

Volvo XC90 Data Interface with SWC 2003-2014

INTERFACE FEATURES

- Provides accessory power
- Retains R.A.P. (retained accessory power)
- Includes amplifier bypass harness
- Provides NAV outputs (parking brake, reverse, speed sense)
- Retains audio controls on the steering wheel
- Retains parking sensor chimes
- Retains balance and fade
- Micro "B" USB updatable

INTERFACE COMPONENTS

- AX-VL90042 interface
- AX-VL90042 chime retention Interface
- ASWC-1 interface
- AX-VL90042 harness
- ASWC-1 harness
- Female 3.5mm connector with stripped leads
- M.O.S.T. jumper harness (qty. 2)
- Chime speaker

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TOOLS REQUIRED

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

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-VL90042 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 **White** wire to the left front positive speaker.
- Connect the **White/Black** wire to the left front negative speaker.
- Connect the **Gray** wire to the right front positive speaker.
- Connect the **Gray/Black** wire to the right front negative speaker.
- Connect the **Green** wire to the radio's left rear positive speaker.
- Connect the **Green/Black** wire to the radio's left rear negative speaker.
- Connect the **Purple** wire to the radio's right rear positive speaker.
- Connect the **Purple/Black** wire to the radio's right rear negative speaker.

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.

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.

INSTALLING THE AX-VL90042 INTERFACE

With the key in the off position:

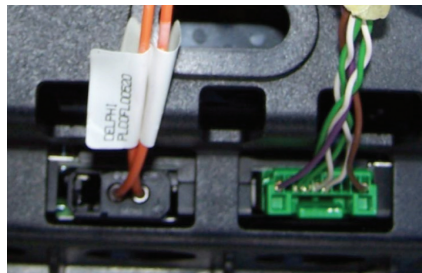
- Locate the factory amplifier under the passenger seat.
- Extend the wire harness with the **Gray** and **Green** connectors to this point.
- Unplug the connectors from the amplifier, and then connect the **Gray** and **Green** connectors to the harnesses unplugged from the amplifier. (Figure A)

Note: *The factory **Green** connector in the middle will not be used in this application.*

- Connect the M.O.S.T. jumper harness to the factory fiber optic cable from the amplifier.
- Locate the **Green** 10-pin connector at the factory display screen. (Figure B)
- Unplug the connector, then plug in the **Green** male 10-pin connector from the AX-VL90042 harness into the display screen.
- Connect the factory male 10-pin connector, into the **Green** female 10-pin connector from the AX-VL90042 harness.
- If the vehicle has a factory backup camera, connect the M.O.S.T. jumper harness to the factory fiber optic cable from the display screen.
- Connect the AX-VL90042 harness to the AX-VL90042 interface.
- Connect the AX-VL90042 harness to the AX-VL90042 chime retention Interface.
- Tie wrap 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 the right side of the AX-VL90042 chime retention Interface.
- Connect the ASWC-1 harness to the ASWC-1 interface, and then to the AX-VL90042 interface.



(Figure A)



(Figure B)

PROGRAMMING THE ASWC-1 INTERFACE

- 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.

- 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. 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.

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 - Phillips
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

† **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.