

PRODUCT FEATURES:

- Retains factory features in select GM LAN 29 Bit vehicles while functioning with an aftermarket radio.
- Pre-programmed to retain factory Steering Wheel Controls.
- Retains OnStar, factory Rear view camera and chime functions.
- Retains factory backup sensors / park assist system.
- Adds automatic speed/time sense front camera view after reverse process.
- Adds Forced front and rear view aftermarket camera inputs while in motion using the factory side mirror controls.
- Supports Bose, non-Bose and Y-91 audio systems.
- EIA color coded wiring for easy installation.

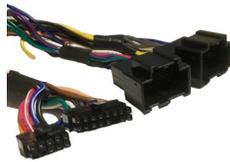
NOTES:

1. The Front and Rear fading are not retained on Y-91 Bose System.
2. Chime includes: seat belt, check engine, key in ignition, low fuel, low oil and lights on.

PARTS INCLUDED:



SOOGM-16V Module



SOOGM-16V Harness



Video Harness



Antenna Adaptor



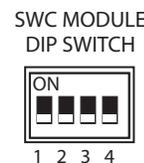
SWC Cable

DIP SWITCH SETTINGS:

SETTING THE AFTERMARKET RADIO BRAND

With the key in the off position, set the DIP switches to the corresponding aftermarket radio setting.

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



NOTE: For Atoto, Blaupunkt, Dual, Fahrenheit, 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, Blue/Yellow or Green wires if not being used.

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

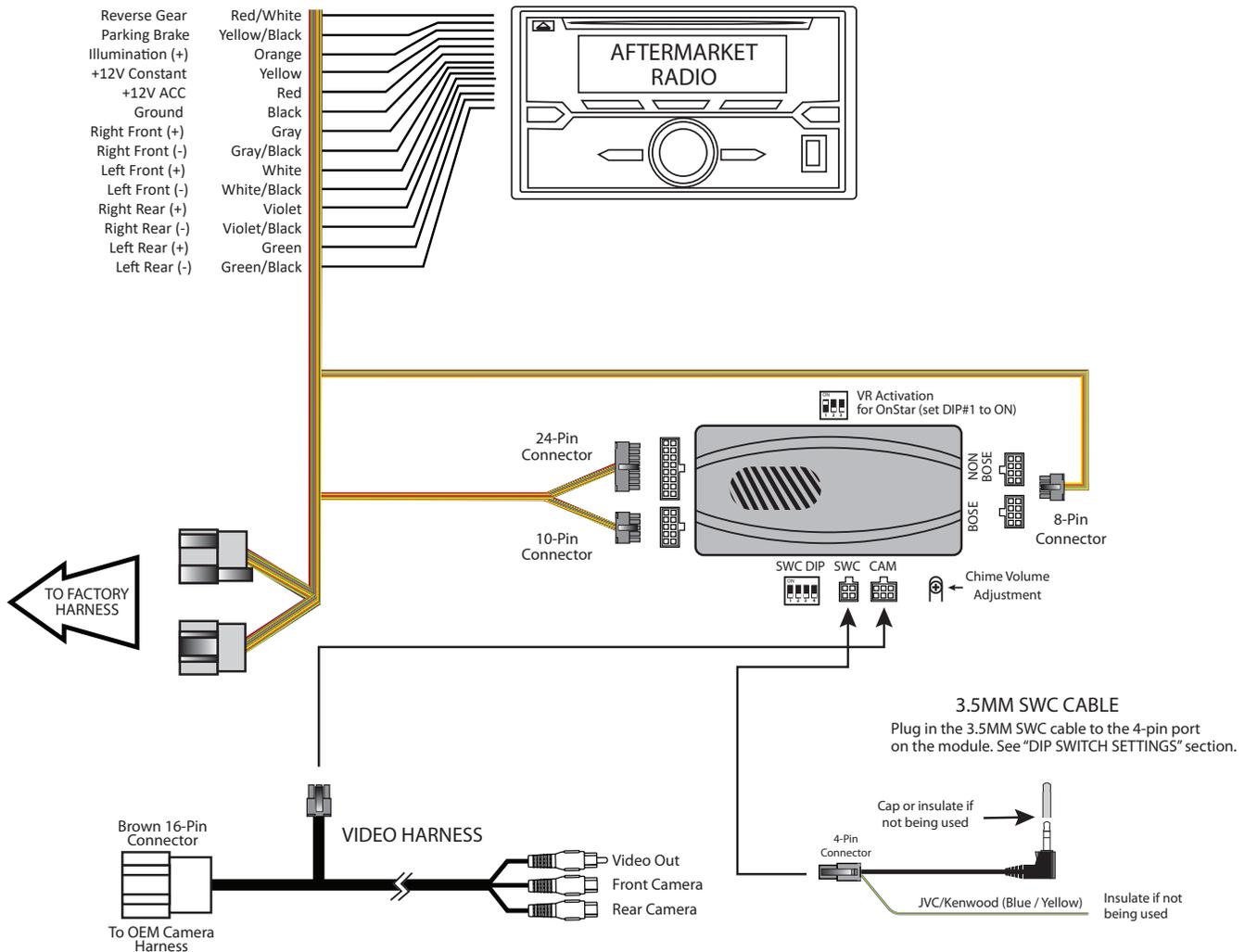


Note that there are some radios that only have SWC1 and SWC2, in this case "shield" does not need to be connected.





INSTALLATION DIAGRAM:



SELECTING THE AUDIO SYSTEM:

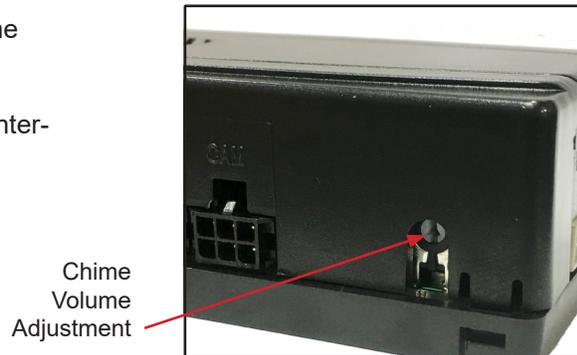
If the vehicle is equipped with a Bose system, the SOOGM-16V has a built-in Bose adaptor that allows the proper audio input gain from the aftermarket radio to the Bose amplifier. To use this feature, plug in the male 8-pin connector on the harness to the GRAY female 8-pin connector on the SOOGM-16V module. The module is also labeled "Bose" and "Non Bose" to avoid confusion. (see picture below)

If the vehicle is NOT equipped with a Bose system, plug in the male 8-pin connector to the BLACK female 8-pin on the SOOGM-16V module.



CHIME VOLUME ADJUSTMENT:

The SOOGM-16V 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.



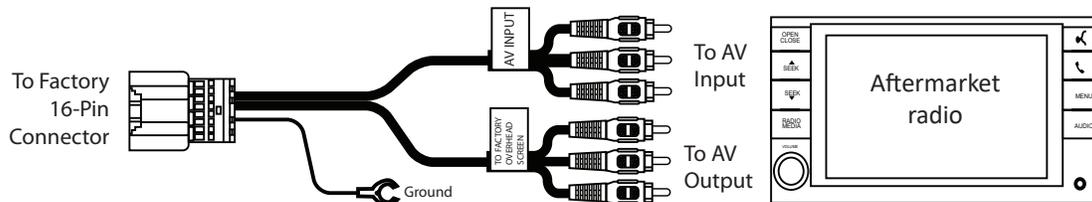
ONSTAR VOLUME ADJUSTMENT:

To adjust the OnStar volume, turn on OnStar and adjust the volume using the Steering Wheel Control volume adjustment. Once it is set, the SOOGM-16V will memorize this level.

REAR SEAT ENTERTAINMENT (RSE):

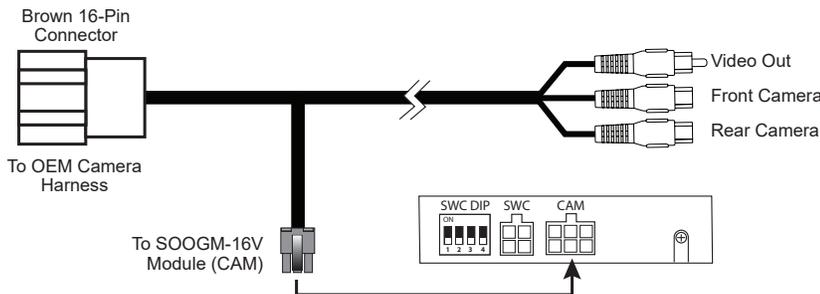
Part# CJA2333A can be special ordered to retain the Rear Seat Entertainment (RSE).

1. Connect the rear seat entertainment 16-pin connector to the vehicle's 16-pin factory connector.
2. Connect the RCAs to the aftermarket radio audio and video inputs.
3. Test the audio and video before installing the radio into the dashboard.



BACKUP CAMERA CONNECTION:

The SOOGM-16V includes a video harness that allows a front and rear view camera to be plugged in and viewed on the aftermarket radio screen. The video harness includes a 16-pin brown connector that plugs into the OEM rear view camera harness to retain the use of the OEM rear view camera (if equipped). The two female video RCAs are used to connect an aftermarket front and rear view camera (if vehicle is not equipped with an OEM rear view camera).



- DIP 1: ON = OnStar Activation
OFF = Aftermarket Radio VR*
- DIP 2: ON = Front Camera ON
- DIP 3: No Function

*NOTE: If DIP 1 is set to OFF, use the OnStar button on the rear view mirror to activate OnStar.

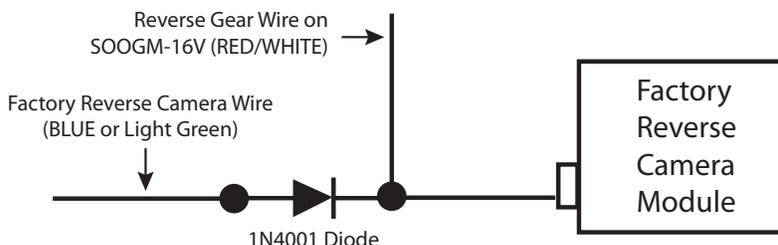




REVERSE WIRE CONNECTION:

For vehicles with a factory reverse camera installed, the factory camera module must be powered up to enable the forced view feature of the SOOGM-16V. Connect the Reverse Gear Wire (RED/WHITE) on the SOOGM-16V harness to the reverse camera power wire located on the reverse camera module or BCM. The factory reverse camera module or BCM can be found in different locations in the vehicle depending on the year and model. The chart below will aid in locating the reverse camera module or BCM.

Use a 1N4001 diode to isolate the factory reverse camera power wire. See diagram below.

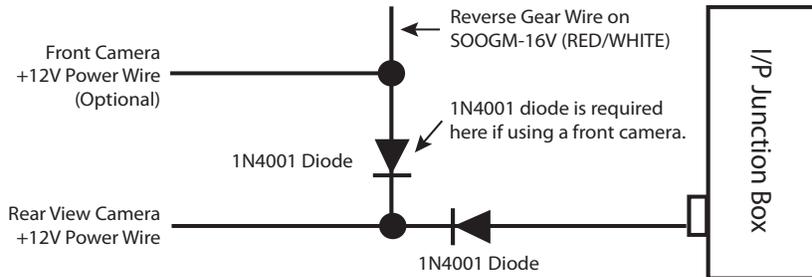


| YEAR/MODEL | LOCATION | WIRE COLOR | |
|--|--|---|--|
| 2007 – 2008 All Models | Under front passenger seat | BLUE Pin 1 of 8-pin Connector | |
| 2009 Avalanche, Escalade, Suburban, Tahoe, Yukon | Junction block next to the steering column (See wiring connection diagram on the next page) | BLUE Pin 8 of Gray Connector DARK BLUE PIN 5 of Gray (X11) Connector | |
| 2009 Hummer H2 | BCM to the left of the steering column | BLUE Pin 4 of Brown Connector | |
| 2009 Acadia, Enclave, Outlook, Traverse | BCM to the left of the steering column | BLUE Pin 3 of Gray Connector | |
| 2009 Silverado, Sierra | BCM to the left of the steering column | LIGHT GREEN Pin 2 of Connector 7 | |
| 2009 Vue | BCM under the radio | LIGHT GREEN Pin 2 of Connector 6 | |





Use the RED/WHITE wire on the SOOGM-16V harness to power the cameras. Please see wiring diagram below:



FORCED CAMERA FEATURE:

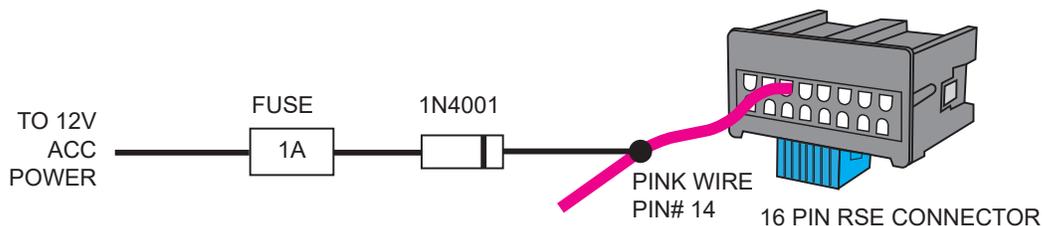
The SOOGM-16V can force the aftermarket radio to show the front1 or rear video camera on select GM trucks and SUV's with power mirror controls at any time while driving. To force the front or rear camera while driving do the following:

1. Set the power mirror selection to off (both LED lights must be off on the power mirror switch). You can turn off the LED by pressing the button on the same side that the LED is currently lit. Note: Turning off the mirror selection will prevent the mirrors from being adjusted while forcing the front/rear camera mode.
 2. To force the Front camera mode, press and hold the Up arrow on the 4-way joystick until the video shows on the aftermarket radio.
 3. To force the Rear camera mode, press and hold the Down arrow on the 4-way joystick until the video shows on the aftermarket radio. (If the vehicle is not equipped with a factory backup camera, an aftermarket backup camera can be installed and plugged into the SOOGM-16V backup camera video harness)
 4. To turn Off forced camera mode, press and hold the 4-way joystick Up arrow if in front camera mode or Down arrow if in rear camera mode. Wait until the video turns off on the aftermarket radio then release the 4-way joystick.
 5. The reverse camera has priority over the front camera when driving the vehicle in reverse.
- 1 (Requires installation of aftermarket camera)



ENABLING THE IR SYSTEM:

To retain the use of the IR headphones with the factory overhead entertainment system you will need to connect a +12 volt switched accessory power wire to the rear entertainment panel wire harness located in the rear of the center console. You will need a 1 amp fuse and a 1N4001 diode to complete the installation. Remove the RSE control panel in the center console. Tools will be required such as a panel remover tool and/or 7mm socket. Locate the (pink) wire located in pin 14 of the (gray) connector. Connect the diode's stripe side to the pink wire. Connect the other end of the diode to one side of the 1 amp fuse. Connect the remaining side of the fuse to a +12 switched accessory wire. Refer to the wiring diagram below.





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STEERING WHEEL CONTROL BUTTON FUNCTIONS:

| SWC buttons | All radios except Sony | Sony |
|--------------------|------------------------|------------------------|
| Short press | | |
| VOICE | Mute | Mute |
| VOLUME_DOWN | Volume Down | Volume Down |
| VOLUME_UP | Volume Up | Volume Up |
| TRACK_UP | Track up/Seek Up | Track up/Seek Up |
| TRACK_DOWN | Track dn/Seek dn | Track dn/Seek dn |
| SOURCE | Source | Source ** |
| RIGHT_ARROW | Preset up | Preset up |
| Long press | | |
| VOICE | VR/OnStar * | VR/OnStar * |
| VOLUME_DOWN | Volume Down Continuous | Volume Down Continuous |
| VOLUME_UP | Volume Up Continuous | Volume Up Continuous |
| TRACK_UP | Answer Call | |
| TRACK_DOWN | End Call | Reject call |
| SOURCE | | |
| RIGHT_ARROW | | |

- 1 = VOICE
- 2 = VOLUME UP/DN
- 3 = TRACK UP/DN
- 4 = SOURCE
- 5 = RIGHT ARROW



* You can enable the factory steering wheel Voice button to activate Voice Recognition (VR) on the aftermarket radio. If your radio doesn't support VR you can assign the Voice button to activate OnStar by turning on DIP switch #1 on the 3 position DIP Switch. See diagram on page 2.

** During an incoming/current call the Source button will Answer and End call.

VEHICLE APPLICATIONS:

BUICK

2008-2017 Enclave
2006-2011 Lucerne

CADILLAC

2006-2010 DTS
2007-2014 Escalade
2007-2009 SRX

CHEVROLET

2007-2013 Avalanche
2007-2009 Equinox
2008-2016 Express Van
2006-2013 Impala
2014-2016 Impala Classic
2006-2007 Monte Carlo
2007-2014 Silverado 1500-3500 Pick-up
2007-2014 Suburban
2007-2014 Tahoe
2009-2017 Traverse

GMC

2007-2016 Acadia
2017 Acadia Classic
2008-2017 Savana
2007-2014 Sierra 1500-3500 Pickup
2007-2014 Yukon

HUMMER

2008-2009 H2

PONTIAC

2007-2009 Torrent

SATURN

2007-2010 Outlook
2008-2010 Vue

SUZUKI

2007-2008 XL7

