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Kevin Wright krwright@wankel.net http://www.wankel.net/~krwright

who laboriously scanned, post-processed, Distilled, and organized the original 1981 (1980 printing) wiring diagram provided by myself.

There are several ways to get around in the document. I have provided Bookmarks to all the sections and subsections, and thumbnails are also provided in the Thumbnails side bar.

Only a few of the pages in the original document were of the fold-out variety, and only two really needed to be split into multiple documents. These pages have been provided in full sheet and segmented versions, as indicated in the Bookmarks. These pages probably should be printed out on 11" x 17" paper if available, but are still readable on 8.5" x 11" paper. You could also print out the segmented versions and attach them together, if so desired (or not. Whatever you want, eh?)

I have also included a label for the spine of a binder, for those who wish to print out all the pages and keep a dead-tree edition handy. ©

The original document is © 1980 Toyo Kogyo Co., Ltd., and remains so. This version is provided as a service for owners of first generation Mazda RX-7s who are having a devil of a time locating the factory wiring guide for a reasonable price.

If you really want to send me money, email me and I'll tell you where to send it, but it's not necessary. Consider this payback for all the good advice and information gleaned from the various RX-7 email lists!

Subscribe to the Early Mazda Rotaries email list: Send an email with "subscribe" (without the quotes) to <u>list-request@sa22c.org</u>

See <u>http://www.dfw-rx7.com</u> for information on the DFW-RX7 email list.

05/17/02



1981 Wiring Diagram

Mazda

INTRODUCTION

This booklet incorporates the wiring schematic for the basic vehicle and its available optional equipment. Actual vehicle wiring may vary slightly depending upon optional equipment and/or local specifications.

The complete electrical system is divided into charging system, ignition system, etc. Each system is shown on both right and left pages as described below.

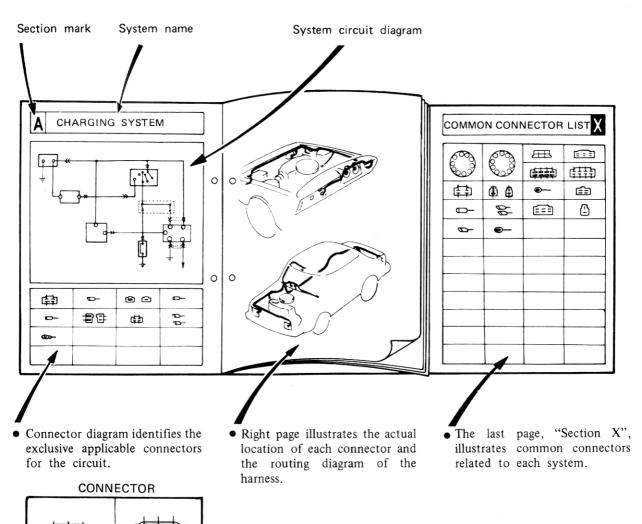
All information contained in this booklet is based on the latest information available at the time of printing. Toyo Kogyo reserves the right to make changes without previous notice.

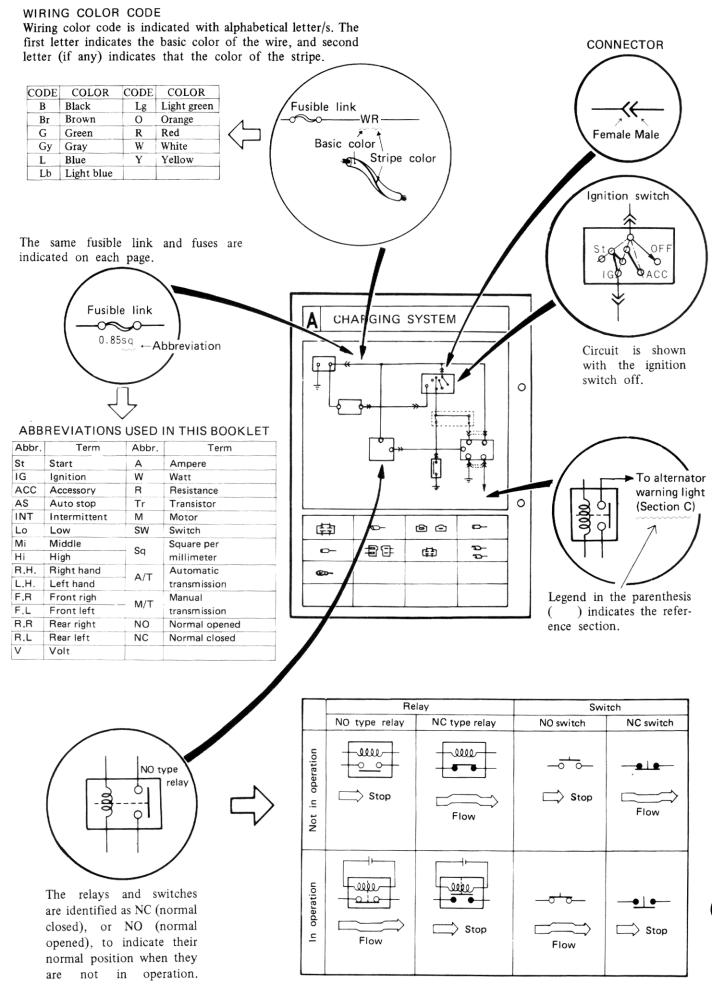
Toyo Kogyo Co., Ltd.

NOTE: When reading the wiring diagram, following should be noted:

Female

Male





SYMBOL IN THIS WIRING DIAGRAM

$\bigcirc $	HARNESS BODY	HOLDER BOX	_~~~	
BATTERY	GROUND	FUSE	FUSIBLE LINK	MOTOR
COIL, SOLENOID	RESISTOR	VARIABLE RESISTOR	THERMISTER	DIODE
	NPN PNP	Р	(3.4W)	
CONDENSER	TRANSISTOR	PUMP	LIGHT	HORN
SPEAKER	CIGARRET LIGHTER	HEATER		

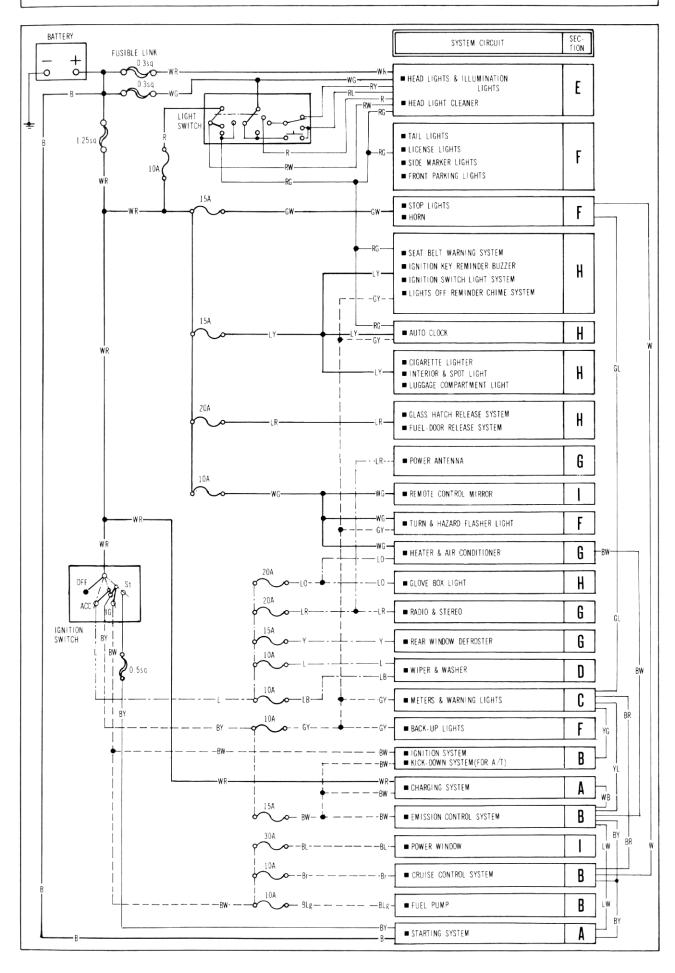
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■ELECTRICAL WIRING SCHE	EMATIC	
■CHARGING SYSTEM	■STARTING SYSTEM	A
■EMISSION CONTROL SYSTE	EM ■CRUISE CONTROL SYSTEM	в
■IGNITION SYSTEM	■ KICK-DOWN SYSTEM (FOR A/T) ■ FUEL PUMI	P
■METERS & WARNING LIGH	ITS	c
■WIPER & WASHER		D
■HEADLIGHTS & ILLUMINAT	TION LIGHTS	E
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■STOP & TAIL LIGHTS	■LICENSE LIGHTS ■HORN	
■SIDE MARKER LIGHTS	■FRONT PARKING LIGHTS	
■RADIO & STEREO	■POWER ANTENNA	G
■HEATER & AIR CONDITION	NER ■REAR WINDOW DEFROSTER	
■GLOVE BOX LIGHT	■SEAT BELT WARNING SYSTEM	н
■CIGARETTE LIGHTER	■IGNITION KEY REMINDER BUZZER	
■IGNITION SWITCH LIGHT S	SYSTEM ■LIGHTS OFF REMINDER CHIME SYST	EM
■INTERIOR & SPOT LIGHT	■AUTO CLOCK ■LUGGAGE COMPARTMENT	LIGHT
■GLASS HATCH RELEASE S	YSTEM ■FUEL-DOOR RELEASE SYSTEM	
■REMOTE CONTROL MIRRO	R ■POWER WINDOW	1
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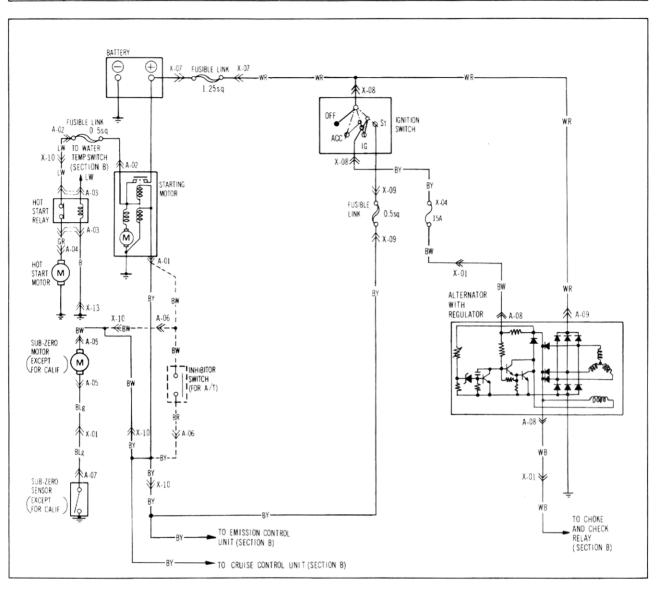
COMPONENT	SECTION	COMPONENT	SECTION
ACTUATOR SOLENOID VALVE		IGNITION KEY REMINDER SWITCH	
AIR CON. SOLENOID VALVE	В	IGNITION SWITCH	$A \sim D$,
AIR CON. SWITCH	G B	IGNITION SWITCH LIGHT	$H^{\Gamma \sim 1}$
ALTERNATOR WITH REGULATOR	Α	ILLUMINATION LIGHT INSTRUMENT PANEL LIGHT CONTROL	E F
ALTERNATOR WARNING LIGHT	С н	INHIBITOR SWITCH	A . F
		INTERIOR & SPOT LIGHT	н
BACK-UP LIGHT BACK-UP LIGHT SWITCH	F		
BATTERY.	$A \sim I$	KICK-DOWN SOLENOID	В
BLOWER MOTORBLOWER MOTOR RESISTOR	G		D
BLOWER MOTOR SWITCH	G	LICENSE LIGHTLIGHT	
BRAKE FLUID LEVEL SENSOR BRAKE WARNING LIGHT	C	LUGGAGE COMPARTMENT LIGHT	
BRAKE WARNING LIGHT CHECKER	č	MAIN AMP	G
CARBURETOR HEATER	в	MAIN AMP	
CHIME	н	NO.1 AIR CON. RELAY	
CHOKE & CHECK RELAY CHOKE SWITCH & MAGNET	B	NO.1 WATER TEMP. SWITCH	В
CIGARETTE LIGHTER	Н	NO. 2 AIR CON. RELAY	B
CLUTCH SWITCH	B D.F.H		
COMBINATION SWITCH		OIL PRESSURE GAUGE	C
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HAZARD SWITCH	F	OIL LEVEL WARNING LIGHT	С
HORN SWITCH	F E.F.H	PARKING BRAKE SWITCH	С
PASSING SWITCH.	E	PARKING LIGHT POWER ANTENNA MOTOR	F
RESUME SWITCH	B B	POWER ANTENNA SWITCH	G
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WASHER SWITCH	D D	POWER WINDOW MOTOR	I
COOLANT LEVEL SENSOR	С		
COOLANT LEVEL UNIT		RADIO REAR WIPER & WASHER SWITCH	E
CRUISE CONTROL UNIT.	В	REAR WINDOW DEFROSTER REAR WINDOW DEFROSTER	G
CRUISE CONTROL MAIN SWITCH	В	INDICATOR LIGHT	G
DISTRIBUTOR.	В	REAR WINDOW DEFROSTER SWITCH REFRIGERANT PRESSURE SWITCH	G
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EMISSION CONTROL UNIT	В	REMOTE CONTROL MIRROR REMOTE CONTROL MIRROR SWITCH	I I
FLASHER UNIT.	F	RETRACTABLE HEADLIGHT MOTOR	E
FLOST WARNING TEMPERATURE SWITCH	G	RETRACTABLE HEADLIGHT SWITCH RETRACTOR INDICATOR LIGHT	
FUEL-DOORRELEASESOLENOIDFUEL-DOORRELEASESWITCH			
FUEL GAUGE		SEAT BELT SWITCH	н Н
FUEL GAUGE TANK UNITFUEL PUMP	B	SHUTTER VALVE SOLENOID VALVE	В
FUSE BLOCK		SIDE MARKER LIGHT SPEAKER	G
HEADLIGHT		SPEED PULSE GENERATOR	В
HOT START		STARTING MOTOR STEREO	G
RETRACTABLE HEADLIGHT MOTOR	E	STOP LIGHT SWITCH	F
STARTING MOTOR	Α	STOP SWITCH STOP & TAIL LIGHT	B F
GLASS HATCH RELEASE SOLENOID		STOP LIGHT CHECKER	F
GLASS HATCH RELEASE SWITCH		SWITCHING SOLENOID VALVE	B A
GLOVE BOX LIGHT SWITCH	н	SUB-ZERO SENSOR	A
HEADLIGHT	F	TACHOMETER	
HEADLIGHT CLEANER MOTOR	E	THROTTLE SENSOR.	B
HEADLIGHT CLEANER SWITCH		TURN SIGNAL INDICATOR LIGHT TURN & HAZARD FLASHER LIGHT	r F
HIGH BEAM INDICATOR LIGHT	E	VACUUM CONTROL SOLENOID VALVE	
HORN		VOLTAGE METER	С
HOT START MOTOR	A	VOLTAGE REGULATOR	С
HOT START RELAY	Α	WASHER MOTOR	
IGNITER		WATER TEMP. GAUGE	
IGNITION COIL	В	WIPER MOTOR	

ELECTRICAL WIRING SCHEMATIC CURRENT FROM BATTERY
CURRENT FROM IG TERMINAL OF IGNITION SWITCH
CURRENT FROM ACC TERMINAL OF IGNITION SWITCH
OTHERS

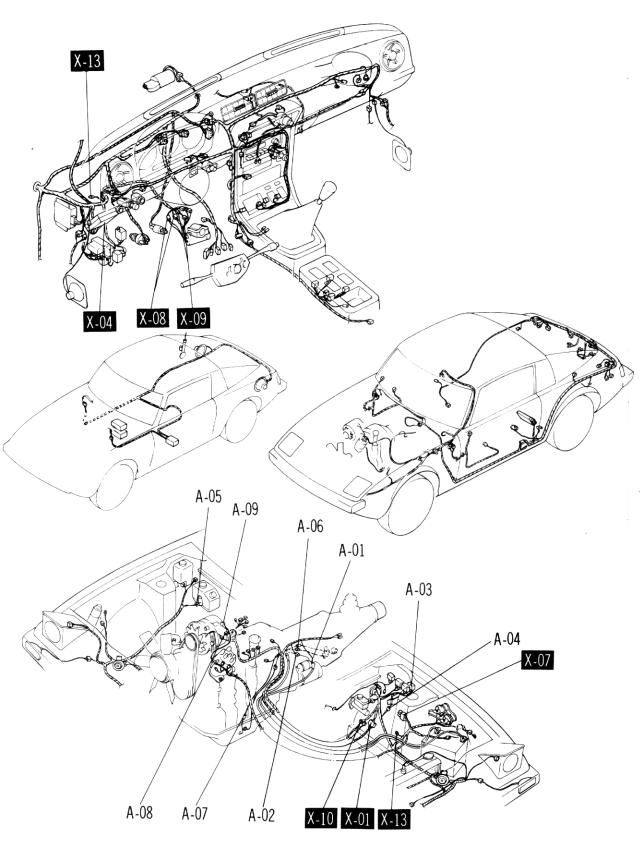


A

■CHARGING SYSTEM ■STARTING SYSTEM

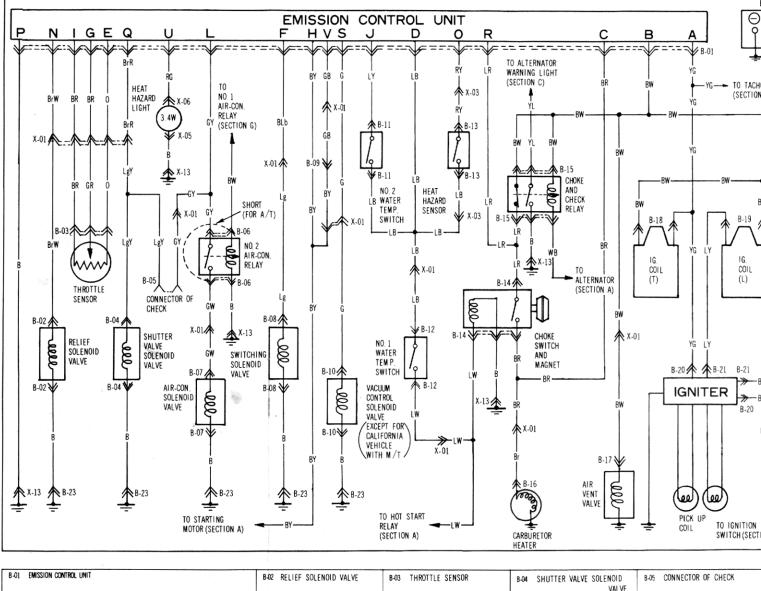


A-01 STARTING MOTOR	A-02 FUSIBLE LINK	A-03 HOT START RELAY	A-04 HOT START MOTOR
BY(FOR M/T) BW(FOR A/T)			GR
A-05 SUB-ZERO MOTOR (EXCEPT FOR CALIF)	A-06 INHIBITOR SWITCH (FOR A /T)	A-07 SUB-ZERO SENSOR (EXCEPT FOR CALIF.)	A-08 ALTERNATOR WITH REGULATOR
BW BLg	BY GY BW RW	©_}− BLg	BW BH-WB
A-09 ALTERNATOR WITH REGULATOR			
B -CC			



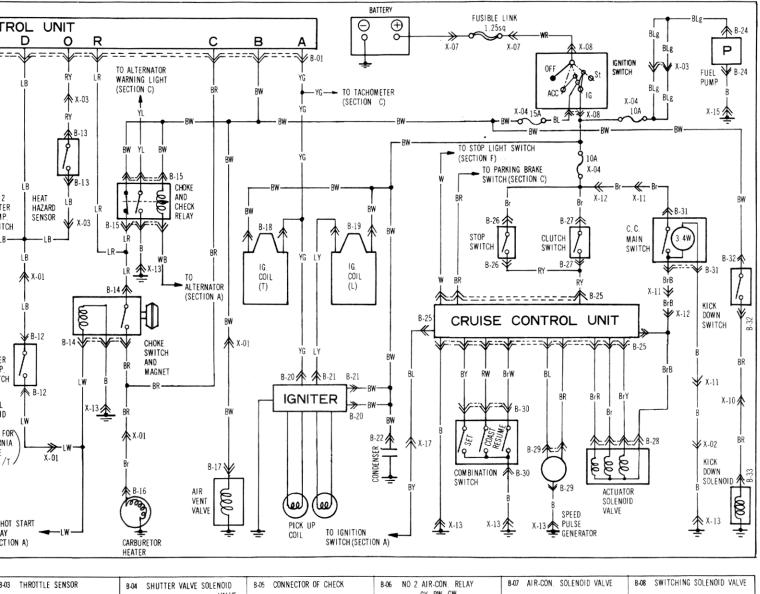
B

■EMISSION CONTROL SYSTEM ■IGNITION SYSTEM ■CRUISE CONTROL ■KICK DOWN SYSTEM(FOR A/T) ■FUEL PUMP



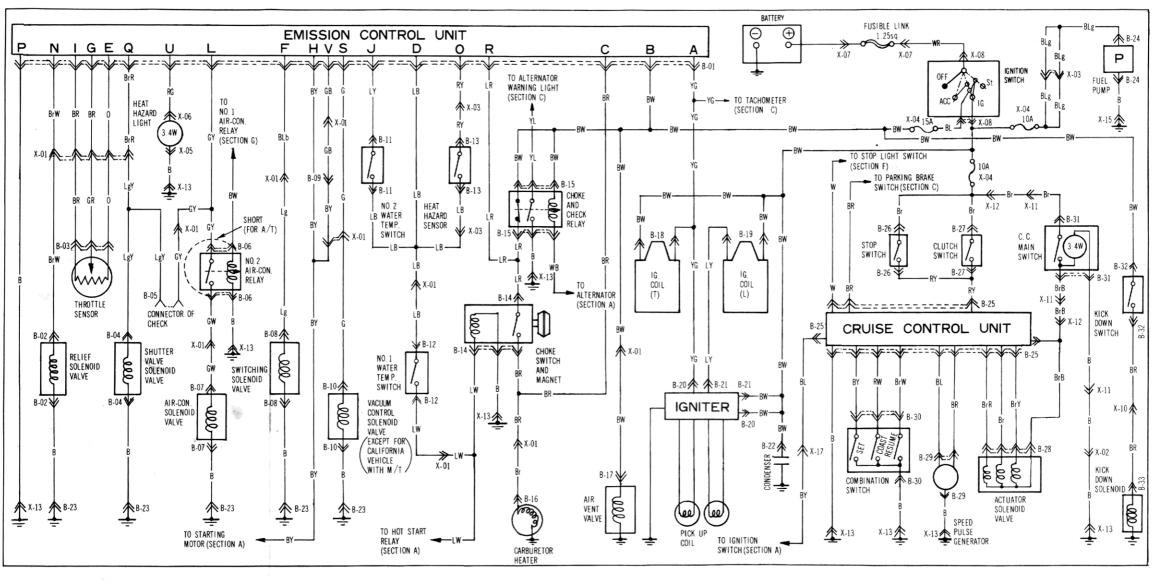
B-01 Emission control Unit		B-02 RELIEF SOLENOID VALVE	B-03 THROTTLE SENSOR	B-04 SHUTTER VALVE SOLENOID VALVE	B-05 CONNECTOR OF CHECK
		вг ж - 💭 🗍 СЭ в	0 {∏} BR GR	LgY €117 В	LgY GY
		B-09 SHORT CONNECTOR	B-10 VACUUM CONTROL SOLENOID VALVE	B-11 NO.2 WATER TEMP. SWITCH (Rad.)	B-12 NO. 1 WATER TEMP. SWITCH (Eng.)
		BY GB	с (ССС) в	G→ LB LY	G → LB L → LW
B-16 CARBURETOR HEATER	B-17 AIR VENT VALVE	B-18 IGNITION COIL (T)	B-19 IGNITION COIL (L)	B-20 IGNITER (T)	B-21 IGNITER (L)
Garage Br	BW	BW -CO	LY BW-CO	YG H BW	LY BW
B-25 CRUISE CONTROL UNIT		B-26 STOP SWITCH	B-27 CLUTCH SWITCH	B-28 ACTUATOR SOLENOID VALVE	B-29 SPEED PULSE GENERATOR
BY BR RY Br BL GrB BR RW BL W		Br FRY	Br FRY	BrR RL Br BrY	BL - [1]] B BR BR
		B-33 KICK DOWN SOLENOID			
		Q BR			

■IGNITION SYSTEM ■CRUISE CONTROL SYSTEM ■FUEL PUMP

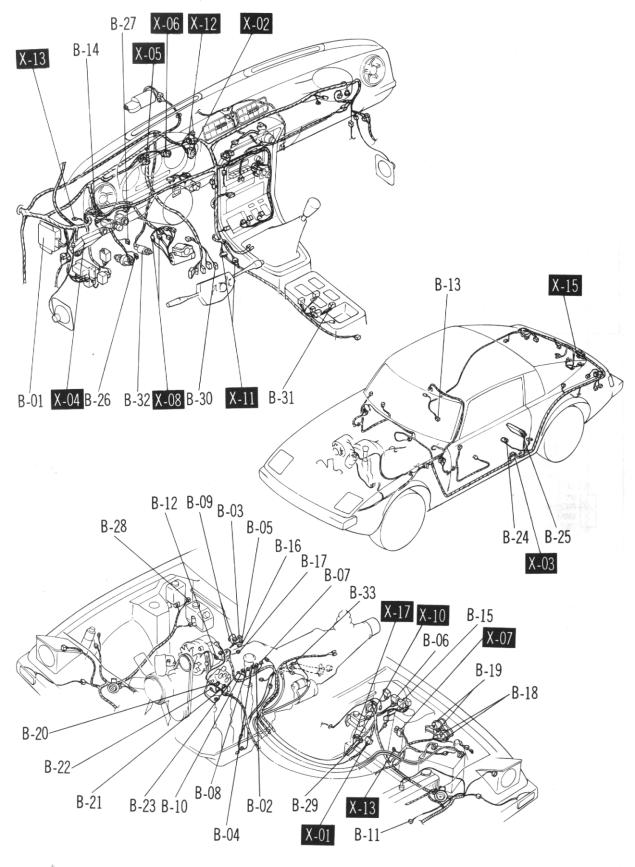


B-03 THRUITLE SENSOR	B-04 SHUTTER VALVE SOLENOID VALVE	B-05 CUNNECTOR OF CHECK	GY BW GW	B-07 AIR-CON. SULENUID VALVE	B-06 SWITCHING SOLENOID VALVE
0 - []] D- BR CR CR	L8Х ∰ДДЭ в	LgY GY		сw -∰⊐Ё∰ в	Lg
8-10 VACUUM CONTROL SOLENOID VALVE	B-11 NO. 2 WATER TEMP. SWITCH	B-12 NO. 1 WATER TEMP. SWITCH	B-13 HEAT HAZARD SENSOR	B-14 CHOKE SWITCH AND MAGNET	B-15 CHOKE AND CHECK RELAY
с -{ССССР в	(Rad.)	(Eng.)	LB LF RY		
B-19 IGNITION COIL (L)	B-20 IGNITER (T)	B-21 IGNITER (L)	B-22 CONDENSER	B-23 GROUND	B-24 FUEL PUMP
LY B₩-⊂©	₩ F BW	E LY BW	Ø− BW	8-00	BLg B
B-27 CLUTCH SWITCH	B-28 ACTUATOR SOLENOID VALVE	B-29 SPEED PULSE GENERATOR	B-30 COMBINATION SWITCH	B-31 C.C. MAIN SWITCH	B-32 KICK DOWN SWITCH
Br Br RY	BrR IRL Br BrY	BL - []]] B BR BR	BrW BY	Br B BrB	BW BR

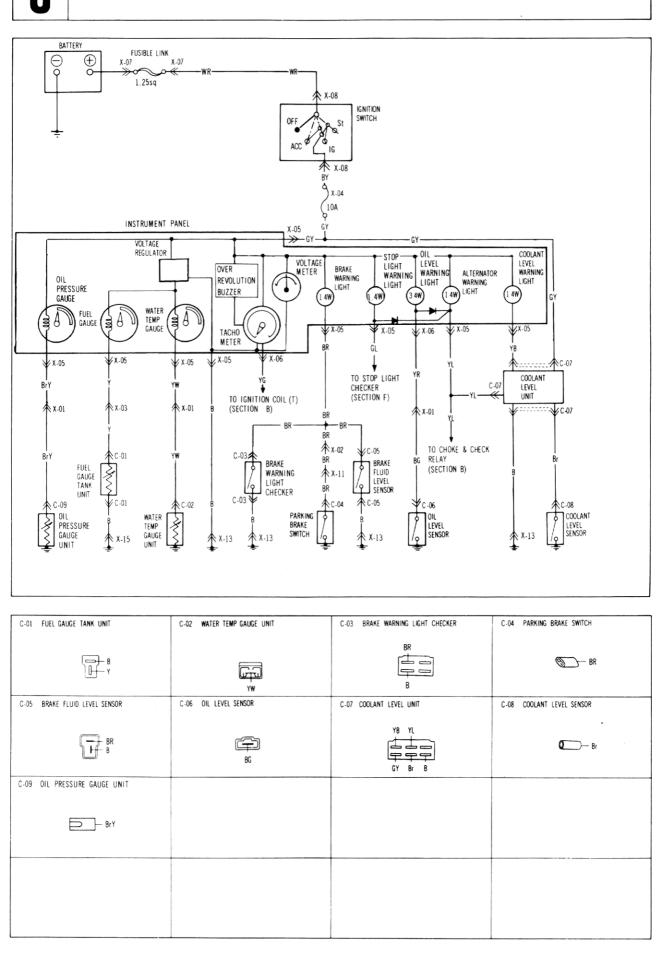
B

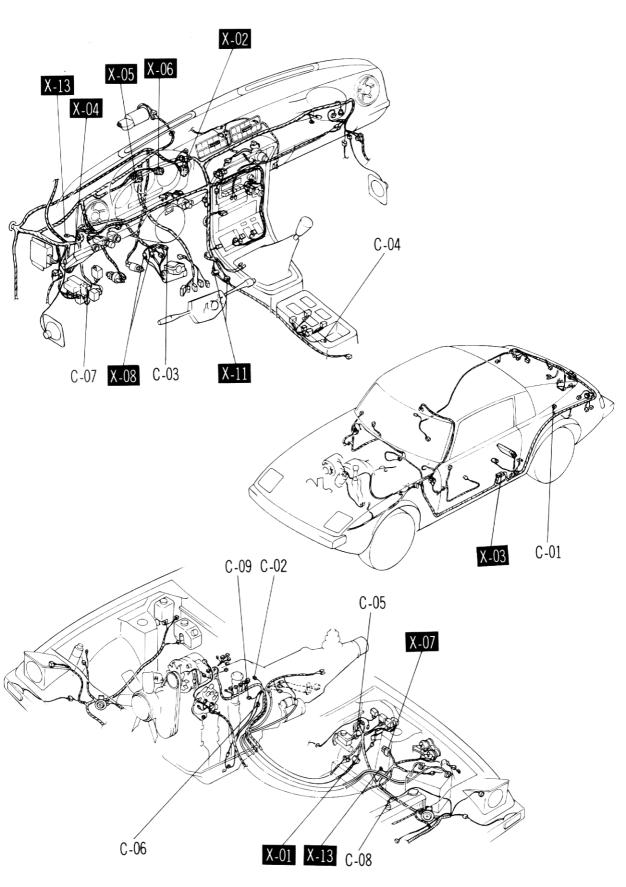


<u>N</u>								
B-01 EMISSION CONTROL UNIT		B-02 RELIEF SOLENOID VALVE	B-03 THROTTLE SENSOR	B-04 SHUTTER VALVE SOLENOID VALVE	B-05 CONNECTOR OF CHECK	B-06 NO.2 AIR-CON, RELAY GY BW GW	B-07 AIR-CON. SOLENOID VALVE	B-08 SWITCHING SOLENOID VALVE
		вг ₩ -∰⁶СЭ - в	○ (1) BR CR	гад ФДД в	LgY GY		сw - (С) С) в	Lg -∰СС В
TG BR U GR BR		B-09 SHORT CONNECTOR	B-10 VACUUM CONTROL SOLENOID	B-11 NO. 2 WATER TEMP. SWITCH	B-12 NO. 1 WATER TEMP. SWITCH	B-13 HEAT HAZARD SENSOR	B-14 CHOKE SWITCH AND MAGNET	B-15 CHOKE AND CHECK RELAY
		BY GB	VALVE С СССВВ	(Rad.)	(Eng.)	LB LF RY		LR B BW YL BW YL
B-16 CARBURETOR HEATER	B-17 AIR VENT VALVE	B-18 IGNITION COIL (T)	B-19 IGNITION COIL (L)	B-20 IGNITER (T)	B-21 IGNITER (L)	B-22 CONDENSER	B-23 GROUND	B-24 FUEL PUMP
G Br	Ê₽ 8₩	БД В W -—Э Ус	EFT BW -⊂⊙ LY	₩ F BW	LY BW	€ BW	8-50	BLg L- B
B-25 CRUISE CONTROL UNIT		B-26 STOP SWITCH	B-27 CLUTCH SWITCH	B-28 ACTUATOR SOLENOID VALVE	B-29 SPEED PULSE GENERATOR	B-30 COMBINATION SWITCH	B-31 C.C. MAIN SWITCH	B-32 KICK DOWN SWITCH
BYBRR	BY Bry B	Br Fry	Br RY	BrR IRL Br BrY		BrW BY B RW	Br B BrB	BW BR
Br BL BrB	<u>BR RWI BL</u>	B-33 KICK DOWN SOLENOID						·
		Ø <u> </u> → BR						



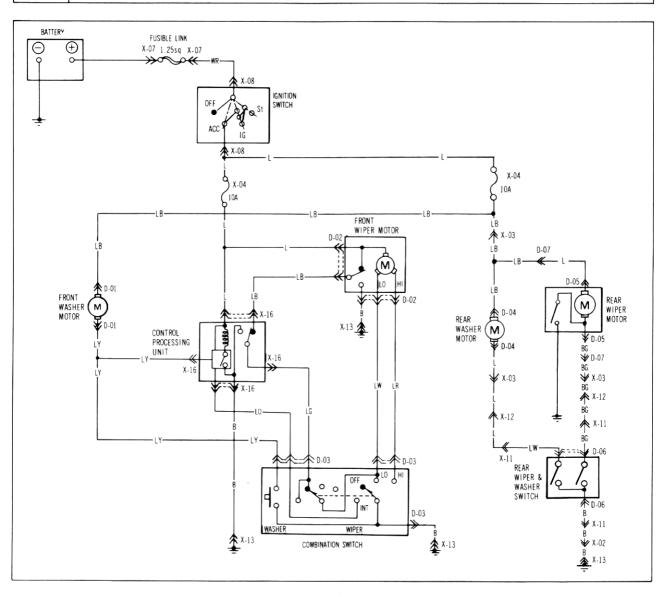
■METERS & WARNING LIGHTS



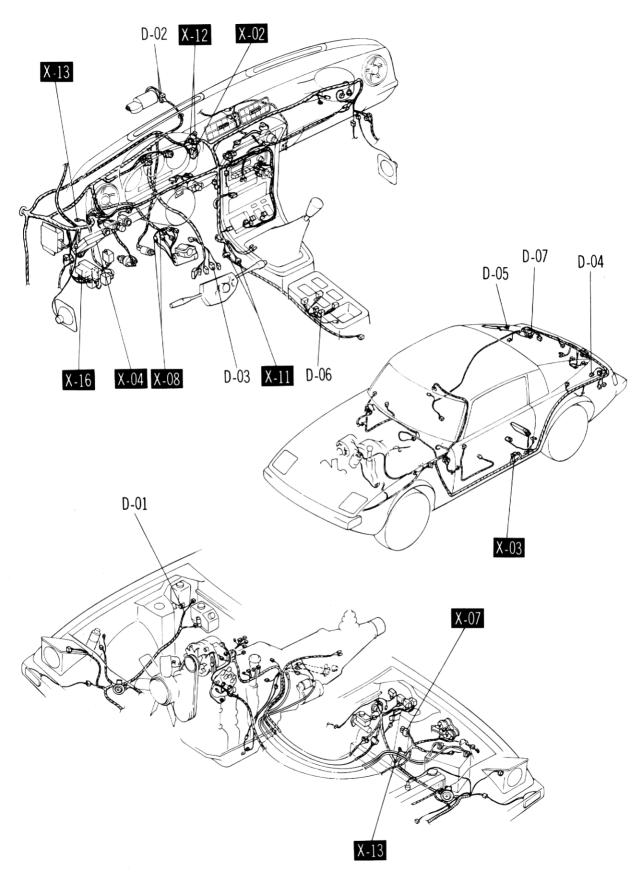




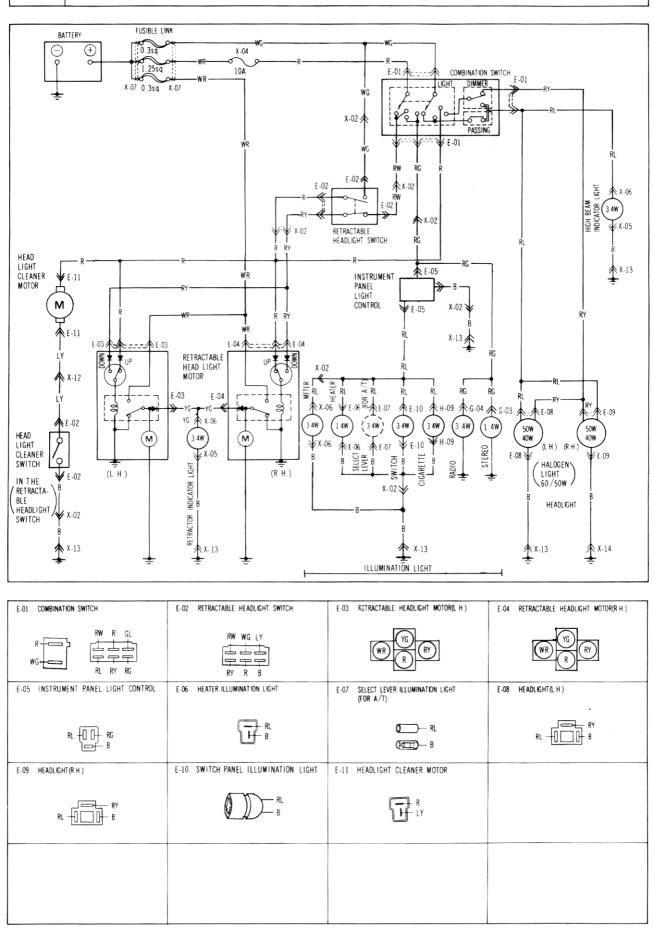
FRONT WIPER & WASHERREAR WIPER & WASHER

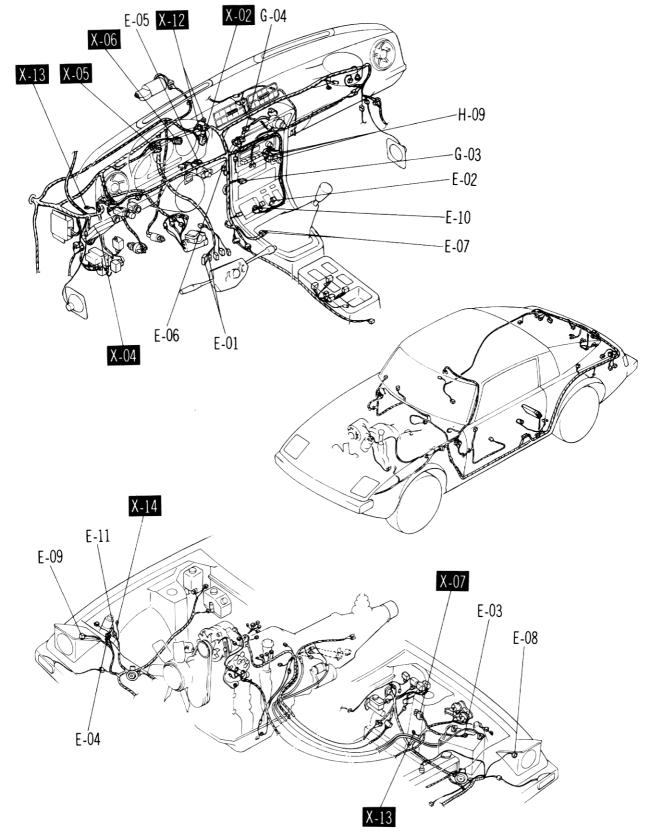


D-01 FRONT WASHER MOTOR	D-02 FRONT WIPER MOTOR	D-03 COMBINATION SWITCH	D-04 REAR WASHER MOTOR
LY LB			
D-05 REAR WIPER MOTOR	D-06 REAR WIPER & WASHER SWITCH	D-07 CONNECTOR TO REAR WIPER	
BC	B BG		

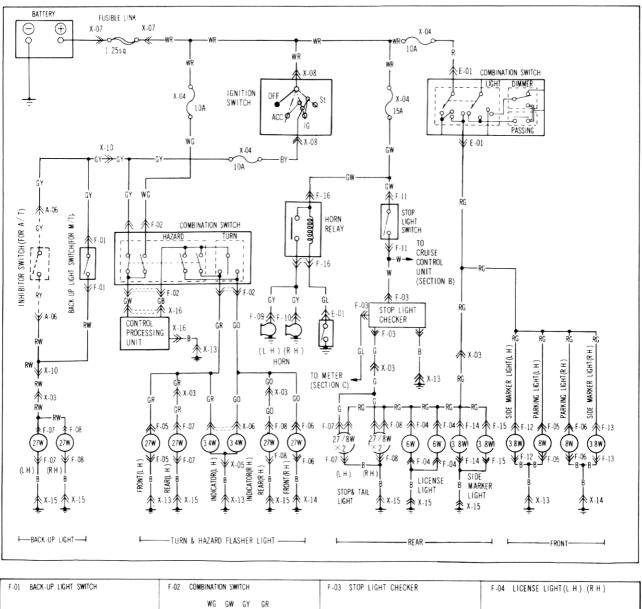


HEADLIGHTS & ILLUMINATION LIGHTSHEADLIGHT CLEANER

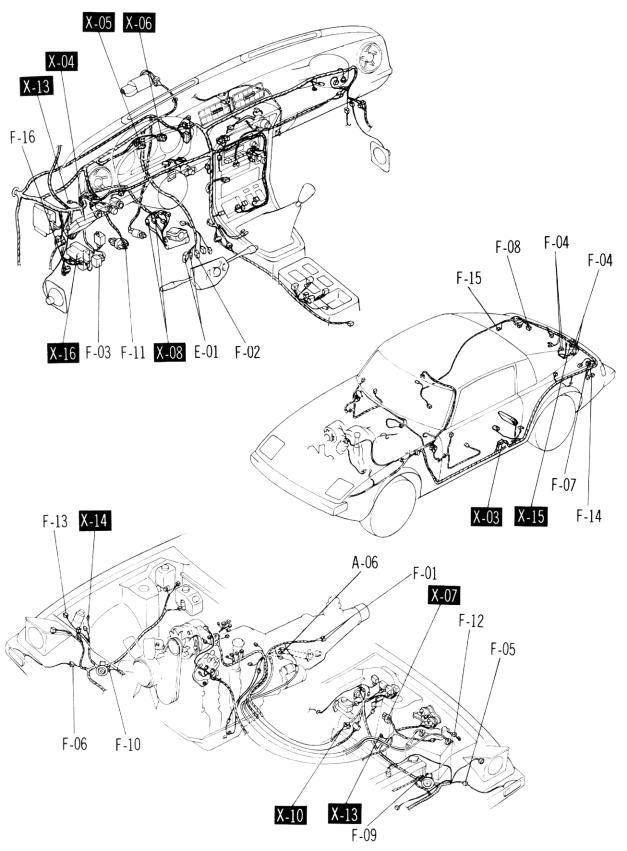




TURN & HAZARD FLASHER LIGHTS BACK-UP LIGHTS STOP LIGHTS BLICENSE LIGHTS BHORN SIDE MARKER LIGHTS FRONT PARKING LIGHTS TAIL LIGHTS



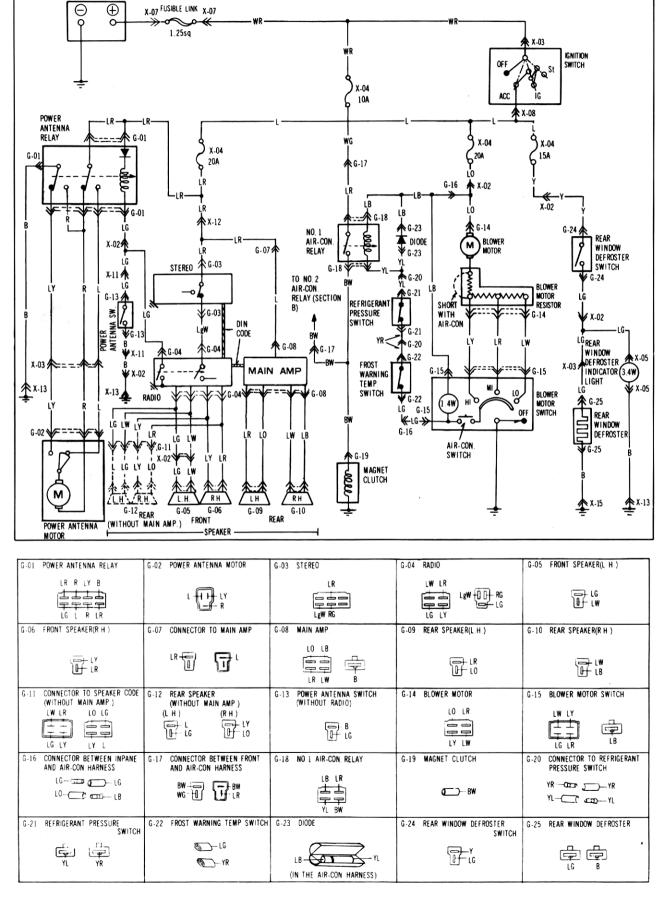
G GY G RW		W GL	
F-05 FRONT TURN & PARKING LIGHT(LH)	F-06 FRONT TURN & PARKING LIGHT (R.H.)	F-07 REAR COMBINATION LIGHT(LH)	F-08 REAR COMBINATION LIGHT(R H)
			GO RW G RG B
F-09 HORN(L.H.)	F-10 HORN(R.H.)	F-11 STOP LIGHT SWITCH	F-12 FRONT SIDE MARKER LIGHT (L.H.)
G CY	۲ ور در	CON CON CON CON W	B F R
F-13 FRONT SIDE MARKER LIGHT (R.H.)	F-14 REAR SIDE MARKER LIGHT (L.H.)	F-15 REAR SIDE MARKER LIGHT (R H)	F-16 HORN RELAY
8 28	B B RS	B B RG	GY + ☐ ☐ → GW

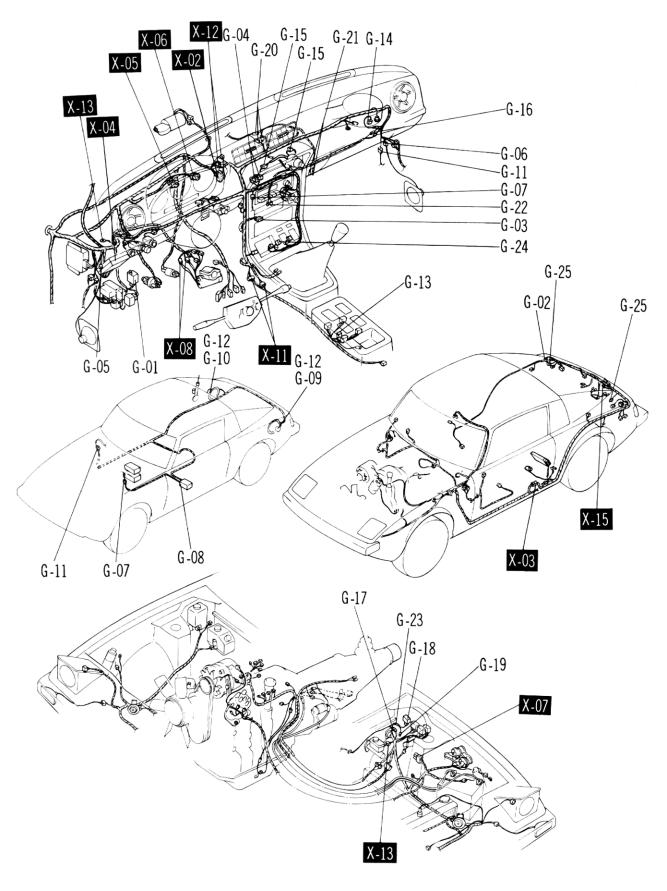




BATTER

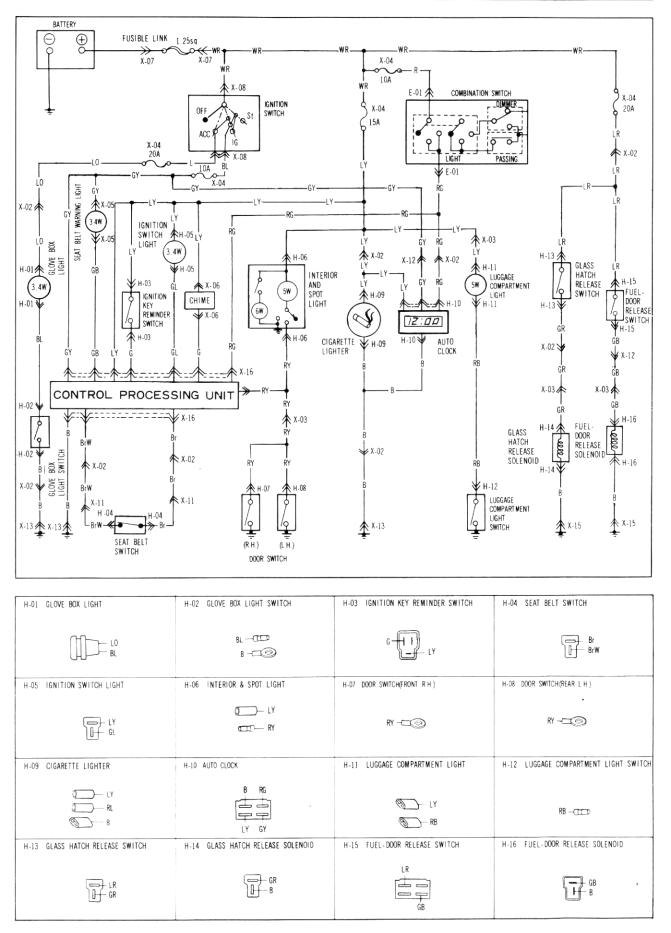
STEREO & RADIOPOWER ANTENNAHEATER & AIR CONDITIONERREAR WINDOW DEFROSTER

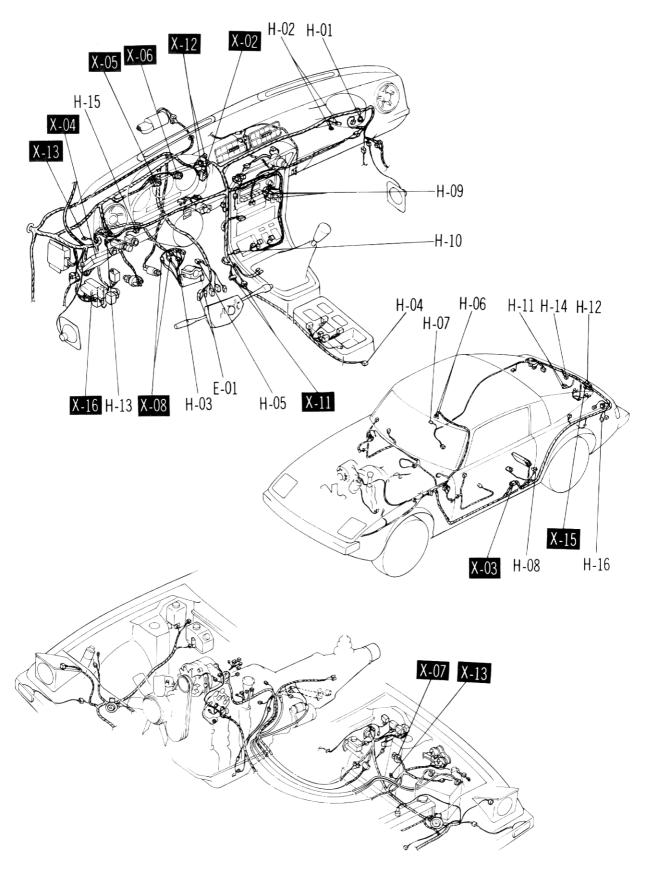






■GLOVE BOX LIGHT ■SEAT BELT WARNING SYSTEM ■CIGARETTE LIGHTER ■IGNITION KEY REMINDER BUZZER ■IGNITION SWITCH LIGHT SYSTEM ■INTERIOR AND SPOT LIGHT ■LIGHTS OFF REMINDER CHIME SYSTEM ■AUTO CLOCK ■LUGGAGE COMPARTMENT LIGHT ■GLASS HATCH RELEASE SYSTEM ■FUEL-DOOR RELEASE SYSTEM





REMOTE CONTROL MIRRORPOWER WINDOW

