ASWC

Axxess Steering Wheel Control Interface Installation Manual

KIT FEATURES

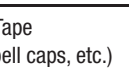
- One Interface does it all - No additional interfaces needed
- Designed to be compatible with all major radio brands
- Auto detects vehicle type, radio connection, and presets controls
- Can be manually programmed for most vehicles
- Memory retains settings even after battery disconnection or interface removal
- Connection placements are all organized behind the radio
- USB updatable

INTERFACE COMPONENTS

• ASWC Interface • 12-pin harness with male 3.5 mm connector
• Female 3.5 mm connector with Brown and Brown/White wires
• 12k-ohm resistor

TOOLS REQUIRED

• Cutting tool • Crimping tool • Tape
• Connectors (example: butt-connectors, bell caps, etc.)



INSTASWC
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Caution: *Metra recommends disconnecting the negative battery terminal before beginning any installation. All accessories, switches, and especially air bag indicator lights must be plugged in before reconnecting the battery or cycling the ignition.*

Note: *Refer to the instructions included with the aftermarket radio.*

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Preface

What you need to know before you begin

1) Know the correct year, make, and model of your vehicle.

2) Be sure that the radio you are installing is compatible with the Axxess steering wheel control (ASWC) interface (refer to the aftermarket radio owner's manual).

3) Go to the Axxess website (www.axxessinterface.com) and click on "Steering Wheel Control" (SWC), which is located on the right side of the screen. Once you put your vehicle information in and hit "Submit", a new page will come up with two sources of information. One, a document in PDF form located below in the "Documents" tab. And second, detailed information on which color(s) the steering wheel control wires will be in your vehicle under the "Vehicle Information" tab. Print the PDF document so you have it in the vehicle during the install as it is the best and easiest source of information.

Note: *Even though we have done extensive research and testing (to verify that the steering wheel control wire colors of the vehicle(s) we list are correct) it is still your responsibility to verify the steering wheel control wires with a multimeter. If you find a discrepancy please notify our Tech Department at 1-800-253-TECH. Please be in the vehicle when you call, with access to the interface and vehicle wiring.*

Overview

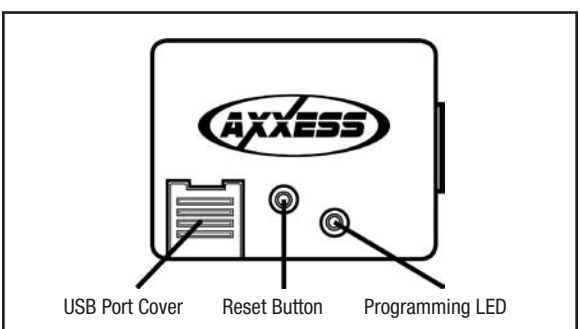
Introduction to the ASWC Interface and Wiring Harness

On the top of the ASWC interface there are three points of interest:

1) The **programming LED** – flashes rapidly when in auto detect mode, flashes slowly in manual programming mode.

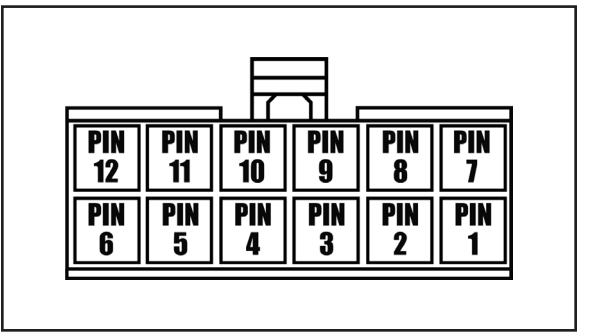
2) The **reset button** – Hold down button for 3 seconds to start auto detect mode; hold down longer then 10 seconds to start manual programming mode.

3) The **slide cover** (USB Port Cover) – Open this up to reveal the USB update port. Using the USB-CAB update cable and the Axxess website you can make sure you always have the latest updated inventory.



Overview

Below are the wire colors for the ASWC. Please visit the Axxess website at www.axxessinterface.com for detailed information on your specific vehicle and for what color wire(s) to use with the ASWC interface.



Pin-1 Pink
Pin-2 White/Green
Pin-3 Yellow/Green
Pin-4 Green/Orange
Pin-5 Gray/Red
Pin-6 Black
Pin-7 Blue/Pink
Pin-8 Black/Green
Pin-9 Red *(tip of 3.5 mm connector)*
Pin-10 White *(ring of 3.5 mm connector)*
Pin-11 Gray/Blue
Pin-12 Red

Section 1: Installation

Once you have collected or printed out the information sheet on your particular vehicle from the Axxess website (www.axxessinterface.com) you're ready to install the ASWC.

Installing the ASWC

1) Connect the **Black** wire of the ASWC to ground. You may use the same grounding point as the aftermarket radio.

2) Connect the **Red** wire of the ASWC to a 12-volt accessory wire, one that turns "on" and "off" with the ignition key.

3) Locate the correct SWC wire(s) in the vehicle's radio primary or secondary harness as described in the vehicle information sheet found on the Axxess website. Connect the correct wire color(s) from the ASWC to the steering wheel control wire(s) in the vehicle.

   Note: *Metra recommends that the wire(s) are soldered for the best and most secure connection. T-Taps or scotch locks are not recommended due to the higher chance of an intermitted connection or change in resistive values.*

Section 1: Installation

4) If you are using an Eclipse, Kenwood, Metra OE, or a newer JVC radio, plug the included female 3.5 mm connector with the **Brown** and **Brown/White** wires into the male 3.5 mm connector of the ASWC harness.

   - **For Kenwood and select JVC:** Connect the SWC wire (normally **Blue/Yellow**) to the **Brown** wire of the ASWC. Isolate and tape the **Brown/White** wire, it will not be used.

     Note: *Some newer Kenwood radios will auto detect as a JVC. If this is the case, you can use a 12k-ohm resistor (included) in line between the* ***Blue/Yellow*** *and* ***Brown*** *wire of the female 3.5 mm jack during programming only. Or you can manually set the radio type which is in the radio programming section of this manual.*

   - **For Eclipse:** Connect the Eclipse SWC wires (normally **Brown** and **Brown/Black**) to the **Brown** and **Brown/White** wires of the ASWC. **Brown** goes to **Brown** and **Brown/White** goes to **Brown/Black**. Sometimes this is reversed, reverse the wires if needed.

   - **For Metra OE:** Connect the SWC Key 1 wire (**Gray**) to the **Brown** wire of the ASWC.

5) For all other radios, plug in the male 3.5 mm connector of the ASWC into the back of the aftermarket radio, designated for an external SWC control interface. If in doubt where the 3.5 mm connector of the ASWC goes please refer to the aftermarket radio manual. Once all connections have been made, plug in the aftermarket radio if not done already.

Section 2: Programming

The ASWC can be programmed in two ways. (1) It can do it by itself through Auto Detect Mode, or (2) it can be manually programmed in non-data vehicles. It is strongly recommend to start with the Auto Detect Mode first.

Auto Detect Mode: Overview

The ASWC has the ability to auto detect certain vehicles and to know what aftermarket radio it is connected to. The vehicle info sheet from the Axxess website (www.axxessinterface.com) will indicate if your vehicle will likely be auto detected and what action, if any, is required by you for this process to take place.

For the Auto Detect feature to work there are 3 possible actions, however only one action will be required by you depending on your vehicle:

- Turn the ignition on and no other action is required.
- Turn the ignition on, press and hold the "Volume Up" button on the steering wheel.

--- Or ---

- Turn the ignition on, press and release the "Volume Up" button repeatedly on the steering wheel.

As stated before, only one of these actions will need to be done depending on your vehicle for the Auto Detect feature to work. Please refer to the vehicle info sheet provided on the Axxess website.

Auto Detect Mode: Steps

1) Complete connections to the vehicle and the aftermarket radio.

If this is the first time the ASWC is being installed in a vehicle:

2) Turn the ignition on; the LED will start flashing rapidly which means

Section 2: Programming

the ASWC is looking for the vehicle and the radio. Go to step 4.

--- Or ---

If the ASWC was installed in a vehicle previously:

2) Turn the ignition on, the LED will flash once, then go out.
3) Hold down the reset button for 3 seconds and then release it.
4) Perform action required for your particular vehicle as noted in the vehicle info sheet.
5) After a couple of seconds the LED should stop flashing and not light up for 2 seconds. At this point do not push any buttons.
6) After the 2 seconds there will be a series of 7 flashes, some short and some long.
7) The LED will pause for another 2 seconds then flash up to 11 times (refer to ASWC ledgend).
8) This is the end of the auto detection stage. If the ASWC detected the vehicle and the radio successfully the LED will light up solid red.
9) For vehicles with OE Bluetooth buttons please press “Hang up” or “Pick up” on your steering wheel control after the LED on the ASWC goes solid. If the OE Bluetooth buttons are able to be used, the LED will go out after 3 seconds. Your OE Bluetooth buttons are now programmed to your aftermarket radios Bluetooth buttons (aftermarket radio must have Bluetooth capabilities).

   Tip: *If the LED does not light up solid red refer to the troubleshooting section.*

10) Make sure the steering wheel control buttons function correctly in the vehicle and enjoy.

Section 3: Troubleshooting

Auto Detect Mode

So you tried the auto detect feature and at the end the LED did not stay solid red. Instead it started flashing, meaning that the ASWC did not detect the vehicle.

Follow these steps to determine what may have happened:

1) Verify that you have 12-volt accessory and a good ground to the ASWC. Sometimes the factory ground is not sufficient, a chassis ground is highly recommended. If your vehicle has a SWC reference ground wire, chassis ground that as well, along with your aftermarket radio.
2) Validate using the vehicle information sheet (Axxess website) that the correct steering wheel control wire(s), in the vehicle, were connected to the correct wire(s) to the ASWC.
3) Confirm that the 3.5 mm connector is connected to your radio securely and in the correct location.
4) If using the female 3.5 mm connector in Eclipse, Kenwood, select JVC, or Metra OE radios verify that the radio's SWC wire is connected to the correct wire to the ASWC.

Manual Programming Auto Detect Mode

If your vehicle is not listed for auto detection by the ASWC on the Axxess website, www.axxessinterface.com, you can manually program a non-data vehicle by the following steps (have ASWC legend available).

Section 3: Troubleshooting

Note: *Not every radio will have all the possible SWC commands on the steering wheel. Aftermarket radios that do not have Bluetooth will not recognize the PTT (Push To Talk) or "On/"off" Hook" commands; however those buttons can be manually programmed to do other commands in some cases. Please refer to the radio owner's manual or wireless remote for specific commands that the radio will recognize.*

1) Complete connections to the vehicle and to the aftermarket radio, make sure the 3.5 mm connector is connected.

If this is the first time the ASWC is being installed in a vehicle:

2) Turn the ignition on; the LED will start flashing rapidly.

3) After 10 seconds the ASWC will go into the LED feedback mode. After the series of LED flashes the LED will stay in a slow constant flash state. Go to step 4.

--- Or ---

If the ASWC has been in a vehicle before:

2) Press and hold the reset button down for more then 10 seconds.

3) After the 10 seconds the LED will begin a slow constant flash.

4) At this point press and hold the "Volume Up" button on the steering wheel for 7 seconds until the LED goes solid red. Now release the "Volume Up" button and the LED goes "off". "Volume Up" has now been programmed.

Section 3: Troubleshooting

5) Now press and hold the "Volume Down" button until the LED goes solid red. Release the button and the LED will turn "off". The "Volume Down" has now been programmed.

6) At this point go to the ASWC Legend Button Assignment (remapping/manual programming) section, page 19, and continue with "Seek Up/Next" button.

7) You can end this half of the programming in 2 ways:

   (1) After the last button on your steering wheel has been programmed (you do not have to go through the whole list) hold down the "Volume Up" button for at least 10 seconds. The LED will go into a slow constant blink mode.

   --- Or ---

   (2) After the 18th button is programmed or skipped the LED will go back to the slow constant blink mode.

   Note: *If at any time an error is made hold down the reset button on the ASWC for 10 or more seconds. This will restart the manual programming. Go back to Step 4 and start again.*

8) Press and hold the "Volume Down" button for 5 seconds till the LED starts to flash quickly.

9) Release the "Volume Down" button.

10) After 4 seconds of the LED flashing quickly the LED will go out for 2 seconds.

Section 3: Troubleshooting

11) Then the LED will flash, up to 11 times, depending on what radio the ASWC thinks it's connected to.

12) Make sure the number of flashes match what radio you have installed. Refer to the Changing Radio Type section, pages 13-14.

13) If the LED flashes match the radio then hold down the "Volume Down" button until the LED goes solid red.

14) Programming for the vehicle and the radio is now complete. Test out the steering wheel control functions to make sure it works correctly.

Changing Radio Type

If the LED flashes do not match the radio you have connected, you must manually program the ASWC to tell it what radio it is connected to.

1) To manually program the aftermarket radio, press and hold the "Volume Down" button on the steering wheel control until the LED goes solid red, then release "Volume Down".

2) At this point Eclipse is programmed. If you are using an Eclipse radio go to step 3. If you are using a different radio go to step 4.

3) Press and hold "Volume Down" for 5 seconds. The LED will flash once then go solid red indicating the programming has finished. Go enjoy your radio.

4) If you have a different radio then Eclipse, press the Volume Up button again till the LED goes solid red, then release "Volume Up". You have now programmed Kenwood.

Section 3: Troubleshooting

5) Here is the chart to show how many presses of the "Volume Up" button is needed for which radio you are trying to program:

1	Eclipse	**7**	Alpine*
2	Kenwood	**8**	Visteon
3	Clarion "Type 1"	**9**	Valor
4	Sony and Dual	**10**	Clarion "Type 2"
5	JVC	**11**	METRA OE
6	Pioneer and Jensen		

6) Once the radio manufacturer has been selected hold "Volume Down" for at least 5 seconds. The LED will flash the number of times which radio was selected then the LED will remain on to indicate the ASWC has finished programming.

Manual Radio Type Programming

If only changing the radio type is needed then follow this procedure below.

1) Within the first 25 seconds of turning the key on, press and hold the car's "Volume Down" button.

2) After 15 seconds of holding "Volume Down", the ASWC's red LED will go on.

3) Release the "Volume Down" and the LED will go "off". We are now in radio programming mode.

Section 3: Troubleshooting

4) Press and release the “Volume Up” button for the desired radio number (please refer to the ASWC legend). For each press the red LED. It will go “on” and then “off” when released for feedback.

5) When the desired radio type has been reached, Press the “Volume Down” button.

6) The LED will go on and will remain on (approximately 3 seconds). *The ASWC is internally computing and storing this new information.*

7) The LED will go “off” indicating it is completed.

Note: *If at any time the user fails to press any button for a period of 10 seconds or more, this programing mode will abort.*

Section 4: Remapping

Remapping the SWC (Steering Wheel Control) Buttons

Once you have the ASWC programmed you can then change the steering wheel control button assignment(s). Such as, programing the "Seek Up" button as a "Mute" function. Follow the steps below to remap the SWC buttons:

1) Ideally have the ASWC visible, so you can see the LED flashes to confirm button recognition.

2) Turning "off" the radio is recommended.

3) Within the first 20 seconds of turning the ignition on, press and hold down the "Volume Up" button for at least 20 seconds.

4) The LED will light up solid red. Release "Volume Up" and the LED will go out. "Volume Up" has now been programmed.

5) Follow the list in the Button Assignment section, page 19, to reference the order of what buttons need to be pressed and/or how to bypass a button.

6) After the last button is programmed on your steering wheel (you do not have to go through the whole list), hold down the "Volume Up" button for at least 10 seconds then the LED will go out.

--- Or ---

After the 18th button is programmed or skipped the LED will go out and the remapping is completed.

Section 4: Remapping

Resetting Orginal SWC Settings

If for any reason after remapping the steering wheel controls you want to revert back to the original steering wheel control settings, follow these steps:

1) Within the first 20 seconds of turning the ignition on. Press and hold down the original “Volume Down” button (not the “Volume Down” button you just remapped) for at least 25 seconds.

2) The LED will turn on then release the “Volume Down” button and the LED will turn “off”.

3) The original steering wheel control settings will be restored.

ASWC Ledgend

For A and B:

Short flashes represent the steering wheel control wire(s) that are not connected to the vehicle from the ASWC.

Long flashes represent wire(s) that are connected to the vehicle.

A. Vehicle LED Feedback

1st LED flash is the White/Green wire on the ASWC
2nd LED flash is the Orange/Green wire on the ASWC
3rd LED flash is the Green/Orange wire on the ASWC
4th LED flash is the Gray/Red wire on the ASWC
5th LED flash is the Black/Green wire on the ASWC
6th LED flash is the Gray/Blue wire on the ASWC
7th LED flash is the Pink wire on the ASWC

B. Radio LED Feedback

1st LED flash is for Eclipse
2nd LED flash is for Kenwood
3rd LED flash is for Clarion ("Type" 1)
4th LED flash is for Sony and Dual
5th LED flash is for JVC
6th LED flash is for Pioneer and Jensen
7th LED flash is for Alpine*
8th LED flash is for Visteon
9th LED flash is for Valor
10th LED flash is for Clarion ("Type" 2)
11th LED flash is for Metra OE

ASWC Ledgend

***Note (section B):** If the ASWC flashes 7 times and you do not have an Alpine radio connected to it that means that the ASWC did not see any radio connected. Verify the 3.5 mm connector is connected to the SWC input on the radio.*

C. Button Assignment (remapping/manual programming)

1. Volume Up
2. Volume Down
3. Seek Up/Next
4. Seek Down/Prev
5. Source/Mode
6. Mute
7. Preset Up
8. Preset Down
9. Power
10. Band
11. Play/Enter
12. PTT (Push To Talk)
13. On Hook
14. Off Hook
15. Fan Up
16. Fan Down
17. Temp Up
18. Temp Down

***Note:** Not all radios will have all of these commands. Please refer to the radio owner's manual or contact the radio vendor directly for specific commands recognized by that particular radio.*

If the next function on the list is not on the steering wheel press the "Volume Up" button for 1 second, until the LED comes on, then release the button. This tells the ASWC that the function is not available will move on to the next function.

IMPORTANT WARNING

This product includes instructions for installation which must be carefully followed. The instructions are worded in such a manner to assume that the installer is capable of completing these type of electronic installations. If you are unclear as to what you are instructed to do or believe that you do not understand the instructions so as to properly and safely complete the installation *you should consult a technician who does have this knowledge and understanding.*

Failure to follow these instructions carefully and to install the interface as described could cause harm to the vehicle or to safety systems on the vehicle. Interference with certain safety systems could cause harm to persons as well. If you have any questions in this regard please call the Help line or Metra at 1-800-221-0932 for assistance.

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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

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