TACHO MASTER | DOT

Installation Guide

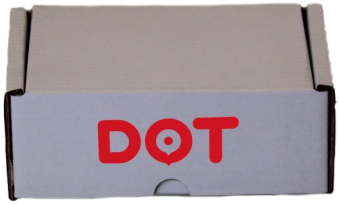
Tachomaster DOT Installation Guide v2.5

Table of Contents

The equipment required for DOT installation

The Tachomaster DOT device is relatively simple to install and you do not require many tools.

Road Tech will supply you with the boxed DOT kit.



You will also require some additional tools (not supplied).

1) A pair of tachograph removal tools, these are similar to car radio removal tools.

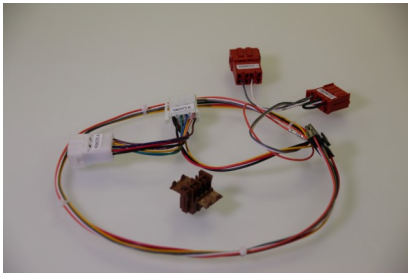
2) You will require a small flat head screwdriver for connecting some of the wires to the plugs.

3) You may need a cable tie or Velcro to fix the DOT unit and prevent noise/rattles.

Items in the DOT kit

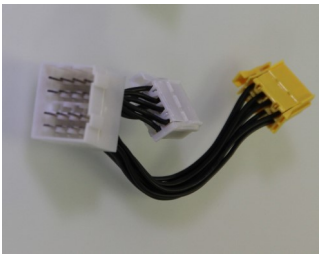
Open your DOT kit box, inside there should be the following.

1) The DOT device



2) The DOT wiring loom which includes a separate brown plug which may be required

3) Possible additional cable for Mercedes or Volvo vehicles. (not included in all sets)

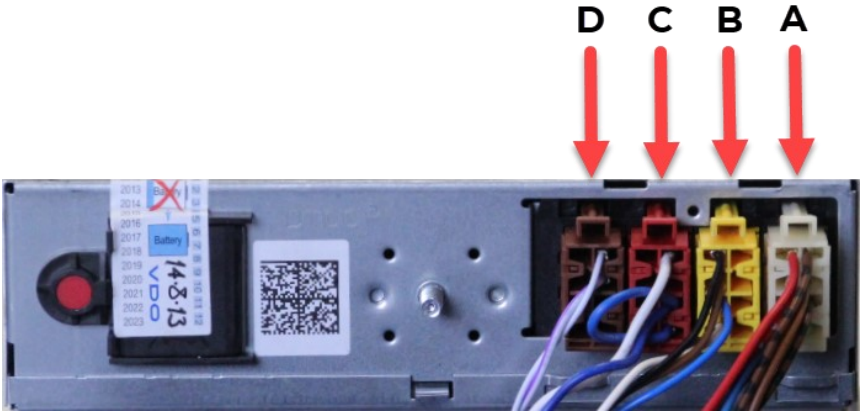


4) A GPS/GNSS antenna

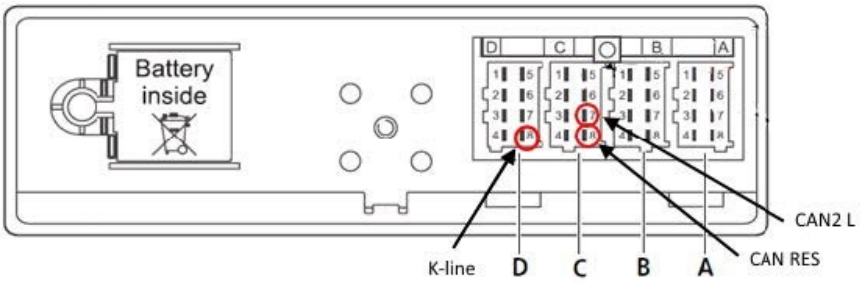
5) The GSM antenna.

Tacho sockets – diagram

At this point it is worth identifying the sockets at the back of your tachograph unit so you are familiar with them.



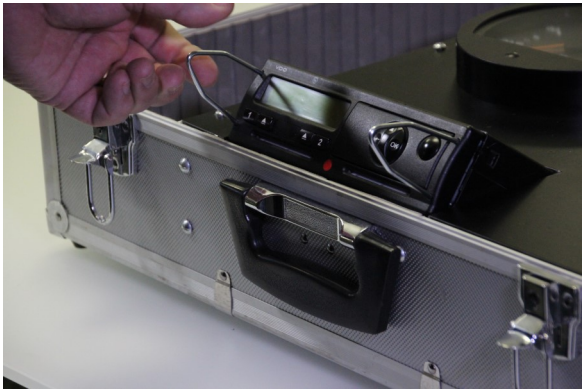
These diagram shows the four ports at the back of the tachograph which are from right to left A, B, C and D.

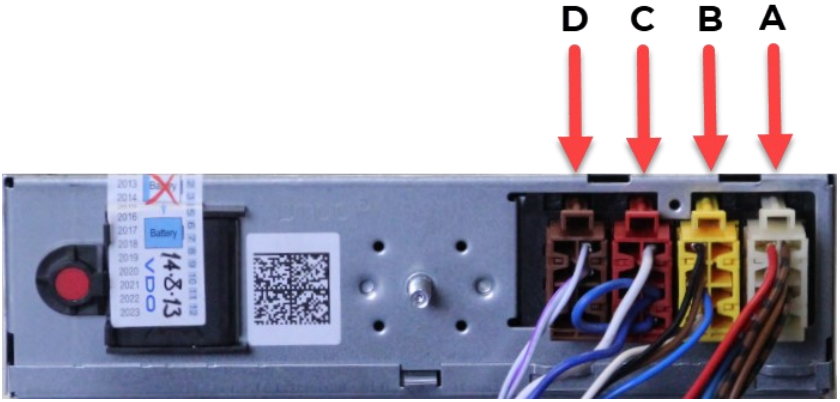


Also important are the pins 7 and 8 on the C port and pin 8 on the D port.

Step 1—Remove The Tachograph Vehicle Unit

Step one of the process is to remove your tachograph unit using the two tachograph removal tools. Carefully place the removal tools into the holes and then pull.

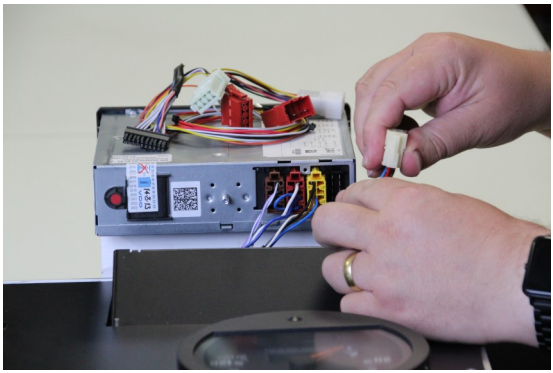


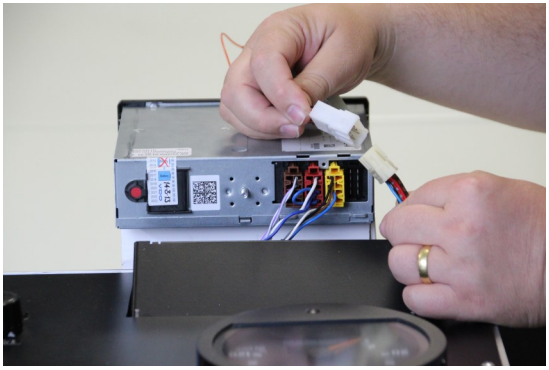


You require access to the back of the tachograph to where the A-D sockets are situated.

Step 2—removing and connecting power

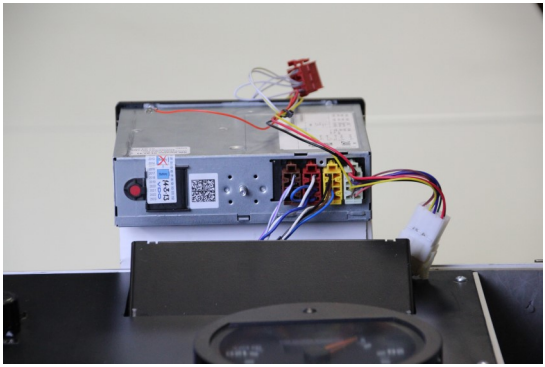
Remove the white A connector from the tachograph A socket.





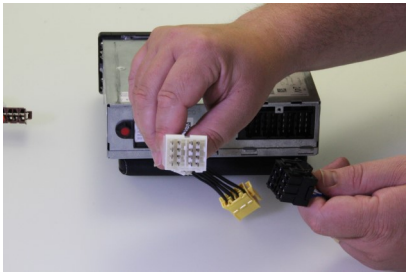
Connect the same A connector to the DOT loom white socket

Then plug the DOT loom ‘A’ Connector into the tacho



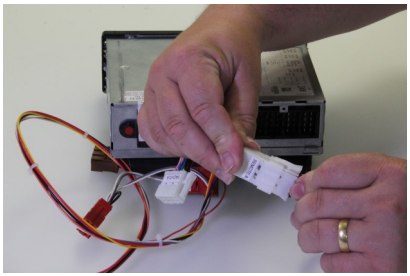
Step 2b—removing and connecting power using the additional cable assembly (Volvo and Mercedes)

For certain vehicles (mainly Volvo and Mercedes) there may be a single connector in ports A and B. If this is the case you require the additional cable. This is only supplied if the vehicle requires it and would be specified when ordered.



Disconnect the A/B connector and attached to the dual connector port on the additional cable.

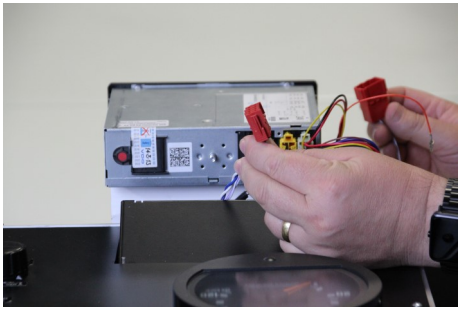
Connect the white connector from the additional cable to the white socket on the standard DOT wiring loom.

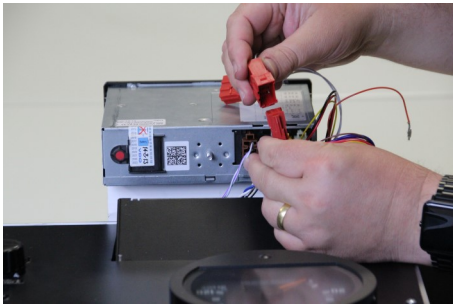


Then plug the DOT loom ‘A’ Connector into the tacho.

Step 3—CAN Connection

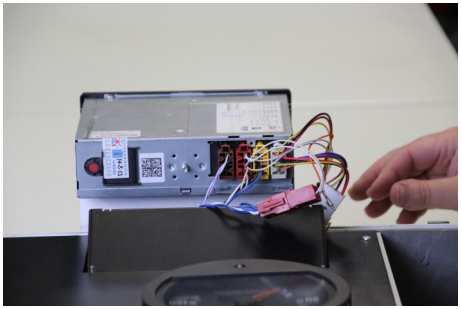
If it is already fitted, remove the Red ‘C’ connector from the back of the tachograph

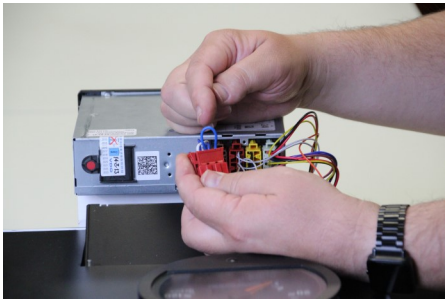




Connect the same red C connector into to the DOT loom red socket

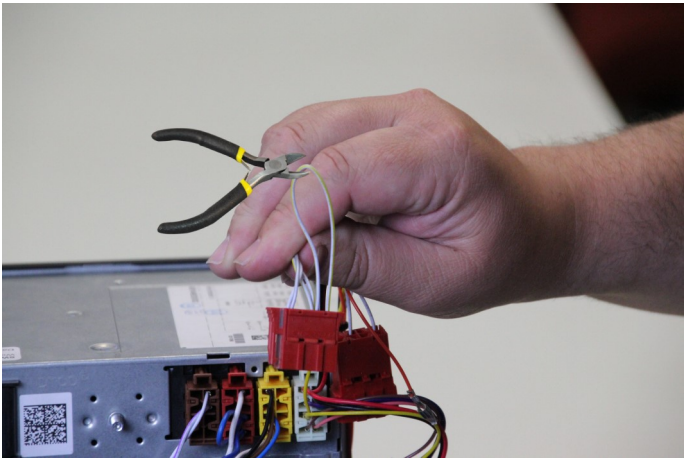
Plug the DOT ‘C’ Connector into the tachograph, even if the red C connector was not previously attached.





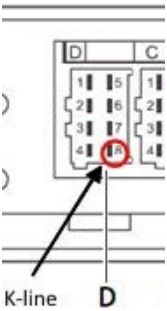
If you removed a Red ‘C’ Connector, check to see if there is a link wire fitted pin 7 to 8.

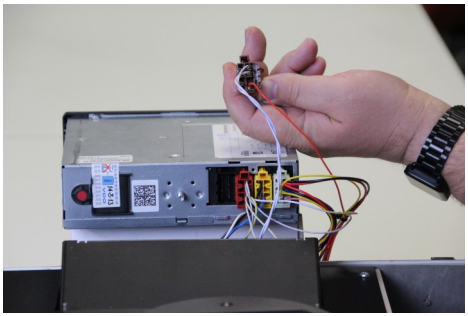
If there was not a link wire on the removed red ‘C’ connector please cut the link wire on the DOT ‘C’ connector, otherwise please leave it intact.



Step 4—K-Line connection

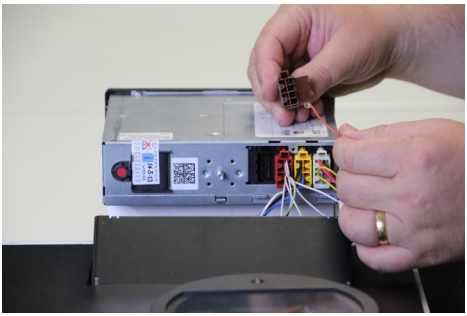
If a brown connector is fitted in the ‘D’ socket, the orange wire needs to be inserted into pin 8

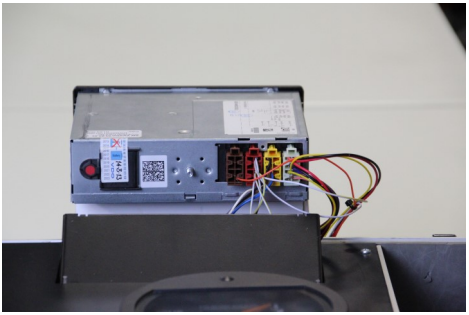




If there is already a wire fitted to the D plug pin 8 then the DOT Orange needs to be joined to that wire. This can be done by splicing and soldering or replacing the in.

If there is no brown ‘D’ Connector, fit the plug supplied with the Orange cable inserted into pin 8

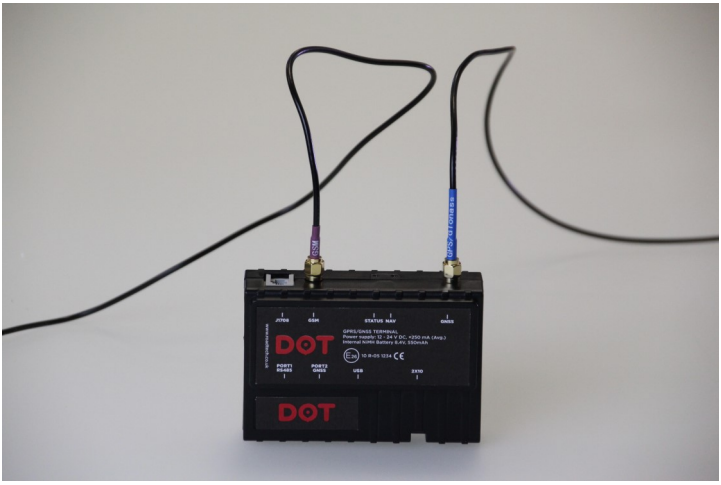




and then plug into the ‘D’ connector socket

Step 5—GSM and GNSS/GPS DOT connection

Site the GSM and GPS antennas and route the cables to the DOT and fix securely.



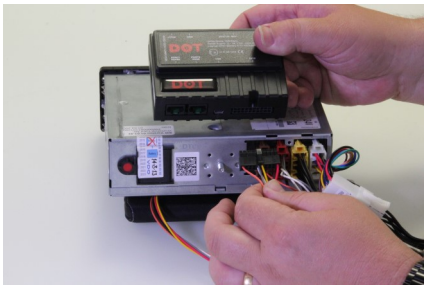
Please ensure that the GPS antenna has a clear sky view and has the black plastic side facing the sky. The GSM antenna must not be attached to metal to ensure a better signal.

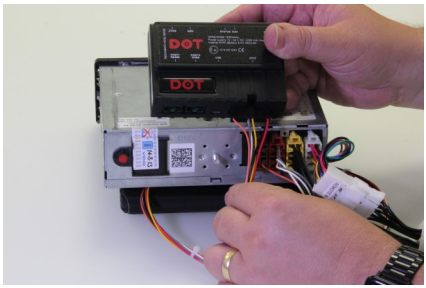
As usual with fitting GSM equipment, it is advised that you test your vehicle radio system to ensure that the GSM signal does not cause any interference. If it does reposition the GSM aerial until any interference ceases.

Please refer to the vehicle manufacturers guide if you require to remove any dashboard equipment to route the cables.

Step 6—Connect the 20 way connector

Insert the 20 way connector from the DOT wiring loom into the DOT device.

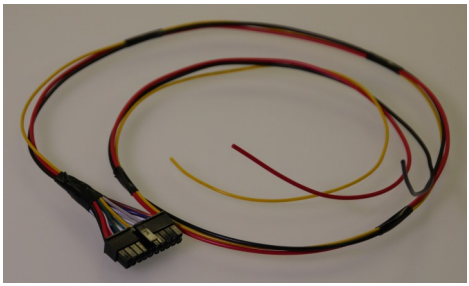




Alternative Step—Tracking only device

If you are fitting the DOT device for just tracking you only require the 3 wire loom, as in this image.

Black—Earth/0v (KL31)
Red—12/24v (KL30)
Yellow—ignition stage 2 (KL15)

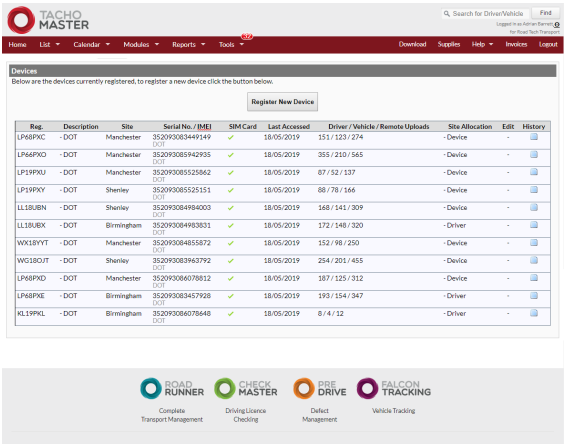


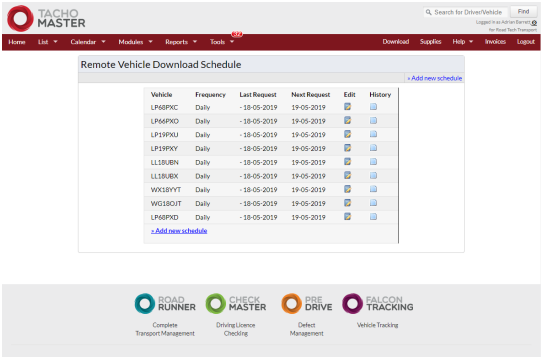
Step 7—Secure the DOT device

Secure the DOT device, you may want to use Velcro or cable ties and then replace the tacho head

Step 8—Tachomaster setup

There is no need to set anything up to receive the data. The DOT will connect to the Tacho-graph and automatically match the vehicle to the DOT device IMEI.

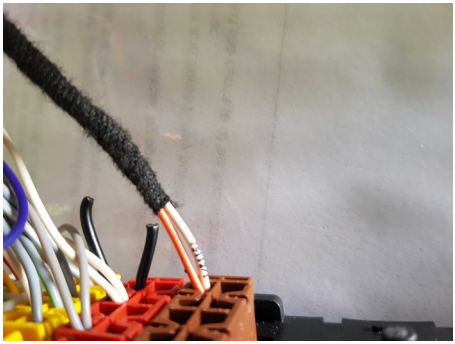




Tachomaster will then automatically create a daily download schedule for both Driver and VU data.

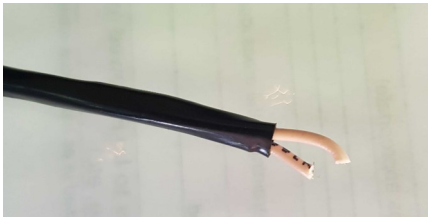
Troubleshooting

In some vehicles you may find issues with additional wiring loops—this image was taken from a MAN vehicle. The vehicle was reporting a low resistance reading and wasn't downloading correctly.



There was no link wire on the original red plug so the black loop was cut on the DOT red plug for consistency. However the impedance was still low, indicating an additional resistance loop.

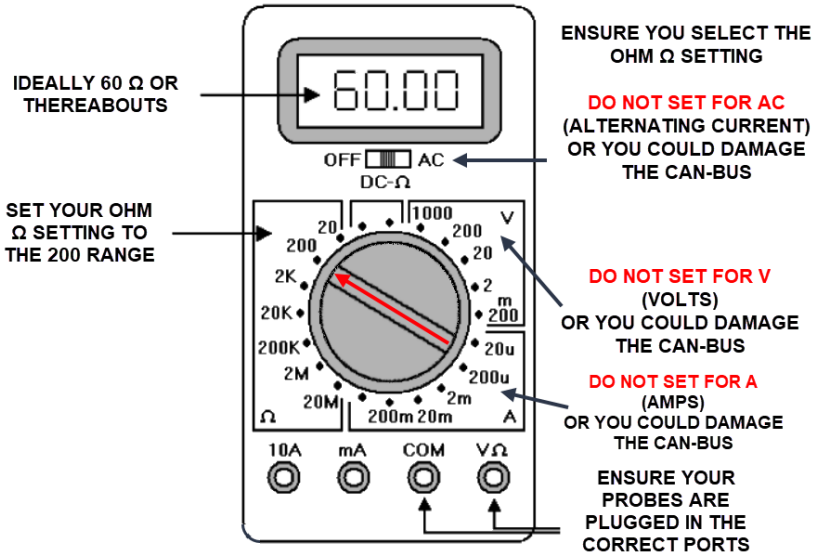
The loop fitted on the MAN vehicle was then also cut returning the resistance reading to normal (ideally around 60 ohms).



Troubleshooting

If you are experienced in using a multi-meter or ohm-meter you may be able to test the resistance on the CAN network after installation of a DOT unit. This is especially relevant if you are not getting the vehicle to download correctly.

If you know how to test for resistance—test between pins 5 & 7 on the red plug with ignition off and the tacho head in standby (nothing on the screen) the reading should be in the region of 60 ohms.
If you have a multi-meter do not use it on voltage, amps or current settings - set to ohms and the 200 ohm range—failure to set your meter correctly could damage the vehicle.



The above diagram is shown as a guide but your meter may be different, in which case please refer to your meter user guide for how to test within the 200 ohm range.

FALCON TRACKING

TACHO MASTER | DOT

ROADTECH
Innovate. Integrate. Secure.

Road Tech Computer Systems Ltd, Shenley Hall, Rectory Lane,
Shenley, Radlett, Hertfordshire, UK: T: 01923 460000
E:crm@roadtech.co.uk

Version: 2.5

TACHO MASTER FALCON TRACKING ROAD RUNNER CHECK MASTER PRE DRIVE