

Supplement: Make a DB25-to-54-pin Adapter

- **Model & Year:** Pre-'03 BMWs
- **Expertise:** Intermediate
- **Date:** January, 2019
- **Updated:** October 1, 2021
- **Time Estimate:** varies

7 Series ^{E38}

Tools Required

- Wire snips
- Soldering iron
- Other basic hand tools

Facilities Needed

- Work Bench

Parts Required

- (1) DB25 Connector
- (1) BMW 54-pin Connector
- Misc Wiring and Connectors
- Heat-Shrink Tubing

Getting Started



Installing a factory Bluetooth TCU or ULF in your pre-2003 BMW will require adapting your car's DB25 telephone connection to fit the modern 54-pin receptacle found on TCU/ULF modules. From 2003, BMW dispensed with DB25-type connections in favor of the 54-pin type.

Unfortunately, BMW discontinued their stock adaptor (p/n 84-12-0-308-375, image above) sometime in 2018. While an occasional factory adaptor may appear on eBay (used), in all likelihood you will have to build your own. Although this task is not difficult, it does require patience and effort.

DB25

Several online electronics stores sell this common type of electrical connector. (Old computer printers used this connector type.) Perform an online search to locate one. Another option is to snip a DB25 from a BMW salvage yard. In this case, you'll need to open the connector and its sheath in order to identify the wires by matching them with their respective pins. A "pin tool" may also be used to remove and insert pin wires in the DB25 plug as needed. To locate a pin tool, perform an online search using keywords "DB25 pin tool" (about \$5).

54-Pin

BMW offers this part new as a kit, but with separate wiring terminals:

- 54-Pin Kit.....61-13-2-471-244 (\$14.39)
- Socket Terminals (x12).....61-13-8-369-696 (\$0.28 ea)

This kit is also available from VW/Audi with part number 4E0 972 144 (not including wiring) and sold by a variety of online stores such as [ECSTuning](#) and [AliExpress](#).

As with the DB25, it may be easier to snip a connector from a BMW salvage yard (with about 1 foot of attached wiring). This way you have both the wires and terminals needed. Afterward, all that's required is to match those wires with the DB25.

Wire Supplies

If needed, wiring supplies are commonly available both online and at many retail stores.

Procedure

After collecting the needed parts, pin the wires using the following schematic:

DB25	54 Pin	Description
3	36	Ground (KL31)
4	17	Power (KL30)
5	35	Power w/key position 1/2 (KLR)
10	51	Radio Mute
11	32	Pairing Button (for ULF, optional for TCU)
14	19	Mic (-)
15	1	Mic (+)
19	37	Speaker (+)
20	21	Mic (-) Shielded Ground
21	33	Telephone ON
22	15	I-BUS
25	38	Speaker (-)

When making wire connections, strip 1/2" off the ends of each wire and twist them together, inline. Then apply a dab of solder to secure the connection. Finally slide heat-shrink tubing over the joint and shrink it using a plain-old match (of course, a heat gun or cigarette lighter will work too). Don't forget to slide the heat-shrink tubing over the wires *before* soldering them together! Do not use electrical tape to wrap connections, since tape degrades quickly.

Wrap the resulting wire bundle in friction tape or similar wire collector material. Your adaptor should look similar to the one in image above.

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