

Boomslang Fabrication

OBD0 to OBD1 Conversion Harness Installation Instructions

Version 1.6

Parts needed for this conversion - MPFI and DPFI vehicles

- OBD1 or OBD2 distributor that fits your engine
- Distributor connector (engine harness side)
- OBD1 or OBD2 Honda/Acura 4-wire oxygen (O2) sensor
- 4-wire oxygen sensor connector (engine harness side)
- OBD1 ECU
- VTEC, IAB, and knock sensor connectors (engine harness side) if applicable to your engine/ECU combination

Additional parts needed if converting a stock DPFI vehicle to OBD1

- Four fuel injectors that are properly sized for your ECU
- Fuel injector resistor box if using low impedance fuel injectors
- Four fuel injector connectors that fit your fuel injectors

MPFI Models

88-91 CRX Si and HF
88-91 Civic Si
88-91 Integra

DPFI Models

88-91 CRX DX
88-91 Civic DX and Std

- *You must use the proper conversion harness type on your vehicle. MPFI conversion harnesses WILL NOT work on DPFI vehicles and vice versa.*
- *If your DPFI vehicle has been previously converted to MPFI, then use a MPFI conversion harness.*
- *MPFI conversion harnesses have a sub-harness with an 8-position white connector.*
- *DPFI conversion harnesses have a sub-harness with an 8-position and a 4-position white connector.*

Important notes on OBD0 and OBD1 fuel injection differences

- You may use low impedance type fuel injectors with an OBD1 ECU but you **MUST** use a factory resistor box.
- MPFI models have a resistor box in place from the factory.
- DPFI models **DO NOT** have a resistor box from the factory.
- If you are using high impedance fuel injectors, **REMOVE** the resistor box from your vehicle.

Low Impedence Fuel Injectors

OBD0 CRX Si & HF
OBD0 Civic Si
OBD0 Integra
OBD1 Prelude

High Impedence Fuel Injectors

OBD1 and OBD2 Civic
OBD1 and OBD2 Integra
OBD2 Prelude

How to remove a resistor box from your MPFI vehicle

- Unclip the resistor box connector.
- Unbolt and remove the resistor box from your vehicle.
- Cut the resistor box connector off of the engine harness.
- Splice together **ALL** the cut wires that were going into the connector. We recommend soldering the wires together. Use electrical tape or heat-shrink tubing to insulate the connection.

Conversion Harness Installation Details

- 1) Disconnect the negative terminal of the battery. Plug the conversion harness into the factory ECU plugs in the passenger side foot-well. Run the supplied sub-harness wires through the firewall into the engine bay.
- 2) Install the 4-wire oxygen sensor. Splice a factory 4-wire O2 connector to the supplied sub-harness. See the wire color charts on the diagram page.

- Connect the white wire in the supplied sub-harness to the white/red or white O2 signal wire in the factory O2 connector.
- Connect the gray wire in the supplied sub-harness to the green/blue or green/white O2 ground wire in the factory O2 connector.
- Connect the orange wire in the supplied sub-harness to the orange/black O2 heater wire in the factory O2 connector.
- Connect the yellow wire in the supplied sub-harness to the O2 yellow/black +12V wire in the factory O2 connector.

3) Install the OBD1/OBD2 distributor

- Splice the OBD1/OBD2 engine harness distributor plug onto the OBD0 engine harness. For OBD1 distributors, all the wire colors match except one, see the chart on the diagram page that gives OBD1/OBD2 and OBD0 wire colors.
- OBD0 and OBD1 distributor plugs have the same pin size for many of the wires. For the cleanest installation, you can de-pin the wires from the OBD0 distributor connector and re-pin them into the OBD1 distributor connector. The IGN output (black/yellow) wire and tach (blue) wire will not re-pin..
- **DPMI vehicles ONLY:** Splice the purple/yellow wire and blue/yellow wire coming from the 4-position connector on the supplied sub-harness to the blue/green and blue/yellow wires on the distributor plug (engine side).

4) Wire the VTEC components. (ECU: P13, P28, P30, P61, P72)

- Connect the green wire in the supplied sub-harness to the green/yellow wire on the 1-pin VTEC solenoid connector.
- Connect the blue wire in the supplied sub-harness to the blue/black wire on the 2-pin VTEC oil pressure switch connector. The remaining black wire on the 2-pin VTEC oil pressure switch connector needs to be grounded.
- Many JDM engines DO NOT have a VTEC oil pressure switch. If using a USDM ECU with an engine lacking a VTEC oil pressure switch, simply splice the light blue sub-harness wire into the green sub-harness wire. Then connect the green sub-harness wire to the VTEC solenoid as stated above.

5) Wire the secondary intake runners (ECU: P13, P14, P72)

- Connect the purple wire in the supplied sub-harness to the pink/blue wire on the 2-pin IAB solenoid valve connector. The remaining yellow/black wire on the 2-pin IAB connector needs to be spliced into an ignition switched +12 volt source. This is the same power source that the O2 sensor uses.
- 6) Wire the knock sensor (ECU: P13, P14, P30, P61, P72)
- Connect the red wire in the supplied sub-harness to the red/blue wire on the 1-pin knock sensor connector.
- 7) **DPFI vehicles ONLY:** Swap the throttle position sensor wires
- At the TPS connector on the OBDO engine harness, switch the two outer wires (green/white and green/yellow) by cutting/splicing or re-pinning them.
- 8) **DPFI vehicles ONLY:** Wire the fuel injectors
- Cut the two DPFI fuel injector connectors off of the stock OBDO engine harness. Now you have two yellow/black wires, one red wire, and one yellow wire.
 - Using a set of factory fuel injector clips, match the fuel injector colors as follows:
 - Splice the yellow wire to the yellow wire on the #4 fuel injector connector.
 - Splice the red wire to the red wire on the #2 fuel injector connector.
 - Splice the blue wire coming from the black connector on the supplied sub-harness to the blue wire on the #3 fuel injector connector.
 - Splice the brown wire coming from the black connector on the supplied sub-harness to the brown wire on the #1 fuel injector connector.
 - *Now, you will have two yellow/black wires left from the OBDO engine harness, as well as four yellow/black wires coming from the fuel injector connectors.*
 - *If using high impedance fuel injectors*
 - Splice both of the OBDO engine harness yellow/black wires together with all four of the yellow/black fuel injector wires.

- *If using low impedance fuel injectors*
 - Cut the connector off of the resistor box. Now you have four black wires and one red wire.
 - Splice the red wire from the resistor box to both yellow/black wires on the OBD0 engine harness.
 - Splice one black wire from the resistor box to any one of the yellow/black wires from the fuel injectors. Repeat for the remaining three black wires to the remaining three yellow/black wires from the fuel injectors.
- 9) Plug in the OBD1 ECU. Reconnect the negative battery terminal.
- 10) Check Engine Light (CEL) codes can be checked by jumping your vehicle's factory 2-pin timing adjusting connector. This connector is near the driver's side shock tower on 1988-1989 vehicles and in the passenger side interior foot-well area on 1990-1991 vehicles.

Boomslang 8-Position Connector Sub-Harness Wire Colors	
<i>Wire Color</i>	<i>Function</i>
Green	VTEC Solenoid Signal
Purple	IAB - Secondary Intake Runners
Blue	VTEC Oil Pressure Switch
Red	Knock Sensor
Yellow	O2 Sensor +12V
Orange	O2 Sensor Heater
Gray	O2 Sensor Ground
White	O2 Sensor Signal

** Dual Point Fuel Injection ONLY **	
Boomslang 4-position Connector Sub-Harness Wire Colors	
<i>Wire Color</i>	<i>Function</i>
Brown	#1 Fuel Injector
Blue	#3 Fuel Injector
Purple/Yellow	CKPP
Blue/Yellow	CKPG

FACTORY Oxygen Sensor Wire Colors			
<i>OBD1 Engine Harness</i>	<i>Oxygen Sensor Leads</i>	<i>Boomslang Sub-Harness</i>	<i>Function</i>
Yellow/Black	Black	Yellow	O2 +12V
Orange/Black	Black	Orange	O2 Heater
White/Red	White	White	O2 Signal
Green/Blue	Green or Gray	Gray	O2 Ground

FACTORY VTEC, KS, and IAB Sensor Wire Colors	
<i>OBD1 Engine Harness</i>	<i>Function</i>
Green/Yellow	VTEC Solenoid Signal
Pink/Blue	IAB - Secondary Intake Runners
Blue/Black	VTEC Oil Pressure Switch
Red/Blue	Knock Sensor

FACTORY Engine Harness Distributor Wire Colors			
<i>OBD0</i>	<i>OBD1</i>	<i>OBD2</i>	<i>Function</i>
Orange	Orange	Dark Blue	CYPP
White	White	White	CYPG
Orange/Blue	Orange/Blue	Green	TDCP
White/Blue	White/Blue	Red	TDCG
Blue/Green	Blue/Green	Yellow	CKPP
Blue/Yellow	Blue/Yellow	Black	CKPG
Large White	Yellow/Green	Yellow/Green	ICM
Black/Yellow	Black/Yellow	Black/Yellow	IGN Output
Blue	Blue	Blue	Tach Output