

# STEERING WHEEL CONTROL INTERFACE

**AXXESS**  
INTEGRATE

CELEBRATING  
**70**  
YEARS  
OF INNOVATION



## ASWC-1 STEERING WHEEL CONTROL INTERFACE



SALES 800-221-0932

### PRODUCT OVERVIEW

Imagine installing a steering wheel control interface and it would automatically know what vehicle it's in, what radio it's hooked up to and preset the controls for you...HOW MUCH TIME WOULD THAT SAVE YOU? Now imagine that you only need one interface for every vehicle out there including Chrysler/Dodge/Jeep vehicles with the CAN Data System. The ASWC-1 can decipher the data commands without having to purchase any other interfaces! And just think, that same interface works with the top radio manufacturers like Pioneer, JVC, Kenwood, Alpine, Eclipse, Sony and more - the ASWC-1 can do it!

- One interface does it all - No additional interfaces needed
- Designed to be compatible with all major radio brands
- Auto detects<sup>(1)</sup> vehicle type, radio connection, and presets controls
- Ability to dual assign steering wheel control buttons
- Can be manually programmed for most vehicles
- Memory retains settings even after battery disconnection or interface removal
- Provides Speed Dependent Volume Control on select CAN data vehicles
- Most connections done at the radio location
- Micro "B" USB updatable

(1) U.S. Patent No.8257147

www.AxxessInterfaces.com  
1-800-221-0932 | 386-257-1186

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\* Visit AxxessInterfaces.com for up-to-date vehicle specific applications



**WARNING:**  
Cancer and Reproductive Harm  
www.P65Warnings.ca.gov.



## ASWC-1 General Instructions

Visit [AxxessInterfaces.com](http://AxxessInterfaces.com) for more detailed information about the product and up-to-date vehicle specific applications

### INTERFACE 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 preset controls
- Ability to dual assign steering wheel control buttons
- Can be manually programmed for most vehicles
- Retains settings even after battery disconnection or interface removal
- All connections done at the radio location
- Micro-B USB updatable

### INTERFACE COMPONENTS

- ASWC-1 Interface
- ASWC-1 harness (12-pin harness with male 3.5mm jack)
- Female 3.5mm connector with stripped leads

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### TOOLS REQUIRED

- Crimping tool and connectors, or solder gun, solder, and heat shrink
- Tape
- Wire cutter
- Zip ties

**Attention!** Let the vehicle sit with the key out of the ignition for a few minutes before removing the factory radio. When testing the aftermarket equipment, ensure that all factory equipment is connected before cycling the key to ignition.

## INSTALLATION PREPARATION

From [axxessinterfaces.com](http://axxessinterfaces.com), submit the vehicle information in the box titled **Vehicle Fit Guide & ASWC-1 Install Instructions**, then select **GET PARTS**. This will take you to a page where you will be notified if your vehicle will work or not with the ASWC-1 interface. If the interface is compatible, there will be a link under the green bar titled **ASWC-1 \*\*\*\* Wiring Instructions**. Click on this link to open the PDF document for your specific vehicle. Print this document to have with you in the vehicle during the installation.

**Note:** Though we have done extensive research, testing, and verifying that the steering wheel control wires from the vehicles listed are correct, it is still the Installer's responsibility to verify that the steering wheel control wires are truly correct. If a discrepancy is found, please notify our Tech Department at 1-800-253-TECH, or [techsupport@metra-autosound.com](mailto:techsupport@metra-autosound.com).

## INSTALLATION

### 12-pin harness:

- Connect the **Black** wire to chassis ground.
- Connect the **Red** wire to the accessory power.
- Locate the steering wheel control wire(s) in the vehicles harness as noted in the ASWC-1 vehicle specific document. Connect this wire(s) to the ASWC-1.

**Note:** Axxess recommends that the wires are soldered for the best "copper-to-copper" connection. Tapping style connectors are not recommended.

## INSTALLATION (CONT.)

### 3.5mm jack:

- **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 from the connector. Then connect the remaining steering wheel control wire, normally **Brown/White**, to the **Brown** wire from 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.

**Note:** If the **Kenwood** radio auto detects as a JVC, manually set the radio type to **Kenwood**. See the instructions under **Changing Radio Type**.
  - **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 to the AX-SWC-PARROT (sold separately). Then connect the 4-pin connector from the AX-SWC-PARROT to 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 from the connector. Then connect the remaining steering wheel control wire, referred to as Key-B or SWC-2, to the **Brown/White** wire from the connector. If the radio comes with a third wire for ground, disregard this wire.

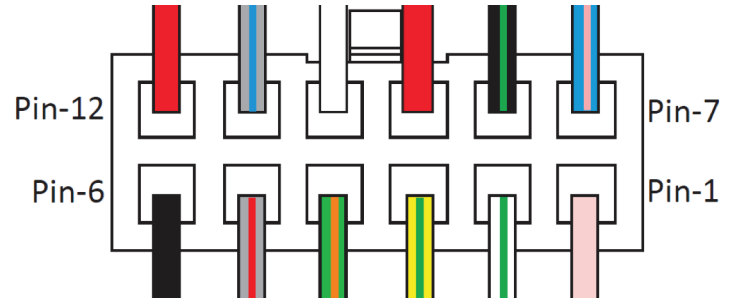
**Note:** After the interface has been programmed to the vehicle, refer to the manual provided with the radio for assigning the SWC buttons. Contact the radio manufacturer for more information.
- **For all other radios:** Connect the 3.5mm jack from the ASWC-1 harness to the jack on the radio designated 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.

## PROGRAMMING

- Program the ASWC-1 as noted in the ASWC-1 vehicle specific document.

## WIRE DESCRIPTION

Pin Cavity	Wire Color	Input Description
1	Pink	CAN-HI or Serial Data
2	White/Green	Negative SWC
3	Yellow/Green	Positive SWC
4	Green/Orange	Negative SWC
5	Gray/Red	Negative SWC
6	Black	Chassis Ground
7	Blue/Pink	CAN-LO
8	Black/Green	Negative SWC
9	Red (skinny)	Tip of 3.5 jack
10	White (skinny)	Ring of 3.5 jack
11	Gray/Blue	Negative SWC
12	Red	Accessory Power





# ASWC-1 GENERAL INSTRUCTIONS

INSTALLATION INSTRUCTIONS



If you are having difficulties with the installation of this product, contact our Tech Support line either by phone at **1-800-253-TECH**, or email at **techsupport@metra-autosound.com**. Before doing so, look over the instruction booklet a second time and ensure that the installation was performed exactly as the instruction booklet is stated. Have the vehicle apart and ready to perform troubleshooting steps before contacting Metra/Axxess Tech Support.



## 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](http://www.installerinstitute.com) or call 800-354-6782 for more information and take steps toward a better tomorrow.



**Metra recommends MECP certified technicians**

## Changing Radio Type

The **ASWC-1** has the capability to assign (2) functions to a single button except for **Volume Up** and **Volume Down**, after the ASWC-1 has been programmed and is fully functional. This feature can be performed by either following the steps below, through a Windows based computer using the **Axxess Updater**, or through the **Axxess Updater** app available from the Android/Apple mobile devices app store.

**Note:** Apple mobile devices will require the use of the **AX-HUB** for this feature.

**Attention!** If more than 20 seconds elapses between steps, the procedure will abort, and the ASWC-1's light will go out. The ASWC-1 may not function properly and may need to be reset and reprogrammed.

1. Turn the key to ignition and wait until the ASWC-1's light flashes **Green** 1 time then goes out.
2. Press and hold the **Volume Down** button on the steering wheel until the ASWC-1's light turns on solid **Red**, then release. The light will then go out indicating that the ASWC-1 is in **Changing Radio Type** mode.
3. Refer to the **Radio Legend** to reference the radio number for the radio being installed.
4. Press and hold the **Volume Up** button on the steering wheel until the ASWC-1's light turns on solid **Red**, then release. Repeat this step for the desired radio number selected.
5. Once the desired radio number has been selected, press and hold the **Volume Down** button on the steering wheel until the ASWC-1's light turns on solid **Red**. The light will remain on solid **Red** for roughly 3 seconds while it stores the new radio information. After the light goes out, test the steering control wheel controls for functionality.

### Radio Legend

Radio #	Radio	Radio #	Radio
1	Eclipse (type 1)	10	Clarion (type 2)
2	Kenwood	11	Metra OE
3	Clarion (type 1)	12	Eclipse (type 2)
4	Sony / Dual	13	LG
5	JVC	14	Parrot
6	Pioneer / Jensen	15	XITE
7	Alpine	16	Philips
8	Visteon	17	TBA
9	Valor	18	JBL

## Radio Troubleshooting

If the ASWC-1's auto detect feature was used and at the end of the programming sequence the ASWC-1's light went solid **Red**, yet fails to function, follow the steps below to trace down where the problem may lie. If any of the following steps are performed, reset and reprogram the ASWC-1 according to the vehicle specific document. Scroll down to the end of the document for a physical layout of the ASWC-1 showing the reset button location.

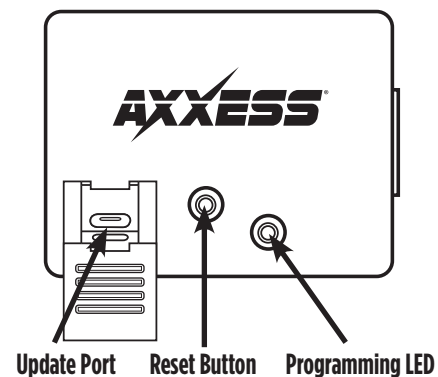
- Ensure that the 3.5mm jack from ASWC-1 is connected to the radio securely, and that it's in the correct "steering wheel control" jack from the radio. Make sure that it's not plugged into the "Bluetooth Mic" jack or "AUX-IN" jack. If unsure which jack to connect to the radio, contact the radio Manufacturer.  
**Note:** Some radios don't use a jack for steering wheel controls, instead they use a wire(s).
- If installing a radio with a wire(s) for connections instead of a jack, also program the steering wheel controls within the radio. But only after the ASWC-1 has been programmed, and the ASWC-1's light is solid **Red**. Refer to the manual provided with the radio, or contact the radio Manufacturer for any questions regarding this process.  
**Note:** This does not apply to JVC and Kenwood radios.
- Specific radio troubleshooting steps:
  - **For Kenwood radios:** Ensure that the ASWC-1's L.E.D. feedback shows a Kenwood radio installed (2 **Red** light flashes). If the ASWC-1's L.E.D. feedback shows a JVC radio instead (5 **Red** light flashes), reference the **Changing Radio Type** document to change the radio type. If the ASWC-1's L.E.D. feedback shows 7 **Red** light flashes, this could mean the wrong wire used from the radio, or a bad 3.5mm jack. Kenwood radios use a **Blue/Yellow** wire for steering wheel control. Ensure that the **Blue/White** wire is not accidentally used. If the radio is connected properly, then the 3.5mm jack may be at fault. Remove the *Female 3.5mm jack with stripped leads* and wire the Kenwood directly to the ASWC-1's "skinny" **Red** wire within the 3.5mm jack. Also, some Kenwood radios have a feature called **Remote Sensor** which disables the steering wheel controls. If the radio has this feature, ensure it is turned on. If it is on, turn it off, then back on.
  - **For Alpine radios:** Remove the 3.5mm jack from the radio, reset and reprogram the ASWC-1 with the jack removed, then reconnect the 3.5mm jack back into the radio. Ensure that the steering wheel control jack used is labeled "REM". Also, some Alpine radios have a feature that turns the remote to either the back or the front. If the radio has this feature, ensure that the sensor is on the rear setting. If the setting is on the rear setting, turn it to the front, then back to the rear.
  - **For Pioneer and Sony radios:** If the ASWC-1 works, yet the buttons are out of order, or become out of order, this could be caused by the 3.5mm jack. It may not be seating properly, slipping out, or have residue on the contacts. Clean the contacts, reinsert the jack firmly into the radio, then put a stress loop on the 3.5mm cable to prevent the cable from slipping out. Also, if anything is prohibiting the jack from seating all the way in such as a heatsink, lightly trim some of the plastic from the 3.5mm jack as needed. Take note that the steering wheel control jack for Pioneer radios is labeled "W/R". For Sony radios it is a blue jack labeled "REMOTE".
  - **Any radio using a wire for SWC connection:** Ensure the correct steering wheel control wire is used from the *Female 3.5mm jack with stripped leads* (included with ASWC-1). For radios only requiring 1 wire, ensure that the solid **Brown** wire is used. The **Brown/White** wire will not be used in these applications. Take note that the solid **Brown** wire is always the primary wire.
- If all steps have been performed and the ASWC-1 still doesn't function, or doesn't function properly, update the ASWC-1 to the latest software via [AxxessInterfaces](#). After updating the ASWC-1, program it to the vehicle following the vehicle specific document. If the ASWC-1 still fails to function, contact Tech Support at 1-800-253-TECH. Take note to be prepared to perform some tests in the vehicle when you contact Tech Support.

### Radio L.E.D. Feedback (Red light)

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

#### Keynotes

- \* If an **Alpine** radio is not installed, yet the ASWC-1's light flashes **Red** 7 times, this means an open connection. Verify that the ASWC-1's 3.5mm jack is connected to the radio. If it is, then the jack may be defective. Verify continuity with a multimeter.
  - \*\* The AX-SWC-PARROT is required (sold separately). The software in the radio must be rev. 2.1.4 or higher.
  - † If a **Clarion** radio is installed and the steering wheel controls do not work, change the radio type to the opposite **Clarion** radio type; likewise for **Eclipse**. Refer to the **Changing Radio Type** document.
  - ‡ If a **Kenwood** radio is installed and the L.E.D. feedback comes back showing as a **JVC** radio, change the radio type to **Kenwood**. Refer to the **Changing Radio Type** document.
- Note:** The ASWC's light will flash **Red** the amount of times shown for the radio installed. Example, a **Pioneer** radio will flash **Red** 6 times.



## Remapping

After the ASWC-1 has been programmed and functioning properly, the button assignment for the steering wheel controls may be reassigned. For example, **Seek Down** may be preferred to be **Mute** instead. This feature can be performed by either following the steps below, through a Windows based computer using the **Axxess Updater**, or through the **Axxess Updater** app available from the Android/Apple mobile devices app store.

**Note:** Apple mobile devices will require the use of the **AX-HUB** for this feature.

**Attention!** If more than 20 seconds elapses between steps, the procedure will abort, and the ASWC-1's light will go out. The ASWC-1 may not function properly and may need to be reset and reprogrammed.

1. Turn the key to ignition and wait until the ASWC-1's light flashes **Green** 1 time then goes out.
2. Immediately press and hold the **Volume Up** button on the steering wheel until the ASWC-1's light turns on solid **Green**, then release. The light will then go out indicating **Volume Up** has now been programmed.
3. Press and hold the **Volume Down** button on the steering wheel until the ASWC-1's light goes solid **Green**, then release. The light will then go out indicating **Volume Down** has now been programmed.
4. Continue from **Seek Up / Next** in the **Button Function Legend** to reference the order in which the steering wheel control buttons must be programmed.

**Note:** If a function in the legend is not present on the steering wheel, press the **Volume Up** button on the steering wheel until the ASWC-1's light turns on solid **Green**, then release. This will tell the ASWC-1 to skip that function.

5. To complete the remapping process, press and hold the **Volume Up** button on the steering wheel until the ASWC-1's light goes solid **Green**, then goes out. Release the **Volume Up** button on the steering wheel at this point. The remapping process is now complete.

### Button Function Legend

Function #	Function	Function #	Function
1	Volume Up	10	Band
2	Volume Down	11	Play / Enter
3	Seek Up / Next	12	PTT (push to talk)
4	Seek Down / Previous	13	On Hook
5	Source / Mode	14	Off Hook
6	Mute	15	Fan Up *
7	Preset Up	16	Fan Down *
8	Preset Down	17	Temp Up *
9	Power	18	Temp Down *

\* Not applicable in this application

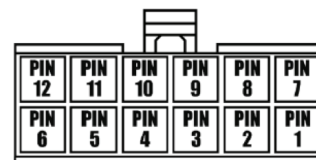
**Note:** Certain radios may not have these commands. Please refer to the manual provided with the radio, or contact the radio Manufacturer for specific commands recognized by that particular radio.



## Vehicle Troubleshooting

If the ASWC-1's auto detect feature was used and at the end of the programming sequence the ASWC-1's light flashes **Red/Green** instead of going solid **Red**, this means that the ASWC-1 didn't detect the vehicle. Follow the steps below to trace down where the problem may lie. If any of the following steps are performed, reset and reprogram the ASWC-1 according to the vehicle specific document. Scroll down to the end of the document for a physical layout of the ASWC-1 showing the reset button location.

- Ensure that the ASWC-1 is programmed correctly according to the vehicle specific document. In general, there are 3 different ways to program the ASWC-1 depending on the vehicle, “**press and hold**”, “**tap**”, and “**do nothing**”. For applications to “**press and hold**” the **Volume Up** button on the steering wheel, ensure that the **Volume Up** button is held all the way to the end of the programming sequence. Sometimes pressing and holding the **Volume Up** button before resetting the ASWC-1 helps. For applications to “**tap**” the **Volume Up** button on the steering wheel, ensure that the **Volume Up** button is tapped at a heartbeat pace. Don't tap too slow, or too fast. Try tapping the **Volume Up** button at different speeds if no success after a couple attempts. For applications that don't require any intervention with the **Volume Up** button on the steering wheel (“**do nothing**”), ensure that no buttons are pressed during the programming sequence.
- Ensure that the factory equipment functions properly, and still functions properly after attempting to install the aftermarket equipment. Temporarily reinstall the factory radio, then test the steering wheel controls for functionality. Take note which button is for **Volume Up**. Some vehicles may have this button behind the steering wheel, and this button may be upside down if the steering wheel is turned. Make sure that all of the steering wheel control buttons function, and that none of them are smashed down. There should be spring-like feel to the buttons. The factory radio may function with a bad button(s), but the ASWC-1 most likely will not. Especially important is the **Volume Up** button, which the ASWC-1 uses for programming. Also worth mentioning is optional “non-audio” buttons. Some Ford and Subaru vehicles that do not have Bluetooth repurpose the secondary steering wheel control wire. Do not connect “steering wheel control wire 2” in these applications.
- Check power and ground at the ASWC-1. With the key in the accessory position, connect the red and black leads from a multimeter to the **Solid Black** wire, and the **Red** wire, from the ASWC-1, directly at the 12-pin connector. The meter should read roughly 12-volts DC.
- Confirm that the ASWC-1 has a good ground in the vehicle. Due to the nature of how microprocessors function, sometimes having the ASWC-1's ground shared with the factory ground in the wiring harness is not sufficient and could cause problems. The use of a chassis ground solely by itself is highly recommended, especially in data communication vehicles (**Pink** wire applications). Attach the **Solid Black** wire from the ASWC-1 to a good chassis ground, all by itself. Ensure that this wire is straight from the ASWC-1 without any extensions, and make sure that a ring terminal (not supplied) is used, and crimped properly. This will alleviate any grounding issues that could prevent the ASWC-1 from programming. Most cases of the ASWC-1 not programming comes from the lack of this step performed.
- Recheck that the wires connected from the ASWC-1 to the vehicle are correct. Reference the vehicle specific document, and double check that the proper document is used. Some vehicles have more than 1 document for different trims. If it is a non-data communication vehicle, test the factory steering wheel control wires with a multimeter by applying the negative from the meter to the steering wheel control ground wire, and the positive to the steering wheel control positive wire. With no load connected to the wires. Have the meter on a resistance setting (OHM  $\Omega$ ), then test each steering wheel control button one at a time. Each button should show a solid reading with little fluctuation, and there should be a noticeable difference between each button. Note that the **Volume Up** button is crucial to be 100% proper as this is the button used for programming. Write these values down if Tech Support will be contacted.
- Verify that the wires connected from the ASWC-1 to the vehicle are connected directly, copper to copper, i.e., solder, crimp cap, military splice. No tapping style connectors or butt connectors are permitted due to increased resistance and poor performance. If a pre-wired ASWC-1 harness is being used, (and all troubleshooting steps have been tried and the ASWC-1's light still doesn't go solid **Red**), remove the pre-wired ASWC-1 harness and use the harness that came with the ASWC-1 instead.
- If the ASWC-1's light still doesn't go solid **Red** at the end of the programming sequence, refer to the **Manual Programming** document to manually program the ASWC-1 to the vehicle (non-data vehicles only).
- **For data communication vehicles:** If the ASWC-1's light still doesn't go solid **Red** at the end of programming, ensure that all factory electronic modules are connected to the vehicle, i.e., climate control, upper display, push-to-start button. Reconnect the factory radio and ensure that the steering wheel controls still function. Remove the key from the ignition, reinstall the aftermarket equipment, then reset and reprogram the ASWC-1. If the ASWC-1's light finally went solid **Red**, cycle the key off/on, then test the steering wheel controls for functionality.
- **For Metra Euro kits with an included ASWC-1:** The ASWC-1's 3rd, 4th, 5th and 6th **Red** light flashes should be longer. If any of these flashes are not longer, inspect that the following wires are connected (pin-out diagram shown to the right): Pin-4, Pin-5, Pin-8, Pin-11.
- If all steps have been performed and the ASWC-1 still doesn't go solid **Red** at the end of the programming sequence, update the ASWC-1 to the latest software via [AxxessInterfaces](#). After updating the ASWC-1, program it to the vehicle following the vehicle specific document. If the ASWC-1 still doesn't go solid **Red** at the end of the programming sequence after being updated, contact Tech Support at 1-800-253-TECH. Take note to be prepared to perform some tests in the vehicle when you contact Tech Support.



### Vehicle L.E.D. Feedback (Green light)

Longer Light Flash	ASWC-1 Wire
1	White/Green
2	Yellow/Green
3	Green/Orange
4	Gray/Red
5	Black/Green
6	Gray/Blue
7	Pink

### Keynotes

- Long **Green** light flashes represent wire(s) that are connected from the vehicle to the ASWC-1.
- Short **Green** light flashes represent wire(s) that are not connected from the vehicle to the ASWC-1.
- Note that there will always be 7 **Green** flashes, in every application. But what is important is the length of the **Green** flashes. An example is data communication vehicles. In these vehicles the 7th **Green** flash should be longer, indicating that the **Pink** wire is connected. Some may be confused by this process because it is assumed that 7 **Green** flashes total means that the **Pink** wire is connected. This assumption is false. The 7th **Green** flash must be longer than the prior 6 **Green** flashes.
- In data communication vehicles that require 2 wires (**Blue/Pink & Pink**) connected to the ASWC-1, only the **Pink** wire will show up in L.E.D. feedback.
- In “**press and hold**” vehicles that require more than 1 wire connected to the ASWC-1, only the primary wire will show up in L.E.D. feedback.



Update Port    Reset Button    Programming LED

## Dual Assignment (long button press)

The **ASWC-1** has the capability to assign (2) functions to a single button except for **Volume Up** and **Volume Down**, after the ASWC-1 has been programmed and is fully functional. This feature can be performed by either following the steps below, through a Windows based computer using the **Axxess Updater**, or through the **Axxess Updater** app available from the Android/Apple mobile devices app store.

**Notes:**

- a) **Seek Up** and **Seek Down** come pre-programmed as **Preset Up** and **Preset Down** for a long button press.
- b) Apple mobile devices will require the use of the **AX-HUB** for this feature.

**Attention!** If more than 10 seconds elapses between steps, the procedure will abort, and the ASWC-1's light will go out. The ASWC-1 may not function properly and may need to be reset and reprogrammed.

1. Turn the radio off.
2. Turn the key to ignition and wait until the ASWC-1's light flashes **Green** 1 time then goes out.
3. Press and hold the desired steering wheel control button for 10 seconds, or until the ASWC-1's light flashes rapidly **Green**, then release. The light will then turn on solid **Green** indicating that the ASWC-1 is in **Dual Assignment** mode.
4. Press and release the **Volume Up** button on the steering wheel the number of times corresponding to the desired function for dual assignment. Reference the **Dual Assignment Legend**.
5. Press the desired button to store it to memory (the same one as in step 2). The ASWC-1's light will now go out indicating that the new information has been stored to memory.

**Note:** These steps must be repeated for each button desired to assign a dual assignment feature to. To reset a button back to its default state, repeat Step 2, then press the **Volume Down** button on the steering wheel. The ASWC-1's light will go out, and the dual assignment feature for that button will be erased.

### Dual Assignment Legend

Function #	Function	Function #	Function
1	Not allowed	10	Band
2	Not allowed	11	Play / Enter
3	Seek Up / Next	12	PTT
4	Seek Down / Previous	13	On Hook
5	Mode / Source	14	Off Hook
6	ATT / Mute	15	Fan Up *
7	Preset Up	16	Fan Down *
8	Preset Down	17	Temp Up *
9	Power	18	Temp Down *

\* Not applicable in this application

## Manual Programming

If the auto programming sequence fails even after following the troubleshooting steps, the ASWC-1 may be able to be manually programmed to the vehicle. This document only applies to resistive based steering wheel control vehicles (non-data communication vehicles that *do not* use the **Pink** wire for steering wheel control). Please read these steps beforehand to have a clear understanding of what is to be expected. This is a timed process. The procedure is broken up into 2 steps for reference, but the entire process must be completed.

**Attention!** If more than 20 seconds elapses between steps, the procedure will abort.

### Vehicle programming section:

1. Turn the key to ignition.
2. Press and hold the **Reset** button in the ASWC-1 for approximately 15 seconds, or until the ASWC-1's light flashes slowly **Red/Green**. Release the **Reset** button at this point.
3. Press and hold the **Volume Up** button on the steering wheel until the ASWC-1's light goes solid **Green**, then release. The light will then go out indicating **Volume Up** has now been programmed.  
**Note:** If the ASWC-1's light doesn't go solid **Green** after 7 seconds, there may be a problem with the vehicles **Volume Up** button.
4. Press and hold the **Volume Down** button on the steering wheel until the ASWC-1's light goes solid **Green**, then release. The light will then go out indicating **Volume Down** has now been programmed.
5. Continue from **Seek Up / Next** in the **Manual Programming Legend** to reference the order in which the steering wheel control buttons must be programmed.  
**Note:** If a function in the legend is not present on the steering wheel, press the **Volume Up** button on the steering wheel until the ASWC-1's light turns on solid **Green**, then release. This will tell the ASWC-1 to skip that function.
6. After the last steering wheel control button has been programmed, press and hold the **Volume Up** button on the steering wheel until the ASWC-1's light flashes slowly **Red/Green**, then release.

### Radio programming section:

7. Press and hold the **Volume Down** button on the steering wheel until the ASWC-1's light flashes rapidly **Red/Green**, then release.
8. After approximately 4 seconds, the ASWC-1's light will go out for a couple seconds. The light will then flash **Red** up to 18 times depending on which radio is installed.
9. If the **Red** flashes *do* match the radio installed, continue on to step 10. If the **Red** flashes *do not* match the radio installed, press and hold the **Volume Up** button on the steering wheel until the ASWC-1's light turns on solid **Red**, then release. Repeat this step for the desired radio number selected. Reference the **Radio Legend**. Continue on to step 10 from this point.
10. Press and hold the **Volume Down** button on the steering wheel until the ASWC-1's light goes solid **Red**.
11. This is the end of the manual programming sequence. Test the steering wheel controls for functionality.

### Manual Programming Legend

Function #	Function	Function #	Function
1	Volume Up	10	Band
2	Volume Down	11	Play / Enter
3	Seek Up / Next	12	PTT (push to talk)
4	Seek Down / Previous	13	On Hook
5	Source / Mode	14	Off Hook
6	Mute	15	Fan Up
7	Preset Up	16	Fan Down
8	Preset Down	17	Temp Up
9	Power	18	Temp Down

### Radio Legend

Radio #	Radio	Radio #	Radio
1	Eclipse (type 1)	10	Clarion (type 2)
2	Kenwood	11	Metra OE
3	Clarion (type 1)	12	Eclipse (type 2)
4	Sony / Dual	13	LG
5	JVC	14	Parrot
6	Pioneer / Jensen	15	XITE
7	Alpine	16	Philips
8	Visteon	17	TBA
9	Valor	18	JBL

### Keynotes

- a. Some vehicles may not retain certain steering wheel control commands from the steering wheel. Non-audio commands may or may not be recognized, i.e., Bluetooth or Menu commands. Known vehicles are GM vehicles with OnStar, and Ford vehicles with SYNC.
- b. Aftermarket radios that do not have Bluetooth capability will not recognize the **PTT (push to talk)** or **On/Off Hook** commands. However, these buttons may be able to be manually programmed for other commands. Contact the radio Manufacturer for specific commands that the radio will recognize.