On-board computer retrofit by Gary Morgan
(GaryM on www.mini2.com/forum)

Edition 2 24/02/03

At the time of purchase I chose not to purchase the on-board computer option saving some £100. Quite frankly I would have been a little disappointed with it's functionality for the money. But with help of some, good fellow, the factory retrofit instructions became available which has led to this guide. An aftermarket install cost of under a tenner!

The on-board computer gives you the following displays in the centre of the tacho.

If you have air conditioning or xenon headlamps then you should already have the temperature gauge but for those of you that don't, refer to the official instructions. These detail the part and fitment of the temperature sensor. As I already had this I did not have to worry.

I chose not to purchase the proper mini switch to save on the expense and hassle of installation. Instead a chose an aftermarket switch that is very similar in style to the mirror positioning switch by the handbrake, a lot cheaper. This switch functions just as the Mini one does cycling through the display's above. If you press and hold the button, that particular readout will be reset.

Although I have put this guide together it is best used in conjunction with the official mini installation guide, http://www.mini2.com/guides/pdf/OBC.PDF.

Only attempt this install if you feel confident with electrics and pulling trim off your car. Take your time and be very careful when removing trim trying not to scratch it when out of location. Part of the problem of doing this is that you will not know if you have wired everything right until the car gets reprogramed at the dealership.

Please note that I accept absolutely no responsibility for the validity of these instructions nor any work you chose to carry out as a result. Do this at your own risk.

Parts List

Pushbutton Switch (Momentary, Push-to-make) | CPC Code: SW01027 or
Pushbutton (Red Illuminated) Switch | CPC Code: SW01039
Contact | Farnell Code: 429-703
Lightweight signal Wire

Optional Parts

Current limiting resistor for illuminated
Switch above, 4.7Kohm | CPC Code: RE.5CF4K7
Pico fuse 125ma | CPC Code: FFMCR125

Incidentally CPC is a great source for electronic components, car accessories, LCD screens, DVD players etc.

Remove the Speedo:

To do this first prise off the two surrounds of the hazard light and dash illumination switches. Next remove the 3 screws that hold the Speedo/vent surround, these are all Torx sizeT-25.

One of these is gold in colour and located on the side by the airbag underneath the dash. It is there to prevent the dash from being ripped off in the event of airbag deployment.

The other two screws are black and located either side of the two switches pointing upwards.

Now tug the panel sharply from the bottom on both sides to release it from the retaining clips. Now wiggle the panel off. This will now leave the Speedo exposed so be extremely careful not to damage it.


Remove the four screws on the corners of the Speedo. Now it should be free and you can tip it forward to reveal the two connectors.

Fitting the wire:

Run a wire from the rear of the Speedo to the chosen location of your switch. In my case this was by the Mirror positioning switch.

Connect the crimp contact to the end of your cable. The type I have specified here is not the correct one but it does seem to fit, make connection and latch in the shell. If anyone has information on the part numbers and supplier of the crimps I would be grateful.
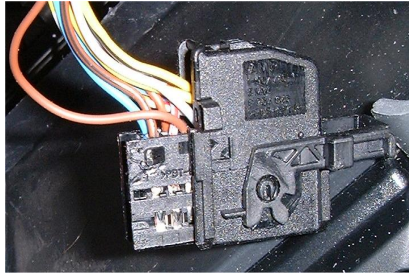
Remove the connector from the Speedo and then remove it from the housing.

If the shell is like mine then the contacts will be numbered 1 & 6 on one side and 7 & 12 on the other. The crimp now needs to be placed in the connector shell. This is pin3 of the 12 pin plug X11175.
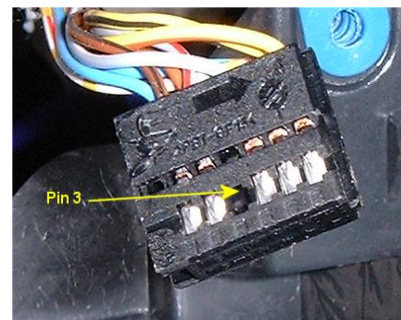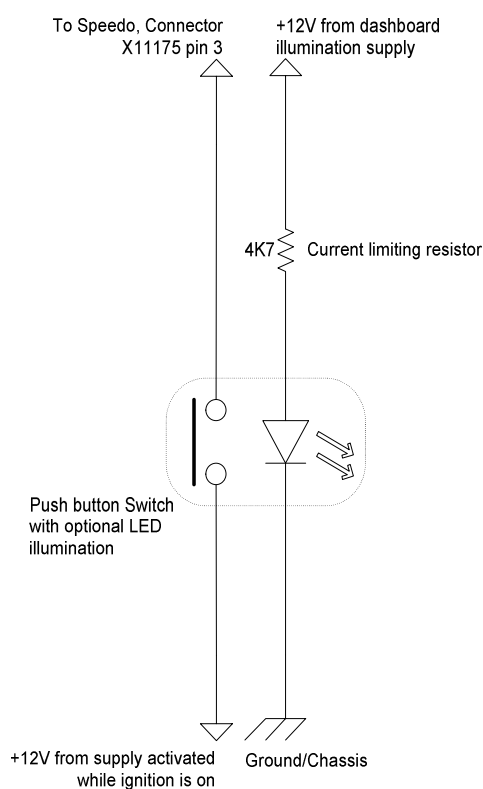
Refit the Speedo.

My Switch:

I've mounted my switch in the panel between the gear stick and the handbrake. The switch just requires a 13mm hole in the panel and a nut holds it in place. I have added a little 4-way inline connector to aid removal.

Your switch:

To Speedo, Connector X11175 pin 3

+12V from dashboard illumination supply

4K7 — Current limiting resistor

Push button Switch with optional LED illumination

+12V from supply activated while ignition is on

Ground/Chassis

The switch needs to be a single pole momentary, push-to-make type.

The wire from the Speedo needs to connect to one side of the pushbutton switch with the other side wired to a supply that provides +12v when the ignition is on.

The official guide describes where this is to be found in the fuse box but it seemed a lot of hassle to tap into this so I took the supply from the cigarette lighter.

Warning, if you chose the same supply location as me be aware that this source is capable of supplying a lot of current, more than enough to fry your little wires to the switch and possibly cause a fire. Ensure that there is no chance of this wire getting trapped by anything to prevent a short circuit. Additionally it might be wise to install a little inline fuse as close to the power source as possible. Use tape or plastic ties to ensure the cable is not loose.

That's all there is to your part of the work!

Unless you have the "perfect mini" there is a good chance that it will have to go in for something so while there get them to reprogram the computer to install the code. If you are lucky they won't charge you.

Now is the chance to see if your efforts have paid off. Once the car has been reprogrammed test for correct operation.

Note: before leaving the garage confirm that any programmed options you have had configured are still operational e.g.: Courtesy headlamp delay, comfort opening etc. If not get the garage to program them back.

Illuminated Switch:

I wanted the switch to be illuminated at night, unfortunately although this style of switch does come in an illuminated variety it does not come in Orange. Red was the closest I could get. But it does not look too out of place at night.

If you want to have an illuminated switch you will need to provide a ground wire to one side of the negative side of the LED and a supply from the dashboard illumination to the other side. This supply will need a current limiting resistor in series with wire to prevent the LED from blowing. I found that a value of 4.7Kohms was fine. And again I used the cigarette lighter as the source of the supply connecting the LED supply to the lamp in the side of the lighter. Using this will mean that LED will only come on with the dash lights and will dim with them too.

Supplier's info:

CPC	**Farnell**
Component House	Castleton Road
Faraday Drive	Leeds
Fulwood	LS12 2EN
Preston	United Kingdom
Lancashire	Tel: +44 8701 200200
PR2 9PP	www.farnell.com
United Kingdom	
Tel: +44 8701 202530	
www.cpc.co.uk	