

Audio2Car

The professional mute

Audio2Car

The professional mute

Audio2Car harness



For a complete installation normally a minimum of two item numbers are required.

Audio equipment with build in mute function:

If the Audio equipment is equipped with a build in mute function two item numbers are required. The 1st item number is the Audio2Car harness. The 2nd item is a Audio2Car carkit adaptor.

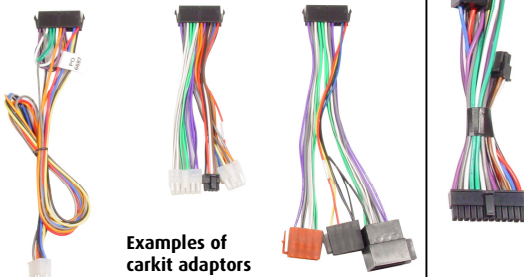
Audio equipment without build in mute function:

If the Audio equipment is not equipped with speaker relays, a Mute-box from Kram Drive & Talk range can be added together with a Drive & Talk carkit adaptor.

Audio2Car Carkit Adaptors

Several different carkit adaptors are available for Carkits that have a build in mute function for 1 or 4 Speakers.

Please see the complete range of Audio2Car carkit adaptors at our website:
www.kram.dk



Examples of carkit adaptors

Audio2Car Accessories examples

ISO adaptor



This ISO adaptor AA010 is a universal adaptor for all carkits with ISO connectors. Adding this adaptor turns your Audio2Car cable into a Kram ISO2CAR solution.

IGNIBOX adaptor



This IGNIBOX ITEM no. "1" creates an artificial ignition source. Use this adaptor if your Audio2Car cable does not include an ignition source. This adaptor is plug and play with your Audio2Car cable.

Drive & talk Mute-box range



Several different types of mute-boxes are available. Adding one of the boxes will turn your Audio2Car cable into a Kram Drive & Talk solution. Therefore you will also need a Drive & Talk carkit adaptor. Please see the Complete Drive & Talk range at our website:
www.kram.dk

Product Description

The Audio2Car range allows OEM car speakers to be used for aftermarket Audio equipment.

Audio2Car allow the car speakers to be used for audio playback from aftermarket Audio equipment. For a complete installation two or more item numbers are required. See description at the last page.

Speaker-function: This is achieved by connecting Audio equipment with build-in speaker relay function or by using a Mute-box from the Kram range. This way the radio sound is muted and the sound from the aftermarket Audio equipment is sent through the car speakers. You will achieve a perfect sound without interference from the car radio.

Mute wire function: The mute-wire is connected from the 24 pin connector to the most used mute position for the car model. This enables the use of the radios built in mute function. If the radio does not have such function or the mute exists in a different connector than the ones used on the Audio2Car harness, the mute wire can be found in a yellow fly-wire fitted with a bullet connector.

Power supply: All Audio2Car cables have an integrated power supply for the Audio equipment in the 24 pin connector. The constant 12v and the ground supply are normally sourced from the radio supply. This way power supply of most Audio Equipment can be achieved without cutting the cars wiring loom. The constant 12V wires are red and the ground wires are black.

Ignition supply: If an ignition source is available in the radio connector then it will normally also be available in the 24 pin connector. If an ignition source is not available a constant 12V source is connected to the Ignition pin via bullet connectors. If a real ignition is required for the chosen Audio Equipment, an IGNIBOX item no. "1" can be connected to create an artificial ignition. Or an ignition source found elsewhere can be connected to the bullet with the blue wire. The 12V ignition wires in the Audio2Car cable are blue.

Aux integration

The 4 pin connector on the Audio2Car harness allow a Kram Aux solution to be connected. This will allow the use of the car sound system amplifier for Music playback and thereby achieving higher sound quality.

Technical Specifications

Description: L-shaped with bullet connections for Ground, Constant 12v and Ignition.

Normal Wire dimensions : AWG 18 for power wires, AWG 20 for all other wires

Standard Fuse sizes: 2 Amp for constant supply, 1 Amp for Ignition supply

Maximum Fuse size: 7,5 Amp for constant supply, 7,5 Amp for Ignition supply

Maximum output pr. speaker: 100 Watt RMS / 200 Watt music power @ 4 Ohm

Size: 400 x 400 mm

Configuration chart for 24 pin connector:

12V Const.	12V IGN	Line Out L-	Line Out R-	Radio RR+	Radio RF+	Radio LF+	Radio LR+	Spk LR+	Spk LF+	Spk RF+	Spk RR+
GND	Mute	Line Out L+	Line Out R+	Radio RR-	Radio RF-	Radio LF-	Radio LR-	Spk LR-	Spk LF-	Spk RF-	Spk RR-

Connector seen from cable entry side

EN098-V01

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Installation description for 84100 Audio2Car harness used for BMW with Hifi Professional sound system.

Needed items:

- A:** Audio2Car harness including Mute-box, Relays & Mute-loop.
B: Audio2Car extension cable (bought separately).
C: Audio2Car carkit adaptor (bought separately).
D: Carkit (bought separately).

Note: B & C can be replaced by an additional Mute-box and extension cable from our Drive & Talk range.

Identification of sound system:

This cable will only fit cars equipped with the Hifi Professional sound system. If you do not have an amplifier in the specified location or the amplifier connector is a 42 pin type you properly have the smaller Hifi speaker system instead. Please see our complete cable list for further information about choosing the right cable for your sound system. The list can be downloaded at www.kram.dk

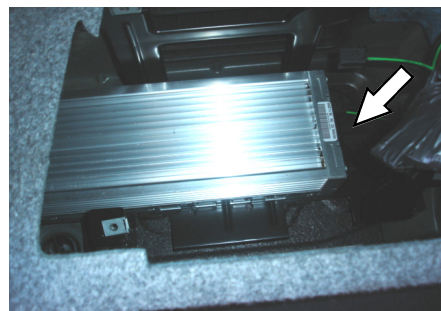
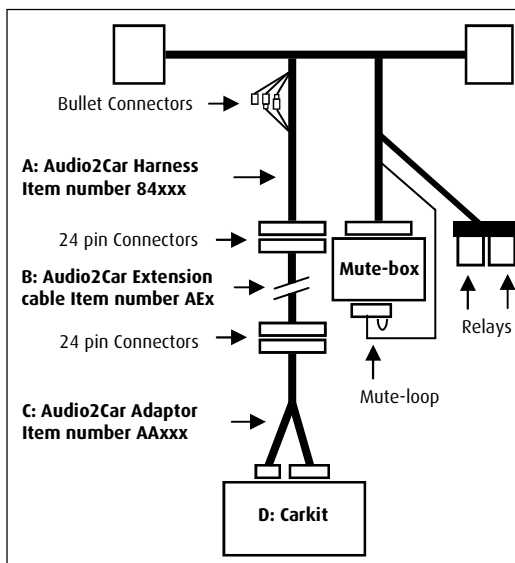
Installation:

When delivered this Audio2Car cable-set is always fitted with a Mute-box and a Mute-loop connected.

1st: Remove the key from the ignition barrel. This is done to avoid error messages on the cars electrical system. Such error can only be reset by an authorised BMW Repair shop.

2nd: Locate & uncover the amplifier unit. Amplifier locations:

- **1 series E87/E88 & 3 series E90/E91/E92/E93.** The amplifier is located in the left side of the boot, rear of the wheel arc and below CD-changer and floor. An Audio2Car extension cable item no. AE5 is also required.
- **5 series E63/E64 & 6 series E60/E61.** The amplifier is located in the left side of the boot, rear of the wheel arc. An Audio2Car extension cable item no. AE5 is also required.
- **7 series F01/F02.** The amplifier is located in the left side of the boot, rear of the wheel arc. An Audio2Car extension cable item no. AE5 is also required.
- **X1 series E84.** The amplifier is located in the left side of the boot. An Audio2Car extension cable item no. AE5 is also required.
- **X3 series.** The amplifier is located in the boot behind the left side cover above the rear left wheel arch. An Audio2Car extension cable item no. AE5 is also required.
- **X5 series E70 & X6 series E71.** The amplifier is located in the left side off boot behind the side cover. An Audio2Car extension cable item no. AE5 is also required.
- **Other models** The amplifier can normally be found in the left side of the boot. An Audio2Car extension cable



Pictures of amplifier in 3 series E90

item no. AE5 is also required.

3rd: Connect the car-specific cable. Disconnect the connector on the amplifier unit and insert the Audio2Car harness between the connector and amplifier unit. **Warning:** Be careful not to kink or break any of the orange optical wires located in separate connector. They are fragile

4th: Check ignition source. When the cable-set is delivered the blue ignition wire is connected to the red constant 12V wire with a bullet connector. If a real ignition source is needed for the chosen carkit an IGNIBOX item no. "I" can be inserted to create an artificial ignition source or the blue ignition wire can be disconnected from the red constant 12v and manually connected to an ignition source found elsewhere.

5th: Check fuse size. The fuse on the Audio2Car cable should not be bigger than the ones used on the wiring loom supplied with the carkit. The fuses on the Audio2Car cable should be replaced with a size similar to the ones supplied with the carkit.

Note: Never exceed the Maximum Fuse size for the Audio2Car cable. See first page.

6th: Extend the cable-set to the preferred location of the carkit. Use the extension cable B (or additional Drive & Talk Mute-box with extension cable) to extend the cable-set to the preferred location of the carkit. Behind the glove-box is recommended.

7th: Connect the carkit adaptor. Connect the carkit adaptor to the extension cable. Connect the carkit adaptor to the carkit.

Troubleshooting Guide

Carkit does not start up. Check if there is 12V between the black and the red wire and also between the black and blue wire, in the 24 pin connector, when the car is started. If there is not 12v on both wires please check the following:

1. If there is supply on the red constant 12v wire but not on the blue ignition wire the car may require an alternative ignition source. See installation step 4.
2. Check that the bullets on the supply wires are properly connected. The supply wires are the red, blue and black wires.
3. Check for a blown fuse on the Audio2Car harness or in the cars fuse-box.

The carkit does not turn off when the key is removed from the ignition barrel. Your carkit needs a real ignition source. Please check the following:

1. Is there an ignition supply on the blue wire? There should be no voltage on the blue wire when there is no key in the ignition. See installation step 4.

Not all speakers are muted. Try to disconnect the Mute-box, Relays and the Carkit adaptor C (or additional Drive and Talk mute-box) from the Audio2Car harness then turn on the radio and check the following :

1. All front door speakers keep playing: This is the wrong Audio2Car harness for this car / sound system.
2. A few speakers keep playing: This is the wrong Audio2Car harness for this car / sound system.
3. All speakers are now muted:

- Carkits with 1 speaker mute: Some carkits can only mute 1 speaker channel with their build in mute-box. This is normally stated on the label on the carkit adaptor for these carkits, else please check the carkit manual. If a full mute is desired with these carkits, then this can be achieved by either connecting the mute wire or adding an additional mute-box from our Drive & Talk range.
- Carkits with 4 speaker channel mute: (or when additional Drive & Talk mute-box is used): Please check that the "Mute-Loop" is attached to Mute-box delivered with the cable-set. Else please try another carkit.

Carkit sound is in the wrong speakers or there is no carkit sound.

1. The two 24 pin connectors in the cable-set may be switched. The carkit should be connected to the 24 pin connector with the Green, White, Gray and Purple wires.
2. The carkit may be defective. Please try another carkit.

Radio will not turn on or not working properly after installation.

1. Please check for a blown fuse at the radio or in the car fuse-box.
2. Remove the Audio2Car harness and connect the radio to the original car connector. If the radio is now working replace the Audio2car harness.

See our complete Radio Mute program on our website www.kram.dk