

On-Line Cardio Theater Wireless Digital Transmitter Installation and Instruction Manual



Full installation instructions accompany your Cardio Theater equipment order. This On-Line version of our Installation/Instruction Manual is included in our web site for your convenience. If you have any questions regarding your installation that are not covered by this Manual or by our Troubleshooting Guide, please contact our [Technical Support Department](#):

Cardio Theater Inc.
Service Department
Toll-Free Telephone in the United States: 1-800-776-6695
International Telephone, dial code for United States, then: (425) 486-9292
E-mail: service@cardiotheater.com

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Before You Begin

Please insure that you have all of the required equipment before disposing of any packing materials.

Equipment List:



 <p>Upper Monitors, quantity as ordered</p>	 <p>Receivers, quantity as ordered</p>	 <p>Power Cord, quantity (1)</p>	 <p>Plastic wire ties; (4) for each Upper Monitor</p>
 <p>Antenna, (1) for each Transmitter</p>	 <p>Coiled Cables; (1) for each Upper Monitor</p>	 <p>Power Adapter; As ordered</p>	 <p>Coax Cable; (1) for each Floor Monitor</p>

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Important Safeguards

Please read all of these safeguards before operating the unit. Follow all warnings placed on the unit and adhere to the operating and use instructions. Retain your manual for future reference.

1. Power sources - Connect the unit to a power source only of the type described in the operating instructions or as marked on the appliance.

2. Power cord protection - Route all power-supply cords so that they are not walked on or pinched by items placed upon or against them.



3. Grounding - Take precautions so that the grounding or polarization means of the unit are not defeated.

4. Ventilation - Position the unit so that its location does not interfere with ventilation. To maintain good ventilation, do not put items on or over the unit. Do not use the unit on a cushioned surface that may block the ventilation openings.

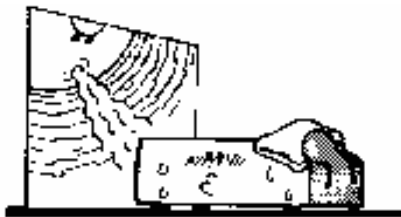


5. Water and moisture - Do not locate the unit near water.



6. Temperature - The unit may not function properly if used at extreme temperatures. The ideal temperature is 41°F (5°C) to 87°F (30°C)

7. Heat - The unit should be located away from heat sources such as radiators, heat registers, stoves, etc



8. Electric shock - Care should be taken so that objects do not fall and liquid is not spilled on the enclosure. If a metal object, such as a hairpin or a needle, comes in contact with the inside of this unit, a dangerous electric shock may result.



9. Enclosure removal - Never open the enclosure. If the internal parts are accidentally touched, a serious shock may occur.



10. Cleaning - Do not use solvents such as alcohol; paint thinner, etc. to clean the unit. Use a clean dry cloth.



11. Abnormal smell - If an abnormal smell is detected, immediately turn the power OFF and disconnect the power cord. Contact your dealer or service center.



12. Stands - Any component should be moved with care. Quick or excessive force could cause the stand to overturn.



13. Nonuse periods - The power cord should be disconnected when left unused for a long period of time.

15. Servicing - The user should not attempt to service the unit beyond that described in this manual. All other servicing should be referred to a qualified technician.

14. Damage requiring service - The unit should be serviced by a qualified technician when:

- A. The power supply cord or the plug has been damaged;
- B. Objects have fallen, or liquid has been spilled into the unit;
- C. The unit has been exposed to rain;
- D. The unit does not appear to operate normally or exhibits a marked change in performance; or
- E. The unit has been dropped, or the enclosure damaged.

Safety Precautions

WARNING: To prevent fire or electric shock, do not expose this appliance to rain or moisture.



Caution: If you see this symbol, be aware of its meaning: To reduce the risk of electric shock, do not remove the cover or back of the unit. No user-serviceable parts are inside. Refer servicing to a qualified technician.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the unit.

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Suggestions for Installation

General Suggestions

- **Group the audio components in a single location to minimize cabling. Always place the Transmitter directly on top of amp when stacking with the other audio components.**
- **If the audio components are stacked in a stereo cabinet, insure that there is adequate ventilation. The Cardio Theater Amplifier and Digital Transmitter each require a minimum one inch (1") clearance on both sides for ventilation.**

Transmitter:

- **Place the Digital Transmitter in a well ventilated area with the front and back easily accessible.**
- **Place the transmitter as high as possible to obtain the best possible transmission range.**
- **Make sure the antenna on back of transmitter is in the vertical position.**

Upper Monitors:

- **When mounting Upper Monitors to equipment, take care not to interfere with the normal operation of the equipment.**
- **Likewise, the power connections and the coiled cable connecting the Receiver box to the Upper Monitor should not interfere with normal operation of the cardiovascular equipment.**

- If mounting the Upper Monitor to a control panel, avoid covering controls or indicators.

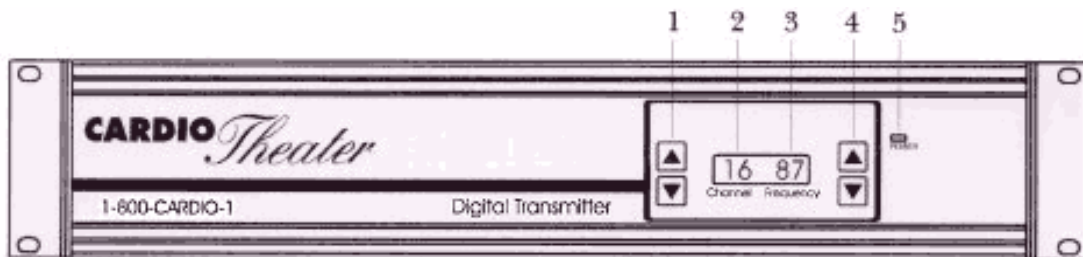
Receivers:

- The Receivers should be mounted as high as possible on the cardiovascular equipment.
- Mount the Receivers so that the antenna is on top in the vertical position.
- Mount the Receivers securely so that vibration from normal equipment operation does not cause the receiver to move.

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Controls and Indicators

Digital Transmitter - Front



Legend for Digital Transmitter - Front

1. Channel select

For setting desired channel to be adjusted.

2. Channel Indicator

Indicates current channel.

3. Frequency Indicator

Indicates frequency assignment.

4. Frequency Select

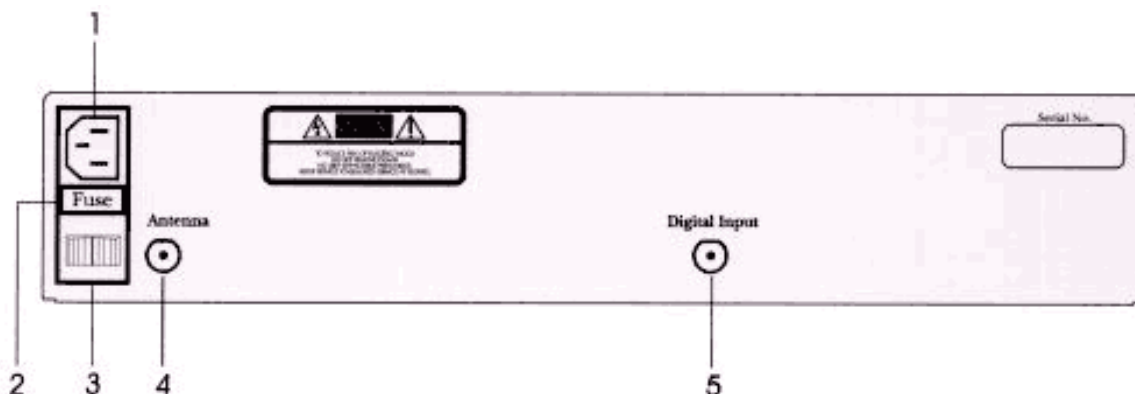
For setting the frequency assignment.

5. Power-on Indicator

Lights when main power switch is on.



Digital Transmitter - Back



Legend for Transmitter - Back

1. Power Input Connector

The power input connector brings 110 Volts 60 Hz AC into the system.

2. Main Line Fuse

Main system fuse for the Transmitter, 2 Amp 250 Volt Slow-Blow.

3. Main Power Switch

Switches power for the Transmitter

4. Antenna Connector

Connector for Transmitter antenna.

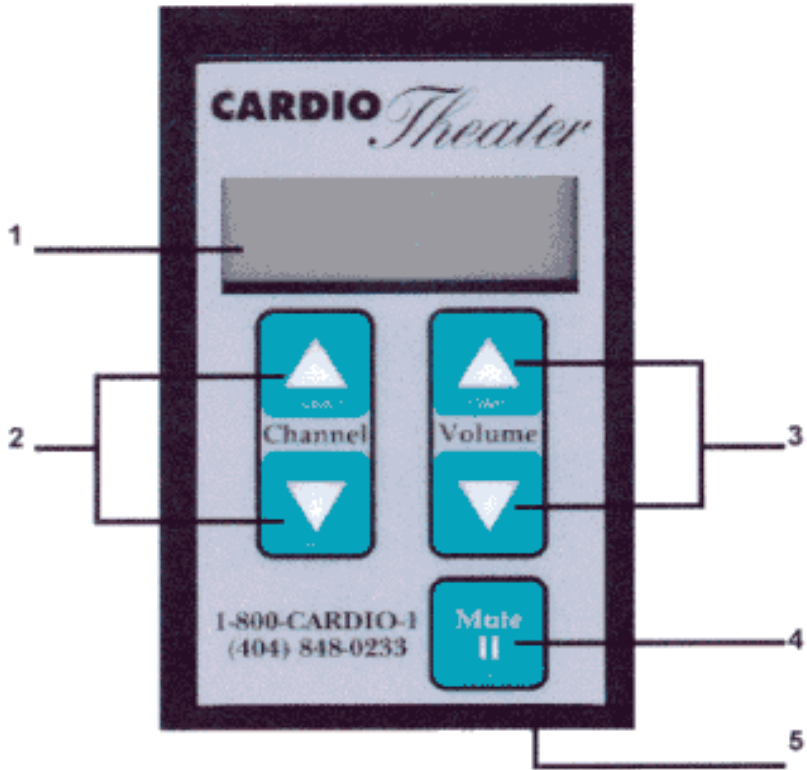
5. Digital Input Connector

Connector for coax cable.

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Upper Monitor



Legend for Upper Monitor

1. Channel Display

Indicates current channel selected

2. Channel Select

To select the desired listening channel

3. Volume Adjust

To select the desired listening volume.

4. Mute

Audio mute.

5. Headphone Jack

Standard 3.5 mm headphone jack.



Receiver



Legend for Receiver

1. Antenna

Receives signal from Digital Transmitter.

2. Power Connector

Connector for Power.

3. Monitor Box Connector

Connector for Coiled Cable to Upper Monitor.

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System Connections

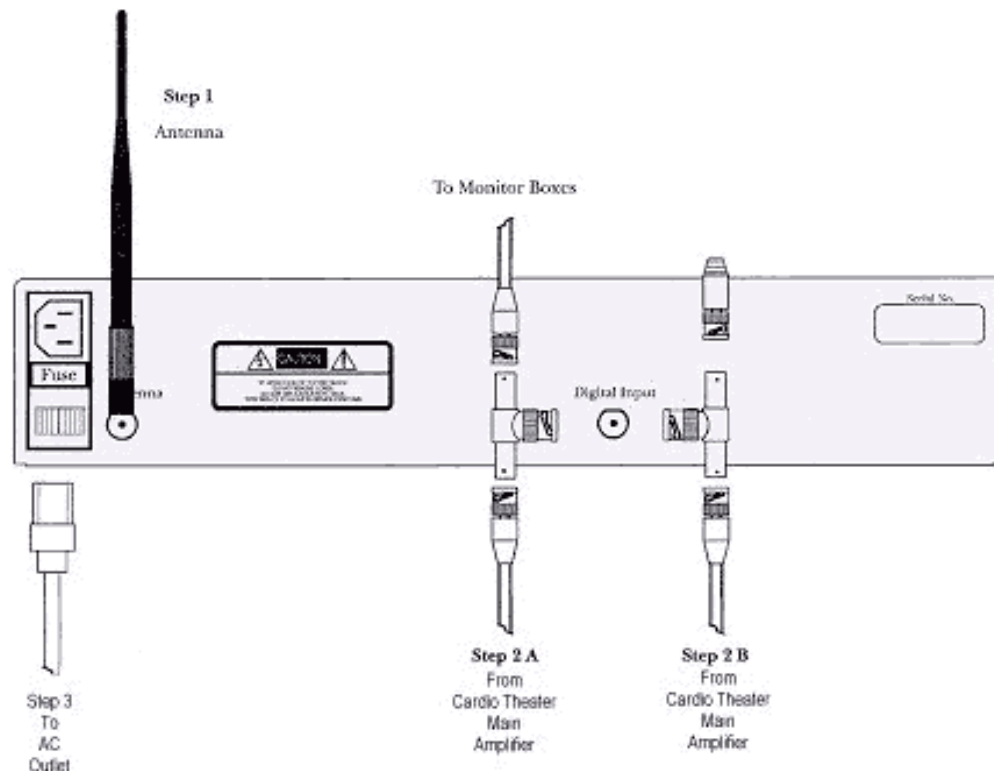
NOTE:

** The Cardio Theater **Digital Transmitter** works together with the Cardio Theater **Main Amplifier**. The Cardio Theater **Main Amplifier** is shipped separately and is supplied with its own Installation Manual.

** Before continuing with this Installation of the **Digital Transmitter and Receivers**, please refer to the Cardio Theater **Main Amplifier** Instruction Manual [pages 9 - 12](#). Make all connections and adjustments to the **Main Amplifier** before proceeding with this installation.

Digital Transmitter

NOTE: MAKE ALL CONNECTIONS TO DIGITAL TRANSMITTER AND RECEIVERS WITH THE POWER OFF.



Step 1

- Connect the Antenna to the Antenna Connector as shown in Step 1 of diagram above.

Step 2A or Step 2B

- If there is no unused output connection on the Cardio Theater Main Amplifier, install the eight inch (8") Coax with T Connector as shown in Step 2A; **OR:**
- If there is an unused output connection on the Cardio Theater Main Amplifier, install the eight inch (8") Coax to the digital input on the Wireless Transmitter as shown above in Step 2B.

Step 3

- Use the power cord supplied to connect the Digital Transmitter to a 120 volt AC outlet.

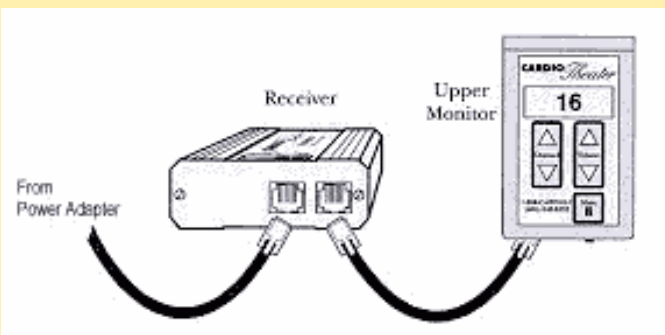
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Receiver Configurations

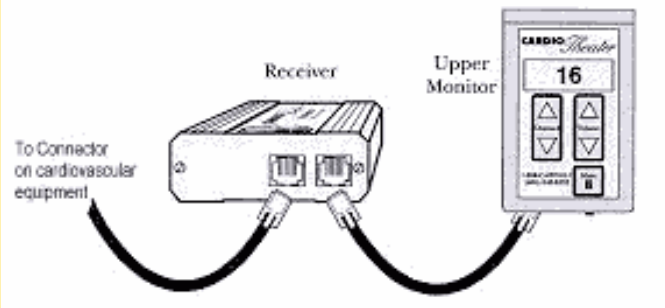
There are two (2) configurations for attaching the receivers.

Contact the manufacturer of the cardiovascular equipment to determine if the unit is Cardio Theater ready, or call the Cardio Theater Service Center (1-800-776-6695) for assistance.

Receiver with power adapter and Upper Monitor Box: For cardiovascular equipment that is not Cardio Theater ready, power must be supplied via a power adapter connected to a 110 volt outlet. An Upper Monitor Box is then attached to the receiver.



Receiver powered by machine with Upper Monitor Box: For cardiovascular equipment that IS Cardio Theater ready, power will be supplied via a connector on the cardiovascular equipment. An Upper Monitor Box is then attached to the receiver.



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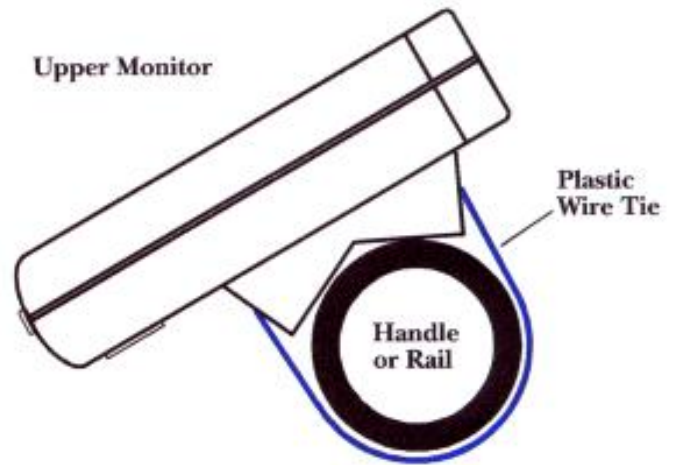
Attaching Upper Monitors

The Upper Monitor can be installed on any piece of equipment.

For equipment with round handles or railing, Upper Monitors are supplied with a build-in mounting block.

- Align the Upper Monitor on the handle or rail as desired.
- Use two of the supplied Plastic Wire Ties to attach the Upper Monitor to the handle or rail.
- Pull wire ties firmly to secure.

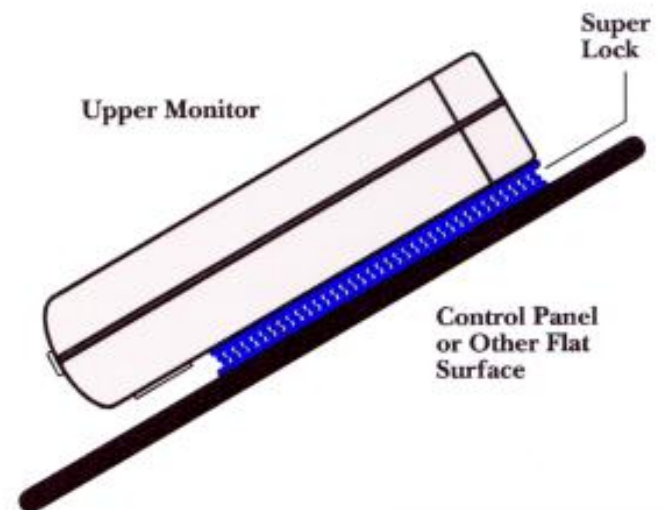
This method is the preferred method of attaching the Upper Monitor to minimize interference with control panels and displays.



For equipment with flat control panels but no hand rails, SuperLock (a form of super strong Velcro) may be used.

- Determine the best mounting position.
- Clean the mounting surface thoroughly.
- Remove the protective cover from the adhesive strip.
- Position the Upper Monitor and press firmly for the adhesive to grip.

CAUTION: When attaching to a control panel, care should be taken to avoid blocking access to controls or illustrations.



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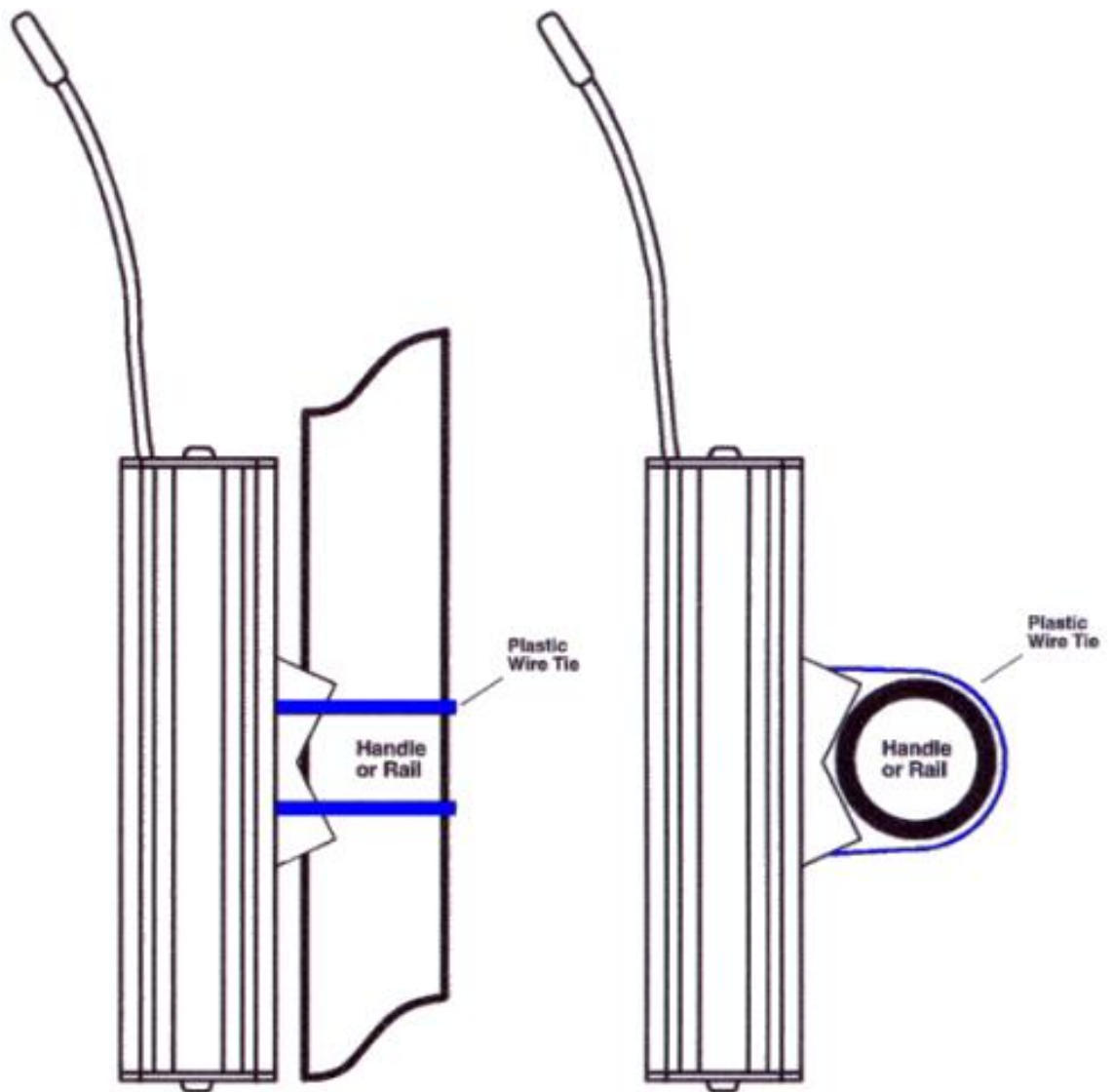
Attaching Receivers

The Receivers can be installed on any piece of equipment.

IMPORTANT NOTE: Make sure the Receivers are mounted as high as possible in the vertical upright position as much as physically possible, with the antenna on top.

For equipment with round handles or railing, the Receivers are supplied with a build-in mounting block.

- Align the Receiver on the handle or rail as shown.
- Use two of the supplied Plastic Wire Ties to attach the Receiver to the handle or rail.
- Pull wire ties firmly to secure.



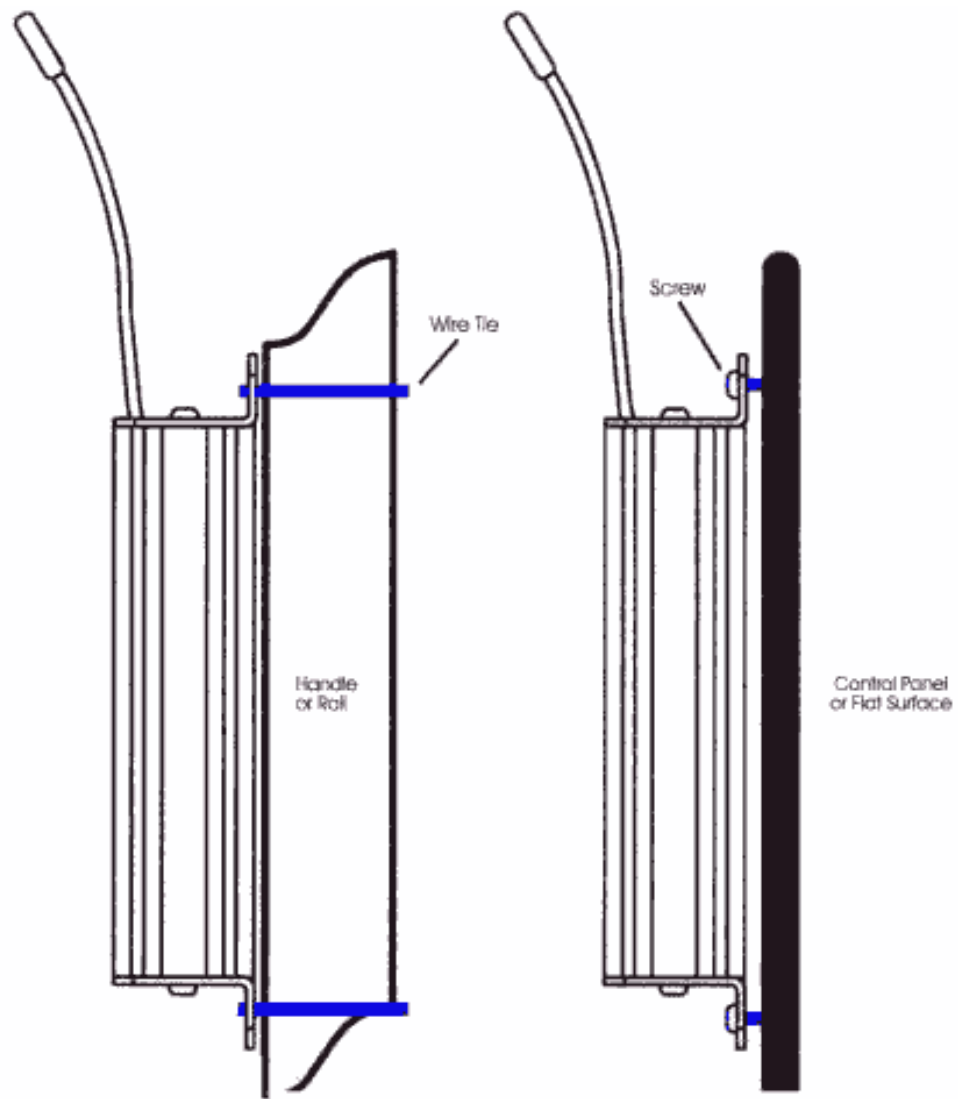
For equipment that is Cardio Theater Ready, the receiver is mounted either

- (1) to the back of the panel using the screw holes, or**
- (2) attached to the handle or rail.**

■ For equipment with flat vertical rails, align the Receiver on the rail as desired. Insert two Plastic Wire Ties through the two larger holes in each of the L brackets. pull wire ties firmly to secure.

■ For equipment that is Cardio Theater Ready with

mounting holes provided by the equipment manufacturer on the back of the panel, align the Receiver to the equipment and use either two (2) or four (4) screws to attach the Receiver.



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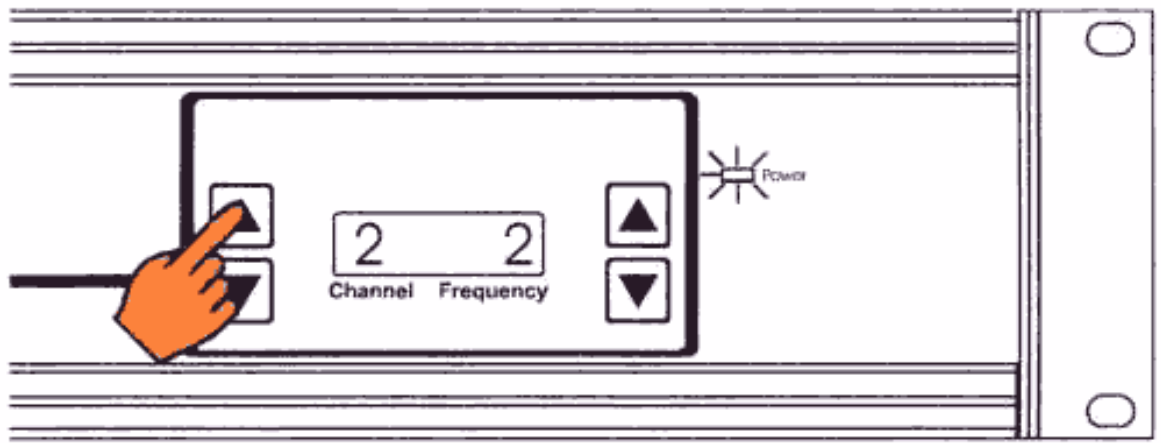
Transmitter Setup

Frequency Setup

For most applications no adjustments will be necessary. If, however, one or more channels have interference or a limited range, the transmit frequencies can be adjusted as follows:

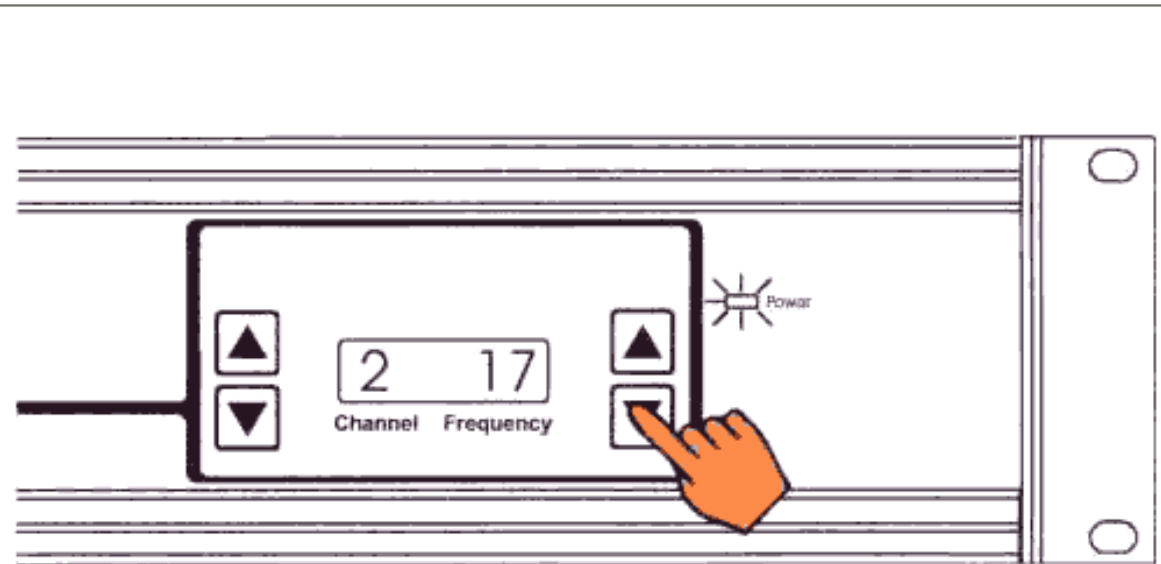
Step 1

Select the channel to be adjusted using the channel select buttons.



Step 2

Change the selected channel's transmit frequency using the frequency select buttons. NOTE: The Transmitter will automatically select the next available frequency.



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Specifications

Digital Transmitter

Transmission Frequency Range	905 MHz to 924.2 MHz
Frequency Range	16 channels adjustable from 905 MHz to 924 MHz
Transmission Power	95 dbmv max.

Power Consumption 610 Watt Max.

Dimensions Width: 19" / 483 mm
Height: 3.87" / 98 mm
Depth: 14.75" / 375 mm

Weight 9 lbs

Upper Monitor

Output Level / Load Impedance 550mV / 32 Ohm

Dimensions Width: 2.55" / 64.8 mm
Height: 3.93" / 99.8 mm
Depth: 0.97" / 24.6 mm

Weight 3 oz. / 83 g

Receiver

Dimensions Width: 3.27" / 83.1 mm
Height: 4.50" / 114.3 mm
Depth: 1.13" / 28.7 mm

Weight 8.2 oz / 233 g

Regulatory Information

FCC Compliance and Advisory Statement

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 or 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: 1) reorient or relocate the receiving antenna- 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for additional suggestions.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

Note: Cardio Theater follows a policy of continuous advancements in development. For this reason, specifications may be changed without notice. For questions regarding any specifications, please call the Service Center at (800) 776-6695 [United States toll free number].

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