



Mahindra

MAN - 00222

WIRING MANUAL **BOLERO MAXITRUCK PLUS** **m2DiCR** **BS III & BS IV**

BOLERO **MAXITRUCK** **PLUS**



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ABOUT THE WIRING MANUAL

The wiring manual outlines complete electrical network plan of the **Mahindra Bolero Maxitruck Plus** vehicle. Wiring diagrams are technical drawings representing the electrical / electronic structure of the vehicle.

Understanding this manual is the quickest way to identify and repair a trouble, first time right. The manual defines as to how the various systems are integrated and works, functions and operates. All the electrical components are shown, including their locations, colours of connecting wires and connectors.

The manual is structured as below:-

Components locations – indicates schematically the location of the crucial components like fuses, relays and controllers (ECUs).

Fuse layouts – indicates the physical layout of the fuse in the vehicle.

Wiring diagrams – system wise individual wiring diagrams.

Ground points – specifies the location of the various grounding points across the vehicle body.

Harness layout – indicates the physical layout of the wiring harness across the topography of the vehicle. It also indicates the connectors, their codes/ locations and terminal connectors face views.

Inter- harness connectors – specifies the code, location and pin- out view of the connectors in between separate wiring harnesses.

GOOD ELECTRICAL/ELECTRONIC TROUBLESHOOTING PROCESS

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

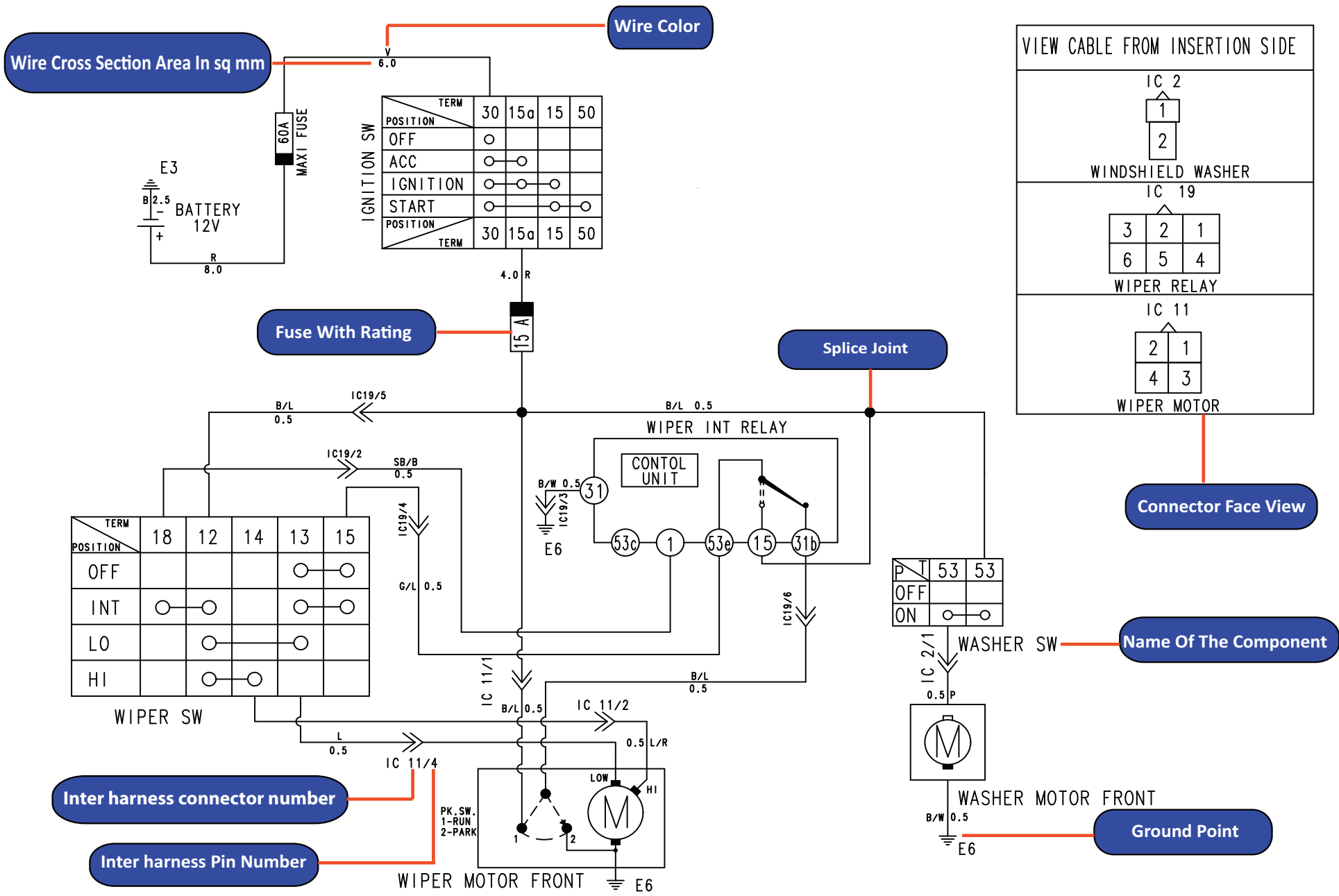
- Make a circuit test to check the diagnosis
- Narrow down the probable causes using troubleshooting charts/diagnosis charts

STEP 4 – Repair the problem

- Make necessary repairs as authorized

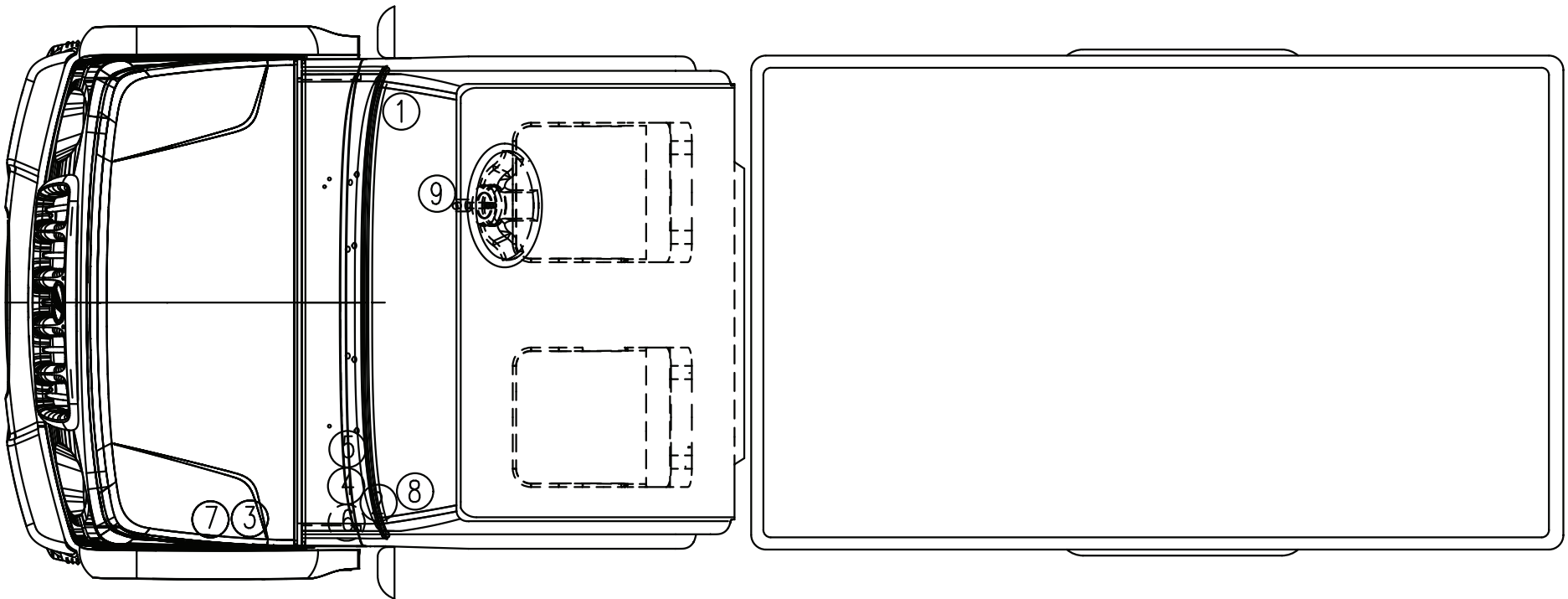
STEP 5 – Re-check the circuit

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



NO.	FUSE DETAIL
1	MAIN FUSEBOX
2	ECU FUSEBOX
3	MAXXIFUSE
4	ECU MAIN RELAY
5	FEEDPUMP RELAY

NO.	RELAY DETAIL
6	GNS RELAY
7	STARTER RELAY
8	EMS ECU
9	IMMOBILIZER CONTROLLER



① MAIN FUSEBOX DETAILS

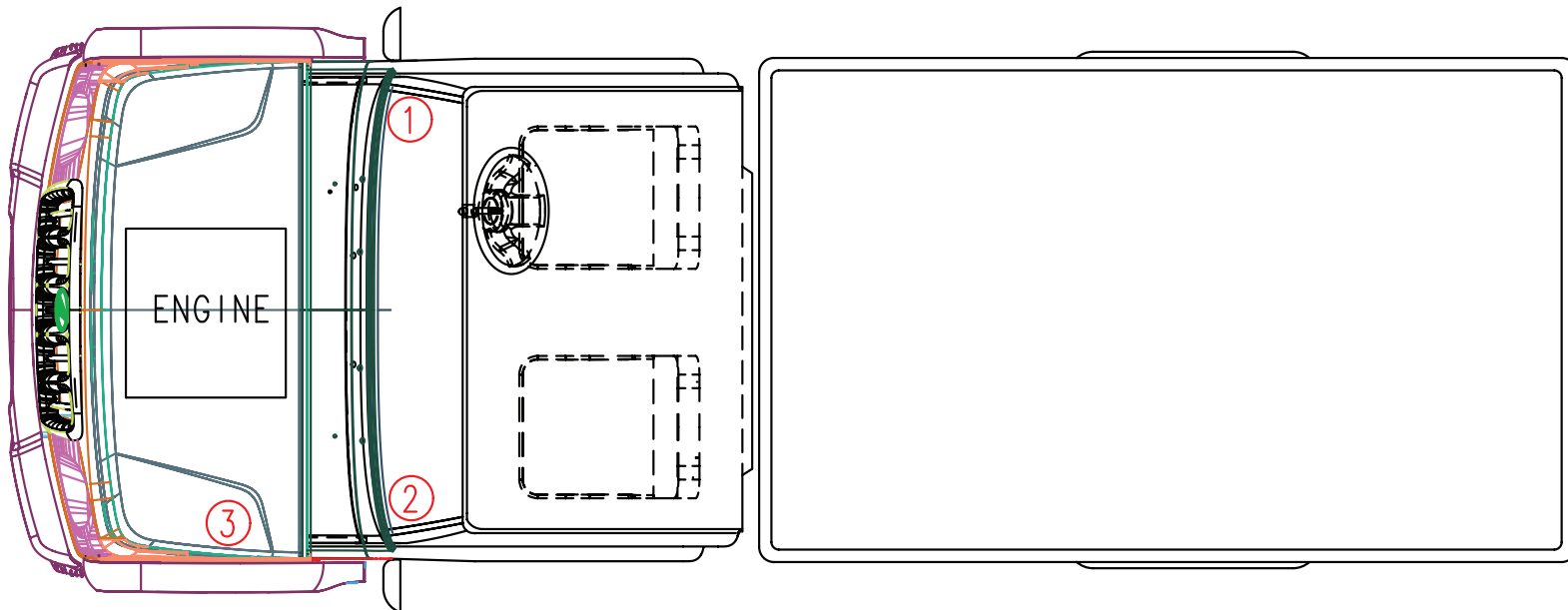
NO.	FUNCTION NAME	RATING	COLOUR	MAKE	NO.	FUNCTION NAME	RATING	COLOUR	MAKE
1	ACC	10A	RED	PACIFIC	10	HORN & STOP LAMP	15A	BLUE	PACIFIC
2	ROOF & ENGINE COMPARTMENT LAMP	15A	BLUE	PACIFIC	11	ECU	15A	BLUE	PACIFIC
3	WIPER & WASHER	15A	BLUE	PACIFIC	12	HAZARD	15A	BLUE	PACIFIC
4	---	---	---	---	13	HEAD LAMP HI BEAM	15A	BLUE	PACIFIC
5	PARK LAMP	10A	RED	PACIFIC	14	HEAD LAMP LOW BEAM	15A	BLUE	PACIFIC
6	STEREO/EGR	7.5A	BROWN	PACIFIC		SPARE (AVAILABLE IN FUSEBOX LID)	15A	BLUE	PACIFIC
7	CIGAR LIGHTER/MOBILE CHARGER	15A	BLUE	PACIFIC		SPARE (AVAILABLE IN FUSEBOX LID)	10A	RED	PACIFIC
8	FOG LAMP	15A	BLUE	PACIFIC		SPARE (AVAILABLE IN FUSEBOX LID)	7.5A	BROWN	PACIFIC
9	TURN SIGNAL & REVERSE LAMP	15A	BLUE	PACIFIC					

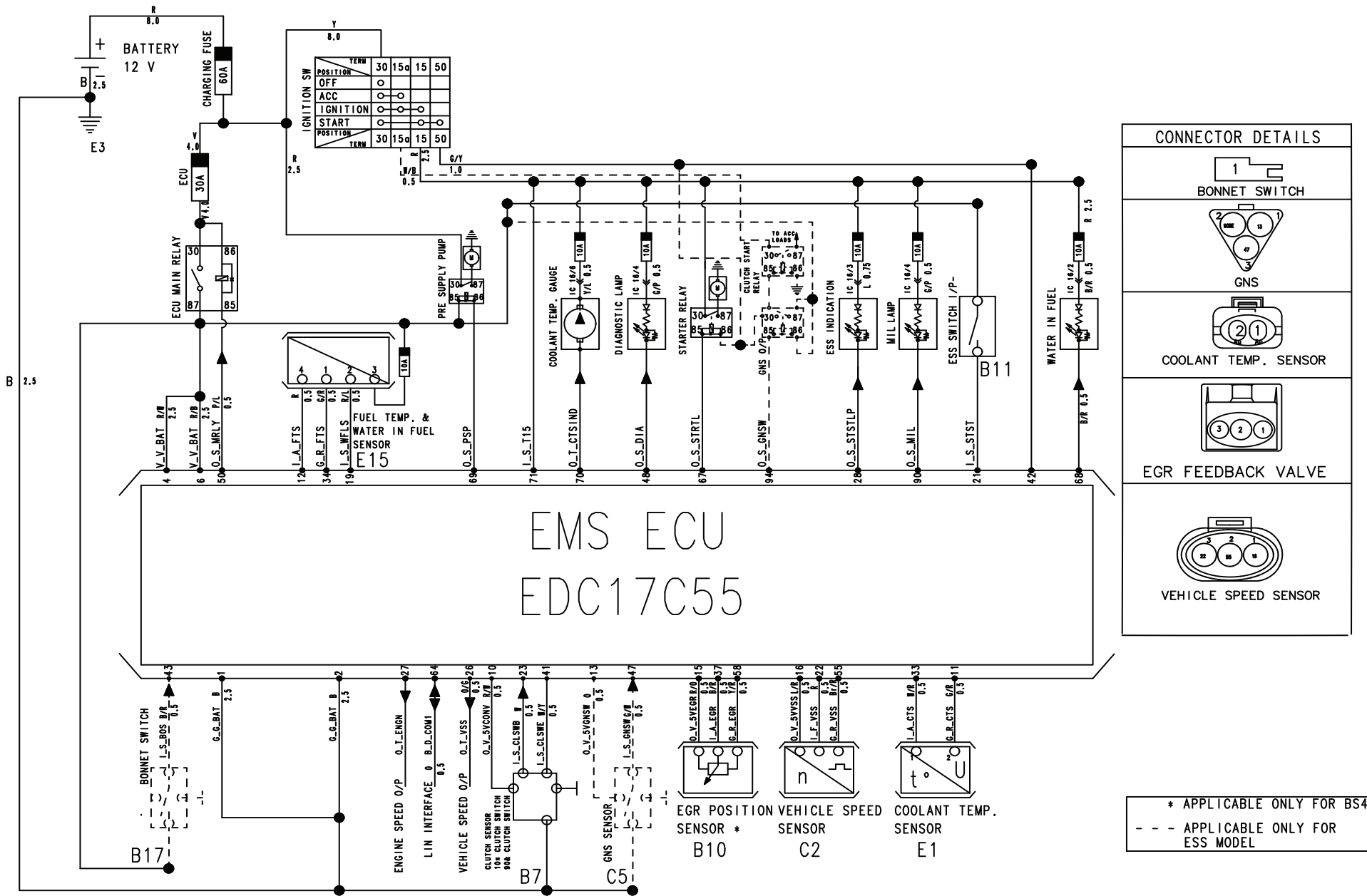
② ECU FUSEBOX DETAILS

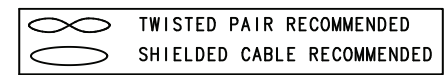
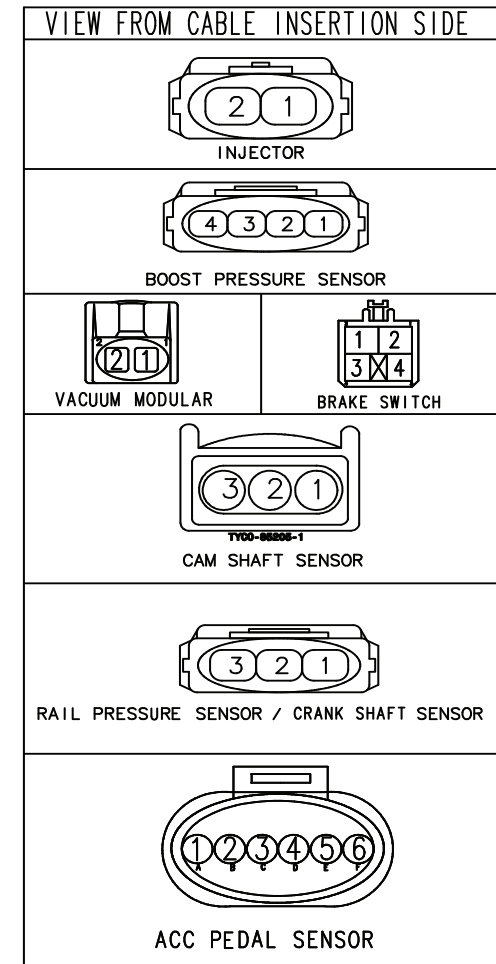
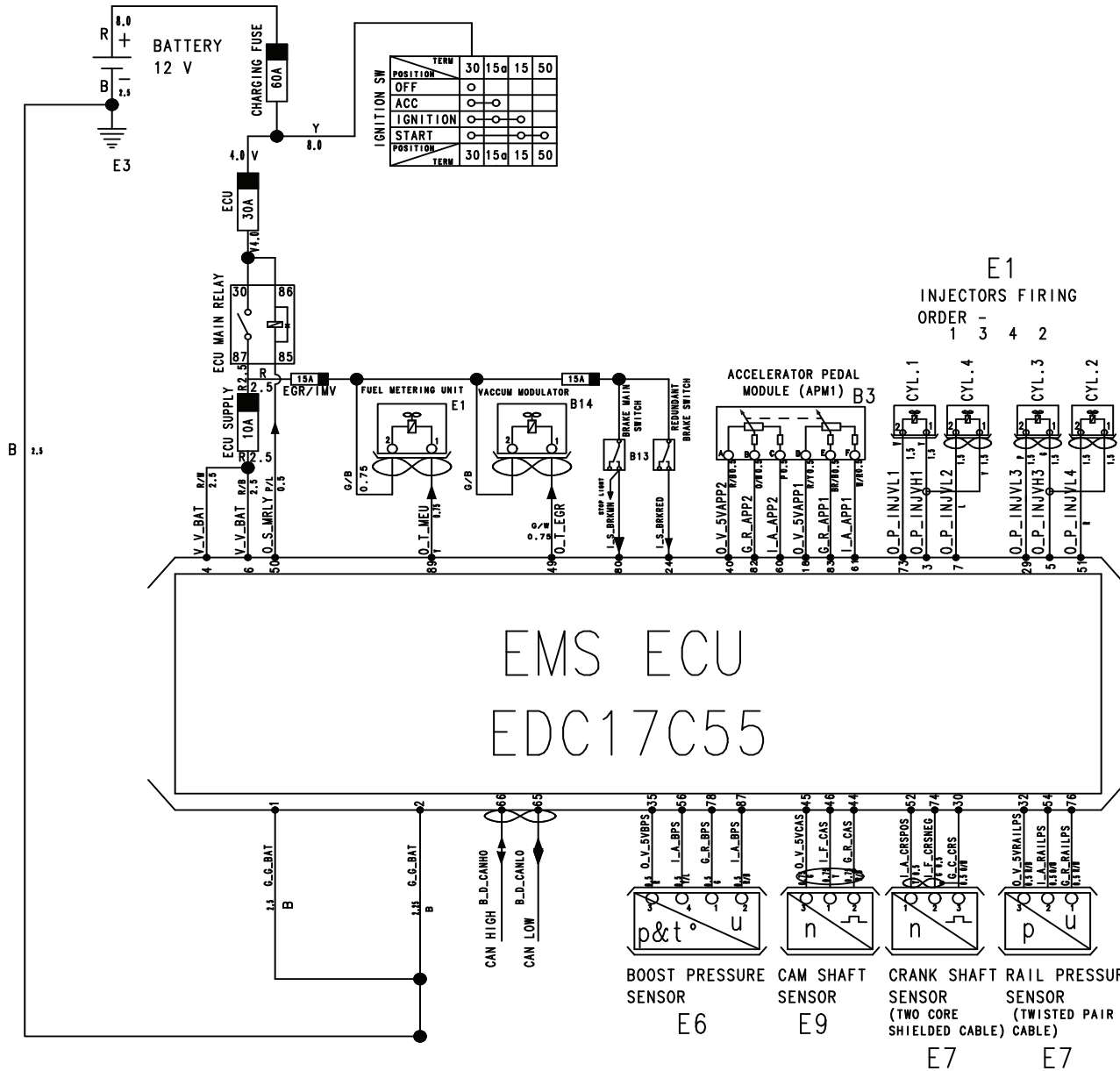
NO.	FUNCTION NAME	RATING	COLOUR	MAKE
1	EGR ACTUATOR/IMV	15A	BLUE	PACIFIC
2	ECU SUPPLY	10A	RED	PACIFIC
3	FUEL PUMP RELAY	15A	BLUE	PACIFIC
4	CLUSTER	10A	RED	PACIFIC
5	BRAKE SWITCH	15A	BLUE	PACIFIC
6	MODE SELECTION/GNS	10A	RED	PACIFIC
7	SPARE	10A	RED	PACIFIC
8	SPARE	15A	BLUE	PACIFIC

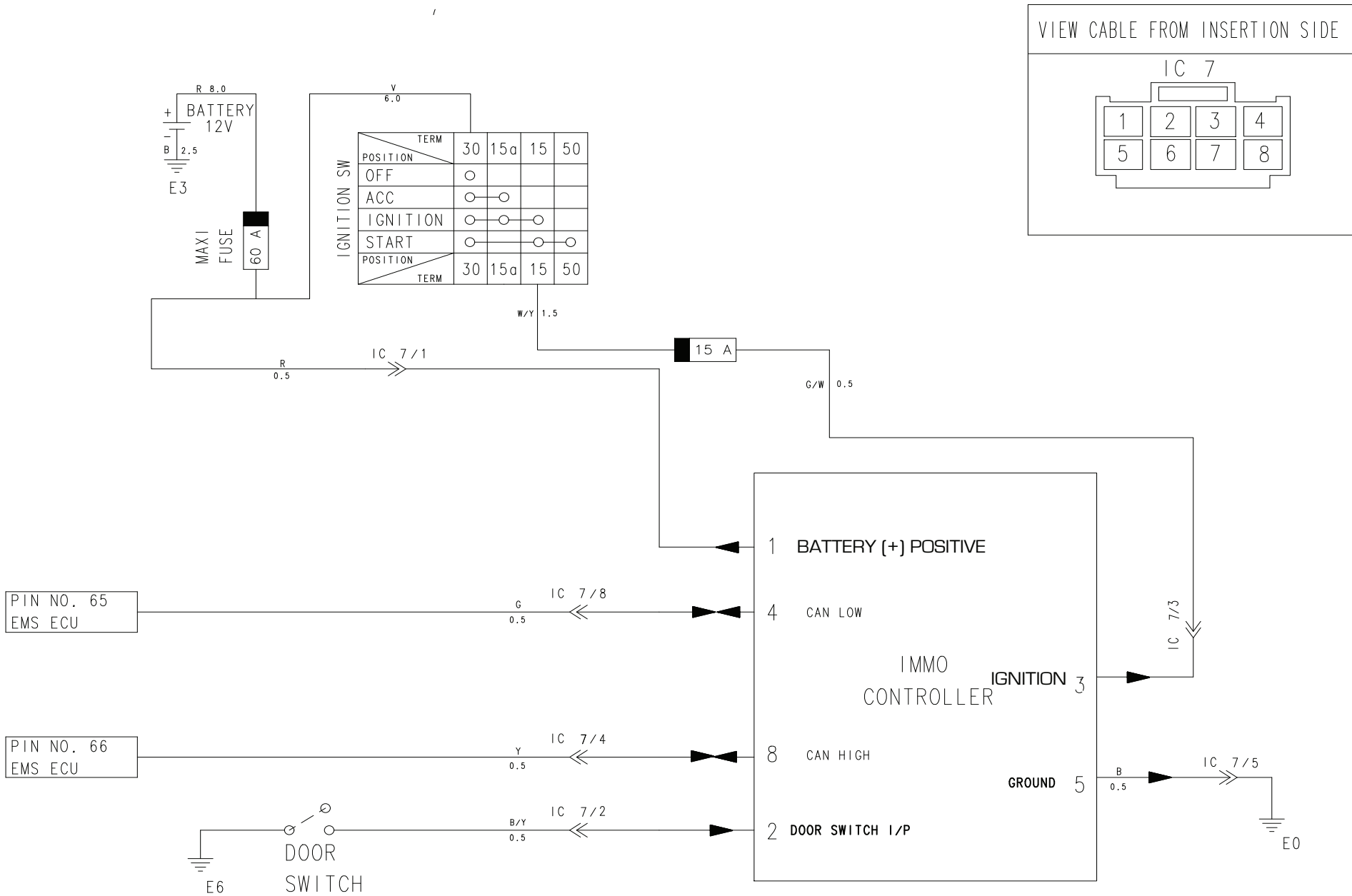
③ MAXI FUSE

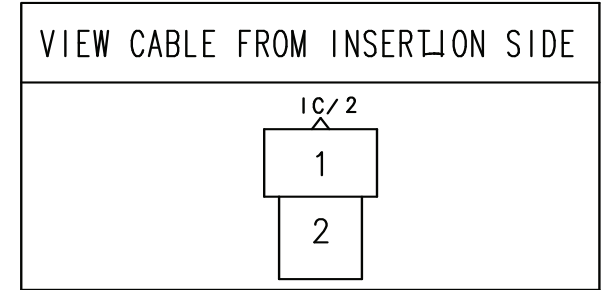
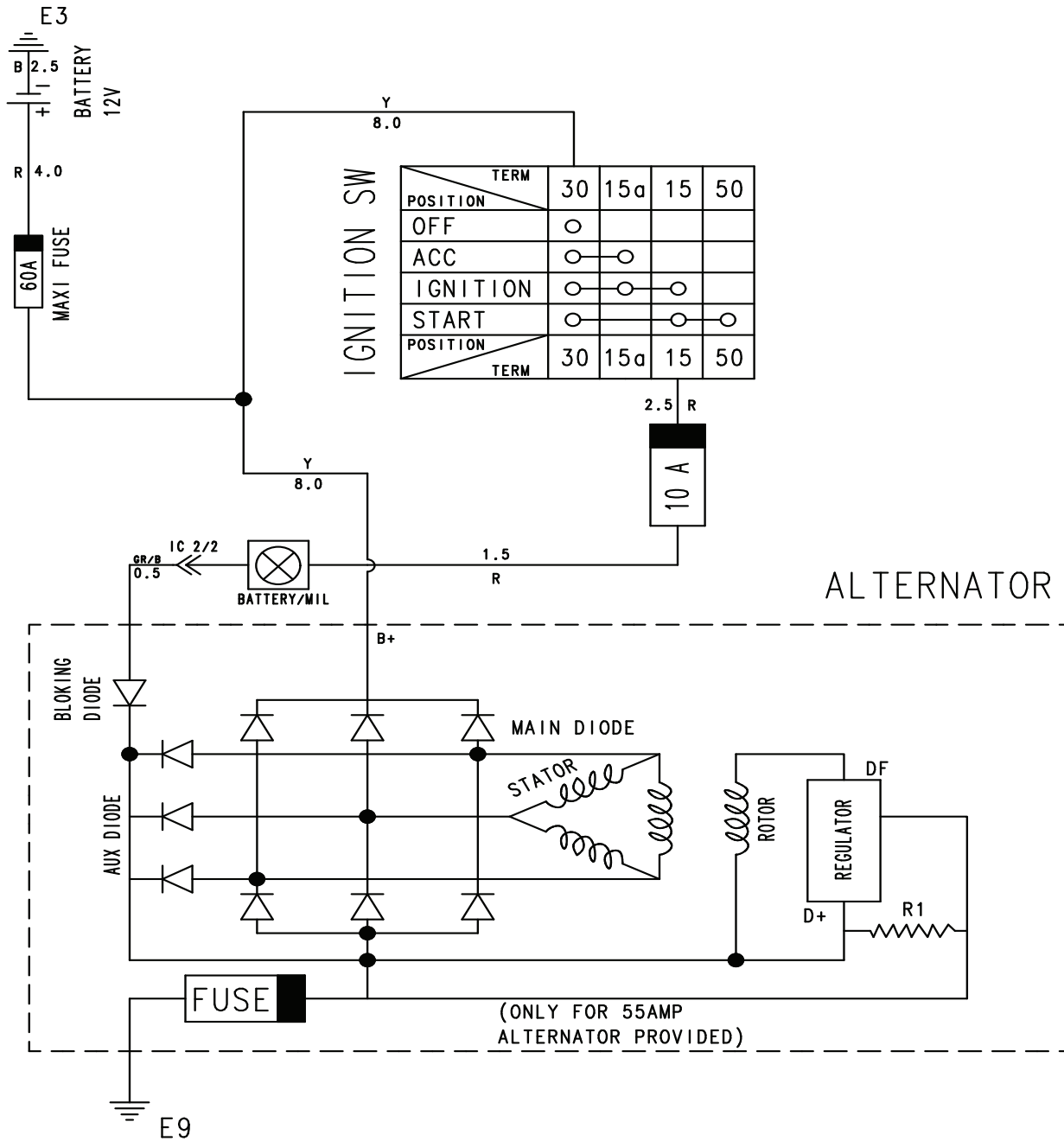
1	STARTER RELAY FUSE	60A	YELLOW	PACIFIC
2	ECU MAIN RELAY FUSE	30A	PINK	PACIFIC

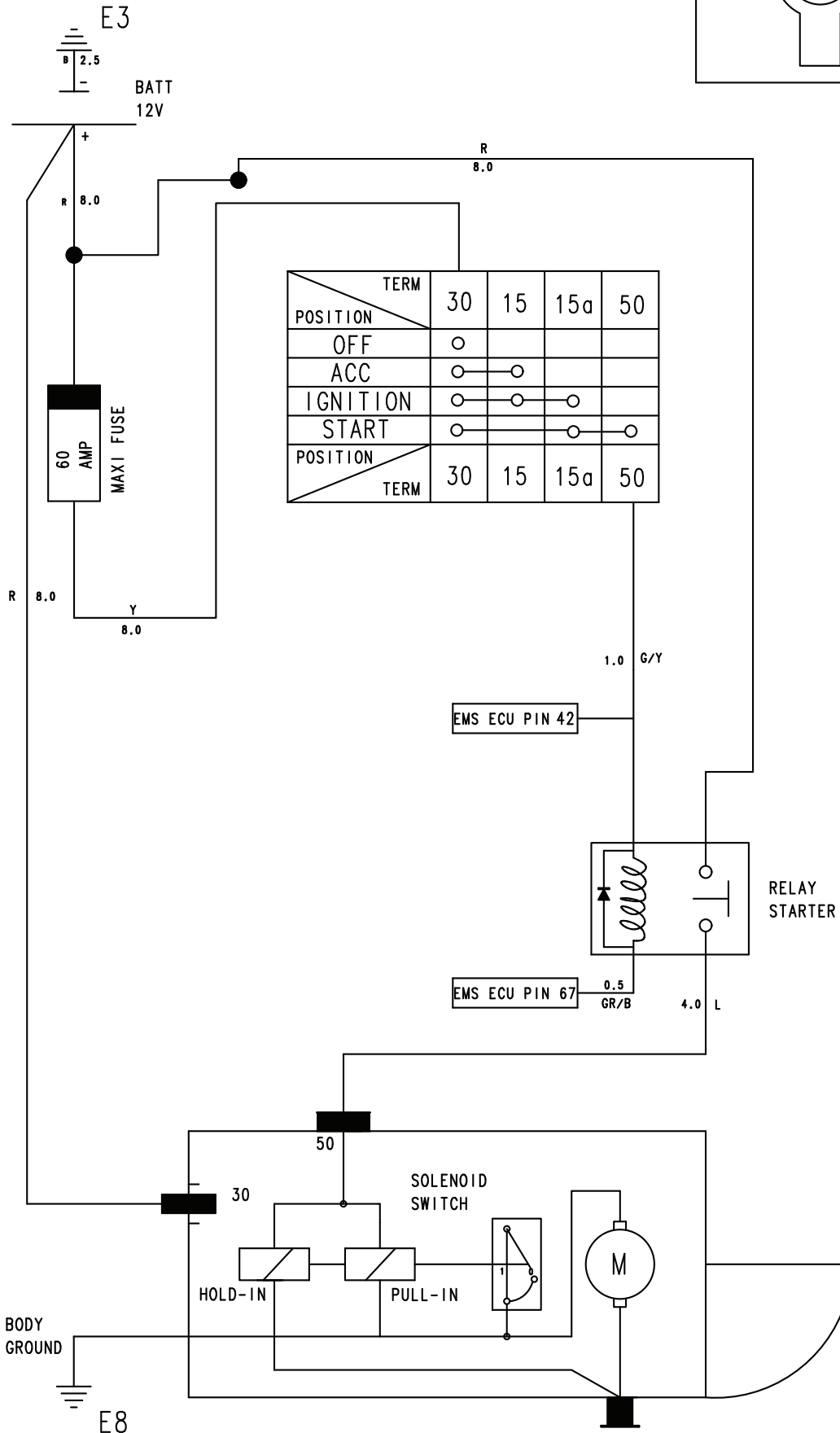
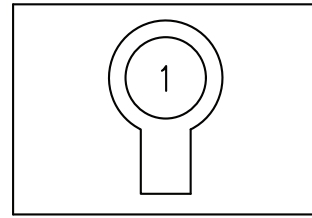












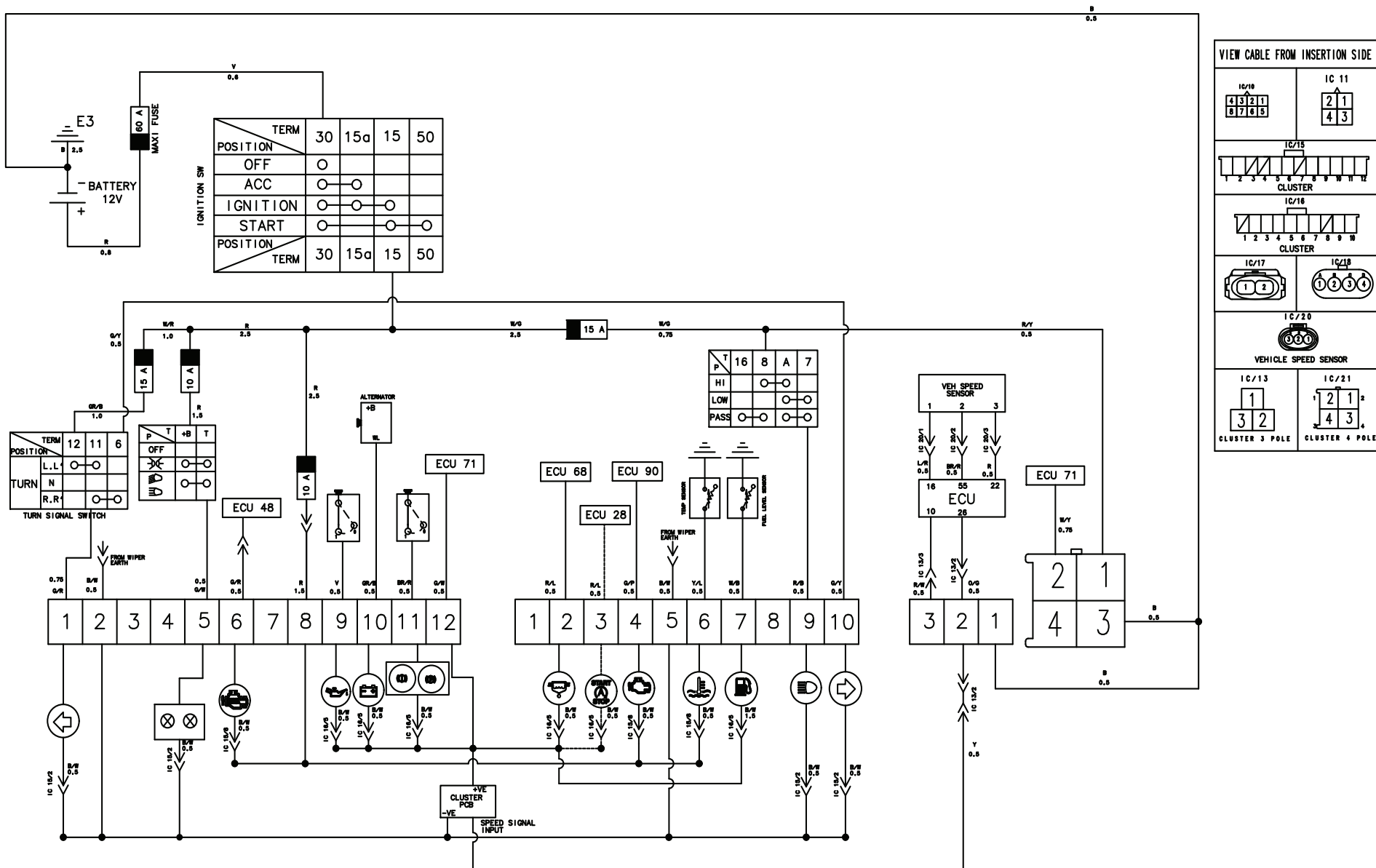


- 1. BRAKE FLUID / PARK BRAKE
- 2. CHECK ENGINE LAMP
- 3. LEFT TURN INDICATOR
- 4. WATER IN FUEL WARNING

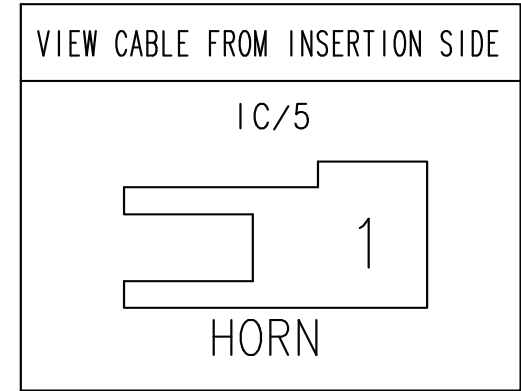
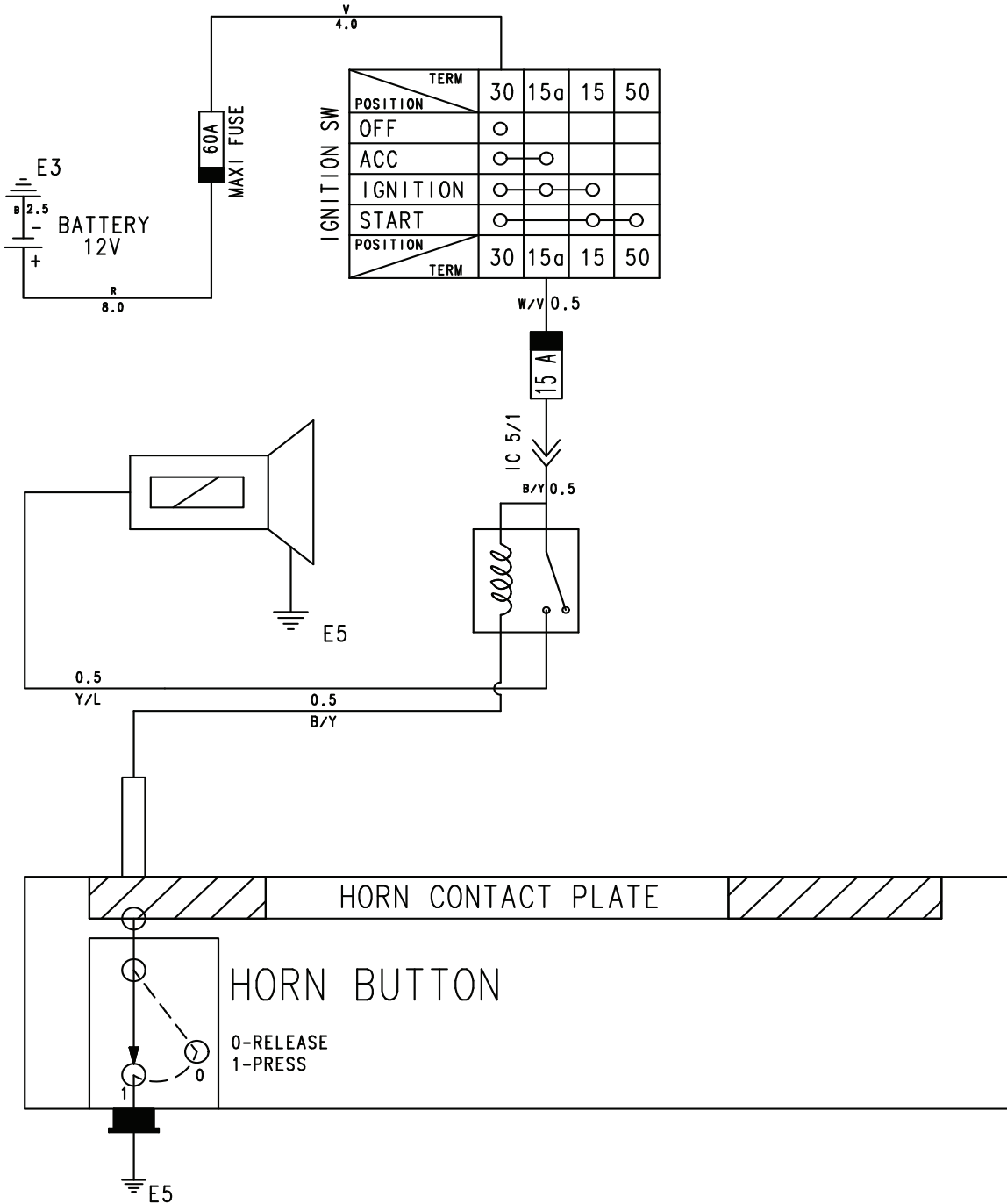
- 5. BATTERY CHARGE WARNING
- 6. LOW OIL PRESSURE WARNING
- 7. ENGINE TEMPERATURE WARNING
- 8. HIGH BEAM HEADLAMP

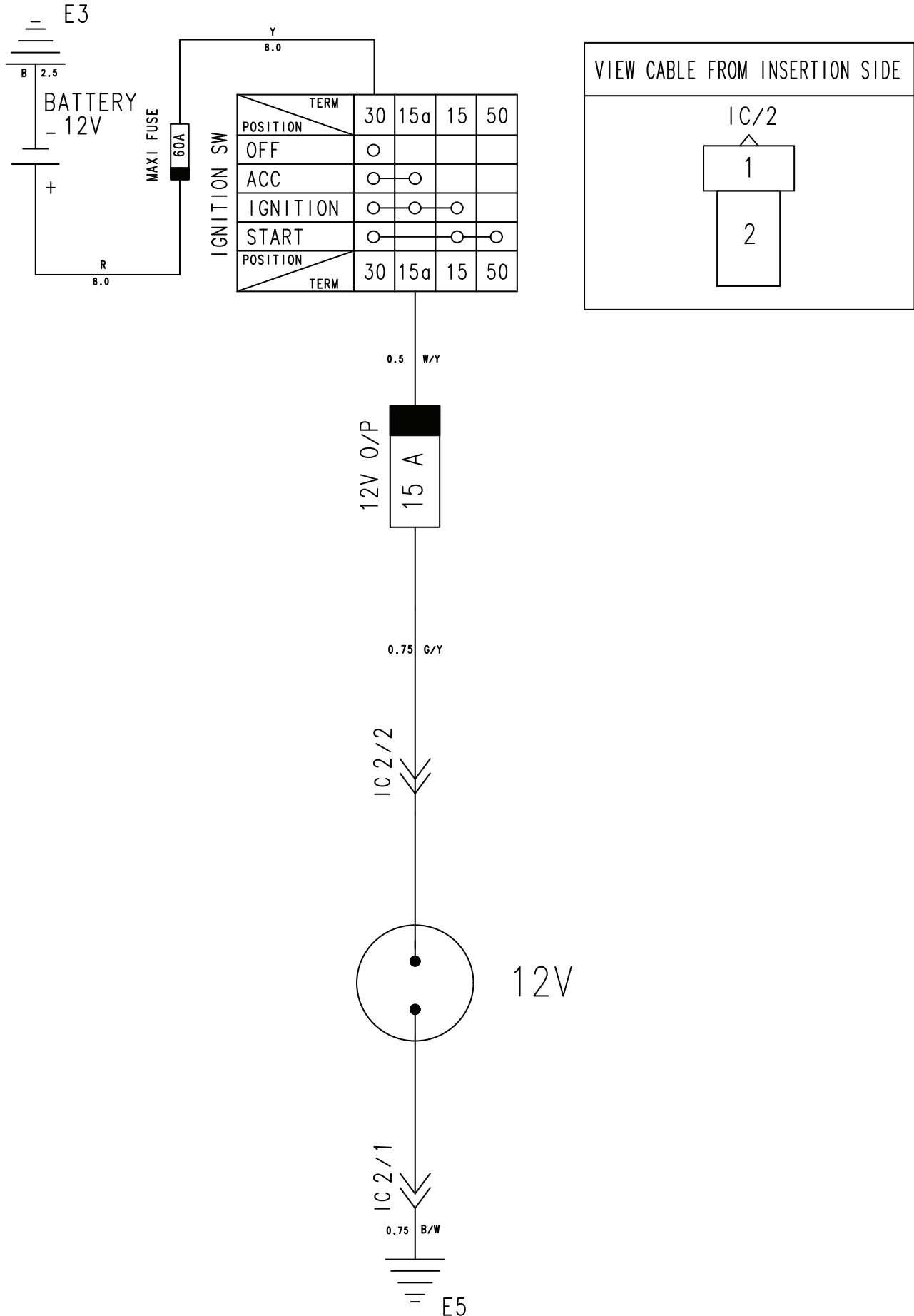
- 9. RIGHT TURN INDICATOR
- 10. OBD LAMP
- 11. FUEL GAUGE
- 12. ODOMETER

- 13. START/ STOP INDICATOR
- 14. TEMPERATURE GAUGE

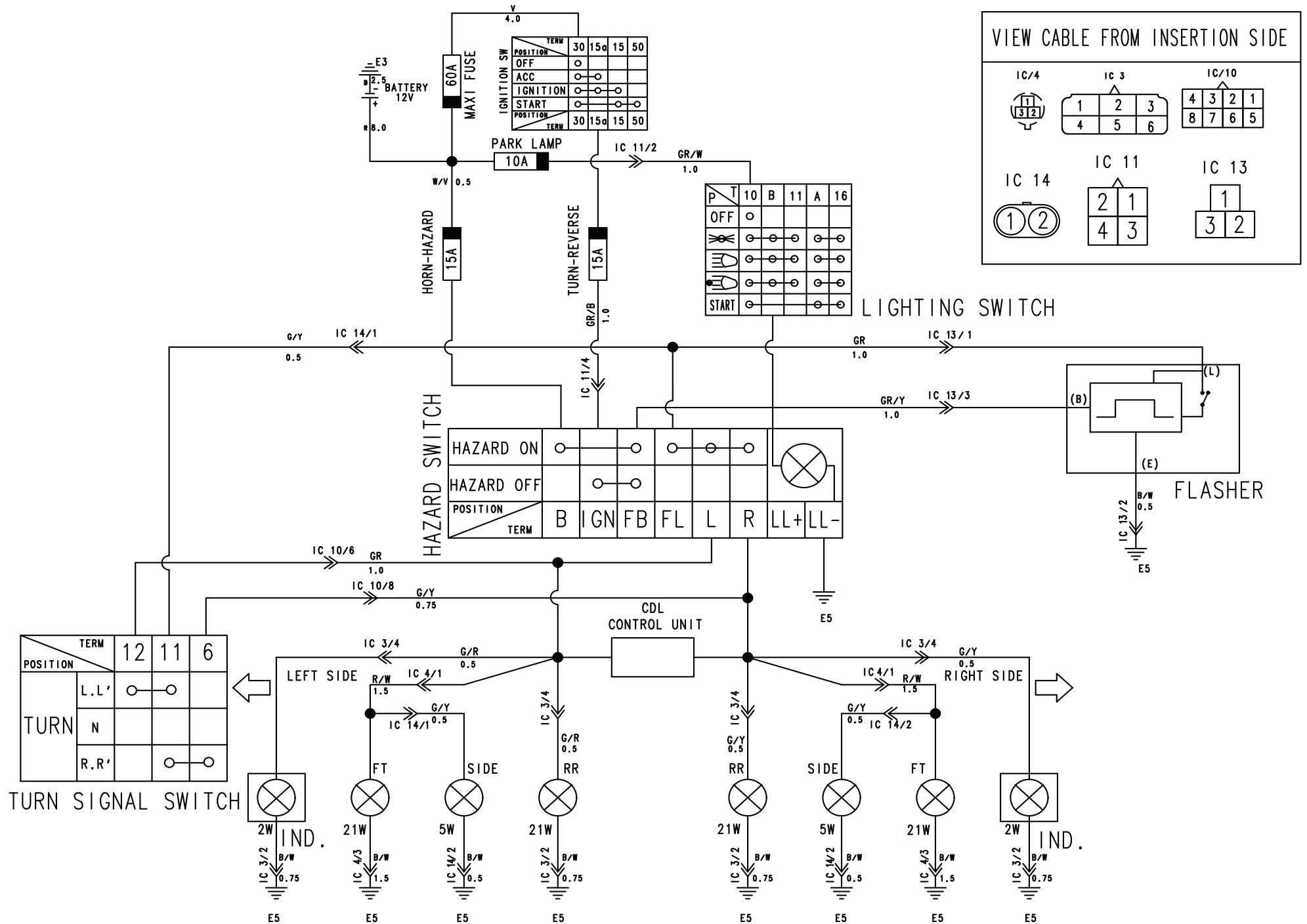


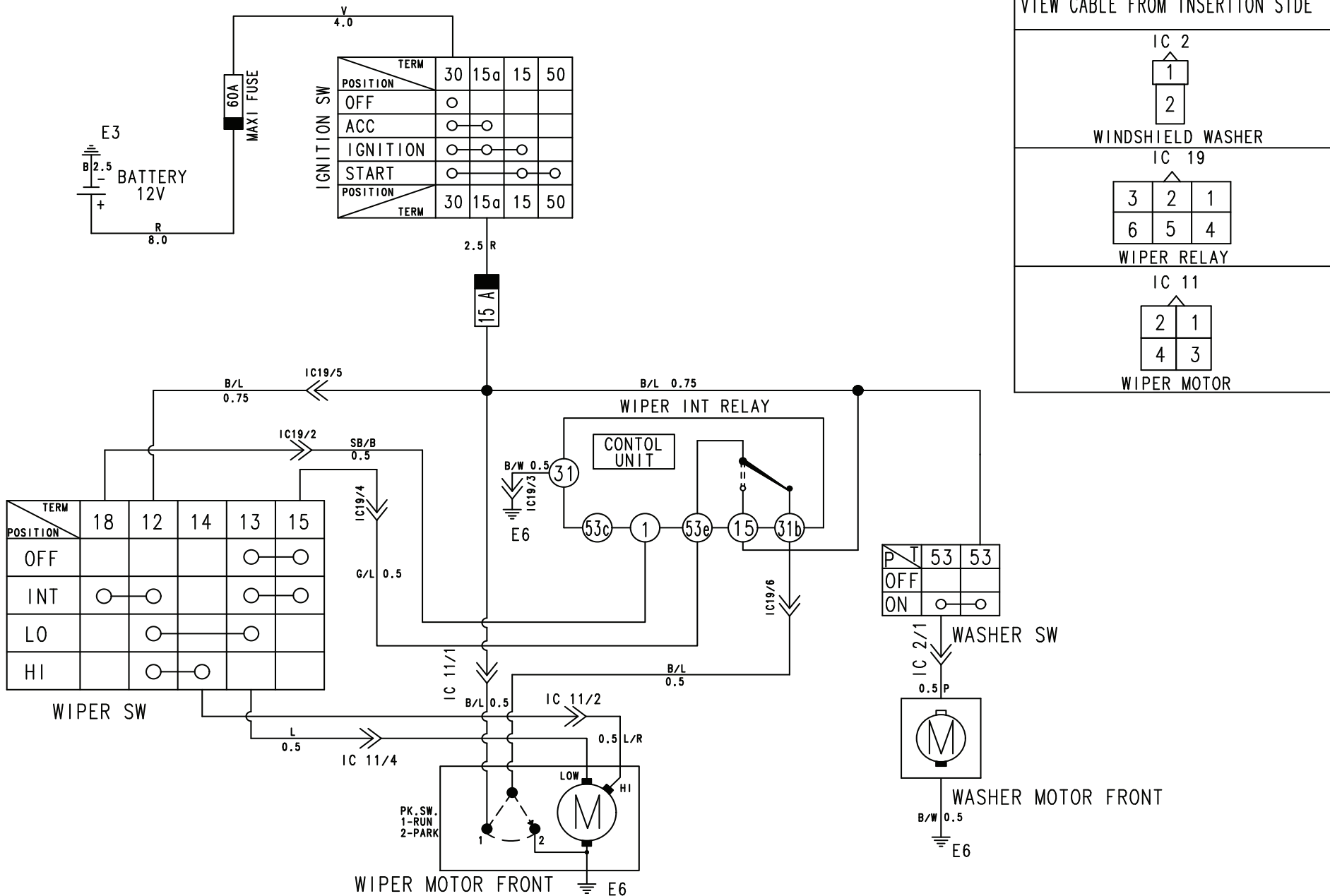
————— APPLICABLE FOR ESS MODEL ONLY

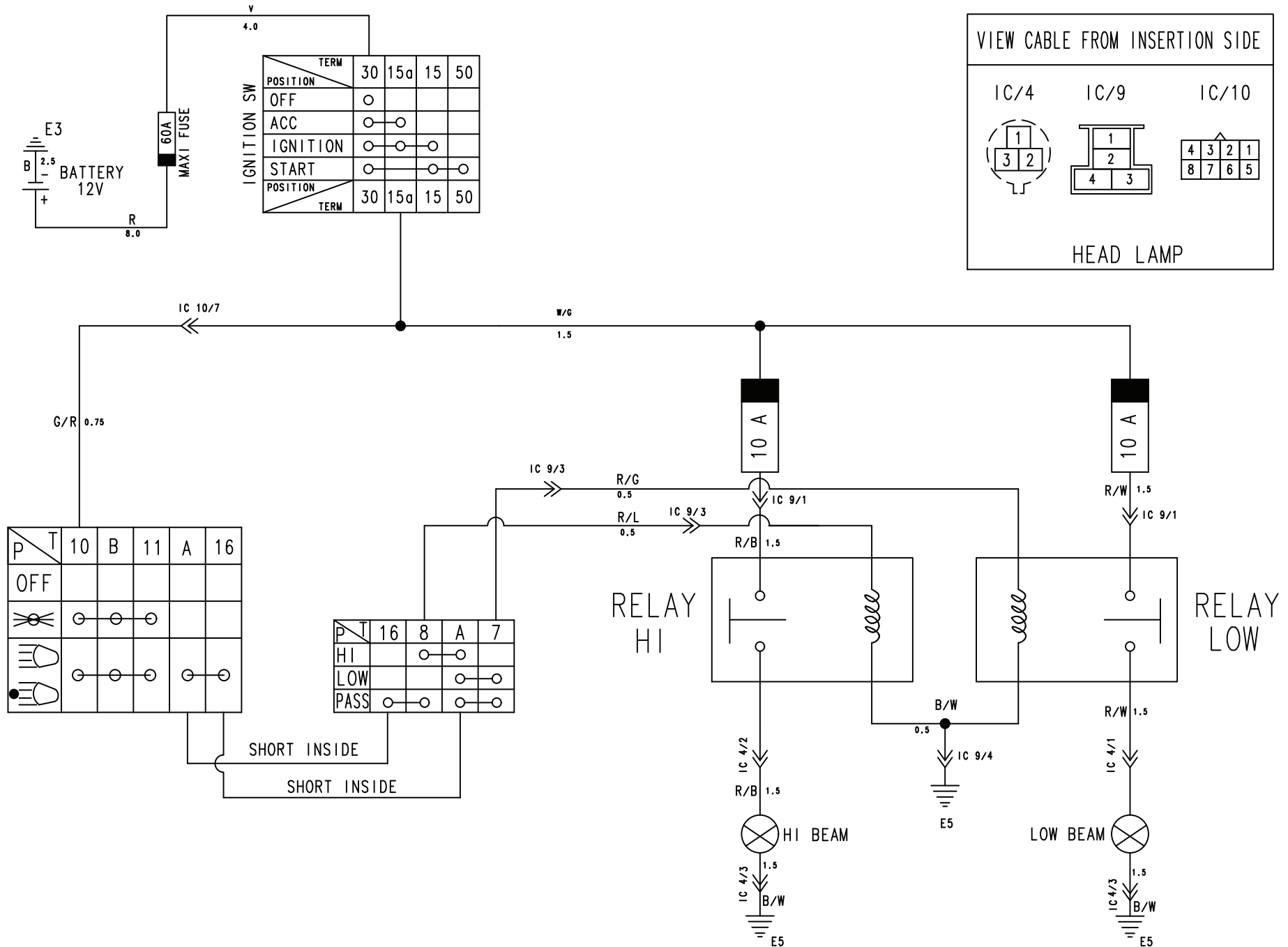


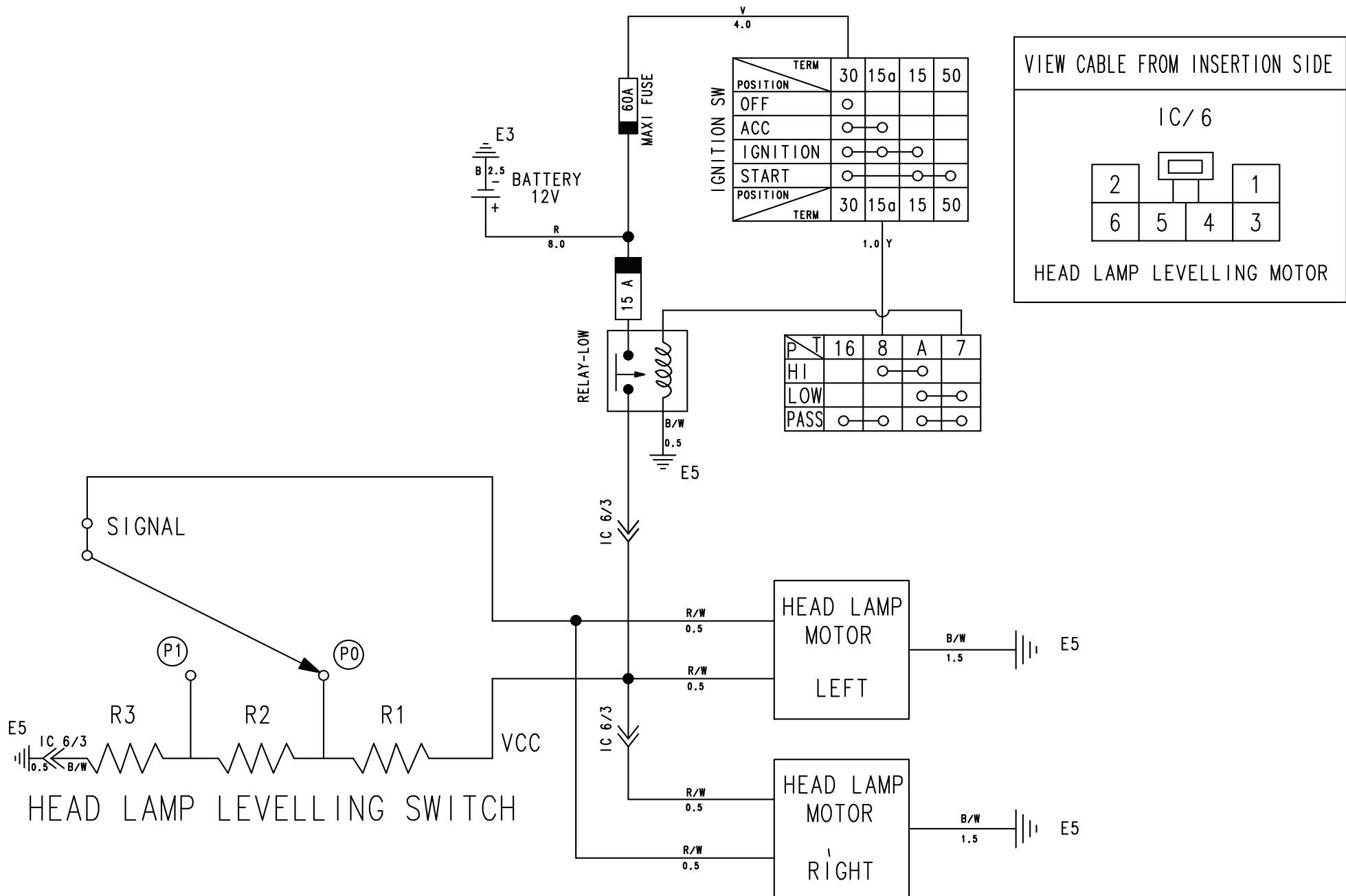


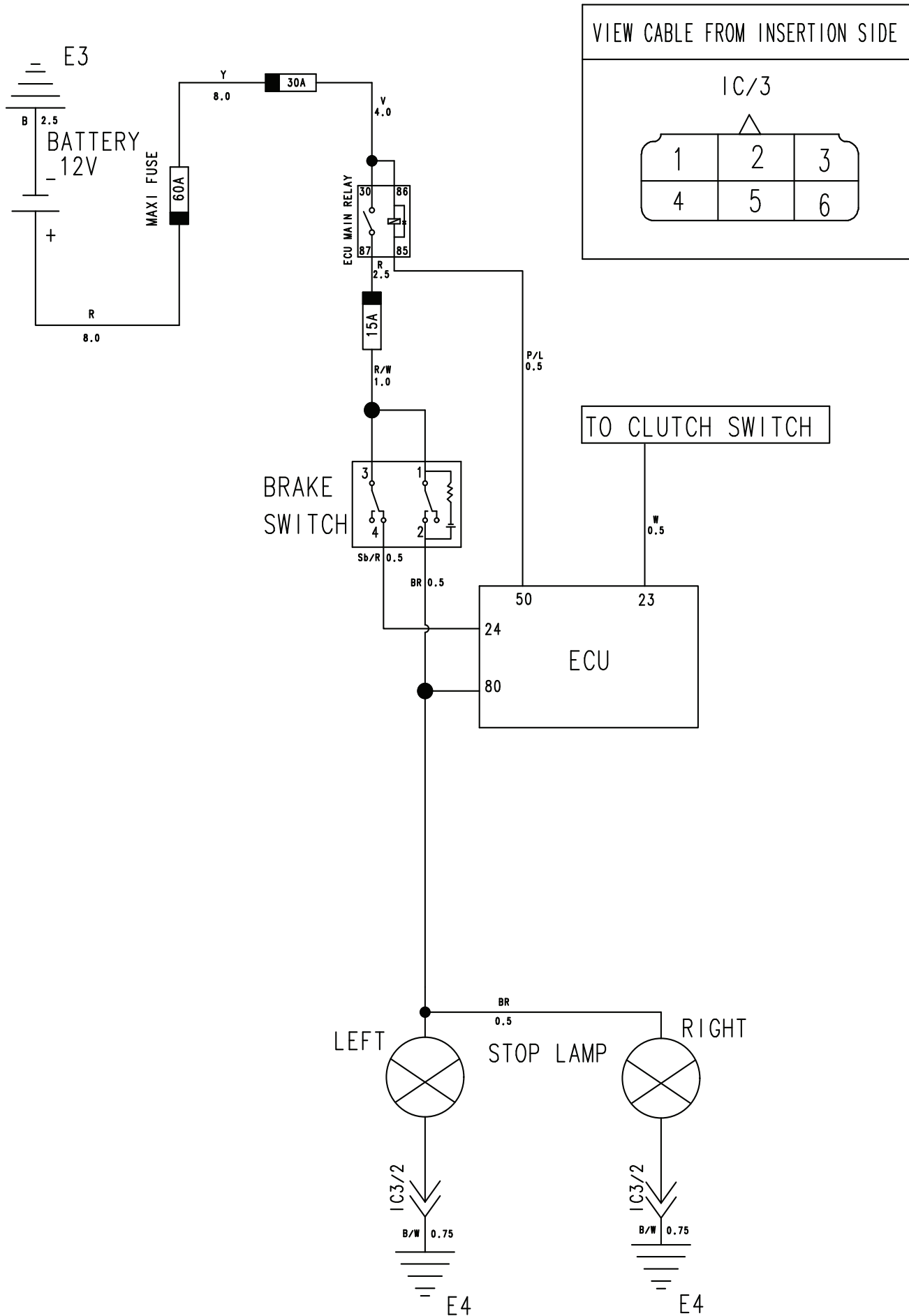
TURN AND HAZARD CIRCUIT

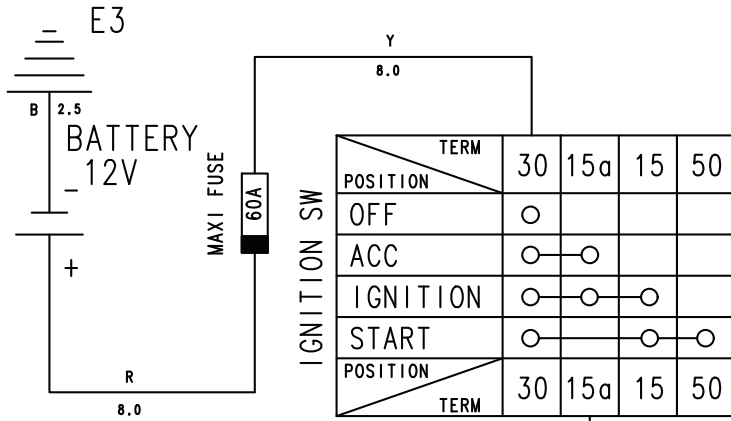




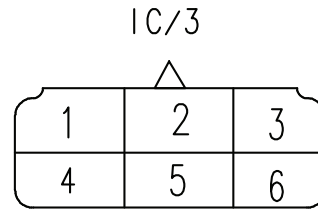




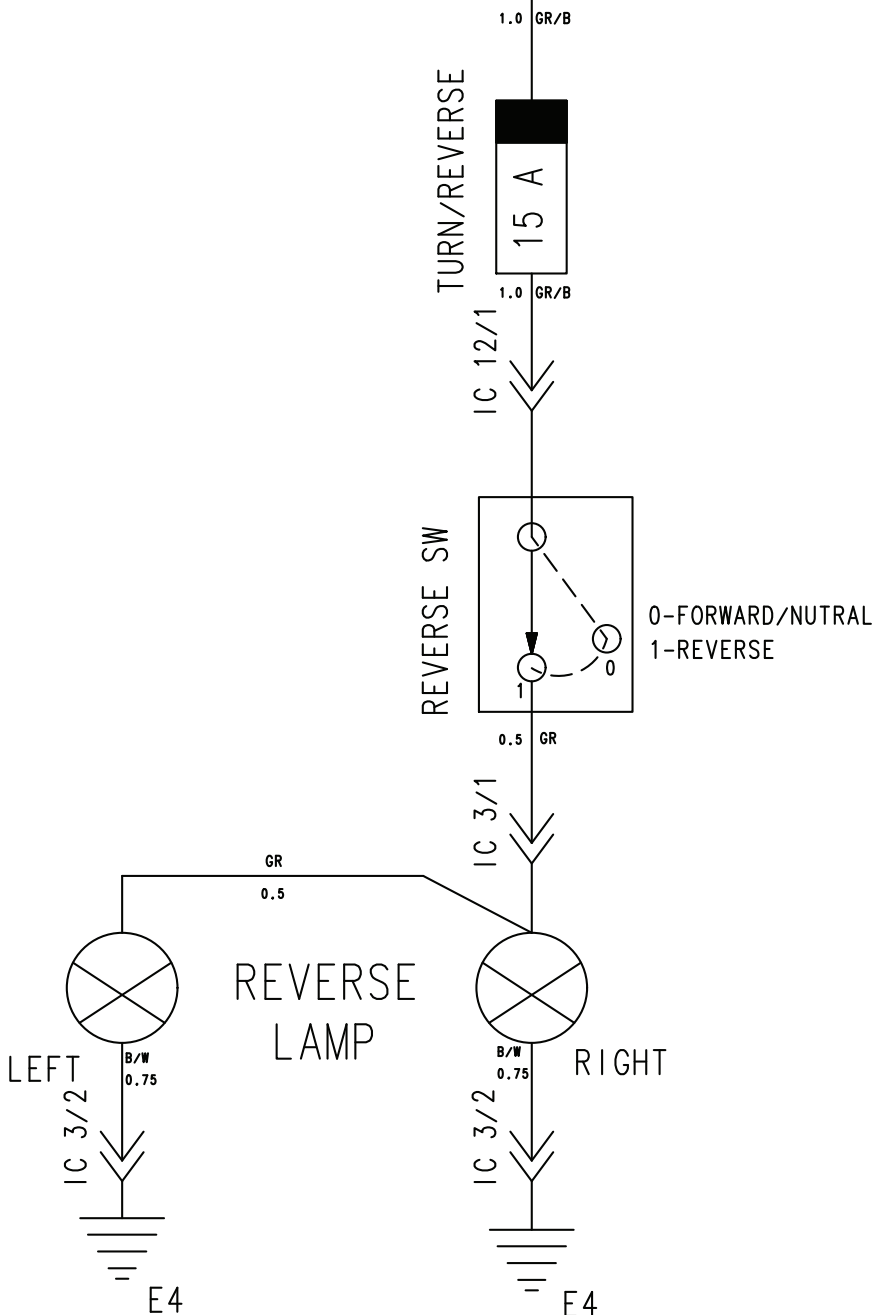


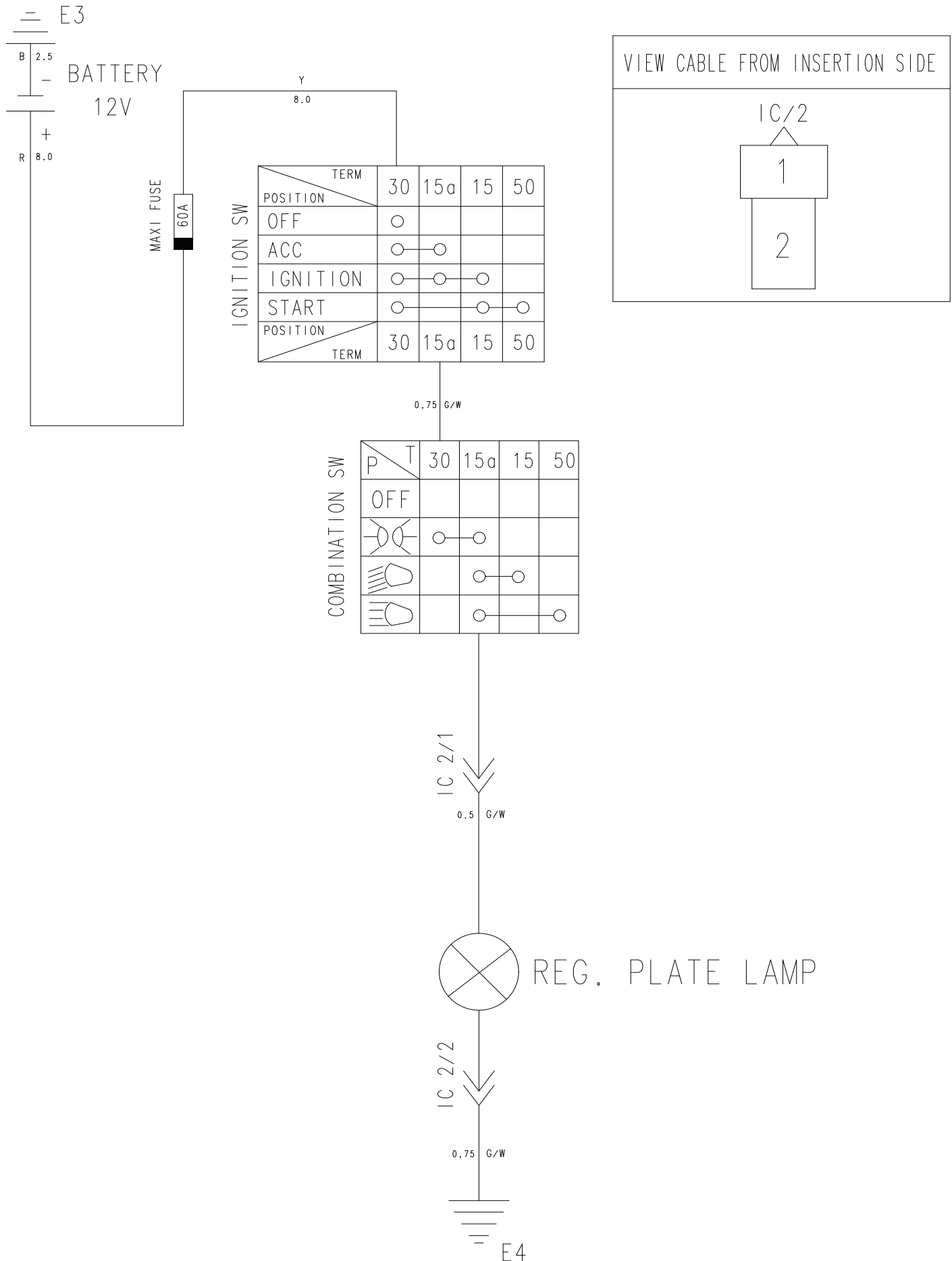


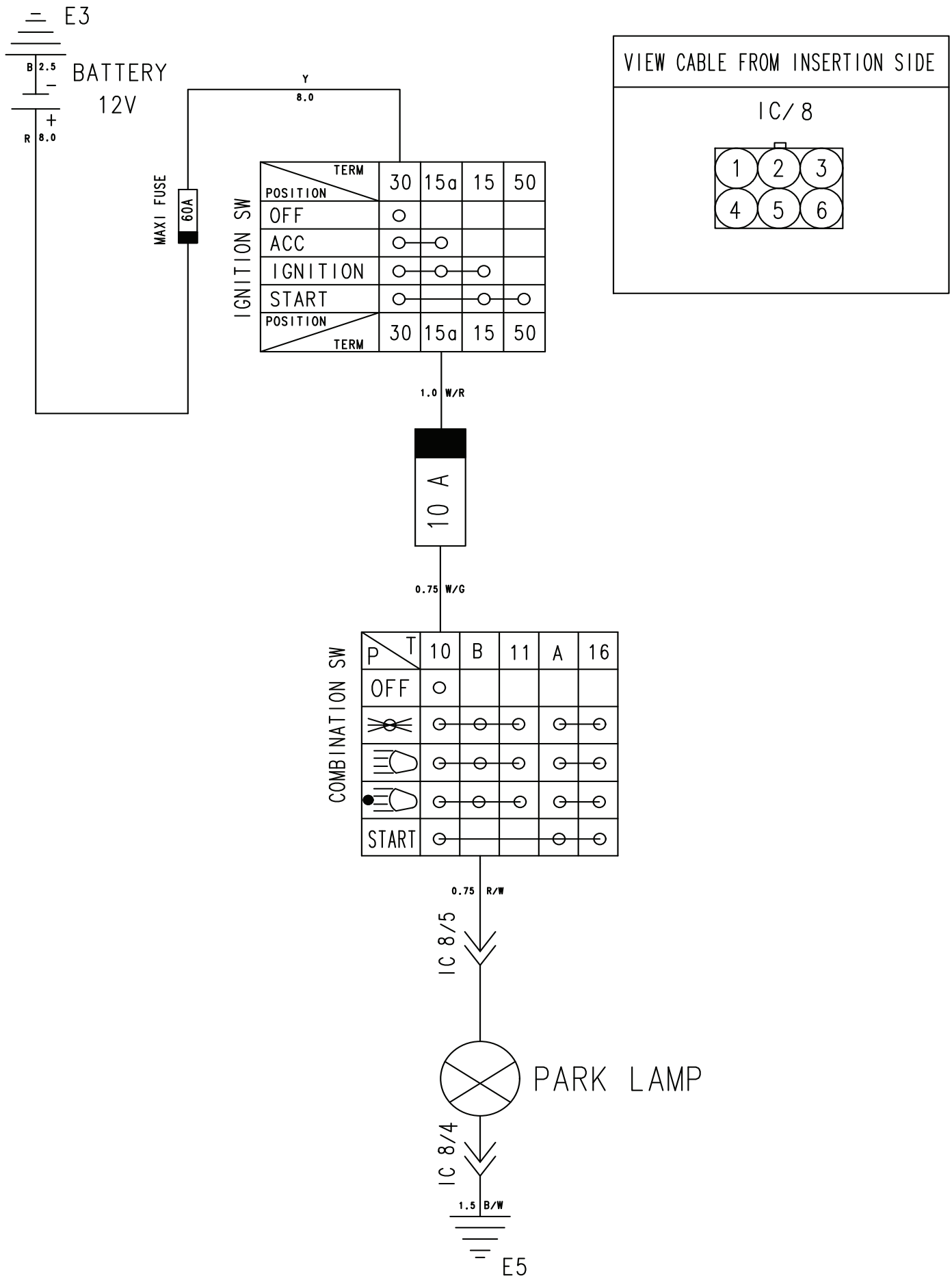
VIEW CABLE FROM INSERTION SIDE

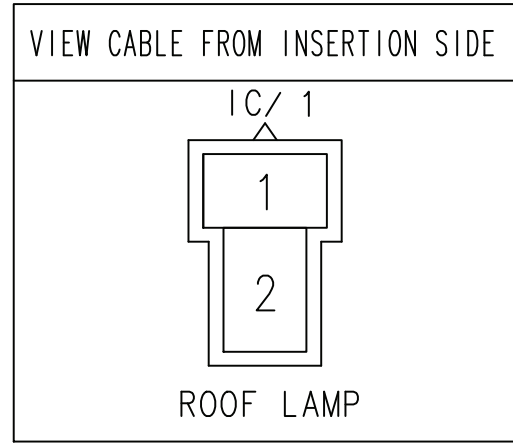
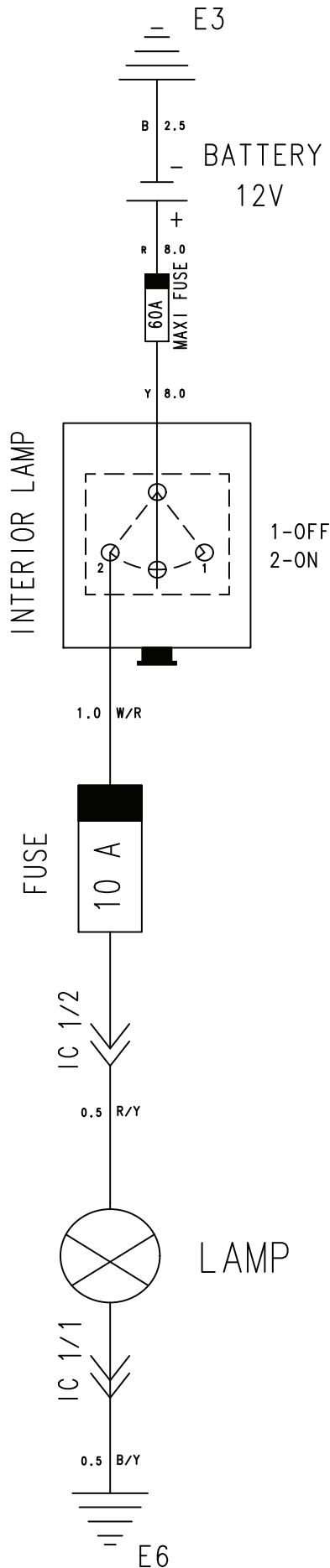


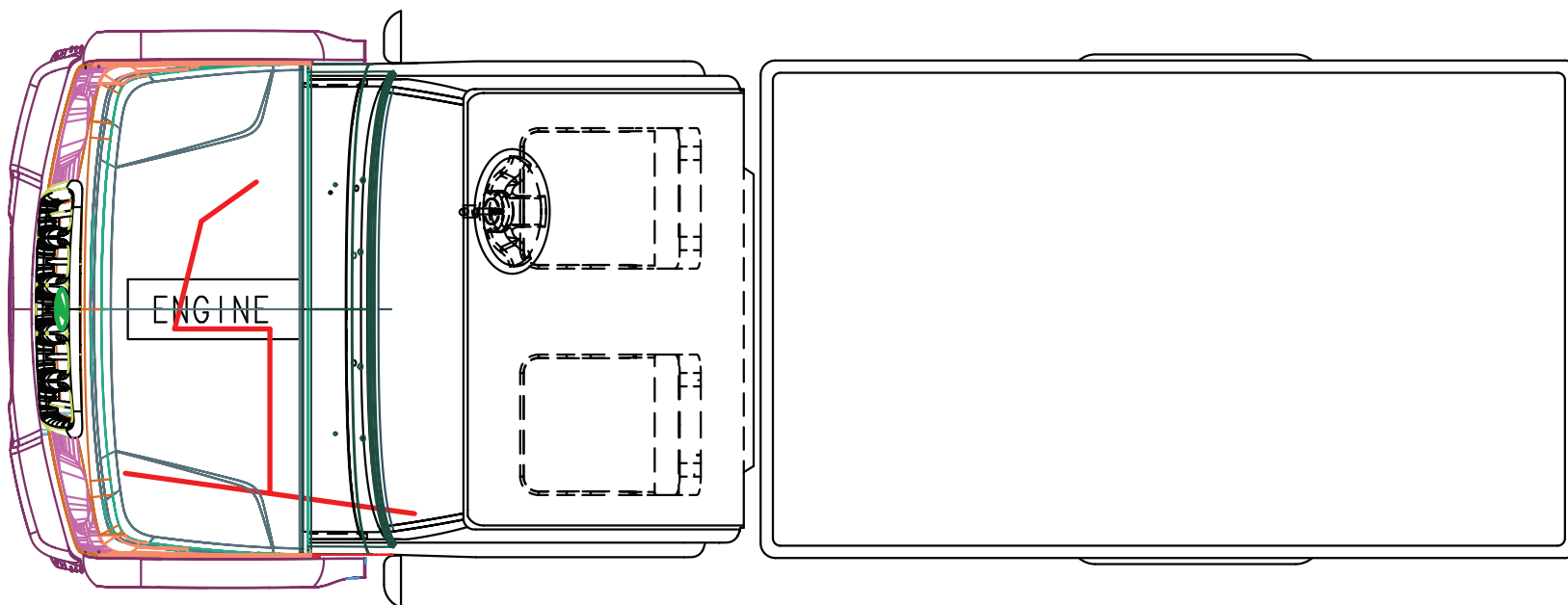
IC/12



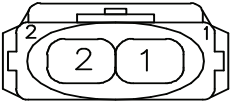
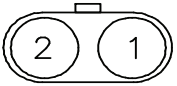

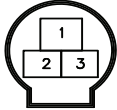
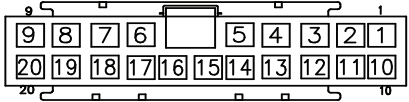
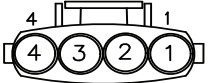
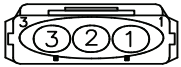
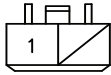
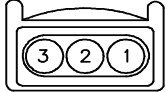
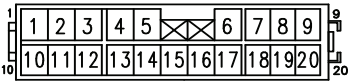

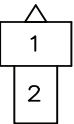
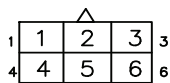
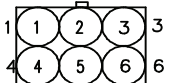
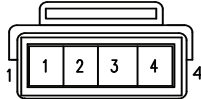


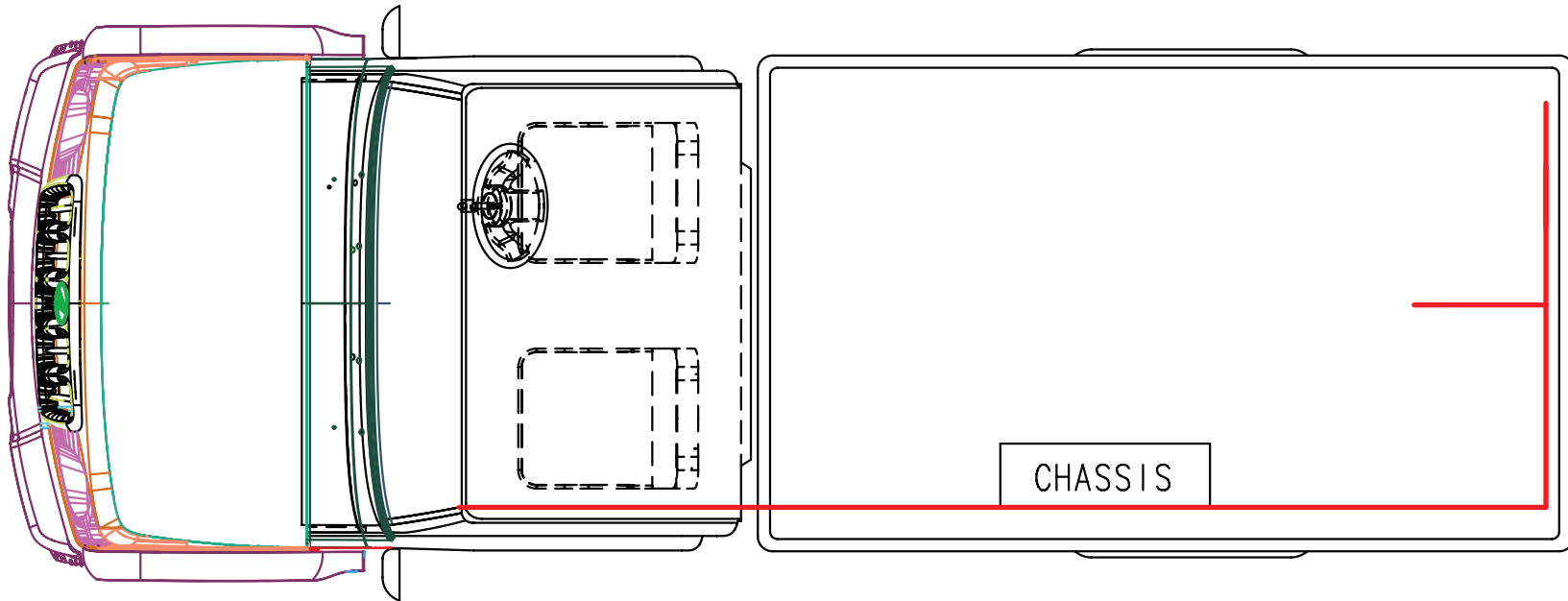




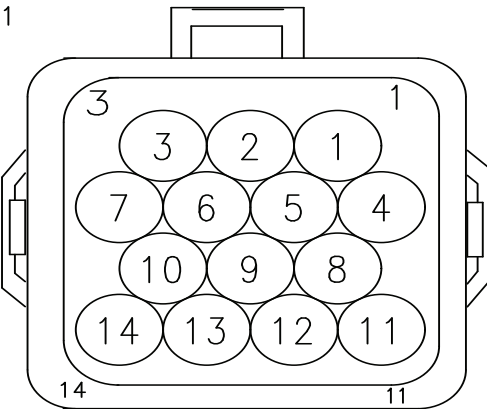
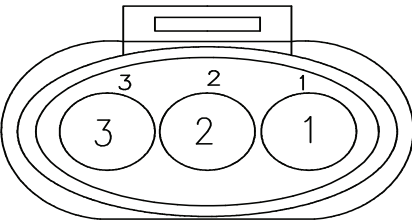
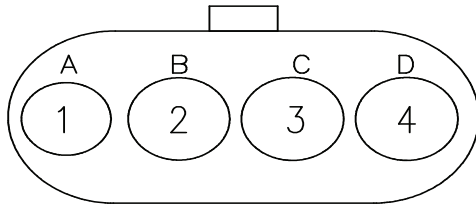
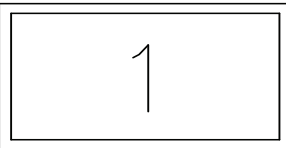
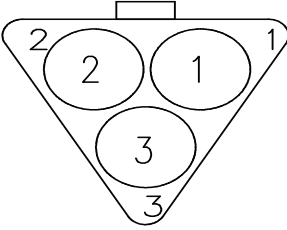
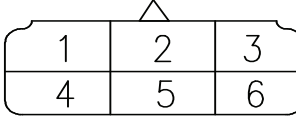


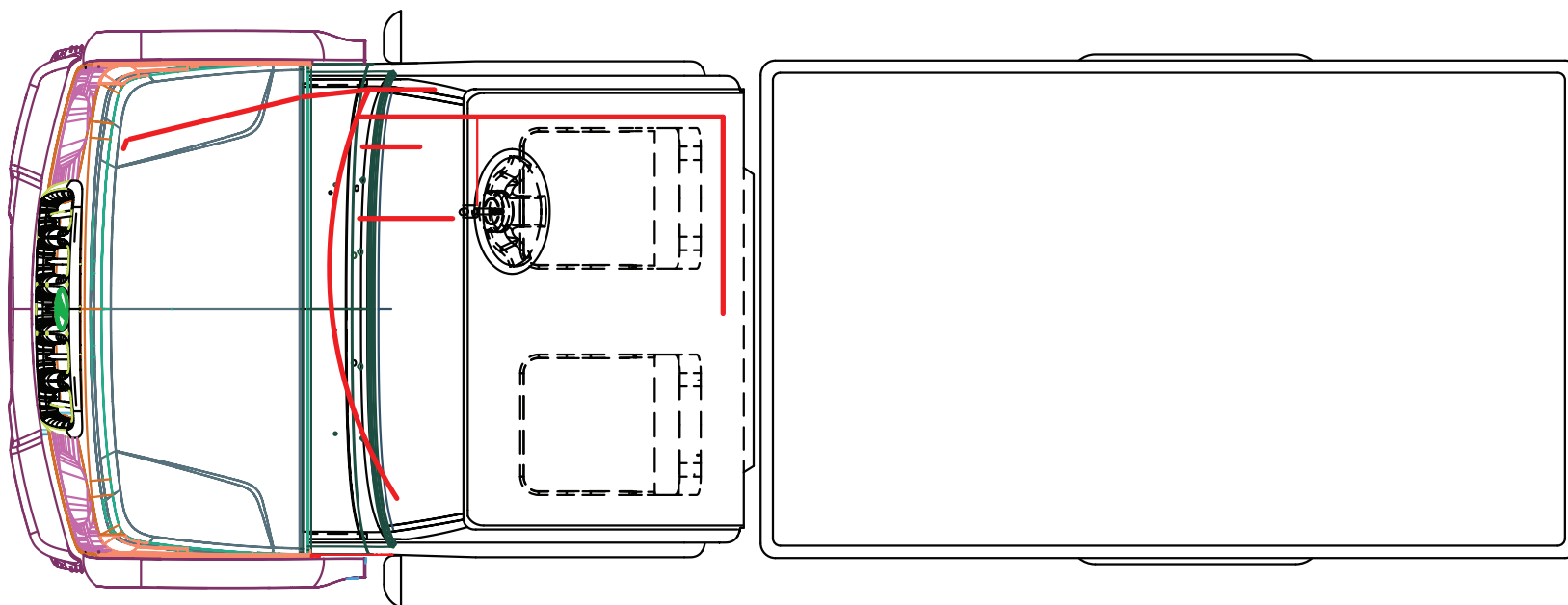
WIRE INSERTION VIEW

<p>E1</p>  <p>INJECTOR</p>	<p>E2</p>  <p>SIDE MARKER LAMP</p>	<p>E3</p>  <p>FENDER EARTH</p>	<p>E4</p>  <p>HEAD LAMP</p>	<p>E5</p>  <p>I/C BODY - 20 PFT</p>
<p>E6</p>  <p>BOOST PRESSURE SENSOR</p>	<p>E7</p>  <p>RAIL PRESS. SENSOR</p>	<p>E8</p>  <p>I/C BODY-2 PFT</p>	<p>E9</p>  <p>CAM SHAFT SENSOR</p>	<p>E10</p>  <p>I/C BODY - 20 PMT</p>
<p>E11</p>  <p>ECU EARTH</p>	<p>E12</p>  <p>ENGINE COMP. LAMP</p>	<p>E13</p>  <p>I/C BODY 6 POLE</p>	<p>E14</p>  <p>I/C TURN, PARK & H/L LEV</p>	<p>E15</p>  <p>FUEL TEMP. & WATER IN FUEL SENSOR</p>

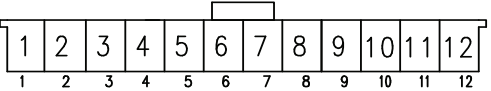

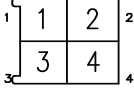


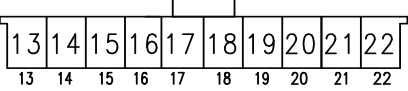
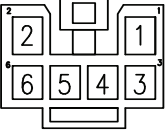
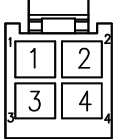
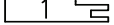

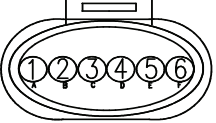
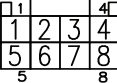
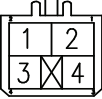



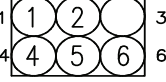
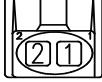


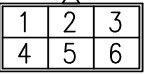
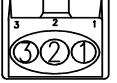
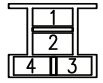
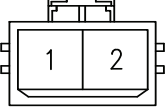


WIRE INSERTION VIEW

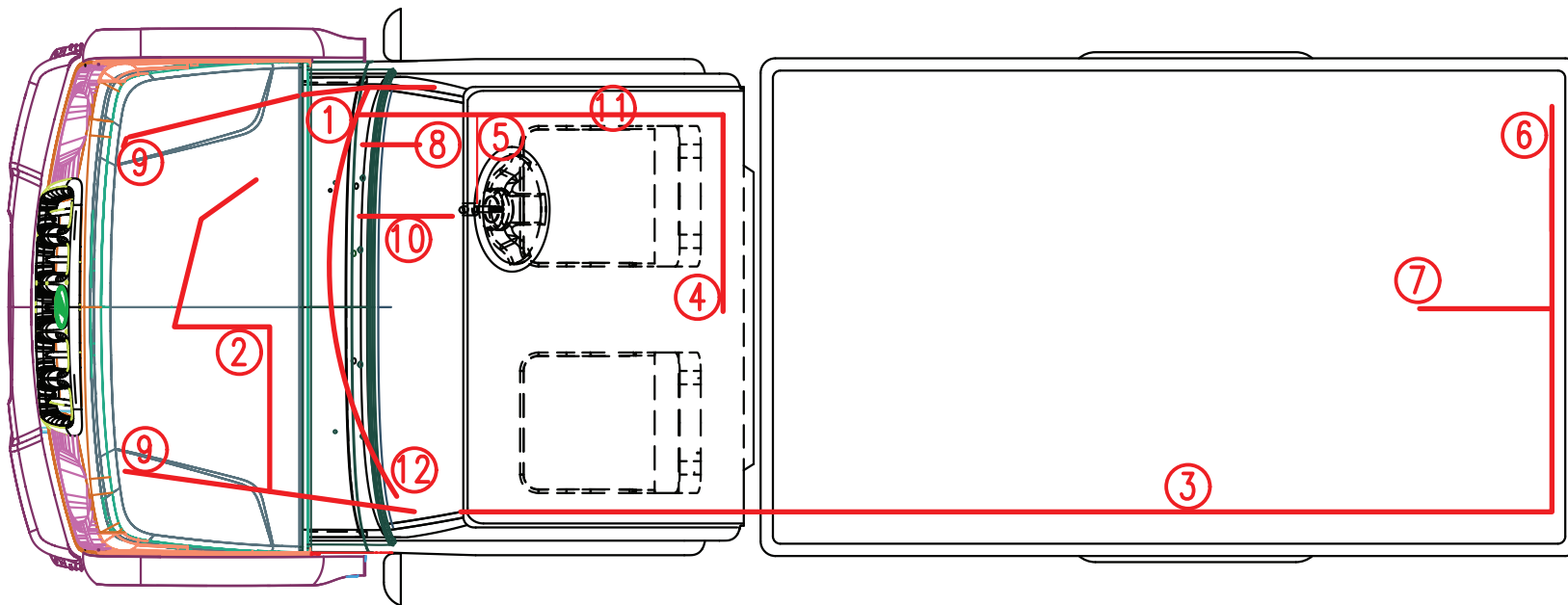
<p>C1</p>  <p>I/C ENGINE 14 - PMT</p>	<p>C2</p>  <p>VEHICLE SPEED SENSOR</p>	<p>C3</p>  <p>FUEL FEED PUMP</p>
<p>C4</p>  <p>REV. LIGHT SW.</p>	<p>C5</p>  <p>NEUTRAL SWITCH (GNS)</p>	<p>C6</p>  <p>REAR COMBINATION LAMP</p>



WIRE INSERTION VIEW

<p>B1</p>  <p>CLUSTER 12 PFT</p>	<p>B6</p>  <p>PARK LAMP</p>	<p>B11</p>  <p>CLUSTER 4 POLE</p>	<p>B16</p>  <p>WIPER MOTOR</p>	<p>B20</p>  <p>IGNITION SWITCH</p>
<p>B2</p>  <p>CLUSTER 10 PFT</p>	<p>B7</p>  <p>HEAD LAMP TILTING</p>	<p>B12</p>  <p>TERMINATING RESISTOR</p>	<p>B17</p>  <p>OIL PRESSURE SWITCH</p>	<p>B21</p>  <p>ALTERNATOR +B</p>
<p>B3</p>  <p>ACC PADEL SENSOR</p>	<p>B8</p>  <p>IMMOBILIZER</p>	<p>B13</p>  <p>BRAKE SW. HYBRID BLACK</p>	<p>B18</p>  <p>SPEAKER CONN.</p>	<p>B22</p>  <p>PARK ILLUMINATION</p>
<p>B4</p>  <p>COMBINATION SWITCH</p>	<p>B9</p>  <p>I/C TURN PARK</p>	<p>B14</p>  <p>VACCUM MODULAR</p>	<p>B19</p>  <p>ROOF LAMP 2 PMT</p>	<p>B23</p>  <p>IGNITION SWT.</p>
<p>B5</p>  <p>I/C ENGINE 6 POLE</p>	<p>B10</p>  <p>EGR FEEDBACK VALVE</p>	<p>B15</p>  <p>HEAD LAMP</p>	<p>B24</p>  <p>I/C ENGINE 2 PMT</p>	

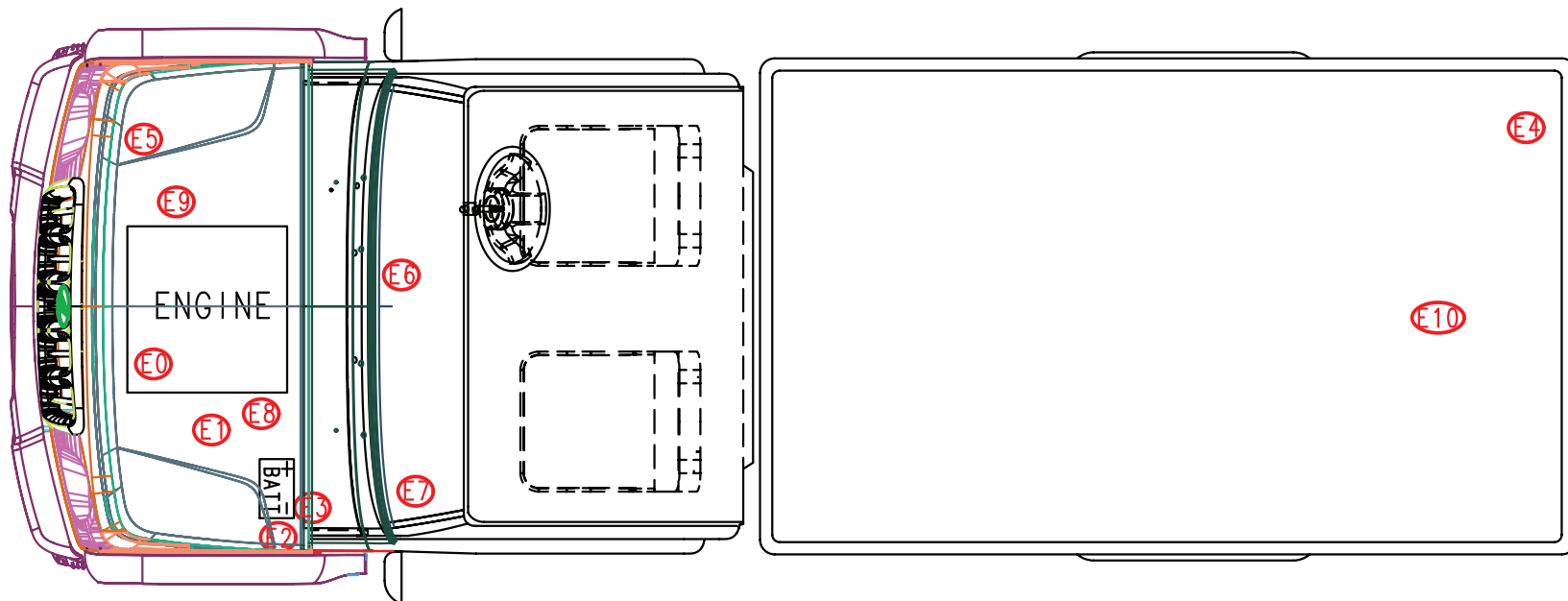
HARNESS NO.	DESCRIPTION	HARNESS NO.	DESCRIPTION
1	INSTRUMENT PANEL	7	FLOAT UNIT
2	ENGINE	8	CLUSTER PIGTAIL
3	CHASSIS	9	HEAD LAMP
4	ROOF LAMP	10	COMBINATION SWITCH
5	LOCKSET ILLUMINATION	11	HAND BRAKE
6	TAIL LAMP	12	ECU

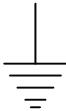

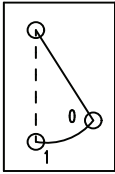

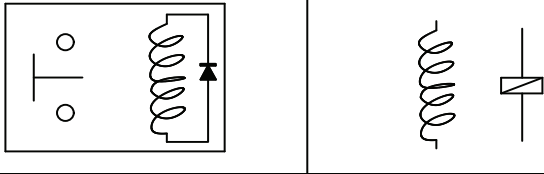
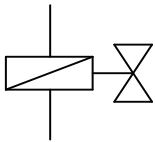
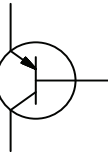
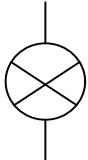
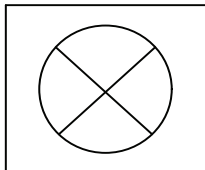


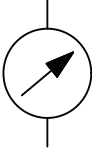
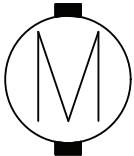

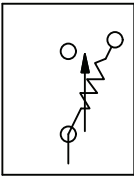
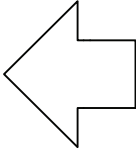

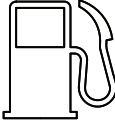
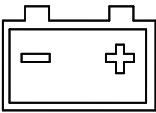

INTER CONNECTOR DETAILS (WIRE INSERTION VIEW)


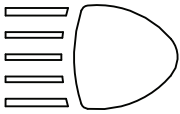
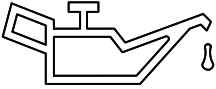

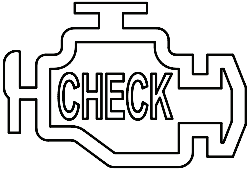

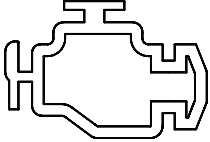
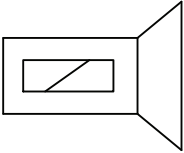

1		10			
2		11			
3		12			
4		13			
5		14			
6		15			
7		16			
8		17			
9		18		19	

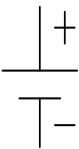


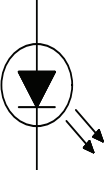



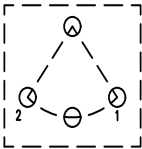
GROUND NO.	CIRCUITS CONTROLLER	LOCATION
E0	BATTERY TO ENGINE EARTHING	ENGINE BLOCK
E1	ENGINE TO CHASSIS EARTHING	CHASSIS FRONT LH
E2	BATTERY TO BODY EARTHING	FENDER LH
E3	BATTERY NEGATIVE(-) TERMINAL	BATTERY
E4	FUEL TANK, REG. PLATE LAMP, TAIL LAMP EARTHING	REAR BODY
E5	HEAD LAMP, HLLD MOTOR, HORN, TURN SIGNAL, PARK LAMP EARTHING	FENDER RH
E6	GAUGES, WIPER MOTOR, ROOF LAMP, HAND BRAKE EARTHING	DASH PANEL (BEHIND GAUGES)
E7	ECU EARTHING	ECU BRACKET (CO-DRAIVER)
E8	STARTER MOTOR EARTHING EARTHING	STARTER MOTOR (ENGINE BLOCK)
E9	ALTERNATOR EARTHING	ALTERNATOR (ENGINE BLOCK)
E10	CHASSIS EARTHING	CHASSIS REAR







ELECTRICAL SYMBOLS	
ILLUSTRATION	DESCRIPTION
	GROUND
	INLINE CONNECTOR
	SWITCH
	RESISTOR
	COIL
	SOLENOID CONTROLLED VALVE OR CLUTCH SOLENOID
	TRANSISTOR
	LAMP
	INDICATOR

ELECTRICAL SYMBOLS	
ILLUSTRATION	DESCRIPTION
	GAUGES
	PERMANENT MAGNET, ONE- SPEED-MOTOR
	PERMANENT MAGNET, TWO- SPEED-MOTOR
	SENSOR
	TURN SIGNAL
	TEMP. GAUGE
	FUEL GAUGE
	BATTERY
	HAND BRAKE

ELECTRICAL SYMBOLS	
ILLUSTRATION	DESCRIPTION
	BRAKE FLUID
	HEAD LAMP
	OIL PRESSURE
	AUTO START STOP
	ENGINE CHECK LAMP
	WATER IN FUEL
	MIL/OBD
	HORN
	SPLICE

ELECTRICAL SYMBOLS	
ILLUSTRATION	DESCRIPTION
	BATTERY
	FUSE
	DIODE, CURRENT FLOW DIRECTION
	LIGHT EMMITING DIODE (LED)
	CAPACITOR
	VARIABLE CAPACITOR
	POTENTIOMETER (OUTSIDE INFLUENCE)
	TWO SIDE SWITCH

Wiring Color Codes :

Wire Color Code	Color Description	Color
B	BLACK	
BL/L	BLUE	
G	GREEN	
GR	GREY	
O	ORANGE	
P	PINK	
R	RED	
SB/S	SKY BLUE	
V	VIOLET	
W	WHITE	
Y	YELLOW	
BR	BROWN	

Decoding Wire Color :

