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Many thanks to Kevin Wright for scanning this file.



This document is brought to you through the kind services of

Kevin Wright

krwright@wankel.net
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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 list-request@sa22c.org

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

Mazda RX-7

1981 Wiring Diagram



INTRODUCTION

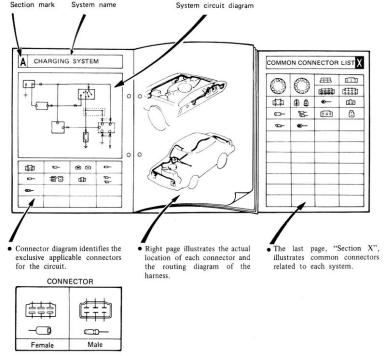
This booklet incorporates the wiring schematic for the basic vehicle and its available optional equipment. Actual vehicle wiring may vary slightly depending upon optional equipment and/or local specifications.

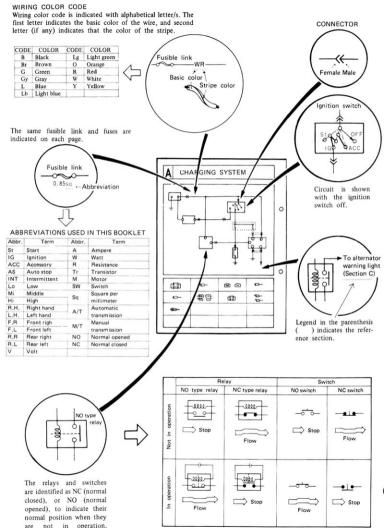
The complete electrical system is divided into charging system, ignition system, etc. Each system is shown on both right and left pages as described below.

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:





SYMBOL IN THIS WIRING DIAGRAM

Θ Θ	HARNESS BODY	HOLDER BOX	->>-	
BATTERY	GROUND	FUSE	FUSIBLE LINK	MOTOR
	\\		TANAS	+
COIL, SOLENOID	RESISTOR	VARIABLE RESISTOR	THERMISTER	DIODE
<u> </u>	NPN PNP	Р	(3.4W)	
CONDENSER	TRANSISTOR	PUMP	LIGHT	HORN
		阜		
SPEAKER	CIGARRET LIGHTER	HEATER		

INDEX

CONTRACTOR OF THE PROPERTY OF	CONTENT SE	CTIO
■ELECTRICAL WIRING SC	CHEMATIC	
■CHARGING SYSTEM	■STARTING SYSTEM	A
■EMISSION CONTROL SYS	STEM CRUISE CONTROL SYSTEM	В
■IGNITION SYSTEM	■KICK-DOWN SYSTEM (FOR A/T) ■FUEL PUMP	
METERS & WARNING LIG	GHTS	С
WIPER & WASHER		D
■HEADLIGHTS & ILLUMIN	NATION LIGHTS	Ε
TURN & HAZARD FLASH	HER LIGHTS BACK-UP LIGHTS	F
	- LIGHNOR LIGHTS - HORN	
■STOP & TAIL LIGHTS	■LICENSE LIGHTS ■HORN	
	■FRONT PARKING LIGHTS	
		G
SIDE MARKER LIGHTS RADIO & STEREO	■FRONT PARKING LIGHTS	G
■SIDE MARKER LIGHTS ■RADIO & STEREO ■HEATER & AIR CONDITI	■FRONT PARKING LIGHTS ■POWER ANTENNA	
SIDE MARKER LIGHTS RADIO & STEREO HEATER & AIR CONDITI GLOVE BOX LIGHT	■FRONT PARKING LIGHTS ■POWER ANTENNA	
SIDE MARKER LIGHTS RADIO & STEREO HEATER & AIR CONDITI GLOVE BOX LIGHT CIGARETTE LIGHTER	■FRONT PARKING LIGHTS ■POWER ANTENNA ONER ■REAR WINDOW DEFROSTER ■SEAT BELT WARNING SYSTEM	
SIDE MARKER LIGHTS RADIO & STEREO HEATER & AIR CONDITI GLOVE BOX LIGHT CIGARETTE LIGHTER IGNITION SWITCH LIGHT	■FRONT PARKING LIGHTS ■POWER ANTENNA IONER ■REAR WINDOW DEFROSTER ■SEAT BELT WARNING SYSTEM	
SIDE MARKER LIGHTS RADIO & STEREO HEATER & AIR CONDITI GLOVE BOX LIGHT CIGARETTE LIGHTER GRITION SWITCH LIGHT INTERIOR & SPOT LIGHT	■FRONT PARKING LIGHTS ■POWER ANTENNA	

INDEX

COMPONENT

SECTION

SECTION

COMPONENT

COMPUNENT	ECTION	CUMPUNENT	SECTION
ACTUATOR SOLENOID VALVE B	3	IGNITION KEY REMINDER SWITCH	н
AIR CON. SOLENOID VALVE			A~D.
AIR CON. SWITCHG		IGNITION SWITCH	F~I
AIR VENT VALVE B	,	IGNITION SWITCH LIGHT	H
ALTERNATOR WITH REGULATOR		ILLUMINATION LIGHT	E
ALTERNATOR WARNING LIGHT		INSTRUMENT PANEL LIGHT CONTROL	E
AUTO CLOCK		INHIBITOR SWITCH	A. F
ACIO CECCK	1	INTERIOR & SPOT LIGHT	H
RACK-JID LIGHT		INTERMITTENT RELAY	D
BACK-UP LIGHT		The state of the s	
DACK-UP LIGHT SWITCH		KICK-DOWN SOLENOID	В
BATTERYA	1~1	KICK-DOWN SWITCH	В
BLOWER MOTOR RESISTOR	,		
DLOWER MOTOR CUTTOU	,	LICENSE LIGHTLIGHTLUGGAGE COMPARTMENT LIGHTLUGGAGE COMPARTMENT LIGHT SWITCH	F
		LUGGAGE COMPARTMENT LIGHT	н
BRAKE FLUID LEVEL SENSOR		LUGGAGE COMPARTMENT LIGHT SWITCH	н
BRAKE WARNING LIGHT		December of the second of the	
BRAKE WARNING LIGHT CHECKER		MAIN AMP.	G
CARRIERTOR HEATER	. 1	MAGNET CLUTCH	G
CARBURETOR HEATER		Milones escretisististististististististististististi	
CHIME	1	NO. 1 AIR CON. RELAY	G
CHOKE & CHECK RELAY		NO. 1 WATER TEMP. SWITCH	B
CHOKE SWITCH & MAGNET	3	NO. 2 AIR CON. RELAY	
CIGARETTE LIGHTER H	ł	NO. 2 WATER TEMP. SWITCH	D D
CLUTCH SWITCH B		NO. 2 WATER TEMP, SWITCH	ь
CONTROL PROCESSING UNIT D), F, H	OIL DESCRIPE CALICE	
COMBINATION SWITCH		OIL PRESSURE GAUGE	Č
COAST SWITCH B		OIL LEVEL CENCOR	0
DIMMER SWITCH E		OIL LEVEL SENSOR	C
HAZARD SWITCH F		OIL LEVEL WARNING LIGHT	C
HORN SWITCH F		DADWING DRAWE GUITTON	
LIGHT SWITCH E	, F, H	PARKING BRAKE SWITCH	C
PASSING SWITCH F		PARKING LIGHT	F
RESUME SWITCHB		POWER ANTENNA MOTOR	G
I SEI SWITCH B		POWER ANTENNA SWITCH	G
TURN SIGNAL SWITCH F		POWER ANTENNA RELAY	G
WASHER SWITCH	· I	POWER WINDOW MOTOR	I
WIPER SIWTCH D		POWER WINDOW SWITCH	I
COOLANT LEVEL SENSOR			
COOLANT LEVEL UNIT		RADIO	G
COOLANT LEVEL UNIT	1	REAR WIPER & WASHER SWITCH	E
CRUISE CONTROL UNIT		REAR WINDOW DEFROSTER	G
CRUISE CONTROL MAIN SWITCH	2	REAR WINDOW DEFROSTER	
CRUISE CONTROL MAIN SWITCH		INDICATOR LIGHT	G
DISTRIBUTOR	- 1	REAR WINDOW DEFROSTER SWITCH	G
DISTRIBUTORB		REFRIGERANT PRESSURE SWITCH	G
DOOR SWITCH H	· I	RELIEF SOLENOID VALVE	В
EMISSION CONTROL UNIT	- 1	REMOTE CONTROL MIRROR	I
EMISSION CONTROL UNIT B	- 1	REMOTE CONTROL MIRROR SWITCH	1
EL AGUED UNIT	. 1	RETRACTABLE HEADLIGHT MOTOR	E
FLASHER UNIT		RETRACTABLE HEADLIGHT SWITCH	E
FLOST WARNING TEMPERATURE SWITCH G		RETRACTOR INDICATOR LIGHT	F
FUEL-DOOR RELEASE SOLENOID H			277.0
FUEL-DOOR RELEASE SWITCH H		SEAT BELT SWITCH	н
FUEL GAUGE TANK UNIT		SEAT BELT WARNING LIGHT	Н
FUEL GAUGE TANK UNIT	- 1	SEAT BELT WARNING LIGHT	B
FUEL PUMP	,	SIDE MARKER LIGHT	F
FUSE BLOCK	~1	SPEAKER	G
FUSIBLE LINK	- 1	SPEAKER	B
HEADLIGHT		STARTING MOTOR	Ā
HOT START	٠, ١	STEREO	G
MAINA RETRACTABLE HEADLIGHT MOTOR E	~1	STOP LICHT SWITCH	F
STARTING MOTOR		STOP SWITCH STOP & TAIL LIGHT STOP LIGHT CHECKER.	R
STARTING MOTOR A	9	STOP & TAIL LIGHT	E I
		STOP LICHT CHECKED	r r
GLASS HATCH RELEASE SOLENOID H		SWITCHING SOLENOID VALVE	r D
GLASS HATCH RELEASE SWITCH H		SUB-ZEDO MOTOR	P
GLOVE BOX LIGHT H		SUB-ZERO MOTOR	^
GLOVE BOX LIGHT SWITCH H		SUB-ZERO SENSOR	A
	- 1	TACHOMETER	ر ا
HEADLIGHT CLEANER MOTOR		THROTTLE CENCOR	n
HEADLIGHT CLEANER MOTOR E	- 1	THROTTLE SENSOR.	a a
	- 1	TURN SIGNAL INDICATOR LIGHT	r
HEAT HAZARD SENSOR B	- 1	TURN & HAZARD FLASHER LIGHT	r
HIGH BEAM INDICATOR LIGHT E	- 1	VACUUM CONTROL SOLENOID VALVE	<u>, I</u>
HORN	- 1	VACUUM CONTROL SOLENOID VALVE	в
HORN RELAY F	- 1	VOLTAGE METER	0
HOT START MOTOR A		VOLTAGE REGULATOR	C
HOT START RELAY A	- 1	WASHER MOTOR	_
	- 1	WASHER MOTOR	ם ע
IGNITER	- 1	WATER TEMP. GAUGE	c
IGNITION COILB	- 1	WATER TEMP. GAUGE UNIT	C
1	- 1	WIPER MOTOR	D

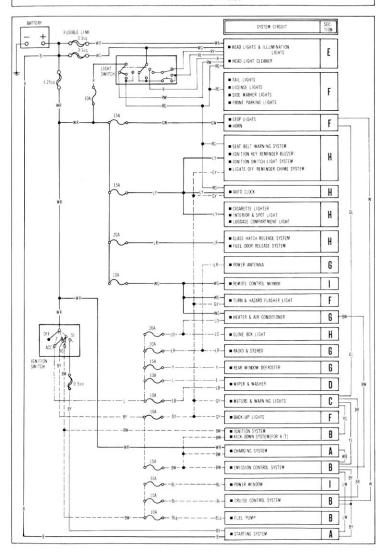
ELECTRICAL WIRING SCHEMATIC

CURRENT FROM BATTERY

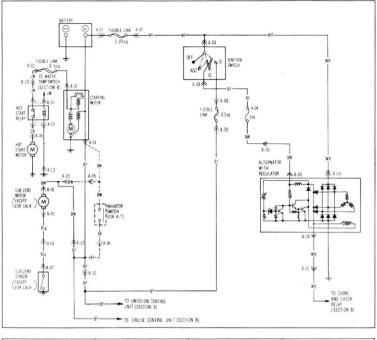
CUBERNI FROM NG TERMINAL OF IGNITION SWITCH

CUBERNI FROM ACC TERMINAL OF IGNITION SWITCH

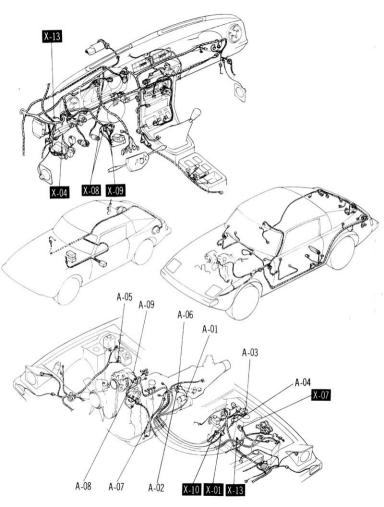
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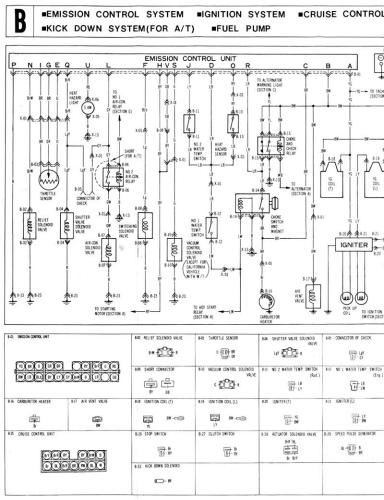






STARTING MOTOR	A-02 FUSIBLE LINK	A-03 HOT START RELAY LW GR	A-04 HOT START MOTOR
EY(FOR M/T) EW(FOR A/T)	(b) (b) (c) (c) (d)		GR GR
05 SUB-ZERO MOTOR (EXCEPT FOR CALIF.)	A-06 INHIBITOR SWITCH (FOR A/T)	A-07 SUB-ZERO SENSOR (EXCEPT FOR CALIF.)	A-08 ALTERNATOR WITH REGULATOR
BA BLE	8Y GY	@ <u></u> - 818	Bw Bw
-09 ALTERNATOR WITH REGULATOR			
1-00			

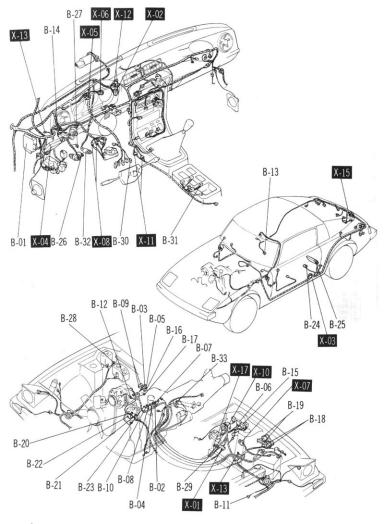




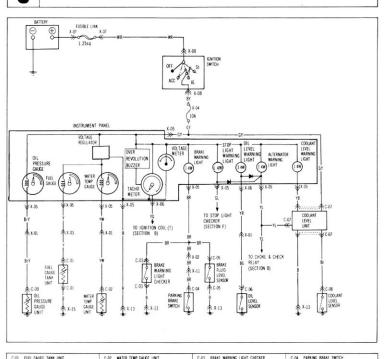
■IGNITION SYSTEM ■CRUISE CONTROL SYSTEM ■FUEL PUMP BATTERY FUSIBLE LINK TROL UNIT Θ ★ B-24 Blg BL TO ALTERNATOR R.24 WARNING LIGHT PUMP (SECTION C) - TO TACHOMETER **★** X-03 (SECTION C) X-04 X-04 X-15 🖈 BW-O - RW TO STOP LIGHT SWITCH (SECTION F) TO PARKING BRAKE X-04 SWITCH (SECTION C) CHOK AND HEAT ÉR HAZARD CHECK B-31 IP. SENSOR B-26 A B-27 MAIN SWITCH SWITC B-32 B-26 X-01 0011 COLL ALTERNATOR B-14 X-11-14 (SECTION A) A---- B-25 KICK 200 ¥ X-12 DOWN CRUISE CONTROL UNIT SWITCH CHOKE A X-01 ¥¥ 8-25 SWITCH AND MACNET 8-20 4 48-21 B-21 ¥ X-11 X-10 A X-13 10 B-20 FOR ★X-01 B-22 / NIA **★** X-17 ¥ X-02 X-01 KICK 8-173 COMBINATION DOWN SOLENDED ACTUATOR VENT SOLENOID. VALVE HOT START X-13 PULSE GENERATOR PICK UP TO IGNITION COIL CTION A) CARBURETOR SWITCH (SECTION A) HEATER B4F AIR-CON SOLENDID VALVE B-08 SWITCHING SOLENOID VALVE 3-03 THROTTLE SENSOR BOA SHUTTER VALVE SOLENOID 8-05 CONNECTOR OF CHECK 8-06 NO 2 AIR-CON. RELAY GY BW GW VALVE 411 0 10 88 ---8-11 NO 2 WATER TEMP. SWITCH 8-15 CHOKE AND CHECK RELAY B-10 VACUUM CONTROL SOLENOID 8-12 NO 1 WATER TEMP. SWITCH 8-13 HEAT HAZARD SENSOR 8-14 CHOKE SWITCH AND MAGNET VALVE (Rad.) LR B · (503) · T LB 17 LW 무무 LW LR B RW Y 3-19 IGNITION COIL (L) 8-20 IGNITER (T) 8-21 IGNITER(L) 8-22 CONDENSER B-23 GROUND B-24 FUEL PUMP 4 BW BW 8-00 BLg F B C- BW B-27 CLUTCH SWITCH B-29 SPEED PULSE GENERATOR B-30 COMBINATION SWITCH B-31 C.C. MAIN SWITCH KICK DOWN SWITCH B-28 ACTUATOR SOLENOID VALVE BrW BY BIR IR Rr R 古古 81 + BB == GE **配** * 中中 Br BrY BrB R DW

■EMISSION CONTROL SYSTEM ■IGNITION SYSTEM ■CRUISE CONTROL SYSTEM ■KICK DOWN SYSTEM(FOR A/T) ■FUEL PUMP FUSIBLE LINK EMISSION CONTROL UNIT \bigoplus NIGEQ HVS D 0 P IGNITION TO ALTERNATOR FUEL # B-24 WARNING LIGHT PUMP (SECTION C) TO TACHOMETER **↑** X-03 (SECTION C) HAZARD X-15 LIGHT RELAY RW-C 3.4W (SECTION G) TO STOP LIGHT SWITCH (SECTION F) X-01 TO PARKING BRAKE X-04 X-13 SWITCH (SECTION C) HEAT AND X-12 X-11 CHECK LB WATER HAZARD SENSOR ★ X-01 SWITCH C.C. CLUTCH X-01 COIL COIL ALTERNATOR B-14 THROTTLE (SECTION A) CONNECTOR OF ¥ X-12 DOWN CRUISE CONTROL UNIT SWITCH B-02 X-13 SHUTTER **★** X-01 RELIEF SWITCH SOLENOID WATER SOLENOID SWITCHING VALVE TEMP SOLENOID MAGNET B-20 A B-21 B-21 VALVE ¥ X-11 B-02 AIR-CON VACUUM IGNITER X-10 9 SOLENOID CONTROL SOLENOID VAL VE EXCEPT FOR B-07 CALIFORNIA X-02 VEHICLE X-01 KICK B-17 COMBINATION A B-30 DOWN SOLENOID ? **№**8-23 **№** B-23 **№** B-23 VENT SOLENOID لعها VAL VE **↑** X-13 TO HOT START X-13 PULSE
GENERATOR TO STARTING PICK UP TO IGNITION MOTOR (SECTION A) RELAY (SECTION A) CARBURETOR SWITCH (SECTION A) B-01 EMISSION CONTROL UNIT 842 RELIEF SOLENOID VALVE B-07 AIR-CON SOLENOID VALVE B-08 SWITCHING SOLENOID VALVE 8-05 CONNECTOR OF CHECK 8-06 NO 2 AIR-CON RELAY 8-03 THROTTLE SENSOR B-04 SHUTTER VALVE SOLENOID GY BW GW TTT ---8-09 SHORT CONNECTOR 8-10 VACUUM CONTROL SOLENOID 8-11 NO. 2 WATER TEMP. SWITCH B-12 NO. 1 WATER TEMP. SWITCH B-13 HEAT HAZARD SENSOR B-15 CHOKE AND CHECK RELAY 8-14 CHOKE SWITCH AND MAGNET 骨出 E LB TH LW LB RY 8-21 IGNITER (L) 8-17 AIR VENT VALVE B-23 GROUND B-24 FUEL PUMP 8-16 CARBURETOR HEATER B-18 IGNITION COIL (T) 8-19 IGNITION COIL (L) 8-20 IGNITER (T) B-22 CONDENSER 8-40 GF0 BW -CO BW -CO C BW G B-25 CRUISE CONTROL UNIT B-26 STOP SWITCH B-27 CLUTCH SWITCH B-29 SPEED PULSE GENERATOR B-30 COMBINATION SWITCH B-31 C.C. MAIN SWITCH B-32 KICK DOWN SWITCH B-28 ACTUATOR SOLENOID VALVE BL + BR 曹 G Br RY Br BrY B-33 KICK DOWN SOLENOID

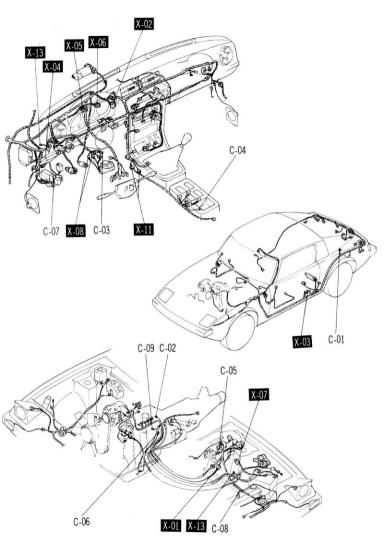
O→ BR



■METERS & WARNING LIGHTS



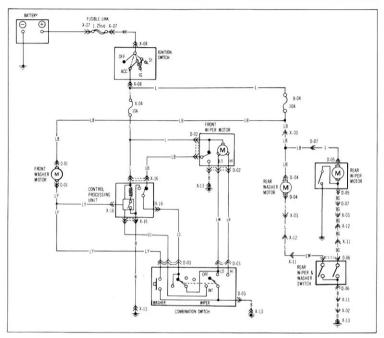
COA PRIORING BRAKE SWITCH	C-08 COOLANT LEVEL SENSOR		
C-03 BRAKE MARNING LIGHT CHECKEN BR BR	C-07 COOLANT LEVEL UNIT YS YL O'Y BY S		
C-02 WATER TEMP GAUGE UNIT	C.06 OIL LEVEL SEMSOR		
C-01 FUEL GAUGE TANK UNIT	C-05 BRAKE FLUO LEVEL SENSOR	C-09 OIL PRESSURE GAUGE UNIT	



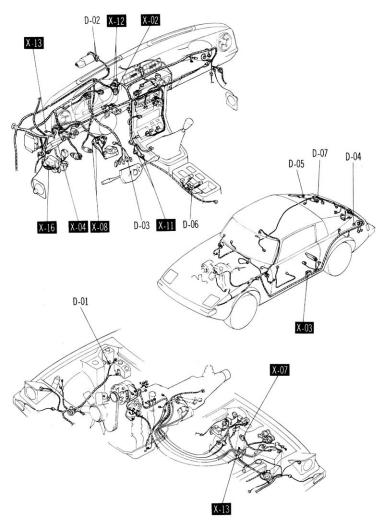
D

■FRONT WIPER & WASHER

■REAR WIPER & WASHER

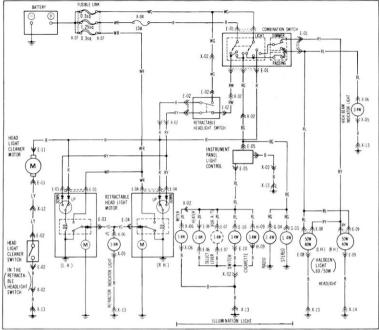


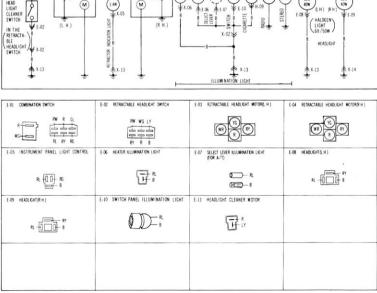
D-02 FRONT WIPER MOTOR	D-03 COMBINATION SWITCH	D-04 REAR WASHER MOTOR
LW (R	IR IO IM	LB LB
D-06 REAR WIPER & WASHER SWITCH	D-07 CONNECTOR TO REAR WIPER	
B - 1 BC LW	8 1 0 8 1 1 8	1/4.0
	LW LR LB B D.06 REAR WIPER & WASHER SWITCH	B LO LY L B B LR LG LW D-06 REAR WIFER & WASHER SWITCH D-07 CONNECTOR TO REAR WIFER

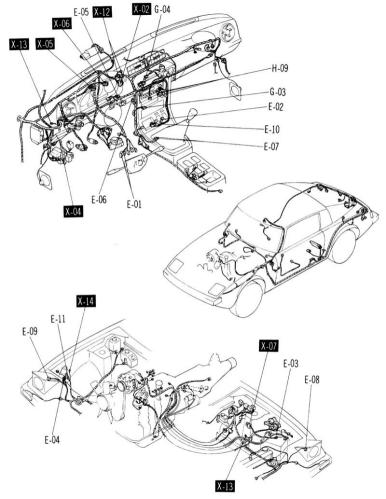


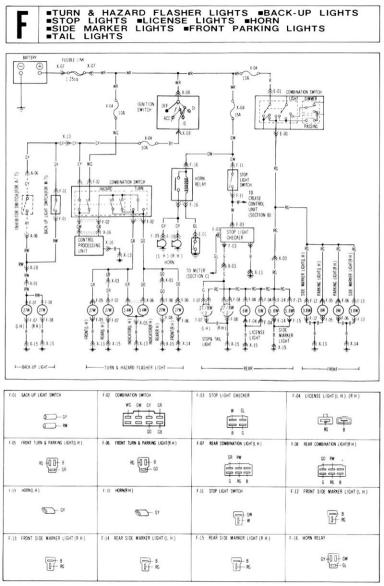
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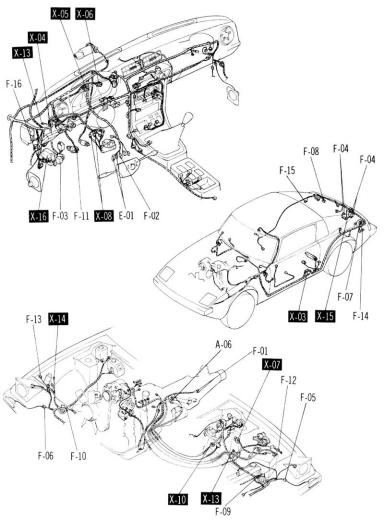
■HEADLIGHTS & ILLUMINATION LIGHTS ■HEADLIGHT CLEANER







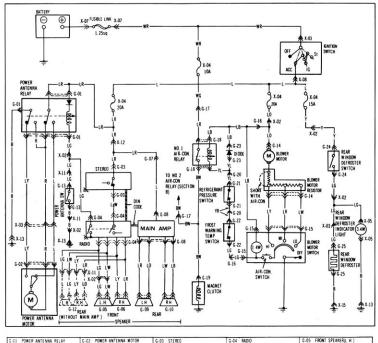




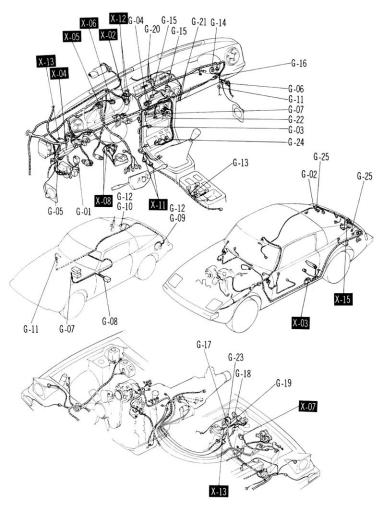
G

■STEREO & RADIO ■POWER ANTENNA

■HEATER & AIR CONDITIONER ■REAR WINDOW DEFROSTER



G-01	POWER ANTENNA RELAY	G-02 POWER ANTENNA MOTOR	G-03 STEREO	G-04 RADIO	G-05 FRONT SPEAKER(L H)
	LR R LY B	L TIPLY	LEW RG	10 IA 10 10 80	₽ LW
G-06	FRONT SPEAKER(R H)	G-07 CONNECTOR TO MAIN AMP	G-08 MAIN AMP	G-09 REAR SPEAKER(L H.)	G-10 REAR SPEAKER(RH)
	Ū LR		LO L8	₽ LR D+ LO	₽ LW E LB
G-11	CONNECTOR TO SPEAKER CODE (WITHOUT MAIN AMP.) LW LR LO LG	G-12 REAR SPEAKER (WITHOUT MAIN AMP) (L H) (R H) (R H) (B+ LG (B+ LO)	G-13 POWER ANTENNA SWITCH (WITHOUT RADIO) B LG	G-14 BLOWER MOTOR LO LR LY LW	G-15 BLOWER MOTOR SWITCH LW LY LG LR LB
G-16	CONNECTOR BETWEEN INPANE AND AIR-CON HARNESS LG	G-17 CONNECTOR BETWEEN FRONT AND AIR-CON HARNESS	G-18 NO 1 AIR-CON RELAY LB LR YL SW	G-19 MAGNET CLUTCH	G-20 CONNECTOR TO REFRIGERANT PRESSURE SWITCH YR
G-21	REFRIGERANT PRESSURE SWITCH	G-22 FROST WARNING TEMP SWITCH	LB LB YL (IN THE AIR-CON HARNESS)	G-24 REAR WINDOW DEFROSTER SWITCH	G-25 REAR WINDOW DEFROSTER

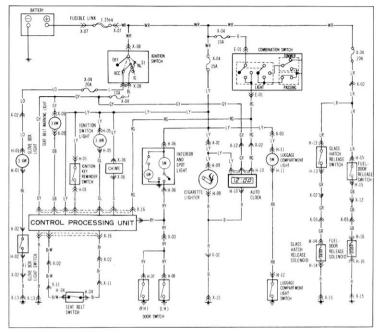


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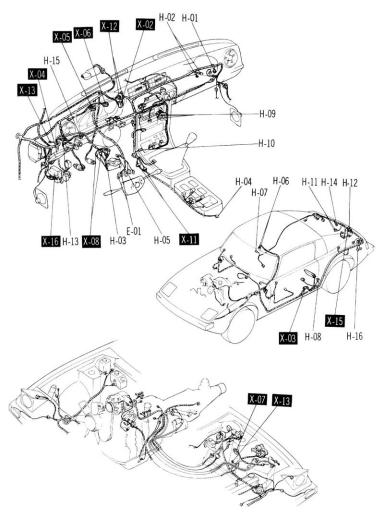
■GLOVE BOX LIGHT ■SEAT BELT WARNING SYSTEM ■CIGARETTE LIGHTER

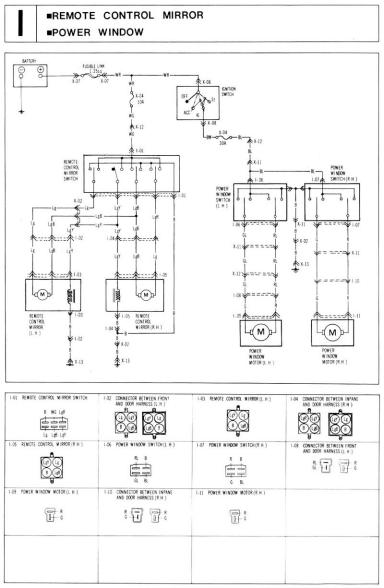
■IGNITION KEY REMINDER BUZZER ■IGNITION SWITCH LIGHT SYSTEM
■INTERIOR AND SPOT LIGHT ■LIGHTS OFF REMINDER CHIME SYSTEM

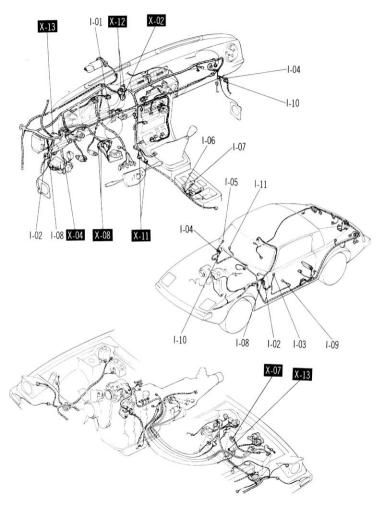
MAUTO CLOCK MUGGAGE COMPARTMENT LIGHT MIGHT MELEASE SYSTEM FUEL-DOOR RELEASE SYSTEM



H-01 GLOVE BOX LIGHT	H-02 GLOVE BOX LIGHT SWITCH	H-03 IGNITION KEY REMINDER SWITCH	H-04 SEAT BELT SWITCH
LO BL	8.—ŒD 8.—Œ	G LY	Br Brw
H-05 IGNITION SWITCH LIGHT	H-06 INTERIOR & SPOT LIGHT	H-07 DOOR SWITCHFRONT RH)	H-08 DOOR SWITCH(REAR LH)
El GI	ŒŒ≻ RY	RY -C3	R1
H-09 CIGARETTE LIGHTER	H-10 AUTO CLOCK	H-11 LUGGAGE COMPARTMENT LIGHT	H-12 LUGGAGE COMPARTMENT LIGHT SWITCH
LY RL 8	E #6	(5) - LY	88 –CEED
H-13 GLASS HATCH RELEASE SWITCH	H-14 GLASS HATCH RELEASE SOLENOID	H-15 FUEL-DOOR RELEASE SWITCH	H-16 FUEL-DOOR RELEASE SOLENOID
LR GR	GR B	18	GB B

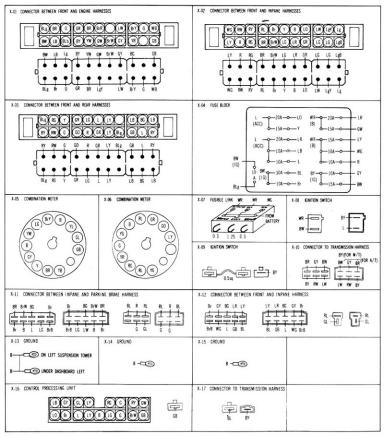






■COMMON CONNECTOR LIST





Mazda RX-7 1981 Mazda RX-7 Wiring Diagram Mazda