLACK)

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

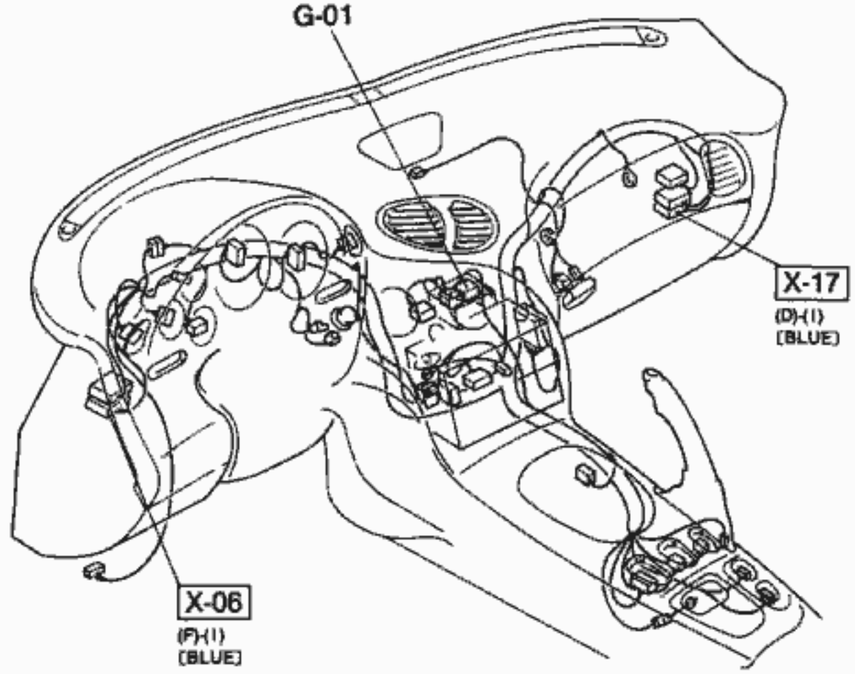
X-2
RELAY & FUSE BLOCK



X-01
MAIN FUSE BLOCK



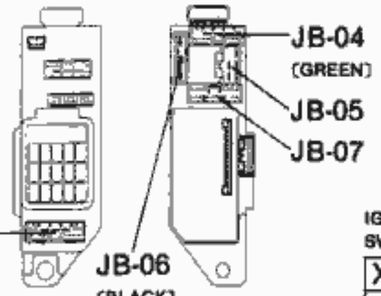
(BLACK)
HAZARD WARNING SWITCH
(IN THE HEATER CONTROL UNIT)
G-01



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

X-06
(F)-(I)
(BLUE)

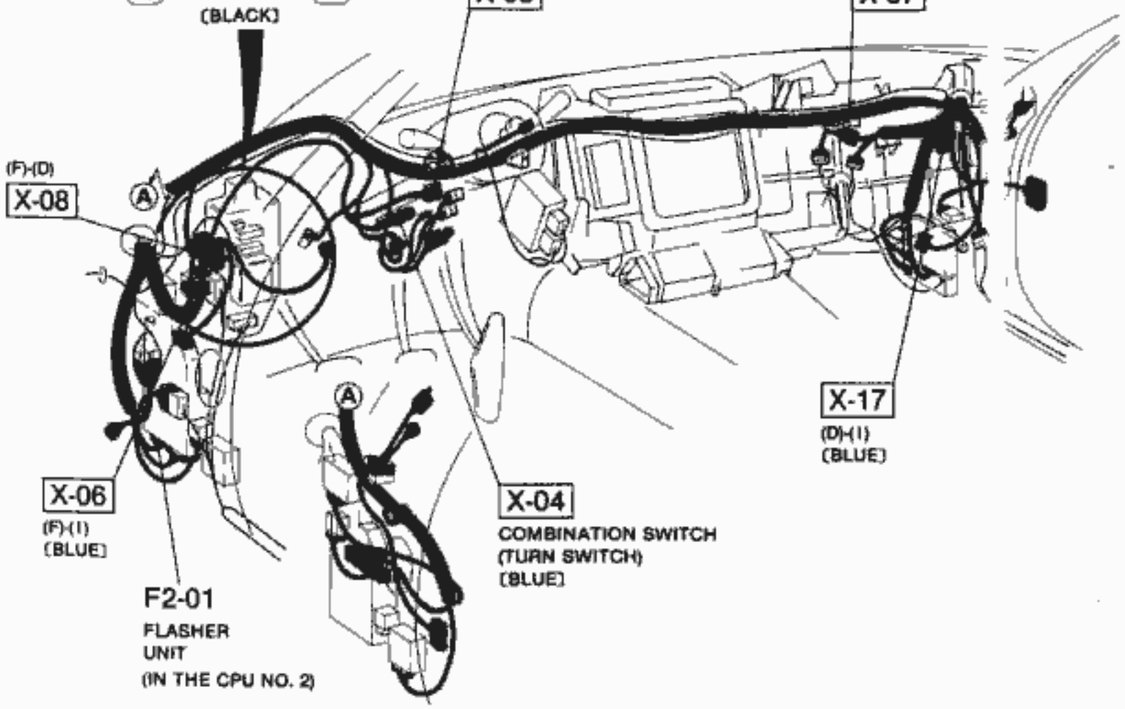
JOINT BOX



IGNITION SWITCH
X-03

(F)-(D)
X-07

(F)-(D)
X-08



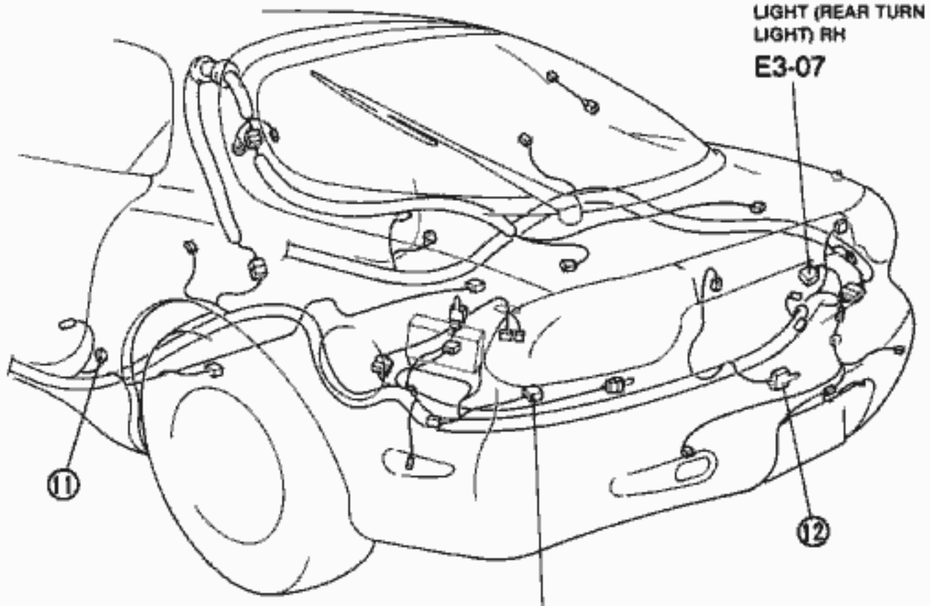
X-17
(D)-(I)
(BLUE)

X-06
(F)-(I)
(BLUE)

X-04
COMBINATION SWITCH
(TURN SWITCH)
(BLUE)

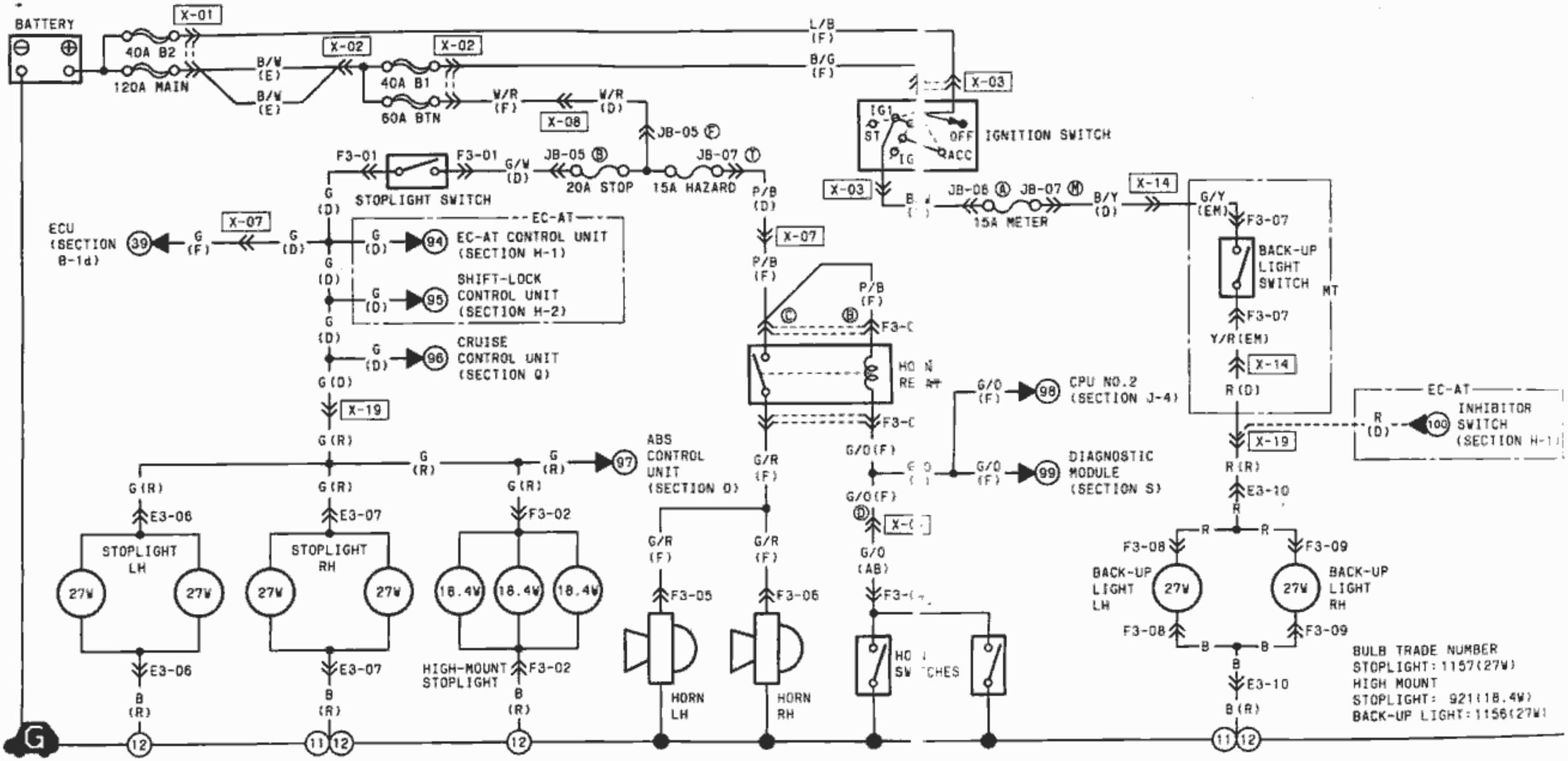
F2-01
FLASHER UNIT
(IN THE CPU NO. 2)

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



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

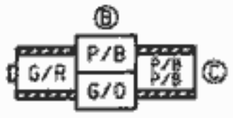
F-3 ■ STOPLIGHTS ■ HIGH-MOUNT STOPLIGHT ■ BACK-UP LIGHTS ■ HORNS



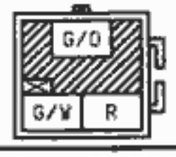
F3-01 STOPLIGHT SWITCH (D)

F3-02 HIGH-MOUNT STOPLIGHT (R)

F3-03 HORN RELAY (F)



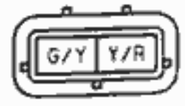
F3-04 HORN SWITCHES (AB)



F3-05 HORN LH (F)

F3-06 HORN RH (F)

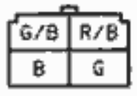
F3-07 BACK-UP LIGHT SWITCH (EM)



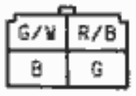
F3-08 BACK-UP LIGHT LH

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

(BLACK)
BACK-UP LIGHT
SWITCH
F3-07

X-
RE AY & FUSE BLOCK

40A
B1

60A
BTN

-01
IAIN FUSE
LOCK

120A
MAIN

40A
B2

(BLACK)
HIGH-MOUNT
STOPLIGHT
F3-02

REAR COMBINATION
LIGHT (STOPLIGHT)
RH
E3-07

F3-09
BACK-UP
LIGHT RH

F3-08
BACK-UP
LIGHT LH

E3-10
(R)-SHORT HARNESS

E3-06
REAR COMBINATION
LIGHT (STOPLIGHT)
LH

F3-06
HORN RH
(BLACK)

F3-05
HORN LH
(BLACK)

RELAY BOX

F3-03
HORN
RELAY

JOINT BOX

JB-05

JB-07

JB-06
(BLACK)

-08

X-09
(F)-(AB)

X-
(D)-(F

IGNITION
SWITCH
X-03

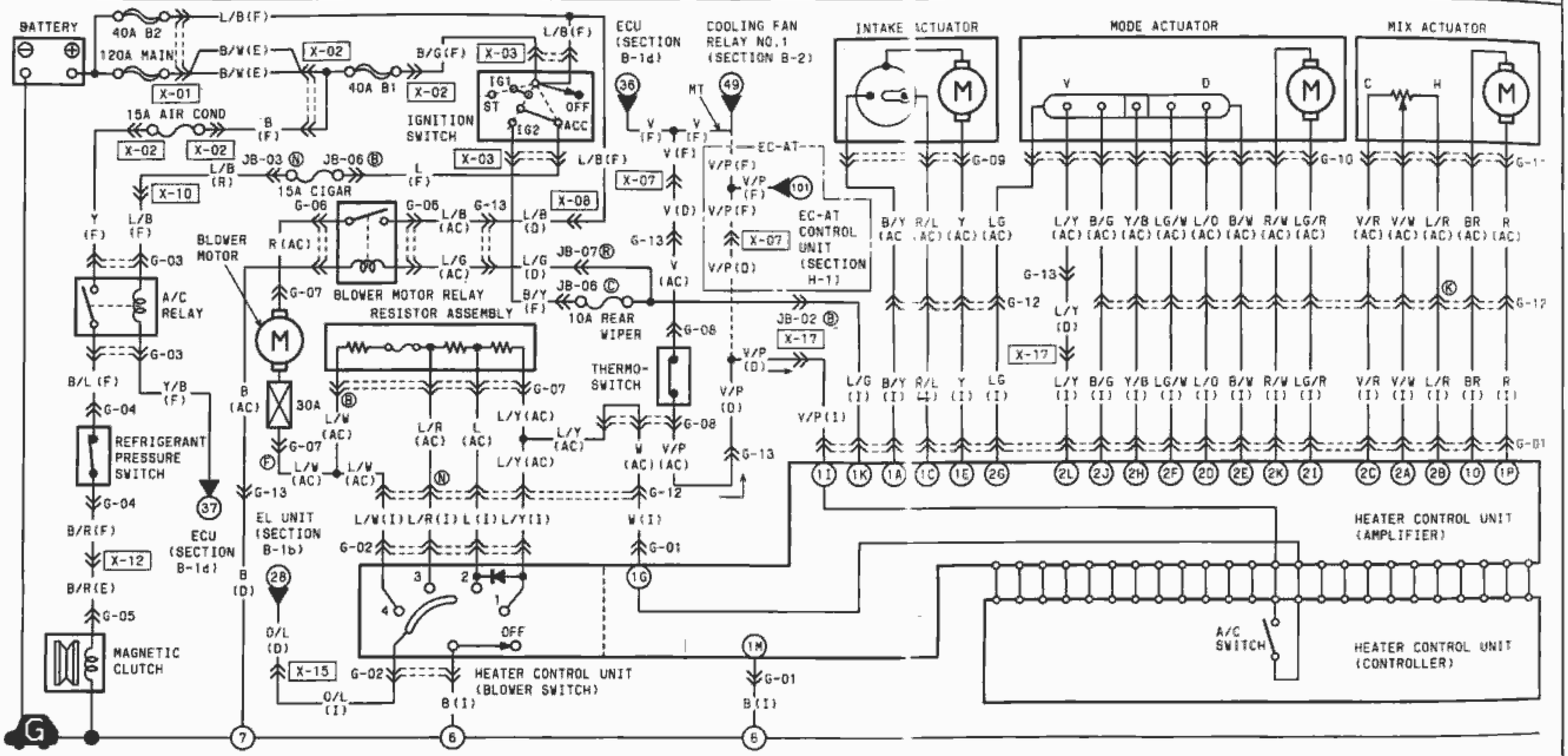
(EM)-(D)
X-14

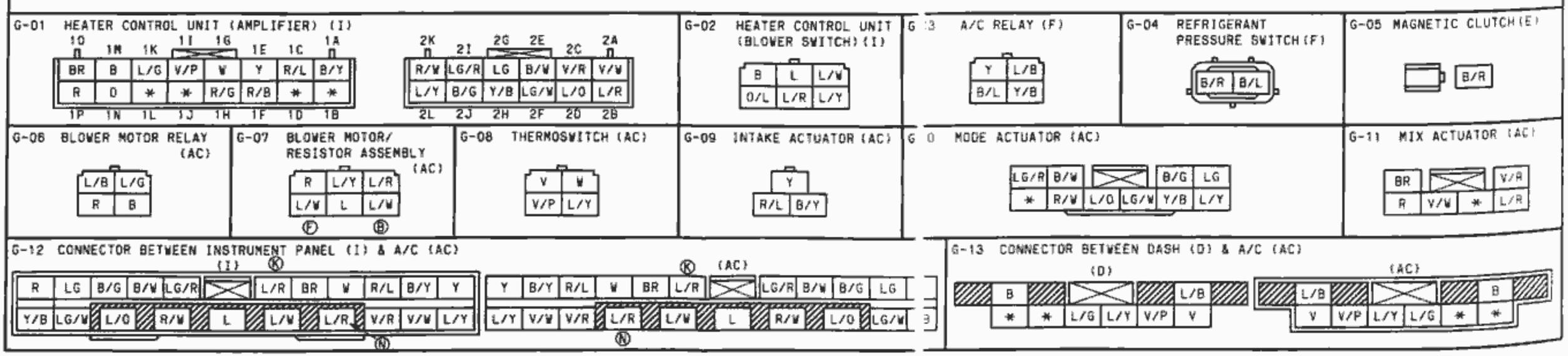
X-07
(F)-(D)

F3-01
STOPLIGHT
SWITCH

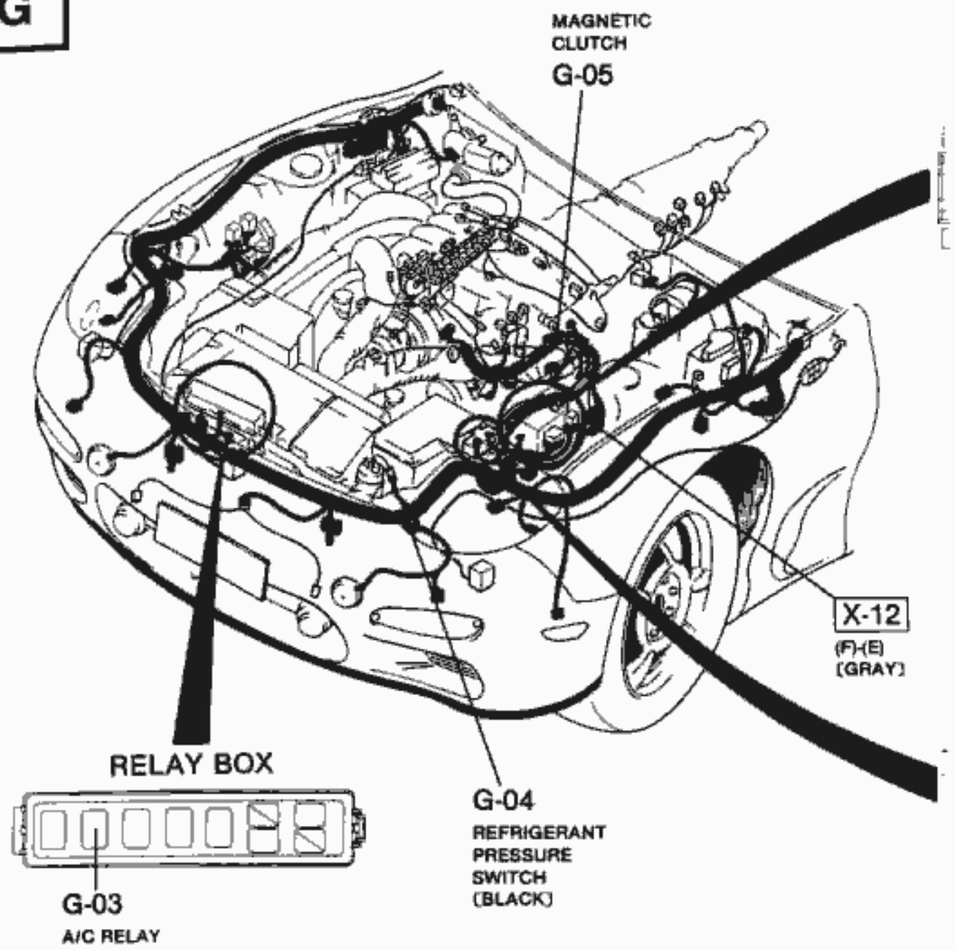
F3-04
HORN SWITCHES

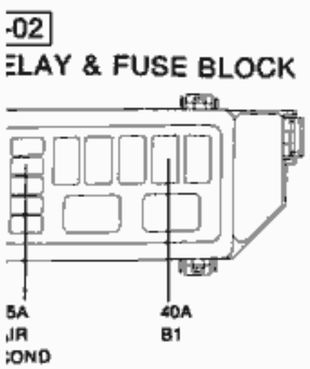
G ■ HEATER ■ AIR CONDITIONER

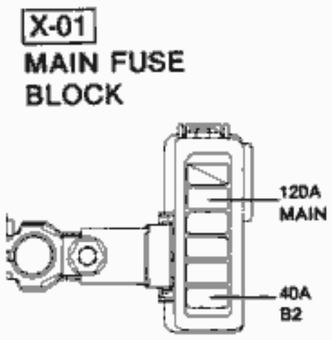


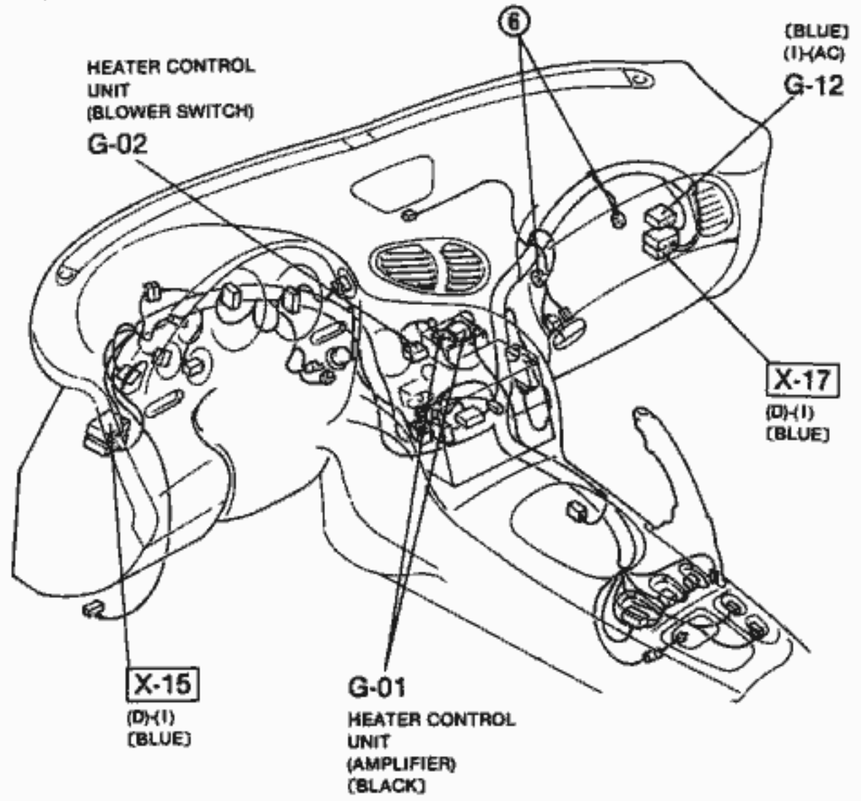


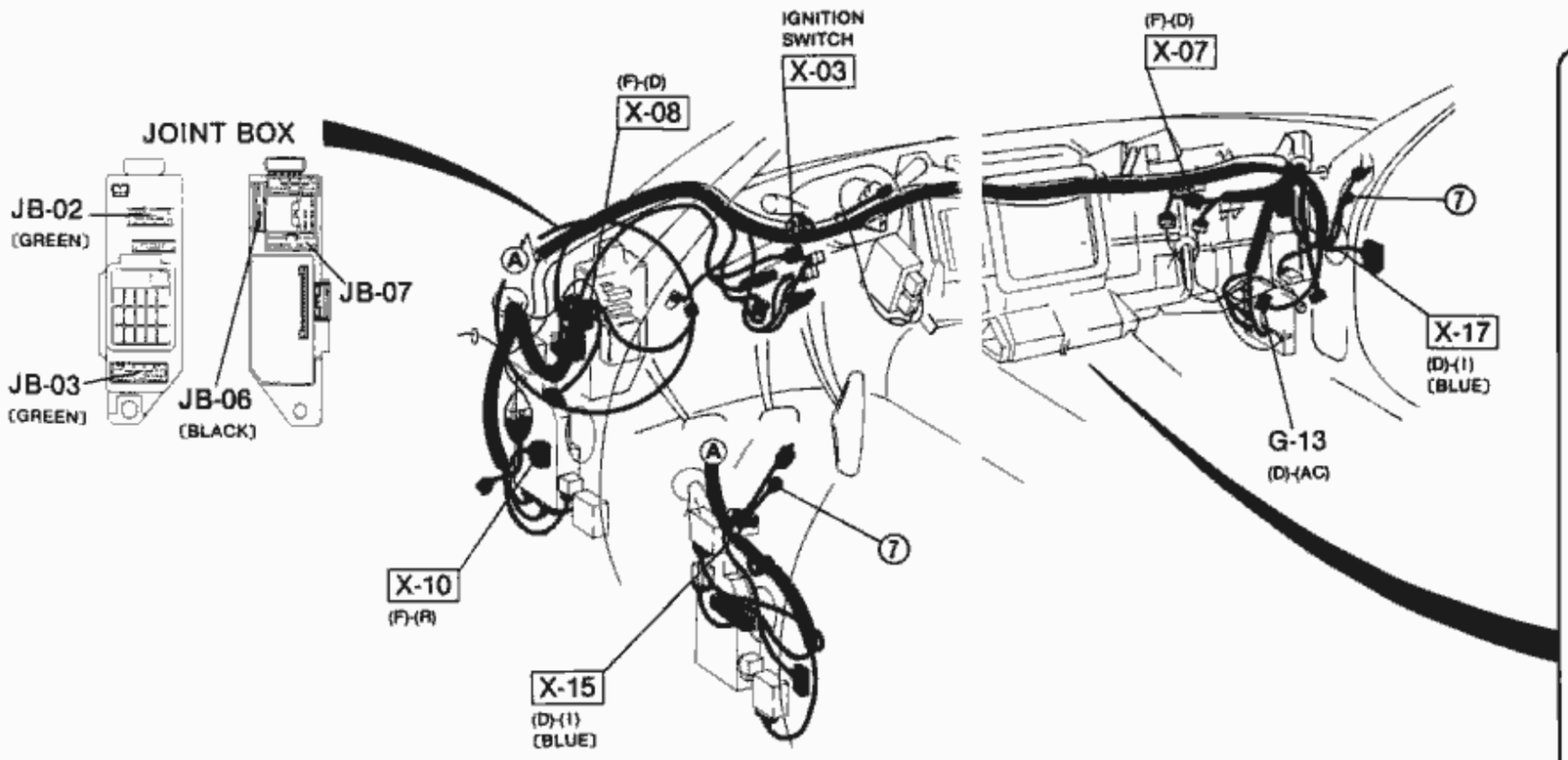
G

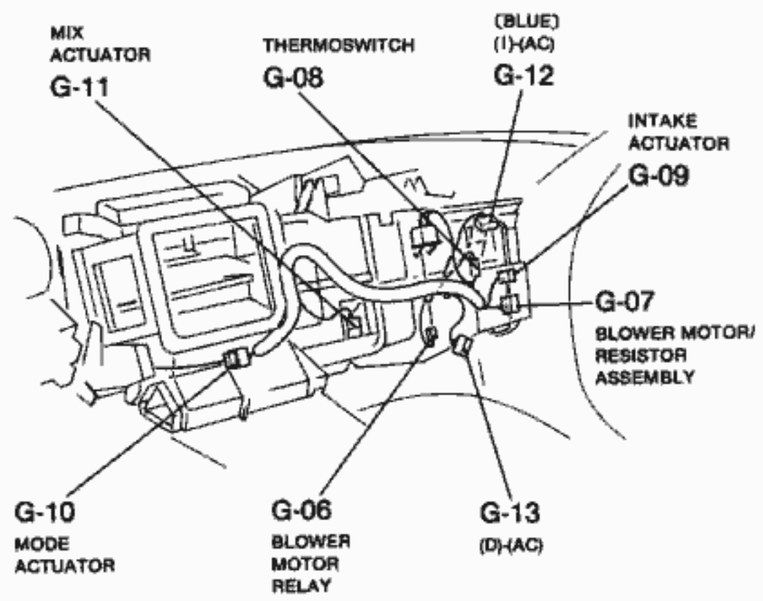

MAGNETIC CLUTCH
G-05
X-12
(F)-(E)
(GRAY)
RELAY BOX
G-04
REFRIGERANT PRESSURE SWITCH
(BLACK)
G-03
A/C RELAY


-02
ELAY & FUSE BLOCK
5A
IR
OND
40A
B1

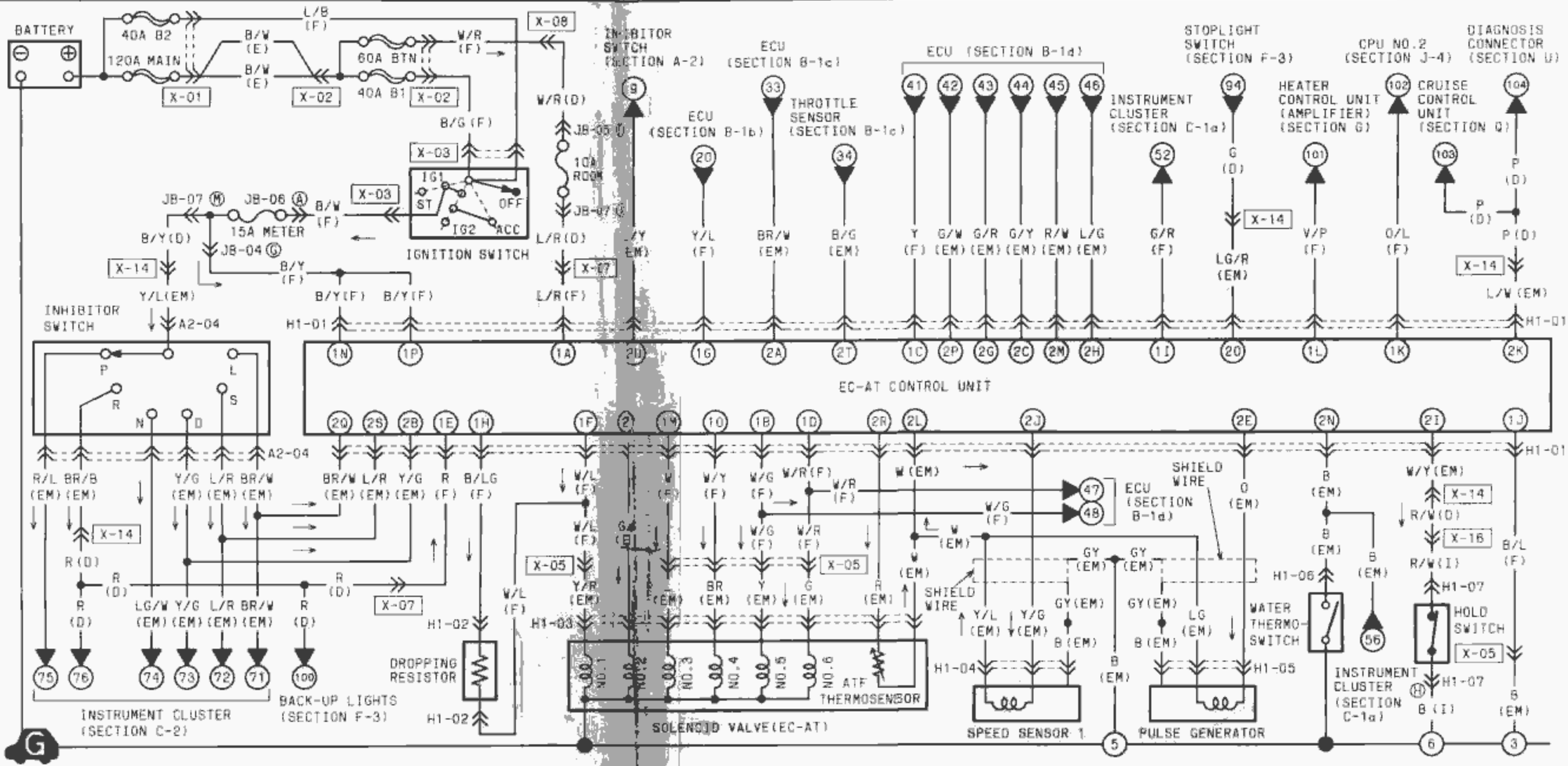

X-01
MAIN FUSE BLOCK
120A
MAIN
40A
B2


6
(BLUE)
(I)-(AC)
G-12
HEATER CONTROL UNIT
(BLOWER SWITCH)
G-02
X-17
(D)-(I)
(BLUE)
X-15
(D)-(I)
(BLUE)
G-01
HEATER CONTROL UNIT
(AMPLIFIER)
(BLACK)


IGNITION SWITCH
X-03
(F)-(D)
X-08
JOINT BOX
JB-02
(GREEN)
JB-07
JB-03
(GREEN)
JB-06
(BLACK)
X-10
(F)-(R)
X-15
(D)-(I)
(BLUE)
(F)-(D)
X-07
X-17
(D)-(I)
(BLUE)
G-13
(D)-(AC)


MIX ACTUATOR
G-11
THERMOSWITCH
G-08
(BLUE)
(I)-(AC)
G-12
INTAKE ACTUATOR
G-09
G-07
BLOWER MOTOR/ RESISTOR ASSEMBLY
G-10
MODE ACTUATOR
G-06
BLOWER MOTOR RELAY
G-13
(D)-(AC)

H-1 ■ EC-AT CONTROL SYSTEM



H1-01 EC-AT CONTROL UNIT (F)

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

H1-01 EC-AT CONTROL UNIT (EM)

2S	2Q	2O	2M	2K	2I	2G	2E	2C	2A
L/R	BR/W	LG/R	R/W	L/W	W/Y	G/R	O	G/Y	BR/W
B/G	R	G/W	B		Y/G	L/G	G/W	L/Y	Y/G
2T	2R	2P	2N		2J	2H	2F	2D	2B

H1-02 DROPPING RESISTOR(F)

B/LG	W/L

H1-03 SOLENOID VALVE(EC-AT) (EM)

G/W	Y	Y/R	R
G	BR	L	W

H1-04 SPEED SENSOR 1 (EM)

Y/G	Y/L	B

H1-05 PULSE GENERATOR (EM)

O	B
LG	*

H1-06 WATER THERMOSWITCH (EM)

B

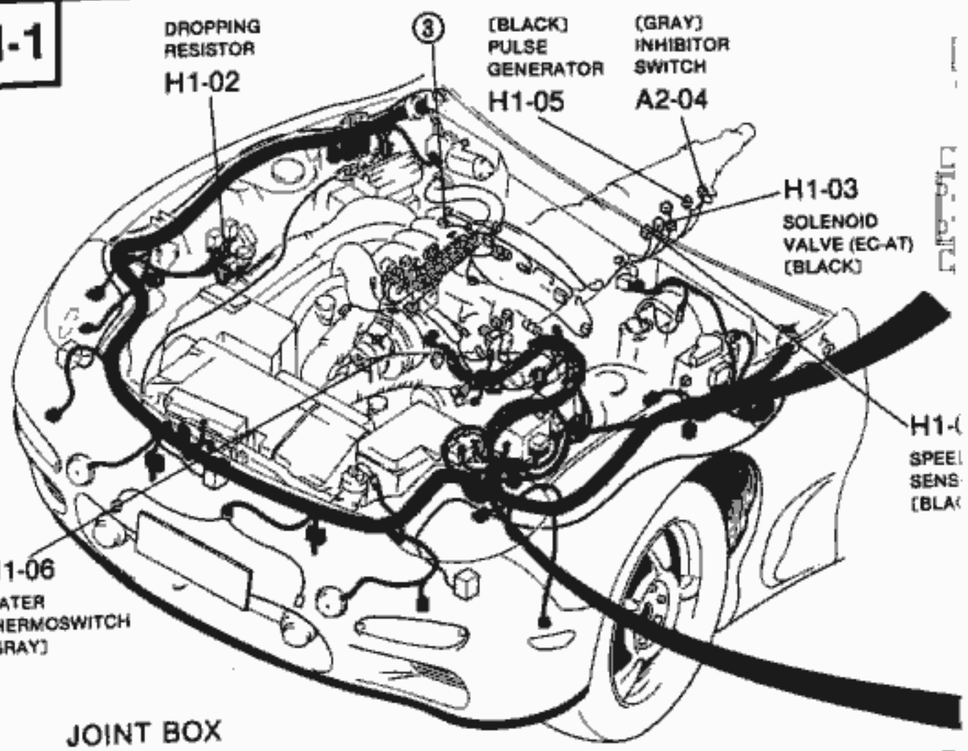
H1-07 HOLD SWITCH (I)

R/B		G	B/Y
R/G	B	R/W	LG	B

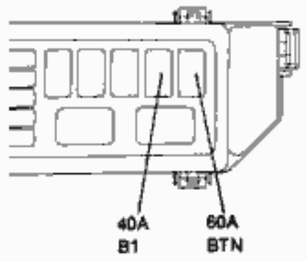
A2-04 INHIBITOR SWITCH(EM)

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

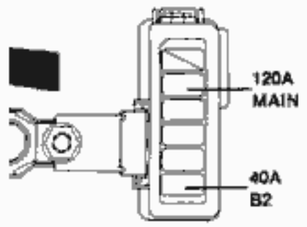
H-1



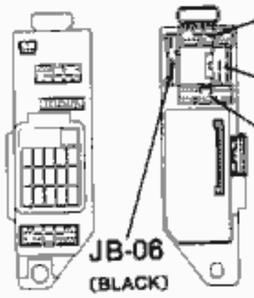
02
LAY & FUSE BLOCK

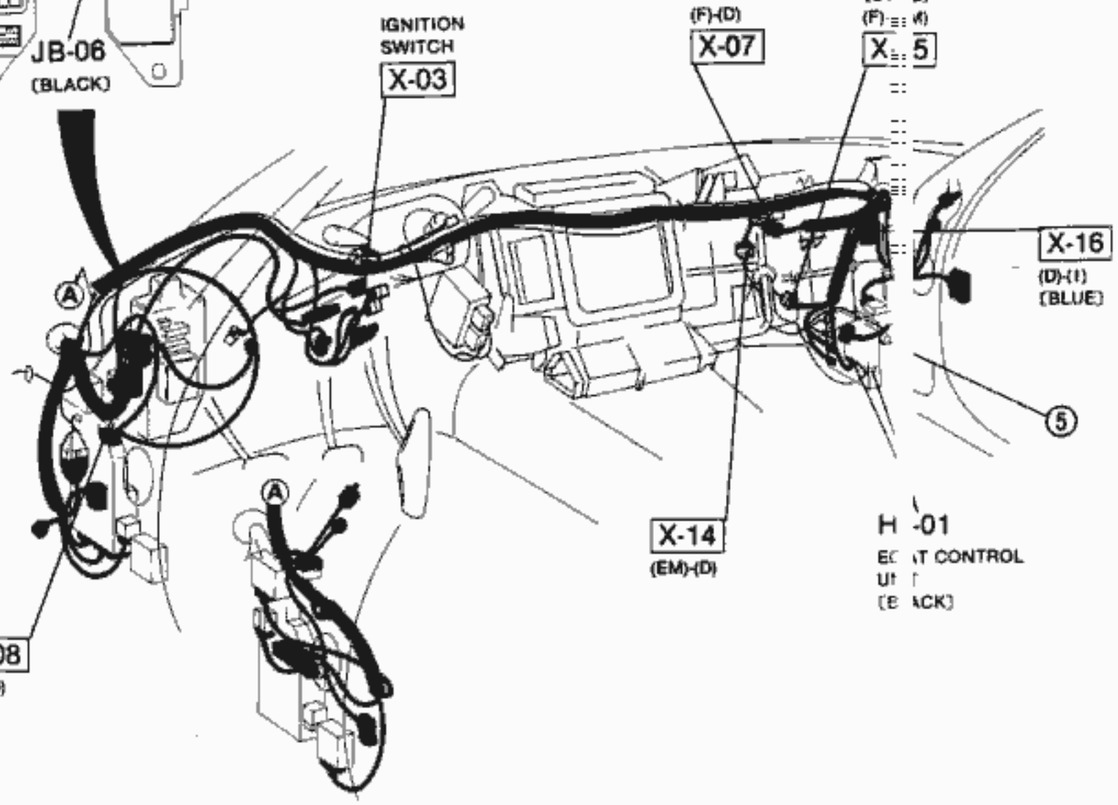


X-01
MAIN FUSE BLOCK

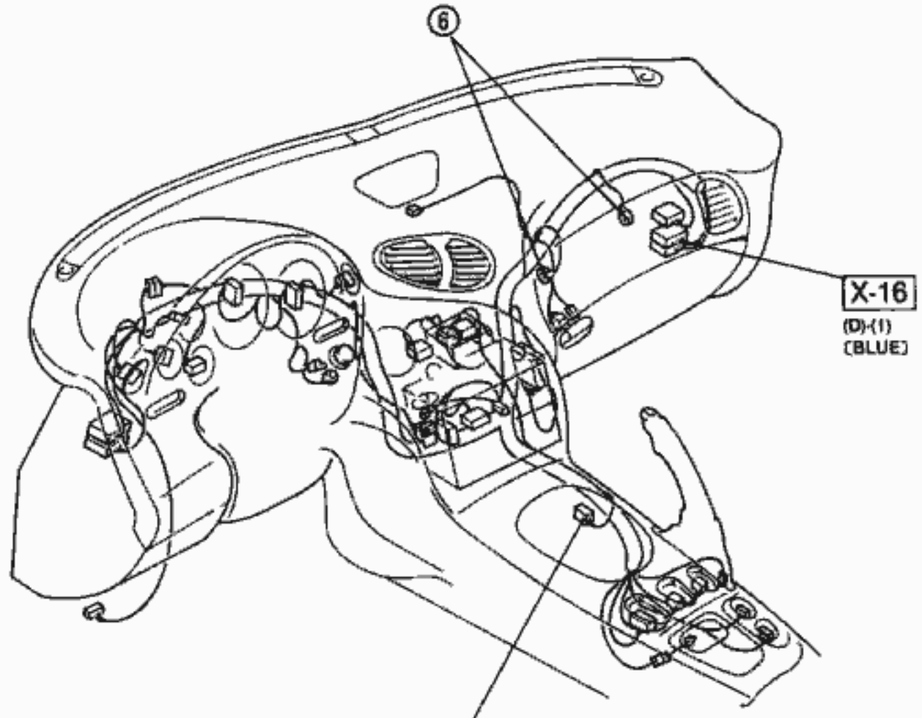


JOINT BOX





H -01
EC T CONTROL
UI
(B ACK)



H-1

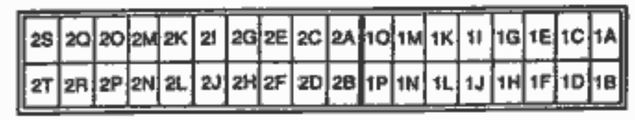
Terminal Voltage Chart (Reference Data)

V_B: Battery voltage

Terminal	Color	Component	Connected to	Voltmeter (+) terminal	Voltmeter (–) terminal	Correct voltage	Condition	Check area
1A	L/R	Battery (backup)	Battery	1A	Ground	V_B	Constant	• Wiring and/or connector from 1A terminal to battery
1B (Output)	W/G	Solenoid valve (shift B)	Solenoid valve	1B	Ground	V_B	P, R, and N ranges or 1st and 2nd gear positions	• Solenoid valve (shift B) • Wiring and/or connector from 1B terminal to solenoid valve (shift B)
						Below 1.0V	3rd and O/D gear positions	
1C (Output)	Y	Inhibitor signal	Engine control unit	1C	Ground	Below 1.0V	P and N ranges	• Inhibitor switch, pulse generator, and/or engine control unit • Wiring and/or connector from 1C terminal to engine control unit 1R terminal
						V_B	Except P and N ranges	
1D (Output)	W/R	Solenoid valve (shift A)	Solenoid valve	1D	Ground	V_B	P, R, and N ranges or 1 st and O/D gear positions	• Solenoid valve (shift A) • Wiring and/or connector from 1D terminal to solenoid valve (shift A)
						Below 1.0V	2nd and 3rd gear positions	
1E (Input)	R	Inhibitor switch (R range)	Inhibitor switch	1E	Ground	V_B	R range	• Inhibitor switch • Wiring and/or connector from 1E terminal to inhibitor switch
						0V	Excect R range	
1F (Output)	W/L	Solenoid valve (line pressure)	Solenoid valve	1F	Ground	Above 1.5V	Throttle valve fully closed	• Solenoid valve (line pressure) • Wiring and/or connector from 1F terminal to solenoid valve (line pressure)
						Below 1.0V	Throttle valve fully opened	
1G (Input)	Y/L	Engine rpm signal	Engine control unit	1G	Ground	0.3–0.8V	Engine running at idle	• Wiring and/or connector from 1G terminal to engine control unit 2B terminal • Engine control unit
						0V	Engine stopped	
						1.8–2.2V	Engine running at 3,000 rpm (no load)	
1H (Output)	B/LG	Dropping resistor	Dropping resistor	1H	Ground	V_B	Throttle valve fully closed	• Dropping resistor and/or solenoid valve (line pressure) • Wiring and/or connector between 1H terminal, dropping resistor, and solenoid valve.
						Below 1.0V	Throttle valve fully opened	

Caution

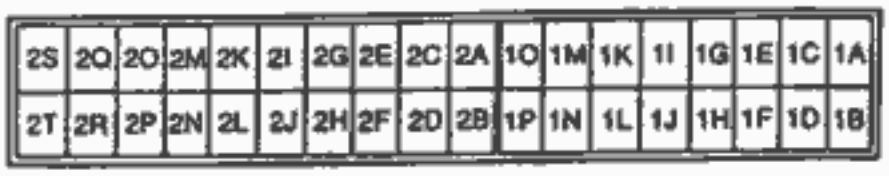
- **The 1D terminal voltage [solenoid valve (shift A)] is below 1.0V when in HOLD mode in P, R, and N ranges.**



V_B: Battery voltage

Terminal	Color	Component	Connected to	Voltmeter (+) terminal	Voltmeter (–) terminal	Correct voltage	Condition	Check area
1I (Input)	G/R	Speed sensor 2 (speedometer sensor)	Speedometer	1I	Ground	2–3V	Vehicle moving	• Speed sensor 2 and/or speedometer • Wiring and/or connector between 1I terminal, speedometer, and speed sensor 2.
						0V or 4.5–5.5V	Vehicle stopped	
1J (Ground)	B/L	Ground (EC-AT control unit)	–	1J	Ground	0V	Constant	• Wiring condition
1K (Output)	O/L	Hold indicator / FAT terminal (diagnosis connector)	CPU No. 2	1K	Ground	Below 1.0V	Hold mode	• Wiring and/or connector from 1K terminal to hold indicator lamp (combination meter) • Hold indicator lamp
						V_B	Except hold mode	
1L (Input)	V/P	A/C signal	Heater control unit	1L	Ground	Below 3.0V	A/C ON	• Engine control unit and/or A/C switch • Wiring and/or connector from 1L terminal to A/C switch
						V_B	A/C OFF	
1M (Output)	W	Solenoid valve (lockup)	Solenoid valve	1M	Ground	V_B	Lockup	• Solenoid valve (lockup) • Wiring and/or connector from 1M terminal to solenoid valve (lockup)
						Below 1.0V	No lockup	
1N	B/Y	Battery (main)	Ignition switch	1N	Ground	V_B	Ignition switch ON	• Meter fuse and/or ignition switch • Wiring and/or connector from 1N terminal to ignition switch (G1)
						0V	Ignition switch OFF	
1O (Output)	W/Y	Solenoid valve (overrunning clutch)	Solenoid valve	1O	Ground	Below 1.0V	Throttle valve fully opened (D range)	• Solenoid valve (overrunning clutch) • Wiring and/or connector from 1O terminal to solenoid valve (overrunning clutch)
						V_B	Throttle valve closed (D range)	
1P	B/Y	Battery (main)	Ignition switch	1P	Ground	V_B	Ignition switch ON	• Meter fuse and/or ignition switch • Wiring and/or connector from 1P terminal to ignition switch (G1)
						0V	Ignition switch OFF	
2A (Input)	BR/W	Throttle sensor (V_{REF})	Throttle sensor (ECU)	2A	Ground	4.5–5.5V	Ignition switch ON	• Wiring and/or connector from 2A terminal to engine control unit 3I terminal • Throttle sensor
						0V	Ignition switch OFF	

H-1



V_B: Battery voltage

Terminal	Color	Component	Connected to	Voltmeter (+) terminal	Voltmeter (-) terminal	Correct voltage	Condition	Check area
2B (Input)	Y/G	Inhibitor switch (D range)	Inhibitor switch	2B	Ground	V_B	D range	• Inhibitor switch • Wiring and/or connector from 2B terminal to inhibitor switch
						0V	Except D range	
2C (Input)	G/Y	Atmospheric pressure sensor	Engine control unit	2C		2.0—4.5V	Ignition switch ON	• Wiring and/or connector from 2C terminal to engine control unit 2D terminal
						0V	Ignition switch OFF	
2D (Input)	L/Y	Inhibitor switch (P and N ranges)	Inhibitor switch	2D	Ground	0V	P and N ranges	• Inhibitor switch and/or ignition switch • Wiring and/or connector between 2D terminal, inhibitor switch, and ignition switch (STA)
						V_B	Except P and N ranges	
2E (Input)	O	Pulse generator	Pulse generator	2E*	2L	Approx. above 0.5V (AC)	Vehicle speed above 25 km/h (16 MPH)	• Pulse generator • Wiring and/or connector from 2E terminal to pulse generator
						Approx. 0V (AC)	Vehicle stopped (Ignition switch ON)	
2F (Output)	G/W	Solenoid valve (lockup control)	Solenoid valve	2F	Ground	V_B	lockup	• Solenoid valve (lockup control) • Wiring and/or connector from 2F terminal to solenoid valve (lockup control)
						Below 1.0V	No lockup	
2G (Input)	G/R	Slip lockup OFF signal	Engine control unit	2G		Below 1.0V	Engine running at 3,000 rpm	• Wiring and/or connector from 2G terminal to engine control unit 2C terminal • Engine control unit
						V_B	Engine running at idle	
2H (Input)	L/G	Torque reduced signal	Engine control unit	2H		V_B	Engine running at idle	• Wiring and/or connector from 2H terminal to engine control unit 2G terminal • Throttle sensor, speed sensor 1 pulse generator, and/or engine control unit
						Below 1.0V	Throttle opening above 1/8 (Engine coolant temp. below 40°C (104°F))	
2I (Input)	W/Y	Hold switch	Hold switch	2I		V_B	Switch depressed	• Hold switch • Wiring and/or connector from 2I terminal to hold switch
						0V	Switch released	

* Check the 2E (pulse generator) terminal voltage by using the AC range.

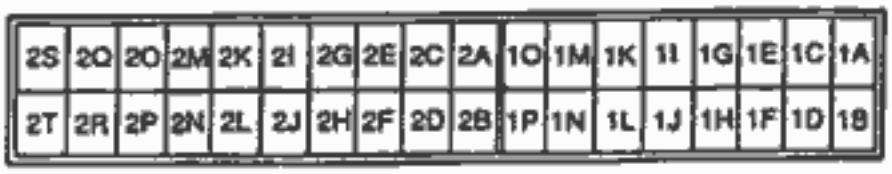
H-1

V_B: Battery voltage

Terminal	Color	Component	Connected to	Voltmeter (+) terminal	Voltmeter (−) terminal	Correct voltage	Condition	Check area
2J (input)	Y/G	Speed sensor 1 (revolution sensor)	Speed sensor 1 (revolution sensor)	2J*	2L	Approx. above 1.0V (AC)	Vehicle speed above 25 km/h (16 MPH)	• Speed sensor 1 (revolution sensor) • Wiring and/or connector from 2J terminal to speed sensor 1
						Approx. 0V (AC)	Vehicle stopped	
2K	L/W	TAT terminal (diagnosis connector) / O/D inhibit signal (auto speed control signal)	TAT terminal (diagnosis connector) and cruise control unit	2K	Ground	4.5–5.5	Ignition switch ON	• 1N and 1P terminal voltage • Wiring and/or connector from 2K terminal to diagnosis connector TAT terminal • Wiring and/or connector from 2K terminal to cruise control unit G terminal
						0V	TAT terminal grounded	
2L (Ground)	W	Ground (input signals)	–	2L		0V	Constant	• Wiring condition
2M (Input)	R/W	Idle signal	Engine control unit	2M	Ground	4.5–5.5V	Throttle valve opened	• Throttle sensor and/or engine control unit • Wiring and/or connector from 2M terminal to engine control unit 2E terminal
						Below 1.0V	Throttle valve fully closed	
2N (Input)	B	Water thermoswitch / mileage switch	Water thermoswitch and mileage switch	2N		0V	Engine coolant temp. above 115°C (239°F) or vehicle total mileage above 625 km (388 miles) and vehicle stopped	• Water thermoswitch and/or mileage switch • Wiring and/or connector from 2N terminal to water thermoswitch
						V_B	Engine coolant temp. below 110°C (230°F) or vehicle total mileage below 625 km (388 miles) and vehicle stopped	
2O (Input)	LG/R	Stoplight switch	Stoplight switch	2O		V_B	Brake pedal depressed	• Stoplight switch • Wiring and/or connector from 2O terminal to stoplight switch
						0V	Brake pedal released	

* Check the 2J (speed sensor 1) terminal voltage by using the AC range.

H-1

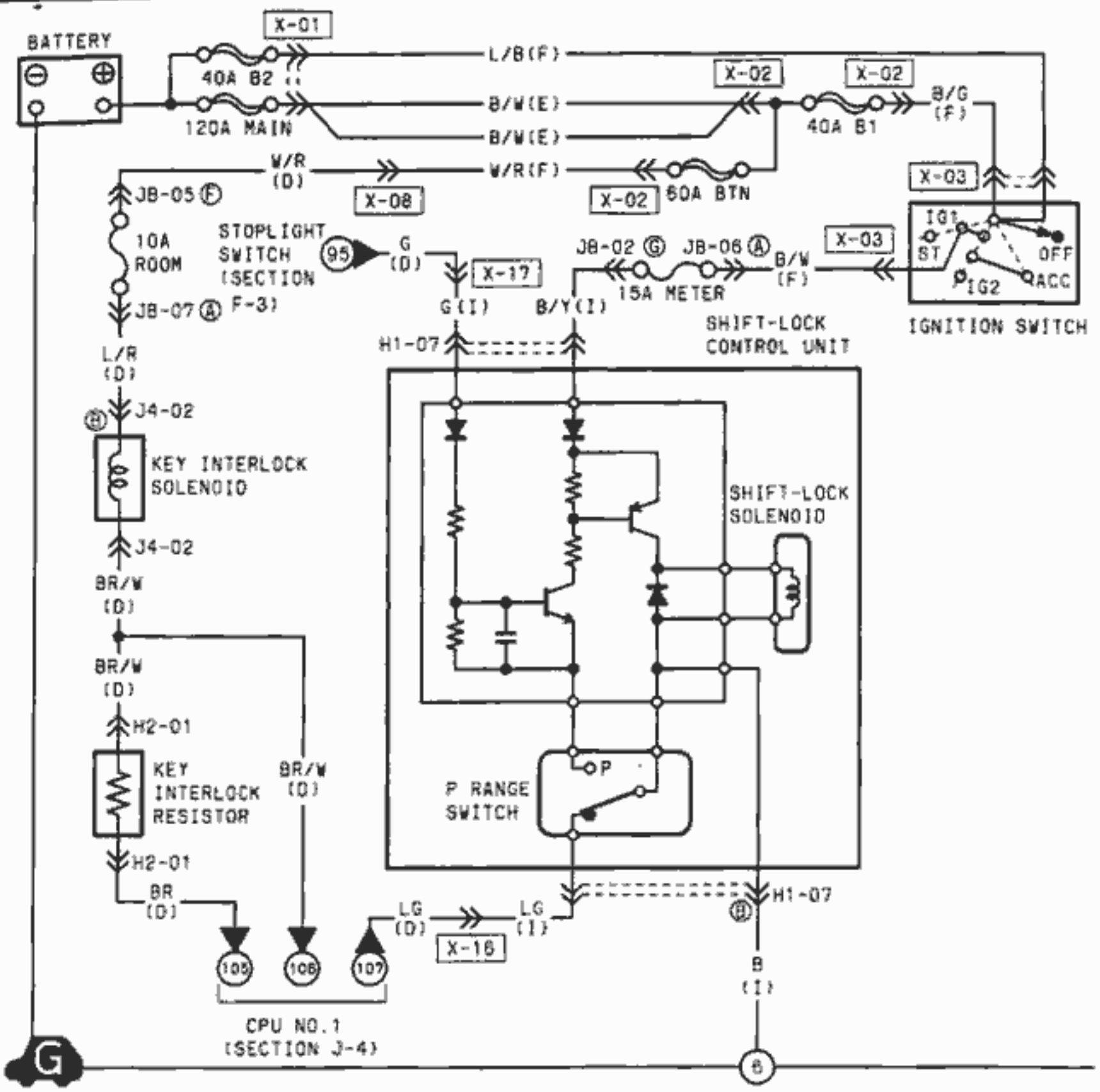


V_B: Battery voltage

Terminal	Color	Component	Connected to	Voltmeter (+) terminal	Voltmeter (−) terminal	Correct voltage	Condition	Check area
2P (Output)	G/W	Reduce torque signal / slip lockup signal	Engine control unit	2P	Ground	Below 1.0V	When shifting from 1st to 2nd or from 2nd to 3rd with the throttle opening above 1.5/8 When slip lockup with the throttle opening below 0.5/8.	• Wiring and/or connector from 2P terminal to engine control unit 1O terminal • Throttle sensor, speed sensor 1, pulse generator, solenoid valve (lockup, lockup control), and/or engine control unit
						V_B	Engine running at idle	
2Q (Input)	BR/W	Inhibitor switch (L range)	Inhibitor switch	2Q		V_B	L range	• Inhibitor switch • Wiring and/or connector from 2Q terminal to inhibitor switch
						0V	Except L range	
2R (Input)	R	ATF thermosensor	ATF thermo-sensor	2R	2L	Approx. 2.4–0.4V	While warming up ATF Note • Approx. 1.8V: ATF temperature 10°C (50°F) • Approx. 1.1V: ATF temperature 40°C (104°F)	• ATF thermosensor • Wiring and/or connector from 2R terminal to ATF thermosensor
2S (Input)	L/R	Inhibitor switch (S range)	Inhibitor switch	2S	Ground	V_B	S range	• Inhibitor switch • Wiring and/or connector from 2S terminal to inhibitor switch
						0V	Except S range	
2T (Input)	B/G	Throttle sensor (TVO)	Throttle sensor	2T		0.1–1.1V	Throttle valve fully closed	• Throttle sensor • Wiring and/or connector from 2T terminal to throttle sensor
						4.0–4.5V	Throttle valve fully opened	

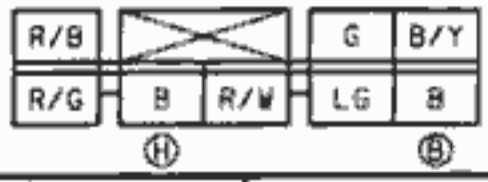
37U0KX-053

H-2 EC-AT ■ SHIFT-LOCK SYSTEM ■ KEY INTERLOCK SYSTEM



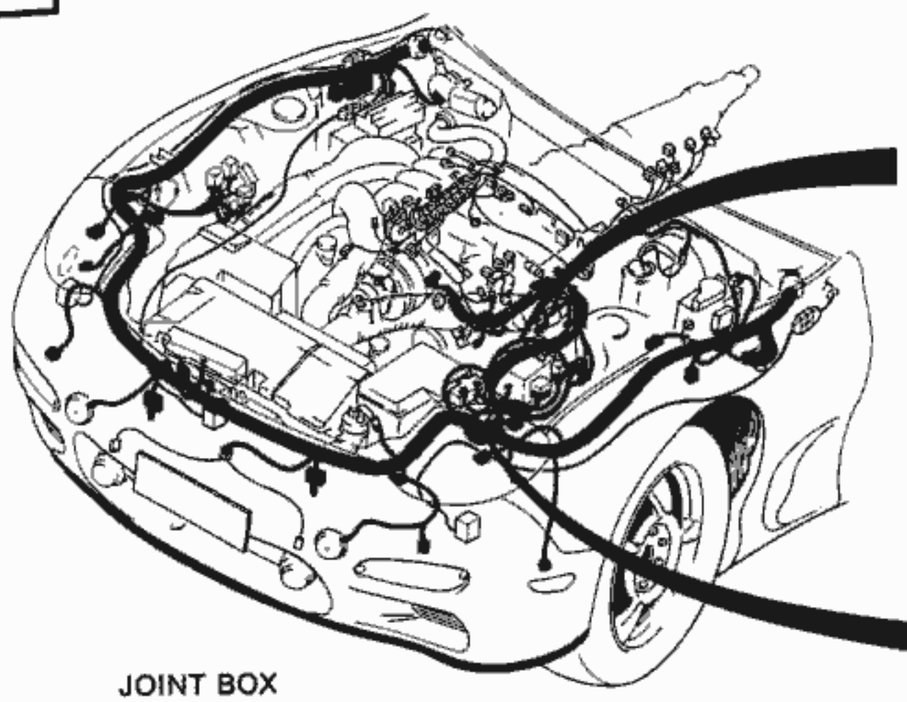
H2-01 KEY INTERLOCK RESISTOR (D)

H1-07 SHIFT-LOCK CONTROL UNIT (I)

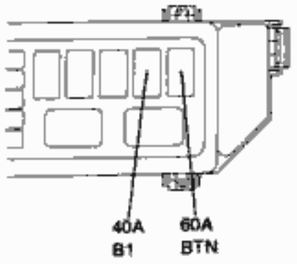


J4-02 KEY INTERLOCK SOLENOID (D)

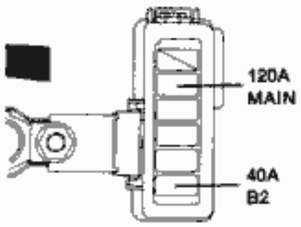
H-2



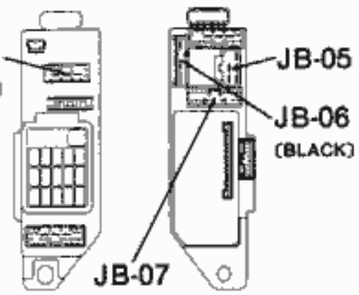
2
F AY & FUSE BLOCK



X-01
MAIN FUSE
BLOCK

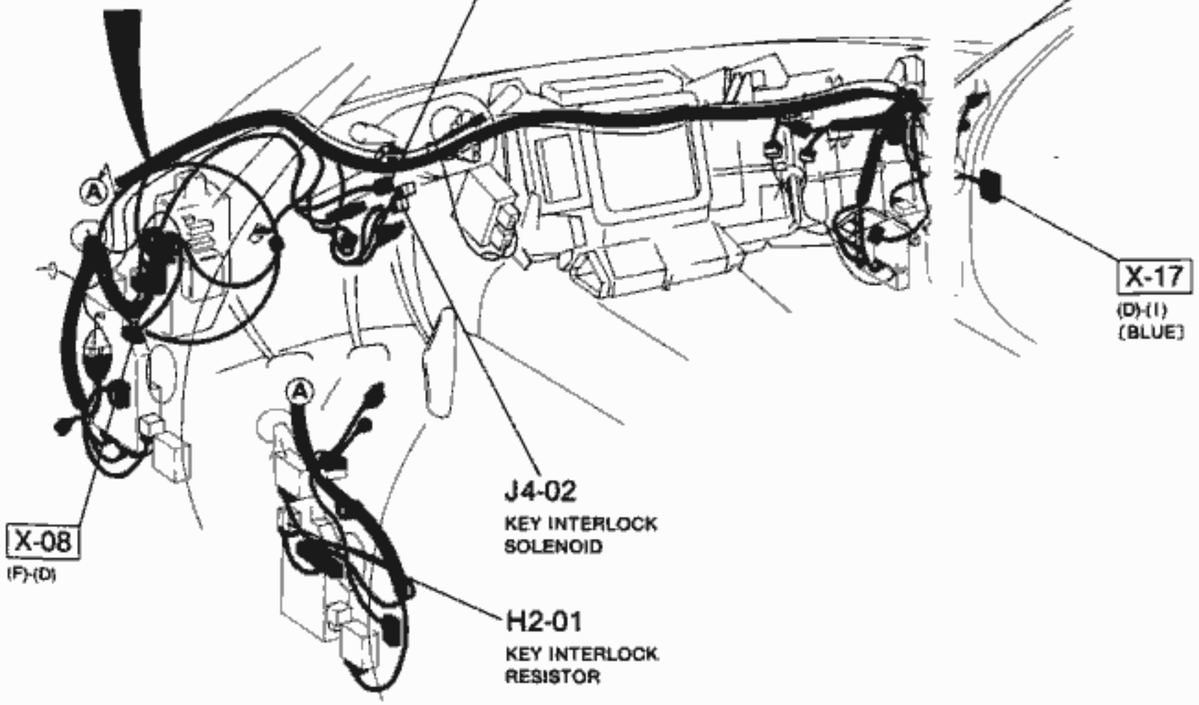


JOINT BOX



IGNITION
SWITCH
X-03

(BLUE)
(D)-(I)
X-16



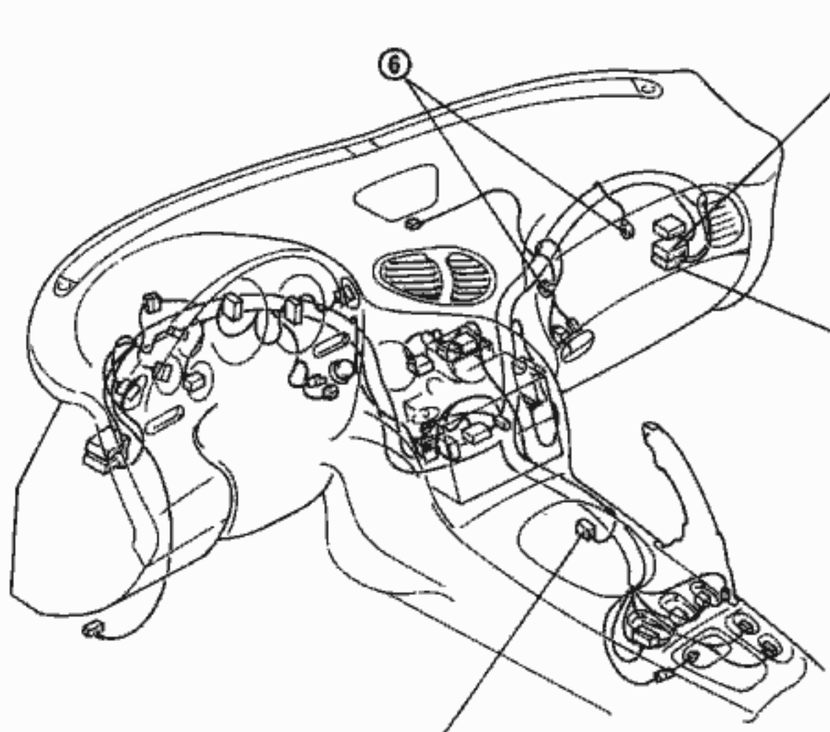
X-17
(D)-(I)
(BLUE)

X-08
(F)-(D)

J4-02
KEY INTERLOCK
SOLENOID

H2-01
KEY INTERLOCK
RESISTOR

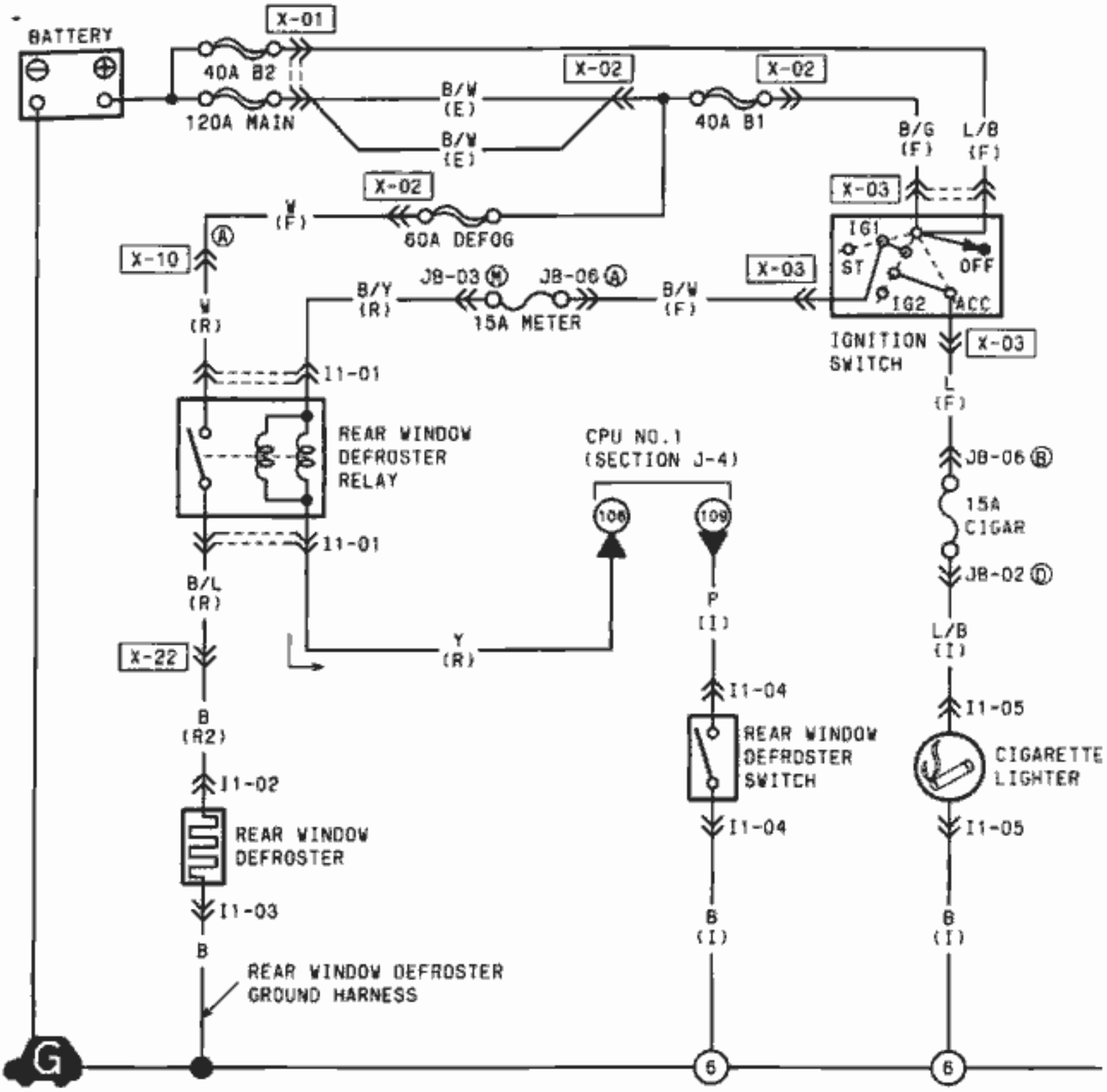
(BLUE)
(D)-(I)
X-16



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

H1-07
SHIFT-LOCK
CONTROL
UNIT

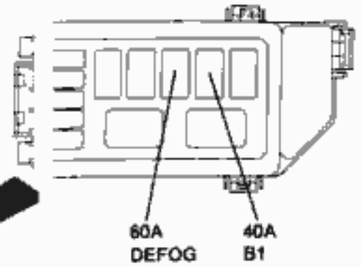
I-1 ■ REAR WINDOW DEFROSTER ■ CIGARETTE LIGHTER

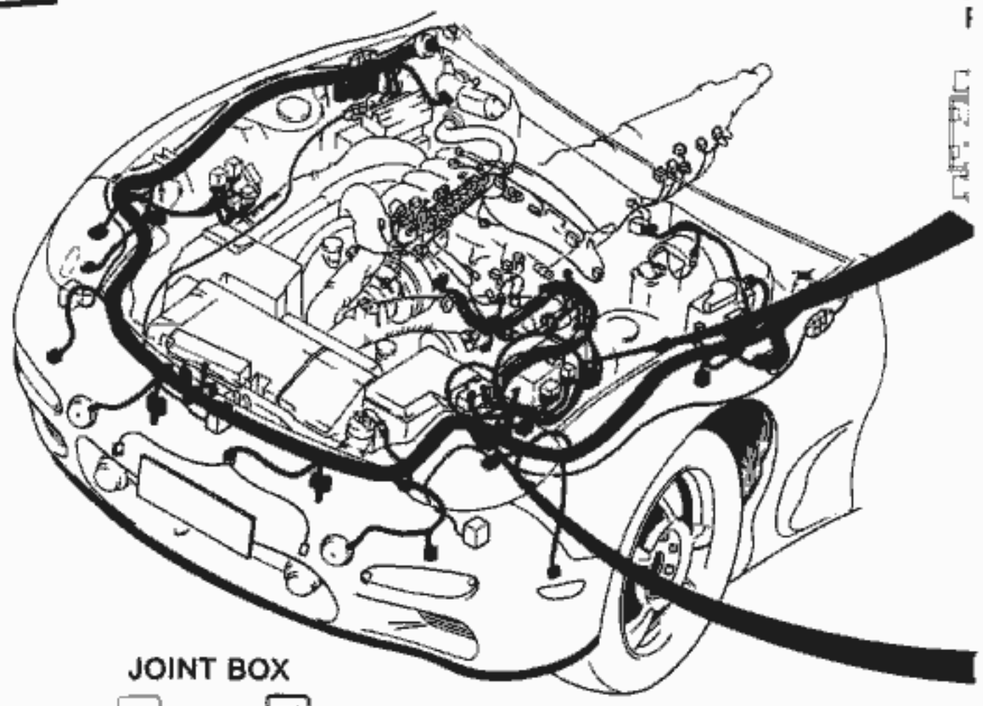


I1-01 REAR WINDOW DEFROSTER RELAY (R) B/L B/Y W Y	I1-02 REAR WINDOW DEFROSTER (R2) B	I1-03 REAR WINDOW DEFROSTER GROUND HARNESS B	I1-04 REAR WINDOW DEFROSTER SWITCH (I) * B R/B * P R/G
I1-05 CIGARETTE LIGHTER (I) L/B B			

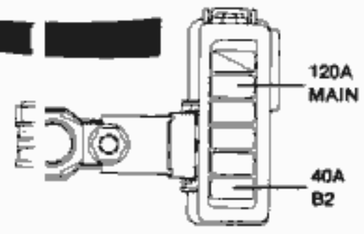
I-1

-02
ELAY & FUSE BLOCK

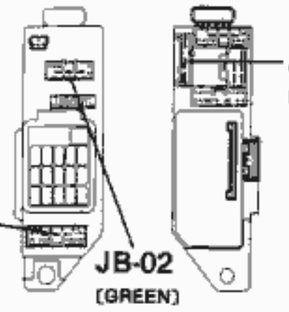




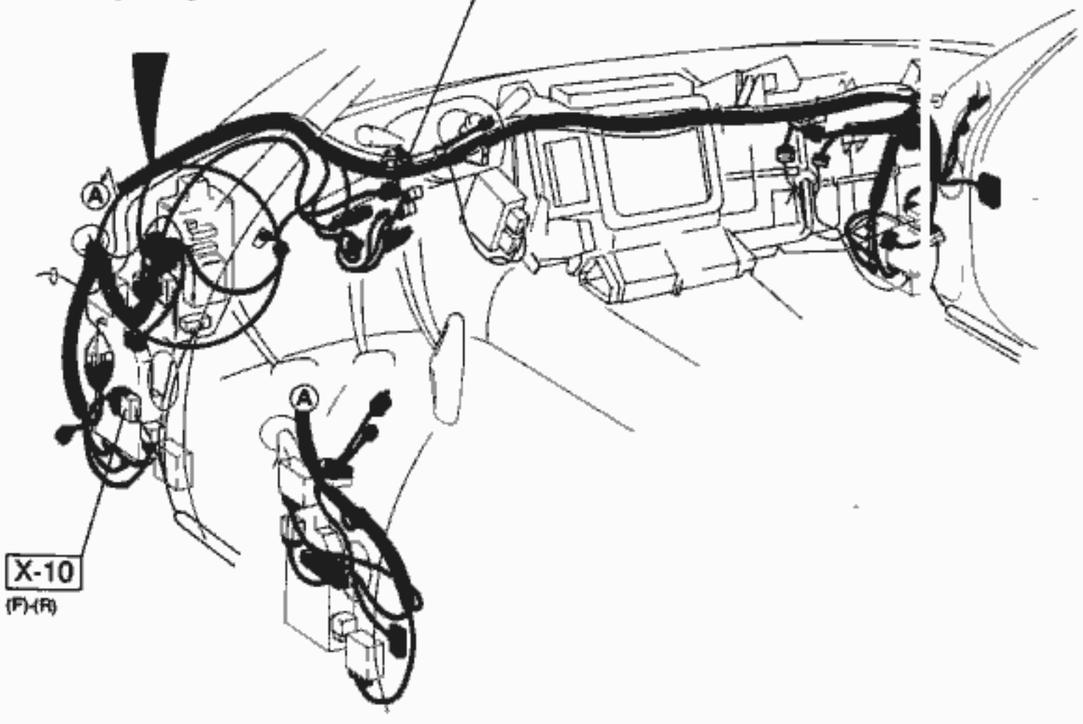
X-01
MAIN FUSE BLOCK

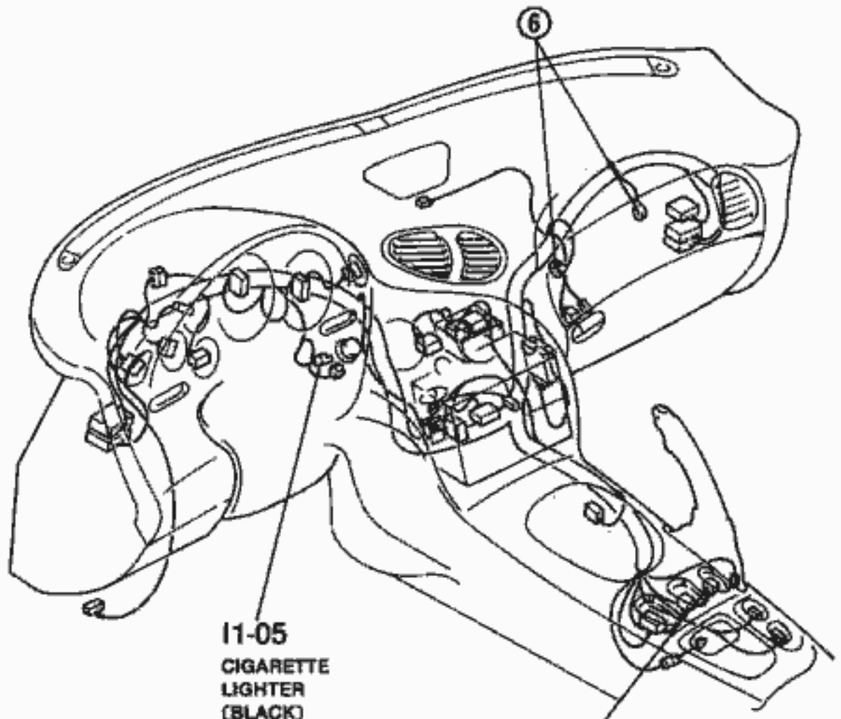


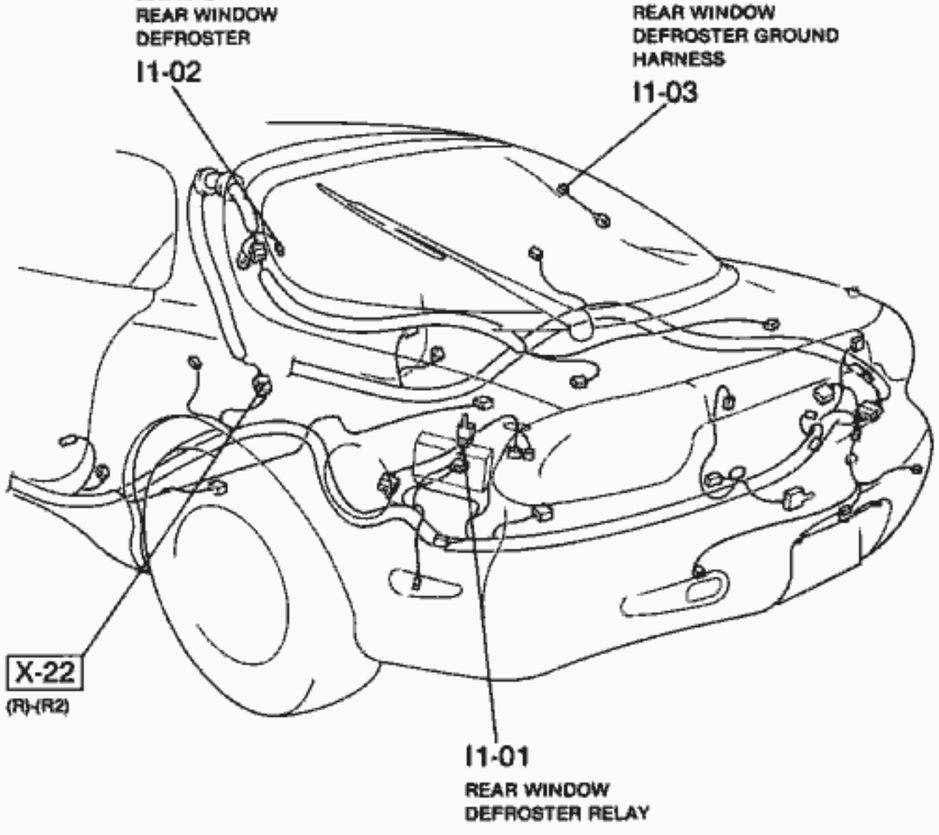
JOINT BOX



IGNITION SWITCH
X-03

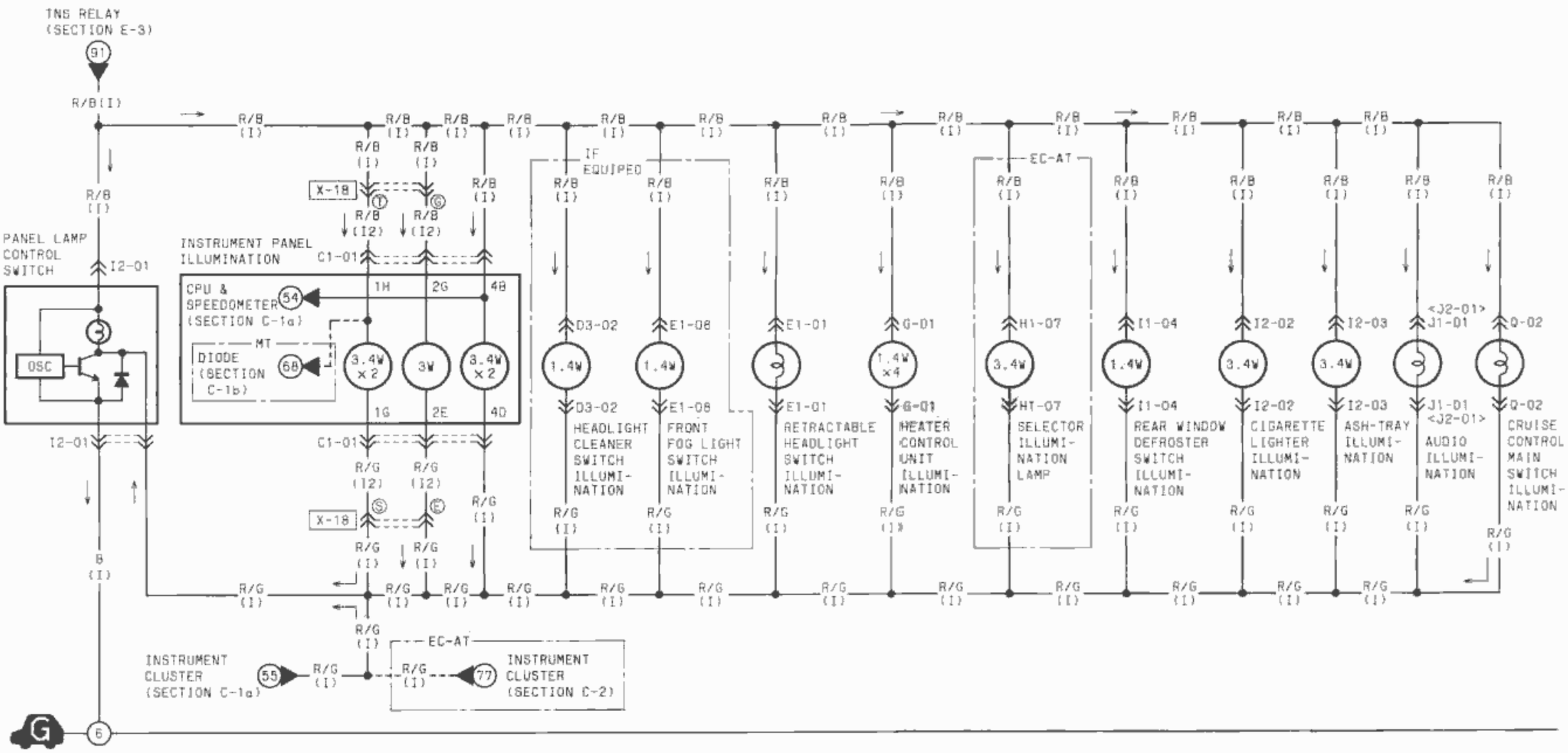


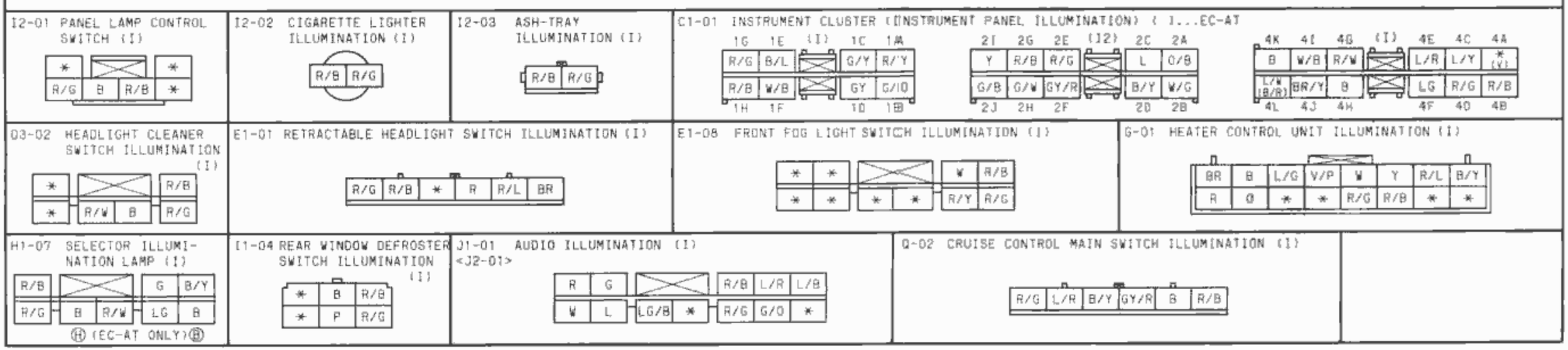




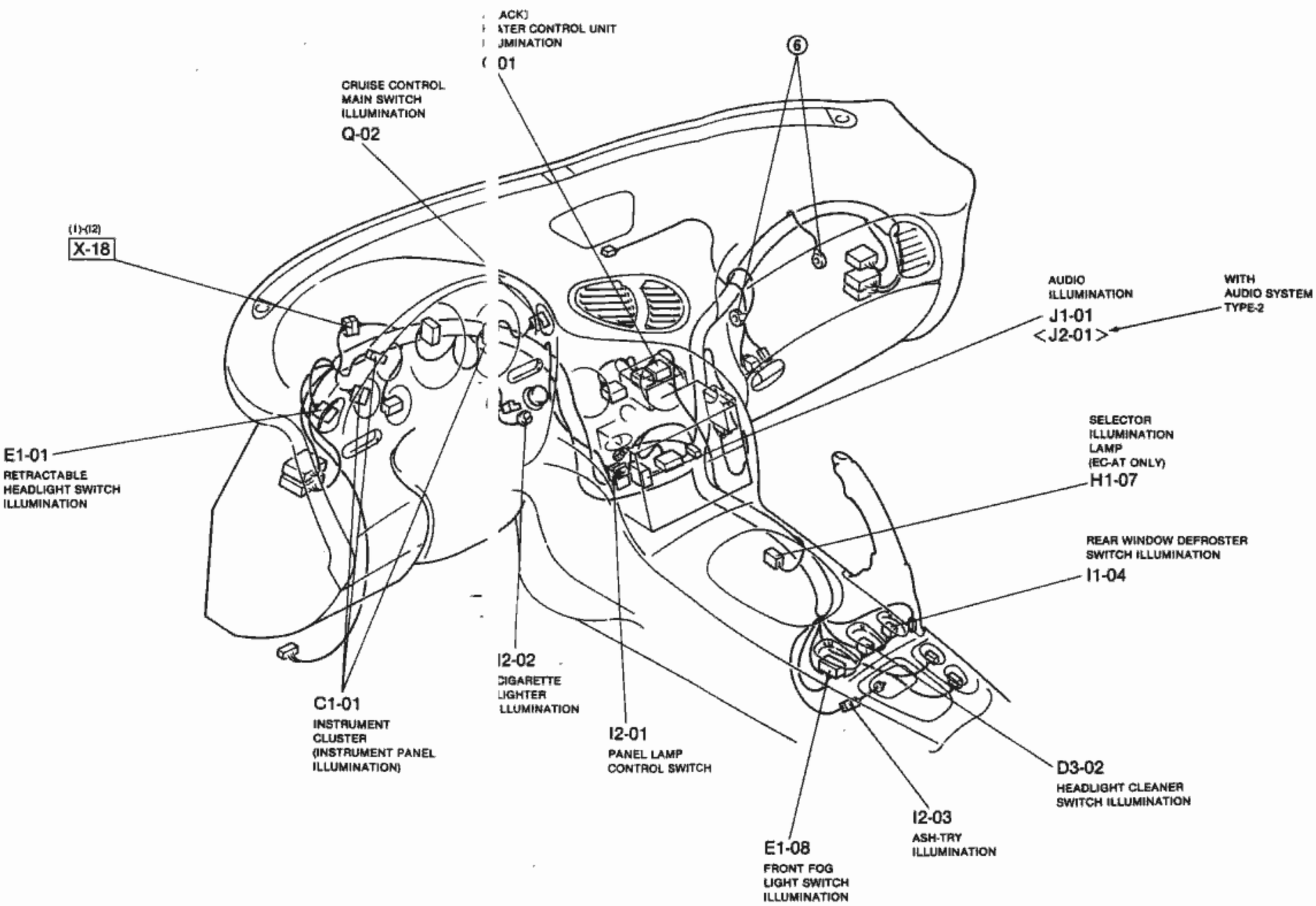
I-2 ■ ILLUMINATION LAMPS

< >...WITH AUDIO SYSTEM TYPE-2

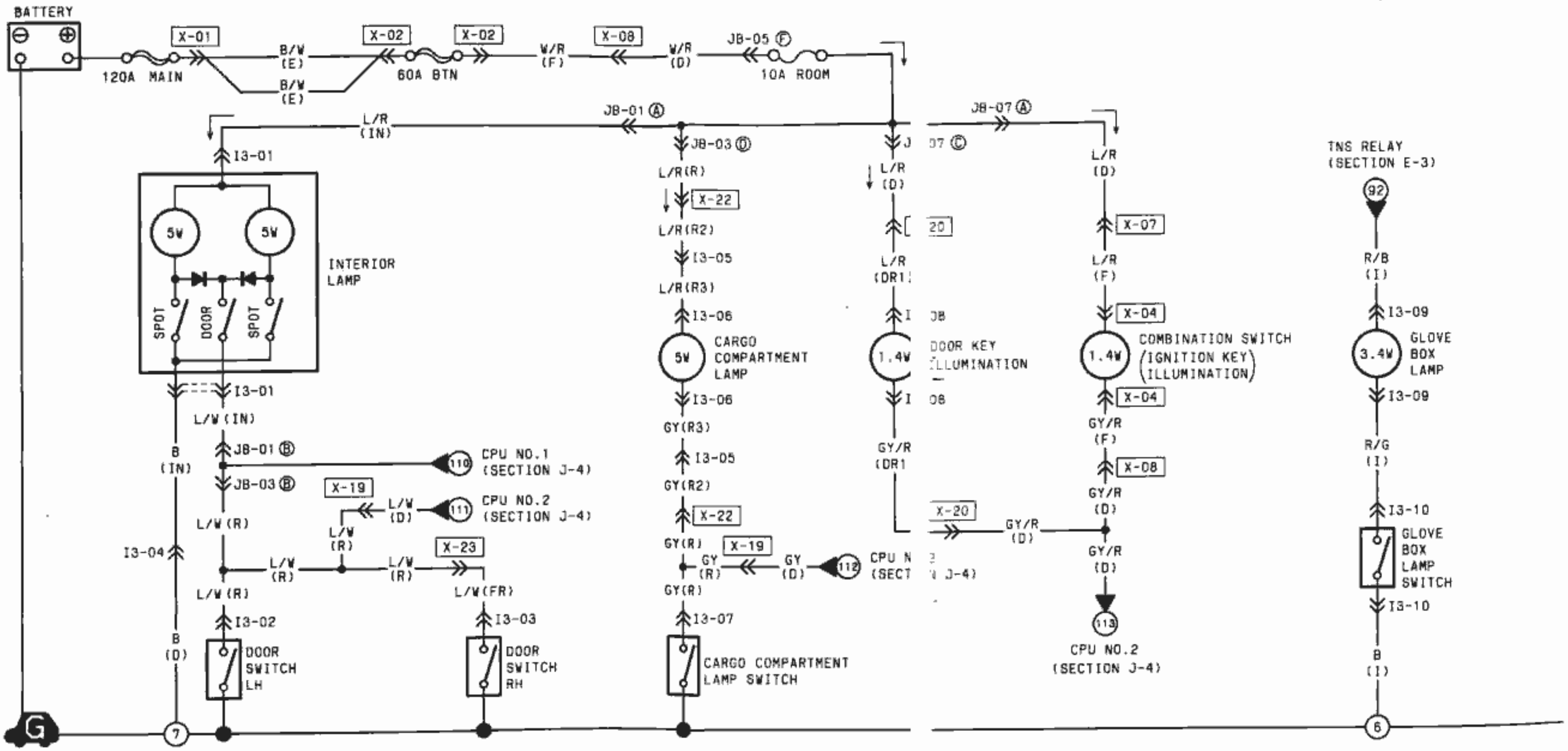




I-2


ACK)
ATER CONTROL UNIT
JMINATION
01
CRUISE CONTROL
MAIN SWITCH
ILLUMINATION
Q-02
(1)-(12)
X-18
6
AUDIO
ILLUMINATION
J1-01
<J2-01>
WITH
AUDIO SYSTEM
TYPE-2
E1-01
RETRACTABLE
HEADLIGHT SWITCH
ILLUMINATION
SELECTOR
ILLUMINATION
LAMP
(EC-AT ONLY)
H1-07
REAR WINDOW DEFROSTER
SWITCH ILLUMINATION
I1-04
I2-02
CIGARETTE
LIGHTER
ILLUMINATION
C1-01
INSTRUMENT
CLUSTER
(INSTRUMENT PANEL
ILLUMINATION)
I2-01
PANEL LAMP
CONTROL SWITCH
D3-02
HEADLIGHT CLEANER
SWITCH ILLUMINATION
I2-03
ASH-TRY
ILLUMINATION
E1-08
FRONT FOG
LIGHT SWITCH
ILLUMINATION

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



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)	05 CONNECTOR BETWEEN REAR NO.2 (R2) & REAR NO.3 (R3) ( )...WITH REAR WIPER & WASHER
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)	I3-06 CARGO COMPARTMENT LAMP (R3)

I-3

X-02
RELAY & FUSE BLOCK

60A
BTN

INTERIOR LAMP
I3-01

I3-09
GLOVE BOX
LAMP

I3-10
GLOVE BOX
LAMP SWITCH

X-01
MAIN FUSE BLOCK

DOOR KEY
ILLUMINATION
I3-08

I3-04
(D)-(IN)
(GREEN)

X-20
(D)-(DR1)

X-19
(D)-(R)

JOINT BOX

JB-01
(GREEN)

JB-05

JB-07

120A
MAIN

JB-03
(GREEN)

(BLUE)
COMBINATION SWITCH
(IGNITION KEY ILLUMINATION)

X-04

(F)-(D)
X-07

(F)-(D)
X-08

X-19
(D)-(R)

I3-04
(D)-(IN)
(GREEN)

X-20
(D)-(DR1)

(BLACK)
DOOR
SWITCH RH
I3-03

(R2)-(R3)
I3-05

CARGO COMPARTMENT
LAMP
I3-06

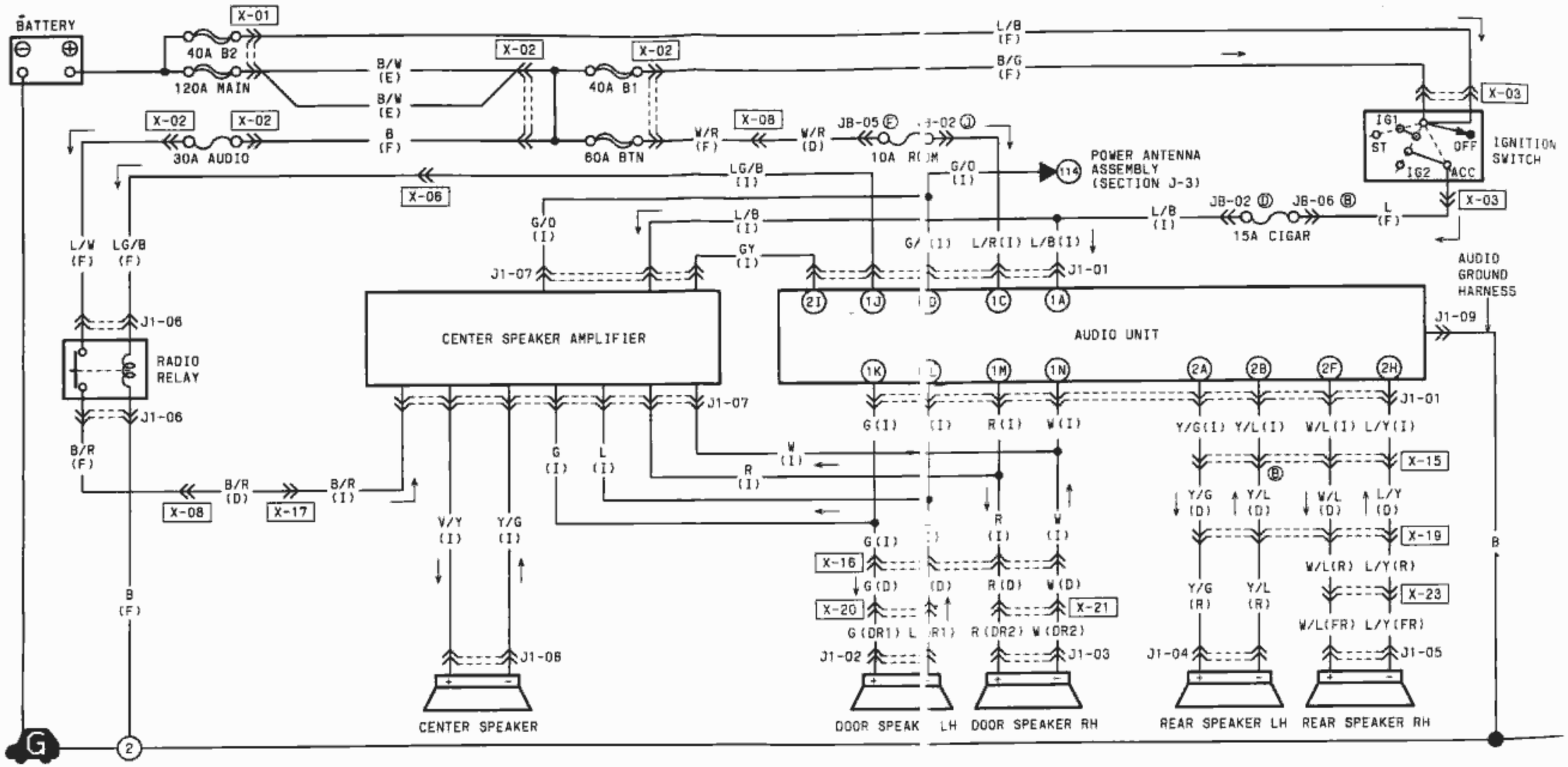
I3-02
DOOR SWITCH
LH
(BLACK)

X-22
(R)-(R2)

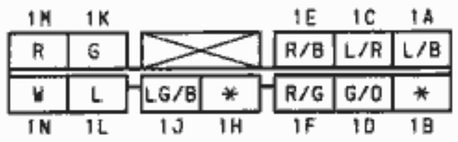
X-23
(R)-(FR)

I3-07
CARGO COMPARTMENT
LAMP SWITCH

J-1 ■ AUDIO SYSTEM TYPE-1



J1-01 AUDIO UNIT (I)

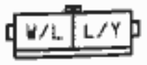


J1-02 DOOR SPEAKER LH(DR1)

J 03 DOOR SPEAKER RH(DR2)

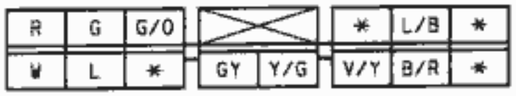
J1-04 REAR SPEAKER LH (R)

J1-05 REAR SPEAKER RH (F



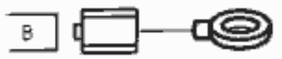
J1-06 RADIO RELAY (F)

J1-07 CENTER SPEAKER AMPLIFIER (I)



J1-08 CENTER SPEAKER (I)

J 09 AUDIO GROUND HARNESS



J-1

RELAY BOX

J1-06
RADIO
RELAY

X-01
MAIN FUSE
BLOCK

120A
MAIN

40A
B2

JOINT BOX

JB-02
(GREEN)

JB-05
JB-06
(BLACK)

IGNITION
SWITCH

X-03

(D)-(R)
X-19

X-06
(D)-(I)
(BLUE)

X-08
(F)-(D)

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

X-20
(D)-(DR1)

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

X-06
(D)-(I)
(BLUE)

X-16
(D)-(I)
(BLUE)

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

X-21
(D)-(DR2)

-02
ELAY & FUSE BLOCK

30A
AUDIO

40A
B1

60A
BTN

CENTER SPEAKER
J1-08

(BLUE)
(D)-(I)
X-16

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

J1-07
CENTER SPEAKER
AMPLIFIER

J1-09
AUDIO GROUND
HARNESS

J1-01
AUDIO
UNIT

DOOR SPEAKER
RH
J1-03

(D)-(DR2)
X-21

J1-02
DOOR SPEAKER
LH

X-20
(D)-(DR1)

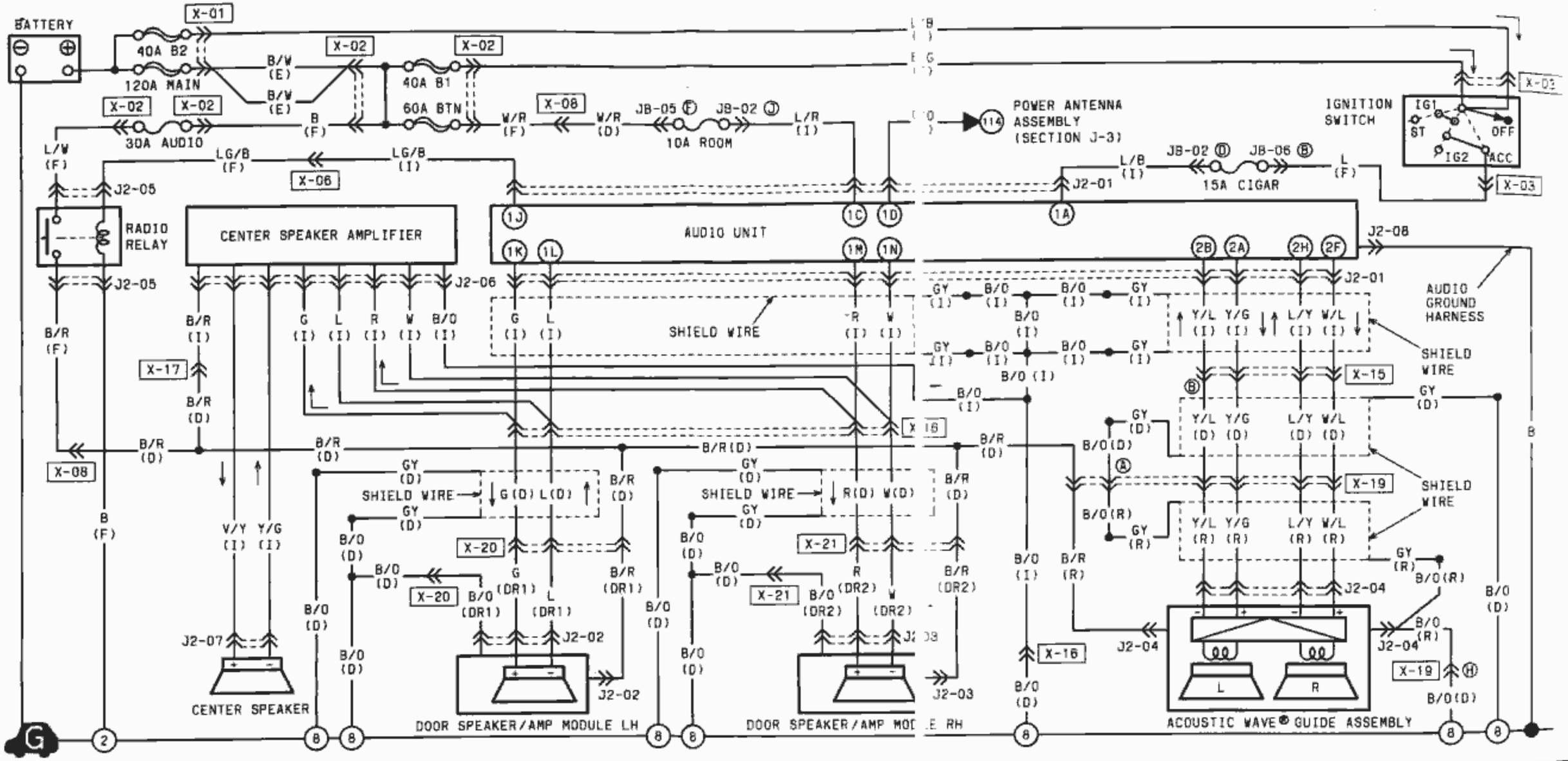
X-19
(D)-(R)

REAR SPEAKER RH
J1-05

J1-04
REAR
SPEAKER LH

X-23
(R)-(FR)

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



J2-01 AUDIO UNIT (I)

1M	1K		1E	1C	1A
R	G		R/B	L/R	L/B
W	L	LG/B	R/G	G/O	*
1N	1L	1J 1H	1F	1D	1B

2I		2C	2A
*		*	Y/G
*	L/Y W/L	*	Y/L
2J	2H 2F	2D	2B

J2-02 DOOR SPEAKER/ AMP MODULE LH (DR1)

L	B/R
G	B/O

J3 DOOR SPEAKER/ AMP MODULE RH (DR2)

W	B/R
R	B/O

J2-04 ACOUSTIC WAVE® GUIDE ASSEMBLY (R)

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

J2-05 RADIO RELAY (F)

B/R	L/W	LG/B
*	*	B

J2-06 CENTER SPEAKER AMPLIFIER (I)

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

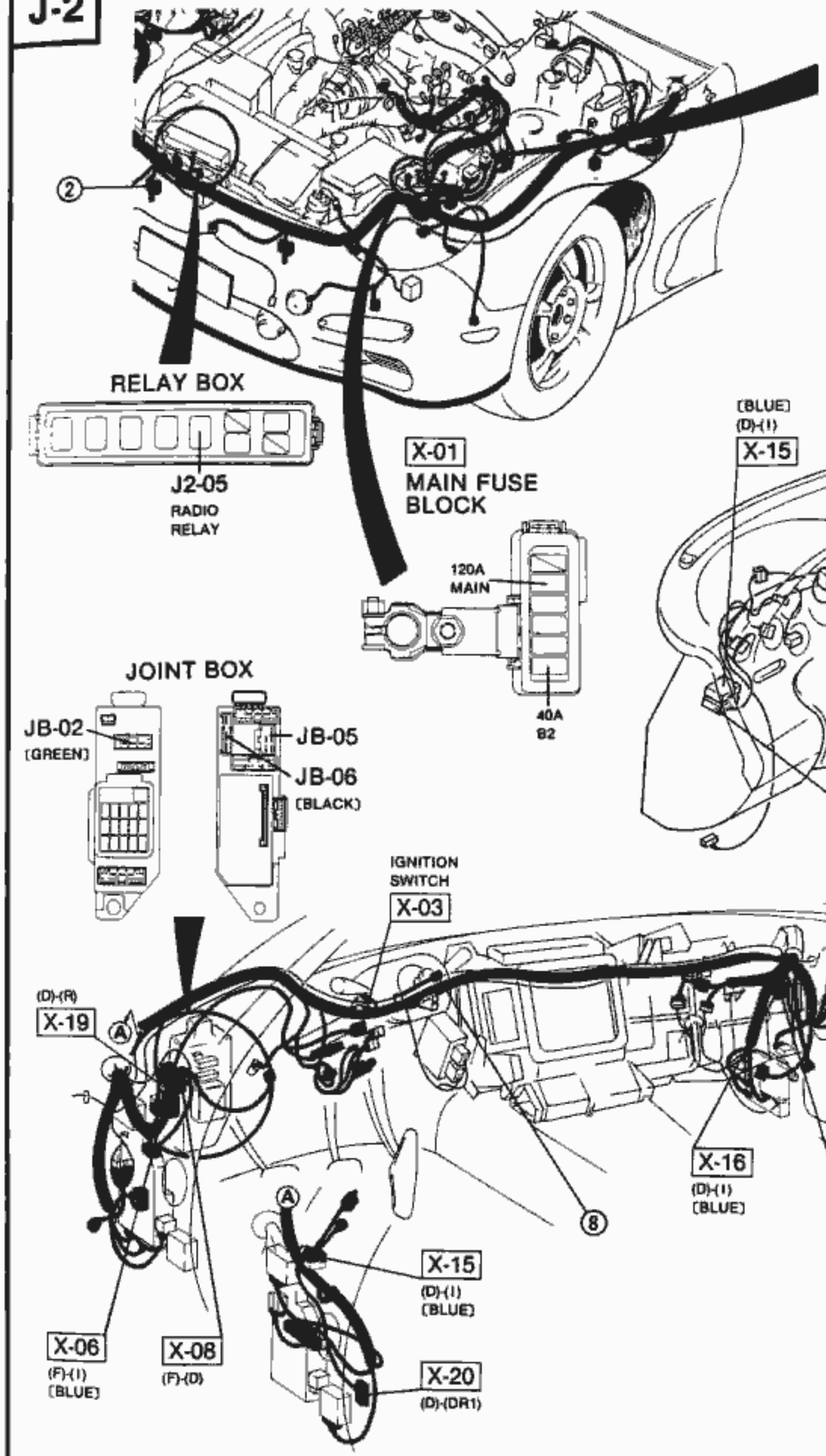
J2-07 CENTER SPEAKER (I)

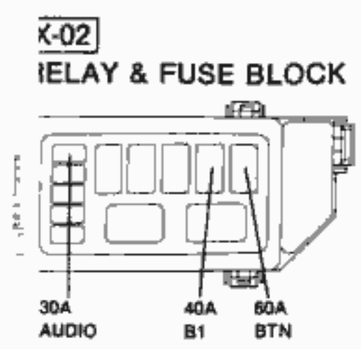
V/Y	Y/G

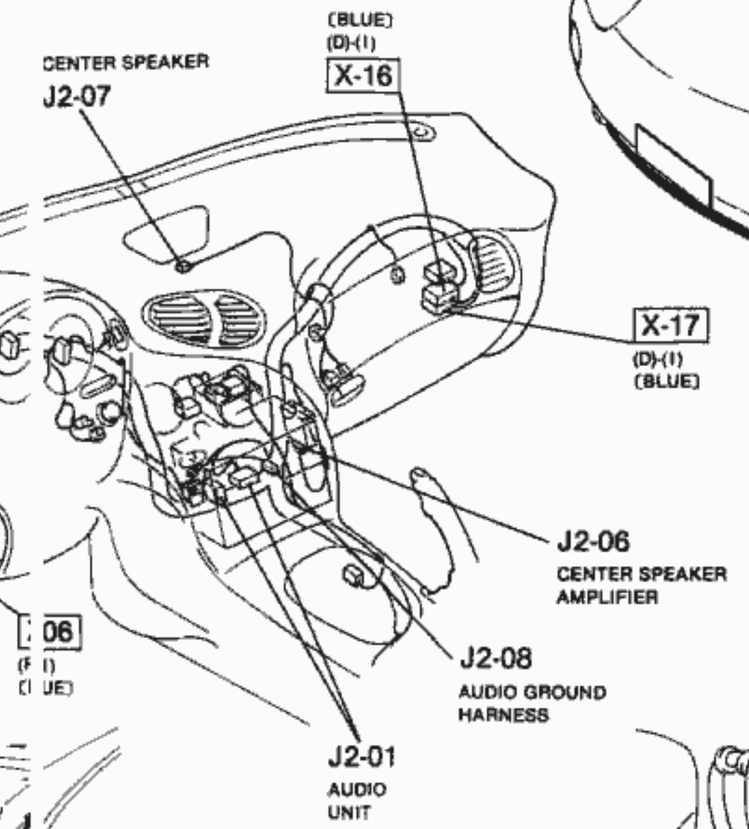
J2-08 AUDIO GROUND HARNESS

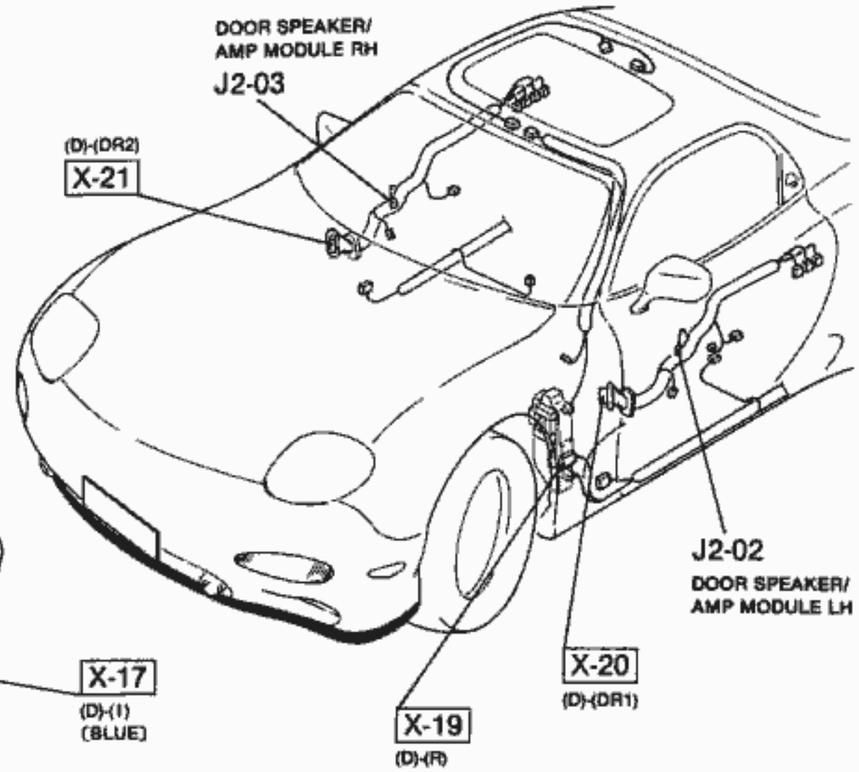
B

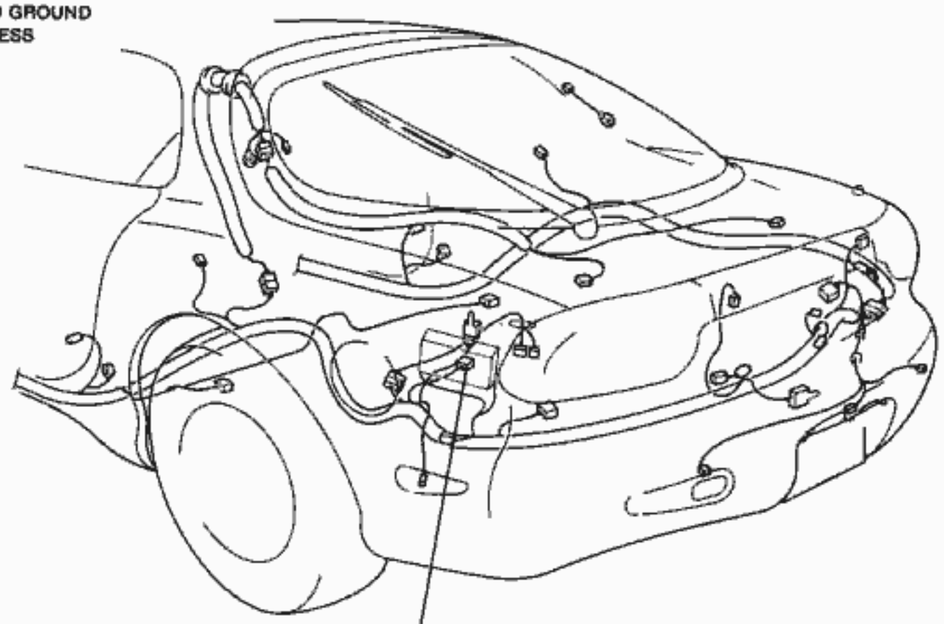
J-2


②
RELAY BOX
J2-05
RADIO
RELAY
X-01
MAIN FUSE
BLOCK
120A
MAIN
40A
B2
JOINT BOX
JB-02
(GREEN)
JB-05
JB-06
(BLACK)
IGNITION
SWITCH
X-03
(D)-(R)
X-19
Ⓐ
X-06
(F)-(I)
(BLUE)
X-08
(F)-(D)
X-15
(D)-(I)
(BLUE)
X-20
(D)-(DR1)
⑧
X-16
(D)-(I)
(BLUE)
X-21
(D)-(DR2)
X-17
(D)-(I)
(BLUE)

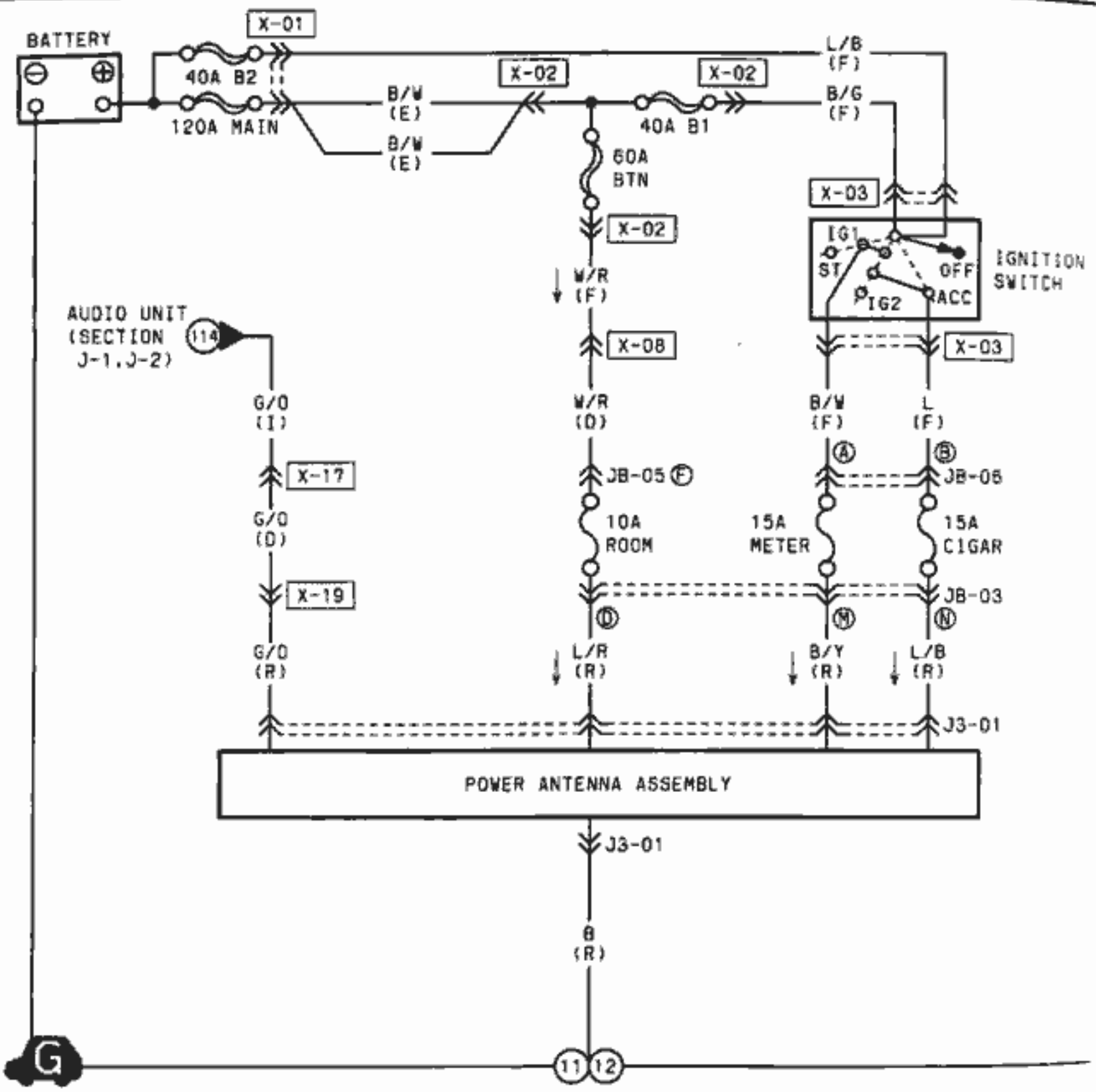

X-02
RELAY & FUSE BLOCK
30A
AUDIO
40A
B1
60A
BTN


CENTER SPEAKER
J2-07
(BLUE)
(D)-(I)
X-16
X-17
(D)-(I)
(BLUE)
J2-06
CENTER SPEAKER
AMPLIFIER
J2-08
AUDIO GROUND
HARNESS
J2-01
AUDIO
UNIT

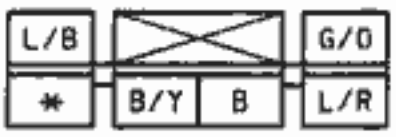

DOOR SPEAKER/
AMP MODULE RH
J2-03
(D)-(DR2)
X-21
J2-02
DOOR SPEAKER/
AMP MODULE LH
X-20
(D)-(DR1)
X-19
(D)-(R)


J2-04
ACOUSTIC WAVE®
GUIDE ASSEMBLY
(BLACK)

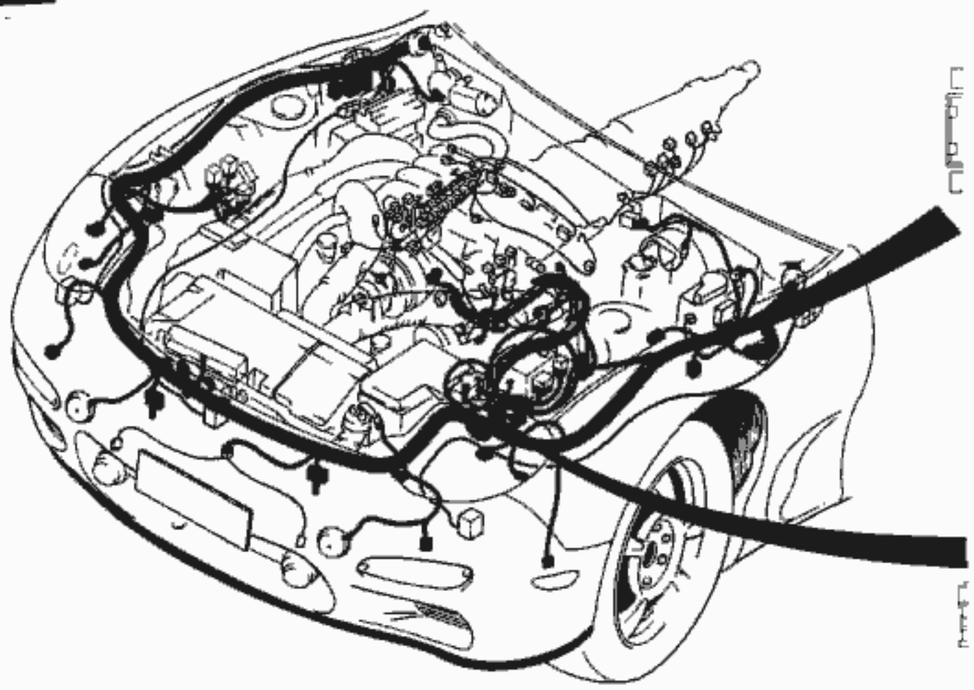
J-3 ■ POWER ANTENNA



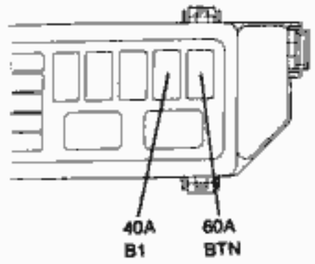
J3-01 POWER ANTENNA ASSEMBLY (R)



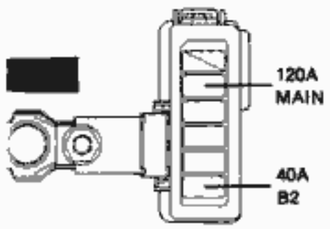
J-3

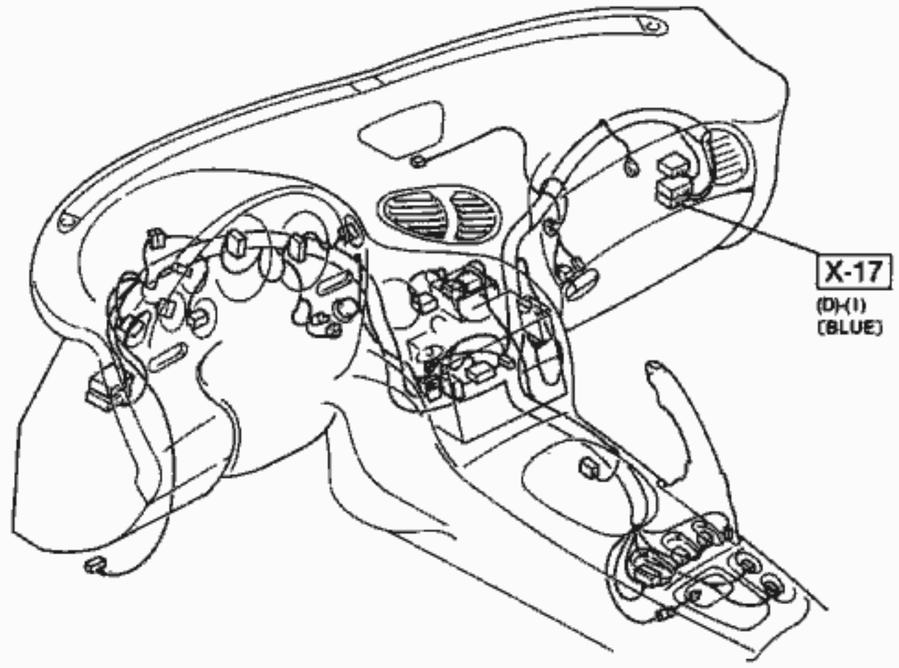


-02
ELAY & FUSE BLOCK

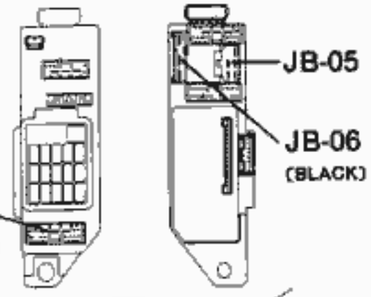


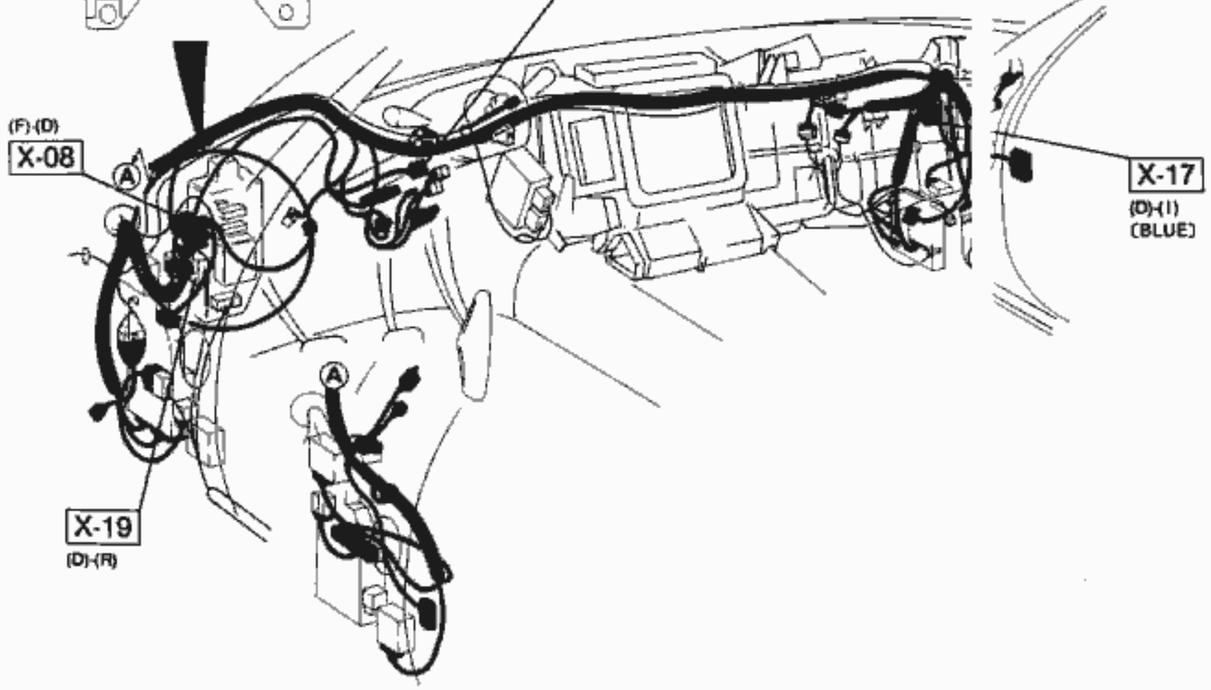
X-01
MAIN FUSE BLOCK

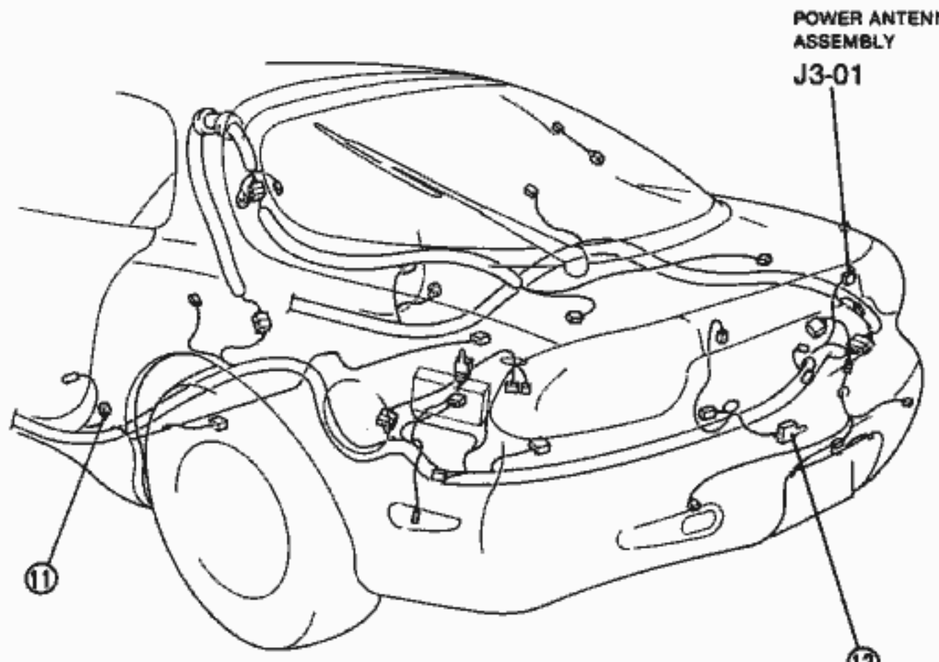




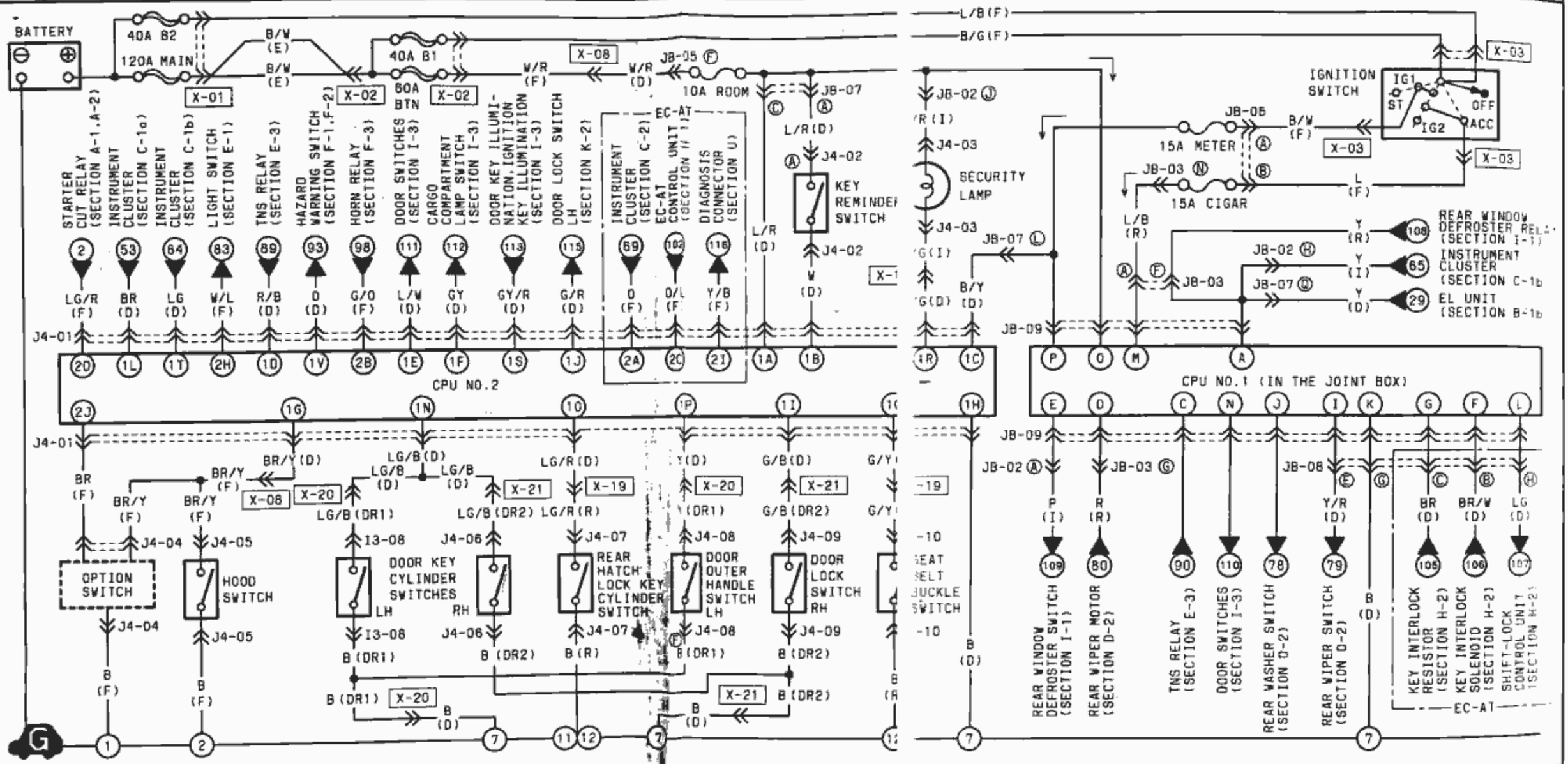
JOINT BOX







J-4 ■ CENTRAL PROCESSING UNIT(CPU) ■ THEFT-DETERRENT CON ROL SYSTEM



J4-01 CPU NO.2 ( )...EC-AT

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

J4-02 KEY REMINDER SWITCH (D)

Ⓐ	L/R	* (L/R)	* (BR/W)	W
Ⓑ				

( )...EC-AT

J4-03 SECURITY LAMP (I)

*	V/G	L/R

J4-04 OPTION SWITCH (F)

BR
B	BR/Y

J4-05 HOOD SWITCH (F)

BR/Y	B

J4-06 DOOR KEY CYLINDER SWITCH RH (DR2)

B	LG/B

J4-07 REAR HATCH LOCK KEY CYLINDER SWITCH (R)

LG/R	*	B

J4-08 DOOR OUTER HANDLE SWITCH LH (DR1)

Ⓕ	Y	G/R	B	Ⓐ
	B	*	G/Y	

J4-09 DOOR LOCK SWITCH RH (DR2)

G/B	O
B	G

O SEAT BELT BUCKLE SWITCH (R)

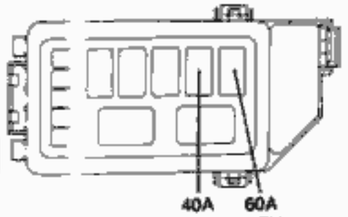
B
G/Y

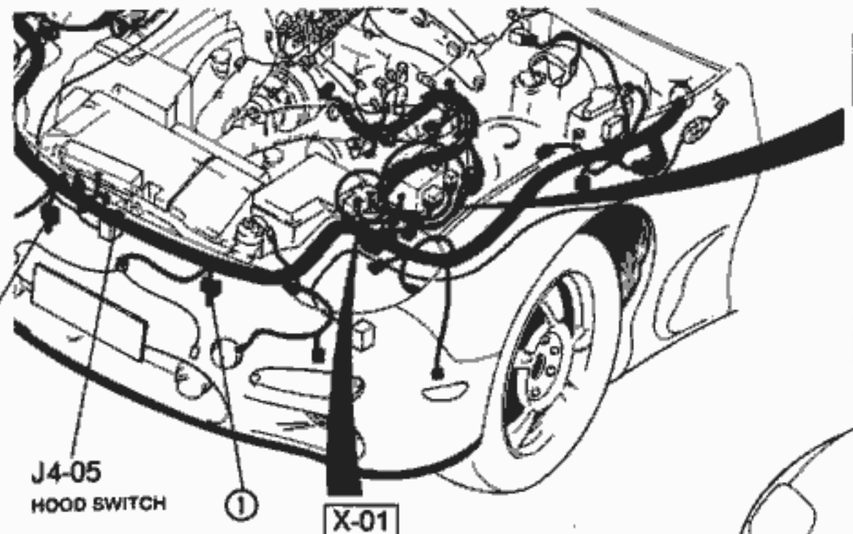
I3-08 DOOR KEY CYLINDER SWITCH LH (DR1)

GY/R	L/R
B	LG/B

J-4

X-0:
REL Y & FUSE BLOCK

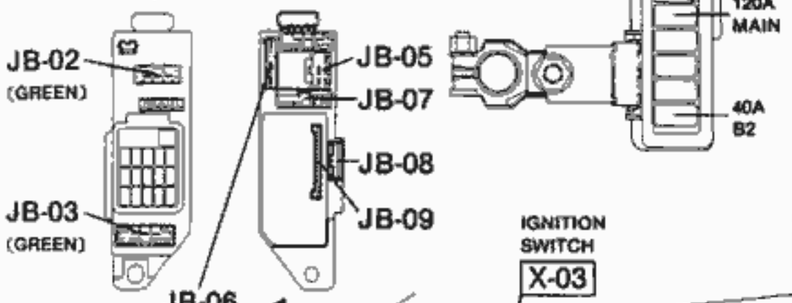




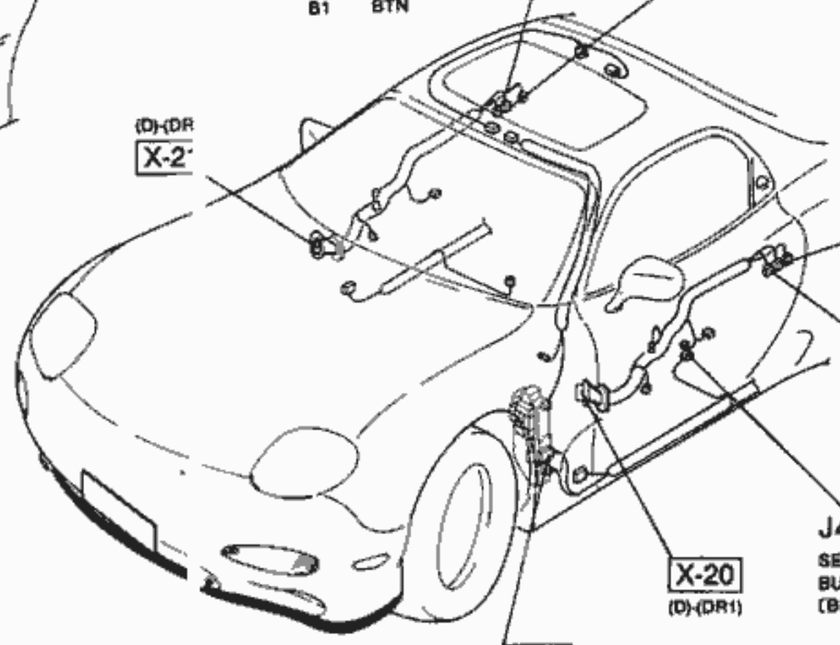
J4-05
HOOD SWITCH

X-01
MAIN FUSE BLOCK

JOINT BOX



(D)-(DR
X-2



DOOR KEY CYLINDER SWITCH RH
J4-06

DOOR LOCK SWITCH RH
J4-09

DOOR OUTER HANDLE SWITCH LH
J4-08

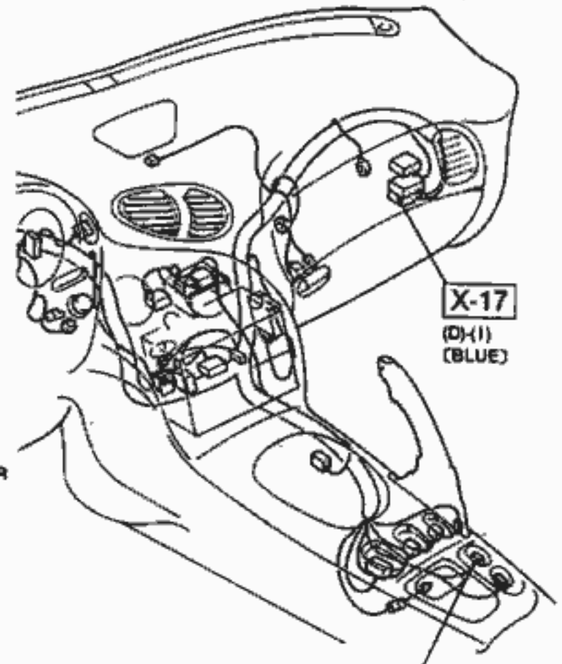
I3-08
DOOR KEY CYLINDER SWITCH LH

J4-10
SEAT BELT BUCKLE SWITCH (BLACK)

X-20
(D)-(DR1)

X-19
(D)-(R)

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

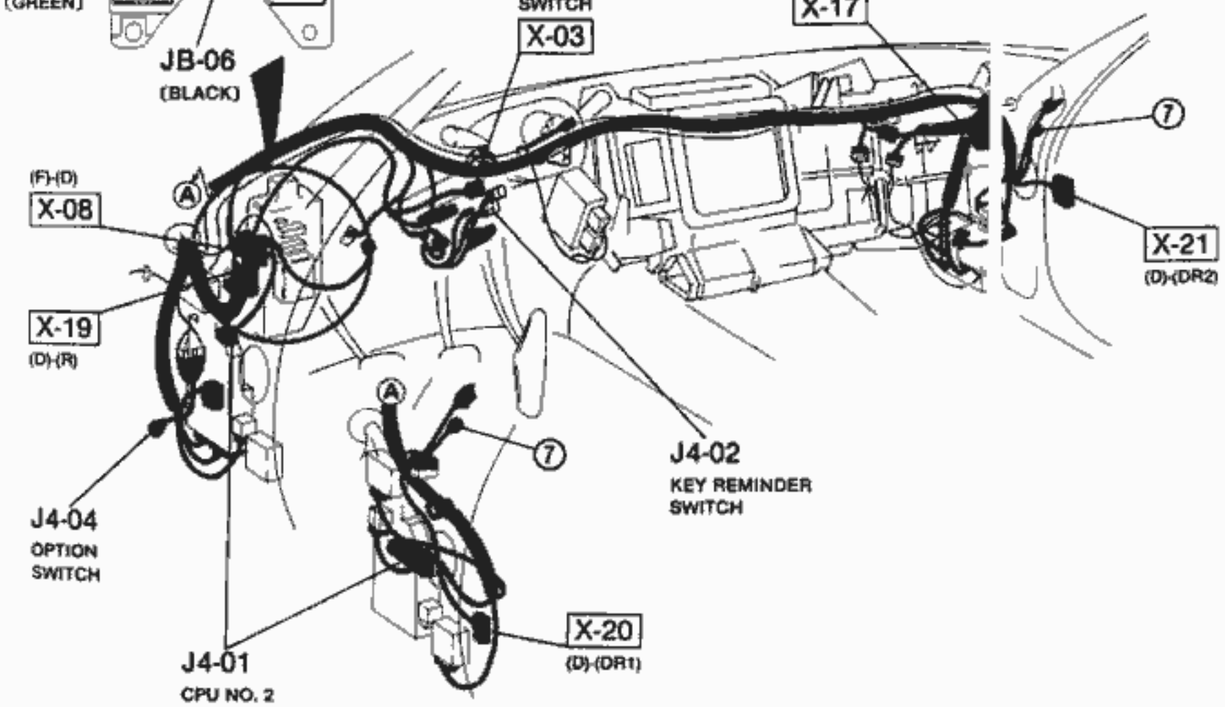


X-17
(D)-(I)
(BLUE)

J4-03
SECURITY LAMP

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

IGNITION SWITCH
X-03



X-21
(D)-(DR2)

(F)-(D)
X-08

X-19
(D)-(R)

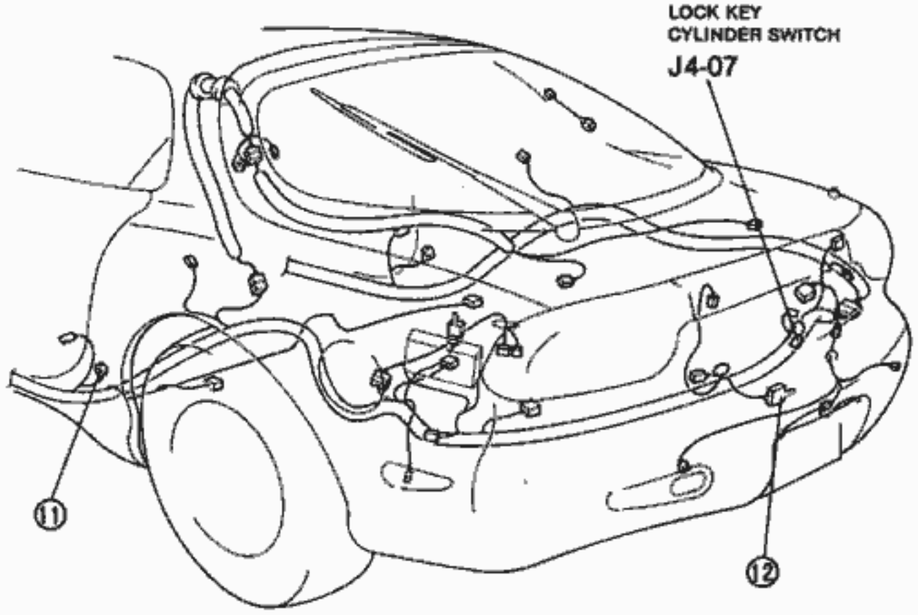
J4-02
KEY REMINDER SWITCH

J4-04
OPTION SWITCH

J4-01
CPU NO. 2

X-20
(D)-(DR1)

REAR HATCH LOCK KEY CYLINDER SWITCH
J4-07



J-4

CPU No.1 Input signal
Remove the CPU No.1 when inspecting the terminals of CPU No.1 connector (16-pin). Inspection of the remaining terminals can be done without removing the CPU.

Vs: Battery voltage

Terminal	Connected to	Test condition		Specification (V)
A	Rear window defroster relay	Ignition switch ON		Vs
B	NA	—		—
C	TNS relay	Light switch ON		Vs
		Other		0
D	Rear wiper motor	Ignition switch ON		Vs
E	Rear window defroster switch	Ignition switch ON	Rear window defroster switch ON	0
			Other	Vs
F	Interlock solenoid coil (For AT)	Ignition switch ACC or ON	Shift transmission to P range	Vs
			After 2 to 3 seconds	0
		Other		0
G	Interlock resistor (For AT)	Ignition switch ACC	Shift transmission to P range	Vs
			After 0.9 to 1 hour	0
		Ignition switch ON	Shift transmission to P range	Vs
		Other		0
H	NA	—		—
I	Rear wiper and rear washer switch	Rear wiper switch OFF		Vs
		Rear wiper switch ON		0
J	Rear washer motor	Ignition switch ON		Vs
K	Body ground	Constant		0
L	P-range switch (For AT)	Ignition switch ACC	Shift transmission to P range	Vs
			After 0.9 to 1 hour	0
		Ignition switch ON	Shift transmission to P range	Vs
		Other		0
M	Ignition switch	Ignition switch ACC		Vs
N	Door switch (driver or passenger)	Driver or Passenger door closed		Vs
		Driver or Passenger door open		0
O	Battery	Constant		Vs
P	Ignition switch	Ignition switch ON		Vs

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CPU No.2 Input signal
Check the terminal voltage with the CPU No.2 connected.

Vs: Battery voltage

Connector	Terminal	Connected to	Test condition		Specification (V)
A (20-pin)	1	Battery	Constant		Vs
	1	Ignition key reminder switch	Ignition key in ignition switch		Vs
	1	Ignition switch	Ignition switch ON		Vs
	1	TNS relay	Headlight switch ON		Vs
	1	Door switch (driver or passenger)	Driver or passenger door open; check for continuity to body ground		Yes
			Driver or passenger door closed; check for continuity to body ground		No
	1	Cargo compartment lamp switch	Rear hatch open; check for continuity to body ground		Yes
			Rear hatch closed; check for continuity to body ground		No
	1	Hood switch	Hood switch ON		0
	1	Body ground	Constant		0
		Lock link switch (driver side)	Locked		Approx. 5
			Unlocked		0
		Lock link switch (passenger side)	Locked		Vs
			Unlocked		0
	1	Instrument cluster	Ignition switch ON		Vs
	1	Door key cylinder switch (driver or passenger side)	Unlocked		0
			Other		5
	1	Rear hatch lock key cylinder switch	Rear hatch lock key cylinder switch ON		0
		Outer door handle switch	Outer door handle pulled		0
			Other		Approx. 4
		Buckle switch	Ignition switch ON	Seat belt connected	0
				Other	Vs
		Security lamp	Constant		Vs
		Ignition and door key illumination	Constant		Vs
		Seat belt warning lamp	For 4 to 8 seconds from ignition switch ON		0
			Other (ignition switch ON)		Vs
		NA	—		—
		Hazard	Hazard warning switch ON		0
			Hazard warning switch OFF		Vs
B (8-pin)		HOLD indicator lamp	Ignition switch ON	HOLD switch ON	0
				Other	Vs
		Horn relay	Constant		Vs
		EC-AT control unit	Ignition switch ON	HOLD switch ON	0
				Other	Vs
		Starter cut relay	Ignition switch ON		Vs
		NA	—		—
		Headlight relay	Constant		Vs
		Diagnosis connector	—		—
		Option switch	Option switch ON		0
			Other		Vs
C (7-pin)		Turn signal light (right)	Ignition switch ON	Turn signal switch ON (right)	3—7
				Other	0
		Body ground	Constant		0
		Turn signal switch (right)	Ignition switch ON	Turn signal switch ON (right)	Vs
				Other	0

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J-4

Cont'd

: Battery voltage

Connector	Terminal	Connected to	Test condition		Specification (V)
C (7-pin)	3D	Turn signal switch (left)	Ignition switch ON	Turn signal switch ON (left)	Va
				Other	0
	3F	Battery voltage	Constant		Va
	3G	Hazard warning switch	Hazard warning switch ON		0
			Other		Va
	3H	Turn signal light (left)	Ignition switch ON	Turn signal switch ON (left)	3—7
				Other	0
D (10-pin)	4A	Body ground	Constant		0
	4B	Headlight relay	Headlight switch ON		Va
			Other		0
	4C	Parking brake switch	Parking brake lever pulled		0
			Other		Va
	4D	Brake fluid-level sensor	Ignition switch ON		Va
			Brake fluid-level sensor ON or parking brake switch ON		0
	4F	Turn signal light (right)	Ignition switch ON	Turn signal switch ON (right)	3—7
				Other	0
	4H	Turn signal light (left)	Ignition switch ON	Turn signal switch ON (left)	3—7
				Other	0
	4I	Front turn signal light (right)	Ignition switch ON	Turn signal switch ON (right)	3—7
				Headlight switch OFF	Va
				Headlight switch ON	0
	4J	NA	—		—
	4K	Front turn signal light (left)	Ignition switch ON	Turn signal switch ON (left)	3—7
				Headlight switch OFF	Va
				Headlight switch ON	0
	4L	Ignition switch	Ignition switch ON		Va

37U0TX-161

THEFT-DETERRENT SYSTEM

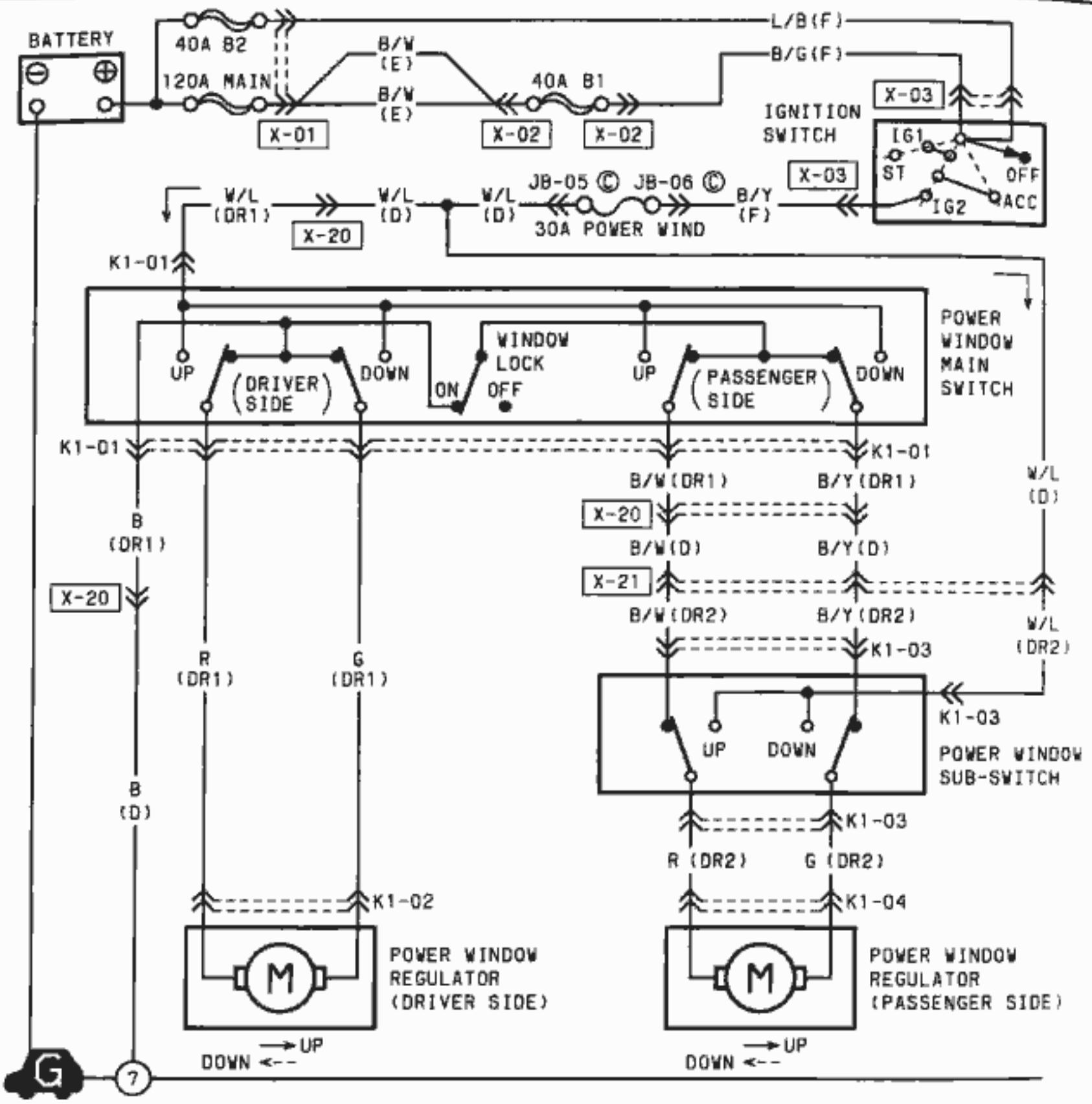
TERMINAL VOLTAGE LIST

CPU No.2 20-pin and 8-pin Connectors

Va: Battery voltage

Connector	Terminal	Connected to	Test condition		Specification (V)
A (20-pin)	1B	Ignition key reminder switch	Ignition key in ignition switch		Va
	1E	Door switch (driver or passenger side)	Continuity inspection	Door open	Yes
				Door closed	No
	1F	Cargo compartment lamp switch	Continuity inspection	Rear hatch open	Yes
				Rear hatch closed	No
	1G	Hood switch	Continuity inspection	Hood open	Yes
				Hood closed	No
	1I	Lock link switch (driver side)	Locked		Approx. 5
			Unlocked		0
	1J	Lock link switch (passenger side)	Locked		Va
			Unlocked		0
	1N	Door key cylinder switch (driver or passenger side)	Unlocked		0
			Other		5
	1O	Rear hatch lock key cylinder switch	Continuity inspection	Rear hatch lock key locked	No
				Rear hatch lock key unlocked	Yes
	1V	Hazard	Hazard warning switch ON		0
			Hazard warning switch OFF		Va
B (8-pin)	2B	Horn relay	Horn sounding		0
			Alarm		0
			Other		Va
	2D	Starter cut relay	Ignition switch ON		Va
			Ignition switch OFF		0

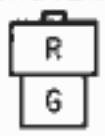
K-1 ■ POWER WINDOW



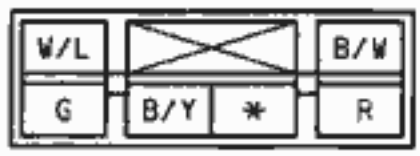
K1-01 POWER WINDOW MAIN SWITCH (DR1)

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

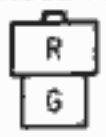
K1-02 POWER WINDOW REGULATOR (DRIVER SIDE) (DR1)



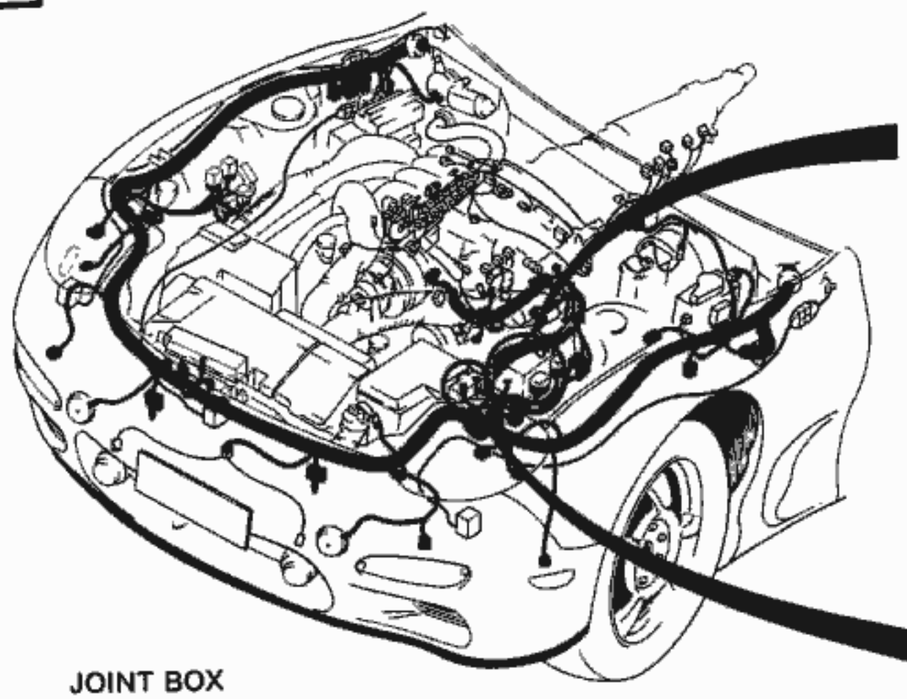
K1-03 POWER WINDOW SUB-SWITCH (DR2)



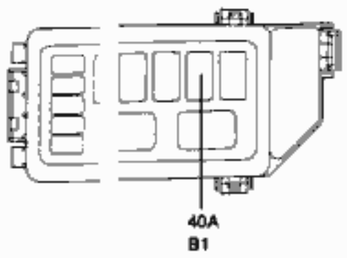
K1-04 POWER WINDOW REGULATOR (PASSENGER SIDE) (DR2)



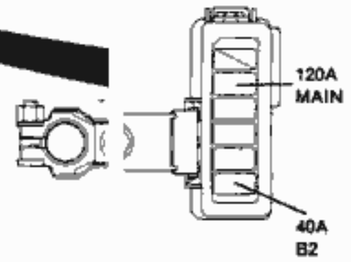
K-1



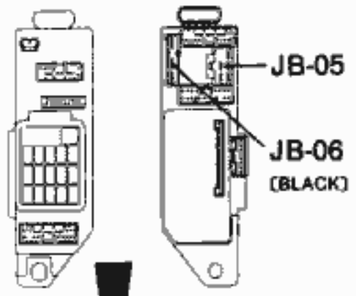
X-02
RELA' & FUSE BLOCK

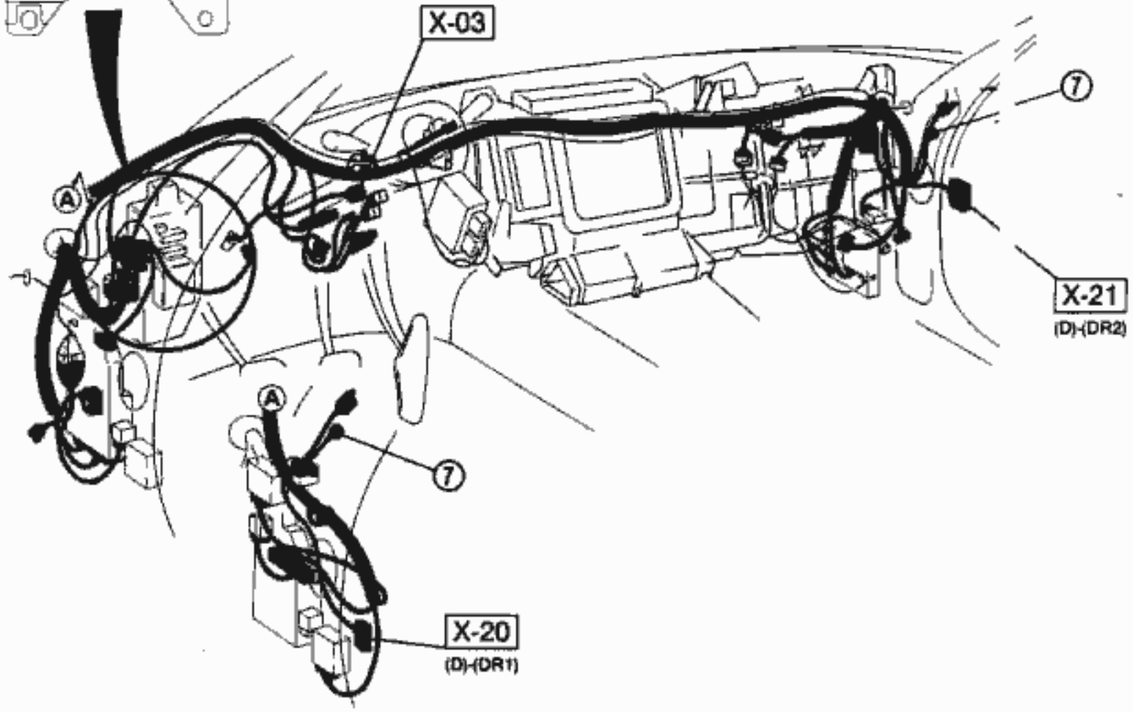


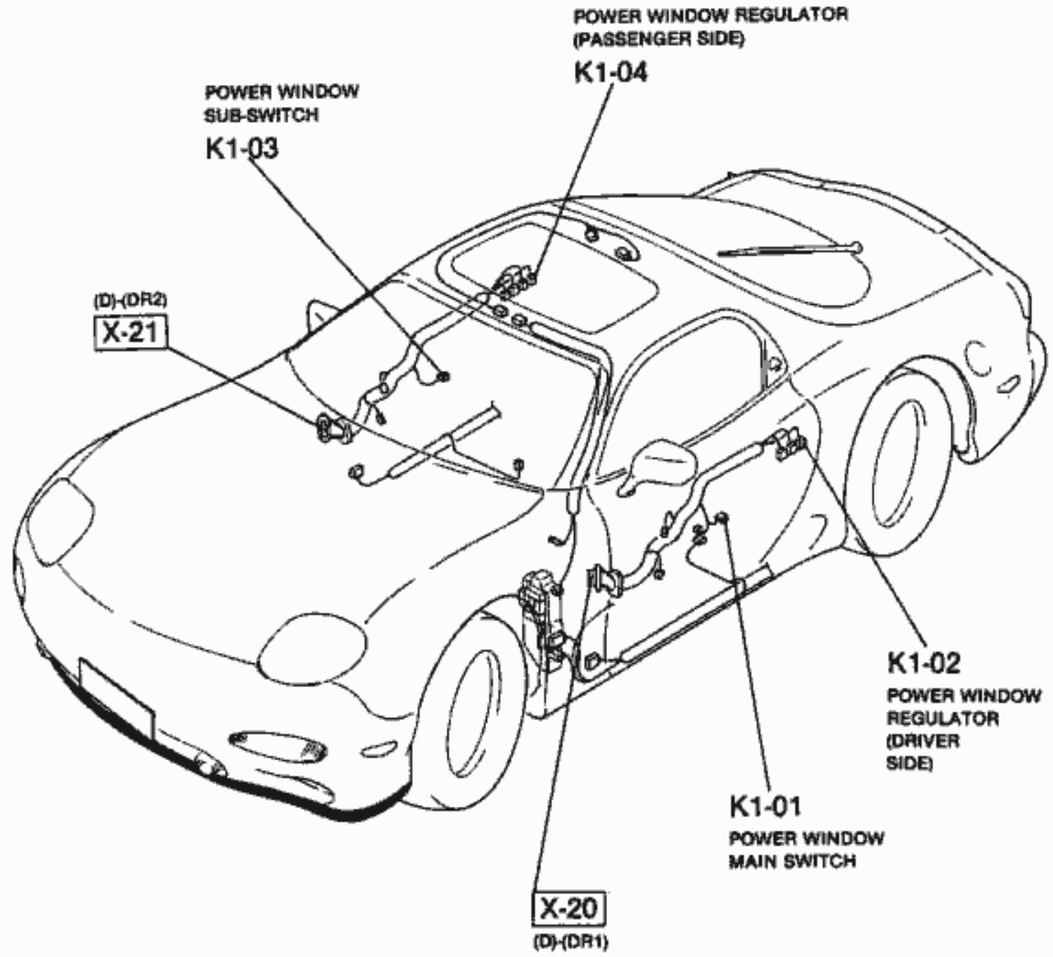
X-0
MA I FUSE
BLC CK



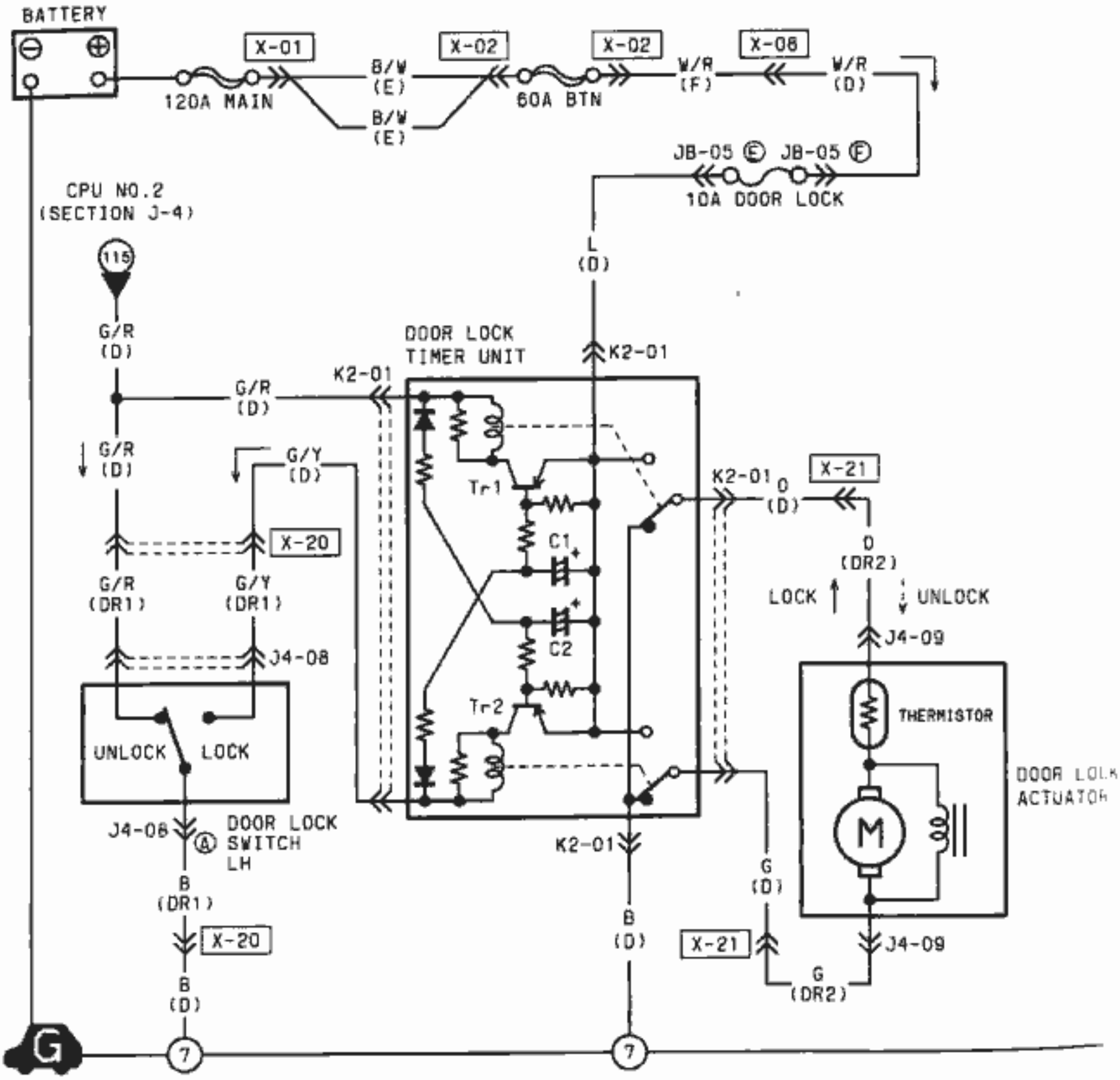
JOINT BOX







K-2 ■ POWER DOOR LOCK



K2-01 DOOR LOCK TIMER UNIT (D)

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

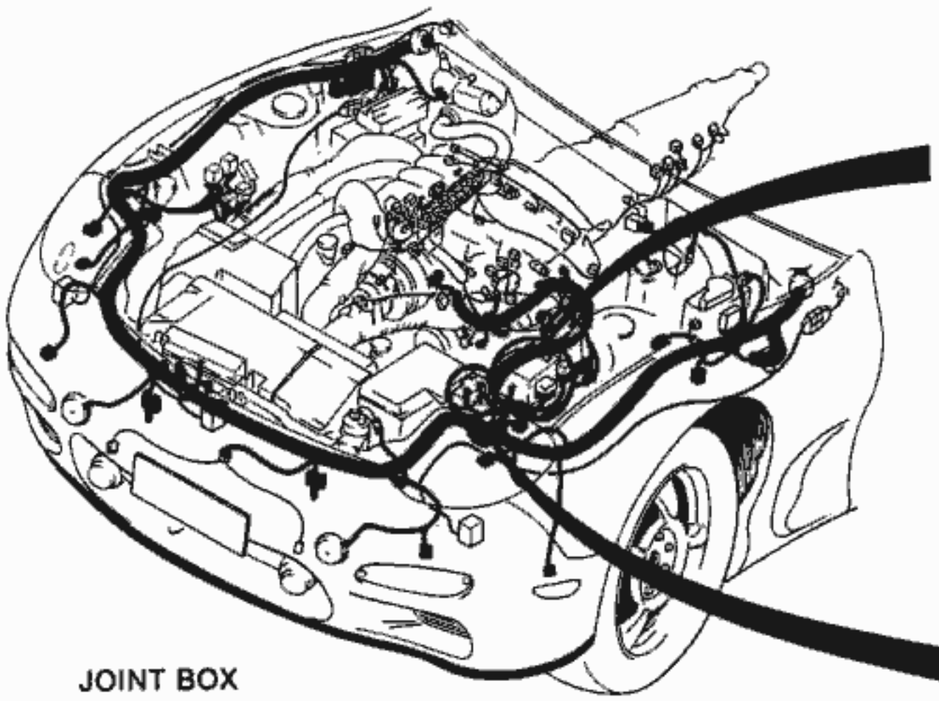
J4-08 DOOR LOCK SWITCH LH (DR1)

	Y	G/R	B Ⓐ
Ⓕ	B	*	G/Y

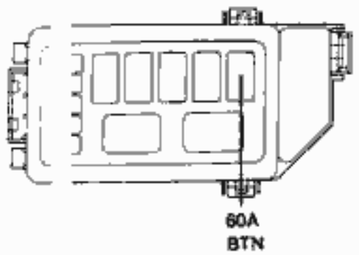
J4-09 DOOR LOCK ACTUATOR (DR2)

G/B	O
B	G

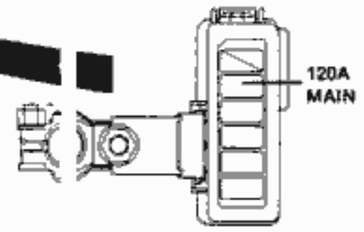
K-2



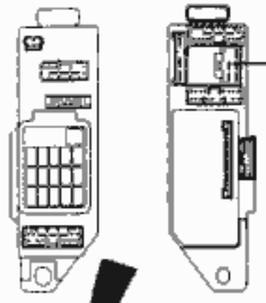
X-2
RELAY & FUSE BLOCK

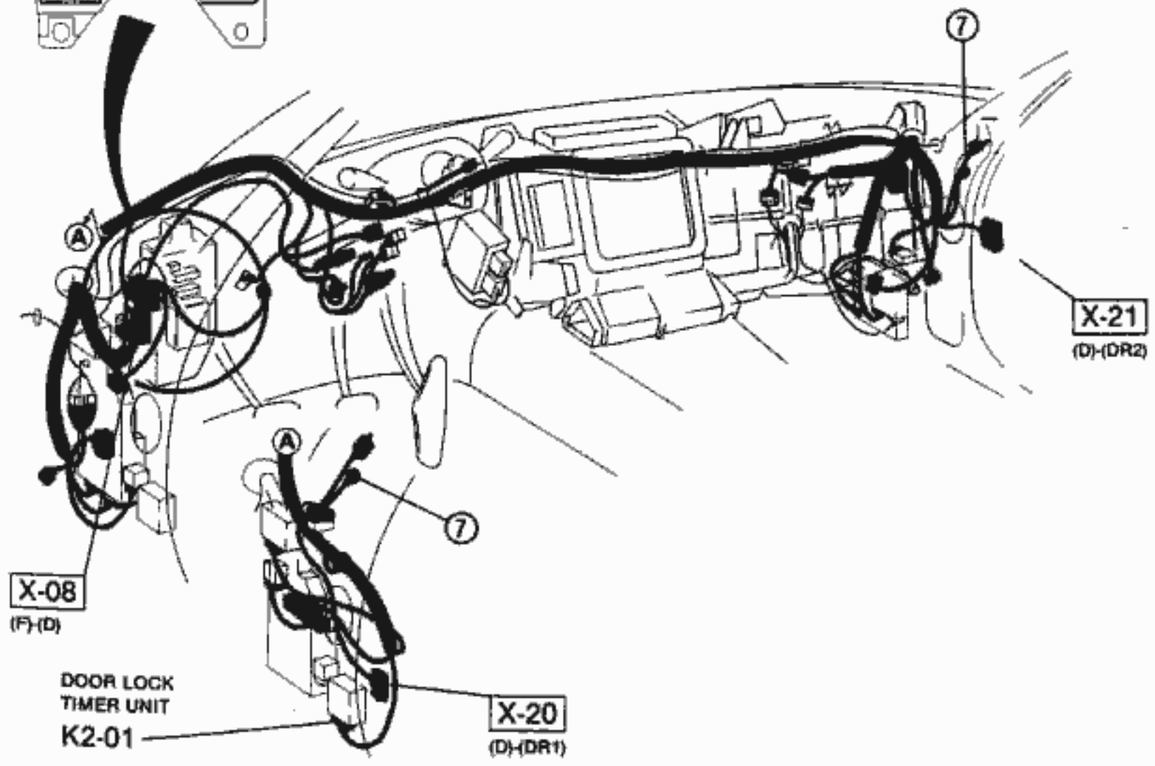


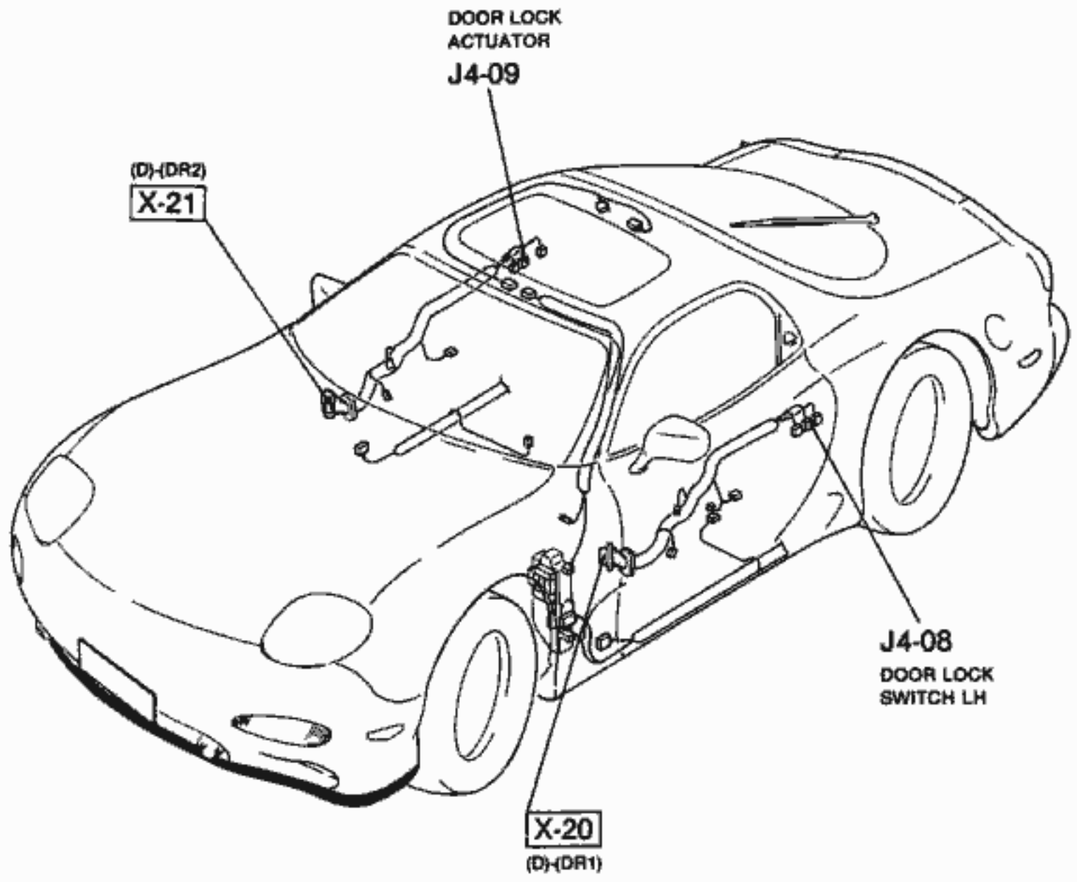
K-01
MAIN FUSE BLOCK



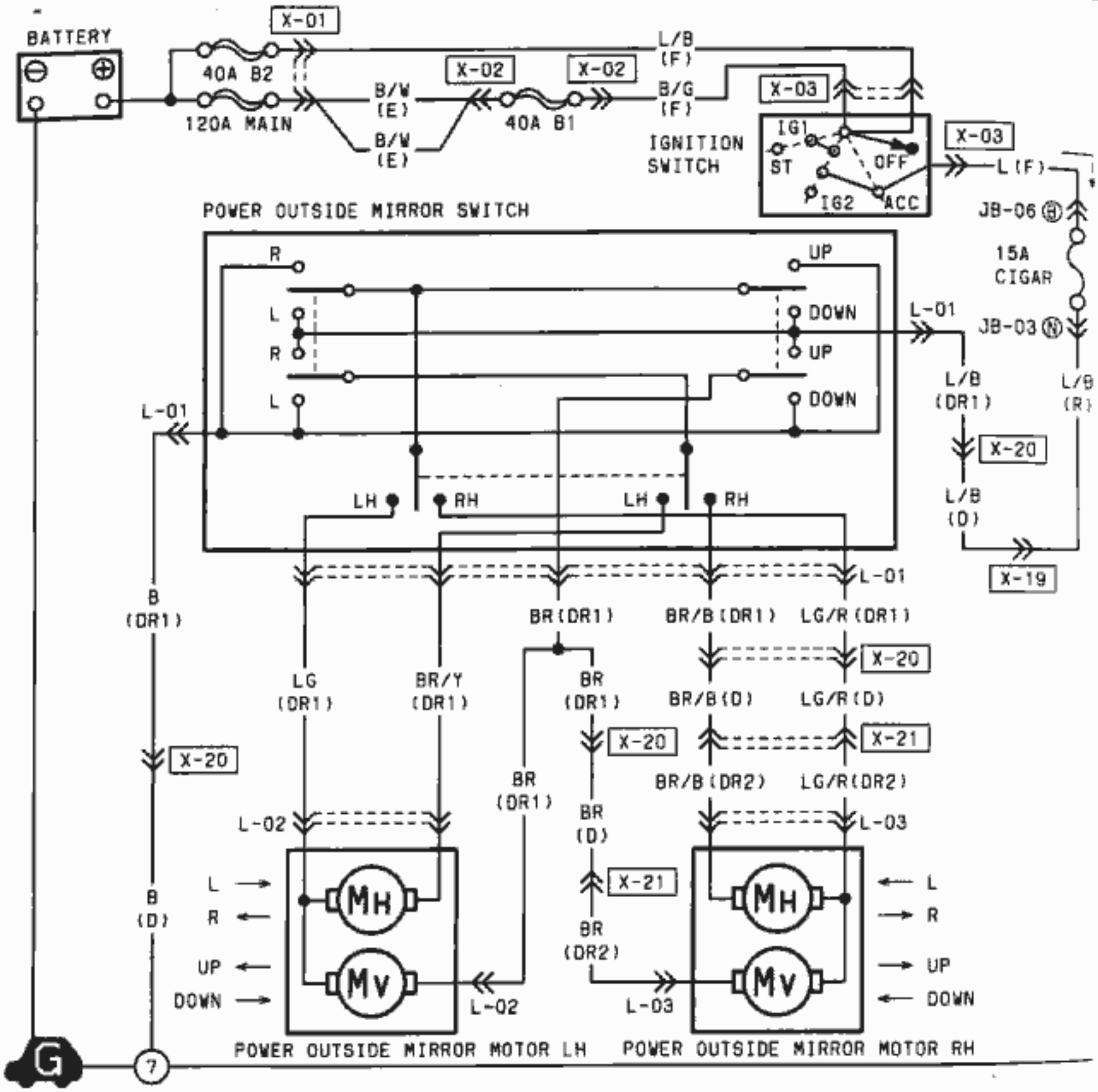
JOINT BOX







L ■ POWER OUTSIDE MIRROR

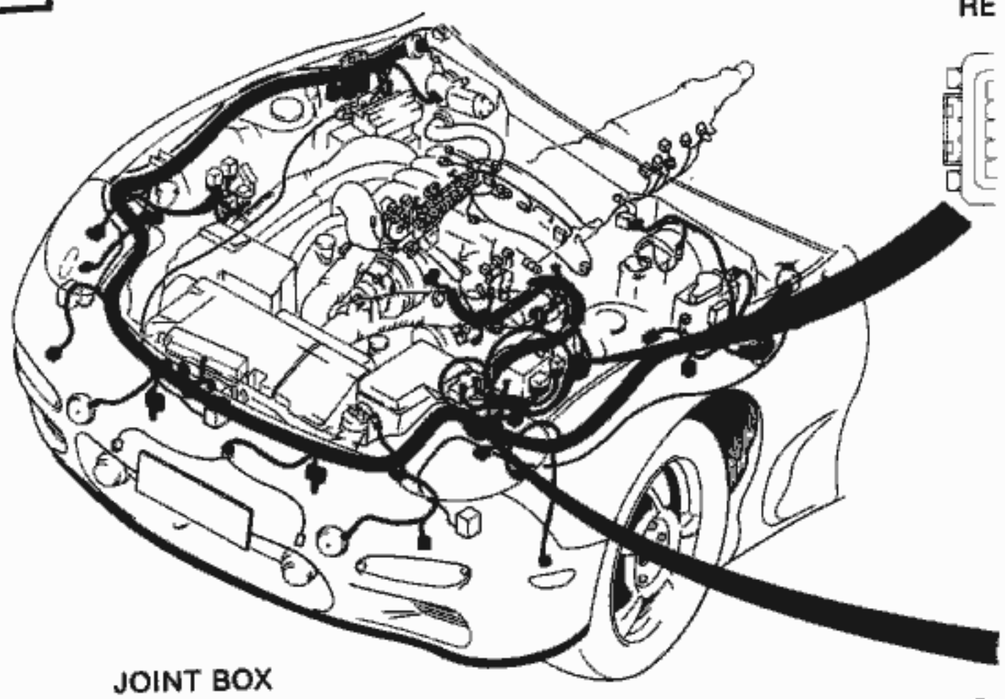


L-01 POWER OUTSIDE MIRROR SWITCH (DR1)

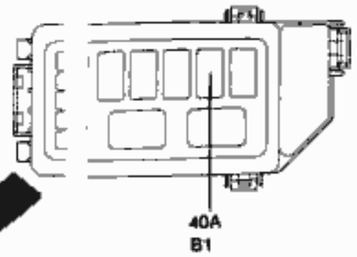
L-02 POWER OUTSIDE MIRROR MOTOR LH (DR1)

L-03 POWER OUTSIDE MIRROR MOTOR RH (DR2)

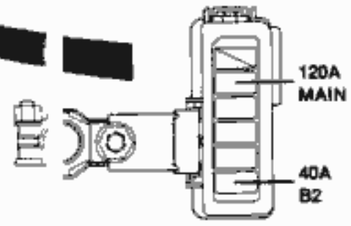
L



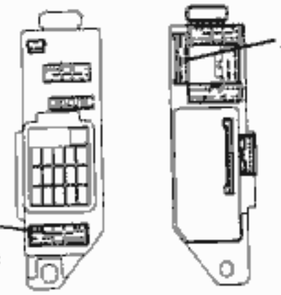
X-2
RELAY & FUSE BLOCK



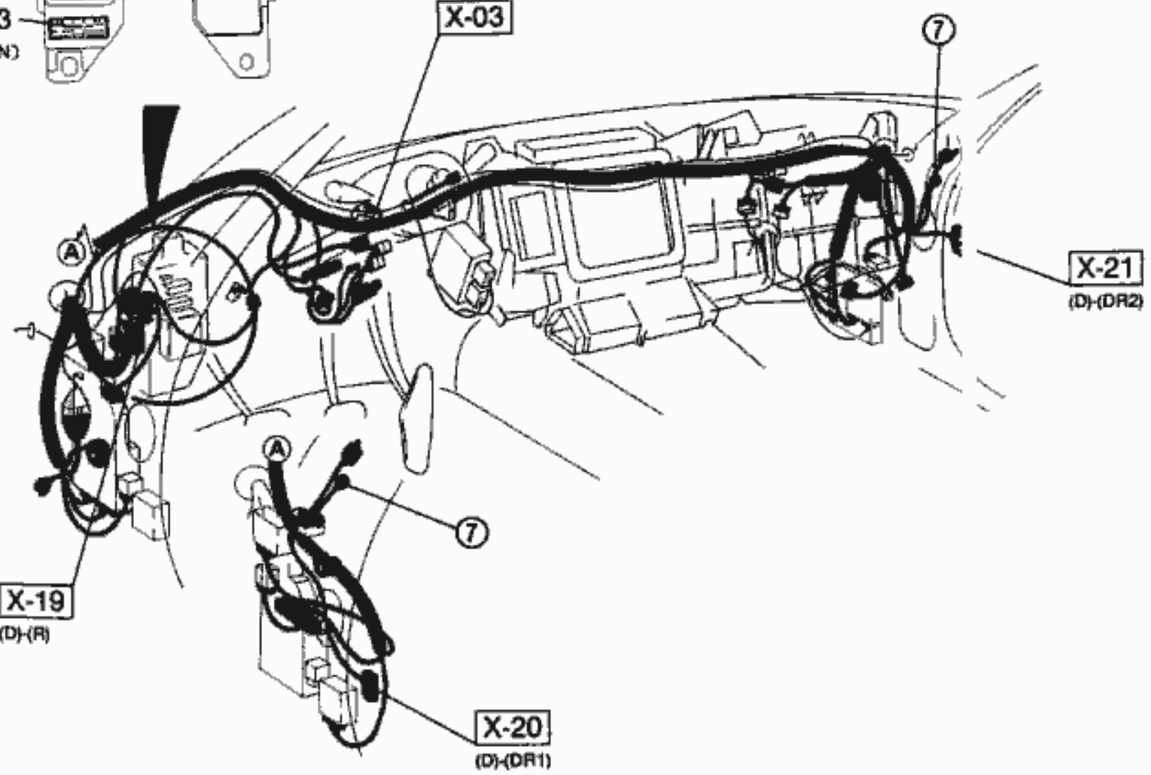
X-01
MAIN FUSE BLOCK



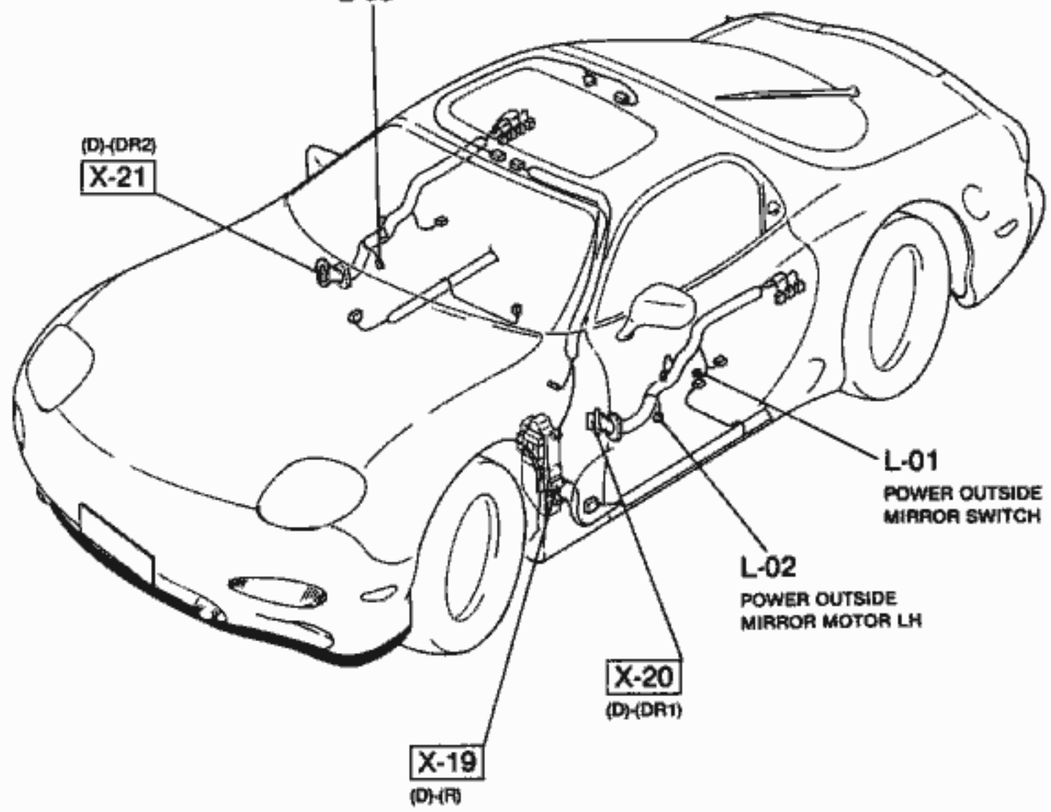
JOINT BOX



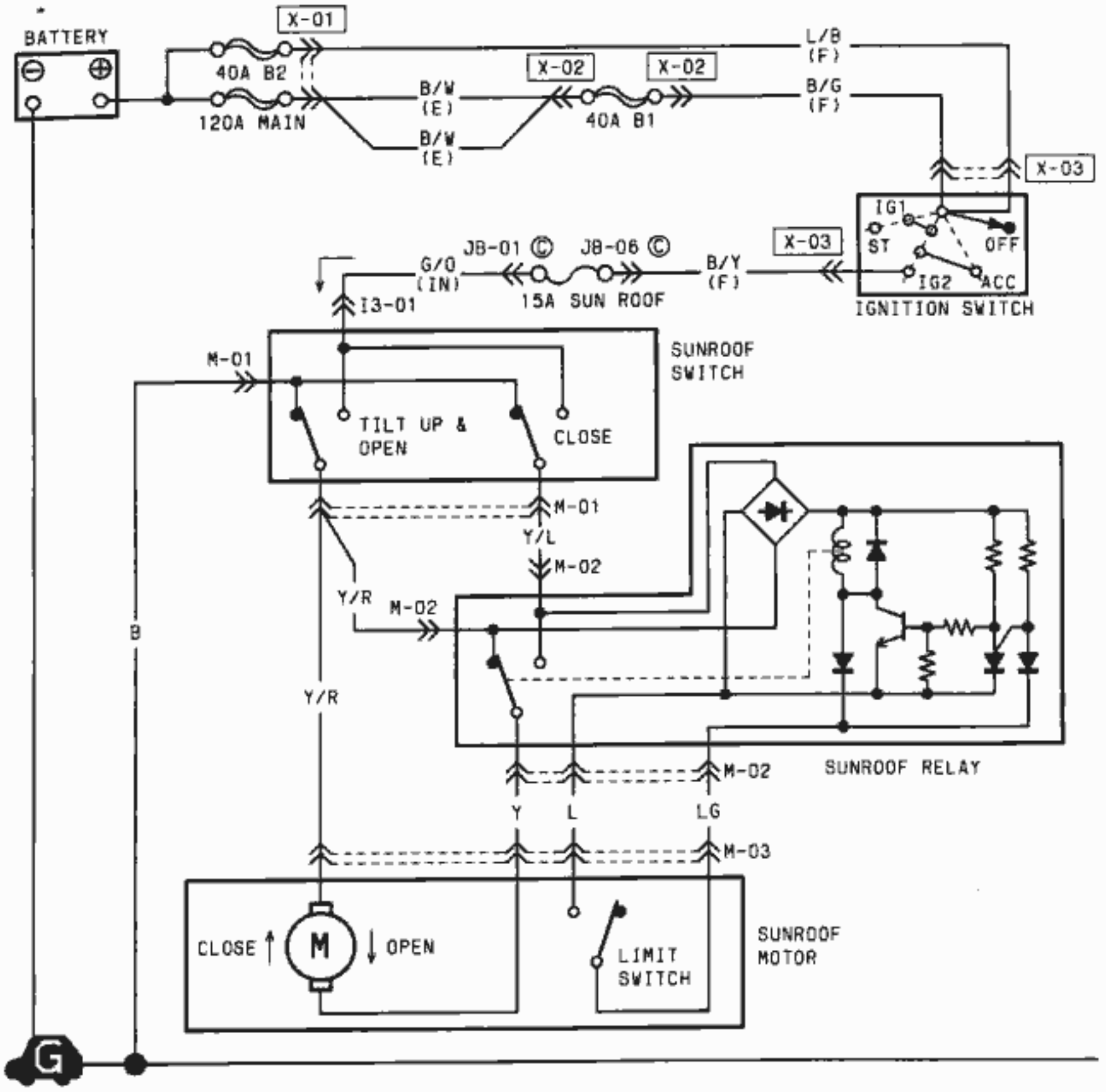
IGNITION SWITCH
X-03

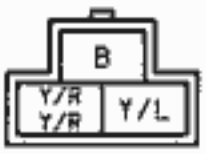
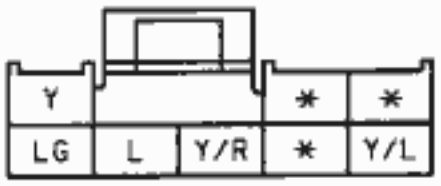
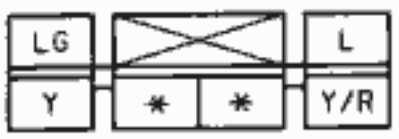


POWER OUTSIDE MIRROR MOTOR RH
L-03

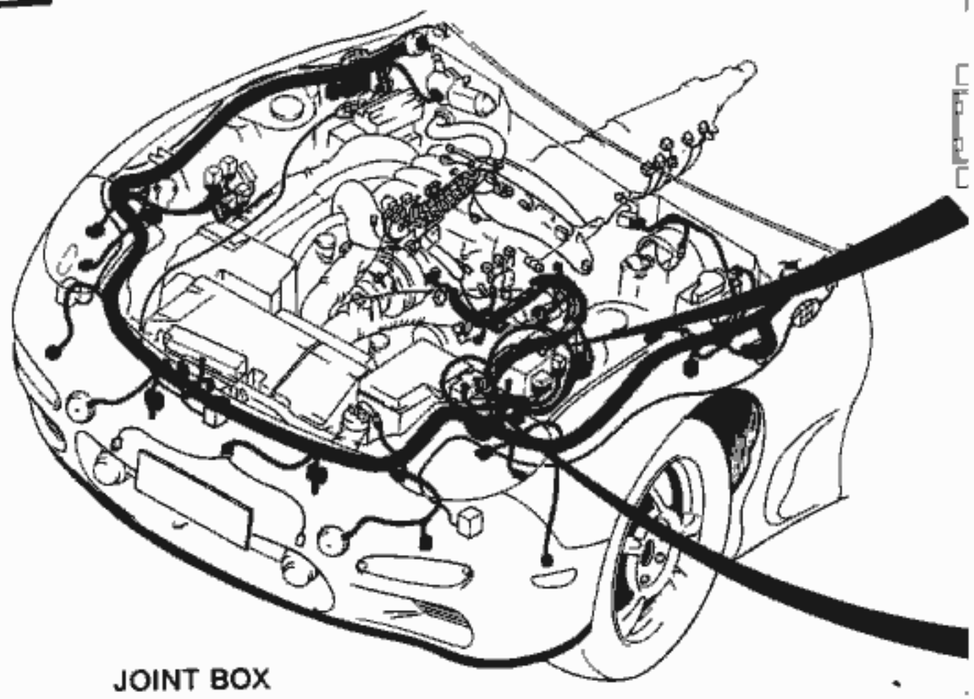


M ■ SLIDING SUNROOF

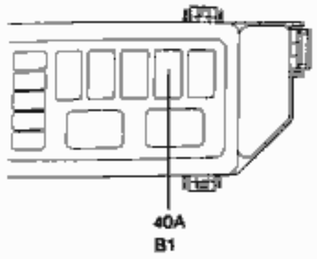


M-01 SUNROOF SWITCH	M-02 SUNROOF RELAY	M-03 SUNROOF MOTOR	I3-01 SUNROOF SWITCH (IN)
			

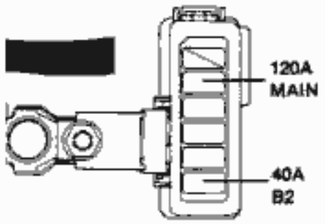
M



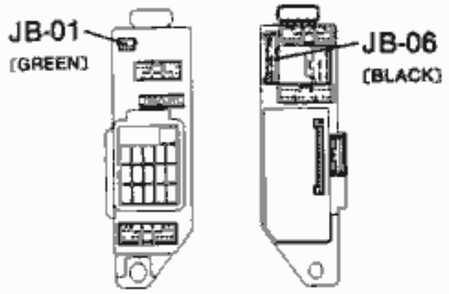
-02
ELAY & FUSE BLOCK

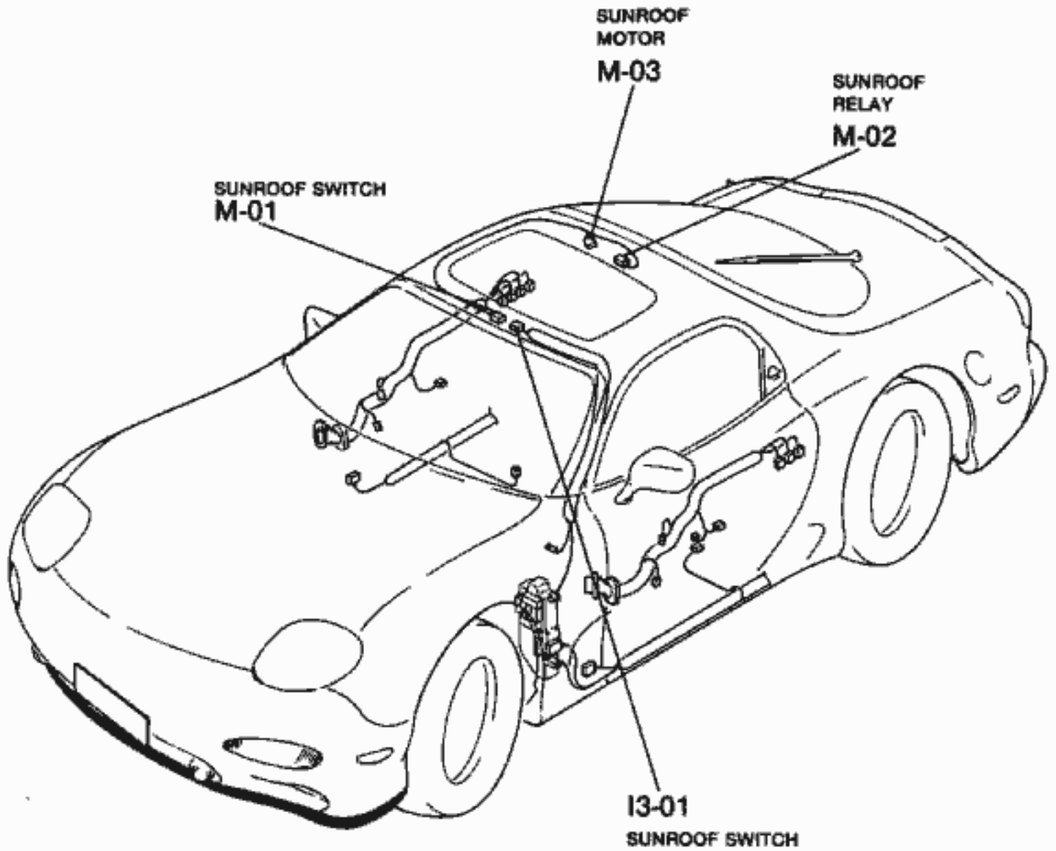


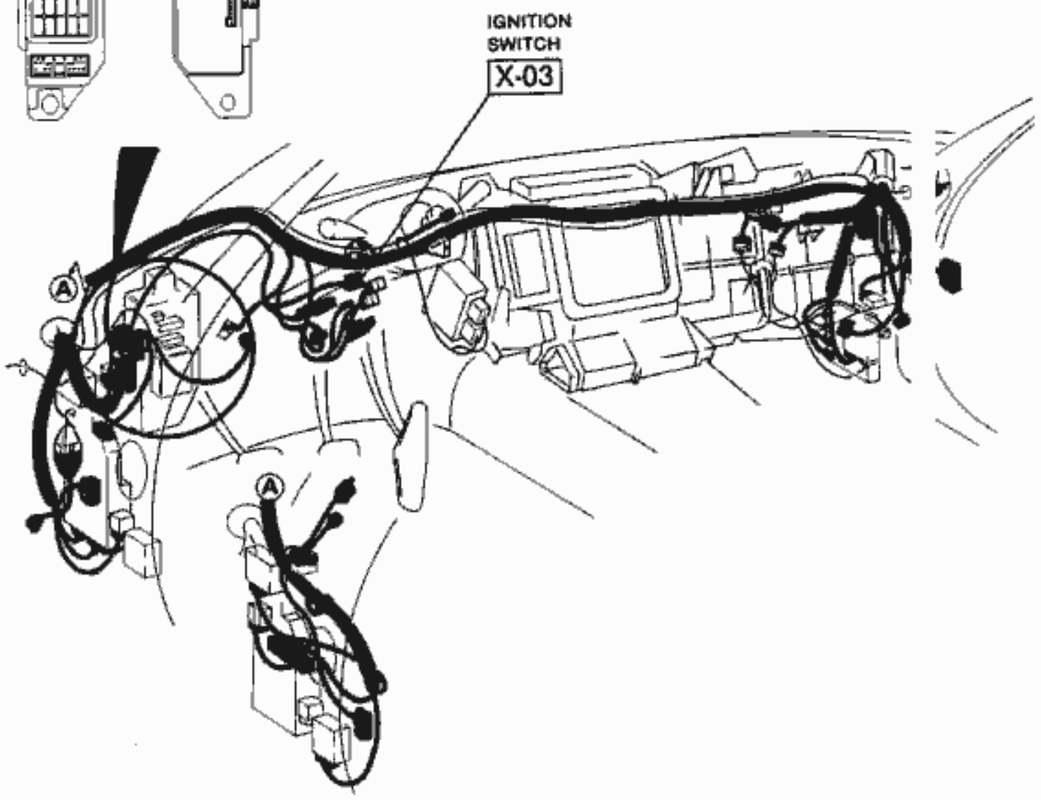
X-01
MAIN FUSE BLOCK



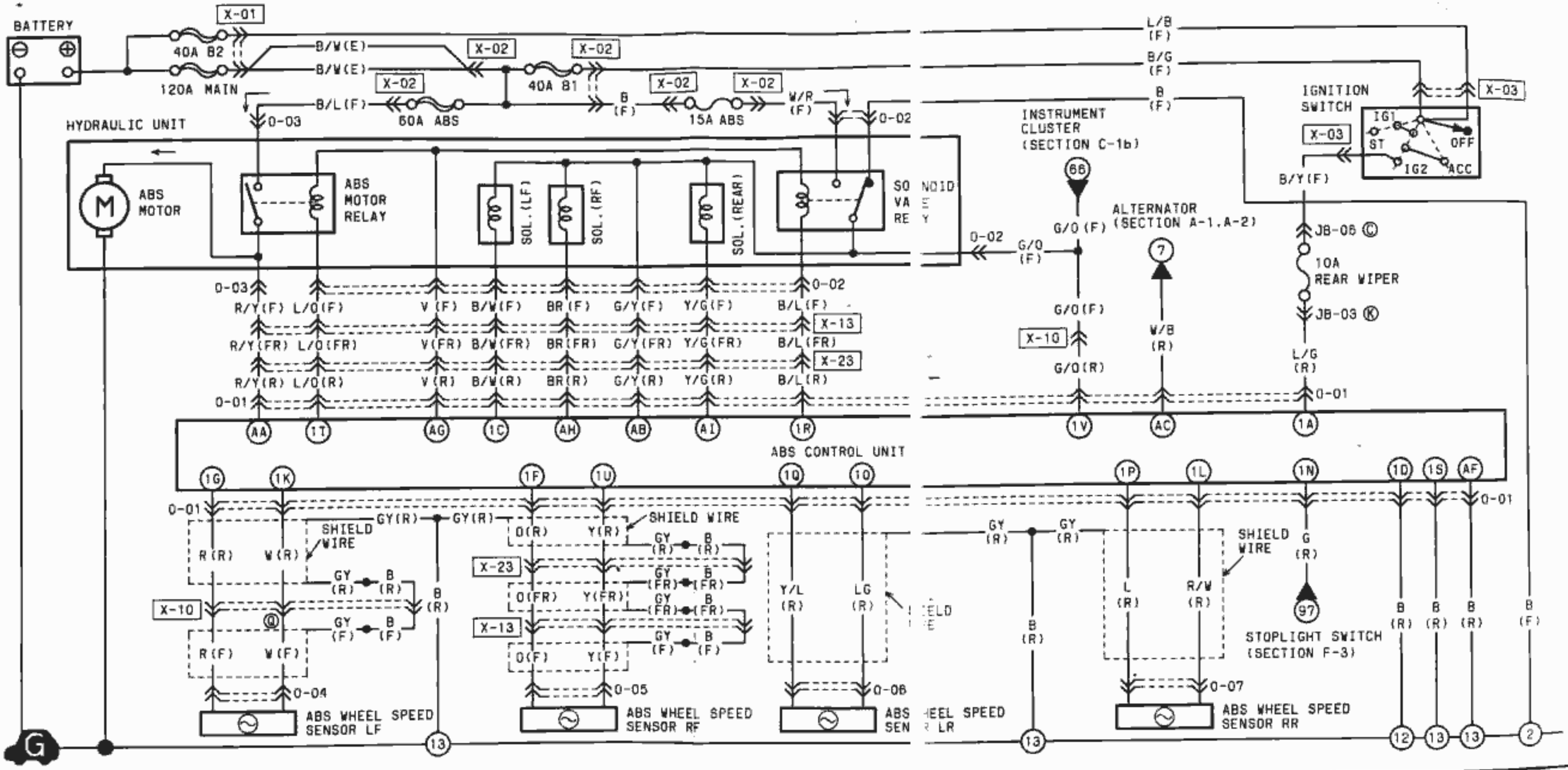
JOINT BOX







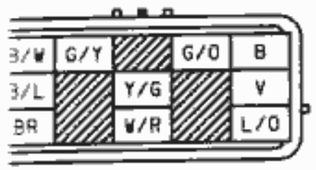
0 ■ 4 WHEEL ANTILOCK BRAKE SYSTEM (4WABS)



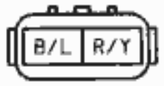
0-01 ABS CONTROL UNIT (R)

AI	AG	AE	AC	AA	1Y	1W	1U	1S	1Q	1O	1M	1K	1I	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	1Z	1X	1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B

0-02 HYDRAULIC UNIT (F)

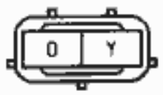


0-03 HYDRAULIC UNIT (F)



0-04 ABS WHEEL SPEED SENSOR LF (F)

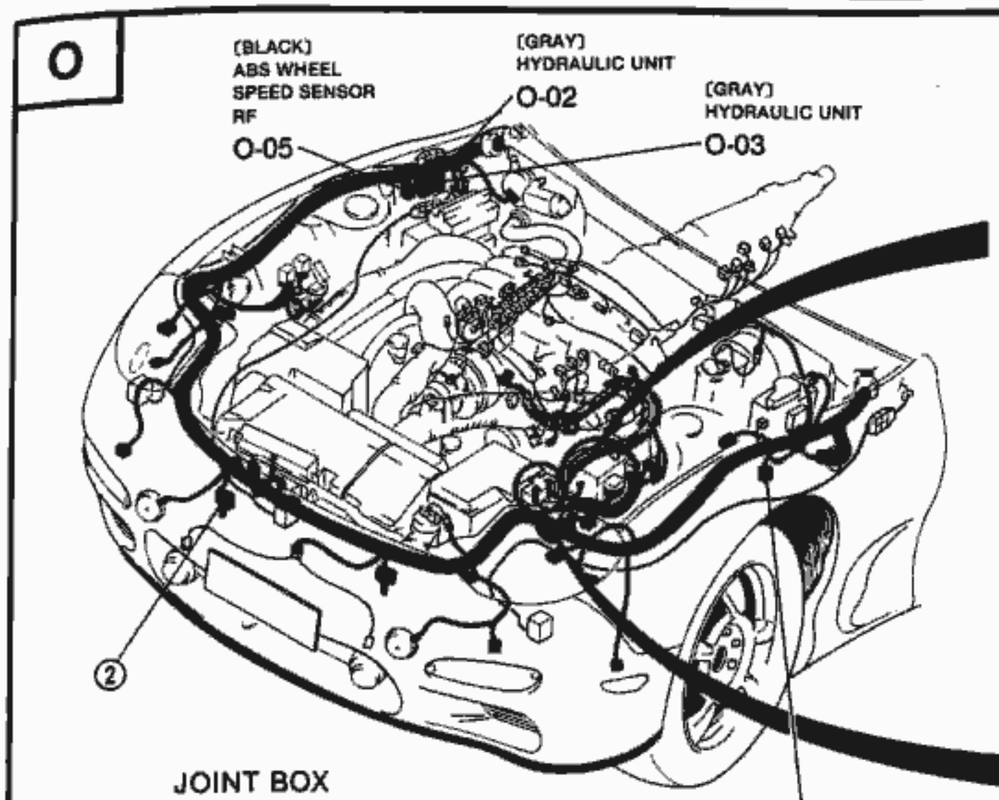
0-05 ABS WHEEL SPEED SENSOR RF (F)



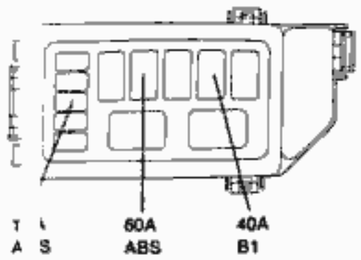
0-06 ABS WHEEL SPEED SENSOR LR (R)

0-07 ABS WHEEL SPEED SENSOR RR (R)

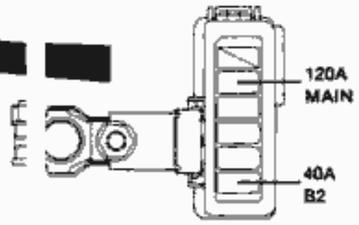
O



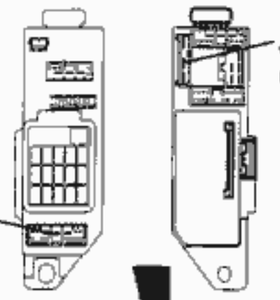
X-02
RELAY & FUSE BLOCK

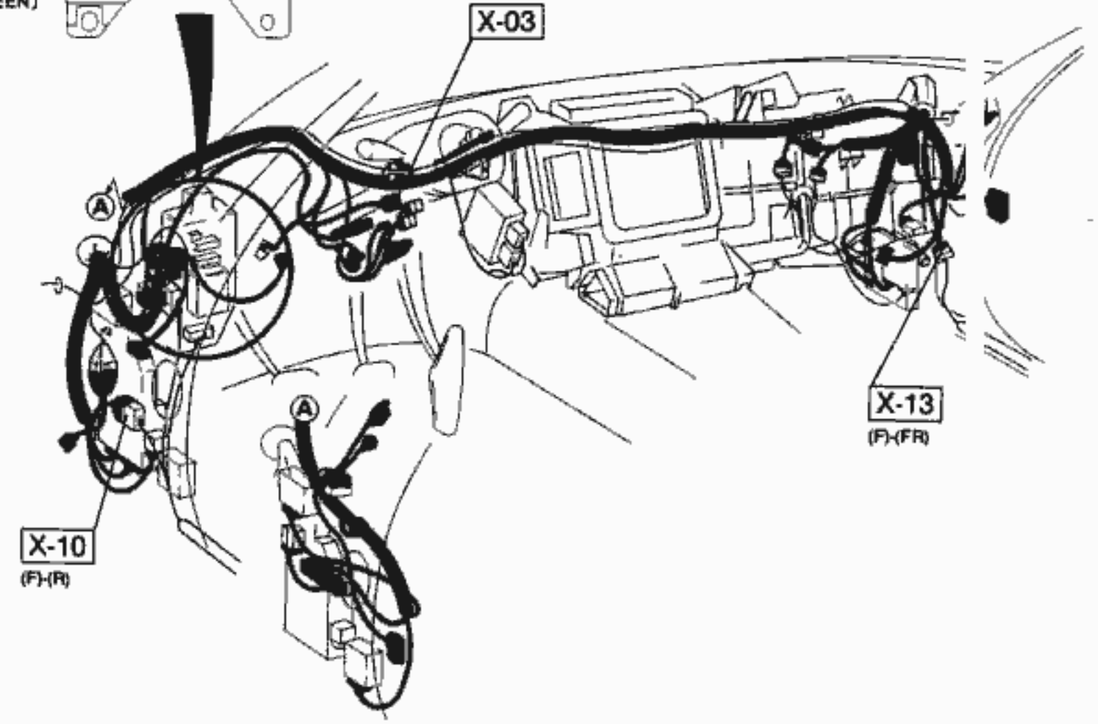


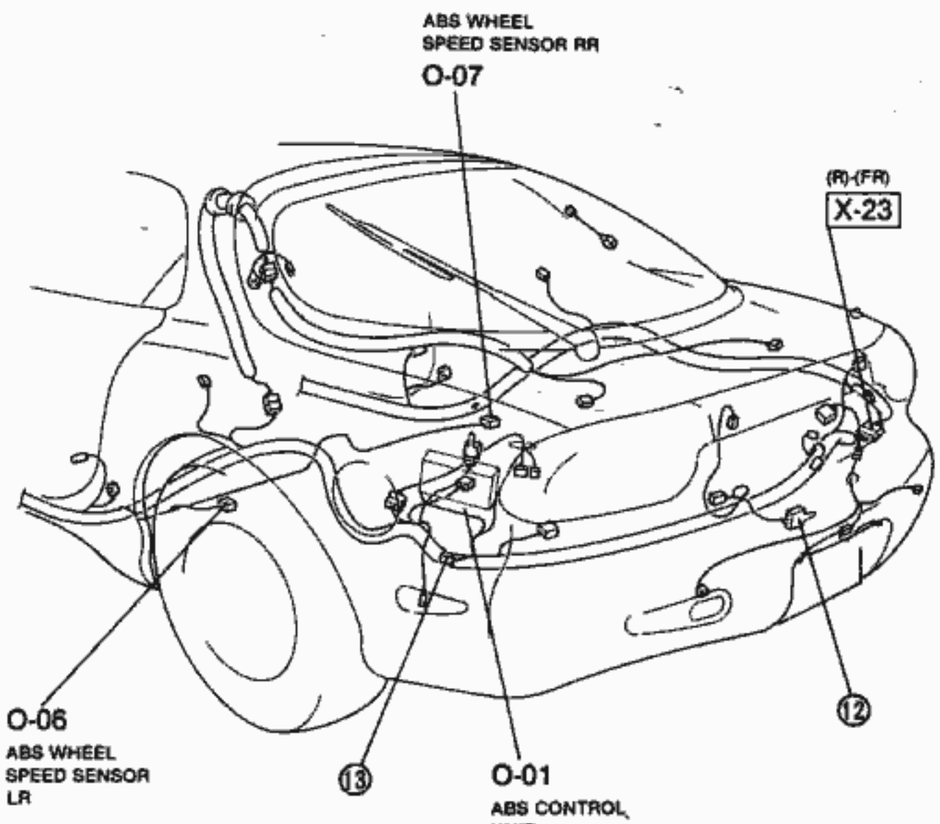
X-01
MAIN FUSE
BLOCK



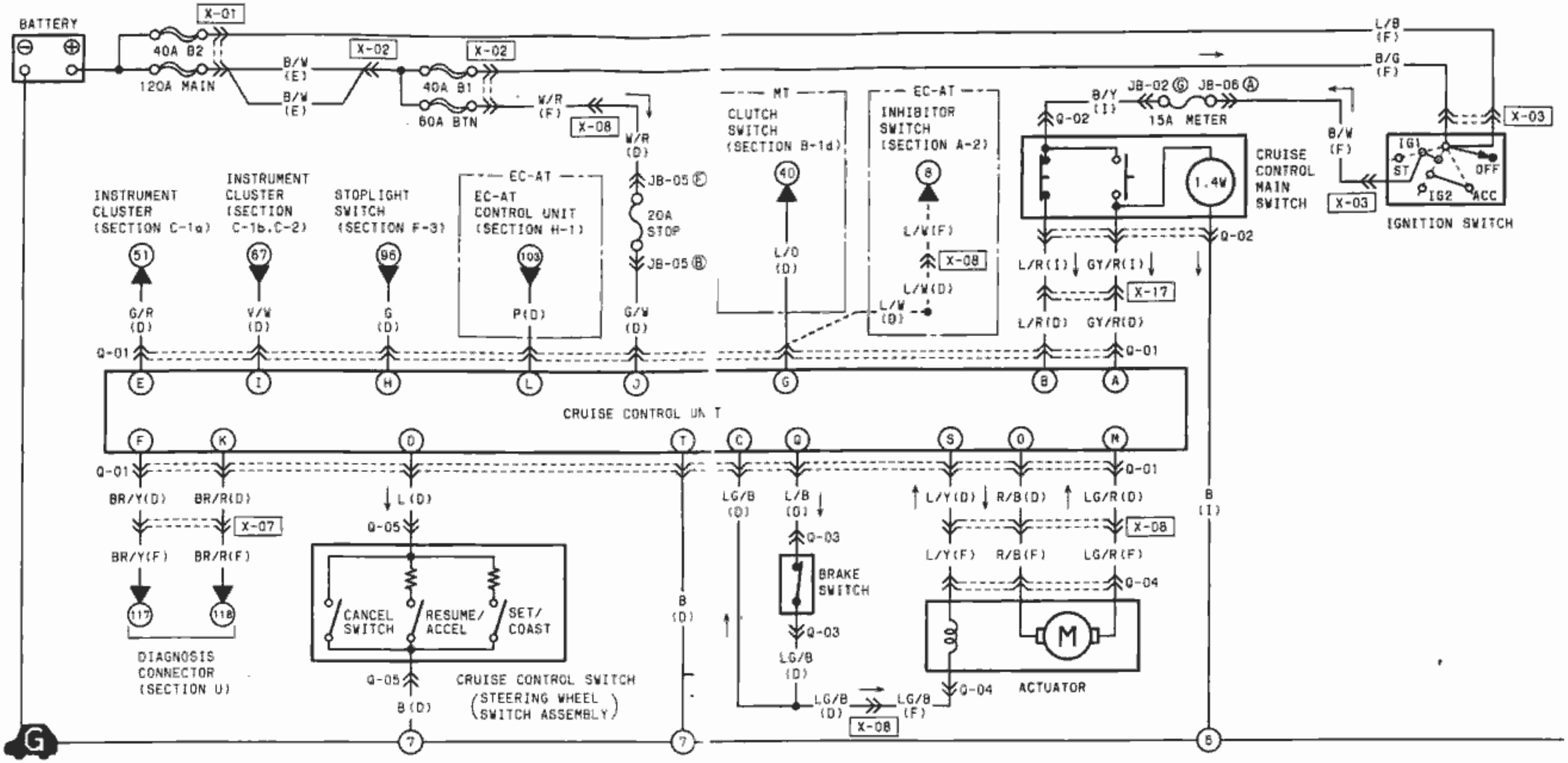
JOINT BOX







Q ■ CRUISE CONTROL SYSTEM



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

S	Q	O	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 SWITC (I)

R/G	L/R	B/Y	GY/R	B	R/B

Q-03 BRAKE SWITCH (D)

LG/B	L/B

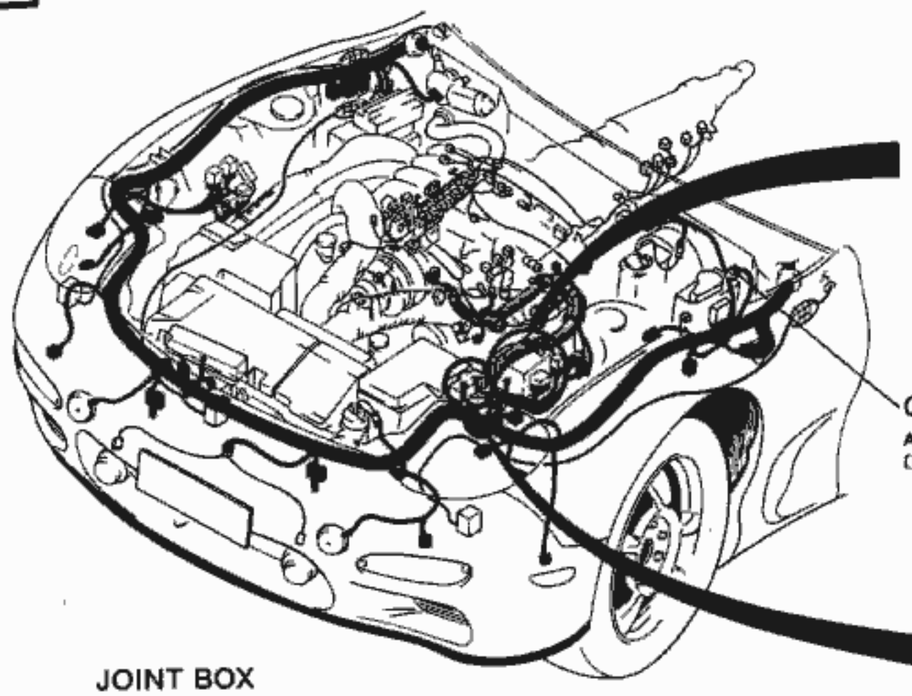
Q-04 ACTUATOR (F)

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

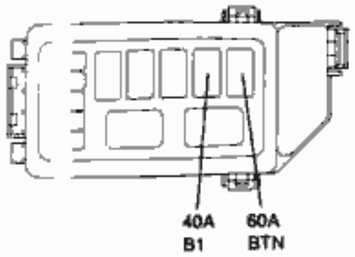
Q-05 CRUISE CONTROL SWITCH (STEERING WHEEL SWITCH ASSEMBLY) (D)

L	B	*

Q

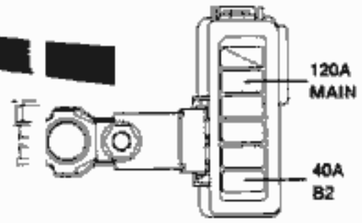


X-02
RELAY & FUSE BLOCK

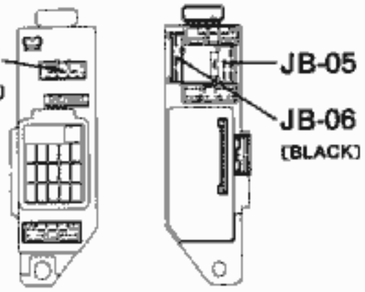


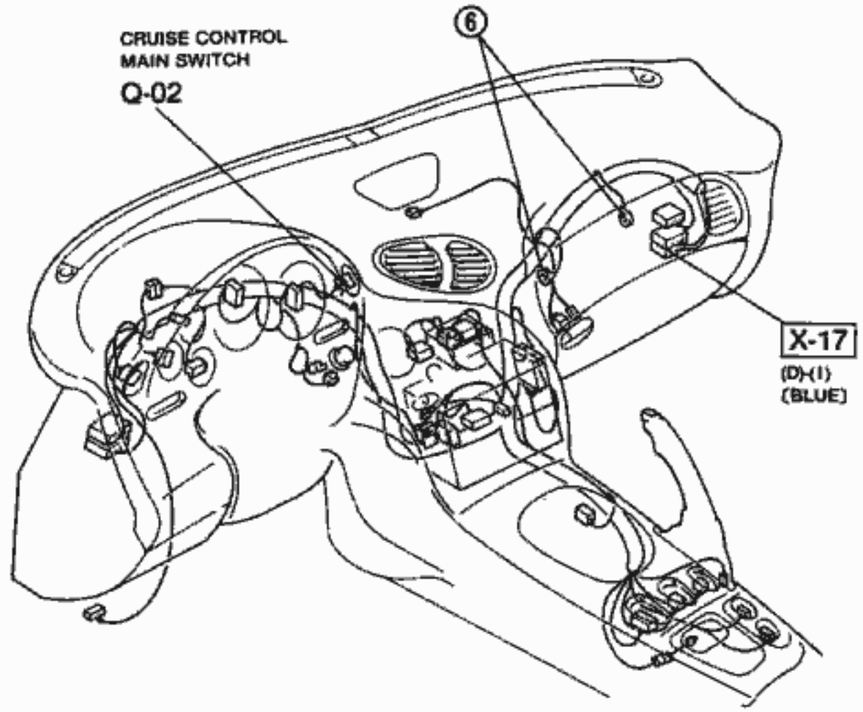
Q-04
ACTUATOR
(BLACK)

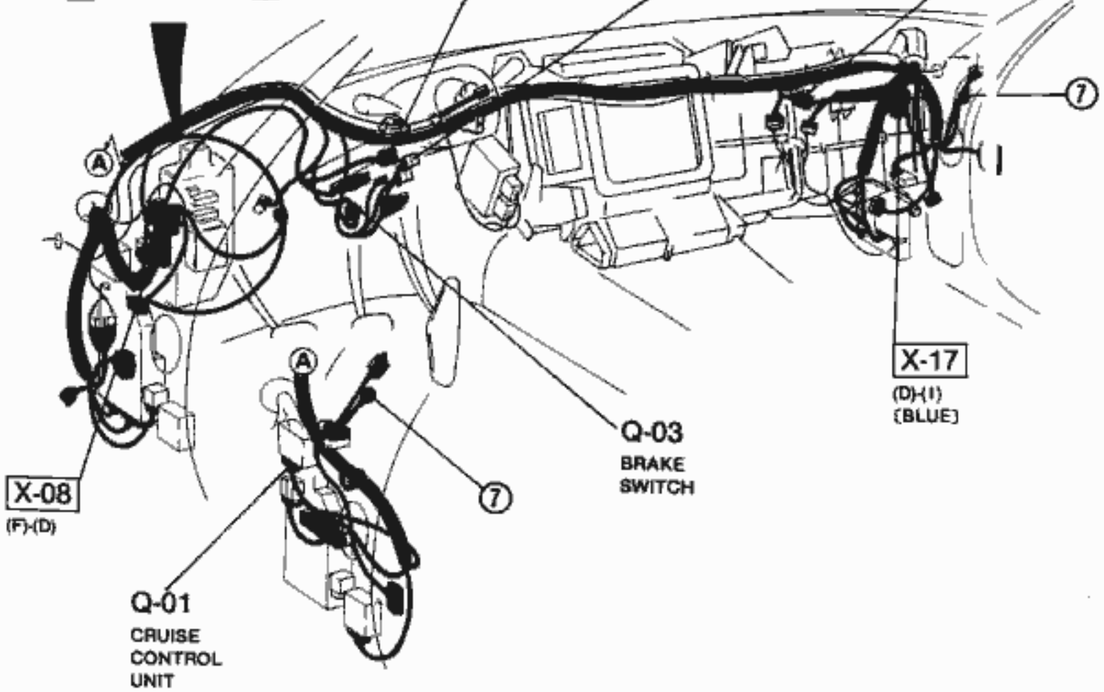
X-01
MAIN FUSE BLOCK



JOINT BOX







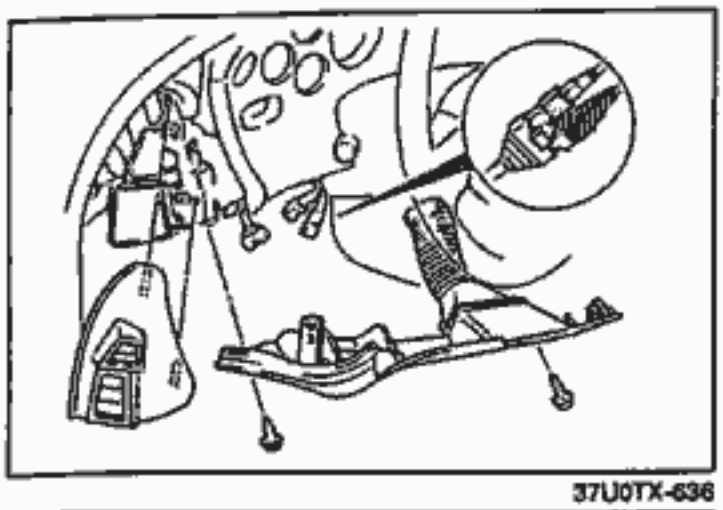
Q

Terminal voltage

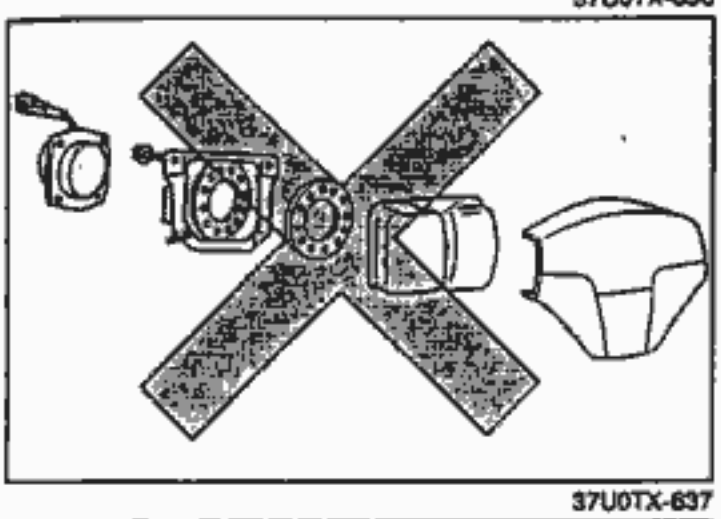
Vs: Battery voltage

Terminal	Connected to	Test condition		Voltage
A	Cruise control main switch (N.O. side)	Ignition switch ON and main switch ON		Vs
B	Cruise control main switch (N. C. side)	Ignition switch ON	Main switch ON	0V
			Main switch OFF	Vs
C	Actuator (clutch)	Ignition switch ON		0V
		Ignition switch ON and main switch ON		9V
D	Cruise control switch	Ignition switch ON and main switch ON		5V
		Ignition switch ON and main switch ON	SET/COAST switch ON	2V
			RESUME/ACCEL switch ON	3V
			CANCEL switch ON	0V
E	Instrument cluster (speedometer sensor)	While rear tires rotating		2—3V
F	Diagnosis connector	—		—
G	Inhibitor switch [disconnect ECU connector] (for AT)	N or P range		0V
		Other range		Vs
	Clutch switch (for MT)	Depress clutch pedal		0V
H	Stoplight switch	Depress brake pedal		Vs
		Other		0V
I	Instrument cluster (CRUISE set indicator lamp)	Ignition switch ON and main switch ON		Vs
		CRUISE set indicator lamp illuminated		0V
J	STOP 20A fuse	Constant		Vs
K	Diagnosis connector	—		—
L	EC-AT control unit (for AT)	Ignition switch ON		Vs
M	Actuator (motor)	Ignition switch ON		0V
		Ignition switch ON and main switch ON		Vs
O	Actuator (motor)	Ignition switch ON		0V
		Ignition switch ON and main switch ON		Vs
Q	Brake switch	Ignition switch ON and main switch ON		9V
		Depress brake pedal		0V
S	Actuator (clutch)	Ignition switch ON		0V
		Ignition switch ON and main switch ON		9V
T	Ground	Constant		0V

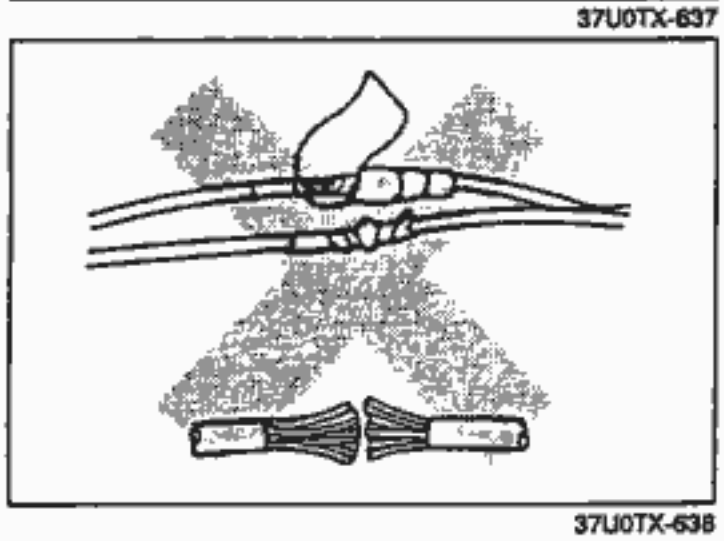
37U0TX-282



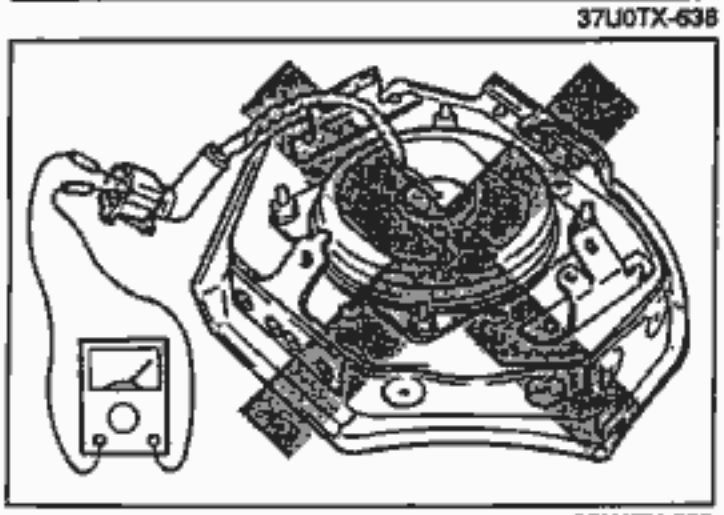
37U0TX-636



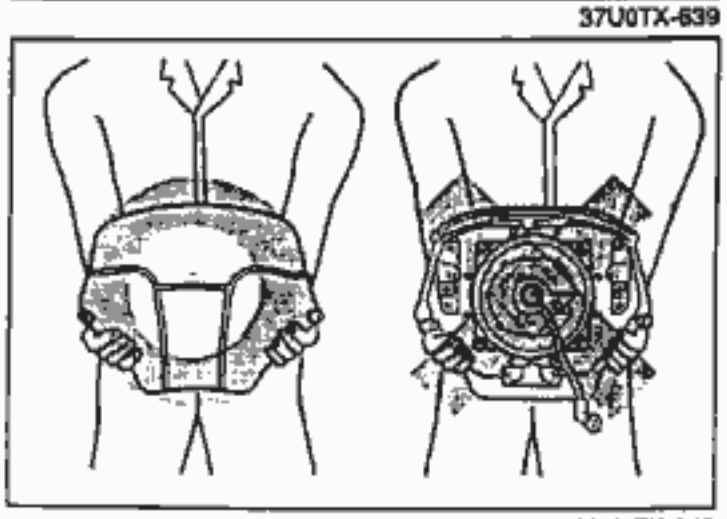
37U0TX-637



37U0TX-638



37U0TX-639



37U0TX-640

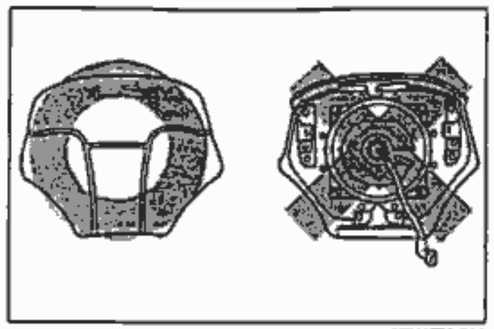
SERVICE PRECAUTION

1. Before Component Replacement
   - Before replacement of any air bag system component or before disconnecting any connector of the system, carry out the following preparations.
     (1) Disconnect the negative battery cable.
     (2) Remove the lower panel and the lap duct.
     (3) Disconnect the clock spring connector (orange and blue).

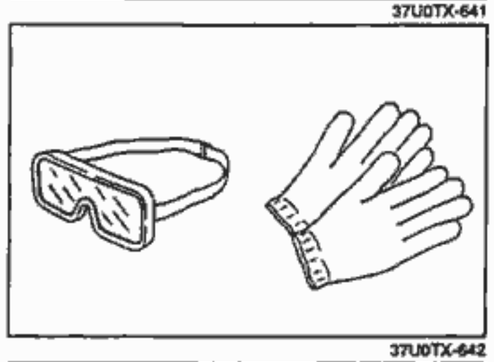
2. Prohibitation of Component Disassembly
   - The components of the air bag system are not intended to be disassembled for service. If a component malfunction is indicated by the diagnostic module, replace the suspected component after checking the connections and the wiring harness. Do not disassemble any component.

3. Prohibitation of Wire Harness Repair
   - If an open circuit is found by a continuity test, replace the wiring harness. Do not try to repair the wiring.

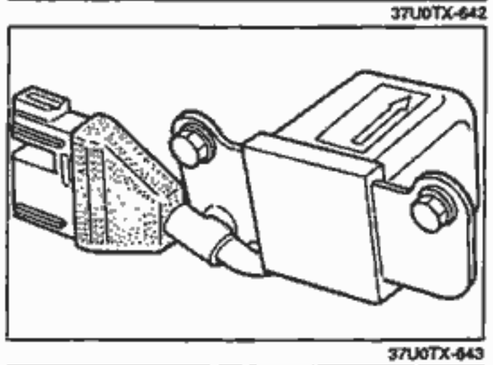
4. Handling of Air Bag Module
   - Do not use an ohmmeter for inspection of the air bag module. It may cause accidental deployment of the air bag.
   - When carrying a live (unactivated) air bag module, make sure the trim cover is pointed away from your body to prevent personal injury in the event of an accidental deployment.


37U0TX-641

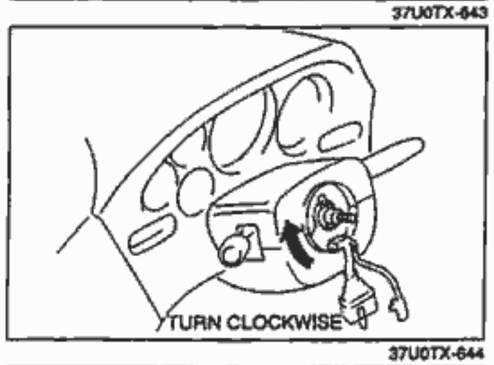
- When placing a live air bag module on any surface, always face the trim cover upward to reduce the motion of the module if it is accidentally deployed.


37U0TX-642

- When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by-product of the gas generant combustion.
- When an air bag module is to be disposed, follow the procedure recommended for the specific situation.

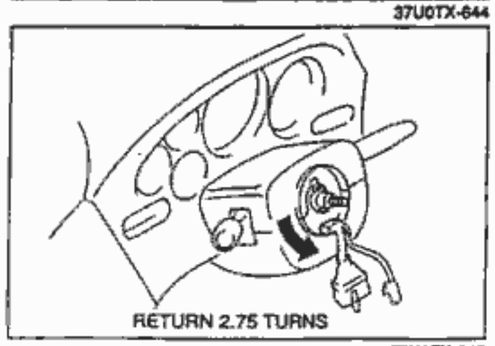

37U0TX-643

5. Crash Sensor Installation
   - Crash sensor orientation is very important for proper operation. If a vehicle is involved in a collision where its front sheet metal is damaged, inspect the body structure at the sensor mounting area for deformation. If damaged, restore it to its original shape.



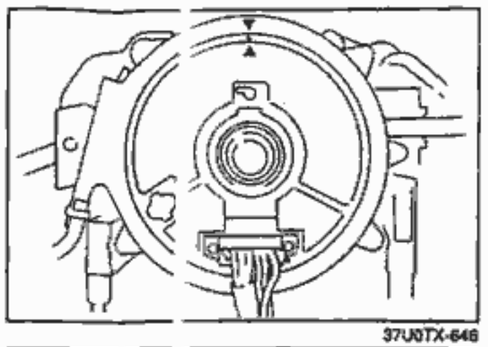
37U0TX-644

6. Adjustment of Clock Spring Connector
   - Whenever the steering wheel is removed, before reinstalling it, set the clock spring connector as follows:
     (1) Set the front wheels straight ahead.
     (2) Turn the clock spring connector clockwise until it stops. (Do not force it.)

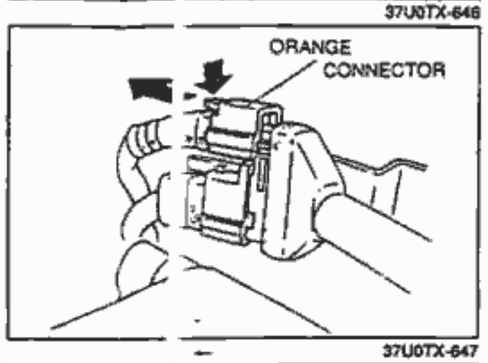


37U0TX-645

(3) Return the connector 2.75 turns.

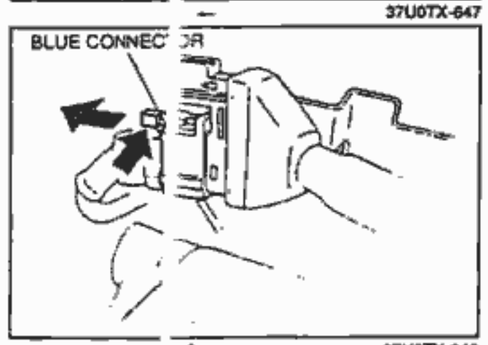

37U0TX-646

(4) Align the marks on the clock spring connector and the outer housing.



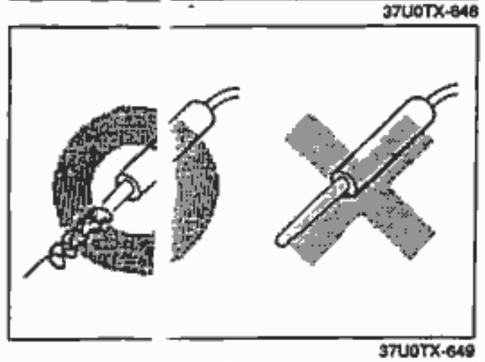
37U0TX-647

7. When Using Test Lead
   - When using a test lead for testing, use a fine wire to prevent damage to the terminals.

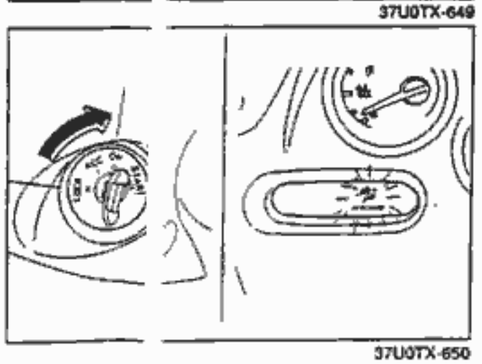


37U0TX-648

8. Disconnecting Double-Lock Type Connector
   - The connectors in the air bag system use a double-lock type connector.
   - These connectors are disconnected as follows.
     (1) Press the orange knob and disconnect the orange connector.

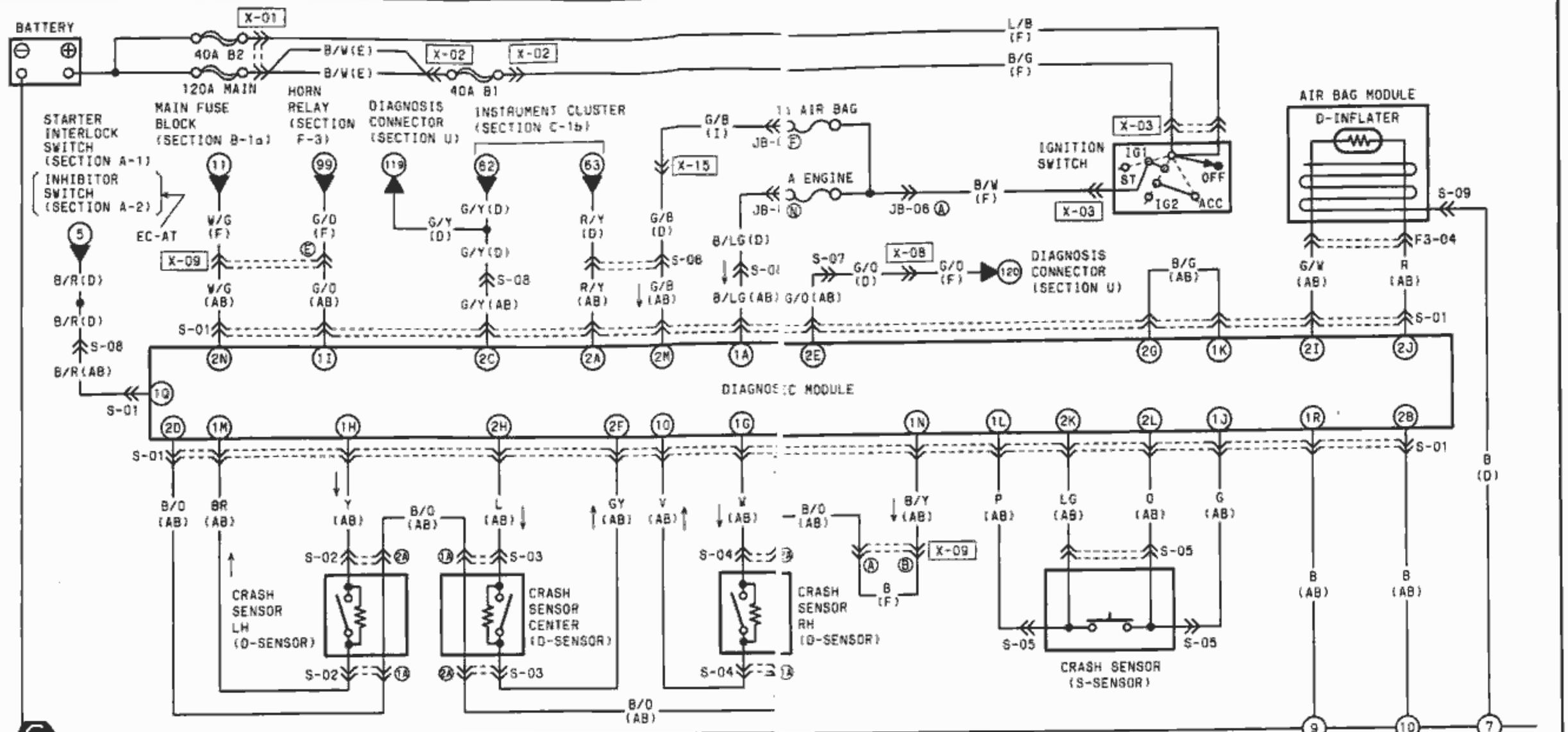

37U0TX-649

(2) Press the blue knob and disconnect the blue connector.
(3) Connect the connectors in the reverse order of disconnecting.


37U0TX-650

9. After System Service
   - Verify correct system operation by checking with the AIR BAG system warning lamp. If the system is operating normally, the warning lamp will come on when the ignition switch is turned ON, then go off after approximately 6 seconds.
   - Check if the horn sounds. If the horn does not sound, remove the air bag module and check the connections of the air bag module and horn switch connectors.

S ■ AIR BAG SYSTEM

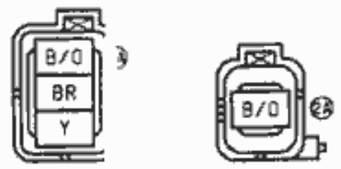


S-01 DIAGNOSTIC MODULE (AB)

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

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

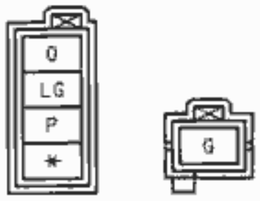
S-02 CRASH SENSOR LH (D-SENSOR) (AB)



S-03 CRASH SENSOR CENTER (D-SENSOR) (AB)

S-04 CRASH SENSOR RH (D-SENSOR) (AB)

S-05 CRASH SENSOR (S-SENSOR) (AB)

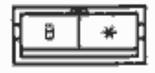


S-06 CONNECTOR BETWEEN DASH(D) & AIR BAG(AB)

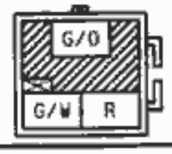
S-07 CONNECTOR BETWEEN DASH (D) & AIR BAG (AB)

S-08 CONNECTOR BETWEEN DASH(D) & AIR BAG(AB)

S-09 AIR BAG MODULE (D)



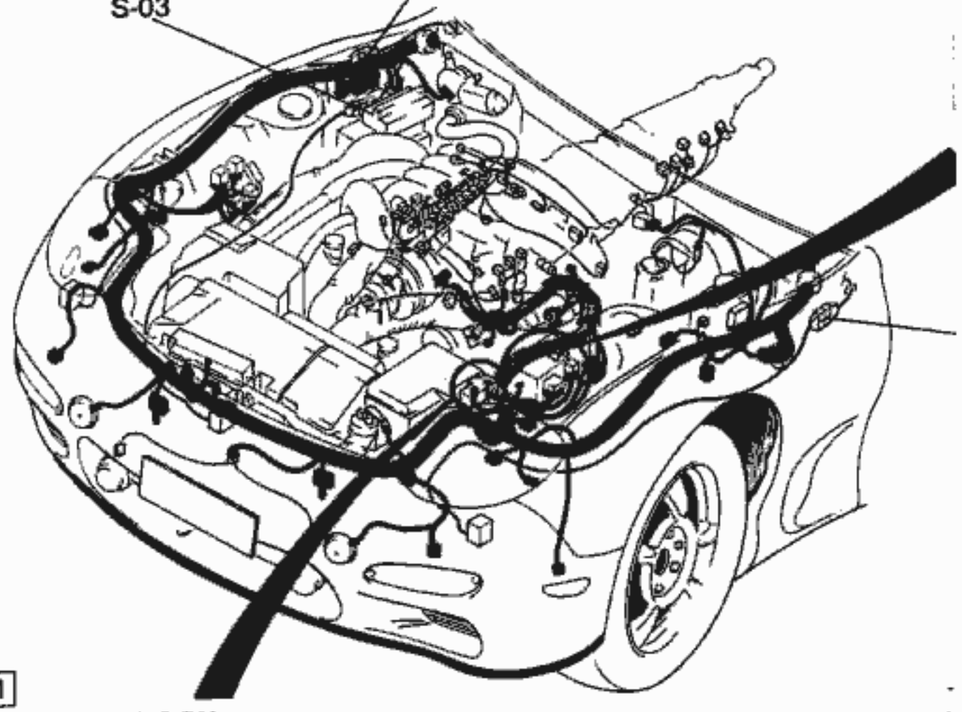
F3-04 AIR BAG MODULE (AB)



S

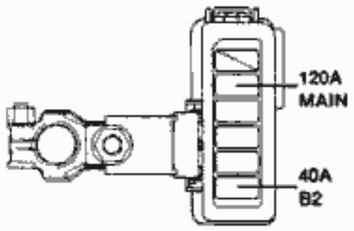
CRASH SENSOR CENTER (D-SENSOR)
S-03

CRASH SENSOR RH (D-SENSOR)
S-04

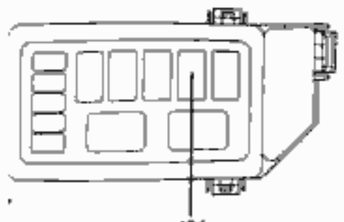


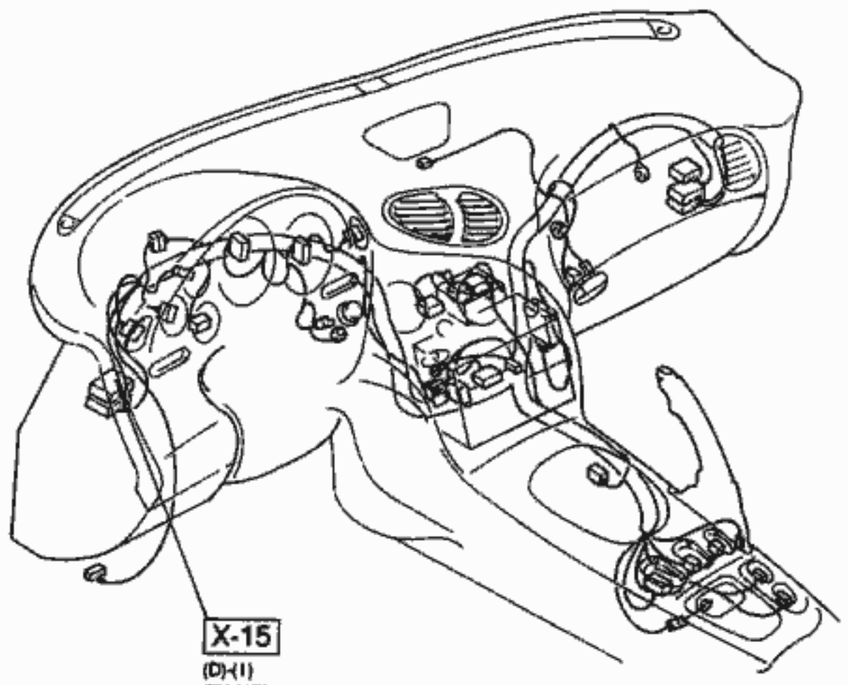
S-02
CRASH SENSOR LH (D-SENSOR)

X-01
MAIN FUSE BLOCK



X-02
RELAY & FUSE BLOCK





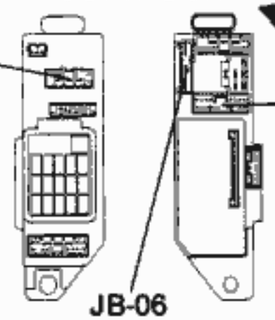
X-15
(D)-(I)
(BLUE)

JOINT BOX

JB-02
(GREEN)

JB-07

JB-06
(BLACK)



(F)-(D)
X-08

X-09
(F)-(AB)

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

AIR BAG MODULE
S-09

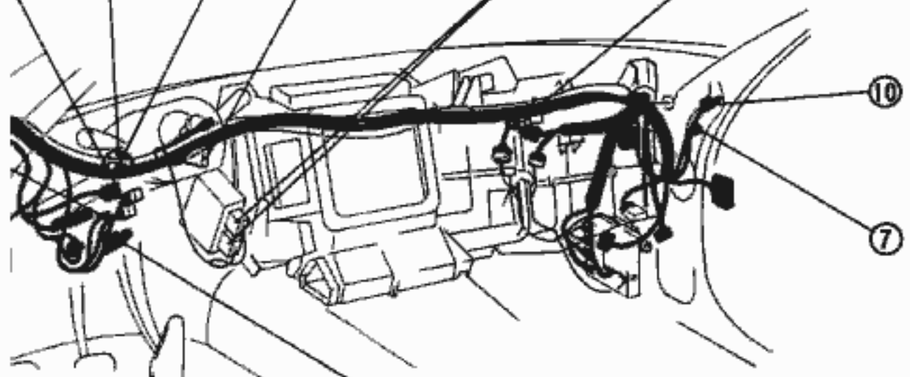
(D)-(AB)
S-08

(D)-(AB)
S-06

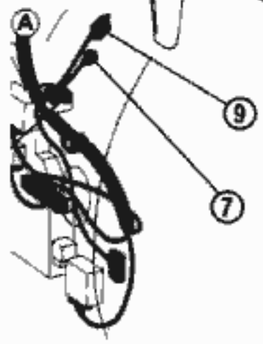
CRASH SENSOR (S-SENSOR)
S-05

DIAGNOSTIC MODULE
S-01

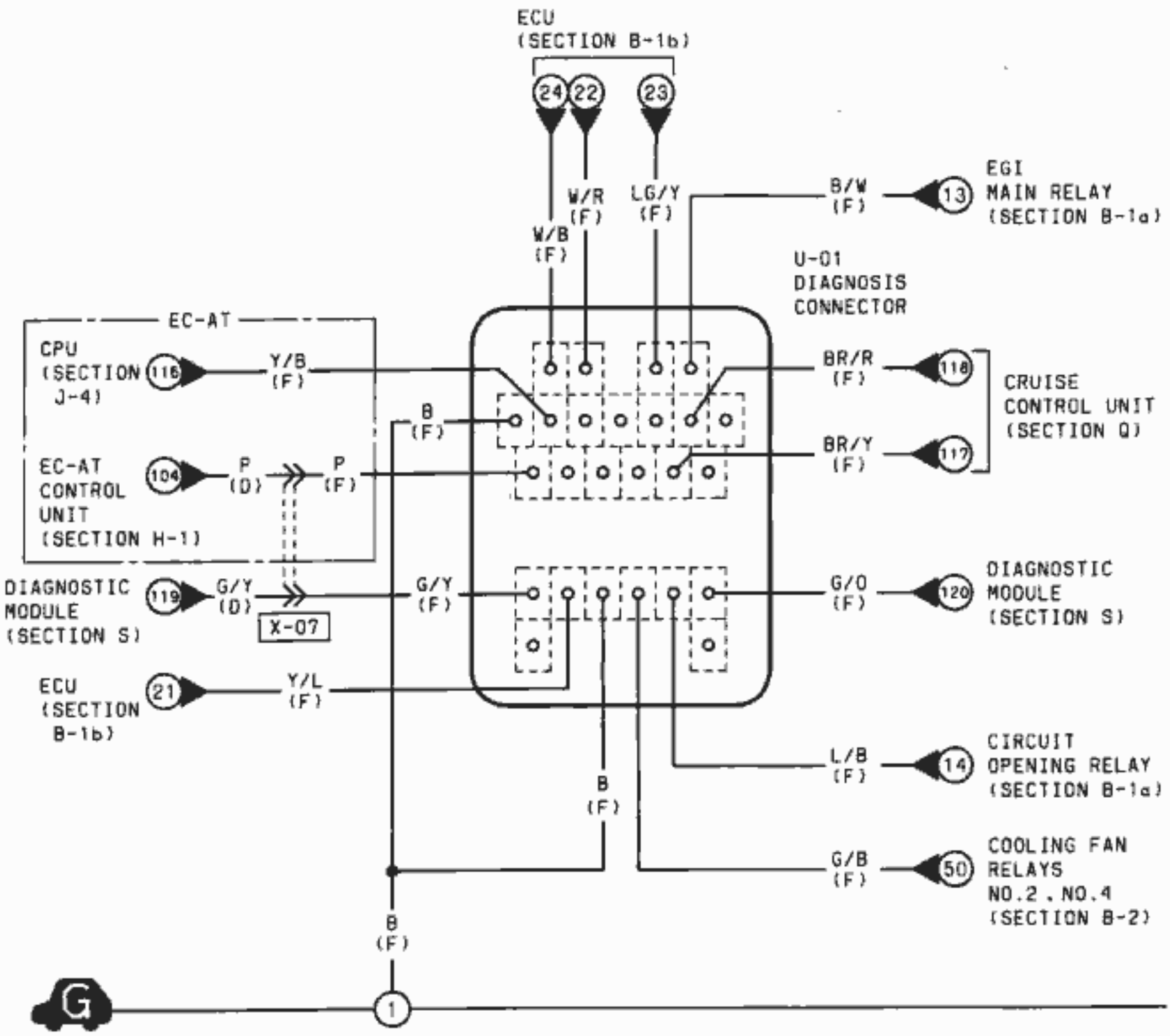
(D)-(AB)
S-07



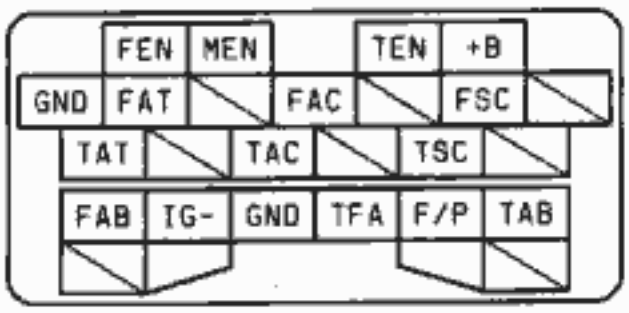
F3-04
AIR BAG MODULE

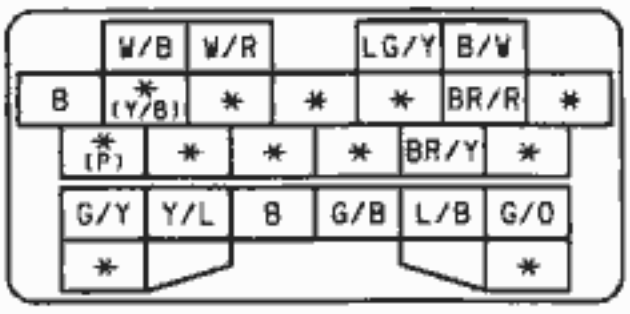


U ■ DIAGNOSIS CONNECTOR



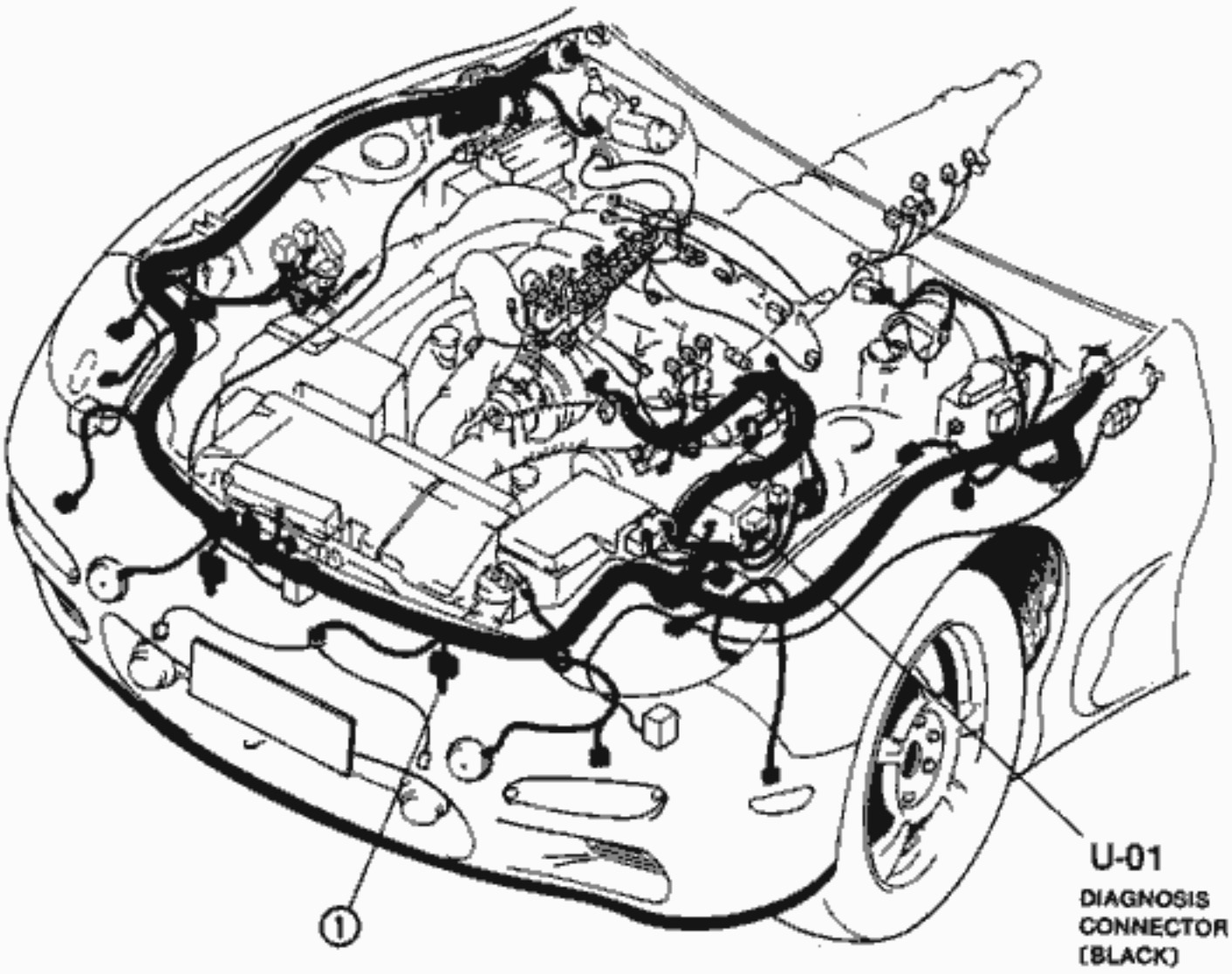
U-01 DIAGNOSIS CONNECTOR (F)

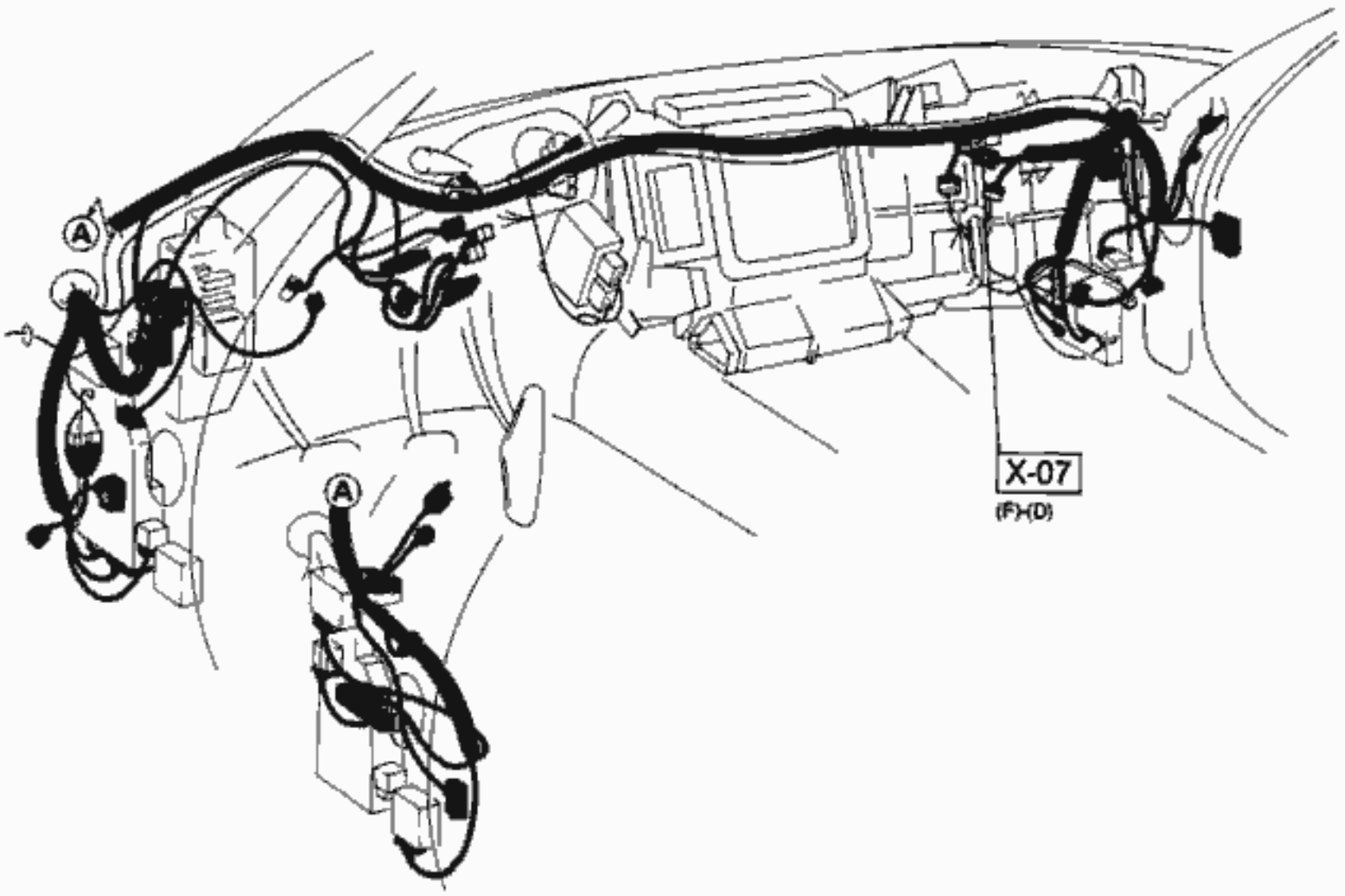




NOTES: THIS IS THE CONNECTOR AS SEEN FROM THE TERMINAL SIDE.
( )...EC-AT

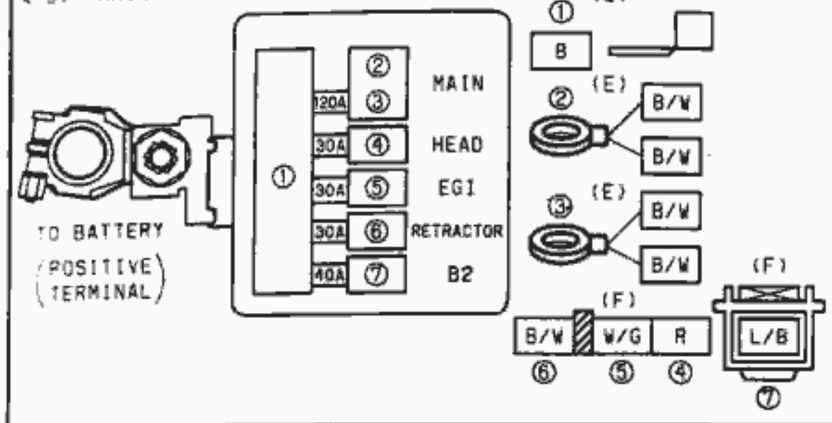
U



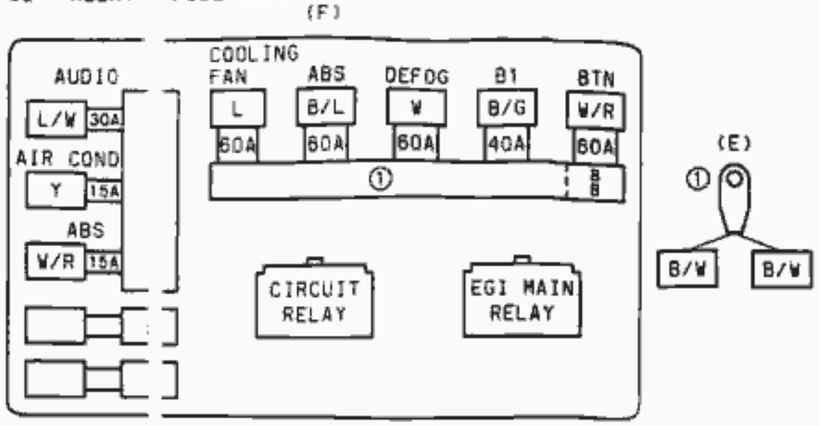


X-1 ■ COMMON CONNECTOR LIST

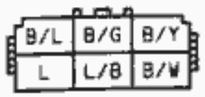
X-01 MAIN FUSE BLOCK



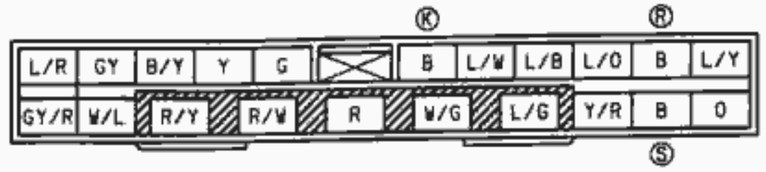
X-02 RELAY FUSE BLOCK



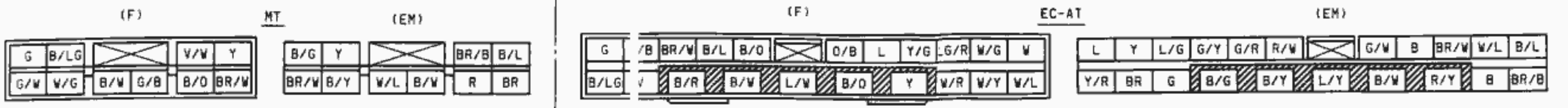
X-03 IGNITION SWITCH (F)



X-04 COMBINATION SWITCH (F)



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



X-06 CONNECTOR BETWEEN FRONT (F) & INSTRUMENT PANEL (I)

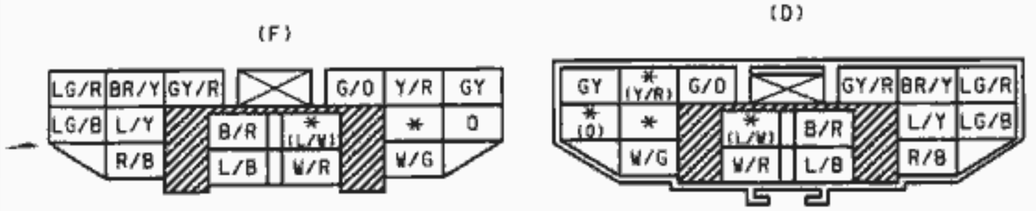
( )...EC-AT, [ ]...CANADA, « »...WITH FRONT FOG LIGHT
[ ]...CANADA WITHOUT FRONT FOG LIGHT

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

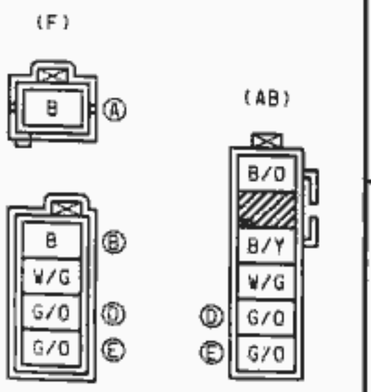
( )... EC-AT
[ ]... CANADA

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

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

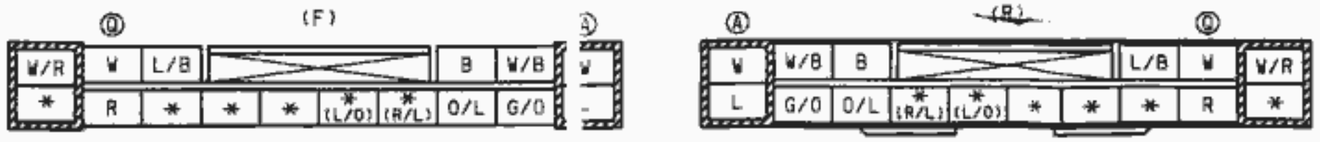


X-09 CONNECTOR BETWEEN FRONT (F) & AIR BAG (AB)

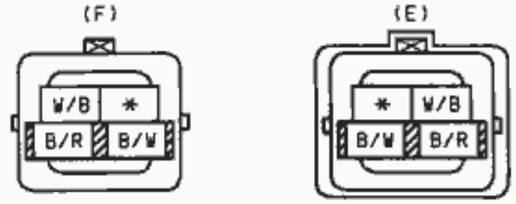


X-10 CONNECTOR BETWEEN FRONT (F) & REAR (R)

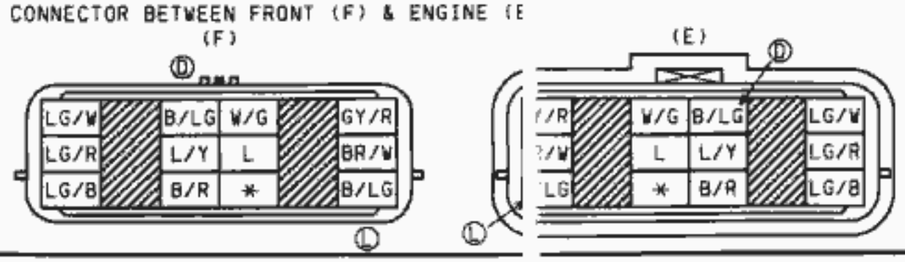
( )...WITH HEADLIGHT CLEANER



X-11 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)



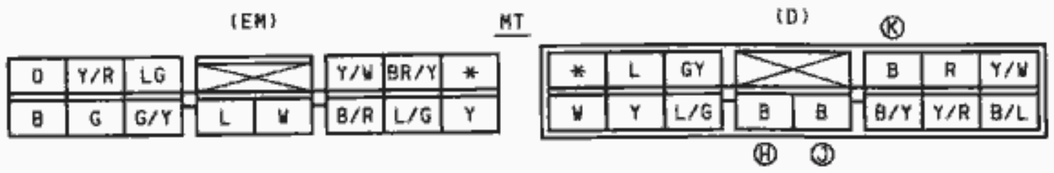
X-12 CONNECTOR BETWEEN FRONT (F) & ENGINE (E



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

X-2 ■ COMMON CONNECTOR LIST

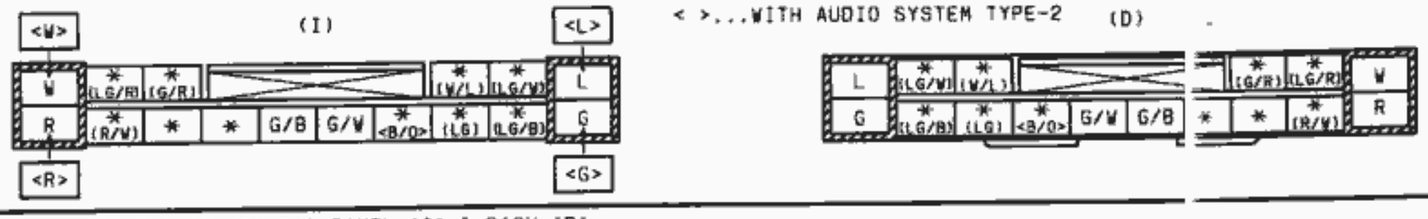
X-14 CONNECTOR BETWEEN EMISSION (EM) & DASH (D)



X-15 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & DASH (D)

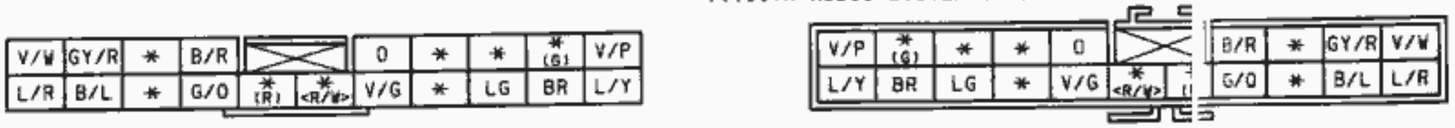
X-16 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & DASH (D)

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



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

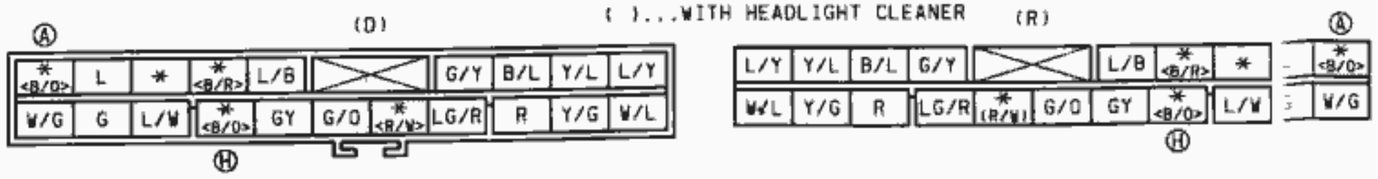
( )...EC-AT
< >...WITH AUDIO SYSTEM TYPE-2



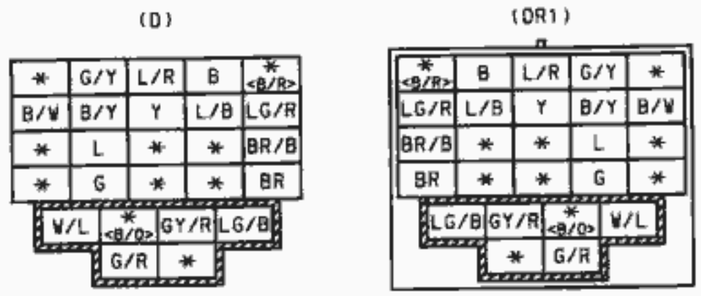
X-18 CONNECTOR BETWEEN INSTRUMENT PANEL (I) & INSTRUMENT PANEL NO.2 (I2)

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

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

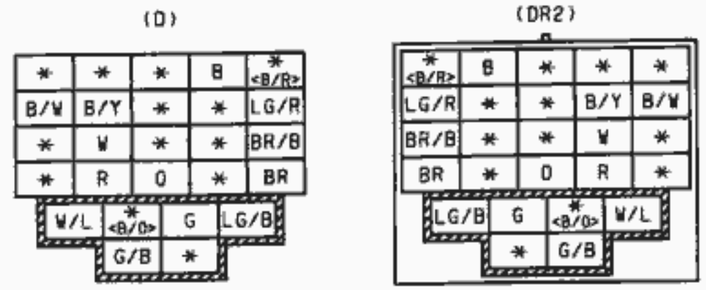


X-20 CONNECTOR BETWEEN DASH (D) & DOOR NO.1 (DR1)



< >...WITH AUDIO SYSTEM TYPE-2

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



< >...WITH AUDIO SYSTEM TYPE-2

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

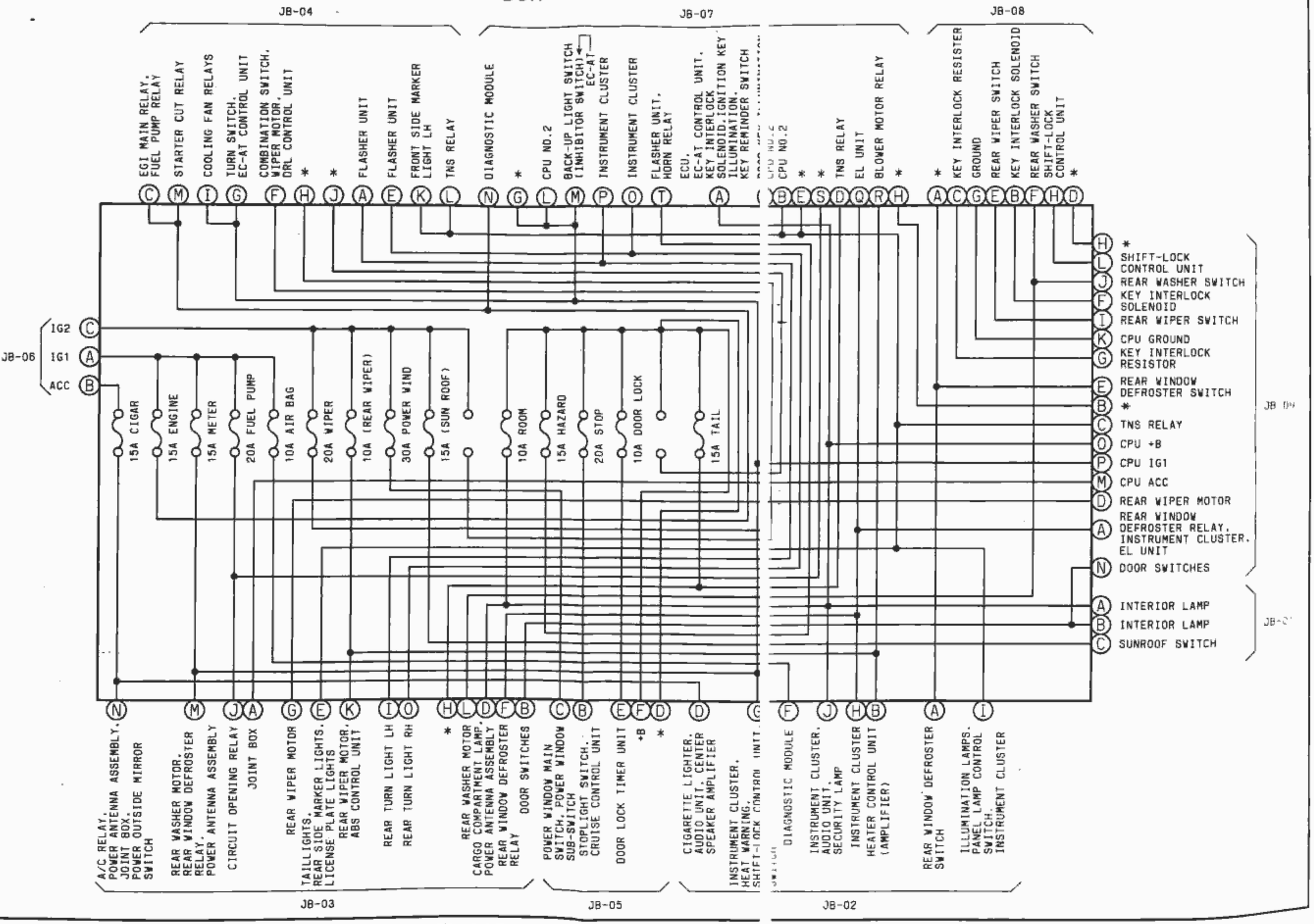
( )...WITH REAR WIPER & WASHER

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

< >...WITH AUDIO SYSTEM TYPE-2

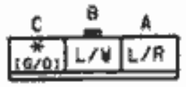
X-24 CONNECTOR BETWEEN REAR (R) & FUEL PUMP (FP)

INTERCONNECTING DIAGRAM OF JOINT BOX



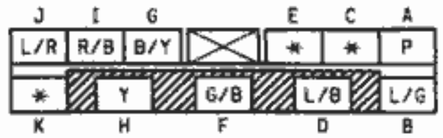
JB ■ JOINT BOX

JB-01 INTERIOR LAMP HARNESS (IN)



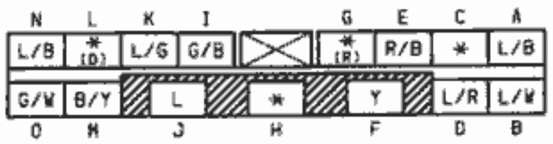
( )...WITH SLIDING SUNROOF

JB-02 INSTRUMENT PANEL HARNESS (I)

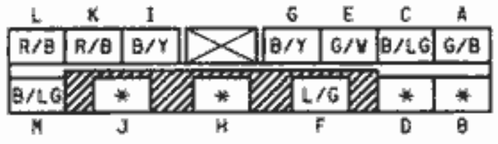


JB-03 REAR HARNESS (R)

( )...WITH REAR WIPER & WASHER



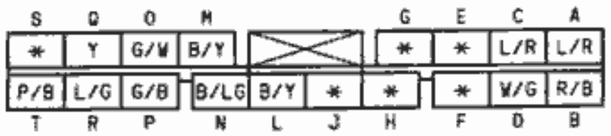
JB-04 FRONT HARNESS (F)



JB-05 DASH HARNESS (D)

JB-06 FRONT HARNESS (F)

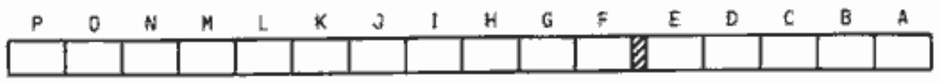
JB-07 DASH HARNESS (D)

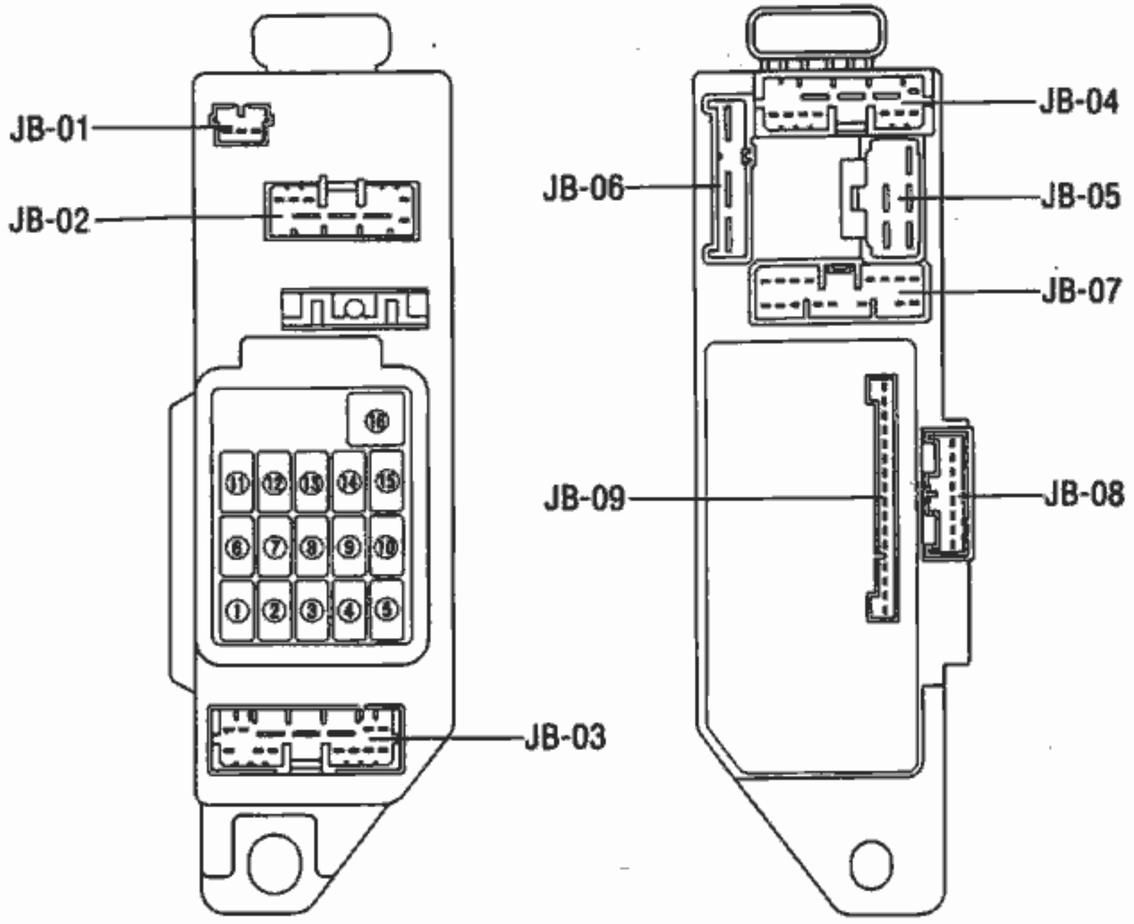


JB-08 DASH HARNESS (D)

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

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



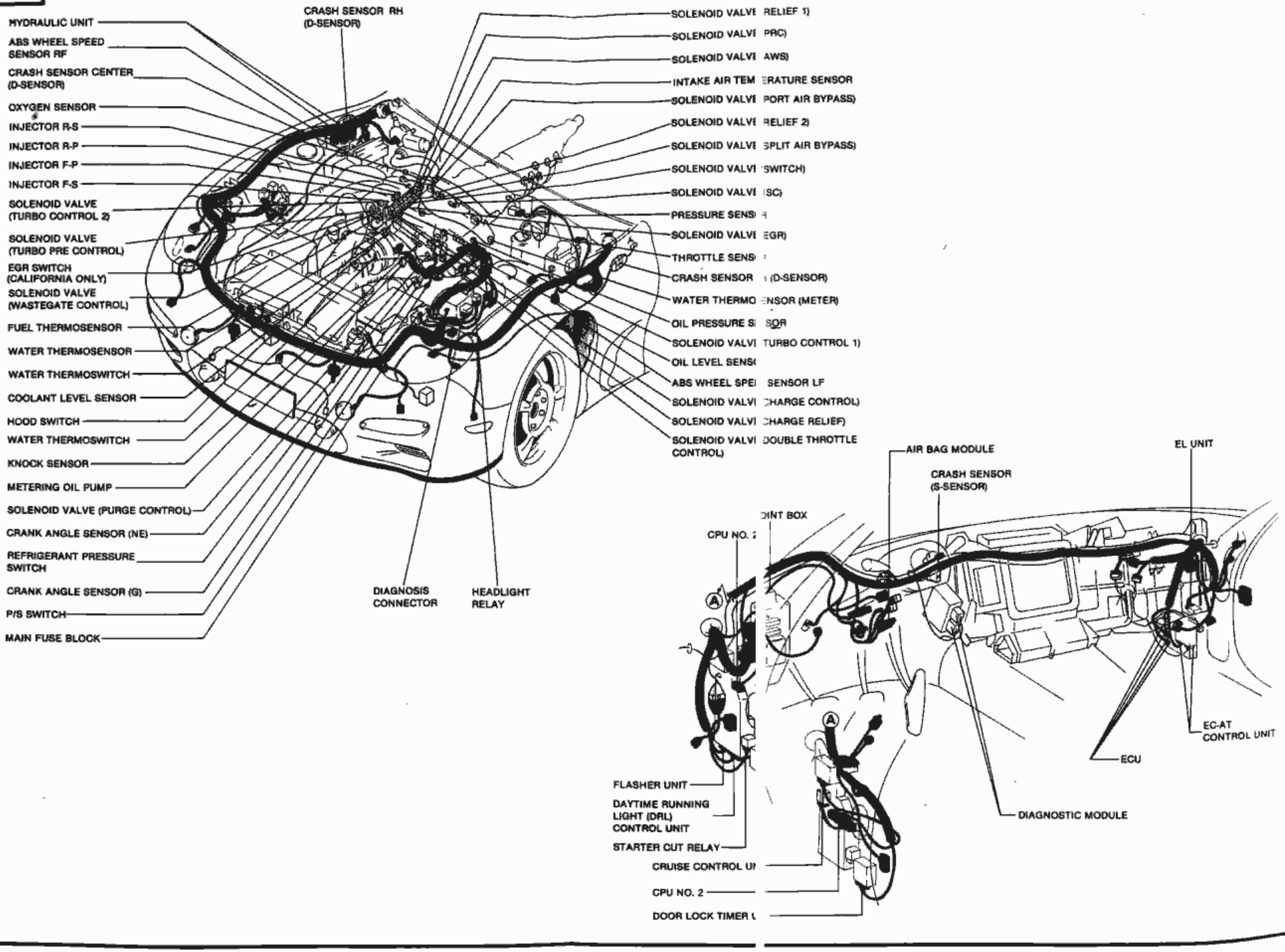


No.	CIRCUIT NAME	FUSE	COLOR CODE	No.	CIRCUIT NAME	FUSE	COLOR CODE
①	(REAR WIPER)	10A	R	⑨	METER	15A	L
②	HAZARD	15A	L	⑩	WIPER	20A	Y
③	ROOM	10A	R	⑪	STOP	20A	Y
④	ENGINE	15A	L	⑫	–	–	–
⑤	CIGAR	15A	L	⑬	(SUN ROOF)	15A	L
⑥	DOOR LOCK	10A	R	⑭	FUEL PUMP	20A	Y
⑦	TAIL	15A	L	⑮	AIR BAG	10A	R
⑧	POWER WIND	30A	G	⑯	–	–	–

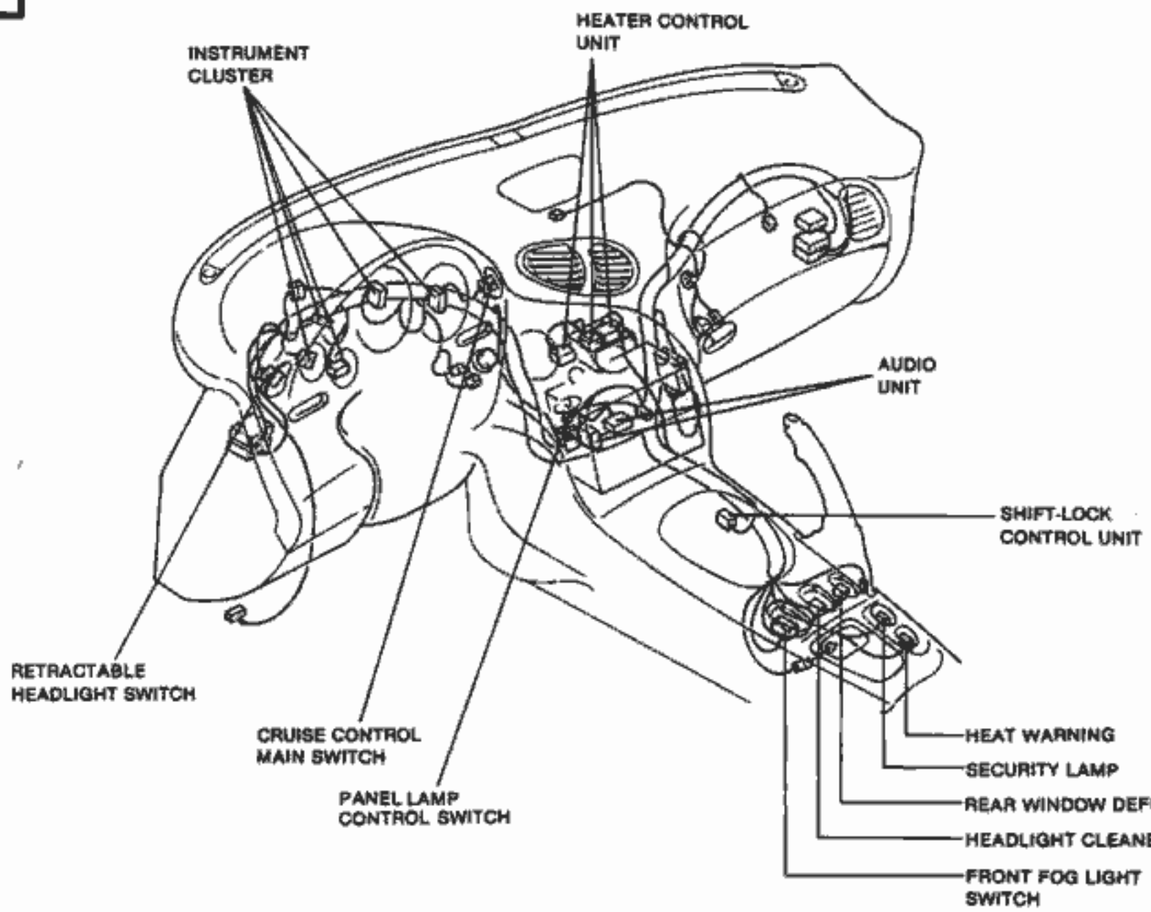
Z WIRING DIAGRAM

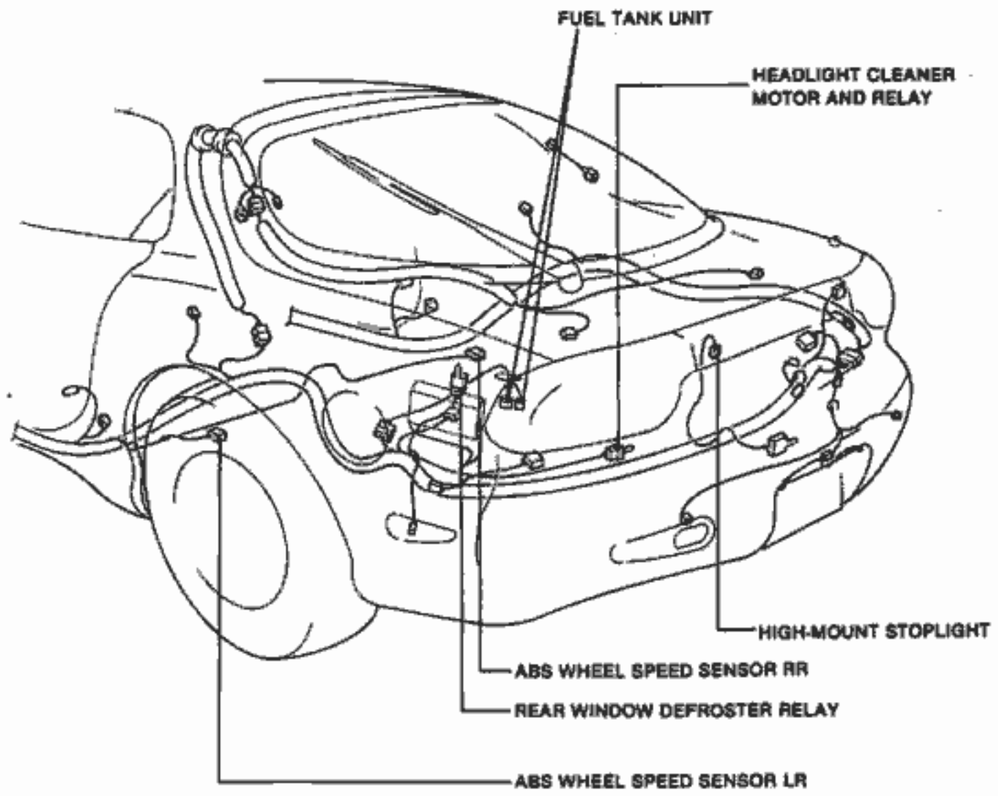
HARNESS COLOR: FRONT ENGINE DASH

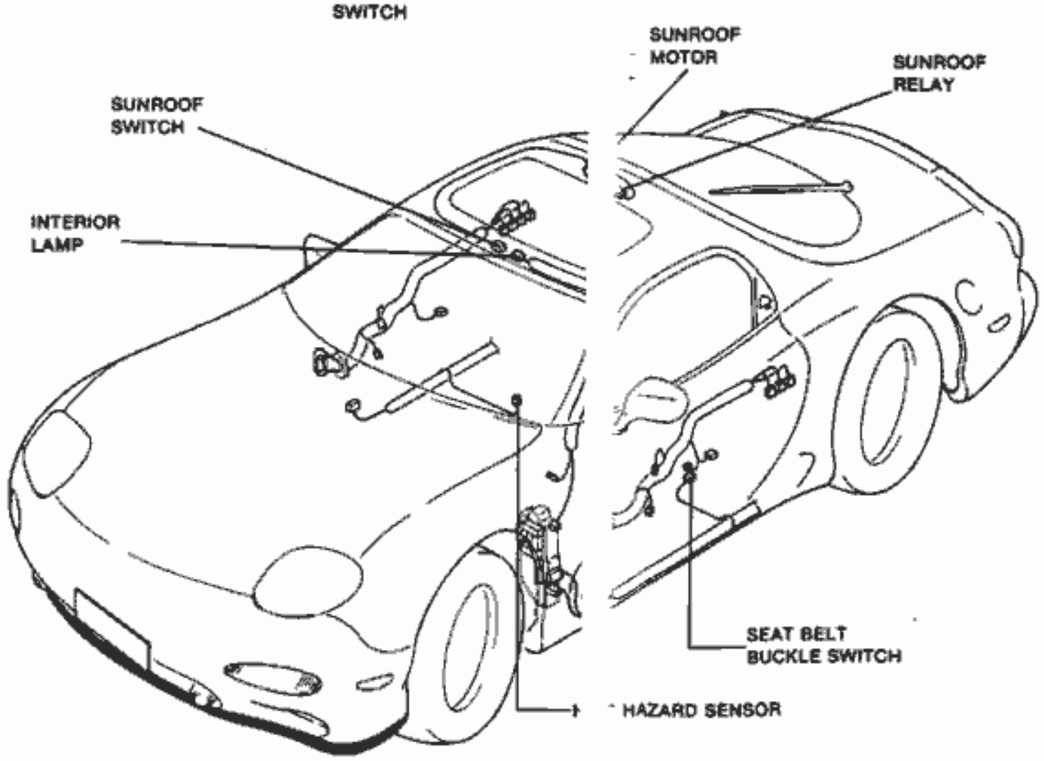
PL



PL


INSTRUMENT CLUSTER
HEATER CONTROL UNIT
AUDIO UNIT
SHIFT-LOCK CONTROL UNIT
RETRACTABLE HEADLIGHT SWITCH
CRUISE CONTROL MAIN SWITCH
PANEL LAMP CONTROL SWITCH
HEAT WARNING
SECURITY LAMP
REAR WINDOW DEFROSTER
HEADLIGHT CLEANER SWIT
FRONT FOG LIGHT SWITCH


FUEL TANK UNIT
HEADLIGHT CLEANER MOTOR AND RELAY
HIGH-MOUNT STOPLIGHT
ABS WHEEL SPEED SENSOR RR
REAR WINDOW DEFROSTER RELAY
ABS WHEEL SPEED SENSOR LR


SUNROOF MOTOR
SUNROOF RELAY
SUNROOF SWITCH
INTERIOR LAMP
SEAT BELT BUCKLE SWITCH
HAZARD SENSOR

PARTS INDEX PI

PI PARTS INDEX