

# SIRIUS<sup>®</sup>

## SATELLITE RADIO



## SIR-GM1

**GM CLASS-2 BUS COMPATIBLE  
SIRIUS SATELLITE RADIO TUNER**

Installation Guide



# Congratulations on your purchase of the SIR-GM1– the GM Compatible SIRIUS Satellite Radio Tuner!

Your SIR-GM1 is designed to replace the factory XM Satellite tuner in select GM vehicles. The tuner is also compatible with systems that support Satellite Radio operation but did not come with a tuner from the factory.

## Compatibility

The SIR-GM1 is designed to be compatible with select headunits from 2003 ~ 2006 in select vehicles that operate on the Class-2 Bus. Please consult the compatibility chart that is included with this product.

Compatible Headunit Types:

- CD only Headunits\*
- CD + Cassette Headunits\*
- 6-CD changer Headunits\*
- Touch Screen Monitor Headunits
- Non-Touch Screen Monitor Headunits

\*Note that the units must have a "BAND" button to access SIRIUS audio modes.

In addition, the SIR-GM1 is compatible with most additional factory audio accessories that might be included, such as:

- Rear Seat Audio Control Center
- Rear Seat Entertainment (DVD/Monitor) System
- Heads up display (HUD)
- Steering wheel controls

Note that the SIR-GM1 is not compatible with the factory satellite radio antenna that might be installed in the vehicle. You must install a SIRIUS compatible antenna such as the one included with this product. In addition, some aftermarket Class-2 bus accessories may cause performance or interference problems with the SIR-GM1.

## Features

The SIR-GM1 is designed to emulate many of the factory SDAR (Satellite Digital Audio Radio) commands found in your vehicle.

- Channel Tune (Up and Down)
- Fast Tune (Up and Down)
- Category Search (Up and Down)
- Category Tune (Tune within a category)
- 12 presets (6 for each band)
- Preset Scan (UP)

Note about features listed; Each GM radio type operates differently, so consult the vehicle owners manual for proper operation methods.

## Headunit Display Capability

When the SIR-GM1 is installed, it has the capability to show the following information on the headunit display.

- Channel Number
- Channel Name
- Category Name
- Artist Name\*\*
- Song Title Name\*\*

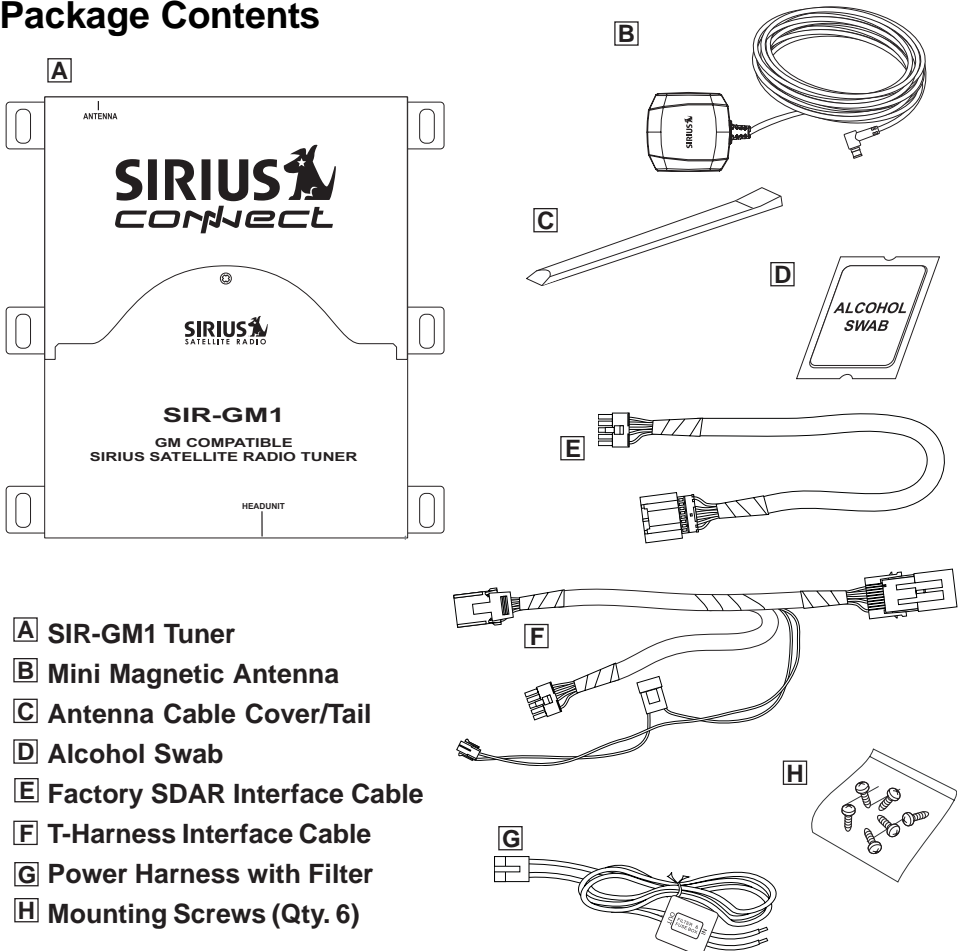
\*\*Number of characters displayed varies by headunit type (8 ~16 Characters). Text Scrolling and/or Paging is not supported with the SIR-GM.

Note: Some GM headunits will display "XM1" or "XM2" as the display source. This information is hard coded in the headunit design and can not be changed.

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## Package Contents



- A** SIR-GM1 Tuner
- B** Mini Magnetic Antenna
- C** Antenna Cable Cover/Tail
- D** Alcohol Swab
- E** Factory SDAR Interface Cable
- F** T-Harness Interface Cable
- G** Power Harness with Filter
- H** Mounting Screws (Qty. 6)



## WARNING

This symbol means important instructions. Failure to heed them can result in serious injury or death. **DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE.**

Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions.

Failure to do so may result in an accident.

**DO NOT OPEN, DISASSEMBLE OR ALTER THE UNIT IN ANY WAY.** Doing so may result in fire, electric shock or product damage.

**DO NOT INSERT ANY OBJECTS INTO THE UNIT.** Doing so may result in fire, electric shock or product damage.

**USE THE CORRECT AMPERE RATING WHEN REPLACING FUSE.** Failure to do so may result in fire, electric shock or product damage.

**MAKE THE CORRECT CONNECTIONS.** Failure to make proper connections may result in fire or product damage.

**DO NOT SPLICE INTO A ELECTRICAL CABLES.** Never cut away cable insulation to supply power to other equipment. Doing so will exceed the current carrying capacity of the wire and result in fire or electric shock.

**DO NOT INSTALL IN LOCATIONS THAT MIGHT HINDER VEHICLE OPERATION.** Doing so may obstruct vision or hamper movement which can result in a serious accident.

**DO NOT INSTALL THE UNIT TO HIGH LEVELS OF HUMIDITY, MOISTURE OR DUST.** Doing so can result in electric shock or product failure.

**FCC Warning:** This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in this User Guide. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

**Note:** This equipment has been tested and found to comply with Part 15 of the FCC Rules. These rules are designed to provide reasonable protection against harmful interference. This equipment may cause harmful interference to radio communications if it is not installed and used in accordance with these instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Relocate the receiving antenna.
- Consult the dealer or an experienced technician for help.



## CAUTION

**This symbol means important instructions. Failure to heed them can result in injury or material property damage.**

**HALT USE IMMEDIATELY IF A PROBLEM APPEARS.** Failure to do so may cause personal injury or damage to the product. Return the unit to your authorized retailer or nearest service center for repairing.

**INSTALL THE WIRING SO THAT IT IS NOT CRIMPED OR PINCHED BY SCREWS OR SHARP METAL EDGES.** Route the cables away from moving parts or sharp pointed edges. This will prevent crimping and damage to the wiring. If the wiring must pass through a metal hole, be sure to use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole.

**USE THE SPECIFIED ACCESSORY PARTS AND INSTALL THE PRODUCT SECURELY.** Be sure to use only the specified accessory parts. Use of non-specified parts may damage this unit internally or may not securely install the unit in place. This may cause parts to become loose, resulting in hazards or product failure.

**USE CAUTION IF YOU NEED TO DISCONNECT THE BATTERY TERMINAL.** Please consult the vehicle's owner's manual or a service technician prior to removing the battery positive or ground connection, as it may cause damage to the vehicle's electrical system or require reprogramming of the vehicle's computer-controlled devices.

## COMPATIBILITY

The way the SIR-GM1 is installed and used in your vehicle will vary depending on several factors including the make, model and year of the vehicle as well as the factory-installed options. Please refer to the information below for information on the proper method of SIR-GM1 installation.

If your vehicle is pre-wired for satellite radio, then you should install the SIR-GM1 in the factory satellite radio tuner location using the existing wiring and the 'factory harness adapter'. Please refer to the factory service manuals for appropriate installation instructions.

If your vehicle is not pre-wired for satellite radio, but it is compatible with the SIR-GM1, then you must use the provided T-harness to connect to the back of your factory headunit.

# Installation

It is recommended that prior to starting the installation, you thoroughly read this manual and follow the guidelines listed below:

Some installations may use the factory satellite radio tuner location. If you are using this location, please follow the factory instructions for installing the tuner in your vehicle. If you are not using this location, please read the following installation guidelines.

Consider the mounting location carefully. You should make sure that you avoid the following:

- Any location where the tuner is exposed to moisture.
- Any location where the unit is exposed to extreme heat.
- Any location that would interfere with moving parts on the vehicle or hamper driving.

## Mounting the SIR-GM1 Tuner

Be sure that you find a location that is flat and has clearance above the unit to prevent any damage as well as allow for ventilation.

Do not install the tuner under the carpet or in a small enclosed area without proper ventilation. Doing so can result in damage to the tuner or the vehicle.

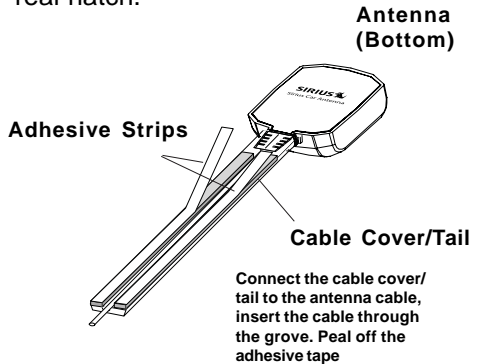
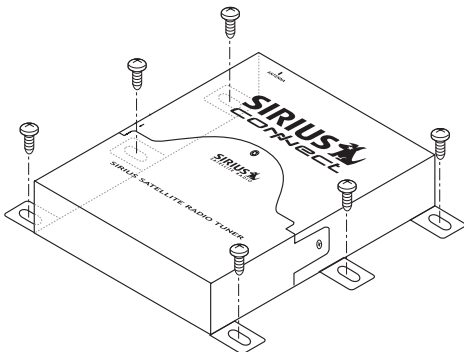
Use the supplied screws to securely fasten the unit.

### Caution:

If you are attaching the unit directly to the vehicle's chassis, be sure that you check to make sure the area behind the unit is free from moving parts, fuel or break lines, wire harnesses or any other items which may get damaged by drilling a mounting hole or using the supplied screws.

## Installing the Antenna

The antenna includes a 6-1/2" cable cover/tail which covers the exposed antenna cable and keeps it attached securely to vehicle roof. The tail also helps position the antenna the proper distance from the window, sunroof or rear hatch.



Note that the SIR-GM1 is not compatible with the factory satellite radio antenna that might be installed in the vehicle. You must install a SIRIUS compatible antenna such as the one included with this product.

To attach the cover/tail:

- 1) Once you have determined the proper mounting location (see next section), clean the area with the supplied alcohol swab.
- 2) Connect the cover/tail to the antenna cable, making sure that the strain-relief seats into the cover/tail groove. Route the cable through the wire channel in the cover/tail.
- 3) Remove the remaining protective tape from the adhesive, carefully position the antenna with cover/tail and apply pressure to secure to the vehicle.

### Optimum Antenna Mounting Locations

The optimum location to mount the antenna is on the roof of the vehicle. It is important to avoid any obstruction that will block satellite signal – like a roof rack. For convertible vehicles, install the antenna on the trunk lid.

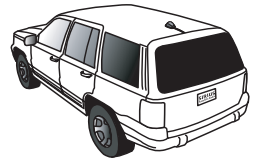
- Place the antenna on a metal surface of your vehicle at least 12" x 12", and at least 6" from a window. (Use the antenna cover/tail as a guide for the proper distance).
- The antenna's powerful magnet will secure it to the metal surface. The adhesive that is attached to the antenna cover/tail will secure the cable to the vehicle. Before routing the antenna cable, confirm that the antenna is mounted in a good location.
- Route the cable from the antenna to the vehicle's interior by tucking it underneath the rubber molding around the rear window (if possible).
- Route the cable from the lowest point of the rear window into the trunk. Take advantage of any existing cable channels or wiring conduits.

- For SUVs, minivans and five-door vehicles, bring the cable into the vehicle under the rubber molding for the tailgate, and continue under the interior trim.
- From the trunk, carefully route the cable to the location of the SIR-GM1 and plug the SMB connector onto the unit.

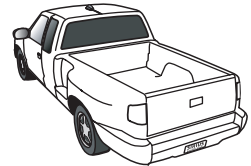
#### Sedan/Coupe



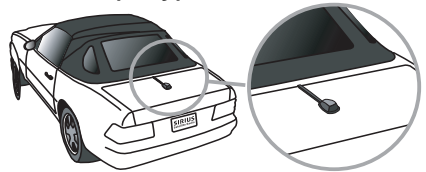
#### SUV/Mini-Van



#### Truck



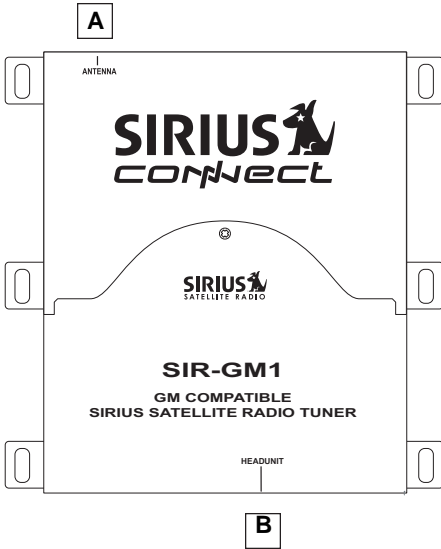
#### Convertible (only)



#### Caution:

- Do not pull the wire across sharp edges that could damage it.
- Keep the wire away from areas where it could become tangled in the driver's and passenger's feet.
- Keep the antenna wire away from extreme heat – like exhaust systems.
- Avoid placing the cable near any moving parts

# Wiring and Cable Connections



## A. Antenna Input

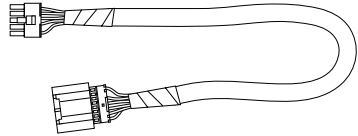
Connect the right-angle SMB connector from the antenna. Push firmly to attach. Connect to only approved SIRIUS Satellite Radio antennas - DO NOT connect to the factory satellite radio antenna if installed.

## B. Headunit Connector

Connection to either the Factory SDAR interface cable or T-Harness cable depending on system type.

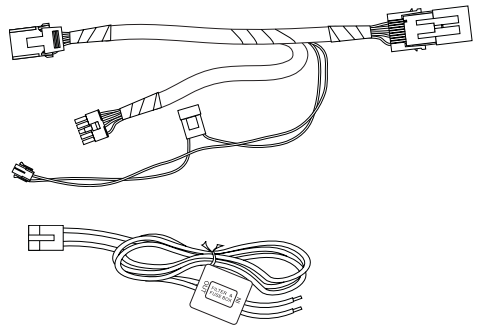
## Factory SDAR Interface Cable

Use this cable if you are replacing the factory XM satellite tuner.



## T-Harness Interface

If your vehicle does not have a factory XM satellite tuner installed, use the T-Harness and supplied power harness with noise filter..



## Note 1:

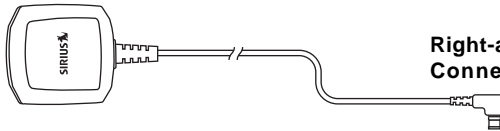
DO NOT cut or extend the supplied harnesses. Doing so can cause operation or noise issues.

## Note 2:

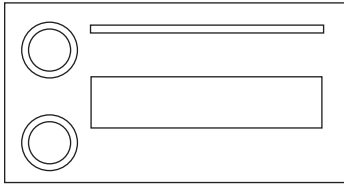
It is not possible to have both the factory XM tuner and the SIR-GM1 installed at the same time.



Antenna (21' cable) - Mount on Roof of Vehicle

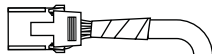


Right-angle SMB Connector

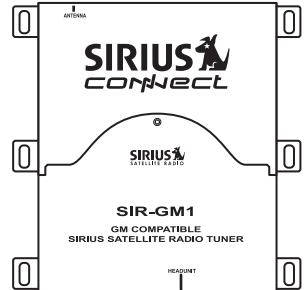


Factory GM Class-2 Radio

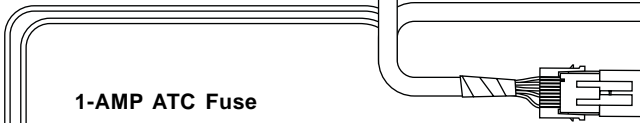
Factory bus connector (Headunit Side)



T-Harness Interface Cable



SIR-GM1 Connector



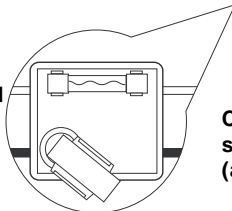
1-AMP ATC Fuse

Power Harness with Filter

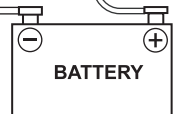
Factory bus connector (Vehicle Side)

Connect YELLOW wire to the Battery Positive or other good B+ source

1-AMP Fuse located inside noise filter



Connect Black wire to a solid Chassis Ground (as short as possible)

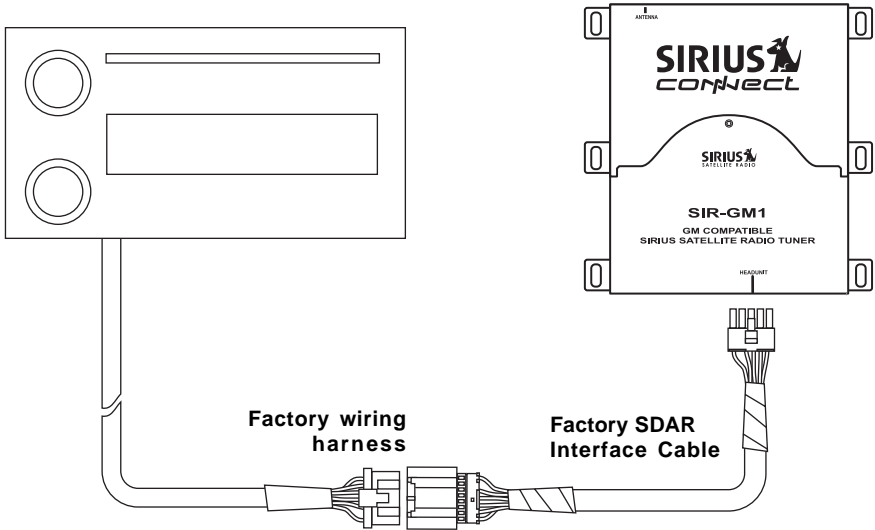


NOTE: If your vehicle is equipped with a factory satellite radio tuner and you are using the included 'T-harness interface cable' for installation, you must disconnect the factory satellite radio tuner at the tuner box. Otherwise, operational errors will occur while using the SIR-GM1.

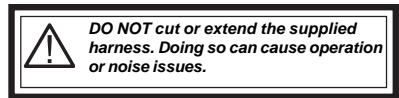
# System Connection Examples

## System 1

For vehicles pre-wired for satellite radio



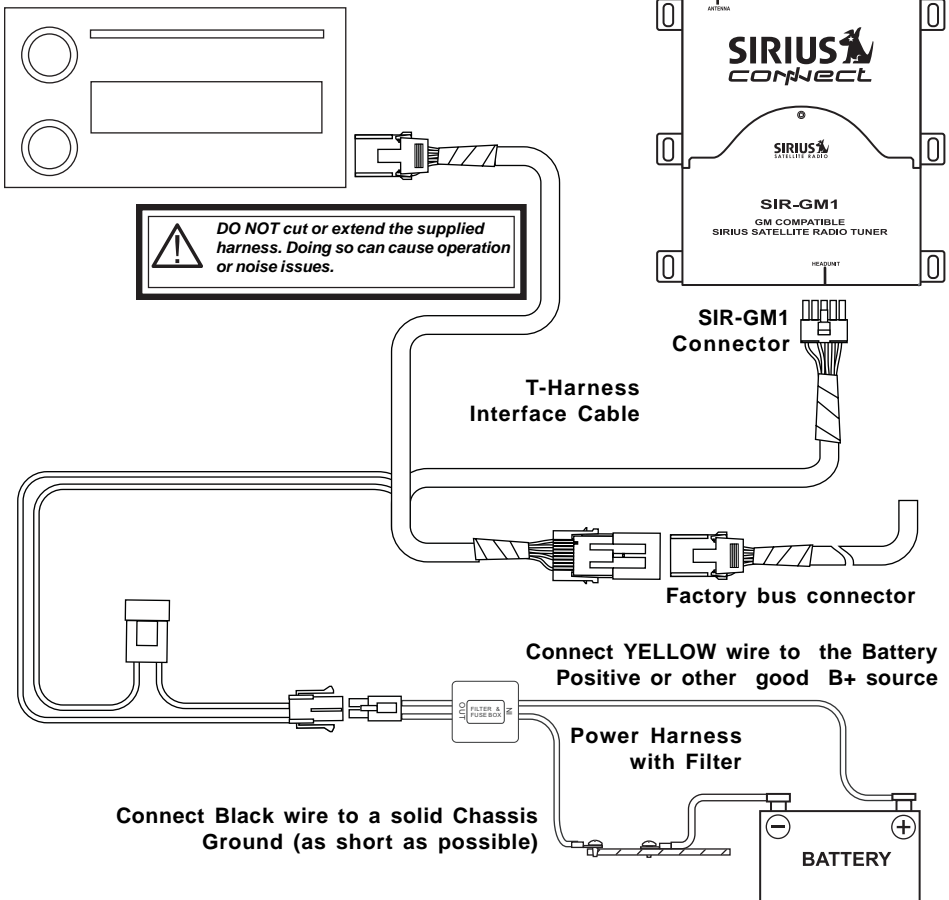
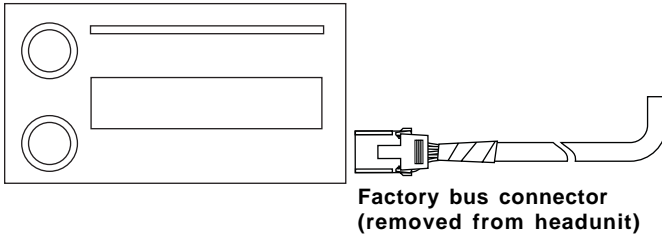
**Remove the Factory XM Tuner and  
connect the SDAR Interface Cable**



NOTE: If installing into a Cadillac CTS, a slight modification of the Factory SDAR Interface Cable is required. Please see the attached technical sheet for details.

## System 2

For vehicles not wired for satellite radio



# Activating Your SIRIUS Subscription

You must activate SIR-GM1 before you can start to receive the SIRIUS Satellite Radio broadcast.

1. Make sure that the SIR-GM1 is properly connected and that its antenna is oriented to receive the SIRIUS satellite signal.
2. Turn on the headunit.
3. Use your factory radio's controls to select satellite radio as the source. Pressing the BAND button will change sources to SR1 or SR2. Note- some headunits will display XM1 or XM2 when in SIRIUS mode.

4. If this is the first time the unit is connected and receiving satellite signal, the display may read "UPDATING" until the SIR-GM1 channel update is completed. This is where the latest channel line up is updated on the SIRIUS Receiver.

**NOTE: Don't push any buttons or perform any operations until updating has been completed.**

Once updated and the SIRIUS channels are received, you will be tuned to SIRIUS Satellite Radio's Preview Channel (Channel 184). You should be able to hear the SIRIUS Preview channel's Audio.

5. Find the SIRIUS ID (SID) of your unit. The SID can be found on a sticker on the bottom of the SIR-GM1 or by tuning to channel 255. Press the display button (DISP on most units- some use INFO) to select either artist name or song title. Both fields will display the 12-digit SID.
6. Write down the 12 digit SID in the location provided on the next page for future reference.

7. Contact SIRIUS on the Internet: <https://activate.siriusradio.com>  
Follow the prompts to activate your subscription.

You can also call SIRIUS toll-free at 1-888-539-SIRIUS (1-888-539-7474) to activate your tuner.

Note: You will not be able to tune to any other channels until you activate your SIRIUS subscription.

## Basic Operation

After the unit is activated please follow the steps below to insure proper operation of the unit:

1. Power off the headunit, close all doors for 1 minute.
2. Open the door and either start the car or turn on the ACC.
3. Cycle through the BANDS to select SR1 (or XM1).
4. Select each preset one time (the headunit may have retained presets from the XM radio. This will change all the presets to the SIRIUS default channels.
5. Press BAND to select SR2 (or XM2) and repeat step 4 above.
6. You can now tune and set up your presets as you wish.

For specific headunit functions, please consult your GM headunit owner's manual for proper operation instructions for using satellite radio products.

Note: When reactivating a "deactivated" receiver, the headunit MAY show the UPDATING message continuously. Channel tune UP or Down to clear the message.

## Specifications

### Operational Frequencies

Satellite ..... 2322.293/2330.207 MHz  
Terrestrial ..... 2326.250MHz

Power Requirements ..... 11-16 Volts DC

Chassis Size ..... 126.75mm x 125.75mm x 34.75mm (WxHxD)

Antenna Type ..... Mini-Magnetic

Antenna Cable Length ..... 21' (single micro-cable)

Connector Type ..... SMB (Right-angle)

Audio Output ..... 1.4V rms (Fixed)

Included Cables ..... T-Harness Interface Cable

..... Factory SDAR Interface Cable

..... Power harness with in-line noise filter

Please write down your SIRIUS ID in the space provided below:

**SIRIUS ID:**

**SIRIUS Customer Service: 1-888-539-7474**



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