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

* NAV screen will only show LR logo

**INTERFACE FEATURES**
- Provides accessory power
- Retains R.A.P. (retained 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
- Micro “B” USB updatable

**INTERFACE COMPONENTS**
- AX-LR90102 interface
- AX-LR90102 amplifier interface
- AX-LR90102 chime retention interface
- ASWC-1 interface
- AX-LR90102 harness
- ASWC-1 harness
- Female 3.5mm connector with stripped leads
- M.O.S.T. jumper harness
- Chime speaker

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

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**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.

AxxessInterfaces.com © COPYRIGHT 2018 METRA ELECTRONICS CORPORATION REV. 5/11/18 INSTAX-LR90102
From the aftermarket radio to the AX-LR90102 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.

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.

- 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.
With the key in the off position:

- Connect the AX-LR90102 harness to the AX-LR90102 interface.
- Connect the AX-LR90102 harness to the AX-LR90102 amplifier interface.
- Remove the dust cover from fiber optic port in the AX-LR90102 amplifier interface.
- Connect the factory fiber optic cable from the CD drive into the AX-LR90102 amplifier interface.
- Connect the M.O.S.T. jumper harness to the factory fiber optic cable from the display screen.
- Connect the AX-LR90102 harness to the AX-LR90102 chime retention Interface.
- 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 AX-LR90102 chime retention Interface.
- Connect the AX-LR90102 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-LR90102 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 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

<table>
<thead>
<tr>
<th>Flash Count</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Eclipse (Type 1)</td>
</tr>
<tr>
<td>2</td>
<td>Kenwood</td>
</tr>
<tr>
<td>3</td>
<td>Clarion (Type 1)</td>
</tr>
<tr>
<td>4</td>
<td>Sony / Dual</td>
</tr>
<tr>
<td>5</td>
<td>JVC</td>
</tr>
<tr>
<td>6</td>
<td>Pioneer / Jensen</td>
</tr>
<tr>
<td>7</td>
<td>Alpine</td>
</tr>
<tr>
<td>8</td>
<td>Visteon</td>
</tr>
<tr>
<td>9</td>
<td>Valor</td>
</tr>
<tr>
<td>10</td>
<td>Clarion (Type 2)</td>
</tr>
<tr>
<td>11</td>
<td>Metra OE</td>
</tr>
<tr>
<td>12</td>
<td>Eclipse (Type 2)</td>
</tr>
<tr>
<td>13</td>
<td>LG</td>
</tr>
<tr>
<td>14</td>
<td>Parrot</td>
</tr>
<tr>
<td>15</td>
<td>XITE</td>
</tr>
<tr>
<td>16</td>
<td>Philips</td>
</tr>
<tr>
<td>17</td>
<td>TBD</td>
</tr>
<tr>
<td>18</td>
<td>JBL</td>
</tr>
</tbody>
</table>

* 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 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.

† 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.