



START HERE

↓ INSTALLATION GUIDE

1. Use this guide to wire the power, ground and RPM signal to your vehicle.
2. When connected, use the **UP/DOWN** button to get to the "Install" menu, then press **RIGHT**. This install shortcut feature will guide you through the setup. Where possible, it will auto-detect and configure the RPM signal for you.
3. The additional User Manual gives you a map of the features. It is a vertical map, which you use **UP/DOWN** to go through the options. Use **RIGHT** to go a level deeper into a feature and **LEFT** to exit. Master this and you may find it is easier to play with the settings than to read the manual.

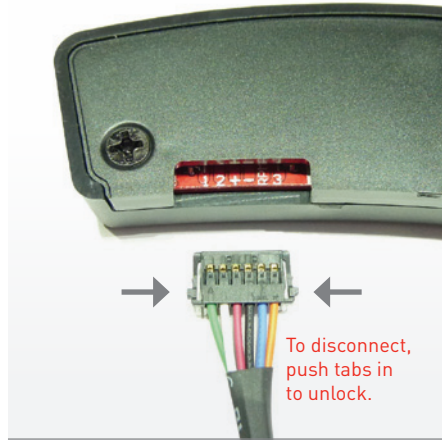


CABLE

The cable supplied uses high quality lightweight flexible wires. The flat connector is intended for permanent installation purposes only. It is not intended as a connector that is regularly disconnected and reconnected. The connector will only fit with the correct orientation as shown.

If you need to disconnect the Shift-P2, switch the power off and push the locking tabs shown to release. Recommended method is to use a small flat blade screwdriver to release one tab at a time.

Micro-USB socket is also included for future firmware updates that may be made available.



INSTALLATION

The Shift-P2 is designed to be compatible with a range of ignition systems. Modern vehicles with coil-on-plug (including those with CAN Bus). ECUs with a Tach Output. 5V & 12V square/ pulse signals. Coil packs switched on the negative. Some distributors.

Requires only 3 wires to be connected, **RPM (blue)**, **Switched 12V (Red)**, **Ground (Black)**.

A further 3 wires are provided for additional functionality (see User Manual).

Green = Channel-1 White = Channel-2 Orange = Channel-3

Warning: Ensure the Switch 12V and Ground are connected with correct polarity. Installation with incorrect polarity can potentially cause permanent damage to the multi-function channels.

GROUND (BLACK)

Examples...

- Frame earth point, drivers side.
- Wiring to instrument cluster.
- ECU connector.
- OBD connector.
- Do NOT connect from engine bay.

SWITCHED 12V (RED)

Examples...

- Ignition barrel wiring.
- Wiring to instrument cluster.
- ECU connector.
- Drivers side fuse panel.
- OBD connector

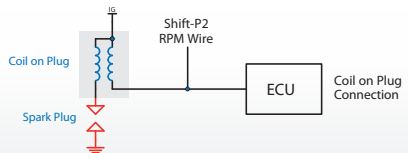
RPM (BLUE): LATE MODEL VEHICLES

The RPM connection is made to an ignition output. The majority of vehicles after ~2005 use coil-on-plug technology (coil is in spark plug connector). Connection is made at either the coil-on-plug or at the ECU. It does not matter if your vehicle has CAN bus.

The coil-on-plug may have 2 or more wires.

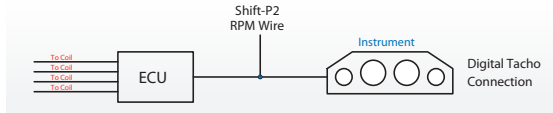
Usually you can spot each plug has a different colour thin wire going to it. This is typically the ignition output signal. Ecliptech recommends you confirm the connection with a wiring diagram for your vehicle. You can use the Shift-P2 scope function to view the signal live.

Typical installation is to feed a wire through one of the harness grommets in the firewall. If more convenient, locate the wire going to the ECU and connect there instead. If you have difficulty, you can use an auto electrician to make this connection.

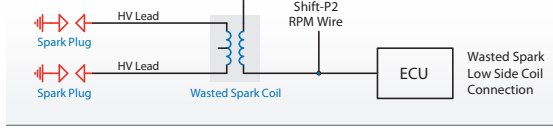
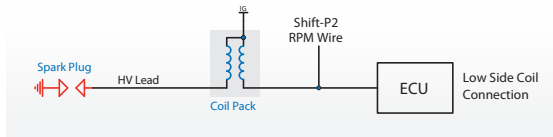


RPM (BLUE): VEHICLES MID 1990'S TO ~2005

Many of these models have a dedicated RPM signal going from the ECU to the instrument. With some vehicles, this wire may also be located at the OBD diagnostic connector (i.e. some Porsches). The majority of aftermarket ECU's have an RPM output for a tach. The Shift-P2 is compatible with both 5V and 12V square and pulse outputs.

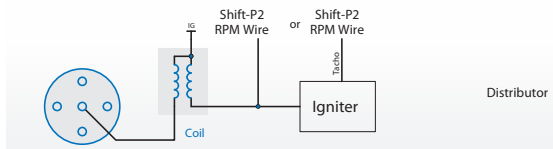
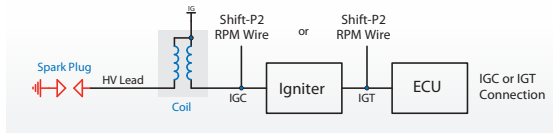


Alternatively, the RPM connection can be made at the low voltage side of an ignition coil pack. This can be connected at the coil or ECU, whichever is more convenient.



RPM (BLUE): EARLIER MODEL IGNITION SYSTEMS

The Shift-P2 is designed to work with points distributors. Modern distributors are usually quite good, as are contactless distributors. Some older distributors can have excessive contact bounce and switching noise. Some may not provide a suitable signal.



RPM CONNECTION ADVICE

The Shift-P2 is not directly compatible with magneto ignition, capacitor discharge, condenser type ignition systems and cam shaft position sensors. Do not attempt to connect directly to these signals, as damage may result to the unit and/or vehicle. The Shift-P2 is however compatible with these if the ECU has a dedicated tach output.

If you have difficulty with the RPM signal, the following suggestions may help.

- If the "Install" feature cannot auto-detect the signal, you can access all the options in the "Signal" menu to configure manually. Going to the far right in these menu options provides further description of their function.
- In the "Signal" menu, you will find an option to measure the voltage as well as to use the Scope. The scope is a live view of the signal you are connected to. If connected to an RPM signal, you can expect to see a series of pulses that respond to the engine RPM. You can zoom in on the pulses with **UP/DOWN**, or pause the screen pressing **RIGHT**.
- If you want to test the RPM input is working, disconnect the RPM wire and go through the "Install" menu. When it fails to detect a signal, it will automatically perform a self check and display the result.
- If you have another tach gauge connected to the same signal, try disconnecting it to determine if it is corrupting the signal. If identified as the problem, connect to another coil signal.

More information can be found at www.ecliptech.com.au, Wiring information can be found at websites such as www.the12volt.com & www.modifiedlife.com. Internet forums and clubs are also a good source for obtaining wiring information.

MOUNTING THE DISPLAY

The ideal location to mount the Shift-P2 enables the driver to see the lights without impairing their view to operate the vehicle, or to see other instrumentation. Common installation positions are on top of the dash area, underneath the top edge of the gauge area, or on top of the steering column cover.

The Shift-P2 must be mounted behind a windscreen, where it is not subjected to the wind pressure or rain. Choose a place to mount the unit where the lights are clearly visible and do not interfere or obstruct the drivers view. Ensure the unit is secure from movement. Do not place it in a location where the headlights from another vehicle could be incident on the display, as the light sensor will assume it is daylight and automatically increase the brightness. Test the brightness level is suitable in both light and dark conditions before use. Adjust as required.

Disclaimer: By using this product, you accept the following terms & conditions. This product may not be suitable or safe for road usage. The owner accepts ALL responsibility for its use & installation. Failure to follow instructions may void product warranty and may result in damage to your vehicle. The product must not be used if malfunction occurs or a suspected malfunction occurs. If inappropriately placed, the headlights from another vehicle could cause the brightness to increase unexpectedly. It must not be used where it could obstruct, hinder or impair the view of the operator.

Only use if safe to do so and at your own risk.