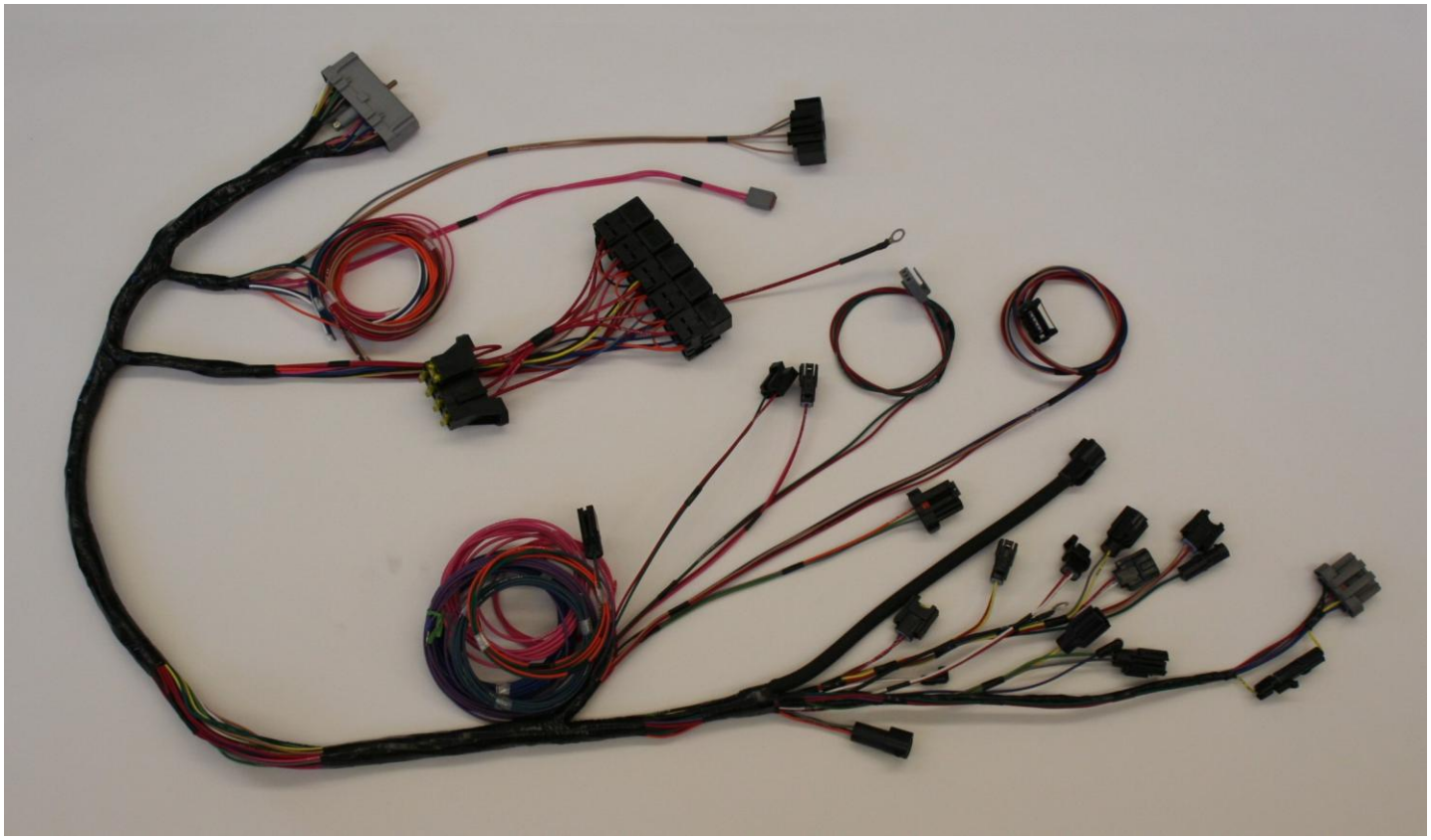
RON FRANCIS Wiring

PIMP 2.3 Turbo Harness – FULL SEQUENTIAL

Installation Manual



Part Number: PM-66

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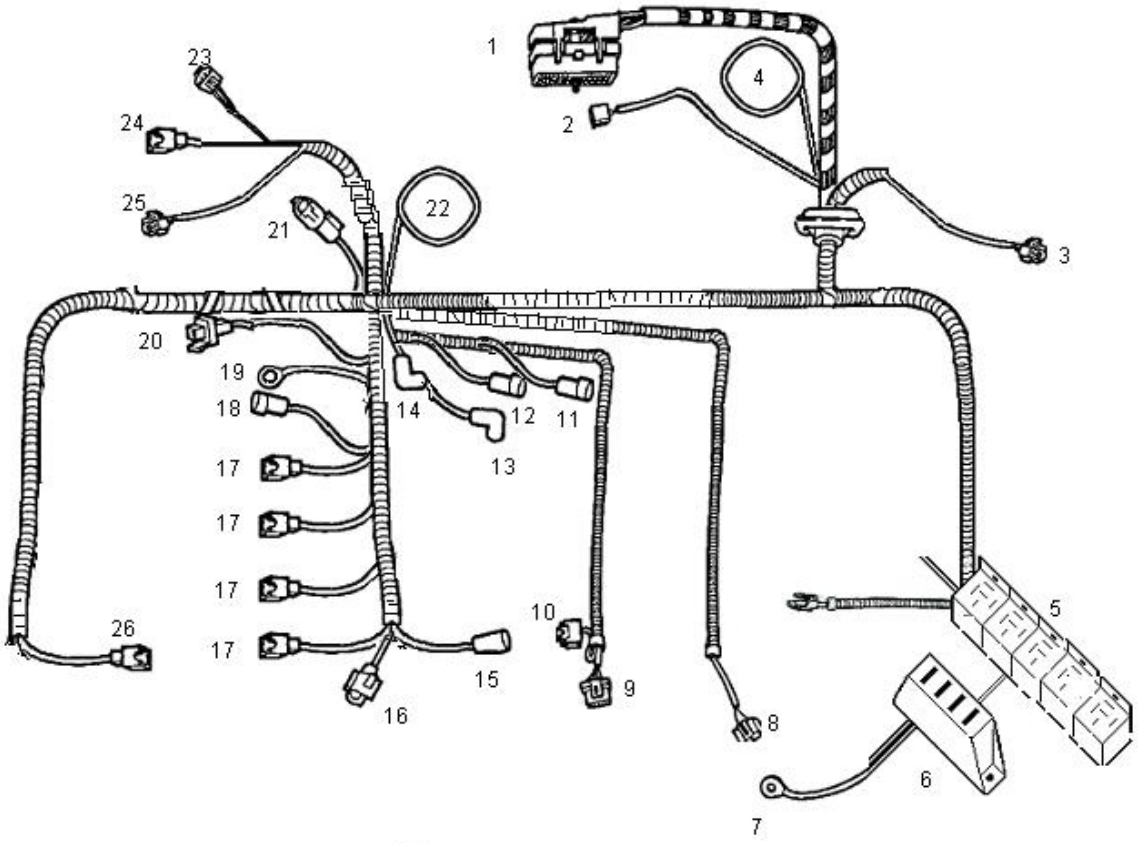
Pre-Installation Notes:

- This system is designed to install a PIMP based ECM into Ford bodied vehicles.
- Please thoroughly read and comprehend the documentation Stinger provides with the PIMP ECM.
- Make sure that all the components you have are compatible before installing them.
- This harness includes no provisions for emissions (EGR).
- This harness is designed so that once installed on the engine, the harness can run to the passenger or driver's side, depending on the application.
- We have provided a connector for a typical Ford heated oxygen sensor, as found on the 87-88 2.3 Turbo Coupe. If using a wideband O2, see item 12 below.
- Always disconnect the battery when working on vehicle's fuel or electrical systems. Any electrical spikes can damage parts of the fuel injection system.
- Use extreme caution if and when welding on any vehicle with a fuel injection system.
- We have supplied an install kit that includes four sizes of zip loom, two sizes of tie wraps, two rolls of wrap tape and a fire wall grommet. Once you have finalized the wire paths for the harness, use the install kit to finish off the harness. Proper planning and patience will create a good looking job when complete.

Pre-Installation Instructions:

Install the lower intake, fuel injectors, and fuel rail on the engine if not already installed. Remove the upper intake if it is installed and install stock fuel pressure regulator. Plumb fuel lines with appropriately rated line. Use caution when working on fuel system, 40-100PSI can be held within system. To release fuel pressure, remove fuse or relay to fuel pumps, then start engine and allow it to stall. Crank starter for several seconds to insure all pressure has been released.
Before installation spread out the harness in a well lighted open area to identify all the connectors and become familiar with what will need to be done.



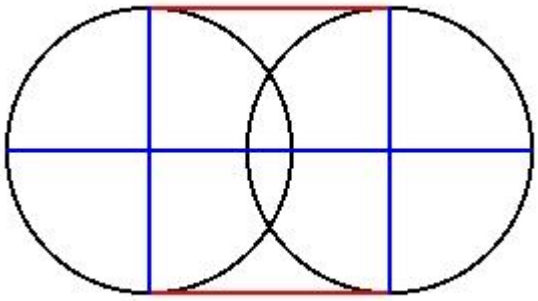
1) Computer Connector
2) Inertia Fuel Cutoff Switch
3) Not present in this harness
4) Tachometer, Ignition Feed
   Oil Press, Water Temp Gauge Feeds
   Launch Control Lead, Table Switch Lead
5) Relay Center
6) Fuse Center
7) Main Battery Feed
8) Ignition Coil Connection
9) TFI Distributor Connector
10) Spout Connector
11) Air Charge Temp Sensor
12) Not present in this harness
13) Water Temp Sender Lead
14) Oil Pressure Sender Lead
15) Alternator Connection
16) Engine Coolant Temp Sensor
17) Injectors (4)
18) Throttle Position Sensor
19) Ground Connection
20) Idle Speed Control
21) Oxygen Sensor Connector
22) Fuel Pump Lead, Vehicle Speed Sensor Lead, A/C Comp Signal, Fan Lead, Overboost Lead
23) Not present in this harness
24) Boost Control Solenoid Connector
25) Not present in this harness

Installation Instructions:

Refer to the diagram for item locations. All wires are marked indicating their use.

1 Once mounted on the engine, this harness is designed to run either way on the firewall (left or right).

2 If applicable, locate where on the firewall you wish to route the computer plug and other dash connections. Using the grommet supplied, cut the appropriate hole in the firewall. Use the following template for the grommet:



3 Pass the engine section of the harness through the firewall. Route as much of the harness as possible before mounting the computer or covering the harness. This ensures a quality installation.

4 Begin positioning the harness by connecting the four injector connectors (item 17) into the injectors. Injectors 1 & 2 have **Red** and **Tan** wires, Injectors 3 & 4 have **Red** and **Yellow** wires. The wires are marked for identification.

5 An alternator "exciter" wire (item 15, **Green** wire) is provided for your convenience. This is not a circuit capable of charging your vehicle. This wire simply turns the alternator on when your key is on. On most Ford late model (2G & 3G) alternators, this wire would be attached to the wire that is Green with a Red Stripe. **THIS WIRE IS HERE FOR YOUR CONVENIENCE AND DOES NOT HAVE TO BE USED.**

6 Connect the Engine Coolant Temp sensor (item 16, **Yellow** and **Grey** wires marked CTS) in the center of the intake. Then connect the Air Charge Temp sensor (item 11, **Green** and **Grey** wires marked ACT). We have provided considerable length on the ACT wiring so that it can be located in various areas depending on your application.

7 Carefully extend the TFI connector (item 9) under the intake and connect at the distributor. This connector has **Green**, **Red**, **Black**, **Yellow**, **Dk Blue** and **Purple** wires, many are marked TFI.

8 Connect the Oil PSI Gauge sender (item 14, **White** wire with 90 degree boot) at the rear of the engine. Then route the Water Temp Gauge sender (item 13, **Dk Blue** wire with 90 degree boot) down the side of the block and connect to the sender.

9 The upper intake can now be installed. Be sure to use new gaskets to prevent vacuum leaks.

10 Connect the Throttle Position sensor (item 18, **Green**, **Orange** and **Grey** wires marked TPS) and the Idle Speed Control/Idle Air Bypass (item 20, **White** and **Red** wires marked IAB).

11 The ground wire (item 19, **Black** wire) should now be attached to an engine bolt with metal showing. No paint or powdercoating can be present at the ground location. The stock grounding point was at the back of the upper intake. Connecting the ground to a bolt mounting the upper and lower intake is fine. Be sure the engine and battery are grounded to the frame as well.

12 Working your way to the other side of the engine (passenger side), connect the oxygen sensor (item 21, **Grey**, **Black** and **Green** wires marked R-O2) to its connector and be sure to attach any free harness to the firewall or frame to keep them from falling against the exhaust before initial start up. If you are using a wideband oxygen sensor, the **Green** wire is the signal to the ECM (Pin 29). The **Black** wire is a ground, and the **Grey** wire is switched and fused 12 volt.

13 At the rear of the engine there are several connectors and wires where you have the freedom of mounting location. Route the Vehicle Speed sensor and the Fuel Pump power connectors down along the frame rail. Keep them away from hot exhaust moving parts like the driveshaft.

a) Install Vehicle Speed Sensor (item 22, **Orange** and **Green** wires marked VSS) between the transmission and speedometer cable. Route the Vehicle Speed Sensor connector along the frame rail and plug into the Vehicle Speed Sensor.

b) The 14Ga pink wire (item 22 marked **Inertia->FP**) is for power to your fuel pump(s); you will need to splice this wire if you are using 2 fuel pumps that are not mounted together. Make sure the fuel pump(s) are well grounded.

c) Mount the Boost Control Solenoid (item 24, **Red** and **Pink** wires marked BCS) to your firewall and connect it to the harness.

d) Also included in this area of the harness (item 22) is the fan wiring.

-connect to an ECM controlled electric fan (lead is provided but fan must be grounded) This wire is **Lt Blue** is marked Primary Fan.

15 Carefully route the Ignition Coil connector (item 8, **Dk Green** and **Red** wires marked IGN / IDM) along firewall and fender to the coil. Keep Radio power wires and antenna cables away from Ignition Coil to prevent future distortion or interference.

16 Item 4 is a group of wires under the dash.

Color	Printing	Purpose
Orange	Keyed Run	Ignition Power Supply
Purple	Start	Start Signal for ECM
Green	Tach	Tachometer
Dk Blue	Temp	Water Temp Gauge Feed
White	Oil	Oil Pressure Gauge Feed
Yellow	ECM 30->LAUNCH CTRL	Launch Control
Tan	ECM 24->TABLE SWITCH	Table Switching

a) Connect the Orange wire marked "Keyed Run" to the keyed ignition switch hot wire. This wire must have +12 volts with the key in run and start positions.

b) Connect the Purple wire marked "Start" to the keyed ignition start wire. This wire must have +12 volts only when the key is in the start position.

*****This circuit should only be hot when the key is cranking the engine. The intent Is that the system retards timing during crank to help the engine start up. If you connect this wire to always hot with key on you will experience an undesirable rev limiter at 2000-3000 RPM's**.

c) The Green wire marked "Tach" is for your tachometer. Connect to your tach. Refer to the tachometer manufacturer information for any additional details.

d) Connect the Dk Blue to your water temp gauge.

e) Connect the White wire to your oil pressure gauge.

e) Launch Control Lead. This is a **Yellow** wire marked ECM 30->LAUNCH CTRL. This circuit needs to go to ground to activate. For example, run this yellow wire to a switch for activating launch control. The other side of the switch would go to ground.

f) Table Switching Lead. This is a **Tan** wire marked ECM 24->TABLE SWITCH. This circuit needs to go to ground to activate. For example, run this tan wire to a switch for activating another table. The other side of the switch would go to ground.

17 It is advised that you use an inertia switch to turn off the fuel pump(s) in the event of a crash. Connector item 2 is for the Inertia Fuel Cutoff Switch. Mount the Inertia Switch completely upright and connect it to the harness. Mounting the switch any other way or bypassing this switch can cause risk or fire or loss of life. Before continuing, tap theswitch until the button on top pops up and reset it. This will confirm its action and get you familiar with how it works.

18 Connector #1 is for the computer, make sure the computer pins are not bent or damaged. Then connect the harness with a 10mm socket. DO NOT use air or power tools to install this connector!

19 Mount the Relay and Fuse Center in a suitable location. Next to the Fuse & Relay blocks is a large 10Ga red wire. Connect the 10Ga Red 3/8" terminal to Battery Positive or the starter solenoid post running to the battery.

Fuse and Relay Key	
Fuse and Relay Designation	**Fuse Size**
O2, EGR, BCS, Alternator (Relay A)	20 AMP
Fuel Pump (Relay B)	20 AMP
Coil & TFI Module ECM, Injectors & ISC (Relay C)	20 AMP
Fan Relay (Relay D)	20 AMP

Tech Line Number: 610-485-1981

Warranty Information

All Ron Francis Wiring products are warranted for 1 year from purchase date. There are no other representations, warranties or conditions expressed or implied, statutory or otherwise except those herein contained. Warranty does not cover any defect which is the result of improper installation or modification of the system or any of its components by purchaser.

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