

REVO Interface V3.2

External Wiring

On the V3.2 interface there are 2 cables and a single wire into the unit. Each cable/wire is typically provided with labeled designation. Depending on application the REVO cable may not be fitted and will need to be wired direct as per these instructions. If the wires are shortened for installation and the designation is lost use the following to identify which is which.

Cable 1 – This cable is the most central cable in the unit and can be confirmed if installed by having the purple inhibit wire included with the cable.

Cable 2 – This is the outermost cable in the unit.

Connection:

Cable 1 – TO ECU/Control Unit

| | | |
|-------|---|--------------|
| Black | : | Ground |
| Red | : | +12v |
| White | : | Input Signal |

| | | |
|----------------------|---|---------|
| External Purple Wire | : | Inhibit |
|----------------------|---|---------|

Cable 2 – TO REVO

| | | |
|-----------|---|------------------|
| Black | : | Ground |
| Red | : | +6v |
| White | : | REVO Signal Wire |
| Shielding | : | Braided Wire |

Simply match like for like colours from the box to the REVO where a cable is present or connect direct.

Internal Wiring Options

The latest V3.2 Interface board has been designed to allow versatility on the input control of the Interface.

The following are the terminal connections available:

| | | |
|---------|---|--------------------------------------|
| 12v + | : | 12v Main Power (Red) |
| PWM2 | : | 12v PWM Input (White) |
| PWM1 | : | 5v PWM Input (White) |
| Inhibit | : | +5 to +20v Activation (Purple) |
| 0-5v | : | 0-5v Analogue Input (White) |
| Gnd | : | Main Interface Ground (Black) |
| Gnd | : | Combined Cable Shield Ground (Braid) |
| Gnd | : | REVO Ground (Black) |
| 6v + | : | REVO Power (Red) |
| Sig | : | REVO Signal (White) |

Programming:

To control the REVO through this interface you have three signal options available depending on the output signal from your master control unit, ie. ECU.

1. +5v PWM Input
2. +12v PWM Input
3. +0-5v Analogue Input

To determine which of these are required you will need to check your particular ECU specifications before proceeding.

For PWM operation you will need the following signal:

ECU output (input to the interface) must be high going pulse and between 1mS (is the zero delivery point) and 15mS (is the full 60 deg travel) anywhere around 50Hz (between 40 and 70hz will do). Anything outside the 1ms and 15ms or a constant low or constant high will result in the servo being parked (led on constant).

For Analogue, any voltage below 0.1v will set the REVO into the pre-designated park position (See Valve Trimming). The remaining voltage range of 0.1v – 4.9v will produce a uniform opening of the REVO valve. To determine what voltages will be required for a given BHP level consult your REVO data sheet or determine from flow testing. Note: It is always advised to flow test on the vehicle to remove variances from stock test-bench figures and your actual system in use.

Valve Trimming:

Before setting the start point of the valve ensure that the park switch is set to off. This is denoted by the fast flashing of the on board led. (Note the LED will flash when a valid signal is received from the ECU but this is at a slower rate to avoid confusion).

With the led flashing, adjust the trim dial until the valve is sealed or bleeding the required amount desired. Note - turning the trimmer anti-clockwise closes the Revo, clockwise opens it.

Turn the park facility back on.

Status LED:

| | | |
|-----------------|---|---|
| On Solid | : | REVO in park position. |
| Slow Flash | : | REVO Trimming Mode (Park switch turned off) |
| Fast Flash | : | Input Signal Active |
| Very Fast Flash | : | Inhibit Activated (I.e. Transbrake On) |
| Off | : | Inhibit Activated but no input signal PWM or Analogue detected. |