# **Notice to Installers**

The servicing instructions in this notice are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions, unless you are qualified to do so.

#### Note to System Installer

For this apparatus, the coaxial cable shield/screen shall be grounded as close as practical to the point of entry of the cable into the building.For products sold in the US and Canada, this reminder is provided to call the system installer's attention to Article 820-93 and Article 820-100 of the NEC (or Canadian Electrical Code Part 1), which provides guidelines for proper grounding of the coaxial cable shield.



This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

Ce symbole a pour but d'alerter toute personne qu'un contact avec une pièce interne de ce produit, sous tension et non isolée, pourrait être suffisant pour provoquer un choc électrique. Il est donc dangereux d'être en contact avec toute pièce interne de ce produit.



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

#### WARNING

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.



This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

Ce symbole a pour but de vous avertir qu'une documentation importante sur le fonctionnement et l'entretien accompagne ce produit.

20070131 SysInstaller 820 US/Canada/Intl

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

#### **Power Source Warning**

A label on this product indicates the correct power source for this product. Operate this product only from an electrical outlet with the voltage and frequency indicated on the product label. If you are uncertain of the type of power supply to your home or business, consult your service provider or your local power company.

The AC inlet on the unit must remain accessible and operable at all times.

#### Ground the Product

WARNING: Avoid electric shock and fire hazard! Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

#### **Outdoor Grounding System**

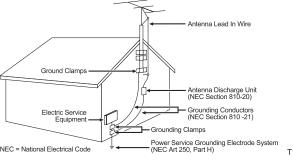
If this product connects to an outdoor antenna or cable system, be sure the antenna or cable system is grounded (earthed). This provides some protection against voltage surges and built-up static charges.

Article 810 of the National Electric Code (NEC) ANSI/NFPA No. 70-1990, provides the following information

- Grounding of the mast and supporting structure
- Grounding the lead-in wire to an antenna discharge unit
- Size of the grounding conductors
- · Location of the antenna-discharge unit
- Connection to grounding electrodes
- Requirements for the grounding electrodes (see the following antenna grounding diagram as recommended by NEC ANSI/NFPA 70)

WARNING: Avoid electric shock and fire hazard! Do not locate an outside antenna system in the vicinity of overhead power lines or power circuits. Touching power lines or circuits might be fatal.





#### **Protect the Product from Lightning**

In addition to disconnecting the AC power from the wall outlet, disconnect the signal inputs.

# Verify the Power Source from the On/Off Power Light

When the on/off power light is not illuminated, the apparatus may still be connected to the power source. The light goes out when the apparatus is turned off, regardless of whether it is still plugged into an AC power source.

#### **Eliminate AC Mains Overloads**

WARNING: Avoid electric shock and fire hazard! Do not overload AC mains, outlets, extension cords, or integral convenience receptacles. For products that require battery power or other power sources to operate them, refer to the operating instructions for those products.

#### **Provide Ventilation and Select a Location**

- Remove all packaging material before applying power to the product.
- Do not place this apparatus on a bed, sofa, rug, or similar surface.
- Do not place this apparatus on an unstable surface.
- Do not install this apparatus in an enclosure, such as a bookcase or rack, unless the installation provides proper ventilation.
- Do not place entertainment devices (such as VCRs or DVDs), lamps, books, vases with liquids, or other objects on top of this product.

#### Protect from Exposure to Moisture and Foreign Objects



WARNING: Avoid electric shock and fire hazard! Do not expose this product to liquids, rain, or moisture

WARNING: Avoid electric shock and fire hazard! Unplug this product before cleaning. Clean only with a dry cloth. Do not use a liquid cleaner or an aerosol cleaner. Do not use a magnetic/static cleaning device (dust remover) to clean this product.

WARNING: Avoid electric shock and fire hazard! Never push objects through the openings in this product. Foreign objects can cause electrical shorts that can result in electric shock or fire.



Quick Reference Guide

# Cisco RNG100 Digital-Only Interactive Set-Top with Multi-Stream CableCARD Interface



# Service Warnings

WARNING: Avoid electric shock! Do not open the cover of this product. Opening or removing the cover may expose you to dangerous voltages. If you open the cover, your warranty will be void. This product contains no user-serviceable parts. Refer all servicing to qualified service personnel.

Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

# **Check Product Safety**

Upon completion of any service or repairs to this product, the service technician must perform safety checks to determine that this product is in proper operating condition.

#### **Protect the Product When Moving It**

Always disconnect the power source when moving the apparatus or connecting or disconnecting cables

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# Disclaimer

Cisco Systems, Inc. assumes no responsibility for errors or omissions that may appear in this guide. We reserve the right to change this guide at any time without notice.

# **United States FCC Compliance**

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against such interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the cable company or an experienced radio/television technician for help.

Any changes or modifications not expressly approved by Scientific-Atlanta, Inc., could void the user's authority to operate the equipment.

The information shown in the FCC Declaration of Conformity paragraph below is a requirement of the FCC and is intended to supply you with information regarding the FCC approval of this device. The phone numbers listed are for FCC-related questions only and not intended for questions regarding the connection or operation for this device. Please contact your cable service provider for any questions you may have regarding the operation or installation of this device.

# PC Declaration of Conformity

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

Cisco RNG100 Digital-Only Set-Top Model: RNG100 Manufactured by: Scientific-Atlanta, Inc. 5030 Sugarloaf Parkway Lawrenceville, Georgia 30044 USA Telephone: **770-236-1077** 

# Canada EMI Regulation

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la class B est conforme à la norme NMB-003 du Canada

20060628 FCC Standard

#### AVC VIDEO LICENSE

With respect to each AVC/H.264 product, we are obligated to provide the following notice:

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (I) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (II) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE HTTP://WWW.MPEGLA.COM.

Accordingly, please be advised that service providers, content providers, and broadcasters are required to obtain a separate use license from MPEG LA prior to any use of AVC/H.264 encoders and/or decoders.



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770 236 5000

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CableCARD and M-Card are trademarks of Cable Television Laboratories, Inc.

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Product and service availability is subject to change without notice.

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Part Number 4023742 Rev A

# Welcome

The Cisco RNG100 Digital-Only Set-Top with Multi-Stream CableCARD™ (M-Card<sup>™</sup>) receives and delivers digital signals, and it delivers programming in exceptional picture and audio quality. Through the RNG100 you can also access interactive services, such as video-ondemand and pay-per-view programs. Contact your service provider for information about these and other available services. Use the instructions in this guide to install the RNG100 and to access your program services

The consumer support website provides news and information about this product. For more information, please refer to www.scientificatlanta.com/products/consumers/new\_cableboxes.htm

#### Safety First

Before using this set-top read the IMPORTANT SAFETY INSTRUCTIONS section of this guide.

#### Watch TV

Press the following remote control keys to access services and programs:

- · Guide-Display the on-screen program guide
- · Arrows-Highlight a program in the schedule
- · Info-Display program description
- · Select-Watch a specific program in the guide

#### **Avoid Screen Burn-In**

Images such as letterbox bars or side bars, bright closed-captioning backgrounds, station logos, or any other stationary images may cause the TV screen to age unevenly and cause damage to your TV. Refer to the user's guide that came with your TV for more information about screen burn-in.

#### **Automatic Software Updates**

A message appears on the TV screen when the set-top and the M-Card module are receiving software updates.

# **Performance Tips**

If the set-top does not perform as expected, the following tips may help.

#### No picture

- · Verify that the power to your TV is turned on.
- If the set-top is plugged into a wall switch, verify the switch is in the ON position. (Avoid plugging into an outlet that is controlled by a wall switch.)
- · Verify that all cables are properly connected
- The current channel may not be available in your service package. Try selecting another channel to see if a picture appears.

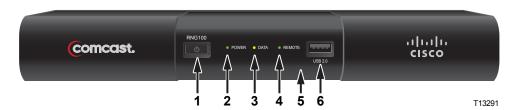
# No color

- · Verify the current TV program is broadcast in color.
- · Adjust the TV color controls.

# No sound

- If your setup includes a VCR or stereo, verify that you have properly connected them to the set-top.
- · Verify the volume is turned up.
- · Verify the mute function is not on

# **RNG100 Front Panel Features**



1 Power Button Applies power to the set-top

2 Power LED Illuminates when the set-top is powered on. The LED is green 3 Data LED Illuminates when the set-top is receiving data. The LED is yellow 4 Remote LED Illuminates when the remote control is in use. The LED is green

5 IR Sensor Receives the infrared signal from the remote control 6 USB 2.0 Port Connects to external equipment, such as a keyboard or a mouse

Note: This illustration may vary from the actual product.

## Safety and Performance Tip

Keep the top of the set-top free of all objects and electronic devices, including your TV.

# **RNG100 Back Panel Connectors**



1 Multi-Stream Slot for M-Card module, which decrypts subscription digital channels. This set-top will not operate correctly without an M-Card module. Obtain an M-Card module from your service provider

CableCARD 2 DC Inlet Connects to the external power supply for the set-top

3 USB Connects to external USB devices such as a keyboard or a mouse

Connects to an S-Video cable that sends an S-Video signal to your TV or VCR. This signal is standard definition, 4 S-Video Out

but higher quality than other SDTV connections

5 Video Out Connects to the composite input on your TV

6 Audio Out Connects to RCA cables that send analog audio signals (left and right) to the stereo inputs on a TV (Left, Right)

7 IR Available to be connected to an approved remote IR receiver (purchased separately). Please contact your service

8 Optical Audio Connects to an optical cable that sends a digital audio signal to a surround-sound receiver or other digital audio

9 Ethernet Connects to an Ethernet network

10 Cable In Connects to a coaxial cable that delivers the signal from your service provider

11 Cable Out Connects to a coaxial cable that sends analog audio and video signals to a TV or VCR. These signals are

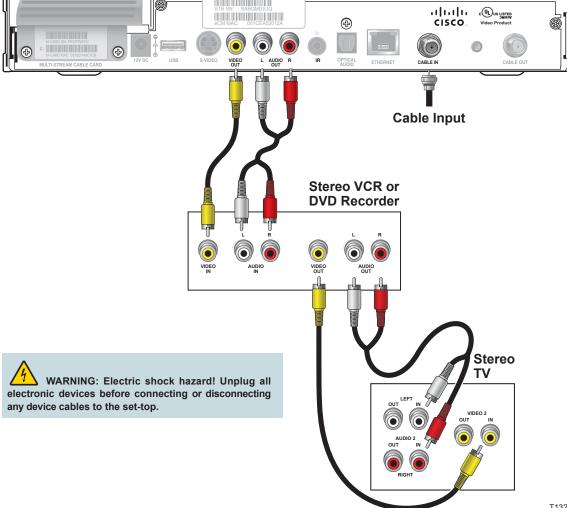
standard definition TV (SDTV) video and stereo audio Note: This illustration may vary from the actual product

# Installing the RNG100 Set-Top

- 1. Unplug all electronic devices before connecting the set-top.
- 2. Connect the set-top and VCR or DVD Recorder to the appropriate audio and video inputs as shown in the diagram.
- 3. Connect the set-top to the coaxial cable coming in from the wall.
- 4. Plug the set-top's external power supply and TV into an AC power source.
- 5. Plug the VCR or DVD Recorder into an AC power source.
- 6. Plug the DC cord from the external power supply into the set-top.
- 7. For the TV to receive the signal, press the appropriate button on the remote control to select the audio/video inputs to which you have connected the RNG100.
- 8. Wait for at least 5 minutes for the set-top to be updated with the latest programming and service information. When the green LED stops flashing, the update is complete.
- 9. Press the POWER key on the remote control.

**RNG100** 





## U.S. Patents

A patent notice is affixed to this product. In addition, the product may also be covered by one or more of the following patents: 4,498,169; 4,692,919; 4,748,667; 4,829,569; 4,866,770; 4,885,775; 4,888,799; 4,890,319; 4,922,456; 4,922,532; 4,924,498; 4,965,534; 4,991,011; 5,003,384; 5,012,510; 5,029,207; 5,045,816;5,053,883;5,054,071;5,058,160;5,142,575;5,142,690;5,146,526;5,155,590;5,214,390;5,225,902;5,225,925;5,235,619;5,237,610;5,239,540;5,241,610;5,247,364;5,24

5,255,086; 5,257,403; 5,267,071; 5,270,809; 5,271,041; 5,272,752; 5,282,028; 5,285,497; 5,287,351; 5,301,028; 5,309,514; 5,317,391; 5,319,709; 5,341,425; 5,347,388; 5,347,389; 5,357,276; 5,359,601; 5,361,156; 5,367,571; 5,379,141; 5,379,145; 5,381,481; 5,390,337; 5,400,401; 5,406,558; 5,418,782; 5,420,866; 5,420,923; 5,425,101; 5,428,404; 5,430,568; 5,434,610;5,436,749;5,438,370;5,440,632;5,442,472;5,455,570;5,457,701;5,471,492;5,477,199;5,477,262;5,477,282;5,477,370;5,481,389;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,221;5,493,339;5,481,542;5,485,241;5,485,497,187;5,500,758;5,502,499;5,506,904;5,519,780;5,539,822;5,550,825;5,579,055;5,579,057;5,583,562;5,592,551;5,596,606;5,600,378;5,602,933;5,640,388;5,657,414;5,675,575;5,684,876;5,715,515;5,724,525;5,734,822;5,740,300;5,742,677;5,754,940;5,757,416;5,771,064;5,774,859;5,825,829;5,826,167;5,850,305;5,854,703;5,870,474;5,774,875;5,724,725;7,724,725;7,726,052,384; 6,055,244; 6,072,532; 6,105,134; 6,148,039; 6,157,719; 6,188,729; 6,195,389; 6,212,278; 6,215,530; 6,219,358; 6,240,103; 6,243,145; 6,246,767; 6,252,964; 6,272,226; 6,292,081; 6,292,568; 6,320,131; 6,374,275; 6,405,239; 6,411,602; 6,417,949; 6,424,714; 6,424,717; 6,433,906; 6,438,139; 6,463,586; 6,467,091; 6,476,878; 6,493,876; 6,510,519; 6,516,002; 6,516,412; 6,526,508; 6,538,595; 6,546,013; 6,560,340; 6,567,118; 6,570,888; 6,622,308; 6,629,227; 6,664,984; 6,667,994; 6,671,879; 6,674,967; 6,678,891; 6,714,599; 6,674,967; 6,678,991; 6,714,599; 6,674,967; 6,678,991; 6,714,599; 6,674,967; 6,678,991; 6,714,599; 6,674,967; 6,678,991; 6,714,599; 6,674,967; 6,678,991; 6,714,599; 6,748,991; 6,714,599; 6,748,9916.721.352:6.721.956;6.725.459;6.738.982;6.744.892;6.744.967;6.751.271;6.760.918;6.795.972;6.802.077;6.804.708;6.811.447;6.817.028;6.822.972;6.823.385;6.832.386;6.845.106;6.868.473;6.874.075;6.889.191;6.909.471;6.917.622;6.917.628;6.922.412;6.927.806;6.928.656;6.931.058;6.937.729;6.969.279;6.971.008;6.971.121;6.978.310;6,986,156; 6,988,900; 6,996,838; 7,010,801; 7,053,960; 7,065,213; 7,069,578; 7,069572; D348065; D354959; D359737; D363932; D390217; D434753; D507240; D507535 D513407; D516518; RE36368; RE36988

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