

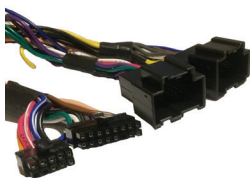
PRODUCT FEATURES:

- 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.
- Provides navigational outputs: Illumination, Parking Brake and Reverse.
- 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

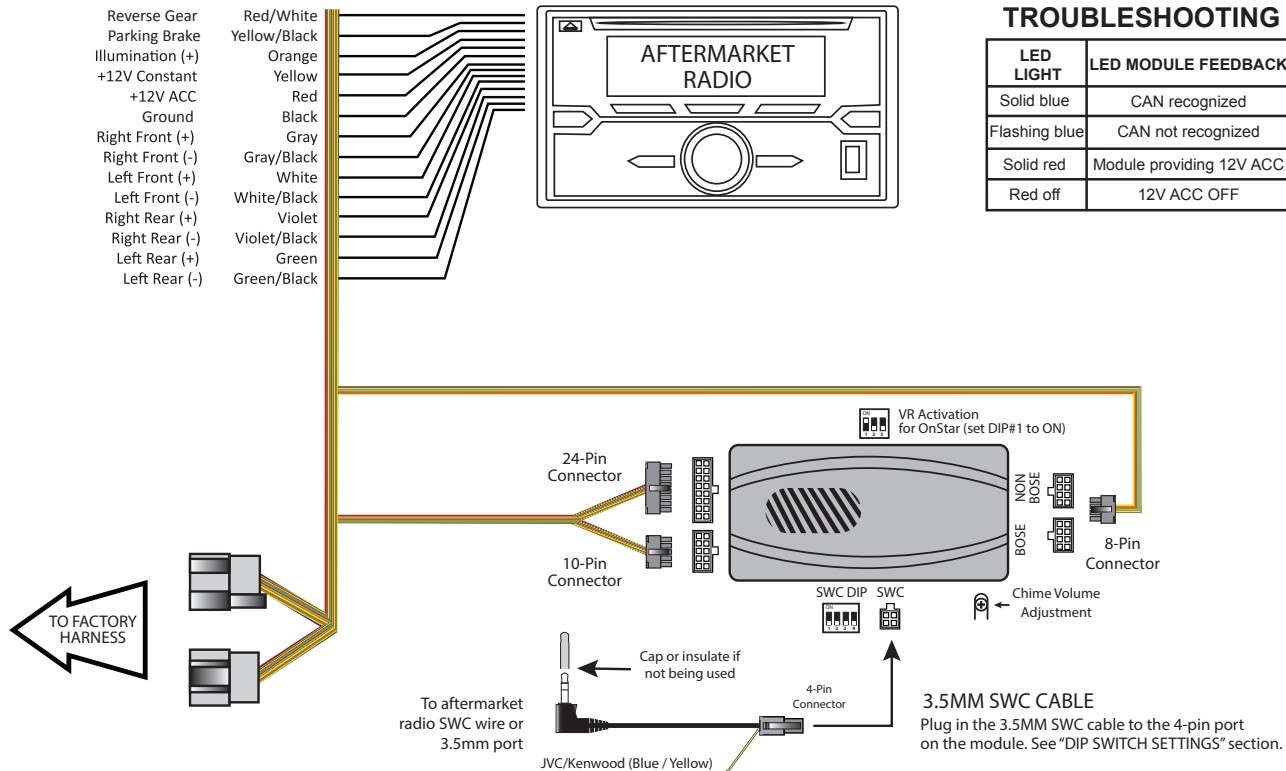


SWC Cable



Antenna Adapter

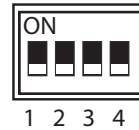
INSTALLATION DIAGRAM:



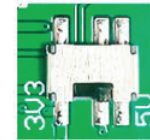
DIP SWITCH SETTINGS:

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



SWC Troubleshoot option



Located internally
Need to take plastic
Casing off module

- If Steering Wheel Controls don't work or work properly please switch internal dip switch from 3v3 to 5v as shown in picture above.

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:



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.

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

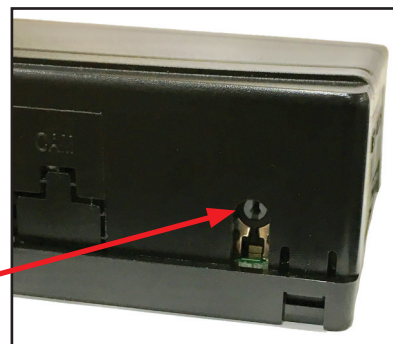
Non-BOSE
(Non-Amplified)
Connection



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



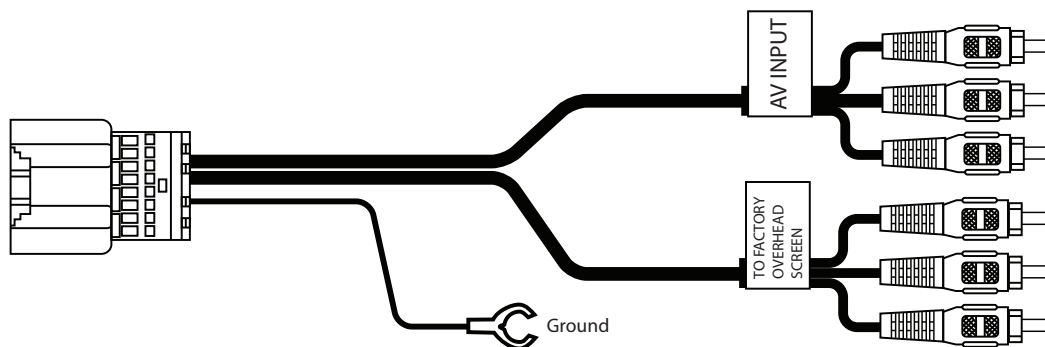
ONSTAR VOLUME ADJUSTMENT:

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:

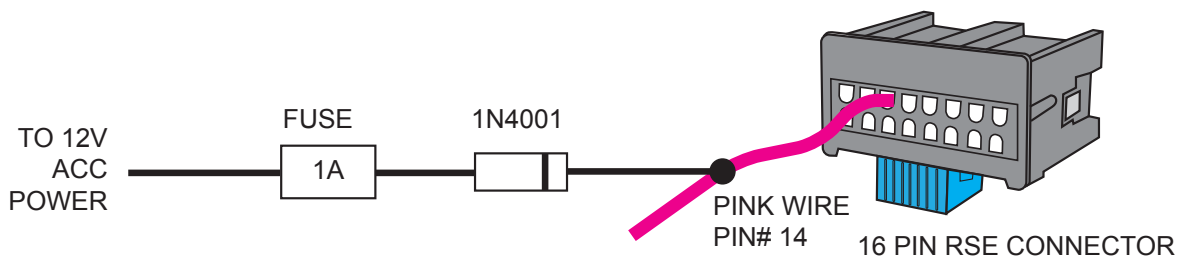
You can retain the factory back-up camera by using the CRUX 2543 harness included in the kit.

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:

SWC Button	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 Down / Seek Down	Track Down / Seek Down
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



SWC Button	SHORT PRESS	LONG PRESS
PIONEER		
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Arrow Up ▲	Preset Up	Seek Up
Arrow Down ▼	Preset Down	End Call
SRCE	Source	Power On/Off
►I	Tune	Mute On/Off
Voice	Pick Up Call	Activate VR/Deactivate VR

SWC Button	SHORT PRESS	LONG PRESS
CLARION		
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Arrow Up ▲	Preset Up	Seek Up
Arrow Down ▼	Preset	End Call
SRCE	Source	Power On/Off
►I	None	Mute On/Off
Voice	Pick Up Call	Mute On/Off



STEERING WHEEL CONTROL BUTTON FUNCTIONS (continued):

SWC Button	SHORT PRESS	LONG PRESS
ALPINE		
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Arrow Up ▲	Seek Up	None
Arrow Down ▼	Seek Down	End Call
SRCE	Source	None
▶	Preset	ATT On/Off
Voice	Pick Up Call	Activate VR*/Deactivate VR*

***NOTE:** To Deactivate VR = Say "CANCEL"

BT Mode Active:
Voice = Toggle between 1st and 2nd Call

SWC Button	SHORT PRESS	LONG PRESS
JVC		
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Arrow Up ▲	Seek Up	M-Seek Up
Arrow Down ▼	Seek Down	End Call
SRCE	Source	None
▶	Preset	Mute On/Off
Voice	Pick Up Call	Activate VR

NOTE: To Deactivate VR = Say "CANCEL"

SWC Button	SHORT PRESS	LONG PRESS
KENWOOD		
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Arrow Up ▲	Seek Up	None
Arrow Down ▼	Seek Down	End Call / Deactivate VR
SRCE	Source	None
▶	Preset	ATT On/Off
Voice	Pick Up Call / Call History On/Off	Activate VR

NOTE: To Deactivate VR = Say "CANCEL"



STEERING WHEEL CONTROL SETTINGS:

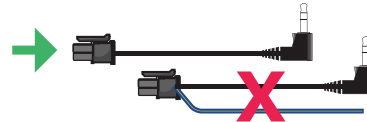
Note: Identify Alpine SWC learning radios by checking for three SWC cables and a SWC learn menu, instead of a 3.5mm SWC input.

If Interface has one SWR-100 Cable included

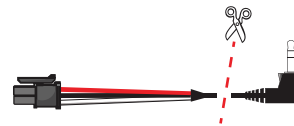
If Interface has two SWR Cables included

1 - Find the included SWC adapter cable.

1 - Identify appropriate SWC adapter cable.
 Do not use cable with Blue / Yellow wire.



2 - Prepare the SWC Cable: Cut the SWC cable. You will find a red wire, a white wire, and a ground (shield) wire inside.



3 - Adjust the Module Settings: Set the module to the Pioneer dip switch setting. This configures the module to communicate correctly with the Alpine radio.

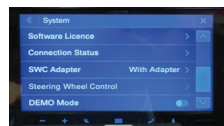
On Alpine iLX series radios use Pioneer settings

DIP:	1	2	3	4
	OFF	OFF	ON	ON



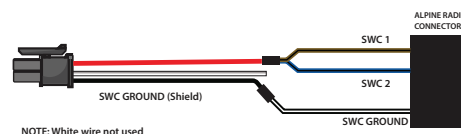
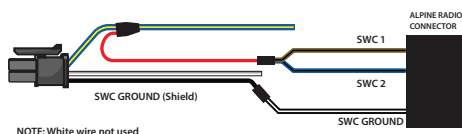
4 - Configure the Alpine Radio: On your Alpine radio, select the setting that includes "Without adapter" for SWC. This ensures the radio will recognize the steering wheel controls.

Select "SWC Adapter"



Select the setting "Without Adapter"

5 - Connect the Wires: Connect both the SWC1 and SWC2 wires from aftermarket radio to the red wire from our SWC cable. Connect the SWC ground wire to the shield (ground) wire of our SWC cable. These steps should enable the steering wheel controls on your Alpine iLX series radio.



6. Program the SWC: Navigate to the SWC settings on your Alpine radio to assign and test each control function.



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 - 2020 Express Van
2006 - 2013 Impala/Impala SS
2015 Impala/Impala SS
2014 - 2016 Impala Classic
2006 - 2007 Monte Carlo
2007 - 2014 Silverado 1500-3500
2007 - 2014 Suburban*
2007 - 2014 Tahoe*
2009 - 2017 Traverse

GMC

2007 - 2016 Acadia
2017 Acadia Classic
2008 - 2020 Savana
2007 - 2014 Sierra 1500-3500
2007 - 2014 Yukon*

HUMMER

2008 - 2009 H2

PONTIAC

2007 - 2009 Torrent

SATURN

2007 - 2010 Outlook
2008 - 2010 Vue

SUZUKI

2007 - 2008 XL7

***SUV and Truck Note:** Not compatible with 2012-2014 SUVs and Trucks with factory Navigation radios. Use Crux part# S00GM-16W instead.

