

SIM

SIRIUS Satellite Radio Module Installation Manual

SAFETY INSTRUCTIONS

For your safety, please read and follow these precautions before installing or using this product:

1. Read instructions. Read and understand all the applicable instructions before installing or operating the product.
2. Retain instructions. Keep this manual in a convenient place for reference.
3. Heed warnings. Be aware and heed all warnings on the product and in the instructions.
4. Follow instructions. Install and use this product only as described in the instructions. Don't try to use this product in ways for which it wasn't designed.
5. Use indoors only. Don't expose this product to the weather or harsh environmental conditions such as continuous sunlight, excessive humidity, or rain.
6. Keep product dry. Don't use the product near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool. Also, do not handle the product when your hands are wet or damp.
7. Use the right power source. Don't connect the product directly to electrical line voltage. Use only the power adapter provided with the product, described in the operating instructions, or as marked on the product.
8. Ground product properly. Make sure the product's means of grounding or polarization is not defeated.
9. Power cord protection. Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, receptacles, and the point where they exit from the appliance.
10. Keep product clean. From time to time, wipe off the product with a clean soft cloth. Don't use abrasive materials, thinners, alcohol or other chemical solvents or materials.
11. Avoid spills and foreign objects. Make sure liquids and objects don't get into the product enclosure through any openings.
12. Get professional service. Have the product serviced only by qualified service personnel when:
 - The power supply cord or the plug has been damaged
 - Liquids have spilled or objects have fallen into the product
 - The product has been exposed to rain
 - The product doesn't appear to operate normally
 - The product is damaged

Don't attempt to service the product yourself. Doing so will void the warranty.

If you have any questions, call Russound at 1.800.638.8055 or 603.659.5170.

This device complies with Part 15B of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Russound could void the user's authority to operate this equipment.



Conforms to
UL60065
Certified to
CAN/CSA
IEC60065

SIRIUS Radio Overview		Antenna Installation	
Subscription.....	4	SIRIUS antenna placement.....	14
Radio messages.....	4	SIRIUS antenna direction	14
SIRIUS Radio Menu Navigation		Signal strength check.....	14
With KLK-E5 Keypad.....	5	Specifications/Warranty	
With HHR-E5 Remote Control.....	6	Technical specifications.....	15
SIRIUS Radio Channel Navigation		Warranty.....	15
Now playing screen	7		
Channel list	7		
Category list.....	7		
Presets.....	8		
Naming presets	8		
Banks	8		
Channel Lock			
Lock channel.....	9		
Access locked channel	9		
Channel Unlock/Change Code			
Unlock channel.....	10		
Change code	10		
Module Installation			
Installation in ACA-E5 controller	11		
Antenna Connection			
SIRIUS antenna	12		
Optional outdoor antenna with RG6 cable	13		

SIRIUS RADIO OVERVIEW

SIRIUS radio

SIRIUS is a service offering over 130 channels of satellite radio featuring digital-quality music, sports, news and entertainment programming when and where you want it. Enjoy over 69 channels of 100% commercial-free music, with over 55 channels of sports, news and entertainment.

The wide variety of SIRIUS programming choices offers something for everyone, but some adult content may not be suitable for children. The SIM Module provides a parental lock-out feature to easily block access to a specific SIRIUS channel.

SIRIUS subscription

SIRIUS satellite radio is a subscription-based service with a monthly provider fee and an activation charge. Listeners can subscribe by visiting SIRIUS on the web at www.sirius.com or by calling SIRIUS at 888-539-7474.

To subscribe, have a major credit card and your SIRIUS ID number at hand and contact SIRIUS at www.sirius.com. You can also activate service by calling SIRIUS at 1-800-539-7474. You will be guided through the activation process step by step.

To see the 12-digit SIRIUS ID number, select SIRIUS channel 0 and view the ID number on the KLK keypad. You can also scroll through the SIRIUS menu on the KLK and select Tuner Info. The ID will be displayed there. The ID number is also located on the inside of the radio module, and on a sticker located on the product box.

SIRIUS channels

To see what channels are available, an up-to-date full channel listing is available on the SIRIUS Radio website, www.sirius.com.

SIRIUS radio messages

In addition to Channel, Artist, Song, Category and Composer information, the SIRIUS tuner will broadcast operating condition messages on the SIRIUS Now Playing screen when the following conditions occur:

Display

ANTENNA ERROR

ACQUIRING SIGNAL

INVALID CHANNEL

UPDATING CHANNELS

CALL 888-539-SIRIUS
TO SUBSCRIBE

SUBSCRIPTION UPDATED

Condition

Antenna not connected

Loss of signal, acquiring channel
audio

Channel number not valid

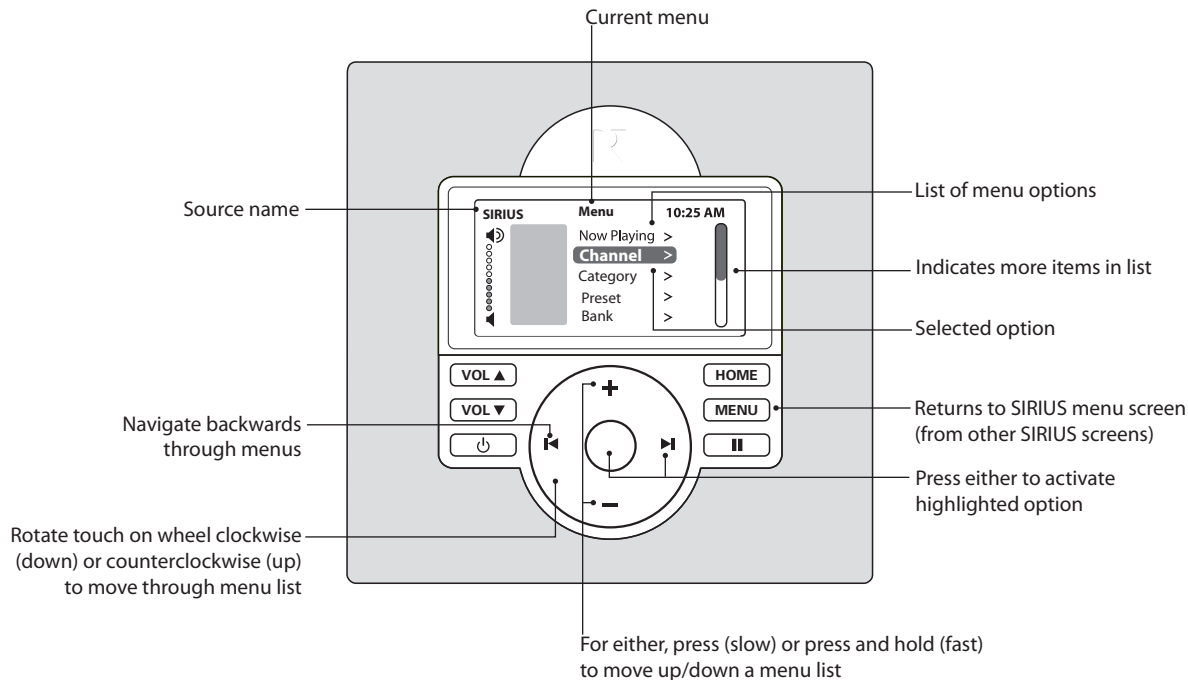
Channel map update

Unsubscribed channel

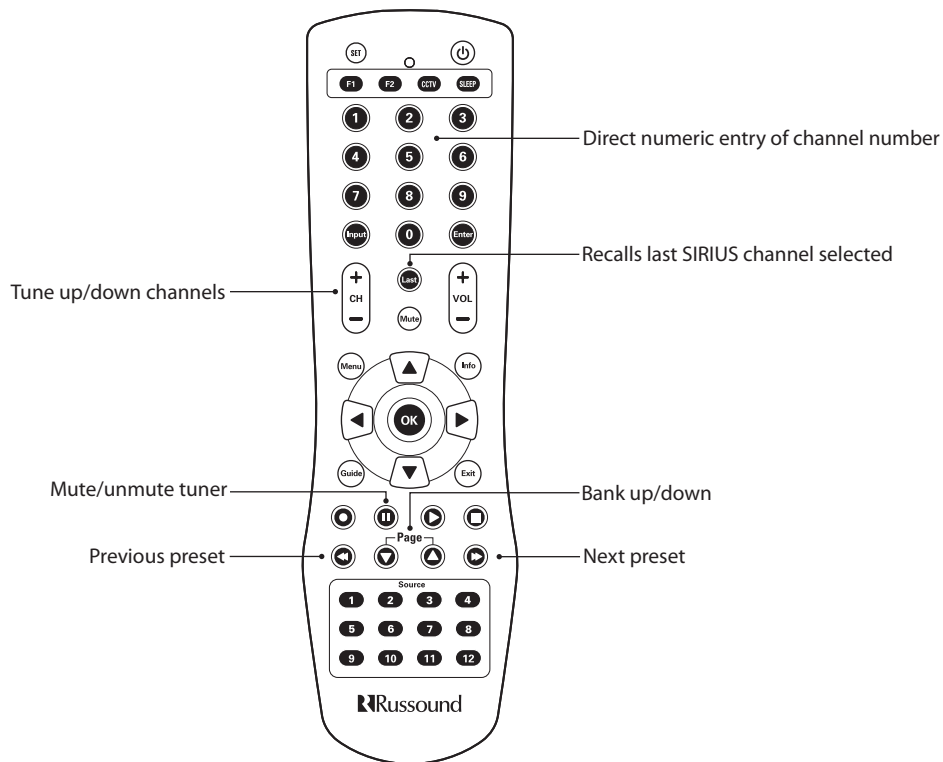
Subscription update

SIRIUS RADIO MENU NAVIGATION WITH KLK KEYPAD

The KLK-E5 click wheel keypad provides the interface for SIRIUS radio navigation and channel selection. Its home screen, buttons and navigation wheel are described below.



SIRIUS RADIO CONTROL WITH HHR-E5 REMOTE CONTROL



SIRIUS Radio Navigation

There are several options for searching and selecting SIRIUS channels using the KLK-E5. These are found in the SIRIUS menu.

Now Playing Default screen when SIRIUS is active. Shows current name and title info

Channel All available channels shown as channel number and name (e.g., 9:The Pulse)

Category Groups of channels organized by type (e.g., Classical, Rock, etc.)

Preset Channels you have marked for easy recall (up to 36 presets)

Bank Six groups of presets (e.g., Bank 1 for Dad's jazz presets, Bank 2 for Mom's rock presets, etc.)

Now Playing

To change a channel from the SIRIUS Now Playing screen:

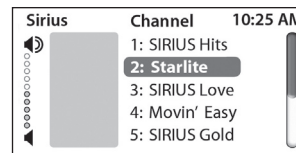
Press the + and - of the KLK-E5's click wheel, or slide the wheel clockwise or counter-clockwise to scroll up and down channels. Once another channel is selected, the screen updates. Pressing the keypad's Select button takes you to the system source list.



Channels

To select a channel from Channel list:

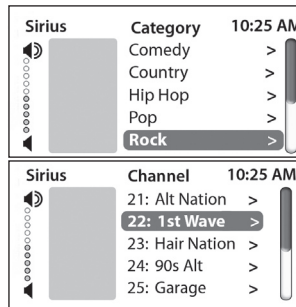
From the SIRIUS menu screen, scroll to and select Channel. On the Channel screen, scroll through and select the desired channel.



Category

To select a channel from Category list:

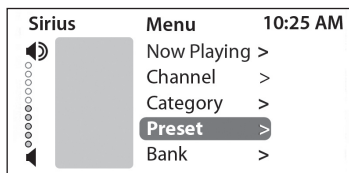
From the SIRIUS menu screen, scroll to and select Category. On the Category screen, scroll through and select the desired category. Scroll through and select from listed channels in that category.



SIRIUS RADIO CHANNEL NAVIGATION

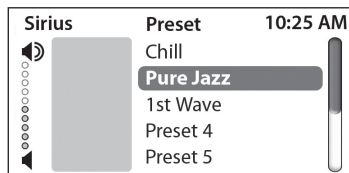
Presets

A preferred channel can be saved as a preset for easy recall. There are 36 presets available that are stored in groups of six called banks. Presets 1-6 are stored in Bank 1, presets 7-12 are stored in Bank 2, etc. A channel must be saved to a preset before the preset can be selected.



To save a preset:

Choose a SIRIUS channel. Navigate to the Preset screen. Scroll to an available preset. Press and hold the select button. The preset # changes to the SIRIUS channel name. Note: New presets can also be saved over existing presets.

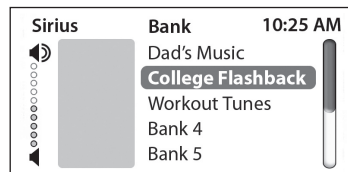


To select a channel from Preset:

From the SIRIUS menu, scroll to and select Preset. On the Preset screen, scroll to and select the desired preset.

Banks

To select a preset channel from Bank list:



From the SIRIUS menu screen, select Bank, then choose one of the six banks listed.

Scroll through and select a preset from the six listed. A preset can also be saved from within a bank.



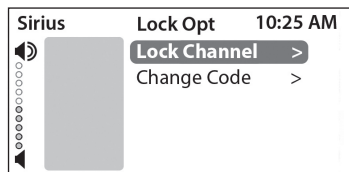
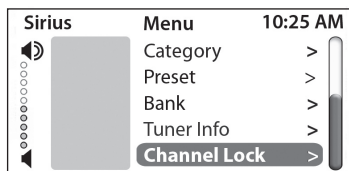
Channel lock

This mode allows you to lock/unlock a channel or channels to prevent audio access. This parental control is set/cleared with a four-digit code entered using the HHR-E5 remote control. Channel to be locked/unlocked must be selected before beginning this procedure.

Lock channel

To LOCK a channel:

1. From the SIRIUS menu screen, choose Channel Lock. Select Lock Channel. Using the HHR-E5 remote control, enter the current four-digit code (default is 0000). The KLK moves to the SIRIUS Now Playing screen, if the correct code is entered.



2. This channel is playing but is now locked. Once the channel is changed, if the channel is selected again, the KLK-E5 indicates the channel is locked and asks for unlock code.

Access locked channel

To ACCESS a locked channel:

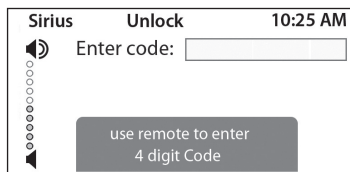
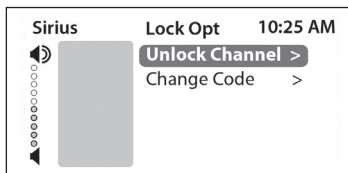
1. From the SIRIUS menu Channel screen, choose the locked channel. The Now Playing screen appears. The KLK-E5 indicates the channel is locked and asks for unlock code. Using the HHR-E5 remote control, enter the current four-digit code (default is 0000). The channel is unlocked temporarily and will be locked again once you change channels.

CHANNEL UNLOCK/CHANGE CODE

Unlock channel

To UNLOCK a locked channel:

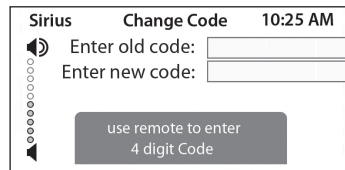
1. Follow steps to access the locked channel.
2. Return to the SIRIUS menu screen and choose Channel Lock. Select Unlock Channel. Using the HHR-E5 remote control, enter the current four-digit code (default is 0000) and press Enter.
3. This channel is now unlocked. The KLK moves to the SIRIUS Now Playing screen.



Change codes

To CHANGE CODES:

1. From the SIRIUS menu Channel screen, choose Channel Lock, then select Change Code. Using the HHR-E5 remote control, enter the current four-digit code (default is 0000). Enter the new four-digit code. The KLK moves to the SIRIUS Now Playing screen.



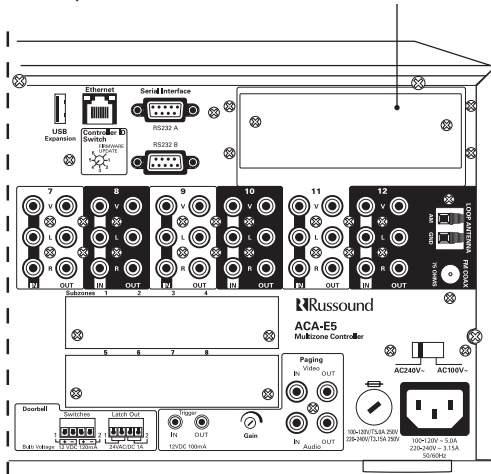
MODULE INSTALLATION

The ACA-E5 supports one optional radio module. The SIM radio tuner module is field installable.

Before installing the module, turn off the power to the controller and disconnect the power cord from the wall socket.

To install the module, locate the plain metal plate on the back of the ACA-E5 located in the top right corner. Remove the two Phillips head screws holding the plate in place. Remove the plate.

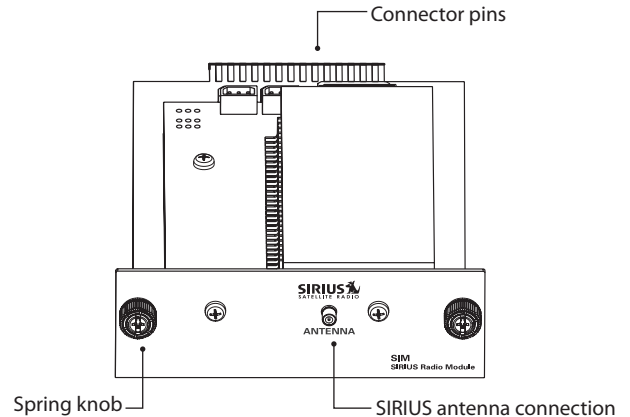
ACA-E5 rear panel location of module installation



Unwrap the SIM module. Locate the SIRIUS ID number sticker on the module and write down the 12-character number as it will be required during the activation process.

Grasp the two spring knobs and position the module in between the two rails on each side of the controller's module cavity. Push the module toward the back of the cavity, keeping it moving straight between the rails.

There will be resistance when the module's pins meet the controller's connectors. Carefully push the module into the connector until contact is made. Tighten the thumb screws to hold the module in place.

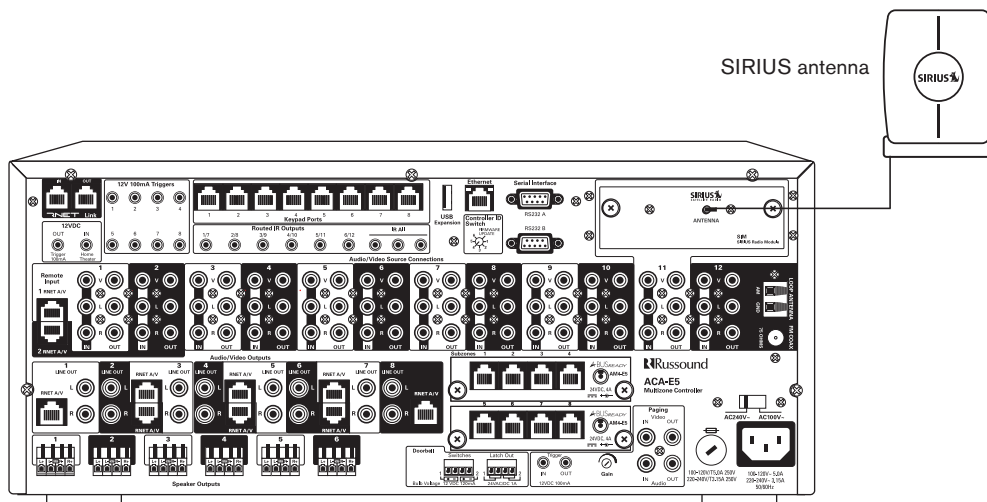


ANTENNA CONNECTION

SIRIUS antenna

Connect the included SIRIUS antenna for SIRIUS reception to the back panel of the SIRIUS module. The antenna comes with 20 feet of cable. If this length is not sufficient, there are aftermarket antenna kits available for custom lengths.

NOTE: If an aftermarket antenna is installed, be sure to use a cable strain relief to take excess pressure off the module's antenna connector.

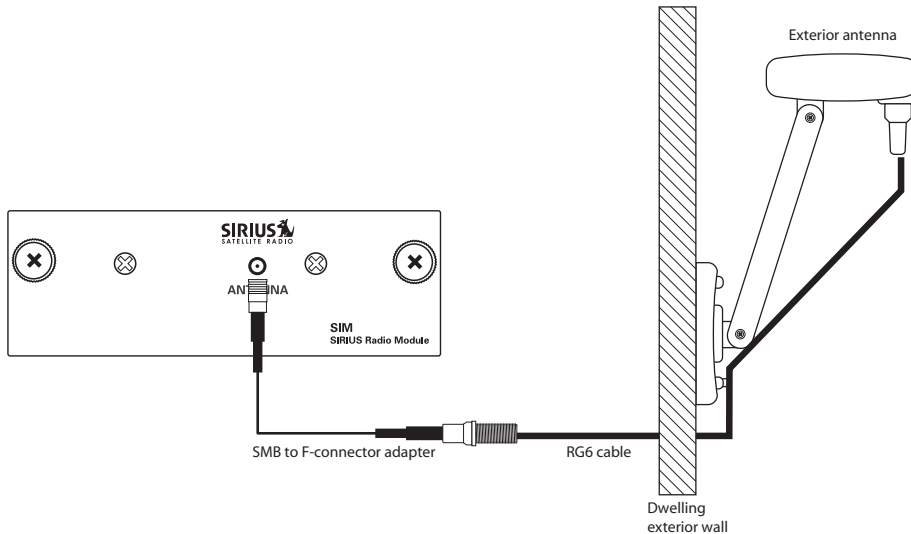


Optional outdoor antenna with RG6 coaxial cable

To permit RG6 coaxial cable to be used for the antenna lead on the SIRIUS module, an adapter cable has been provided.

This SMB to F-connector cable protects the SMB connector on the module from breakage due to the less flexible RG6 coaxial cable.

Connect the SMB end of the cable to the connector on the SIRIUS module. Connect the other end of the cable to the RG6 cable connector. Be sure to use a cable strain relief to take excess pressure off the module's antenna connector.



ANTENNA INSTALLATION

SIRIUS antenna placement

There are several methods available for antenna placement and installation. It is best to experiment with positioning to achieve the best signal possible before installation.

The SIRIUS antenna may be situated in or near a window. In metropolitan areas, ground-located repeaters are used to boost the signal, which can be received by antennas placed in or near windows.

The antenna may also be attached to an external wall by sliding the slots on the back of the antenna onto four screws mounted on an exterior wall. Establish the best receiving position for the antenna before attaching it to the wall.

Signal strength check

Once the antenna has been connected and positioned, check the signal strength for best reception.

Navigate to the SIRIUS menu Channel screen and select Channel 184, a preview/promotional channel. Return to the SIRIUS menu screen and select SIRIUS Tuner Info. The signal strength will be displayed as:

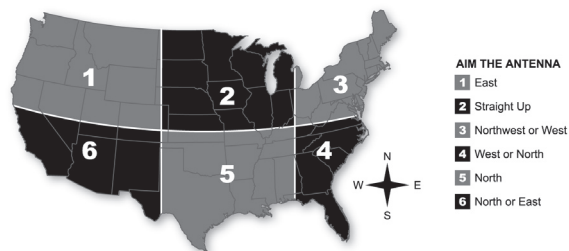
EXCELLENT SIGNAL	Signal strength good
GOOD SIGNAL	Signal strength marginal
WEAK SIGNAL	Signal strength poor
NO SIGNAL	Loss of signal

Adjust the antenna until EXCELLENT SIGNAL is displayed.

SIRIUS antenna direction

SIRIUS has three satellites over the contiguous United States, plus terrestrial repeaters in major metropolitan areas.

To receive the strongest signal, the map is provided as a guideline for antenna placement. It may be necessary to listen to SIRIUS for a few days, at different times of the day, to determine the optimal antenna placement for signal reception.



SIM Module Specifications

Dimensions:	3.875"W x 6.188"D x 1.313"H (9.84 x 15.72 x 3.34 cm)
Weight:	1 lbs. (0.45 kg)
SIRIUS Band:	2320.00 - 2332.50 MHz
SIRIUS Antenna:	50-ohm SMB connection

Warranty

The Russound SIM SIRIUS Radio module is fully guaranteed against all defects in materials and workmanship for two (2) years from the date of purchase. During this period, Russound will replace any defective parts and correct any defect in workmanship without charge for either parts or labor.

For this warranty to apply, the unit must be installed and used according to its written instructions. If service is necessary, it must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing by an agency or person not specifically authorized in writing by Russound.

This Warranty does not cover:

- Damage caused by abuse, accident, misuse, negligence, or improper installation or operation
- Power surges and lightning strikes
- Normal wear and maintenance
- Products that have been altered or modified
- Any product whose identifying number, decal, serial number, etc. has been altered, defaced or removed

Russound sells products only through authorized Dealers and Distributors to ensure that customers obtain proper support and service. Any Russound product purchased from an unauthorized dealer or other source, including retailers, mail order sellers and online sellers will not be honored or serviced under existing Russound warranty policy. Any sale of products by an unauthorized source or other manner not authorized by Russound shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the unit in a corrugated container with at least three (3) inches of resilient material to protect the unit from damage in transit.

Before returning a unit for repair, call Russound at (603) 659-5170 for a Return Authorization number. Write this number on the shipping label and ship to: Russound, Inc., ATTN: Service, 5 Forbes Road, Newmarket, NH 03857

Due to continual efforts to improve product quality as new technology and techniques become available, Russound/FMP, Inc. reserves the right to revise system specifications without notice.



SIM

SIRIUS Satellite Radio Module Installation Manual



©2008 Russound. All rights reserved.

All trademarks are the property of their respective owners.

Specifications are subject to change without notice.

Russound is not responsible for typographical errors or omissions.

Russound, Inc.

5 Forbes Road, Newmarket, NH 03857

tel 603.659.5170 • fax 603.659.5388

email: tech@russound.com www.russound.com

28-1286 0325/08