

## Link Atom ECU and loom fitting guide.

**Please leave tuning your engine to the professionals as damage can happen to your engine and components if incorrect settings are used.**

Due to the vast number of conversions within the Cosworth range please check the following items very carefully, as no warranty will be provided for any fault because of incorrect fitting.

Remove the loom from its packaging and lay it out on a flat surface. Familiarise yourself with all the connectors and connector labels. **Read this guide thoroughly** before fitting your new loom.

Abbreviations used on the loom.

**IAT**= Intake air temperature sensor. (Plenum air temperature) Located in the side of the inlet manifold.

**ECT**= Engine coolant temperature sensor. Located in the cylinder head inlet manifold side at the very back.

**CKP**= Crankshaft position sensor. Located on a fly loom in a bracket by distributor.

**KNK** = Knock sensor. Located same place as CKP. (Not available on the Atom ECU)

**PHASE** = Phase sensor located in the distributor.

**TPS** = Throttle position sensor. Located on the side of the throttle body, by the distributor.  
**See notes on TPS below.**

**AMAL** = Amal valve (boost control solenoid). Location varies due to aftermarket pipe work etc. Can be easily traced from wastegate plumbing.

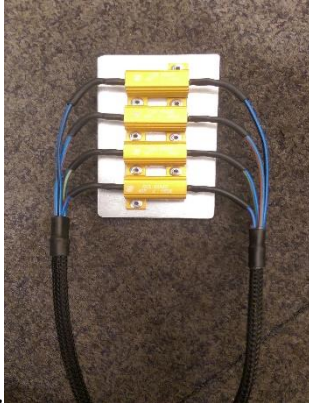
**GND** = Engine ground. Please ensure all ground connections are corrosion and paint free.

**ISCV** = Idle speed control valve. Located in the top of the throttle body. **See notes on ISCV below.**

**MAP** = Manifold absolute pressure sensor. Located on inner wing inlet manifold side. MAP sensor body has a ground strip attached to one of the 3 bolt holes. Please ensure this is clean and corrosion free, and is being used.

**IGN AMP** = Ignition module. Located on inner wing. Inlet manifold side.

**INJ 1 to 4.** = Fuel injectors located on the top of the inlet manifold. INJ 1 is at the front of the engine (Crank pulley end) and INJ 4 at the rear of the engine (gear box end). Standard Cosworth injectors, or injectors of the low impedance type will need to have the ballast pack fitted in to the harness. If you are using high impedance injectors the ballast pack can be removed and the two plugs joined together. The ballast pack will get warm when the engine is running. Make sure to mount in a location with adequate air space around it, preferably on a metal surface and away from any other sources of heat.



**TEMP.** = Dash board gauge engine temperature sensor. Located on the exhaust side of the cylinder head at the front on a 205 engine (normally 2wd Sierra.) Or at the back of the cylinder head, inlet manifold side on a 200 engine. (Normally 4wd Sierra and Escort).

**COIL** = Ignition coil. Located on inner wing inlet manifold side. Due to varied coils in use the wires are left un-terminated for you to select the correct terminals. Supplied in the bag. Red wire to coil positive. Green/Yellow wire to coil negative. Green/yellow loop is to rev counter depending on the car and rev counter used the original resistor may need to be fitted in this loop.

#### **Dash plug:**

White 9 way plug. This will need to be wired to the car and you will find plug and terminals in the kit.

**Green/yellow** = Rev counter from Ignition coil. Normally a green wire on the original harness.

**Black** = Ignition 12V supply. Normally a black wire on the original harness.

**Red** = Constant 12V supply. Normally a red wire on the original harness.

**Red/black** = Fuel pump 12V. Normally a black/red wire on the original harness.

**Yellow** = Temperature gauge signal, Normally a brown/white wire on the original harness.

**Grey/Green** = Auxiliary Output 4 from ECU. Can be set for rev counter when using coil packs or a shift light.

### Spare plugs:

**2 way** plug near the ECU. This is for the option to connect an external CAN device to the ECU.

Pin 1 = CAN H = White

Pin 2 = CAN L = Blue

**3 way plug** near the ECU. These can be user set in the software to allow digital inputs to control map settings for example.

Pin 1 = DI 1 = Purple

Pin 2 = DI 2 = Green

Pin 3 = Sensor Ground = Black

**4 way super seal plug** by the bulkhead grommet. Spare ECU outputs that can be user set in the software. You will need these if you chose to run **coil on plug** and in doing so you will need to use the Grey/Green in the dash plug for the rev counter.

**Pin 1 = AN Volt 3 Yellow**

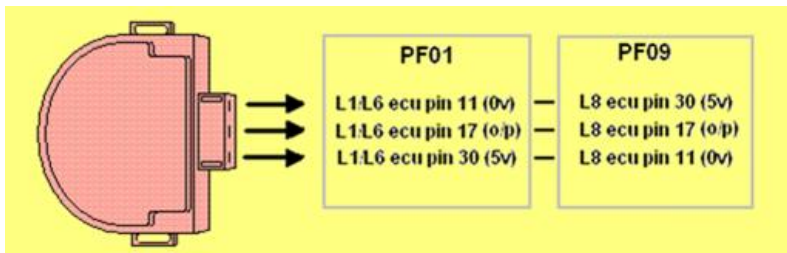
**Pin 2 = Ign 2 Grey/Black**

**Pin 3 = Ign 3 White/Red**

**Pin 4 = Ign 4 White/Blue**

### TPS Notes.

There are two types of TPS sensor used. The only difference is the 2 out side pins are reversed. Pull back the rubber boot and check. 5v is red. 0v is black and signal (o/p) is green. See image bellow.



### **ISCV Notes.**



The ISCV may have a picture of a diode on it like the one shown above. In this case the polarity of the connections to it are very important. The left pin (marked -) needs to be connected to the ECU output yellow/grey wire and the right pin (marked +) needs to be connected to 12v feed red wire.

### **Software and setting up.**

Once your ECU and harness are fitted you will need to install the Link ECU software and connect to your new ECU. Follow the QR code below or visit [www.redlinetuning.co.uk/cosworth-wiring-harnesses](http://www.redlinetuning.co.uk/cosworth-wiring-harnesses).

Download and install the latest Link ECU software. Once installed connect the provided USB cable to the ECU and your laptop. Press F3 and you will now be connected. You are now ready to start tuning. At any time in the software pressing F1 will display a very helpful and detailed explanation of the current setting you are working on.



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If you have any problems with your new ECU and loom please call or email Redline Tuning on:

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