

## Land Rover **Freelander 2** (with M.O.S.T. 25 amplifier) **Data Interface with SWC & Factory Display Retention 2006-2014**

### INTERFACE FEATURES

- Provides accessory power
- Designed for amplified models
- Provides NAV outputs (parking brake, reverse, speed sense)
- Retains audio controls on the steering wheel
- Retains parking sensor chimes
- Retains balance
- Retains factory features: date, time
- Retains most of the vehicle settings that was displayed on the factory radio \*
- Micro "B" USB updatable

\* **Attention!** *The aftermarket radios backup camera input will be used to display the vehicle settings. If the radio doesn't have a backup camera input, then there will be no visualization of the vehicle settings. An externally mounted screen could be substituted in this situation.*

### INTERFACE COMPONENTS

- AX-LR904 interface
- AX-LR904 amplifier interface
- ASWC-1 interface
- AX-LR904 harness
- ASWC-1 harness
- M.O.S.T. jumper harness
- Female 3.5mm connector with stripped leads
- Chime speaker

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### TOOLS REQUIRED

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

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

## CONNECTIONS TO BE MADE

### From the aftermarket radio to the AX-LR904 harness:

- Connect the **Black** wire to the ground wire.
- Connect the **Yellow** wire to the battery wire.
- Connect the **Red** wire to the accessory wire.
- If the aftermarket radio has an illumination wire, connect the **Orange** wire to it.
- Connect the **Blue** wire to the power antenna turn-on wire.
- Connect the **Brown** wire to the mute wire.

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

- Connect the **Blue/Pink** wire to the VSS/speed sense wire.
- Connect the **Green/Purple** wire to the reverse wire.
- Connect the **Light Green** wire to the parking brake wire.
- Connect the **Red** and **White** RCA jacks to the front amplifier output jacks of the aftermarket radio.

### From the aftermarket radio to the ASWC-1 harness:

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

- Connect the **Red** wire to the accessory wire.
- For the radios listed below, connect the *female 3.5mm connector with stripped leads*, to the male 3.5mm SWC jack from the ASWC-1 harness. Any remaining wires tape off and disregard:
  - **Eclipse:** Connect the steering wheel control wire, normally **Brown**, to the **Brown/White** wire of the connector. Then connect the remaining steering wheel control wire, normally **Brown/White**, to the **Brown** wire of the connector.

- **Metra OE:** Connect the steering wheel control Key 1 wire (Gray) to the **Brown** wire.
- **Kenwood or select JVC with a steering wheel control wire:** Connect the **Blue/Yellow** wire to the **Brown** wire.
- **XITE:** Connect the steering wheel control SWC-2 wire from the radio to the **Brown** wire.
- **Parrot Asteroid Smart or Tablet:** Connect the 3.5mm jack into the AX-SWC-PARROT (sold separately), and then connect the 4-pin connector from the AX-SWC-PARROT into the radio.  
**Note:** *The radio must be updated to rev. 2.1.4 or higher software.*
- **Universal “2 or 3 wire” radio:** Connect the steering wheel control wire, referred to as Key-A or SWC-1, to the **Brown** wire of the connector. Then connect the remaining steering wheel control wire, referred to as Key-B or SWC-2, to the **Brown/White** wire of the connector. If the radio comes with a third wire for ground, disregard this wire.  
**Note:** *After the interface has been programmed to the vehicle, refer to the manual provided with the radio for assigning the SWC buttons. Contact the radio manufacturer for more information.*

- **For all other radios:** Connect the 3.5mm jack from the ASWC-1 harness, into the jack on the aftermarket radio designated for an external steering wheel control interface. Please refer to the aftermarket radios manual if in doubt as to where the 3.5mm jack goes to.
- Connect the **Yellow** male RCA jack labeled “To Reverse Camera Input (Radio)”, to the backup camera input.  
**Note:** *The aftermarket radios backup camera input will be used to display the vehicle settings. If the radio doesn't have a backup camera Input, then there will be no visualization of the vehicle settings. An externally mounted screen could be substituted in this situation.*
- If installing an aftermarket backup camera, connect the **Yellow** female RCA jack labeled “To Reverse Camera”, to the camera.

## INSTALLING THE AX-LR904 INTERFACE

### With the key in the off position:

- Zip tie the chime speaker under the dash to a location where it will be heard clearly by the driver, then route the harness to the radio location.
- Connect the chime speaker to the connector on AX-LR904 Interface labeled “To Speaker”.
- Connect the AX-LR904 harness to the AX-LR904 interface.
- Remove the dust cover from fiber optic port in the AX-LR904 amplifier interface.
- Connect the factory fiber optic cable into the AX-LR904 amplifier interface.
- Connect the AX-LR904 harness to the AX-LR904 amplifier interface.
- Connect the M.O.S.T. jumper harness to the factory fiber optic cable from the display screen.
- Connect the AX-LR904 harness to the wiring harness in the vehicle. The **Green** 10-pin harness will connect at the display screen. The **Gray** 14-pin harness will connect at the CD Drive.
- Connect the ASWC-1 harness to the ASWC-1 interface, and then to the AX-LR904 interface.

## PROGRAMMING THE ASWC-1 INTERFACE

- Press and hold the Volume-Up button on the steering wheel.
- Turn the ignition on, the L.E.D. in the ASWC-1 interface will start flashing rapidly, which means the ASWC-1 is looking for the vehicle and the radio.

**Note:** *If the L.E.D. did not start flashing rapidly, press the reset button for 3 seconds, while still holding the Volume-Up button.*

- After a few seconds the L.E.D. should stop flashing rapidly, and then go out for approximately 2 seconds.
- After approximately 2 seconds there will be a series of **7 Green** flashes, some short, and some long. The long flashes represent the wires that are connected to the ASWC-1. The 3rd, 4th, 5th, and 6th flashes should be longer.

**Tip:** *Knowing this will help to troubleshoot, if need be.*

- The L.E.D. will pause for another 2 seconds, and then flash **Red** up to 18 times depending on which radio is connected to the ASWC-1. Refer to the L.E.D. feedback section for information.
- This is the end of the auto detection stage. Release from holding the Volume-Up button. If the ASWC-1 detected the vehicle and the radio successfully, the L.E.D. will light up solid.
- Test the steering wheel controls for proper operation. Refer to the ASWC-1 instructions online at [axxessinterfaces.com](http://axxessinterfaces.com) for customizing the buttons, if so desired.

*Continued on the next page*

## PROGRAMMING THE ASWC-1 INTERFACE *(CONT.)*

### L.E.D. feedback

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

### L.E.D. feedback legend

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

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

\*\* **Note:** 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.

## SCREEN OPERATION

### Configuration Menu

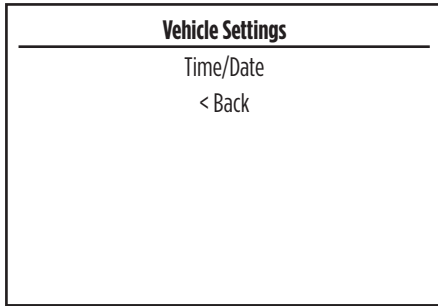
Vehicle Settings  
Interface Settings  
Language  
Version  
< Back

### Configuration Menu

- The buttons on the steering wheel will be used to operate the configuration menu, which will be shown on the aftermarket radio. To enable the menu, push and hold the MODE button for 2 seconds. Use the Track Up and Track Down buttons to navigate through the menu. To select a menu option, push the MODE button once.

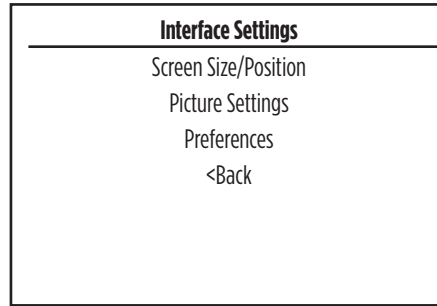
*Continued on the next page*

## SCREEN OPERATION (CONT.)



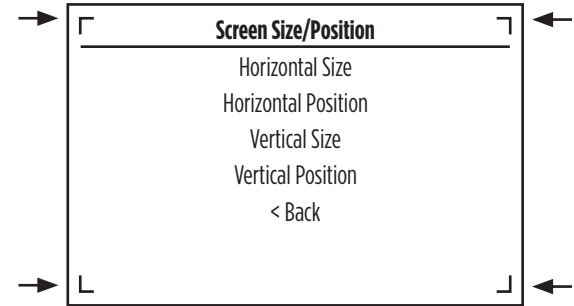
### Vehicle Settings

- Adjust Time/Date settings such as hours, minutes, year, month, and day.



### Interface Settings

- This is the main settings screen to access the settings within the interface.



### Screen Size/Position

- Make sure all 4 corner markers are touching the corners of the aftermarket radios display.

*Continued on the next page*

### Picture Settings

Brightness  
Contrast  
Saturation  
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#### Picture Settings

- Adjust brightness, contrast, and color saturation.

### Preferences

Park Assist Version      0  
Camera Connected      Yes  
Reverse Priority      Park Assist  
Park Brake Source      Speed  
Restore factory settings  
< Back

#### Preferences

- **Park Assist Version** - Select according to the color configuration of the park assist fitted to the vehicle.
- **Camera Connected** - Select 'Yes' if an optional backup camera will be installed.
- **Reverse Priority** - Select which image will be shown while the vehicle is in reverse. Options are Camera or Park Assist. The driver can select the desired image by pushing the Source button while in reverse.  
**Note:** *This option is only available if "Camera Connected" is set to "Yes".*
- **Park Brake Source** - Set to Speed, Brake, or Always On.
- **Restore Factory Settings** - Reverts all interface settings back to factory defaults. This will not restore the vehicle settings.





# AX-LR904

INSTALLATION INSTRUCTIONS



## IMPORTANT

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



## KNOWLEDGE IS POWER

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



**Metra recommends MECP certified technicians**