

QUICK INSTALL GUIDE

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TM-HD/R

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HD RADIO<sup>®</sup>  
TUNER MODULE

ENGINEERED BY



NILES<sup>®</sup>

# IntelliControl<sup>®</sup> ICS

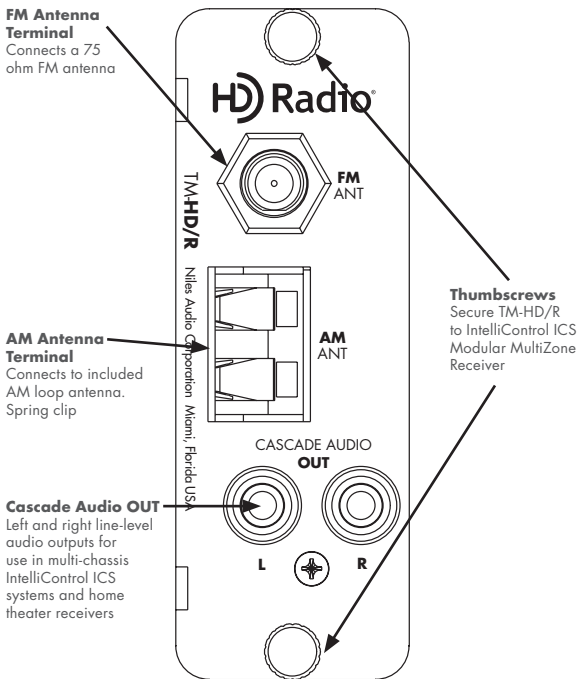
INTEGRATED CONTROL SOLUTIONS

The TM-HD/R is a tuner module that slides into the card cage on a IntelliControl<sup>®</sup> ICS Modular Multizone Receiver. It provides the functionality of a normal tuner: seek through stations, access to 20 favorites and direct access to a station by entering the channel frequency. In addition, the TM-HD/R provides the ability to receive an HD Radio<sup>®</sup> broadcast. The TM-HD/R Module outputs metadata (channel name, artist name and song title) on IntelliControl ICS user interfaces with displays. Multiple TM-HD/R Tuner Modules can be used in a single chassis to allow multiple AM/FM-HD channels to be played simultaneously in different zones.

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# PRODUCT OVERVIEW



**Figure 1.** IntelliControl ICS TM-HD/R module.

## FEATURES AND BENEFITS

### **Plug and Play Integration**

The TM-HD/R module will automatically identify itself to the IntelliFile® 3 Programming Software during system configuration and map all appropriate control functions to all user interfaces.

### **Metadata**

The TM-HD/R module outputs metadata that is displayed on IntelliControl ICS user interfaces with LCDs providing real-time information in remote rooms. When tuning non-HD stations the metadata will consist of station frequency and band (AM or FM). A HD radio station can provide additional metadata such as channel name, artist name and song title.

### **20 Favorite Channel Presets**

User-defined favorites allow easy access to frequently listened-to stations. Favorites are displayed on user interfaces with LCDs and are configurable in either IntelliFile® 3 or from user interfaces with LCD displays.

## FEATURES AND BENEFITS (CONT'D)

### **Add to Favorites**

Allows user changes to favorites from user interfaces with LCD displays.

### **Direct Access Tuning**

Direct entry of station frequency from user interfaces with alphanumeric keys.

### **Convenient Thumb Screws**

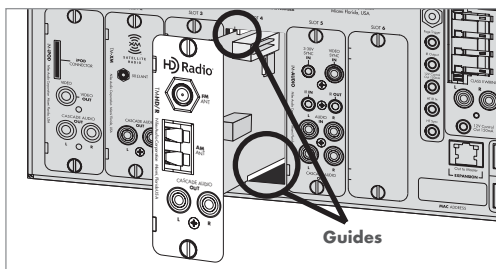
Secure module to chassis card cage without the need for additional tools.

## INSTALLATION

**WARNING:** Always turn power OFF to the IntelliControl ICS Modular MultiZone Receiver and be sure AC line cord is disconnected to avoid damage and electrical shock before making any connections to the TM-HD/R Module.

**CAUTION:** The TM-HD/R Module is susceptible to static discharge. Be sure to use a grounding strap or touch an earth ground prior to picking up the TM-HD/R. Handle the card by its edges.

1. Carefully slide the TM-HD/R Module into the appropriate card slot. (Refer to the GXR2 Installation Worksheet to assure proper card slot number.)
2. Concentrate on the GXR2 card cage guides as you insert the module card.



**Figure 2.** Inserting the module card into the GXR2 card cage.

3. Be sure the multi-pin connector is secured to the header in the card cage.
4. Tighten thumbscrews. (Do not over tighten.)

## INSTALLATION (CONT'D)

### Connecting an Antenna to the TM-HD/R Module Card

When all modules are in place, and all system components have been installed, connect AM and FM antennas.

#### AM Antenna

1. Connect bare wire ends on antenna to dual spring clips on TM-HD/R (polarity not critical).
2. Position loop antenna for best reception.

#### FM Antenna

1. Connect an antenna with a F-type connector to F-type terminal on TM-HD/R.
2. Spread "arms" of dipole antenna as far apart as possible and position for best reception.

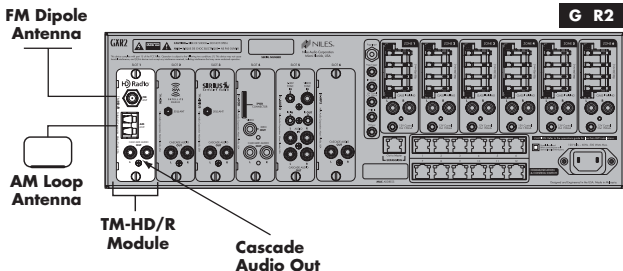


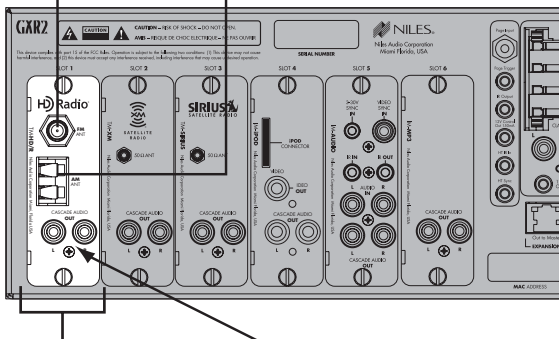
Figure 3. TM-HD/R Module connection to antennas.



## INSTALLATION (CONT'D)

**FM Dipole  
Antenna**

**AM Loop  
Antenna**



**TM-HD/R  
Module**

**Cascade  
Audio Out**

**Figure 4.** Enlargement – AM and FM antennas connecting to module card.

## INSTALLATION (CONT'D)

### Expanding the System

When using multiple chassis, connect the Left and Right Cascade Audio OUT of the TM-HD/R to the Left and Right Audio IN on the IM-AUDIO Module in the same number card slot on the Slave chassis. Up to four Slave chassis may be used in a system.

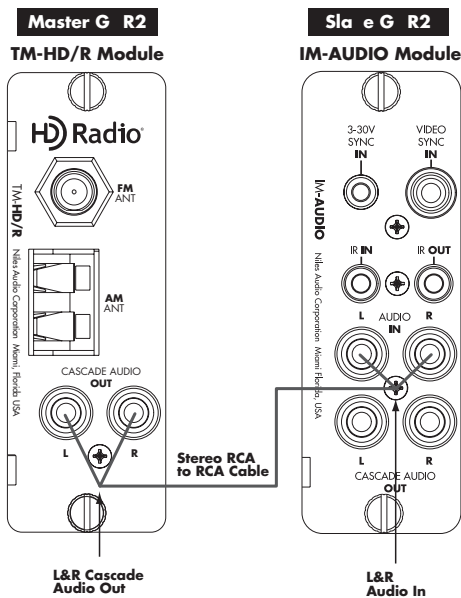


Figure 5. Cascade Audio Connections

# INSTALLATION (CONT'D)

## Expanded Systems Diagram

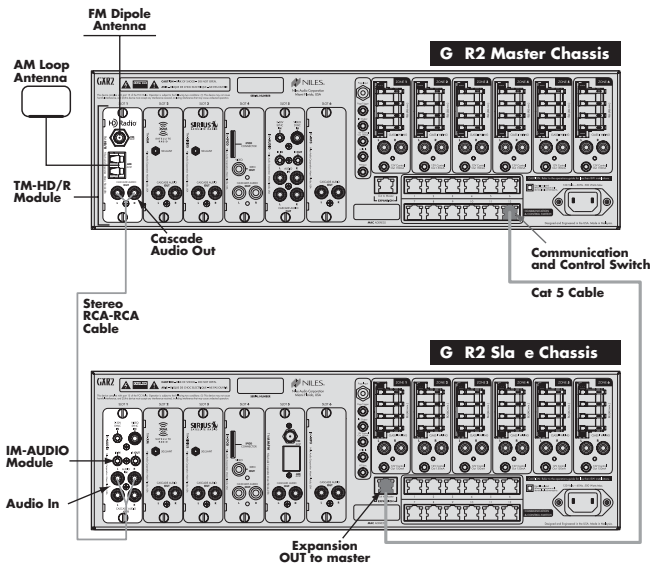
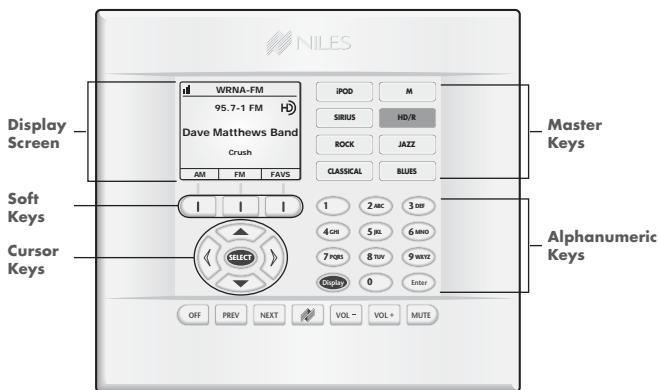


Figure 6. Expanded system with Cascade Audio connections.

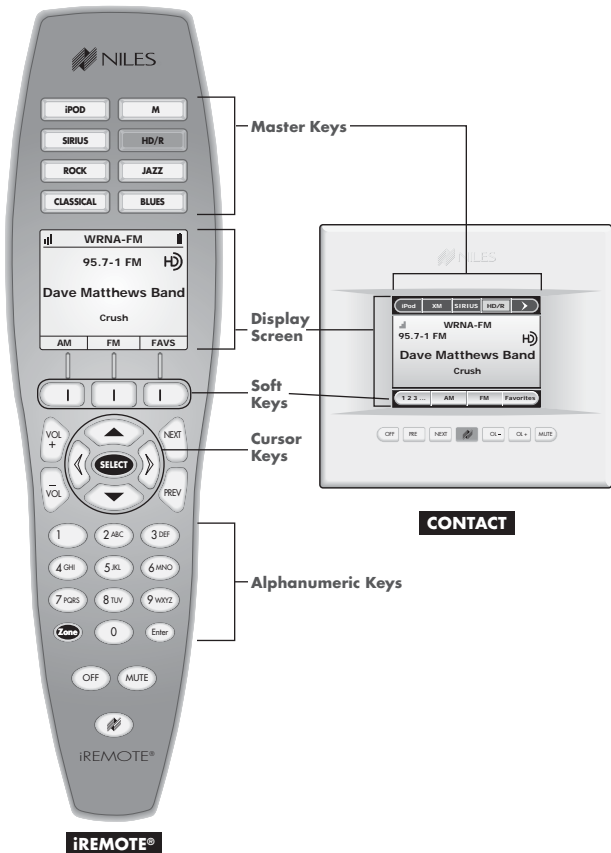
## OPERATING THE TM-HD/R MODULE

There are various user interfaces that operate with the TM-HD/R Module. The following pages contain explanations for controlling the AM and FM radio with the Display, iRemote and Contact user interfaces.



### DISPLAY

# OPERATING THE TM-HD/R MODULE (CONT'D)



# OPERATING THE iREMOTE AND DISPLAY

## PLAYING AM/FM-HD RADIO<sup>®</sup>

To listen to a radio station,  
press the **HD/R Master Key**.

(i.e., )

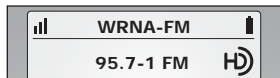


## AM/FM NOW PLAYING SCREEN

When selecting stations the  
tuner will first tune to a non-HD  
station.



After a moment, the digital  
station will play, the "HD" logo  
appears and a "-1" or "-2" at  
the end of the station numbers.



## OPERATING THE iREMOTE AND DISPLAY (CONT'D)


### SELECTING AM OR FM

To play stations in the AM band, press the **[AM] Soft Key**.

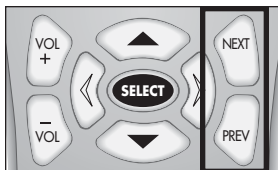
To play stations in the FM band, press the **[FM] Soft Key**.



### CHANGING STATIONS

To tune to the next available station, press the **NEXT**  **Key**.


Press the **PREV**  **Key** for the previous available station.



## OPERATING THE IREMOTE AND DISPLAY (CONT'D)

### TUNE TO A STATION USING THE NUMERIC KEYS

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To tune to a station using the numeric keys, press the numeric keys of the AM or FM station to be played (i.e. "9", "3", "1", "1"), then press the **Enter**  **Key**.

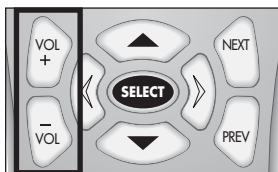


### ADJUSTING VOLUME

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Press the **VOL+**  **Key** to raise volume.

Press the **VOL-**  **Key** to lower volume.







## OPERATING THE IREMOTE AND DISPLAY (CONT'D)

### SELECT A FAVORITE STATION

To select a Favorite station, press the **[Favs] Soft Key**, the list of preset Favorites appear.

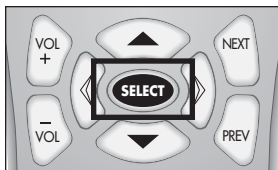


To go to the next page of available favorites, press the **[^ Page] or [Page v] Soft Keys**.

To cursor through favorites within a page, press the **Cursor**  or  **Keys**. The high-light moves to the next line.



To make a selection, press the **Select**  **Key**. The selected Favorite begins playing.



## OPERATING THE IREMOTE AND DISPLAY (CONT'D)


### ADD A FAVORITE STATION

To add a station to the Favorite station list, tune to the station to be added, then press the **[Favs] Soft Key**.

The "AM/FM-Favorites" menu appears.

Press the **Cursor**  **Key** to **[add favorite]** in the menu.

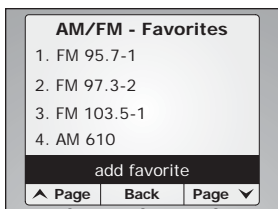
add favorite

To add the station to your Favorite list, press the **Select**  **Key**.

The added station appears in the next available position in the Favorites list.

You can enter up to 20 favorite stations to the list.

Press the **[Back] Soft Key** to return to the Now Playing screen.





## OPERATING THE IREMOTE AND DISPLAY (CONT'D)


### DELETE/REPLACE A FAVORITE STATION

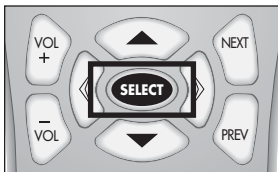
To delete a favorite, press the [Favs] **Soft Key**.


The "AM/FM Favorites" menu appears.

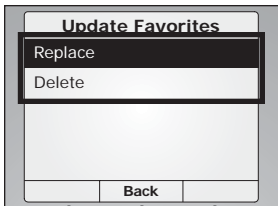
Use the **Cursor**  or  **Key** to select the favorite to be deleted.



Press and hold the **Select**  **Key** for two seconds. The "Replace/Delete menu" appears.



Highlight [Delete] and press the **Select**  **Key**. To replace simply tune to the new station you wish to replace with. Then follow previous steps and select [Replace] instead of Delete.



# OPERATING THE CONTACT TOUCH SCREEN

## PLAYING AM/FM RADIO

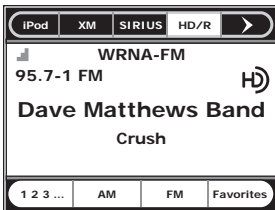
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Touch the **Master Key** labeled HD/R and the radio begins playing, (i.e., ).



## AM/FM NOW PLAYING SCREEN

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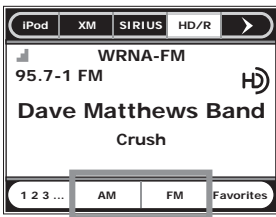


## OPERATING THE CONTACT TOUCH SCREEN (CONT'D)

### SELECTING AM OR FM

To play stations in the AM band, touch the **AM** Soft Key.

To play stations in the FM band, touch the **FM** Soft Key.



### CHANGING STATIONS

press the **NEXT** **NEXT** key, for the next available station.



Press the **PREV** **PREV** Key for the previous available station.



## OPERATING THE CONTACT TOUCH SCREEN (CONT'D)

### ADJUSTING VOLUME


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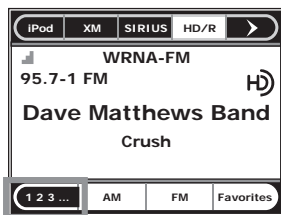
Press the **VOL-**  **Key** to lower volume. Press the **VOL+**  **Key** to raise volume.




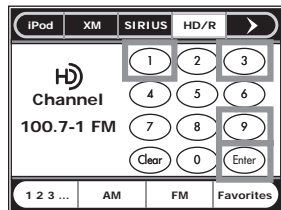
### TUNE TO A STATION USING THE NUMERIC KEYS

---

To tune to a station using the numeric keys, touch the  **Soft Key**.



Select your station by touching the numeric keys of the AM or FM station to be played (i.e. [9], [3], [9], [1]), then touch the  **Key**.

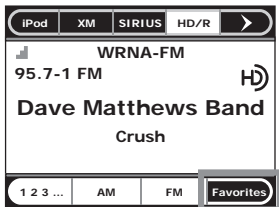


## OPERATING THE CONTACT TOUCH SCREEN (CONT'D)

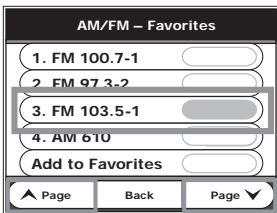
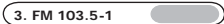
### SELECT A FAVORITE STATION

To select a Favorite station, touch the **Favorites** Soft Key, the list of preset Favorites appears.

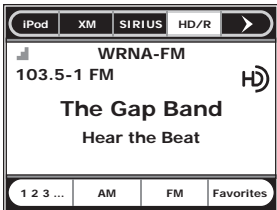
To go to the next page of available Favorites, touch the **Page** or **Page** Soft Keys.



Select a desired station (i.e., The Beat 103.5).



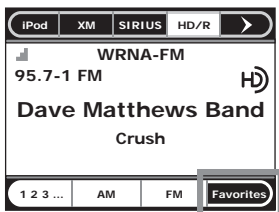
The selected station begins playing. The "Now Playing" screen will show.



## OPERATING THE CONTACT TOUCH SCREEN (CONT'D)

### ADD A FAVORITE STATION

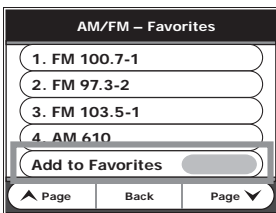
To add a station to the Favorite station list, tune to the station to be added, then press the **Favorites** **Soft Key**.



The "AM/FM Favorites menu" appears.

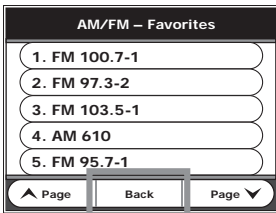
To add the station to your Favorite list, touch the **[Add to Favorites]** **Soft Key**.

**Add to Favorites** 



The added station appears in the next available position in the Favorites list. You can enter up to 20 favorite stations to the list.

Press the **Back** **Soft Key** to return to the "Now Playing" screen.



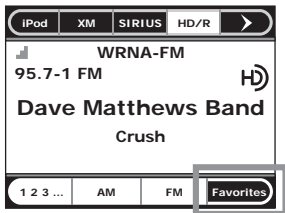


## OPERATING THE CONTACT TOUCH SCREEN (CONT'D)

### DELETE/REPLACE A FAVORITE STATION

To delete a Favorite station, press the **Favorites** Soft Key.

The "Favorites Menu" appears.



Touch and hold the Favorite station to be deleted for two seconds.

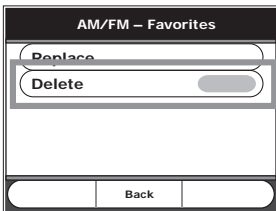
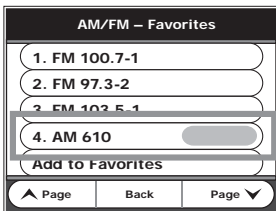
4. AM 610

The "Replace/Delete Menu" appears.

Touch the **[Delete]** Soft Key to remove the Favorite.

Delete

To replace, simply tune to the new station you wish to replace. Then follow the previous steps and touch the **[Replace]** Soft Key instead of the delete key.



# TROUBLESHOOTING

## PROBLEM

## SOLUTION

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### CONTROL

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Remote/Keypad does not control TM-HD/R

- a) Confirm TM-HD/R is properly installed in the card slot in IntelliControl ICS Modular MultiZone Receiver card cage.
- b) Check Module connection to header in card cage.

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### SIGNAL STRENGTH/RECEPTION

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Weak or no signal

- a) Check AM and FM antenna connections.
- b) Reposition antenna.

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### PRESETS

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No channels in Favorites

- a) Program favorite channels using IntelliFile<sup>®</sup> 3 or user interface.

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### AUDIO

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No audio in expansion zones

- a) Check connection of L&R Cascade Audio OUT from TM-HD/R to L&R Audio IN on IM-AUDIO Module.

## SPECIFICATIONS

<b>Frequency Range:</b>	AM 530 - 1710 kHz, FM 87.5 - 108.1 MHz
<b>AM Section</b>	
<b>Antenna Impedance:</b>	1K-ohm AM Antenna Input
<b>Sensitivity @ S/N:</b>	25dB <sub>UV</sub> @S/N 30DB 55dB
<b>AM THD:</b>	.5% @ -50dBm
<b>FM Section</b>	
<b>Antenna Impedance:</b>	75-ohm FM Antenna Input
<b>Sensitivity @ S/N:</b>	15dB <sub>UV</sub> @S/N 30dB
<b>FM THD:</b>	.5% @ -66dBm
<b>Warranty:</b>	Two-year limited
<b>Shipping Weight:</b>	1 lb.

## DIMENSIONS

**TM-HD/R Module Card:** 1-1/4" W x 3-3/4" H x 7-1/4" D

### Compliance & Certifications:

<b>Safety:</b>	Evaluated to UL/EN 60065
<b>EMC:</b>	FCC Part 15 (GXR2)

## CUSTOMER SERVICE – TECHNICAL SUPPORT

BY PHONE (IN USA)
<b>1-800-BUY-HIFI (289-4434)</b>
BY PHONE (OUTSIDE USA)
<b>1-305-238-4373</b>
CUSTOMER SERVICE HOURS
<b>8:00 AM to 5:30 PM EST</b>
TECHNICAL SUPPORT HOURS
<b>8:00 AM to 7:00 PM EST</b>
ON THE WEB
<b><a href="http://www.nilesaudio.com">www.nilesaudio.com</a></b>
EMAIL TECHNICAL SUPPORT
<b><a href="mailto:techsupport@nilesaudio.com">techsupport@nilesaudio.com</a></b>
EMAIL FOR PRODUCT SUGGESTIONS
<b><a href="mailto:productsuggestions@nilesaudio.com">productsuggestions@nilesaudio.com</a></b>

## LIMITED WARRANTY

Niles Audio Corporation ("NILES") warrants this IntelliControl ICS product to the original purchaser to be free of manufacturing defects in material and workmanship for a period of two years from date of purchase.

This Warranty is subject to the following additional conditions and limitations. The Warranty is void and inapplicable if NILES deems that the product has been used or handled other than in accordance with the instructions provided by the manufacturer, including but not limited to damage caused by accident, mishandling, improper installation, abuse, negligence, or normal wear and tear, or any defect caused by repair to the product by anyone other than NILES or an authorized NILES dealer.

To obtain warranty service, take the unit to the nearest authorized NILES dealer, who will test the product and if necessary, forward it to NILES for service. If there are no authorized NILES dealers in your area, you must write to NILES and include your name, address, model and serial number of your unit, along with a brief description of the problem. A factory Return Authorization Number will be sent to you. Do not return any unit without first receiving written authorization and shipping instructions from NILES.

If the above conditions are met, the purchaser's sole remedy shall be to return the product to NILES, in which case NILES will repair or replace, at its sole option, the defective product without charge for parts or labor. NILES will return a unit repaired or replaced under warranty by shipping same by its usual shipping method from the factory (only) at its expense within the United States of America. There are no other warranties, including without limitation, either express or implied warranties of merchantability or fitness for a particular purpose, with respect to the product.

Repair or replacement as provided under this warranty is the exclusive remedy of the consumer/purchaser. NILES shall not be responsible for any incidental or consequential damages except to the extent provided (or prohibited) by applicable law.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For the name of your nearest authorized NILES dealer contact:  
**NILES AUDIO CORPORATION, P.O. BOX 160818**  
**MIAMI, FLORIDA 33116-0818.**

*Please fill in your product information and retain for your records.*

Model \_\_\_\_\_ Purchase Date \_\_\_\_\_

Serial No \_\_\_\_\_



# NOTES

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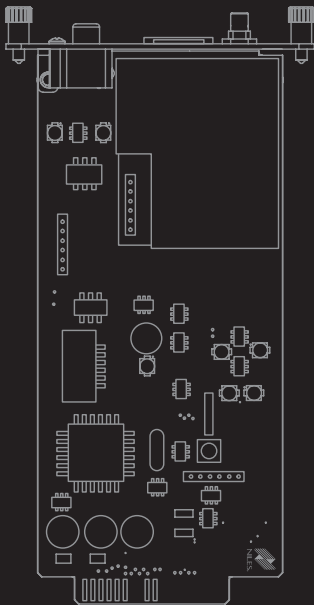
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