

3-way-frontsystem incl. subwoofer and amplifier, optional living room boxes

modell year: VW Crafter as of 2017 (2nd generation) and MAN TGE (VW Crafter II (7C0)) as of 2016



packing list:

- 1x midrange tweeter module incl. acoustic cloth cover (left & right), covered
- 1x Mounting template for mid-high module
- 2x „XE26“ neodymium softdome tweeters Ø 26mm (pre-mounted in moulded part)
- 2x „XE100“ midrange drivers Ø 100mm (pre-assembled in the moulded part)
- 2x „XM165“ low-midrange speaker „Power-Woofer“ Ø 165mm
- 2x mounting ring 15mm for „XM165“ Crafter specific (pre-mounted on woofer)
- 2x mid-high frequency crossover incl. cable assembly (Item No.: 65100-MHT-FW)
- 2x woofer crossover incl. cable assembly (Item no.: 65100-TT-FW)
- 1x assembly set - VW Crafter item no.: 65100)
- 1x 5-channel DSP amplifier incl. 2.2m ISO cable and installation instructions
- 1x subwoofer of your choice incl. mounting set and 4.8m subwoofer cable

for sound package II (69102):

2x living room speakers of your choice incl. assembly set and assembly instructions

Mounting kit tweeter midrange module:

8x Spax screw 3,5 x 25

Mounting kit woofers:

8x pan-head screw 3.9 x 16 (pre-mounted on woofer)

8x raised countersunk head screw 3.9 x 25

Mounting set for MDF subwoofer

4x velcro plates round

4x self-adhesive velcro pads

4x countersunk screw 3,5x13mm

Optional accessories:

- Vehicle-specific radio connection cable for factory VW radio (glove box)
- Remote control for controlling the subwoofer and to control the sound setup
- Bluetooth function integrated in the amplifier
- Rocker switch

Installation note:

To avoid vibration noise, secure all cable harnesses with insulating tape or similar. Insulation of the vehicle doors is strongly recommended.

Radio adjustment note:

To achieve the best sound image, all settings on the radio (bass, treble, loudness, etc.) should be set to zero or neutral.

General installation instructions - to be observed without fail!



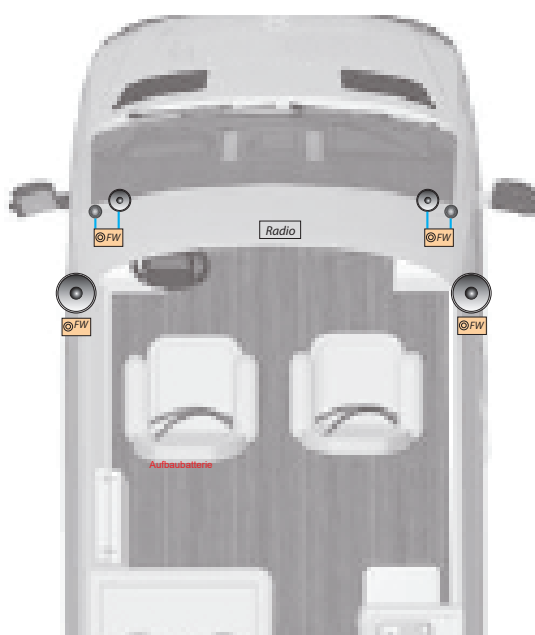
radio settings:

- To achieve the best sound image, all settings on the radio (bass, treble, loudness, equalizing, etc.) should be set to ZERO or OFF.

Fitting instructions:

To avoid vibration noise, secure all wiring harnesses with insulating tape or similar.

Cable routing / Connection diagram



Tweeter „XE 26“

Mounting in the dashboard of the mid-high module, pre-installed.

Midrange driver „XE 100“

Mounting in the dashboard in the mid-high module, pre-installed.

woofer „XM 165“

Installation in the vehicle body door.

Crossovers

MHT Crossover vehicle-specific in the mid-high module

TT Turnout vehicle-specific

Mounting on the door panel.

1. disassembly of the door panels

1.1. Dismantle the door panel on the driver's and passenger's side.

1.1. lower the window pane completely.



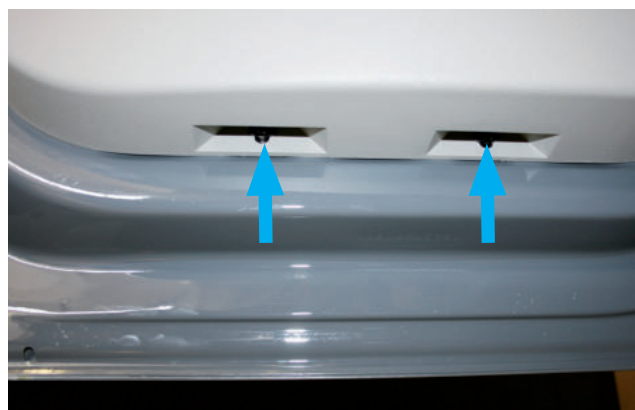
1.2 Unclip the door handle



1.3. switch unit, starting at the door lock switch, lever out (example illustration)



1.4. remove the screw in the middle of the door panel.



1.5. lower edge of the door trim:
Unscrew 2x plastic rivets

1.6 Unclip the door trim starting from the bottom by pulling and lift it upwards.
(Clamping strip on the lower edge of the window is still attached).

1.7. unclip door release bowden cable - pull 1cm on the cable sheathing at the opening lever - then unhook.

1.8. unplug connector „alarm light, window regulator and mirror adjustment“.



1.9. disconnect original loudspeaker connection and dismantle factory woofer (drill out mounting rivets and remove ->> make sure that the metal pieces do not fall into the inner area of the door.
Tip: stick adhesive tape behind the rivet).

2. insulation of vehicle doors and door panels

2.1. recommendation: insulation of the door trim



A



B

- Lining the door panels with Alubutyl from behind. see (fig. A), then glue over the entire surface with insulating fleece. see (fig. B)

Important recommendation:

The use of woofers in the door panel causes vibrations due to the vibrations of the bass, which can lead to rattling noises in the vehicle door:

Measures against vibration noise:

2.2. insulation of the vehicle doors

- Cover the back of the door panel with insulating fleece (order no. 27000) or foam or
- Stabilize the rear side of the door panel with stiffening compound (GFK-fibre filler or similar) **IMPORTANT: Make sure that the cut-outs for the door airbag and loudspeakers are not blocked!**
- the *backside of the door panel inside (= outer door skin) with self-adhesive Apply bitumen mats / tar mats (see example below).
- by tapping the vehicle door, vibration noises from door mechanism parts (e.g. Bowden cables etc.) and cable harnesses and wrap them with foam material / felt, foam rubber or similar.
- cut off protruding cable ties (rattling noises!)
- Glue felt or foam under the original wiring harness

2.3. insulation of the rear door panel

- Door panel rear side with insulation fleece (order no. 27000) or foam adhesive or
- Stabilize the rear side of the door panel with stiffening compound (GFK-fibre filler or similar)

IMPORTANT: Make sure that the cut-outs for the door airbag and loudspeakers are not blocked!



ATTENTION / Danger !!!

No insulating material behind side airbags



IMPORTANT:

No insulation material behind speakers and door unlocks. Cut out fixing clips



Example illustration

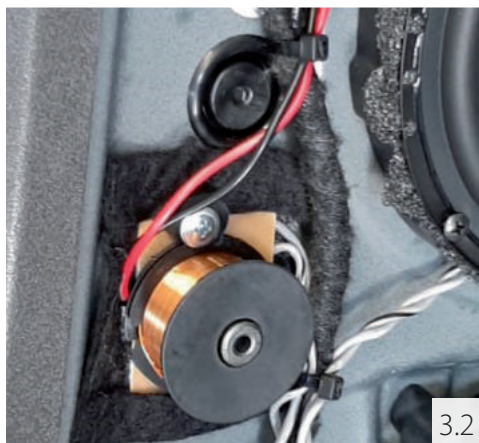
3. woofer installation - original installation location in the vehicle doors

☞ To protect the woofer and adapter ring from water ingress we recommend to install a „Rainstop mat“ (see illustration, Rainstop mat under the mounting ring, included in the scope of delivery).



Example illustration

3.1 Cut the Rainstop mat to the size of the mounting ring and make a small cut in the lower area (yellow marking). (woofer dismantled in illustration for clarity).



3.2 Connect the factory loudspeaker cable with the crossover input and wrap the plug with insulating material to prevent vibration. vibrations with insulating material. Fasten the crossover to the door panel with one of the self-tapping screws (4,2x13mm) and plastic ring to the door panel, before mounting glue on the self-adhesive felt as insulation
 -> The crossover must be completely seated on the felt, otherwise there is a risk of short circuit!

-> when installing a fully active system, the installation of the crossover is not necessary and the corresponding loudspeaker cable harness must be routed from the amplifier to the loudspeaker installation location.

3.3. connect woofer to the crossover

3.4 Mount woofer with pre-mounted mounting ring with 4 pcs. pan-head screw 3.9 x 25 (each side) to the factory mounting hole.

CAUTION!!! The cable connections of the woofer must not come into contact with the inner door panel --> insulate if necessary.

Note: After all woofers are connected to the crossover, the polarity of all woofers should be checked at a 9 volt. battery (on crossover input cable on radio/power amp side):
 Pole of FW input + to + of 9 V battery.
 Pole of FW input - to - of 9 V battery

Both woofers must resonate evenly during this check! (the loudspeaker must move outwards move, not inwards, towards the magnet) A reversed polarity woofer can cancel the entire bass response!

☞ To avoid vibration noise, secure all cable harnesses with insulating tape or similar.

4. mounting the door panels on the vehicle doors

4.1 Hang the door panel in the top of the door shaft strip.

4.2 Reattach the door trim in reverse order.

Make sure that the clips are unlocked, see Fig.



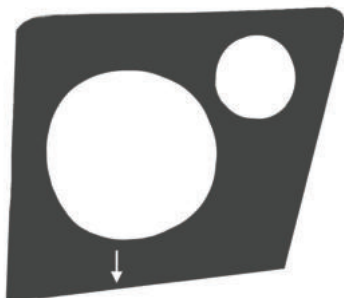
Final inspection after door panel assembly:

Check all functions of the operating elements such as seat adjustment, glove box opening, window lift etc.

5. mounting of the mid-high modules in the dashboard

5.1 Dismantle the A-pillar trim on the driver and passenger side.

5.2 Unplugging the factory tweeter



5.3 Apply the supplied mounting template and mark the cut-outs for tweeter and midrange and midrange speaker (white marker).



5.4 Heat the marked cutout well with a hot air dryer and cut it out with a sharp and cut out with a sharp cutter knife.



5.5 Pull factory tweeter cable forward under cupholder/storage compartment -> if necessary, use cable probe.
(-> when installing a fully active system, the corresponding loudspeaker cable harness must be routed from the amplifier to the respective loudspeaker installation location).



5.6 Connect the factory tweeter cable to the crossover and connect the tweeter and midrange to the crossover outputs.

5. mounting the mid-high modules in the dashboard



5.1 Place the mid/high tone module on the dashboard and screw tight.



Driver's side (e.g. Fig.)



Passenger side

Spax 4 x 25

(Screw mounting without soffit cover!)

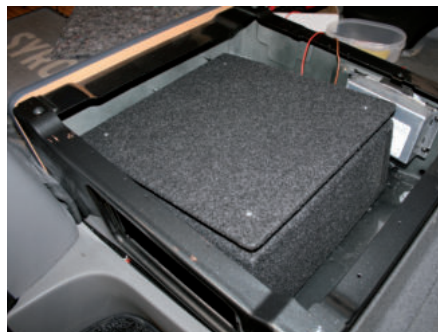
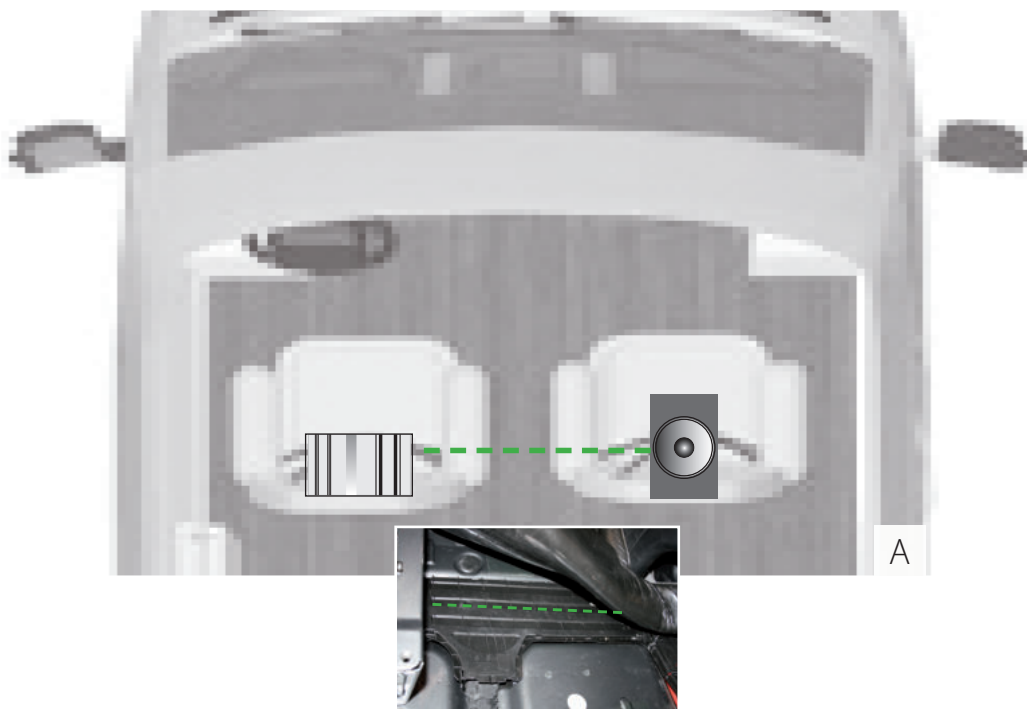
5.2 Check that it is firmly seated, then put on the acoustic screen and press down firmly in the middle.



5.3 Mount the A-pillar cover.

6. mounting the subwoofer and amplifier

Ideally the booster is placed under the driver or passenger seat. However, this depends on the space available! If installation under the driver's seat is not possible, the amplifier can be mounted at any installation location (note the cable length of 2.2m from radio to amplifier included in the scope of delivery). The cable routing and installation varies depending on the vehicle structure. The necessary cable routing is the power supply from the battery to the amplifier as well as the subwoofer cable from the subwoofer installation site to the amplifier installation site.



- The subwoofer is placed under the passenger seat (Fig. C similar)
- To prevent vibration noise, secure the subwoofer with the supplied mounting kit
Alternatively, the subwoofer can be mounted with one bracket per side (not included)

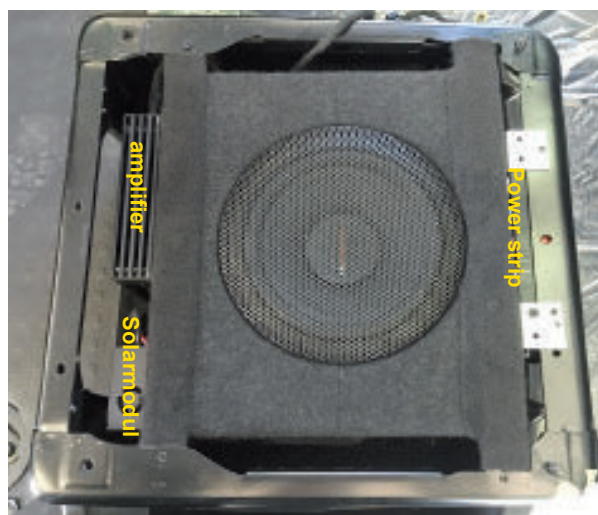
6. mounting the subwoofer and amplifier



6.1 Route the ISO cable from the radio, under the carpet and under the centre console cover to the passenger seat console.



6.2. the best place to install the subwoofer and amplifier: under the passenger seat (depending on the car equipment)



6.3 Subwoofer completely mounted in the passenger seat console. Connect the mounted amplifier with „plug & play“ cable, insert it in the seat console and screw it to the frame of the seat console using strips, for example.

7. amplifier power supply

The power is connected to the + pole of the battery which is protected by a 30A fuse.

The power supply to the amplifier must not be active (fitted fuse) until the stripped cable is connected to the power connection of the amplifier.

The following explanation serves as an example when connected directly to the body battery (under the driver's seat).
 10mm² cable red = +12V, and 10mm² cable black = ground from the body battery to the amplifier:

7.1 Removing the passenger seat: Remove the screws on the seat rails and tilt the seat backwards (because of the seatbelt).

7.2. remove the driver's seat: remove the screws on the seat rails, tilt the seat backwards (pay attention to the seat sensor cable)

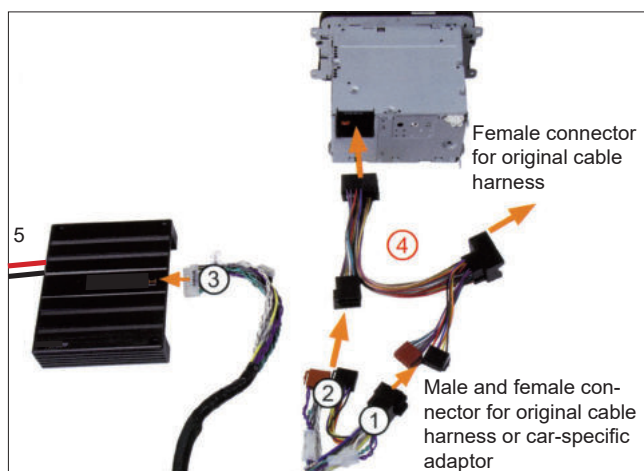
7.3 Remove the battery cover (if present).



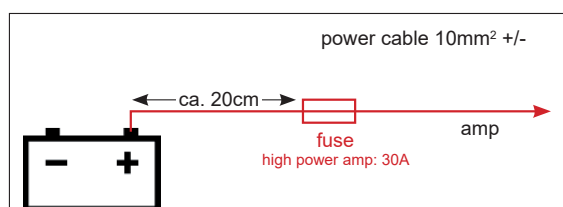
7.4 Route the power cables (+ and -) from the battery in the driver's seat, under the floor mat to the seat console (passenger side) and under the console to the amplifier mounting point.

Ideally the amplifier can be mounted to the subwoofer in the passenger seat console, see step 6.
 (However, the installation location may vary depending on the car's equipment and space available).

Connection to the car radio



- ▶ The ISO female connector will either be plugged into the vehicle harness that has been disconnected from the car radio or a car-specific adaptor.
- ▶ The ISO male connector will either be plugged into the car radio or into a car-specific adaptor.
- ▶ The 20-pole connector will be plugged into the amplifier.
- ▶ Optional: car-specific adaptor – such an adaptor may be required if the ISO connectors of the provided cable harness does not fit into your car radio.
- ▶ The power supply is connected directly to the battery using a 10mm² cable - the positive lead must be fused just before the battery (30A).



8. assemblies

8.1. seats

- Reconnect all connectors to the seats!
- Reinstall the driver and passenger seats in the vehicle (Important: Connect all plugs!)



Radio settings:

■ For best sound quality, all settings on the radio (bass, treble, loudness, equalizing, etc.) should be set to ZERO or OFF.

Garantee:

We grant a manufacturers guarantee of 2 years starting from the date of purchase of the doorboard or sound system from the dealer. Within this guarantee period to our choice we either repair or replace free of charge all defects due to material or workmanship. Exempt from this guarantee are damages due to improper use, wear and tear or damages which have to be led back on wear or interventions by third parties. The guarantee does not cover subsequent damages or such defects that only insignificantly impair the value or the usability of the doorboard/sound system. The guarantee does not cover damages due to external influences. Doorboards with additional or wrong assembly drill holes cannot be returned. These are damages to the doorboard which cannot be repaired again.

If you have any questions, our team in Pliezhausen will be happy to assist you at any time:

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