

# Combox Installation Instruction for E6x, E7x, E8x and E9x Series BMW

This is universal instruction for standard E series installation. It also can be used on F-series.

1. Please verify if your vehicle is equipped with the **TCU** and **MULF** modules. This is important step which will let you understand what needs to be removed for proper Combox installation.  
For the case when your vehicle is equipped with both TCU and MULF modules (option 6FL and options 639 or 633 are present) you will have to disconnect or remove your MULF module and install Combox module instead of the TCU.  
For the case when your vehicle is equipped only with TCU module (option 633, 639 or 644) you will have to remove it and install Combox instead of TCU.  
For the case when your vehicle is equipped with the MULF only (6FL or 6FL + 644 options) you will have to install Combox and disconnect or remove MULF.
2. Your TCU and MULF modules are located at the rear left compartment for BMW E70 models. For E6x and E9x models it is located in the trunk under the floor near rear seat. We show the installation on the example of the E7x series. Please note that for the other models of E-series it will be a bit different in terms of module location. Electrical wiring and component connection will remain the same for all models of E series.



Remove the left side cover as shown on the pictures. Please note that there will be 4 plastic clips around the cover which needs to be removed.





Both modules (TCU and MULF) are located under this cover.

3. For E71 BMW models TCU is located at the same place as on the E70 models, however the MULF module is located under the rear seat mid compartment. Please see pictures below:





Red circles on the pictures shows the screws which must be removed in order to get the mid compartment removed. First remove both rear seats, after that unscrew all screws on the sides of the mid compartment and after that pull it up. Under it you will see another cover which also should be removed. MULF module is attached to this cover from the bottom.









4. It is important to understand that Combox is always installed instead of TCU and/or MULF modules. You cannot have TCU + Combox or MULF + Combox as it is against the BMW network topology. Also both TCU and MULF (if installed) are connected to the Optical MOST ring in the vehicle. If you remove both – TCU and MULF and disconnected MOST ring connector (optical connector with two green wires) from both modules than you will have to use only one for Combox, while the second optical connector MUST be terminated or disconnect in the optical HUB. This is very important since if you cut (interrupt) the MOST ring of the vehicle you will completely lose all multimedia functionality.

Proceed to the next step ONLY if you have both MULF and TCU installed on your vehicle and you are installing Combox while removing TCU and MULF. In case if you ONLY have TCU or ONLY have MULF installed on your vehicle you do not need to do step 5. Simply skip it and process to step 6.

5. Locate unused MOST connector. For example in your case, since you removed the TCU and MULF modules and installed Combox only, you got one unused MOST connector with MOST optical wiring attached.

Please take the MOST terminator included with the kit:



Remove the middle part out of it:



Now simply terminate your unused MOST connector by plugging it in to the MOST terminator





6. Both connectors which are used for TCU and MULF will be needed for the Combox connection. Please see the chart below on how to properly interconnect the cables from Combox to the existed connectors. If you have E6x, E70 or E9x series than you will simply connect all cable at one place. If you have E71 than you will have to pass cables from the MULF (under the seat to the left rear compartment where Combox will be installed instead of TCU module. This is, however, correct only if you installing Combox instead of the TCU and MULF.

Use Combox connector and wires for interconnection. Alternatively you may remove each required pin from the appropriate connector of TCU or MULF and re-insert it in to the target (new) Combox connector.

White connector on the Combox is the BT antenna connector for the phone. Your existed white plug removed from TCU (or MULF sometimes) will not directly fit this Combox antenna connector. You will have to take a sharp knife and cut small plastic rib on the Combox antenna connector which will prevent you from direct installation of the BT antenna connector.

### **Combox wiring diagram connection for E and F series installation.**

X34130 – Connector on Combox, Black color, 26 pins

X14133M – Connector on MULF2HI, Blue, 54 pins

X14133T – Connector on TCU, White, 54 pins

- In blue color – optional for Combox Media but must be connected for Combox Telematics
- If you installing Combox Media you do not need to connect wires marked in [Blue](#).

Check your case (TCU + MULF, TCU only, MULF only) and connect appropriately:

1. When both TCU and MULF present in vehicle connect as follows:

Combox		MULF2HI	TCU
X34130	Signal	X14133M	X14133T
1	Power T30	17	
2	<a href="#">Power T30</a>	<a href="#">17</a>	

14	Ground	36	
10	AUX GND	22	
23	AUX NF L	4	
24	AUX NF R	5	
22	AUX BLNC	23	
15	TEL Wake Up		33
25	MIC+		1
12	MIC-		19
11	MIC BLNC		21
7	TEL CRASH		15
18	NOTRUF S		31
17	NOTRUF L		50
21	LS NOTR+		37
20	LS NOTR-		38
5	CAN HIGH	Connect to PDC Module	
6	CAN LOW	Connect to PDC Module	

2. When TCU only present in vehicle connect as follows:

Combox		MULF2HI	TCU
X34130	Signal	X14133M	X14133T
1	Power T30	17	17



2	Power T30	17	17
14	Ground	36	36
10	AUX GND	22	connect here the pin from your new AUX IN connector if installed
23	AUX NF L	4	connect here the pin from your new AUX IN connector if installed
24	AUX NF R	5	connect here the pin from your new AUX IN connector if installed
22	AUX BLNC	23	
15	TEL Wake Up		33
25	MIC+		1
12	MIC-		19
11	MIC BLNC		21
7	TEL CRASH		15
18	NOTRUF S		31
17	NOTRUF L		50
21	LS NOTR+		37
20	LS NOTR-		38
5	CAN HIGH	Connect to PDC Module	
6	CAN LOW	Connect to PDC Module	

3. When MULF only present in vehicle connect as follows:

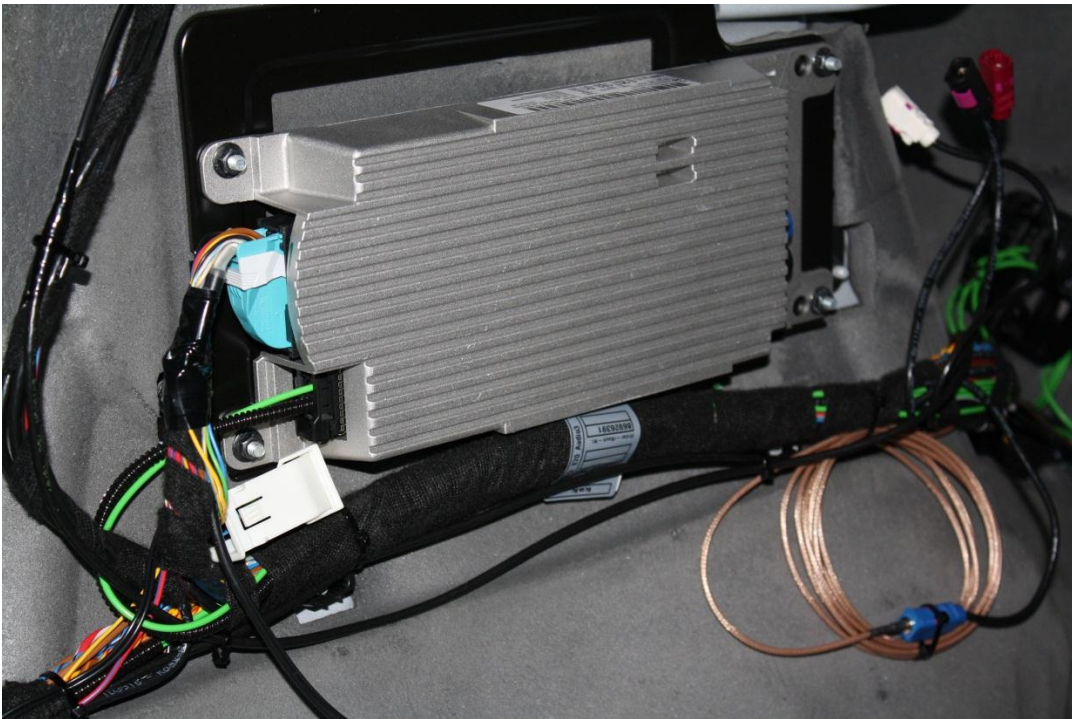
Combox		MULF2HI
X34130	Signal	X14133M
1	Power T30	17
14	Ground	36
10	AUX GND	22
23	AUX NF L	4
24	AUX NF R	5
22	AUX BLNC	23
15	TEL Wake Up	N/C
25	MIC+	connect here pin from your newly installed microphone
12	MIC-	connect here pin from your newly installed microphone
11	MIC BLNC	connect here pin from your newly installed microphone

7. USB cable from MULF must be connected to the Black connector on the Combox. In case if you are also installing 6NR with 6NF options than the blue connector on the Combox should also be used for the additional USB cable. White antenna connector (BT Antenna) should be connected to the white connector on the Combox. Please note that you will need to use exact knife to cut a small plastic rib on the Combox white connector in order for the vehicle's BT antenna connector to fit.

For Combox Media you will not have to connect two additional Telematics service antennas. Leave the unconnected.



8. After installation is done your Combox must be connected to the vehicle's wiring and installed as on the pictures:



9. Last step to the Combox installation should be the proper Combox and CIC coding. If not done yet please contact us for the coding.

For all questions or other inquiries please contact us at: **info@bimmerretrofit.com**  
or visit: [www.bimmerretrofit.com](http://www.bimmerretrofit.com)

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