

# INSTALLATION GUIDE

## GATEWAY 500

*BMW E60/E61*  
*E63/E64*



simple, seamless integration

## INSTALLATION GUIDE

### DENSION GATEWAY 500 FOR BMW E60/E61

**These installation instructions are only valid for E60/E61 cars with BMW professional radio, Business Navigation system or Professional Navigation system.**

**Note:** 2003-2004 vehicles with M-ASK systems may not be MP3 compatible. In this instance only the track numbers will be seen and not the artists or song titles.

### Installation Queries or Problems

We hope that this step-by-step guide will provide you with all the information required to ensure a successful installation of the Dension Gateway 500 interface. However, in the event of any issues, please contact either Autologic or Dension accordingly;

- For product related or warranty queries, call Dension on 0044 (0)1494 898954 / 0044 (0)1494 898957 or email [uktech@dension.com](mailto:uktech@dension.com)
- For installation and encoding queries, call Autologic Technical Support\* on 0044 (0)1865 870050

\*Autologic technical support for Dension is currently offered to existing Autologic BMW customers only

### Installation Time

The installation time is approximately two hours. This may vary depending on the vehicle equipment level.

### Tools required

1. Step bit drill
2. Drill
3. Strippers
4. Side cutters
5. Soldering iron
6. Solder
7. Torx screwdriver
8. Phillips screwdriver
9. Suitable trim removing device
10. Insulation tape



## **BEFORE STARTING INSTALLATION**

Before starting the installation, ensure you have established the following information;

1. Does the vehicle have a CD changer installed?
2. If so, does the customer wish to retain this feature or have it removed?

## **STEP 1: Parts Removal**

1. Disconnect Battery
2. Remove Glove box. See Fig 1

**Note:** Only carry out steps 3 - 6 if the vehicle is NOT fitted with CD changer or NOT CD prepared

3. Remove dash panel centre vent or ease vent panel up so that heater control unit can be removed.
  4. Remove heater control unit
  5. Remove Central Car Computer front fascia
  6. Remove Central Car Computer
- } See Fig 2



Fig 1



Fig 2

## **STEP 2:**

### **(a) If vehicle is fitted with a CD changer**

There is no need to remove the Centre vent, Heater control panel or Central Car Computer as all connections can be made behind the glove box.

1. Remove CD changer.
    - To remove CD changer;
      - i. Undo the two locking screws that are located at the front either side of the CD cassette aperture.
      - ii. Keep turning screws until CD changer can be removed.
  2. Remove the CD changer plug
  3. Use the power and ground connection red and violet (power) and brown (ground) to supply the Gateway 500 red/violet to red of Gateway 500 and Brown of CD connector to black wire for Gateway 500.
- Note:** The red/violet wire is supplied from fuse 38 fuse holder in glove box.
4. Remove the optical connector from the CD changer plug – see Fig 3
  5. Fit connector from the kit – See Fig 4
  6. Plug the optical connector into the Gateway 500 Car side.
  7. Connect cables to Gateway 500 (optical cable, USB, Mode switch, iPod cable) then power and ground cable.

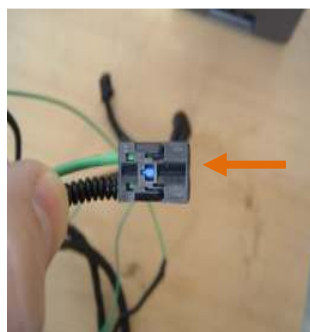


Fig 3

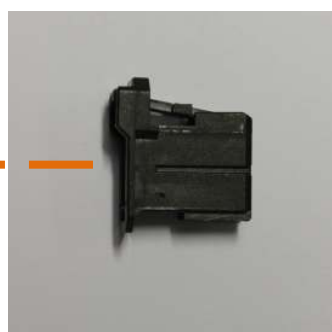


Fig 4

**(b) If the vehicle has a CD changer and the changer is remaining in the vehicle**

1. Connect power and ground using the power and ground from the CD changer input connector. Remove the inner optical plug connector from plug connection.
2. Then, with the optical cable removed from the original CD plug, slide on connector from the Dension kit and connect the Dension optical cable that has been made.
3. Connect the optical cable from the original connector plug end to the Car side of the Dension. Then Connect the CD side from the Dension to the CD changer optical plug connector of the original connection at the changer
4. Refit the plug to the changer.
5. Check that the connections to the Gateway 500 are correct as shown in Fig 5

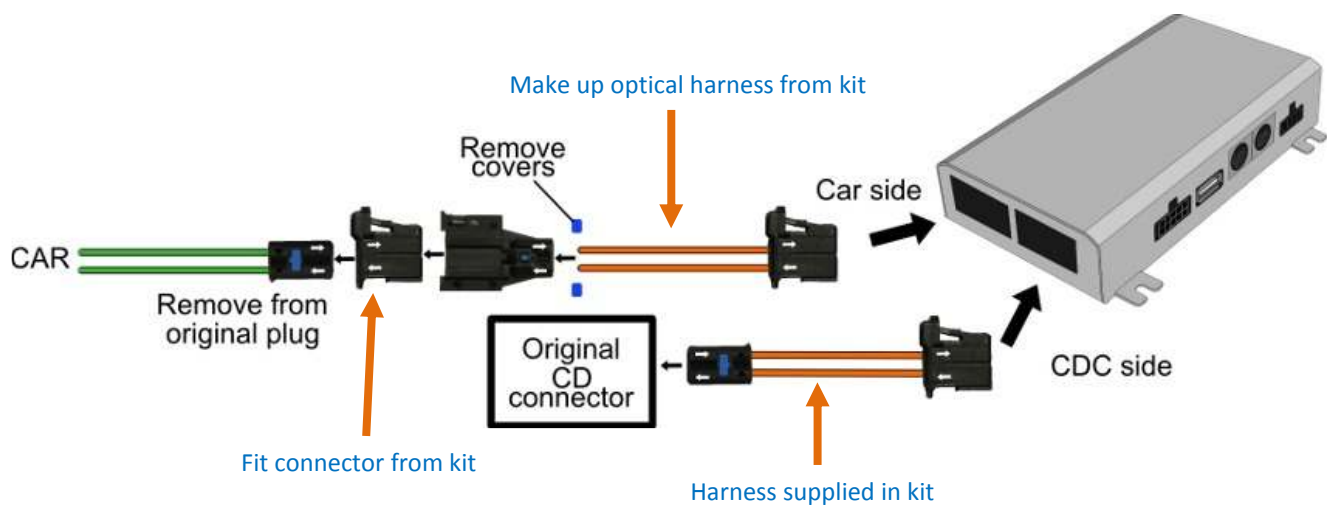


Fig 5

### (c) If the vehicle is CDC prepared but CDC changer not fitted

Where the CDC changer would sit there should be a loom tied back - this is the CD changer plug and harness X18180.

1. Disconnect the fibre optic cable - this will be an inline optic connection (see Fig 6a)
2. Fit connector from Dension kit to make up complete connection below - this will allow the optical cable to be fitted into the Gateway 500 Car side.  
**Note:** The incoming fibre optic cable can be detected by the light signal when the ignition is turned on. Also in the harness is the power and ground connection for the CD changer. These wires are used for power and ground as described above.
3. Use the power and ground connection red and violet (power) and brown (ground) to supply the Gateway 500 red/violet to red of Gateway 500 and Brown of CD connector to black wire for Gateway 500.  
**Note:** The red/violet wire is supplied from fuse 38 fuse holder in glove box.

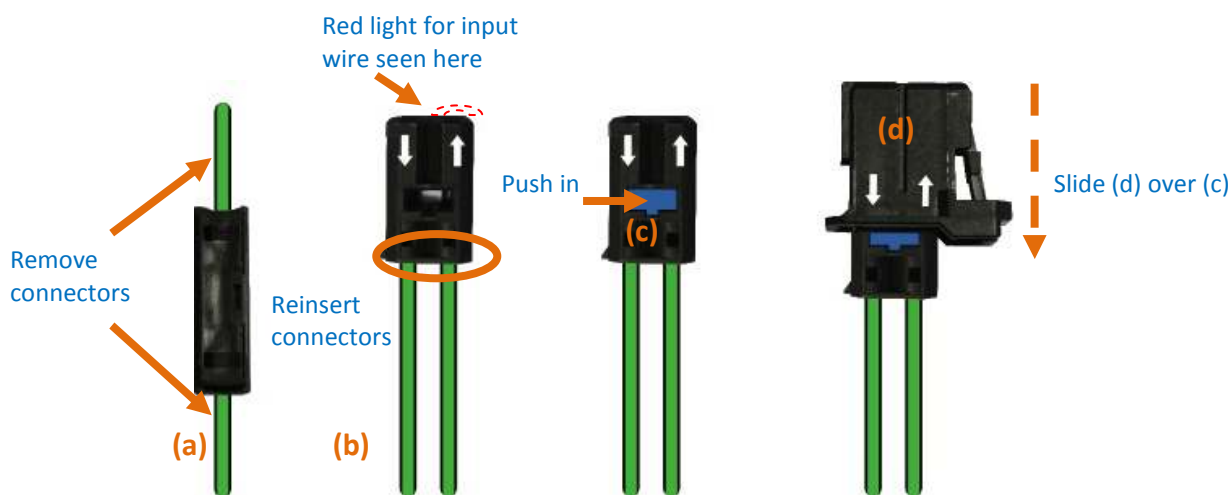


Fig 6



**(d) If the vehicle is not CD prepared and there is not any wiring for a CD changer**

1. Remove original optical connector from plug X13812 and slide connector over it as shown in Fig 7 – 8.

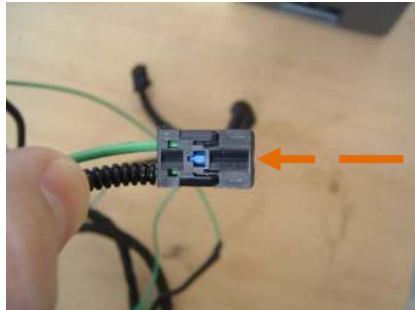


Fig 7

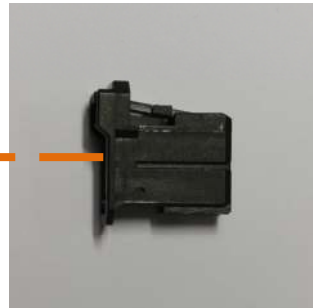


Fig 8

2. It is now necessary to install a newly created optical harness.

*To create a new (orange) optical harness;*

Make up the orange harness optical circuit from parts supplied in the kit, taking great care in following the circuit by looking at the white arrows for in and out of connectors

**Note:** the arrows on the plugs will be black.

When the orange optical harness has been made, connect plug connectors as described - see Fig 9:

- Plug 1 connect to X1382 where the original fibre optical connector was connected – see Fig 10
- Plug 2 connect to the Gateway 500 Car Side
- Plug 3 connect to the original fibre optical connector that was removed from X1382

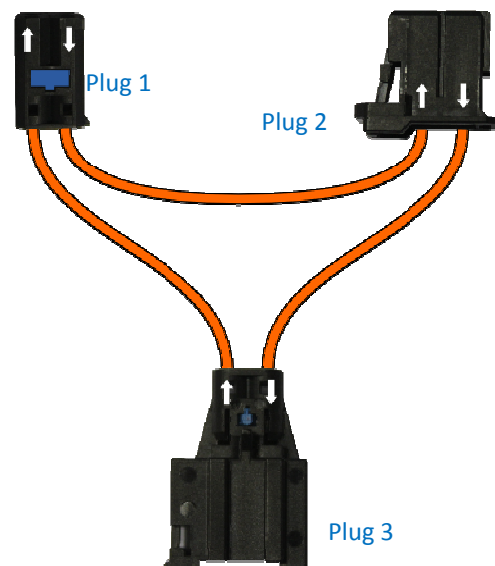


Fig 9: Completed orange optical harness

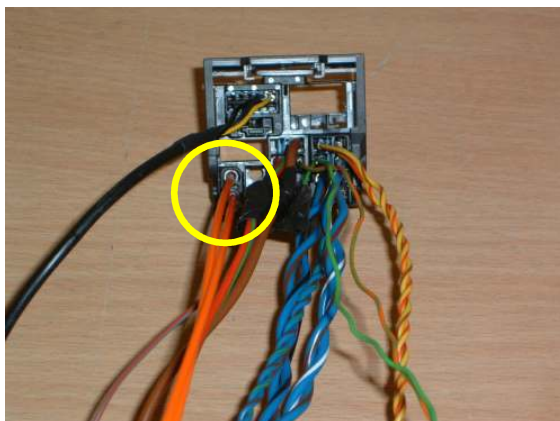


Fig 10: Quadlock X13812 showing the new orange optical harness in the original socket

3. Remove the Central Car Computer
4. Install wiring at Central Car Computer plug X13812 power and ground connection power supply red cable for Gateway to red & brown Pin 15, and Black for Gateway to Pin 12 Brown of X13812.
5. Install newly created orange optical wiring harness and run optical harness and red and black (power and ground) from X13812 to glove box area through rear of Central Car Computer aperture to rear of glove box area where the GW 500 is going to be installed.
6. Connect cables to Gateway 500 optical cable, USB, Mode switch, iPod cable then power and ground cable.
7. When all cables have been run to the correct location, plug cables into Gateway 500 – see Fig 11.

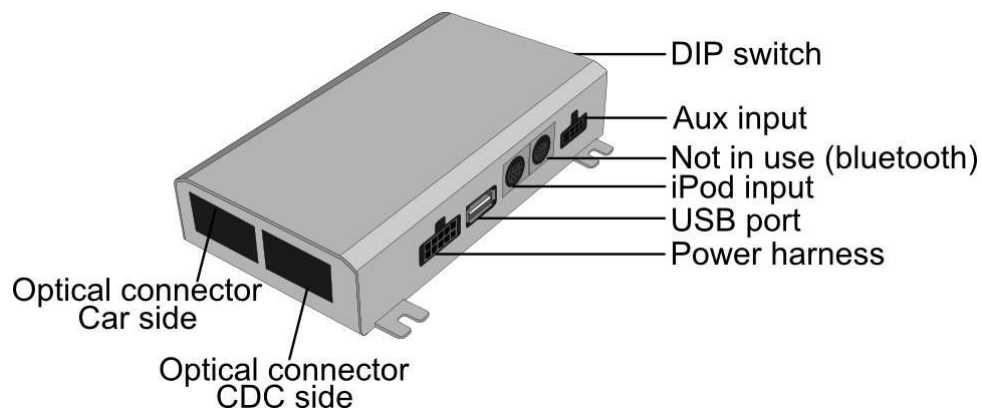


Fig 11: Gateway 500 connections



## STEP 3: Set Dip Switches

For vehicles with CCC or M-ASK text capable  
**with CD changer:**  
Set Dip switch settings 1 and 2 ON

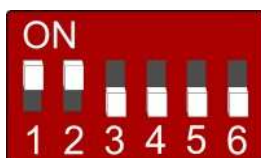


Fig 12

For vehicles with CCC or M-ASK text capable  
**without CD changer:**  
Set Dip switch settings 1 and 2 plus 6 ON



Fig 13

For vehicles with CCC and M-ASK non-text  
capable **with CD changer:**  
Set Dip switch settings 1 OFF and 2 ON,  
3, 4, 5 and 6 OFF



Fig 14

For vehicles with CCC and M-ASK non-text  
capable **without CD changer:**  
Set Dip switch settings 1 OFF and 2 ON,  
3, 4, 5 OFF and 6 ON



Fig 15

For vehicles with Central Information Computer  
(CIC) **and CD changer:**  
Set Dip switch settings 1 OFF and 2, 3, 4 ON,  
5 and 6 OFF



Fig 16

For vehicles with Central Information  
Computer (CIC) text capable **without CD changer:**  
Set Dip switch settings 1 OFF 2,3,4, ON,  
5 OFF plus 6 ON



Fig 17

## **STEP 4: Mode Selector Switch Positions**



Fig 18: Mode Selector switch positions

- CDC selected when using CDC together with Gateway 500, select switch to white Ring also service mode. In this mode CDC discs can be selected.
- Solid white circle Gateway selected.

## STEP 5: Checking installation is correct

1. Reconnect battery
2. Set correct date and time on vehicle
3. Prepare the Vehicle for Retrofit – Conversions encoding;
  - i. Connect stable power supply and Autologic with Autologic power supply.
  - ii. When Gateway 500 is installed correctly, the Autologic will communicate with it as a CDC  
*Note:* If you have no communication with the CDC, installation is incorrect. This must be fixed before continuing.

4. Retrofitting the Gateway 500 can now be carried out;

- i. From the Autologic start menu, select model then run CIP programme and check Initial Report for Errors

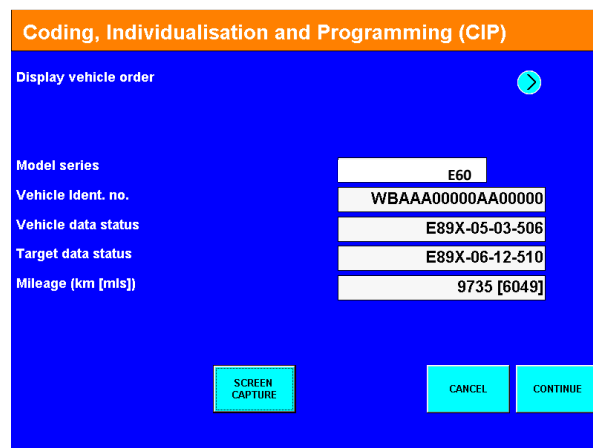


Fig 19

- ii. When CIP has completed, Select Retrofits and Conversion

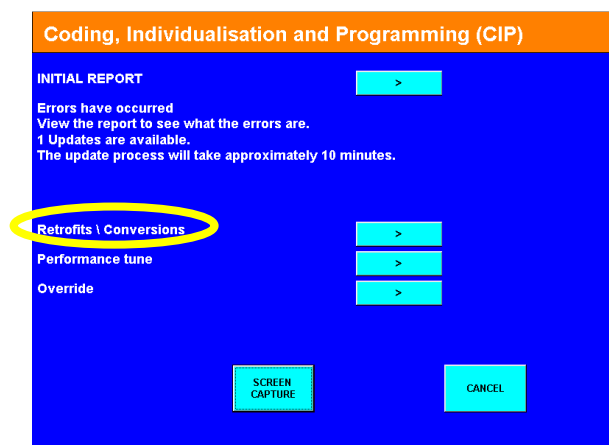


Fig 20

- iii. Go to IPOD/CD CHANGER AND OTHER AUDIO INTERACES menu

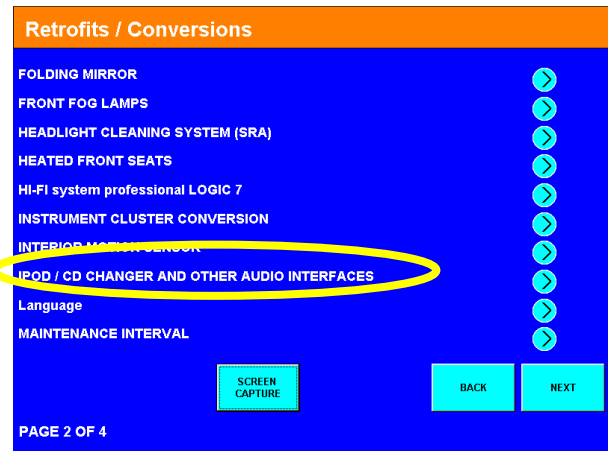


Fig 21

- iv. Then select Dension

**Note:** Autologic will code and activate the optional equipments during Retrofitting without altering the vehicle option list as after-market ECUs are not recognized by official dealer equipment.

If the vehicle is subsequently programmed or coded with the official dealer equipment after fitting Dension products, the Dension products installed might need to be reactivated.

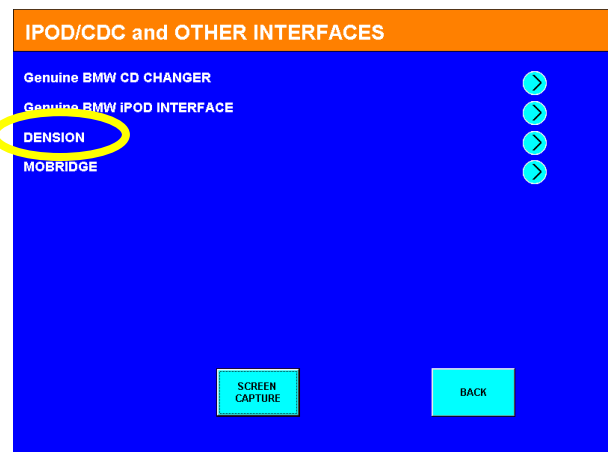


Fig 22a

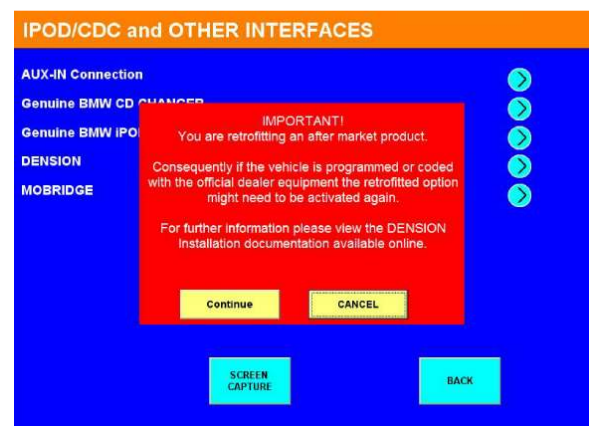


Fig 22b

v. Press the Retrofit button

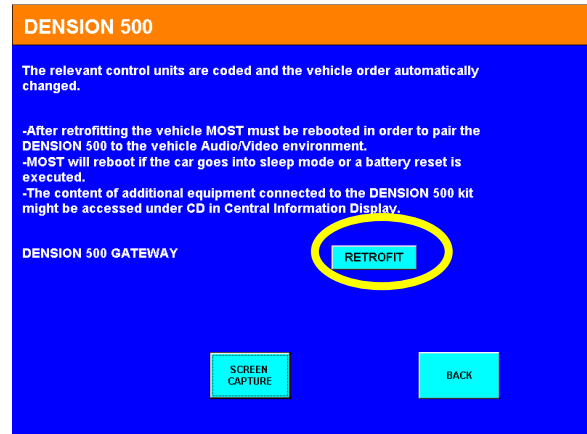


Fig 23

vi. Select the relevant product which has been installed

**Note:**

Gateway 500 TV = Gateway 500  
plus AVR

Gateway TEL = Gateway 500  
plus BTA 1500

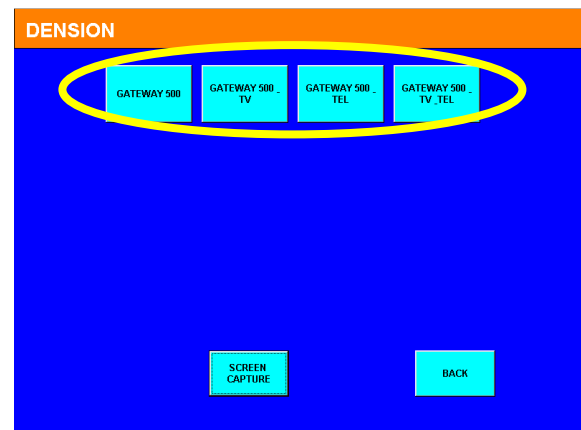


Fig 24

**Note:** After retrofit requirements are determined, a second Initial Report will be displayed on the Autologic summarising the coding and/or programming requirement.

If a message error is prompted on the screen, it is not possible to proceed any further.

- Read initial report, identify errors and rectify them before re-attempting retrofit

**Note2:** Once retrofit has been successfully completed, occasionally a battery re-set is required for the control modules to accept the retrofit encoding

## **STEP 6: Initialising Dension Ready For Operation**

When installation and retrofit of the Dension is complete, remove Autologic and continue to initialise the Gateway 500 as follows:

1. Connect iPod or USB memory stick.  
**Note:** In either device there must be MP3 files available for selection.
2. Turn on the ignition
3. Select Entertainment followed by CD in the Central Information Display
4. Press the CON controller down
5. Select CD 5
6. Select Root
7. Scroll down menu and select iPod GW
8. After selecting iPod GW, the iPod menu is now available for selection Artists Songs etc.  
**Note:** If using the USB memory stick option when selecting CD 5, the MP3 song menu will be displayed and ready for selection.
9. After checking installation is correct and GW500 is operating correctly, fit the supplied grommet around cables when re-installing glove compartment – See Fig 25
10. Replace all trims removed earlier, in reverse order



Fig 25: Cables secured by grommet

*Congratulations you have now installed Gateway 500 successfully!*