



## WHEG01 K-series Conversion Harness Install Guide

Conversion harness installation manual Version 3.4:

### *1992-1995 Honda Civic EG & 1994-2001 Acura Integra DC*

*\*Conversion Harness may not be legal for highway use. Hybrid Racing is not responsible for any direct or indirect, actual or incidental expense attributed to the use of any performance parts sold by Hybrid Racing LLC. Purchasers agree to all of the terms of this agreement upon the purchase of parts. More information can be found at [www.hybrid-racing.com](http://www.hybrid-racing.com).*

*\*Please note that Hybrid Racing is NOT responsible in anyway for damages caused due to the incorrect installation of this product. Incorrect installation may cause damage to the ECU, Oxygen sensor and other electrical components. If you are unsure or do not fully understand the installation instructions please call our technical support line at 1.225.932.9588. ext 3 or email [will@hybrid-racing.com](mailto:will@hybrid-racing.com)*

<b>Package Contents:</b>	Conversion Wiring harness, Install guide, Zip ties and electrical connectors
<b>Parts Needed:</b>	Factory EG/DC Engine wiring harness for O2 Sensor, Fan switch and coolant temp connectors.
<b>Tools Needed:</b>	Crimp tool, wire strippers, electrical tape, 10mm, 12mm sockets, ratchet, pliers and a razor.
<b>Recommended Tools:</b>	Soldering iron, solder, heat shrink, volt meter and heat gun.

#### **Notes before installation:**

- Type R engine harnesses are for a RHD car. If your car is not RHD, consider extending the ECU connectors for easier installation.
- Soldering joints are better than plastic connectors.
- Use heat shrink over any and all soldered wires.
- Electrical tape is not a proper cover for an open wire!!

# Installation

1. Begin by removing the battery, battery tray and fuse box.



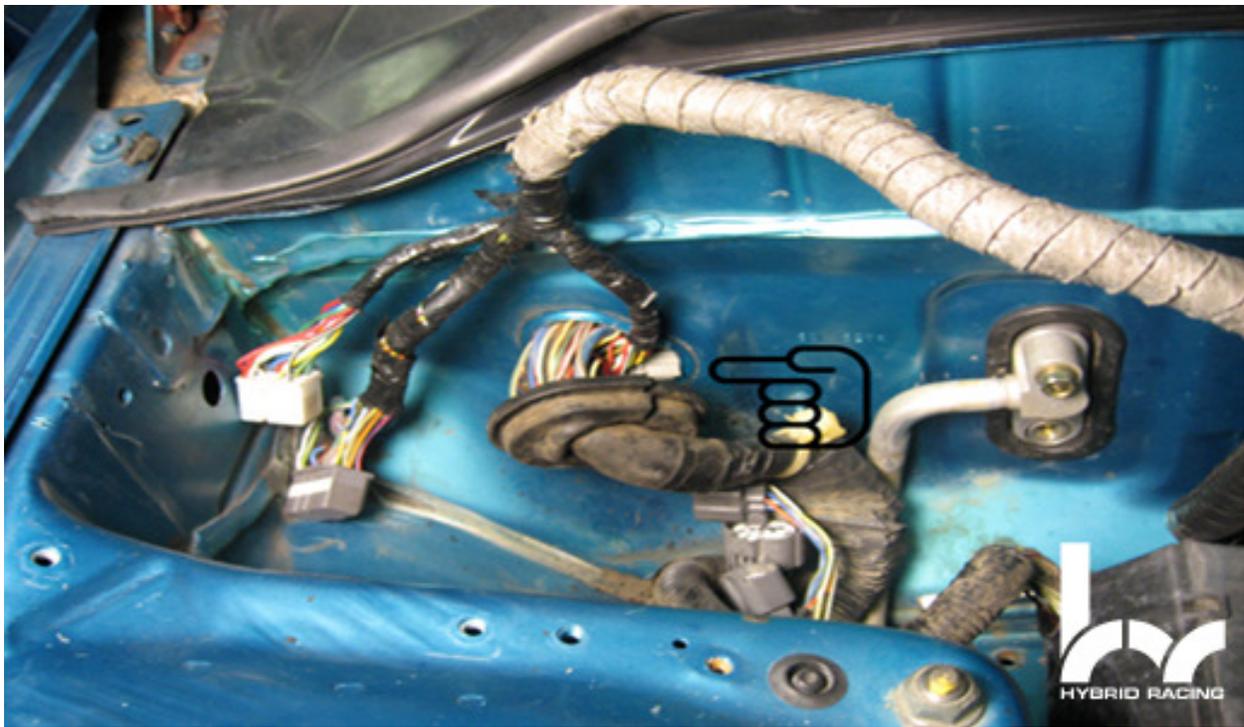
2. Locate the wires that run on the passenger side shock tower that connect to the stock B/D series engine harness. Disconnect and secure these wires under the battery tray with the supplied zip ties.



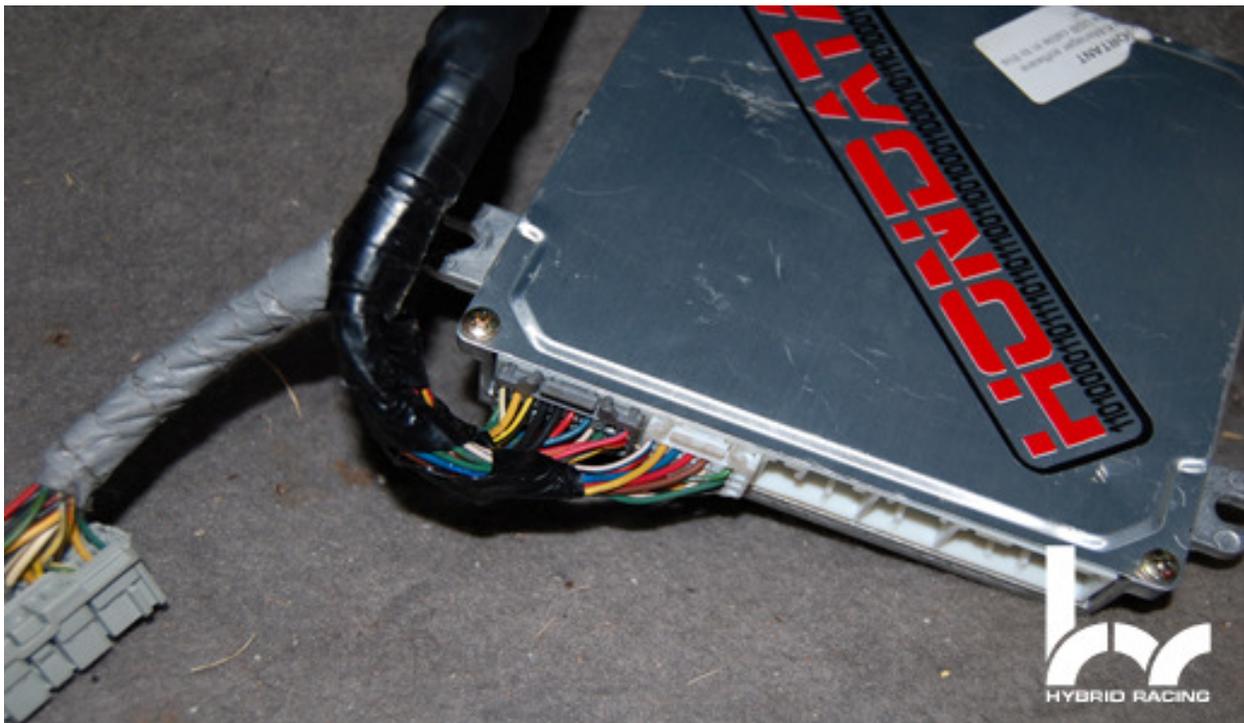
3. Remove the grommet from the firewall. Once removed make a small slit down the side of the grommet. You will not be able to fully remove the harness from the car.



4. Route the **K series engine harness** through the firewall on the passenger side utilizing the factory grommet. Start by inserting one connector at a time working your way up to the larger gray connector. You will need to remove the black and white grommet on the K series engine harness. (Removing the AC blower motor makes this much easier)



5. Locate and remove your factory ECU. This should be located under the passenger side dashboard. Remove the lower kick panel to access the ECU
6. Secure your K series ECU in the stock ECU location utilizing 2 of the original mounting bolts.
7. Insert connector A and B on your **K series engine harness** into your K series ECU. You should have one gray connector left on your K series engine harness.



8. Using the factory ECU (D/B series) connectors (inside the car, under the passenger-side dash) locate and connect the following wires.

# OBD1 Vehicles

92-95 Honda Civic EG  
94-95 Acura Integra DC

	E Plug Wire	Color	ECU Pin
1	Yellow	GRN/YEL	A7
2	Yellow	GRN/YEL	A8
3	Green	GRN/ORN	A13
4	Red	GRN/RED	D10

**\*\*For use with a JDM computer cut and ground pin A7 or A8 on the stock factory ECU connector\*\***

- **Please note that A7/A8 wires will be GRN/BLU not GRN/YEL in DC2 chassis.**
- Connect the Yellow wire from your Hybrid Racing conversion harness to the stock ECU wires Connector A, pins 7 &8. These should be Green wires with yellow stripes. If you are using a Type R ECU simply ground the wires. (FUEL PUMP RELAY)
- Connect the Green wire from your Hybrid Racing conversion harness to the stock ECU wire on Connector A pin 13. This wire should be green with an orange stripe. (MIL)
- Connect the Red wire from your Hybrid Racing conversion harness to the stock ECU wire on Connector D pin 10. (ELD)

**Use the diagrams below as a reference.**

**OBD1 ECU Connector A**

1	3	5	7	9	11	13	15	17	19	21	23	25
2	4	6	8	10	12	14	16	18	20	22	24	26

**OBD1 ECU Connector D**

1	3	5	7	9	11	13	15	17	19	21
2	4	6	8	10	12	14	16	18	20	22

# OBD2A Vehicles

96-99 Acura Integra DC

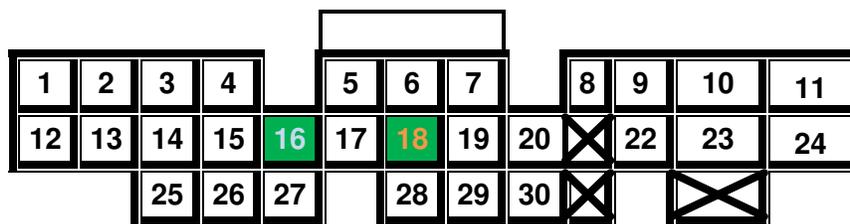
	E Plug Wire	Color	ECU Pin
1	Yellow	GRNBLUL	A16
2	Red	GRN/RED	D16
3	Green	GRN/ORN	A18

**\*\*For use with a JDM computer cut and ground pin A16 on the stock factory ECU connector\*\***

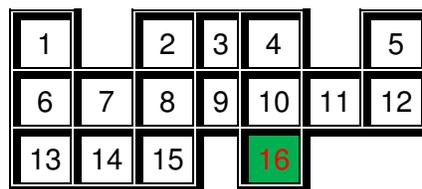
- Connect the Yellow wire on your Hybrid Racing harness to the Green wire with a yellow stripe, located on Stock ECU connector A, pin 16. If you are using a Type R ECU simply ground this wire. (Fuel Pump Relay)
- Connect the Red wire on your hybrid racing harness to the green wire with a red strip, located on Stock ECU connector D, pin 16. (ELD)
- Connect the Green wire located on your hybrid racing harness to the green wire with an orange stripe, located on stock ECU connector A, pin 18. (MIL)

**Use the diagram below as a reference**

**Stock ECU connector A**



**Stock ECU connector D**





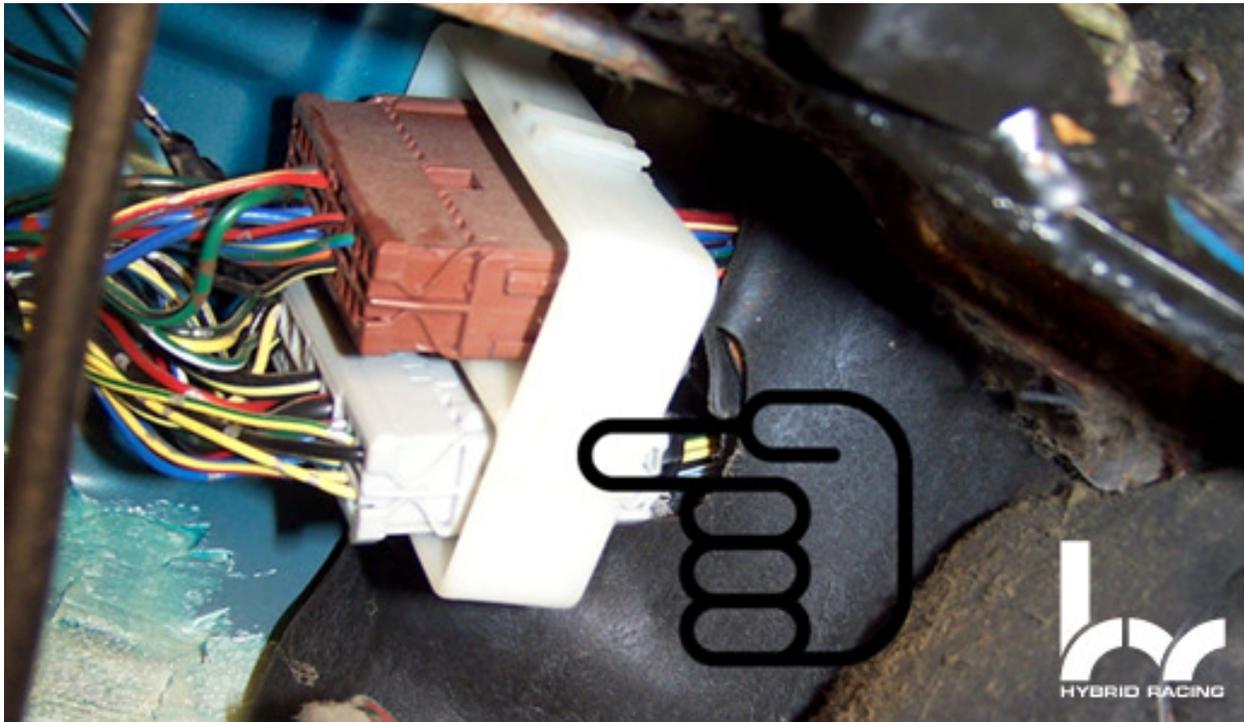
11. Once you have connected the wires as listed above you can insert the E plug (white), located on your **Hybrid Racing conversion harness**, into the K series ECU.



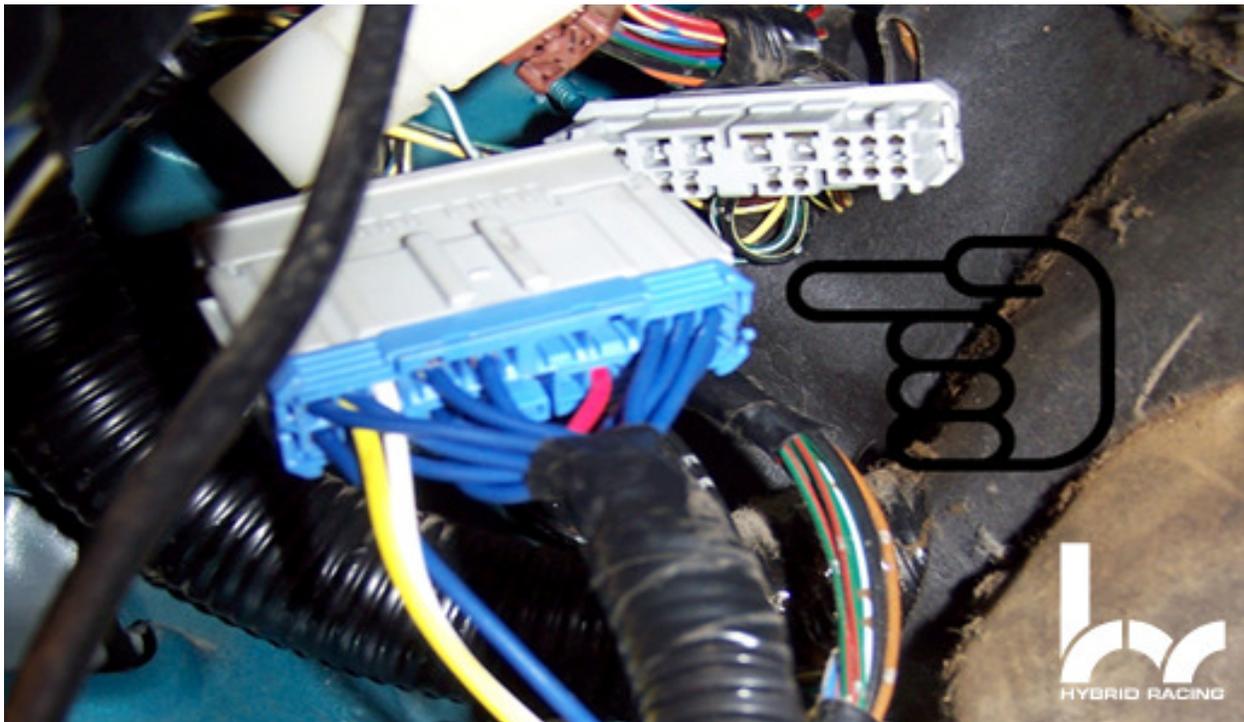
12. Insert the remaining gray connector on your **K series engine harness** into the **blue** connector on your **Hybrid Racing conversion harness**. This connector is located next to the E plug and has male pins.

13. Next run the remaining connector C101 (gray) to the driver side. There should be only one connector from the **Hybrid Racing conversion harness** located on the driver side.

14. Remove the under dash cover on the driver side and locate connector C302 (gray). It will be located next to a brown connector of the same shape. It is positioned close to the firewall in the far upper corner behind the under-dash fuse box.

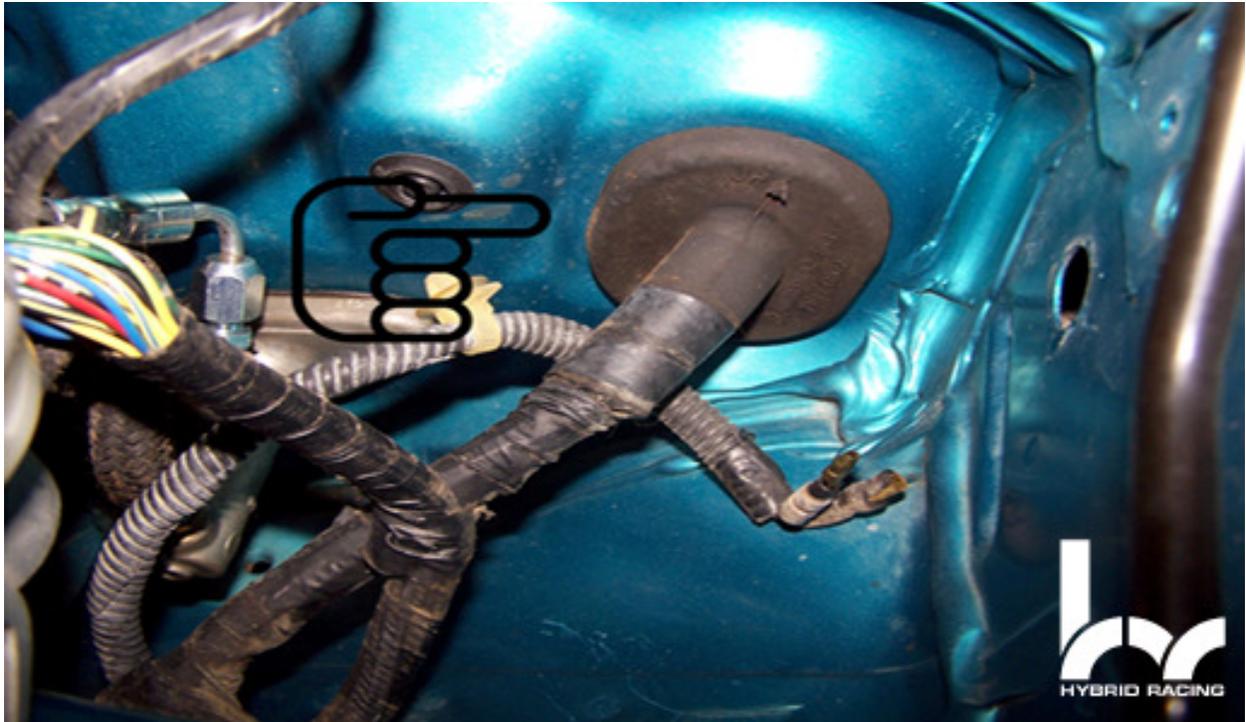


15. Now take the remaining gray connector (female) remaining on the **Hybrid Racing conversion harness** and connect it into C302.

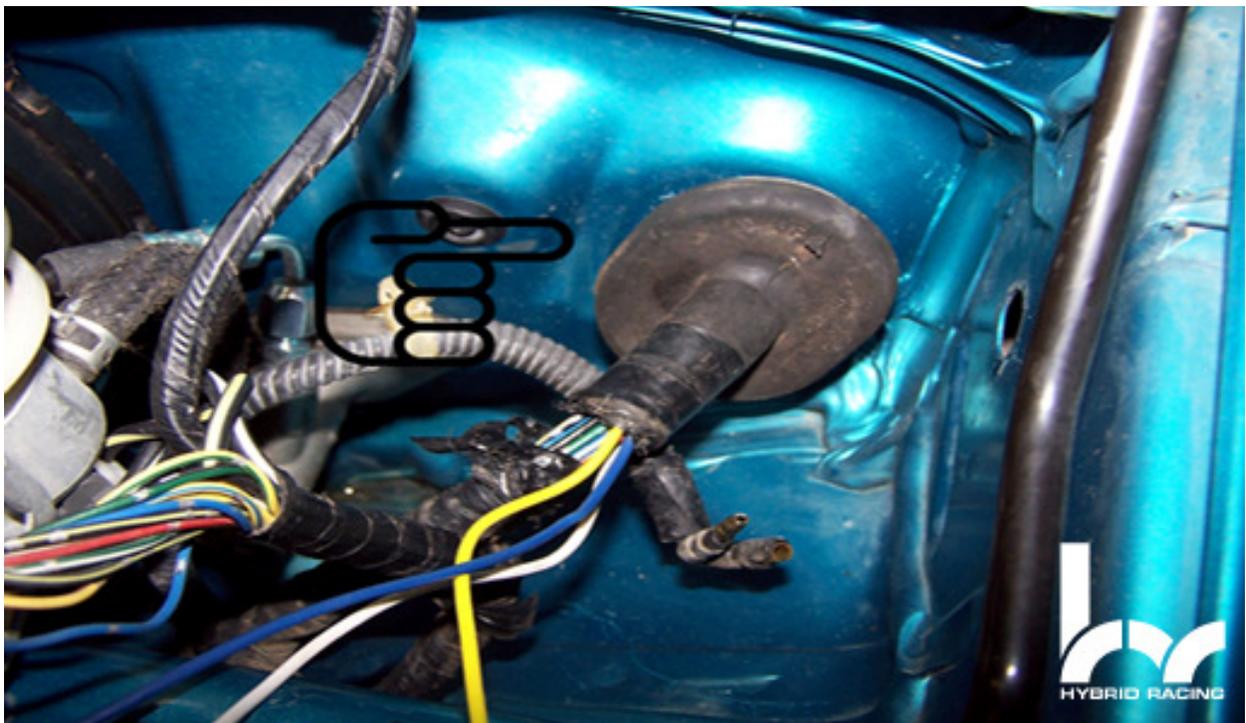


16. Remove the extra connector that was disconnected from C302 from the engine bay. (This is optional)

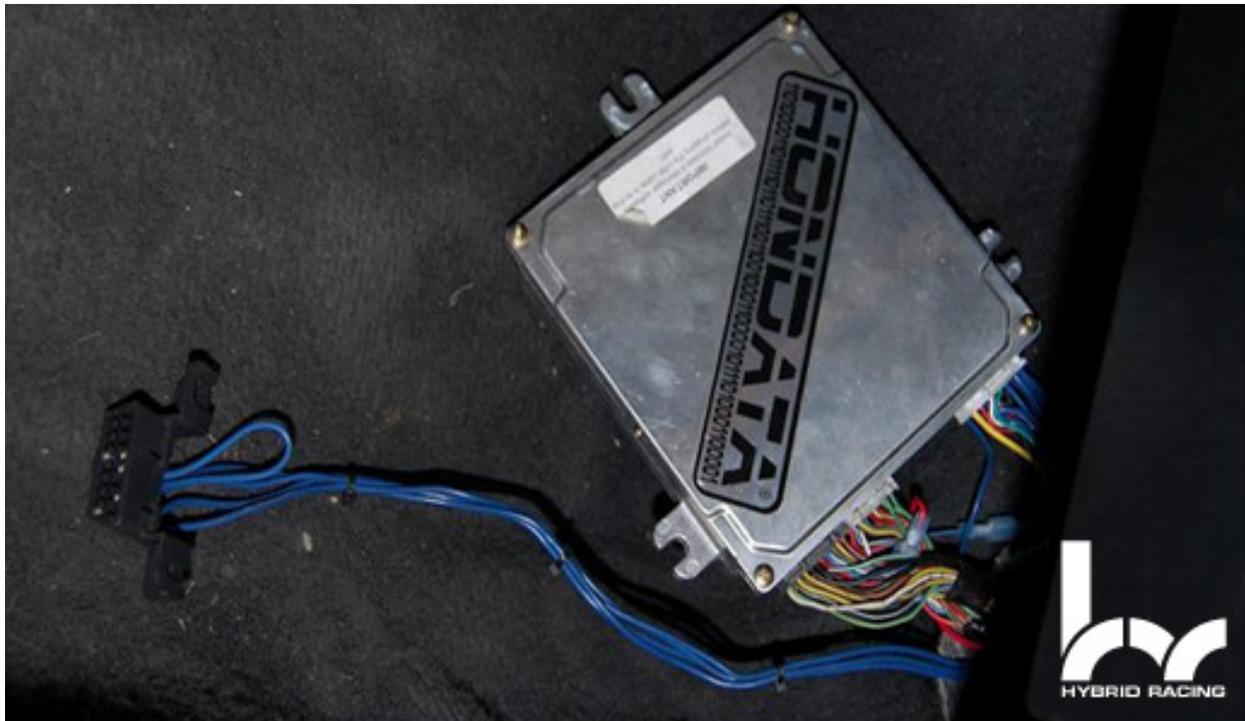
17. Once in the engine bay, locate and remove the grommet on the driver side firewall (the connector will come out with the grommet).



18. Run the three extra wires coming from the female gray connector (C101) through the firewall at this time.



19. You should have one black plug remaining (DLC). This plug does not connect to any plug on the chassis used for retrieving data from ECU. (Checking engine codes)



20. Next you will need to modify the K series charging harness located under the intake manifold of your K series engine. Please refer to the other guide for information on how to do this.

21. Connect your Primary Oxygen sensor to the Grey connector on the Hybrid Racing conversion harness.

22. If you are running a Type R ECU you will want to run the Secondary Oxygen sensor. Look for the page labeled "Secondary Oxygen Sensor" and follow those instructions.

23. If you are running a Kpro ECU make sure to disable your Immobilizer, Multiplexer and OBD2 functions. Refer to your Kpro Help section for more information on how to perform this operation.

24. If you are running a Canadian model EG/DC cut C101 pin 14.

25. Make sure you have at least three good grounds on your K series engine.

26. Connect the battery back and test start the car. If the car starts continue to the Oxygen Sensor Wiring section. If the car does not start re-check instructions making sure you have connected wires correctly, and you have:

- Fuel (are the fuel injectors, or fuel pump working?)
- Spark (Are the spark plugs firing?)
- Compression (does the engine have good compression?)

# Oxygen Sensor Wiring

- If you are running a KPRO you do not need to run the secondary Oxygen sensor. This can be disabled inside the KPRO software, for more information refer to the help section in the HONDATA software.
- The Primary sensor located on the K20A, A2 engines are factory wideband. These sensors **CAN NOT** be replaced with any other factory O2 sensor. (i.e. stock Civic, Integra, ect)
- Sensor information: (02-04 RSX Type S)
  - **Denso Sensor # DU2 Denso 192400-1091 10G14**
  - **Honda Pt# 36531-PRB-A01**

*If you do not have this sensor, please call us we have them in stock!*



## Secondary Oxygen Sensor

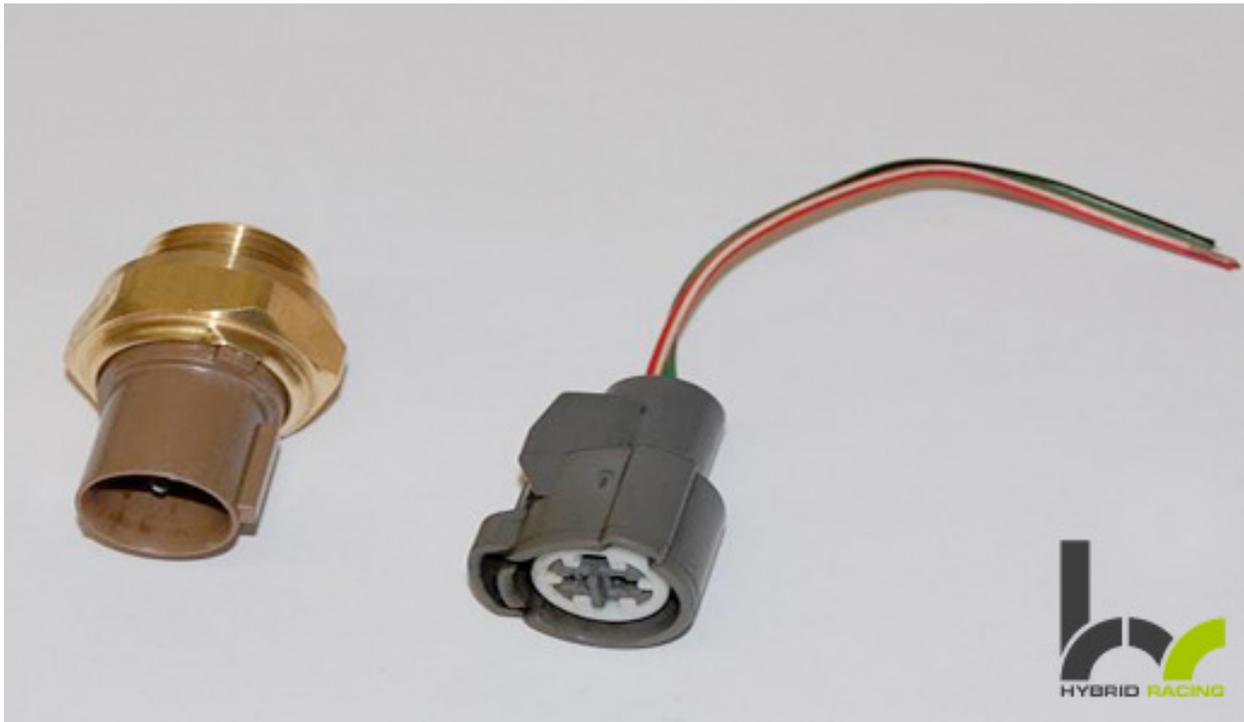
Located on your hybrid racing harness are 2 sets of heat-shielded wire. Locate the one labeled secondary. Next remove the Male O2 connector from your stock EG/DC engine harness (leaving 2-3in of wire). Connect the plug to the **Hybrid Racing conversion harness** as outlined below. Not everyone will run a secondary sensor. If you are using a Type R ECU

Hybrid Racing Harness	RSX Secondary O2
White	Grey
Red	Black
Green	White
Black	White

- White wire in pin location 1
- Red Wire in pin location 2
- Green wire in pin location 3
- Black wire in pin location 4

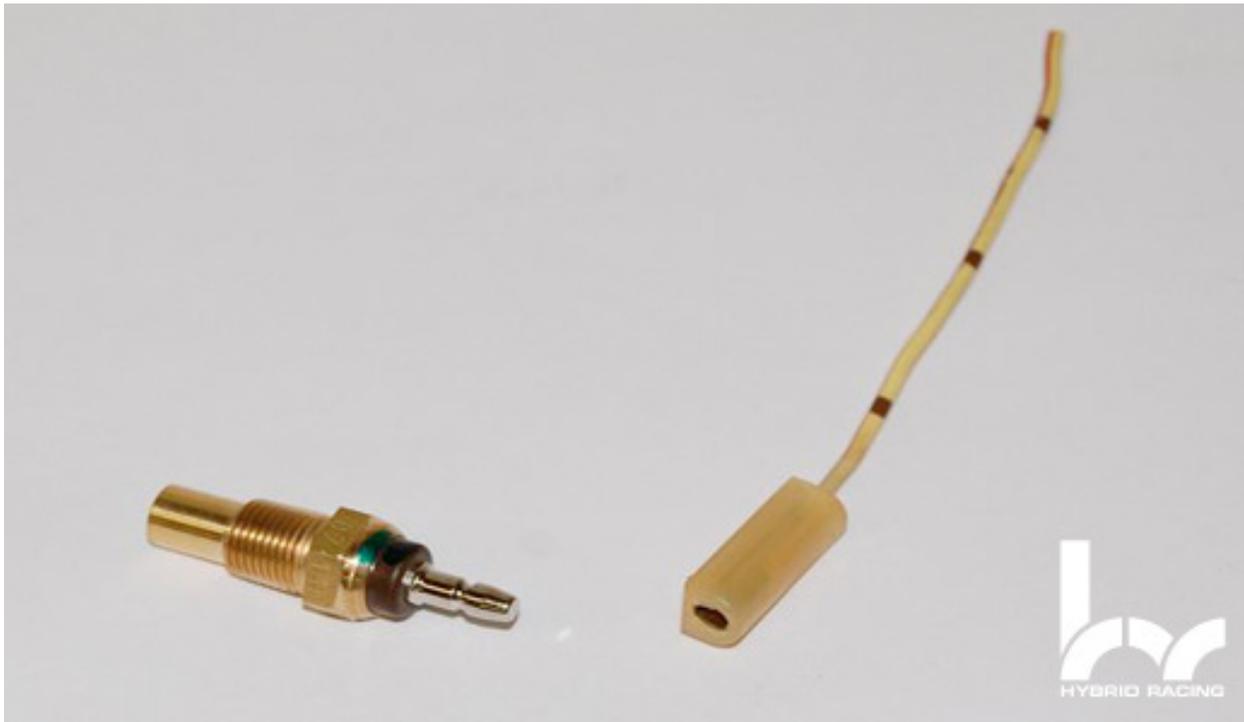


## Fan Switch Wiring



1. Install the fan switch into your radiator or radiator hose insert. If you do not have the fan switch or the insert you can order these parts from Hybrid Racing.
2. Locate the 2-pin connector from your D/B series engine harness. It should be located behind the distributor connectors. Cut the connector off making sure to leave 2-3 in of wire.
3. Ground one wire from the connector to the chassis. Connect the other wire to the **YELLOW** wire labeled **FAN SWITCH**. You will need to run the yellow wire through the firewall on the driver side.
4. Connect the connector to the Fan Switch.
5. To test if the fans are functioning, ground the yellow wire.

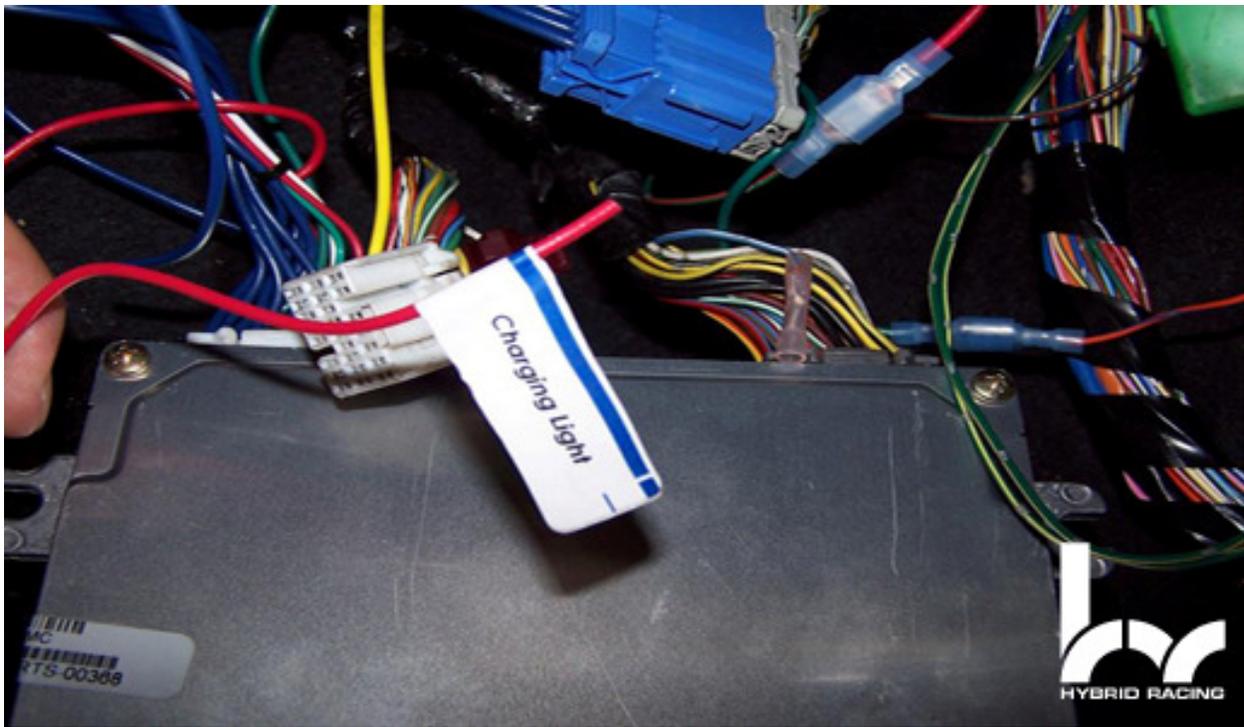
## Coolant Temperature Gauge



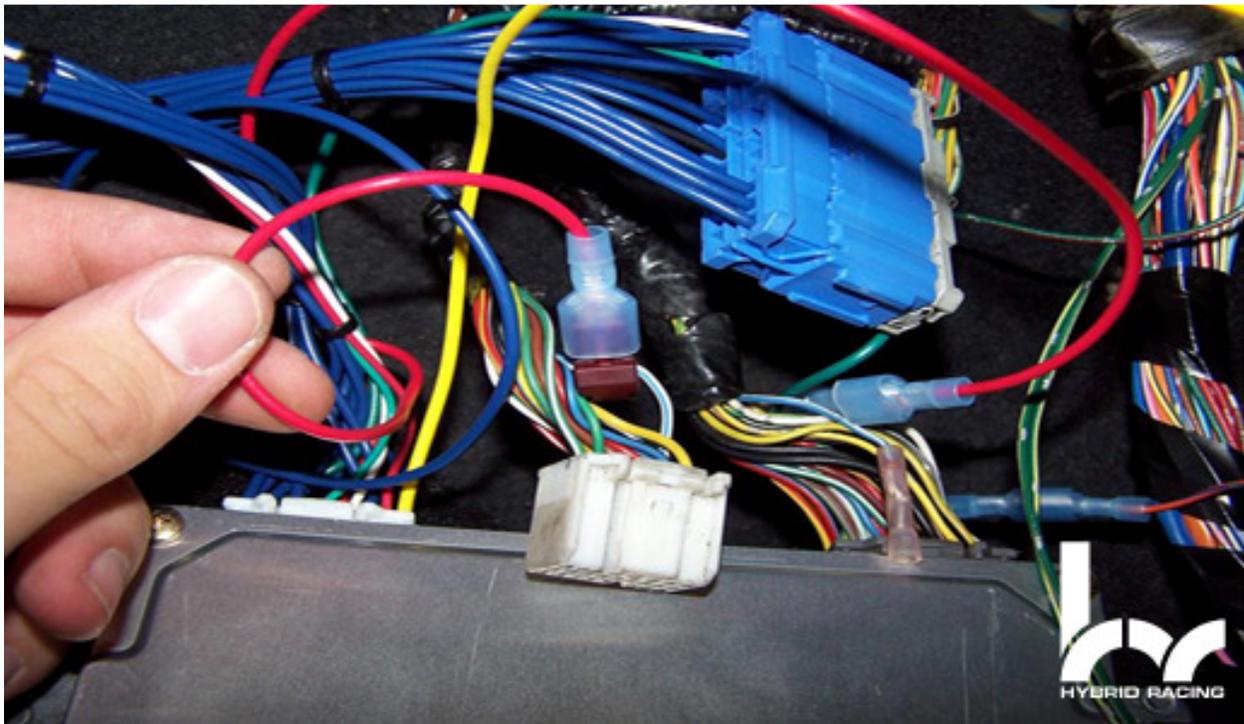
1. Install the coolant temperature sending unit into your Hybrid Racing radiator or radiator hose insert. If you do not have the temp switch or the insert you can order these parts from Hybrid Racing.
2. Run the **BLUE** wire labeled **TEMP SWITCH** through the driver side firewall.
3. Locate the 1 pin connector from your D/B series engine harness. It should be located below the distributor connectors. Cut the connector off making sure to leave 2-3 in of wire and connect to the blue wire labeled temp switch.
4. Finally connect the connector to the sending unit.
5. Ground the blue wire labeled Coolant temp and the gauge should read HOT. If it does the coolant sensor wire is working properly.

***\*\* If you have installed this into the upper radiator hose, make sure that the hose insert is grounded. Even if the sensor is installed correctly, the gauge will not function unless the insert is grounded\*\****

## Charging System Indicator Light



1. Locate the red wire labeled **Charging light**.
2. Locate B10 (B plug, pin location 10) WHT/BLU on the K series engine harness. **NOTE:** Do not cut B10, Tap into it utilizing the connectors provided.



### **Brake Fluid Light**

1. Locate the WHITE wire labeled **Brake Light** located on your **HR harness**.
2. Locate to the RED/GRN wire coming from the brake master cylinder.
3. Tap the white wire into the RED/GRN wire to enable the brake fluid warning light on your gauge cluster.

## Trouble Shooting

In order for your car to start, it must have all of the following:

1. Fuel
2. Ignition
3. Compression

First, determine which of these 3 you do not have. Then address the issue accordingly.

### **How do I check my ECU codes?**

Connect an OBD2 scan tool to the black connector (DLC) on the Hybrid Racing conversion harness. If you do not have access to a scan tool contact your local automotive shop or parts store for additional help.

### **I have a stored code P0600? I have a CEL, code 39?**

All K series swaps will have a stored code p0600/Code 39 (Serial Communication Link Malfunction/Multiplex) unless disabled with a Hondata Kpro or other K series ECU software. This code does not throw a CEL and does not affect performance.

To erase this code using the Hondata KPRO, make sure the OBDII, multiplexer and the immobilizer are DISABLED. Re-upload the map, turn the ignition off and then back on. Start the car.

### **What is the Multiplex control unit?**

The system controls these functions in the stock RSX/CIVIC SI chassis:

Entry light control	Wiper washer
Interlock system	Keyless/Power door lock
Temperature gauge	HVAC
Key in reminder	Lights on reminder
Seat Belt reminder	

To reduce the overall number of wires needed for the car Honda implemented a system using digital signals sent through the multiplex communication lines opposed to normal electrical signals sent through individual wires.

### **My car idles up and down?**

Start by cleaning the idle air control valve located under the throttle body and make sure that you have adequate coolant in your radiator system.

### **My fuel pump is not turning on?**

#### Using a JDM ECU:

Check the notes below step 7 and make sure everything is properly connected.

#### Using a Hondata KPRO

Check step 8 and make sure everything is properly connected. Make sure the immobilizer and multiplexer functions are disabled inside the KPRO software.

### **I'm using a KPRO and my TPS does not fluctuate when I rev the engine.**

- Make sure the TPS plug is connected
- Check for any cut or broken wires
- Typically if the TPS is not functioning correctly when you are data logging the sensor needs to be replaced. The K series TPS is widely known to be a very fragile piece so handle with care!

### **I have error codes P1166 and P1167?**

- P1166 – Air Fuel Ratio (A/F) Sensor (Sensor 1) Heater Circuit Malfunction
  - Check step 19a and make sure everything is connected properly.
  - Make sure a Primary Oxygen Sensor from an RSX Type S or equivalent is present.
  - Make sure there is at least 12 inches of exhaust pipe AFTER the sensor.
- P1167 – Air Fuel Ratio (A/F) Sensor (Sensor 1) Heater System Malfunction
  - Check step 19a and make sure everything is connected properly
  - Make sure a Primary Oxygen Sensor from an RSX Type S or equivalent is present.
  - Make sure there is at least 12 inches of exhaust pipe AFTER the sensor.

### **I have connected everything properly, when I try to crank the car nothing happens?**

Make sure you have the proper engine ground (at least 3)

- Make sure you have the converted the charging harness properly
- Check all the fuses in the under hood and under dash fuse boxes.
- If the car was equipped with an automatic transmission, make sure the necessary wiring changes have been preformed.

## ***You have successfully completed your K series conversion harness wiring!!***

If you have any questions or comments please email

*Legal Disclaimer*

Users assume all cost and risk associated with these or any other items purchased from the hybrid racing LLC web site.

Parts sold or manufactured by Hybrid Racing LLC may not meet legal requirements for use on public roads. People thinking about purchasing product from Hybrid Racing LLC should check with their local or state authorities for legality. It is the user's responsibility to know and comply with all local and federal laws and regulations. Use or installation of Hybrid Racing LLC products may affect user insurance and/or vehicle warranty coverage. It is the user's sole responsibility for consequences that may occur due to having the product installed in his/her vehicle.

Hybrid Racing LLC assumes no legal responsibilities and/or liabilities, whether to user's vehicle, engine, person(s), and/or property(s), that result from the use of, or servicing of a vehicle of which a Hybrid Racing LLC product has been installed/attempted to be installed, or to any other vehicle(s) and/or person(s), regardless of whether or not this product has any involvement directly or indirectly and/or liability, and/or whether or not proper installation has been carried forth.

All engines, engine parts and electrical components are for OFF ROAD USE ONLY/RACING VEHICLES ONLY. They are not for or to be used on public roads in the USA.

Acquisition of a Hybrid Racing LLC product will act as an acknowledgement of the legal disclaimer stated herein.

Hybrid Racing LLC reserves the right to change this disclaimer at any time without any prior consent or notification.

Should you need to contact us our details are as follows:

**Hybrid Racing LLC, 3348 Drusilla Lane, Suite 2C, Baton Rouge, LA 70809**

[www.hybrid-racing.com](http://www.hybrid-racing.com)

