

## 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.
- Supports Bose, non-Bose and Y-91 audio systems.
- EIA color coded wiring for easy installation.

## PARTS INCLUDED:



SOOGM-16 Module



SOOGM-16 Harness



Backup Camera Harness

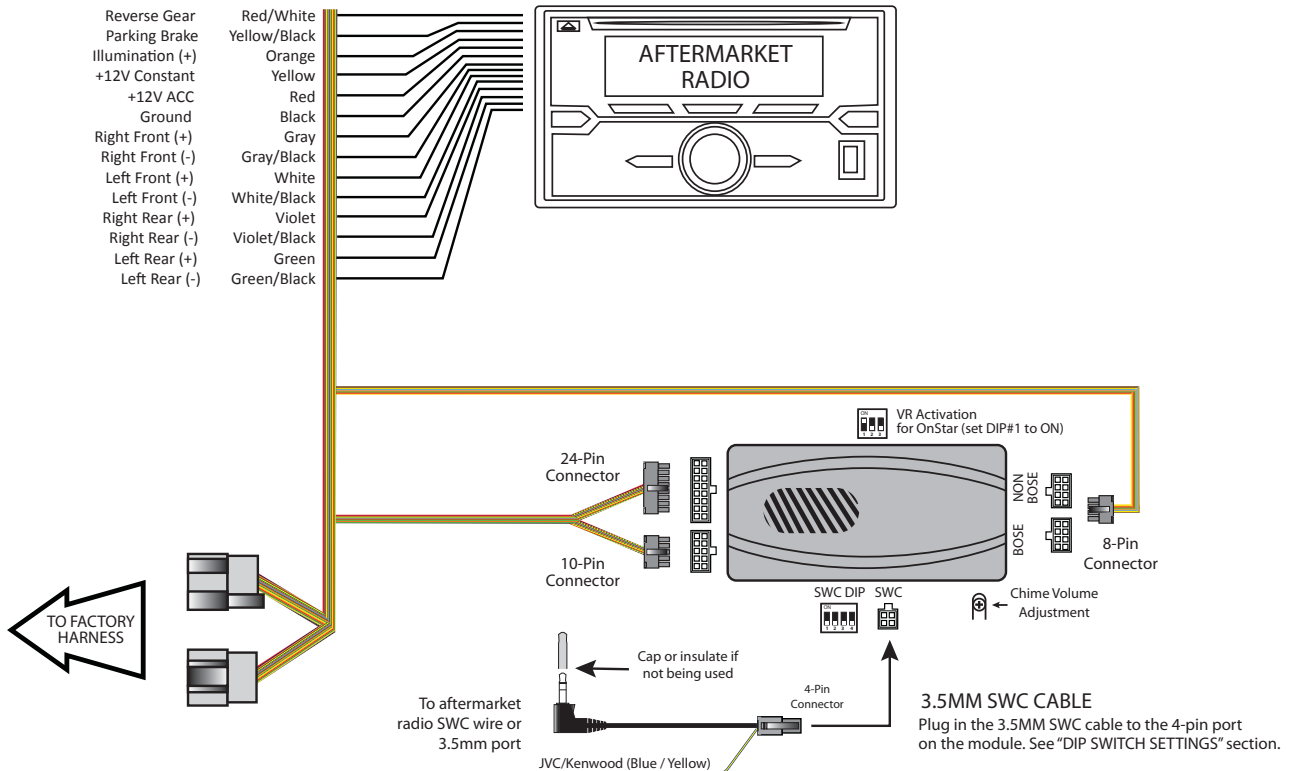


SWC Cable



Antenna Adapter

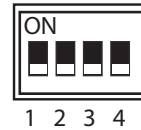
## INSTALLATION DIAGRAM:



**DIP SWITCH SETTINGS:**

| 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 |

SWC MODULE  
DIP SWITCH



**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: Insulate the Blue/Yellow wire or 3.5mm plug 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.

**SELECTING THE AUDIO SYSTEM:**

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

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



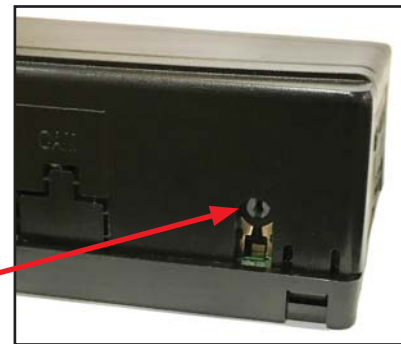
BOSE  
(Amplified)  
Connection

Non-BOSE  
(Non-Amplified)  
Connection

**CHIME VOLUME ADJUSTMENT:**

The SOOGM-16 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



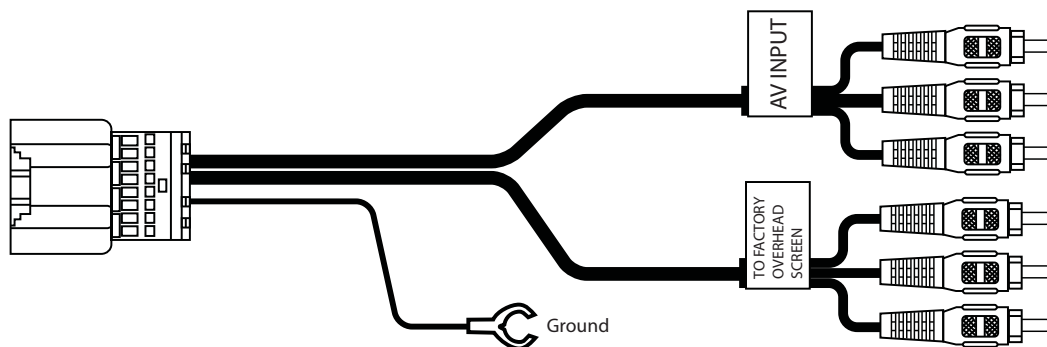
**ONSTAR VOLUME ADJUSTMENT:**

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

**REAR SEAT ENTERTAINMENT (RSE) (Optional Cable):**

Part# **CRUX2333A** can be special ordered to retain the Rear Seat Entertainment (RSE).

1. Connect the CRUX 2333A's 16-pin connector to the vehicle's 16-pin factory RSE connector at the radio location.
2. To view videos from the aftermarket radio on the factory overhead screen, connect the RCAs labeled TO FACTORY OVERHEAD SCREEN to the aftermarket radio's AV output.
3. To retain the use of the factory rear panel AV input, plug the RCAs labeled AV INPUT to the aftermarket radio's AV Input (optional).
4. Test the audio and video on the overhead screen before installing the radio back into the dashboard.

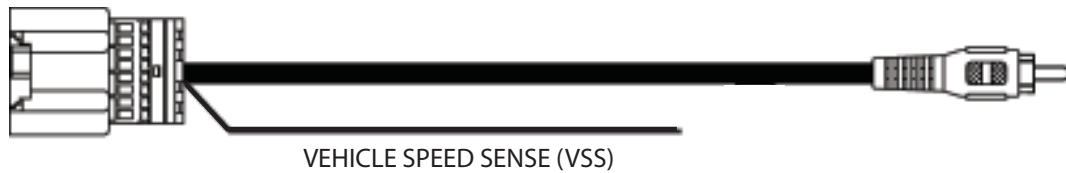


Part# CRUX2333A (Sold Separately)

**BACKUP CAMERA CONNECTION:**

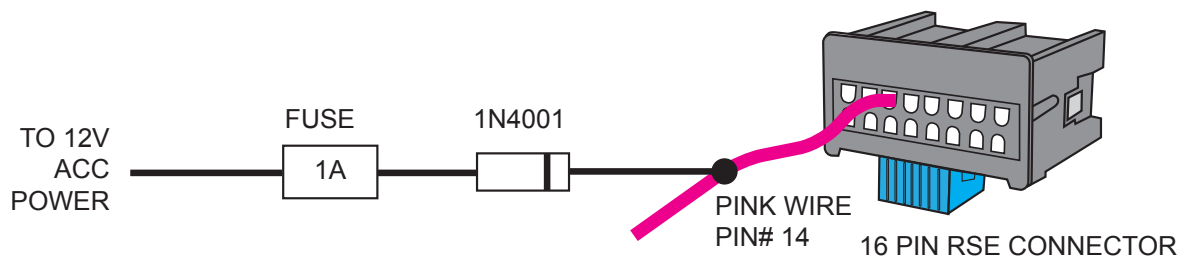
You can retain the factory back-up camera by using the CRUX 2543 harness included in the kit.

1. Connect the 16-pin back-up camera harness to the vehicle's 16-pin factory backup camera connector.
2. Connect the Yellow video RCA to the new aftermarket radio camera input.
3. Test the video feed before installing the radio back into the dashboard.



**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.



**STEERING WHEEL CONTROL BUTTON FUNCTIONS:**

| <b>SWC Button</b>  | All radios except Sony | Sony                   |
|--------------------|------------------------|------------------------|
| <b>Short Press</b> |                        |                        |
| 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 Down / Seek Down | Track Down / Seek Down |
| SOURCE             | Source                 | Source**               |
| RIGHT ARROW        | Preset Up              | Preset Up              |
| <b>Long Press</b>  |                        |                        |
| 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



**VEHICLE APPLICATIONS:**

**BUICK**

2008-2014 Enclave  
2006-2011 Lucerne

**CADILLAC**

2007-2014 Escalade  
2007-2009 SRX

**CHEVROLET**

2007-2013 Avalanche\*  
2007-2009 Equinox  
2008-2011 Express Van  
2006-2013 Impala  
2006-2007 Monte Carlo  
2007-2014 Silverado 1500-3500 Pickup\*  
2007-2014 Suburban\*  
2007-2014 Tahoe\*  
2009-2014 Traverse

**GMC**

2007-2014 Acadia  
2008-2011 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

\*2012-2014 Vehicles with Navigation Units are not supported. Use Crux part# SOOGM-16W instead.