# Boomslang Fabrication
# OBD0 to OBD1 Conversion Harness Installation Instructions
# Version 1.5

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 impedence fuel injectors
- Four fuel injector connectors that fit your fuel injectors

| MPFI Models | DPFI Models |
|---|---|
| 88-91 CRX Si and HF | 88-91 CRX DX |
| 88-91 Civic Si | 88-91 Civic DX and Std |
| 88-91 Integra | |

- *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 impedence 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 impedence 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..
- **DPFI vehicles ONLY:** Splice the blue/green 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 light 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 pink 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 OBD0 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 OBD0 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 OBD0 engine harness, as well as four yellow/black wires coming from the fuel injector connectors.*

    - *If using high impedence fuel injectors*

        - Splice both of the OBD0 engine harness yellow/black wires together with all four of the yellow/black fuel injector wires.

    - *If using low impedence 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 | |
|---|---|
| ***Wire Color*** | ***Function*** |
| Light Green | VTEC Solenoid Signal |
| Pink | IAB - Secondary Intake Runners |
| Light 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** | |
| ***Wire Color*** | ***Function*** |
| Brown | #1 Fuel Injector |
| Blue | #3 Fuel Injector |
| Blue/Green | CKPP |
| Blue/Yellow | CKPG |

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

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

| ***FACTORY*** **Engine Harness Distributor Wire Colors** | | | |
|---|---|---|---|
| ***OBD0*** | ***OBD1*** | ***OBD2*** | ***Function*** |
| 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 |