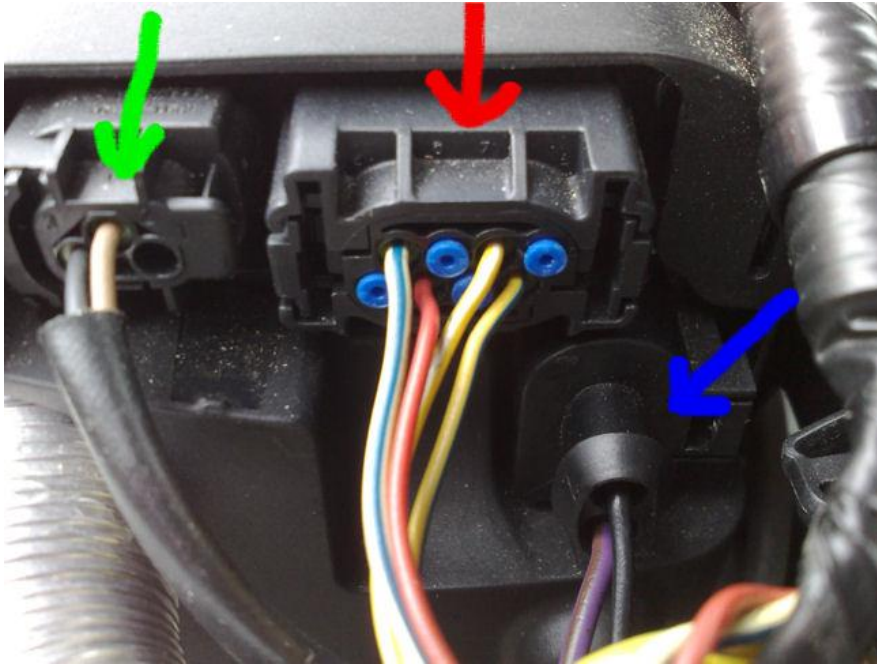


This is a file of all the relevant Information regarding the fit of Danhags Remote FBH Controller please read through and familiarise yourself with all the parts, and what needs to be removed to install this mod on to a Land Rover D3

### Original Fit of FBH Mod By Phone

Please refer to this post for running the wire to the FBH through the driver's side bulkhead.

<http://www.disco3.co.uk/forum/topic16361.html?highlight=FBH>



GREEN arrowed plug contains the FBH coolant pump wires. RED arrowed plug contains the W\_Bus, CAN bus and aux diesel pump wires . It unplugs by releasing the plastic lock arms either side. BLUE arrowed plug contains the 12vfeed and GND to the FBH. This unplugs by releasing the plastic lock arm on the right side. The Disco3 is a perfect fit!

Danhags Website link to Manuals, Wiring Schematics, and general information

<http://www.danhag.de>

Some Helpful Pdf files from **berndv** in his gallery on hoe to remove the cars trim.

<http://www.disco3.co.uk/gallery/thumbnails.php?album=4712>



Above the number two pin marking is a pink slider, with a Morse code “dash dash dot” look.

Using your straightened out paperclip again GENTLY press into the right hand side of the second dash so that the paperclip is at 45 degrees and pushing towards the ‘dot’. The pink slider should move a couple of mm until the pimple that was at the right of the second dash ends up in the dot. This slider locks all the connectors into the plug – this movement isn’t much, but it’s enough to unlock all the connectors so that they can be added or removed.

Look for the barb on the connector you’re about to fit. When you fit it, the barb points towards the pink slider. Note that the connectors I’ve found are far from perfect; although they’re functional there is a lot of slack and it doesn’t fit tightly, Don’t worry about this – it’s a tight fit on the FBH pin, and this is the most important thing.

Fit the connector into hole number two.

These instructions are viewing the plugs from top looking down as in my pictures in an earlier post.

Plug 2

From the left of the plug Pin 6 connect to the Green & White wire, there is a blank hole next to the wire in the plug.

Plug 3

Red to Green & Purple

Brown to Black

Cut the wires from plug 4

Plug 4

Red to Yellow on plug on HVAC Pin 2 / other end of Yellow wire connect to cut end

Green & Black to Blue wire from Plug Pin 5 then the cut end of Green & Black to Purple wire.

When all this is done connect all the HAVAC up , Then program the GSM unit, I found Danhag's website would not work to configure the unit so I just set it up from mobile by text.

Then fire up the FBH wait for the time set for the fans to come on the start to turn the pot on the unit turn one way for about 6 full turns and then slowly back then the fans should kick in to life.

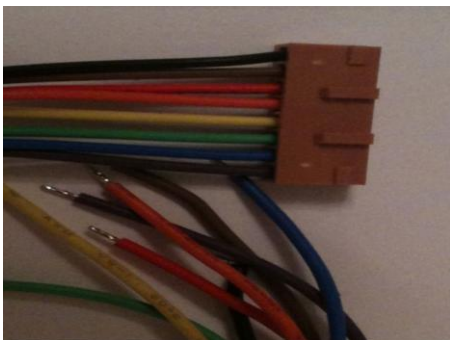
**Point's to Note** Why the unit does not switch off when turning the ignition on.

According to the GSM unit's manual, the orange wire should be used to do that but the orange wire is a dead end in the wiring harness. I just connected the orange dead end to a 12v feed when the fbh and fans were running and immediately the green light goes out and the fbh shuts down. So apparently the cigarette lighter should have been connected to that orange wire.

**The Green Wire on the GSM Connector**

This one can be used to manually switch on the heater.

If you connect it to a 12v feed, the fbh starts. when disconnecting it immediately stops.



### Good Information Supplied by Wiggs

The issue with the red program light may be down to the system trying to recalibrate its self .

Obviously the car knows something has happened and is checking for any faults .

I would suggest if someone has a faultmate or another diagnostic tool ,,,clear all the faults and run your tests ...then check for faults again .

It may be nothing , but worth a check

"The motor and flap operation can be checked using the on-board distribution motor self-test function.

The self-test can be initiated by pressing and holding the ECON and RECIRC buttons while turning the ignition switch to the ON position.

The control module will then compare the current motor position with the values stored in the module and will indicate an error by flashing the ECON LED (light emitting diode).

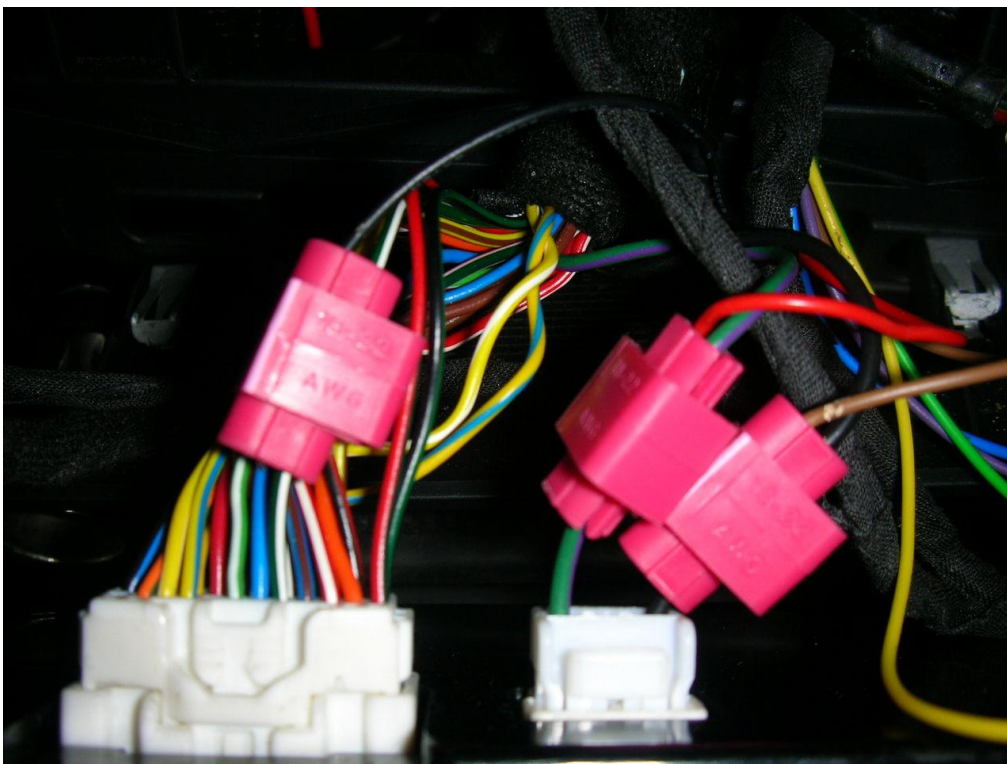
If there are no errors, the LED will go out and the system will function normally.

To confirm that there are no errors, turn the ignition switch to the OFF position, then back to the ON position.

Observe the operation of the programmed defrost LED.

If there are errors present, the programmed defrost LED will flash and the system will attempt to calibrate itself."

As you can see below I have four connectors on my HVAC panel, ignore the grey one on the left its for the heated seats.





The potentiometer is like these old bank vaults. You have to know the secret code turning them back and forth and all of a sudden BINGO! Fans are running now.

#### Possible Reasons for Non Starts

There are occur repeatedly the same problems during the installation, so i would like to give some more details.

1.) the FBH won't start.

The most common cause is an empty battery. We had the same problem as we let the doors open and the indoor-lights on during the installation.

To delete any error stored by the heater itself, remove the fuse or the power supply of the FBH for about 1 minute.

Please connect a battery charger for at least 1/2 hour and try again.

Please check the wiring. Is the yellow cable of the cable-harness properly connected to PIN2 of the heater ?

Is the output-signal of the GSM-remote control set to "W-Bus" ?

The LED of the GSM-remote control should flash green every second. As soon as you call the GSM-Remote, the LED should stay green.

If the LED turns to permanent red, it indicates a failure of the communication between the heater and the GSM-remote.



2.) The "Master mobile" gets a dialling tone but the GSM-Remote won't switch.

Please ensure that the "Master mobile" sends its own number (caller id).

Please check that the "Master" number is stored only once at the SIM-Card of the GSM-Remote control.

If you use an used SIM-card, please delete all numbers before inserting into the GSM-remote control and programming via SMS.

3.) The heater blower won't start.

You can vary the speed of the heater-blower by turning the potentiometer on the heater-blower-control-box.

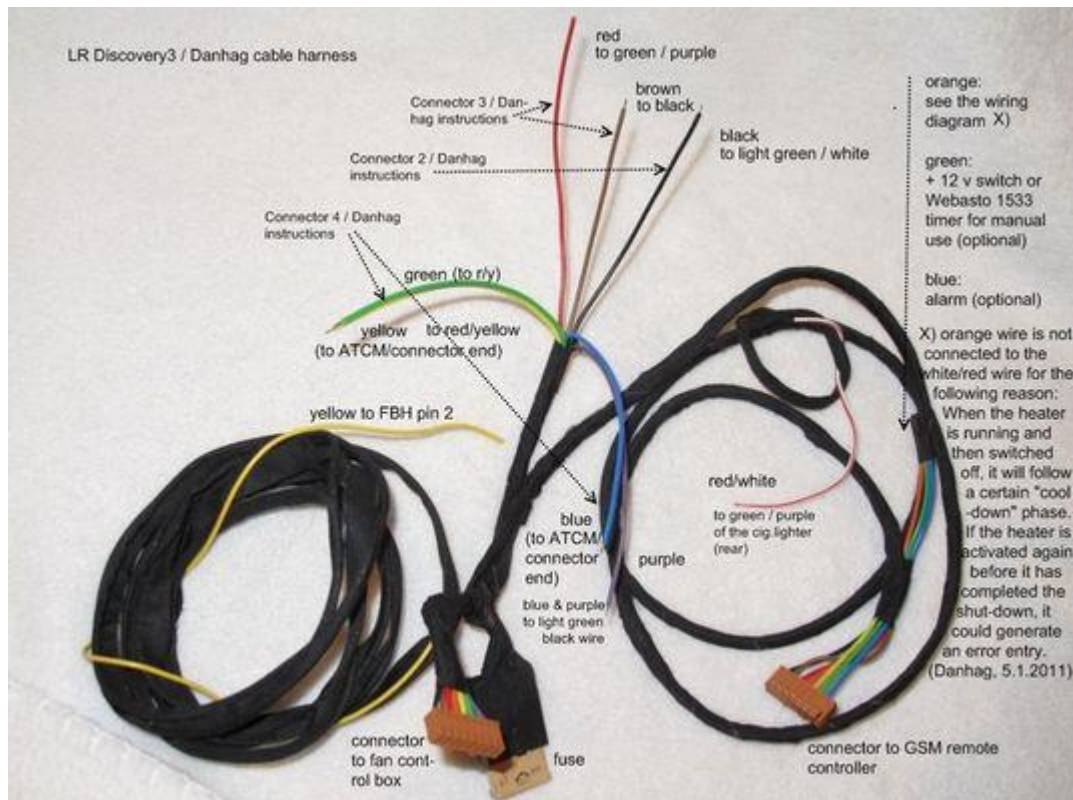
Please try to change the value by turning the adjusting screw carefully.

Note, the heater blower will only work when the GSM-remote control is switched on and the heater-blower delay time is expired.

(To test the system you can disconnect the 8pin connector from the GSM-remote control and connect pin3 (red) to pin1 (black) by using a small wire or paper clip)

<http://www.danhag.de/anleitung/users-guide.pdf>

<http://www.danhag.de/anleitung/installation-guide.pdf>



**DANHAG** GSM-Fernsteuerung v7.0  
 > integriertes GSM-Modul  
 > W-Bus Ausgang  
 > Temp. sicher bis -20°C

by clicking this button, an SMS with the settings will be send to the GSM-remote control. You should get an answer sms to your mobil, showing the current settings. If you would like to check the settings later, you just have to send "Info" via SMS to your gsm-remote control.

The number of the SIM-Card inserted into the GSM-remote control.

SMS-Text senden

<http://www.danhag.de>

Click the link above to go to the Configuration page above.

When the fbh is talked to with the wbus protocol the fbh will only be partly controlled i.e. fuel pump will not be working and the fbh works until the fuel reservoir is exhausted.

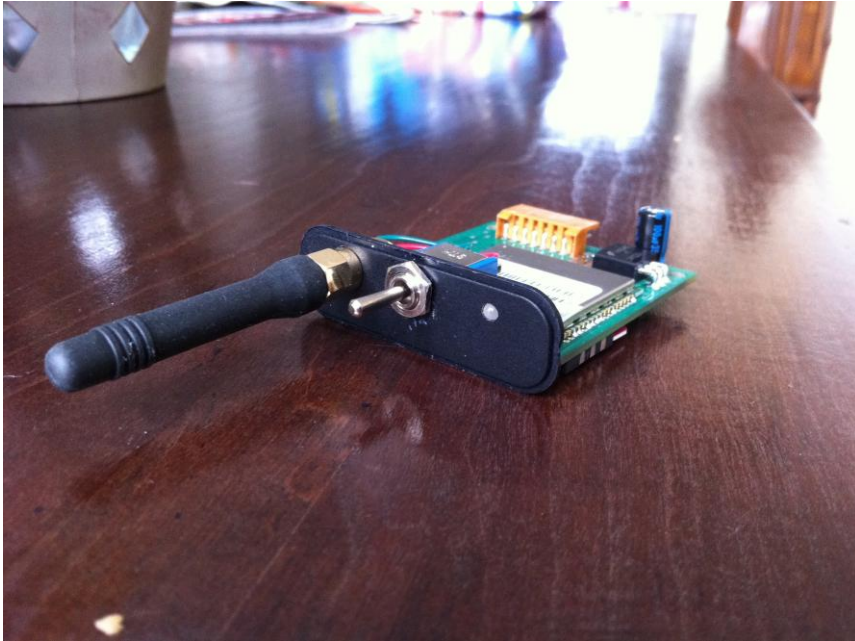
The D3 has a Thermo Top V fbh and can be talked to in a "TTV Zuheizer" protocol (extended wbus) whereby fuel pump is also activated. if you guys have ordered the gsm pro version and i think you have, then you can configure the gsm pro unit to talk ttv extensions (in sms config, property 30=4)



Some little Mods done by members

**Berndv**

**Did this mod and used the green wire to manually fire up the FBH.**



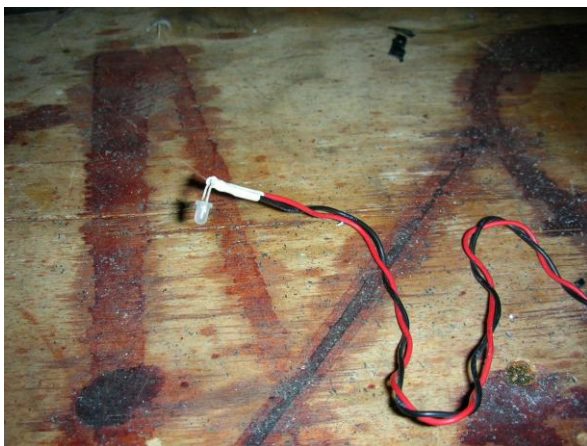
GSM unit hidden away behind the passenger side air vent.



Have now moved the LED from the GSM to much better place than stuck behind the dash, I just cut the led from the pcb and stuck a length of wire on it, I have placed it on the centre pull off dash panel at the left hand side near to the cigar lighter, it can be seen easy from the driving position and not be in your driving view.. Also moved the fuse to under the pull of panel under the steering wheel for better access.

Then I have moved the power supply to the whole setup to run off my aux battery.

Wire and LED attached to cable I just used a old speaker connection lead from a PC just cut the pins out and they fit snug when you squash them a tad.





Led in place on the centre dash..out of the way.

Martin Site Owners Mod to the Wiring Harness

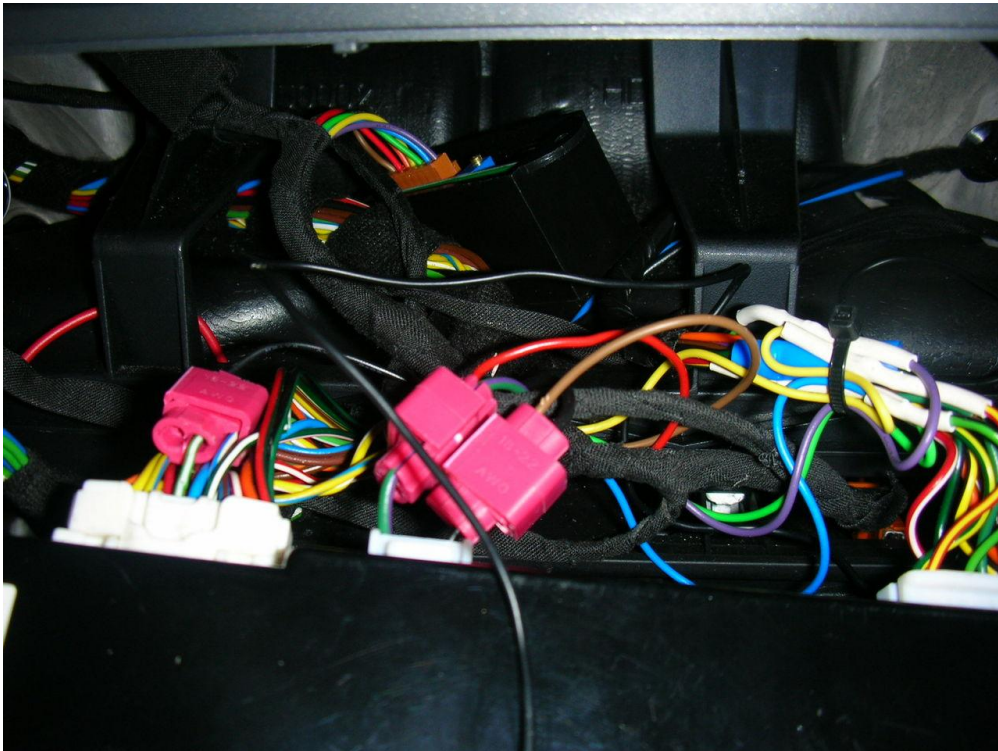


Having had just the GSM unit wired in temporarily for the last few weeks, I have finally finished off my conversion of the harness to what I think should have been for a very nearly plug-and-play D3 installation with the two control modules installed behind the lower glove box.



You can see the potentiometer adjuster on the unit at the back of this picture, ( the brass screw in the blue plastic next to the brown connector) there is plenty of space behind the HVAC panel for the unit so don't panic.

As for the other wires to the connector on the right solder all these connectors just to be sure and to save having a big thick bunch of scotch locks.



The red wire at the back with the blue scotch lock on is the feed from the cigar lighter. this is the wire that the red and white & the orange wire connect to.

### Tip From Member

I found it easier to take the ignition switch power from the cigar lighter that is in the back of the console, the one in front of the rear seats.

That panel just pops out easily and it takes only a few minutes to lay a fully invisible wire from there to the back of the hevac panel.



All the information in this file can viewed in this post but be warned its 42 pages long now.

<http://www.disco3.co.uk/forum/topic57865.html>

Flack