



# ClearSounds<sup>®</sup>

OWNER'S MANUAL

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## WIRELESS TV LISTENING SYSTEM

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with Dual Ear Volume Control



**Model CS2000M**  
**95 KHz Frequency**

## INTRODUCTION

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Our wireless infrared system allows you to listen to your TV, Stereo, Radio, or any other audio source at a volume that is comfortable for you without disturbing others in the room. Use it if you are hard of hearing or if you simply want to watch television when someone else is sleeping.

Infrared technology is considered to be the best and clearest for sound transmission and our headphones are lightweight for maximum comfort.

The installation is very easy. Simply determine which type of installation suits your needs best. Please review the installation choices that appear in this manual and determine what features your television has before setting up your ClearSounds® CS2000M.

If you are having any difficulty, please  
call our help desk at

**1 (800) 965-9043**

Monday - Friday, 8:30AM - 5:00PM CST

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NOTE: CS2000M is not suitable for use with Plasma and LCD flat screen TVs.

 ClearSounds®

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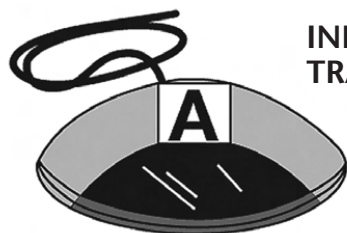
## HOW IT WORKS

The transmitter sits on your audio source (TV/VCR, stereo, etc.) and transmits an audio signal via infrared light. The receiver in the headphones captures the infrared light waves and converts them back into sound. You

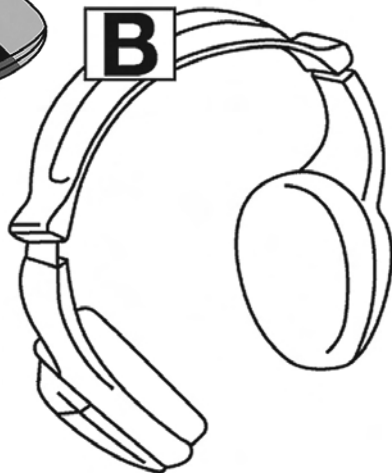
adjust the volume on the cordless headphones to suit your personal needs. Multiple headphones can be used with one transmitter.

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## COMPONENTS



INFRARED  
TRANSMITTER

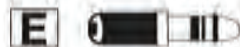


HEADPHONE  
RECEIVER



AC/DC TRANSFORMER

LARGE 6.3MM ADAPTOR



3.5MM/RCA MONO ADAPTOR



MICROPHONE ADAPTOR



SMALL 3.5 MM ADAPTOR



## INSTALLATION

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**4** How you install your CS2000M will depend on what type of equipment you have. To determine which setup procedure you should follow, check to see if your equipment has a single or double connection for the RCA Adaptor. If you have a double, your television is a stereo television. You will need to purchase a Stereo/Dual RCA 3.5mm Adaptor, available at most major electronic retail locations. If you have a single, it is a mono television (use Adaptor Cord F attached to the infrared transmitter).

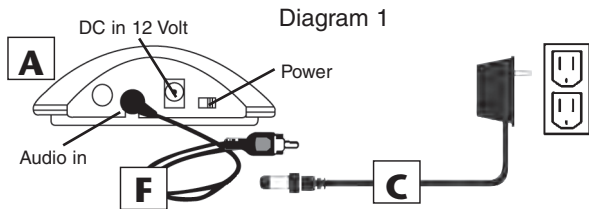
It is also important to note that because not all TVs are the same, when you plug something into the audio output jack, one of two things will happen.

1. The sound from your television will be automatically cut off and nobody else in the room will be able to hear the TV. This is okay if you don't want anyone else to be able to hear the television but bad if you just want

to listen at a higher volume than others in the room. To have the sound continue to come out of your television speakers, you must either use the microphone adaptor or connect the Transmitter to your VCR (see VCR installation below).

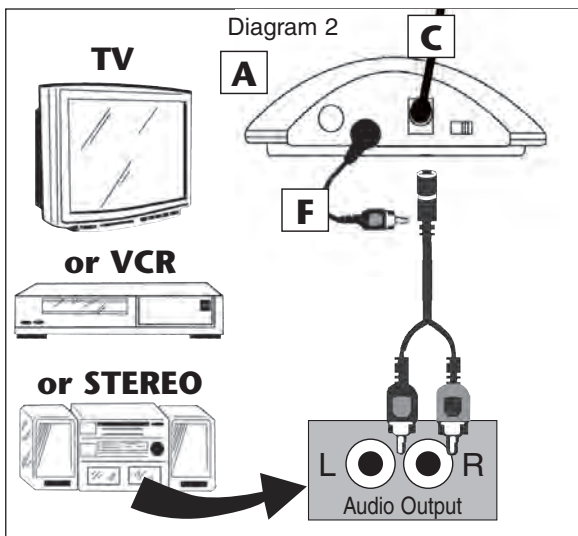
2. The sound will continue to come out of the TV speakers. This is okay if other people want to listen as well, but not if you want to be able to hear exclusively through the headphones. Furthermore, if you turn the volume down a lot, you may reduce the signal going to the TV's audio output jack(s) (see Muting the Television Sound).

**First, for all installations,** insert the plug of the AC/DC Transformer (C) into the DC 12V input connection on the back of the Infrared Transmitter (A) as shown in Diagram 1 and then plug the transformer into your electrical outlet. Now choose the installation that matches



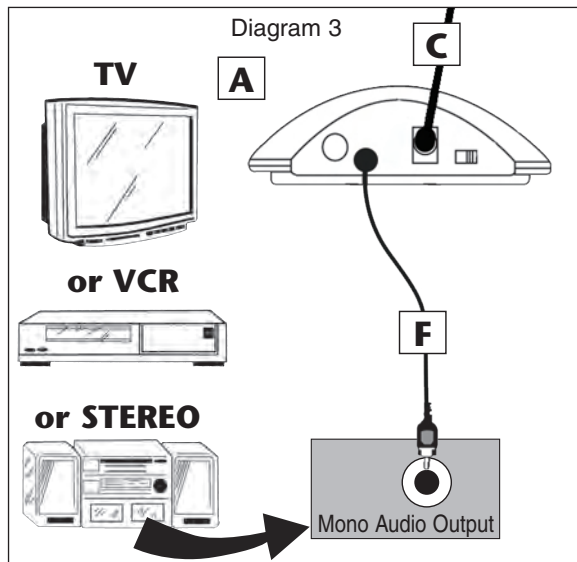
your equipment.

**Standard Installation – for use with TVs, VCRs, or stereos that have two audio output jacks.** Connect the transmitter RCA/3.5mm cord (F) to a Stereo (Dual) RCA/3.5mm adaptor cord. Connect the Stereo/Dual Adaptor cord



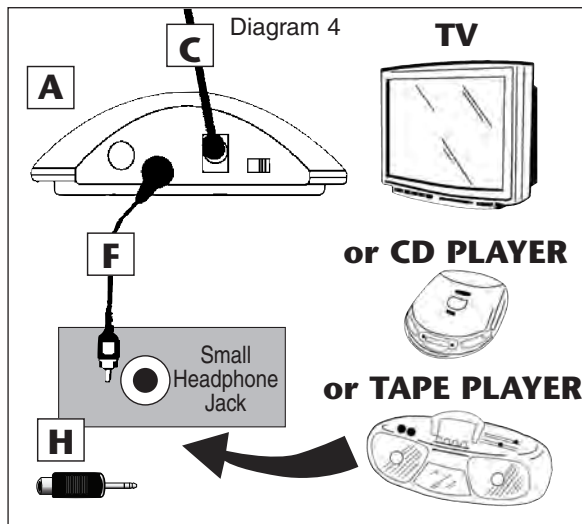
to the audio output jacks as shown in Diagram 2. Be sure to connect the adaptor to the audio output and not the video output.

**Mono Installation – for use with TVs, VCRs, or stereos that have only one audio output jack.** Connect the Transmitter RCA 3.5mm Mono Adaptor Cord (F) to the single Audio output jack as shown in Diagram 3. Be sure to connect the adaptor to the audio output and not the video output.



## Small Headphone Jack Installation – for use with equipment that has a small headphone jack.

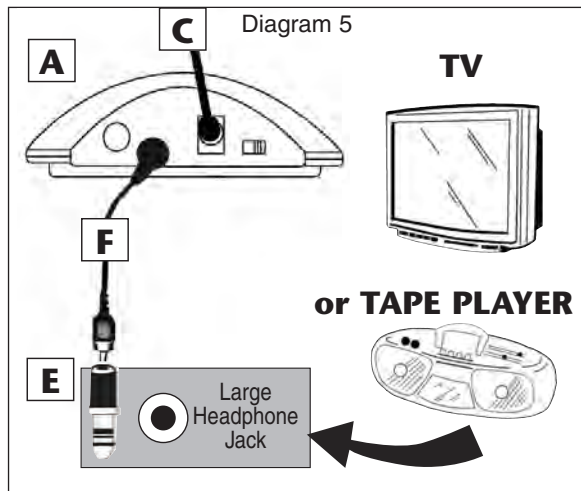
Connect the Transmitter directly into the equipment's audio output jack as shown in Diagram 4 (using the small 3.5 adapter if needed).



**Large Headphone Jack Installation – for use with stereos that have a large headphone jack.** Connect the Transmitter directly into the 6.3mm

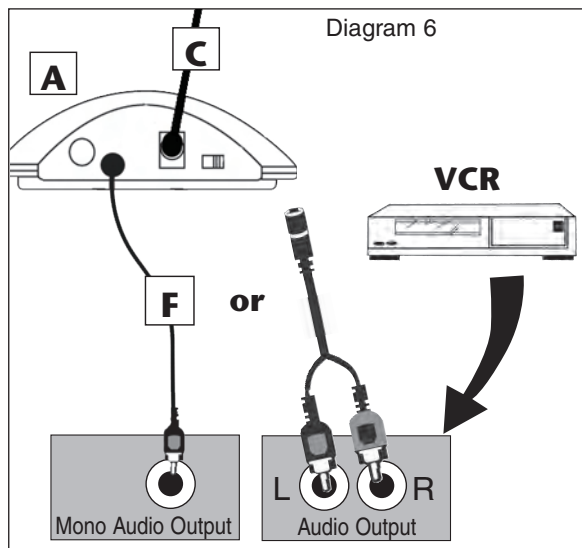
Adaptor (E) and insert it into the headphone jack as indicated in Diagram 5.

**VCR Installation – for use when you have cable passing through your VCR and no other audio output jacks are available.** The VCR must be on before beginning this installation. If your VCR



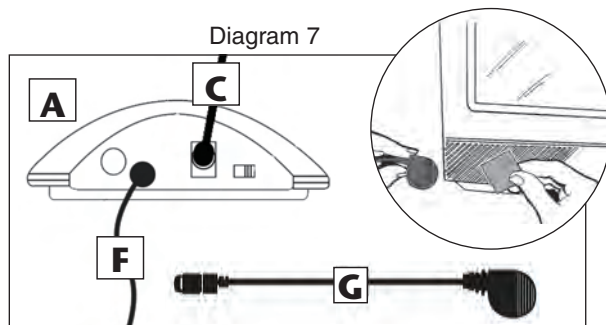
has two audio output jacks, connect the Transmitter (A) RCA/3.5mm Adaptor Cord, and connect the Adaptor Cord to the audio output jacks on the VCR. If your VCR has two audio output jack, use a RCA 3.5mm Dual Adaptor (purchased separately). See Diagram 6.

**Microphone Installation – for use when your equipment does not have an audio output jack.** Connect the Transmitter (A) to the Microphone Adaptor (G). Affix the Microphone Adaptor directly over the speaker by peeling the tape off the back of the adhesive. For this installation you will have to keep your equipment at a very low volume. See Diagram 7.



As an alternative to using the microphone, if your television has a cable box, locate an audio output jack on the back panel of the cable box. Plug the Transmitter into the jack and mute the TV using the mute function on your TV remote.

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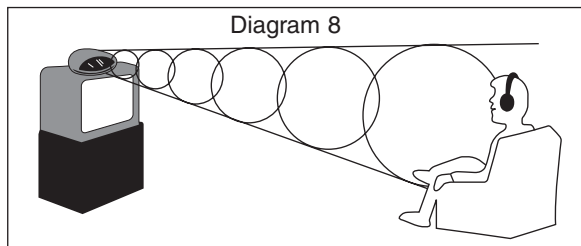


*Do not use the cable box.* Once the TV is muted, the headphones can be used exclusively to pick up the sound.

## PLACEMENT OF THE TRANSMITTER

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Turn on the Infrared Transmitter (A). The infrared light rays are emitted in a conical shape. For best results, place your Transmitter above your television or any other audio source. The Transmitter will work best if it is within 33 feet (apx. 10 meters) from the headphone receiver (B). There should not be anything obstructing the transmission of the infrared light rays to the receiver. See Diagram 8.



## ACTIVATING THE HEADPHONES

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Place two AAA batteries into the battery compartment in the left earpiece of the headphone matching positive to posi-

tive and negative to negative. Turn on the headphones making sure there is an unobstructed line of sight between the headphones and the Transmitter. Adjust the television volume and the headphone volume to a comfortable listening level

## MUTING THE TELEVISION SOUND

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Many televisions have speaker switches located on the back panel. If your television has one and you want to keep the sound muted, move this switch to the OFF position and listen to your TV exclusively through the headphones.

Some televisions have speaker switches that can only be controlled by the remote control. If your television falls into this category, press Menu on the TV remote and locate SPEAKER on the screen menu. Switch SPEAKER to the OFF position and listen to the TV exclusively through the headphones. To find out if your television has this function, refer to your owner's manual.



## TROUBLESHOOTING

| <b>PROBLEM</b>                   | <b>POSSIBLE CAUSE</b>                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Red Power light is not on</b> | <ul style="list-style-type: none"><li>- AC Adaptor is not plugged in</li><li>- AC plug is not plugged into the transmitter</li><li>- The audio cord is not plugged into the audio source</li><li>- There is no audio output from the audio source</li></ul>                                                                                                                                                   |
| <b>No sound from headphones</b>  | <ul style="list-style-type: none"><li>- The audio cord is not plugged into the audio source</li><li>- There is no audio output from the audio source</li><li>- The transmitter is not ON</li><li>- The headphones are not ON</li><li>- The headphones have no batteries</li><li>- The batteries are inserted in the headphones incorrectly</li><li>- The batteries are dead and need to be replaced</li></ul> |
| <b>Self-testing of system</b>    | <ul style="list-style-type: none"><li>- Hook up the microphone to the transmitter and speak into the microphone. You should hear your voice in the headphones and you will confirm the unit is working</li></ul>                                                                                                                                                                                              |
| <b>Sound too low</b>             | <ul style="list-style-type: none"><li>- Headphone volume control is too low</li><li>- Batteries are weak and need to be replaced</li></ul>                                                                                                                                                                                                                                                                    |
| <b>Poor sound</b>                | <ul style="list-style-type: none"><li>- Infrared sensor on headphone is not in line with the transmitter</li><li>- Batteries are weak and need to be replaced</li><li>- Headphone volume control needs to be adjusted</li></ul>                                                                                                                                                                               |
| <b>Static</b>                    | <ul style="list-style-type: none"><li>- Infrared sensor on headphones is not in line with the transmitter</li></ul>                                                                                                                                                                                                                                                                                           |

## **TECHNICAL SPECIFICATIONS**

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|                                      |                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------|
| Transmission Mode . . . . .          | Infrared 940 nanometers                                                                  |
| Operating Voltage . . . . .          | Frequency Modulation (95KHz)<br>Transmitter - 12 VDC via 120 VAC,<br>60 Hz AD/DC adaptor |
| Frequency Response . . . . .         | 50 Hz — 10,000 Hz                                                                        |
| Distortion . . . . .                 | 1% THD                                                                                   |
| S/N Ratio . . . . .                  | 45db (4M)                                                                                |
| Battery Life . . . . .               | Up to 50 hours with 2 AAA batteries                                                      |
| Maximum operating distance . . . . . | 33 feet                                                                                  |
| Input . . . . .                      | Jack - 3.5mm                                                                             |
| Weight . . . . .                     | Transmitter - 155g (5oz.)<br>Headphone Receiver 136.8g (4.8 oz.)                         |
| Accessory . . . . .                  | AC/DC adaptor                                                                            |
| Warranty . . . . .                   | One-Year limited warranty                                                                |

### **FOR YOUR WELL-BEING**

Medical experts advise against playing any audio device at a high volume for continuous and extended play. If you hear a ringing in your ears, reduce the volume immediately or discontinue use. The information in this manual is

intended as general information and corresponds to the technical status at the time of printing. The manufacturer reserves the right to make changes without notice.

## **LIMITED WARRANTY**

Your CS2000M is warranted against defects for a period of 12 months from the original date of purchase.

## **IN-WARRANTY PROCEDURE**

In the event service is required due to a defect or malfunction during the warranty period, ClearSounds® will replace or repair the warranted product. The repair or replacement of the defective item will be free of charge excluding a \$7.00 fee for packing, handling, insurance, and return postage. Repair or replacement of the defective item is subject to verification of the malfunction or defect when delivered to the ClearSounds® Service Center listed below.

**NOTE:** Prior to returning any CS2000M to the ClearSounds® Service Center, *REPLACE THE EXISTING BATTERIES WITH NEW ONES.* Defective batteries are the leading cause of problems with this item and are not covered by the Limited Warranty.

Enclose proof of purchase and check or money order for the sum of \$7.00 payable to ClearSounds®.

Mail the package postage prepaid to the following address:

ClearSounds® Service Center  
1743 Quincy Avenue, Suite 155  
Naperville, IL 60540

**NOTE:** The warrantor expressly disclaims liability for incidental, consequential, or special damages of any nature. (Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.) This warranty does not cover (1) A defect that has been caused by repair or modifications; (2) A defect caused by incorrect installation of/or defective batteries; (3) Damage resulting from improper operation; and (4) Batteries.