

## **Preamble:**

This translation has been done by „onemilehigh“ (german rover 75 owner) from an self-made technical instruction written by „keks007nix“, who is an active member in german [www.r75.info](http://www.r75.info) forum.

It's about adding a remote control to warm up the car before starting by activating the Rover 75 CDT and CDTi built in WEBASTO fuel burner manually to get the additional benefit from this heater to increase drivers comfort and fuel efficiency. If your Rover hasn't got this heater, this instruction can't help you.

The function of this additional heater is meant to support the conventional heating system of those new types of highly fuel efficient dieselengines, which don't produce enough heat surplus from the normal engine cooling system to supply a conventional car heating system.

**The conversion provided by this instruction serves on your own risk. Any demands in case of any possible damage are rejected. Who doesn't dare to do the conversion on his own, should give it to somebody else with adequate skills. In normal cases, everybody should have the ability to accomplish.**

**The author of this instruction assures, that there is NO modification needed to be done to the electronic system of your rover. This modification can NOT be recognized by any diagnostic-system, because there is no influence to any system.**

According to the german draft, this instruction could possibly save about 500 €, which could be comparable to 350 £. The author also told about, that there is for sure a risk of loosing the claims of warranty concerning the heater, but there are no known cases regarding this. If anybody has got a used car insurance, he don't need to worry about that, because they can't have a look into the car.

Suggested supply from following parts list refers to a german online store for electronic supply known as <http://www.conrad.de>. May be replaced by a comparable british supplier, or your next electronics-dealer around the corner.

**parts list:**

-4 x diode type 1N4007 or similar,

-2 x toggle relays 12V. bosch, or hella if available. please attend circuit diagrams, which you will find sticking at the relays, have to correspond! Numbers may vary, but in this case you have to adapt the existing numbers to this instruction.

-3 meters of thin single wire (~bell-wire), 0,75 mm<sup>2</sup> is suggested,

-a typical remote control, with an so called „comfort-function“(WAECO magic-touch MT350 is suggested),

-soldering iron, typically which you may normally use for any similar electronic handicrafts,

-isolating tape,

-well assorted toolbox, screwdriver for recessed head screws as minimum requirement, a knife and an edge cutter would be fine, too.

-sealing compound (silicone, etc.),

-and last, but not least a little bit of time. experienced craftsmen may need 45 minutes, bloody amateurs two hours and more ;-).

**the modification:**

First, you have to screw off several moulded parts of the car interior, to come nearer to the aircondition and to pass a wire. Next, you have to screw off (2 screws) the casing below the steering wheel. the black plasticpart above the pedals can be moved away a little bit if desired. It'll be enough to pass a wire.



(Attend photo shows a r75 with left side steering wheel!)

Next, open the enginecompartment and remove the wiperactuator housing, which you will find on the right side near windshield.



To pass the wire through into passenger compartment, it's suggested to use the snake bore right of the wiper actuator. The author is proposing two ways of passing through. For the patient: Just pass the wire through the rubber nozzle side by side with the snake. For the impatient: Unplug the rubber nozzle. Now pass the wire through the wide bore and lute it with the mentioned sealing compound later. If you have managed to push the wire deep enough into passenger compartment, you have to go inside the car, where you should try to catch the wire which you could find top left under the steering wheel to pull it inside then. An electric torch will help. Attend to pull the wire into the car to a comfortable length.



Now pull out the car-radio. For this purpose, screw off the wooden paneling. You will find the screws behind a small cover underneath, which you can snap off with the help of a screwdriver by pressing it into a little notch upright. Now the cover will jump off by itself.





After dissolving the two screws, you can pull off the paneling. You will find the radio screwed on with two screws. locate and unscrew them. You should find one at every side of the casing.



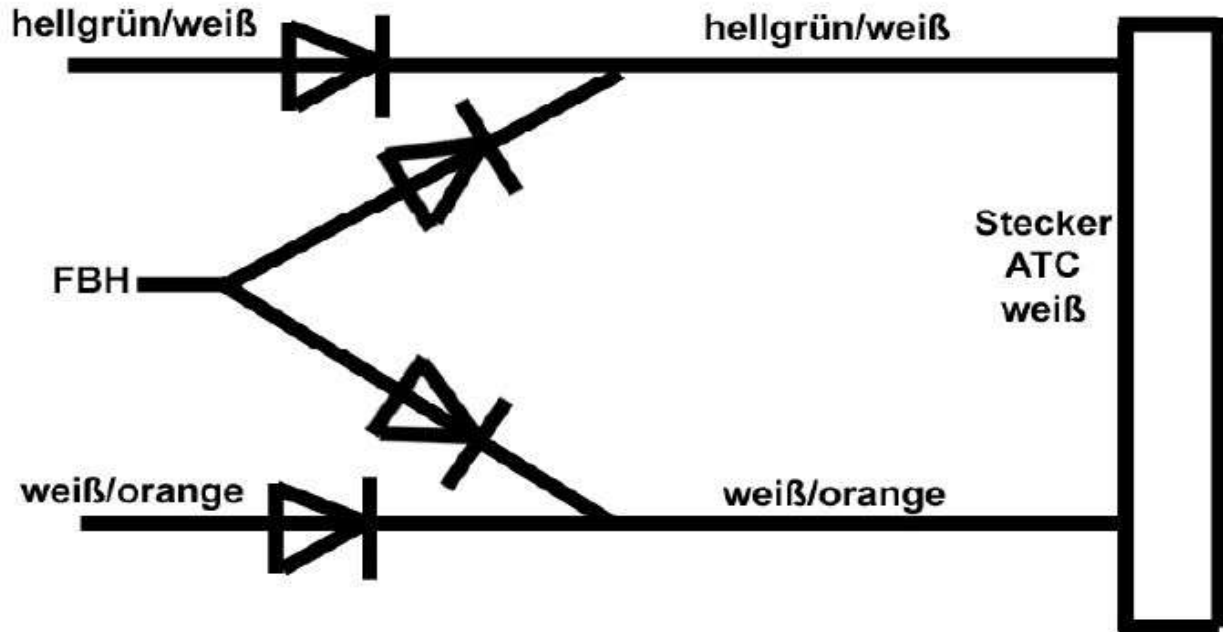
After dissolving, drag out the radio just a little. Attend the two clamps, which hold the radio tight. because of the difficulty to catch the clamps, you just should go on pulling out the radio carefully, until it is released. before you unplug the radio from main power supply, get assured to have the CODE of the radio at hand, because it will ask for it after reinstalling. This procedure is not necessary for cars, which have installed a standard radiobay already.

Next step is pulling out the climate control unit. take a thin screwdriver and hook behind the plastic panel.



The panel is quite easy to unmount, because it sticks rather flimsy to the climate control unit. After that, you screw off four screws, two per side and then pull out the climate control unit. After unplugging the two connectors, just lay aside the climate control unit for easier workings.

While heating up the soldering iron, seek the WHITE/ORANGE and LIGHTGREEN/WHITE wire located at the right connector of the climate controll unit and cut off both 2, or 3 cm behind the connector. Skin all four endings at about 4mm and solder on the four diodes as shown on diagramm below, **attending the correct polarity (very important!)**.



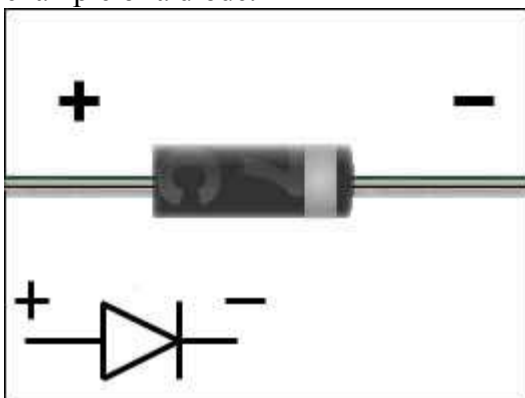
hellgrün/weiss = lightgreen/white

weiss/orange = white/orange

FBH = inner diodes point of connection (kathodes).

stecker ATC weiss = white connector to climate control unit

example of a diode:



Now, pull the wire coming from enginecompartment which you find hanging down the floor towards climate control unit, resp. radiobay.

Now, let's start soldering!

-take the GREEN/RED coloured wire coming from MT-350 and solder it to connection no. 86 at the relay

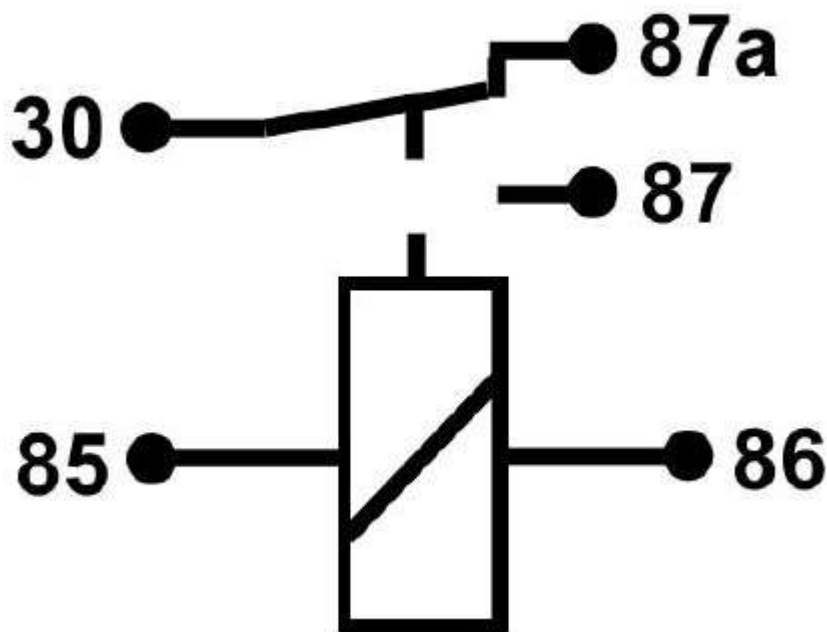
-solder the BLACK wire coming from your MT-350 to the BLACK one of the radios. This wire is numbered with the eight. It'll be best to strip off just a little bit of isolation, attending not to cut off the wire completely.

-the red wire coming from the mt-350 has to be soldered to the red wire leading to the radio. This wire is the no.7 at the connector. Furthermore, you should make a connection between contact 85 and 30 of the relay.

-the ORANGE wire coming from the MT-350 has to be soldered to the LIGHTGREEN/WHITE wire leading to the radios . This cord is the No. 4 at the connector.

-connect contact no 87 of the relay and the wire coming from the enginecompartment to the so called point FBH mentioned in diagramm above.

relays diagramm:



Now, set dip-switch no. 2 of your MT-350 to ON. The interior work is done now, but we don't screw up everything until function tests are passed successfully.

Now remove the cover of the batterybox. This box provides enough space to install the second relay.



Now take the wire coming from inside the car and solder it to contact no. 85 and 87. Attend to pass the wire to adequate length, to reach to the free space into the batterybox. You should find 5 wires leading to the heater. Identify the GRAY/GREEN wire and cut it off at 2 cm after the connector and extend the two ends to reach the mentioned space in batterybox, by soldering more wire as a extension. Now take the end, which is coming from the connector of the heater and solder it to contact no. 30 of the relay.

Take the other end of the wire, which goes away and solder it to contact 87a of the relay. Repeat the procedure to extend the BLACK wire coming from the heater to reach the batterybox. It's suggested, not to cut off, but just stripping a little bit of this wire and solder another wire to this bared part, to solder it to contact no. 86 of the relay.

If you did everything correct, you should now have a working, independent vehicle heater. Press the small button located on your remote control to perform a test-run of the complete system. The heater needs approximately 2 minutes after enabling to run at full power.

If it will not work, please check everything again. If this won't lead to success, too, feel free to contact the author „KEKS007NIX“. The possible cause could be a new type of heater, which is not officially published by WEBASTO. In this case, you just have to change two wires. Contact KEKS007NIX to get additional information.

After disengaging, the heater has 2 minutes follow-up time. At a coolant temperature of 65°C, the heater will stop working automatically, so you are not able to restart manually at warm engine. If all works fine, remind isolating all blank soldering points, diodes and contacts of the relays. there must be no blank parts of the wiring left at last!



If everything is isolated safely, reassemble all parts and don't forget to seal the bore, where you pass the wire into passenger compartment.

**FAQ:**

before you place any question to [www.r75.info](http://www.r75.info) forum, please read this first!

Is it necessary to stop the heater by using the remote control before starting the car?

-No. if ignition is engaged, your MT-350 will be disabled automatically, which means, the heater works normal.

What is the consumption of diesel-fuel?

-Approximately 0,5 Kg per hour.

What is its maximum time of duration?

-There's no limitation by itself. Depending on state of battery, it will run 10 hours maximum.

Why do we need a second relay?

-No, it's not necessary. It will work fine with just one diode. The Advantage, of using a second relay, is to control reaction of the heater, if it is possibly exchanged after a repair, or maintenance, to prevent life on its own, which will cause low battery.