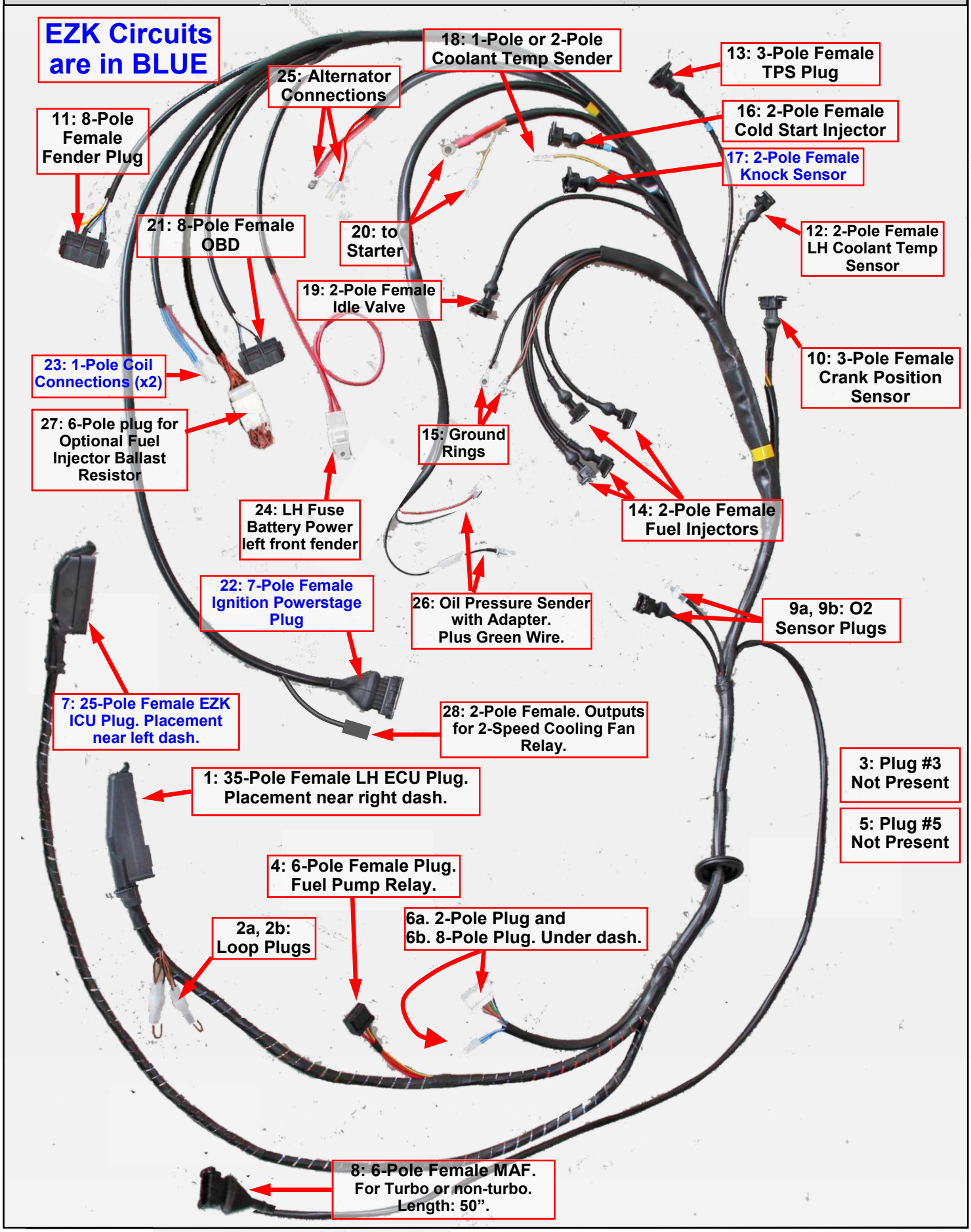
LH 2.4 EZK CONV: Volvo 740 Turbo or Non-Turbo to LH 2.4, EZK 116, Hi or Lo Injectors



Volvo Conversion Harness for 740 Turbo or Non-Turbo.
Conversion to LH 2.4, EZK 116,
with optional use of High or Low Impedance Fuel Injectors.

Circuits related to the EZK system are in BLUE text.

Understanding Diagram Wire Locations in These Pages

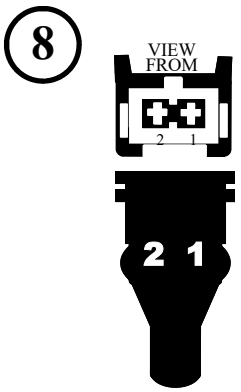
You will see information such as shown below for each connector in this harness. In the event that you need to know where any wire goes, this will explain how to read it these diagrams.

The number at left is a CONNECTOR NUMBER.
You will see numbers like this for each connector listed.

The below example shows a plug with two wires.

The #1 **Black** wire shows **13,** which means the OTHER end on this wire goes to Connector 13 (which is a Ground Ring).

The #2 **Blue** wire shows **1/2,** which means the OTHER end of this wire goes to Connector 1, Position 2. Connector #1 is the ECU, so this circuit goes to ECU Pin 2.



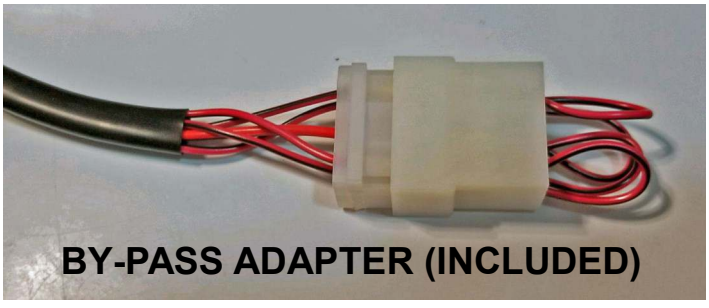
Wire Colors:		
1. Black	13	to ground ring.
2. Blue	1/2	to ECU pin 2.

RESISTOR PACK PLUG

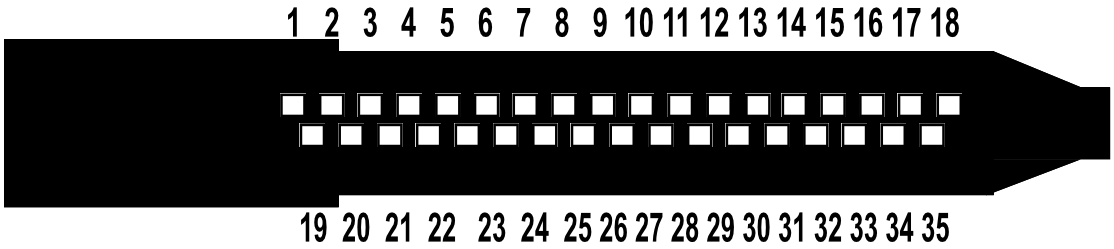
This harness is equipped with the below CONNECTOR and BY-PASS ADAPTER shown in these diagrams as Connector #27 (6-pole plug).

With no changes and with by-pass plug in place, this harness will support High Impedance Injectors.

If you decide to use Low Impedance Injectors, you must unplug the by-pass adapter and instead plug in any standard **Volvo 740 Turbo fuel injector Ballast Resistor Pack.** Using low impedance injectors with an LH 2.4 ECU **without this resistor pack can damage your ECU.**



1 35-Pole Fuel Injection ECU Connector — Under Dash



VIEW FROM FRONT FACE— USE POLE NUMBER MARKINGS ON PLUG

	WIRE COLOR	DESTINATION	DESTINATION DESCRIPTION	ECU FUNCTION
1.	Brown:	to **7/17**	**ICU pin 17.**	Engine speed signal input from ICU.
2.	Yell/White:	to **7/7**, 13/1	**ICU pin 7**, TPS pin 1.	Input signal from TPS when throttle is closed (idle).
3.	Blk/White:	to 13/3	TPS pin 3.	Input signal from TPS for full throttle. Not used on B230FT **(SEE NOTE BELOW).**
4.	Red (2 wires):	to 4/3, **7/5,** 20	Fuel Relay pin 3, **ICU pin 5,** LH 25A fuse.	12v power constant (terminal 30).
5.	Blk/Brown:	to 2a2	2-pole loop 2a2.	
	Black:		**Shield for 1/24 Green.**	Ground for shield (Oxygen Sensor).
6.	Grn/Yell:	to 8/2	MAF pin 2.	Ground for MAF.
7.	Red/Wht:	to 8/3	MAF pin 3.	Input signal from MAF.
8.	White:	to 8/4	MAF pin 4.	Control signal to MAF for burn off.
9.	Blk/Red (2 wires):	to 4/1, 4/6	Fuel Relay pin 1, pin 6.	12v power supply from relay pin 1.
10.	Blk/Blu	to 28/1	2-pole female, pin 1.	Ground signal output to cooling fan relay, low speed. Late ECU for 740 or 940.
11.	Blk/Wht	to 28/2	2-pole female, pin 2.	Ground signal output to cooling fan relay, high speed. Late ECU for 740 or 940.
12.	Blk/Green:	to 21/2	8-pole OBD pin 2.	Diagnostic signal lead.
13.	Blue/Red:	to 12/2	Temp Sens pin 2.	Input signal from Coolant Temp Sensor (ECT).
14.	Green:	to 6A2	White 8-pole plug.	Input signal from AC (compressor on).
15.	Red/Gray:	to 6A1	White 8-pole plug.	Input signal from AC (AC starting).
16.	Empty			
17.	Black:	to 15c	Ground Ring c.	Ground.
18.	Green/Wht:	to 14/2	Fuel Inj pin 2.	Control signal for fuel injectors.
19.	Blk/Brn:	to 2b1	2-pole loop 2b1.	Ground
20.	Blue/Green:	to 4/2	Fuel Relay pin 2.	Control signal to fuel pump relay function.
21.	Blk/Yell:	to 4/4	Fuel Relay pin 4.	Control signal to main fuel relay function.
22.	Pink/Wht:	to 6B6	White 8-pole plug.	Signal to Check Engine Light (CEL).
23.	Empty			
24.	Green (shielded):	to 9a	Oxygen Sensor.	Input from Oxygen Sensor.
25.	Brn/Yell:	to 7/8	**ICU pin 8.**	MAF load signal output to ICU.
26.	Violet:	to 6B5	White 8-pole plug.	Shift up output signal (manual).
27.	Empty			
28.	Brown/Wht:	to 7/4	**ICU pin 4.**	Input signal from ICU (Knock Sensor).
29.	Black:	to 2a1	2-pole loop 2a1.	Ground.
30.	Pink:	to 6B7	White 8-pole plug.	Input signal from Park-Neutral Position (PNP) Switch (auto trans) for use with idle control.
31.	Empty			
32.	Black/Wht:	to 16/2	Cold Start Inj pin 2.	Control signal output to Cold Start Valve.
33.	Green/Red:	to 19/2	Idle Valve pin 2.	Control signal output to Idle Valve.
34.	Black/Blue:	to 6B4	White 8-pole plug.	Input VSS signal from speedometer.
35.	Blue:	to 6B1, **7/6**	White 2-pole plug, **ICU pin 6.**	12v power switched (terminal 15).

PIN 3 NOTE: If you're using a Turbo ECU see **Diagram 13 Throttle Position Sensor for needed modification.**

2a

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

WIRE COLORS

1.	Black:	to 1/29	ECU pin 29.
2.	Blk/Brn (2 wires):	to 1/5, 2b2	ECU pin 5, 2-pole loop 2b2.

2b

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

WIRE COLORS

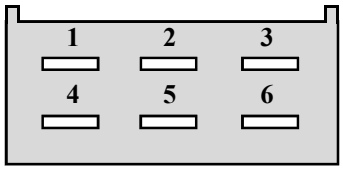
1.	Blk/Brn:	to 1/19	ECU pin 19.
2.	Blk/Brn(2 wires):	to 2a2, 15b	2-pole loop 2a2, Ground Ring b.

3

Connector Not Present

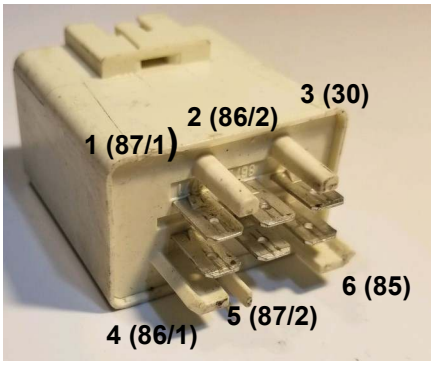
4

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



VIEW FROM REAR OF PLUG

<<< Connector for white FUEL PUMP RELAY PN 3523608.



RELAY PIN	WIRE COLOR	DESTINATION	DESTINATION DESCRIPTION
1. 87/1	Blk/Red(fat):	to 1/9, 4/6, 8/5	ECU pin 9, Relay pin 6, MAF pin 5.
2. 86/2	Blue/Grn:	to 1/20	ECU pin 20 (control signal output).
3. 30	Red (fat):	to 1/4, 7/5, 23	ECU pin 4, **ICU pin 5**, (power input from LH Fuse).
4. 86/1	Blk/Yell:	to 1/21	ECU pin 21 (control signal output).
5. 87/2	Red/Yell(2 wires):	to 6B2, 9b1	Output to white 8-pole plug pin B2, O2 Plug pin b1.
6. 85	Blk/Red(fat):	to 1/9, 4/1, 27/A2	ECU pin 9, Relay pin 1, Injector Ballast Resistor plug pin A2.

NOTE: Pin 3 is main voltage from battery via the LH fuse.
Pin 5 is output power to fuel pumps via white 8-pole plug, pin B2.

5

Connector Not Present

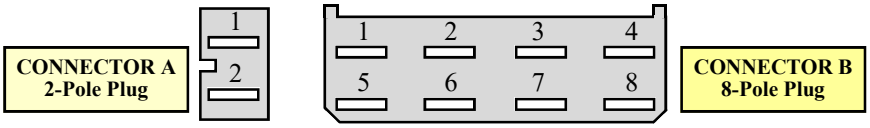
6

Plug A

White 2-Pole Female Plug with 6.3 mm Terminals.

These are wires that need to be connected from this conversion harness to various locations under your dash.

Connector A (2-pole) **on this page** is only relevant to air conditioning.
Connector B (8-pole) **on next page** is relevant to all other connections.



VIEW FROM REAR

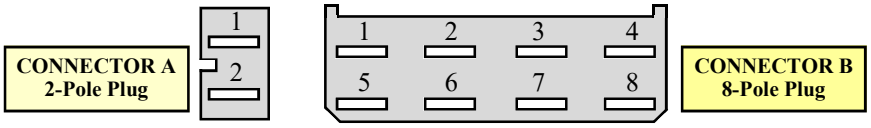
HARNESS CONNECTIONS PLUG A (Origin)			CAR CONNECTIONS (Destination)
A1. Red/Gray:	from 1/15	ECU pin 15.	This wire brings input to your ECU **from the AC relay** pin D+/61 or AC control switch (Red/Gray). It allows the ECU to compensate the idle speed when AC is activated.
A2. Green:	from 1/14	ECU pin 14.	This wire brings input to your ECU from the AC compressor. It tells the ECU that your AC compressor is engaged. It's used to keep the idle speed stable when compressor starts.

6 Plug B

White 8-Pole Female Plug with 6.3 mm Terminals.

These are wires that need to be connected from this conversion harness to various locations under your dash.

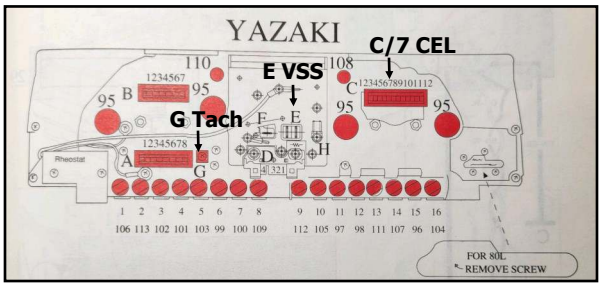
Connector A (2-pole) **on previous page** is only relevant to air conditioning.
Connector B (8-pole) **on this page** is relevant to all other connections.

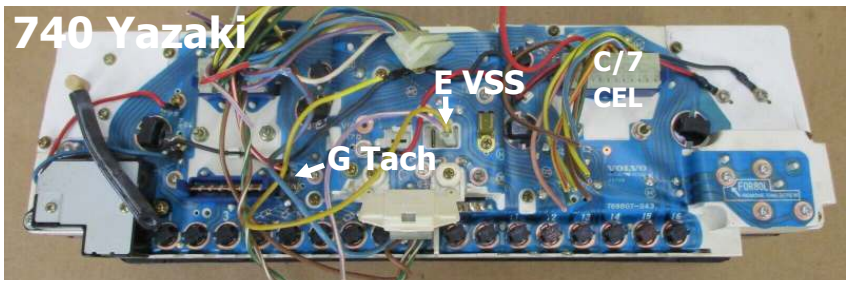


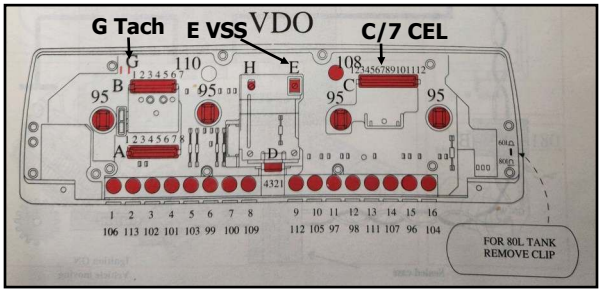
VIEW FROM REAR

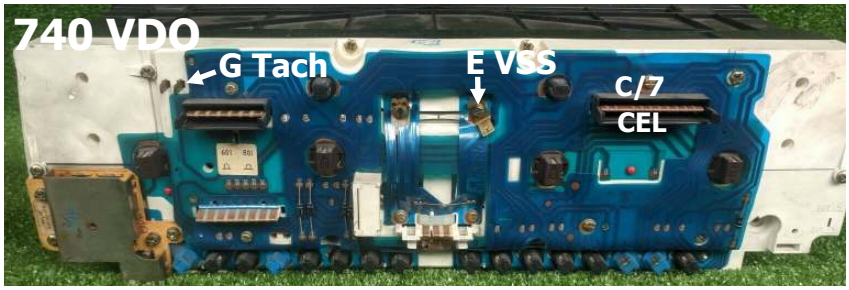
HARNESS CONNECTIONS PLUG B (Origin)			CAR CONNECTIONS (Destination)
B1. Blue:	from **7/6**, 1/35	**ICU pin 6**, ECU pin 35.	Connect this to **switched power** from ignition switch Terminal 15 (or any 12v circuit "ON" with Ignition Switch in the "RUN" position). **This circuit may be combined with wire B3 Blue.** Ensure the 12v connection used also remains "ON" when the key is turned to the "CRANK" position.
B2. Red/Yell (fat):	from 4/5	Fuel Relay pin 5.	This is the output from the Fuel Pump Relay to supply power to the fuel pumps.
B3. Blue (fat):	from **23b**	**Coil +.**	Connect this to **switched power** from ignition switch Terminal 15 (any 12v circuit "ON" with Ignition Switch in the "RUN" position). **This circuit may be combined with wire B1 Blue.** Ensure the 12v connection used also remains "ON" when the key is turned to the "CRANK" position.
B4. Blk/Blue:	from 1/34	ECU pin 34.	Connect to pulse signal from LH 2.4 speedometer output pin if available. This signal is produced by an LH 2.4 compatible speedo (**pin E**) which is connected to the differential VSS. **See NEXT DIAGRAM for instrument cluster pins**.
B5. Violet:	from 1/26	ECU pin 26.	May be connected for Shift Up Light for a manual transmission car if this system is present.
B6. Pink/Wht (2 wires):	from 1/22, **7/3**	ECU pin 22, **ICU pin 3.**	Check engine light (CEL). Connect to pin **C/7 (740) or C/9 (940)** of an LH 2.4 compatible instrument cluster. **See NEXT DIAGRAM for these instrument cluster pins**.
B7. Pink:	from 1/30	ECU pin 30.	Supplies LH ECU pin 30 with momentary power when starter is engaged for idle enhancement. If used, connect this wire to starter solenoid circuit. The starter solenoid circuit is normally the Blue/ Yellow wire in the under dash multi-pin plug or 8-pole firewall plug.
B8 Red/White	from **22/1**	**Ign Powerstage pin 1.**	Output to tachometer lead if needed for your tach or any other device. You may connect this wire to your tach input pin shown in the next diagram. **Pin G (740) or A/6 (940).** **See NEXT DIAGRAM for tach spade connection**.

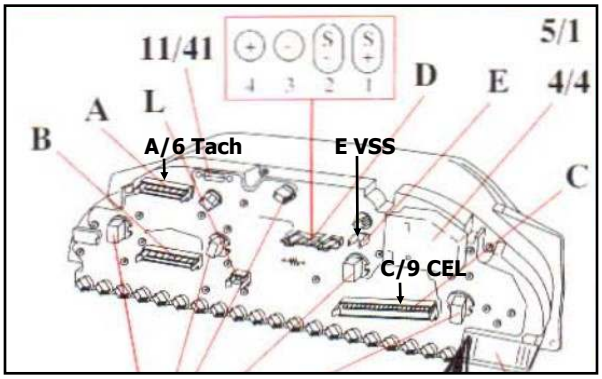
Notes for locations of instrument cluster pins: 740 and 940.

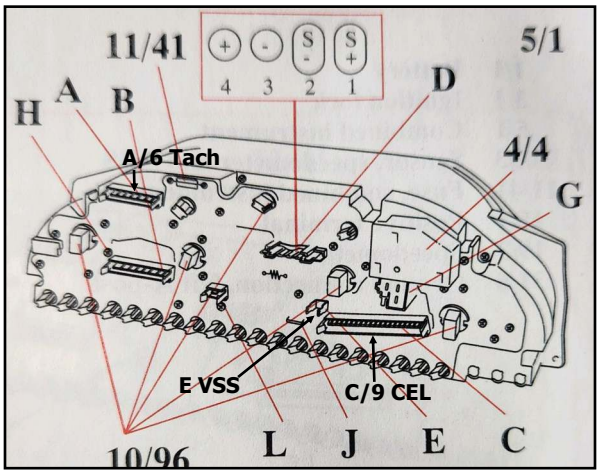




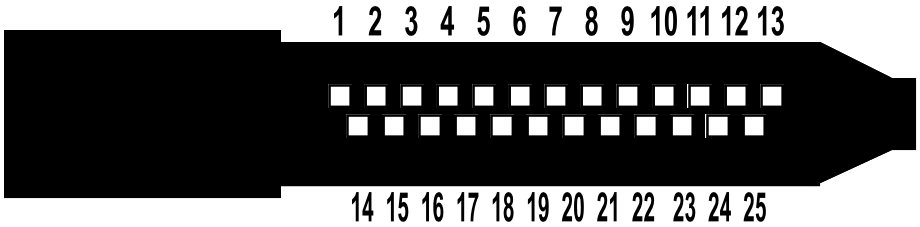








7 25-Pole Ignition Control Unit (ICU) Connector. Wire leads are extended to allow mounting of this ICU in or near the factory left dash position.



VIEW FROM FRONT

VIEW FROM FRONT FACE— USE POLE NUMBER MARKINGS ON PLUG

	WIRE COLOR	DESTINATION	DESTINATION DESCRIPTION	ICU FUNCTION
1.	**White:**	**to 21/6**	**8-pole OBD pin 6.**	**Signal output to diagnostic socket.**
2.	**Blue/Red:**	**to 12/1**	**Temp Sens pin 1.**	**Signal input from Coolant Temp. (CLT).**
3.	**Pink/Wht:**	**to 1/22, 6B6**	**ECU pin 22, White 8-pole plug pin B6.**	**Signal to Check Engine Light (CEL).**
4.	**Brown/Wht:**	**to 1/28**	**ECU pin 28.**	**Knock Sensor output to ECU.**
5.	**Red:**	**to 1/4, 4/3, 20**	**ECU pin 4, Relay pin 3, LH fuse.**	**12v power constant (terminal 30).**
6.	**Blue(2 wires):**	**to 1/35, 6B1**	**ECU pin 35, White 2-pole plug pin B1.**	**12v switched (terminal 15).**
7.	**Yell/White (2 wires):**	**to 1/2, 13/1**	**ECU pin 2, TPS pin 1.**	**Input signal from TPS when throttle is closed (idle).**
8.	**Brn/Yell:**	**to 1/25**	**ECU pin 25.**	**Load signal input from MAF via ECU.**
9.	Empty			
10.	**Blue (shielded):**	**to 10/1**	**Crank Pos Sens pin 1.**	**Input from Crank Position Sens (CPS).**
11.	**Blk (shield for 10 & 23):**	**to 10/3**	**Crank Pos Sens pin 3.**	**Shield for CPS (both wires).**
12.	**Blk (shield for 13):**	**to 17/2**	**Knock Sens pin 2.**	**Shield for Knock Sensor.**
13.	**Green (shielded):**	**to 17/1**	**Knock Sens pin 1.**	**Input signal from Knock Sensor.**
14.	Empty (relevant to EGR Ground)			
15.	Empty (relevant to EGR Control)			
16.	**Gray (shielded):**	**to 22/5**	**Ign Powerstage pin 5, (Shield is at Diag. 22/3)**	**Ignition pulse output to Powerstage.**
17.	**Brown:**	**to 1/1**	**ECU pin 1.**	**Engine speed signal output to ECU.**
18.	Empty			
19.	Empty			
20.	**Blk/Brown:**	**to 15b**	**Ground Ring b.**	**Ground for ICU.**
21.	Empty			
22.	Empty (relevant to EGR Temp Sensor)			
23.	**Red (shielded):**	**to 10/2**	**Crank Pos Sens pin 2.**	**Input from Crank Position Sens (CPS).**
24.	Empty			
25.	Empty			

8 6-Pole Female Mass Air Flow (MAF) Sensor EFI Connector. 50” lead from firewall junction for reach to Turbo or non-turbo position.

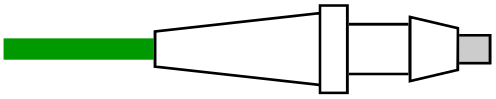
WIRE COLORS:

1.	Blk/Brn:	to 15a	Ground Ring a
2.	Green/Yell:	to 1/6	ECU pin 6.
3.	Red/Wht:	to 1/7	ECU pin 7.
4.	White:	to 1/8	ECU pin 8.
5.	Blk/Red:	to 4/1	Fuel Relay pin 1.
6.	empty		

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

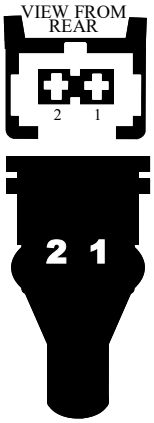
9a

1-Pole Male Oxygen Sensor Connector.



Green (shielded): to 1/24 ECU pin 24.

9b



2-Pole Female EFI Connector.
For Oxygen Sensor Heater Circuit

Wire Colors:

1.	Red/Yellow (fat):	to 6b2, 4/5	Multi-pin plug, Fuel Relay pin 5 (12v).
2.	Black:	to 15a	Ground Ring a.

10

3-Pole Female EFI Connector. Crank Position Sensor.

WIRE COLORS*

1.	Blue:	to **7/10**	(shielded wire)	**ICU pin 10.**
2.	Red:	to **7/23**	(shielded wire)	**ICU pin 23.**
3.	Black:	to **7/11**	(shield for above)	**ICU pin 11.**

Blue/Yell and Red/Yell are shielded pair with Black connected to the shield.

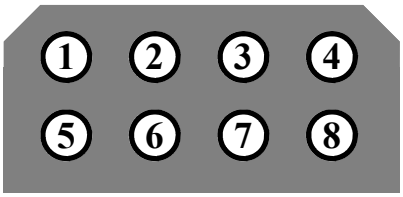
⑪ 8-Pole Female BULLET Connector.

LEFT side Firewall

This connector is used to provide circuit connections for the Oil Pressure Sender, Coolant Temperature Sender (for dash gauge) and the Starter Solenoid. It may change in wire order depending on which year 740 you have.

This connector plugs into the existing mating 8-pole MALE connector near your left fender, which supplies these circuits to your dash area.

FEMALE



VIEW FROM REAR

WIRE COLOR ORDER FOR **1985-86 740 TURBO OR NON-TURBO**:

1. Yellow	To Conn. 24	1-pole Coolant Temp Sender (for dash cluster gauge).
2. Black	To Conn. 29	Oil Pressure Sender.
3. empty		
4. Red	To Conn. 27	Alternator D+ wire.
5. Blu/Yel	To Conn. 19	Starter solenoid.
6. Green	To Conn. 28	Oil pressure sender (for opt. 52 mm gauge).
7. empty		
8. empty		

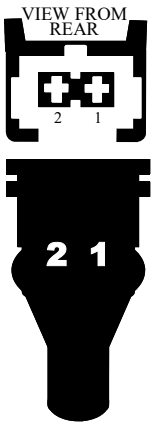
If a Brown wire exists in position 3 in your mating 8-pole connector, it should be removed and ignored.
If an Orange wire exists in position 6 in your mating 8-pole connector, it should be removed and ignored.

WIRE COLOR ORDER FOR **1987-92 740 TURBO OR 1987-91 740 NON-TURBO**:

1. Yellow	To Conn. 24	2-pole Coolant Temp Sender (for dash cluster gauge).
2. Black	To Conn. 29	Oil Pressure Sender.
3. empty		
4. Red	To Conn. 27	Alternator D+ wire.
5. Blu/Yel	To Conn. 19	Starter solenoid.
6. Green	To Conn. 28	Oil pressure sender (for opt. 52 mm gauge).
7. empty		
8. Yellow/Black	to Conn. 24	2-pole Coolant Temp Sender (for dash cluster gauge).

If a Brown or Black wire exists in position 3 in your mating 8-pole connector, it should be removed and ignored.
If an Orange wire exists in position 6 in your mating 8-pole connector, it should be removed and ignored.
If any wire exists in position 7 in your mating 8-pole connector, it should be removed and ignored.
If Brown wire exists in position 8 in your mating 8-pole connector, it should be left there.

12



2-Pole Female EFI Connector.
Coolant Temperature Sensor

Wire Colors:

1.	Blue/Red:	to **7/2**	**ICU pin 2.**
2.	Blue/Red:	to 1/13	ECU pin 13.

13

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

WIRE COLORS

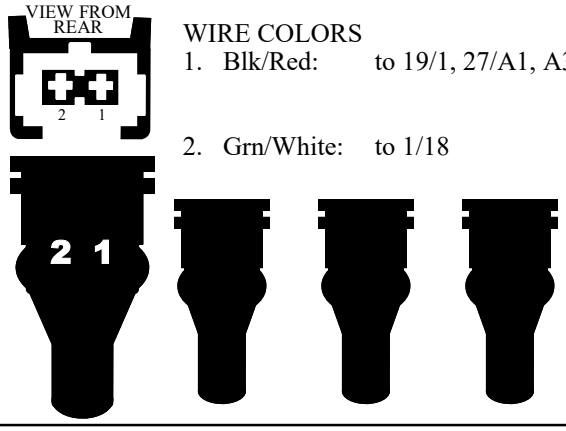
1.	Yell/White:	to **7/7**, 1/2	**ICU pin 7**, ECU pin 2 (idle signal).
2.	Black:	to 15c	Ground Ring c.
3.	Blk/White:	to 1/3	ECU pin 3 (WOT). **SEE NOTE BELOW**

PIN 3 NOTE: Pin 3 Blk/White wire above goes to ECU pin 3. It's a Wide Open Throttle (WOT) signal used for the B230F only. This circuit is NOT used in a TURBO ECU. So if you're using a TURBO ECU, it is advisable to cut or disconnect this Blk/White wire.

**Number markings on plug

NOTE: BLUE TAPE

14



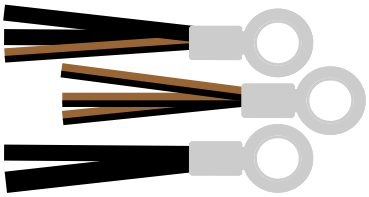
2-Pole Female EFI Connectors.
Fuel Injectors (x4)

WIRE COLORS

1.	Blk/Red:	to 19/1, 27/A1, A3, A4 or A6	Idle Valve pin 1, Injector Ballast Resistor Plug pins A1, A3, A4 or A6.
2.	Grn/White:	to 1/18	ECU pin 18 (control signal from ECU).

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

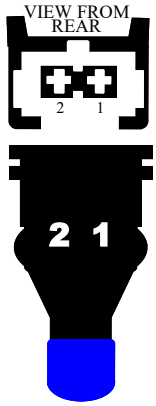
15
a, b, c



Two or Three Ground Rings.
Bolted to Intake Manifold

WIRE COLORS		
15a. Blk/Brn, Black(2 wires):	to 8/1, 9b2, **22/2**	MAF pin 1, O2 Sens 9 pin b2, **Ign Powerstage pin 2.**
15b. Blk/Brn (3 wires):	to 2b2, **7/20**, 21/8	2-pole loop 2 pin b2, **ICU pin 20**, 8-pole OBD pin 8.
15c. Black (thin):	thin to 13/2	TPS pin 2.
Black (fat):	fat to 1/17	ECU pin 17.

16

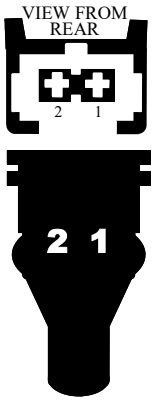


2-Pole Female EFI Connector. Cold Start Injector. BLUE TAPE
This Injector is Optional. It came on 700 Turbo versions. It was not present on 240 models, but it may be used if you're using a Turbo ECU.

1.	Blk/Red:	to 27/A2	Fuel Inj Ballast Resistor Plug pin A2.
2.	Blk/White:	to 1/32	ECU pin 32 (control signal).

NOTE: Blk/Red wire for this connector is joined to four Blk/Red Fuel Injectors through the ballast resistor plug (Connector 27).

17



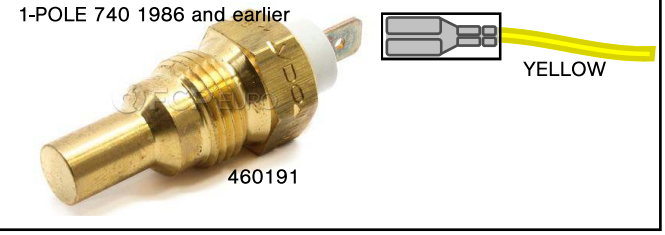
2-Pole Female EFI Connector. Ignition Knock Sensor.
Knock sensor needs to be Bosch style.

1.	**Green:**	**to 7/13**	**(shielded wire)**	**ICU pin 13.**
2.	**Black:**	**to 7/12**	**(shield for above)**	**ICU pin 12.**

18

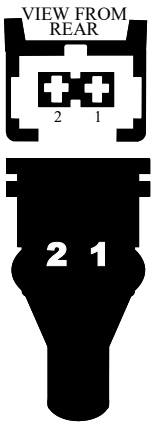
1-Pole or 2-Pole Coolant Temp Sender (for dash cluster gauge).

NOTE: A 2-pole style temp sender, PN 1362645, is supported by this harness, which fits a 1987 and later 740. Or this plug may be altered to a 1-pole plug for a 1-pole VDO sender for 1986 and earlier 740, sender Volvo PN 460191.
A 1-pole plug will use the Yellow wire only.



1. Yellow/Black	To Conn. 14, pin 8	8-pole Female Volvo Firewall Connector (1987 and later only).
2. Yellow	To Conn. 14, pin 2	8-pole Female Volvo Firewall Connector.

19



2-Pole Female EFI Connector.
Idle Valve. LH 2.4 compatible type.

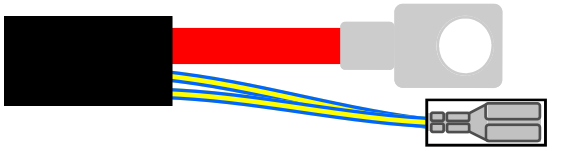
1.	Blk/Red:	to 4/6, 27/A2	Fuel Relay pin 6, Fuel Inj. Ballast Resistor Plug pin A2.
2.	Green/Red:	to 1/33	ECU pin 33 (control signal).

**Number markings on plug are under rubber boot.

NOTE: Blk/Red wire for this Idle Valve is joined to four Blk/Red Fuel Injectors through the ballast resistor plug (Connector 27).

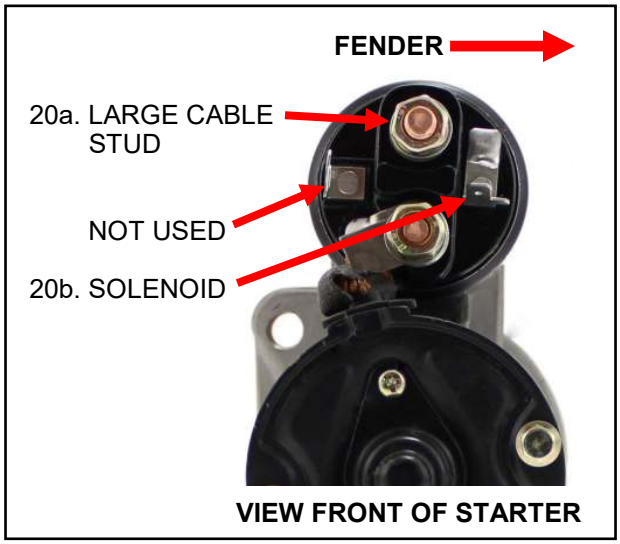
20
a, b

STARTER MOTOR CONNECTIONS



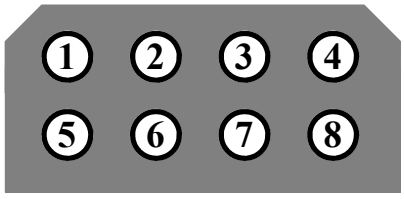
Wire Colors:

20a.	Red fat cable:	to 25a	Alternator B+.
20b.	Blue/Yell:	to 11/5	8-pole black firewall plug pin 5.



21

8-Pole Female Bullet Connector.
For On Board Diagnostic (OBD).

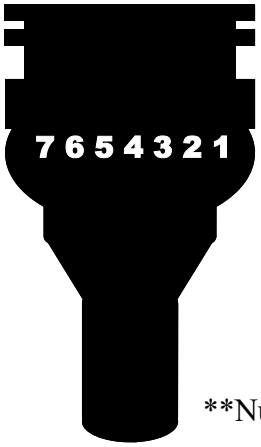


VIEW FROM REAR

WIRE COLORS:

1.	Empty		
2.	Blk/Green:	to 1/12	ECU pin 12.
3.	Empty		
4.	Blue:	to **7/6**	**ICU pin 6.**
5.	Empty		
6.	White:	to **7/1**	**ICU pin 1.**
7.	Empty		
8.	Blk/Brown:	to 15b	Ground Ring b.

22



7-Pole Female EFI Connector. Ignition Power Stage.

Left front fender. The lead for this connector has been made long enough to place the Power Stage in the factory 240 location at the front left. It is generally thought that Volvo placed it there for best cooling.

1.	**Red/White (2 wires):**	**to 6b8, 23a**	**White 8-pole plug pin b8, Ign Coil Neg.**
2.	**Black:**	**to 15a**	**Ground Ring a.**
3.	**Gray (Shield)**		**Shield ground for 22/5 below.**
4.	**Blue (fat):**	**to 6B3, 7/6, 23b**	**Multi-pin plug, ICU pin 6, Ign Coil Positive.**
5.	**Gray (shielded):**	**to 7/16**	**ICU pin 16.**
6.	Empty		
7.	Empty		

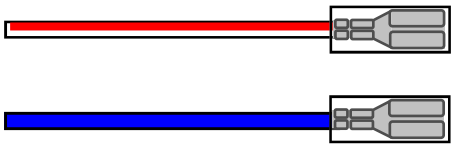
**Number markings embossed on plug are under rubber boot.

23

a, b

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).

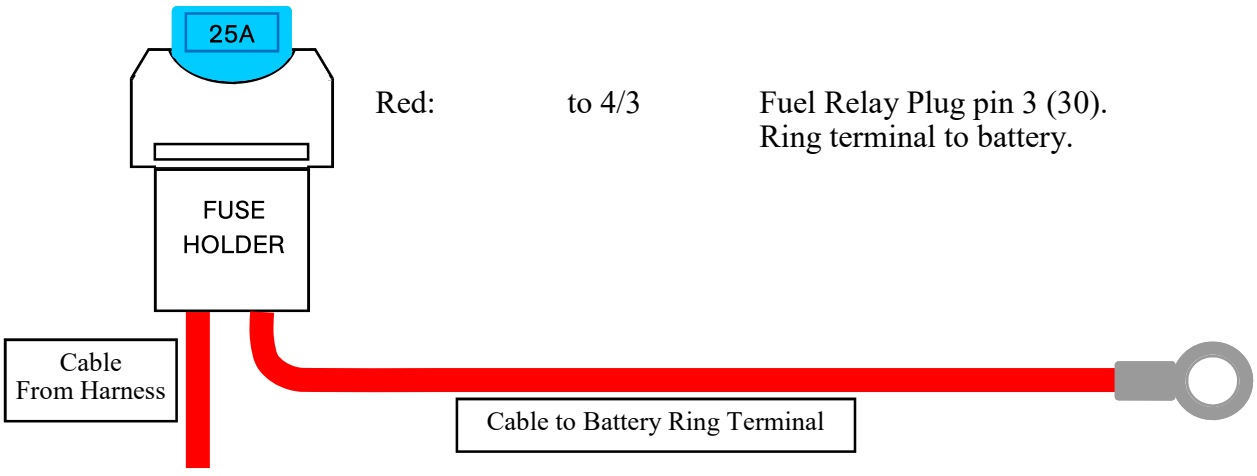


a.	**Red/White:**	**to 22/1**	**Ign Power Stage pin 1.**
b.	**Blue:**	**to 6B3, 22/4**	**Multi-pin plug, Power Stage pin 4.**

24

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

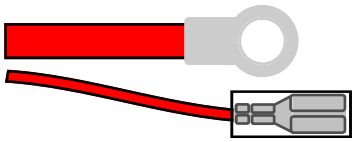
With battery in left-front position.



Red:	to 4/3	Fuel Relay Plug pin 3 (30). Ring terminal to battery.

25

a, b



Alternator Connections.
Heavy Red cable (B+).
Red wire (D+) 6.3 mm terminal with insulator.

a.	(B+) Red Cable:	to 20a	Starter.
b.	(D+) Red:	to 11/3	8-pole firewall connector pin 3.

Below lead extends under the engine to the right side for Oil Pressure Sender.

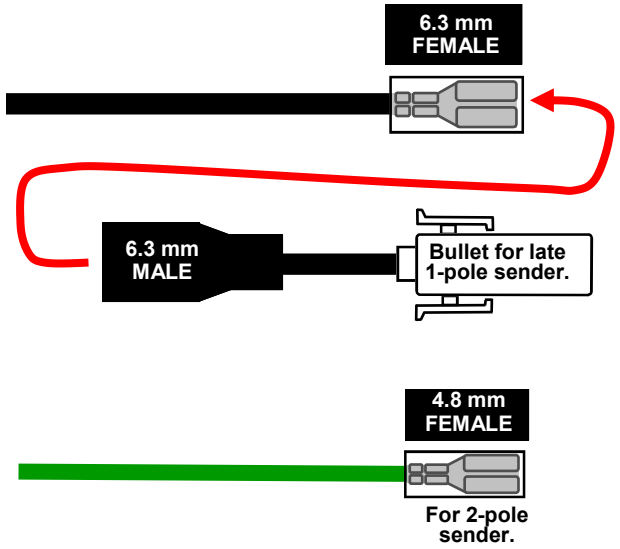
26

Oil Pressure Sender (OPS)

26a: **(Black wire)** 6.3 mm FEMALE terminal. Used by itself only with early style 1-pole oil pressure sender that has a flat spade. Also used for a 2-pole oil pressure sender (accessory OP gauge) in conjunction with the below green wire.

Short adapter: **(Black wire)** This is a 6.3 mm MALE terminal with a FEMALE BULLET plug on other end. This adapter is plugged into the above black wire and used for a LATER style 1-pole oil pressure sender using a bullet connector.

26b: **(Green wire)** 4.8 mm FEMALE terminal. Used only with a 2-pole oil pressure sender for an accessory oil pressure gauge.



WIRE COLORS:

26a. Black:	to 11/1	8-pole black firewall plug pin 1.
26b. Green:	to 11/6	8-pole black firewall plug pin 6.

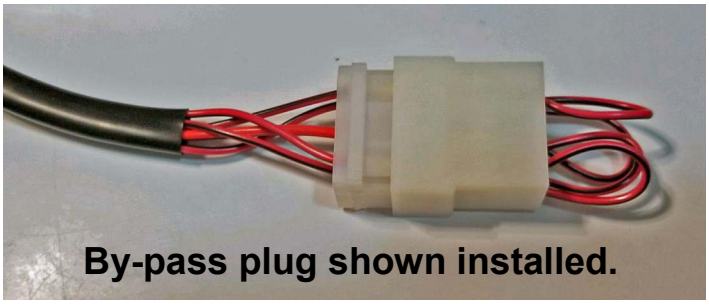
27

Notes for 6-Pole Female Connector

EFI RESISTOR PACK PLUG

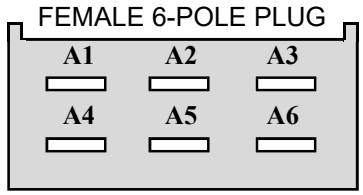
This harness is equipped with the below CONNECTOR and included BY-PASS ADAPTER.
Using the by-pass adapter this harness will support **High Impedance Injectors**.
If you decide to use **Low Impedance Injectors**, you must unplug the by-pass adapter and instead plug in any standard **Volvo 740 Turbo (B230FT) fuel injector Ballast Resistor Pack.**

CAUTION:
Using low impedance injectors WITHOUT a ballast resistor pack can DAMAGE your LH 2.4 ECU.



By-pass plug shown installed.

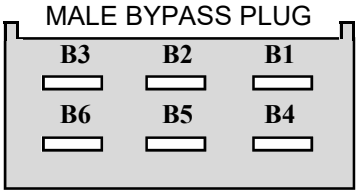
B230FT RESISTOR PACK for low impedance injectors (not included).



VIEW FROM REAR OF PLUG

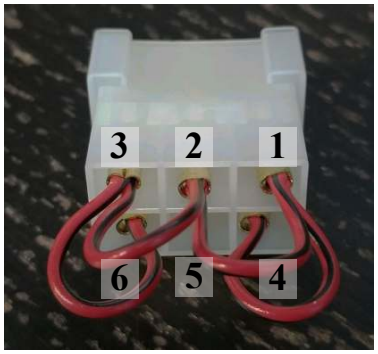
6-POLE PLUG WIRE CONNECTIONS:

Pin A1: BLK-RED	to 14/1	Fuel Injector plug pin 1.
Pin A2: BLK-RED (fat)	to 4/1, 4/6	Fuel Relay plug pins 1 & 6 (12v source).
Pin A3: BLK-RED	to 14/1	Fuel Injector plug pin 1.
Pin A4: BLK-RED	to 14/1	Fuel Injector plug pin 1.
Pin A5: empty		
Pin A6: BLK-RED	to 14/1	Fuel Injector plug pin 1.



VIEW FROM REAR OF PLUG

6-Pole MALE Connector BYPASS Plug.
This bypass plug should be in place when HIGH Impedance Injectors are to be installed.



BYPASS PLUG WIRE CONNECTIONS:

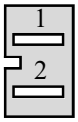
Pin B1: BLK-RED	to pin 2, 4
Pin B2: BLK-RED	to pin 1, 3, 4, 6
Pin B3: BLKL-RED	to pin 2, 6
Pin B4: BLK-RED	to pin 1, 2
Pin B5: empty	
Pin B6: BLK-RED	to pin 2, 3

28

2-Pole Female 6.3 mm.

Optional connector with low speed and high speed ECU ground signal outputs for controlling a 2-speed electric cooling fan relay. Outputs may be extended to relay if desired.

VIEW FROM REAR



1.	Blk/Blu:	to 1/10	35-pole ECU, pin 10 (low speed).
2.	Blk/Wht	to 1/11	35-pole ECU, pin 11 (high speed).

Later 740 models and 940 models with LH 2.4 ECUs had these circuits available coming from pins 10 and 11. These are ground signals, which are available to turn on the low speed and high speed fan relay at preset coolant temperatures, which are read by the LH engine coolant temperature (ECT) sensor.

According to Volvo literature, the fan low speed operates when the ECT sensor read above 102°C (216°F) **AND** the AC system pressure is greater that 17 bar (247 psi) on the high pressure side **AND** the vehicle speed is less than 100 km/h (60 mph).

The fan high speed operates the ECT sensor reads 115°C (240°F) **OR** the AC system pressure exceeds 22 bar (320 psi) on the high pressure side.

The fan always starts at half speed for 15 seconds before it can operate at full speed. It always runs at half speed for at least 5 seconds when it stops operating at full speed. If the ignition is turned off when the fan is at full speed, it will continue at half speed for 5 seconds.

To avoid engine overload, there is a delay which prevents the fan from starting for 9 seconds after engine has been started, no matter what the engine temperature or AC pressure.

To help cool the engine and avoid overheating, the fan will continue to operate at half speed for 3 minutes if the ECT exceeds 105°C (221°F) when the ignition is switched off.