



BMW (with M.O.S.T. 25 amplifier) 2004-2013

INTERFACE FEATURES

- Provides accessory power
- Retains R.A.P. (retained accessory power)
- Designed for amplified models
- Retains audio controls on the steering wheel
- Retains phone buttons (radio dependent)
- Retains factory features: date, time, temperature display
- Micro “B” USB updatable

** Interface will not retain upper radio display*

INTERFACE COMPONENTS

- AX-BM90122 interface
- AX-BM90122 amplifier interface
- ASWC-1 interface
- AX-BM90122 harness
- ASWC-1 harness
- Female 3.5mm connector with stripped leads

APPLICATIONS

BMW

1-Series *	2004-2013	3-Series *	2005-2012	5-Series *	2004-2010
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** Only for models with manual climate controls*

TABLE OF CONTENTS

Connections to be made	2
Installing the AX-BM90122 interface	3
Programming the ASWC-1 interface	3

TOOLS REQUIRED

- Wire cutter • Crimp tool • Solder gun • Tape
- Connectors (example: butt-connectors, bell caps, etc.)

CAUTION! All accessories, switches, climate controls panels, and especially air bag indicator lights must be connected before cycling the ignition. Also, do not remove the factory radio with the key in the on position, or while the vehicle is running.

CONNECTIONS TO BE MADE

From the aftermarket radio to the AX-BM90122 harness:

- Connect the **Black** wire to the ground wire.
- Connect the **Yellow** wire to the battery wire.
- Connect the 6-foot long **Yellow** wire with a fuse-holder directly at the battery.
- Connect the **Red** wire to the accessory wire.
- If the aftermarket radio has an illumination wire, connect the **Orange** wire to it.
- Connect the **Blue** wire to the power antenna turn-on wire.
- Connect the **Brown** wire to the mute wire.

The following (3) wires are only for multimedia/navigation radios that require these wires.

- Connect the **Blue/Pink** wire to the VSS/speed sense wire.
- Connect the **Green/Purple** wire to the reverse wire.
- Connect the **Light Green** wire to the parking brake wire.
- Tape off and disregard the following (8) wires, they will not be used in this application: **Gray, Gray/Black, Green, Green/Black, Purple, Purple/Black, White, White/Black**
- Connect the **Red** and **White** RCA jacks to the full range amplifier output jacks of the aftermarket radio.

From the aftermarket radio to the ASWC-1 harness:

This harness is only to be used if the vehicle is equipped with steering wheel controls.

- Connect the **Black** wire to the ground wire.
- Connect the **Red** wire to the accessory wire.
- For the radios listed below, connect the *female 3.5mm connector with stripped leads*, to the male 3.5mm SWC jack from the ASWC-1 harness. Any remaining wires tape off and disregard:
 - **Eclipse:** Connect the steering wheel control wire, normally **Brown**, to the **Brown/White** wire of the connector. Then connect the remaining steering wheel control wire, normally **Brown/White**, to the **Brown** wire of the connector.
 - **Metra OE:** Connect the steering wheel control Key 1 wire (**Gray**) to the **Brown** wire.
 - **Kenwood or select JVC with a steering wheel control wire:** Connect the **Blue/Yellow** wire to the **Brown** wire.
 - **XITE:** Connect the steering wheel control SWC-2 wire from the radio to the **Brown** wire.
 - **Parrot Asteroid Smart or Tablet:** Connect the 3.5mm jack into the AX-SWC-PARROT (sold separately), and then connect the 4-pin connector from the AX-SWC-PARROT into the radio.
Note: *The radio must be updated to rev. 2.1.4 or higher software.*
 - **Universal “2 or 3 wire” radio:** Connect the steering wheel control wire, referred to as Key-A or SWC-1, to the **Brown** wire of the connector. Then connect the remaining steering wheel control wire, referred to as Key-B or SWC-2, to the **Brown/White** wire of the connector. If the radio comes with a third wire for ground, disregard this wire.
Note: *After the interface has been programmed to the vehicle, refer to the manual provided with the radio for assigning the SWC buttons. Contact the radio manufacturer for more information.*
- **For all other radios:** Connect the 3.5mm jack from the ASWC-1 harness, into the jack on the aftermarket radio designated for an external steering wheel control interface. Please refer to the aftermarket radios manual if in doubt as to where the 3.5mm jack goes to.

INSTALLING THE AX-BM90122 INTERFACE

With the key in the off position:

- Connect the AX-BM90122 harness to the AX-BM90122 interface.
- Connect the AX-BM90122 harness to the AX-BM90122 amplifier interface.
- Remove the dust cover from fiber optic port in the AX-BM90122 amplifier interface.
- Connect the factory fiber optic cable into the AX-BM90122 amplifier interface.
- Connect the AX-BM90122 harness to the wiring harness in the vehicle.
- Connect the ASWC-1 harness to the ASWC-1 interface, and then to the AX-BM90122 interface.

PROGRAMMING THE ASWC-1 INTERFACE

- Press and hold the Volume-Up button on the steering wheel.
- Turn the ignition on, the L.E.D. in the ASWC-1 interface will start flashing rapidly, which means the ASWC-1 is looking for the vehicle and the radio.
Note: *If the L.E.D. did not start flashing rapidly, press the reset button for 3 seconds, while still holding the Volume-Up button.*
- After a few seconds the L.E.D. should stop flashing rapidly, and then go out for approximately 2 seconds.
- After approximately 2 seconds there will be a series of 7 **Green** flashes, some short, and some long. The long flashes represent the wires that are connected to the ASWC-1. The 3rd, 4th, 5th, and 6th flashes should be longer.
Tip: *Knowing this will help to troubleshoot, if need be.*
- The L.E.D. will pause for another 2 seconds, and then flash **Red** up to 18 times depending on which radio is connected to the ASWC-1. Refer to the L.E.D. feedback section for information.
- This is the end of the auto detection stage. Release from holding the Volume-Up button. If the ASWC-1 detected the vehicle and the radio successfully, the L.E.D. will light up solid.
- Test the steering wheel controls for proper operation. Refer to the ASWC-1 instructions online at axessinterfaces.com for customizing the buttons, if so desired.

PROGRAMMING THE ASWC-1 INTERFACE (CONT.)

L.E.D. feedback

The (18) **Red** L.E.D. flashes represent which brand radio the ASWC-1 is connected to. Each flash represents a different radio manufacturer. For example, if you are installing a JVC radio, the ASWC-1 will flash **Red** (5) times, and then stop. Following is a legend that dictates which radio manufacturer corresponds to which flash.

L.E.D. feedback legend

1 flash - Eclipse (Type 1) †	10 flashes - Clarion (Type 2) †
2 flashes - Kenwood ‡	11 flashes - Metra OE
3 flashes - Clarion (Type 1) †	12 flashes - Eclipse (Type 2) †
4 flashes - Sony / Dual	13 flashes - LG
5 flashes - JVC	14 flashes - Parrot **
6 flashes - Pioneer / Jensen	15 flashes - XITE
7 flashes - Alpine *	16 flashes - Philips
8 flashes - Visteon	17 flashes - TBD
9 flashes - Valor	18 flashes - JBL

* **Note:** *If the ASWC-1 flashes **Red** (7) times, and you do not have an Alpine radio connected to it, that means the ASWC-1 does not detect a radio connected to it. Verify that the 3.5mm jack is connected to the correct steering wheel jack/wire in the radio.*

** **Note:** *The AX-SWC-PARROT is required (sold separately). Also, the Parrot radio must be updated to rev. 2.1.4 or higher through www.parrot.com.*

† **Note:** *If you have a Clarion radio and the steering wheel controls do not work, change the radio type to the other Clarion radio type; same for Eclipse. Refer to the "Programming Information" document online.*

‡ **Note:** *If you have a Kenwood radio and the L.E.D. feedback comes back as showing as a JVC radio, change the radio type to a Kenwood. Refer to the "Programming Information" document online.*



AX-BM90122

INSTALLATION INSTRUCTIONS



IMPORTANT

If you are having difficulties with the installation of this product, please call our Tech Support line at 1-800-253-TECH. Before doing so, look over the instructions a second time, and make sure the installation was performed exactly as the instructions are stated. Please have the vehicle apart and ready to perform troubleshooting steps before calling.



KNOWLEDGE IS POWER

Enhance your installation and fabrication skills by enrolling in the most recognized and respected mobile electronics school in our industry. Log onto www.installerinstitute.com or call 800-354-6782 for more information and take steps toward a better tomorrow.



Metra recommends MECP certified technicians