

## Ford Data Interface with SWC 2011-2019



### INTERFACE COMPONENTS

- AX-FD2-SWC interface
- AX-FD2-SWC harness
- 16-pin harness
- 3.5mm adapter

### APPLICATIONS

#### FORD

Edge	2011-2014	F-150 (with a 4.2" screen)	2013-2014	Transit Connect	
Escape	2013-2019	Fiesta (without MyFord Touch)	2014-2019	(with AM/FM/CD/SYNC radio)	2014-2018
Explorer	2011-2015	Focus (without MyFord Touch)	2012-2014*		

\* For models without SYNC, the ASWC-1 (sold separately) will be required to retain the audio buttons on the steering wheel.

### INTERFACE FEATURES

- Provides accessory power (12-volt 10-amp)
- Retains R.A.P. (retained accessory power)
- Provides NAV outputs (parking brake, reverse, speed sense)
- Retains audio controls on the steering wheel
- Retains SYNC
- Retains the factory AUX-IN jack
- Designed for non-amplified models
- Retains balance and fade
- Micro-B USB updatable

### TABLE OF CONTENTS

Connections .....	2-3
Installation .....	3
Programming .....	4
Extra features .....	4
Steering wheel control settings .....	5-7
- L.E.D. feedback .....	5
- Changing radio type .....	5
- Remapping .....	6
- Dual assignment instructions .....	7
Troubleshooting .....	8

### TOOLS & INSTALLATION ACCESSORIES REQUIRED

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

### Product Info



## CONNECTIONS

### From the 16-pin harness to the aftermarket radio, connect the:

- **Red** wire to the accessory wire.  
**Note:** If installing an AX-LCD (sold separately), there will be an accessory wire there to connect as well.
- **Orange/White** wire to the illumination wire (if applicable).
- **Brown** wire to the mute wire, only if equipped with SYNC (if applicable).  
**Note:** If the mute wire is not connected, the radio will turn off when SYNC is activated.
- **Gray** wire to the right front positive speaker output.
- **Gray/Black** wire to the right front negative speaker output.
- **White** wire to the left front positive speaker output.
- **White/Black** wire to the left front negative speaker output.

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

- **Blue/Pink** wire to the VSS/speed sense wire.
- **Green/Purple** wire to the reverse wire.
- **Light Green** wire to the parking brake wire
- Tape off and disregard the following (5) wires, they will not be used in this application:  
**Blue/White, Green, Green/Black, Purple, Purple/Black.**

### From the AX-FD2-SWC harness to the aftermarket radio, connect the:

- **Black** wire to the ground wire.
- **Yellow** wire to the battery wire.
- **Blue** wire to the power antenna wire.
- **Green** wire to the left rear positive speaker output.
- **Green/Black** wire to the left rear negative speaker output.
- **Purple** wire to the right rear positive speaker output.
- **Purple/Black** wire to the right rear negative output.
- If the vehicle is equipped with SYNC, connect the **Red** and **White** RCA jacks labeled “RSE/ SYNC/SAT” to the audio AUX-IN jacks.
- If the vehicle is equipped without SYNC, connect the **Red** and **White** RCA jacks labeled “FROM 3.5” to the audio AUX-IN jacks.  
**Note:** Excluding F-150.
- The DIN jack is to be used with the optional AX-LCD (sold separately) to retain SYNC information.
  - **Red** wire to accessory power.

*Continue to 3.5mm jack steering wheel control retention*

### 3.5mm jack steering wheel control retention:

- The 3.5mm jack is to be used to retain audio controls on the steering wheel.
- **For the radios listed below:** Connect the **3.5mm adapter** to the male 3.5mm SWC jack from the AX-FD2-SWC. 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.
 

**Note:** If your 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 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 AX-FD2-SWC 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.

### With the key in the off position:

- Connect the 16-pin harness, and the AX-FD2-SWC harness, into the interface.

**Attention!** Do not connect the AX-FD2-SWC harness to the wiring harness in the vehicle just yet.

**Attention!** If retaining steering wheel controls, ensure that the jack/wire is connected to the radio before proceeding. If this step is skipped, the interface will need to be reset for the steering wheel controls to function.

## PROGRAMMING

For the steps below, the L.E.D. located inside the interface can only be seen while active. The interface does not need to be opened to see the L.E.D.

- Start the vehicle.
- Connect the AX-FD2-SWC harness to the wiring harness in the vehicle.
- The L.E.D. will initially turn on solid **Green**, then turn off for a few seconds while it auto detects the radio installed.
- The L.E.D. will then flash **Red** up to (18) times indicating which radio is connected to the interface, and then turn off for a couple of seconds. Pay close attention to how many **Red** flashes there are. This will help in troubleshooting, if need be. Refer to the L.E.D. feedback section for more information.
- After a couple seconds the L.E.D. will turn on solid **Red** while the interface auto detects the vehicle. The radio will shut off at this point. This process should take 5 to 30 seconds.
- Once the vehicle has been auto detected by the interface, the L.E.D. will turn on solid **Green**, and the radio will come back on, indicating programming was successful.
- Test all functions of the installation for proper operation, before reassembling the dash. If the interface fails to function, refer to Resetting the AX-FD2-SWC.

**Note:** The L.E.D. will turn on solid **Green** for a moment, and then turn off under normal operation after the key has been cycled.

## EXTRA FEATURES

### SYNC:

- If the vehicle is equipped with SYNC, the AX-FD2-SWC can retain this feature.
- Change the source of the radio to AUX-IN; SYNC audio will start playing if SYNC has been activated.
- The display in the factory screen, or the optional AX-LCD (sold separately) will display the SYNC information.
- Listed below are the functions of the AX-LCD while using SYNC:
  - Arrow up—Channel up (only in USB mode)
  - Arrow down—Channel down (only in USB mode)
  - Enter—Selects current item on the screen
  - Return/ESC—Exits to the previous screen

# STEERING WHEEL CONTROL SETTINGS

## L.E.D. feedback

The (18) **Red** L.E.D. flashes represent what brand radio the AX-FD2-SWC believes it is connected to. Each flash represents a different radio manufacturer. For example, if you are installing a JVC radio, the AX-FD2-SWC will flash (5) times. Following is a legend that dictates which manufacturer corresponds to which flash.

## L.E.D. feedback legend

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

\* **Note:** If the AX-FD2-SWC flashes Red (7) times, and you do not have an Alpine radio connected to it, that means the AX-FD2-SWC 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:** Part number 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](http://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. The following section explains how to do this.

‡ **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. The following section explains how to do this.

**Attention:** The Axxess Updater App can also be used to program the following (3) sub-sections as well, pending that the interface has been initialized and programmed.

## Changing radio type

If the LED flashes do not match the radio you have connected, you must manually program the AX-FD2-SWC to tell it what radio it is connected to.

1. After (3) seconds of turning the key on, press and hold the Volume-Down button on the steering wheel until the L.E.D. in the AX-FD2-SWC goes solid.
2. Release the Volume-Down button; the L.E.D. will go out indicating we are now in Changing Radio Type mode.
3. Refer to the Radio Legend to know which radio number you would like to have programmed.
4. Press and hold the Volume-Up button until the L.E.D. goes solid, and then release. Repeat this step for the desired radio number you have selected.
5. Once the desired radio number has been selected, press and hold the Volume-Down button on the steering wheel until the L.E.D. goes solid. The L.E.D. will remain on for about (3) seconds while it stores the new radio information.
6. Once the L.E.D. goes off, the Changing Radio Type mode will then end. You can now test the steering control wheel controls.

**Note:** If at any time the user fails to press any button for a period longer than (10) seconds, this process will abort.

*Continued on the next page*

## STEERING WHEEL CONTROL SETTINGS (CONT)

### Radio legend

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

### Remapping the steering wheel control buttons

Let's say you have AX-FD2-SWC initialized and you want to change the button assignment for the steering wheel control buttons. For example, you would like Seek-Up to become Mute. Follow the steps below to remap the steering wheel control buttons:

1. Ensure the AX-FD2-SWC is visible so you can see the L.E.D. flashes to confirm button recognition.

**Tip:** Turning the radio off is recommended.

2. Within the first twenty seconds of turning the ignition on, press and hold the Volume-Up button on the steering wheel until the L.E.D. goes solid.
3. Release the Volume-Up button, the L.E.D. will then go out; The Volume-Up button has now been programmed.
4. Follow the list in the Button Assignment Legend to reference the order in which the steering wheel control buttons need to be programmed.

**Note:** If the next function on the list is not on the steering wheel, press the Volume-Up button for (1) second until the L.E.D. comes on, and then release the Volume-Up button. This will tell the AX-FD2-SWC that this function is not available and it will move on to the next function.

5. To complete the remapping process, press and hold the Volume-Up button on the steering wheel until the L.E.D. in the AX-FD2-SWC goes out.

### Button assignment legend

- |                   |                          |
|-------------------|--------------------------|
| 1. Volume-Up      | 10. Band                 |
| 2. Volume-Down    | 11. Play/Enter           |
| 3. Seek-Up/Next   | 12. PTT (Push to Talk) * |
| 4. Seek-Down/Prev | 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 if the vehicle is equipped with SYNC

\*\* Not applicable in this application

**Note:** Not all radios will have all of these commands. Please refer to the manual provided with the radio, or contact the radio manufacturer for specific commands recognized by that particular radio.

*Continued on the next page*

## STEERING WHEEL CONTROL SETTINGS (CONT)

### Dual assignment instructions (long button press)

The AX-FD2-SWC has the capability to assign (2) functions to a single button, except Volume-Up and Volume-Down. Follow the steps below to program the button(s) to your liking.

**Note:** Seek-Up and Seek-Down come pre-programmed as Preset-Up and Preset-Down for a long button press.

1. Turn on the ignition but do not start the vehicle.
2. Press and hold down the steering wheel control button that you want to assign a long press function to for about (10) seconds, or until the L.E.D. flashes rapidly. At this point release the button; the L.E.D. will then go solid.
3. Press and release the Volume-Up button the number of times corresponding to the new button number selected. Refer to the Dual Assignment Legend. The L.E.D. will flash rapidly while the Volume-Up button is being pressed, and then go back to a solid L.E.D. once released. Go to the next step once the Volume-Up button has been pressed the desired number of times.

**Caution:** If more than (10) seconds elapses between pressing the Volume-Up button, this procedure will abort, and the L.E.D. will go out.

4. To store the long press button in memory, press the button that you assigned a long press button to (the button held down in Step 2). The L.E.D. will now go off indicating the new information has been stored.

**Note:** These steps must be repeated for each button you would like to assign a dual purpose feature to. To reset a button back to its default state, repeat Step 1, and then press the Volume-Down button. The L.E.D. will go out, and the long press mapping for that button will be erased.

### Dual assignment legend

- |                   |                 |
|-------------------|-----------------|
| 1. Not allowed    | 10. Band        |
| 2. Not allowed    | 11. Play/Enter  |
| 3. Seek-Up/Next   | 12. PTT         |
| 4. Seek-Down/Prev | 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

### TROUBLESHOOTING

#### Resetting the AX-FD2-SWC

1. The **Blue** reset button is located inside the interface, between the two connectors. The button is accessible outside the interface, no need to open the interface.
2. Press and hold the reset button for two seconds, and then let go to reset the interface.
3. Refer to the **Programming** section from this point.

Having difficulties? We're here to help.



Contact our Tech Support line at:

**386-257-1187**



Or via email at:

[techsupport@metra-autosound.com](mailto:techsupport@metra-autosound.com)

#### Tech Support Hours (Eastern Standard Time)

Monday - Friday: 9:00 AM - 7:00 PM

Saturday: 10:00 AM - 7:00 PM

Sunday: 10:00 AM - 4:00 PM



#### **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**