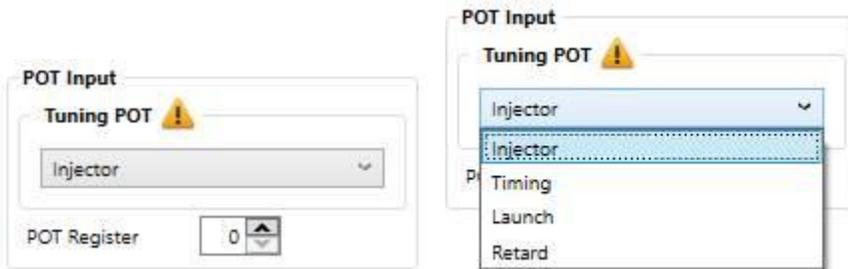


Tuning POT

This POT is a Potentiometer or variable resistor that lets the tuner or driver change settings in real time while the ECU is operating. It is a device that connects to the communication port plug for on one of the universal I/O. Note that other features will be sacrificed when you use this input. The following functions can be activated for it.

Settings

Tuning Pot.



NB! This is a Critical setting that alters wiring connections. Do not change it on a running vehicle. It could damage drivers or components on the engine.

Tuning POT Injector Time



Injector setting will change the injector time with 10% richer or leaner in this example. The POT needs to be in the middle to have no effect on current fueling. This is handy in a race car if the driver has an A/F Ratio gauge installed. Then he can manipulate fueling and remember under which conditions he has to lean or richen the mix. Then he can make adjustments on the graph at a later stage.

Tuning POT Spark Timing



Timing will advance or retard the ignition timing by 5 degrees in this example. The POT needs to be in the middle to have no effect on current timing. It is useful in racing for tuning time while driving. Ensure that the driver has a knock sensor and light fitted to the engine.

Launch Control

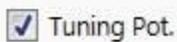


The Launch Control feature will spin a turbo to higher RPM's while the vehicle is stationary. It is discussed in detail in the [Launch Control](#) manual.

Transmission retard

This feature is for automatic transmissions to retard the engine timing during gear shift. This will make the shift smoother and protect the transmission. The launch control circuit will be used and this system will disable launch control.

Set the tuning POT on.



Set the POT on Retard.



Set the RPM limit on zero. Set the launch control timing on 5 to 15 degrees depending on the feel of the shift in the transmission. Launch deactivation must be on Clutch. Fuel enrichment is not used here.

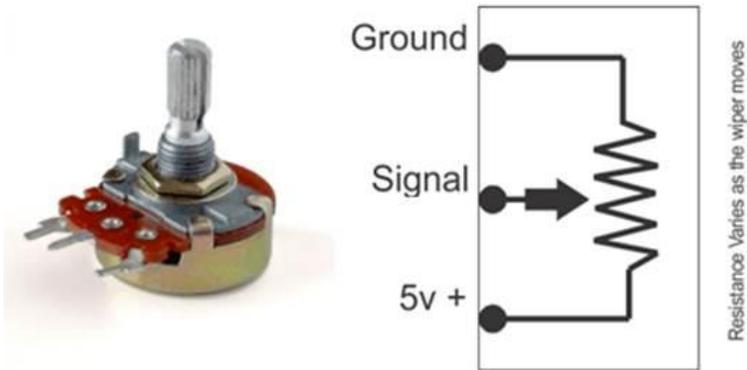


Now connect the relevant wires from the TCU to the ECU. When the TCU makes a shift it will put a negative driver on. It will connect to the POT input of the ECU. The POT real-time bar will be high and the moment of shift it will go low, activating the retard feature.

Sensor Hardware Description

Tuning POT

The multi-function variable resistance potentiometer can be configured in the software to perform numerous features. These features include making changes to the fueling, ignition angle or adjusting the launch RPM without having to connect a laptop computer.



Operation

The POT is a variable resistor normally around 5K ohms. The signal voltage varies as the wiper moves. It is connected to 5 volts from the ECU and then the wiper signal will produce a voltage between 0 and 5 volts, proportional to the angle of the throttle plate.

Sample sensor Pin out

