

Installation location

The Car Communication Computer (CCC) is located in the centre console.

Construction

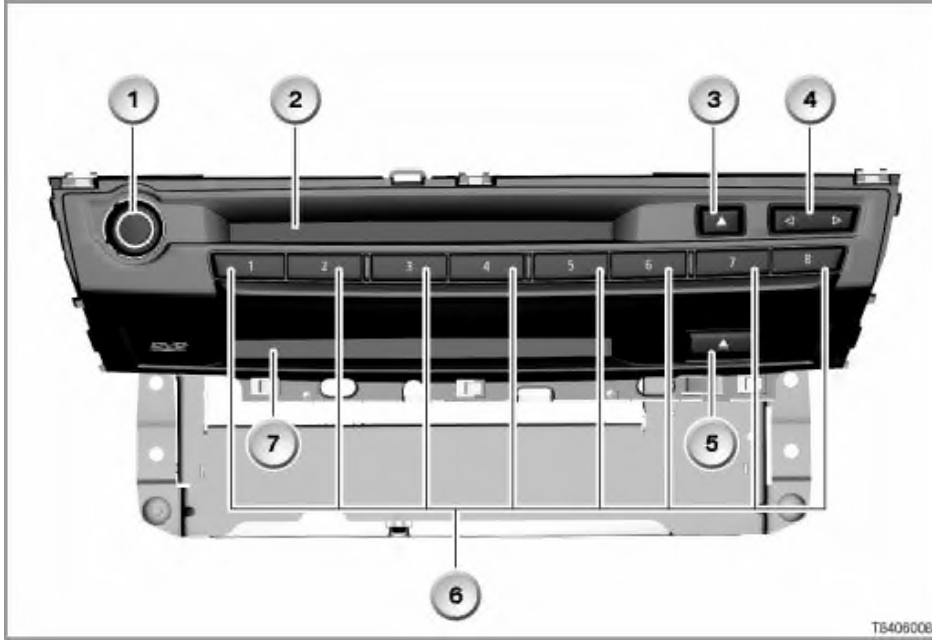
> E60, E61, E63, E64, E87, E90, E91, E92



The illustration shows the example of the CCC on the E60.

Item	Description	Item	Description
1	Rotary push button for switching on and off and for adjusting the volume.	2	Slot for audio CD or for CD-ROM (MD on Japanese version)
3	Slot for DVDs	4	Eject button for audio CD or for CD-ROM/MD
5	Search rocker switch	6	Eject button for DVD
7	Cover panel for extension with PCMCIA card		

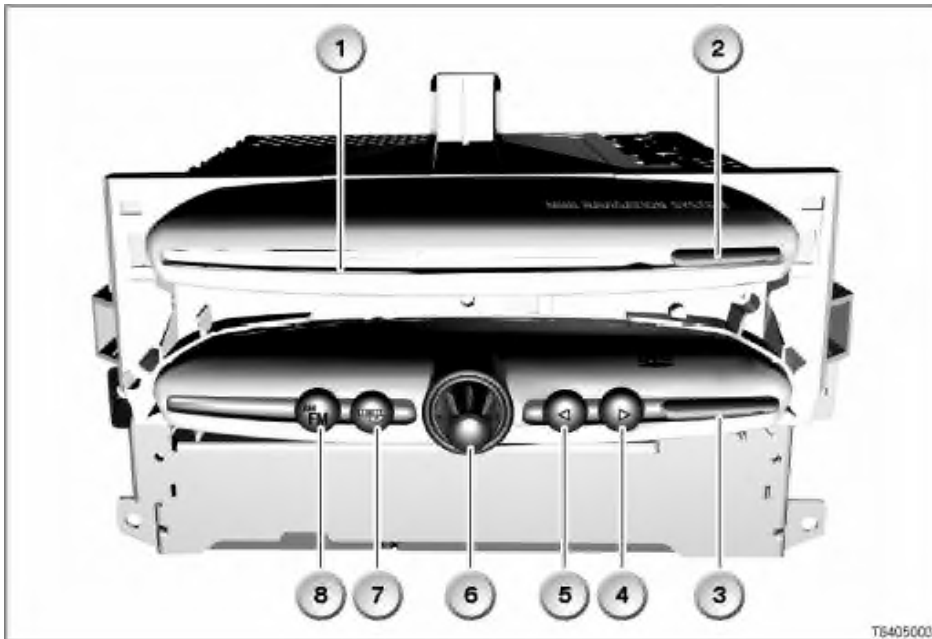
> E70 and E93 from start of series production



The illustration shows the example of the CCC on the E70.

Item	Description	Item	Description
1	Rotary push button for switching on and off and for adjusting the volume.	2	Slot for audio CD or for CD-ROM (MD on Japanese version)
3	Eject button for audio CD or for CD-ROM/MD	4	Search rocker switch
5	Eject button for DVD	6	8 favorites buttons
7	Slot for DVD		

> R56

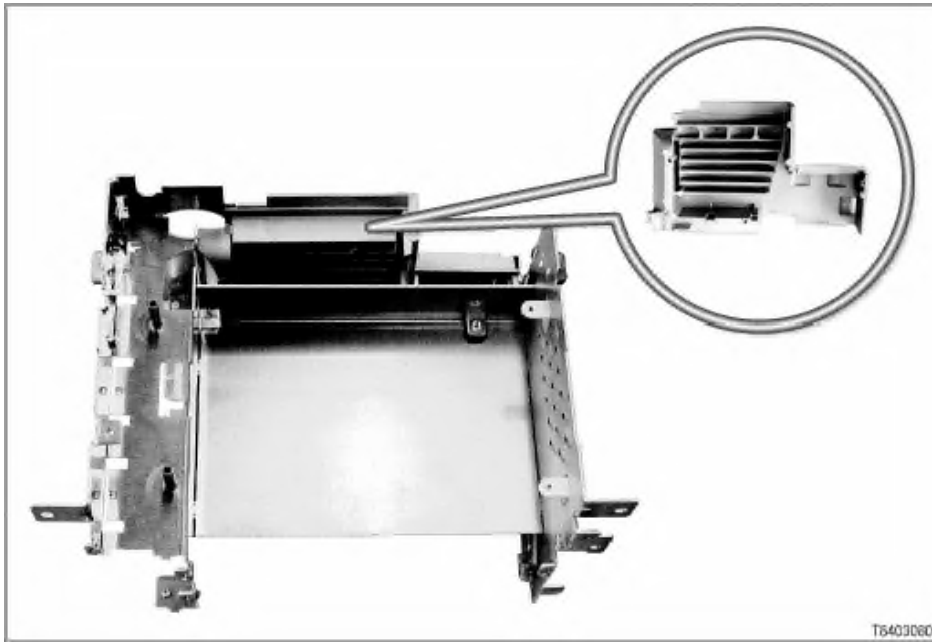


Item	Description	Item	Description
1	Slot for audio CD or for CD-ROM	2	Eject button for audio CD or for CD-ROM
3	Release button for removable control panel	4	

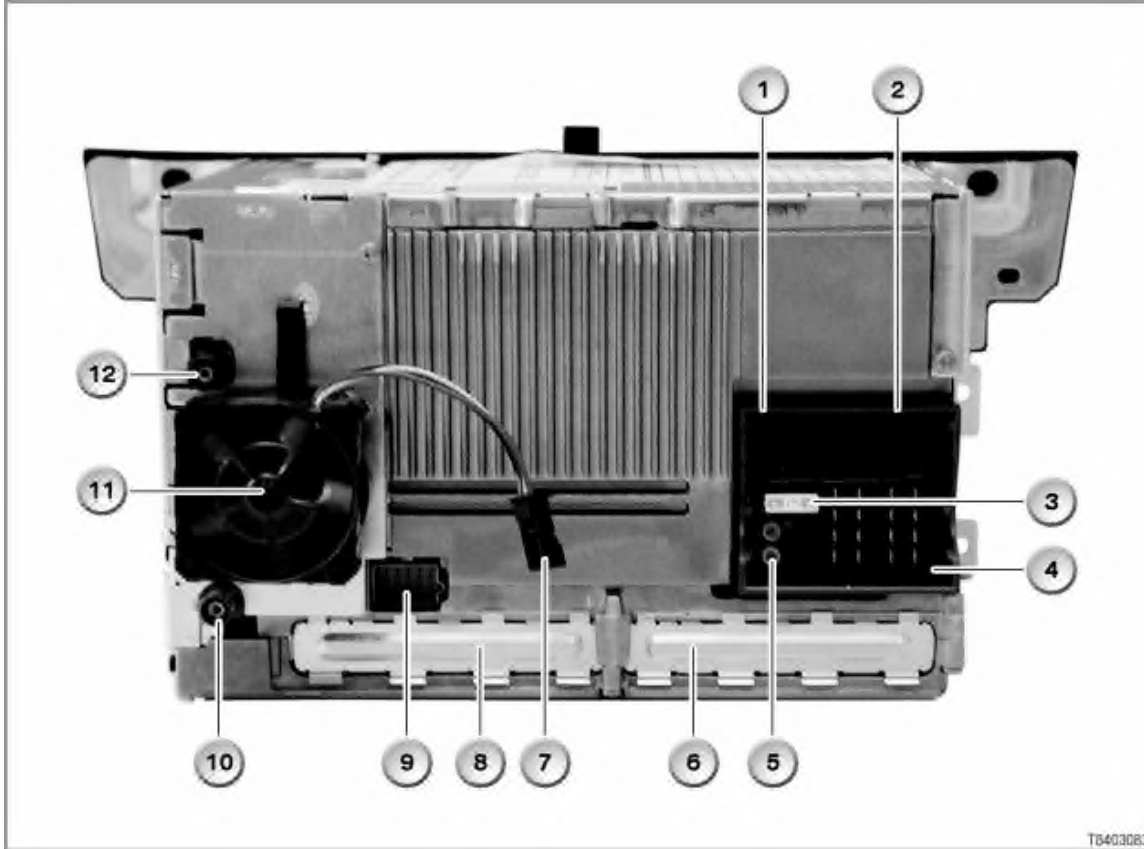
			Change radio station or track, or search "forwards" (function depends on the audio source selected)
5	Change radio station or track, or search "back" (function depends on the audio source selected)	6	Rotary push button for switching on and off and for adjusting the volume.
7	Mode button (to select audio source)	8	FM button and AM button (change frequency)

The Car Communication Computer (CCC) has a pressure-cast aluminium housing. The housing is a combination of pressure-cast aluminium and aluminium plate sheet. In the pressure-cast aluminium sections, there are air ducts for cooling the components.

The following illustration shows the CCC housing with air duct.



- Pin assignment



The illustration shows the example of the CCC on the E60.

Item	Description	Item	Description
1	Connector X13813, 12-pin	2	Connector X13814, 12-pin
3	Fuse	4	Connector X13812, 16-pin
5	MOST bus connection, connector X13815, 2-pin	6	Cover panel for PMC 1 extension card
7	Connection for electric fan	8	Cover panel for PMC 2 extension card
9	LVDS (Low Voltage Differential Signalling) connection, connector X13820, 10-pin > E70:connector X10772	10	GPS aerial connection (Global Positioning System), connector X13817, 2-pin
11	Electric fan	12	Radio aerial connection, connector X13816, 2-pin

Pin assignment for connector X13812, 16-pin black

Pin	Type	Description
1	A	Positive wire to loudspeaker, rear right
2	A	Positive wire to loudspeaker, front right
3	A	Positive wire to loudspeaker, front left
4	A	Positive wire to loudspeaker, rear left
5	A	Negative wire to loudspeaker, rear right
6	A	Negative wire to loudspeaker, front right
7	A	Negative wire to loudspeaker, front left

8	A	Negative wire for loudspeaker, rear left
9	E/A	K-CAN Low
10	E	Radio mute
11	E/A	K-CAN High
12	M	Terminal 31
13	A	Switch signal for TOP-HiFi amplifier and aerial diversity ON
14	E	Terminal 58g, locating light
15	V	Power supply, terminal 30g-f > E60, E61, E63, E65 until 09/2005: Terminal 30g
16	---	---
<p>A = Output E = Input E/A = Input and output M = Earth V = Supply For current specifications regarding pin assignments, please refer to BMW diagnosis system</p>		

Pin assignment for connector X13813, 12-pin

Pin	Type	Description
1	A	Power supply for fan
2	E	Positive wire for additional audio input, left
3	A	Positive wire for bass loudspeaker, left
4	A	Positive wire for bass loudspeaker, right
5	A	Earth connection for fan
6	E	Positive wire for voice signal
7	E	Positive wire for additional audio input, right
8	A	Negative wire for additional audio input
9	A	Negative wire for bass loudspeaker, right
10	A	Negative wire for bass loudspeaker, left
11	E	Signal wire for fan (for diagnosis)
12	A	Negative wire for voice signal
<p>E = Input A = Output For current specifications regarding pin assignments, please refer to BMW diagnosis system</p>		

Pin assignment for connector X13814, 12-pin

Pin	Type	Description
1	A	Positive wire for microphone (discontinued from 09/2005)
2	E	Negative wire for RGB signal
3	E	Signal wire for RGB red

4	E	Signal wire for RGB green
5	E	Signal wire for RGB blue
6	A	Negative wire for microphone (discontinued from 09/2005)
7	E	Signal wire
8	A	Signal wire
9	E	Signal wire
10	A	Signal wire
11	E	Signal wire
12	E	> E60 until 09/04: Speed signal for acoustic warning, depending on national version > E60 from 00/04 and E61, E63, E64, E87, E70, E90, E91, E92, E93, R56 Speed signal via K-CAN. This PIN is no longer used.
E = Input A = Output For current specifications regarding pin assignments, please refer to BMW diagnosis system		

Pin assignment for connector X13815, 2-pin

Pin	Type	Description
1	E	MOST bus
2	A	MOST bus
A = Output E = Input For current specifications regarding pin assignment, please refer to BMW diagnosis system		

Pin assignment for connector X13820, 10-pin; (E70:connector X10772)

Pin	Type	Description
1	A	Positive wire for RGB blue signal
2	A	Negative wire for RGB blue signal
3	---	---
4	A	Positive wire for RGB green signal, including synchronous pulse
5	A	Negative wire RGB green signal, including synchronous pulse
6	A	Positive wire for timing signal
7	A	Negative wire for timing signal
8	---	---
9	A	Positive wire for RGB red signal
10	A	Negative wire for RGB red signal
A = Output For current specifications regarding pin assignments, please refer to BMW diagnosis system		