

# LBZ STANDALONE

**An OBD Scanner with Live Data capability is needed to verify sensor function and to read Fuel Rail Pressure prior to attempting to start the engine for the first time.**

**Ground** – This is the most important connection in the harness. It must be connected to a perfect ground path to the battery. If it cannot be connected directly to the ENGINE BLOCK (not the Valve Cover) and you choose to ground it to the body you must ensure that ground straps go from the battery to engine to frame and from frame to body. Do not attach to Valve Cover or rely on Engine or Body Mounts to complete your ground circuit.

**12V Batt** – 12v+ Constant Battery Power Source.

**Pink/Black Stripe** – 12V+ Key On source to turn on the ECM, TCM, and MAF. The Keyed power source must be hot in both the Run and Crank positions. If it does not receive 12V+ in the Cranking position your engine will not start.

**Pedal** – Connects to the Accelerator Pedal Jumper Harens. Engine will not start without the proper pedal connected.

**CEL (aka MIL) Control** - "Check Engine" light control wire. PCM will supply a GROUND to this wire when the light should be ON. You must install a Bulb and complete the circuit to a positive 12v source or a fault code will be set.

**WTS Control** - "Wait to Start" light control wire. PCM will supply a GROUND to this wire when the light should be ON. You must install a Bulb and complete the circuit to a positive 12v source or a fault code will be set.

**TCC (Truck Setups)** - Used to control unlocking of the Transmission Torque Convertor and is connected to the Brake Switch. The purple wire needs 12V+ at all times and then switches to 0V when the Brake Pedal is depressed. If your brake switch only has 2 prongs (normally open) the AC Delco #D850A or GM #25524845 brake switch will provide both circuit connections needed.

**Brake Lamps (CHMSL)** – For Van systems this is the wire that controls Torque Convertor unlocking. It needs to be connected to the same wire as your brake lamps. Needs 12V+ when foot is on the brake pedal. For Truck Setups this is only used with Cruise Control.

**Tach** – (not in Van) Tach signal wire. In most cases this wire will not drive an older tachometer due to the fact it is a low voltage digital signal. In order to use an Analog Tach you will need to purchase an adapter such as one available from Dakota Digital part # SGI-8. Most Tachometers will require the adapter unless they are a "Programable Tachometer".

**Speedo** – (not in Van) This is a signal generated by the PCM, based on information it receives from the vehicle speed sensor located in the transmission. The PCM takes the sensor signal, and calculates the tire size, gear ratio programmed into it, and makes a 4k pulse per mile signal when using the stock GM transmissions. Some speedometers will use this as an input, others, like Autometer's may hook directly to the speed sensor on the trans.

**4WD Low** – (if supplied) This wire is used by the ECM and TCM to change how the transmission behaves when the transfer case is shifted into the 4WD Low position. It requires a ground signal from the transfer case when in low range. Without this hooked up you should expect the transmission to shift erratically when in 4WD Low.

**OBD Data** - This is the CAN BUS and Serial Data.  
An OBDII diagnostic connector has been attached to the harness.

**Cruise Control** – See "Resources" in the main menu at [dmaxswap.com](http://dmaxswap.com).

Please do not open the harness for any reason. There is nothing user serviceable inside the loom. Just like an iPhone, if you open up the harness for any reason the warranty is void.

