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#### **CRUX SOOGM-16**

# CRUX SOOGM-16 Radio Replacement Interface User Manual

Installation and Operation Guide for GM LAN 29-Bit Vehicles

# Introduction

This manual provides comprehensive instructions for the installation and operation of the CRUX SOOGM-16 Radio Replacement Interface. This interface is designed to facilitate the integration of an aftermarket radio into select General Motors (GM) LAN 29-Bit vehicles, while retaining essential factory features such as OnStar, warning chimes, and steering wheel control functionality.

Please read this manual thoroughly before beginning the installation process to ensure proper setup and to avoid potential damage to your vehicle or the interface.

# PRODUCT OVERVIEW

The CRUX SOOGM-16 is an advanced interface module that allows for seamless integration of an aftermarket car stereo system into compatible GM vehicles. It ensures that critical factory features continue to function after the original radio is replaced.



Image 1: The CRUX SOOGM-16 interface module shown with its accompanying wiring harnesses and antenna adapter.

This image displays all components included in the package, ready for installation.

# **Key Features:**

- · Retains factory OnStar system.
- Preserves factory warning chimes.
- Maintains steering wheel control (SWC) functionality.
- Compatible with both Standard Bose, Premium Bose (Y91) amplified, and non-amplified audio systems.
- Designed for select 2006-2014 GM LAN 29-Bit vehicles.
- Includes necessary module and harness for installation.

# **COMPATIBILITY**

The CRUX SOOGM-16 is compatible with specific General Motors vehicles. Please verify your vehicle's make, model, and year against the following criteria:

- Vehicle Type: Select GM LAN 29-Bit vehicles.
- Model Years: 2006-2014.
- Audio Systems: Works with Standard Bose, Premium Bose (Y91) amplified, and non-amplified systems.

*Note:* Always consult the vehicle-specific wiring diagrams and installation guides for your particular vehicle model to confirm compatibility and wiring details.

# PACKAGE CONTENTS

Upon unpacking, please ensure all the following components are present:

- CRUX SOOGM-16 Interface Module
- Vehicle-Specific Wiring Harnesses
- Antenna Adapter
- Steering Wheel Control (SWC) Cable (3.5mm jack)



Image 2: A detailed view of the CRUX SOOGM-16 module and its associated wiring components, including the main harness, auxiliary harness, and antenna adapter.

# Installation Instructions

**Disclaimer:** Professional installation is recommended. Disconnect the vehicle's negative battery terminal before beginning any electrical work.

# 1. Dip Switch Settings

The CRUX SOOGM-16 module features configurable dip switches to match your specific vehicle and aftermarket radio. Refer to the diagram below and your aftermarket radio's manual for correct settings.



**Image 3:** A close-up view of the CRUX SOOGM-16 interface module, highlighting the dip switches. These switches must be set correctly according to your vehicle's configuration and aftermarket radio type.

#### **General Dip Switch Configuration Guidelines:**

- SWC DIP: Set according to your aftermarket radio brand (e.g., Pioneer, Kenwood, Alpine, Sony, JVC, etc.). Consult the CRUX SOOGM-16 quick reference guide or CRUX website for specific brand settings.
- **CAN DIP:** Typically set based on vehicle year and system type (e.g., Bose amplified or non-amplified).
- Bose DIP: Set to 'ON' for Bose amplified systems, 'OFF' for non-Bose or non-amplified systems.

Incorrect dip switch settings can lead to improper functionality or damage.

# 2. Wiring Connections

Connect the CRUX SOOGM-16 wiring harness to your aftermarket radio's harness. Match wire colors and functions carefully. Common connections include:

- Power/Ground: Red (Accessory), Yellow (Constant 12V), Black (Ground).
- Speaker Wires: Front Left, Front Right, Rear Left, Rear Right (Positive and Negative).

- Illumination: Orange (Illumination/Dimmer).
- Reverse/Parking Brake: If applicable for your aftermarket radio.
- Steering Wheel Control (SWC): Connect the 3.5mm jack from the SOOGM-16 harness to the SWC input on your aftermarket radio. If your radio uses a wired SWC input (e.g., Key1, Key2), refer to the SOOGM-16 wiring diagram for specific wire connections.
- OnStar/Chime Output: These are managed by the SOOGM-16 module and integrated into the main harness.
- Antenna Adapter: Connect the provided antenna adapter between the vehicle's antenna cable and the aftermarket radio's antenna input.

Ensure all connections are secure using crimp connectors or solder and heat shrink tubing. Avoid loose connections.

#### 3. Module Connection

- 1. Once all wiring harness connections are made between the aftermarket radio and the SOOGM-16 harness, connect the SOOGM-16 harness to the CRUX SOOGM-16 interface module.
- 2. Connect the vehicle's factory harness to the corresponding connectors on the SOOGM-16 harness.
- 3. Reconnect the vehicle's negative battery terminal.

# 4. Testing

Before fully reassembling the dashboard, perform the following tests:

- Turn on the vehicle ignition and verify the aftermarket radio powers on.
- Test all audio functions (radio, auxiliary inputs, USB, Bluetooth).
- Verify steering wheel controls function correctly (volume up/down, track skip, mode).
- Confirm OnStar functionality (if applicable).
- Listen for factory warning chimes (e.g., door open, seatbelt reminder).

If any functions are not working, refer to the Troubleshooting section of this manual.

# **OPERATING INSTRUCTIONS**

The CRUX SOOGM-16 interface operates automatically once correctly installed and configured. It translates the vehicle's data signals to allow your aftermarket radio to function seamlessly with retained factory features.

# **Steering Wheel Controls (SWC)**

Your factory steering wheel controls will operate the aftermarket radio as programmed. Common functions include:

- Volume Up/Down: Adjusts audio output level.
- Track Up/Down: Skips tracks or changes radio presets.
- Mode/Source: Cycles through available audio sources on the aftermarket radio.
- Mute: Mutes audio output.

*Note:* Specific button assignments may vary depending on your vehicle and aftermarket radio model. Some aftermarket radios may require a learning process for SWC functionality, which should be detailed in the radio's instruction manual.

#### **OnStar Retention**

The SOOGM-16 retains the factory OnStar system. When OnStar is activated, the audio will mute through the aftermarket radio, and the OnStar audio will be heard through the vehicle's speakers. The OnStar microphone and controls will function as they did with the factory radio.

# **Warning Chimes**

All factory warning chimes (e.g., door ajar, seatbelt, low fuel) will be retained and reproduced through the vehicle's audio system, ensuring critical alerts are still audible.

# MAINTENANCE

The CRUX SOOGM-16 Radio Replacement Interface is a sealed electronic module and requires no routine maintenance. Ensure it is installed in a dry, secure location within the dashboard, away from excessive heat or moisture.

Periodically check all wiring connections for security, especially if experiencing intermittent issues. Avoid exposing the module to direct sunlight or extreme temperatures.

# **TROUBLESHOOTING**

If you encounter issues after installation, refer to the following common problems and solutions:

#### No Power to Aftermarket Radio

- Check Battery Connection: Ensure the vehicle's negative battery terminal is securely reconnected.
- Check Fuses: Verify the vehicle's accessory fuse and any inline fuses for the aftermarket radio are intact
- Wiring: Confirm the Yellow (Constant 12V) and Red (Accessory) wires are correctly connected from the SOOGM-16 harness to the aftermarket radio.
- Module Connection: Ensure the SOOGM-16 module is securely plugged into its harness.

# Steering Wheel Controls Not Functioning

- Dip Switch Settings: Re-verify the SWC dip switch settings on the SOOGM-16 module match your aftermarket radio brand.
- **SWC Connection:** Ensure the 3.5mm SWC jack (or wired connection) is properly connected to the aftermarket radio's SWC input.
- Radio Configuration: Some aftermarket radios require a manual programming or "learning" process for steering wheel controls. Consult your radio's manual.

# No Factory Chimes or OnStar Audio

- CAN Dip Switch: Verify the CAN dip switch setting on the SOOGM-16 module is correct for your vehicle's year and system type.
- Bose Dip Switch: If your vehicle has a Bose system, ensure the Bose dip switch is set to 'ON'.
- Module Connection: Ensure the SOOGM-16 module is fully seated in its harness.

# **Distorted or No Audio**

- Speaker Wiring: Check all speaker wire connections for correct polarity and secure contact.
- Bose System: If you have a Bose system, ensure the Bose dip switch is correctly set. Incorrect settings can cause audio issues.
- **Amplifier Remote:** Ensure the remote turn-on wire for any factory or aftermarket amplifier is correctly connected.

If these steps do not resolve the issue, contact CRUX technical support or a qualified car audio installer.

# **S**PECIFICATIONS

Model Number	SOOGM-16
Brand	CRUX
Compatibility	GM LAN 29-Bit Vehicles (2006-2014)
Audio System Support	Standard Bose, Premium Bose (Y91) amplified, and non-amplified systems
Retained Features	OnStar, Warning Chimes, Steering Wheel Controls
Input Voltage	12 Volts
Dimensions (L x W x H)	Approximately 1 x 1 x 1 inches (Module)
Item Weight	Approximately 11.2 ounces
UPC	850058234076

# WARRANTY AND SUPPORT

# **Warranty Information**

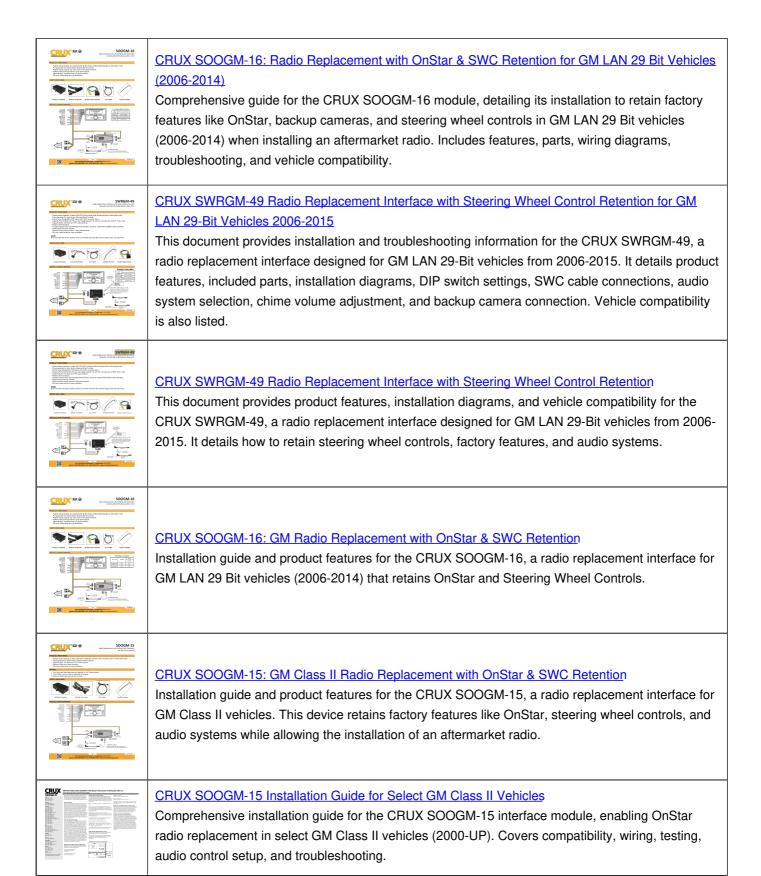
CRUX products are typically covered by a limited manufacturer's warranty. For specific warranty terms, duration, and claim procedures, please refer to the warranty card included with your product or visit the official CRUX website. Keep your proof of purchase for warranty claims.

# **Technical Support**

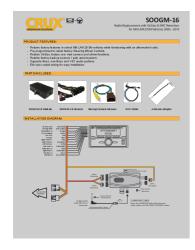
For technical assistance, installation questions, or troubleshooting beyond the scope of this manual, please contact CRUX technical support. Contact information can usually be found on the CRUX website or on the product packaging.

CRUX Website: www.cruxinterfacing.com

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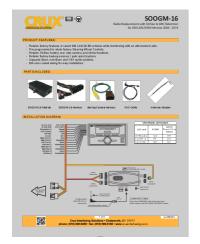
Documents - CRUX - SOOGM-16



#### [pdf] User Manual Diagram

Crux Car Stereo Video Installation Parts Manual CARID soogm 16 manual images carid crux items |||
INTERFACING SOLUTIONS R RADIO REPLACEMENT SWC RETENTION
SOOGM-16 Radio Replacement with OnStar SWC Retention for GM LAN 29 Bit
Vehicles 2006 - 2014 PRODUCT FEATURES: - Retains factory features in select GM
LAN 29 Bit vehicles while functioning with an aftermarket radio. - Pre-programmed to...

lang:en score:52 filesize: 467.91 K page count: 5 document date: 2020-12-07



#### CRUX SOOGM-16: GM Radio Replacement with OnStar & SWC Retention

Installation guide and product features for the CRUX SOOGM-16, a radio replacement interface for GM LAN 29 Bit vehicles (2006-2014) that retains OnStar and Steering Wheel Controls.

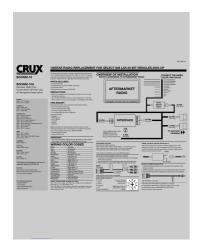
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# [pdf] Installation Guide Instructions Guide

SOOGM 16 CONNECTING THE WIRE HARNESS USING 3 5 We recommend reading this installation guide first before starting any work Following these instructions from Start to Finish will ensure a smooth and hassle free offer telephone support M F 9 00 AM 00PM PDT soogm installer

**SOOGM-16** APPLICATIONS BUICK: 2008 - 2012 Enclave 2006 - 2011 Lucerne CADILLAC 2006 - 2010 DTS 2007 - 2012 Escalade 2007 - 2009 SRX CHEVROLET: 2007 - 2012 Avalanche\* 2007 - 2009 Equinox 2008 - 2011 Express Van 2006 - 2012 Impala/ Impala SS 2006 - 2007 Monte Carlo 2007 - 2012 Silverado\* 1500-3500 Pick... lang:en score:47 filesize: 396.77 K page\_count: 2 document date: 2012-09-27

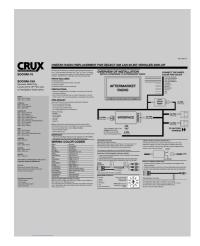


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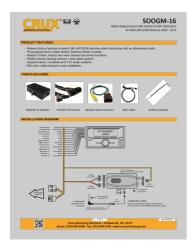


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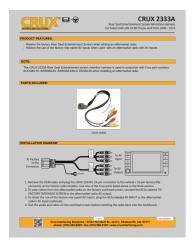


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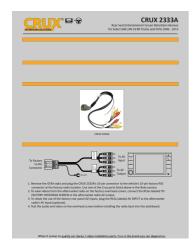


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Crux 2333A Manual CRUX CRUX2333A Cable for Retention of Rear Seat Entertainment in General Motors Vehicles Interfacing Solutions The screen retention harness is used conjuction with part numbers SOOGM 16 SWRGM 49 49A or DKGM when cruxinterfacing 2017 08 |||

INTERFACING SOLUTIONS R RADIO REPLACEMENT SWC RETENTION CRUX 2333A Rear Seat Entertainment Sc ... 2333A Rear Seat Entertainment screen retention harness is used in conjuction with Crux part numbers **SOOGM-16**, SWRGM-49, SWRGM-49A or DKGM-49 when installing an aftermarket radio. PARTS INCLUDED: INST...

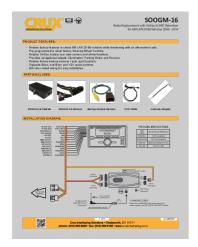
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2333A Rear Seat Entertainment Sc ... 2333A Rear Seat Entertainment screen
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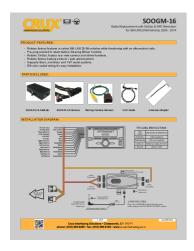
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#### [pdf] Troubleshooting Guide Diagram

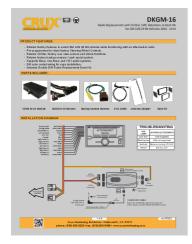
SOOGM 16 062525 min 2025 OnStar® SWC Radio Replacement Interface for 2006 2017 General Motors LAN 29 Bit Vehicles w Bose Amplified Non Systems CRUX Interfacing Solutions cruxinterfacing 07 ||| INTERFACING SOLUTIONS R RADIO REPLACEMENT SWC RETENTION SOOGM-16 Radio Replacement with OnStar SWC Retention for GM LAN 29 Bit Vehicles 2006 - 2014 PRODUCT FEATURES: - Retains factory features in select GM LAN 29 Bit vehicles while functioning with an aftermarket radio. - Pre-programmed to...

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# CRUX SOOGM-16: Radio Replacement with OnStar & SWC Retention for GM LAN 29 Bit Vehicles (2006-2014)

Comprehensive guide for the CRUX SOOGM-16 module, detailing its installation to retain factory features like OnStar, backup cameras, and steering wheel controls in GM LAN 29 Bit vehicles (2006-2014) when installing an aftermarket radio. Includes features, parts, wiring diagrams, troubleshooting, and vehicle compatibility. lang:en score:32 filesize: 1.73 M page\_count: 8 document date: 2024-09-17

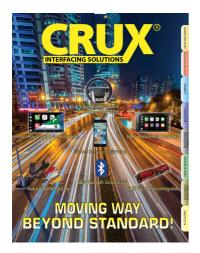


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INTERFACING SOLUTIONS R RADIO REPLACEMENT SWC RETENTION DKGM-16 Radio Replacement with OnStar ... ed wiring for easy installation. - Includes Double DIN Radio Replacement Dash Kit. PARTS INCLUDED: **SOOGM-16** Module **SOOGM-16** Harness Backup Camera Harness SWC Cable Antenna Adapter Dash Kit INSTALLAT...

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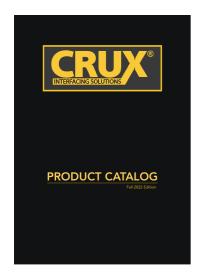


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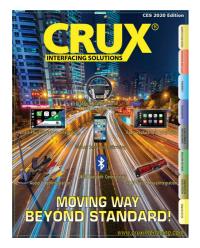


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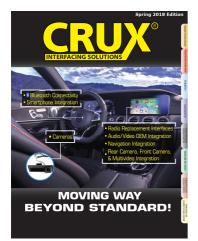


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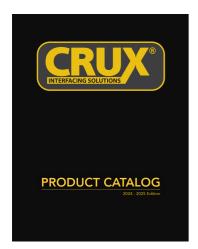
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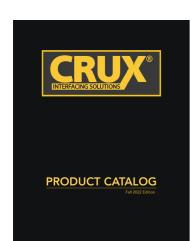


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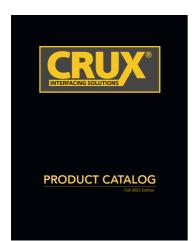


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#### CRUX Product Catalog Fall 2023 Edition - Automotive Interfacing Solutions

Explore the comprehensive CRUX product catalog for Fall 2023, featuring a wide range of radio replacement interfaces, safety view integration, smartplay smartphone integration, multi-view integration, cameras, and accessories for various vehicle makes and models. CRUX provides advanced interfacing solutions for seamless integration of aftermarket electronics.

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