

OnStar Radio Replacement Interface with Steering Wheel Control Retention for GM LAN v2 (LIN) Bus Vehicles 2014 - 2018

# **PRODUCT FEATURES:**

- Retains factory features in select GM LAN V2 (LIN) Bus vehicles while functioning with an aftermarket radio.
- Retains OnStar functionality.
- Retains all chime functions.
- Retains OEM Auxiliary Input.
- Retains Factory Bluetooth in Vehicles 2008-upwards if equipped with the new OnStar device.
- Retains factory Steering Wheel Controls via built-in, preprogrammed interface.
- Retains RAP (Retained Accessory Power).
- Includes factory backup camera connection for the IO3 system. (vehicles with IO4, IO5 & IO6 systems can be hard wired to retain the OEM camera. See page 3)

## PARTS INCLUDED:



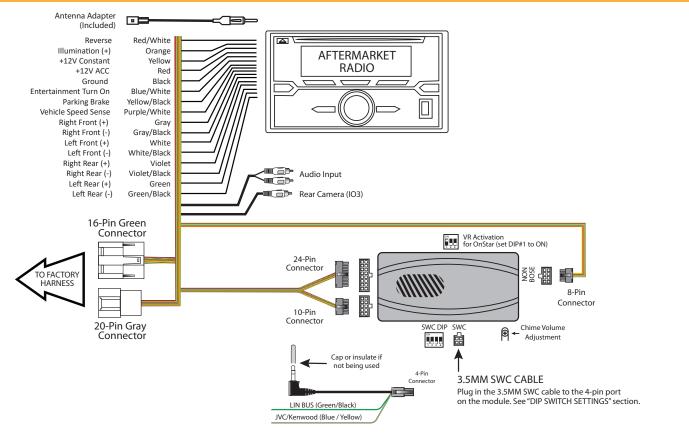
SOOGM-19L MODULE

#### SOOGM-19L HARNESS

SWC CABLE

ANTENNA ADAPTER

#### **INSTALLATION DIAGRAM:**



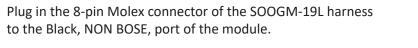


1 of 4 Crux Interfacing Solutions • Chatsworth, CA 91311 phone: (818) 609-9299 • fax: (818) 996-8188 • www.cruxinterfacing.com rev.071720



OnStar Radio Replacement Interface with Steering Wheel Control Retention for GM LAN v2 (LIN) Bus Vehicles 2014 - 2018

# AUDIO CONNECTION:



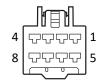


#### **BOSE AMPLIFIER BYPASS:**

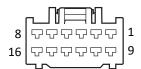
For vehicles equipped with a factory Bose amplifier, extend the speaker wires of the SOOGM-19L harness and connect to the Bose amplifier output wires. Locate the Bose amplifier to find out how much speaker wires is neccessary. The Bose amplifier is located as follows: (NOTE: Bose amplifiers are commonly found in the locations listed below but the manufacturer can mount it elsewhere. Installer should verify the location before installation.)

#### Trucks = Center of the rear wall / SUVs = Center console or in the cargo space / Sedans = Rear deck or Trunk area

Pinout for the 8 and 16 pin OEM Bose amplifier connectors:



Pin #	Wire Color	Description		
1	Dark Blue / Grey	Subwoofer +		
2	Yellow	Right Front Speaker +		
3	Dark Blue	Left Front Speaker +		
4	Red / Yellow	Constant +12V		
5	Grey / Black	Subwoofer -		
6	Yellow / Black	Right Front Speaker -		
7	Brown / Dark Blue	Left Front Speaker -		
8	Black	Ground		



Pin #	Wire Color	Description		
4	Brown / Light Green	Right Front Tweeter +		
5	Yellow / Dark Blue	Left Front Tweeter +		
6	White	Right Rear Speaker +		
7	Light Green	Left Rear Speaker +		
12	Purple / Brown	Right Front Tweeter -		
13	Yellow / Grey	Left Front Tweeter -		
14	Dark Blue / Black	Right Rear Speaker -		
15	Light Green / Black	Left Rear Speaker -		

#### **CHIME VOLUME ADJUSTMENT:**

The SOOGM-19L has a potentiometer to adjust the chime volume. It is set at half way by default. To adjust the volume, simply use a suitable screw driver and turn the potentiometer clockwise to increase the volume and counter-clockwise to decrease the volume.

Chime Volume ┙ Adjustment



#### **ONSTAR VOLUME ADJUSTMENT:**

To adjust the OnStar volume, turn on OnStar and adjust the volume using the SWC volume adjustment. There are 4 steps of volume control. Once it is set, the SOOGM-19L will memorize this level.



2 of 4 Crux Interfacing Solutions • Chatsworth, CA 91311 phone: (818) 609-9299 • fax: (818) 996-8188 • www.cruxinterfacing.com rev.071720



OnStar Radio Replacement Interface with Steering Wheel Control Retention for GM LAN v2 (LIN) Bus Vehicles 2014 - 2018

#### **INSTALLATION INSTRUCTIONS:**

1. Connect the aftermarket radio's power/speaker harness to the SOOGM-19L T-Harness using the Installation Diagram on page 1. Use good quality crimp caps or butt splice for a secure connection. Solder and heat shrinking the connections is highly recommended.





pry tool and pull outward.



2. Carefully remove the radio trim with a plastic 3. Remove the radio bezel by removing the 4 screws on the corners.



4. Unplug the GREEN and GRAY connectors from the headunit.



5. Plug the GREEN and GRAY connectors to the SOOGM-19L T-Harness.



6. Use the supplied antenna adapter to plug between the OE antenna connector and aftermarket radio antenna port.

7. Remove plastic trim under the steering wheel column and locate a GREEN/BLACK wire in the bundle. Tap the GREEN/BLACK from the SWC Cable. We recommend soldering the wires together for a reliable connection.



8. Use a dash kit (not included) for a clean install. Test the radio for functionality. Test the chime and Retained Accessory Power (RAP) functions. Reverse the process to install the new aftermarket radio.

#### **OEM CAMERA RETENTION:**

The SOOGM-19L is prewired with an RCA connector to retain the OEM camera on vehicles with a IO3 system. To retain the OEM camera on IO4, IO5 and IO6 systems, you will need connect an RCA cable to the 12-pin connector on the HMI module found either by the passenger kick panel or behind the glove box. Connect the RCA as follows:

**HMI** Connector PIN 5 = Gray/Yellow to RCA positive PIN 6 = White/Blue to RCA shield

We recommend soldering and heat shrinking these wires for a secure connection.



Pin 6 White/Blue

Pin 5 Gray/Yellow



3 of 4 Crux Interfacing Solutions • Chatsworth, CA 91311 phone: (818) 609-9299 • fax: (818) 996-8188 • www.cruxinterfacing.com rev.071720



OnStar Radio Replacement Interface with Steering Wheel Control Retention for GM LAN v2 (LIN) Bus Vehicles 2014 - 2018

# **DIP SWITCH SETTINGS:**

### AFTERMARKET RADIO DIP SWITCH SETTINGS:

RADIO BRAND: DIP#:	1	2	3	4	_
Atoto, Dual, Fahrenheit, Jensen, Pioneer, Power Acoustik, Soundstrea Blaupunkt, Most off-brand Radio Alpine Clarion Kenwood JVC Boss, Old Sony	1 OFF OFF OFF OFF OFF OFF OFF OFF	2 OFF OFF OFF ON ON ON ON	ON ON OFF ON OFF OFF	4 ON ON OFF OFF ON ON OFF	SWC MODULE DIP SWITCH
New Sony	OFF	OFF	ON	OFF	

**NOTE:** For Atoto, Blaupunkt, Dual, Farenheit, Power Acoustik, Soundstream, and most off-brand radios, check the aftermarket radio's manual to see if the SWC buttons need to be programmed.

#### 3.5MM SWC CABLE

Plug in the 3.5MM to 4-Pin SWC cable to the SWC module.

NOTE: Cap or Insulate the 3.5mm plug and Blue/Yellow wire if not being used.

For aftermarket radios that have wires for SWC connections, cut off the 3.5mm plug on the Crux SWC Cable (option B) and connect the SWC wires as follows:



RED to SWC Key 1 WHITE to SWC Key 2 SHIELD to SWC Ground

Note that there are some radios that only have SWC1 and SWC2, in this case "shield" does not need to be connected.

## **VEHICLE APPLICATIONS:**

BUICK		CHEVROL	ET	GMC	
2017	ENVISION	2016-2018	CAMARO (with 8" IO5/IO6)	2017	ACADIA (with 8" IO5/IO6)
2016	LACROSSE	2018	CAMARO (with 7" iOB)	2015-2016	CANYON
2014-2015	REGAL	2015-2016	COLORADO	2014-2016	SIERRA
		2016 - 2017	CRUZE	2017	SIERRA (with 7" iOB)
CADILLAC	,	2018	CRUZE (with 7" iOB)	2017-2018	SIERRA (with 8" 105/106)
2015-2016	ATS	2014-2016	IMPALA Non Classic (with 8" IO5/IO6)	2015-2017, 2019	SIERRA HD
2014-2015	CTS	2017-2019	IMPALA (with 8" 105/106)	2015-2019	YUKON
2015	ESCALADE	2016	MALIBU Non Classic	2015-2017, 2019	YUKON XL
2015-2016	SRX	2017-2018	MALIBU		
2017	XT5	2014-2017	SILVERADO		
		2018	SILVERADO (with 7" iOB)		
		2018	SILVERADO (with 8" IO5/IO6)		
		2019	SILVERADO Classic (with 7" iOB)		
		2019	SILVERADO Classic (with 8" IO5/IO6)		
		2015-2019	SILVERADO HD		
		2017	SONIC		
		2015, 2018	SPARK		
		2015-2019	SUBURBAN		
		2015-2019	TAHOE		

## NOTE:

- Does not retain Bose amplifier.



4 of 4

Crux Interfacing Solutions • Chatsworth, CA 91311 phone: (818) 609-9299 • fax: (818) 996-8188 • www.cruxinterfacing.com