

## **APPENDIX B**

*Owner's Manual*



**OWNER'S MANUAL**

for

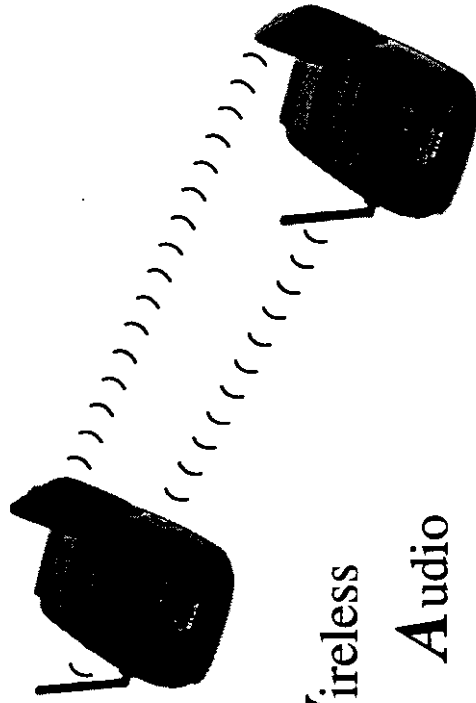
**WAVECOM™ Sr.**

(Models Tx 888R and Rx 999R)

and

**WAVECOM™ Jr.**

(Models Tx 888 and Rx 999)



**Wireless**

**Audio**

**Video**

**Everywhere**

**COMmunicator**

**North & South America**

**RF-Link Technology, Inc.**

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Torrance, CA 90501

USA

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**RF-Link Systems, Inc.**

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Nanking East Road

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## Other Accessories

Item	Model
Additional WAVECOM™ Sr. Directional Receiver For reception on additional TV's or monitors	PWCRX-999R
Additional WAVECOM™ Jr. Directional Receiver For reception on additional TV's or monitors	PWCRX-999
WAVECOM™ Sr. Extended Range Receiver For reception at up to 600 ft. clear line of sight	PWCRX-999RH
WAVECOM™ Jr. Extended Range Receiver For reception at up to 600 ft. clear line of sight	PWCRX-999H
Additional WAVECOM™ Sr. Directional Transmitter For transmission from another A/V source	PWCTX-888R
Additional WAVECOM™ Jr. Directional Transmitter For transmission from another A/V source	PWCTX-888
WAVECOM™ Sr. Omnidirectional Transmitter For operation with dispersed multiple receivers	PWCTX-888RO
WAVECOM™ Jr. Omnidirectional Transmitter For operation with dispersed multiple receivers	PWCTX-888O
Rechargeable Battery Pack with Charger For mobile operation of units	PWCRB-012
Replacement Power Adapter To replace lost or damaged power adapter	PWCPA-012

For more information or to place an order, call or write to:

### North & South America

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# Specifications

<b>Transmitter:</b> Output Level Operating Frequency Band Modulation Video Input Level Audio Input Level Video Input Impedance Audio Input Impedance Power Supply Dimensions Weight	94 dB microvolts/meter at 3 meters 2.4 to 2.4835 GHz ISM band FM (video and audio) 1V p-p 1V p-p 75 ohms 600 ohms 12 Vdc, 300 mA 6.9 x 4.4 x 1.8 inches 13 ounces
<b>Receiver:</b> Output Level Input Sensitivity Power Supply Remote Control Transmitter Frequency Dimensions Weight	1 volt p-p (video), 1 volt p-p (audio) -90 dBm 12 Vdc, 400mA UHF * 6.9 x 4.4 x 1.8 inches 15 ounces

\* For Model Rx 999R only (not included in WAVECOM™ Jr.)

All specifications are subject to change without notice.

## Warranty Information

RF-Link Technology, Inc., referred to as "RF-Link" hereafter, warrants this product against any defects in material or workmanship for a period of 90 days from the date of original purchase. This Limited Warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident, or as a result of service or modification not approved by RF-Link. Should the product become defective within the warranty period, RF-Link will repair or replace the product at our option, provided that it is shipped prepaid to RF-Link.

There are no express warranties other than those described above. No warranties of whether expressed or implied, including but not limited to, any implied warranties of merchantability or fitness for a particular purpose, shall extend beyond the time period listed above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

# Introducing WAVECOM™ SR. and WAVECOM™ JR.

WAVECOM™ Sr. and WAVECOM™ Jr. use the latest in wireless communication technology to deliver consistently sharp stereo audio and color video images up to 300 feet away. By transmitting at a very high frequency (2.4 GHz or 2.4 billion cycles per second), the FCC-approved WAVECOM™ Sr. and WAVECOM™ Jr. avoid the crowded 900 MHz band used by many cordless telephones and other wireless audio/video transmitters. Its superior quality is due to FM rather than AM signal modulation. In addition, the use of state-of-the-art circular polarized directional transmitting and receiving antennas maximizes the signal range and minimizes interference from unwanted signals. With four independent channels, you can transmit up to four different audio/video sources simultaneously using multiple pairs.

WAVECOM™ Sr. also integrates a remote control extender to allow you to control the audio or video source from another room using your existing remote control device (feature not available with WAVECOM™ Jr.).

WAVECOM™ Sr. and WAVECOM™ Jr. offer you greater convenience and security in many ways:

### Convenience:

- Watch the movie you rent on any TV in your home or backyard without running messy cable, moving your VCR/laser disc player or buying another one
- Watch cable or satellite programming on any TV in your home
- Listen to stereo-quality music on any powered speakers inside or outside the home
- Receive computer images and sound on a remote TV (additional equipment required)

### Safety & Security:

- Monitor your sleeping baby, playing children, the elderly, or the disabled on your TV using your existing camcorder or miniature CCD camera (available from RF-Link -- see "Accessories" section)
- See who is outside your door on your TV using a camcorder or miniature CCD camera
- Fire, police, and security personnel can send real-time images of dangerous situations back to a mobile base station or back-up partner through a miniature CCD camera (portable battery also available)
- And many more uses!

## Controls and Features

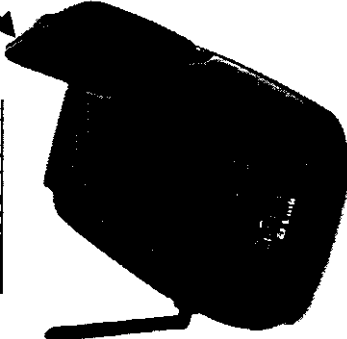
The transmitter and receiver look virtually alike. Any differences are noted below.

**Remote control antenna**  
Transmits and receives UHF remote control signals (WAVECOM™ Sr. only).

**Directional 2.4 GHz antenna**  
Transmits and receives audio and video signals.

**Caution: Do Not rotate 2.4 GHz antenna 360 degrees or permanent damage to both antenna and mechanical stopper will occur.**

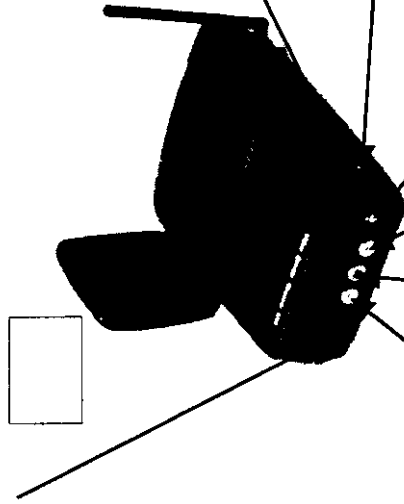
### FRONT VIEW



**Remote control window**  
Infrared passes through this to remotely control audio/video signal source (WAVECOM™ Sr. receiver only).

**Channel selection button**  
Use to find optimal reception. Must select same channel on both transmitter and receiver.

### REAR VIEW



**Left audio jack (white)**

**Right audio jack (red)**

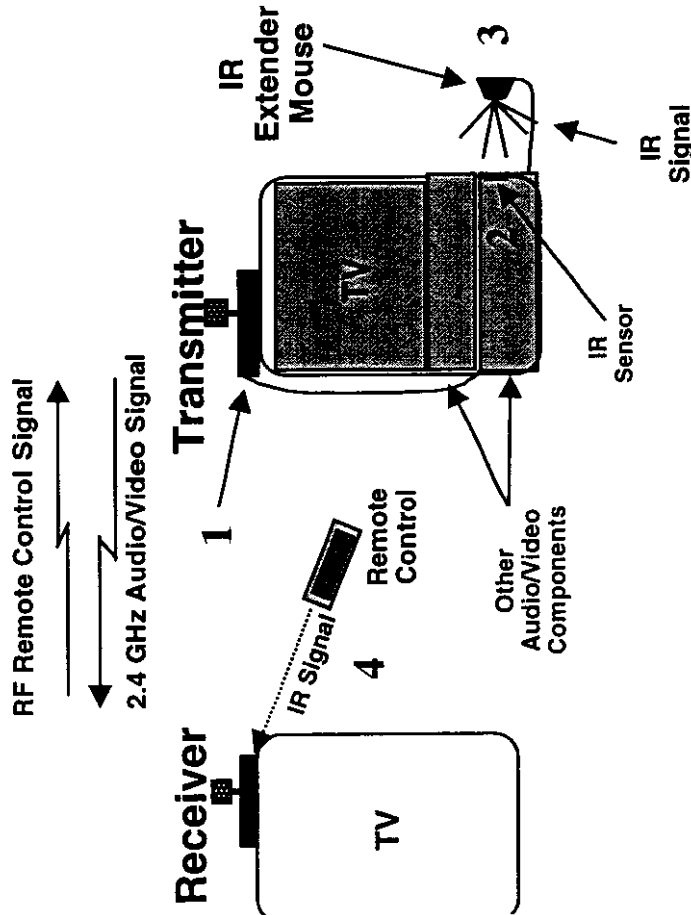
**Video jack (yellow)**

**12-volt power adapter plug**

**On/off switch**

**Power port for approved accessory (transmitter only)**

**Note: Make sure ON/OFF switch is in OFF position before plugging in any approved accessory.**



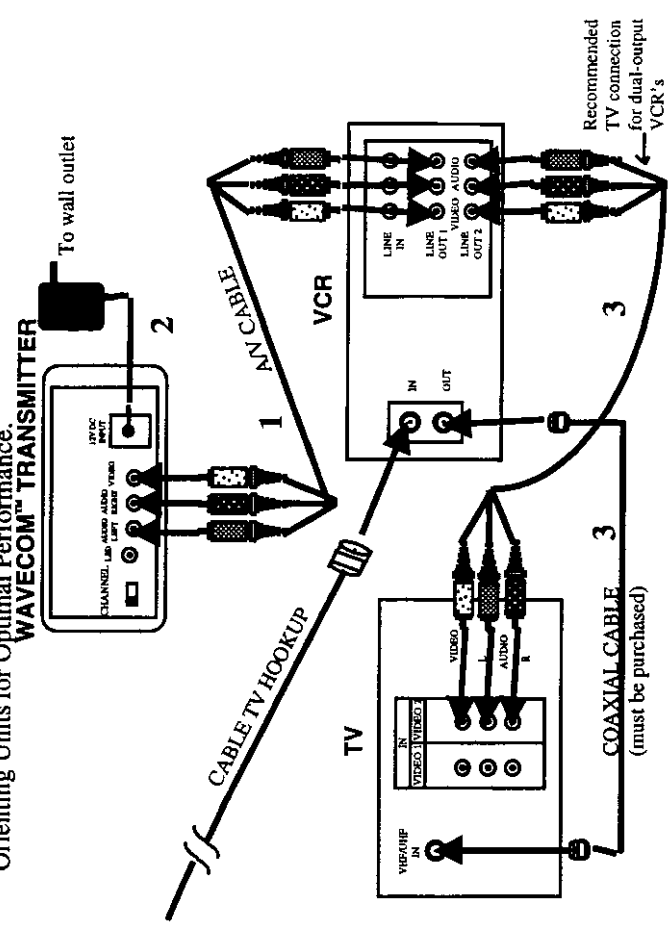
**Note: For optimal performance, the IR extender mouse should be placed within 6 feet of the IR sensor of the source component you wish to control.**

# Connecting the Transmitter

## How To Transmit Audio/Video from Your VCR

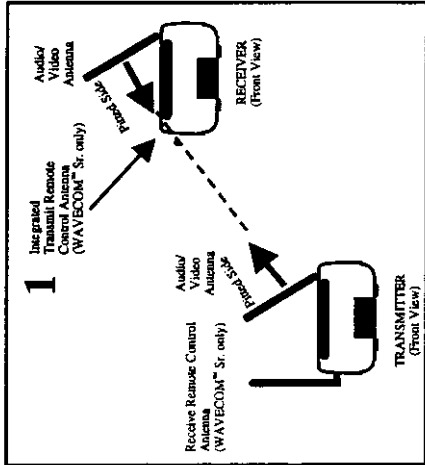
- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of audio/video (A/V) cables to the A/V jacks of the transmitter (Tx 888R or Tx 888) and to the A/V jacks on the back of your VCR labeled *LINE OUT*. Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the VCR and the transmitter. If the VCR has only one output for audio (mono sound only), connect the white plug to that single audio output and to transmitter's *AUDIO LEFT* jack.
- 2 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 3 If your VCR has only one set of A/V output jacks and you want to use it with a nearby TV, connect coaxial cable from the single *OUT* port on your VCR to the *VHF/UHF IN* port on your TV. (Note: In order to also view cable transmission on that TV, connect your incoming cable TV source to the single *IN* port of the VCR.)
- 4

Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

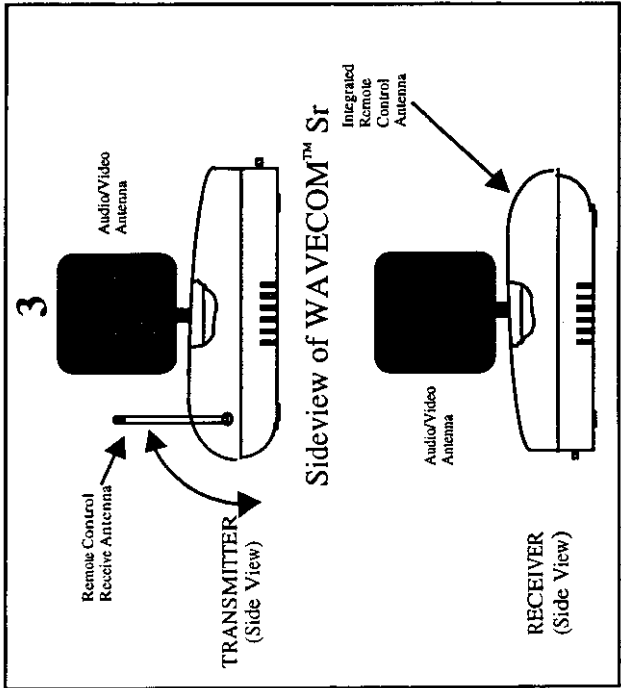
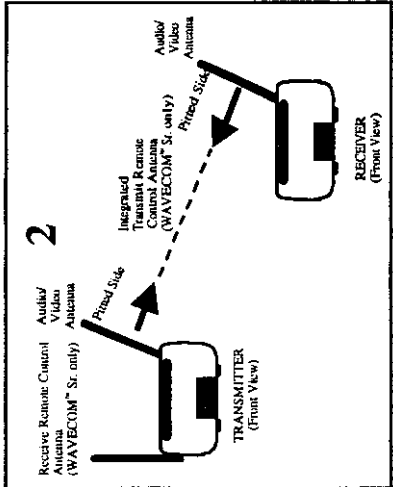


## Orienting the Remote Control Antenna

(WAVECOM™ Sr. only) For most applications, the receivers remote control antenna should be oriented vertically with respect to the main housing (see diagrams 1 & 2).



If your remote control extender is not working satisfactorily, first rotate the transmitter remote control antenna (located on the WAVECOM™ Sr. receiver) to different positions (see diagram 3 below).

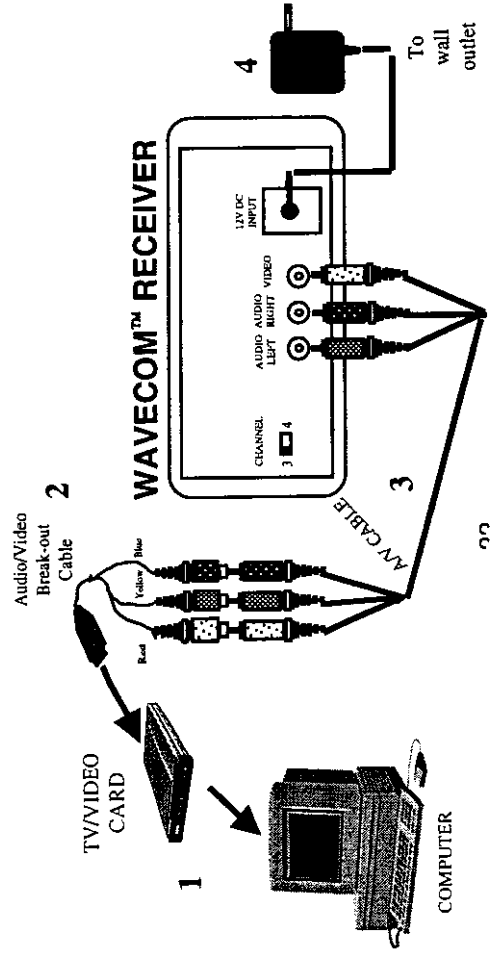


## How To Receive Audio/Video from Your Computer

WAVECOM™ Sr. and WAVECOM™ Jr. can be used to receive TV broadcast on the computer monitor in the home or office using a TV/Video Card (purchase at your local computer store). This feature allows you to receive live TV broadcast from your large TV screen to a desktop or laptop computer without running wires between the two.

- 1 First, insert the TV/Video Card into one of your computer's open slots, preferably one which is close to the VGA controller. See TV/Video Card owner's manual for interconnection between the TV/Video Card and the VGA controller.
- 2 Connect the single male connector on the Audio/Video Break-out Cable (comes with TV/Video Card) to the Audio/Video Input Port on the back of the TV/Video Card. The six female RCA jacks on the other end of the Break-out Cable allow you to connect up to two different video devices. Select red, yellow, and blue RCA female plugs for connection to the WAVECOM™ receiver.
- 3 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect yellow video plug of the audio/video (A/V) cables to the red jack on the Break-out cable. Afterward, connect the red audio plug to the blue jack, and then the white audio plug to the yellow jack. Connect the other ends of the A/V cable to the backside of the WAVECOM™ receiver, make sure to match the color code of the RCA plugs and jacks.
- 4 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.

- 5 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

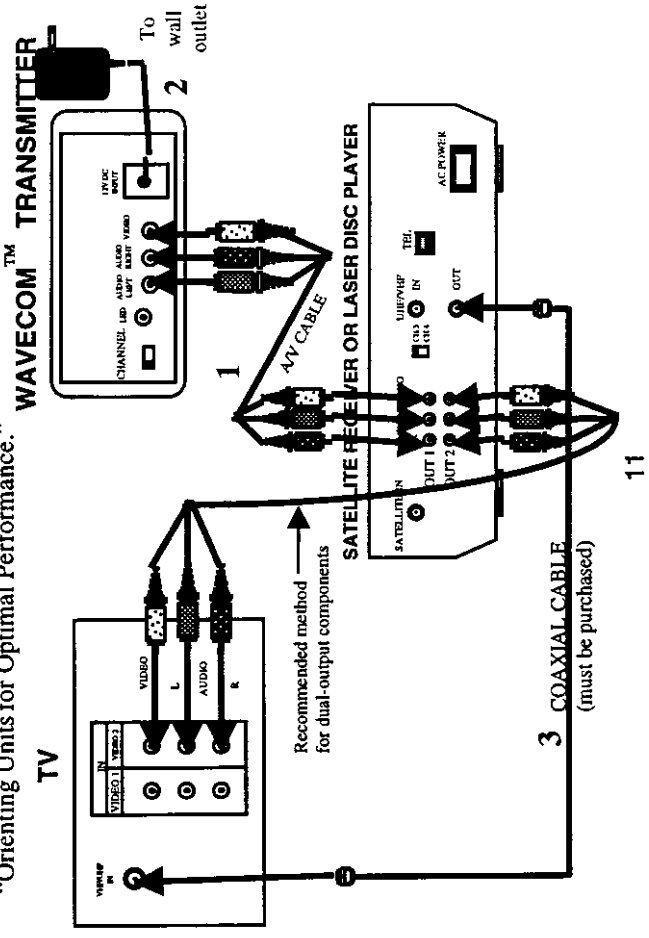


## How To Transmit Audio/Video from Your Satellite Receiver or Laser Disc Player

You can transmit audio/video either directly from your satellite receiver or laser disc player, or by connecting them to your VCR. To transmit directly from your satellite receiver or laser disc player, follow the instructions below.

- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of audio/video (A/V) cables to the A/V jacks of the transmitter (Tx 888R or Tx 888) and to the AUDIO/VIDEO OUT jacks of the satellite receiver or laser disc player. Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the satellite receiver/laser disc player and the transmitter.
- 2 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 3 If your satellite receiver or laser disc player has only one set of A/V output jacks, and you had to disconnect your TV from those jacks to connect WAVECOM™ Sr. or WAVECOM™ Jr., reconnect the TV by connecting coaxial cable from the single VHF/UHF OUT port on the satellite receiver or laser disc player to the VHF/UHF IN port on your TV.

- 4 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

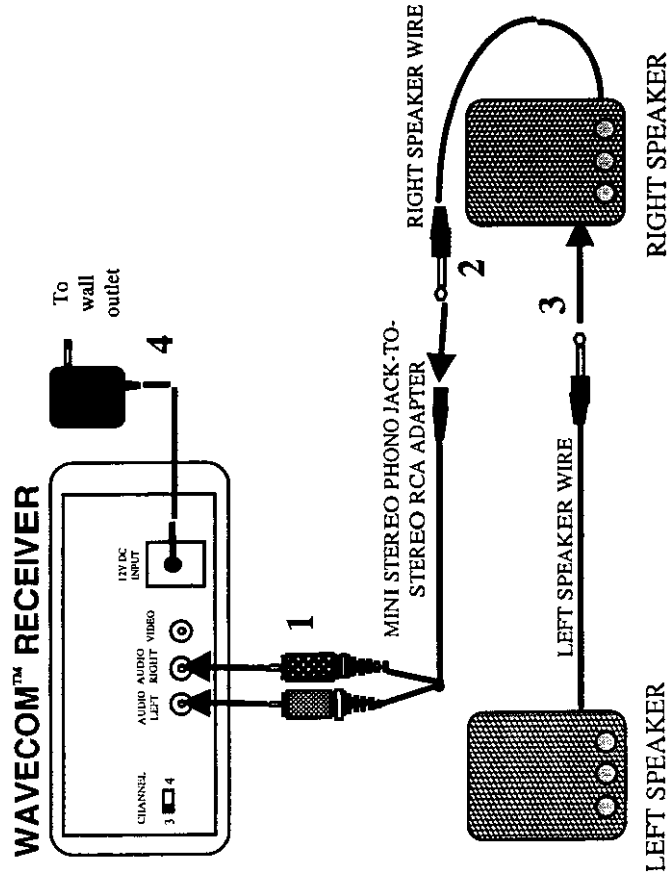


## How To Receive Audio on Your Remote Powered Speakers

Since WAVECOM™ Sr. and WAVECOM™ Jr. merely receive stereo signals and do not amplify them, the speakers you use to enjoy wireless sound must be self-powered or attached to an amplifier or stereo receiver.

To use self-powered speakers, such as computer speakers, follow the instructions below.

- 1 Obtain a mini stereo phono jack-to-stereo RCA adapter at your local electronics store. Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect the red and white A/V plugs of the adapter to the red and white audio jacks of the receiver (Rx 999R or Rx 999).
- 2 Connect the plug at the end of the right speaker wire to the mini stereo phone jack on the adapter.
- 3 Plug the wire leading from the left speaker into the back of the right speaker to enjoy full stereo sound.
- 4 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 5 Locate and orient the WAVECOM™ receiver according to the section of this manual titled "Orienting Units for Optimal Performance."



LEFT SPEAKER

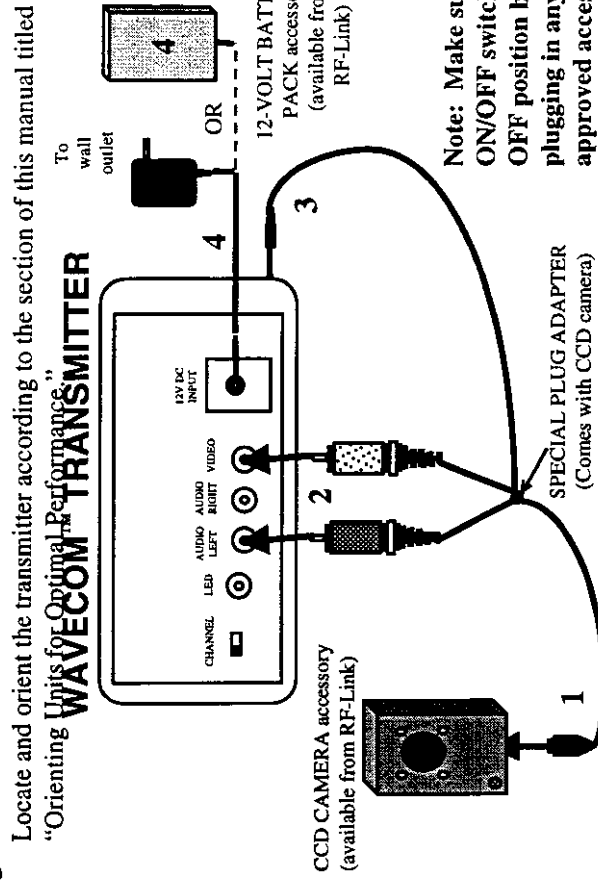
RIGHT SPEAKER

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## How To Transmit Audio/Video from a Miniature CCD Camera

In conjunction with a miniature CCD camera (sold separately -- see accessories), WAVECOM™ Sr. or WAVECOM™ Jr. becomes a portable wireless security system. First, fasten the CCD camera to any object using its clip adapter so that it views the scene you wish to monitor, such as a sleeping baby, your playing children, the elderly, or the disabled. Then, follow the instructions below.

- 1 Plug the single end of the special plug adapter that comes with the miniature CCD camera into the bottom of the camera.
- 2 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Insert the two A/V plugs on the other end of the plug adapter into the transmitter's jacks -- the black one into the video jack and the red one into the AUDIO LEFT jack.
- 3 Insert the power plug from the special plug adapter into the AUX POWER port on the side of the transmitter. This provides power to the CCD camera.
- 4 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit. For portable applications, plug the Portable Battery Pack accessory (sold separately -- see "Accessories" section) into the back of the transmitter.
- 5



Note: Make sure ON/OFF switch is in OFF position before plugging in any approved accessory.

SPECIAL PLUG ADAPTER  
(Comes with CCD camera)

CCD CAMERA accessory  
(available from RF-Link)

12-VOLT BATTERY  
PACK accessory  
(available from  
RF-Link)

Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

WAVECOM™ TRANSMITTER

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## Connecting the Receiver

### How To Receive Wireless Audio/Video on Your TV

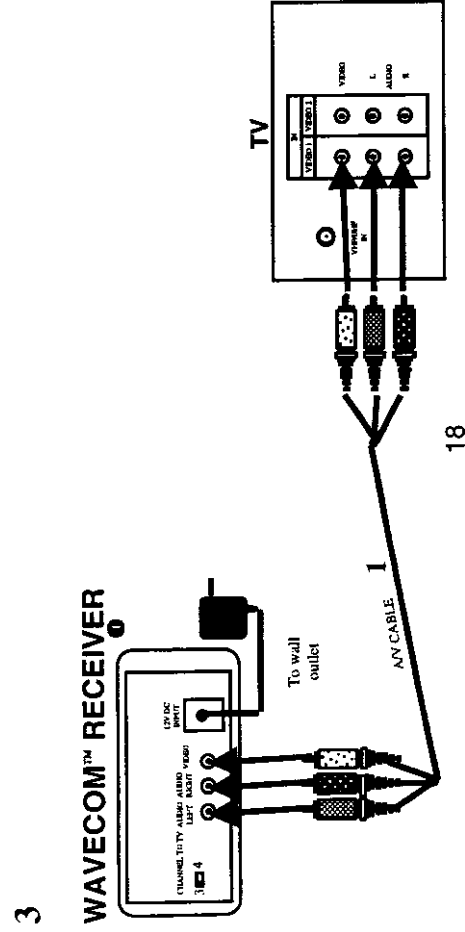
There are two ways to receive wireless audio/video signals on your remote TV (TV in another location):

- Connect the receiver directly to the remote TV
- Connect the receiver to a VCR, which is then connected to the TV.

If your TV has picture-in-picture capabilities, you can view any image transmitted by WAVECOM™, such as your sleeping baby, in a small inset picture while enjoying other programming on the rest of the screen. Consult the owner's manual of your TV for instructions on using these capabilities.

### Connecting Receiver Directly to Remote TV

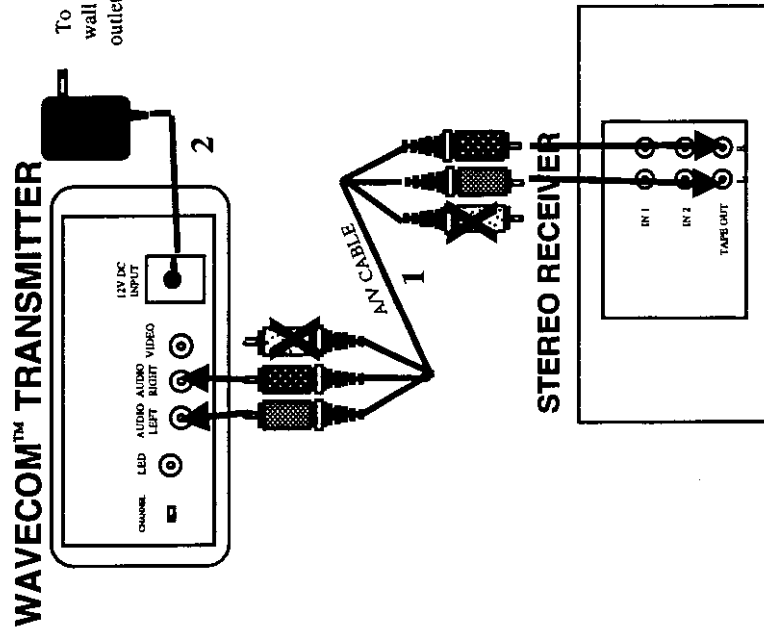
- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. If your TV has A/V jacks, connect one set of A/V cables to the TV's A/V jacks and to the A/V jacks on the receiver (Rx 999R or Rx 999). Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the TV and the receiver. If the TV has only a single jack for audio input, connect the white plug to that jack.
- 2 Follow Steps 4 and 5 on the following page.



## How To Transmit Audio from Your Stereo Receiver

To enjoy sound from your CD player, cassette deck or radio on speakers in another room, you can connect WAVECOM™ Sr. or WAVECOM™ Jr. to your stereo receiver. To use this feature, you must connect either powered speakers or another amplifier to the WAVECOM™ Sr. or WAVECOM™ Jr. receiver at the remote site (see "Connecting the Receiver").

- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of audio/video (A/V) cables to the two audio jacks (red and white) of the transmitter (Tx 888R or Tx 888) and to the audio jacks on the back of your stereo receiver labeled *TAPE OUT*. Be sure the red and white plugs match the red and white jacks on both the stereo receiver and the transmitter. The yellow video plug is not used.
- 2 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 3 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

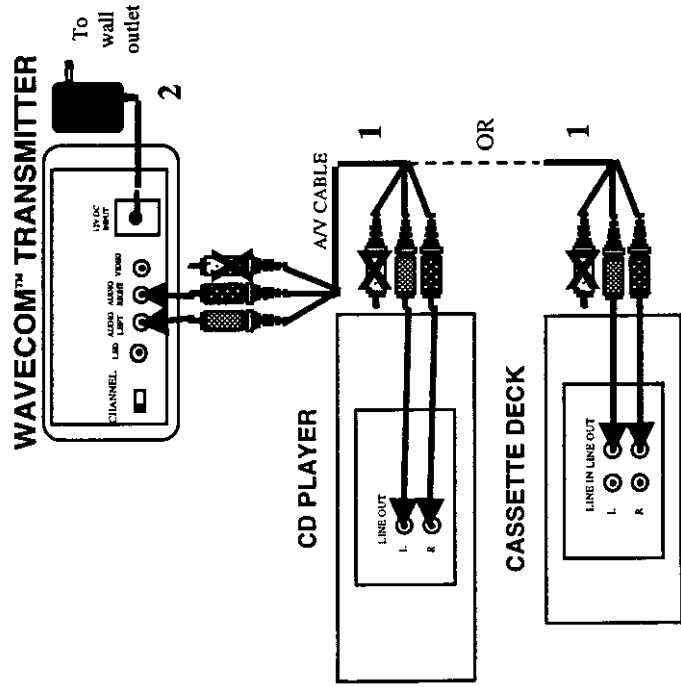


## How To Transmit Audio from Your CD Player or Cassette Deck

You can transmit audio either directly from your CD player or cassette deck, or you can connect them to your stereo receiver. For either scenario, to enjoy audio on remote speakers, you must connect either powered speakers or an amplifier to the WAVECOM™ Sr. or WAVECOM™ Jr. receiver at the remote site (see "Connecting the Receiver").

To transmit directly from your CD player or cassette deck, follow the instructions below.

- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of audio/video (A/V) cables to the two audio jacks (red and white) of the transmitter (Tx 888R or Tx 888) and to the *LINE OUT* jacks of the CD player or cassette player. Be sure the red and white plugs match the red and white jacks on both the transmitter and the CD/cassette player. The yellow video plug is not used.
- 2 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 3 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

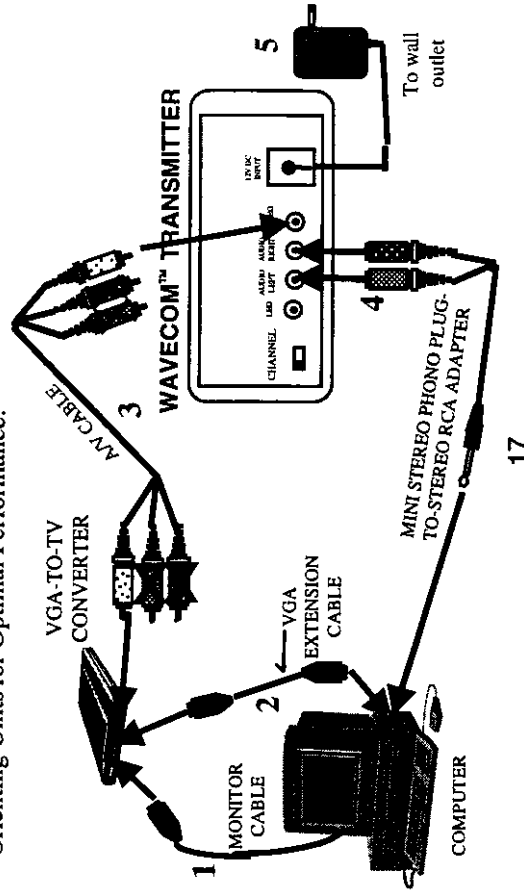


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## How To Transmit Audio/Video from Your Computer

WAVECOM™ Sr. and WAVECOM™ Jr. can send computer images and sounds to any TV in the home or office using a sound card and a VGA-to-TV Converter (purchase both at your local computer store). You also need a mini stereo phono plug-to-stereo RCA adapter (purchase at your local electronics store). This feature allows you to send presentations from your desktop or laptop computer to a large TV screen without running wires between the two. First, insert the sound card into one of your computer's open slots. Then, follow the instructions below.

- 1 Connect the monitor cable attached to your computer screen to the *VGA OUT* plug on the VGA-to-TV Converter.
- 2 Connect a VGA extension cable (comes with converter) to the *VGA* port on the back of your CPU unit and to the *VGA IN* plug on the VGA-to-TV Converter.
- 3 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one yellow video plug of the audio/video (A/V) cables to the *VIDEO* jack on the back of the VGA-to-TV Converter and the other to the *VIDEO* jack on the back of the transmitter. The red and white audio plugs are not used.
- 4 Plug the mini-stereo plug of the adapter you purchased into your sound card, and the red and white A/V plugs into the *AUDIO RIGHT* and *AUDIO LEFT* jacks on the back of the transmitter.
- 5 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 6 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

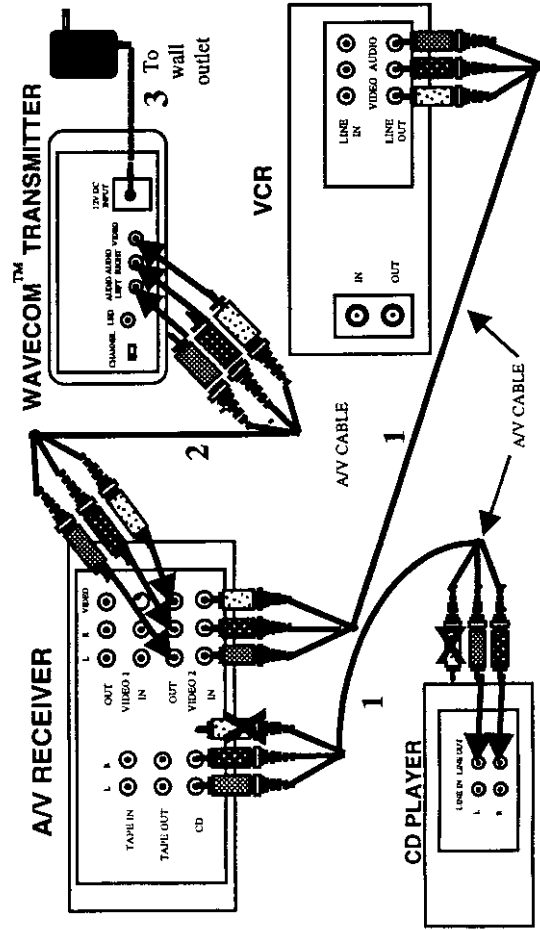


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## How To Transmit Audio/Video from an Audio/Video (A/V) Receiver

Since most audio/video (A/V) receivers have multiple input and output ports, you can easily transmit signals from several audio/video or audio-only components to a remote location using WAVECOM™ Sr. or WAVECOM™ Jr. To transmit from your A/V receiver, follow the instructions below.

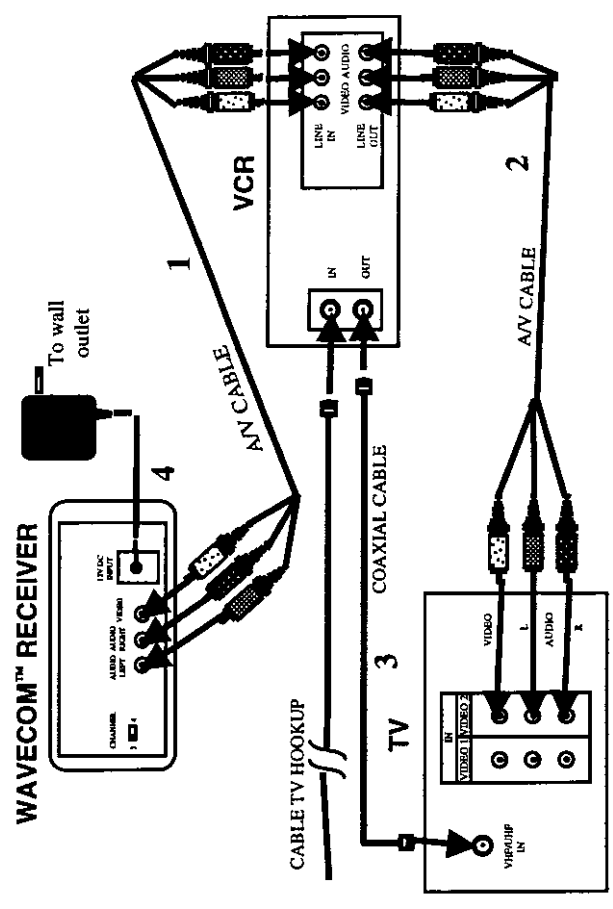
- 1 Use audio/video (A/V) cables to connect the *LINE OUT* ports on any of the components you wish to enjoy in another location to the *AUDIO* and *VIDEO IN* ports on the back of your A/V receiver.
- 2 Make sure the WAVECOM™ *ON/OFF* switch is in the *OFF* position. Connect one set of audio/video (A/V) cables to the *A/V* jacks of the transmitter (Tx 888R or Tx 888) and to the *AUDIO/VIDEO OUT* jacks of the A/V receiver. Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the A/V receiver and the transmitter.
- 3 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the *ON/OFF* switch to *ON* position and channel 1 indicator light should be lit.
- 4 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."
- 5 To transmit audio/video from a particular component connected to the A/V receiver, select that component to be the output of the A/V receiver. Consult the owner's manual of your A/V receiver for further instructions.



## Connecting Receiver to Remote TV through VCR

This setup enables you to record transmitted audio and video on your remote VCR and also enjoy the picture and sound on a remote TV.

- 1 Make sure the WAVECOM™ *ON/OFF* switch is in the *OFF* position. Connect one set of audio/video (A/V) cables to the *A/V* jacks of the receiver (Rx 999R or Rx 999) and to the jacks on your VCR labeled *LINE IN*. Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the WAVECOM™ receiver and the VCR. If the VCR has only a single jack for audio input, connect the white plug to it.
- 2 If your TV has *A/V* input jacks, connect another set of A/V cables to the TV's *A/V* jacks and to the jacks on your VCR labeled *LINE OUT*.
- 3 If your TV has only a single coaxial input port, connect a length of coaxial cable from the TV's *VHF/UHF IN* coaxial connector to the *OUT* coaxial connector on your VCR. To watch cable channels on that TV, connect your cable TV hookup to the *IN* coaxial connector on your VCR.
- 4 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the *ON/OFF* switch to *ON* position and channel 1 indicator light should be lit.
- 5 Locate and orient the WAVECOM™ Sr. or WAVECOM™ Jr. receiver according to the section of this manual titled "Orienting Units for Optimal Performance."

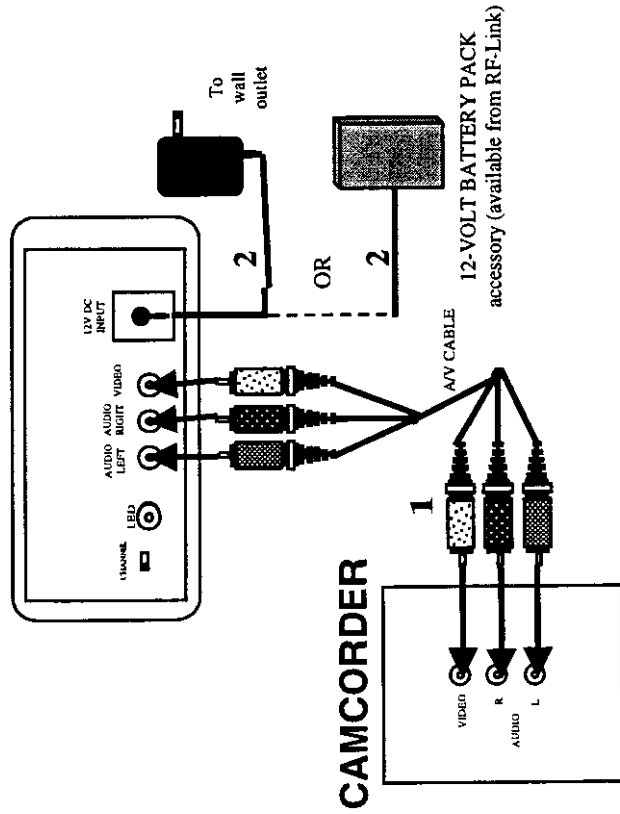


## How To Transmit Audio/Video from Your Camcorder

In conjunction with a camcorder, WAVECOM™ Sr. or WAVECOM™ Jr. becomes a portable wireless security system. First, position the camcorder so that it views the scene you wish to monitor, such as a sleeping baby, your playing children, the elderly, or the disabled. Then, follow the instructions below.

- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of audio/video (A/V) cables to the A/V jacks of the transmitter (Tx 888R or Tx 888) and to the AUDIO/VIDEO jacks of the camcorder. Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the camcorder and the transmitter. If the camcorder has only one output for audio (mono sound only), connect the white plug to that single audio output and to transmitter's AUDIO LEFT jack. (Note: with some camcorders, you may need to use an adapter patch cord that comes with the camera.)
- 2 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit. For portable applications, plug the Portable Battery Pack accessory (sold separately -- see "Accessories" section) into the back of the transmitter.
- 3 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."

## WAVECOM™ TRANSMITTER

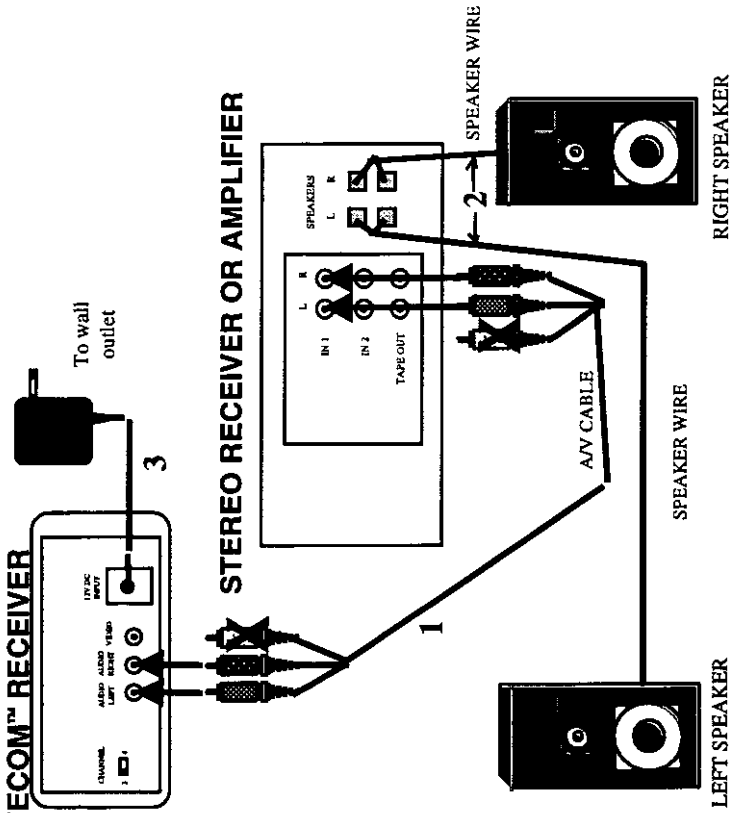


## How To Receive Audio on Any Remote Speakers

You can enjoy wireless sound without using powered speakers as long as you use an amplifier or stereo receiver to boost the signal from the WAVECOM™ Sr. or WAVECOM™ Jr. receiver. This feature allows you to listen to a multiple-CD changer or other audio source on a stereo in another room.

- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of A/V cables to the two audio jacks (red and white only) of the receiver (Rx 999R or Rx 999) and to the IN 1 or IN 2 jacks on your stereo receiver or amplifier. Be sure the red and white plugs match the red and white jacks on both the WAVECOM™ Sr. or WAVECOM™ Jr. receiver and the stereo receiver or amplifier. The yellow video plug is not used.
- 2 Run speaker wire from your stereo receiver or amplifier to your speakers as you normally would.
- 3 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 4 Locate and orient the WAVECOM™ receiver according to the section of this manual titled "Orienting Units for Optimal Performance."

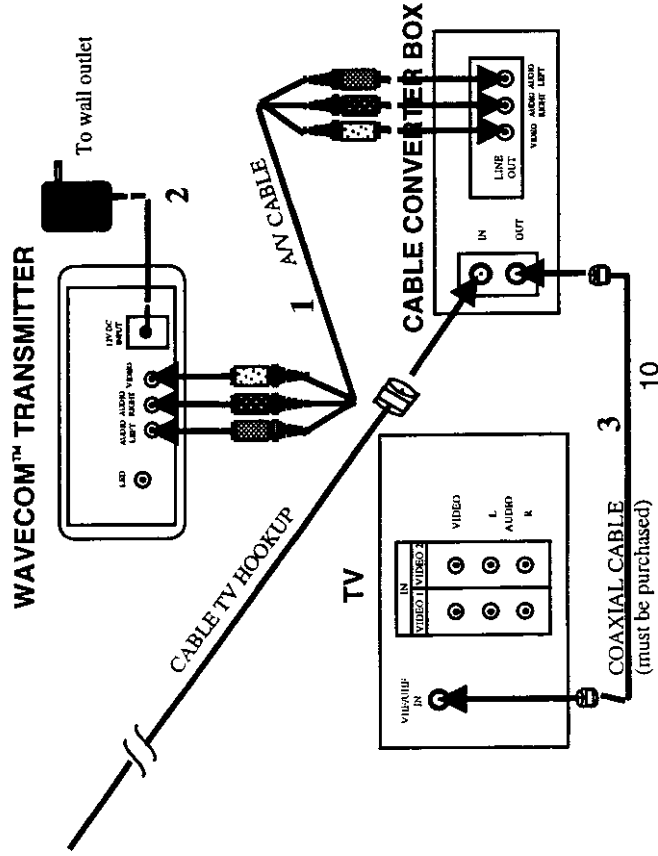
## WAVECOM™ RECEIVER



## How To Transmit Audio/Video from Your Cable TV Hookup

To transmit your cable TV channels, you must have either a VCR or a cable converter box. If you use a VCR, follow the instructions on the previous page for transmitting from your VCR. To use your cable converter box, follow the instructions below.

- 1 Make sure the WAVECOM™ ON/OFF switch is in the OFF position. Connect one set of audio/video (A/V) cables to the A/V jacks of the transmitter (Tx 888 or Tx 888R) and to the A/V jacks on the back of your cable converter box. Be sure the yellow, red and white plugs match the yellow, red and white jacks on both the converter box and the transmitter. If the converter box has only one output for audio (mono sound only), connect one white plug to that single audio output and the other to transmitter's **AUDIO LEFT** jack.
- 2 Plug one end of the provided power adapter into the back of the WAVECOM™ Sr. or WAVECOM™ Jr. transmitter and the other end into any 120-volt wall outlet. Turn the ON/OFF switch to ON position and channel 1 indicator light should be lit.
- 3 To view your cable signal on a nearby TV, connect coaxial cable from the single **OUT** port on the cable converter box to the **VHF/UHF IN** port on your TV.
- 4 Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimal Performance."



## Orienting Units for Optimal Performance

WAVECOM™ Sr. or WAVECOM™ Jr. should be placed on a flat, stable surface to prevent damage to it from falling. For uneven or slick surfaces, such as the top of your TV, audio/video components, or entertainment center, fastener strips have been provided to secure the units (cut the strips into smaller squares with scissors).

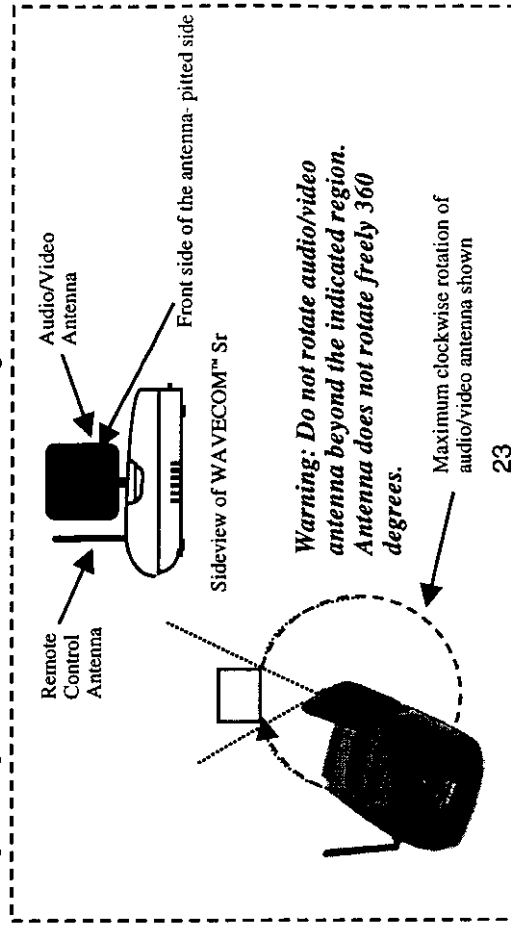
For optimal performance, both the audio/video and remote control antennas should be carefully oriented as described below. In addition, to use the remote extension feature (available with WAVECOM™ Sr. only), see section titled "Using The Remote Control Feature". For maximum operating range, try to minimize the number of obstacles (e.g. your TV or other electronics, large furniture) between the transmitter and receiver units. In addition, try to place the units as high as possible to avoid any possible interference from people walking between the transmitter and the receiver.

### Orienting the Audio/Video Antennas

WAVECOM™ Sr. and WAVECOM™ Jr. broadcast their high-quality audio and video using directional antennas which must be oriented in certain configurations for best results. The 2.4 GHz audio/video antennas have been designed to pivot and have limited rotation in either clockwise or counterclockwise directions.

**Warning: See instruction shown below for rotating audio/video antenna. Rotating antenna beyond the specified range will result in permanent damage to both antenna and the mechanical stopper.**

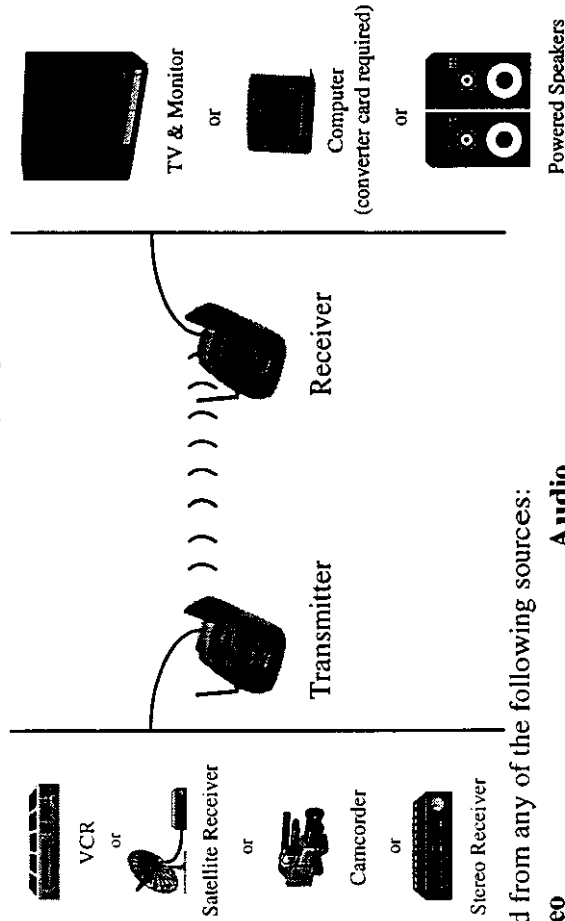
In most situations, the flat pitted face of the A/V antennas on both the transmitter and receiver should be facing one another. Two examples are shown on the next page, labeled **1** and **2**. Since all homes are different, for optimal reception, additional slight pivots or rotations may be necessary. If the transmitter and receiver are less than 10 feet apart, keep the A/V antennas flat in their casings.



## Setting Up Units

Using absolutely no wires, WAVECOM™ Sr. and WAVECOM™ Jr. can send audio or video signals from virtually any sound or picture source to any TV, video monitor or powered speakers using the same connectors as your other electronics.

To enjoy wireless video and audio, just connect the transmitter (Model Tx 888R or Tx 888) to whatever picture or sound source you want to view or hear at another location, and then connect the receiver (Model Rx 999R or Rx 999) to the TV, computer, or powered speakers in that other location. Then turn on the power switch on both the transmitter and receiver and you are ready to go wireless.



Send from any of the following sources:

### Video

- VCR
- Satellite Receiver
- Cable TV
- Laser Disc Player
- Digital Video Disc
- Wireless Cable
- Camcorder
- Security Camera (CCD)
- Computer

### Audio

- Compact Disc Player or Changer
- Stereo Receiver
- Cassette Deck

### Powered Speakers

## Using the Remote Control Feature (WAVECOM™ Sr. only)

WAVECOM™ Sr. not only allows you to send crisp audio/video from one area to another, it also gives you the ability to control the source using your existing remote control device (feature not available with WAVECOM™ Jr.). The infrared (IR) signal emitted by your remote control is converted to a radio frequency (RF) signal at the WAVECOM™ Sr. receiver and then sends it back to the WAVECOM™ Sr. transmitter, where the RF signal is converted back to the original IR signal and used to control the audio/video source (see below).

### How To Use the IR Extender Mouse

The IR extender mouse connects to the WAVECOM™ Sr. transmitter through its own special connector plug. The extender mouse emits a high intensity IR signal, bathing your components with the remote signal. To use the IR extender mouse, follow the instructions below.

- 1** Plug the IR extender mouse into the jack located on the backside of the WAVECOM™ Sr. transmitter housing. The jack for the IR extender mouse is located to the left side of the left audio jack (white).
- 2** Locate the IR sensor on the source component you wish to control. If the sensor is not clearly labeled on the front of the component, either consult the owner's manual for that component or perform a simple test to find it: point your remote control at different areas on the front of the component from less than 1 inch away. When it works, you have found the approximate location of the IR sensor.
- 3** Orient the IR extender mouse housing so that it points in the general direction of the IR sensors of the source components you wish to control. Cut a piece of provided fastener strip to secure the IR extender mouse to the stereo cabinet shelving or door in this position.
- 4** Position the WAVECOM™ Sr. receiver so that your remote control signal can strike the IR window on the bottom front of the unit. To use your remote control, point it at the front of the receiver.

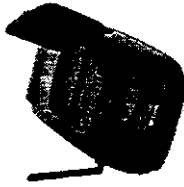
The following pages first show you how to connect the WAVECOM™ Sr. and WAVECOM™ Jr. transmitter to any of these source components and then demonstrate how and where to connect and position the WAVECOM™ Sr. and WAVECOM™ Jr. receiver.

## List of Packaged Contents

The following elements should be included in the box. Please check that you have them all before installation.

### 1. One transmitter (Model Tx 888R or Tx 888)

Transmits 2.4 GHz wireless audio/video and receives UHF remote control signal from the receiver (WAVECOM™ Sr. only. Model Tx 888R)



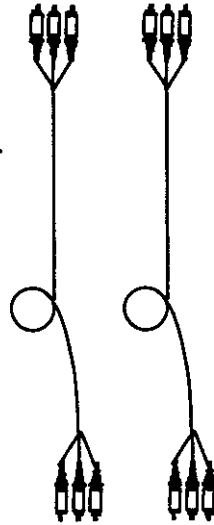
### 2. One receiver (Model Rx 999R or Rx 999)

Receives 2.4 GHz wireless audio/video and transmits UHF remote control signal back to the transmitter (WAVECOM™ Sr. only. Model Rx 999R)



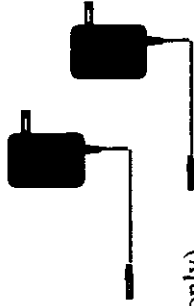
### 3. Two audio/video (A/V) cables

Connects transmitter and receiver to your audio/video components



### 4. Two power adapters

Provide +12 VDC power to units



### 5. Infrared Extender Mouse (WAVECOM™ Sr. only)

Emits infrared remote control signals towards your source components



### 6. Fastener strips for mounting IR extender mouse and securing units



## Troubleshooting

Please read this owner's manual carefully and follow the steps described in it. If you still have difficulties, consult the following table. It will guide you through the most common problems and their solutions.

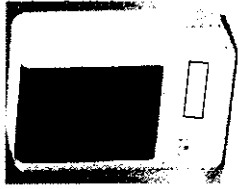
<p>No picture or sound</p>	<ul style="list-style-type: none"> <li>• Check the power on/off switches on the transmitter and receiver</li> <li>• Check power switches on the remote TV and video source (VCR, laser disc player, satellite receiver, etc.)</li> <li>• Make sure power plugs are pushed all the way in</li> <li>• Check all cable connections</li> </ul>
<p>Interference: Noisy picture or audio</p>	<ul style="list-style-type: none"> <li>• Adjust receiver antenna orientation (see section on "Orienting Units for Optimal Performance" in this manual)</li> <li>• Adjust transmitter antenna orientation (see section on "Orienting Units for Optimal Performance" in this manual)</li> <li>• Select a different channel by pushing the channel selector button on both transmitter and receiver so that the channels match</li> <li>• If using a microwave oven, turn it off</li> <li>• Remove microwave oven from path between transmitter and receiver</li> </ul>
<p>Remote control extender does not work (WAVECOM™ Sr. only)</p>	<ul style="list-style-type: none"> <li>• Check the path between the transmitter and the audio/video source and clear unnecessary obstructions</li> <li>• Make sure the IR extender mouse is pointing toward the sensor on the source component you want to control</li> <li>• Adjust remote control antennas (see section on "Orienting Units for Optimal Performance" in this manual)</li> </ul>

## Care and Maintenance

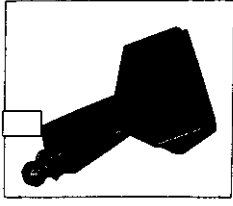
Clean the outside plastic packaging with a soft cloth lightly moistened with mild soap and water. Never use any abrasive scouring powder or solvent.

## Accessories

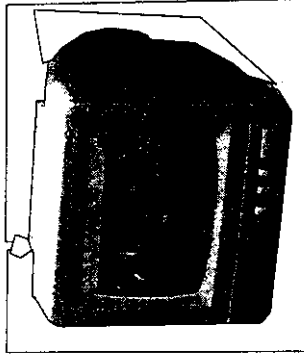
- Miniature CCD Camera (Model PWCCC-100)



and clip to hold it in place  
(included with CCD Camera)



- 5" Black and White TV Monitor (Model PWCBW-055)



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For more information or to place an order, call or write to:

### North & South America

**RF-Link Technology, Inc.**  
411 Amapola Avenue  
Torrance, CA 90501  
USA  
310-787-2328  
310-787-2323 Fax

### Asia, Europe, Australia & Africa

**RF-Link Systems, Inc.**  
1F, No.9, Chan Yen Road I  
Science-Based Industrial Park  
Hsinchu, Taiwan, R.O.C.  
886-35-799-999  
886-35-776-699 Fax

**RF-Link Systems, Inc.**  
8th Floor, No. 19, Section 3  
Nankang East Road  
Taipei, Taiwan, R.O.C.  
886-25-165-936  
886-25-046-508 Fax



**Important Safety Precautions**

- To prevent fire or shock hazard, do not expose this product to rain or moisture. Do not use near a bath tub, wash bowl, sink, or laundry tub; do not use in a wet basement or in or around a swimming pool.
- To avoid electrical shock, do not open the case of this product.
- Operate this product using only the power supply included with it or provided as an accessory.
- Do not overload electrical outlets or extension cords as this can result in fire or electric shock.
- Refer servicing to qualified personnel only.

**Caution:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Disclaimer**

This product is designed for lawful use as a wireless audio and video sender from one location in the home or office to another location. RF-Link Technology Inc. hereby advises the consumer to consult with local officials and other legal authorities regarding the proper use and application of this product in compliance with all applicable state and federal laws. RF-Link Technology Inc. shall not be responsible for any misuse or unlawful application of this product by any individual or entity under any circumstances.

**Government Approval**

**USA**

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.

**Canada**

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## **APPENDIX C**

*Information Supplied to Applicant*

INFORMATION PERTAINING TO EQUIPMENT MANUFACTURED  
AFTER COMPLIANCE TESTING

Manufacturers should be aware that the FCC requires all products manufactured and shipped be compliant with its Rules. The testing of an early production unit is sufficient to meet the basic requirements either for Verification or Certification. However, seemingly small changes to the product design can make a significant difference in the product's EMI characteristics. Such changes include the changing of logic, the addition of options, the changing of power supplies, interboard cable routing or other changes normally falling under the category of value engineering. Thus, it is prudent that manufacturers have an established Quality Assurance program to spot check their products on a periodic basis, either based upon time of quantities produced. Obviously, a change in the engineering design should be sufficient justification for a repeated test.

The Quality Assurance test need not be formal Verification or Certification such as is required during the initial production of the product. However, it should be sufficient in scope to assure that the EMI characteristics of the product have not changed to the degree that the product exceeds the FCC Limits. If a new model of a product is produced, it must undergo full Verification or Certification testing and, in case of Certification, be filed with the FCC.

It is expected that the FCC will place greater emphasis and resources in spot checking commercially available products. If a product is found not to be compliant with the Limits specified in Part 15, Subpart J, the manufacturer will be subject to the appropriate penalties imposed by the Commission. The initial Certification or Verification is sufficient to justify initial production. The additional quality assurance testing performed is the manufacturer's responsibility to assure continued compliance.