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# ASWC

*A steering wheel control interface that is the **first** of it's kind*

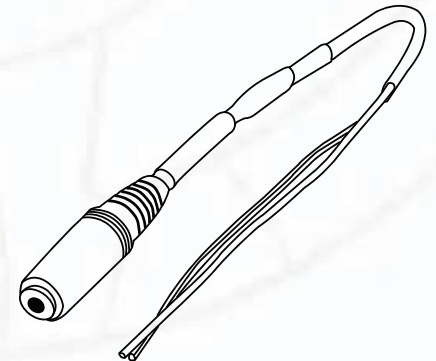
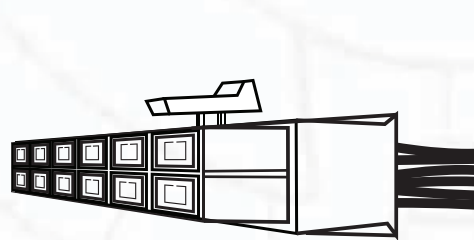
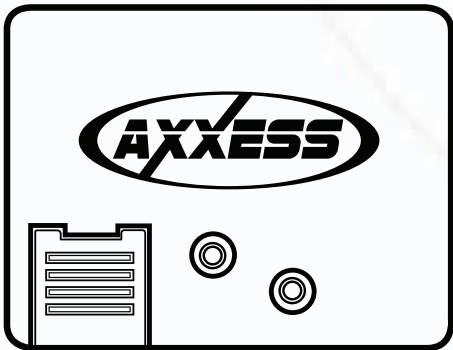
**AXXESS STEERING WHEEL CONTROL INTERFACE**

# INSTALLATION MANUAL

The ASWC is a universal steering wheel control interface that can be used on most any vehicle with steering wheel controls. Designed to be used with today's top aftermarket radio manufactures like Pioneer, Sony, Alpine, Kenwood, Eclipse, JVC, and others, the ASWC is all you'll need to retain the OEM steering wheel controls. The ASWC has the ability to auto-detect many vehicle makes and aftermarket radios and it will preset the steering wheel controls to the aftermarket radio automatically so no programming is required. If desired the ASWC can be manually programmed so the user can make the steering wheel controls function the way they want them to, only limited by the functions of the aftermarket radio. The ASWC also has a non-volatile memory which means the ASWC will remember the programming even if the ASWC is disconnected from the vehicle. The ASWC is also updatable using the Axxess website ([www.axxessinterface.com](http://www.axxessinterface.com)) and the USB-CAB update cable. If there is an update made to the ASWC there is no need to send inventory back, or ask for the latest version, you can update it yourself and save time and money.

### What's included in the package:

- ASWC Interface
  - 12 pin harness with male 3.5mm connector
- Female 3.5mm connector with Brown and Brown/White wires
  - Comprehensive Instructions



What you need to know before you begin:

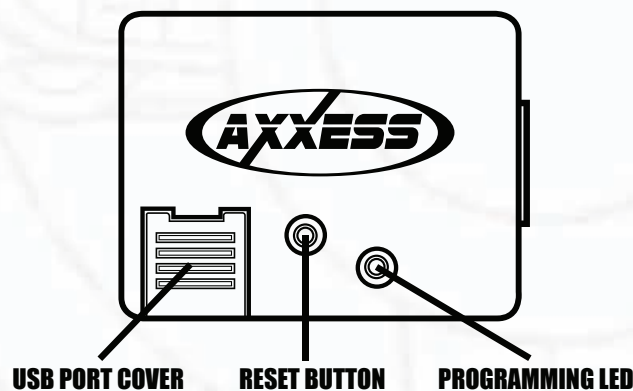
- 1) Make sure you know the correct year, make, and model of your vehicle
- 2) Make sure the radio you are installing is compatible with a steering wheel control interface (Check in owners manual)
- 3) Go to the Axxess website ([www.axxessinterface.com](http://www.axxessinterface.com)) for a detailed information sheet on what color(s) the steering wheel control wires will be in your vehicle, the location, what wire(s) to use on the ASWC, and what, if any, programming is required. Print or write the information down so you have it in the vehicle during the install.

Note: Though we have done extensive research and testing verifying the steering wheel control wire colors of the vehicle 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**.

A brief overview of the ASWC interface and wire harness:

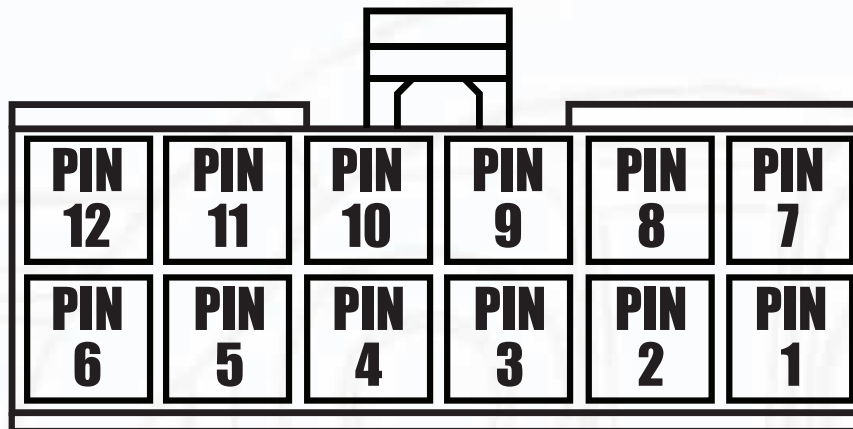
On the top of the ASWC interface there are three points of interest:

- 1) The Programming led – this will flash rapidly when in auto detect mode, flashes slowly in manual programming mode
- 2) The Reset button – Hold down button more then 2 seconds but less then 10 seconds to start auto detect mode; hold down longer then 10 seconds to start manual programming mode
- 3) The slide cover for the USB update port – 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.



Below are the wire colors of the ASWC. Please go to the Axxess website ([www.axxessinterface.com](http://www.axxessinterface.com)) for detailed information on your specific vehicle and what color wire(s) to use on the ASWC.

- |                      |  |
|----------------------|--|
| Pin 1 – Pink         | Pin 7 – Blue/Pink                        |
| Pin 2 – White/Green  | Pin 8 – Black/Green                      |
| Pin 3 – Orange/Green | Pin 9 – Red (Tip of 3.5mm connector)     |
| Pin 4 – Green/Orange | Pin 10 – White (Ring of 3.5mm connector) |
| Pin 5 – Gray/Red     | Pin 11 – Gray/Blue                       |
| Pin 6 – Black        | Pin 12 – Red                             |



Wire Insertion View

## The Installation

Once you have collected the information or printed out the information sheet on your particular vehicle from the Axxess website ([www.axxessinterface.com](http://www.axxessinterface.com)) you're ready to install the ASWC. So here we go:

- 1) Connect the Black wire of the ASWC (pin 6) to ground. You may use the same grounding point as the aftermarket radio.
- 2) Connect the Red wire of the ASWC (pin 12) 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 vehicles radio or secondary harness as described in the vehicle information sheet found in the Axxess website. Connect the correct wire color(s) from the ASWC to the vehicles steering wheel control wire(s) in the vehicle.

We recommend that the wires are soldered for the best and most secure connection. T-Taps are not recommended due to the higher chance of an intermitted connection (this means you Zack).

- 4) If you are using an Eclipse or Kenwood radio, plug the female 3.5mm connector with the Brown and Brown/White wires into the male 3.5mm connector of the ASWC harness.

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

\* For Eclipse radios: 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.

- 5) For all other radios, plug in the male 3.5mm connector of the ASWC into the back of the aftermarket radio, designated for an external SWC control interface. Please refer to the aftermarket radios manual if you are in doubt where the 3.5mm connector of the ASWC goes.

Once all connections have been made, plug in the aftermarket radio if not done already.

## Programming the ASWC

The ASWC can be programmed in two ways; it can do it by itself in Auto Detect Mode or it can be manually programmed. We will start with the Auto Detect Mode first:

Auto Detect Mode:

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](http://www.axxessinterface.com)) will show if your vehicle would 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:

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

Or

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

Like we said 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 in the Axxess website.

**These are the steps for the Auto Detect Mode:**

- 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 the ASWC is looking for the vehicle and the radio.
- 3) Perform action required for your particular vehicle as noted in the vehicle info sheet.
- 4) 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.
- 5) After the 2 seconds there will be a series of 7 flashes, some short and some long. Make a note of which flashes were long for this may be needed later.
- 6) The led will pause for another 2 seconds then flash up to 9 times. Again make a note of how many flashes.
- 7) 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.
- 8) Make sure the steering wheel control buttons function correctly in the vehicle and enjoy your radio.

So what if the led does not light up solid red? Check out troubleshooting section below.

\* If the ASWC was installed in a vehicle before:

- 2) Turn the ignition on, the led will flash slowly
- 3) Hold down the reset button for more then 2 seconds but less then 10 seconds, the led will start flashing rapidly
- 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 another 2 seconds then a series of 9 flashes.
- 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) Make sure the steering wheel control buttons function correctly in the vehicle and enjoy your radio.

So what if the led does not light up solid red or the steering wheel controls is not working correctly with the aftermarket radio?

Check out troubleshooting section right below.

## **Troubleshooting the Auto Detect Mode**

So you tried the auto detect feature and at the end the led did not stay on solid red, it started flashing. That means the ASWC did not detect the vehicle. Follow these couple steps to determine what happened:

First some basic steps:

- 1) Verify that you have 12 volt accessory and a good ground to the ASWC.
- 2) Verify with the vehicle information sheet on the Axxess website that you connected the correct steering wheel control wires in the vehicle to the correct wire(s) on the ASWC.
- 3) Verify that the 3.5mm connector is connected to your radio securely and in the correct location.
- 4) If using the female 3.5mm connector on an Eclipse or Kenwood radio, verify that the radio's SWC wire is connected to the correct wire on the ASWC.

Once all the information above has been verified and correct, refer back to the 2 sets of led flashes during the auto detect sequence. Here is what the flashes stand for:

## LED Feedback

The 1st series of led flashes represent the wire(s) that are connected to the vehicle from the ASWC. Short flashes represent the steering wheel control wire(s) that are not connected to the vehicle from the ASWC

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

- 1st led flash is pin #2 (White/Green) on the ASWC
- 2nd led flash is pin #3 (Orange/Green) on the ASWC
- 3rd led flash is pin #4 (Green/Orange) on the ASWC
- 4th led flash is pin #5 (Gray/Red) on the ASWC
- 5th led flash is pin #8 (Black/Green) on the ASWC
- 6th led flash is pin #11 (Gray/Blue) on the ASWC
- 7th led flash is pin #1 (Pink) on the ASWC

If during the auto detect sequence there was no long led flash, just short ones, the ASWC was not connected to the correct wire in the vehicle or the incorrect wire was used on the ASWC. Double check connections and the vehicle information sheet to verify that you have the correct wires connected.

The 2nd set of led flashes represents what brand radio the ASWC believes it is connected to. Each flash is for a different radio manufacturer.

- 1st led flash is for Eclipse
- 2nd led flash is for Kenwood\*\*
- 3rd led flash is for Clarion
- 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

\* Note: 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 3.5mm connector is connected to the SWC input on the radio.

\*\* Note: The following three models, DNX9960, DNX7160, and DDX896, need a 10k to 12k ohm resistor between the Blue/Yellow of the Kenwood and the Brown wire of the female 3.5 during programming. After programming remove the resistor and reconnect the Blue/Yellow and brown wire.

## Manual Programming/SWC Button Reassignment:

If your vehicle is not listed for auto detection by the ASWC on the Axxess website most vehicles can still be manually programmed to the ASWC by following these steps:

\* 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 Hook / Off Hook commands, however those buttons can be manually programmed to do other commands. Please refer to the radios owners' manual or wireless remote for specific commands the radio will recognize.

1) Complete connections to the vehicle and the aftermarket radio, making sure the 3.5mm 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.

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.

5) Now press and hold the Volume Down button until the led goes solid red. Release the Volume Down button and the led goes off. Volume Down has now been programmed.

6) At this point press and hold the next button on the steering wheel that corresponds with the programming list (see below). The chart below shows in what order the steering wheel control buttons need to be programmed in.

If the next function on the list is not on the steering wheel press and hold the Volume Up button for 1 second till the led comes on then release the button. This tells the ASWC that the function is not available and moves on to the next function.



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: Remember not all radios will have all these commands. Please refer to the radios' owners manual for specific commands recognized by the radio.

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

- 1) 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. The led will go into the 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.

\* If at any time you get lost or mess up hold down the reset button on the ASWC for more then 10 seconds. This will restart the manual programming. Go back to step #4 and start again.

At this point you will now be in the Radio Identification mode

- 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.
- 11) Then the led will flash, up to 9 times, depending on what radio the ASWC thinks it's connected to.

Here are the led blinks and which radio they represent:

- 1st led flash is for Eclipse
- 2nd led flash is for Kenwood
- 3rd led flash is for Clarion
- 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

\* Note: 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 3.5mm connector is connected to the SWC input on the radio.

- 12) Make sure the number of flashes match what radio you have installed.
- 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.

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 Up button on the steering wheel control until the led goes solid red, then release Volume Up.
- 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 than Eclipse, press the Volume Up button again till the led goes solid red, then release Volume Up. You have now programmed Kenwood.

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:

- 1st led flash is for Eclipse
- 2nd led flash is for Kenwood
- 3rd led flash is for Clarion
- 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

\* Note: 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 3.5mm connector is connected to the SWC input on the radio.

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 ASCW has finished programming.

7) Go enjoy your radio.

## Remapping the SWC Buttons

Let's say you have the ASWC programmed to your vehicle and your radio and you want to change the button assignment for the steering wheel controls. For instance you would like Seek Up to be Mute.

This process is the same as manually programming the ASWC (please refer to the Manual Programming section) with a couple of notes:

- The ASWC must have detected the vehicle and radio it is attached to before you can remap any buttons.
- You can only start the remapping of the steering wheel controls process within the first 20 seconds of turning the ignition key on. If you wait longer than the 20 seconds you will have to turn the ignition off then back on again.
- Within the first 20 seconds if any button other than Volume Up or Volume Down is pushed, the remapping process will stop.
- If during the remapping process no button is pushed for 30 seconds the remapping process is aborted and the original settings are reset.

## So let's begin the remapping process:

- 1) Ideally having the ASWC visible is recommended since 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 25 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 below in order however pushing the steering wheel control button you want for the function below. If you want to skip a command press the Volume Up on the steering wheel, this will tell the ASWC to skip the command and go to the next one.

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: Remember not all radios will have all these commands. Please refer to the radios' owners manual for specific commands recognized by the radio.

For instance the next command to be mapped is the Volume Down command. Let's say you want the Mode button on your steering wheel to be the Volume Down command. Hold down the Mode button till the led lights up solid red, and then release it. Now your Mode button on the steering wheel is Volume Down.

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.

If for any reason after remapping the steering wheel controls you want to go 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.