
**EXAMPLE OF A
DOUBLE DIN (MONSOON)
INSTALLATION INTO A SINGLE DIN**

In this case, I used a 2003 double-din OEM Monsoon radio, and installed it in my 2000 Jetta, which originally had a single-din OEM radio. Please use this guide as an example, I am not responsible for any wrong wiring, nor for differences in the wiring harnesses. YOU should make sure that YOUR connectors match my example. If not, I would recommend downloading the wiring diagram of the radio that does not match and figuring out which connectors match the original ones. Use this guide at your own risk.

Please note that after following this installation (ten steps), the radio will work fine, but it will NOT turn on/off with the ignition key. You will need to manually turn on/off the radio each time. Also, the display will NOT dim with the rest of the instrument panel. It will be lit at a constant intensity, as will the instrument panel as long as the radio is on. If you know of a better way, please write me and I'll update this example and post it again.

Also, I would like to say that I am NOT a technician or professional installer, I'm just an enthusiast that got tired of looking for an online tutorial without success, and after researching on my own decided to put this guide myself so others could benefit from my experience.

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Step 1.

1.1 You will need to buy the "kit" for installing the double din into the single din. You can find all the necessary parts and tools in <http://www.enfig.com>, you will need:

- a. (2) sets of radio removal tools. (for future double din-removal)
- b. (1) Wire Harness for 1987-2003 Volkswagens (single-din radios)
- c. (1) Radio Wiring Harness VW 2003+ DD To install OEM Radio
- d. (1) Antenna Adapter For 1995-2002 Volkswagens Small (single-din radios)
- e. (1) Antenna Adapter VW 2003+ For DD OEM Radio.
- f. The new radio unlocking code. You can obtain this at your local dealer with your VIN and the new radio serial number (found on the side of the radio, it starts with "VW").

Step 2.

Insert two of the radio removal keys (a) on both sides of the single-din radio, as it is indicated in the instructions included with the keys. Once they "click" you can firmly pull them both and the radio will come out.



radio being pulled out with the removal keys



wiring and antenna connectors

Step 3.

Disconnect the radio and pull out the cables. Be very careful not to break or tear any cable.



wires and antenna cable

Step 4.

To remove the upper tray, firmly pull on it, and it will come out, it does not have any screws, only a clip in the back that unhooks with the right pressure.



removal of tray

Step 5.

Since I do not have a CD-Changer, I did not need any of these connectors. (single-din Connector I, see diagram). I removed the extra connectors to save space.



Step 6.

Insert the small single-din antenna adapter (d) into the end of the double-din antenna adapter (e).



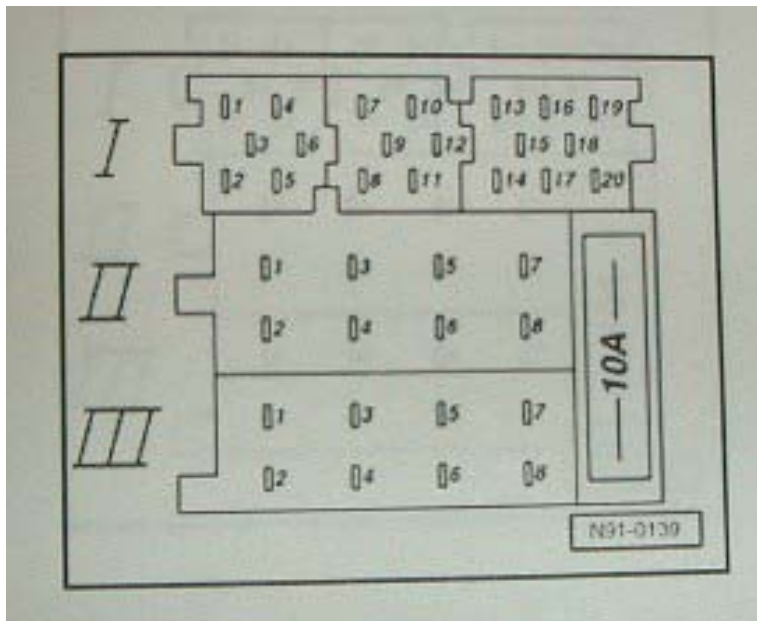
Step 7.

Plug the antenna cable to the end of adapters as shown.

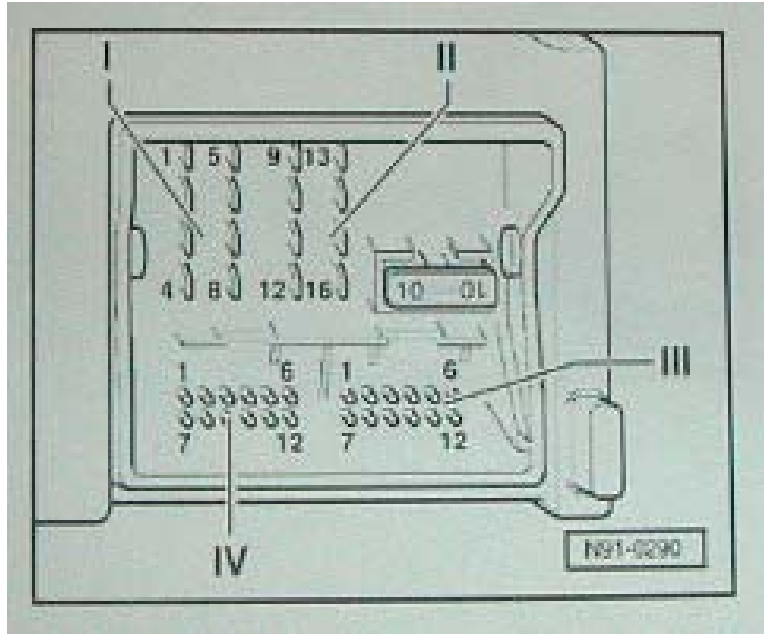


Step 8.

Use the chart below to connect the cables from the single-din wiring harness (b) to the double-din wiring harness (c). I'm also including copies of the original wiring diagrams of each model for reference (see appendixes). Please be careful when determining which side are you looking at of the harnesses.



single din RECEIVING connector (at radio)
wiring diagram



double din RECEIVING connector (at radio)
wiring diagram

Cross Wiring Diagram:

Please note that the single-din connector I, double-din connector III and double-din connector IV are not being used in this example.

Single Din	Description	Double Din (Monsoon)
Connector II (brown)		Connector I
1	Amp + right rear spk	1
2	Amp – right rear spk	5
3	Amp + right front spk	2
4	Amp – right front spk	6
5	Amp + left front spk	3
6	Amp – left front spk	7
7	Amp + left rear spk	4
8	Amp – left rear spk	8
Connector III (black)		Connector II
1	Anti-theft alarm system	16
2	NOT USED	X
3	NOT USED	X
4	Ignition Switch – S contact	14
5	NO USED	X
6	Illumination, terminal 58b	13
7	Battery, positive (B+) supply, terminal 30	15
8	Battery, negative (B-), ground supply, terminal 31	12



All wires and cables connected

Step 9.

Organize your cables (I used electrical tape) and push the harnesses and the extra cable back and out of the way, then push the radio until it clicks in place.



Radio installed.

Step 10.

When you turn the radio on, "SAFE" will appear in the screen and, after 3 seconds, "1000" will be displayed. Using the radio pre-set buttons 1 through 4, insert the unlocking code (f). Button 1 sets the first digit, button 2 the second, and so forth. Once the code is displayed, press the seek up button (^) until a beep sounds, and a radio station is displayed in the screen.

NOTE: If you don't hear the beep in over a minute, it means that you entered the wrong code or you made a mistake. You can repeat the procedure again ONE more time. If you don't enter the correct code in the second try, it will lock itself for one hour. You need to leave the radio ON for that hour and then try again. The process will start again and you will have two more tries, and a pause of one hour if you miss again. (this is what the VW manual says, I did not experience this)

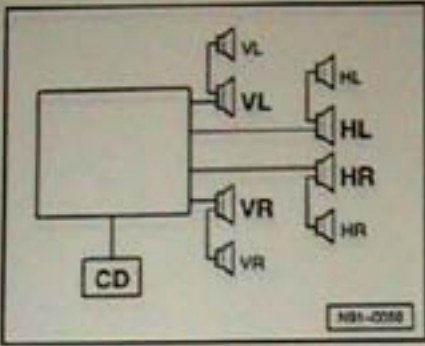
If everything went well...

YOU HAVE SUCCESSFULLY COMPLETED THE INSTALLATION OF THE DOUBLE-DIN RADIO IN YOUR CAR. ENJOY!

Appendixes.

I'm including the original wiring diagram of both radios for your reference. Thanks to [VWvortex.com](http://www.vwvortex.com) for the diagrams. If you want to download the original pictures, go to <http://forums.vwvortex.com/zerthread?id=676392> and follow the appropriate link.

SINGLE DIN OEM



Radio, "Premium IV"

Installed from start of production through m.y. 2000.

VL = Left front
HL = Left rear
VR = Right front
HR = Right rear

The radio system consists of the receiver/tape unit and speakers located in the front and rear doors.

A 168 mm low-range/bass speaker is located in the lower portion of each front and rear door.

High-range speakers (domed tweeters) are integrated into the forward window trim on both front doors. Tweeters are integrated into the rear door handle trim next to the power window switches.

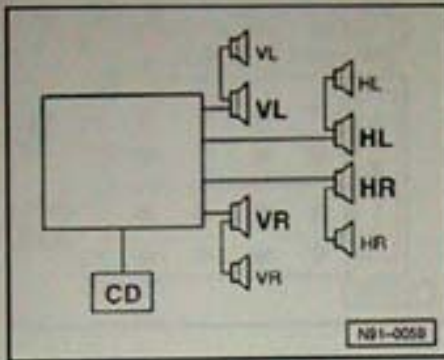
The system uses an amplified roof mounted antenna ⇒ [Page 91-27](#) .

Radio system, On Board Diagnostic (OBD)

"Premium IV" radio systems have On Board Diagnostic (OBD) capabilities ⇒ *Repair Manual, Radio, Telephone, Navigation On Board Diagnostic (OBD), Repair Group 01* .

CD Changer

The optional, luggage compartment mounted CD changer wiring and mounting is pre-installed in production ⇒ [Page 91-30](#) .



Radio, "Premium V" & "Premium V - Monsoon"

Installed from m.y. 2001 ➤



VL = Left front

HL = Left rear

VR = Right front

HR = Right rear

The radio system consists of the receiver/tape unit and speakers located in the front and rear doors.

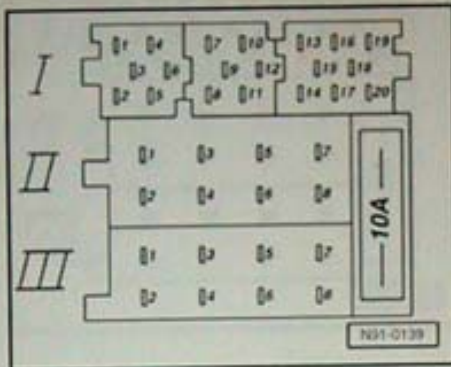
A 168 mm low-range/bass speaker is located in the lower portion of each front and rear door.

High-range speakers (domed tweeters) are integrated into the forward window trim on both front doors. Tweeters are integrated into the rear door handle trim next to the power window switches.

The optional "Premium V- Monsoon" system consists of the "Premium V" receiver/tape unit supplemented by a separate high power amplifier mounted in the luggage compartment.

High power handling speakers specifically designed for the "Monsoon" system are located in the front and rear doors as with "Premium V".

The system uses an amplified roof mounted antenna ⇒ Page 91-27 .



Radio multi-pin connector assignments, "Premium IV & V" (incl. "Monsoon")

Connector I consists of three separate connector parts:

20 pin multi-connector I -T20-, part 1, yellow

- 1 - Line out, left rear
- 2 - Line out, right rear
- 3 - Line out, Ground (GND)
- 4 - Line out, left front
- 5 - Line out, right front
- 6 - Switched positive (B+) for amplifier

20 pin multi-connector I -T20-, part 2, green*

- 7 - Open
- 8 - Clock
- 9 - DATA
- 10 - ENA
- 11 - Remote control (serial input)
- 12 - Open

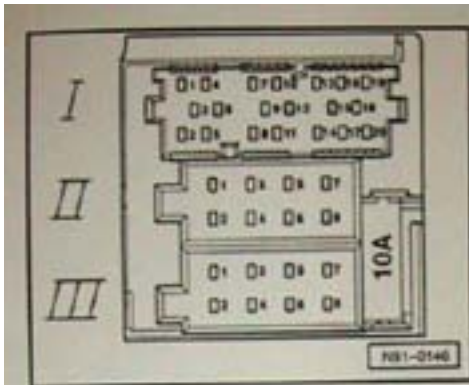
*) Where applicable

20 pin multi-connector I -T20-, part 3, blue

- 13 - CD changer - DATA IN
- 14 - CD changer - DATA OUT
- 15 - CD changer - CLOCK
- 16 - CD changer - Power supply, positive (B+) supply
- 17 - CD changer - Control signal
- 18 - CD changer - Ground (GND), terminal 31
- 19 - CD changer - LINE OUT, left
- 20 - CD changer - LINE OUT, right

"Premium V" 8 pin multi-connector II -T8a-, brown

- 1 - Speaker + right rear
- 2 - Speaker - right rear
- 3 - Speaker + right front
- 4 - Speaker - right front
- 5 - Speaker + left front
- 6 - Speaker - left front
- 7 - Speaker + left rear
- 8 - Speaker - left rear



◀ **"Premium V - Monsoon" 8 pin multi-connector II -T8a-, brown**

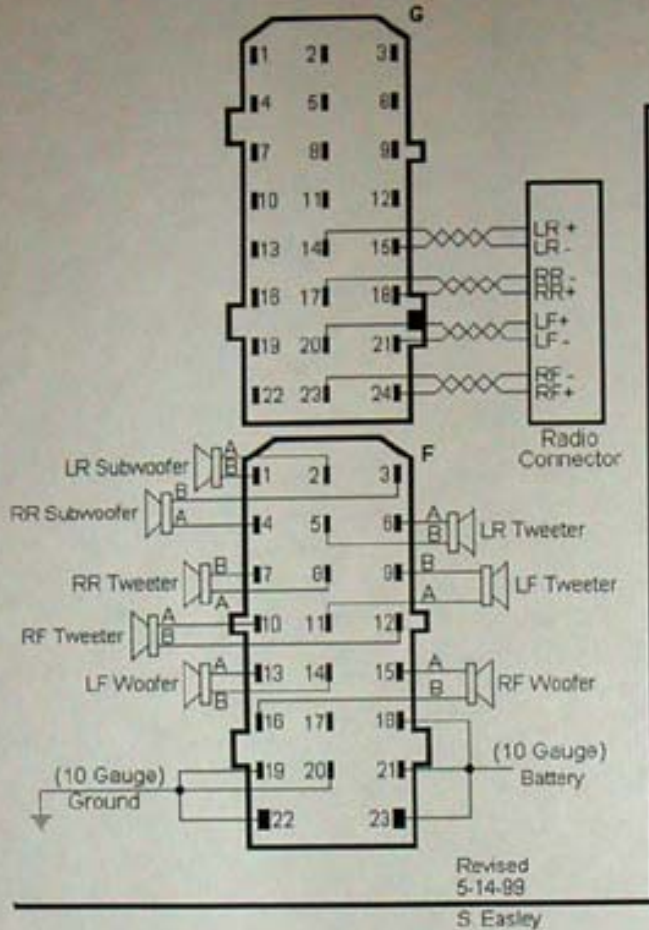
- 1 - Amplifier + right rear speaker signal
- 2 - Amplifier - right rear speaker signal
- 3 - Amplifier + right front speaker signal
- 4 - Amplifier - right front speaker signal
- 5 - Amplifier + left front speaker signal
- 6 - Amplifier - left front speaker signal
- 7 - Amplifier + left rear speaker signal
- 8 - Amplifier - left rear speaker signal

8 pin multi-connector III -T8-, black

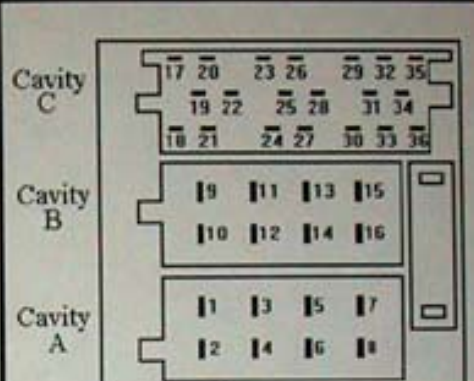
- 1 - Signal for anti-theft alarm system
- 2 - Open
- 3 - Data Link Connector (DLC) K-wire
- 4 - Ignition switch - S contact
- 5 - Battery, positive (B+) supply, terminal 30 (control input for "SAFE" display/anti-theft)
- 6 - Illumination, terminal 58b
- 7 - Battery, positive (B+) supply, terminal 30
- 8 - Battery, negative (-) ground supply, terminal 31

Passat/Golf/Jetta Production Intent Wire Mech

*** ALL WIRE SHOULD BE 18 GAUGE**
Unless noted otherwise
Use twisted pairs between amp & radio
Speaker connectors are B+ A-



Revised
5-14-99
S. Easley



VW Radio Pin-Out 36 Pin ISO Connector

Cavity	Pin	Function - USA	Pin (Europe)
A1	1	Alarm Output (SCV)	
A2	2	N/C (Mute)	
A3	3	K Line Diagnostic	
A4	4	IGN	
A5	5	Battery sense	
A6	6	PWM DIM	
A7	7	Battery - main	
A8	8	Ground	
B1	9	RR+	
B2	10	RR-	
B3	11	RF+	
B4	12	RF-	
B5	13	LF+	
B6	14	LF-	
B7	15	LR+	
B8	16	LR-	

C1	17	LR+ Line Out	C11	27	SWC Digital Bus	N/C
C2	18	RR+ Line Out	C12	28	N/C (Diff. Cell Input)	N/C
C3	19	Audio Ground	C13	29	CDX Data Input	N/C
C4	20	LF+ Line Out	C14	30	CDX Data Output	N/C
C5	21	RF+ Line Out	C15	31	CDX Clock	N/C
C6	22	Amp Control	C16	32	CDX Supply Out (Filtered)	N/C
C7	23	N/C (Diff. Cell In)	C17	33	CDX Control Line	N/C
C8	24	Remote Display (Clock)	C18	34	CDX Ground	N/C
C9	25	Remote Display (Data)	C19	35	CDX Left Channel	N/C
C10	26	Remote Display Enable	C20	36	CDX Right Channel	N/C

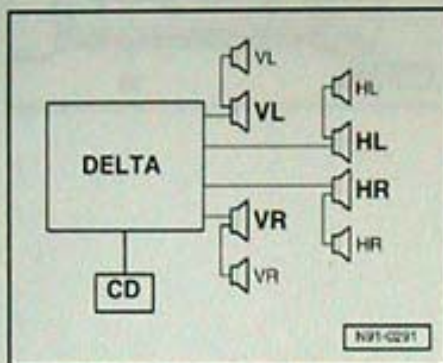
DOUBLE DIN OEM

Radio, "Premium VI" & "Premium VI - Monsoon"

Replaces "Premium V" and "Premium V - Monsoon" as a running change during m.y. 2002.

Note:

"Premium VI" radios are identified as "Premium CD" in the owner's literature.



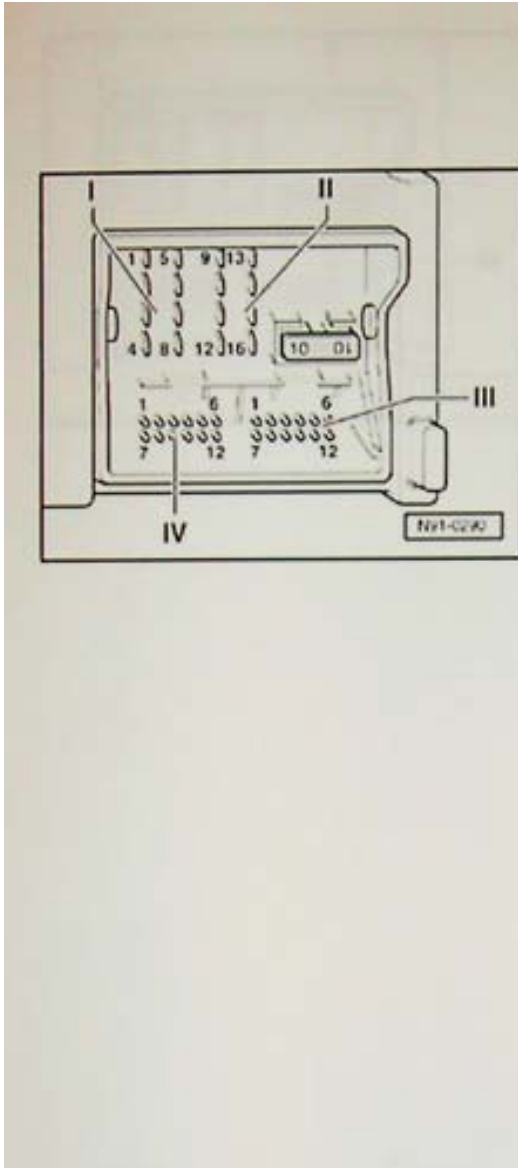
The radio system consists of an integrated receiver/CD/tape head unit and speakers located in the front and rear doors. The integrated head unit is in "Double DIN" format.

A 168 mm low-range/bass speaker is located in the lower portion of each front and rear door.

High-range speakers (domed tweeters) are integrated into the forward window trim on both front doors. Tweeters are integrated into the rear door handle trim next to the power window switches.

The optional "Premium VI- Monsoon" system consists of the "Premium VI" receiver/tape unit supplemented by a separate high power amplifier mounted in the luggage compartment.

The system uses an amplified roof mounted antenna ⇒ [Page 91-27](#) .



Radio multi-pin connector assignments, "Premium VI" (incl. "Monsoon")

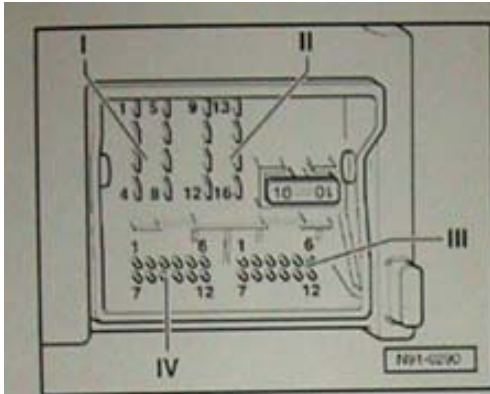


8 pin multi-connector I

- 1 - Speaker + right rear
- 2 - Speaker - right front
- 3 - Speaker + left front
- 4 - Speaker + left rear
- 5 - Speaker - right rear
- 6 - Speaker - right front
- 7 - Speaker - left front
- 8 - Speaker - left rear

8 pin multi-connector II

- 9 - CAN-Bus plus
- 10 - CAN-Bus minus
- 11 - Mute
- 12 - Ground (GND)
- 13 - Radio, Control signal
- 14 - Contact alarm
- 15 - Battery positive (B+)
- 16 - Signal for anti-theft alarm



A

12 pin multi-connector III*

- 1-5 Open
- 6 - Signal for telephone minus (-)
- 7-11 Open
- 12 - Signal for telephone plus (+)

12 pin multi-connector IV

- 1 - Open
- 2 - CD changer - left and right channel, Ground (GND)
- 3 - Open
- 4 - CD changer - Positive (B+) supply
- 5 - Open
- 6 - CD changer - DATA OUT
- 7 - Open
- 8 - CD changer - left channel, CD/L
- 9 - CD changer - right channel, CD/L
- 10 - CD changer - Control signal
- 11 - CD changer - DATA IN
- 12 - CD changer - CLOCK

*) Where applicable