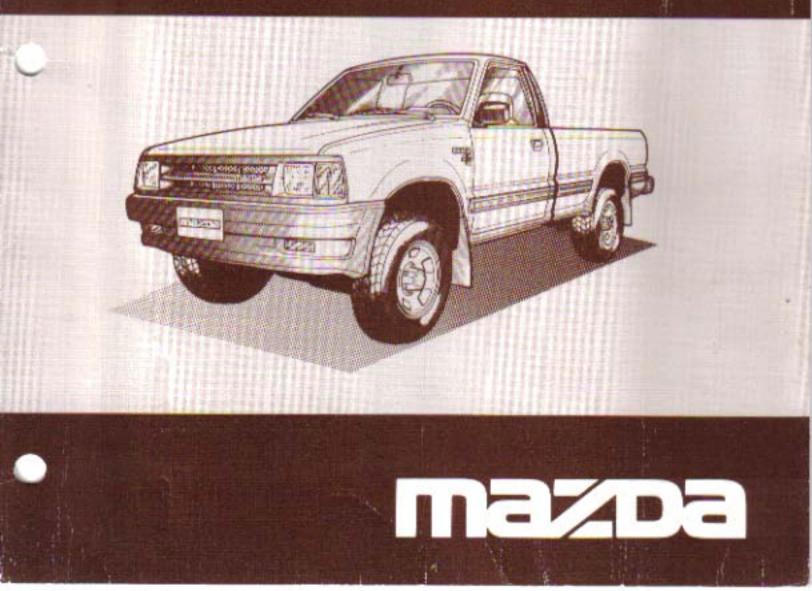
Mazda B2200 B2600i

1991 Wiring Diagram



1991 Mazda B2200 B2600i Wiring Diagram

GENERAL	
INFORMATION	

GROUND POINT

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GI

ELECTRICAL WIRING SCHEMATIC

W

FOREWORD

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

COMMON CONNECTORS

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PARTS LOCATION

Mazda Motor Corporation HIROSHIMA, JAPAN

APPLICATION:

This manual is applicable to vehicles beginning with the Vehicle Identification Numbers(VIN) shown on the following page. INDEX PI

C 1990 Mazda Motor Corporation PRINTED IN JAPAN, AUG. '90-U-5172-10-90 G

VEHICLE IDENTIFICATION NUMBERS(VIN) (CHASSIS NUMBER)

JM2 UF1*3*MO 100001~ JM2 UF1*4*MO 100001~ JM2 UF2*3*MO 100001~ JM2 UF3*3*MO 100001~ JM2 UF3*4*MO 100001~ JM2 UF3*4*MO 100001~ JM2 UF5*4*MO 100001~ JM2 UF5*4*MO 100001~

WIRING COLOR CODE

Color	Code	Color	Code
Blue	L	Natural	N
Black	В	Orange	0
Brown	BR	Pink	P
Dark Blue	DL	Red	R
Dark Green	DG	Purple	PU
Green	G	Tan	т
Gray	GY	White	w
Light Blue	LB	Yellow	Y
Light Green	LG	Violet	V

SYSTEM INDEX

SYSTEM

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SECTION

SYSTEM

SECTION

AUDIO (TYPE 1,2)J
BACK-UP LIGHTSF-1
CHARGING SYSTEM
EC-AT & HAT A-1
MT A-2
CIGAR LIGHTER
CRUISE CONTROL SYSTEMQ
DAY TIME RUNNING LIGHT CONTROL SYSTEM
CANADAE-1
EC-AT CONTROL SYSTEM
4X4 2.6L H-1
ENGINE CONTROL SYSTEM
2.2L EGI B~2a,2b,2c
2.6L
FEED BACK CARBURETOR CONTROL SYSTEM
2.2L CARBURETOR B-1a,1b,1c
2.2L CARBURETOR B-1a,1b,1c FRONT & REAR SIDE MARKER LIGHTS E-2
FRONT & REAR SIDE MARKER LIGHTS E-2
FRONT & REAR SIDE MARKER LIGHTS E-2 FRONT PARKING LIGHTS E-2 FUEL CONTROL SYSTEM
FRONT & REAR SIDE MARKER LIGHTS E-2FRONT PARKING LIGHTS
FRONT & REAR SIDE MARKER LIGHTSE-2FRONT PARKING LIGHTSE-2FUEL CONTROL SYSTEMB-4HAT CONTROL SYSTEM2.2L CARBURETOR2.2L CARBURETORH-22.2L EGIH-3
FRONT & REAR SIDE MARKER LIGHTSE-2FRONT PARKING LIGHTSE-2FUEL CONTROL SYSTEMB-4HAT CONTROL SYSTEM2.2L CARBURETOR2.2L EGIH-34X2 2.6LH-4
FRONT & REAR SIDE MARKER LIGHTSE-2FRONT PARKING LIGHTSE-2FUEL CONTROL SYSTEMB-4HAT CONTROL SYSTEM2.2L CARBURETOR2.2L CARBURETORH-22.2L EGIH-3
FRONT & REAR SIDE MARKER LIGHTSE-2FRONT PARKING LIGHTSE-2FUEL CONTROL SYSTEMB-4HAT CONTROL SYSTEM2.2L CARBURETOR2.2L EGIH-34X2 2.6LH-4HEADLIGHTSE-1HEATER & AIR CONDITIONER
FRONT & REAR SIDE MARKER LIGHTSE-2FRONT PARKING LIGHTSE-2FUEL CONTROL SYSTEMB-4HAT CONTROL SYSTEM2.2L CARBURETOR2.2L CARBURETORH-22.2L EGIH-34X2 2.6LH-4HEADLIGHTSE-1

HORN
IGNITION KEY REMINDER BUZZER
IGNITION SYSTEM
2.2L CARBURETORB-1a
2.2L EGIB-2a
2.6LB-3a
ILLUMINATION LAMPS
INSTRUMENT CLUSTERS
2.2L CARBURETORC-1
2.2L EGI & 2.6LC-2
LICENSE PLATE LIGHTSE-2
PTC HEATER SYSTEM
2.2L CARBURETOR FEDERAL & CANADA, A-3
REAT WHEEL ANTI-LOCK BRAKE SYSTEM O
REMOTE FLEE WHEEL CONTROL SYSTEM
4X4 2.6L H-6
ROOM LAMP 1
SEAT BELT WARNING BUZZER T
SHIFTLOCK SYSTEM
EC-AT & HAT H-5
STARTING SYSTEM
EC-AT & HAT A-1
MT A-2
STOPLIGTHSF-2
TAIL LIGHTSE-2
TURN SIGNAL & HAZARD FLASHER LIGHTS.F-1
WINDSHIELD WIPER & WASHER D

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GENERAL INFORMATION

Contents of and Using Electrical Wiring Diagrams

Contents of wiring diagrams	GI-2
Using wiring diagrams · · · · · · · · · · · · · · · · · · ·	GI-2

Reading Wiring Diagrams

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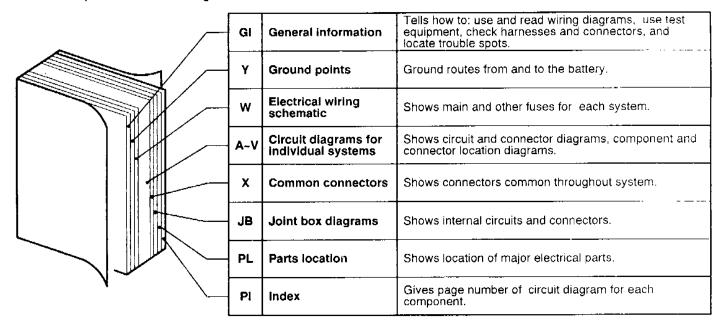
Ground points	GI-3
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Troubleshooting

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Contents of wiring diagrams

• This document is composed of the 8 groups shown below. The main components are summarized in the components location diagram at the end of the document.



Using wiring diagrams

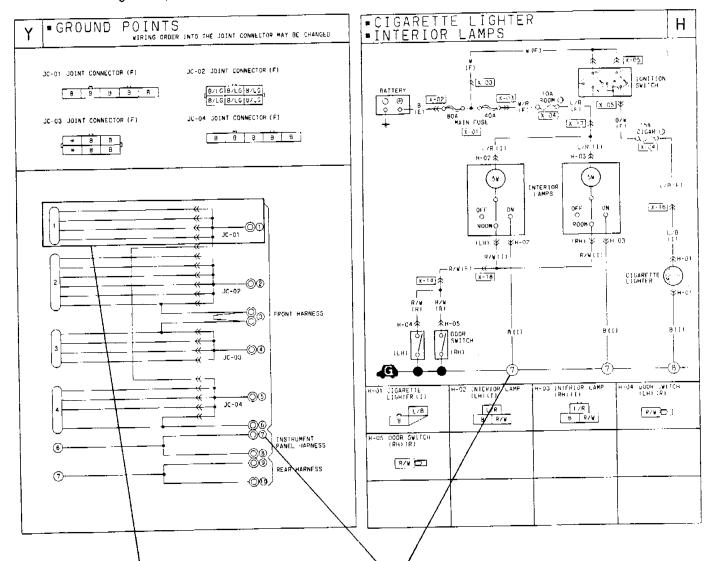
• The use of the wiring diagram depends on its intended application.

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 locating page numbers of systems and components	Parts Index System Index	

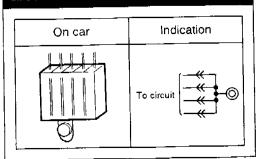
Ground points

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This shows ground points of the harness.



Ground indication



On circuit diagrams and ground points

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

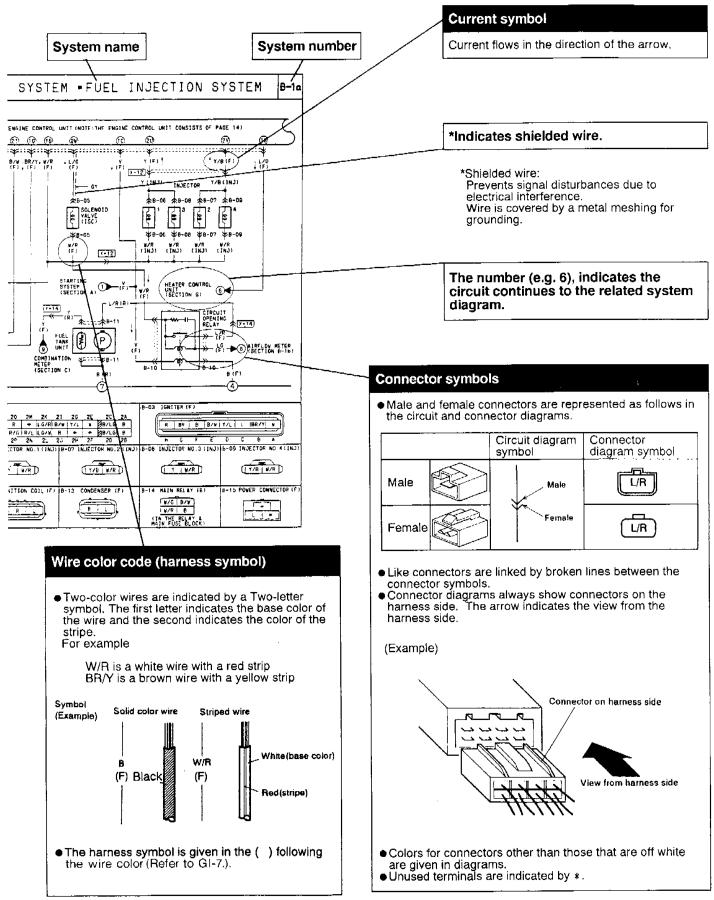
System circuit diagram/connector diagram

 These show the circuits for each system, from the power supply to the ground. The power supply side is at the top of the page and the ground side is at the bottom. The diagrams describe circuits with the ignition switch OFF.

Below is an explanation of the various points in the diagram. IGNITION SYSTEM = ENGINE CONTROL X-01 40A X-03 10A R007 € € ×-02 8-01 EF ണ 60 ൹ Ć \$ TT-05 COOLING FAN RELAY (SECTION 8-2) A- D1 3 MAIN FUSE BR • 8 - (£) B/# (E) 154 ENGINE O ¥ K-05 .★8-02 8/V (4) Q_____ [∓-04] 0 1 (ค) 7-10 摺 8-15 ⊡→_i⊧i 20A WIPER O \$8-12 α, Indicates operating conditions for switches, etc. POWER CONNECTOR 1-04 TO PLUG MAIN RELAY IIN THE RELAY & Main Fuse Blocki PLUG T 10 8-12个: .:.本 1GNITION COLL (F) B(F) 80-1 1E1 #/R (F) CRANK ANGLE -AB-03 * \odot Ċ (6) IGNITER (\mathbf{E}) 0 8-04 WATER THERMOSUITCH (FAN) ABOVE D1*C:ON © 🗈 Connector code. 2 8-03 B-03 🛎 B (F) CONDENSER B (F) The prefix letter indicates the system in which the G connector is used. CONTROL UNIT LE B-01 JB: Joint box connections 10 1H 1K 1J 1G 1E + LG/Y + BR/Y + 10 R/E LL Y IL/R = [L/0] X : Common connectors 1 . BR 14/1 34/514/R 27 A : Charging system/starting system WATER THER SWITCH (F) SOLENOID VAL connectors É 1.70 T M/R 17/11/ B : Engine control system connectors IGN] CIRCUIT OPENIN RELAT (F) 0 0/61 C : Gauge control system connectors V V/R 1/R B LG Y P E IL/P D: Wiper system connectors E : Lighting system connectors F : Signal system connectors G : Air conditioning system connectors Ground numbers A harness ground is represented differently than a physical ground of a unit . Types of ground Symbol Harness grounded Unit grounded

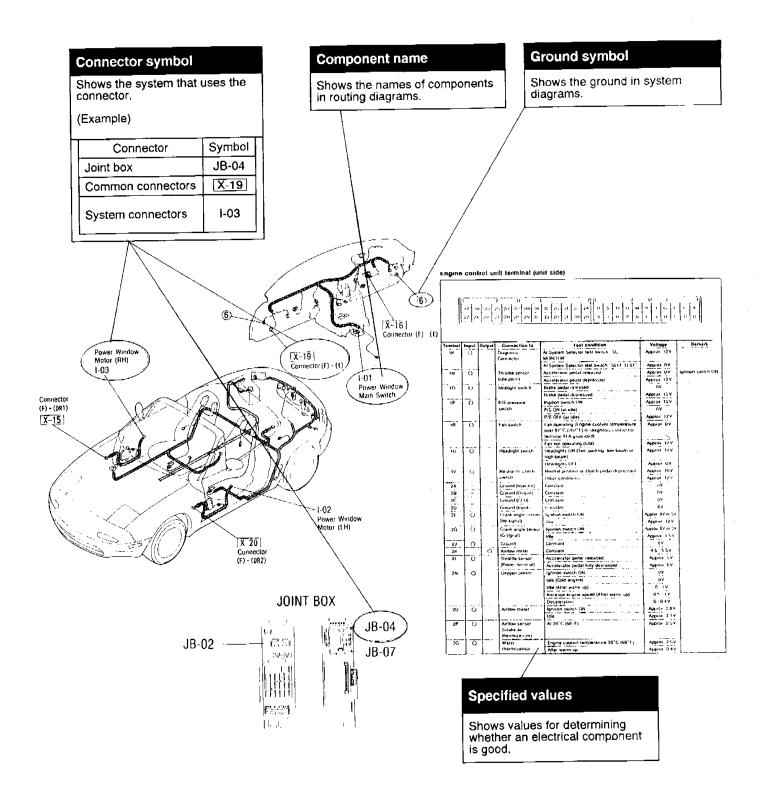
Sensor

Reading Wiring Diagrams



Routing diagram

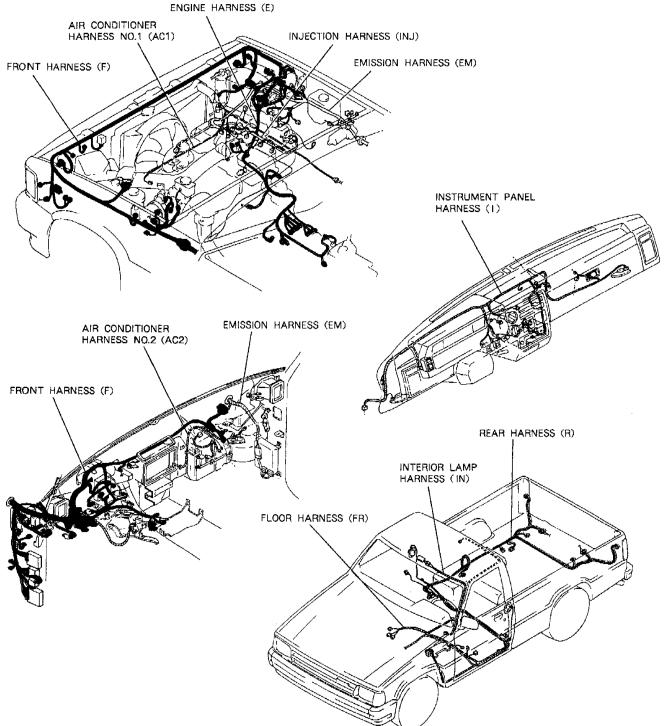
- This shows where electrical components are located on the system circuit diagram by lead and connector symbols.
- Specified values are listed beside the routing diagram or on the following page.



Harness symbols

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DESCRIPTION HARNESS	COLOR	SYMBOL	DESCRIPTION HARNESS	SYMBOL
FRONT HARNESS		(F)	INJECTION HARNESS	(INJ)
INSTRUMENT PANEL HARNESS		(1)	INTERIOR LAMP HARNESS	(IN)
REAR HARNESS		(R)	FLOOR HARNESS	(FR)
ENGINE HARNESS		(E)	AIR CONDITIONER HARNESS NO.1	(AC1)
EMISSION HARNESS		(EM)	AIR CONDITIONER HARNESS NO.2	(AC2)



Symbols

Symbol	Meaning	Symbol		M	leanin	g	
Battery ⊖ ⊕	 Generates electricity through chemical reaction Supplies direct current to circuits 	Resistance —	Mainly compo rated v Readir	 A resistor with a constant value Mainly used to protect electrical components in circuits by maintaini rated voltage Reading resistance values Colored type> 			al
Ground (1)	 Connecting point to vehicle body or other ground wire where current flows from positive to negative terminal of battery Ground (1) indicates a ground point to body through wire harness Gound (2) indicates point where 		Narrow		No.2 C No.3 C No.4 C 	econd col	alues
Ground (2)	component is grounded directly to body		Color	No.1	No.2	No.3	No.4
1	Remark			-	ce values	Multiplier	Tolerance
	 Current will not flow through a circuit if ground is faulty 		Black	0	0	× 10°	
•	ground is radity		Brown	2	2	× 10'	
Fuse (1)	Melts when current flow exceeds that		Orange	3	3	× 10'	
(·)	specified for circuit, stopping current		Yellow	4	4	× 10 [±]	
a~~	flow		Green	5	5	× 10`	
	Precautions		Blue	6	6	× 10°	<u> </u>
(box)	• Do not replace with fuses exceeding		Purple	7	7	× 10′	
Fuse (2)	specified capacity		Grey	8	8	× 10*	1
· · ·	<box type=""> <cartridge type=""></cartridge></box>		White	9	9	× 10°	
$-(\alpha - \alpha)$			Gold	· ··		×10 '	• 5%
	Total Contraction		Silver			×10	(10%
(Cartridge)							20%
Main fuse/Fusible	<main fuse=""> <fusible link=""></fusible></main>		<nume< td=""><td>rical typ</td><td>e></td><td></td><td></td></nume<>	rical typ	e>		
ink				321-			
_							
					- Third - Second		
			L		- First	: Resistan	ce values
Transistor (1)	Electrical switching component	Motor	• Conve	rts elect	rical ene	ergy into	
Collector (C)	 Turns on when voltage is applied to the base(B) 	山口	mecha	inical en	ergy		
Base NPN	Collector	(M)					
(B) (B)	indication						
Emkter (E)		∥⊤				·	
Transistor (2)	• Reading code	Pump	• Pulls i	• Pulls in and expels gases and liquids			
Collector (C)	2 S C 828 A Revision mark						
Base PNP	A:High- frequency PNP	∥ (P)					
(B)	B:Low- frequency PNP C:High- frequency NPN						
Emitter (E)	Number of terminals D:Low- frequency NPN		_				
Lamp	• Emits light and generates heat when	Cigarette lighter	• Electri	ical coil i	that ger	erates h	neat
\frown	current flows through filament						
(3.4 W)	1		1				

Reading Wiring Diagrams

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Symbol	Meaning	Symbol	Meaning
Horm	 Generates sound when current flows. 	Switch (1)	 Allows or breaks current flow by opening and closing circuits.
Speaker		Switch (2)	
Heater	 Generates heat when current flows. Movement of magnet in speedometer set turns contact within sensor on and 	Harness	Unconnected intersecting harness.
\bigcirc	off.	(Not connected)	Connected intersecting harness.
Ignition switch	 Turning ignition key operates switch contacts to complete various circuits. 	(Connected)	
Relay (1)	• Current flowing through coil produces el	ectromagnetic force o	eausing contact to open or close.
3/	Normally open relay (NO)	Open	flow
Relay (2)	Normally closed relay (NC)	Flo	w
Sensor (variable)	 Resistor whose resistance changes with operation of other components. 	Diode	Known as a semiconductor rectifier, diode allows current flow in one direction only Cathode(K) Anode(A) Flow of electric current K-[]A K-[]-A
Sensor (thermistor)	 Resistor whose resistance changes with temperature. 	Light emitting diode (LED)	 Diode that lights when current flows Unlike ordinary light bulbs, diode does not generate heat when lit Cathode(K) — Anode(A)
Capacitor	 Component that temporarily stores electrical charge. 		Cathode(K) Cathode(K) Cathode(K) Anode(A) Flow of electric current
Solenoid	 Current flowing through coil generates electromagnetic force to operate plungers, etc. 	Reference(zener) diode f◀	 Allows current to flow in one direction up to a certain voltage, allows current to flow in other direction once that voltage is exceeded.

Logic symbols

Types of logic symbols	Operation	Expressing output	Simple relay circuits
	Input to A or B will produce output at C	Low electrical potential (L) at A and $B \rightarrow$ No output (L) at C High electrical potential (H) at A or $B \rightarrow$ Output (H) at C	
	Input to A and B will produce output at C	High electrical potential (H) at A and B \rightarrow Output (H) at C Low electrical potential (L) at A or B \rightarrow No output (L) at C	
INV A-D-B	No input to A will produce an output at B Input to A will not produce any output at B	Low electrical potential (L) at $A \rightarrow$ Ungrounds (H) B High electrical potential (H) at $A \rightarrow$ Grounds (L) B	A B
	main function 1.Signal detector for emissi tachometer	f complex functions within circuit Describes on control unit, cooling unit and and hazard flasher unit,breakerless	(Examples) Breakerless transistor igniters Signal converter Coll signal converted to ON/OFF signal

Abbreviations used in this booklet

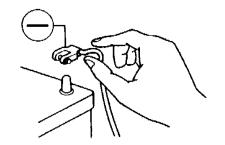
A AAS ABS ACV AAE AAS ACV AAS ACV AAS AAS AAS AAS AAS AAS AAS AAS AAS AA	Combination Conditioner Control Double Overhead Camshaft Defroster Electronically Controlled Power
DEF	
ECPS	
	Steering
EGI	Electronic Gasoline Injection
EGR	Exhaust Gas Recirculation

ELR ELEC ETR FFC FFC FFC FFC FFC FFC FFC FFC FFC FF	Intermittent Joint Box Left Hand Liquid Crystal Display Low Low Wave Motor
MIL	Malfunction Indicator Lamp
MTR	Mechanical Tuning Radic
M/T	Manual Transmission
MID	Middle
MIN	Minute
MIX	Mixture
MPX	Multiplex
MTX	Manual Transaxle Middle Wave
MW	
NC	Normally Closed
NO	Normally Open
OD	Over Drive
OFF	Switch Off

ON	Switch On
P	Power
PRCV	Pressure Regulator Control
	Solenoid Valve
PTC	Positive Temperature
	Coefficient Heater
P/S	Power Steering
PRG	Purge Solenoid Valve
QSS	Quick Start System
R	Rear
RH	Right Hand
RL	Rear Left
RPM	Revalution Per Minute
RR	Rear Right
RËĆ	Recirculation
SOL	Solenoid
\$T	Start
SW	Short Wave
sw	Switch
тсч	Twin Scrol Turbocharger Solenoid
	Valve
TICS	Triple Induction Control System
TEMP	Temperature
TR	Transistor
TWS	Total Wiring System
V	Volt Variable Resonance Induction
VRIS	
	System
VENT	Ventilation
VOL	Volume
W	Watt

Precautions when servicing electrical system

- Note the following items when servicing the electrical system.
- Do not alter the wiring or electrical equipment in any way as this may damage the vehicle or cause a fire due to shorting or overcapacity of a circuit.
- Always disconnect the negative (-) battery cable first and reconnect it last when disconnecting the battery.



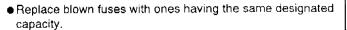
Caution

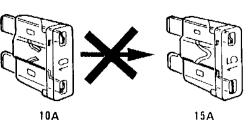
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• Be sure that the ignition and other switches are OFF before disconnecting or connecting the battery terminals.

Failure to do so may damage the semi-conductor components.

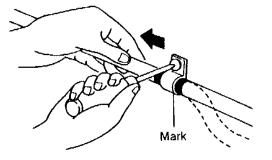
 Secure harnesses with a clamp when provided to take up any slack.

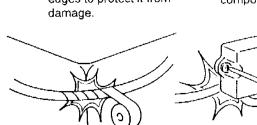




Caution

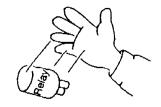
- Replacing a fuse with one of a larger capacity than designated may damage components or cause an electrical fire.
- Tape areas of the harness that may rub or bump against sharp edges to protect it from damage.
- Be sure that the harness is not caught or damaged when mounting components.





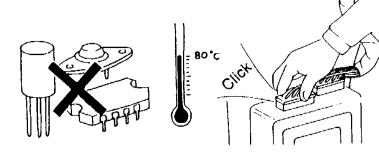
Caution

- Clamp all harnesses near vibrating components(e.g. the engine) to remove any slack and prevent contact due to vibration.
- Do not handle roughly or drop electrical components.



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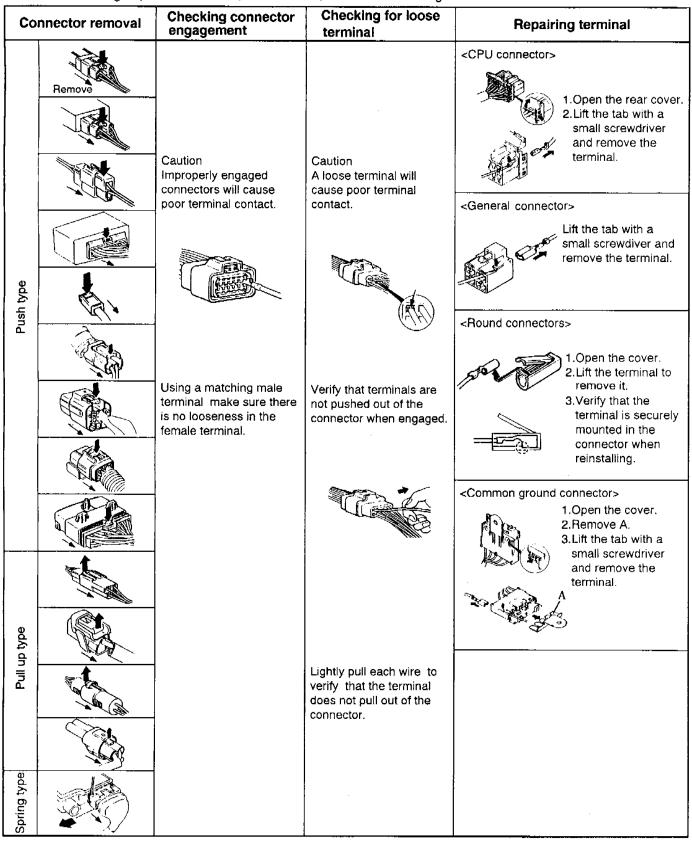
- Disconnect heat sensitive parts (e.g. relays, ECU) when performing maintenance where temperatures may exceed 80°C(176°F) (i.e. welding).
- Make sure that the connectors are securely connected when installed.



Handling connectors

Caution

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



Using electrical test equipment

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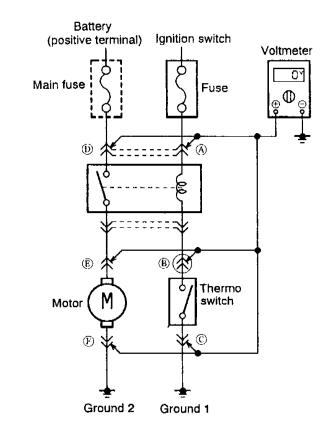
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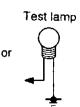
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Equipment	Use	Operation	Handling precautions
Test lamp	Test for locating open or shorted circuits.	 Connect the test lamp between the circuit being measured and a ground. The lamp will light if the circuit is energized to the point tested. 	• Test lamps use 12V 1.4 or 3.4W bulbs or light - emitting diodes (LED). 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, etc.	 Do not connect the power side directly to a ground as this may burn the harness or damage electrical components.
Voltmeter	Used for measuring the voltage of a circuit to locate possible opens or shorts.	 Connect the positive (+) lead to where voltage is to be measured and the negative (-) lead 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 (+) lead to access narrow terminals.
Ohmmeter	Used for locating opens and shorts in the circuit, confirming continuity of switches and checking sensor resistance.	 Zero the ohmmeter. Using Verify that current is not flowing through the circuit. Touch the leads to the check points. 	 Zero the meter after switching to the measuring range. Before using the ohmmeter, make sure that the ignition switch is OFF or the negative (~) battery cable is disconnected to prevent burning the ohmmeter.
Ammeter	Used for checking alternator output, current supplied to the starter, and dark current within a circuit. Note Dark current is the current flowing through the circuit when the ignition switch is OFF.	 Connect the ammeter in series with the circuit by touching the positive (+) lead to the power side terminal and the negative (-) lead to the ground - side terminal. 	 Set the range to the desired voltage. Connect the ammeter in series with the circuit. The ammeter may be burned if it is connected in parallel.

Measuring voltage

Checks



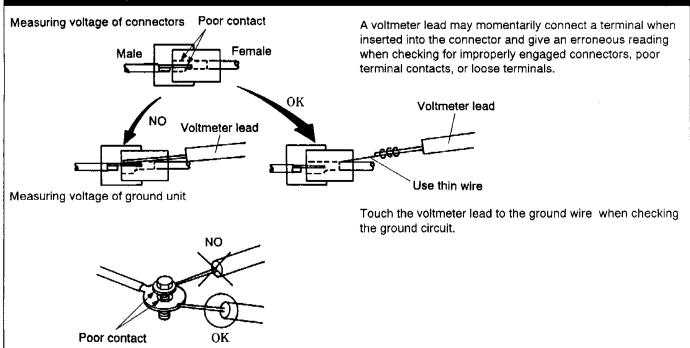


1. Use a voltmeter or test lamp to ascertain voltage at the measuring points.

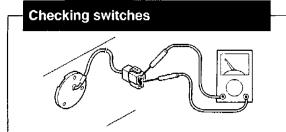
Measur- ing points	Circuit operation					
	Ignition switch: OFF		Ignition switch:ON			
			Thermo switch: OFF		Thermo switch: ON	
٩	٥٧	×	12V	ò	12V	ò
6)	٥V	×	12V	ò	٥V	×
©	٥٧	×	٥v	×	٥٧	×
0	12V	ď	12V	, Ò	12V	Ó
®	0V	×	٥V	×	12∨	ò
Ð	٥V	×	ov	×	٥V	×

 $\dot{\heartsuit}$: Test lamp ON \times : Test lamp OFF

Precautions during checks



Measuring continuity/resistance

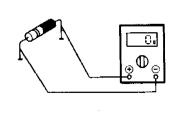


Touch the ohmmeter leads to the switch terminals to check continuity.

Caution

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

Checking diodes



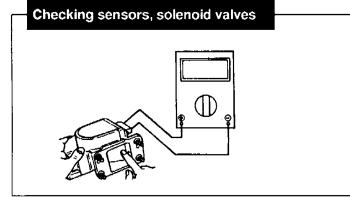
Continuity is checked according to the direction of the positive (+) and negative (-) leads of the ohmmeter in the circuit containing the diode.

Connection	Continuity
	Yes
	No

Remark

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The negative (-) lead of the ohmmeter is connected to the positive terminal of the internal ohmmeter battery. The positive (+) lead to the negative terminal of the battery.

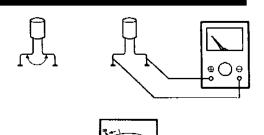


Connect the ohmmeter leads to the sensor or solenoid valve terminals to check resistance.

Caution

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

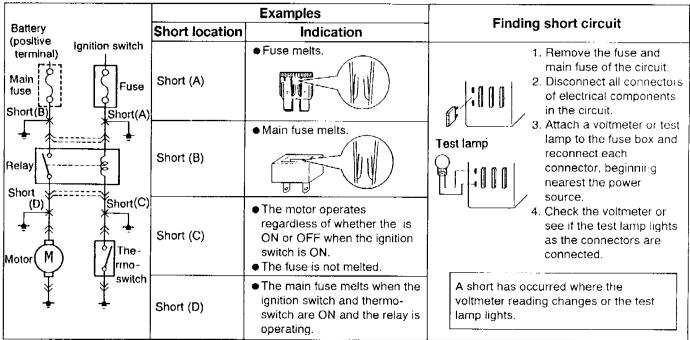
Checking condensers



- 1. Short between the terminals with a jumper wire to discharge the capacitor.
- 2. Set the ohmmeter range to x10k Ω and connect it to the capacitor terminals.
- 3. The capacitor is good if the needle of the ohmmeter swings once and returns to it 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

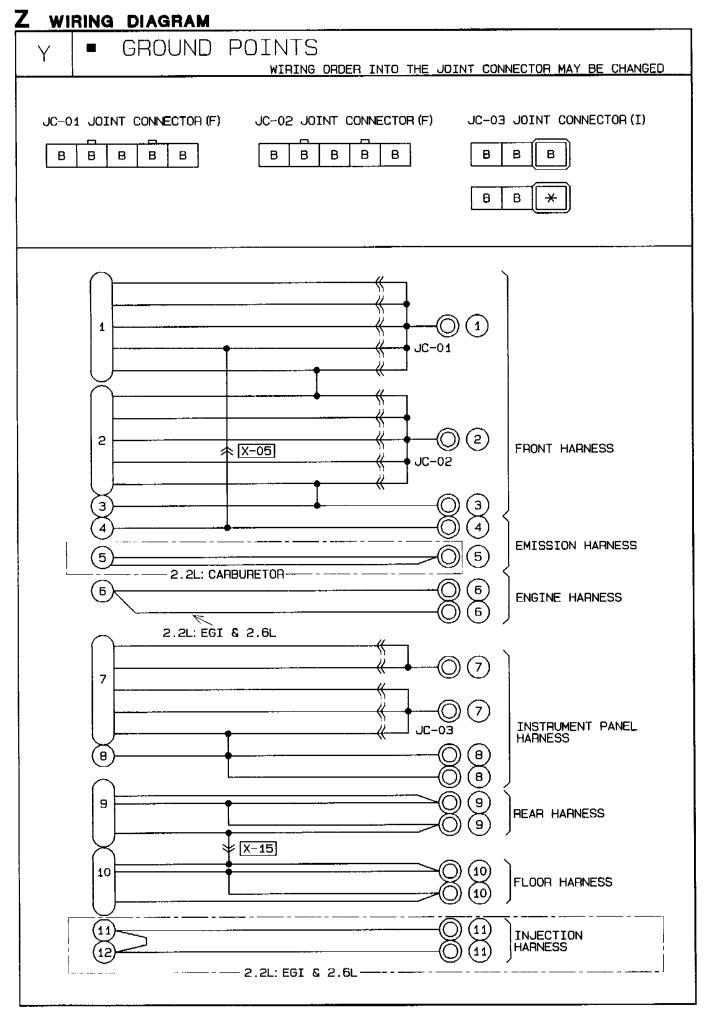
Circuits connected to control unit

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

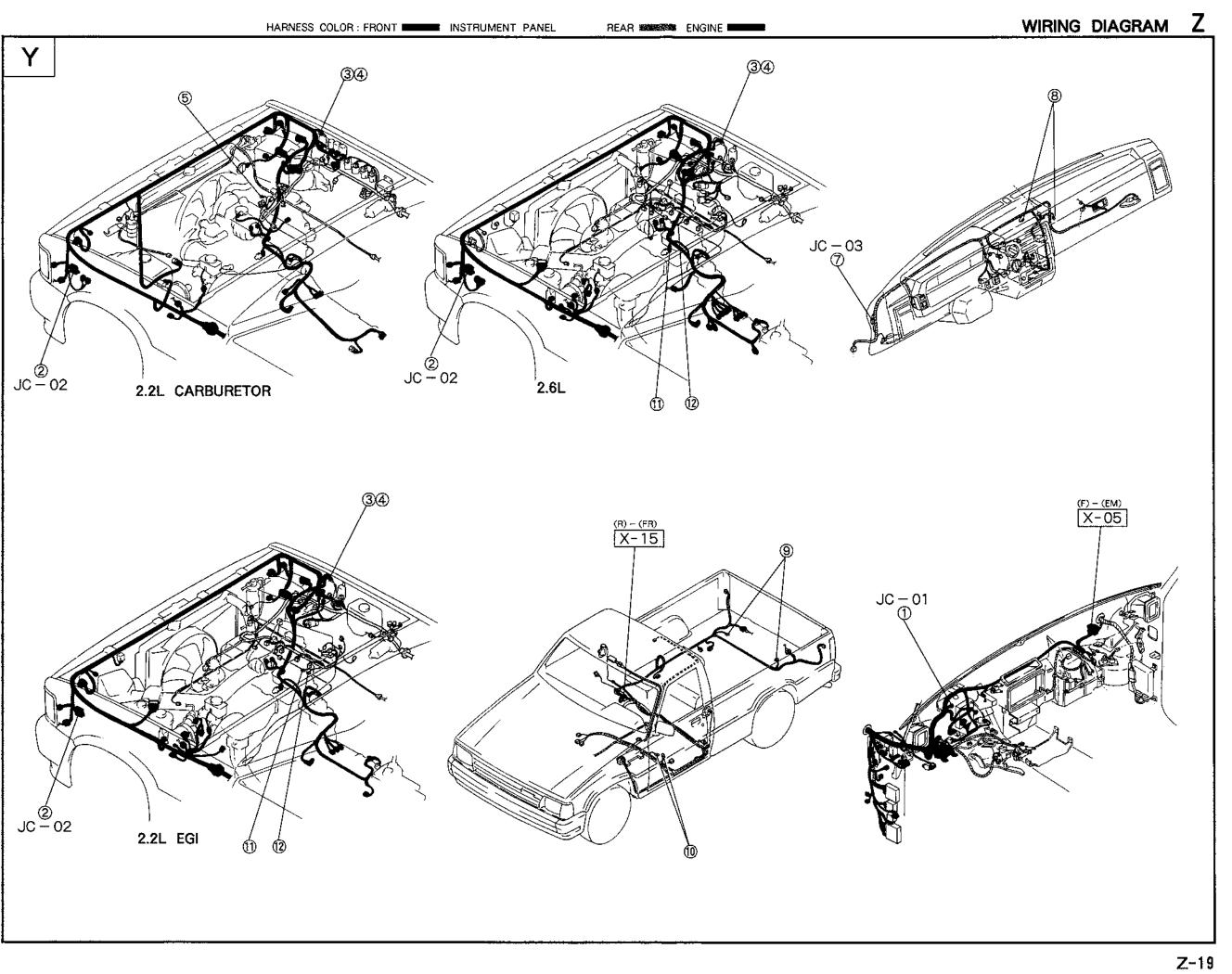
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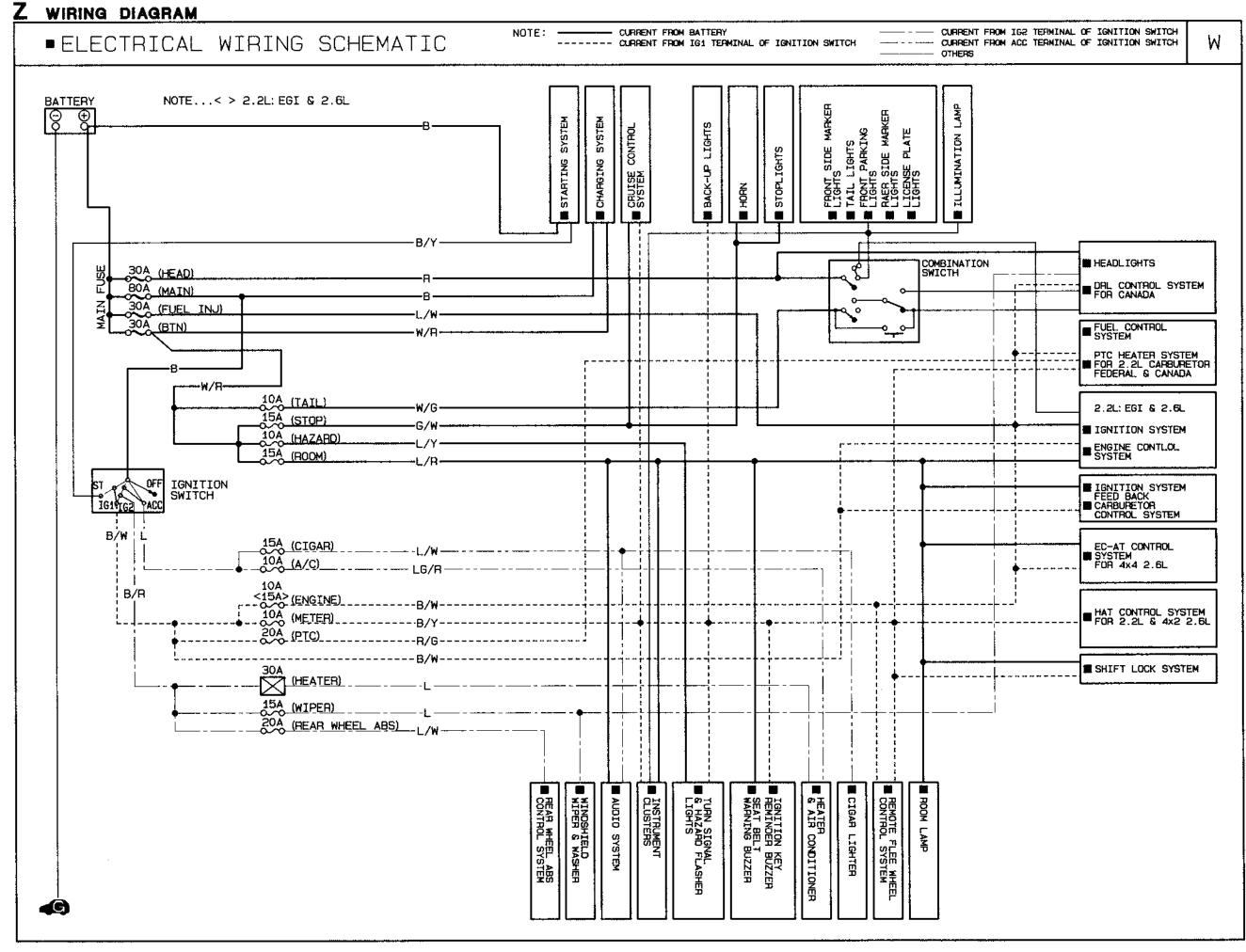
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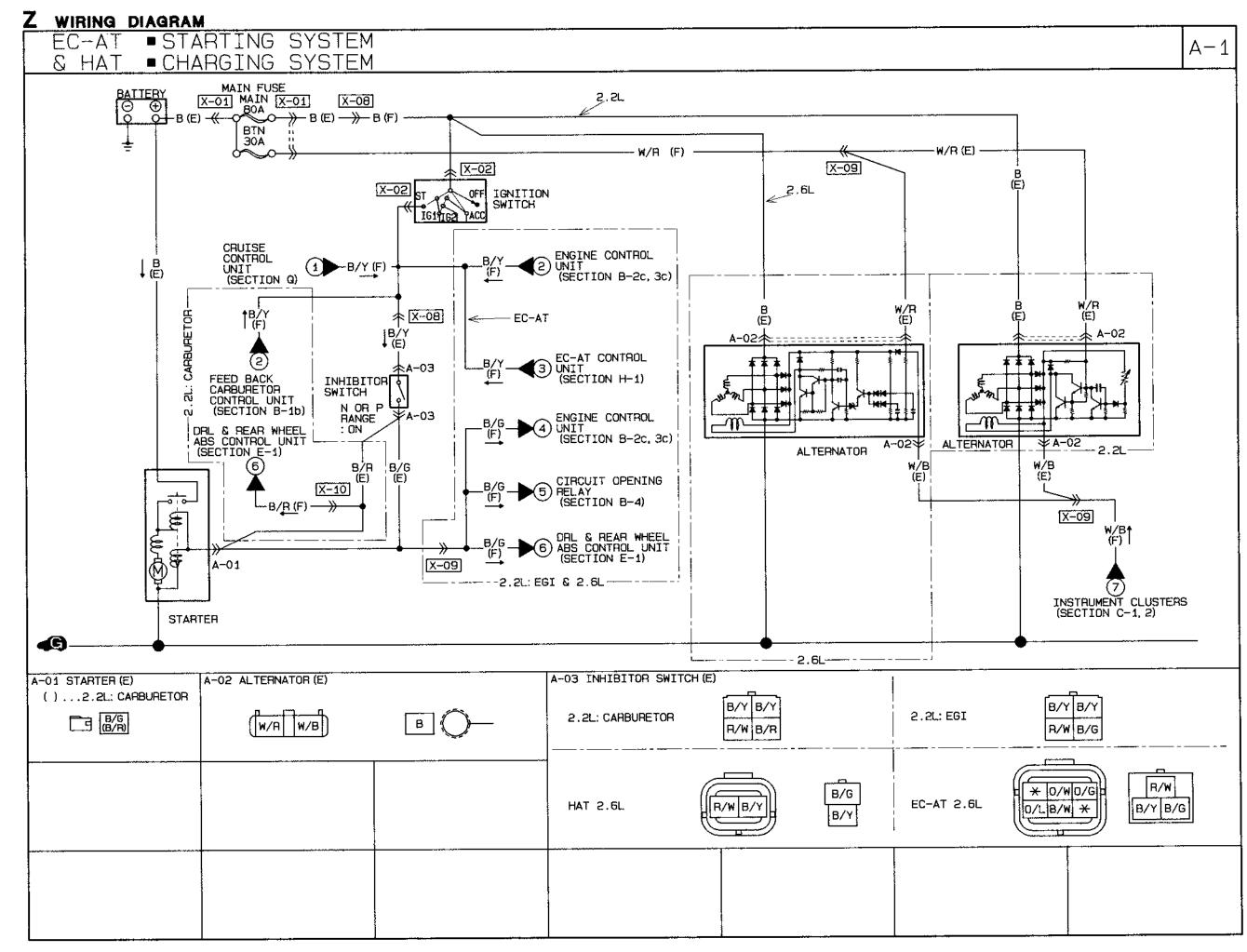


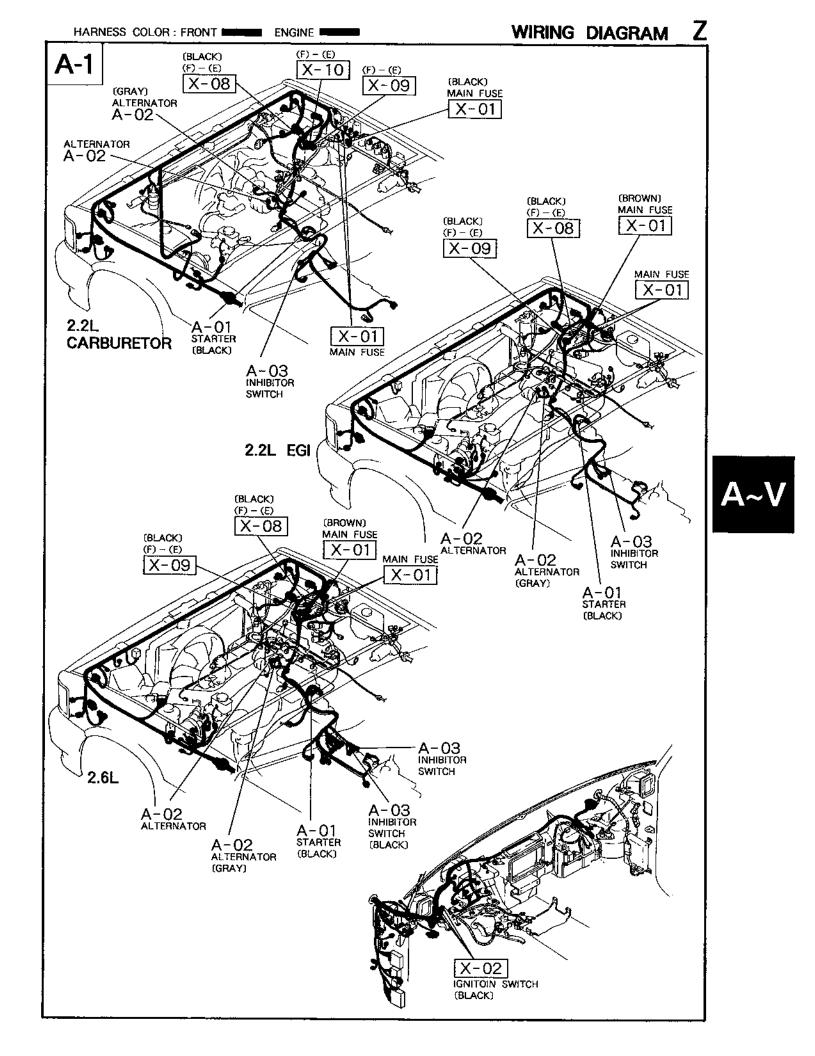
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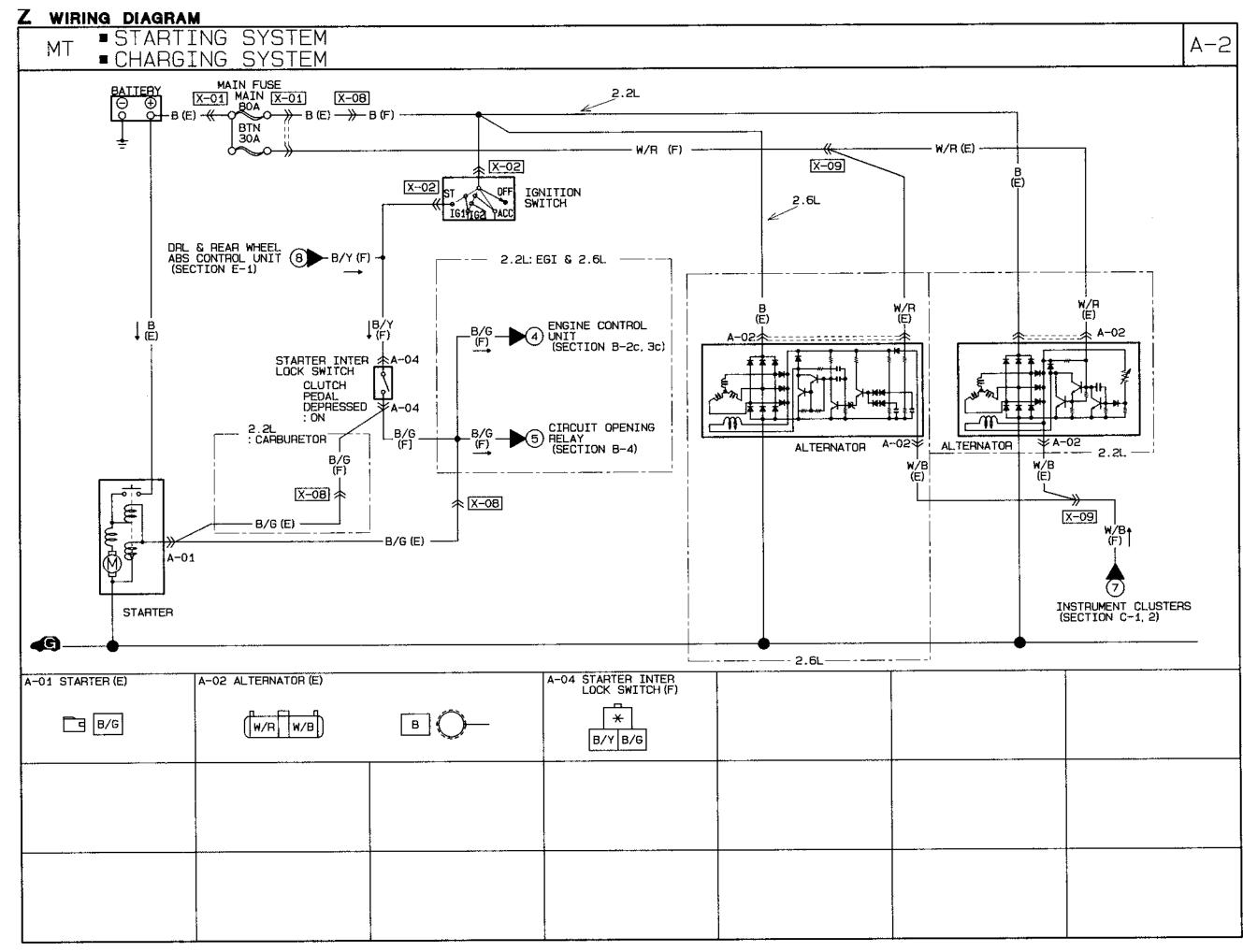
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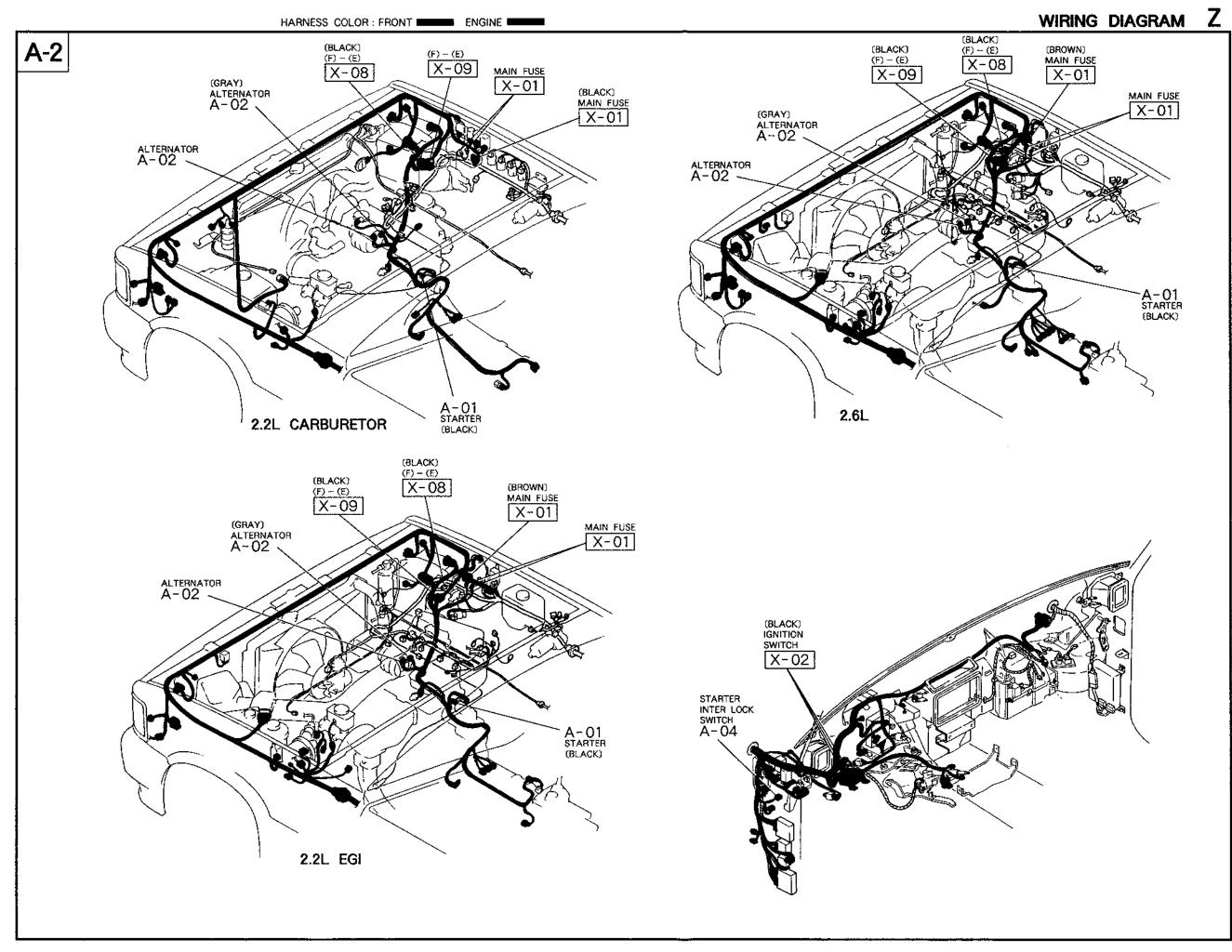




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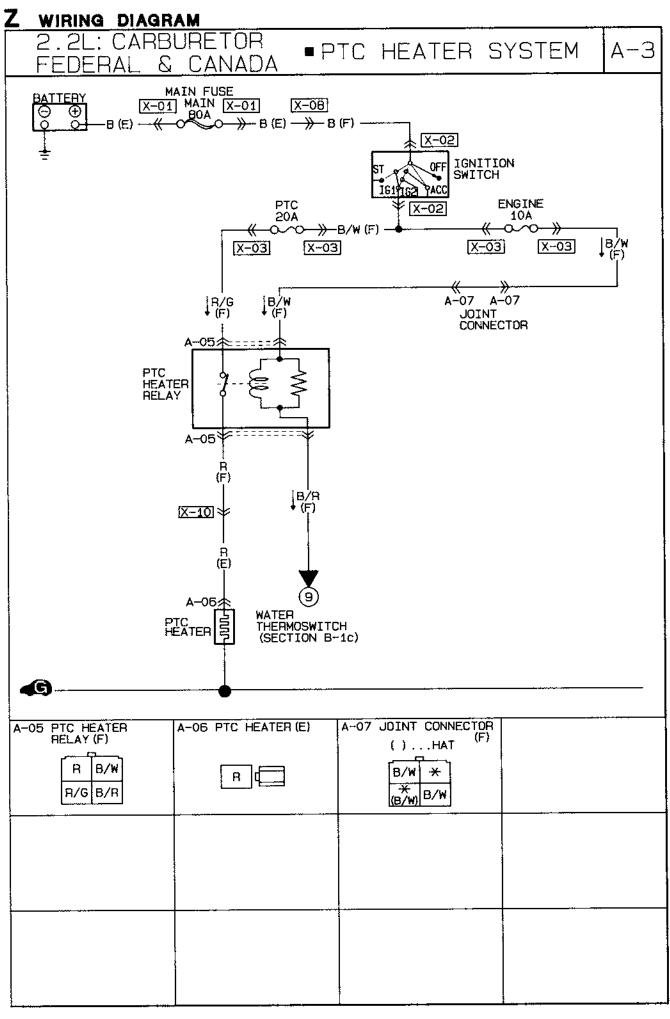


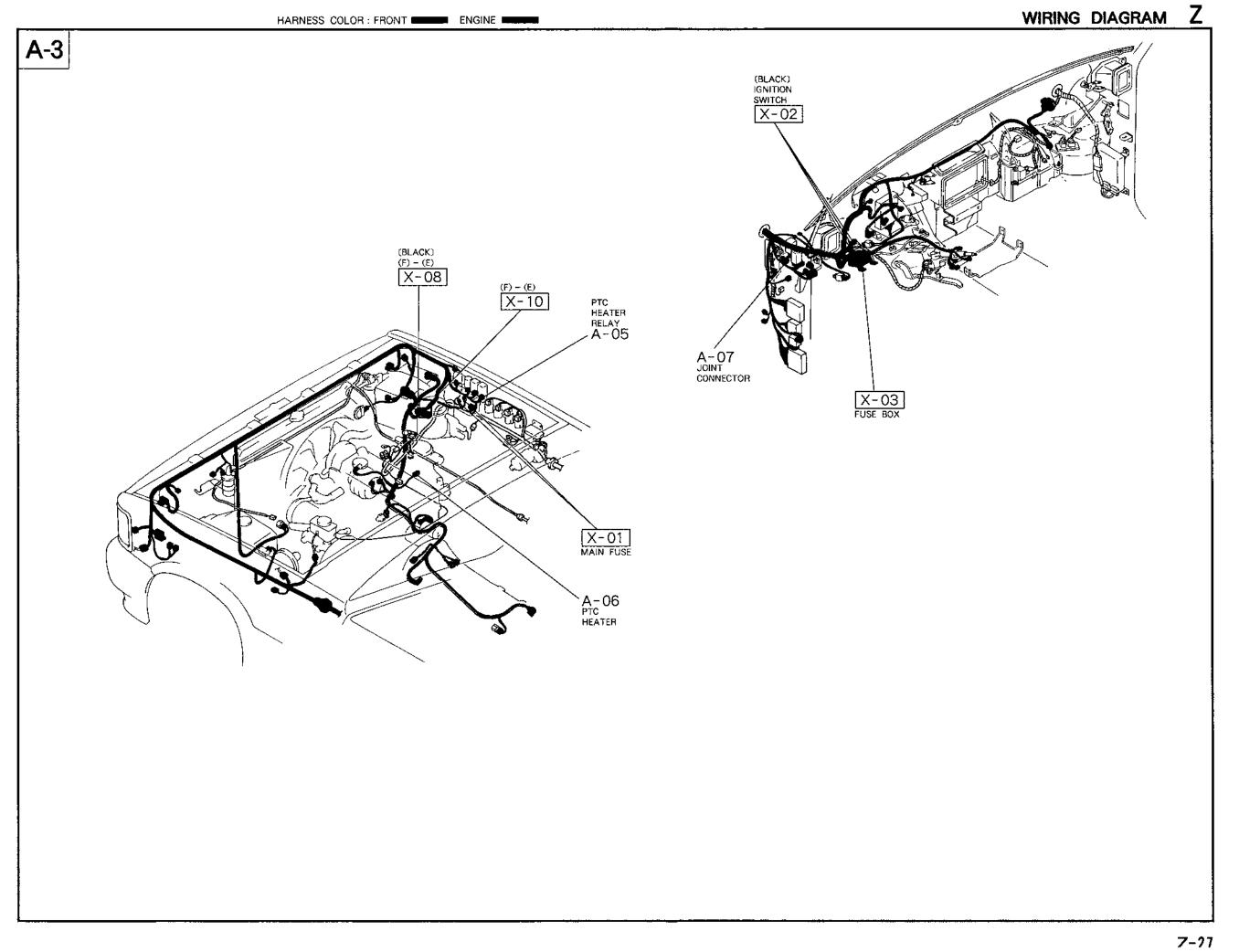


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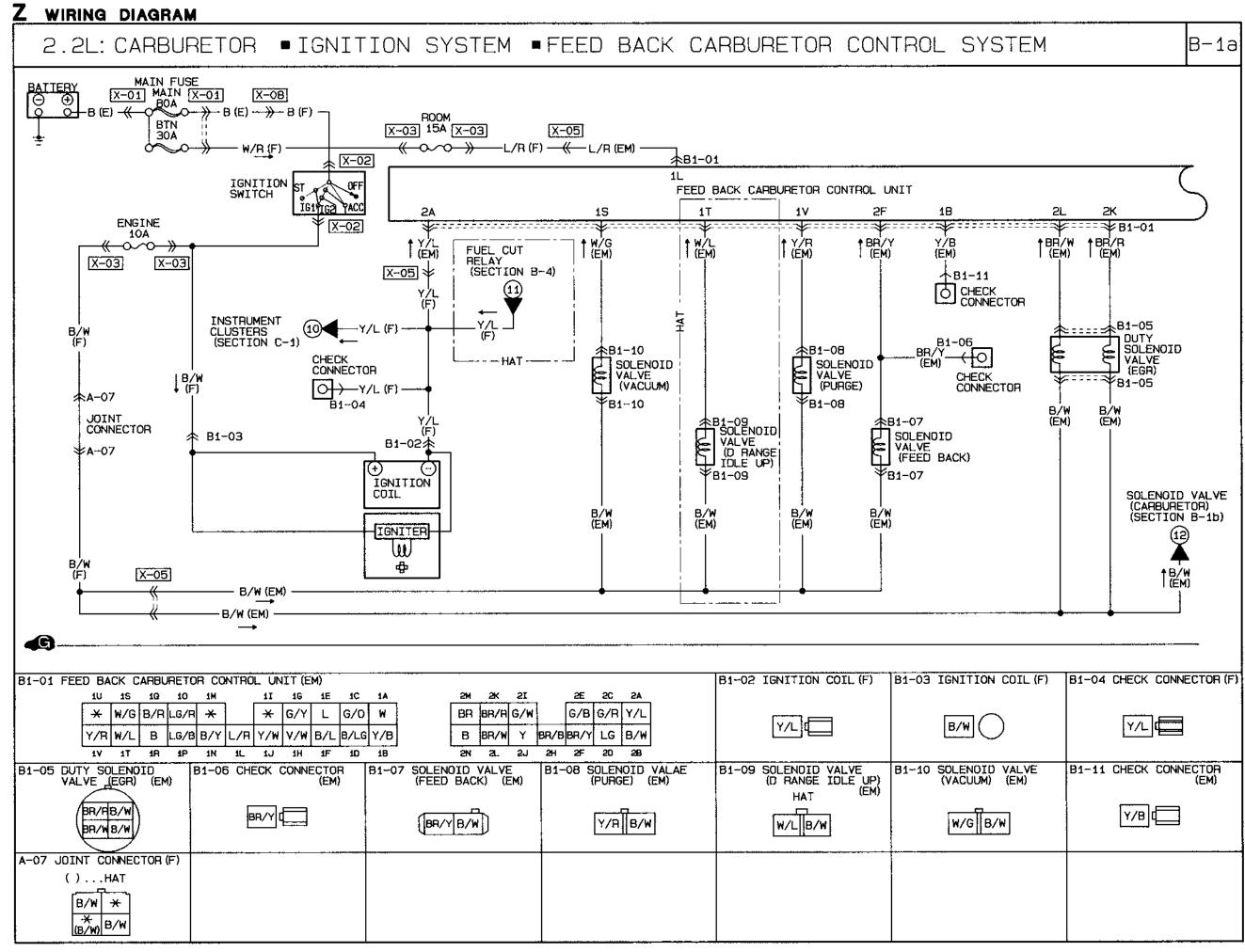


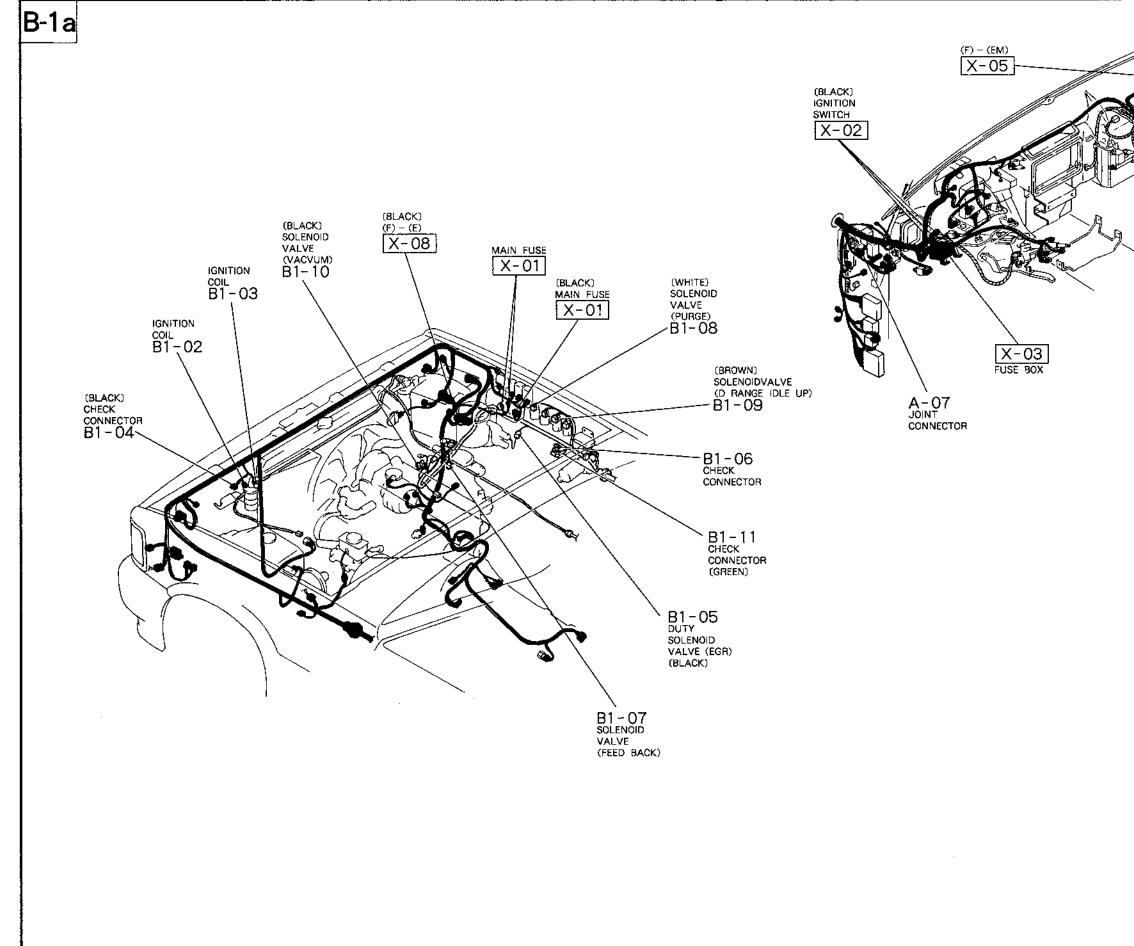




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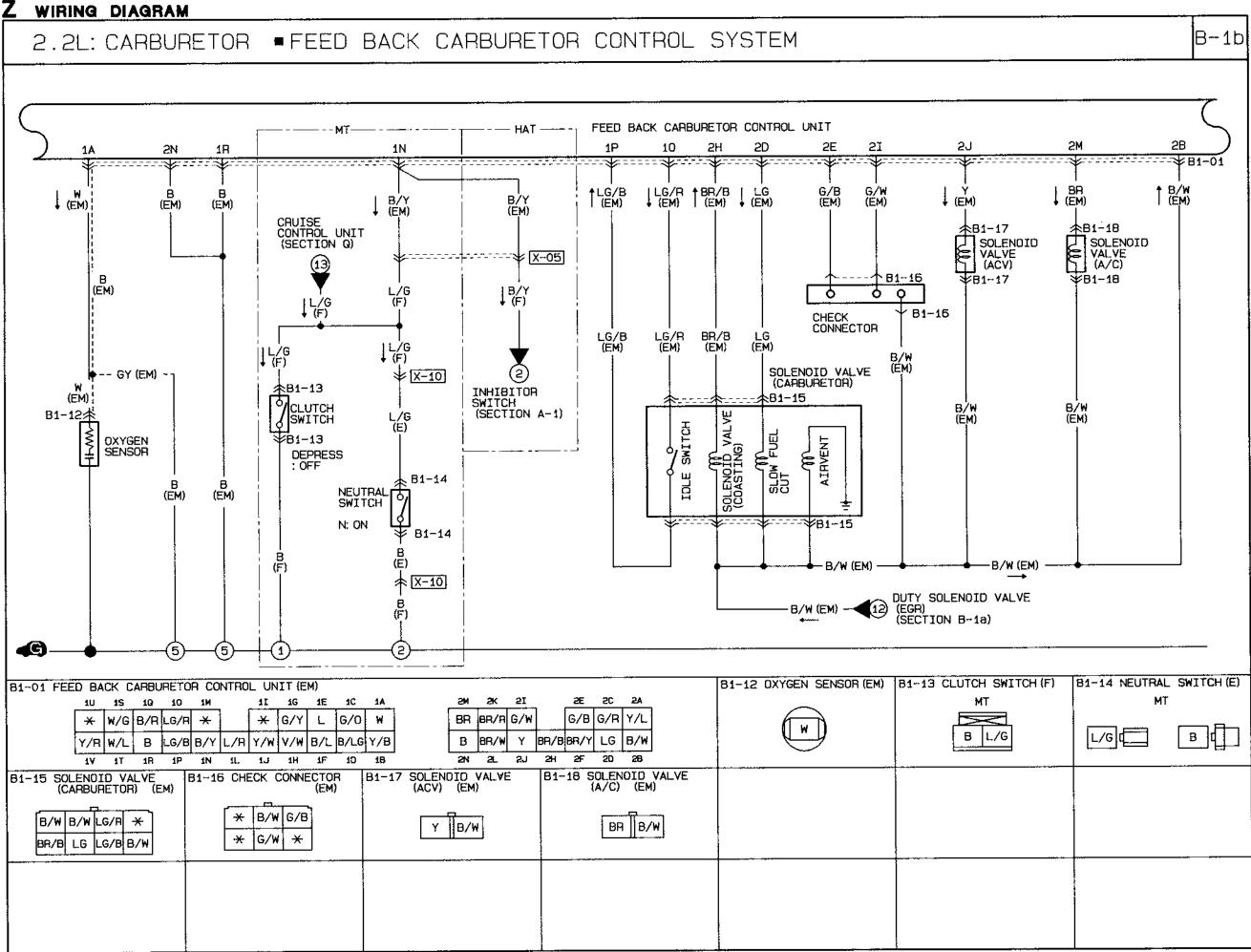
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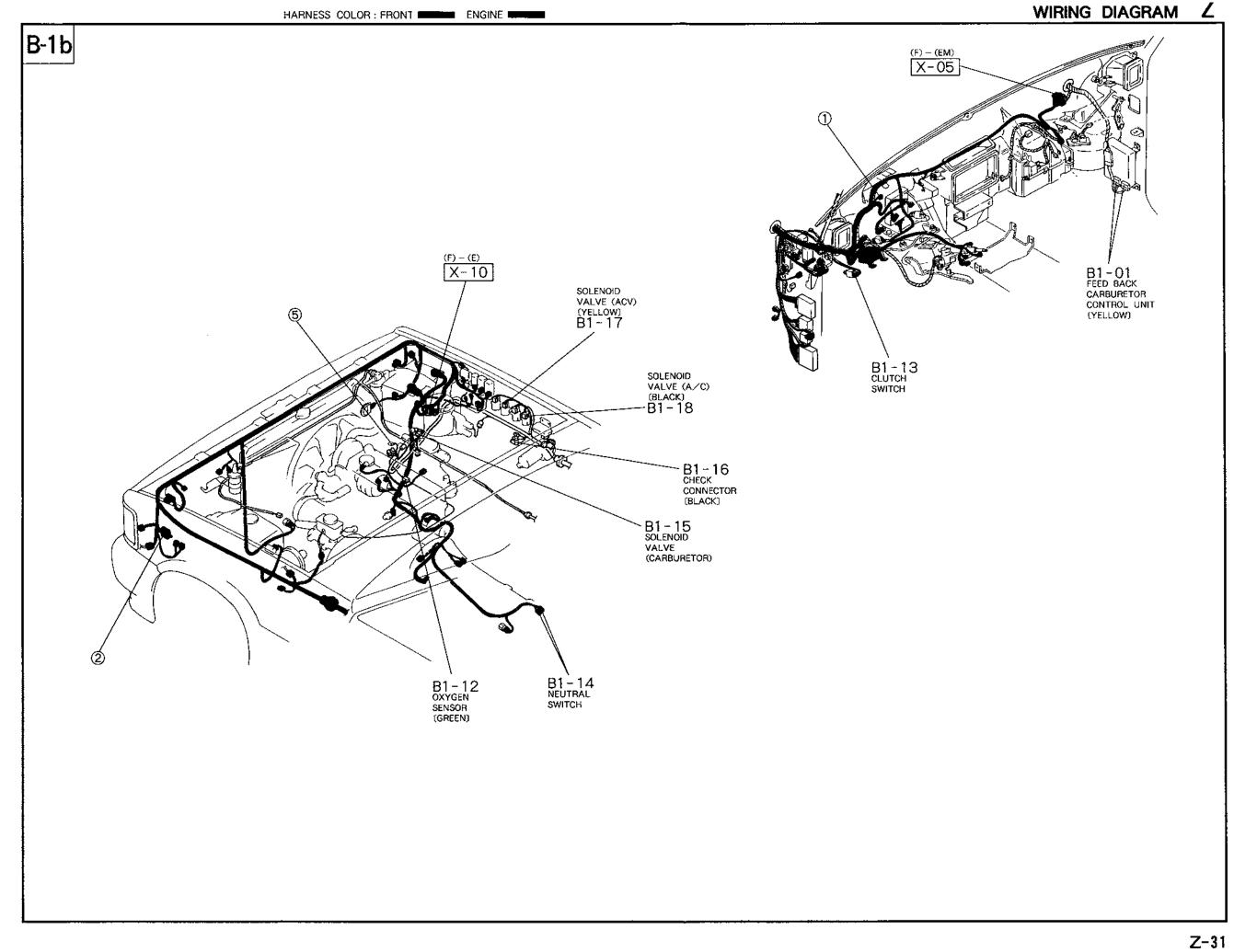
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Ζ WIRING DIAGRAM B1-01 FEED BACK CARBURETOR CONTROL UNIT (YELLOW) Z-29

WIRING DIAGRAM

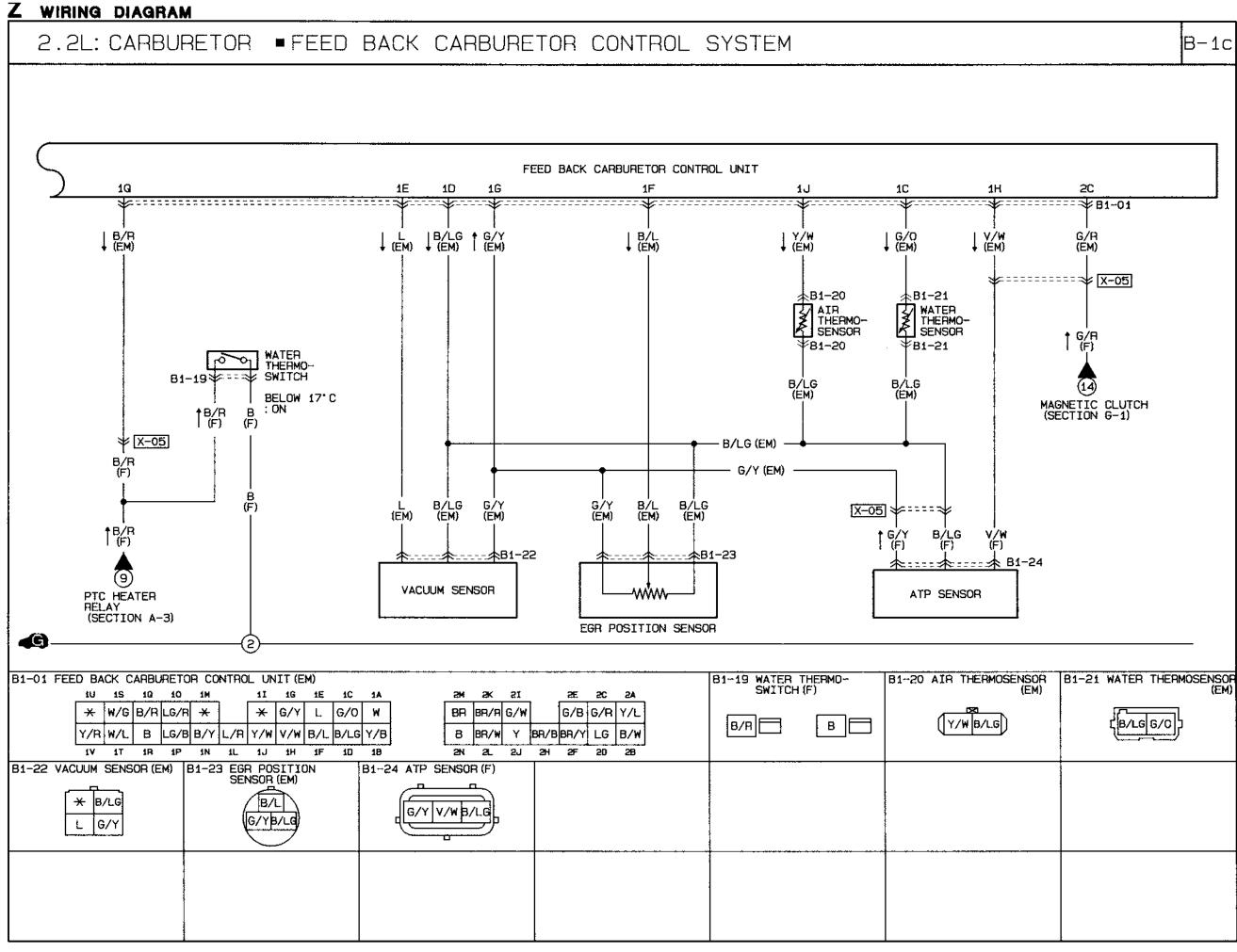


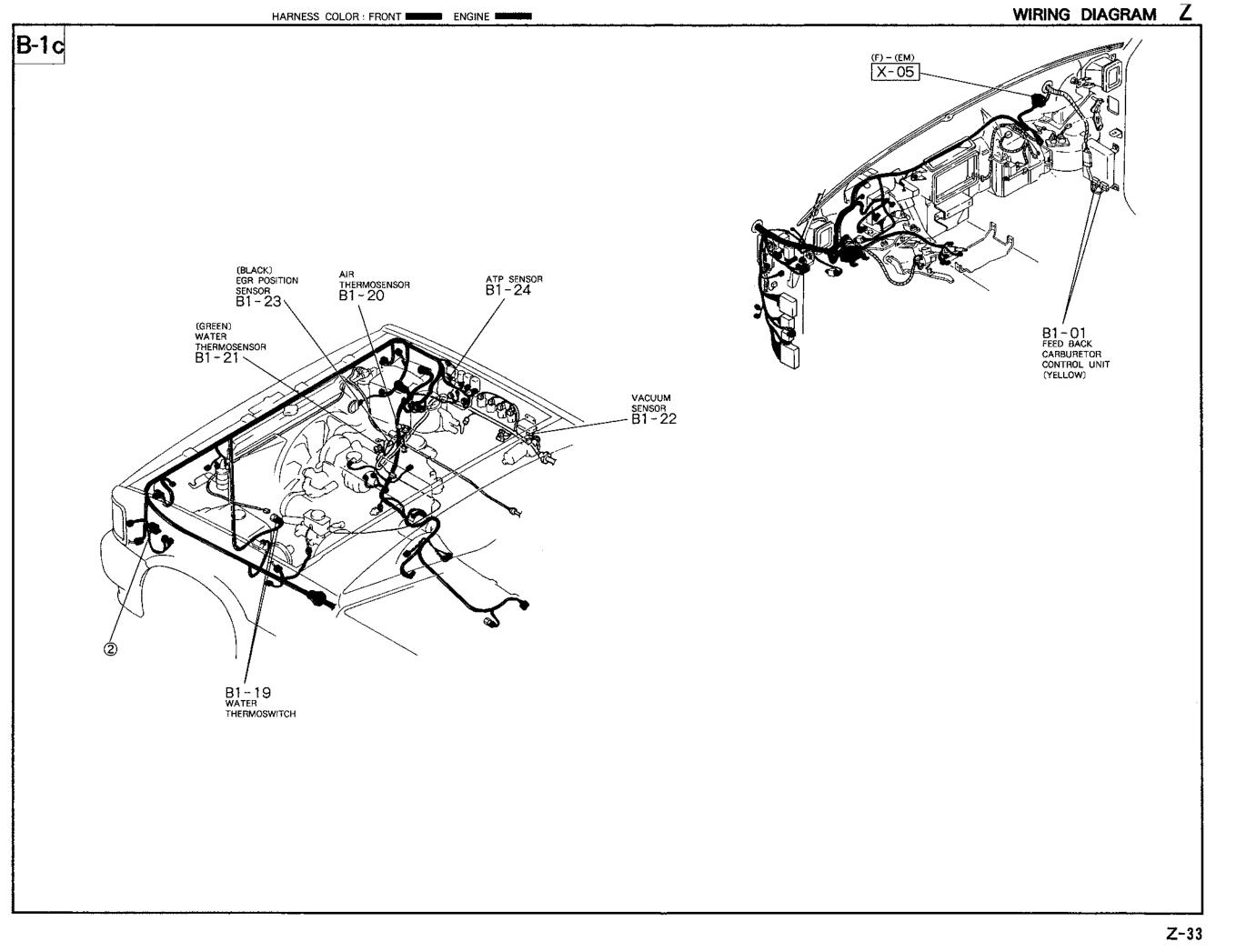


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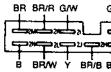
Terminal voltage

Terminal	Connected to	Voltage	Condition
		0.3-0.7V	At idle
1A (Input)	Oxygen sensor	More than 0.45V	During acceleration
in this and		Less than 0.45V	During deceleration
		Approx. 12V	Check connector; Not grounded
1B (Input)	Self-diagnosis check connector	0V	Check connector, Grounded
1C (Input)	Water thermosensor	Approx. 0.5V	Warmed-up engine (Thermostat: Open)
1D (Ground)	Water thermosensor, EGR posi- tion sensor, Vacuum sensor, At- mospheric pressure sensor, Intake air thermosensor	Less than 1.5V	_
		Approx. 1.3V	At idle
1E (Input)	Vacuum sensor	Approx. 4.0V	Engine stopped (Atmospheric pressure)
····		Approx. 0.7V	At idle
1F (Input)	EGR position sensor	0.74.7V	During driving
1G (Power supply)	EGR position sensor, Vacuum sensor, Atmospheric pressure sensor	4.5—5.5V	_
1H (Input)	Atmospheric pressure sensor	Approx. 4V	Sea level
1J (Input)	Intake air thermosensor	Approx. 4.1V	At 20°C (68°F)
1L (Memory power)	Battery	Approx. 12V	
	Neutral and slutch suitch (AT)	Approx. 12V	In gear
	Neutral and clutch switch (MT)	Less than 1.5V	In neutral or depress clutch pedal
1N (Input)		Less than 1.5V	In N or P range
	Inhibitor switch (HAT)	Approx. 12V	In other ranges
	· · · · · ·	Approx. 12V	At idle
10 (Input)	Idle switch	Less than 1.5V	At more than 1,200 rpm with no load
1P (Ground)	Idle switch	Less than 1.5V	_
		Approx. 12V	Radiator coolant temp.: above 17°C (63°F
1Q (Input)	Water temperature switch	Less than 1.5V	Radiator coolant temp.: below 17°C (63°F
1R (Ground)	Engine ground	Less than 1.5V	
		Approx. 12V	At idle
1S (Output)	Coasting advance solenoid valve	Less than 1.5V	At 1,700–2,500 rpm during in-gear deceleration
1T (Output)	Idle-up solenoid valve (HAT)	Less than 1.5V	At less than 1,000 rpm in R, D, 2, or 1 range
		Approx. 12V	In N or P range or more than 1,100 rpm without A/C switch: ON
1U (Output)	Malfunction indicator light	Approx, 12V	light: OFF
	······································	Less than 1.5V	light: ON
1V (Output)	Purge solenoid valve	Approx. 12V	At idle
		Less than 1.5V	At 1,400 rpm with warmed-up engine
2A (Input)	Ignition coil negative terminal	Approx, 12V	<u> </u>
2B (Battery power)	Ignition switch (ON)	Approx. 12V	Ignition switch: ON
zo (oanery power)		OV	Ignition switch: OFF
0C (Inc. #)	Air-conditioner magnetic clutch	Approx. 12V	Air conditioner: ON
2C (Input)	circuit	OV	Air conditioner: OFF
		Less than 15.V	Ignition switch: ON
		Less than 1.5V	At idle
2D (Output)	Slow fuel cut solenoid valve	Approx. 12V	At 2,500 rpm or more during in-gear deceleration

Terminal	Connected to	Voltage	Co
		Approx. 12V	Buzzer: OFF
05 (Outer a)	Self-Diagnosis Checker	Less than 1.5V	Buzzer: ON
2E (Output)	(Digital display)	Code signal	When self-diagnosis grounded
2F (Output)	Air/fuel (A/F) solenoid valve	Monitor reading: 1.5—3.8V (fluctuating) Actual voltage: 3.5—12V (fluctuating)	At idle
		0-14V (fluctuating or fixed)	During running
		Approx. 12V	At idle
2H (Output)	Coasting richer solenoid valve	Less than 1.5V	At 2,500-1,400 rpr ation (Voltage indica conditions met)
2I (Output)	Self-Diagnosis Checker	Less than 1.5V	Monitor lamp: ON
	(Monitor lamp)	Approx. 12V	Monitor lamp: OFF
2J (Output)	ACV solenoid valve	Approx. 12V	At idle
		Less than 1.5V	At 1,500 rpm or mo
		Approx, 12V	While cranking
		Approx. 12V	During warm up
2K (Output)	Duty solenoid valve (Vent)	Approx. 12V	At idle
		Voltage decreases (Green and red lights flash)	During acceleration
		Approx. 12V	While cranking
	ſ	Approx. 12V	During warm up
2L (Output)	Duty solenoid valve (Vacuum)	Approx. 12V	At idle
		Voltage decreases (Green and red lights flash)	During acceleration
2M (Output)	Idle-up solenoid valve (A/C)	Less than 1.5V	At idle (A/C: ON)
zw (output)		Approx. 12V	At 1,400 rpm or bel
2N (Ground)	Engine ground	Less than 1.5V	

Connectors

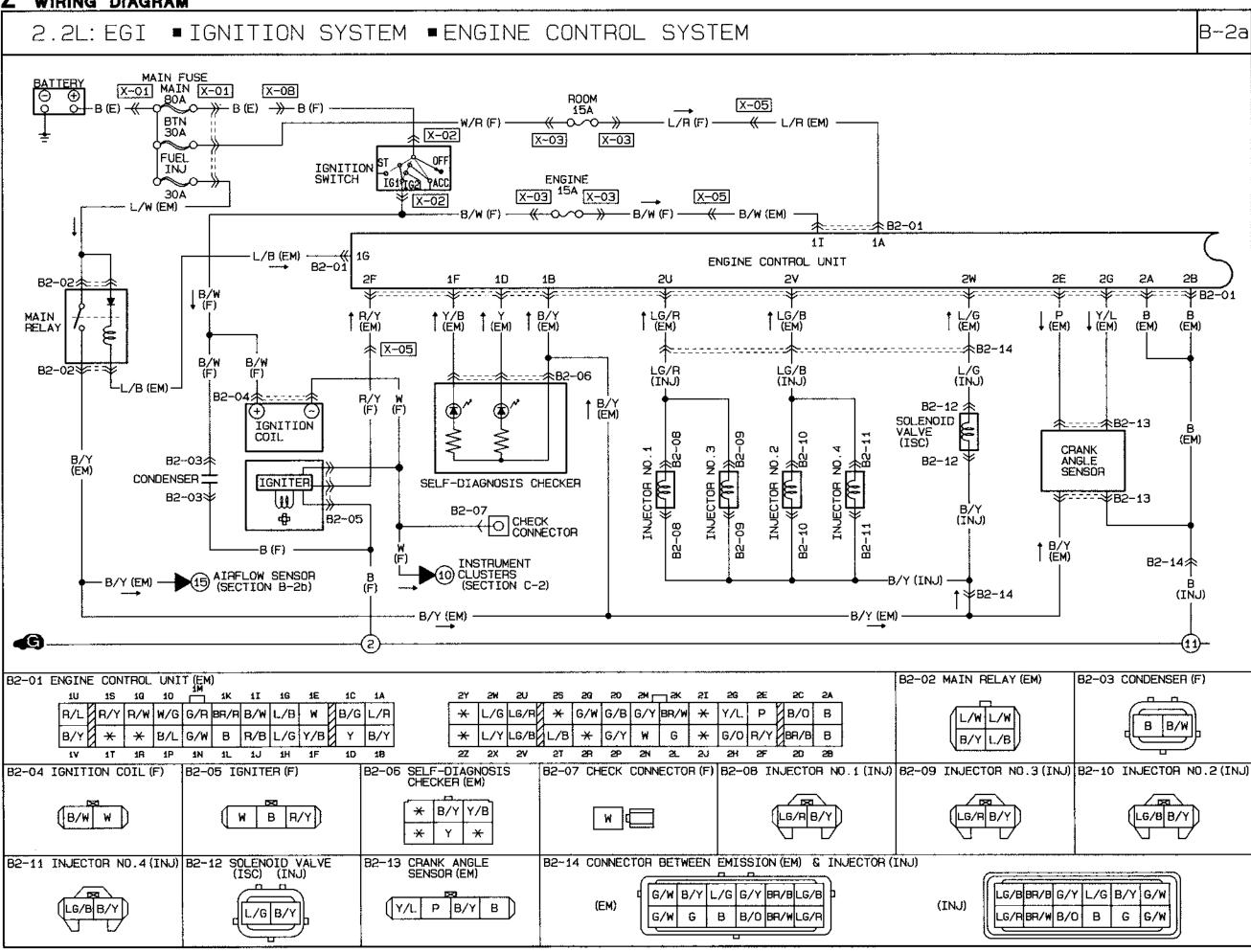
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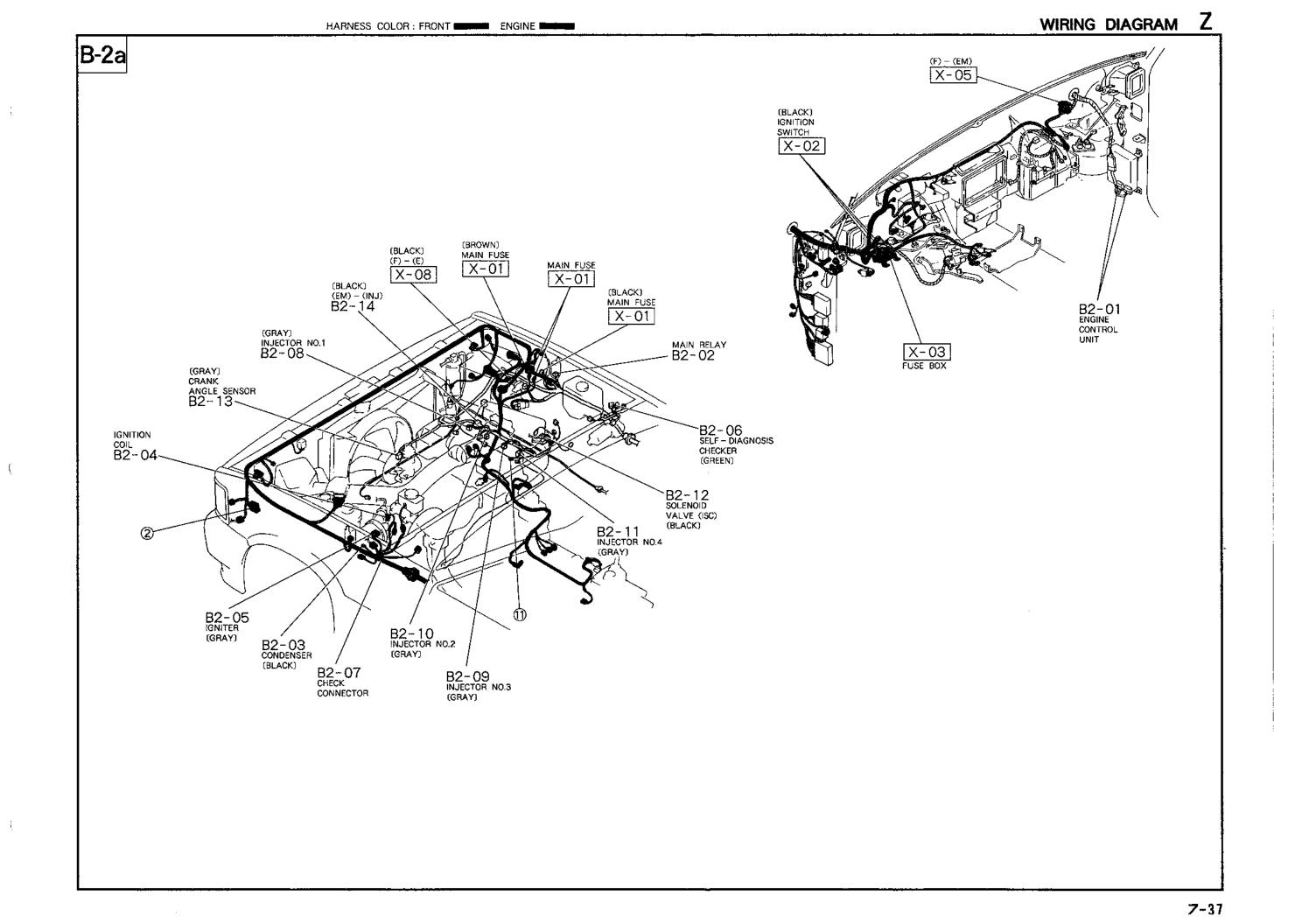


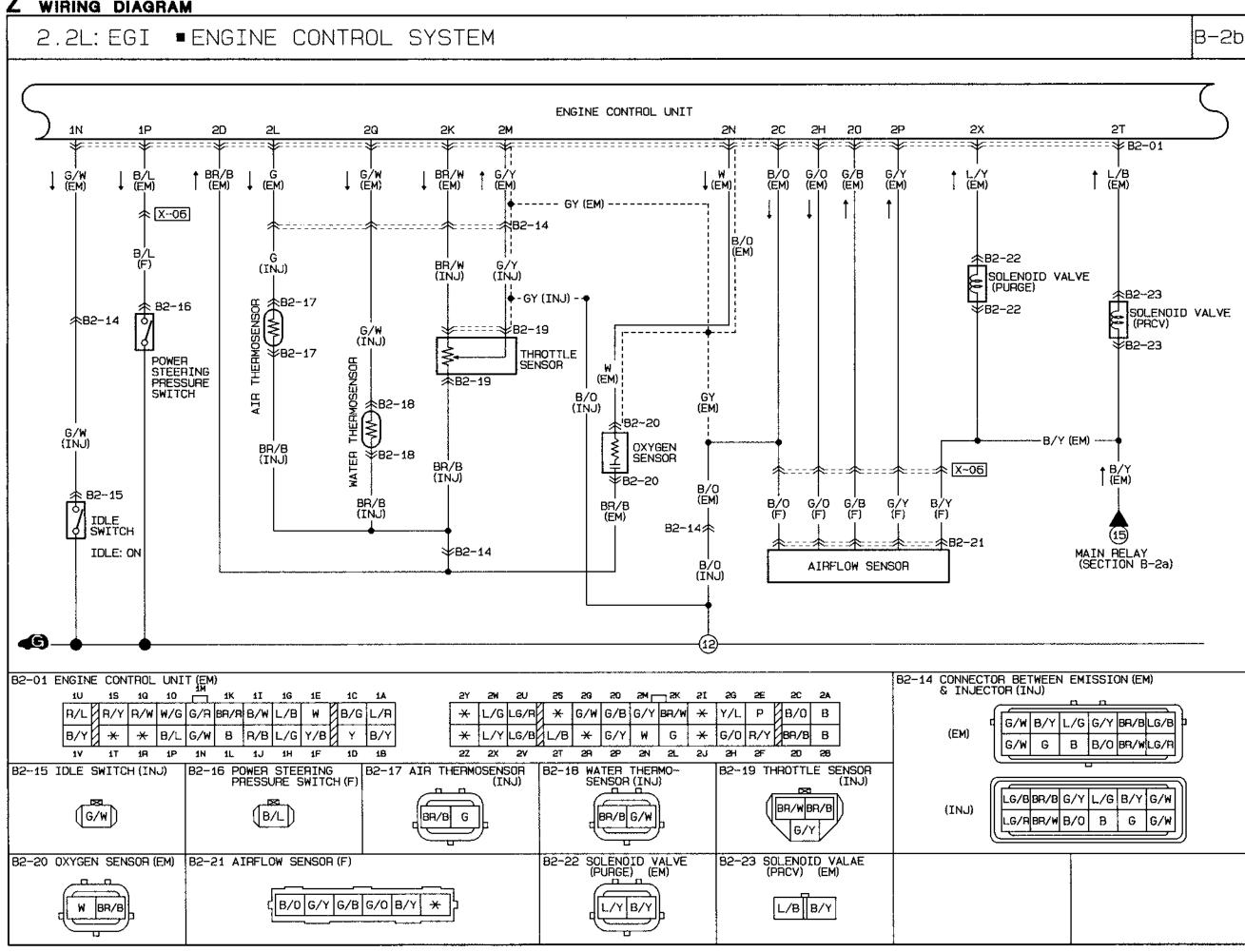
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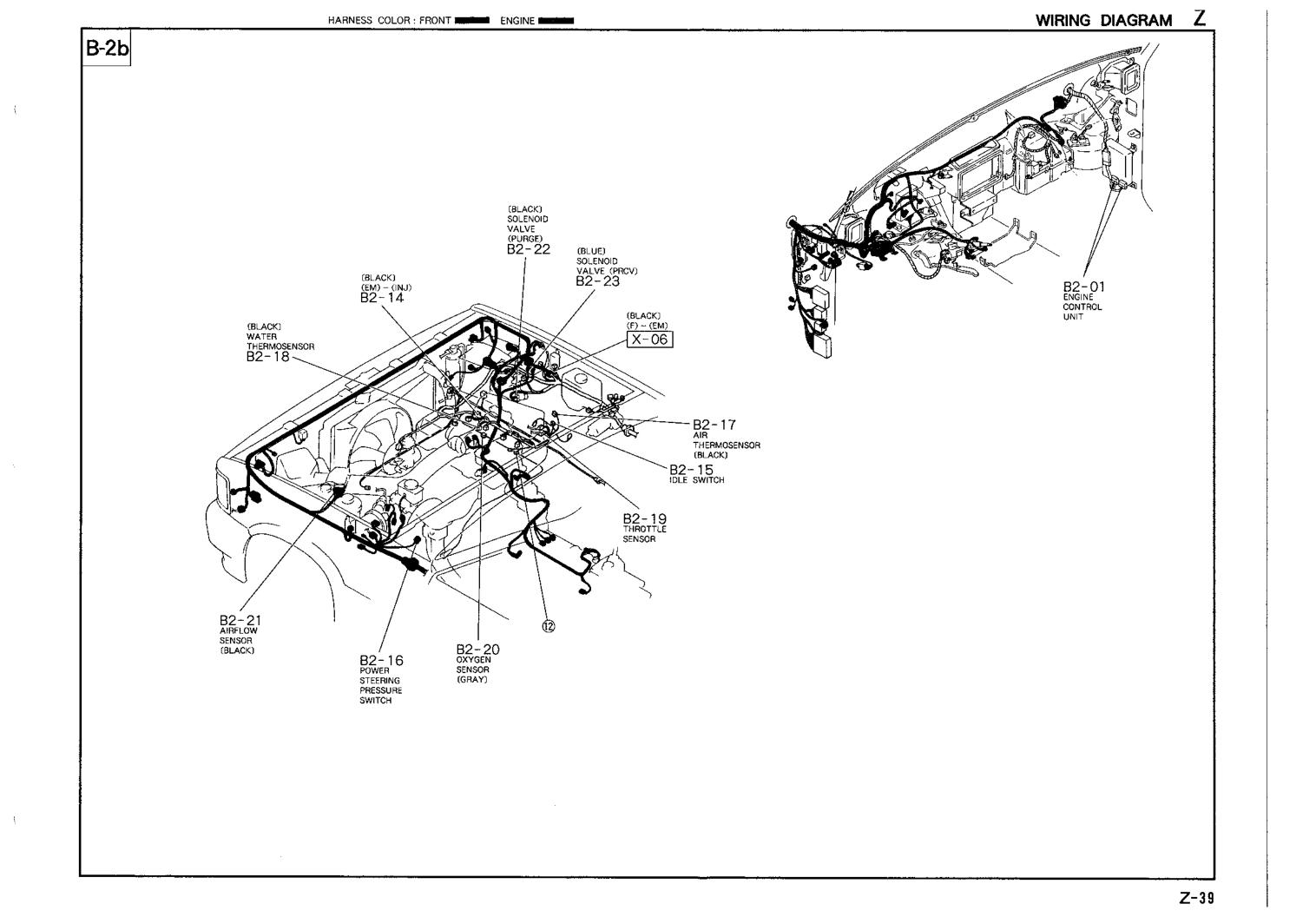
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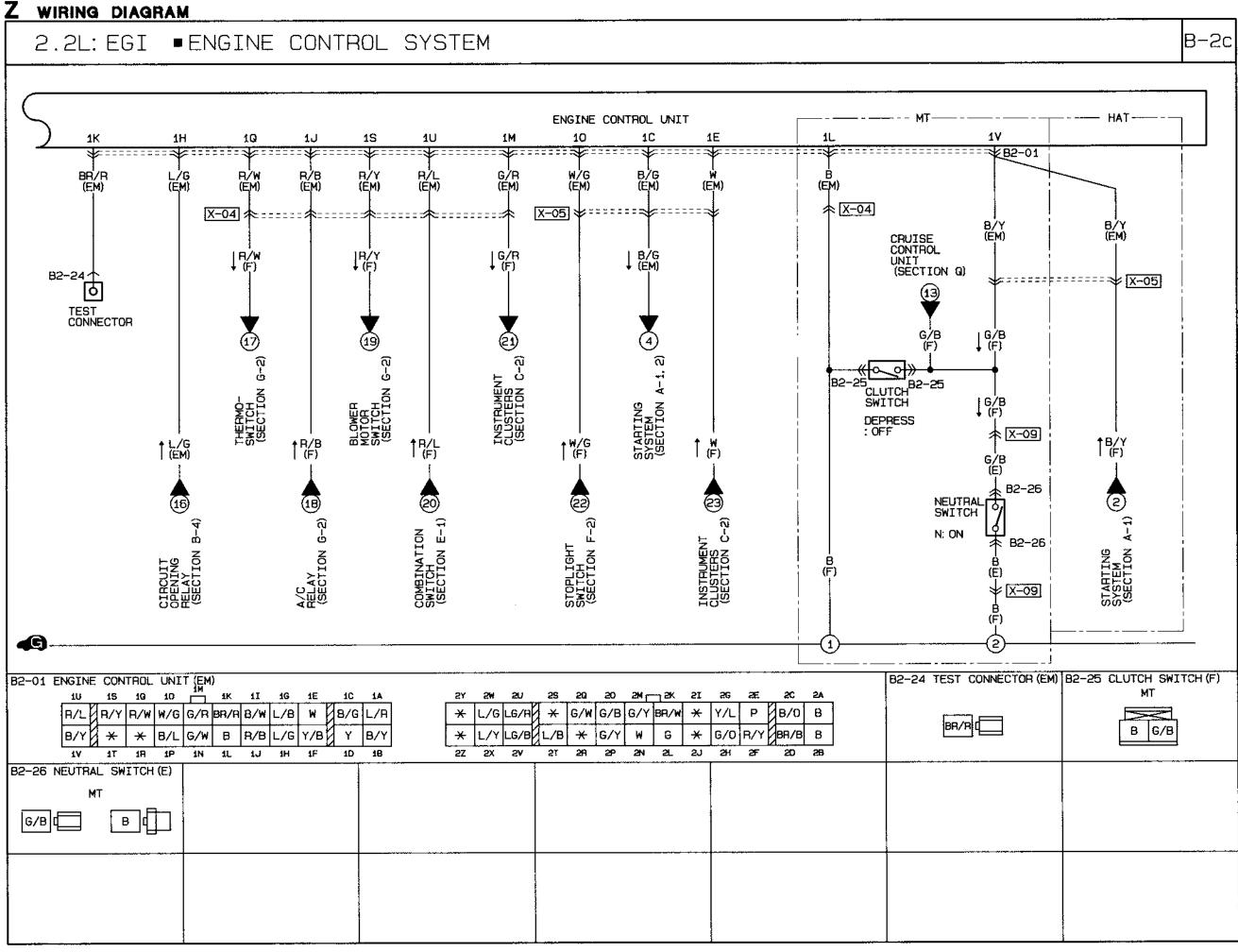
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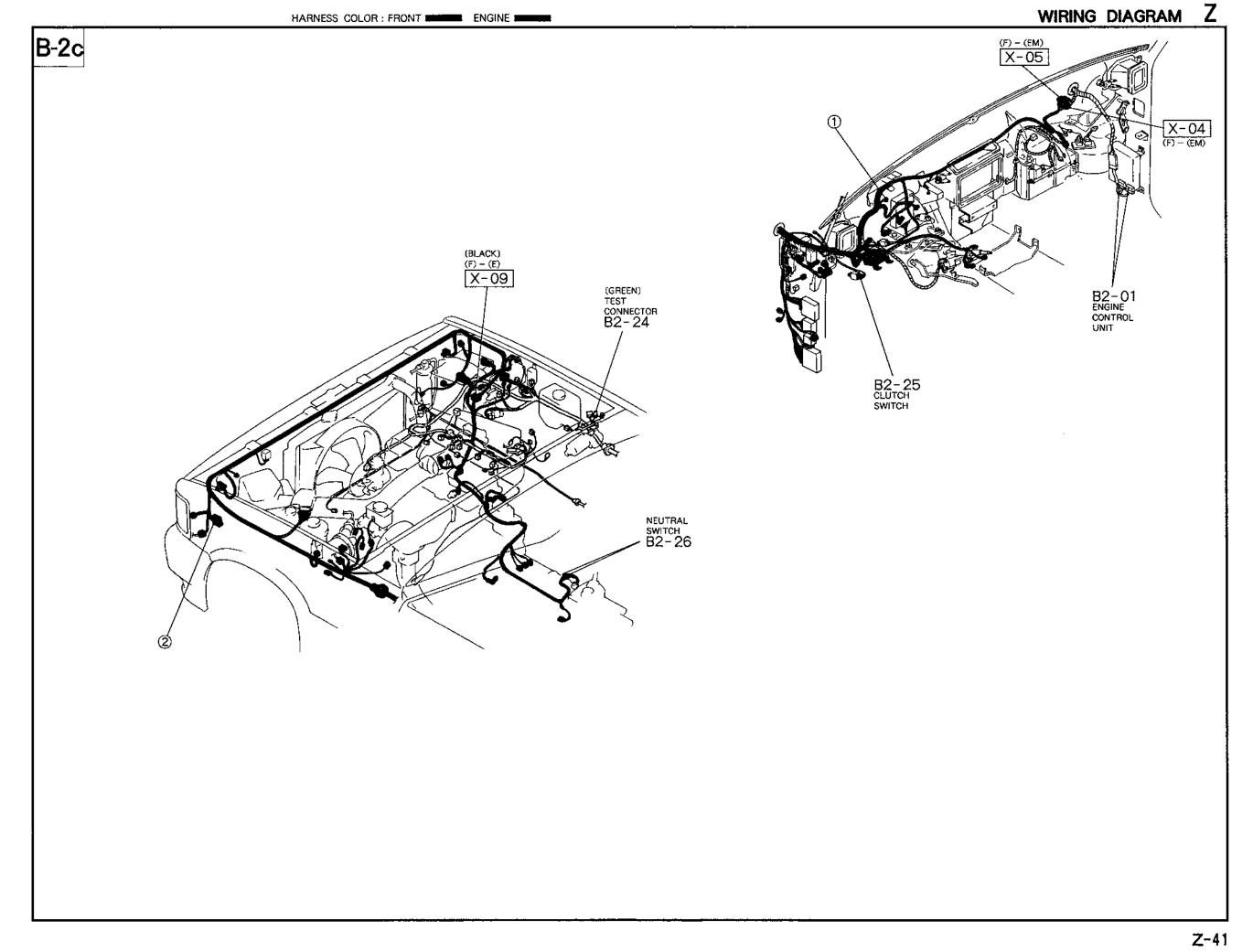












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Terminal voltage

erminal	Input	Output	Connection to	Test condition	Voitage	Remarks
1A		-	Battery	Constant	Approx. 12V	For backup
18	0		Main relay	Ignition switch OFF	Approx. 0V	,
_	-			Ignition switch ON		
			i i i i i i i i i i i i i i i i i i i	During burn-off (airflow sensor)	Approx. 12V	
10	0	· · · -	Ignition switch	While cranking	Approx. 10V	
	Ũ		(Start position)	Ignition switch ON	Approx. 0V	
1D		Ó	Self-Diagnosis	Test connector (Green: 1-pin) grounded		With Sell-
-			Checker (Monitor	For 3 seconds after ignition switch	Approx. 5V	Diagnosis
		ļ	lamp)	OFF→ON (Lamp illuminates)		Checker
				After 3 seconds (Lamp does not illuminated)	Approx. 12V	
				Test connector (Green: 1-pin) not ground- ed at idle. Monitor lamp ON	Approx. 5V	
				Test connector (Green: 1-pin) not ground- ed at idle. Monitor lamp OFF	Approx. 12V	
1 E		0	Malfunction indica- tor lamp	For 3 seconds after ignition switch OFF→ON (Lamp illuminates)	Below 2.5V	Test connector (Green: 1-pin)
			(Calilornia only)	After 3 seconds (Lamp dose not illuminates)	Approx. 12V	grounded
				Lamp illuminates	Below 2.5V	
	ļ			Lamp not illuminate	Approx. 12V	
1F		0	Sell-Diagnosis checker (Code	For 3 seconds after ignition switch OFF→ON (Buzzer sounds)	Below 2.5V	With Self- Diagnosis
			number)	After 3 seconds (Buzzer does not sounded)	Approx. 12V	Checker • Test connector
		ł		Buzzer sounds	Below 2.5V	(Green: 1-pin)
				Buzzer not sounded	Approx. 12V	grounded
1 G	+ ·	0	Main relay	Ignition switch OFF	Approx. 12V	
				Ignition switch ON	Approx. 0V	
1H		Ö	Circuit opening	Ignition switch ON	Approx. 12V	
			relay	During cranking or at idle	Below 2.5V	
11	0		Ignition switch	Ignition switch OFF	0V	
			(ON position)	Ignition switch ON	Approx. 12V	
1J		0	A/C relay	Ignition switch ON	Approx. 12V	Blower motor:
				For 10 seconds After fully depressing ac- celerator pedal with A/C switch ON (A/C does not operate) (in-gear, ignition switch ON)	Approx. 12V	ON
				After 10 seconds	Below 2.5V	
				For 5 seconds after cranking with A/C switch ON (A/C does not operate)	Approx. 12V	
				Aller 5 seconds (A/C operates)	Below 2.5V	1
	1			A/C switch ON at idle	Below 2.5V	1
				A/C switch OFF at idle	Approx. 12V	1
1K	0		Test connector	Test connector (Green: 1-pin) not grounded	Approx. 12V	Ignition switch ON
				Test connector (Green: 1-pin) grounded	ov	1
1L	0	+	Ground (MT)	Ignition switch ON	OV	<u> </u>
	Ĭ		Open (HAT)	Ignition switch ON	Approx. 12V	1
1M	0		Speed sensor (HAT)	Ignition switch ON	0 or 4.5V	
				Idle	Approx 4.5V	
1N	6	1	Idle switch	Accelerator pedal released	0V	Ignition switch
		1		Accelerator pedal depressed	Approx. 12V	ŐN
10	0	1	Stoplight switch	Brake pedal released	OV	Ignition switch
-				Brake pedal depressed	Approx. 12V	- ŐN
1P	0	1	P/S pressure	Ignition switch ON	Approx. 12V	
	1		switch	P/S ON (at idle)	0V]
				P/S OFF (at idle)	Approx. 12V]
1Q	0	1	A/C switch	A/C switch ON (ignition switch ON)	Below 2.5V	Blower motor:
	-	1		A/C switch OFF (Ignition switch ON)	Approx. 12V	

Terminal	Input	Output	Connection to	Test condition	Voltage	Remarks
1R	-	_	_	_	_	
15	ō		Blower switch	Blower ON Blower OFF	Approx 12V Below 1.5V	Ignition switch ON
1T				_	-	-
1U	0		Headlight switch	Headlight ON Headlight OFF	Approx. 12V Below 1.5V	
1V	0		Neutral or clutch switch (Inhibitor switch)	Neutral or clutch pedal depressed (P or N rahges)	0V	Ignition switch ON
			,	Other condition	Approx. 12V	
2A			Ground (E01)	Constant	0V	
2B			Ground (E02)	Constant	0V 0V	
2C			Ground (E1)	Constant	**	
2D	-		Ground (E2)	Constant	0V	
2E		0	Distributor	Ignition switch ON	0 or 5V	Ne-Signal
				Idle	2V	
2F		0	Igniter	Ignition switch ON	0 or 5V	Ignition-timing
			<u> </u>		Approx. 0.5V	signal
2G	0		Distributor	Ignition switch ON	0 or 5V	G-Signal
	ļ			Idie	Approx. 1.2V	
2H		0	Airflow sensor	Just after ignition switch OFF	0V	Burn-off functions
			(Burn-off)	Burn off (2-5 seconds after ignition switch OFF) (Refer to page F2-170)	8—12V	momentarily
21	-			_	_	-
2J				<u> </u>	_	-
2K		0	Vref	Ignition switch ON	4.5—5.5V	
2L	0		Intake air ther- mosensor (Dynam- ic chamber)	At 20°C (68°F)	Approx. 2.5V	
2M	0	1	Throttle sensor	Accelerator pedal released	Approx. 0.5V	Ignition switch
				Accelerator pedal fully depressed	Approx. 4.3V	ON
2N	0		Oxygen sensor	Ignition switch ON	0V	
				Idle (Cold engine)	OV	
				Idle (After warm up)	0—1.0V	Needle moves from 0V to 1V
				Increase engine speed (After warm up)	0.5-1.0V	
	1	1		Deceleration	0-0.4V	
20	0	1	Airflow sensor	Ignition switch ON	1.0-2.0V	
			(Intake air mass)	Idle (After warm up)	1.9-2.6V	
				Increase engine speed (After warm up)	2—5V	
2P	0		Airllow sensor (Ground)	Constant	ov	
20	0		Water thermosensor	Engine coolant termperautre 20°C (68°F) After warm up	Approx. 2.5V Approx. 0.4V	Ignition switch ON
2R	1	<u> </u>		-	<u> </u>	-
2\$	† <u> </u>	† <u> </u>				
21		0	Solenoid valve	For 120 seconds after ignition switch		During hot condi-
			(PRC)	OFF→ON For 120 seconds after starting	Below 2.5V Below 2.5V	tion, Coolant temp, above 90°C (194°F) Intake air temp, above 75°C (167°F)
				Ignition switch ON	Approx. 12V	Other conditions
2U		0	Injector	Ignition switch ON	Approx. 12V	* Engine Signal Monitor: Green
	!		No.1, 3	ldle	Approx. 12V*	and red lights flash

Terminal voltage

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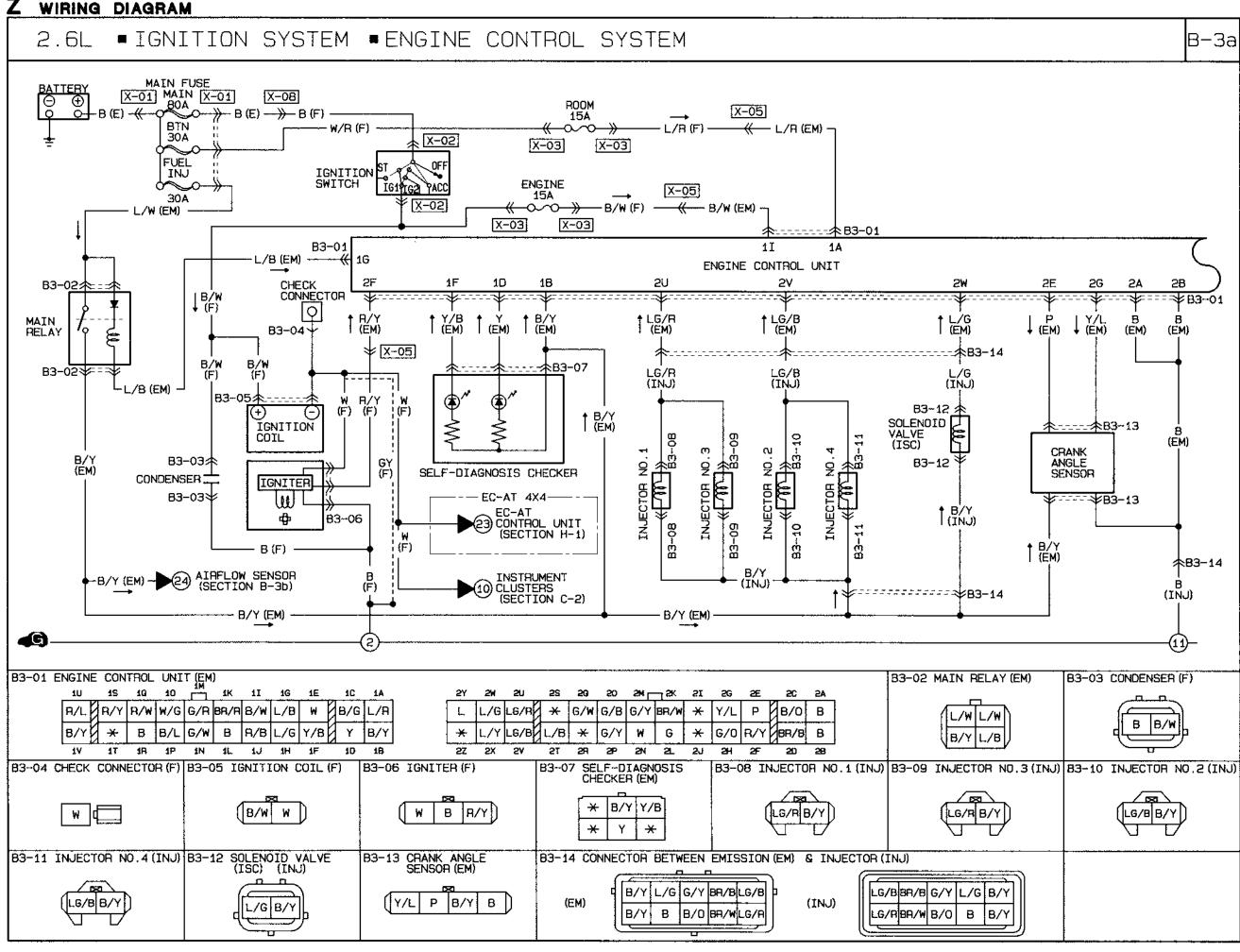
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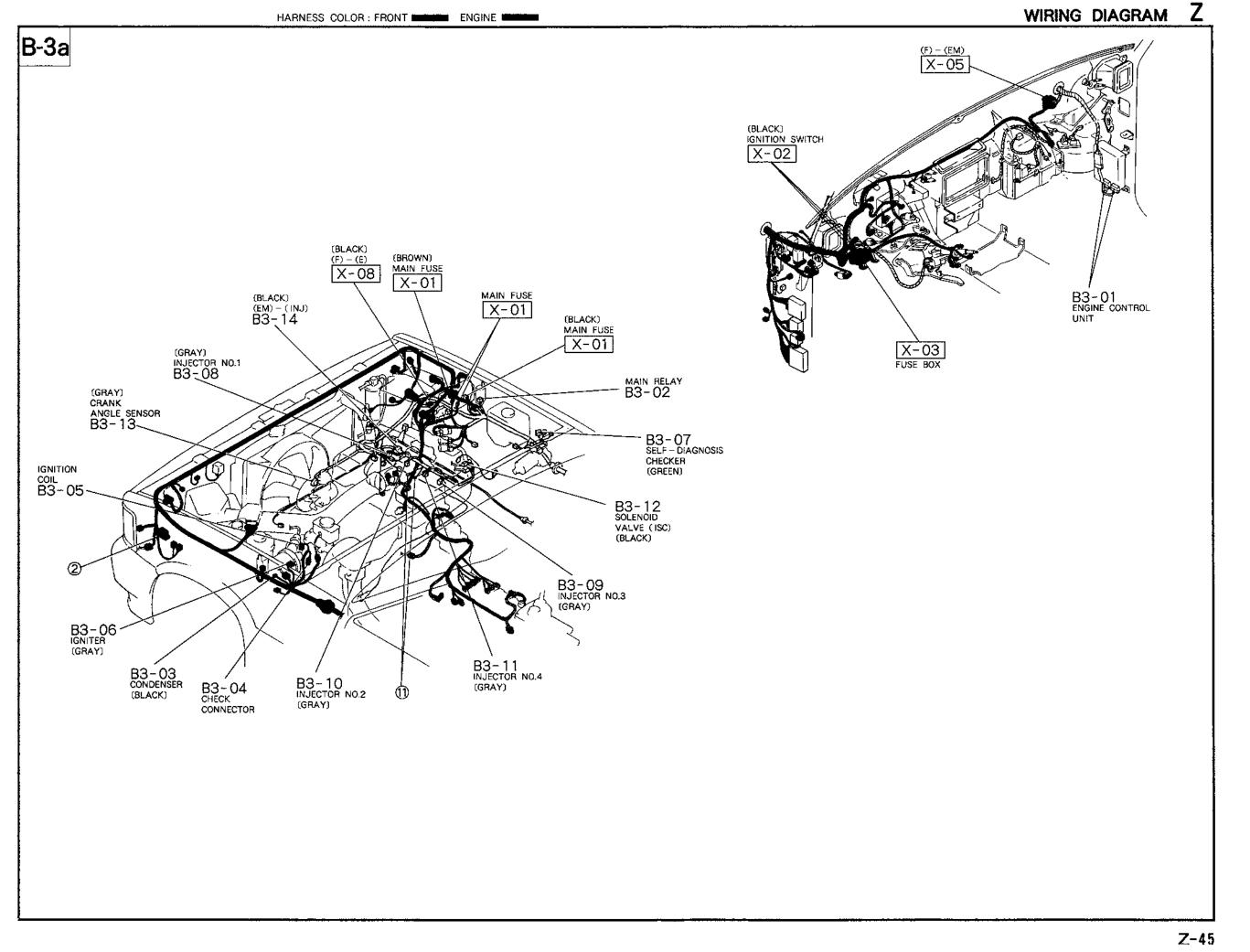
Terminal	Input	Output	Connection to	Test condition	Voltage	Remarks
2V		0	Injector	Ignition switch ON	Approx. 12V	* Engine Signal Monitor: Green
	_		No.2, 4	ldle	Approx. 12V*	and red lights flash
2W		0	Solenoid valve (Idle speed control)	Ignition switch ON	Approx. 11V	Engine signal monitor: Green
				ldle	Approx. 10V	and red lights flash
2X		0	Solenoid valve	Ignition switch ON	Approx. 12V	
			(Purge control)	Idie	Approx. 12V	* Engine signal monitor: Green
				Driving in gear	51.5V*	and red lights flash
2Y		_		_	-	-
2Z	_	-	1	_	-	_

Terminal location

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<u>اللہ</u>	1.								[-	<u> </u>	<u> </u>	1.	<u> </u>			1	<u> </u>		1	
[] 2Y	2₩	2Ų	28	20	20	2M	2K	21	2G	2E	20	2 A	U	S	Q	0	м	к	1	G	5	С	Α
2Z	2X	2V	21	28	2P	2N	2L	21	2H	2F	20	28	lv.	Т	R	Р	Ν	L	J	н	F	D	8

WIRING DIAGRAM Z

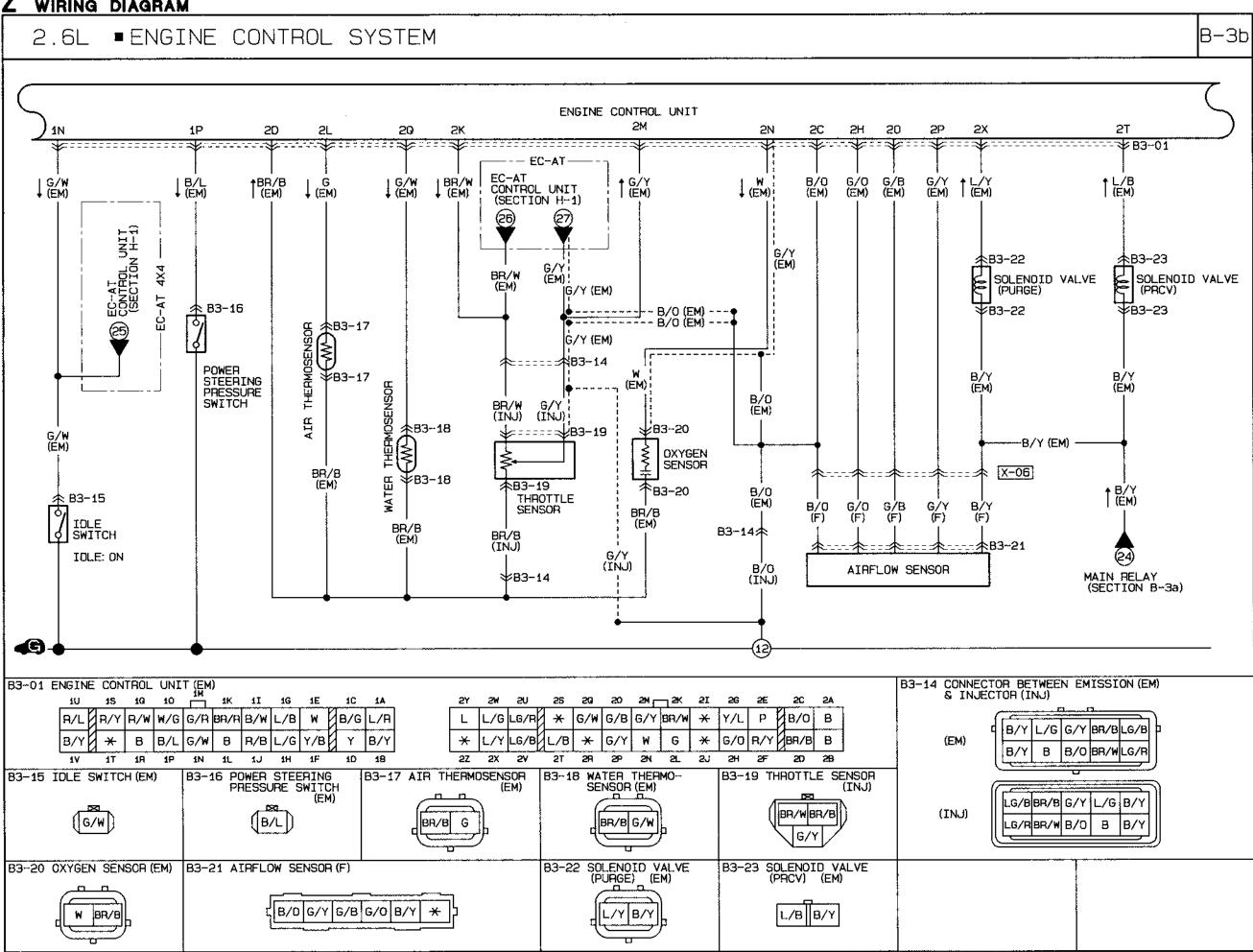


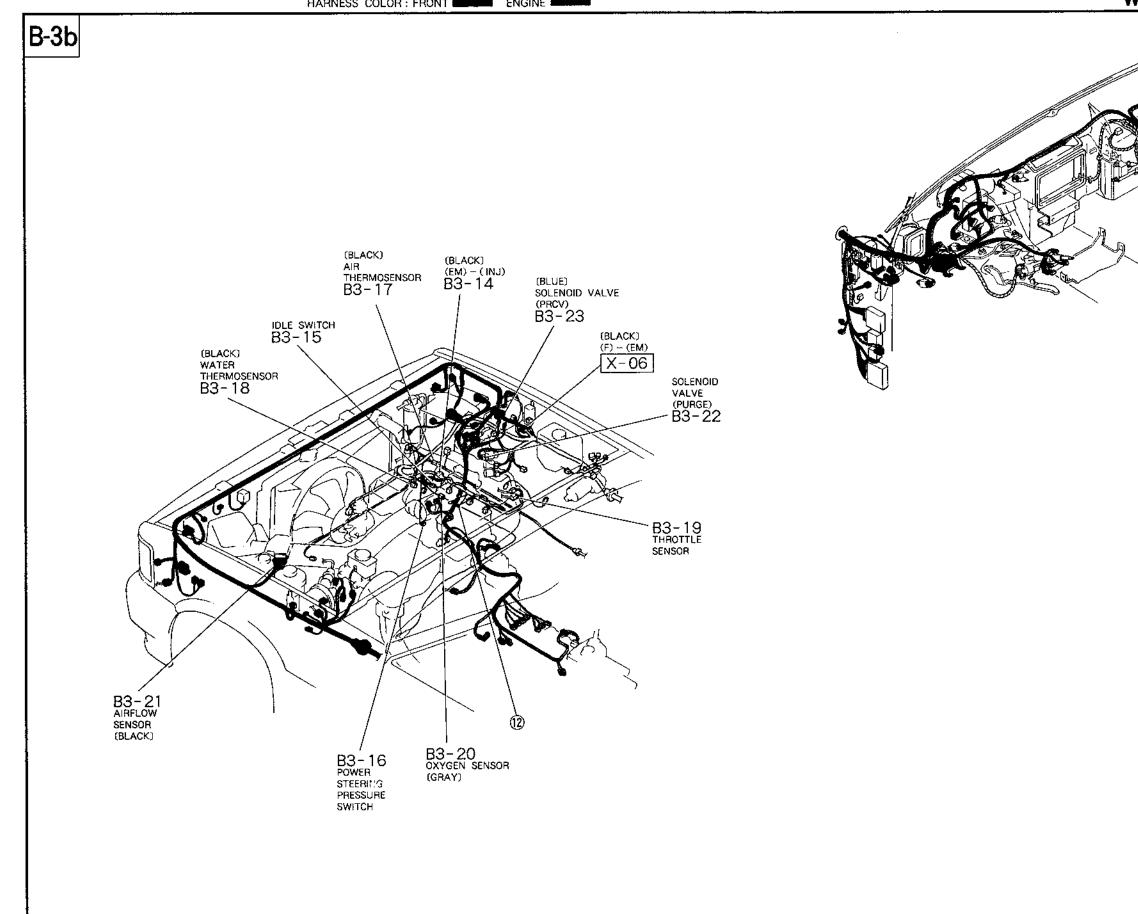


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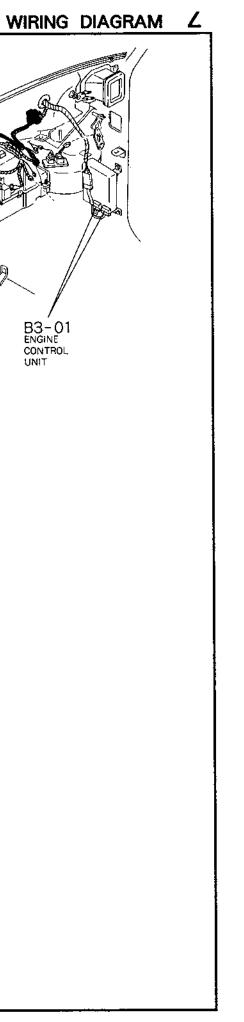


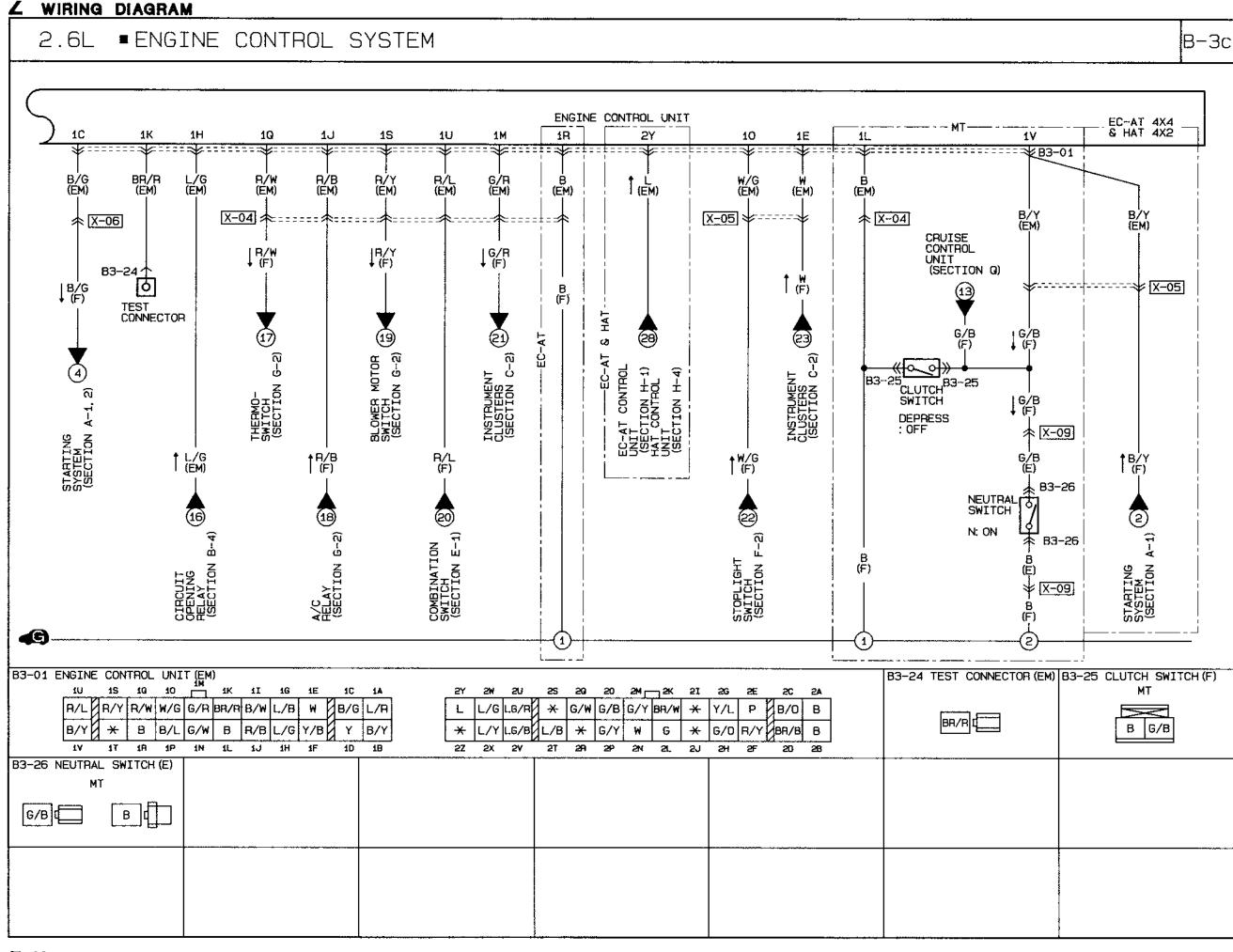


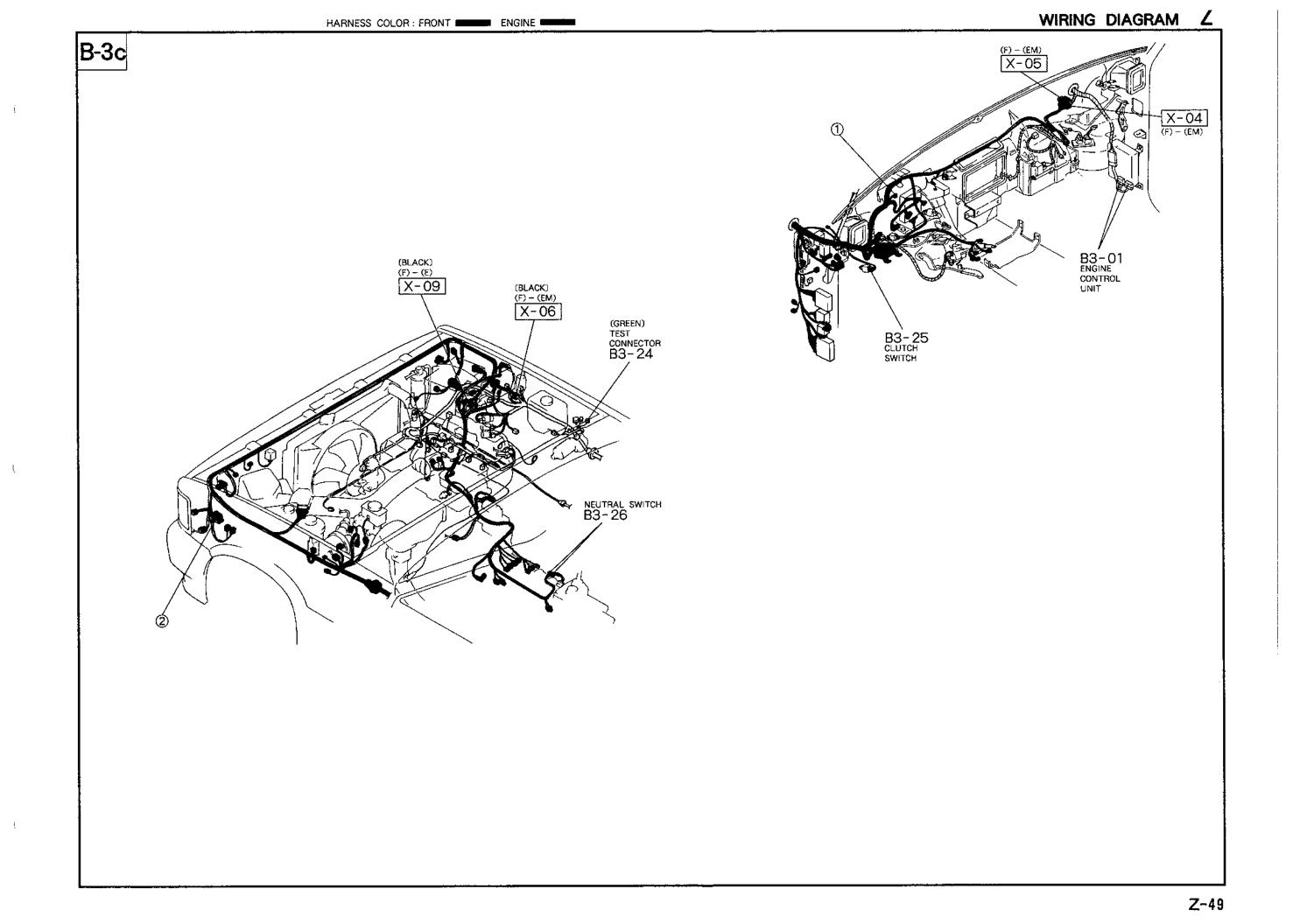
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Terminal voltage

ferminal	Input	Output	Connection to	Test condition	Voltage	Remarks
1A	—		Battery	Constant	Approx. 12V	For backup
1B	0		Main relay	Ignition switch OFF	Approx. 0V	
			-	Ignition switch ON		
				Ouring burn-off (airflow sensor)	Approx. 12V	
1C	0		Ignition switch	While cranking	Approx. 10V	
			(Start position)	Ignition switch ON	Approx. 0V	
1D		0	Self-Diagnosis	Test connector (Green: 1-pin) grounded		With Self-
			Checker (Monitor	For 3 seconds alter ignition switch	Approx. 5V	Diagnosis
			lamp)	OFF→ON (Lamp illuminates)		Checker
				After 3 seconds (Lamp does not illuminated)	Approx, 12V	
				Test connector (Green: 1-pin) not ground- ed at idle. Monitor lamp ON	Approx. 5V	
				Test connector (Green: 1-pin) not ground- ed at idle. Monitor lamp OFF	Approx. 12V	
1E		0	Mallunction indica- tor lamp	For 3 seconds after ignition switch OFF→ON (Lamp illuminates)	8elow 2.5V	Test connector (Green: 1-pin)
			(California only)	Alter 3 seconds (Lamp dose not illuminates)	Approx. 12V	grounded
	t i			Lamp illuminates	Below 2.5V	
				Lamp not illuminate	Approx. 12V	
1F		0	Self-Diagnosis checker (Code	For 3 seconds after ignition switch OFF → ON (Buzzer sounds)	Below 2.5V	 With Sell- Diagnosis
			number)	Alter 3 seconds (Buzzer does not sounded)	Approx. 12V	Checker
	ł			Buzzer sounds	Below 2.5V	 Test connecto (Green: 1-pin)
	i			Buzzer not sounded	Approx. 12V	grounded
1G		0	Main relay	Ignition switch OFF	Approx. 12V	grounded
10		Ĭ	mainreitay	Ignition switch ON	Approx. 0V	
- <u></u> 1H		0	Circuit opening	Ignition switch ON	Approx. 12V	···- ·
• • •		Ŭ	relay	During cranking or at idle	Below 2.5V	
11	0		Ignition switch	Ignition switch OFF	00	
	Ĭ	1	(ON position)	Ignition switch ON	Approx. 12V	
1J		0	A/C relay	Ignition switch ON	Approx. 12V	Blower motor:
			, , , , , , , , , , , , , , , , , , ,	For 10 seconds After fully depressing ac- celerator pedal with A/C switch ON (A/C does not operate) (in-gear, ignition switch ON)	Approx. 12V	ON
	1			After 10 seconds	Below 2.5V	
				For 5 seconds after cranking with A/C switch ON (A/C does not operate)	Approx. 12V	
				After 5 seconds (A/C operates)	Below 2.5V	
				A/C switch ON at idle	Below 2.5V	
				A/C switch OFF at idle	Approx. 12V	
1K	0		Test connector	Test connector (Green: 1-pin) not grounded	Approx. 12V	Ignition switch
				Test connector (Green: 1-pin) grounded	0V	-
1L	0		Ground (MT)	Ignition switch ON	07	
			Open (HAT)	Ignition switch ON	Approx. 12V	1
1M	0		Speed sensor (HAT)	Ignition switch ON	0 or 4.5V	
		'		Idle	Approx 4.5V	1
1N	0	1	Idle switch	Accelerator pedal released	ov	Ignition switch
				Accelerator pedal depressed	Approx. 12V	ÍŎN
10	0	1	Stoplight switch	Brake pedal released	ov	Ignition switch
		l l		Brake pedal depressed	Approx. 12V	ŎΝ.
1P	0		P/S pressure	Ignition switch ON	Approx. 12V	
			switch	P/S ON (at idle)	ov	1
				P/S OFF (at idle)	Approx. 12V	1
1Q	0	1	A/C switch	A/C switch ON (Ignition switch ON)	Below 2.5V	Blower motor:
	1 T			A/C switch OFF (Ignition switch ON)	Approx. 12V	ON

Terminal	Input	Output	Connection to	Test condition	Voltage	Remarks
18	0		Ground (EC-AT)	Ignition switch ON	0V	2.6L
			Open (MT, HAT)	Ignition switch ON	Approx. 12V	
1S	0		Blower switch	Blower ON	Approx 12V	ignition switch
				Blower OFF	Below 1.5V	Ö N
١T	-	_			_	
10	0		Headlight switch	Headlight ON	Approx. 12V	
			-	Headlight OFF	Below 1.5V	
1V	0		Neutral or clutch switch (Inhibitor	Neutral or clutch pedal depressed (P or N ranges)	ov	Ignition switch
			switch)	Other condition	Approx. 12V	
2A] —	_	Ground (E01)	Constant	OV	
2B		-	Ground (E02)	Constant	0V	
2C	<u> </u>	_	Ground (E1)	Constant	ov	
2D	-	_	Ground (E2)	Constant	ov	
2E		0	Distributor	Ignition switch ON	0 or 5V	Ne-Signal
				Idle	2V	
2F		0	Igniter	Ignition switch ON	0 or 5V	Ignition-timing
			0	Idle	Approx. 0.5V	signal
2G	0		Distributor	Ignition switch ON	0 or 5V	÷
	- Ŭ		0.0010000	Idle	Approx. 1.2V	G-Signal
2H	i	0	Airflow sensor	Just after ignition switch OFF	<u>, , ,</u>	D
211			(Burn-off)			Burn-off functions
0				Burn off (2-5 seconds after ignition switch OFF) (Refer to page F2-170)	8—12V	momentarily
21	-				—————	
2J	-	_				
2K		O	Vref	Ignition switch ON	4.5—5.5V	
2L	0		Intake air ther- mosensor (Dynam- ic chamber)	At 20°C (68°F)	Approx. 2.5V	
2M	0		Throttle sensor	Accelerator pedal released	Approx. 0.5V	Ignition switch
				Accelerator pedal fully depressed	Approx. 4.3V	ON
2N	\circ		Oxygen sensor	Ignition switch ON	0V -	
				Idle (Cold engine)	٥v	
				Idle (After warm up)	0—1.0V	Needle moves from 0V to 1V
				Increase engine speed (After warm up)	0.5-1.0V	
				Deceleration	0-0.4V	
20	0		Airflow sensor	Ignition switch ON	1.0-2.0V	
			(Intake air mass)	Idle (After warm up)	1.9-2.6V	
				Increase engine speed (After warm up)	2—5V	
2P	0		Airflow sensor (Ground)	Constant	ov	
20	0		Water	Engine coolant termperautre 20°C (68°F)	Approx. 2.5V	Ignition switch
			thermosensor	After warm up	Approx. 0.4V	ON
2R	- 1	_	_			
2S	-	_			<u> </u>	<u> </u>
2T	1	0	Solenoid valve	· · · · · · · · · · · · · · · · · · ·		During hot condi-
			(PRC)	For 120 seconds after ignition switch OFF→ON	Below 2.5V	tion. Coolant temp. above 90°C (194°F)
				For 120 seconds after starting	Below 2.5V	Intake air temp. above 75°C (167°F)
				Ignition switch ON	Approx. 12V	Other conditions
20		0	Injector No.1, 3	ignition switch ON	Approx. 12V	* Engine Signal Monitor: Green
		I		Idle	Approx. 12V*	and red lights flash

Terminal voltage

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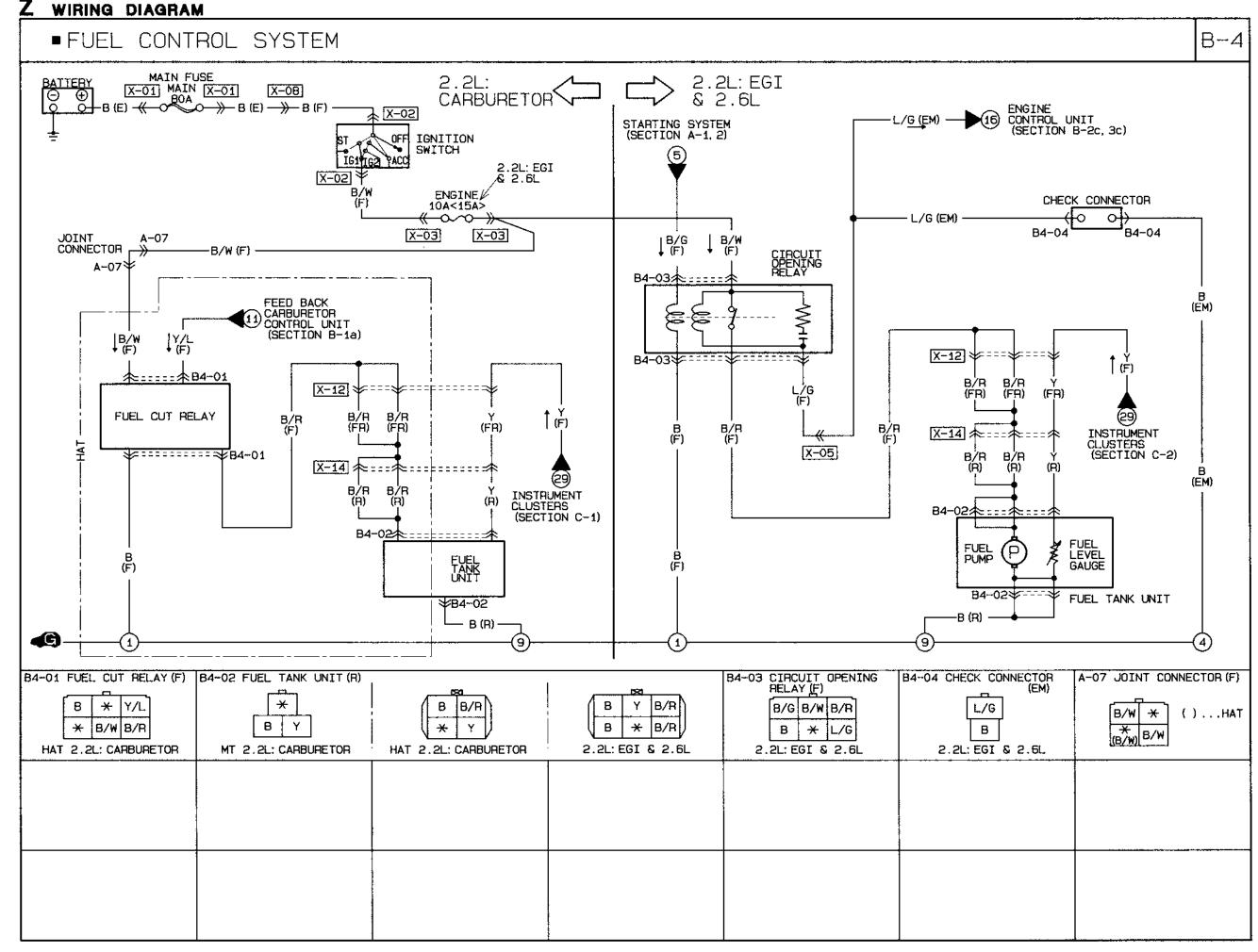
Terminal	Input	Output	Connection to	Test condition	Voltage	Remarks
27	<u> </u>	0	Injector No. 2, 4	Ignition switch ON	Approx, 12V	* Engine Signal Monitor: Green
				idle	Approx. 12V*	and red lights flash
2W		0	Solenoid valve (Idle speed control)	Ignition switch ON	Approx. 11V	Engine signal monitor: Green
			(Idie	Approx. 10V	and red lights flash
2X		0	Solenoid valve	Ignition switch ON	Approx. 12V	
-			(Purge control)	Idle	Approx. 12V	* Engine signal monitor: Green
				Driving in gear	5-1.5V*	and red lights flash
2Y		0	HAT control unit	Ignition switch ON	Approx. 12V	2.6L HAT
_ `				Accelera for pedal fully depessed	0	
2Z	- 1					_

Terminal location

<u> </u>																				_	• ••• ••		
۱ <u> </u>					ſ													<u> </u>		<u>!</u>	<u> </u>	<u> </u>	
2Y	2W	2U	25	20	20	2M	2K	21	2G	2ε	20	2A	U	s	0	0	м	к	1	G	ε	С	A
27	24	21/	27	28	20	2N	21	21	214	2F	2D	28	V	Т	R	Ρ	N	L	J	н	F	Го	B

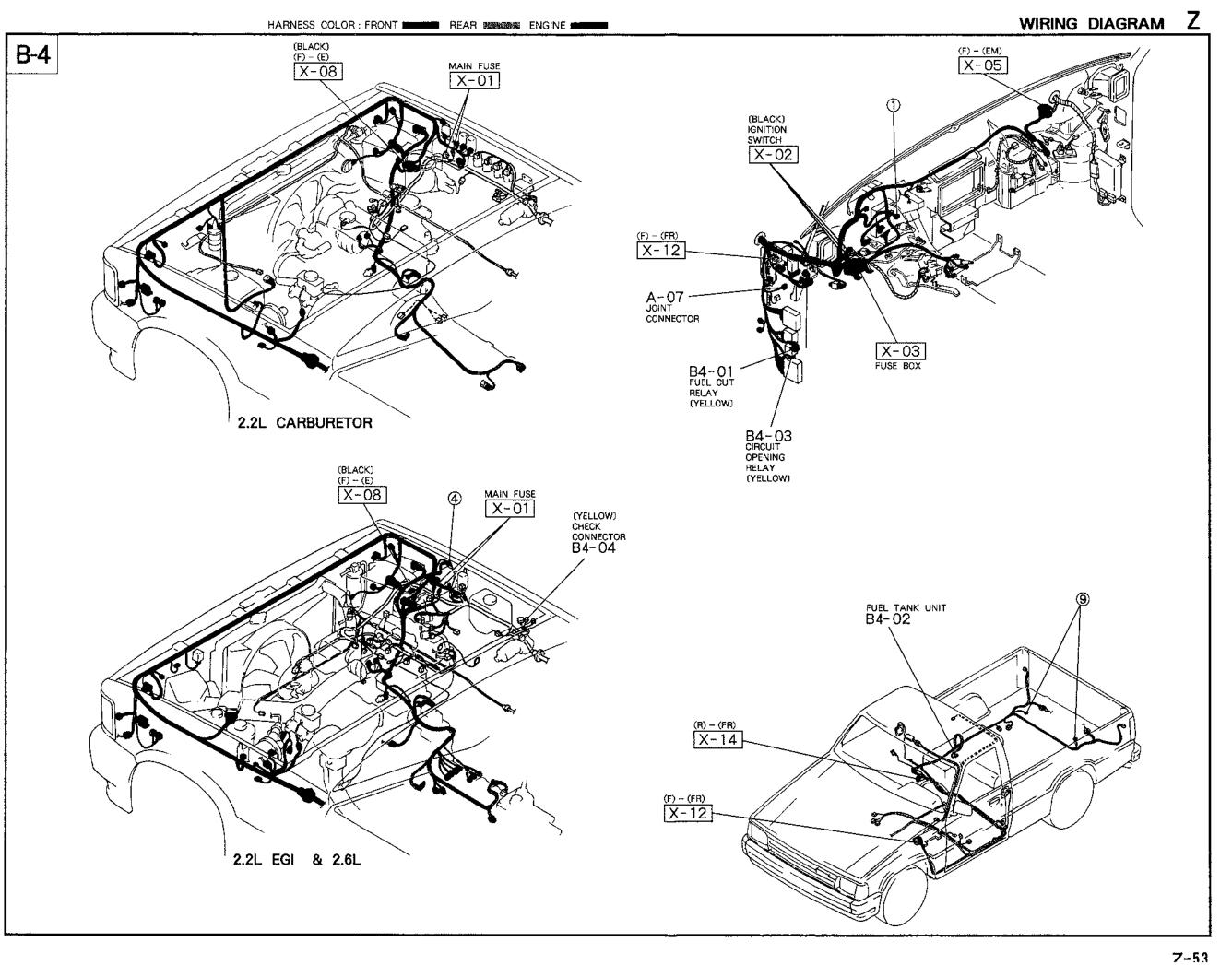
WIRING DIAGRAM Z

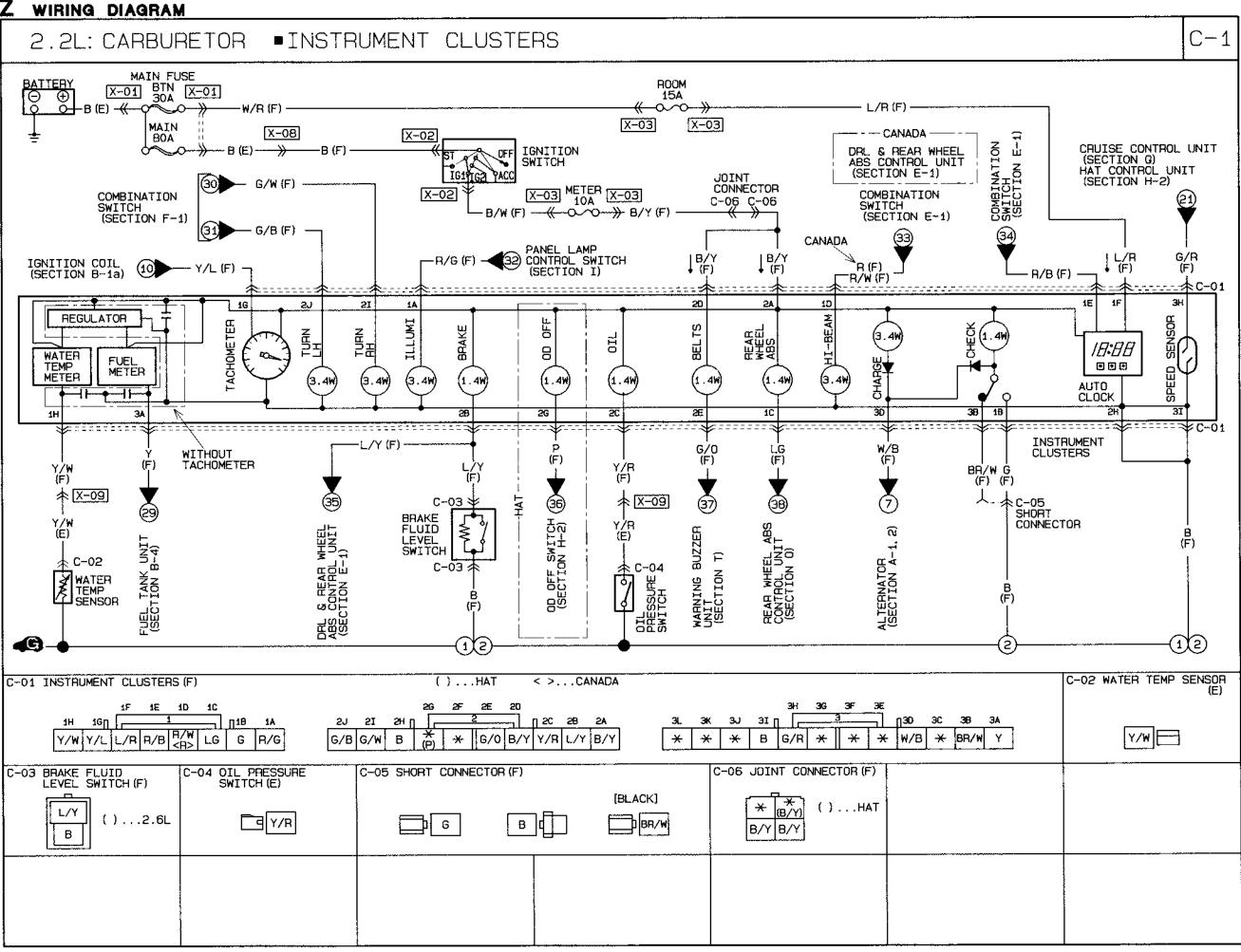
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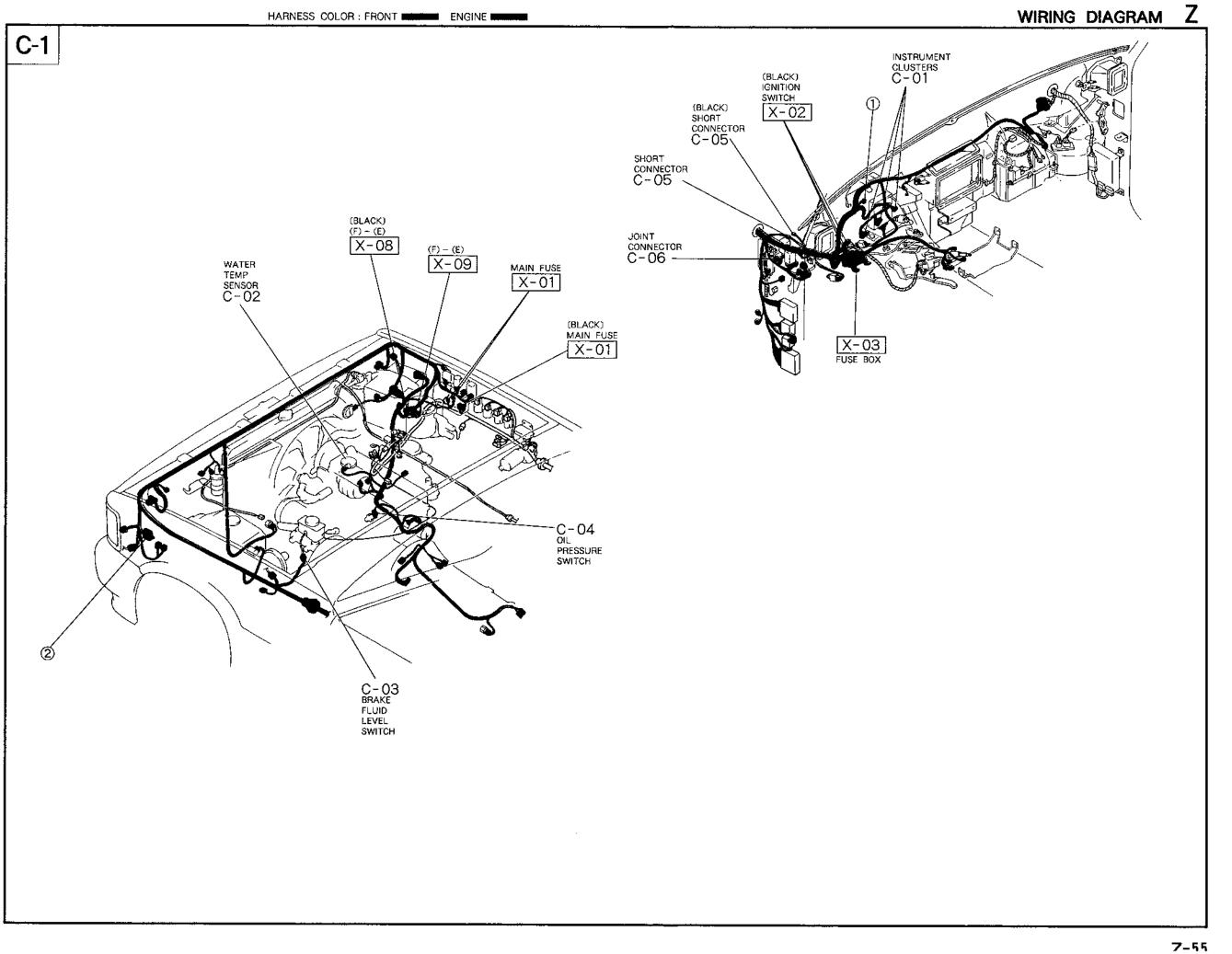




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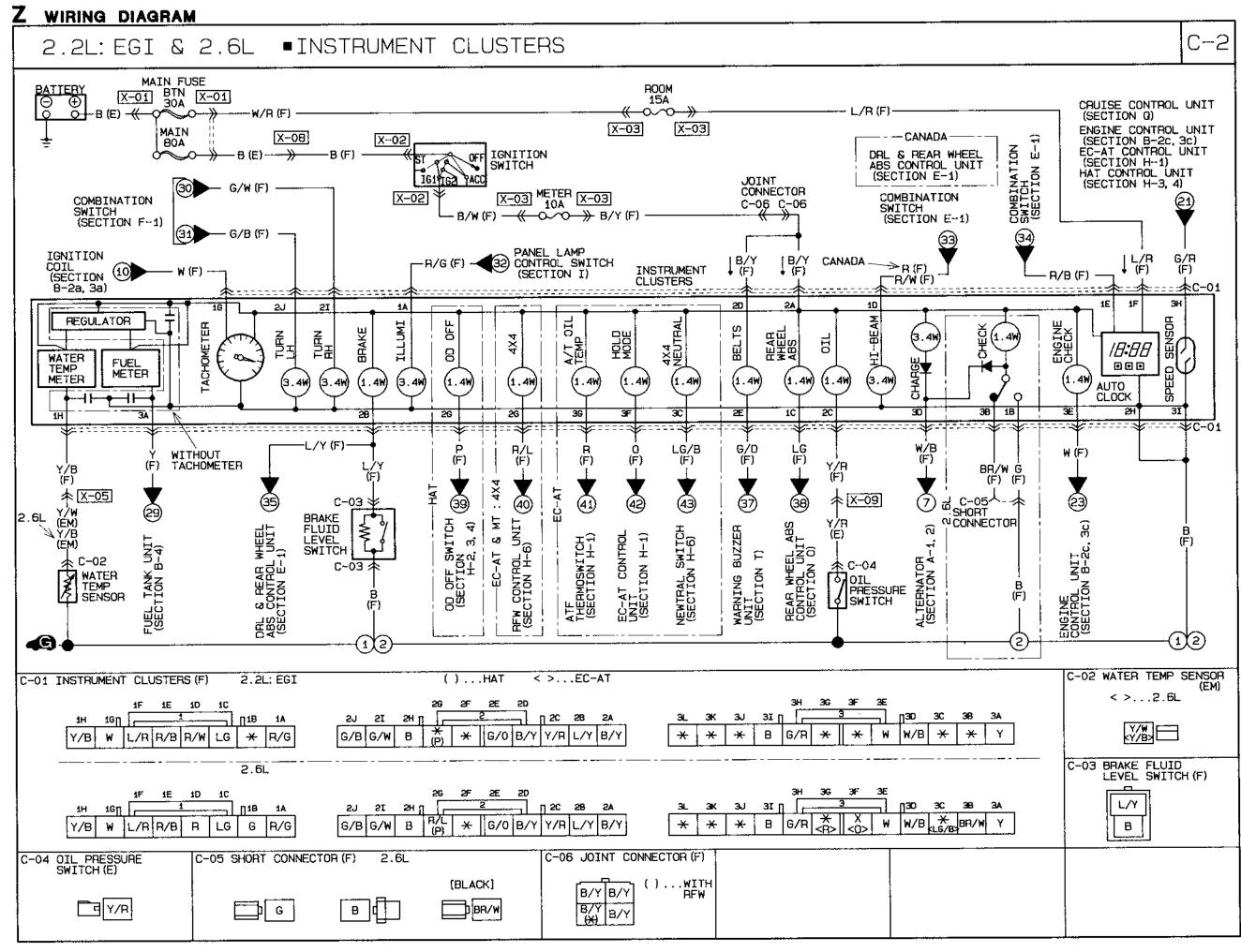


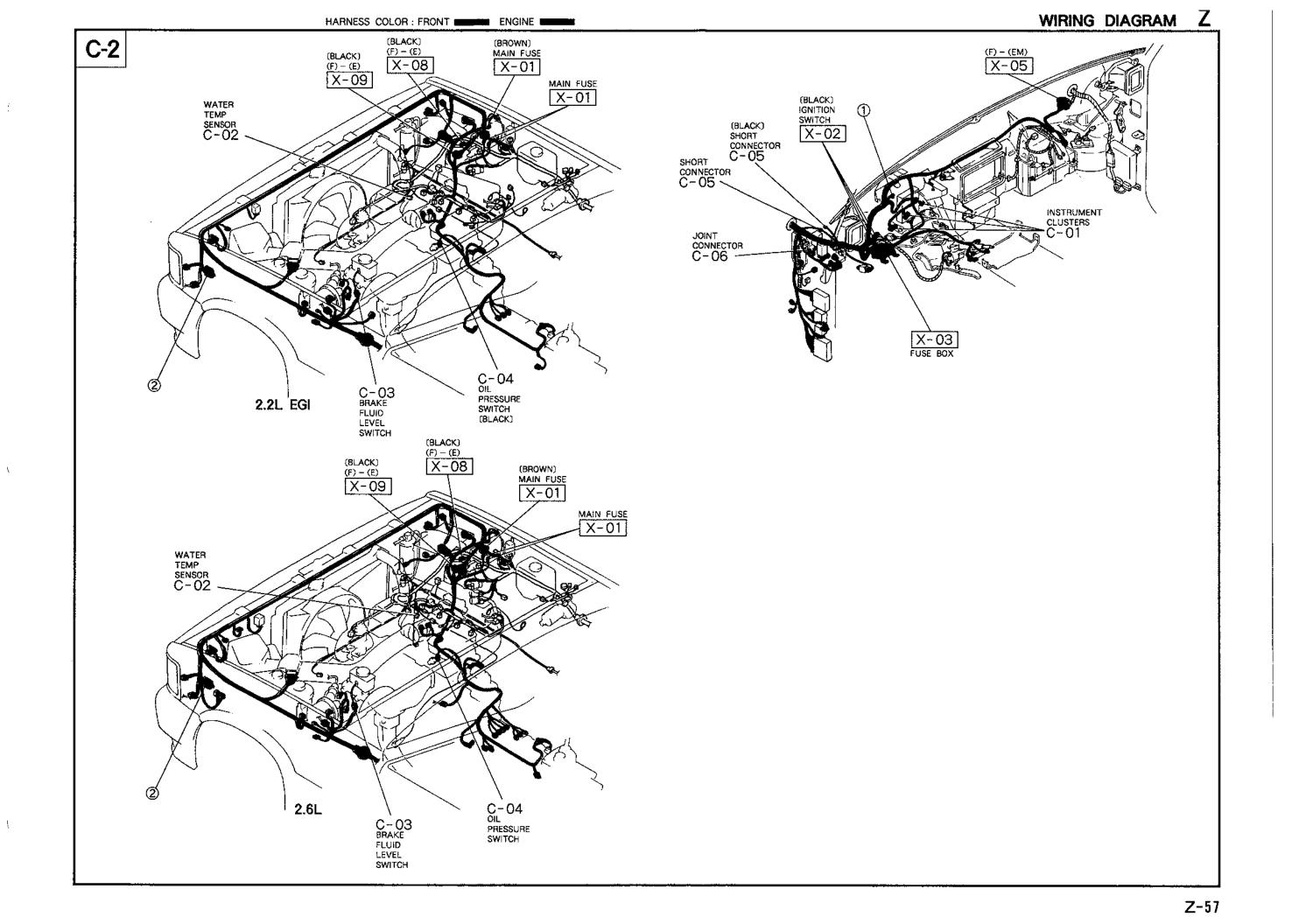


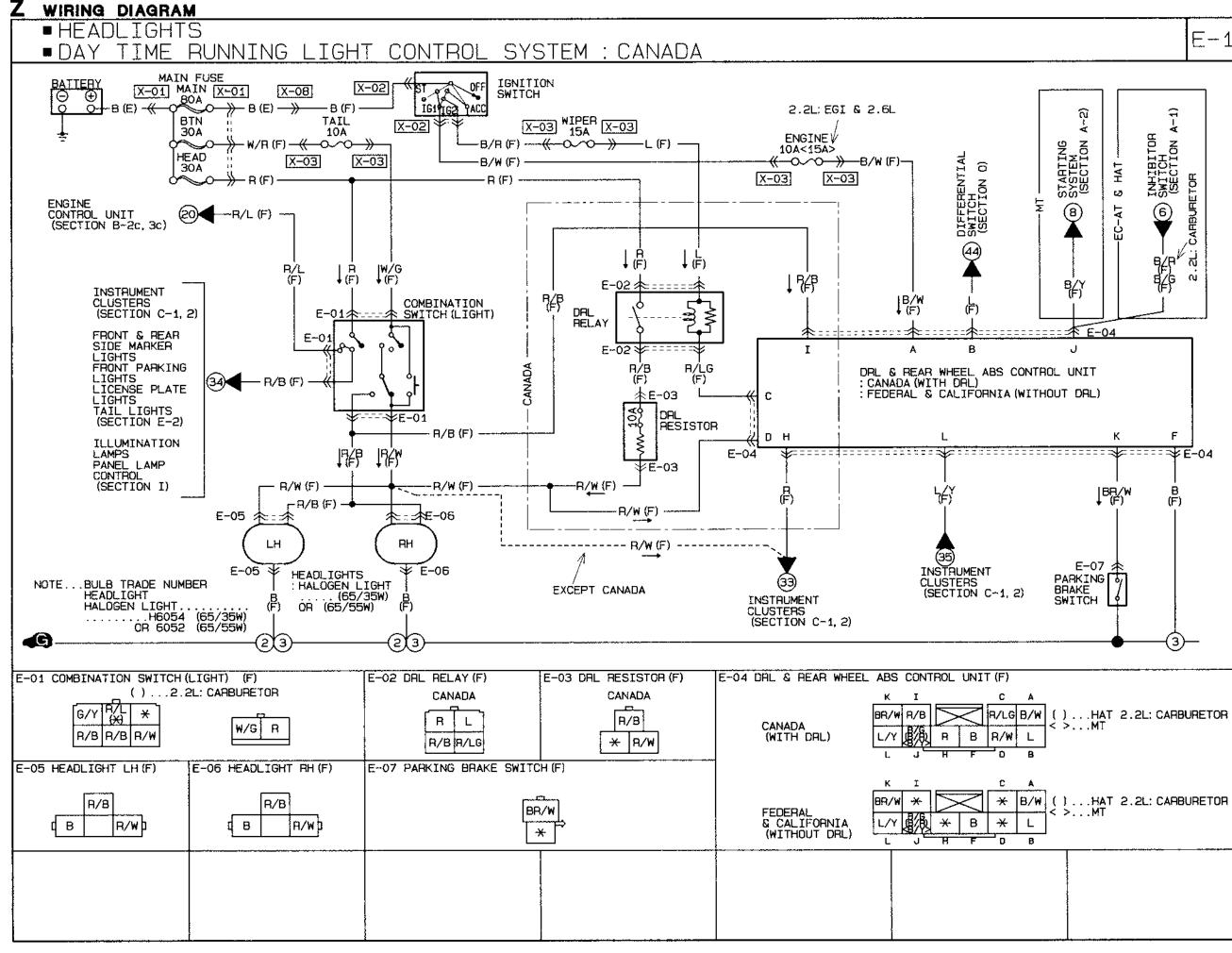


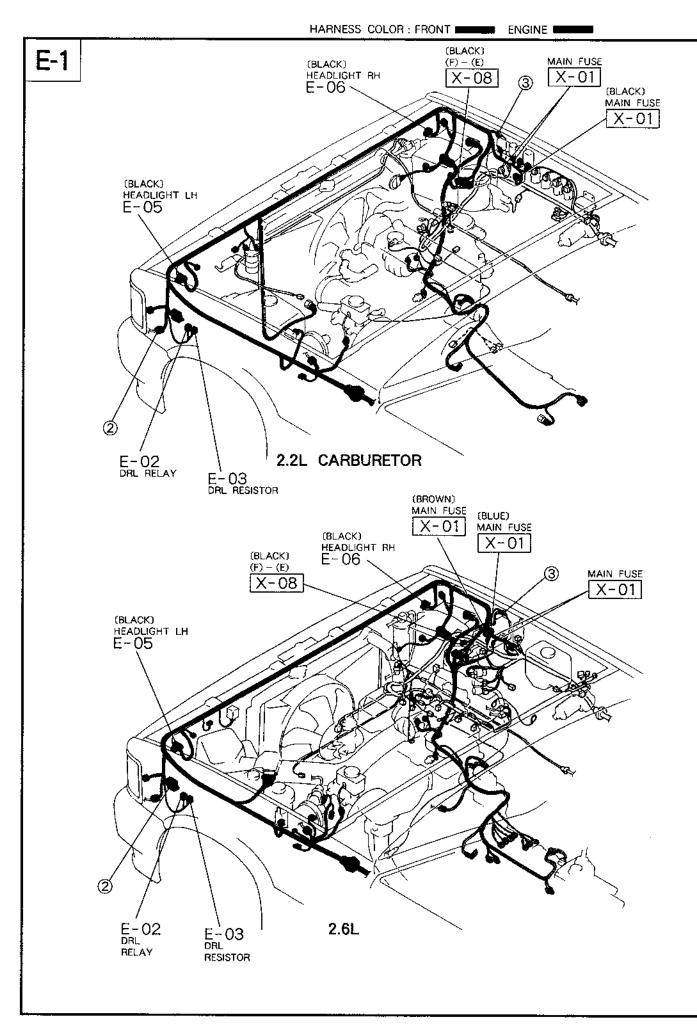
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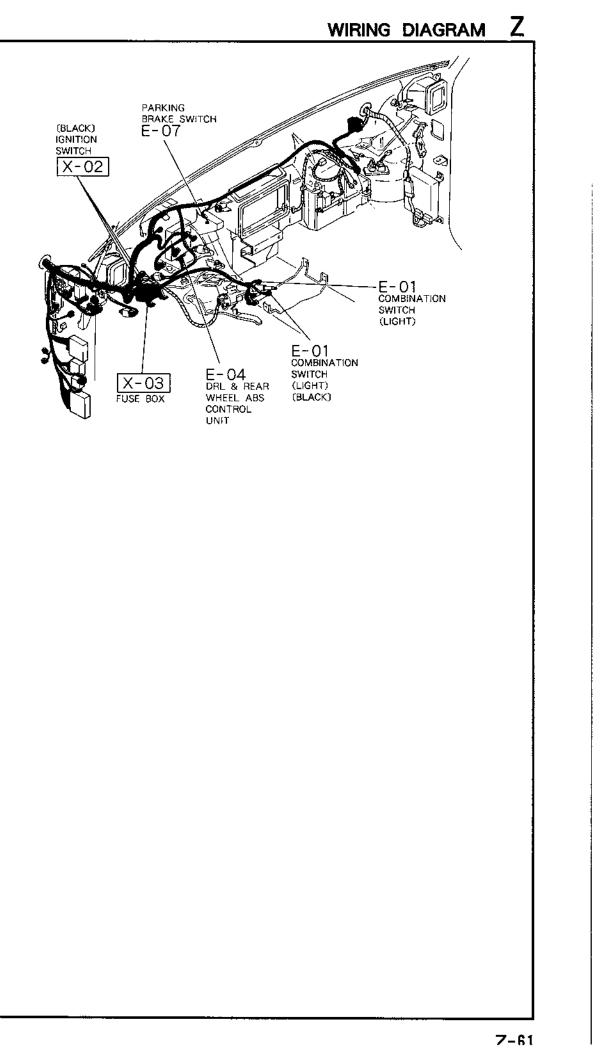
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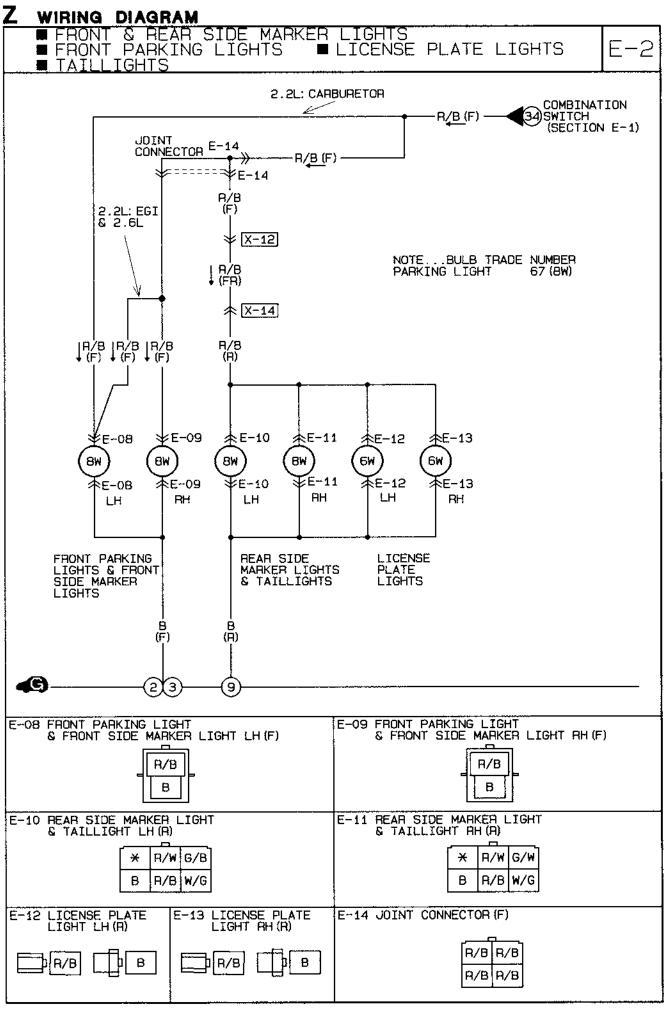




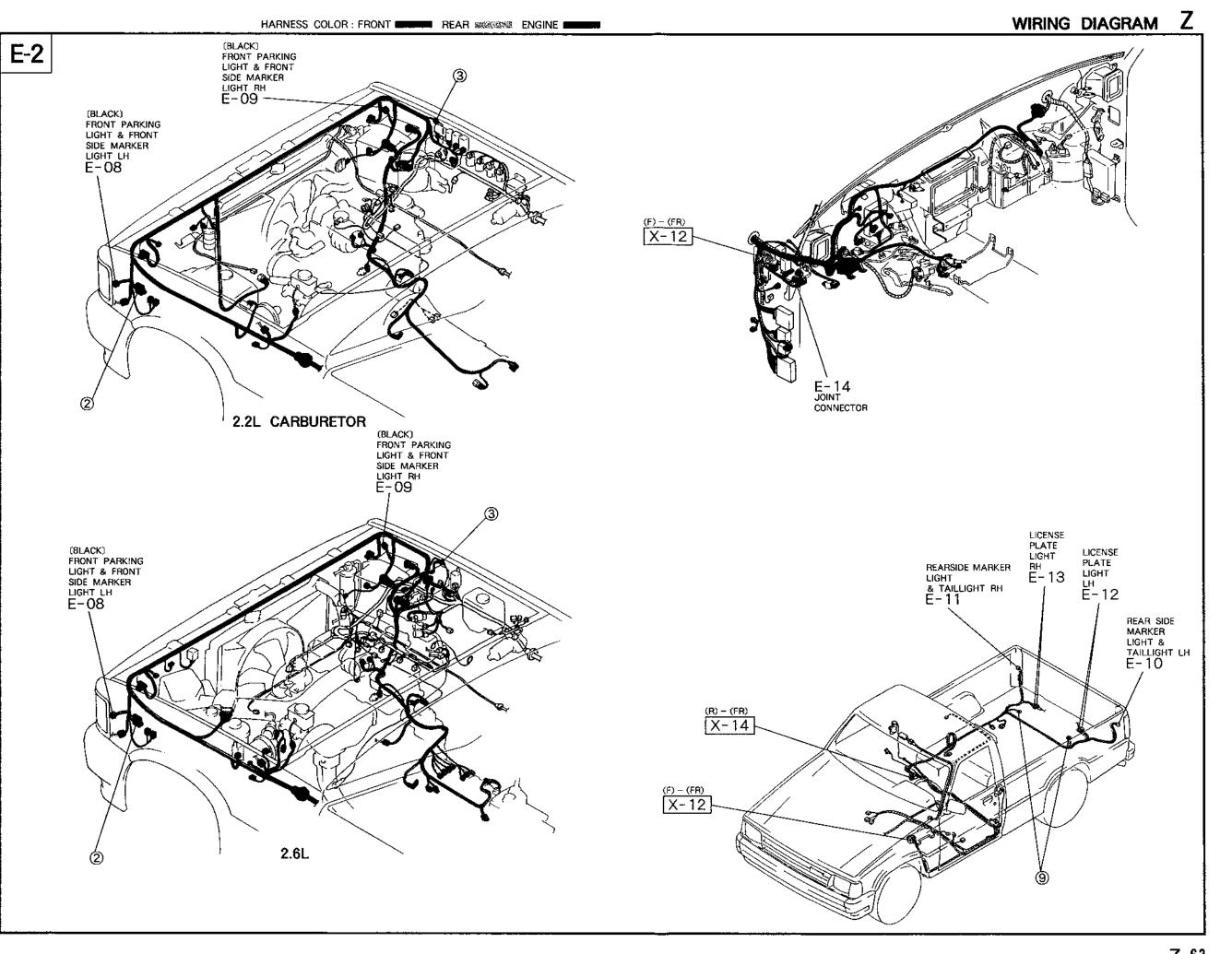




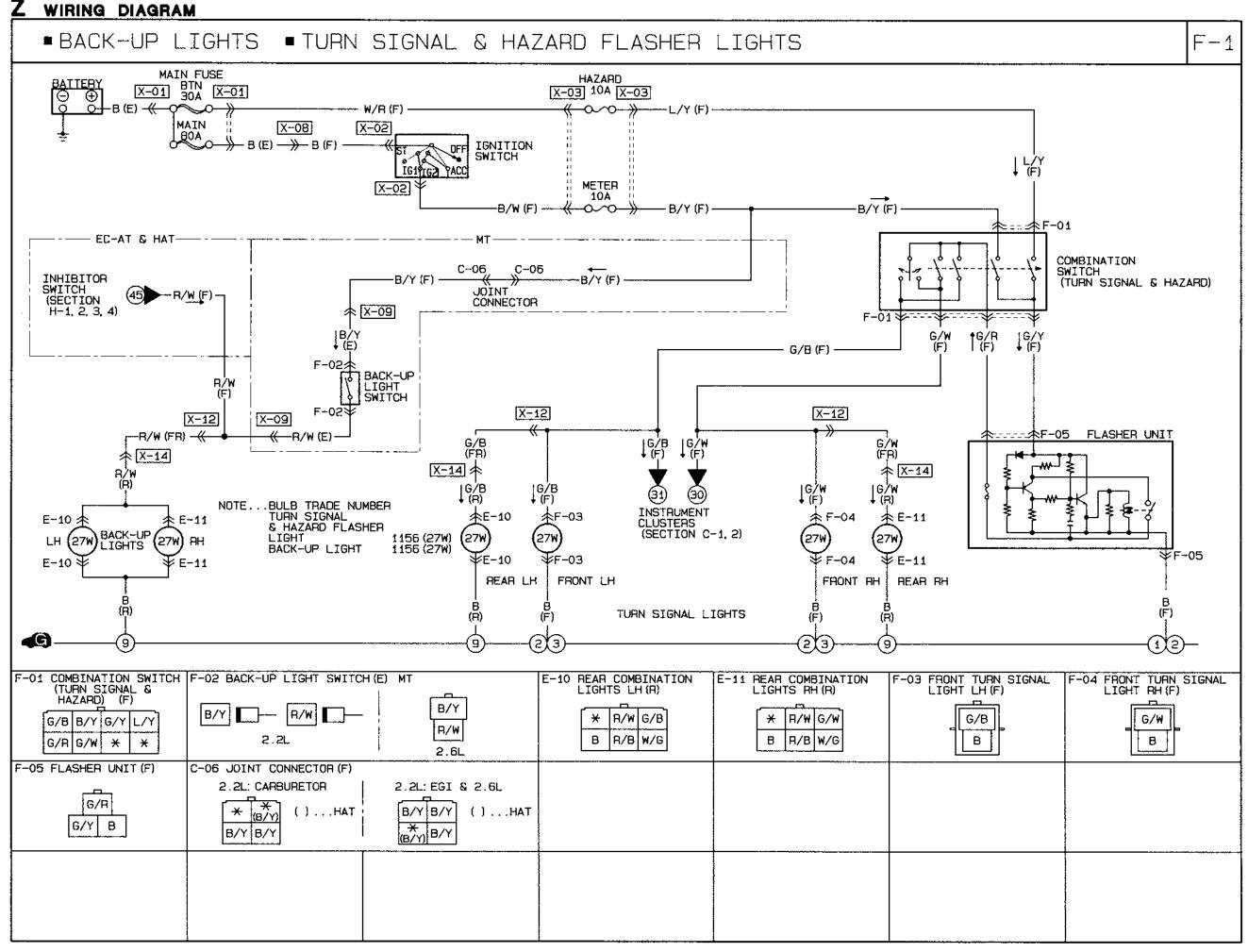




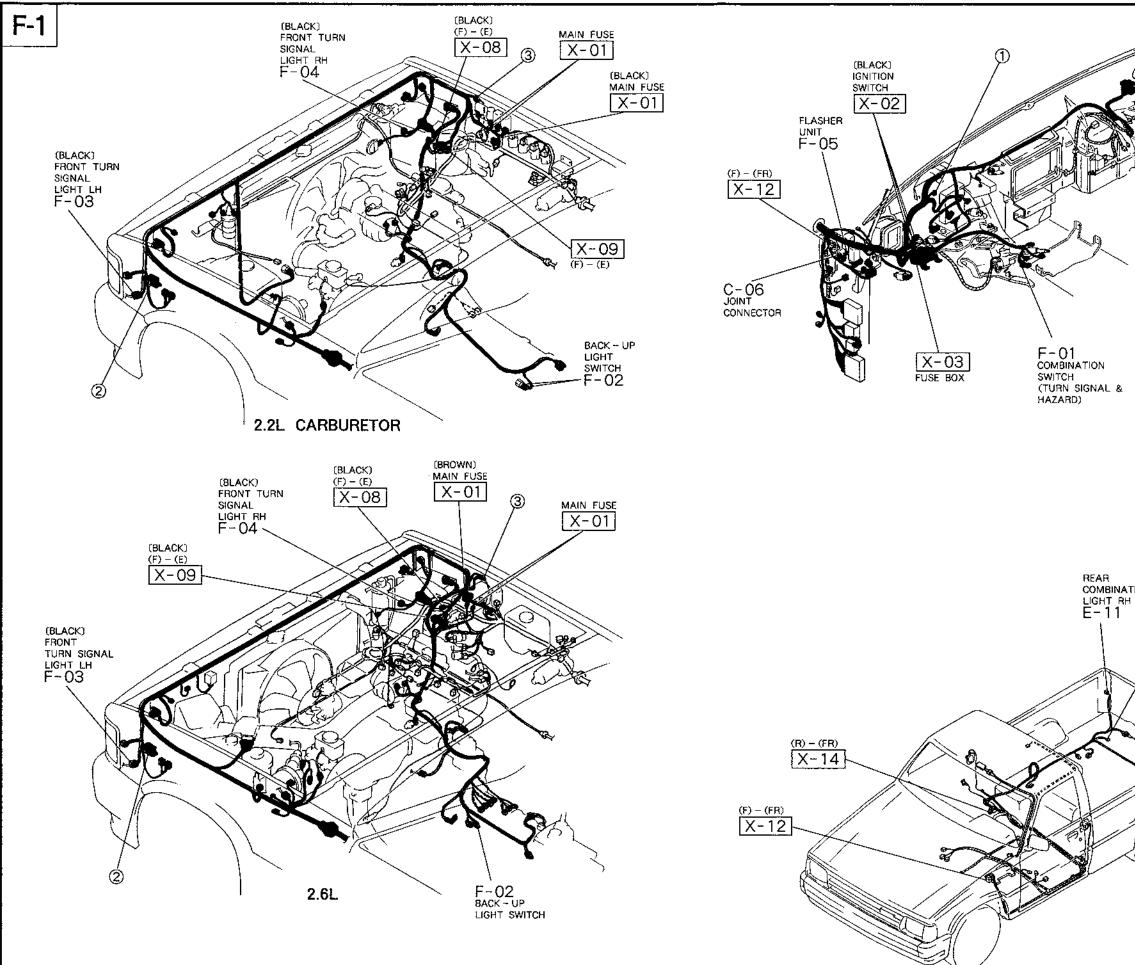
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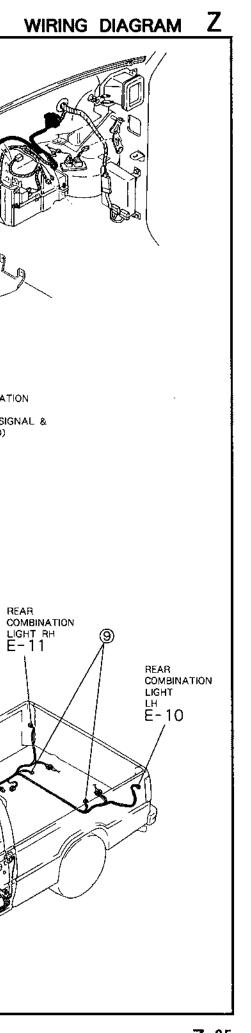


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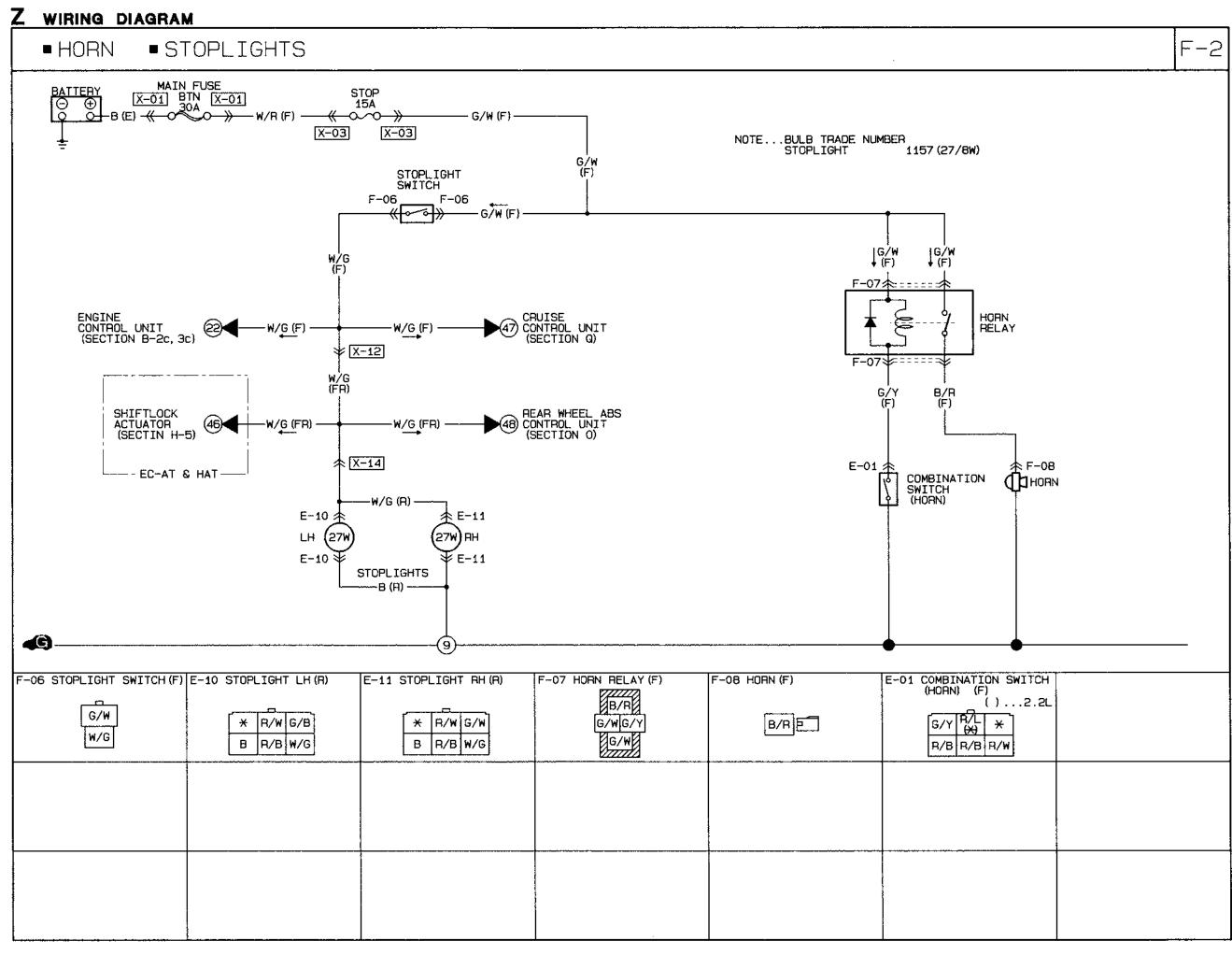


HARNESS COLOR : FRONT REAR MOMMON ENGINE











(black) horn relay F-07

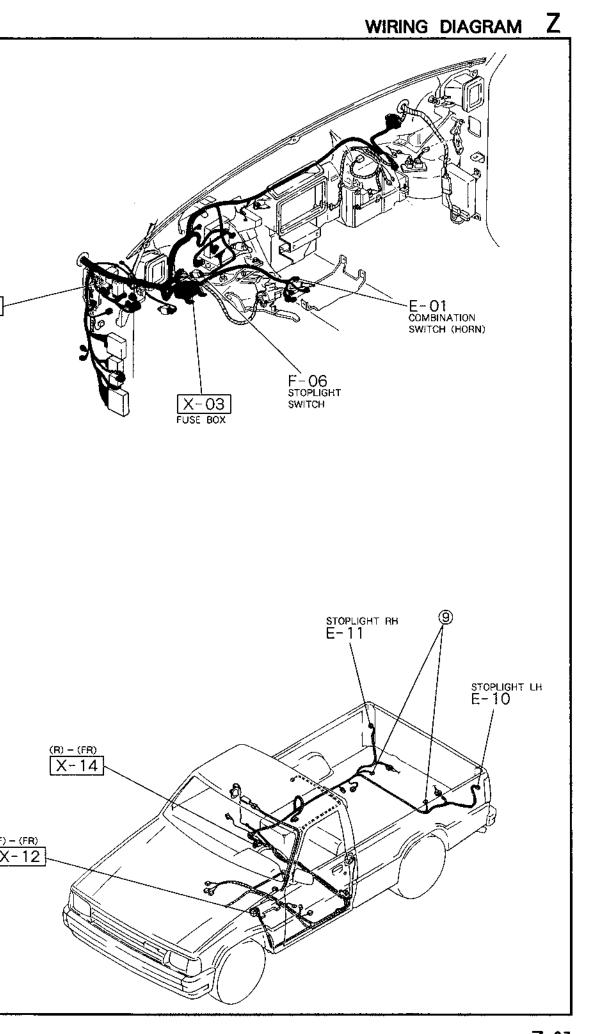
(BLACK) MAIN FUSE

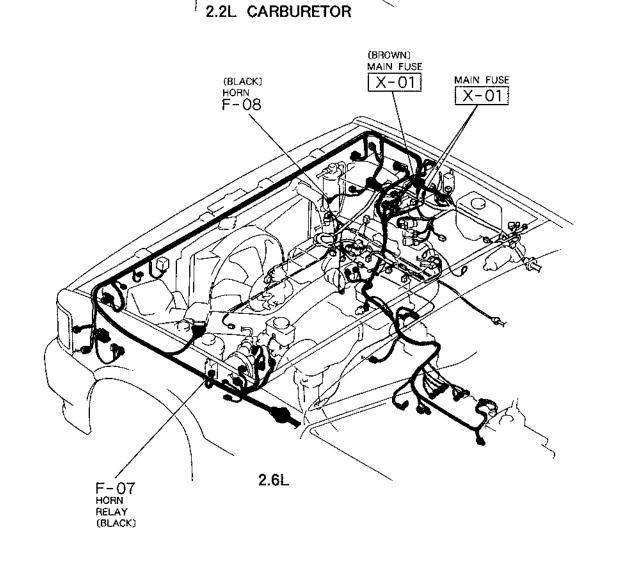
MAIN FUSE

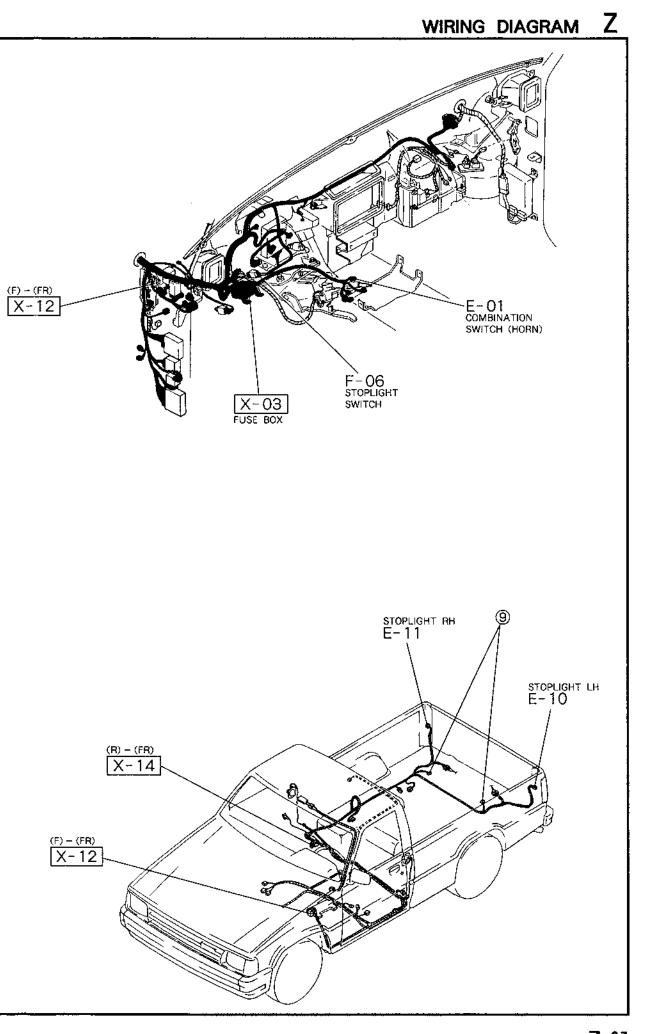
(black) horn F - 08

F-2

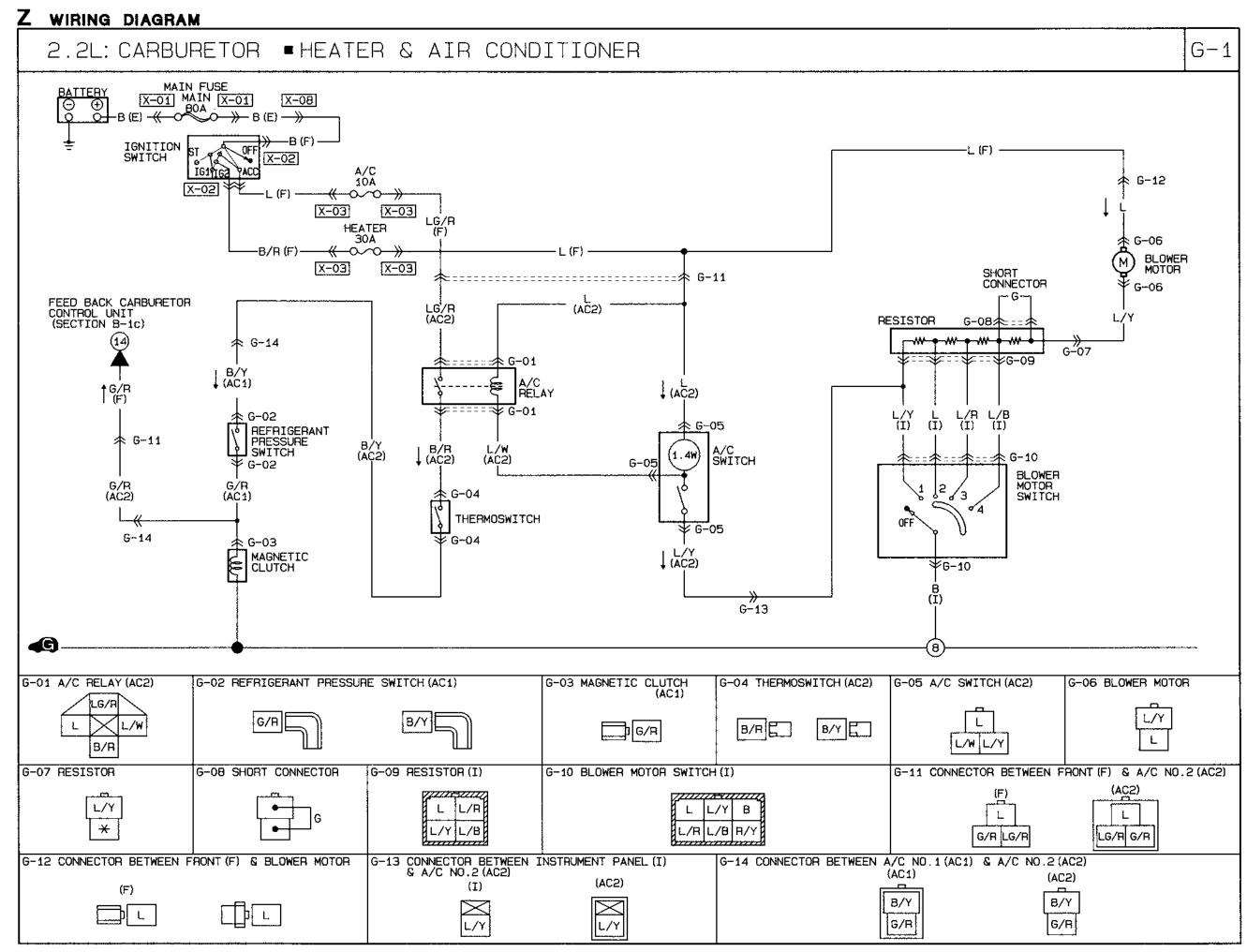
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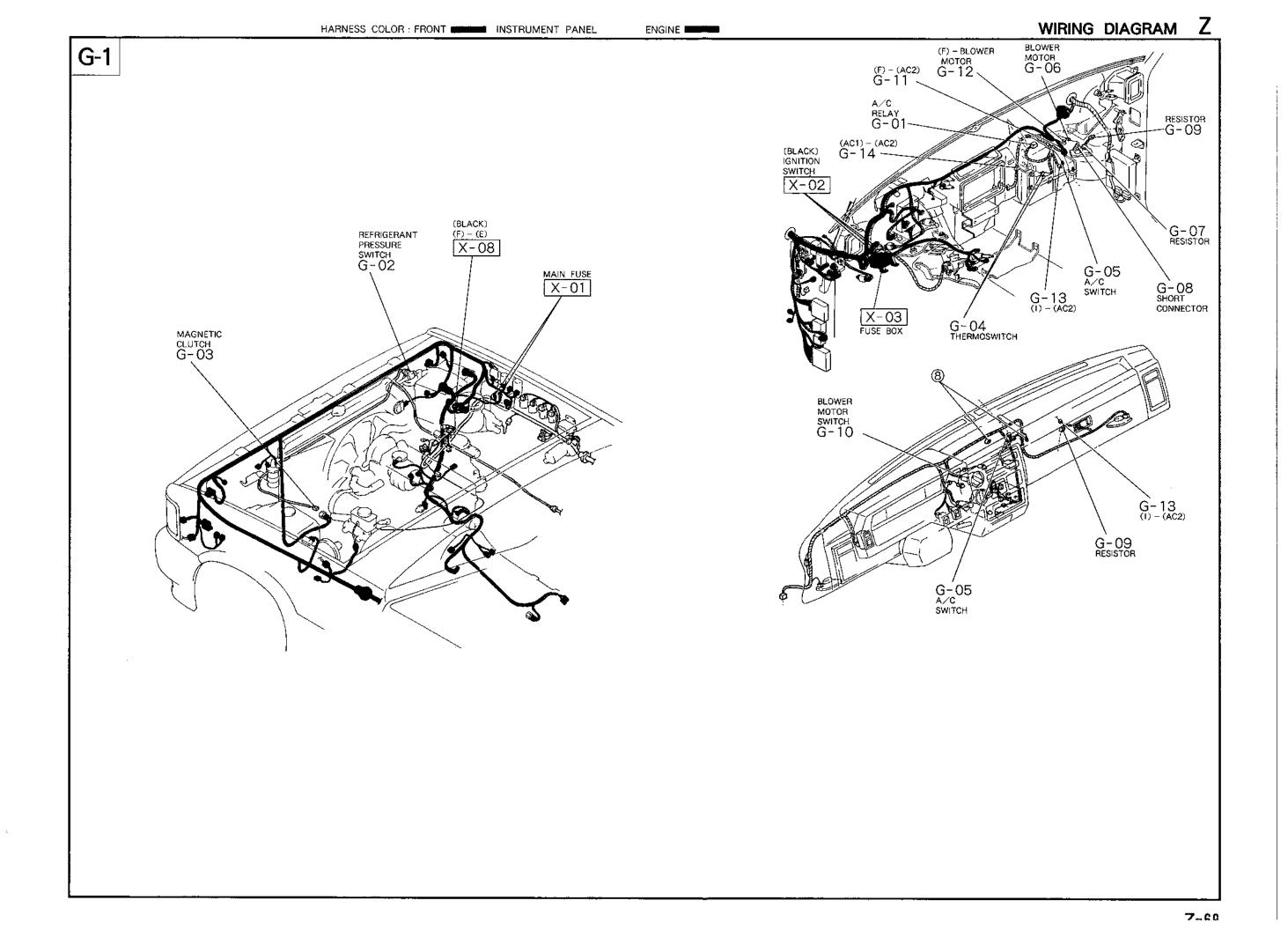


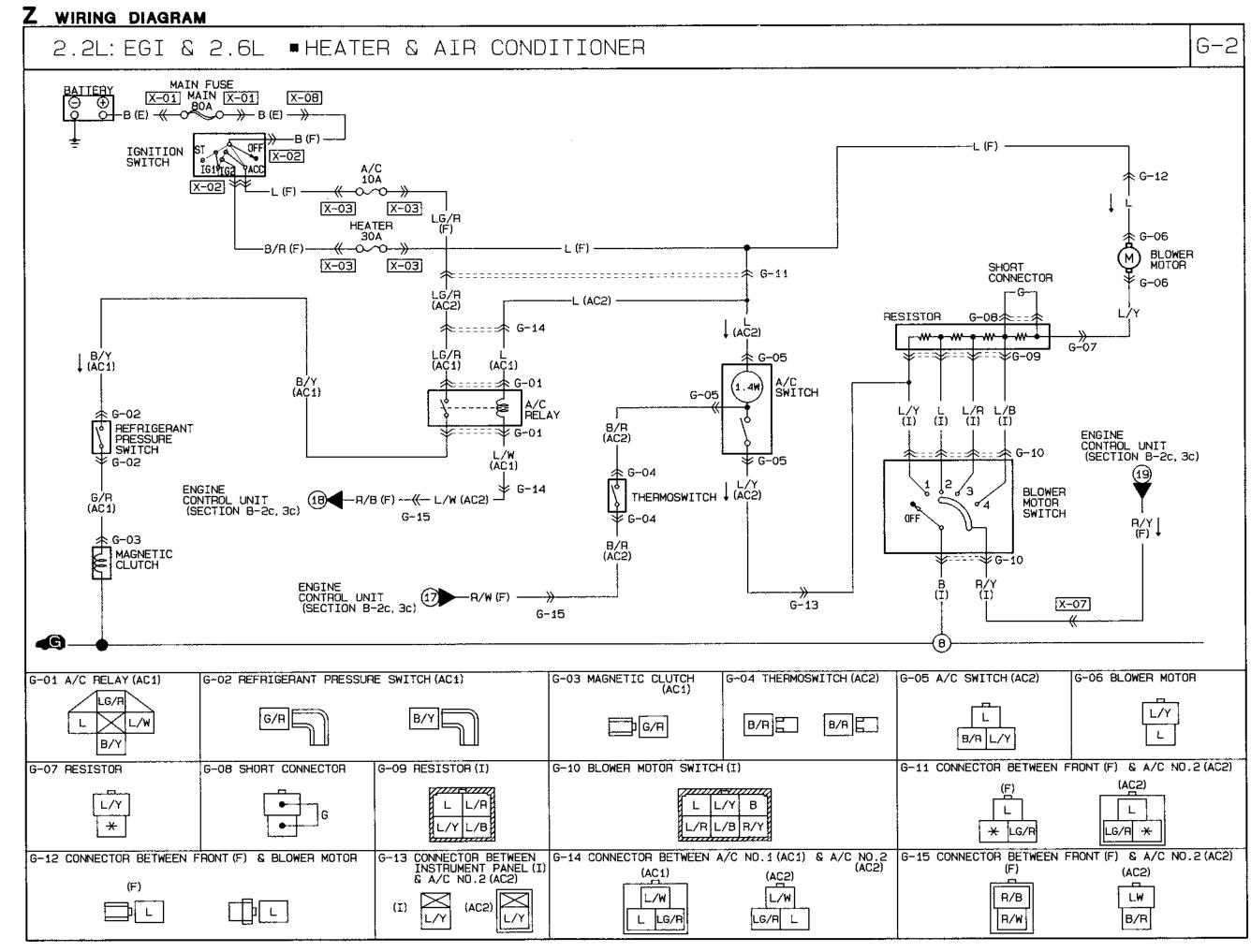


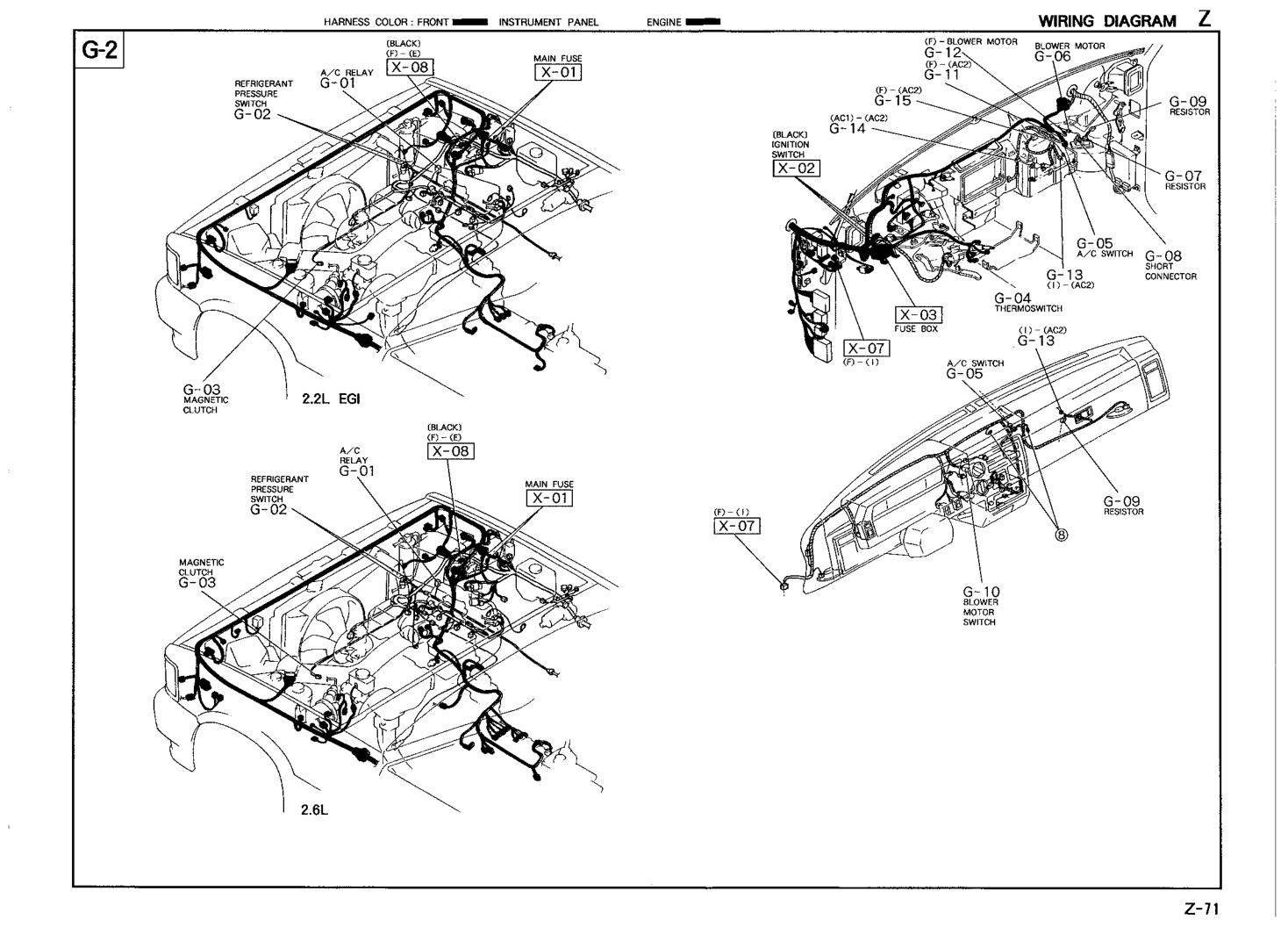


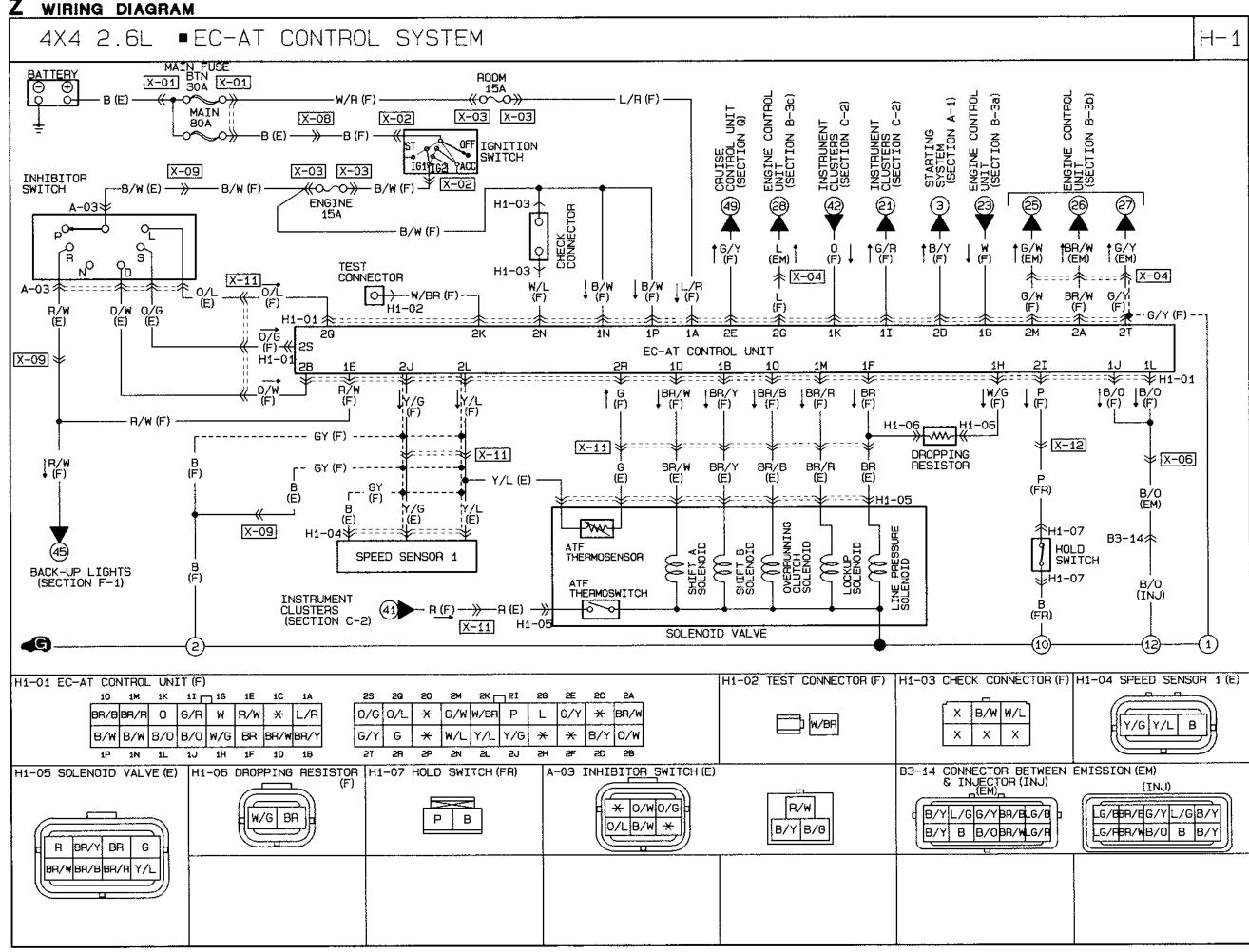
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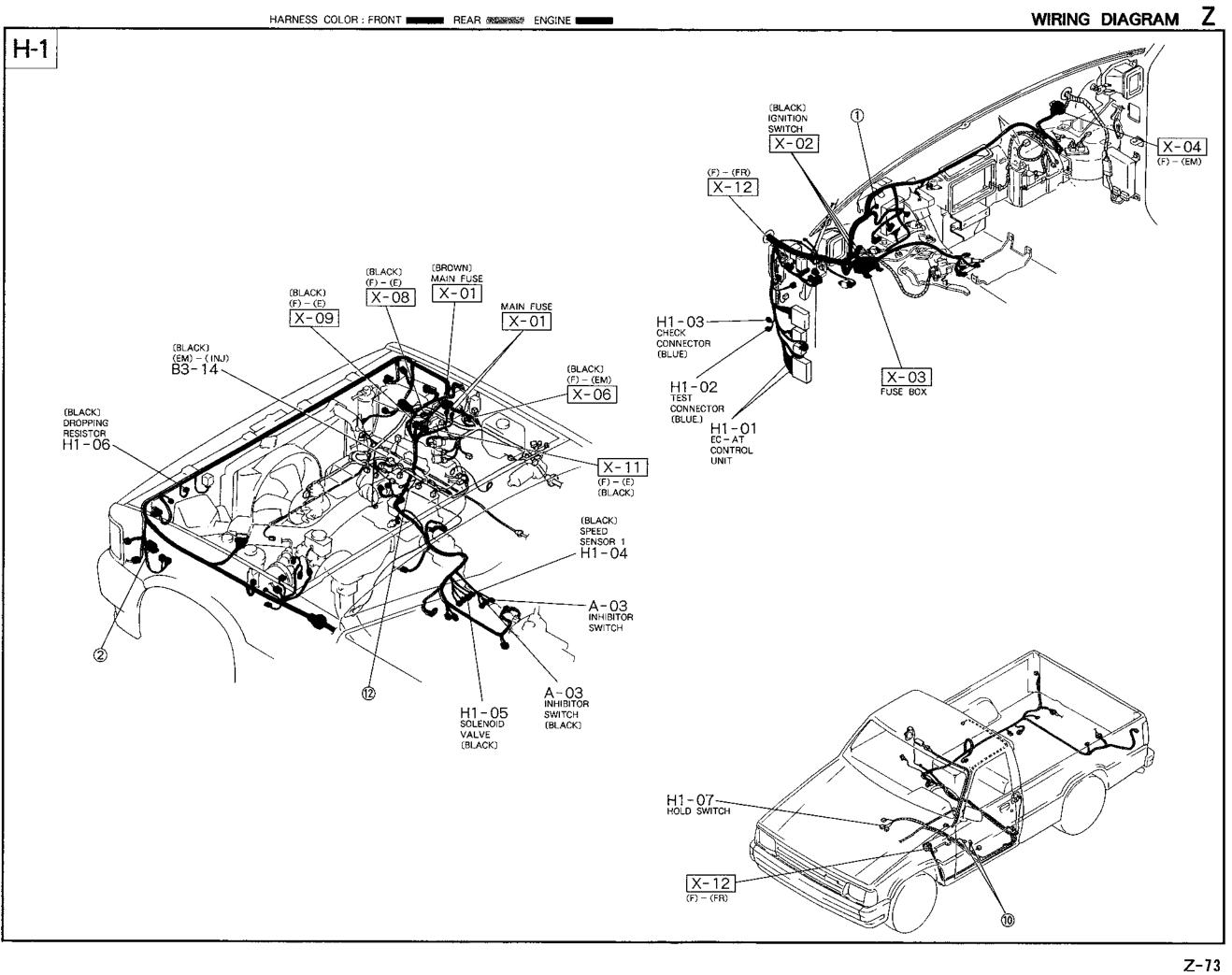






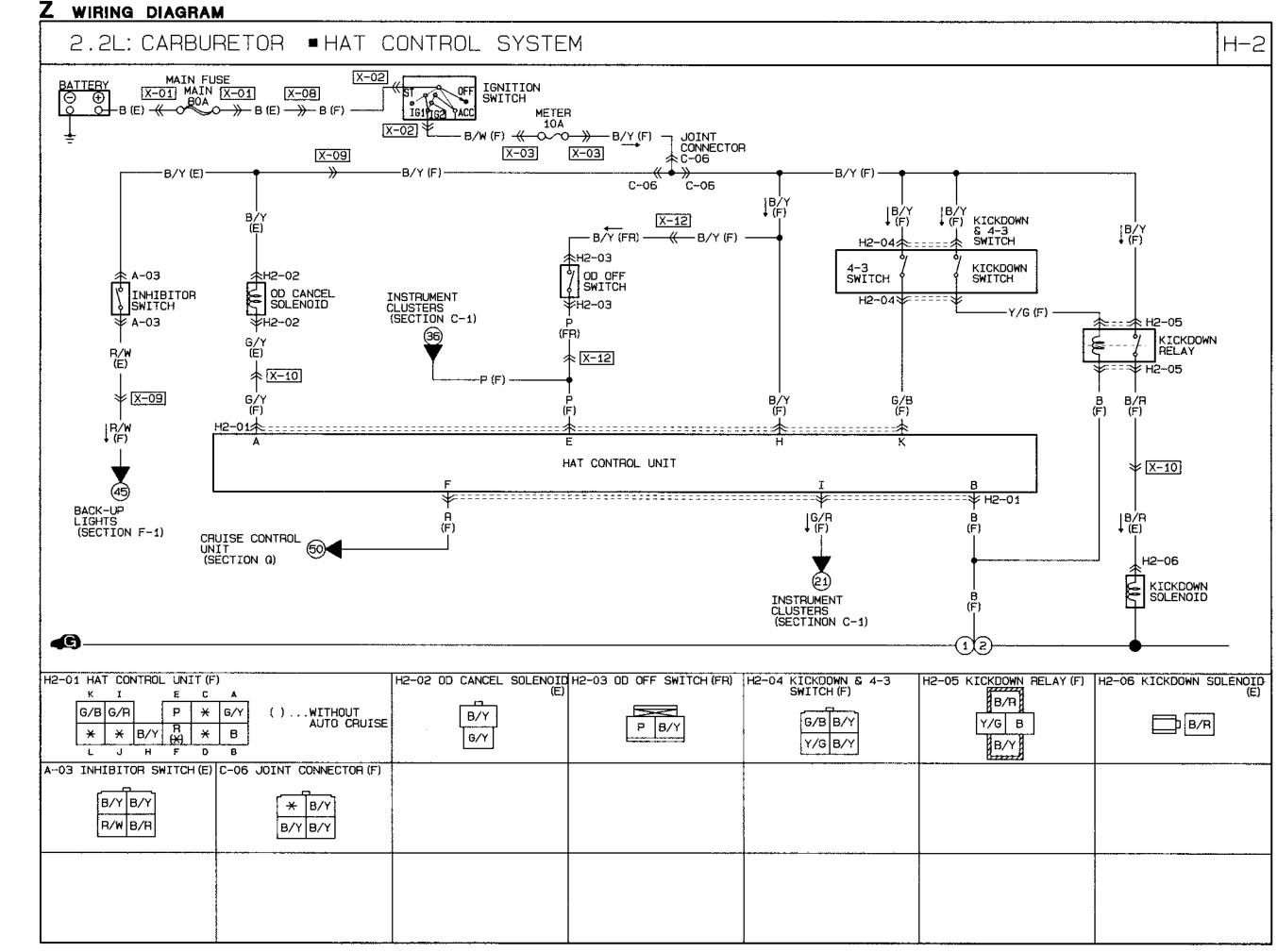


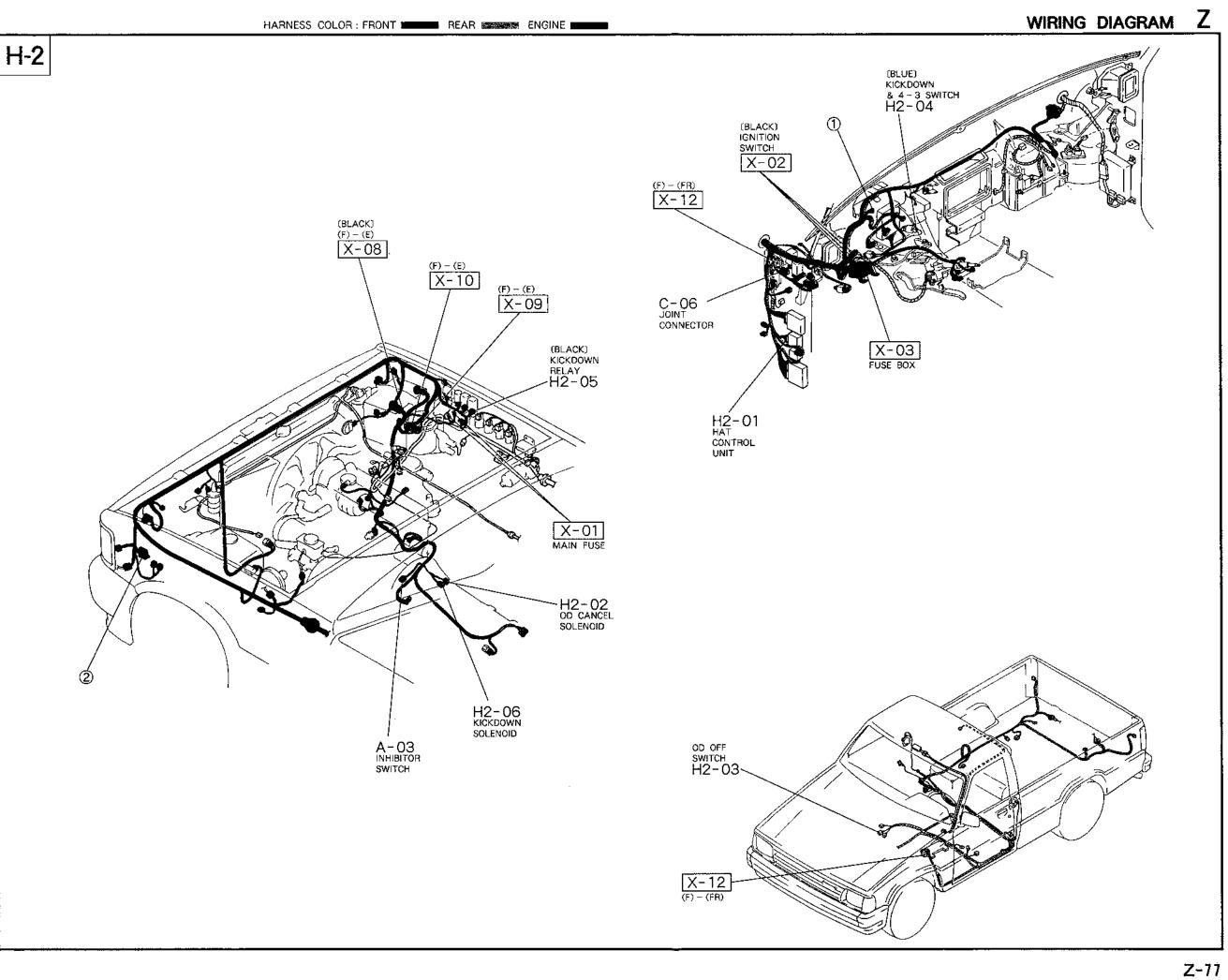
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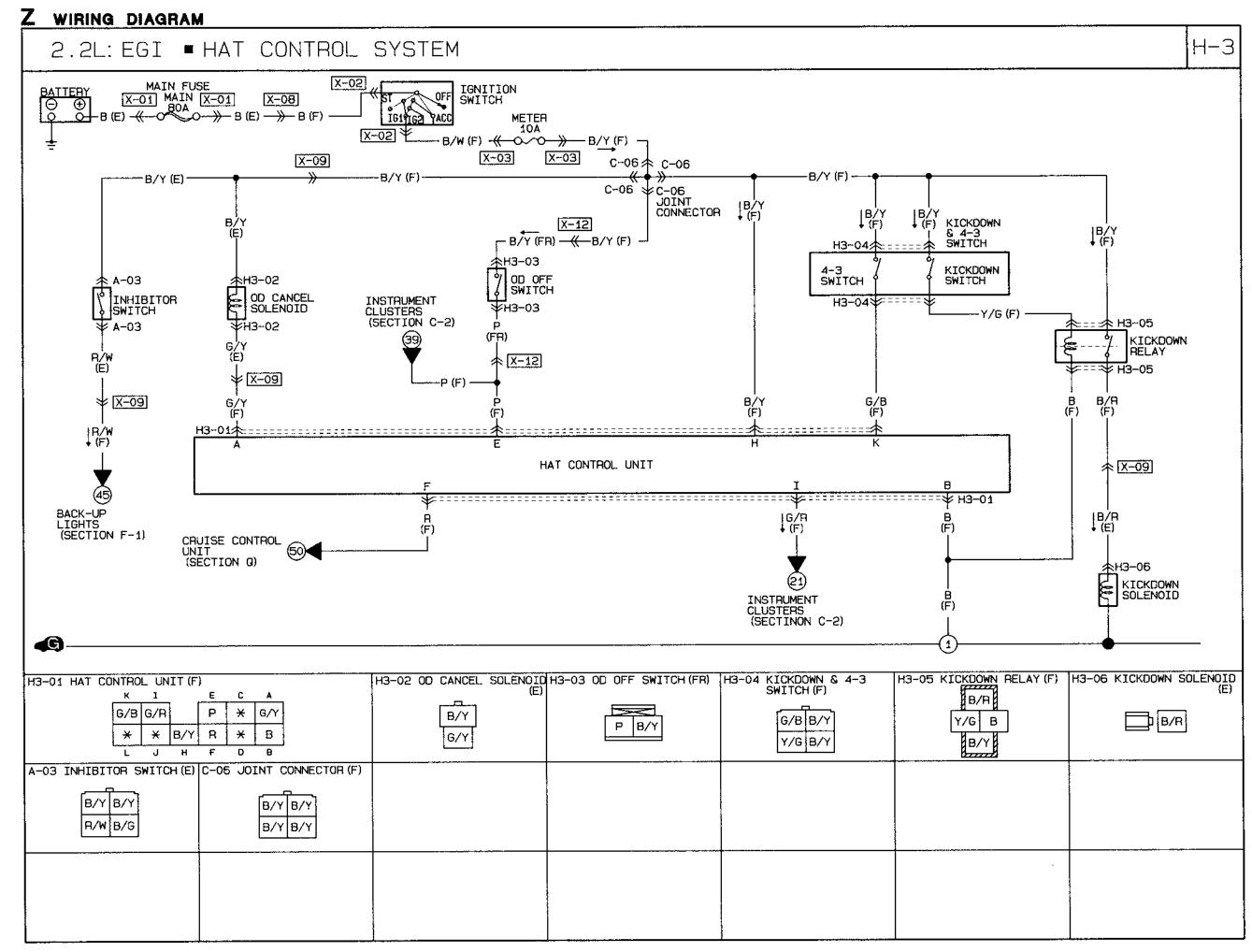
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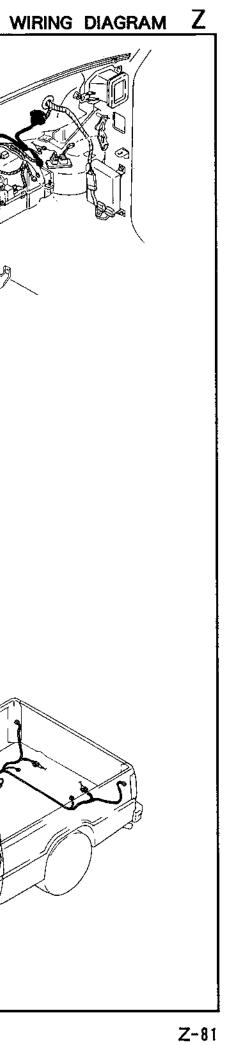


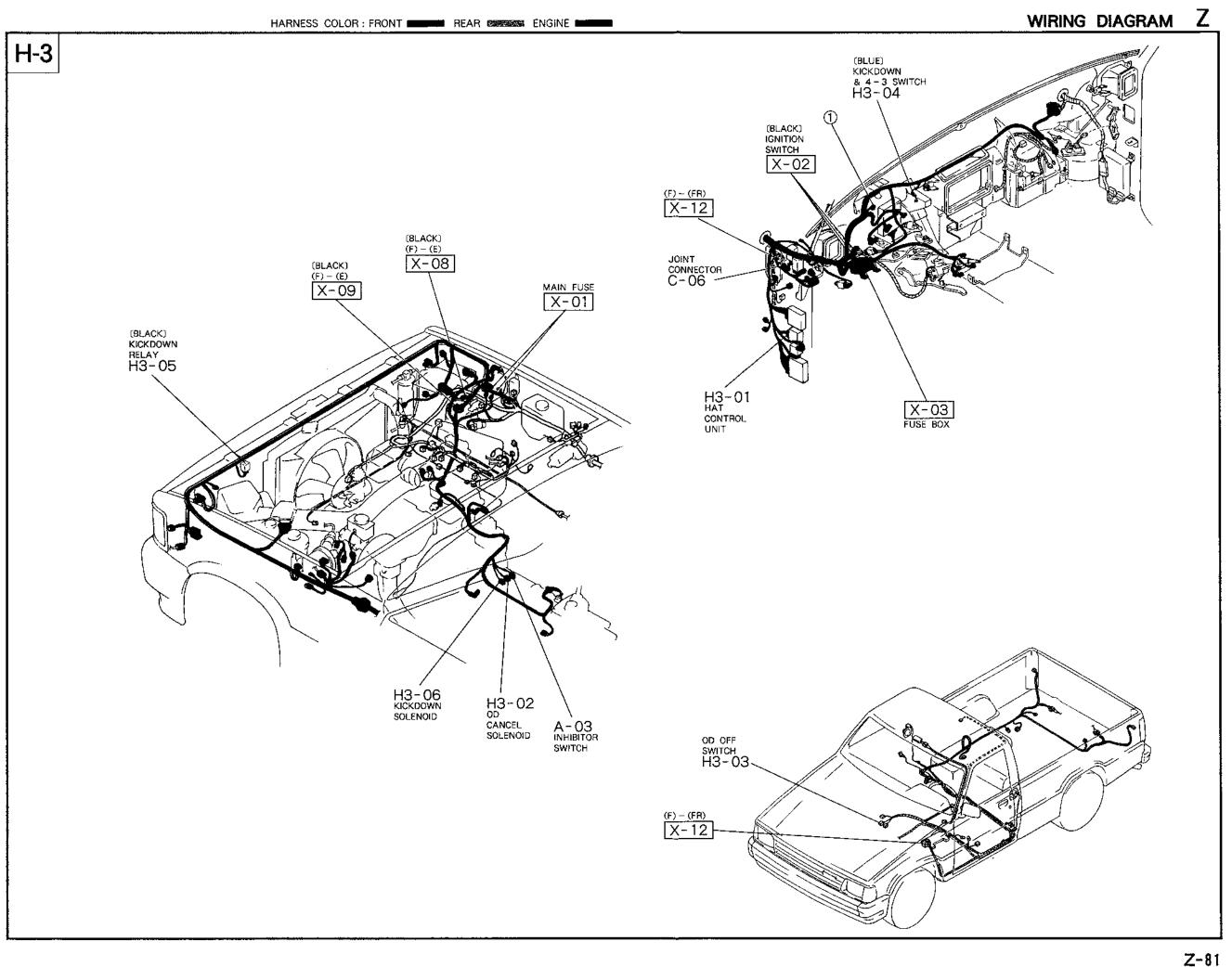


Terminal Connected to		Voltage	Condition		
A (Output)	OD cancel solenoid	Approx. 12V	Solenoid OFF: • OD gear position		
		Below 1.5V	Solenoid ON: •1st, 2nd, and 3rd gear positions in forward ranges •P, R, and N ranges		
B (Ground)		Below 1.5V	-		
С					
1D			! 		
E (Input)	OD OFF switch	Approx. 12V	OD OFF switch depressed (ON): • OD not available		
		Below 1.5V	OD OFF switch released (OFF): • OD available		
F (Input)	Cruise control unit	Approx. 12V	Normal conditions		
		Below 1.5V	Set or Resume switch ON, or vehicle speed 8 km/h (5 mph) lower than preset speed (Driving vehicle: cruise control operation)		
H (Input)	Kickdown relay	Approx. 12V	Kickdown relay OFF: • Other than conditions below		
		Below 1.5V	Kickdown relay ON:Kickdown switch On (throttle opening more than 7/8)		
l (Input)	Speed sensor	1.5—7V	During driving		
		Approx. 7V or below 1.5V	Vehicle stopped		
J					
K (Input)	4-3 switch	Approx. 12V	Switch ON: • Throttle opening 6/8—8/8		
		Below 1.5V	Switch OFF: •Other than conditions above		
L		Ţ <u> </u>	_		



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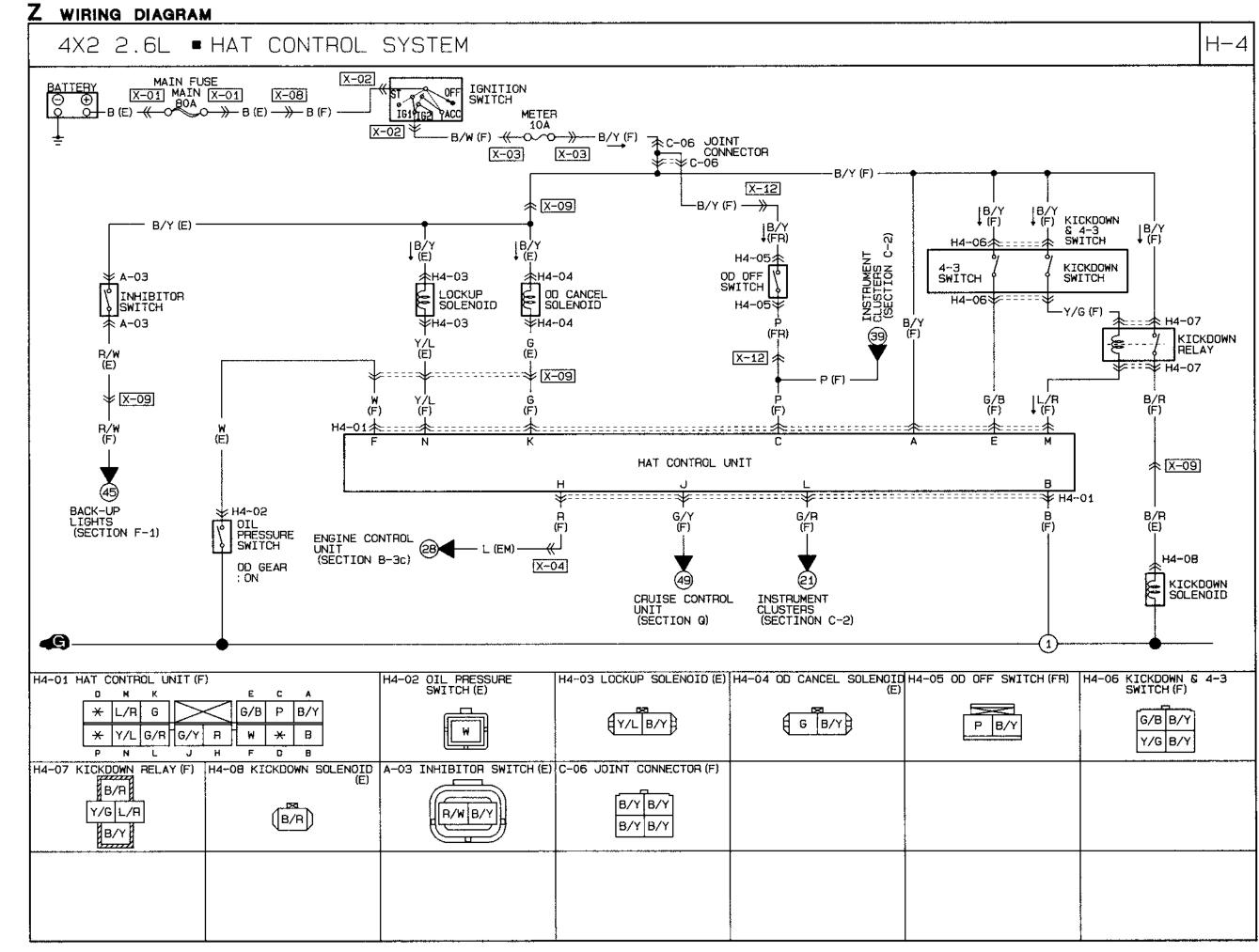




Terminal voltage

Terminal	Connected to	Voltage	Condition	
A (Output)	OD cancel solenoid	Approx. 12V	Solenoid OFF: •OD gear position	
		Below 1.5V	Solenoid ON: •1st, 2nd, and 3rd gear positions in forward ranges •P, R, and N ranges	
B (Ground)		Below 1.5V		
С		_		
D				
E (Input)	OD OFF switch	Approx. 12V	OD OFF switch depressed (ON): • OD not available	
		Below 1.5V	OD OFF switch released (OFF): • OD available	
F (Input)	Cruise control unit	Approx. 12V	Normal conditions	
		Below 1.5V	Set or Resume switch ON, or vehicle speed 8 km/h (5 mph) lower than preset speed (Driving vehicle: cruise control operation)	
H (Input)	Kickdown relay	Approx. 12V	Kickdown relay OFF: • Other than conditions below	
		Below 1.5V	Kickdown relay ON: • Kickdown switch On (throttle opening more than 7/8)	
i (Input)	Speed sensor	1.5—7V	During driving	
		Approx. 7V or below 1.5V	Vehicle stopped	
J				
K (Input)	4-3 switch	Approx. 12V	Switch ON: • Throttle opening 6/8—8/8	
		Below 1.5V	Switch OFF: • Other than conditions above	

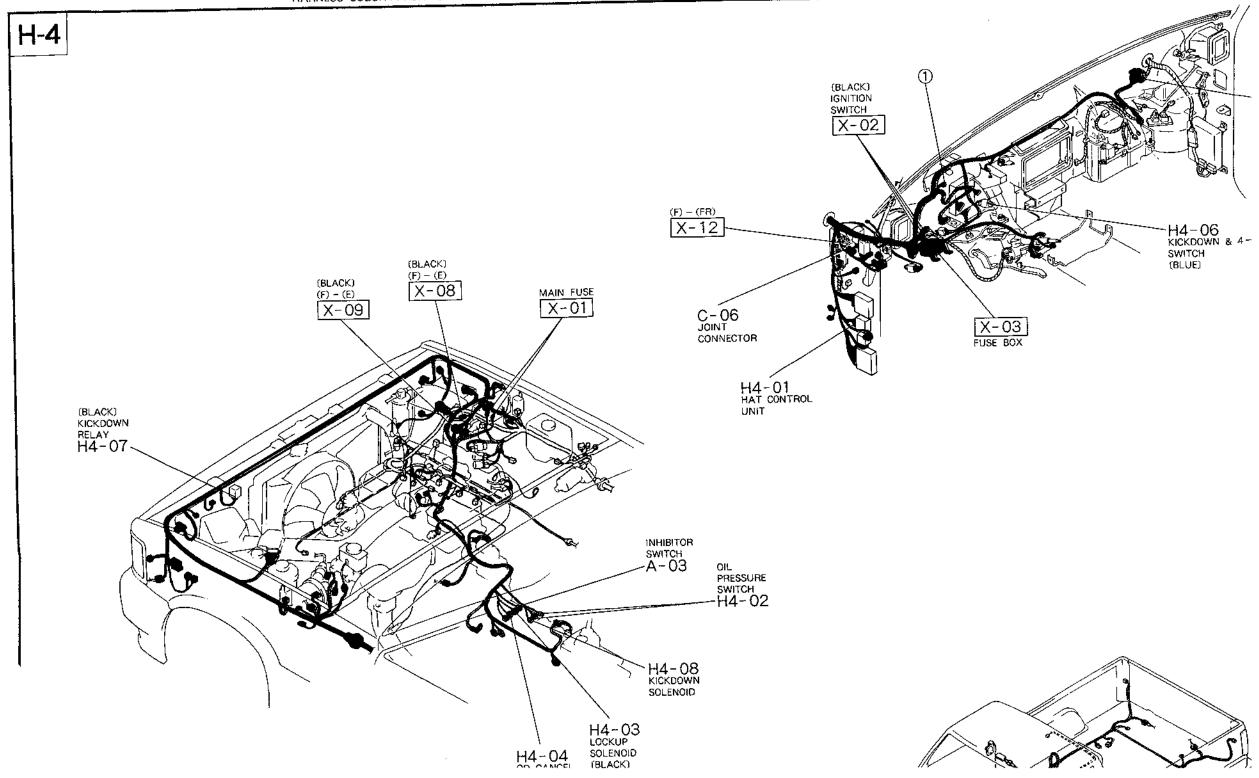
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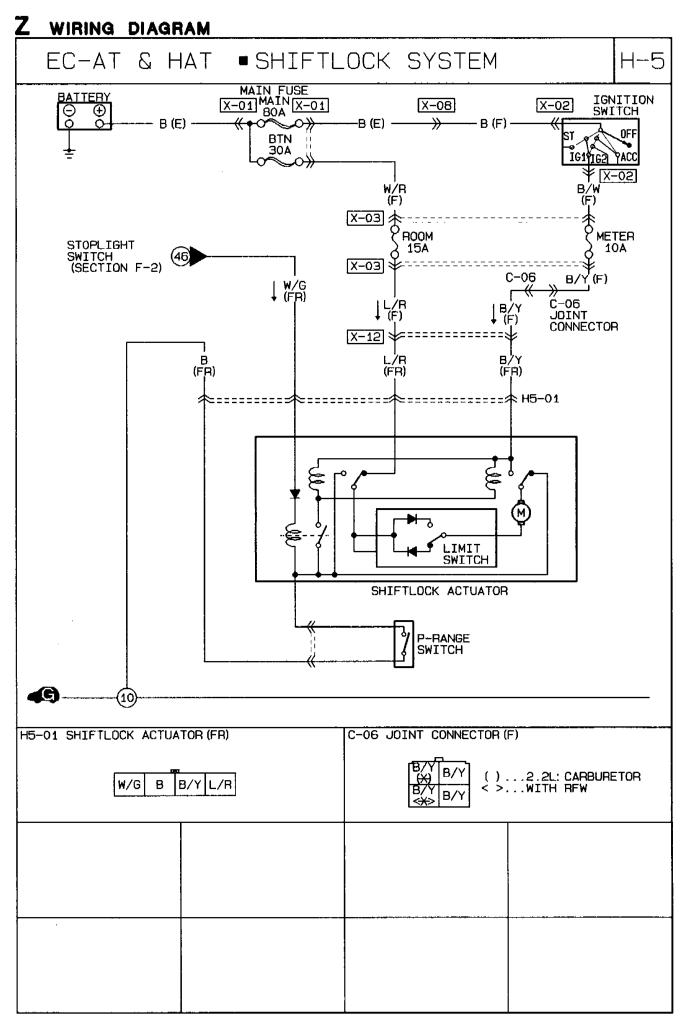


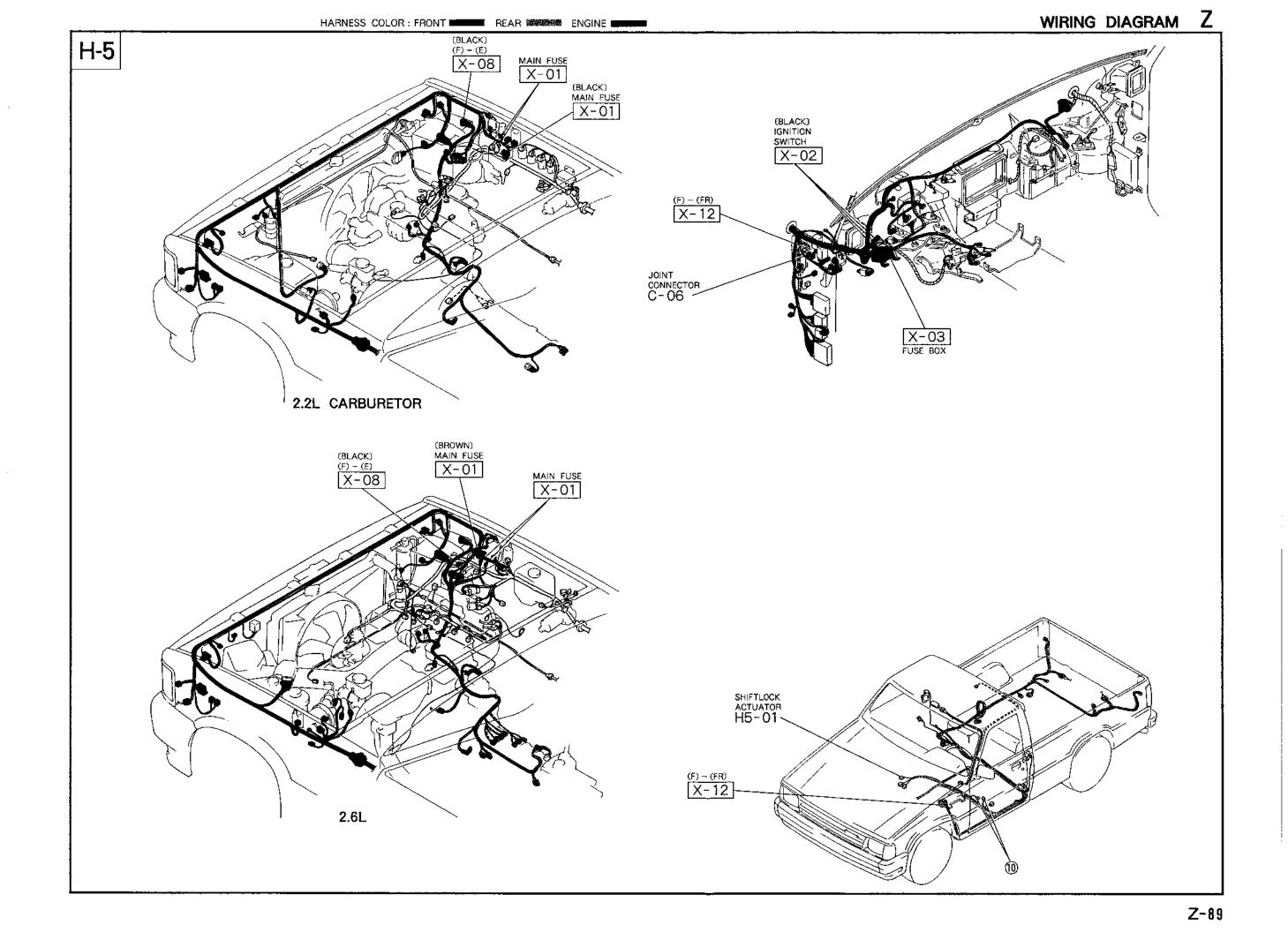
HARNESS COLOR : FRONT COLOR REAR MINISTER ENGINE

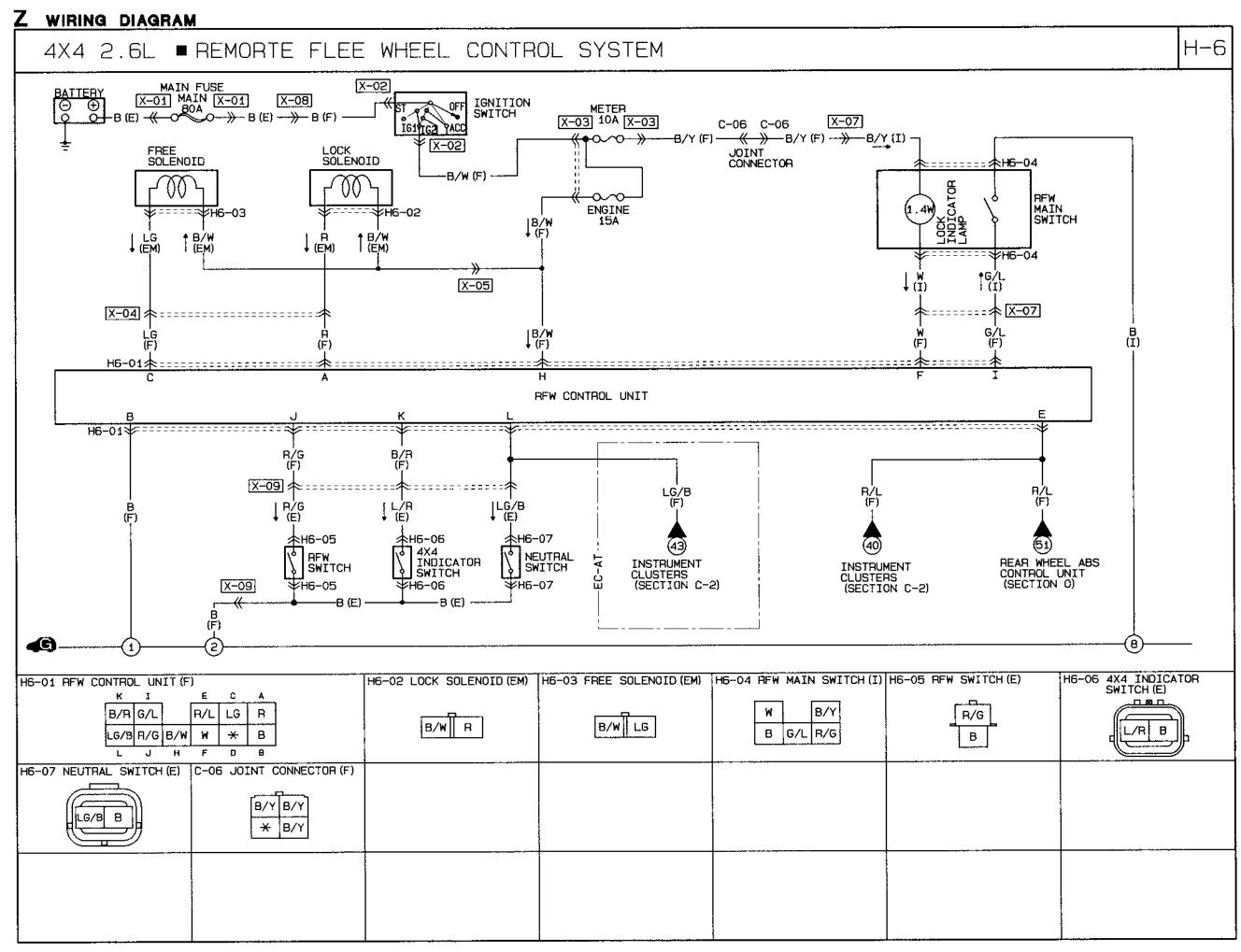
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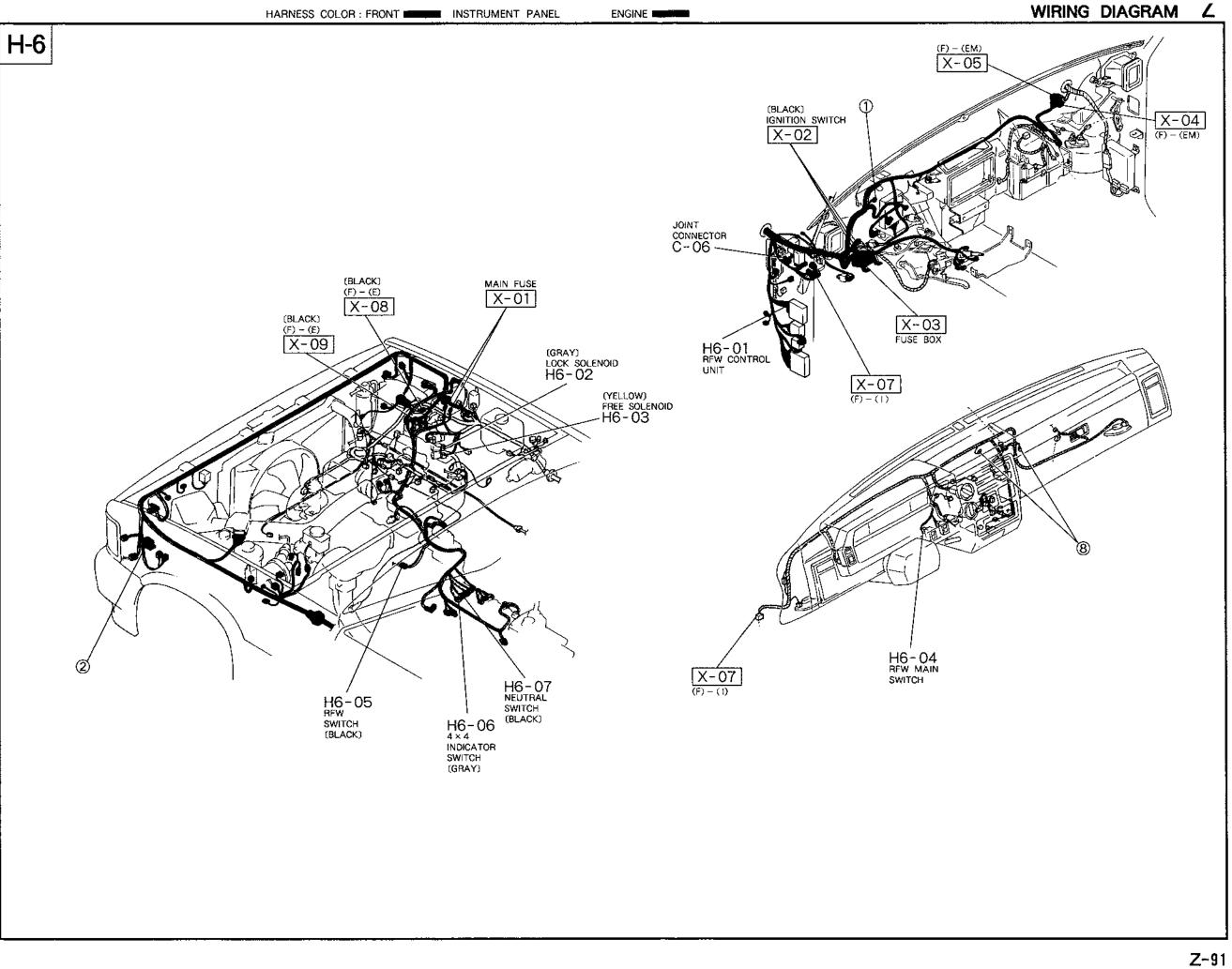
Terminal	Connected to	Voltage	Condition
A	Battery	Approx 12V	Ignition switch ON
(Battery power)	 	Below 1.5V	Ignition switch OFF
B (Ground)		Below 1.5V	
C (Input)	OD OFF switch	Approx. 12V	OD OFF switch depressed (ON): • OD not available
	<u>_</u>	Below 1.5V	OD OFF switch released (OFF): • OD available
		j	
E (Input)	4-3 switch	Approx. 12V	Switch ON: • Throttle opening 6/8-8/8
		Below 1.5V	Switch OFF: • Other than conditions above
F (Input)	Oil pressure switch 	Approx. 12V	 Switch OFF: 1st, 2nd, and 3rd gear positions in forward ranges P, R, and N ranges
	 	Below 1.5V	Switch ON: •OD gear position
H (Input)	Engine control unit	Approx. 12V	2Y terminal of engine control unit voltage approx. 12V • Normal condition
- <u>-</u>	 +	Below 1.5V	2Y terminal of engine control unit voltage below 1.5V • Throttle fully—open position
.'	Cruise control unit		
o (mpai)		Approx. 12V	
		Below 1.5V	Set or Resume switch ON, or vehicle speed 8 km/h (5 mph) lower than preset speed (Driving vehicle: cruise control operation)
K (Output)	OD cancel solenoid	Approx. 12V	Solenoid OFF: •OD gear position
	 	Below 1.5V	Solenoid ON: •1st, 2nd, and 3rd gear positions in forward ranges •P, R, and N ranges
L (Input)	Speed sensor	1.5—7V	During driving
	 · <u>-</u>	Approx. 7V or below 1.5V	Vehicle stopped
M (Input)	Kickdown relay	Approx. 12V	Kickdown relay OFF: •Other than conditions below
 		│ Below 1.5V	 Kickdown relay ON: ♦ Kickdown switch ON (throttle opening more than 7/8)
N (Output)	Lockup solenoid	Approx. 12V	Solenoid OFF: • Non-lockup
j		Below 1.5V	Solenoid ON: • Lockup



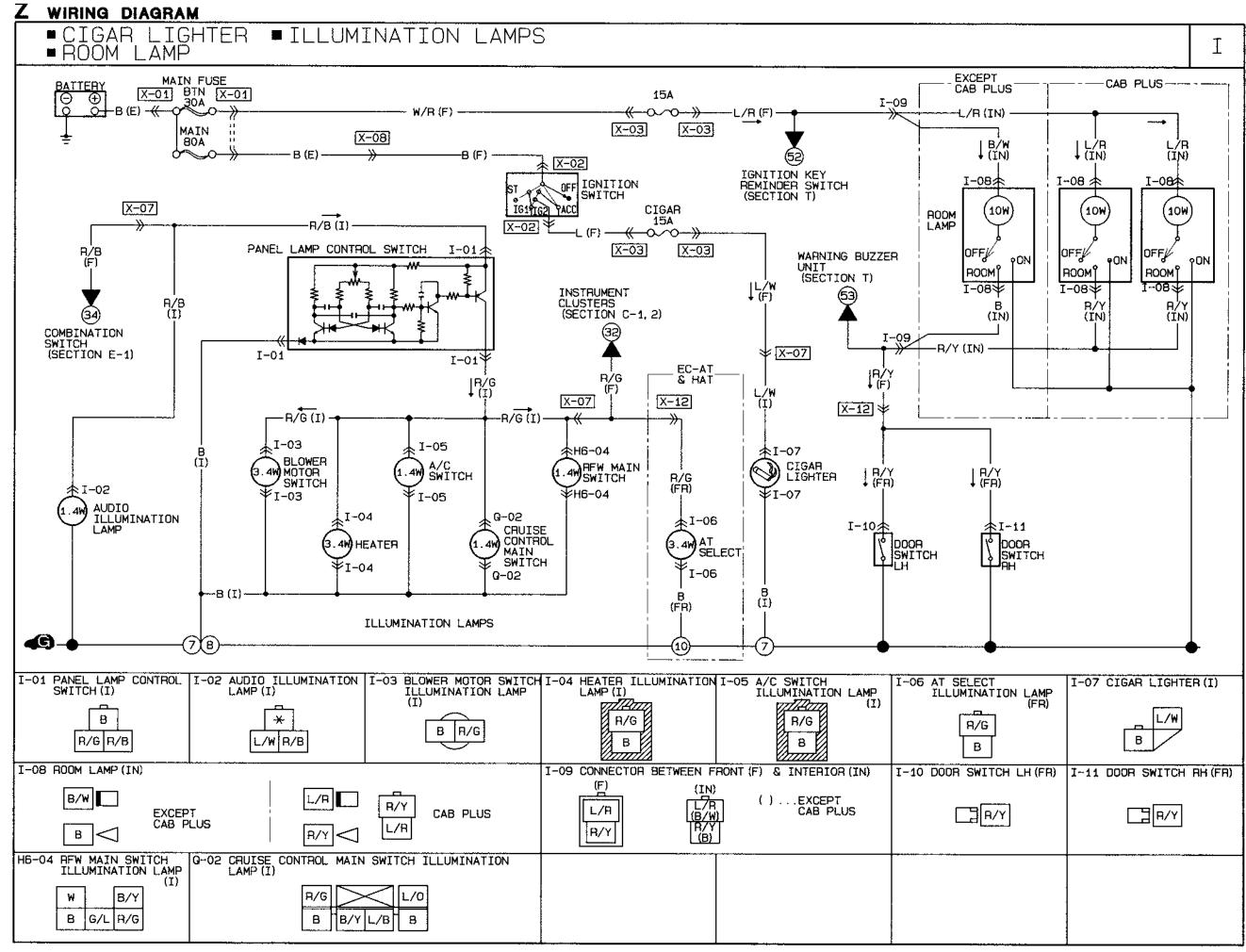


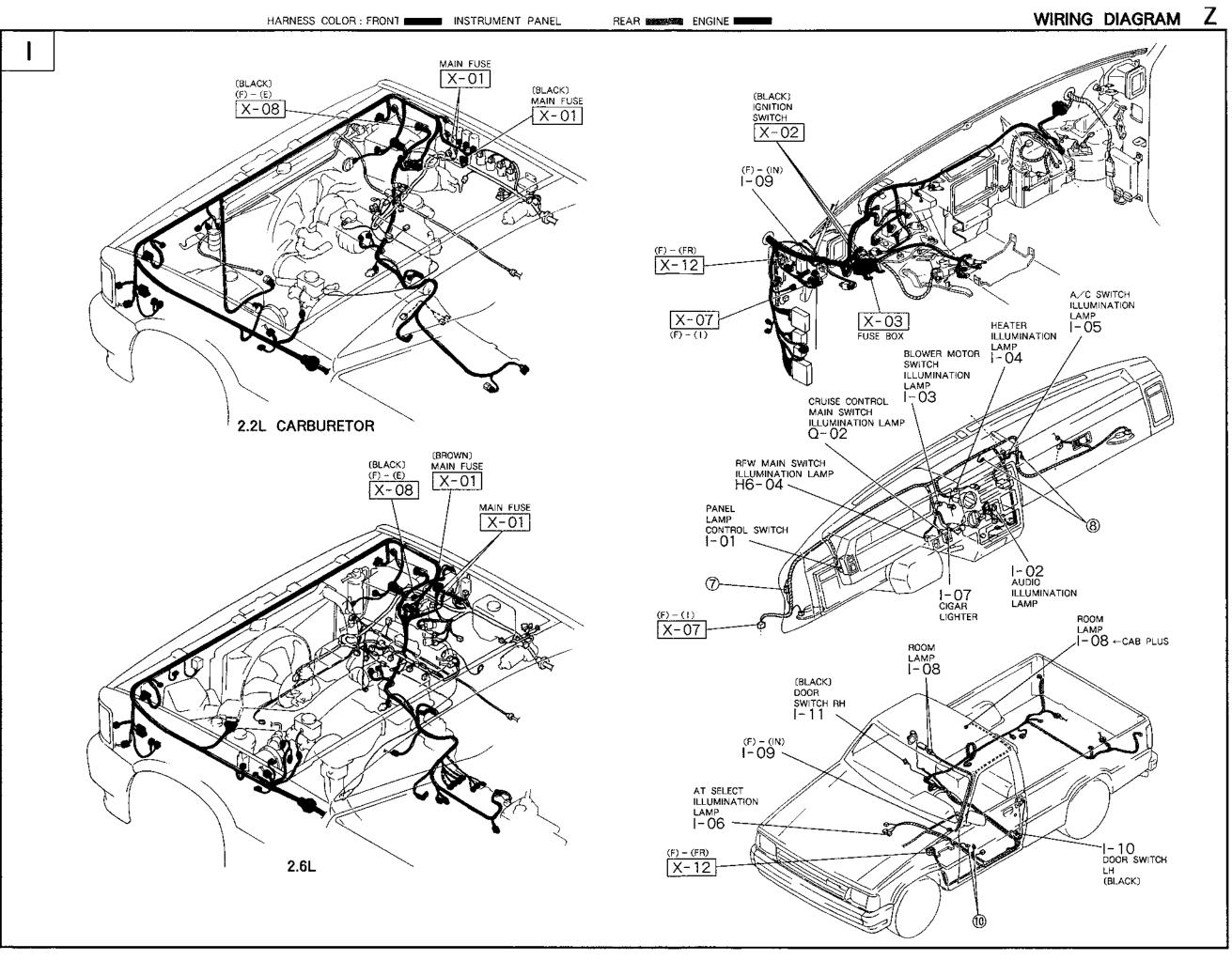




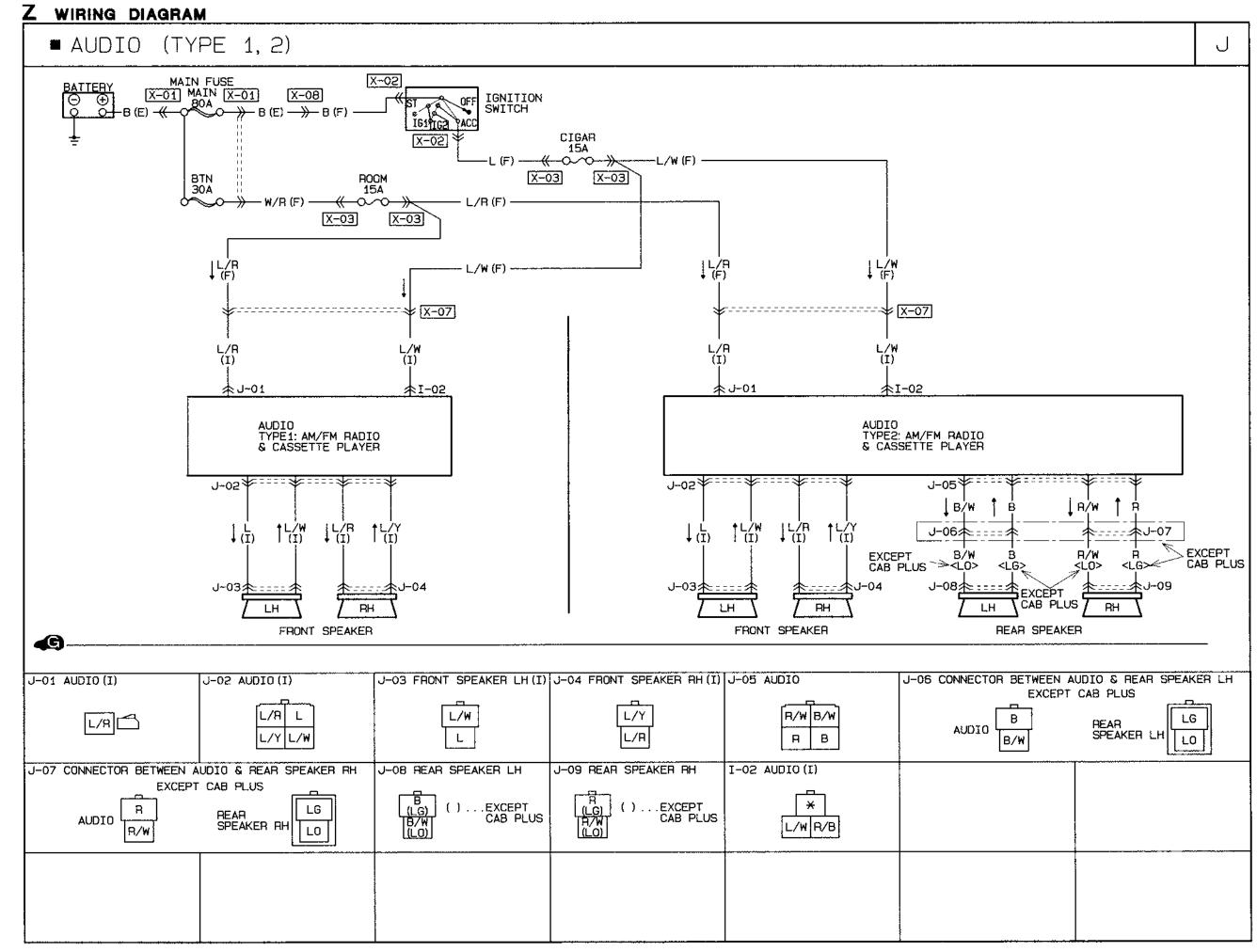


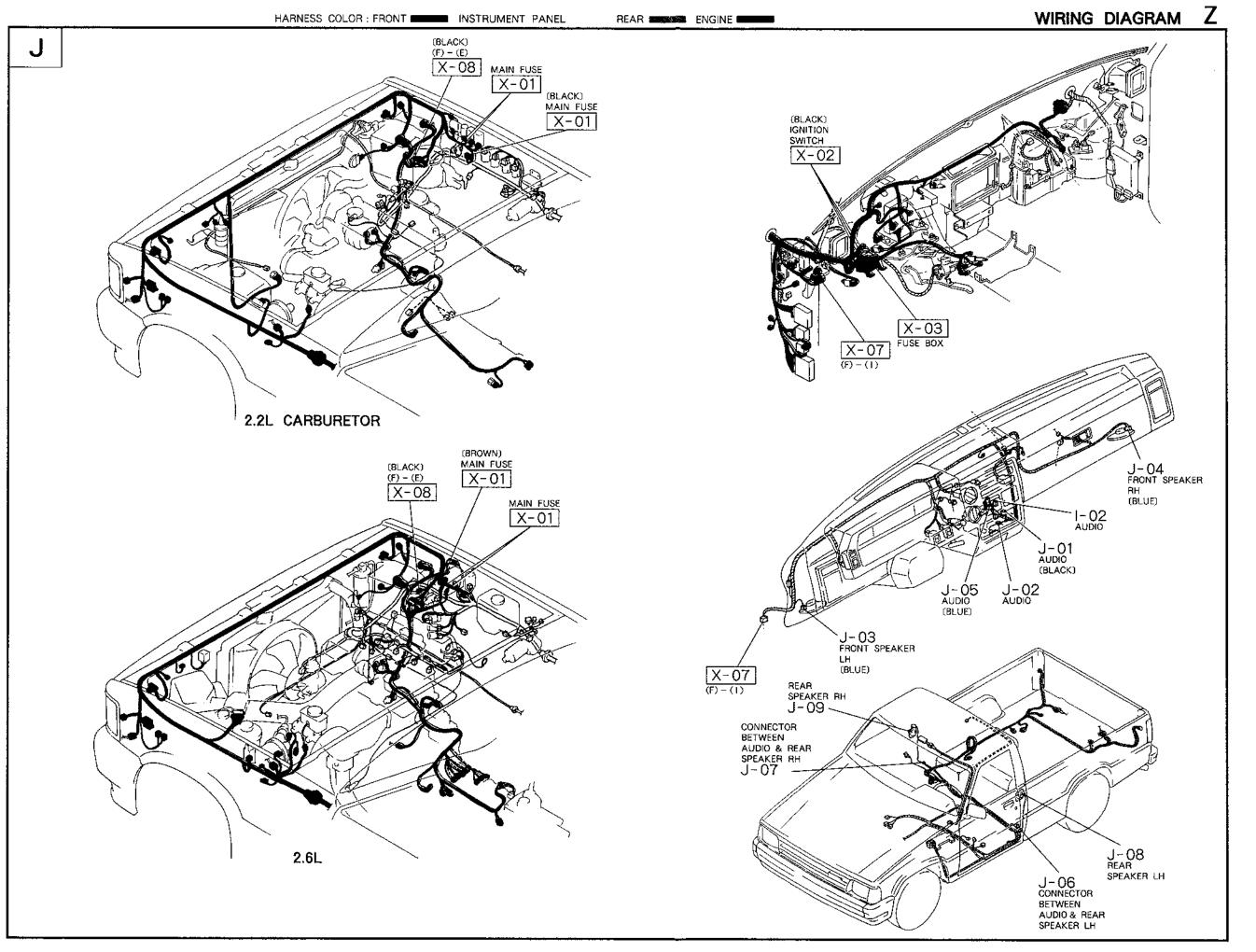
Terminal	Connected to	Voltage	Condition
A (Output)	Lock solenoid	Approx. 12V	Solenoid OFF •RFW unit "Free"
		Below 0.5V	Solenoid ON • RFW unit ''Lock''
B (Ground)	Body	Below 0.5V	
C (Output)	Free solenoid	Approx. 12V	Solenoid OFF • RFW unit ''Lock''
<u> </u>	Free solenoia	Below 0.5V	Solenoid ON • RFW unit "Free"
D			
E (Output)	4x4 indicator lamp	Approx. 12V	4x4 indicator lamp OFF • Transfer case lever 2H or N
	4x4 Indicator lamp	Below 0.5V	4x4 indicator lamp ON • Transfer case lever 4H or 4L
F (Output)	LOCK indicator lamp	Approx. 12V	LOCK indicator lamp OFF • RFW switch OFF • RFW unit "Free"
1 (66(56)		Below 0.5V	LOCK indicator lamp ON • RFW switch ON • RFW unit "Lock"
H (Battery power)) Battery	Approx. 12V	Ignition switch ON
		Below 0.5V	Ignition switch OFF
(Input)	RFW main switch	Approx. 12V	RFW main switch released (OFF)
		Below 1.5V	RFW main switch depressed (ON)
J (Input)	RFW switch	Approx. 12V	RFW switch OFF • RFW unit "Free"
		Below 0.5V	RFW switch ON •RFW unit ''Lock''
K (Input)	4x4 indicator switch	Approx. 12V	4x4 indicator switch OFF • Transfer case lever 4H, 4L, or N
		Below 0.5V	4x4 indicator switch ON • Transfer case lever 2H
L (Input)	Neutral switch and neutral indicator lamp (A/T)	Approx. 12V	Neutral switch OFF • Transfer case lever 2H, 4H, or 4L
		Below 0.5V	Neutral switch ON • Transfer case lever N



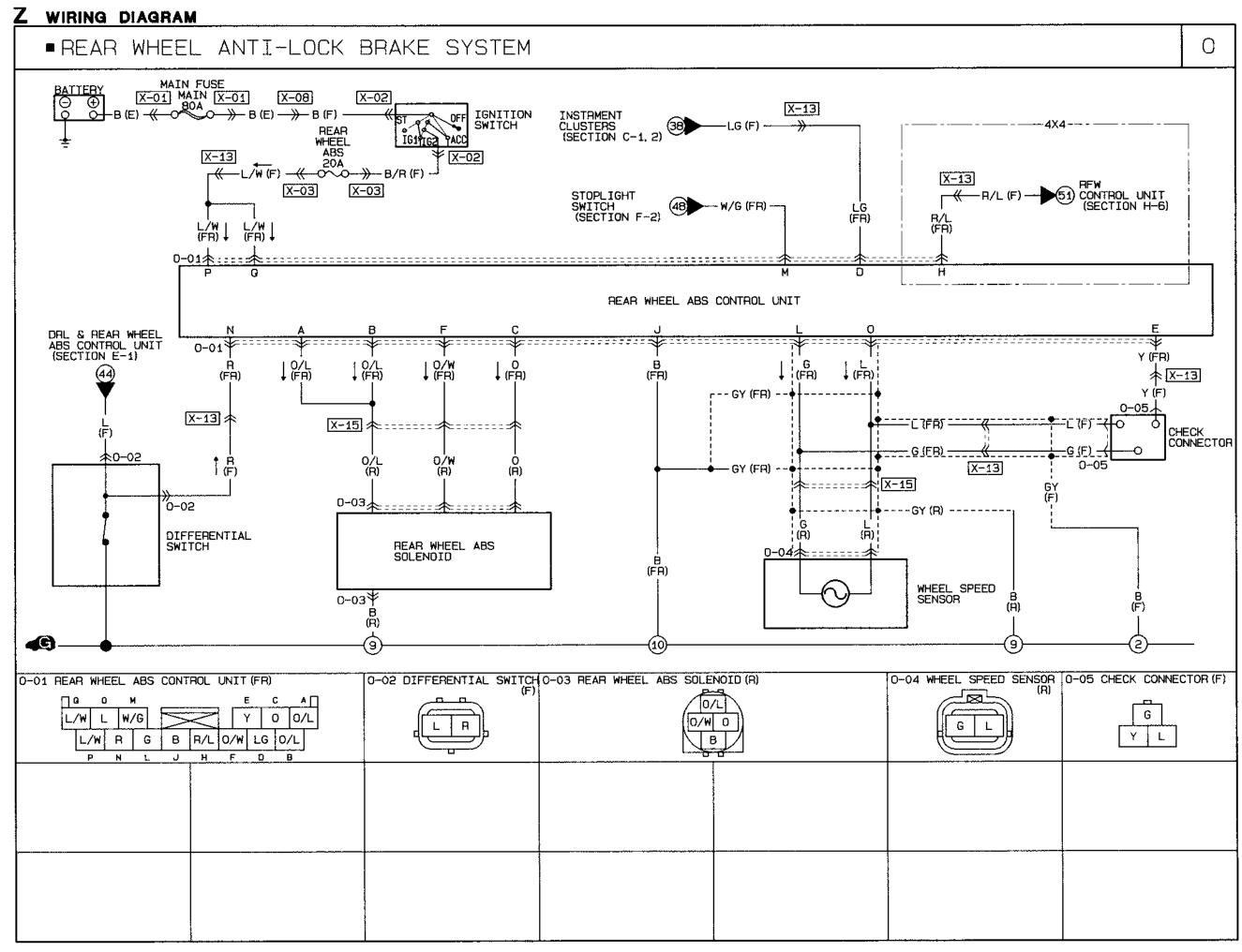


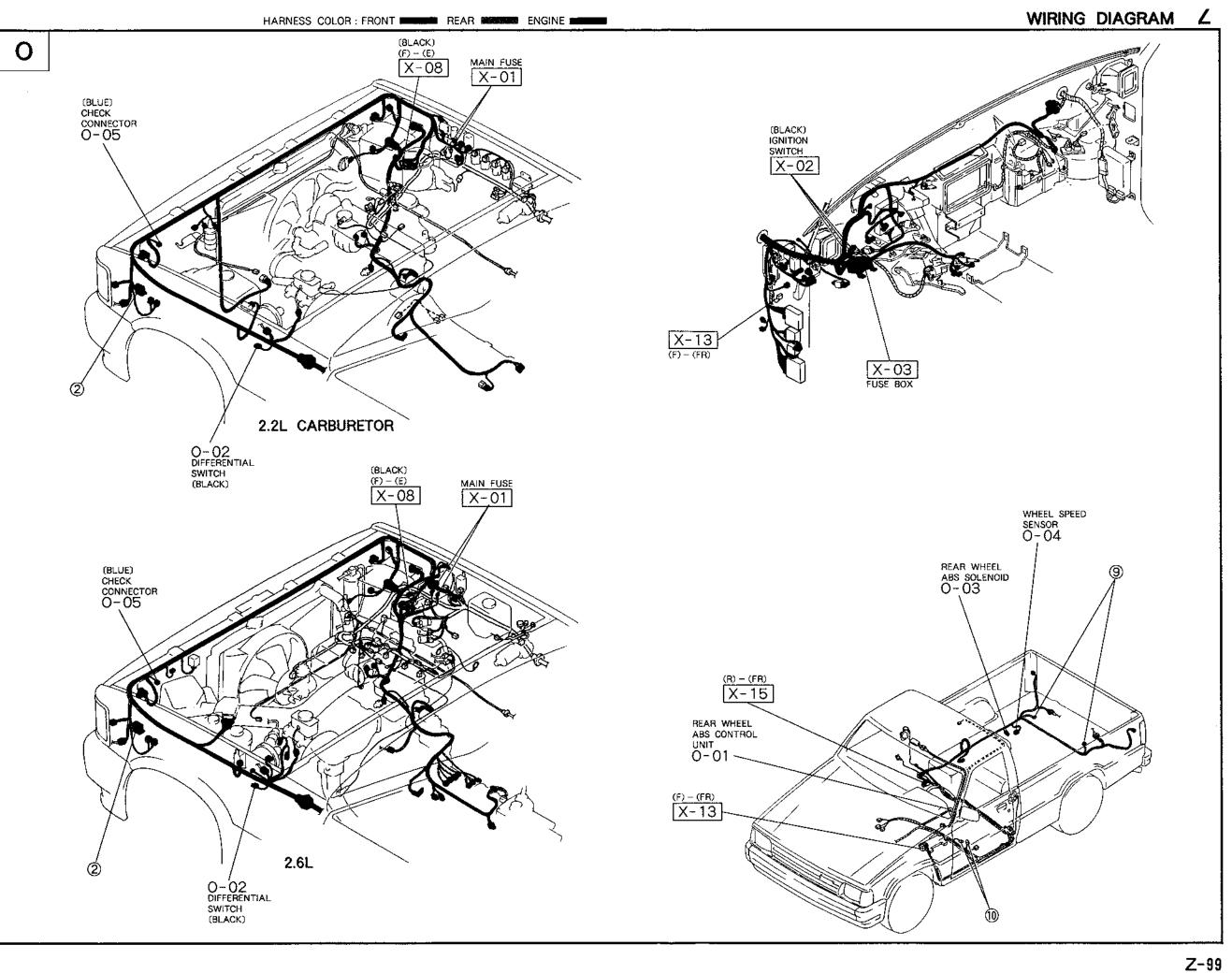
Z-95



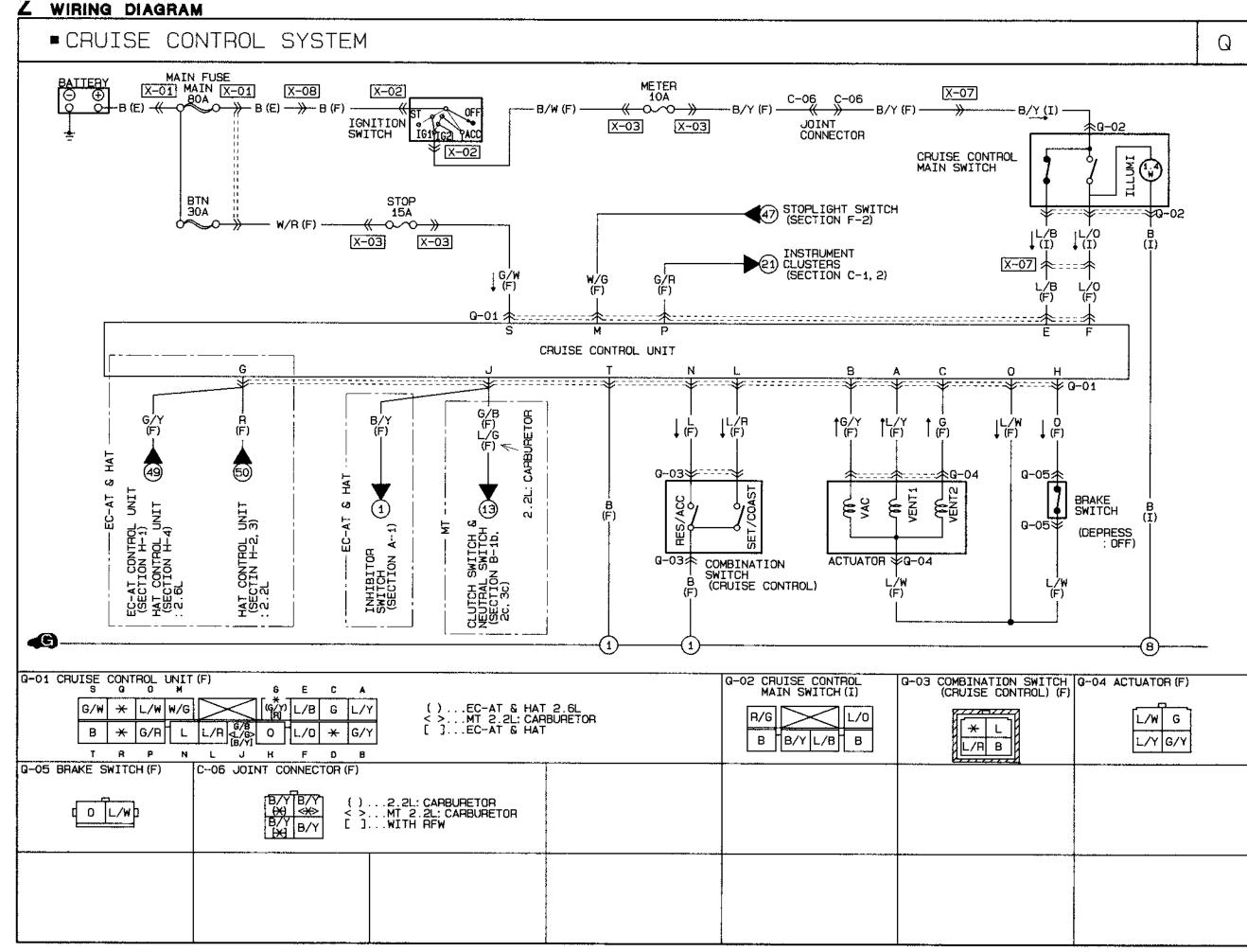




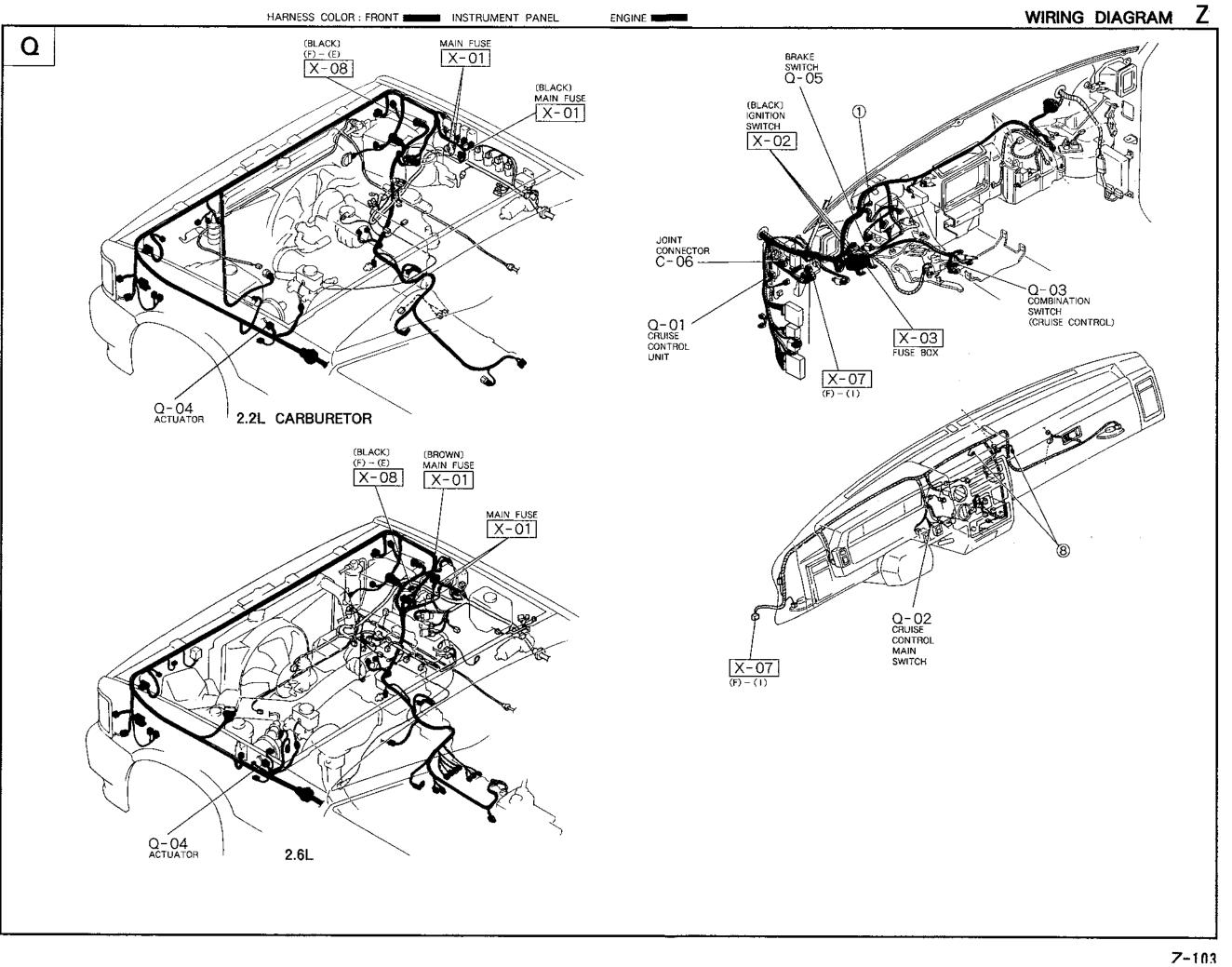




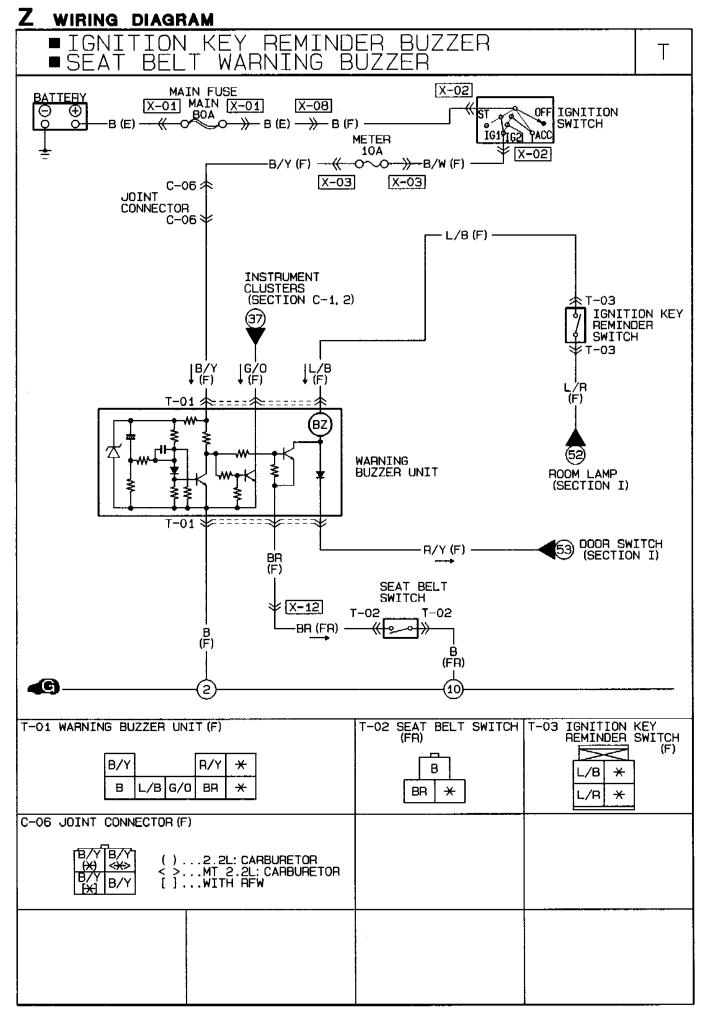
Tester connection () indicates wire color	Measured item	Remark	Resistance (Battery cable off)	Voltage (IG switch ON)	
L (G) – 0 (L)	Speed sensor		Approx. 1.4 kΩ		
P (L/W) – Ground	Battery		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Approx. 12-14V	
N /D) Cround	Pressure differential	Parking sw. ON	1Ω		
N (R) — Ground	switch (PBV)	Parking sw. OFF	540Ω		
L (G) – Ground	Speed sensor		∞		
	RFW control unit	4x2 mode	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
H (R/L) – Ground	(4x4 only)	4x4 mode	Ω0	1 —	
F (O/W) – Ground	Pressure switch (Hydraulic unit)	—	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
D(LG)-Ground	Warning lamp		Approx. 23Ω	Approx. 12-14V	
B (O/L) – Ground	Dump solenoid	_	1—3Ω	0V	
Q (L/W) – Ground	Battery		~~~~	Approx. 12-14V	
O (L) – Ground	Speed sensor		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	_	
		Switch ON		Approx. 12-14V	
M (W/G) – Ground	Stoplight switch	Switch OFF	Approx. 1.0	0V	
E (Y) - Ground	Check connector	_	∞	0V	
C (O) – Ground	Isolation solenoid	_	3-60	0V	
A (O/L) – Ground	Dump solenoid	—	1—3Ω	0V	



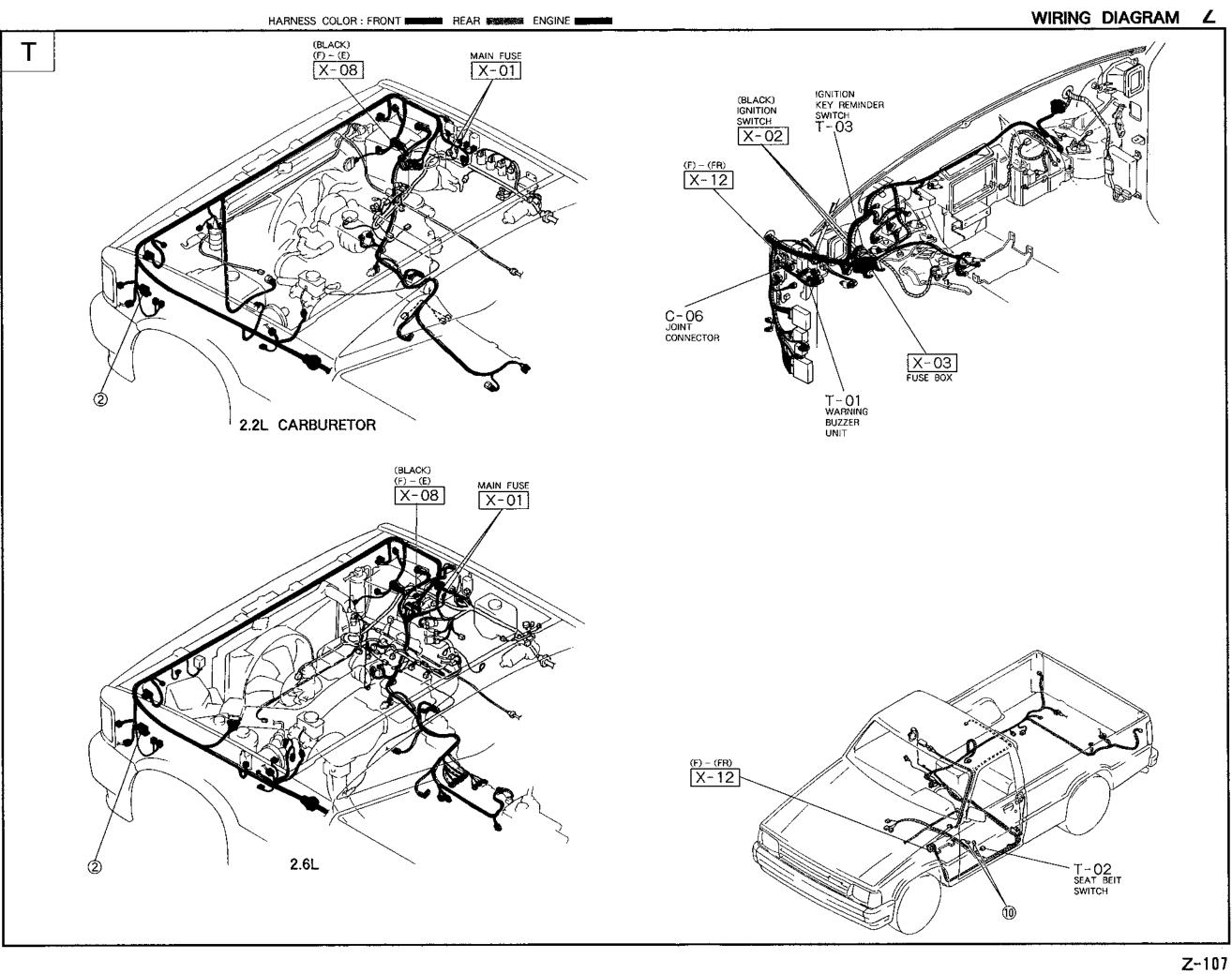


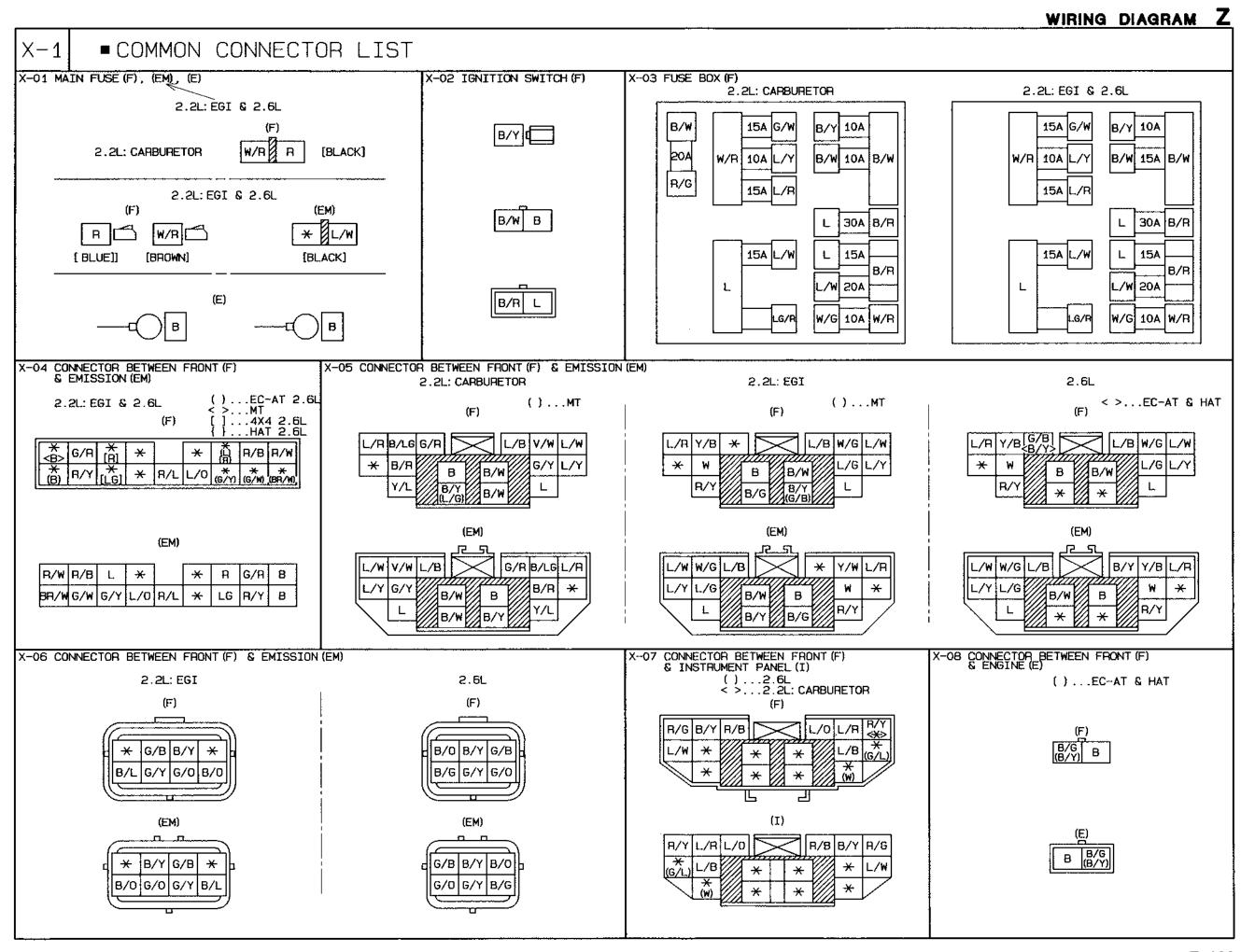


l'erminal	Wire color	Connected to	Test condition	Specification	Action	
•	L/Y	Actuator	Main switch OFF	0V		
а		Actuator	Main switch ON	9V		
b	G/Y	Actuator	Main switch OFF	0V	Check actuator	
U	Gri	Actuator	Main switch ON	9V		
с	G	Actuator	Main switch OFF	0V		
C			Main switch ON	9V		
0	L/B	Main switch	Main switch OFF	12V		
e	LID	Wain Switch	Main switch ON	0V	Check main switch	
f	L/O	Main switch	Main switch OFF	0V		
r	LQ		Main switch ON	12V		
0	R	ECAT control unit or	Ignition switch OFF	0V	Check ECAT control unit	
g		HAT control unit	Ignition switch ON	12V		
h	0	Stoplight switch (For cruise)	Brake pedal depressed	0V	Check stoplight switch	
D			Brake pedal released	9V		
	L/G	Clutch switch	Clutch pedal depressed	OV	Check clutch switch	
			Clutch pedal released	5V		
j	B/Y	Inhibitor switch	Shift to "N" or "P" range	0V	Check inhibitor switch	
			Shift to other range	5V		
		Cruise control switch	Main switch ON	12V		
I	L/R	(Set/Coast switch)	While turning set switch Main switch ON	ov	Check cruise control switch	
m	W/G	Stoplight switch	Brake pedal depressed	12V	Check stoplight switch	
11)	w/G	Stopiignt Switch	Brake pedal released	OV		
		Cruise control switch	Main switch ON	12V		
n	L	(Resume/Accel switch)	While turning resume switch Main switch ON	0V	Check cruise control switch	
0	L/W	L/W Actuator	Main switch OFF	0V	Check actuator	
			Main switch ON	9V		
р	G/R	Speed sensor	While rotating rear tires	Cycles 0—5V	Check speed sensor	
S	G/W	Battery	Constant	12V	Repair wire	
t	В	Ground	Constant	ov	Repair wire	



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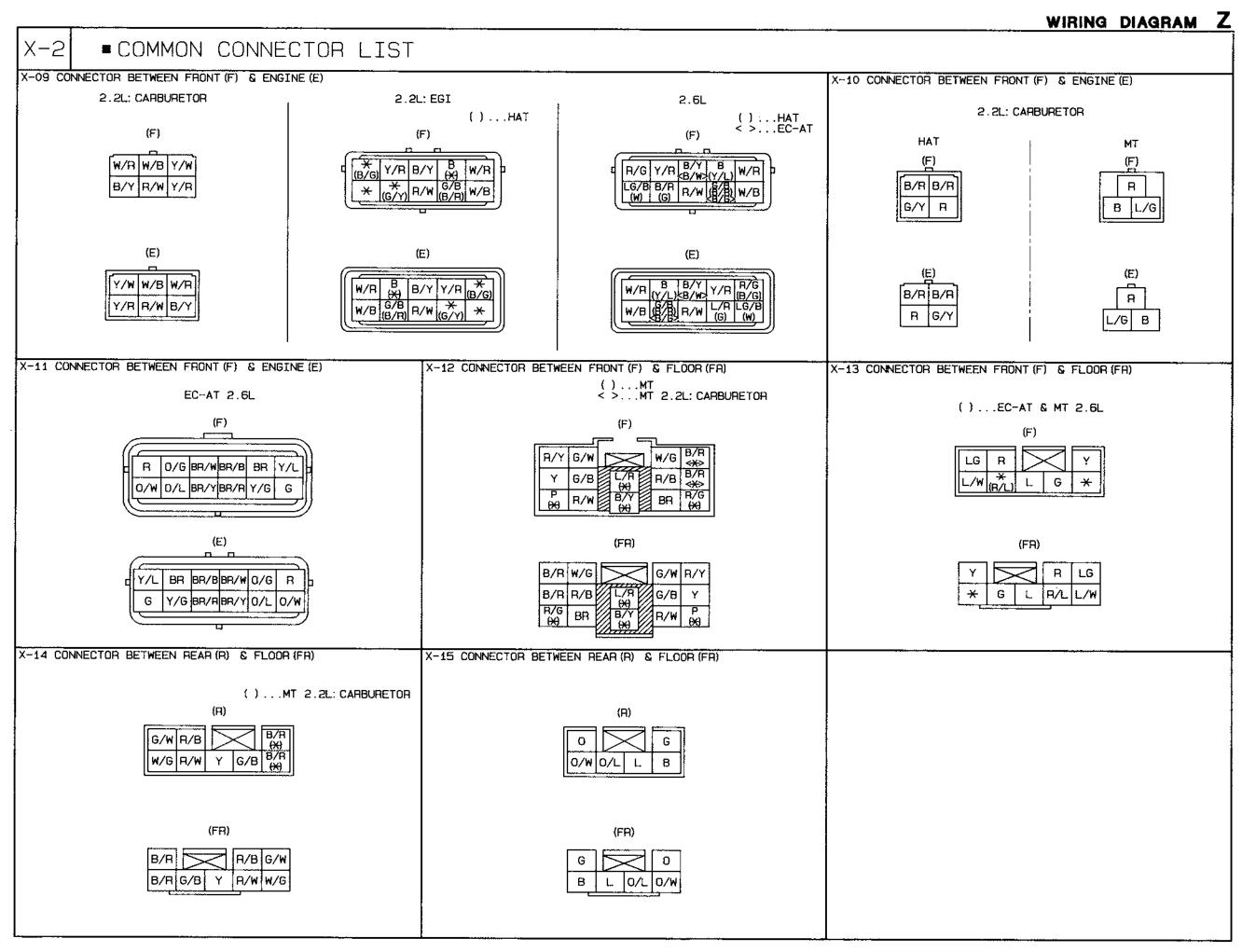


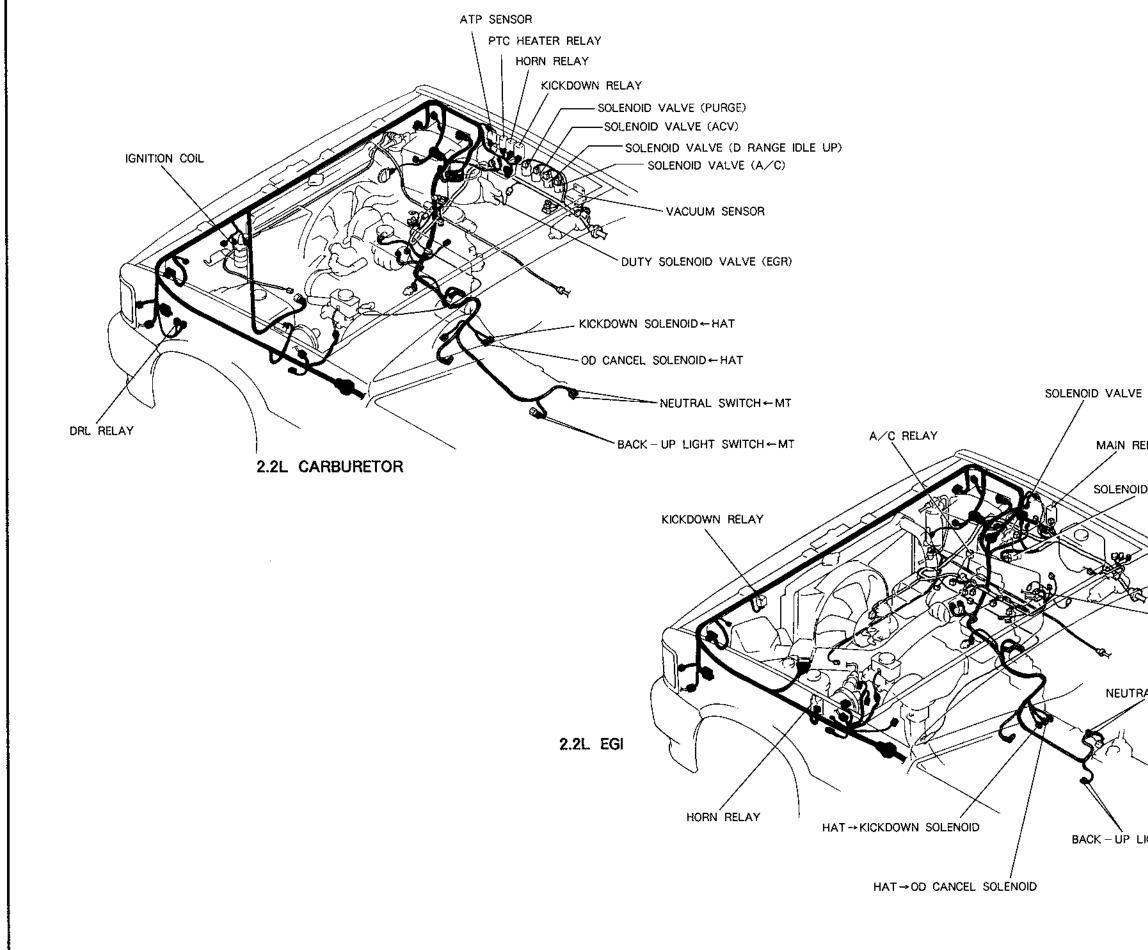
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	PL
(PRCV)	
ELAY	
D VALVE (PURGE)	
\gg	
SOLENOID VALVE	(ISC)
AL SWITCH ← MT	
2	
LIGHT SWITCH←MT	



2.6L

SOLNOID VALVE (PRCV)

MAIN RELAY

-SOLNOID VALVE (PURGE)

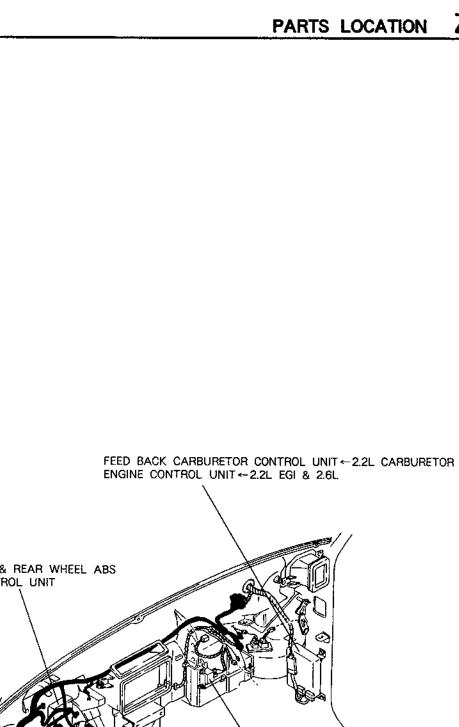
LOCK SOLENOID

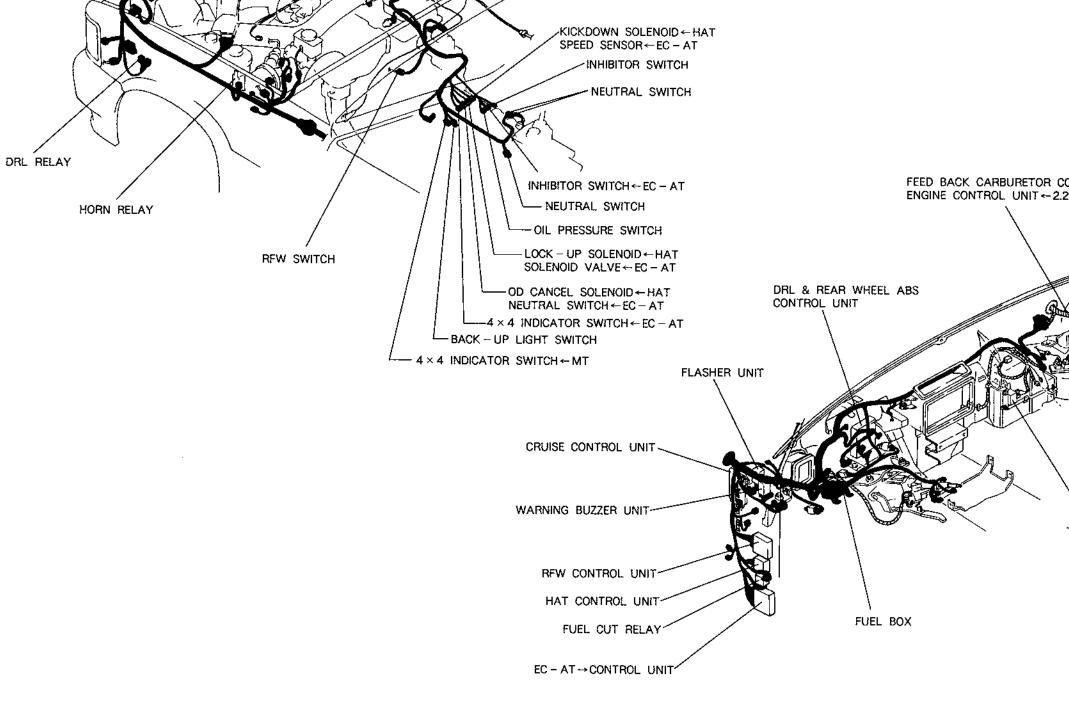
-FREE SOLENOID

PL

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KICKDOWN RELAY





PARTS LOCATION Z





WIRING DIAGRAM Z

PARTS INDEX

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PA	RTS NAME SECTION	PARTS NAME	SECTION
	A/C RELAY		
	A/C SWITCHG-1,2		H-1
	ACTUATER C	HORN RELAY	F-2
	AIR THERMOSENSOR	HORN	F-3
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	ALTERNATOR		
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