

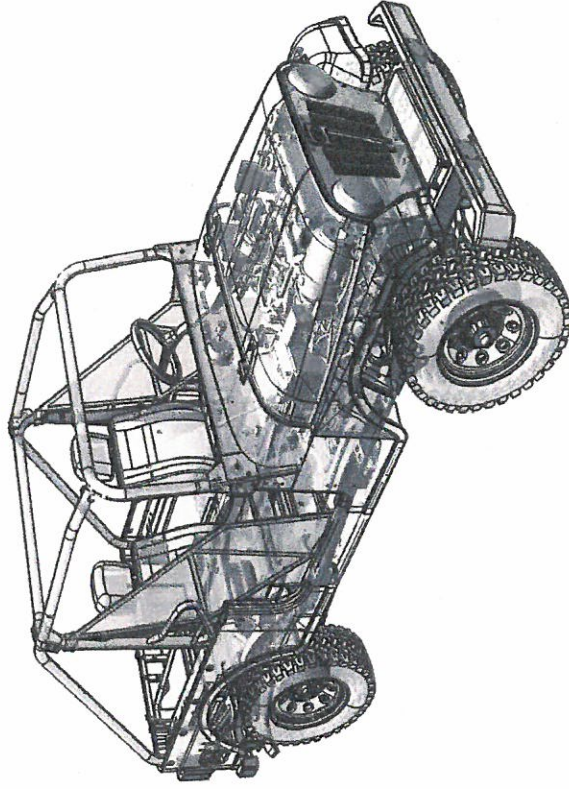


Mahindra

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WIRING MANUAL ROXOR

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1 GOOD ELECTRICAL / ELECTRONIC TROUBLE SHOOTING

When troubleshooting any problem related to electrical/electronic system, follow the 5 - step process:-

STEP 1 – Verify the customer complaint

- Turn on all the component/function in the problem circuit to check accuracy of the customer complaint.
- Replicate the customer complaint
- Note down the symptoms
- Do not begin disassembly or testing unless you have narrowed down the probable causes.

STEP 2 – Read and analyze the wiring diagrams

- Locate the specific circuit diagram of the problem circuit
- Understand how the circuit is supposed to work by tracing the circuit from power source through components on to ground.
- Check other circuits which share components/fuse/ground/switch with this circuit.
- Isolate the circuit/components with problem.

STEP 3 – Inspect circuit/components with problem isolated

- Make a circuit test to check the diagnosis
- Narrow down the probable causes using troubleshooting charts/diagnosis charts

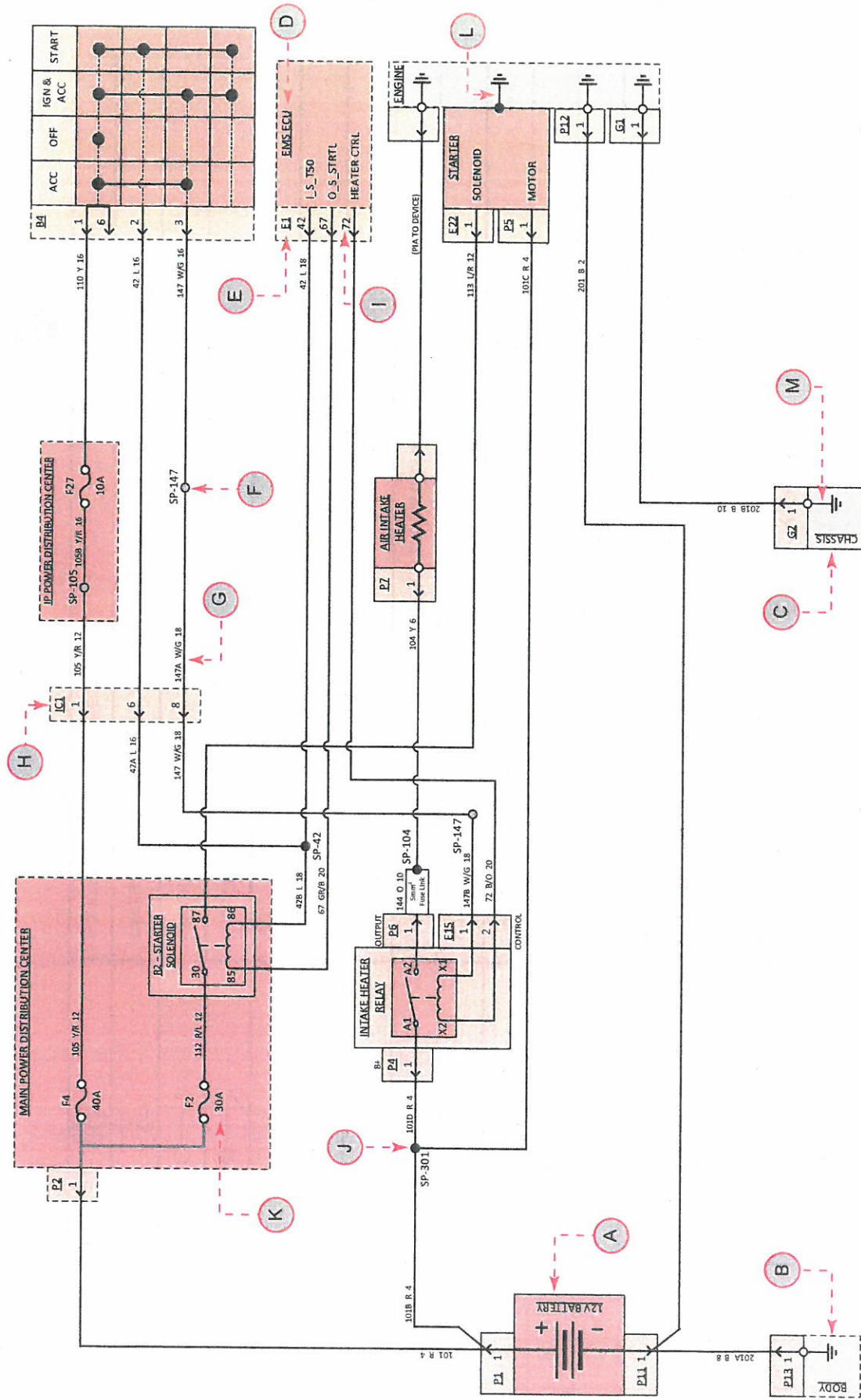
STEP 4 – Repair the problem

- Make necessary repairs as authorized











STEP 5 – Re-check the circuit

- Repeat the system check to ensure that the problem is eliminated
- Check related circuits
- Ensure that the customer symptom is eliminated

2 HOW TO READ THE MANUAL



The repair methods given by the manufacturer in this document are based on the technical specifications, current at the time of release. The methods may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which the vehicles are assembled. The manufacturer is not responsible for any damage or loss of property caused by the use of this document by any person other than the trained personnel, at the Authorized Service Centre of Mahindra & Mahindra Ltd.

SL. NO.	LEGEND	DESCRIPTION
A		STOCK VEHICLE HARNESS/ CONNECTOR
B		PART OF COMPONENT SHOWN ON PAGE
C		ENTIRE COMPONENT SHOWN ON PAGE
D	EMS ECU	COMPONENT NAME
E	E1	CONNECTOR NUMBER
F		PART OF SPLICE SHOWN ON PAGE
G	147A W/G 18	147A - CIRCUIT NUMBER, W/G - WIRE COLOR/ STRIPE, 18 - AMERICAN WIRE GAUGE (AWG)
H		PART OF STOCK VEHICLE HARNESS/ CONNECTOR SHOWN ON PAGE
I	72	CONNECTOR PIN NUMBER
J		ENTIRE SPLICE SHOWN ON PAGE
K	30A	FUSE RATING
L		CASE GROUND
M		GROUND EYELET
		TWISTED PAIR
		ACCESSORY HARNESS/ CONNECTOR



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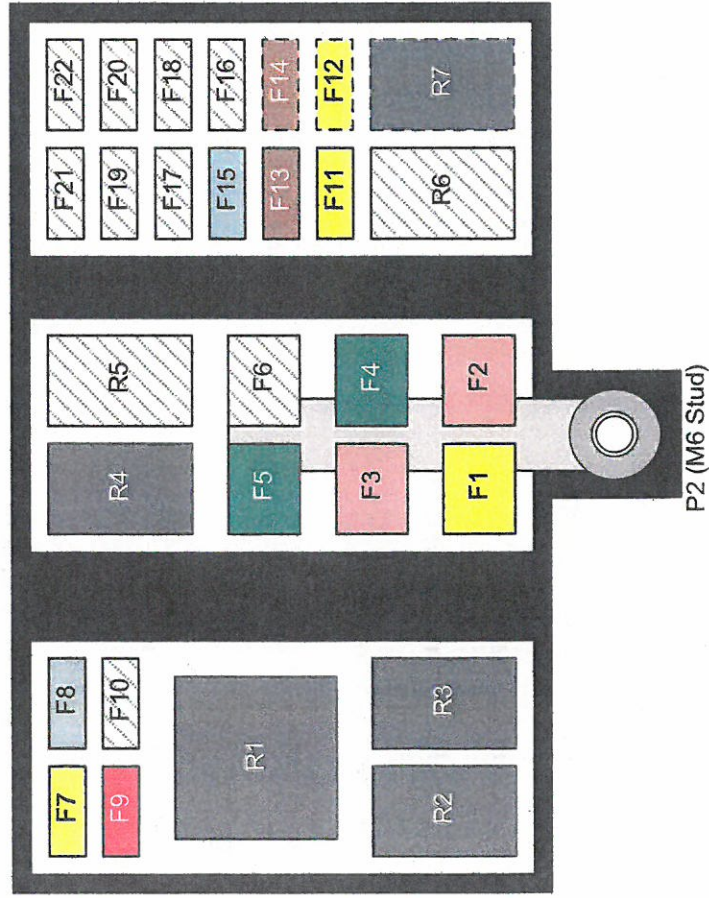
3 ABBREVIATIONS

MPDC	Main Power Distribution Center
ROPS	Roll Over Protection System
IP	Instrument Panel
EMS	Engine Management System
ECU	Electronic Control Unit
ACC	Accessory
IGN	Ignition
LED	Light Emitting Diode
IC	Inter Connector
EGR	Exhaust Gas Recirculation
LH	Left Hand
RH	Right Hand
PDC	Power Distribution Center

4 FUSE & RELAY LAYOUT

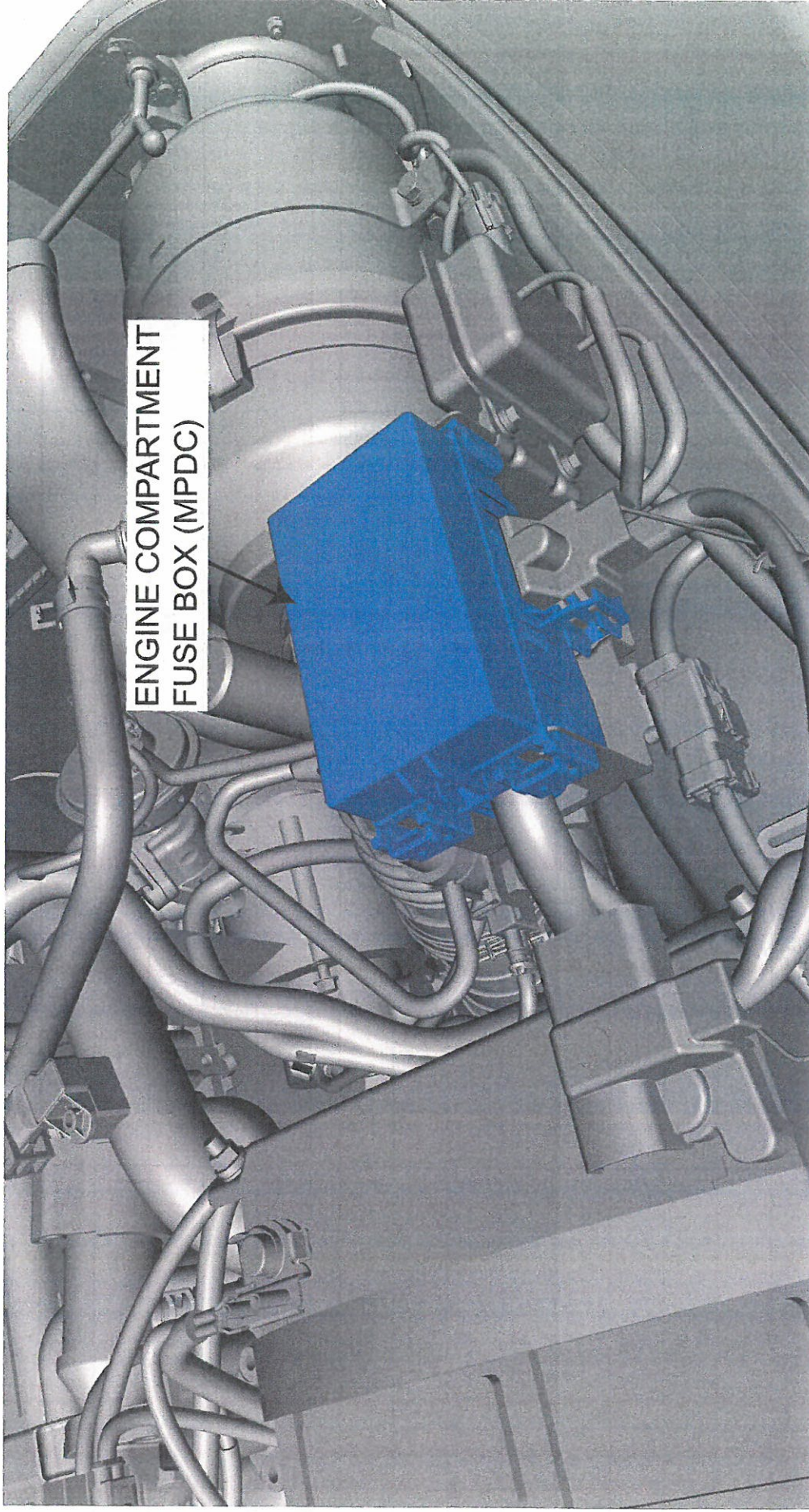
4.1 ENGINE COMPARTMENT FUSE BOX — MPDC

MAIN POWER DISTRIBUTION CENTER



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LOCATION OF ENGINE COMPARTMENT FUSE BOX - MPDC



MINI FUSES			
FUSE NO	FUSE RATING	COLOR	CIRCUIT
F7	20A	YELLOW	ECU POWER
F8	15A	BLUE	ENGINE ACCESSORIES
F9	10A	RED	BRAKE PEDAL FEED
F11	20A	YELLOW	HIGH BEAM
F12	20A	YELLOW	FRONT LED LIGHTS
F13	5A	BROWN	REVERSE LIGHTS
F14	5A	BROWN	FRONT FENDER LED'S
F15	15A	BLUE	FUEL FEED PUMP

J CASE FUSES			
FUSE NO	FUSE RATING	COLOR	CIRCUIT
F1	60A	YELLOW	MAIN PDC FUSE FEED
F2	30A	PINK	STARTER SOLENOID
F3	30A	PINK	ECU AUTO SHUT DOWN
F4	40A	GREEN	IP PDC MINI FUSE FEED
F5	40A	GREEN	IP ACCESSORIES FEED

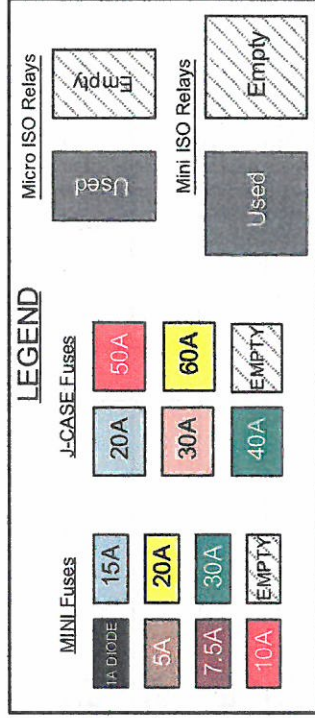
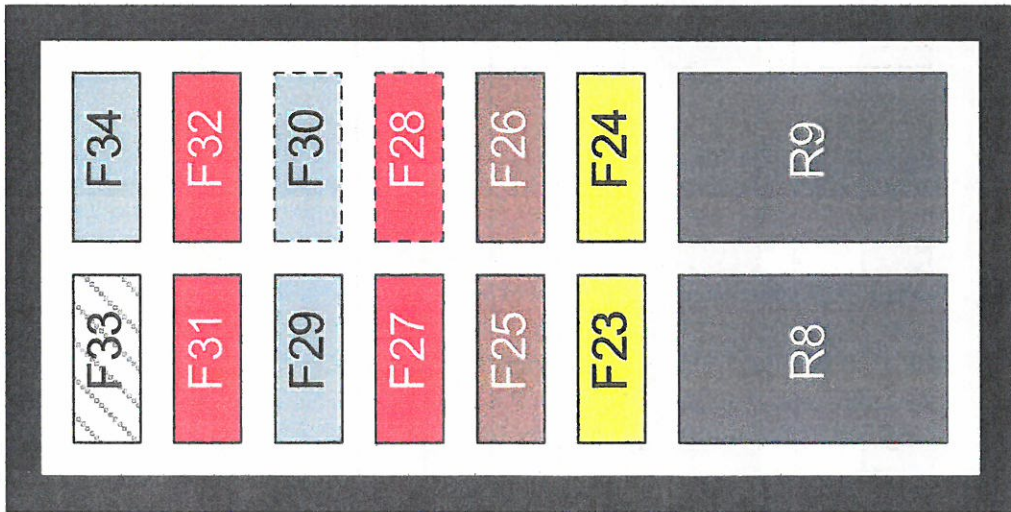
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MINI ISO RELAYS		
RELAY NO	COLOR	CIRCUITS
R1	GREY	MAIN RELAY

MICRO ISO RELAYS		
RELAY NO	COLOR	CIRCUITS
R2	GREY	STARTER SOLENOID
R3	GREY	FUEL FEED PUMP
R4	GREY	HIGH BEAMS
R7	GREY	FRONT LED LIGHTS

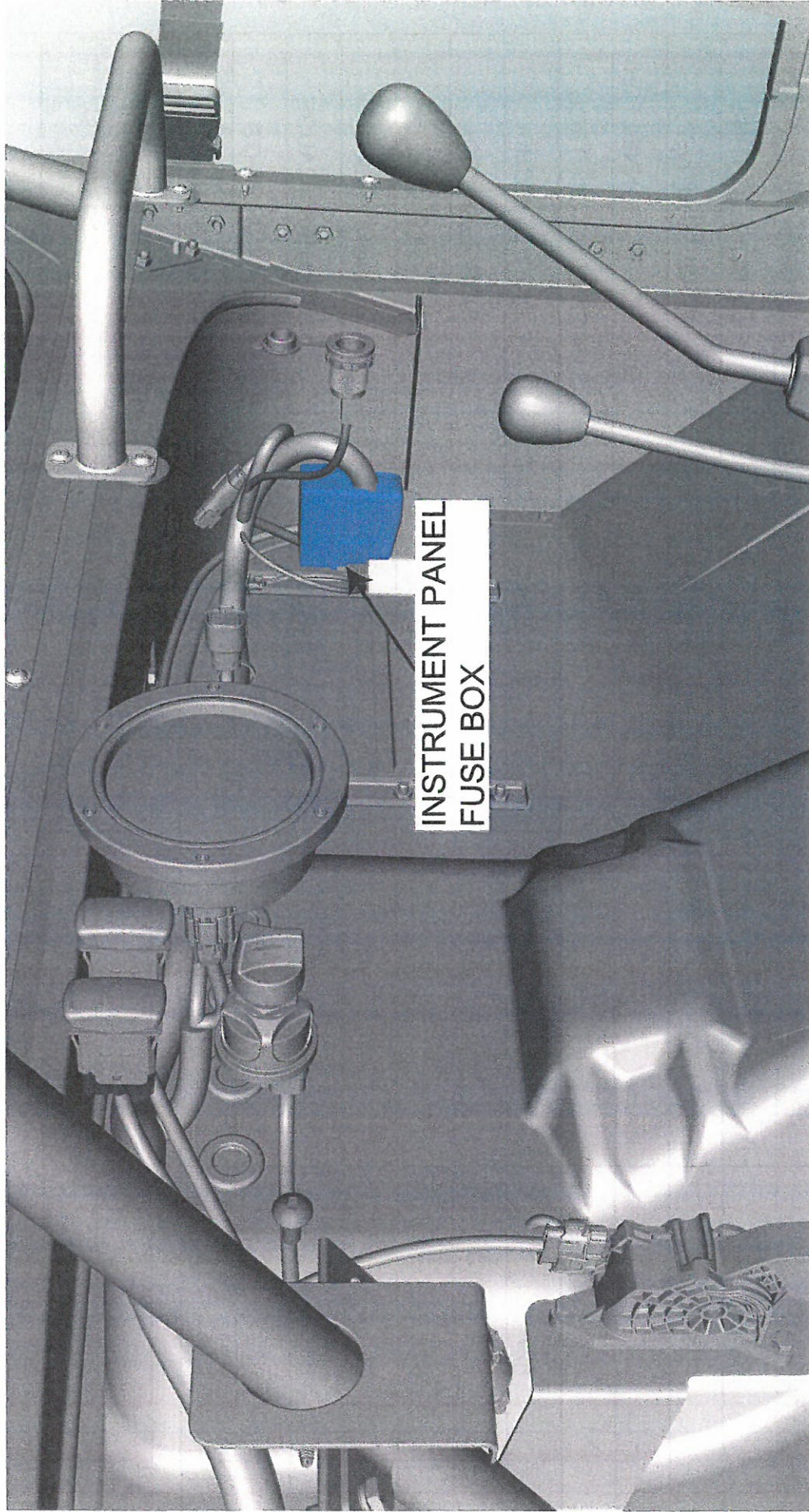
4.2 INSTRUMENT PANEL FUSE BOX

IP POWER DISTRIBUTION CENTER



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LOCATION OF INSTRUMENT PANEL FUSE BOX

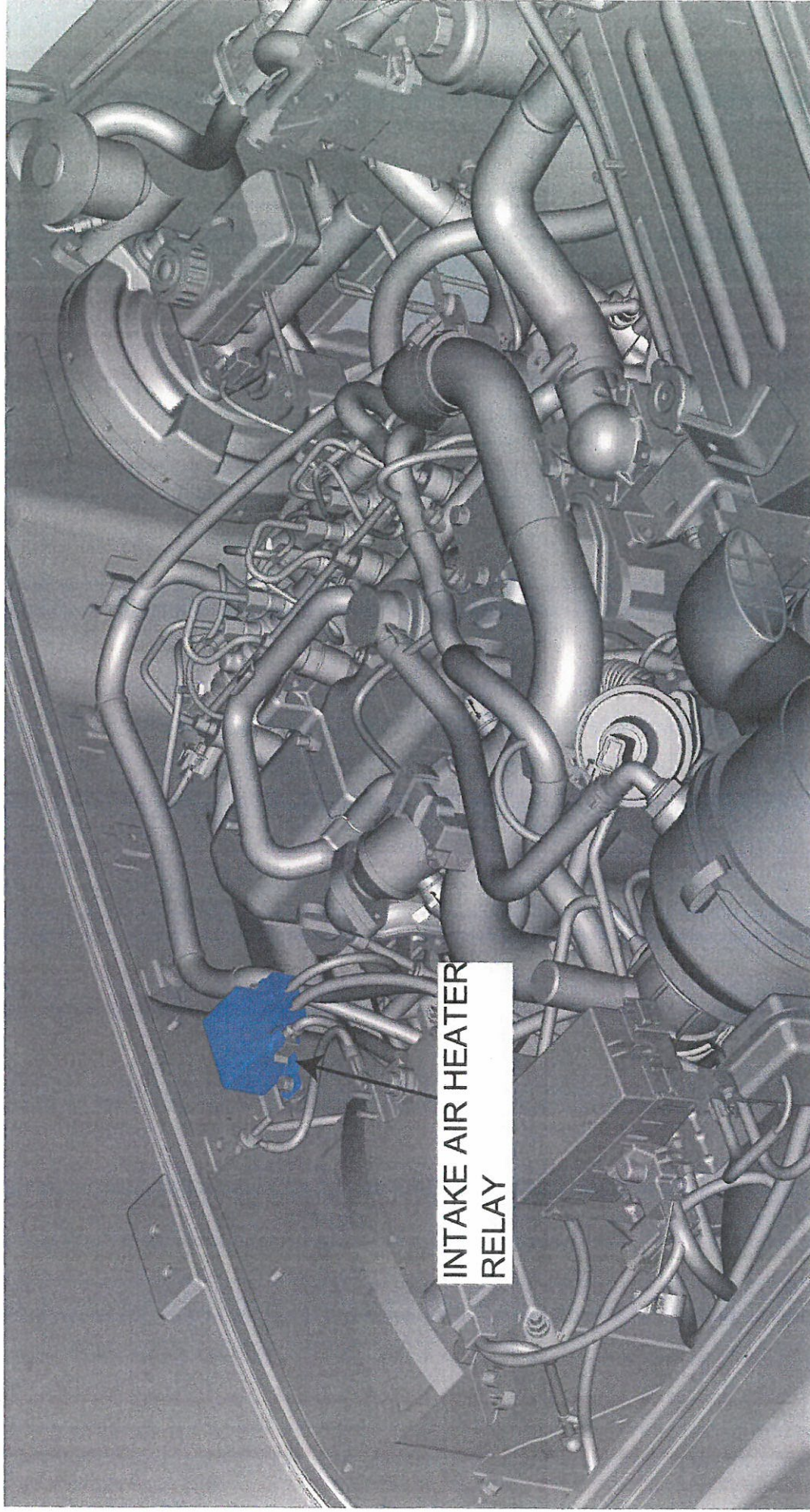


MINI FUSES			
FUSE NO	FUSE RATING	COLOR	CIRCUIT
F23	20A	YELLOW	EXTERIOR LIGHTING
F24	20A	YELLOW	POWER OUTLET
F25	5A	BROWN	DIAGNOSTIC CONNECTOR
F26	5A	BROWN	HIGH BEAM CONTROL
F27	10A	RED	KEY SWITCH
F28	10A	RED	SIDE/REAR LEDS
F29	15A	BLUE	HORN
F30	15A	BLUE	SOUND BAR
F31	10A	RED	INSTRUMENT GAUGE
F32	10A	RED	PARKING LIGHTS
F34	15A	BLUE	LOW BEAMS

MICRO ISO RELAYS	
RELAY NO	COLOR
R8	GREY
R9	GREY

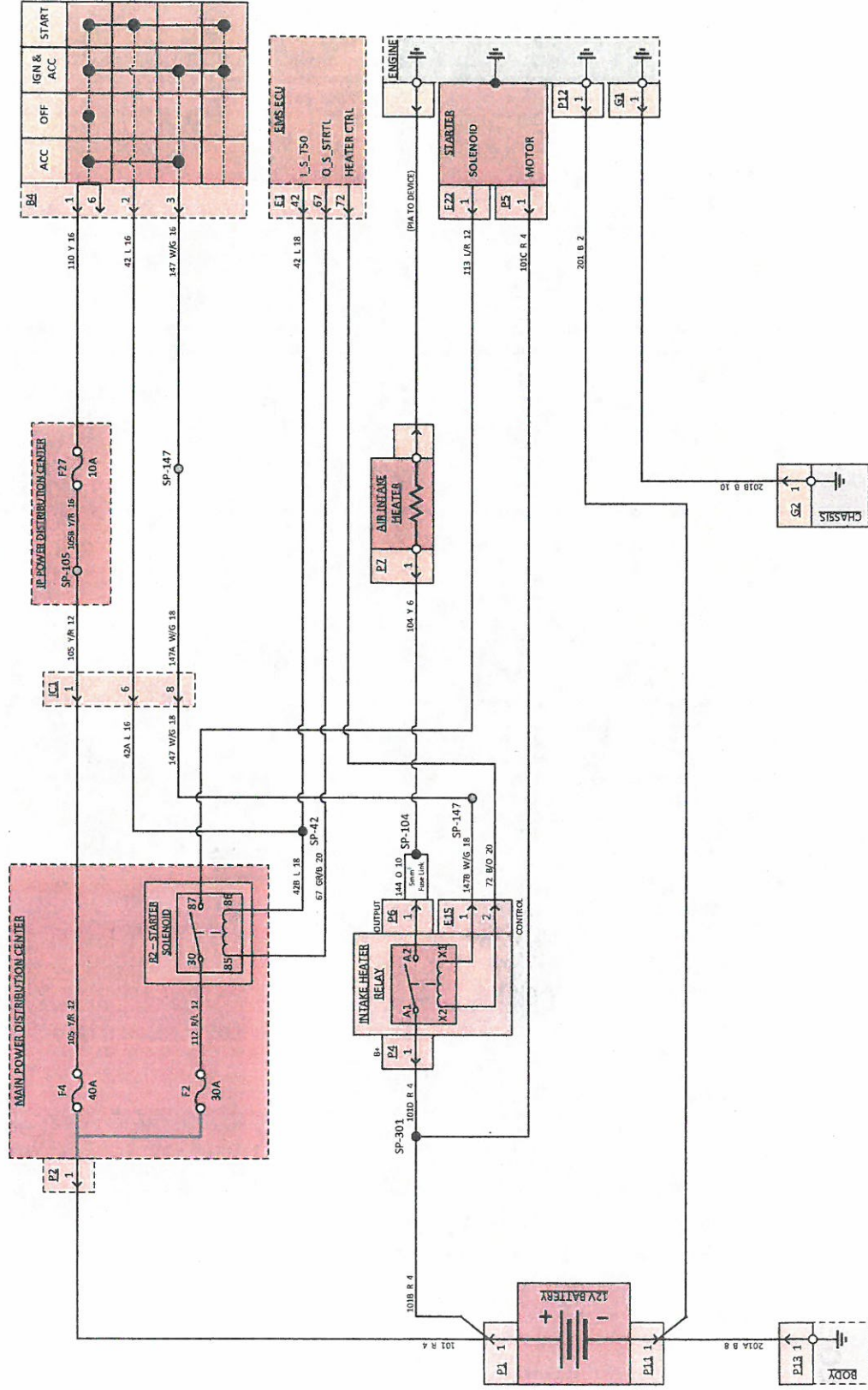
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4.3 LOCATION OF INTAKE HEATER RELAY



5 SYSTEM CIRCUITS

5.1 STARTING CIRCUIT



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5.2 CHARGING CIRCUIT

