AX-GMLAN11-SWC
GM Data Interface
2006-2012

INTERFACE FEATURES

- Provides accessory power (12-volt 10-amp)
- Retains R.A.P. (retained accessory power)
- Provides NAV outputs (parking brake, reverse, and speed sense)
- Retains chimes
- Retains audio controls on the steering wheel
- Retains OnStar / OE Bluetooth
- Adjustable OnStar level
- Retains the factory AUX-IN jack
- Retains SAT (satellite radio)
- Can be used in non-amplified or amplified models
- Retains balance and fade
- Micro “B” USB updatable

INTERFACE COMPONENTS

- AX-GMLAN11-SWC interface • AX-GMLAN11-SWC harness
- 16-pin harness with stripped leads
- 4-pin to 4-pin resistor pad harness
- Female 3.5mm connector with stripped leads

APPLICATIONS

CHEVROLET		PONTIAC		PONTIAC (CONT)		SATURN	
Cobalt	2007-2010	G5	2007-2009	G6	2010	Aura	2007-2009
HHR	2006-2011	G6 (5th digit of VIN must		Solstice	2006-2009	Sky	2007-2009
Malibu	2008-2012	be a J, K, or L)	2009				

Table of Contents

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

Attention! This interface will work with models that are either factory amplified, or non-amplified. Please follow the instructions carefully for your model vehicle. Failure to do so will result in either no sound, or low sound. If you are unsure if your vehicle is factory amplified or not, please contact your local dealership.

For models *without* an amplifier:

From the 16-pin harness with stripped leads 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.*
- Connect the **Blue/White** wire to the amp turn on wire. This wire must be connected for the audio controls on the steering wheel to function.
- If the aftermarket radio has an illumination wire, connect the **Orange/White** wire to it.
- If the aftermarket radio has a mute wire, connect the **Brown** wire to it. If the mute wire is not connected, the radio will turn off when OnStar is activated.
- Connect the **Gray** wire to the right front positive speaker output.
- Connect the **Gray/Black** wire to the right front negative speaker output.
- Connect the **White** wire to the left front positive speaker output.
- Connect the **White/Black** wire to the left front negative speaker output.

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
- Tape off and disregard the following (4) wires, they will not be used in this application: **Green**, **Green/Black**, **Purple** and **Purple/Black**.

From the AX-GMLAN11-SWC harness to the aftermarket radio:

- Connect the **Black** wire to the ground wire.
- Connect the **Yellow** wire to the battery wire.
- Cut off the resistors from the **Green**, **Green/Black**, **Purple**, and **Purple/Black** wires below the heat shrink.
- Connect the **Green** wire to the left rear positive speaker output.
- Connect the **Green/Black** wire to the left rear negative speaker output.
- Connect the **Purple** wire to the right rear positive speaker output.
- Connect the **Purple/Black** wire to the right rear negative speaker output.
- Ensure the (2) 4-pin Molex connectors are connected together.

Note: *The 4-pin to 4-pin resistor pad harness will not be used in this application.*

- The **Black/Yellow** wire is used for OnStar level adjustment for models that do not come equipped with steering wheel controls. Refer to the OnStar level Adjustment section for further instructions.
- Connect the **Red** and **White** RCA jacks to the audio AUX-IN jacks of the aftermarket radio.
- The DIN jack is to be used with the optional AX-LCD (sold separately).
  - Connect the **Red** wire to accessory power.

Continue to 3.5mm jack steering wheel control retention

Connections to be made

Attention! This interface will work with models that are either factory amplified, or non-amplified. Please follow the instructions carefully for your model vehicle. Failure to do so will result in either no sound, or low sound. If you are unsure if your vehicle is factory amplified or not, please contact your local dealership.

For models *with* an amplifier:

From the 16-pin harness with stripped leads 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.*

- Connect the **Blue/White** wire to the amp turn on wire. This wire must be connected to hear sound from the factory amplifier, and also for the audio controls on the steering wheel to function.
- If the aftermarket radio has an illumination wire, connect the **Orange/White** wire to it.
- If the aftermarket radio has a mute wire, connect the **Brown** wire to it. If the mute wire is not connected, the radio will turn off when OnStar is activated.
- Connect the **Gray** wire to the right front positive speaker output.
- Connect the **Gray/Black** wire to the right front negative speaker output.
- Connect the **White** wire to the left front positive speaker output.
- Connect the **White/Black** wire to the left front negative speaker output.

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
- Tape off and disregard the following (4) wires, they will not be used in this application: **Green**, **Green/Black**, **Purple**, **Purple/Black**

From the AX-GMLAN11-SWC harness to the aftermarket radio:

- Connect the **Black** wire to the ground wire.
- Connect the **Yellow** wire to the battery wire.
- Connect the **Green** wire to the left rear positive speaker output.
- Connect the **Green/Black** wire to the left rear negative speaker output.
- Connect the **Purple** wire to the right rear positive speaker output.
- Connect the **Purple/Black** wire to the right rear negative speaker output.
- Disconnect the (2) 4-pin Molex connectors, and then attach the 4-pin to 4-pin resistor pad harness.
- The **Black/Yellow** wire is used for OnStar level adjustment for models that do not come equipped with steering wheel controls. Refer to the OnStar level Adjustment section for further instructions.
- Connect the **Red** and **White** RCA jacks to the audio AUX-IN jacks of the aftermarket radio.
- The DIN jack is to be used with the optional AX-LCD (sold separately).
  - Connect the **Red** wire to accessory power.

Continue to 3.5mm jack steering wheel control retention

Connections to be made (Cont)

3.5mm jack steering wheel control retention:

- The 3.5mm jack is to be used to retain steering wheel controls.
  - For the radios listed below, connect the included *female 3.5mm connector with stripped leads* onto the male 3.5mm SWC jack of the AX-GMLAN11-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 of the AX-GMLAN11-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.

Installing the AX-GMLAN11-SWC

With the key in the off position:

- Connect the 16-pin harness with stripped leads, and the AX-GMLAN11-SWC harness, into the interface.
- Connect the AX-GMLAN11-SWC harness to the wiring harness in the vehicle.

  Note: *If retaining steering wheel controls, ensure the jack/wire is connected before proceeding to the next step.*

Initializing and programming the AX-GMLAN11-SWC (Cont)

For the steps below, the **Red** L.E.D. (located inside the interface, next to the potentiometer) can only be seen while active. The interface does not need to be opened to see the L.E.D. This is a timed process, so it would be best to read these steps beforehand, to ensure a clear understanding of what is to be expected.

1. Turn the key (or push-to-start button) to the ignition position, the L.E.D. will turn on.
2. Within a minute, the L.E.D. will turn off for a couple seconds, then flash slowly (up to (16) times, indicating which radio is connected to the interface), and then turn off. Pay close attention as to how many slow flashes there are. This will help in troubleshooting, if need be. Refer to the L.E.D. feedback section for more information.
3. Within a few seconds the L.E.D. will turn on, and the radio will turn off.
4. Within a minute the L.E.D. will turn off, and the radio will come back on, indicating the initialization process is successful.

Note: *If the radio does not come back on within a minute, the interface is not communicating to the vehicle. Turn the key off, check all connections, and then try again. The interface may need to be reset at this point.*

5. Immediately after the L.E.D. turns off, and the radio comes back on, the following buttons on the steering wheel must be pressed in the exact sequence as shown. For each button press, the L.E.D. will turn on momentarily:
   - Volume Up
   - Seek Up
   - Volume Up
   - PTT (OnStar) or MUTE
   - Volume Up

Initializing and programming the AX-GMLAN11-SWC (Cont)

6. The L.E.D. will turn on after the last Volume Up button has been pressed, indicating programming has ended.
7. Press all the buttons to ensure that they are working as intended.
8. Cycle the ignition and test again.
9. If any steps in this process failed, or was executed improperly, reset the interface, and then resume from step 5.

Notes:

- PTT (OnStar) when pressed will Mute/Attenuate the radio.
- PTT (OnStar) when pressed and held for 2 seconds will activate OnStar, if applicable.

Adjusting the AX-GMLAN11-SWC

OnStar Level Adjustment

- Press the OnStar button to activate it.
- While OnStar is speaking, press the VOLUME UP or VOLUME DOWN button on the steering wheel to raise or lower the OnStar level.
- If the vehicle does not come equipped with steering wheel controls, locate the **Black/Yellow** wire on the AX-GMLAN11-SWC harness.
- While OnStar is speaking, tap the **Black/Yellow** wire to ground. Once the OnStar level is set, it will stay at that level until the **Black/Yellow** wire is tapped to ground again.

Extra features

AUX-IN and SAT:

- If the vehicle is equipped with AUX-IN or satellite radio, the AX-GMLAN11-SWC can retain these features.
- Change the source of the radio to AUX-IN; satellite radio will start playing.
- The optional AX-LCD (sold separately) will display the satellite radio information.
- Listed below are the functions of the AX-LCD while using satellite radio:
  - Arrow up—Channel up
  - Arrow down—Channel down
  - Enter—Selects current item on the screen
  - Return/ESC—Exits to the previous screen
- To access advanced features of the satellite radio, press and hold the SOURCE button on the steering wheel for 3 seconds.

  Note: *If the vehicle is not equipped with steering wheel controls, the AX-LCD will be required for this feature.*
- Listed below are the functions of the steering wheel control buttons while accessing the advanced features:
  - SEEK UP – Scrolls menu up.
  - SEEK DOWN – Scrolls menu down.
  - VOLUME UP- Enter
- Listed below are the advanced menu options:
  - Show Text - Exits menu.
  - Set Tuning Mode - Allows the user to select tuning by either a preset, or a channel.
  - Set Preset – Allows the user to program presets.
  - Set Display - Allows the user to choose which satellite radio information should be displayed.

    Note: *If using the AX-LCD, SEEK UP controls the top line on the display; SEEK DOWN the bottom line.*
  - Set Satellite Radio Text Mode - Allows the user to set the display length of the satellite radio information. Options are; On, Off, or 5 seconds (default is 5 seconds).
- To access AUX-IN press and hold the SOURCE button on the steering wheel for 2 seconds. This will switch to the next source available. Each time the SOURCE button is pressed for 2 seconds, the source will change. The sequence of sources are SAT/RSE/AUX-IN. The driver's information center, or the AX-LCD, will provide a visual confirmation of which source is active.

  Note: *RSE is not available in this application, yet the source option will be there.*

Steering wheel control extra settings

L.E.D. feedback

The (16) **Red** L.E.D. flashes represent what brand radio the AX-GMLAN11-SWC believes it is connected to. Each flash represents a different radio manufacturer. For example, if you are installing a JVC radio, the AX-GMLAN11-SWC will flash **Red** (5) times, and then stop. Following is a legend that dictates which radio manufacturer corresponds to which flash.

L.E.D. feedback legend

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

* **Note:** *If the AX-GMLAN11-SWC flashes Red (7) times, and you do not have an Alpine radio connected to it, that means the AX-GMLAN11-SWC 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:** *The 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.*

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 L.E.D. flashes do not match the radio you have connected, you must manually program the AX-GMLAN11-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-GMLAN11-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 extra settings (Cont)

Radio legend

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

Remapping the steering wheel control buttons

Let's say you have AX-GMLAN11-SWC initialized and programmed, 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-GMLAN11-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-GMLAN11-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-GMLAN11-SWC goes out.

Button assignment legend

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

** 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.*

Steering wheel control extra settings (Cont)

Dual assignment instructions (long button press)

The AX-GMLAN11-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 off, and the long press mapping for that button will be erased.*

Dual assignment legend

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

** Not applicable in this application*

Resetting the AX-GMLAN11-SWC

1. With the radio on, turn the potentiometer:

   Note: *Before proceeding, remember the position the potentiometer is at.*

   Left.....hold for 3 seconds

   Right.....hold for 3 seconds

   Left.....hold for 3 seconds

   Back to the initial position
2. The L.E.D. inside the interface will turn off for a couple seconds, then flash fast, then flash slowly (up to (16) times, indicating which radio is connected to the interface), and then turn off. Pay close attention as to how many slow flashes there are. This will help in troubleshooting, if need be. Refer to the L.E.D. feedback section for more information.
3. Within a few seconds the L.E.D. will turn on, and the radio will turn off.
4. Within a minute the L.E.D. will turn off, and the radio will come back on, indicating the resetting and initialization process was successful.