DIY: How to install MFD into Passat with Double-Din (DD) Radio

NOTE: This installation is for all Passats (Sedan or Avant) with Double-Din radio ONLY ("Premuim 6" in USA with or without Monsoon system, or "Delta 6" in Europe)

Parts and tools required:

1- VW Double-Din/MFD radio removal tools (T10057)
2- Double-Din "plug-n-play" adapter.
3- Bosch (or similar) GPS antenna.
4- Torx tool set. (T20)
5- Adjustable wrench
6- Wire cutters
7- Wire crimper/stripper
8- Pliers
9- A lot of patience

*** INSTALLATION ***

1- Disconnect your Car battery by disconnecting the negative ground terminal from the battery, to prevent shock, or damage to you car.

1a- Remove the driver's side fuse panel cover.

2- Unscrew the four bolts on the knee bolster. (There are 2 bolts at fuse panel, and 2 from below.)
3- Disconnect the wires (headlight switch, dimmer and OBDII connectors) so that you can remove the knee bolster completely.

4- Remove your Double-Din radio with the VW radio removal tools.
5- Place GPS antenna in a spot behind the instrument cluster. You can put the GPS antenna on the metal or any clear spot behind the cluster as long as the top is facing up.

Run the wire from the GPS antenna towards the back of your MFD. Once it’s done, zip tie the remaining length of wire behind the steering wheel metal. Make sure your steering wheel can be moved easily all ways. Also, make sure you have enough length of GPS antenna wire in the back of your MFD. When you mount it you have to remember that the antenna needs an unobstructed view of as much of the sky as possible. And any metal will be an obstruction. The unit only needs 3 satellites for a 3D fix, but it can acquire up to 12. The more it can acquire the faster it gets a 3D fix when you come out of a tunnel or are in an urban canyon. The more satellites you acquire, the more accurate the position. What most forget is that the satellites are scattered around the sky, some overhead some low on the horizon (that's why you can be inside a tunnel and still have a fix on one sat, it's the one low on the horizon directly ahead of you).

6- (optional step) If you want to make the CD changer adapter Blue connector (CD changer) Part # 4A0 972 643 B
7- Plug the “Plug-n-Play” adapter you have between the car original connectors and your MFD. Run the three long wires (Yellow, Red and Orange) to the driver area.

8- Plug the GPS antenna into the back of your MFD.
9- After you are done with the wires, you can put the MFD into its final place. Note that it could be difficult to push the MFD all the way in with all these wire. Try to push all the wires down where your A/C controls are. It gave me more room by doing this and the MFD slides easier now. TIP: if you can't fit the MFD after installing the add on cable, attach a string to the speaker/power cables after they are attached to the MFD, and carry the string back through the dash, and then pull the string (softly), while inserting the MFD.

10- Connect the remaining three wires now and you are done. Connect the GALA wire first. With the fuse cover removed, you can see the 32 pin connector in the back of your cluster. You can remove it without removing your cluster. To remove the Blue connector, push the purple tap upwards with a flat screwdriver, then pull the connector after you unlocked it.

10a- Connect the Yellow wire that came from the "plug-n-play" adapter to the White wire with Blue strip **Pin 3** (White/Blue) in the Blue connector.

WARNING: If you unplugged the connector while the key is in ignition, you WILL get the Airbag fault light. You need a VAG-COM or visit your dealer to remove that fault code!!!
11- Now connect the other two illumination wires to the headlight switch.

11a- Connect the Orange wire to **Pin 17** of the headlight switch

11b- Red wire to **Pin 1** to the headlight switch as well.

*** Double check all connections then proceed to reconnnect battery. ***

12- Turn on your MFD and put the security code provided with your MFD. After the correct code is entered, make sure to see if your MFD lights work when your lights on. Remember that your lights will NOT work without the headlight switch AND the dimmer switch both connected. See if the dimmer work as well. Also, check if your MFD turns on/off with your key as your previous radio did.
*** System Calibration ***

If the Navi unit starts in German:

- Turn Navi on, wait for Navi menu to appear:
- If it doesn't go this menu, then depress the "Navi" button on the right side of the unit to get to it.
- Now using the right knob, rotate it until you highlight "Einstellungen":
- Now depress the right knob to make the selection.
- This is the set up menu screen, "Sparche wählen" is language select, so just depress the right knob again.
- Change from Deutsch to your required setting English Imperial or English Metric etc.

Once the Navi unit is in place and connected, insert a navigation CD-ROM, press the NAV button (7) and access the system menu by pressing buttons 3 and 6 at the same time. (see figure 17) When the version menu appears, press the Flag Destination button (13) and wait for the calibration menu to appear. (see figure 19)

Set the Impulse to 8

Set tire size according to this table:

175/80 R14 1940mm
185/55 R15 1785mm
195/65 R15 1935mm
205/45 R16 1800mm
205/55 R16 1930mm
205/50 R17 1945mm
225/45 R17 1930mm

Or use the exact circumference of your tire, in millimeters.

08 - Gala (no ABS)
43 - VW Golf IV (1J) / Polo
45 - VW Passat (3B/3BG)
ABS Pulses are dependant on number of notches on the sensor rotor

After the settings are complete, you need to drive for 10 miles (16kms) to give the Navigation MFD enough time to finely calibrate itself for distance and speed.

13- I’d take a 10 minutes test drive before put back the knee bolster. Note that your MFD will NOT work right away. It needs few minutes to calibrate it self. After about 5~10 minutes of driving, your MFD should be good for now. Don’t worry about the MFD setting since your MFD will set it self after few minutes depends on your tire’s life.

14- Put back your knee bolster after you put back the three connectors. Notice the small clip just above the dead pedal. There is a tap that should go inside this clip when you slide the knee bolster.
Appendix A

Diagram of Pigtail adaptor. (by PencilNeck)

These plugs go into the back of the Navis unit. Speaker wires are in the brown plug and the black plug is the “power plug”. As viewed from the back side with the wires coming out of them.

**Brown Speaker Plug:**
1 = right rear positive (pin #1 3 of pigtail)
2 = right rear negative (pin #9 of pigtail)
3 = right front positive (pin #14 of pigtail)
4 = right front negative (pin #10 of pigtail)
5 = left front positive (pin #15 of pigtail)
6 = left front negative (pin #11 of pigtail)
7 = left rear positive (pin #16 of pigtail)
8 = left rear negative (pin #12 of pigtail)

**Black “Power Plug”:**
1 = GALA (speedo signal, pin #3 of blue plug in cluster)
2 = Tele mute (mutes for incoming phone calls)
3 = K-Lines (pin #7 of the OBD data port)
4 = S Contact (part of ignition switch)
5 = Sails (pin #4 of pigtail)
6 = Dash Lights (pin #2 of dimmer switch)
7 = Battery Power + (pin #5 of pigtail)
8 = Ground (pin #6 of pigtail)

This is the 26 pin block on the rear of the Navis MFD unit.
4 = S contact (same as pin #4 of the black “power plug”)
5 = GALA (same as pin #1 of the black “power plug”)
13 = CAN BUS - (to pin #9 of TMC)
17 = Reverse signal (optional)
26 = CAN BUS + (to pin #8 of TMC)

**CD Wiring Harness Adaptor goes here. Visit www.4130-products.com for more info.**

“Pigtail” adaptor for 2002 and newer VW double DIN wiring harnesses. As viewed from the back side of the adaptor with the wires coming out of it. Same item used for 2002+ BMWs.