Crestron Adagio® ATC-AMFMSR AM/FM and SIRIUS® Satellite Radio Tuner Card

Operations & Installation Guide





Introducing SIRIUS Satellite Radio

Over 120 channels of the best entertainment and completely commercial-free music for your car, home or office.

Only SIRIUS has more than 65 original music channels, from today's hits to R&B oldies to classical masterpieces. From authentic country and real bluegrass to cool jazz, hot Latin, reggae, rock and many more. Best of all, it is all completely commercial-free.

SIRIUS also has more than 55 channels of world-class sports, news and entertainment. Included as part of your subscription, you get up to 16 NFL games a week, up to 40 NBA games a week and up to 40 NHL games a week. (Games are broadcast during their respective seasons.) Coupled with great sports news from ESPN, the SIRIUS sports offering is unrivaled. And do not forget a host of other great news and entertainment like NPR, CNBC, Fox News, Radio Disney and E! Entertainment Radio. For more information, visit www.sirius.com.

Activating your SIRIUS Subscription

You must activate your SIRIUS tuner before you can begin to receive the SIRIUS Satellite Radio service.

In order to activate your radio subscription, you will need the SIRIUS ID (SID) which uniquely identifies your tuner. The SID may be found on a sticker located on the ATC-AMFMSR card or by selecting channel 0 on the radio, in which case the SID will appear on your AdagioTM AES screen. Note channel 0 has no audio content.

A tuner that has not been activated will automatically tune to the SIRIUS preview channel.

Contact SIRIUS on the Internet:

https://activate.siriusradio.com/

Follow the prompts to activate your subscription or you can also call SIRIUS toll-free at:

1-888-539-SIRIUS (1-888-539-7474)

Once the subscription process is completed, your tuner is ready to use.

The specific patents that cover Crestron products are listed at patents.crestron.com.

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AM/FM and SIRIUS Satellite Radio Tuner Card: Adagio ATC-AMFMSR

Introduction

Features and Functions

- AM/FM/SR Tuner Card slides easily into place into the Adagio[®] Audio Entertainment System (AES) to become an integral part of its control system
- Independent AM/FM/SIRIUS® Satellite Radio tuners on a single plugin card
- Tuners are ready for routing to additional rooms on attached Adagio Audio Expanders (AAE)
- AES front panel and other supported user interfaces control the tuners with out-of-the-box functionality
- RBDS/RDS compatible¹
- Parental lock and channel skip functions²

¹ The Radio Broadcast Data System (RBDS), a North American standard and Radio Data System (RDS), a European standard, permit broadcasters to use a sub-carrier frequency to transmit inaudible digital data along with their regular FM programming to receivers equipped to process the data. Refer to "Appendix: RBDS/RDS Function Support" on page 17 for more information.

² For details, refer to the latest version of the Adagio AES Operations Guide (Doc. 6456), which is available at www.crestron.com/manuals.

Specifications

Specifications for the ATC-AMFMSR are listed in the following table.

ATC-AMFMSR Specifications

| SPECIFICATION | DETAILS |
|--------------------------------|---|
| Audio | |
| Maximum Output | 1 V _{rms} @ 1 kHz (AM/FM); 2 V _{rms} (SIRIUS) |
| FM Tuner | |
| Frequency Range | 87.50 to 108 MHz (50 or 100 kHz steps) |
| Intermediate Frequency | 10.7 MHz |
| Usable Sensitivity | 11 dBf mono |
| S/N Ratio | 64 dB @ 65 dBf mono; 60 dB @ 65 dBf stereo |
| IF Rejection | 100 dB |
| AM Rejection | 55 dB |
| Stereo Separation | 40 dB |
| AM Tuner | |
| Frequency Range | 530 to 1710 kHz (10 kHz steps) |
| Sensitivity | 3.5 μV (RF input level 10dB S+N/N) |
| Selectivity | 10 kHz |
| Up/Dn Freq Increments (US) | 10 kHz |
| Up/Dn Freq Increments (Europe) | 9 kHz |
| Alternate Channel Selectivity | 55 dB |
| Image Rejection | 35 dB |
| IF Rejection | 60 dB |
| Power Requirements | 24 VDC provided from backplane at 400 mA max. (estimated 9.6 Watts) |
| Environmental | |
| Temperature | 32° to 140°F (0° to 60°C) |
| Humidity | 10% to 90% RH (non-condensing) |

Physical Description

This section provides information on the connections, controls and indicators available on your ATC-AMFMSR.

ATC-AMFMSR Physical View (Head On)



ATC-AMFMSR Physical View (Angled)



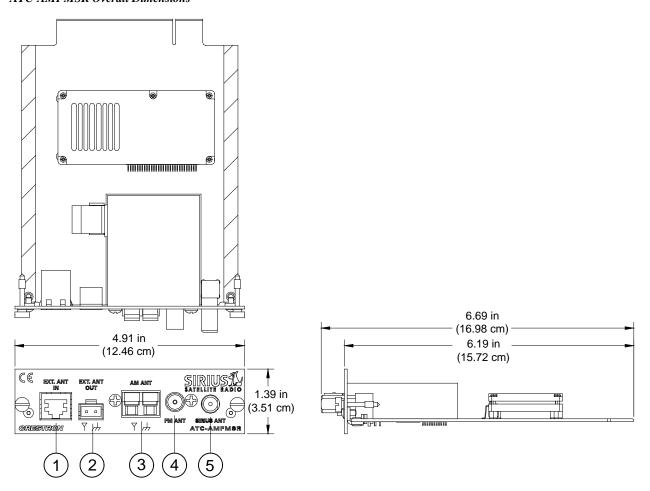
Conversion Connector Coax (RG6)/F Type (Antenna) to IEC Type Connector (Tuner)



Conversion Connector Coax (RG6)/F Type (Antenna) to SMB Type Connector (Tuner)



ATC-AMFMSR Overall Dimensions



Connectors, Controls & Indicators

| # | CONNECTORS, CONTROLS & INDICATORS | DESCRIPTION |
|---|---|---|
| 1 | EXTERNAL AM ANTENNA IN | (1) 8-wire RJ-45 female; Reserved for future remote AM antenna (not yet available). |
| 2 | EXTERNAL AM ANTENNA OUT | (1) 2-pin detachable terminal block; AM antenna signal pass-through from remote antenna. |
| 3 | AM ANTENNA | (1) 2-pin spring-loaded terminal; AM shielded loop antenna included; Impedance: 50 Ω . |
| 4 | FM ANTENNA | (1) IEC 169-2 coaxial (IEC to F adapter included); T-type FM antenna included; Impedance: 75 Ω. |
| 5 | SIRIUS ANTENNA | (1) F-type coaxial (SMB to F adapter included); Indoor/outdoor high-gain antenna included; Impedance: 75 Ω. |

Industry Compliance

As of the date of manufacture the ATC-AMFMSR has been tested and found to comply with specifications for CE marking and standards per EMC and Radiocommunications Compliance Labelling.



NOTE: This device complies with part 15 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.

This equipment 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 harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, 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 dealer or an experienced radio/TV technician for help.

Setup

This section contains hardware installation and setup instructions for the ATC-AMFMSR.

Required Tools/Hardware

- 1. Small flat bladed screwdriver
- 2. Grounding strap (encouraged)

Installation

CAUTION: The ATC-AMFMSR and the Adagio Entertainment System contain electrostatic discharge (ESD) sensitive devices. Crestron[®] encourages you to wear a grounding strap to avoid damaging the card and/or the host system.

When inserting a card into the Adagio Entertainment System you may need to move other source connections if designated connectors are occupied by other sources. For programming purposes, slots and source connections are matched according to the following table:

| | Slot 1 | Slot 2 | Slot 3 |
|-----------------------|--------|--------|----------------------|
| Source Connections | 1&2 | 3&4 | Refer to note below. |

CAUTION: Do not connect external sources to SOURCES connectors used by tuner cards.

CAUTION: Be certain to insert tuner card before applying power to the Adagio Entertainment System.

NOTE: If the user intends to use the out-of-the-box functionality, do not to use Slot 3 for tuner cards; otherwise Slot 3 uses source connections 5 and 6.

Begin the card insertion procedure with these steps:

- 1. Disconnect power from the Adagio Entertainment System.
- 2. Remove the slotted screws securing any cover plate that may be fastened the slot you intend to use. Set the screws and the cover plate aside.
- 3. Unpack the ATC-AMFMSR card.
- 4. As shown in the photo following this step, position the ATC-AMFMSR card so the print on the faceplate is right side up and the side rails of the card slide into the plastic slots mounted on the left and right inside walls of the Adagio Entertainment System.

ATC-AMFMSR Installation



- 5. Push the ATC-AMFMSR card into the slot until it stops at the rear connector, then push again until the ATC-AMFMSR card snaps into place.
- 6. Secure the card in place by tightening the two slotted screws by hand. The screwdriver slots are provided for removal only.
- 7. Connect antenna(s).
- 8. Apply AES power.

Regional Configuration

Once the tuner card is installed, user may change tuner configuration for North American and European signal reception. Hold down the **Source** and **Room** buttons on the front panel of the AES for 10 seconds to open Installer Tools. Several choices are available from Installer Tools for configuring the AES:

- Select Tuner Format
- Configure Network
- Set Number of Rooms

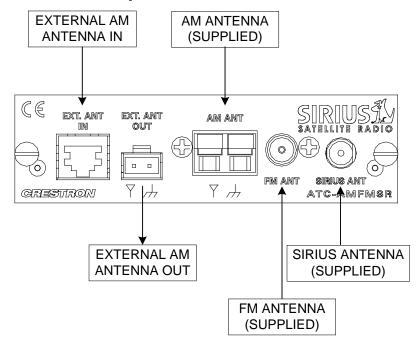
The following procedure will configure your tuner for North American or European signal reception:

- Using the Selection Knob, choose Select Tuner Format and press the Enter button.
- 2. A Select Tuner Format screen appears with choices for North America and Europe. Using the **Selection Knob**, select your region and press the **Enter** button.
- 3. Press **Menu** to exit the Installer Tools menu.

Hardware Hookup

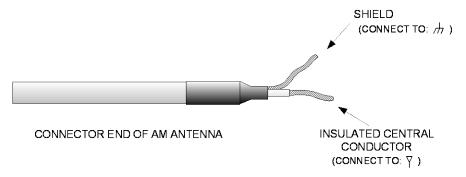
Make the necessary connections as called out in the illustration that follows this paragraph.

Hardware Connections for the ATC-AMFMSR



The supplied AM antenna is connected as shown in the following illustration.

AM Antenna Connection



Antenna Orientation

AM

Once your antennas have been connected it may be necessary to orient the AM loop antenna so the flat surface of the loop antenna faces the metropolitan area from which the broadcast signals originate. This is particularly necessary when signals are weak. If you are not aware of the source or direction of the signals to which you will listen, simply rotate the loop antenna in clear space for maximum signal strength. The supplied antenna has a folding stand that allows you to place the antenna on a flat surface.

FM

The recommended FM antenna is an outdoor type commonly available in electronics stores. Use of the supplied indoor FM antenna is recommended only if you cannot use an outdoor antenna. Outdoor antennas are particularly important in rural areas, some distance from FM radio signal sources. The FM antenna supplied with your

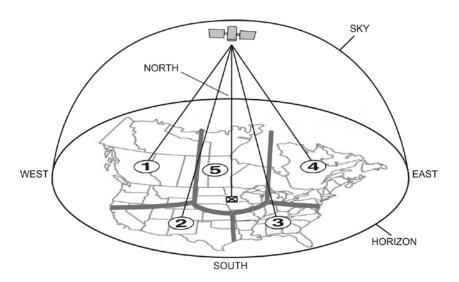
tuner is a T-type and it should be stretched horizontally in space that is as clear as possible. Some reorientation may be necessary if signals in your area are weak. Best results can usually be achieved if the length of the antenna faces the metropolitan area from which the FM signals you wish to receive originate. The supplied antenna has a fitting at its end that will enable you to fasten it in place.

SIRIUS

For correct operation and best reception of the SIRIUS signal, it is important that the antenna is located in a place where it will have a clear view of the SIRIUS satellites in the sky. Obstructions such as bushes, trees, other homes or buildings, overhangs, soffits, chimneys, gables, dormers, etc., will impair or prevent the antenna from receiving a signal.

The best reception is obtained if the antenna is located outside and where the pod portion of the antenna (where the SIRIUS logo is printed) has a clear 360 degree view of the sky.

If you cannot obtain a clear 360 degree view of the sky outdoors or you will be locating the antenna indoors, you will need to place the antenna in a window (or outdoor location) which has a clear view of the sky in the direction of the satellites and aim the antenna in the direction of the satellites, as shown in the diagram below.



Use the map in the diagram to find the area in which you are located (1 to 5). Then find the direction in which you need to have a window (or outdoor location) with a clear view of the sky:

- Area 1: You will need a window/location with a clear view of the sky facing EAST or NORTHEAST or SOUTHEAST.
- Area 2: You will need a window/ location with a clear view of the sky facing NORTH or NORTHEAST.
- Area 3: You will need a window/ location with a clear view of the sky facing NORTH or NORTHWEST.
- Area 4: You will need a window/ location with a clear view of the sky facing WEST or NORTHWEST or SOUTHWEST.
- Area 5: You will need a window/ location with a clear view of the sky facing STRAIGHT UP (antenna cannot be located indoors).

For example, suppose you live in Area 2. You determined that your antenna will need to have a window (or outdoor location) with a clear view of the sky facing

North or Northeast. The exact direction is determined by your specific location in Area 2 relative to the X on the map; if you live in Texas, you will need a more North facing clear view of the sky whereas if you live in southern California, you will need a more Northeast facing clear view of the sky.

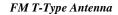
In major US cities, you may be able to receive the SIRIUS signal from the SIRIUS ground repeaters, which would allow you to place the antenna away from a window if the signal is strong enough.

If the tuner has not yet been subscribed, be sure to set the tuner to the preview channel. If the antenna is connected but the signal is weak, the message "Acquiring Signal" will be displayed on the AES front panel.

When you have installed the antenna in a suitable location, check the signal strength display of your SIRIUS-ready receiver to verify that you are receiving a suitable signal. For instructions on how to access the signal strength display, refer to the latest version of the Adagio AES Operations Guide (Doc. 6456). If the signal is weak or the tuner loses reception at times, this is indication that the antenna is not aimed in the optimal direction. Try adjusting the antenna by changing the orientation in small increments to see if you can obtain better signal reception.

The following antennas are supplied with your AM/FM/SR Tuner Card:

AM Loop Antenna







SIRIUS Antenna



Programming Software

Have a question or comment about Crestron software?

Answers to frequently asked questions (FAQs) can be viewed in the Online Help section of the Crestron website. To post a question or view questions you have submitted to Crestron's True Blue Support, log in at http://support.crestron.com. First-time users will need to establish a user account.

Earliest Version Software Requirements for the PC

NOTE: Crestron recommends that you use the latest software to take advantage of the most recently released features. The latest software is available from the Crestron website.

Crestron has developed an assortment of Windows®-based software tools to develop a Cresnet® system. The following are the minimum recommended software versions for the PC:

Software

| TASK | REQUIRED SOFTWARE VERSION |
|--|---|
| Program control system to operate ATC-AMFMSR. | SIMPL Windows version 2.08.24 or later with SIMPL+ Cross Compiler version 1.1 or later and Library update 445 or later. Also requires Crestron Database version 18.6.0 or later. |
| Upload program and firmware. | Crestron Toolbox™ 1.02.30 or later. |
| Program with simple wizards for systems using a ATC-AMFMSR (optional but recommended). | SystemBuilder™ version 3.0.18 or later (requires SIMPL Windows, Database and Crestron Engraver) with SystemBuilder Templates version 3.2.0 or later. Refer to software release notes or Crestron website for other required Crestron software packages. |
| Control system operating system | Version 3.158 CUZ or later. |
| Out of the box programming | OOTB program version 1.1.0 or later. |

NOTE: When the ATC-AMFMSR is installed in an Adagio Entertainment System, to check which version of the control system operating system or out of the box program you are running, refer to the "About" subheading in the "Configure the AES for Operation" section in the latest version of the Adagio AES Operations Guide (Doc. 6456).

Programming with SystemBuilder

SystemBuilder is the easiest method of programming but does not offer as much flexibility as SIMPL Windows. For additional details, download SystemBuilder from the Crestron website and examine the extensive help file.

Programming with SIMPL Windows

NOTE: While SIMPL Windows can be used to program the ATC-AMFMSR, it is recommended to use SystemBuilder for configuring a system.

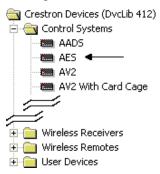
SIMPL Windows is Crestron's premier software for programming Crestron control systems. It is organized into two separate but equally important "Managers".

Configuration Manager

Configuration Manager is the view where programmers "build" a Crestron control system by selecting hardware from the *Device Library*.

• To incorporate the ATC-AMFMSR into the system, drag the device to which the ATC-AMFMSR will be inserted (e.g. the AES) from the Control Systems folder of the *Device Library* and drop it in the *System Views*.

Locating the AES in the Device Library



Program Manager

Program Manager is the view where programmers "program" a Crestron control system by assigning signals to symbols.

The symbol can be viewed by double clicking on the icon or dragging it into *Detail View*. Each signal in the symbol is described in the SIMPL Windows help file (F1).

Example Program

An example program for the ATC-AMFMSR is available from the Crestron website (http://www.crestron.com/exampleprograms).

Uploading and Upgrading

NOTE: Using this tuner card in a system that goes beyond out-of-the-box functionality requires programming. Since the ATC-AMFMSR is inserted into the AES, refer to the latest version of the Adagio AES Operations Guide (Doc. 6456) for details

Crestron recommends using the latest programming software and that each device contains the latest firmware to take advantage of the most recently released features. However, before attempting to upload or upgrade it is necessary to establish communication.

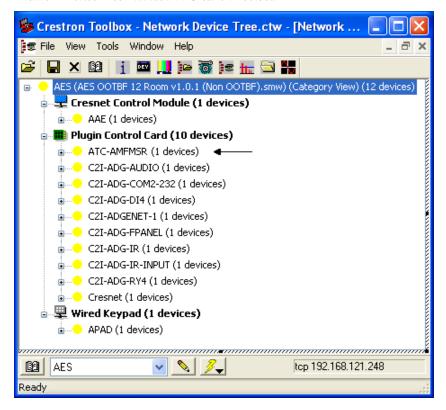
Establishing Communication

Consult the latest version of the Adagio AES Operations Guide (Doc. 6456) for details.

Firmware

- Display the network device tree (Tools | Network Device Tree) to show all network devices connected to the control system. Right-click on the ATC-AMFMSR to display actions that can be performed on the ATC-AMFMSR.
- Select **Functions** | **Firmware** to upgrade the ATC-AMFMSR firmware.

"Network Device Tree" Window in Crestron Toolbox



Operation

This section provides a description of the available AM, FM and SR tuner control functions.

In order to access functions of the AM/FM/SR Tuner card, it is necessary to become familiar with basic AES controls affecting tuner operation.

These are buttons and controls you should know how to use:

• Selection Knob

• Source Button

• Enter Button

• Menu Button

• Room Buttons

Volume Knob

Soft Buttons

• Mute Button

Please refer to the latest version of the Adagio AES Operations Guide (Doc. 6456) for detailed information on Source mode control of the AM/FM/SR Tuner.

Problem Solving

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

ATC-AMFMSR Troubleshooting

| TROUBLE | POSSIBLE CAUSE(S) | CORRECTIVE ACTION |
|--|--|---|
| Tuner muted. | Mismatched slot. | Place card in proper slot. |
| | Antenna not connected or not connected properly. | Verify proper antenna connection. |
| | Mute turned on. | Press the Mute button to disengage muting. |
| | Station detuned or weak. | Tune station; adjust antenna. |
| | Unsubscribed SIRIUS tuner not on preview channel. | If unsubscribed, be sure tuner is on preview channel. |
| | Subscribed SIRIUS tuner not on a subscribed channel. | If subscribed, be sure tuner is on a subscribed channel. |
| | AES volume is turned down. | Check AES volume setting. |
| Cannot access tuner card controls from AES front panel. | Dirty contacts. | Clean contacts with cotton swab or clean cloth. Apply Isopropyl alcohol as needed for cleaning. |
| Noisy AM/FM reception. | Improper antenna connection. | Verify proper antenna connection. |
| AM/FM scan does not operate. | Station signal strength too weak. | Check antenna placement and orientation for good signal strength. |

Reference Documents

The latest version of all documents mentioned within the guide can be obtained from the Crestron website (http://www.crestron.com/manuals). This link will provide a list of product manuals arranged in alphabetical order by model number.

List of Related Reference Documents

| DOCUMENT TITLE |
|---------------------------------|
| Adagio AES Entertainment System |

Further Inquiries

If you cannot locate specific information or have questions after reviewing this guide, please take advantage of Crestron's award winning customer service team by calling the Crestron corporate headquarters at 1-888-CRESTRON [1-888-273-7876]. For assistance in your local time zone, refer to the Crestron website (http://www.crestron.com/) for a listing of Crestron worldwide offices.

You can also log onto the online help section of the Crestron website to ask questions about Crestron products. First-time users will need to establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features and extends the capabilities of the ATC-AMFMSR, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

Appendix: RBDS/RDS Function Support

Many radio stations transmit additional information such as traffic information, radio text, real time clock etc., with their regular FM programming. The FM tuner contains circuitry that retrieves this information.

The US format for such information is called the Radio Broadcast Data System (RBDS) and in Europe this format is called the Radio Data System (RDS). There are some differences between the US and European standards.

The tables in this appendix describe information included in the standard.

When this feature becomes available and it is accessed by the user the **Display** button will bring to the screen the various tables containing this data.

RBDS/RDS Supported Feature Overview

| FEATURES | DESCRIPTION |
|---|--|
| Program type name (PTY) | There are 31 program types such as jazz, classic etc. Each station that supports RDS will report its program type. (Refer to program type list following this table.) |
| Program service name (PS) | The station reports its service name such as WIRL, KTU etc. |
| Program type additional Info (PTYN) | The station will sometimes report additional information about its program type. For example, a program type "Sport" station may report a PTYN of "Football". |
| Radio text display support (RT) | The station will report radio text information such as phone numbers, artist, song, station name, etc., in this field. This field could be either 32 or 64 characters in length. |
| Universal real time clock (UTC) | Some stations transmit the universal time clock year, month, day, hour, minute and GMT offset. |
| Traffic information report (TA/TP) | From stations that support traffic information. |
| Station search by TA, TP or TA&TP traffic information | The FM Tuner can search for stations which either broadcast or know about other stations that transmit traffic information. |
| types | TA = This station has information about other stations that carry traffic announcements. |
| | TP = This station broadcasts traffic announcements but none is being broadcasted right now. |
| | TA&TP = This station is currently broadcasting the traffic announcements. |
| Station search by PTY | The FM Tuner is able to search for stations with specified program type. |

RBDS/RDS Program Types

| PTY CODE | RBDS PROGRAM TYPE (US) | RDS PROGRAM TYPE (EUROPE) |
|-------------|------------------------------|------------------------------|
| 0 | No program type or undefined | No program type or undefined |
| 1 | News | News |
| 2 | Information | Current Affair |
| 3 | Sports | Information |
| 4 | Talk | Sports |
| 5 | Rock | Education |
| 6 | Classic Rock | Drama |
| 7 | Adult Hits | Culture |
| 8 | Soft Rock | Science |
| 9 | Top 40 | Varied |
| 10 | Country | Pop Music |
| 11 | Oldies | Rock Music |
| 12 | Soft | M.O.R Music |
| 13 | Nostalgia | Light classical |
| 14 | Jazz | Serious Classic |
| 15 | Classical | Other Music |
| 16 | Rhythm and Blues | Weather |
| 17 | Soft Rhythm and Blues | Finance |
| 18 | Language | Children's Program |
| 19 | Religious Music | Social Affairs |
| 20 | Religious Talk | Religion |
| 21 | Personality | Phone In |
| 22 | Public | Travel |
| 23 | College | Leisure |
| 24 | Unassigned | Jazz Music |
| 25 | Unassigned | Country Music |
| 26 | Unassigned | National Music |
| 27 | Unassigned | Oldies Music |
| 28 | Unassigned | Folk Music |
| 29 | Weather | Documentary |
| 30 | Emergency Text | Alarm Test |
| 31 | Emergency | Alarm |

Return and Warranty Policies

Merchandise Returns / Repair Service

- No merchandise may be returned for credit, exchange or service without prior authorization
 from CRESTRON. To obtain warranty service for CRESTRON products, contact an
 authorized CRESTRON dealer. Only authorized CRESTRON dealers may contact the factory
 and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying
 the nature of the problem, name and phone number of contact person, RMA number and
 return address.
- 2. Products may be returned for credit, exchange or service with a CRESTRON Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to CRESTRON, 6 Volvo Drive, Rockleigh, N.J. or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. CRESTRON reserves the right in its sole and absolute discretion to charge a 15% restocking fee plus shipping costs on any products returned with an RMA.
- 3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

CRESTRON Limited Warranty

CRESTRON ELECTRONICS, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from CRESTRON, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touchscreen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from CRESTRON or an authorized CRESTRON dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

CRESTRON shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended or if it has been subjected to misuse, accidental damage, modification or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall CRESTRON be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. CRESTRON is not liable for any claim made by a third party or made by the purchaser for a third party.

CRESTRON shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

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