TrackCoach™ ProShift I/O Beta

Installation Instructions

This document provides instructions on the installation of the ProShift device and the application software.

The ProShift can be used in gear dependant and gear independent mode. For the most basic operation (not using gear position information) only +12V, Ground and the RPM signal need to be connected. These signals can be easily taken from the OBD2 connector, under the dash of the driver side.

If you want to use gear dependant shift points, you need to also connect the speed signal. The speed signal can be found under the plastic frame cover on the passenger side.

Note: The speed signal that we use is only available on R50, R52 and R53 chassis. R56 generation cars no longer have the vehicle speed signal. For these cars, the current ProShift can be used as a conventional shift light. Install as normal, but don't connect the Vehicle Speed signal. There is a setting in the software to set the unit to use gear independent settings.

Configuration of the shift light is done via the USB interface using the supplied configuration software. You do not need to have the ProShift hooked up to your car if you want to connect it to your computer. In this case the ProShift is powered via the USB port.

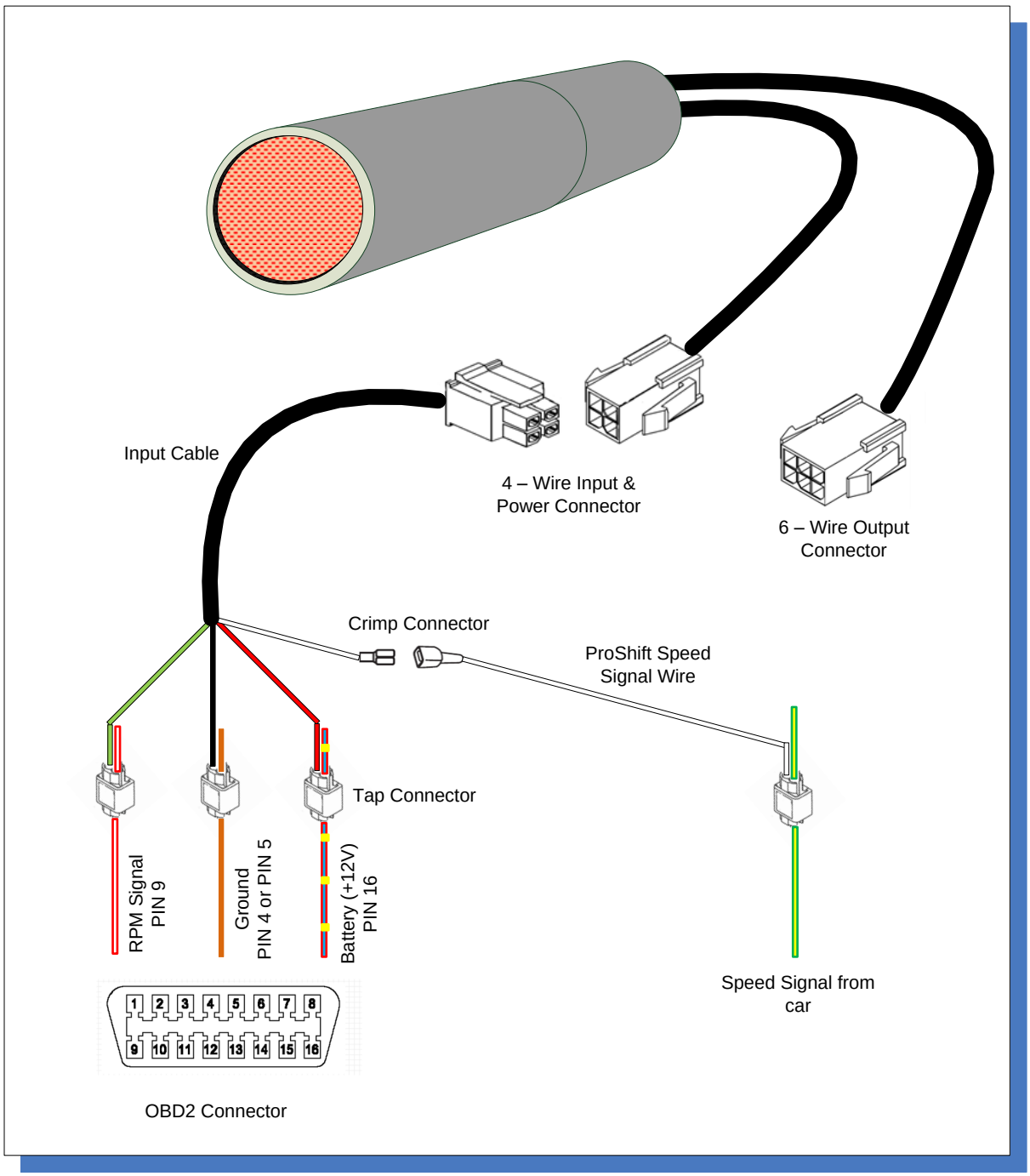
Packaging

The TrackCoach ProShift package contains the following items:

- 1 TrackCoach ProShift
- 1 Mounting Clip
- 1 USB communication cable
- 4-Wire Cable (Power, Ground, Vehicle Speed and RPM)
- 5-Wire Cable (Digital Outputs 1 to 4 and Signal Reference)
- 4 Tap Connectors
- 6' Speed signal wire

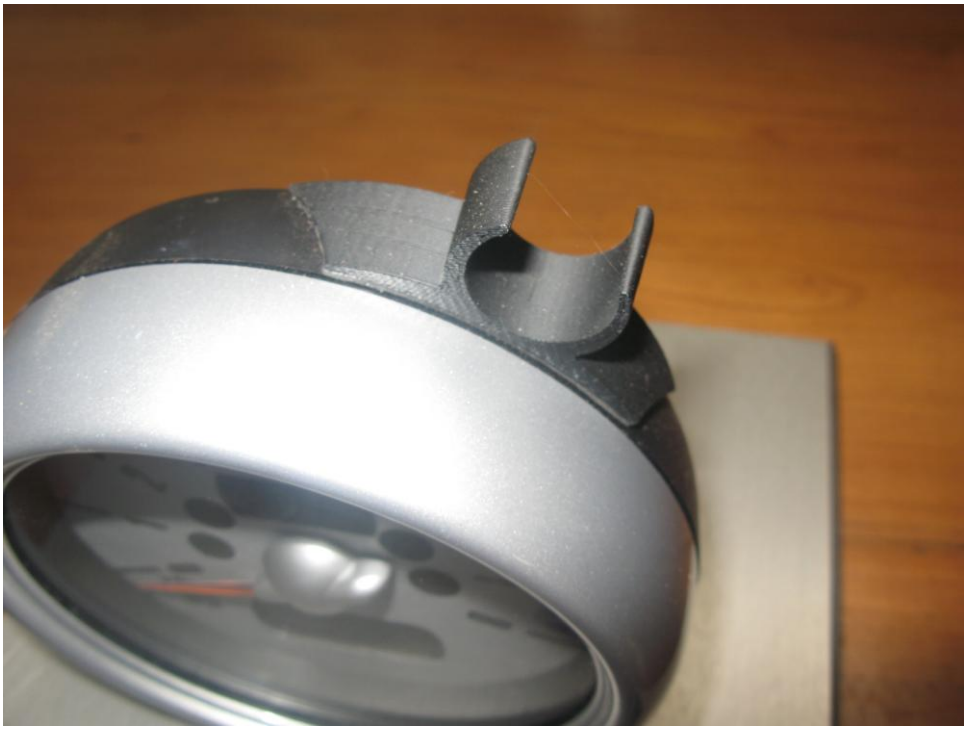
Installation of the TrackCoach ProShift

Wiring Diagram



Step 1 Mount the ProShift

Put the mounting clip on the tachometer using the double sided tape. The Clip is designed to mate to the curvature of the tachometer on the R50, R52 and R53 series Minis without Navigation system. While the gauges on the Nav equipped systems are a bit smaller, the stock clip will work on these systems too.



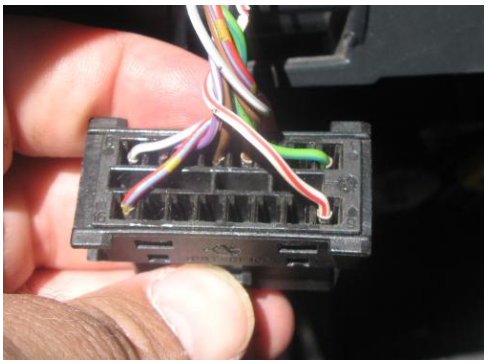
Clip the ProShift into the mount.

Note: Do not connect the Input Cable to the ProShift at this time.

Step 2 Run the Input Cable to the OBD2 connector

The OBD2 connector can be found under the dash on the driver side. The ProShift does not come with an OBD2 plug; you need to connect to the wires on the back of the connector.

- Remove the knee bolster (just clips in) or the Euro parcel shelf (two Torx screws).
- Push the blue retaining clip backwards to release the connector insert.
- Open the diagnostic connector cover, and push the connector insert upwards to release it from the connector housing. This makes access to the wires easier.



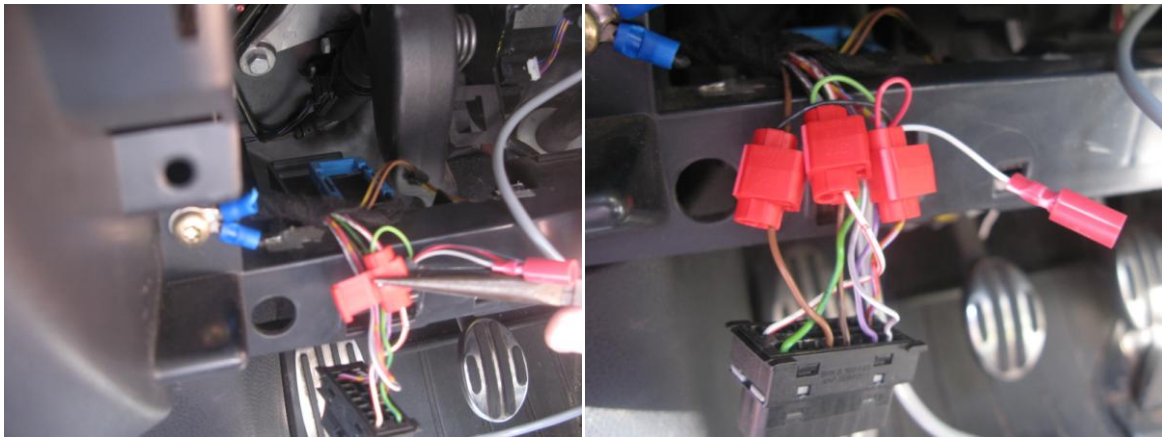
Step 3 Connect the Input Cable to the OBD2 connector

Connect the following 3 wires from the Input Cable

- **Black** to **PIN 4** or **PIN5** (Ground)
- **Red** to **PIN 16** (Battery / +12V)
- **Green** to **PIN 9** (RPM Signal)

Connection to the wires is best done using the Tap Connectors:

- Place unstripped run wire inside run channel
- Insert unstrapped tap wire completely
- Crimp the u-contact down flush with the top of the plastic insulator
- Close top hinged cover until latched

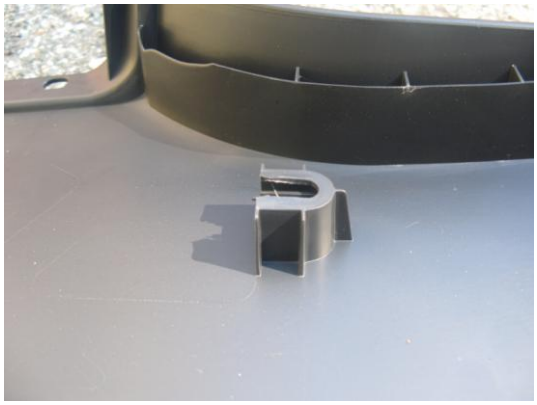


- Re-install the connector insert into the housing, move the blue retaining clip back into the locked position, and close the diagnostic connector cover.
- If you will not be connecting the speed signal, re-install the knee bolster or the parcel shelf, as appropriate.

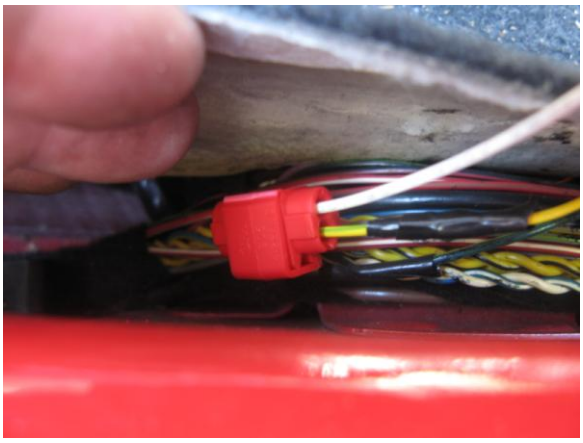
Step 4 Tap into the speed signal (optional)

- Remove the passenger side seatbelt anchor from the rear passenger foot well. Once the Torx fastener is removed, lift the anchor up from the front and it will come out of the bulkhead hole.


- Pull up on the weather stripping at the base of the passenger door to gain access to the plastic frame cover.
- The cover is held in place with some clips that take some force to unclip. Fight the panel loose and remove it from the car. Don't worry if some of the clips stay in the frame, they are easy to remove and re-mount onto the cover.


- Locate the speed signal under the plastic frame cover on the right side of the passenger side. The speed signal is a yellow wire with a green stripe. Tap into the wire using one of the supplied tap connectors and the ProShift Speed Signal Wire.



- Run the speed signal wire along the wiring harness, and behind the body control module. You may have to loosen the 10mm nut to get the speed signal wire to fit behind the module. Run the wire up and over the body control module.
- Replace the frame cover and the seat belt anchor.

Step 5 Run the Speed Signal Wire to the Input Cable (optional)

- Run the ProShift Speed Signal Cable to the OBD2 connector and connect it to the Input Cable (White wire) using the crimp connector.
- FES will add more photos about routing the wire to the rest of the ProShift wiring harness shortly.
- Replace the knee bolster or parcel shelf as needed.

Step 6 Connect the Input Cable to the ProShift

This concludes the ProShift Installation! Turn on the engine and rev up the RPM to above 6000 RPM (default Warning level). You should see the ProShift flashing green.

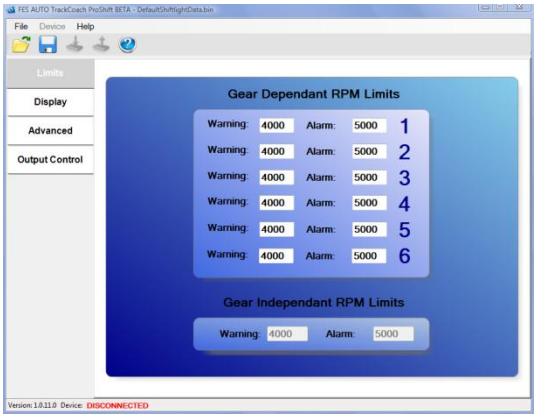
Software Installation

Step 1 Install the application

Extract the setup file and run the setup executable. Follow the instructions on the screen.

Note: Do not connect the ProShift to your computer at this time.

At the end of the installation, the application will start automatically. The following screen will appear:



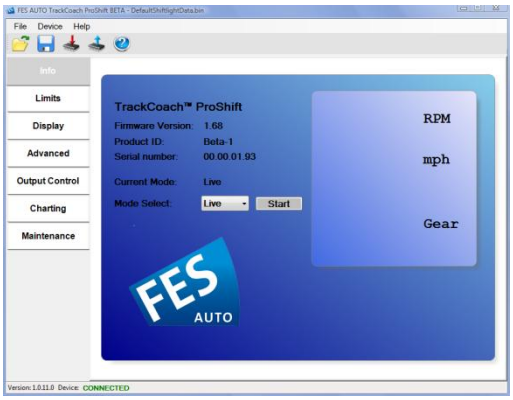
Step 2 Driver Installation

With the application running, connect the ProShift to your computer.

Note: The ProShift does not have to be connected to your car, but it's no problem if it is.

The "Found New Hardware" wizard will start. Follow the instructions on the screen (detailed information on the driver information under Windows XP and Vista can be found in the applications help menu).

When the driver installation has finished, the application will automatically connect to the ProShift. You will be asked to import settings from the ProShift. Click "yes". You should now see the following screen:



Step 3 Test

If the ProShift is connected to your car and the engine is running, you will see live RPM readings on the screen.

If the ProShift is not connected to your car, you can switch it to a demo mode, simulating RPM and speed data:

- On the main screen select “Demo 1” and click “Start”

You should now see RPM, MPH and the Gear position displayed on the screen.

Step 4 Configure ProShift

The ProShift comes factory configured in gear independent mode, with basic warning and alarm limits.

See the applications help file for detailed instructions on how to change the settings:

- Click “Help -> Help Topics” to access the help file.