

CIC/COMBOX RETROFIT FOR BMW E63s

SUMMARY

I just completed a CIC and Combox retrofit on my 2009 M6 Coupé and thought I'd write up my experience since there doesn't seem to be much content for E63s. It's a bit long winded, but I decided to make it as clear and step-by-step as possible to help resolve any questions that might arise.

In short, I ordered a CIC/Combox retrofit kit from Mike Benvo's BPMSport.com and installed the retrofits myself. I've included information about some of the issues that I ran into and questions that I had when I was doing the retrofit.

Overall it was a great learning experience and I was very happy with Mike's support and service. In retrospect, I would have a professional (such as Mike himself) do the retrofit for me given the amount of things I had to remove from my car and put back.

(Note that some pictures were borrowed from other posts, for the sake of completeness. Sources have been included in the Resources section).

PROS & CONS

PROS

- Mike is very responsive via text and phone
- Mike is very patient and available and doesn't give up
- Mike did an excellent job coding my car and got it running perfectly (and followed up afterwards to make sure everything is working well)
- CIC is much faster than CCC
- CIC looks much better looking than CCC (higher resolution, cleaner interface)
- CIC has an improved typing interface
- CIC has a built-in hard drive that stores navigation data (replacing the navigation DVD) and can store your music
- Combox allows Bluetooth media streaming (you can still use an iPod, USB stick, etc. if you like)
- Combox provides access to neat features like BMW Online (Google StreetView, Weather, etc.), Internet and Office (contacts, etc.). (Note that you need data tethering for BMW Online and Internet functionality)

CONS

- Mike can sometimes be a bit slow to respond via e-mail when he's busy (but just text or call him!)
- You have to take out the center console of your car
- You have to splice into your hazard and door lock switch cable for CIC control illumination
- You have to take out your rear seats
- It's very difficult to see properly in the back of an E63 without proper lighting (and uncomfortable)

PREFACE

I bought a CIC/Combox retrofit kit from Mike Benvo's BPMSport.com and decided to do the install myself. It certainly wasn't a trouble free install, but wasn't super difficult either. If you're thinking about doing it, I would recommend taking it to a professional if you're scared of breaking pieces, ruining wires, etc. While I didn't break or ruin anything, I can't say I wasn't worried about doing so most of the time. It can be really difficult to remove some pieces and sometimes requires a lot of force too or applying pressure to just the right place. I'll talk about those parts as I get to them.

In case you don't know what CIC and Combox are, CIC is BMW's updated iDrive navigation system as seen on all E series cars from 2010+ prior to F series cars (F series have a slightly better CIC-HIGH system). CIC is significantly faster than CCC, both in terms of starting navigation and general performance of the menus. It also looks significantly better aesthetically and visually (higher resolution screen). Combox is a separate component that can be added to cars with CIC (can't add Combox to CCC) that adds Bluetooth audio streaming and call capability as well as BMW's ConnectedDrive suite (Office, Internet, BMW Online/Live, etc. Note that you need data tethering for BMW Online and Internet functionality).

INSTALLATION WALKTHROUGH

BUYING EXPERIENCE

I'll start with ordering the retrofit kit. As I mentioned above, I ordered the CIC and Combox retrofit kit via Mike Benvo's BPMSport.com. I started by emailing Mike and inquiring about the cost and what was necessary to get it into my specific car. Mike was a bit slow when responding to emails (but as you'll see later, was immediately responding to texts and phone calls), but he eventually got back to me with the details and I went ahead and paid for the kit and 2 day shipping since I wanted to get it done over the weekend. He quickly shipped the kit via FedEx and I received the package by noon on Friday. All the items were included (including the illumination wire needed to illuminate the CIC controls on LCI E6Xs) and were super well packaged and protected. Nothing was damaged and everything looked like it was new with no scratches or anything. So I prepared to get to work right away.

PREPARATION

Beforehand I'd used TIS to find the pages for removing and reinstalling the parts that I would have to remove including the CCC itself (and as a result the center console trim, vents and trim), the CCC display and the TCU/MULF (located behind the back seats and inaccessible unless you remove the back seats including headrests, seat bottom, backrests and optionally seatbelts). Having done this and read them (and some internet resources) in advance I had a fairly good idea of what needed to be done, but I kept the right pages handy on a tablet and this proved invaluable.

I'd also gone ahead and bought a set of plastic trim removal tools (typically inexpensive) which turned out to be useful, specifically the more narrow ones. Additionally, you'll need a Torx screwdriver (T20 bit I believe, not sure), Phillips screwdrivers (various sizes), a socket wrench (for the backseats, TCU/MULF, various sizes), a small Allen wrench for the CCC display and a flathead if you're not using a trim removal tool.

Finally, I'd recommend getting something to protect the shifter and trim around the shifter when you pull out the center trim and CCC. I used a few layers painter's plastic to protect it and it did a fairly good job. Take care not to use something that might have static electricity (a towel would be an example of something NOT to use).

I would strongly suggest disconnecting the car battery. You can do this by opening the trunk, removing the floor trim and lifting the cover with the tools. Then unscrew the negative lead using a socket wrench and carefully pull it out and tuck it away from the battery's negative point so there's no risk of them touching. At this point your doors will no longer close if you have soft close doors, and your trunk will no longer open by pushing the roundel. If you close the trunk and can't open it, don't freak out :) Remove the key from your keyfob, push the roundel in and there's a slot for the key. Twist it (it's kind of difficult) then the trunk should open. Just don't leave your keys in the trunk! :)

CIC RETROFIT

REMOVING CCC

I began by removing the hazard and door lock switch as per TIS. First you fit a narrow trim removal tool under the switch on the bottom, then you lever it outwards. The bottom end will pop out and you'll need to stick the trim removal tool under the side and pull it outwards. The whole switch piece should pop out fairly easily. Now remove the cable from the switch by pulling the connector straight out (can require a bit of force). Put the switch piece away somewhere safe.

Once you've removed the hazard and door lock switch you'll need to **remove the screw** (Fig. 1, Item 1) that is hidden below where the switch was. Some people have claimed their card didn't have them, but mine definitely did, so be careful to look for it and remove it. It's located directly beneath the switch, securing the vent section and you can put a screwdriver in vertically and unscrew it. Be careful **NOT** to drop the screw in when taking it out and put it away.



Figure 1 Hazard and Door Lock Switch Screw

Now the vent section is free and can be pulled out. To do this, just pull with your hands on the top of the vent trim and it'll pop out. If that isn't working you can stick a trim removal tool under the trim around the top near the display. This section is fairly easy to remove and doesn't require a lot of force. Once you've removed it, place it somewhere safe and clean.

Next, unscrew the main center console trim covering the CCC. There are two screws (Fig. 2, Item 1) located on opposite sides, right above the center trim (where the vent trim was). Put the screws away.



Figure 2 Center Console Trim Screws

Then, to remove the center console trim, there are tabs on both sides that need to be unhooked before you pull the entire thing out. Get a trim removal tool under both sides of the trim (right around the middle, next to the secondary DVD slot for navigation) and pull it outwards a bit on both sides. Then repeat this all the way down the left and right sides and it should unhook.

Before pulling it out, you'll need to lean it outwards a bit to remove the cables for the AC controls. Lean the top section outward enough that you can get your hands in there and you should see three cables. On the left side, there's a black one (Fig. 3, Item 1) which you'll need to push in on the tabs on either side (top and bottom) and pull straight out. Then, for the middle one (Fig. 3, Item 2), push in the small tab next to the grey piece which is holding the grey piece in place. While pushing the tab in, move the grey piece over the tab (to the left) and the connector will start to pop out. Let go of the tab and continue moving the grey piece and the whole connector will pop out all the way. Repeat this on the blue connector

(Fig. 3, Item 3) and there should be no more cables connected to the trim piece. Once you've removed the cables, pull the center trim out all the way (try to pull it straight out. If you feel resistance, make sure the bottom tabs haven't popped back into place, otherwise they may snap off. They're located on the bottom side of the trim piece). Put the trim way somewhere safe and clean.

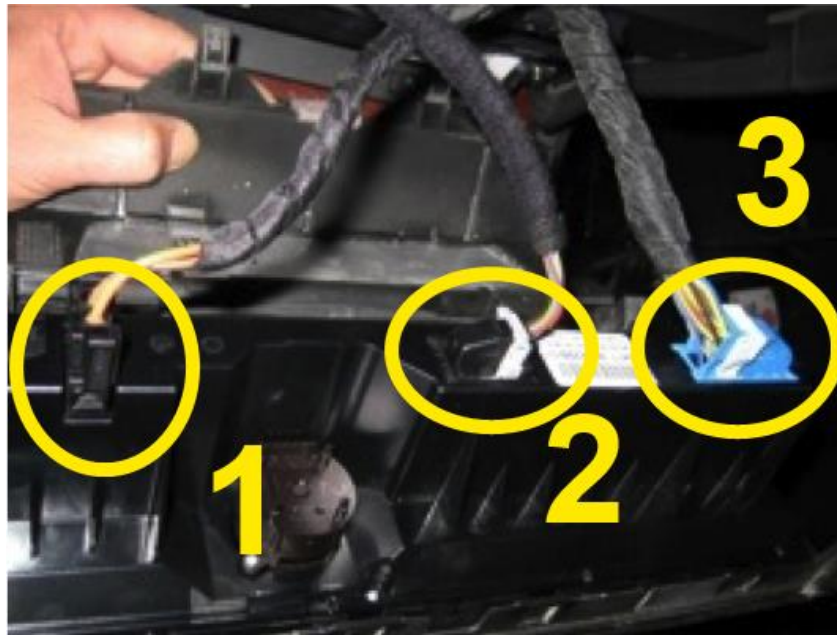


Figure 3 AC Controls Connections

Finally, you'll remove the CIC by unscrewing all four screws and pulling it outwards. This can be a bit difficult to do since there's not much to pull on, try moving it side to side a bit and it should start coming out enough for you to be able to pull on something. Pull it straight out, but not all the way, since there's a lot of cables attached to the back and some are very short (the cable with the big connector on the bottom left was so short on mine I could barely get my hand to it to remove it). Remove each of the cables, starting with the big black connector (Fig. 4, Item 1) with all the wires (this one was the shortest one for me, removing it made it much easier to remove the rest). To remove it, use a narrow trim removal tool or flat head screwdriver (or your fingers, but it'll hurt!) and get under the black tab on the top. Pry it towards the front of the car and it should unhinge. Now just rotate the black piece towards the front of the car and the whole connector should pop out. Now that you've removed that, you should have a bit more leeway to pull the CCC out a bit more and make your life easier. Then, remove the small connector with the brown and white cables (Fig. 4, Item 2). Just pull up on this and it'll pop out. Then remove the black one with slightly bigger connector (Fig. 4, Item 3) by pushing it towards the front of the car. You might need to get under the metal piece and pry it out, but be careful not to damage it! Then, repeat this with the blue connector (Fig. 4, Item 4). Finally, remove the metal cased connector (Fig. 4, Item 5) by pulling it straight out (you might need to pry under it).

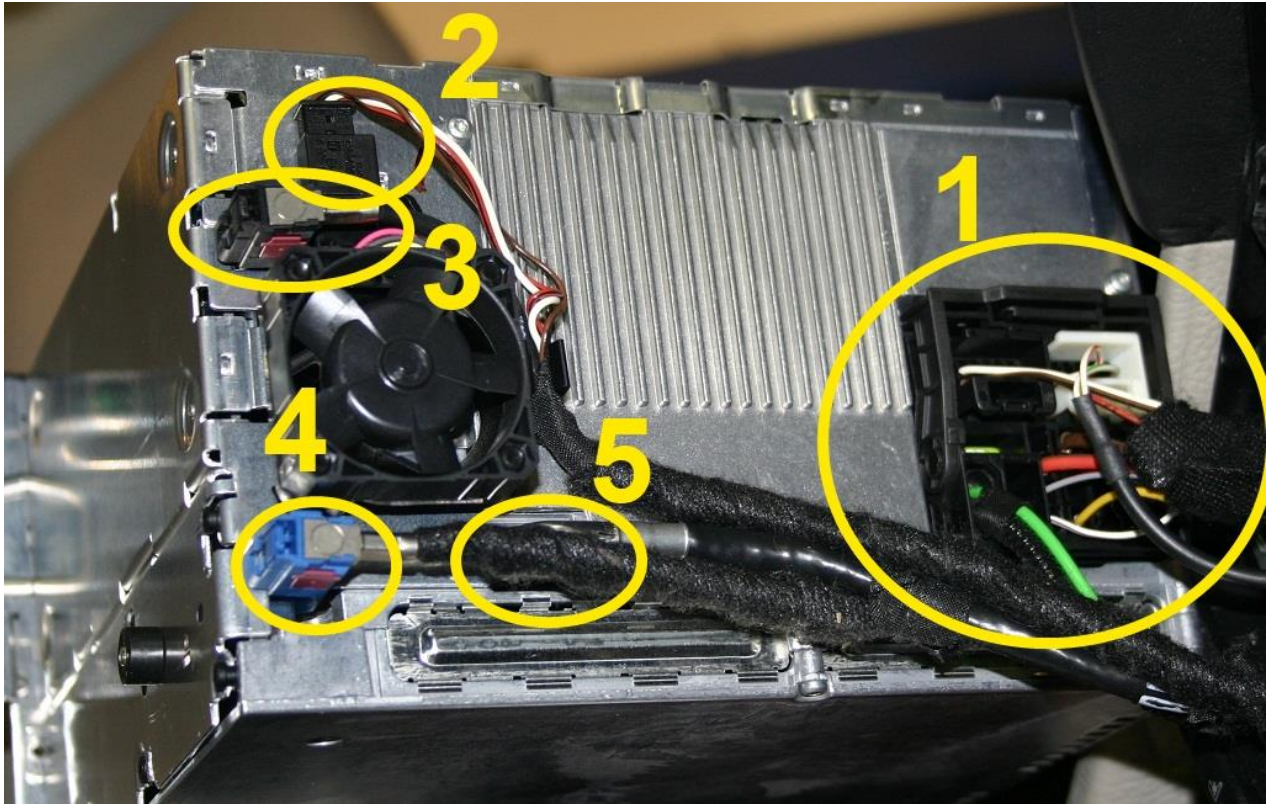


Figure 4 CCC Connections

Next, you need to remove the CCC display (the new CIC one is higher quality and has different connections. The old CCC one is not compatible with CIC). To do this, use a small allen wrench and unscrew the two screws along the inside top of the display (where the hood is). There's one on the left and one on the right. Once you remove these, use a flat and narrow trim removal tool to get under the hood a bit and push it down. (You might be able to do that by hand). Don't pull the display out all the way yet. First pull out the metal covered connector (Fig.5, Item 1). Then, push the small tab on the black connector (Fig. 5, Item 2) (near the grey retainer piece), pull the retainer towards the top of the display, let go of the tab and continue rotating the retainer towards the top until the connector pops out. Finally, remove the cables from the white tabs that hold them in place (just lift each tab a bit and pull the cable out).



Figure 5 CCC Display Connections (Back)

Take a break :) You're done removing CCC from your car and now it's time to put CIC in. It's a bit more work to do this, so I would definitely recommend taking a break at this point. Trying to do this while tired will most likely end badly and end up creating more work.

INSTALLING CIC

Once I'd taken a break, I came back to start installing CIC. First thing you should do is install the cable and port for the glovebox USB. The glovebox USB is necessary and different from your center console USB port. It's used to import music and deliver updates to CIC. At first I didn't have the proper part that the USB port is supposed to fit into and then fits into the glovebox, so once I got that I removed the existing flashlight cover (located at the top left of the glovebox). Then I removed the back of the glovebox in order to see better (there's a tab along the top of the back piece, push it down and pull it towards you. You should see lots of colored fuses behind it.). This is the hard part. My cable has an angled connector on the USB port side (only one side of the cable fits the USB port) and so I had to mess around with it a lot so that it would go in all the way and still be able to send the cable through the dash via the hole in the left of the USB port area. I ended up routing the cable through first and catching it on the CIC side, then folding the cable back on itself on the USB port side such that the cable was bent towards the front of the car and into the hole so that the connector would pass through without getting stuck. It was very difficult to do and I'm still not sure if it'll snap off at some point, so if you have the patience, get an extension cable online and use that to work around the angled connector. On the CIC side, connect the white USB connector to the white receptacle on the CIC (Fig.6, Item 1).

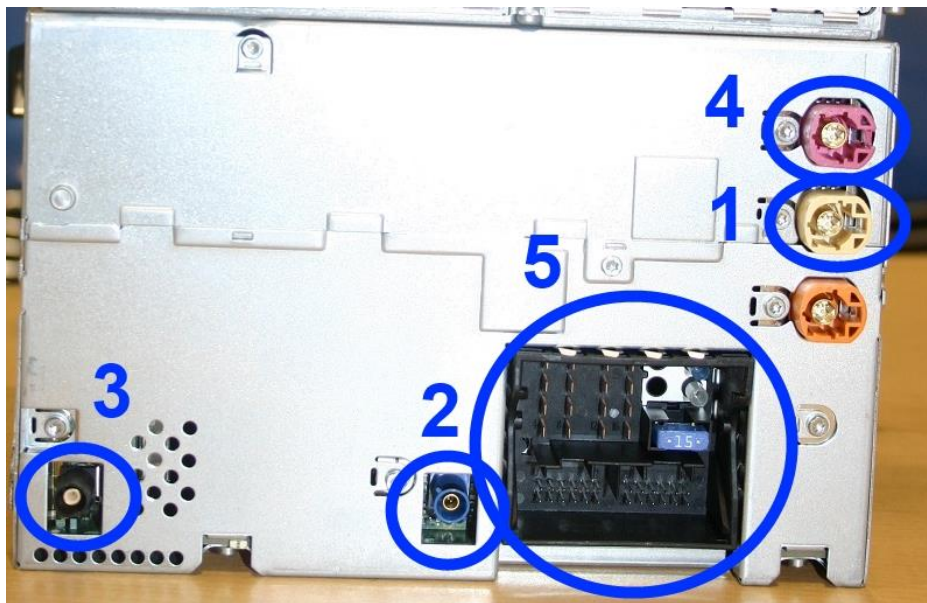


Figure 6 CIC Connections (Back)

Next, you can do one of two things. You can either connect the illumination wire or if you're unsure if you need it, plug everything into CIC first, connect the battery and turn your headlights on to see if the CIC controls illuminate. If your car is an LCI model (regardless of M or not, post 2007 I believe), then you'll need to do this, so spare yourself the pain of putting everything in only to take it back out like I did.

To install the illumination wire, you'll need the wire itself (I think 18 gauge), a wiretap with the correct gauge for the hazard switch wire (important!) and a special pin that's used to plug into the big black connector on the CIC side. On the hazard and door lock switch side, find the wire going to pin 2 (there's numbers on the connector and the wire will be red and white/grey). Slide the wiretap onto the pin 2 wire (the second one from the right in Fig. 7), and lock it. If it's the right gauge, it should cut into the plastic on the wire and make a connection with the copper, but if you're not sure you can use a volt meter to test it (touch the red probe to the metal part of the wiretap or the CIC side of the illumination wire, touch the black probe to a grounded element on the car, i.e. a metal piece that's connected to the chassis of the car, there's some right inside the CCC cavity and turn the car and headlights on. You should see about 12V on the voltmeter). Make sure the wire doesn't move around in the wiretap since it might lose connection every time the wire moves (I used some electrical tape to make extra sure it didn't move).

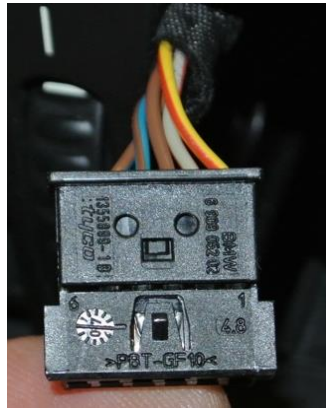


Figure 7 Hazard/Door Lock Switch Connector

Now, on the CIC side, you'll need to insert the pin that's connected to the illumination wire to the right spot on the big black connector. If you look carefully on the connector (the side without the wires) you should see numbers. Find pin slot 14 (there's a number for 13, the next is 14), it should be empty (blank) (Fig. 8, Item 1). That's where you need to insert the pin. To do this, you'll need to remove the blue color retainer (Fig. 8, Item 2), by pressing down on the tab (there's a little blue tab on it towards the wired side that you'll need to press down towards the flat side). Once you press down on that, use your thumb to pull on the blue piece (pull it to the side of the connector, the same side that you're pressing down on the tab on). It'll slide right out. Be careful not to dislodge the other pins by pulling the cables at this point. Next, insert the pin into the correct slot (pin slot 14) with the slightly thicker side facing away from the other wires and the open side facing towards the other wires. It should slide all the way down. Once it does, put the blue retainer back in place by sliding it in and the wires should be locked in. Take a look at the flat-side of the connector to confirm you can see the pin and it looks like the other pins.

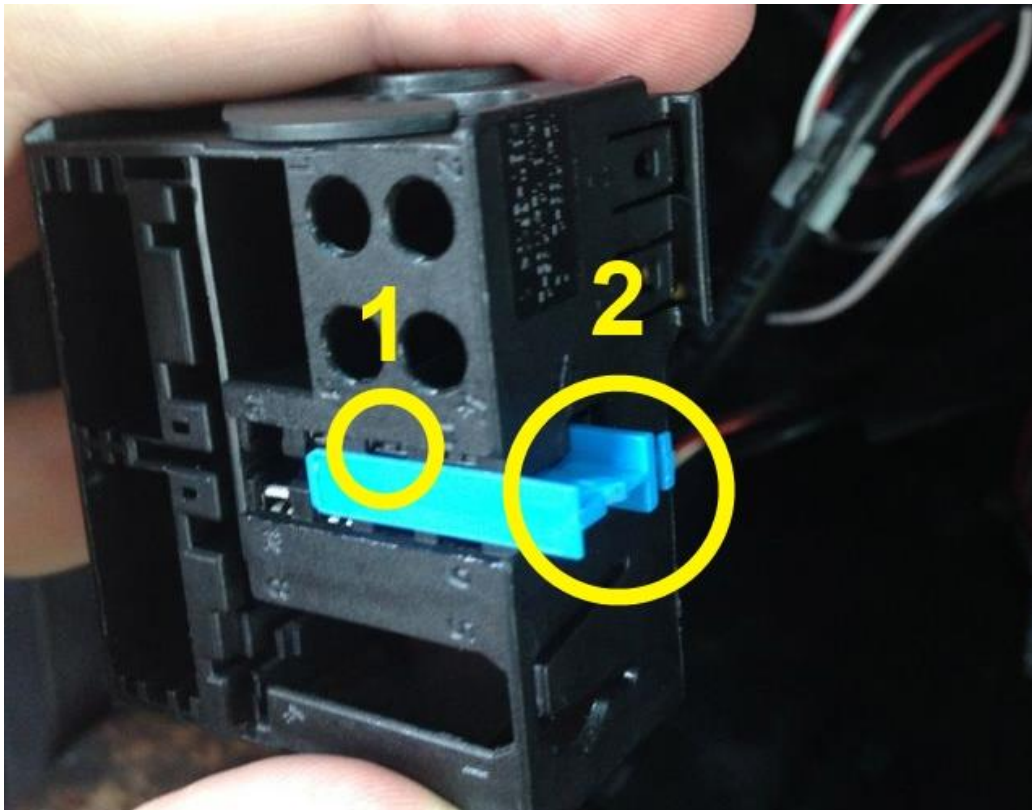


Figure 8 CCC/CIC Main Connector

Next, plug in the blue (Fig. 6, Item 2) and small black (Fig. 6, Item 3) connectors to the blue and black receptacles on the CIC. Tuck the other wires except the big black connector away (so the very small black connector with the brown and white wires, as well as the metal connector with the light blue). You might consider taping the heads of the extra connectors up with electrical tape just in case.

Now, route the cable with the purple connectors (Fig. 6, Item 4) that belong to the CIC display from the display cavity down into the CIC cavity. Only one of the connectors connects to the purple receptacle on the CIC, make sure you route that side down. Connect it to CIC and leave the majority of the length of the cable on the display side. You'll connect it to the display later.

Then, reconnect the big black connector (Fig. 6, Item 5) to the CIC. Again this will be tricky, as you'll need to rotate the connector (it goes in upside down on the CIC relative to how it was connected to CCC) and move the CIC close enough so that the connector reaches and you can still fit your hand. Line the connector up with the black rotating retainer facing down (towards the bottom of the CIC) and make sure the retainer is as far horizontal as possible. Once you slide the connector into place, you'll feel that there's no more room to push it in. At this point, rotate the black retainer downwards and all the way snug with CIC. It'll lock in there and the connector shouldn't move anymore at this point.

Finally on the CIC side of things, line up the CIC with cavity. There are two diamond shape pieces of plastic on the sides that should line directly up with the rails in the cavity. Slide it all the way back so that the protruding metal with the screw holes is flush against the plastic of the dashboard. It may not slide all the way, in which case you'll need to push it up a bit at the end and it should then fall into place. At this point you can screw the CIC back in and refit all of the trim, but I'd recommend waiting until you've coded it and verified everything is working fine before doing that. Most likely you'll need to fix something you missed, etc.

And finally on the CIC display side of things, connect the purple connector that you routed from CIC to the purple receptacle on the CIC display. Now, take the black connector with the grey retainer and find the tab on the side (pictured below) that allows you to remove the outer layer. Push the tab (Fig. 9, Item 1) in with a screwdriver and pull the actual connector out of the outer layer.

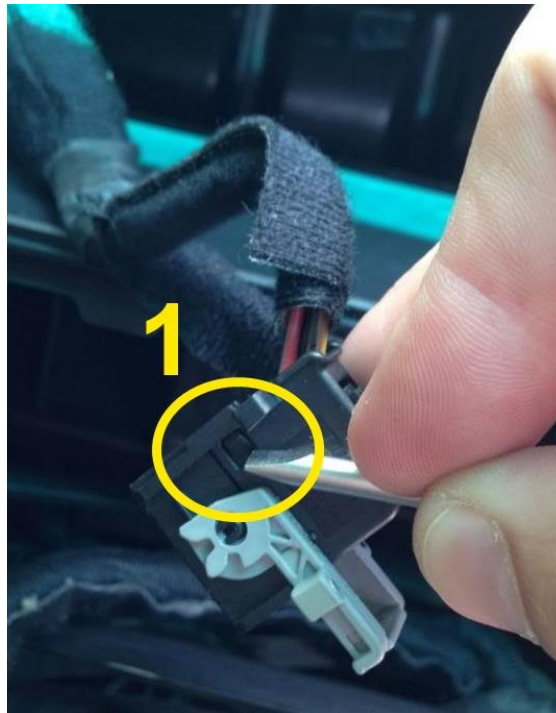


Figure 9 CCC Display Connector Tab



Figure 10 Actual connector slipping out of outer layer

Once you do you should end up with a connector that looks like this (Fig 11):

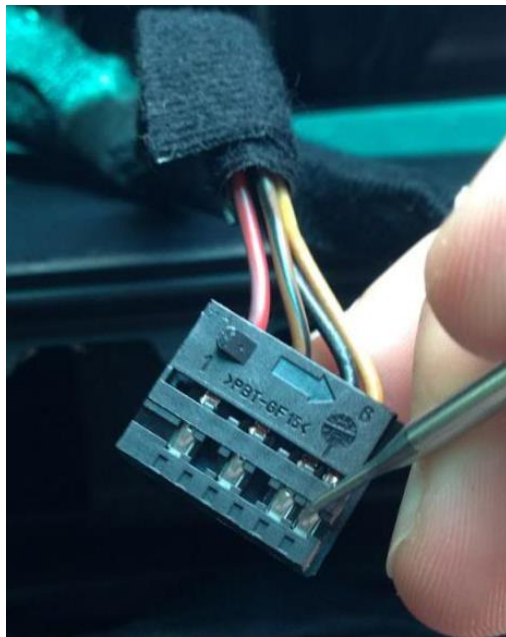


Figure 11 Actual connector and pins to push in

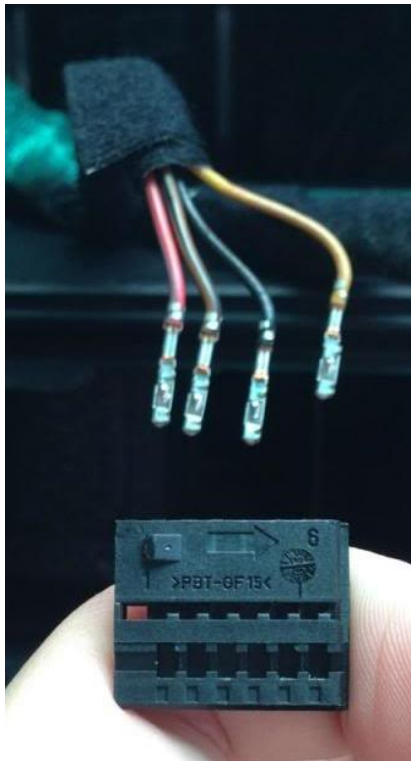


Figure 12 Wires pulled out of actual CCC display connector

Push down with a screwdriver on each of the little pins and pull them out by the wire. Once you've removed them all you'll need to plug them into the new connector like so (Fig. 13 & 14) (red wire to pin 1, brown wire to pin 3, black to pin 5, yellow to pin 6):

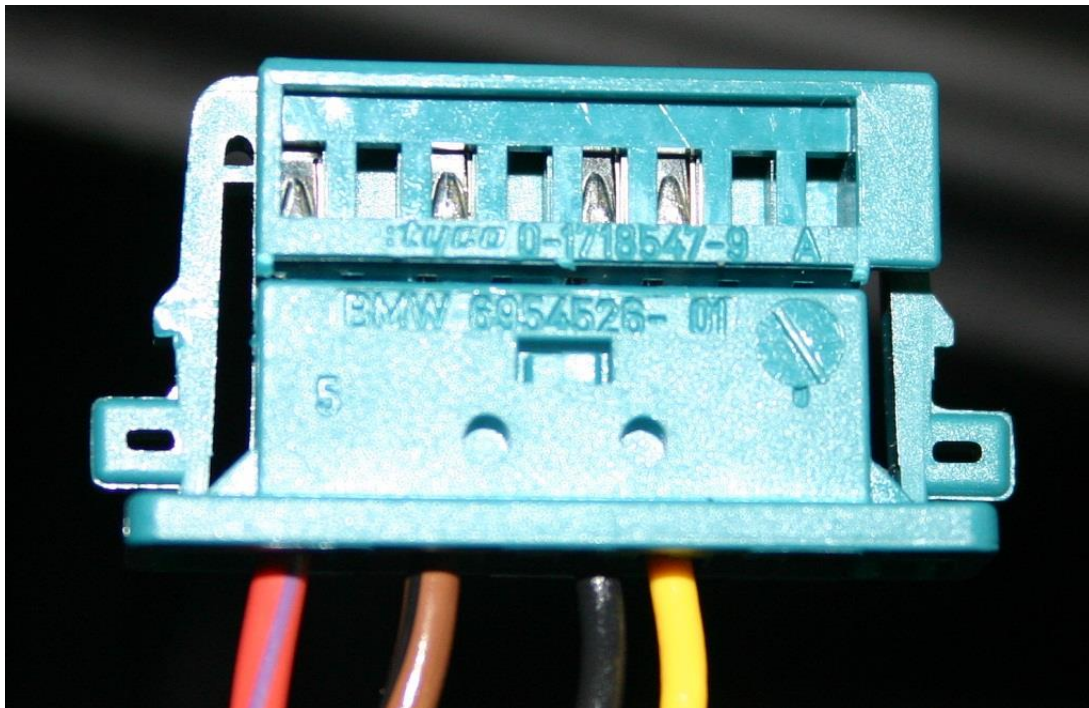


Figure 13 New pin layout on new CIC display connector

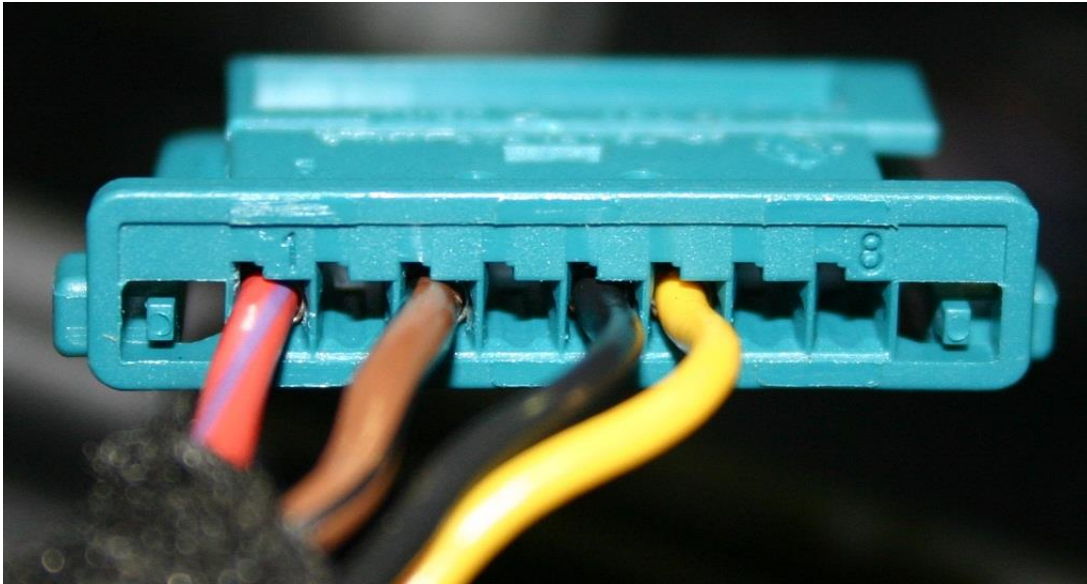


Figure 14 New pin layout on new CIC display connector - Different angle

Once you've connected all the pins to the new connector, plug the connector into the display next to the purple connector. Optionally you can try to fit the cables into the organizing hooks on the display. Finally, place the display back into the cavity by setting the bottom down inside first, then rotating the top of the display towards the front of the car. It should go in all the way and look like it did prior to removing the CCC display. Screw the display back in.

Take another break here :) I thought removing the TCU/MULF and installing the Combox would be relatively painless and quick. I was wrong.

COMBOX RETROFIT

REMOVING TCU/MULF

To remove the TCU/MULF, you'll need to remove your back seat bottoms, back seat rests, back headrests and optionally seatbelts. To do that, first remove the armrest piece that covers the ski hole. You can do that by pulling on the little tab halfway up the center of the back seats. Then, grab the rear seat bottoms from underneath the front and pull up. You should hear a sound as it unhooks. Do the same on the other side. The rear seats should now be loose and can be removed from the car.

Next, remove your back headrests. This can be VERY difficult. Do NOT try to pull them off by holding on to the headrests themselves. Reach under and you'll feel a stiffer piece on the underside which you should use to pull them off. In my case, one of them came out without too much effort. The other one refused to come out and I ended up carefully fitting a metal bar between the headrest and the seat and levering it up and off with a lot of force.

Then, unscrew the two nuts that hold the backrests in place. They're located at the bottom of the backrests, where the seat bottoms were, towards the middle of each backrests. These can really only be opened with a **socket** wrench. Don't try using other types of wrenches, they'll just wear the nut down and make life difficult.

Once you've removed the two nuts the seats are free to be pulled out, however the seat belts still hold them in. At this point you can choose to either remove the seat belts or just fold the seats downwards (carefully, don't break the tabs where the nuts bolt onto) and keep them there. You'll have to reach over more if you do it this way, since I wouldn't recommend sitting on the back rests, but it seemed like less effort than removing the seat belts (plus I didn't want to somehow screw up the seat belts and find out the hard way).

Now that you've removed or folded down the rear seats, you should see one or two metal boxes that look similar to the Combox, depending on what your car was equipped with. When facing the back of the car, the one on the left is the MULF. The one on the right is the TCU. The MULF has a blue connector along the top, the TCU has a white connector. Take note of these as you'll need to know which is which when you install the Combox.



Figure 15 TCU



Figure 16 MULF

Remove the light blue connector (Fig. 17) from the MULF by pushing in the tab that locks in the white retainer (next to the white retainer on the top). Rotate it downwards and the connector should pop out. Next, remove the MOST cable (the one with the green wire and black wire, Fig. 17) by pulling it out upwards. Be careful, don't bend the MOST cables too much otherwise they'll break and it'll be a pain to replace them. Then, remove the white (Bluetooth antenna) and black (USB Hub) connectors (Fig. 18) from the bottom of the MULF by pulling them down. Finally, remove the four screws that hold the MULF in place and set the MULF aside (you can't use the MULF at the same time as the Combox).

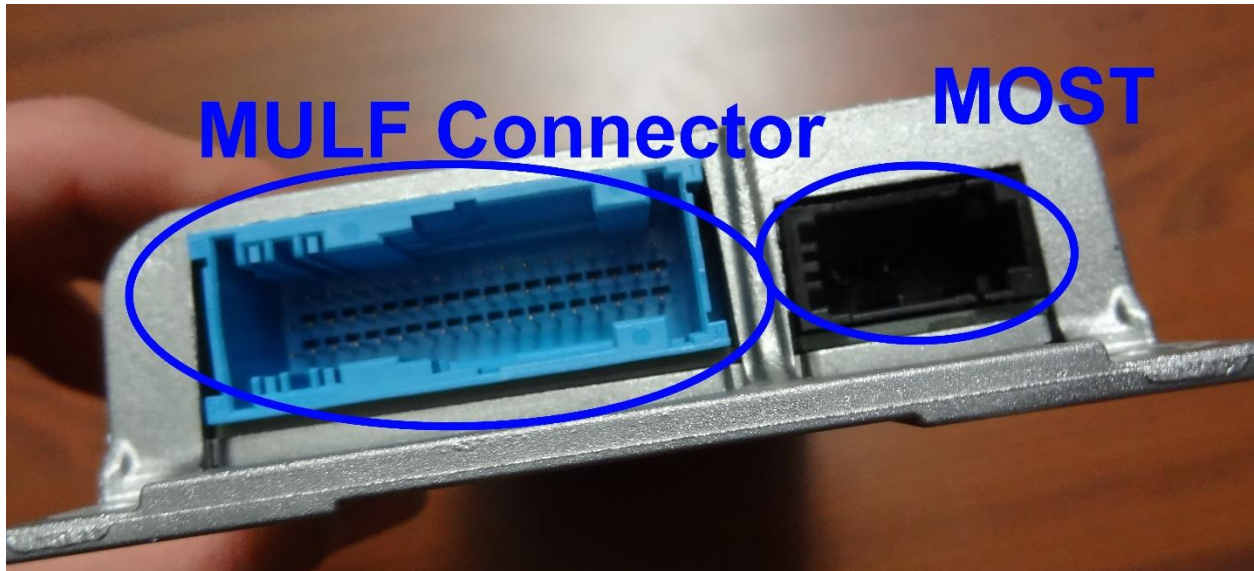


Figure 17 MULF and MOST connectors



Figure 18 MULF Bluetooth and USB connections

At this point, you might have a USB Hub (Fig. 19) underneath your MULF which was connected to the wire with the black connector. Remove the frame that the hub is mounted on and unscrew the USB hub. Further down you will decide what to do with the hub.



Figure 19 USB Hub originally connected to MULF

Next, terminate the MOST connector that was connected to the MULF, by using a MOST terminator (Fig. 20). To do this, remove the protective piece, then slide in the MOST connector into the terminator. Tuck this cable away carefully so it doesn't break.



Figure 20 MOST terminator



The next step is to remove the TCU. First, remove the white connector (Fig. 21) by pushing in the tab at the top (near the white retainer) and rotating the retainer downwards. The connector will pop out. Then, remove the MOST connector (Fig. 21) by pulling it upwards carefully (don't break it by bending it too much, replacing it would be painful). Next, pull out all four connectors from the bottom of the TCU. If you're not installing a Combox Telematics (i.e. you ARE installing Combox Media), then you won't need these cables anymore, so tuck them away. Otherwise keep them handy. Finally, unscrew the four screws that hold the TCU in place and put it away, you can't use it at the same time as the Combox.

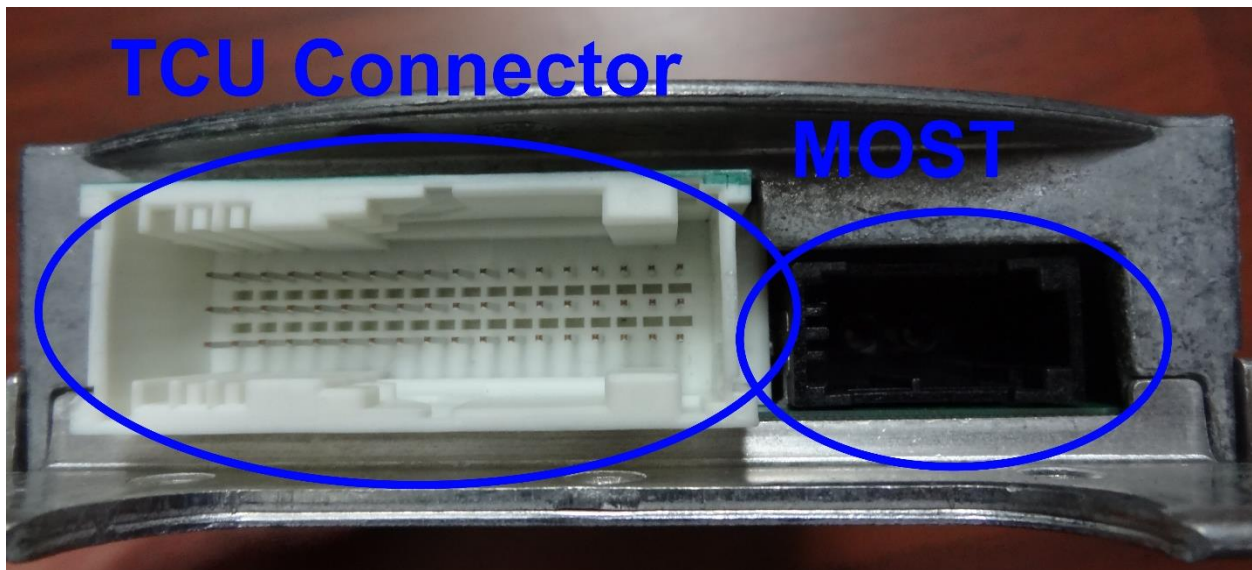


Figure 21 TCU connections

INSTALLING COMBOX

Now you'll start installing the Combox. The first step is connecting the big blue and white connectors that were connected to the TCU and MULF to a Y adapter and plugging that into the Combox (Fig. 22, Item 1). If you ordered from Mike Benvo's [BPM Sport.com](http://BPMSport.com), then he's supplied this. One of the two male connector on the Y adapter has four wires that are right next to each other and a fifth that is on the far side of the connector. That one connects to the blue MULF connector. Just rotate the white retaining clip up and lock it, THEN line it up and push it in. Make sure to push it straight to avoid bending pins. Do the same with the other male connector and the white TCU connector. If you didn't order from Mike, you'll need to look at the pin numbers on the blue MULF and white TCU connectors and match them up according to Tables 1-3 (Rows in red are for Combox Telematics only). Note that depending on where you read and where you get the Y adapter, the pinning might be slightly different. (In fact, Mike's Y adapter uses a ground pin from the TCU instead of the MULF, so there's no pin 36 coming from the MULF to the Combox. Instead there's a fifth pin from the TCU). If you're installing Combox Telematics there are extra pins that need to be connected from the TCU connector to the male side of the Y adapter and subsequently to the Combox side of the Y adapter.

Table 1 TCU & MULF to Combox wiring

When vehicle has both a TCU and MULF (Rows in red are Combox Telematics Only)			
Combox X34130	Signal	MULF2HI X14133M	TCU X14133T
1	Power T30	17	
2	Power T30	17	
3			
4			
5	CAN HIGH		Connect PDC Module
6	CAN LOW		Connect PDC Module
7	TEL CRASH		15
8			
9			
10	AUX GND	22	
11	MIC BLNC		21
12	MIC-		19
13			
14	Ground	36	
15	TEL Wake Up		33
16			
17	NOTRUF L		50
18	NOTRUF S		31
19			
20	LS NOTR-		38
21	LS NOTR+		37
22	AUX BLNC	23	
23	AUX NF L	4	
24	AUX NF R	5	
25	MIC+		1

Table 2 TCU only to Combox wiring

When vehicle only has a TCU (Rows in red are Combox Telematics Only)		
Combox X34130	Signal	TCU X14133T
1	Power T30	17
2	Power T30	17
3		
4		
5	CAN HIGH	Connect to PDC Module
6	CAN LOW	Connect to PDC Module
7	TEL CRASH	15
8		
9		
10	AUX GND	Connect pin from AUX connector if added
11	MIC BLNC	21
12	MIC-	19
13		
14	Ground	36
15	TEL Wake Up	33
16		
17	NOTRUF L	50
18	NOTRUF S	31
19		
20	LS NOTR-	38
21	LS NOTR+	37
22	AUX BLNC	
23	AUX NF L	Connect pin from AUX connector if added
24	AUX NF R	Connect pin from AUX connector if added
25	MIC+	1

Table 3 MULF only to Combox wiring

When vehicle only has a MULF (Rows in red are Combox Telematics Only)		
Combox X34130	Signal	MULF2HI X14133M
1	Power T30	17
2	Power T30	
3		
4		
5	CAN HIGH	
6	CAN LOW	
7	TEL CRASH	
8		
9		
10	AUX GND	22
11	MIC BLNC	Connect pin from added mic
12	MIC-	Connect pin from added mic
13		
14	Ground	36
15	TEL Wake Up	Not connected
16		
17	NOTRUF L	
18	NOTRUF S	
19		
20	LS NOTR-	
21	LS NOTR+	
22	AUX BLNC	23
23	AUX NF L	4
24	AUX NF R	5
25	MIC+	Connect pin from added mic

Next step is to connect the MOST connector that used to connect to the TCU and connect it to the Combox (Fig 22, Item 2). Just slip it in to the receptacle on the top of the Combox (be careful not to break it).

At this point you need to decide if you're using the USB hub or not (as mentioned earlier). When connecting these to the Combox you have two options: connect them via the USB hub (you'll need to figure a way to fasten the USB hub down) or connect them directly to the Combox (you'll need to shave off one notch on the white connector to do that, you can do this with a razor/exactknife).

If you're connecting them directly to the Combox, remove the wires with the blue and white connectors. Then disconnect the small black connector from the USB hub and remove the hub.

If you're connecting them via the USB hub, keep the blue and white connectors plugged in as well as the black connector.

Now, you'll need to route the USB wires and Bluetooth antenna wire (the smaller white connector) (and if you're using the USB hub, the small black connector with the brown and red wires as well as the hub itself) from the left side of the car, to the right side. To do this, you have to unwrap the sticky tape that keeps the wires bundled together as well as undoing the wide cable tie on the right side of the car that holds the wires down (you'll need to undo the cable tie to avoid bending the green MOST cable too much and risk breaking it). You'll need to pass it under the thin leather that covers the area beneath the ski hole. Alternatively you can buy an extension cable for the USB wires (technically HSD cables I believe).

Now that you have your USB cable(s) on the right side of the car, you'll need to plug them into the bottom of the Combox. If you're using the USB hub, just connect the black connector to the black receptacle on the Combox and leave the blue empty. If you're connecting the cables directly to the Combox, plug the blue connector into the blue receptacle on the Combox (Fig. 22, Item 3), then look at the black connector from the USB hub and compare it with the white connector. There's an extra notch on the white connector, remove it with a razor/exactknife and then it should plug into the black receptacle on the Combox (depending on how smooth a job you do, it'll go in smoothly or will require extra force (Fig 22, Item 4).

Finally, connect the small white Bluetooth antenna connector to the white receptacle on the far left of the bottom of the Combox (Fig. 22, Item 5). The notches aren't quite correct on this connector, so you can either shave a notch into the connector itself in the right place, or you can push very hard and it'll just go in (and it'll work just fine).

Before you close everything back up, do the coding and make sure everything is working. It could save you a lot of trouble.

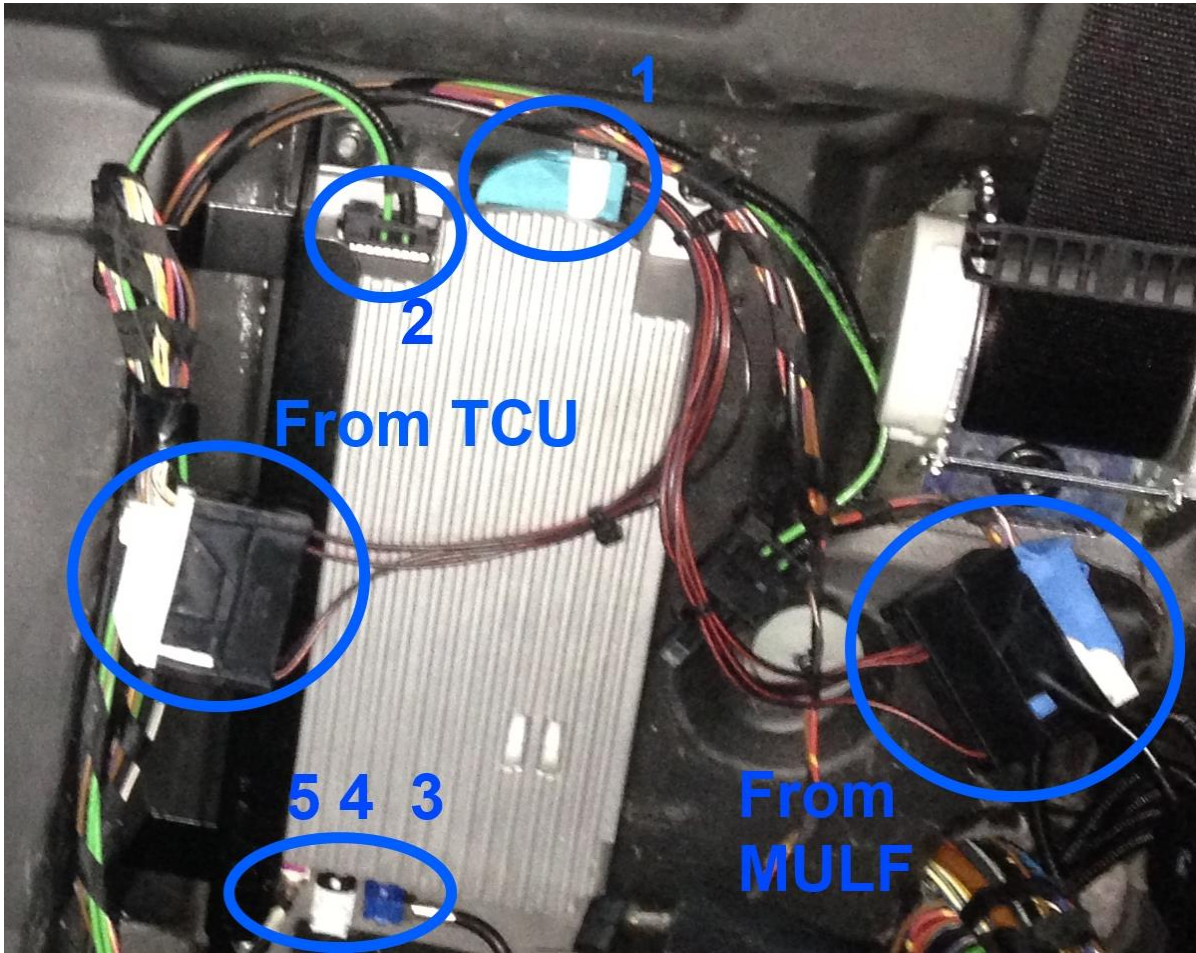


Figure 22 Combox installed

CODING

For the coding, since I had bought the retrofit kit from Mike, he personally did the coding for me via a remote session. Basically, I bought the USB/OBDII interface cable as part of the retrofit package and Mike sent me links to a virtual machine that I downloaded (download was super-fast). He included a copy of VMWare Player that you can install and load the virtual machine into. Additionally, you install TeamViewer so that he can remote in and use the virtual machine.

Scheduling was super easy. I was ready on Saturday morning to do the coding so I asked him the night before if he was available and he was. Saturday morning I readied up my laptop and parked my car in a place with good wireless reception (required for the remoting) and he connected in and started the coding.

My car turned out to be a bit strange in that it had a specific option for CCC that most cars with CCC don't have and was preventing the normal CIC coding from working, but Mike quickly figured it out (less than 10 mins.) and had the CIC going and started on the Combox. By this point I think it had been less than an hour.

So he started the Combox coding and we hit a snag that we couldn't figure out. He was incredibly patient and persistent about trying to figure it out and tried a ton of different things for the next 2 hours or so but the Combox just wasn't working (Bluetooth and all the ConnectedDrive settings would keep saying loading). I was ready to give up an hour before :D Then I mentioned that I hadn't put the center console trim back in yet or reconnected the cables for the AC controls (like the idiot that I am, I had left that off thinking it wouldn't have anything to do with the coding, since I still hadn't routed the illumination wire and glovebox USB at that point). Turns out that was the thing that was preventing the coding for the Combox from working. Needless to say I felt stupid having wasted several hours of his time. He was very friendly and polite about it and quickly finished the rest of the work as well as throwing in some coding extras. By the time he finished everything seemed to be working.

I noticed later that the iPod/Smartphone cradle was showing up in iDrive but wasn't working so I messed around a bit and tried to figure out if I had done anything wrong. I couldn't find anything so we scheduled the following Saturday (I was busy during the week) and he spent another 2 hours working on figuring that out and we figured out that it should be working except that the cradle I had doesn't work with CIC, because BMW never bothered to make a CIC version of the iPod cradle, but a CIC version of the iPhone cradle should work. Refer to this page to see the different versions (notice how there's no iPod Touch adapter that has Control for Combox = Yes, which is required for a CIC/Combox Smartphone cradle): http://realoem.com/bmw/showparts.do?model=PM93&mospid=51057&btr=84_0897&hg=84&fg=95

WRAP UP

To wrap up, I put the seat backs back in place, screw them back in, put back the headrests and put the seat bottoms back in. Then I screwed in CIC and put in the new center console trim and the ventilation trim. It took me a while to figure out the correct part number for the Carbon Fiber center console trim for CIC equipped cars, so for everyone else that will want it, it is: 51457903919.

It's worth noting that the pictures at realoem.com are a bit misleading because they seem to imply that the CIC one is the one with the oddments tray (because it only has one DVD slot), but in reality that is for MASK equipped cars (51458046532, which is the wrong part). The part that comes in pre-2007 CCC equipped cars is 51458041742 and 2007-2008 CCC equipped cars is 51458046531. Again, CIC equipped cars need this part: 51457903919. Pay close attention to this as they're not interchangeable. (http://realoem.com/bmw/showparts.do?model=EH93&mospid=49343&btr=51_5121&hg=51&fg=30)

If you do want to use the old CCC trim with your new CIC, you'll have an ugly second DVD slot that shows the CIC metal through it. You'll also need to saw off a long plastic piece that protrudes from the back of the trim on the left side, next to the volume control knob.

TOOLS

- Plastic trim removal tool
- Painter's plastic sheeting
- Small Allen wrench
- Torx (T20?)
- Socket wrench
- Phillips screwdriver
- Flathead screwdriver

RESOURCES & CREDITS

- BMW TIS or <http://www.m5board.com/vbulletin/e63-bmw-m6-forum-bmw-m6-convertible-m6board-com/219577-how-remove-center-console.html#post2539729>
- 2010 CIC install in 2006 M5 Pictorial - <http://www.m5board.com/vbulletin/e60-m5-e61-m5-touring-discussion/160673-2010-cic-install-2006-m5-pictorial.html>
- What it really takes for a CIC retrofit ... (DIY, Complete! Coding files included) - <http://www.bimmerfest.com/forums/showthread.php?t=711172>
- Guide for removing center console trim with good pics - http://www.carcommunications.co.uk/image/data/SPEC.DOCK/e63_install.pdf
- Combox Retrofit - See Instructions for Exx PDF - <http://www.m5board.com/vbulletin/e63-bmw-m6-forum-bmw-m6-convertible-m6board-com/303825-combox-retrofit.html#post3764865>
- 2008-2009 CIC Illumination Fix - <http://www.m5board.com/vbulletin/e60-m5-e61-m5-touring-discussion/205509-2008-9-cic-illumination-fix.html>
- CIC Retrofit Part Numbers - A bit outdated, but still helpful - <http://www.m5board.com/vbulletin/e63-bmw-m6-forum-bmw-m6-convertible-m6board-com/207631-cic-retrofit-part-s.html>
- 2010 CIC Retrofit Installation LOG - More part numbers - <http://www.m5board.com/vbulletin/e60-m5-e61-m5-touring-discussion/158500-2010-cic-retrofit-installation-log.html>

NOTES

- Part number for center console trim for CIC equipped vehicles is 51457903919 (http://realoem.com/bmw/showparts.do?model=EH93&mospid=49343&btnr=51_5121&hg=51&fg=30)
- There is no iPod Touch cradle that's compatible with CIC/Combox. There are new CIC/Combox capable cradles for iPhones.
- USB hub is not required, you can plug the USB wires directly into Combox
- Illumination wire is required for LCI vehicles, make sure there's a connection with a properly sized wiretap
- E63s have an empty pin 14 on the big black CCC/CIC connector where the illumination wire is supposed to tap into. Instead they need a pin.
- Plug in the ventilation piece when coding! Not doing so can result in Combox coding failure.
- Glovebox USB is very hard to get in properly, need to fold the cable on itself straight into compartment.
- If you want to reuse your old trim, saw off the protruding plastic pin near the volume control knob on the back of the trim piece
- Be careful with MOST cables as they can break (screwing up your whole car's network) and are difficult to replace