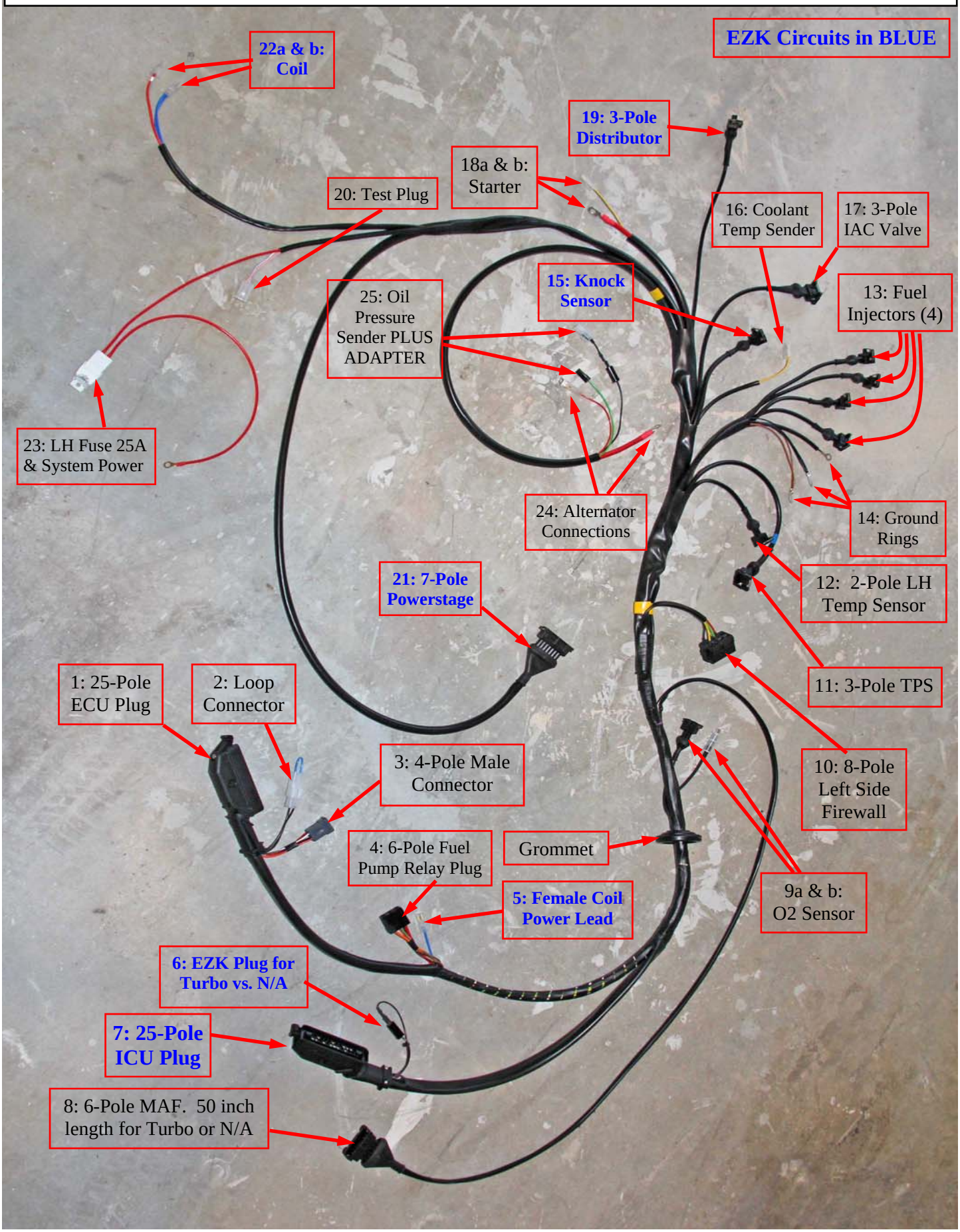
Volvo Conversion Engine Harness 240 Turbo or Non-Turbo LH 2.2, EZK 117

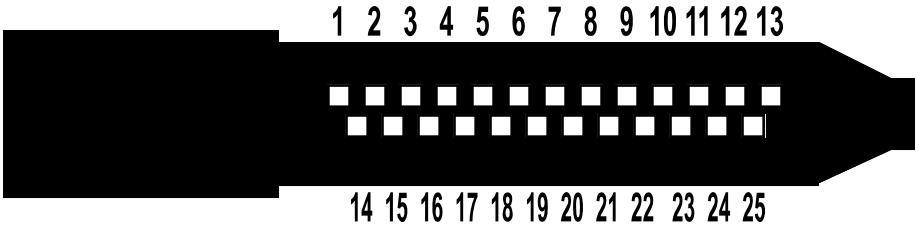


Overview of Volvo Engine Harness 3515364-EZK
240 Turbo or Non-Turbo LH 2.2, EZK 117

Circuits related to the EZK system are in BLUE text.

1

25-Pole Female Connector. For LH 2.2 Fuel ECU.
Under Right Side Dash, Right kick Panel



VIEW FROM FRONT

VIEW FROM FRONT FACE— USE POLE NUMBER MARKINGS ON PLUG

1. **Gray/Yell**
2. Blue
3. Orange(2 wires)
4. empty
5. Black
6. Green/Yell
7. Red/Wht
8. White
9. Brown
10. Brn/White
11. Black (2 wires)
12. **Blk/Red**, Blue/Wht
13. Grn/Wht
14. Yellow
15. empty
16. Red
17. Blu/Green
18. Blk/Red
19. Black
20. Green
21. Black/Yell
22. Pink
23. Red/Green
24. **Yellow**
25. Black

2

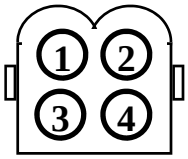
2-Pole Female 6.3 mm plug with Male Loop Connector.
Near ECU Under Right Side Dash

View from Rear

WIRE COLORS
1. Black
2. Black

3

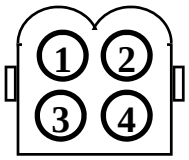
4-Pole Male Connector.
Near ECU Under Dash



VIEW FROM REAR

WIRE COLORS:
1. Black/Red, **Blue**
2. Red
3. Red/Yellow
4. Red/White

This information explains the wires in this 4-pole connector.



VIEW FROM REAR

The below information will help determine what circuits are needed to connect to these pins to your 240. If you are installing this in an LH 2.2 car, you may plug in your existing 4-pole female plug. The original wire going to pin 4 in an LH 2.2 car is not used, so if you need the tach signal for your tach, you may use pin 4 as a tach signal and connect to your tach as shown below.

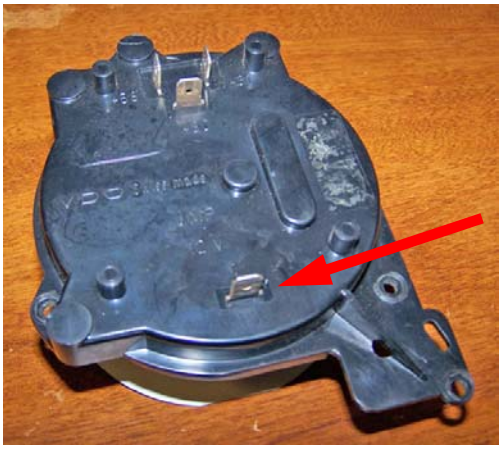
WIRE COLORS:

1. Black/Red: 2.2 Harness: to ECU, Fuel Pump Relay.
   Car Harness: Switched power from Ign Switch terminal 15 (12v with Ign Switch in the "RUN" position). This source may be tapped from the back side of fuse 11, 12 or 13.

2. Red: 2.2 Harness: to ECU.
   Car Harness: AC Idle Increase. To AC relay output or trigger to compressor clutch.

3. Red/Yellow: 2.2 Harness: Fuel Pump Relay, O2 Sensor Plug, Fuel Injectors, Idle Air Control Valve.
   Car Harness: To input at #4 fuse (back of fuse panel) for tank fuel pump.

4. Red/White: 2.2 Harness: Tachometer signal from Power Stage.
   Car Harness: If needed, connect to tach input spade shown below. Do not goof and connect it anywhere else or damage may occur to your ignition.

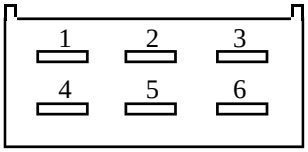


Back of tachometer.

Red/White wire from pin-4 connects here.

4

6-Pole Female 6.3 mm Fuel Relay Connector.
Under Passenger Dash



VIEW FROM REAR

1. Brown, Orange
2. Blue/Grn
3. Red
4. Black/Yell
5. Red/Yell
6. Blk/Red(2 wires)

NOTE: Pin 3 is main voltage from battery via the LH fuse. Pin 5 is power to fuel pump via 4-pole plug.

5

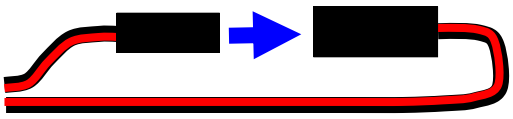
6.3 mm Female Terminal with Insulator. Power lead for Coil and Power Stage.
Near Fuel Relay Plug

Blue

This lead needs to be extended using a 6.3 mm (.250") MALE spade with 12 to 14 gauge wire to the back (right) side of the 240 fuse panel. It should be connected to fuse 11, 12 or 13. This will provide 12v to the coil and power stage when the ignition switch is in the "Run" position.

6

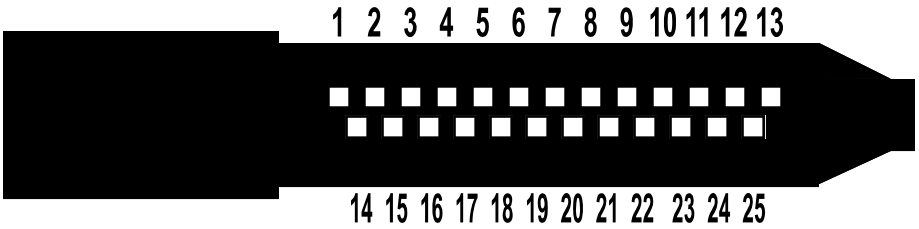
This Black/Red wire (from ICU pin 15 to ECU pin 12) should only be connected when a TURBO fuel ECU is being used, or damage could occur to the ICU. This circuit provides fuel enrichment when knock is detected.



6.3 mm Male and Female Terminals with Insulators
Exits harness near EZK ICU

Black/Red

7 EZK 117 25-Pole Female Ignition Control Unit (ICU) Connector.



VIEW FROM FRONT

VIEW FROM FRONT FACE— USE POLE NUMBER MARKINGS ON PLUG

1. Empty
2. Empty
3. Empty
4. **Red**
5. Empty
6. **Blue**
7. **Orange**
8. **Yellow**
9. Empty
10. **Black**
11. Empty
12. **Brown**
13. **Green**
14. Empty
15. **Black/Red**
16. **Gray**
17. **Gray/Yell**
18. Empty
19. Empty
20. **Brown**
21. Empty
22. Empty
23. Empty
24. **Blue**
25. Empty

8 6-Pole JT Female Mass Air Flow (MAF) Sensor Connector.

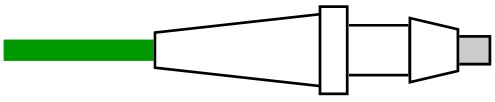
Long lead universal for Turbo or non-turbo.

LH 2.2 Compatible MAF needed.

WIRE COLORS:
1. Black
2. Green/Yell
3. Red/White
4. White
5. Orange
6. Yellow

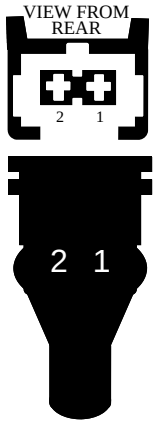
**Number markings embossed on plug.
Peel back rubber boot to see.

9a 1-Pole Male Oxygen Sensor Connector.



Green

9b

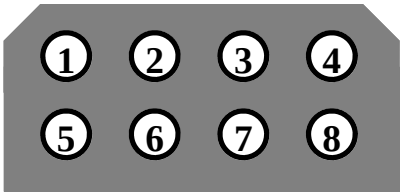


2-Pole Female JT Connector.
For Oxygen Sensor, Heated Type

Wire Colors:
1. Red/Yellow
2. Black

10

8-Pole Female Connector.
LEFT (driver side) Firewall

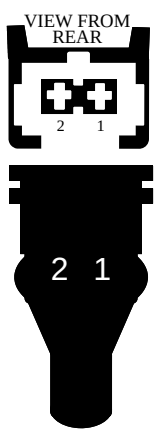


VIEW FROM REAR

WIRE COLORS:
1. Black
2. Yellow
3. Red
4. empty
5. Blue/Yellow
6. Green
7. empty
8. empty

NOTE: The GREEN wire in pin 6 is not normally found in an LH 2.2 harness. It is added to this harness for the convenience of a 240 Turbo owner or other 240 using the green wire for a 2-pole oil pressure sender (and separate oil pressure gauge). A later car may have a different color wire in pin 6 going through the firewall. If you are wiring a separate gauge, it will be important to make sure this wire goes to the oil pressure gauge pin "G" (a 240 Turbo will already be wired as such).
CAUTION: If you have a different 240 model and the pin 6 wire goes to a power source, such as the fuse panel and you have no plans to use it for a gauge, IT SHOULD BE DISCONNECTED from power.

11



2-Pole Female JT Connector.
LH Temperature Sensor

Wire Colors:
1. Black
2. Blue

12

3-Pole Female JT Connector.
Throttle Position Sensor (TPS)

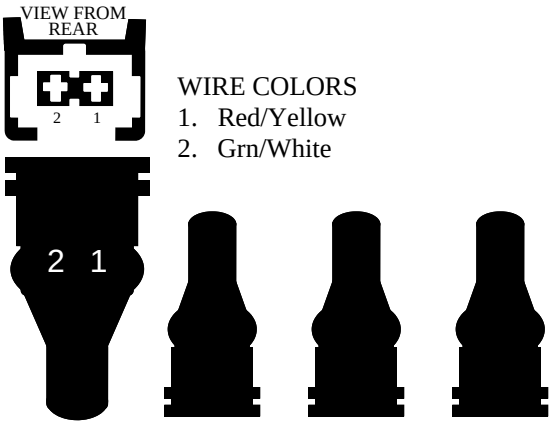
WIRE COLORS
1. Orange
2. Black
3. Blue/White (2 wires)

NOTE REGARDING PIN 3: A car with a TURBO ECU does not use TPS pin 3. If needed, the Blue/White wire going to ECU 12 may be snipped here or the pin may be pulled out from the connector plug.

**Number markings on plug are under rubber boot.

NOTE: BLUE TAPE

13

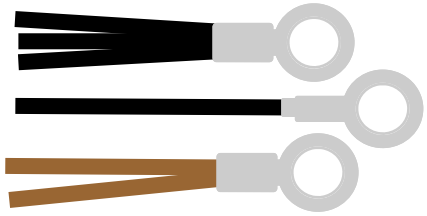


2-Pole Female JT Connectors.
Fuel Injectors (x4)

WIRE COLORS
1. Red/Yellow
2. Grn/White

All four injector connectors are wired the same. The leads are different lengths so they may be routed for best fit.

14



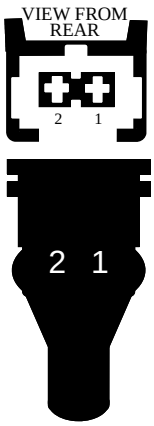
Three Ground Rings.
Bolted to Intake Manifold

WIRE COLORS
a. Black (3 wires)

b. Black

c. Brown (2 wires)

15



2-Pole Female JT Connector. Ignition Knock Sensor.
Knock sensor needs to be Bosch compatible. Not the early Chrysler type.

1. **Green**
2. **Brown**

16

6.3 mm Female Terminal with Insulator.
Coolant Temperature Sender on Left Side of Head

Yellow

17

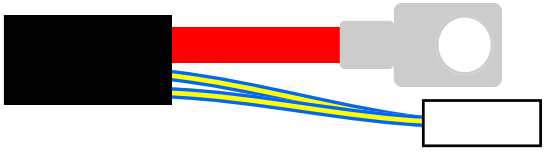
3-Pole Female JT Connector.
Idle Air Control Valve. LH 2.2 compatible.

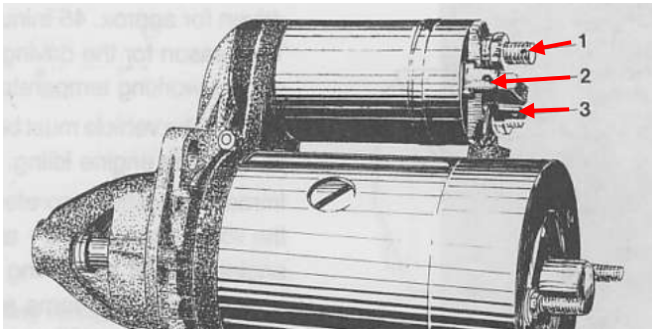
WIRE COLORS
1. White/Brown
2. Brown
3. Red/Green

**Number markings on plug are under rubber boot.

18

STARTER MOTOR CONNECTIONS
1. Heavy Red cable with Large Eyelet (B+).
2. NOT USED
3. Yellow/Blue wire with Female Connector (see photo).
Terminal 3 will be the one closest to the fender.



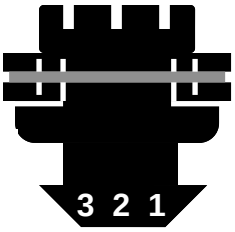


Wire Colors:
a. Red cable
b. Blue/Yell

19

3-Pole Female JT Connector (Special for Distributor).
Distributor needs to be LH 2.2 compatible.

**Number markings embossed on plug are under rubber boot.

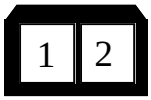


View from Top

1. **Black**
2. **Blue**
3. **Red**

20

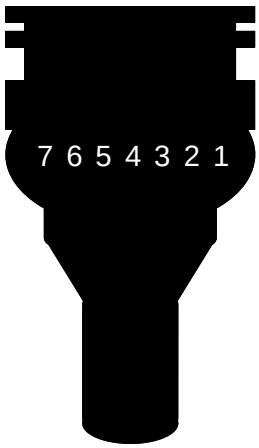
2-Pole Female 6.3 mm Plug.
Lambda Sond Test Plug.



View from Rear

Wire Colors:
1. Pink
2. Blue/White

21



7-Pole Female JT Connector. Ignition Powerstage.
Left front fender.

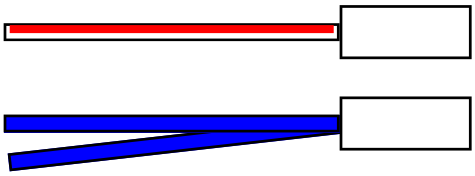
1. **Red/White (2 wires)**
2. **Brown**
3. **Black**
4. **Blue**
5. **Gray**
6. Empty
7. Empty

**Number markings embossed on plug are under rubber boot.

22

6.3 mm Female Terminals with Insulators. EZK Connections to Coil.

Red/White connects to Coil terminal 1 (Neg). Blue connects to Coil terminal 15 (Pos).



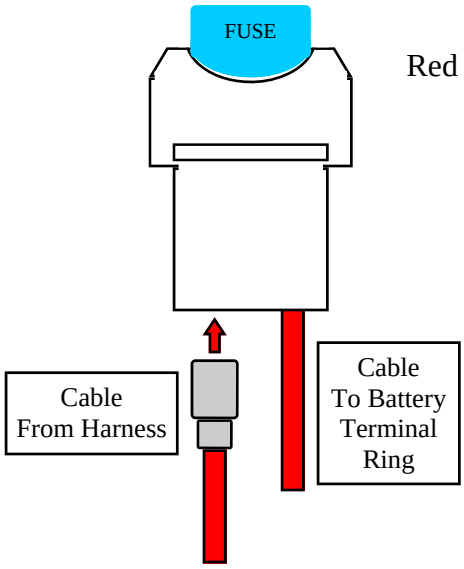
a. Red/White

b. Blue

23

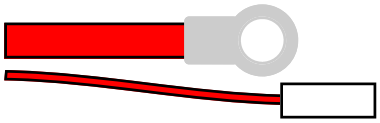
Red Cable to White Fuse Holder.
Cable to Battery Terminal Ring.

Left Fender Near Ignition Coil



24

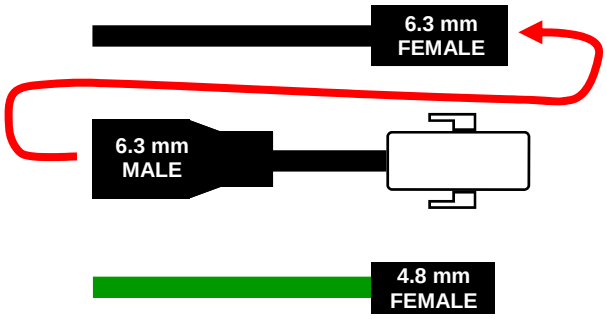
Alternator Connections.



a. (B+) Red Cable: to 18a (Starter)
b. (D+) Red: to 10/3 (8-pole firewall connector pin 3)

25

Female 6.3 mm with Insulator (BLACK).
Short adapter with 6.3 mm MALE with insulator and Female Bullet with Insulator.
Female 4.8 mm with Insulator (GREEN).
Oil Pressure Sender (OPS)



a. Black — Used with older 1-pole or 2-pole Oil Pressure Sender only.

Short adapter with 6.3 mm MALE terminal wired to Female Bullet with Insulator. Used for later 1-pole Oil Pressure Sender**.**

b. Green — Only used with 2-pole Oil Pressure Sender only, such as found on 240 Turbo.