



Intelligent Multimedia Control Unit



DIETZ

1550

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General advice

Dear client,

many thanks for having chosen an Audiotechnik Dietz product. You have made a magnificent choice. While developing this product, your personal safety combined with the best operating service, modern design and an up-to-date production technique was especially taken into account. Unfortunately, despite the utmost care injuries and/or damages might occur due to improper installation and/or use.

Please read the attached instruction manual completely with great care and keep it!

This product meets the actual European and national directions. The conformity was proved, the respective documents and explanations are stored with the manufacturer.

All articles of our production line pass through a 100 % check - for your safety and security.

We reserve the right to carry out technical changes which serve the improvement at any time.

According to each article and purpose, it is sometimes necessary to check each country's legal regulations before installing and starting the unit.

In case of guarantee claims, the device has to be sent back to the seller in the original packaging with the attached bill of purchase and detailed defect's description. Please pay attention to the manufacturer's return requirements (RMA). The legal warranty directions are valid.

The guarantee claim as well as the operating permission becomes invalid due to:

- a) unauthorized changes to the device or accessories which have not been approved or carried out by the manufacturer or its partners
- b) opening the device's frame
- c) device's repairs carried out by one's own
- d) improper use / operation
- e) brute force to the device (drop, wilfull damage, accident etc.)

During installation, please pay attention to all safety relevant and legal directions.

The device has only to be installed by trained personnel or similarly qualified people.

Scope of delivery

- 1 pc. instruction manual
- 1 pc. multimedia interface
- 1 pc. fibre optic cable
- 1 pc. MOST house
- 1 pc cable kit
- 1 pc chinch FAKRA cable for video
- 1 pc chinch cable for video
- 4 pc. shunt connector, red

General safety instructions

WARNINGS

Installation requires special knowledge.

Do not install the unit yourself. For safe and reliable installation, consult a dealer having special knowledge. Installation may only be done during idle status. Disconnect the battery from the car's electrical system, for example. Thereby, please pay attention to the car's manufacturer-requirements.

- **Never use bolts or nuts from the car's safety devices for installation.** If bolts or nuts from the steering wheel, brakes or other safety devices are used for installation of the unit, it may cause an accident.
- **Use the unit with a DC 12V negative ground car.** This unit cannot be used in large trucks which use a DC 24V battery. If it is used with a DC 24V battery, it may cause a fire or accident.
- **Avoid installing the unit in following places:**
 - Where it would hinder your safe driving.
 - Where it could damage the car's fittings.

CAUTION

Since there may be legal regulations defining the permissible installation locations for this unit, be sure to install it in a location complying with any such laws.

The references in this chapter apply to most of our products, but not to all. If you have further questions, please contact your local dealer.



Do not hit this product. Avoid any damage.



Warning! Risk of electric shock! Never remove the cover. There are no user-serviceable parts inside. Refer servicing to qualified personal.



Warning! Risk of fire or electric shock! Do not use this product near water (for example bathtub, washbowl, etc.) or in wet basements (swimming pool). To reduce the risk of casualties, never expose the unit any moisture. Never put a wet object (like a flower pot) on the unit.



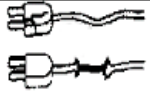
Warning! Risk of electric shock! To protect the unit against damage, unplug the power cable and the antennas of the unit if a thunder is present.



Warning! Risk of fire or electric shock! Do not overload wall outlets and extension cords.



Warning! Risk of fire or electric shock! Never insert objects of any kind into this product through openings. They can cause short circuits, which could result in fire or electric shock.



Warning! Risk of fire or electric shock! When the cable or plug of this product is broken, please pull out the plug and refer servicing to qualified personal.



Warning! Risk of fire or electric shock! Don't put anything on the power cable! This can damage the cable.



If smoking, abnormal sound or peculiar smell happens, disconnect the power source. Stop using this unit.



Protect the unit against any kind of heat. Never mount it close to heat sources. This product should never be placed near or over a radiator or under the sun.



This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.



Unplug the power cable if:

- the unit is unused for a long time
- you want to clean the unit. (Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning).
- the unit doesn't work, even after you have consulted the troubleshooting chapter (in this case, please contact a service-partner).



Do not place this unit on extension dust. If the temperature is highly damp, agglomerate dust will damage the unit.



Do not block Slots and openings in the cabinet or in the back or bottom.



The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surfaces.



This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.



Do not place this product on an unstable cart, stand, table, etc. The product may fall, causing serious injury and serious damage to the product.



Repairs should only be made by our service-partners. Never do a repair self, otherwise the claim of guarantee expires.



Unplug the unit from the power source if you have to replace a burned fuse. Only use fuses of the same kind and size. Wrong fuses can damage the unit!

References of legal regulations for operation

Only use this unit in the intended domain.

If you use it in a foreign domain, if the unit is not installed properly, or if the unit will be reconstructed, the guarantee will expire.

Installation

The interface can be used with the following navigation systems:

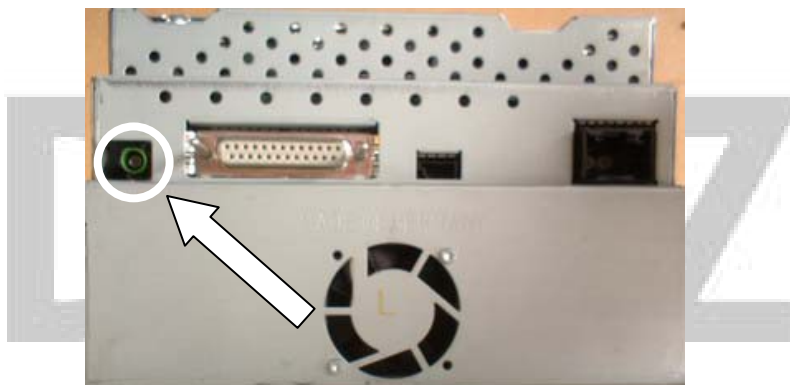
| <u>Fahrzeug</u> | <u>Head Unit</u> |
|---|--------------------------------|
| BMW: 3er E90 up to 06/07, 5er E60 up to 06/07, 6er E63 up to 06/07 | Navigation system Professional |
| MERCEDES: A-W169, B-W245 C-W203 & CLK-W209 04/04~ M-W164, GL-X164 R-W251, Vito | COMAND APS NTG2 |
| MERCEDES: E-W211 CLS-W219 | COMAND APS NTG1* |
| PORSCHE: Cayenne | PCM 2.1 |

For control additional cable kits are necessary:

| <u>Video source</u> | <u>Device cable kit:</u> | <u>Twin operation cable kit:</u> |
|---------------------|--------------------------|----------------------------------|
| Dietz DVB-T 1491 | 1478 | 1482 |
| BOA DVD 85700 | 1479 | |

For twin operation mode there must be used 3 cable kits always, e.g. 1478 + 1479 + 1482.

* E-W211 up to 02/2004 or with former OEM TV tuner, CLS-W219 with former TV tuner, respectively only COMAND units having the video input (green FAKRA connector at the back side, see picture below).



MERCEDES COMAND APS NTG1

BMW:

The interface can only be used without (!) the original TV tuner! Only the navigation system "Professional" with the 8,8" screen is able to be connected with an external video source. For this issue, the TV icon in the iDrive menu has to be activated with part no. 1590, which is available separately. Without this procedure, the use of the interface 1550 is not possible.

ATTENTION!

The TV icon may only be activated with part no. 1590. Activating it via a diagnostic computer at a BMW garage mustn't be done!

BMW cars WITHOUT further MOST components (e.g. CD-changer, phone...) nevertheless have fibre optics connected in the main connector at the head unit. These are used for diagnostic purposes and lead to a socket behind the glove box. The connector is clogged with a pretended bridge, which is physically not a bridge at all. In this case the MOST fibre optic ring has to be closed after installation by using a "real" bridge (part no. 1601)!

MERCEDES:

The interface can only be used without (!) the original TV tuner!

If a COMAND APS NTG2 unit is delivered without any connected MOST components (like phone, CD-changer...) and therefore has no fibre optics plugged into the main connector, it first has to be programmed via Star diagnostic at a Mercedes-Benz garage to open its' MOST ring. Otherwise the IMU 1550 cannot be recognised by the COMAND. In this case the COMAND has to be programmed with component 1 set to "AGW", component 2 set to e.g. phone, CD changer..., the last component finally has to be set to "COMAND".

ATTENTION: The interface IMU 1550 installed in a Mercedes can not be recognized with the diagnostic system! For this reason There should not be programmed a TV tuner, as this causes the system to put out the error code "TV not found". For a proper working of the interface IMU 1550, it is sufficient to let the COMAND just open its' MOST ring.

ATTENTION!

The MERCEDES COMAND APS, PORSCHE PCM2.1 or BMW head unit with a connected interface IMU 1550 and active TV mode generally is set to the "PAL" video standard. Therefore the connected video source should be adjusted to "PAL". Many video sources (DVB-T tuner, DVD player...) are factory – set to "Auto" mode, which causes the start - up screen or main menu to be provided in "NTSC" mode. If an automatic switching between "PAL" and "NTSC" is desired, the video output signal of the source has to be applied to the yellow RCA jack "C" (pic1) of the interface IMU 1550 via a Y-RCA cable, which is obtainable from audio accessory retailers.



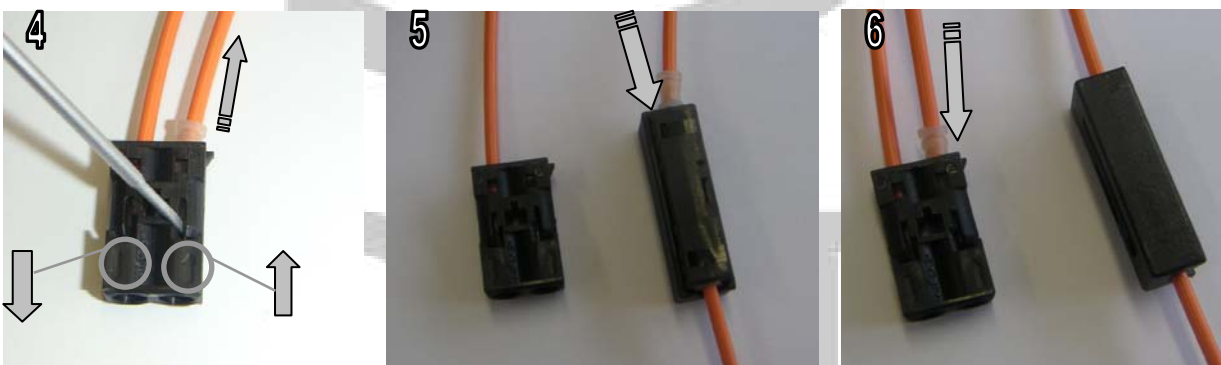
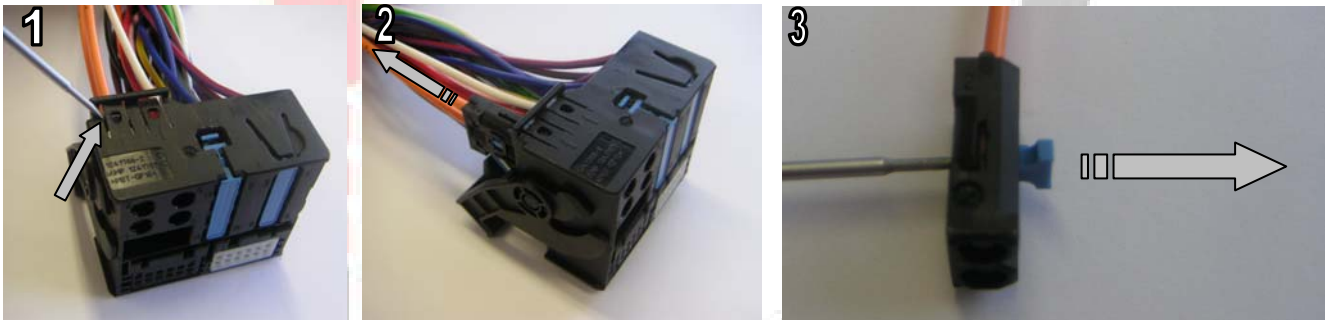
Connector assignment

| Kabel / cable | I/O | Bezeichnung / marking |
|-----------------|--------|----------------------------|
| red | Input | Power +12 V, KL. 30 |
| black | Input | Masse / ground |
| green | Input | NC: MERCEDES, PORSCHE mode |
| 3 pin connector | Output | ground: BMW mode Remote |

Installation BMW 3-series E90, 5-series E60, 6-series E63



1. Switch off ignition and remove the key.
2. Remove and disconnect the head unit (double DIN device with 2 CD slots).
3. Release the fibre optic cables from the main MOST connector of the head unit (pic.1), and pull out the small connector (pic.2). Afterwards push out the blue locking (pic.3), and then pull out the fibre optic from the output (!) (see the right arrow on pic.4), while carefully bending the clip with a small screw driver. Then put this fibre optic into the connector from the enclosed fibre optic cable kit (pic.5, this connector must lead to the input of IMU 1550 on its' other end via the fibre optic!!) The remaining fibre optic without connector now has to be plugged into the open slot (pic.6). With that, the fibre optic ring must be closed entirely again!

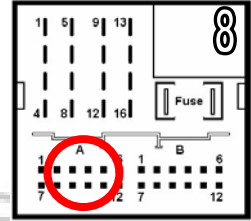


4. Re-connect the small fibre optics connector with the MOST main connector
5. Connect the remaining fibre optics connector (pic.7) with the counterpart at the IMU 1550 (see page 21, pic.2, terminal B).
6. Now connect the black and green wire from the harness plugged into terminal A (page 21, pic2.) with ground, the red one with "permanent" +12V.



7. Now connect the enclosed RCA adapter (video signal) into the MOST plug chamber A (see Picture 8) as follows: BMW E90, E60, E63: Pin2= Video ground /shield, Pin4= video signal.

8. Connect RCA jacks - A: audio left (black), B: audio right (red), with the audio output of the video source. The yellow RCA jack (C) is only used when the video source delivers a NTSC signal. Information on connection can also be found on page 21. Connection with the video source should only be done with a high quality RCA video cable, otherwise the picture quality could be bad, caused by a weak video signal. The video output signal (CVBS) is fed into the head unit directly by using the enclosed "RCA jack with 2 MQS terminal" adapter (see point 7).



9. Refit the navigation unit.

10. Activating the TV input: Select "TV" in the iDrive menu.

Control of the Dietz DVB-T 1491 and BOA DVD 85700 with BMW

Operation:

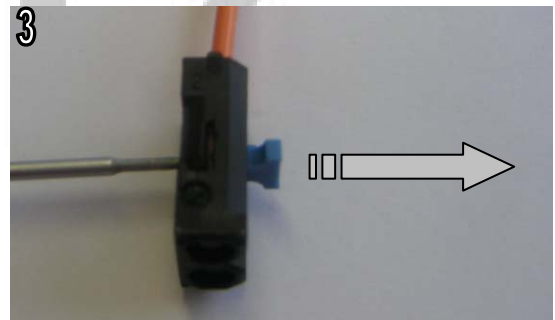
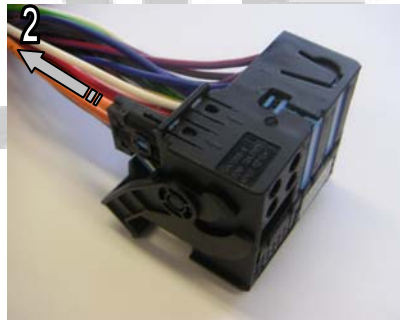
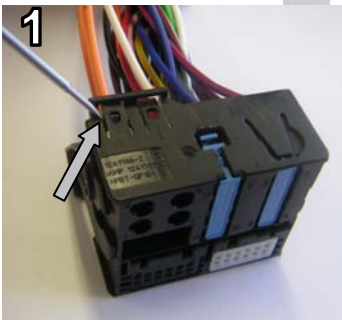
When tapping the iDrive while being in the TV mode, a menu is fading in. This menu shows a complete list of all possible control functions. The list which is being shown at first is always the list with control functions for a TV tuner. Each control function which is listed matches the respective function of the corresponding remote control. While turning the iDrive to the right or left, the desired control function can be selected and activated when pressed down. With the icon "Settings" (car specific) adjustments to brightness, contrast etc. can be done. The last function on the list is the icon "[DVD]". When selected, a new function list is being generated for a DVD player. This enables to control the BOA 85700 DVD player as well. To connect both units parallel please use additional the item 1482.

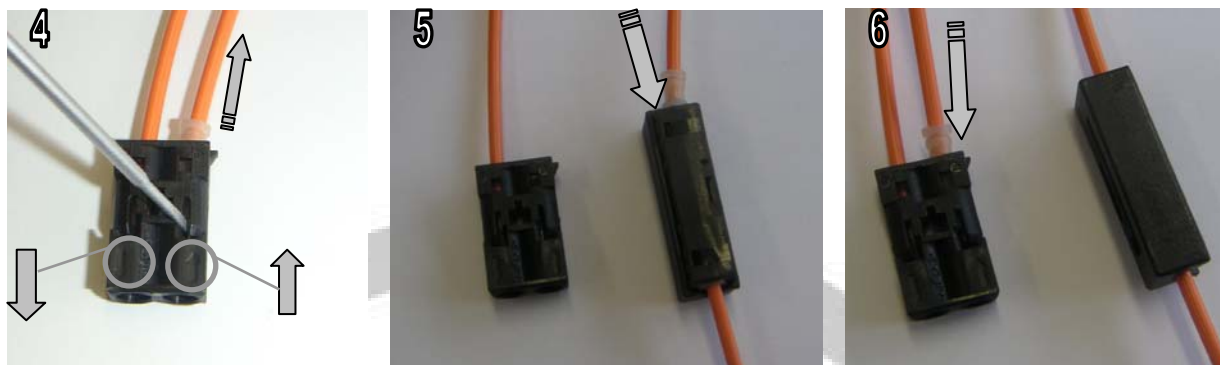
ATTENTION:

The correct AV input should be selected at the TV tuner, before switching to the DVD control list via the "[DVD]" icon. Otherwise it's possible to activate any function of the DVD player without seeing the DVD screen.

Installation MERCEDES COMAND APS NTG2

1. Switch off ignition and remove the key.
2. Remove and disconnect the head unit.
3. Release the fibre optic cables from the main MOST connector of the head unit (pic.1), and pull out the small connector (pic.2). Afterwards push out the blue locking (pic.3), and then pull out the fibre optic from the output (!) (see the right arrow on pic.4), while carefully bending the clip with a small screw driver. Then put this fibre optic into the connector from the enclosed fibre optic cable kit (pic.5, this connector must lead to the input of IMU 1550 on its' other end via the fibre optic!!)The remaining fibre optic without connector now has to be plugged into the open slot (pic.6). With that, the fibre optic ring must be closed entirely again!





4. Re-connect the small fibre optics connector with the MOST main connector.

5. Connect the remaining fibre optics connector (pic.7) with the counterpart at the IMU 1550.

6. Now connect the black wire from the harness with ground, and the red one with "permanent" +12V.

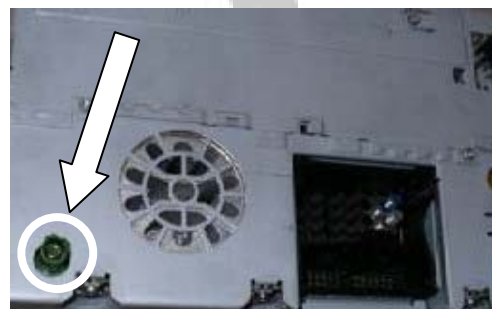
7. Connect RCA jacks - A: audio left (black), B: audio right (red), with the audio output of the video source. The yellow RCA jack (C) is only used when the video source delivers a NTSC signal. Information on connection can also be found on page 21. Connection with the video source should only be done with a high quality RCA video cable, otherwise the picture quality could be bad, caused by a weak video signal. The video output signal (CVBS) is fed into the head unit directly by using the enclosed "green FAKRA to RCA jack" adapter (see picture).



8. If it is intended to use the Dietz DVB-T 1491 or the BOA DVD player 85700, the control cable kit 1478, 1479 or 1482 has to be connected with its' counterpart at the video source and the IMU 1550.

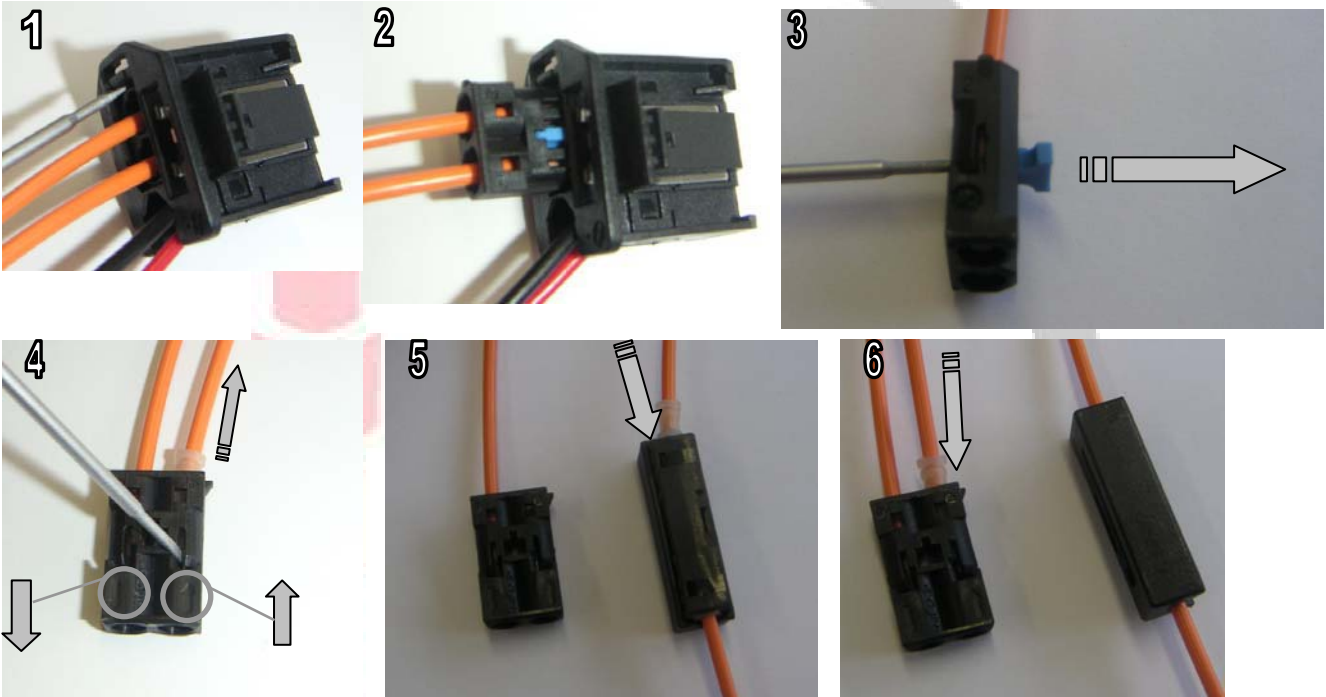
9. Refit the head unit.

10. Activating the TV input: Press "VIDEO" and select "TV" with the soft key. "AV1" and "AV2" can be selected and used as well, but use of the buttons for controlling the connected source is not possible in this mode!



Installation MERCEDES COMAND APS NTG1

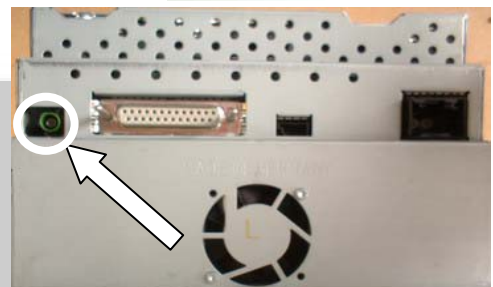
1. Switch off ignition and remove the key.
2. Remove and disconnect the head unit.
3. Release the fibre optic cables from the main connector of the head unit (pic.1), and pull out the small connector (pic.2). Afterwards push out the blue locking (pic.3), and then pull out the fibre optic from the output (!) (see the right arrow on pic.4), while carefully bending the clip with a small screw driver. Then put this fibre optic into the connector from the enclosed fibre optic cable kit (pic.5, this connector must lead to the input of IMU 1550 on its' other end via the fibre optic!!) The remaining fibre optic without connector now has to be plugged into the open slot (pic.6). With that, the fibre optic ring must be closed entirely again!



4. Re-connect the small fibre optics connector with the main connector.
5. Connect the remaining fibre optics connector (pic.7) with the counterpart at the IMU 1550.
6. Now connect the black wire from the harness with ground and the red one with "permanent" +12V.



7. Connect RCA jacks - A: audio left (black), B: audio right (red), with the audio output of the video source. The yellow RCA jack (C) is only used when the video source delivers a NTSC signal. Connection with the video source should only be done with a high quality RCA video cable, otherwise the picture quality could be bad, caused by a weak video signal. The video output signal (CVBS) is fed into the head unit directly by using the enclosed "green FAKRA to RCA jack" adapter (see picture).



8. If it is intended to use the Dietz DVB-T 1491 or the BOA DVD player 85700, the control cable kit 1478, 1479 or 1482 has to be connected with its' counterpart at the video source and the IMU 1550.
9. Refit the head unit.
10. Activating the TV input: Press "VIDEO" and select "TV" with the soft key. "AV1" and "AV2" can be selected and used as well, but use of the buttons for controlling the connected source is not possible in this mode!



Control of the Dietz DVB-T-Tuner 1491with MERCEDES

Operation:

Buttons 2, 4, 5, 6, 8 on the numerical pad yielding "crosshairs" for navigation within the menu!

1. Program information (station name, title and length of current broadcast). („EPG“).
2. Menu one step up. („CH+“)
3. Displays antenna signal strength („OOOOO%“)
4. Menu one step left. („VOL-“)
5. „OK“.
6. Menu one step right. („VOL+“)
7. Menu.
8. Menu one step down. („CH-“)
9. Menu one step back (Exit button from remote control).
10. Source (AV1, AV2, TV). („FUNC“)
11. Channel down (last preset). („CH-“) This feature can also be controlled with the steering wheel controls.
12. Channel up (next preset). („CH+“) This feature can also be controlled with the steering wheel controls.

Control of the BOA DVD Player 85700 with MERCEDES

Operation:

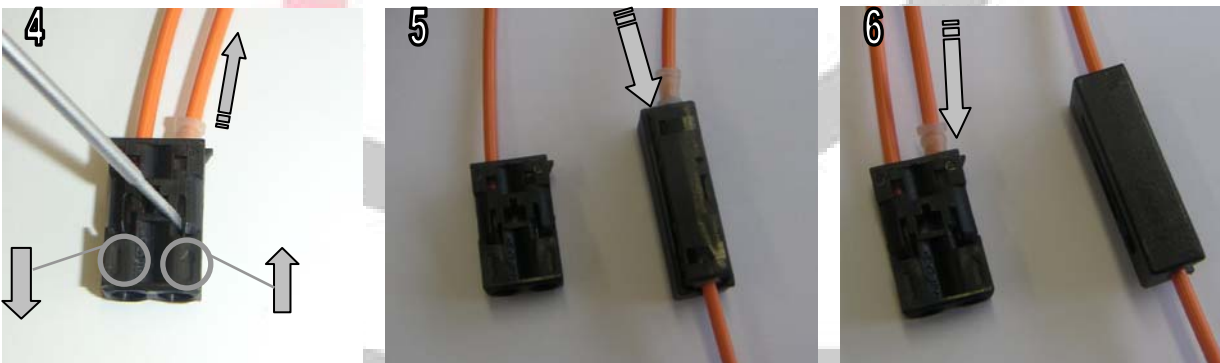
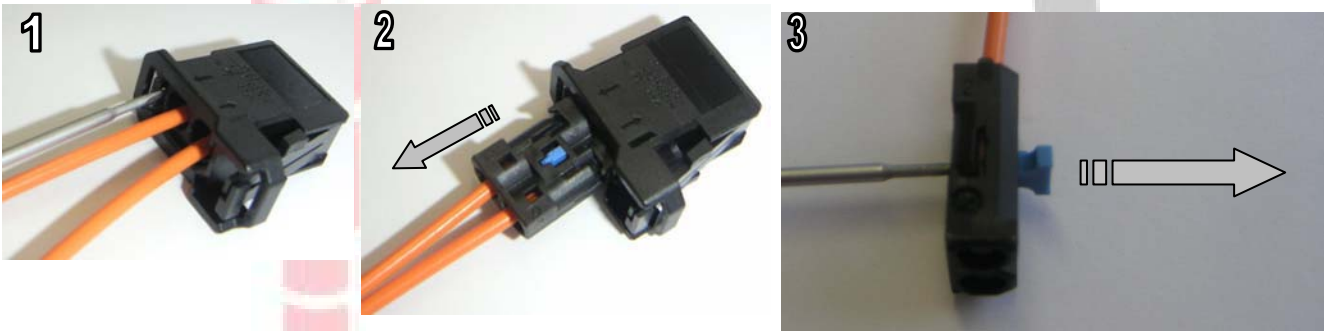
1. ON/OFF („POWER“)
2. Source / AV („SRC“)
3. „Display“
4. „<<“ Search -
5. „>“ Play / Pause
6. „>>“ Search +
7. „Title“
8. „Menu PBC“
9. „ZOOM“
10. Stop
11. „|<<“ Track - This feature can also be controlled with the steering wheel controls.
12. „>>|“ Track + This feature can also be controlled with the steering wheel controls.

Twin operation of the DVB-T 1491 and BOA DVD 85700

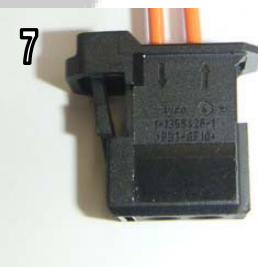
After the first system start up, the DVB-T mode is active. For switching to DVD mode, press a soft key on the left or right from the screen. Now a menu appears. Select "Settings" and then press "CH-Fix". Now the mode is switched to DVD and you can leave the menu with „back“. By repeating these steps you can switch back to DVB-T mode. The selected mode persists also after switching off and on ignition, and is displayed in the audio menu of the instrument cluster. For the twin operation mode the cable kit 1482 is needed additionally.

Installation PORSCHE PCM2.1

1. Switch off ignition and remove the key.
2. Remove and disconnect the head unit.
3. Release the fibre optic cables from the main connector of the head unit (pic.1), and pull out the small connector (pic.2). Afterwards push out the blue locking (pic.3), and then pull out the fibre optic from the output (!) (see the right arrow on pic.4), while carefully bending the clip with a small screw driver. Then put this fibre optic into the connector from the enclosed fibre optic cable kit (pic.5, this connector must lead to the input of IMU 1550 on its' other end via the fibre optic!!) The remaining fibre optic without connector now has to be plugged into the open slot (pic.6). With that, the fibre optic ring must be closed entirely again!



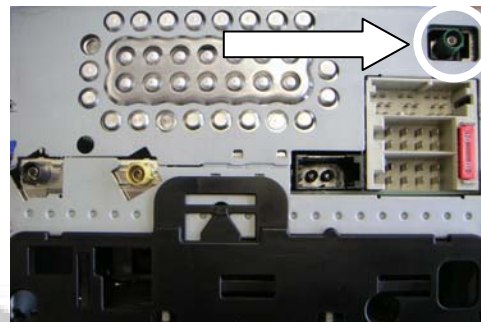
4. Re-connect the small fibre optics connector with the main connector.
5. Connect the remaining fibre optics connector (pic.7) with the counterpart at the IMU 1550.
6. Now connect the black wire from the harness with ground, and the red one with "permanent" +12V.



7. Connect RCA jacks - A: audio left (black), B: audio right (red), with the audio output of the video source. The yellow RCA jack (C) is only used when the video source delivers a NTSC signal. Information on connection can also be found on page 21. Connection with the video source should only be done with a high quality RCA video cable, otherwise the picture quality could be bad, caused by a weak video signal. The video

output signal (CVBS) is fed into the head unit directly by using the enclosed "green FAKRA to RCA jack" adapter (see picture).

8. Refit the head unit.



9. Activating the TV input: Press "AV". After the first system start up, the DVB-T mode is active.



For use of the control function, the station buttons 0-9 of the PCM first have to be assigned with channels. On each station button a channel has to be stored as follows: press the right rotary knob for getting into the TV menu. Select "Channel entry" and tune to Ch "1". Press the right rotary knob for confirmation and make a long press on the station button "1" afterwards, to store the channel there. A sound can be heard when the channel is stored. Make the same steps again with channel 2 on station button 2 ... channel 10 with station button 10.

Control of the Dietz DVB-T-Tuner 1491 with PORSCHE PCM2.1

Operation:

Buttons 2, 4, 5, 6, 8 on the numerical pad yielding "crosshairs" for navigation within the menu!

1. Program information (station name, title and length of current broadcast). („EPG“).
2. Menu one step up. („CH+“)
3. Displays antenna signal strength („OOOOO%“)
4. Menu one step left. („VOL-“)
5. „OK“.
6. Menu one step right. („VOL+“)
7. Menu.
8. Menu one step down. („CH-“)
9. Menu one step back (Exit button from remote control).
10. Source (AV1, AV2, TV). („FUNC“)
11. Channel down (last preset). („CH-“) This feature can also be controlled with the steering wheel controls. *
12. Channel up (next preset). („CH+“) This feature can also be controlled with the steering wheel controls. *

* Due to the PCMs' technical design, the functions for channel +/- are interchanged. Consequently the button for channel + is "<" and channel - is ">".

Control of the BOA DVD Player 85700 with PORSCHE PCM2.1

Operation:

1. ON/OFF („POWER“)
2. Source / AV („SRC“)
3. „Display“
4. „<<“ Search -
5. „>“ Play / Pause
6. „>>“ Search +
7. „Title“
8. „Menu PBC“
9. „ZOOM“
10. Stop
11. „|<<“ Track - This feature can also be controlled with the steering wheel controls. *
12. „>>|“ Track + This feature can also be controlled with the steering wheel controls. *

* Due to the PCMs' technical design, the functions for channel+/- are interchanged. Consequently the button for channel + is "<" and channel - is ">".

Twin operation of the DVB-T 1491 and BOA DVD 85700 with PORSCHE PCM2.1

After the first system start up, the DVB-T mode is active.

If only the BOA DVD 85700 is intended to be controlled, a simple adjustment to channel 99 with an afterwards confirmation is enough to switch to "DVD" mode. The selected mode persists also after switching off and on ignition, and is displayed in the audio menu of the instrument cluster. For the twin operation mode the cable kit 1482 is needed additionally.

When operating and controlling the DVB-T 1491 and the BOA DVD 85700 at the same time, the switching function (channel 99) can be stored on station button "9" for a more comfortable use. With this event the functions normally assigned with "9" will be lost. This is the "Exit" function from 1491 and "Zoom" function from 85700. While the "Zoom" function is not absolutely necessary, the "exit" function can also be neglected, as you can get out of all callable menus with the button you previously called them.

Service notes

This unit does not need any servicing.

Do not open the housing. There are no user-serviceable parts inside.

Wipe gently with a dry cloth over the surface to clean the unit. If there is more tough dirt, first use a light wet cloth and then use a dry one. Never use corrosive cleaners to clean the unit.

Technical data

Software release: SW 1.2.1

Power supply: 12 V DC

Working Voltage: 10,0 – 14,6 V DC

Quiescent current: 20 mA

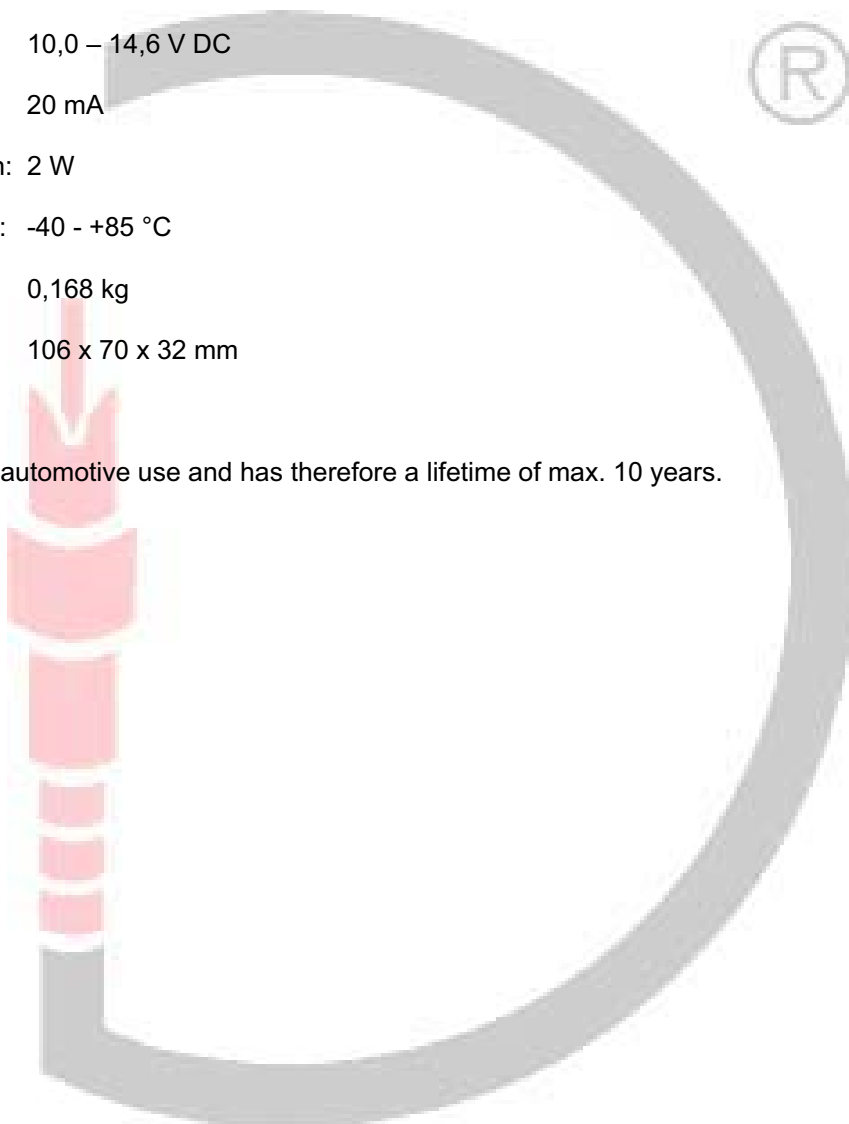
Power consumption: 2 W

Temperature range: -40 - +85 °C

Weight: 0,168 kg

Dimensions: 106 x 70 x 32 mm

This unit is only for automotive use and has therefore a lifetime of max. 10 years.



DIETZ

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