
2.4GHz WIRELESS AV LINK

OWNER'S MANUAL
(PLEASE READ BEFORE USE)



PLEASE CONSULT THE BACK COVER OF THIS
OWNER'S MANUAL FOR MODEL AND FEATURE

FCC CE 0336 !

■ Important-Safety Precautions

This device of which operation is subject to the following two condition

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

- To prevent fire or shock hazard, do not expose this device to rain or moisture. Do not use near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
- To avoid electrical shock, do not open this device.
- This device should be operated to use only the power supply included with it or provided as an accessory.
- Do not overload wall outlets and extension cords as this can result in the risk of fire or electrical shock.
- Do not attempt to service this device yourself. 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.

■ Note:

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, or BZT and CE EMC directive. 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, if not installed and used in accordance with the instruction, it 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.

A. Checking Contents of Box

Checks to make sure that all of the items shown as below are included with your 2.4 GHz Wireless Video Sender System. If something is missing, please contact your dealer as soon as possible.



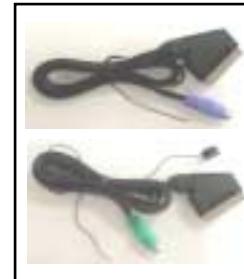
1. **Transmitter** ×1
2280T



2. **Receiver** ×1
2280R



3. **Power adapter (optional)** ×2
⚠
□ (230VAC to 9VDC) or
□ (120VAC to 9VDC)
DC in Jack (⊖—⊕ 9V --- 300mA)



4. **Cable**
□ MINI DIN to SCART connector A/V cable (purple) ×1
□ MINI DIN to SCART connector A/V cable (green) ×1
(One for transmitter, One for receiver)

5. **Owner's manual** ×1

B. Introduction to 2.4GHz Wireless AV Link

This sender system is a wireless audio/video sender that uses advanced wireless communication technology to deliver consistently sharp audio and video up to 100 meters away. By transmitting at a very high frequency (2.4 GHz), it avoids the crowded 900 MHz band used by many cordless telephones and other wireless audio/video transmitters. Its superior quality is due to wide-band FM rather than AM signal modulation.

It also integrates an UHF remote control extender to allow you to control the audio or video source from another room using your existing remote controller.

Using sender system, you can enjoy greater convenience and security in many ways:

General Application

- Watch the movie you rent on any TV in house without moving your VCR, laser disc player or running messy cables.
- Watch cable or satellite programs on any TV in house.
- Listen to stereo-quality music from your receiver on any powered speakers inside or outside the house.
- Uses multi-receivers for broadcasting to numerous TV sets in other rooms.
- Show computer images on a remote TV. (Additional equipment required)

Safety & Security Application:

- Applies as a wireless security system.
- Monitor your sleeping baby, playing children, the elderly, or the disabled on TV using your existing camcorder.
- See who is outside the door on TV through your camera or miniature CCD camera.
- Monitors and records meeting from another room.
- And many more uses!

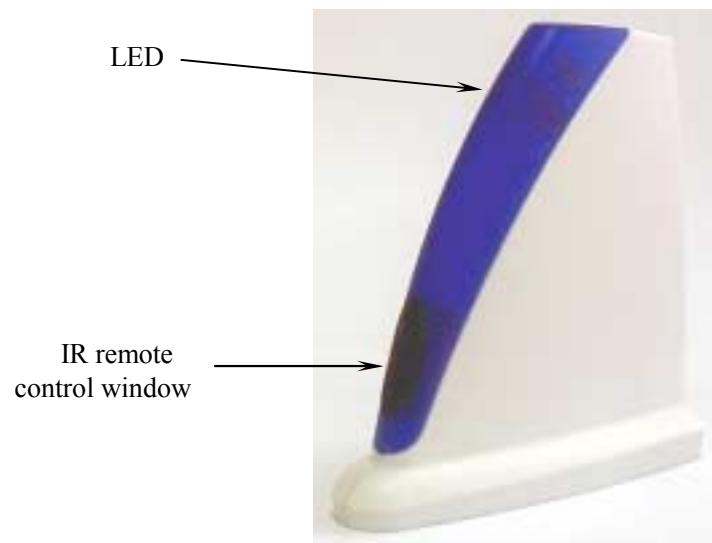
■ The Using Attention

1. The outlet of the power supply must have the same voltage as the local area.
2. Be sure the transmitter and the receiver were connected to the equipment correctly (e.g. Connect the transmitter to the VCR, and the receiver to the TV).
3. When switch is off from transmitter or receiver, it needs to wait for a few seconds in order to restart again.
4. When two equipment or more is used at the same time, used different channels. But a transmitter can be used with several receivers at the same time.
5. When the equipment is operating, please do not use a microwave oven near by.
6. The remote controller should face to the receiver IR remote control window, and the transmitter IR extender should face to the source A/V equipment. The IR remote has to be within the standard distance.

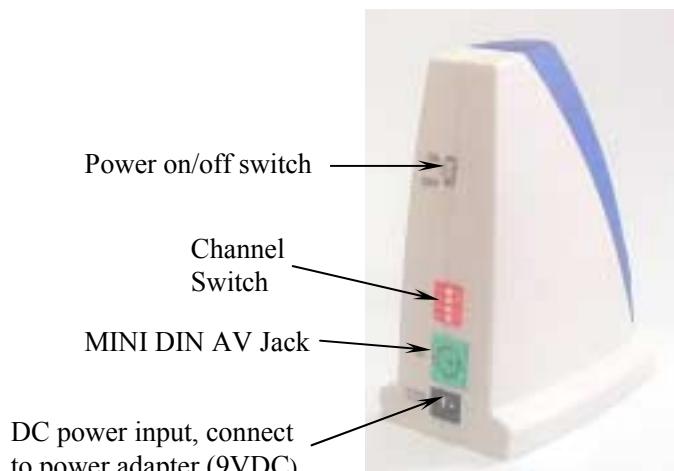
C. Product Layout

The following illustrations show the names of each component, button and switch connectors on the transmitter and receiver.

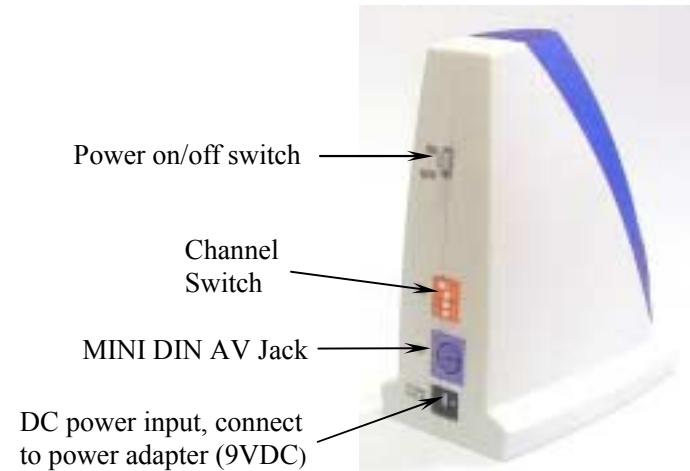
FRONT VIEW FOR RECEIVER



REAR VIEW FOR TRANSMITTER

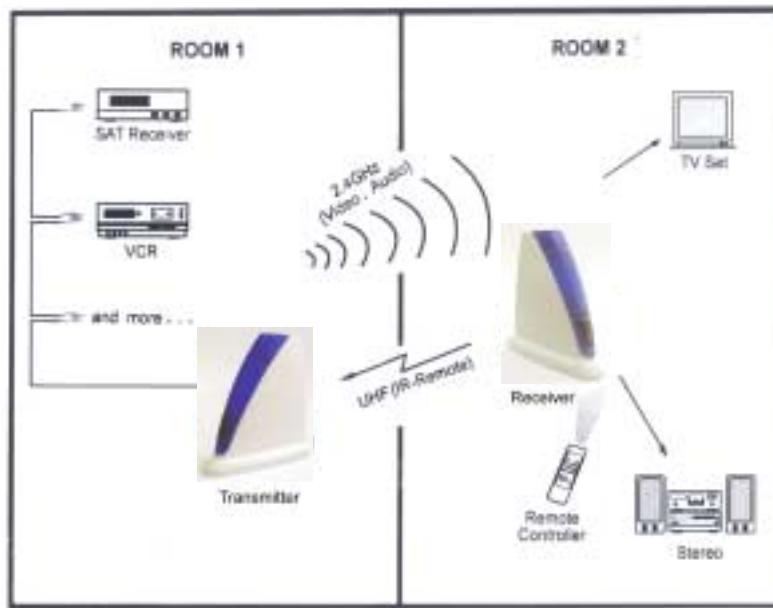


REAR VIEW FOR RECEIVER



D. Setting Up 2.4GHz wireless AV Link

To enjoy wireless video and audio, just connect the transmitter to whatever audio/video source you want to enjoy from another location, and connect the receiver to the TV, monitor or powered speakers in that other location.



A/V link system is suggested to connect to following A/V equipment use:

Video sources:

- VCR
- Cable set-top box (with A/V output)
- Satellite Receiver
- Laser Disc Player
- Camcorder or Miniature CCD Camera
- Digital decoder
- DVD

Audio sources:

- Compact Disk player or Changer
- Stereo Receiver
- Cassette Deck

Make sure the ON/OFF switch is in the 「OFF」 position before connection.

■ How To select channel

Transmitter:

CH1	CH2	CH3	CH4	Channel	LED
ON	ON	ON	ON	CH1	Long light
OFF	ON	ON	ON	CH2	Long light
OFF	OFF	ON	ON	CH3	Long light
OFF	OFF	OFF	ON	CH4	Long light
OFF	OFF	OFF	OFF	CH1	Long light

CH1 have the first priority.

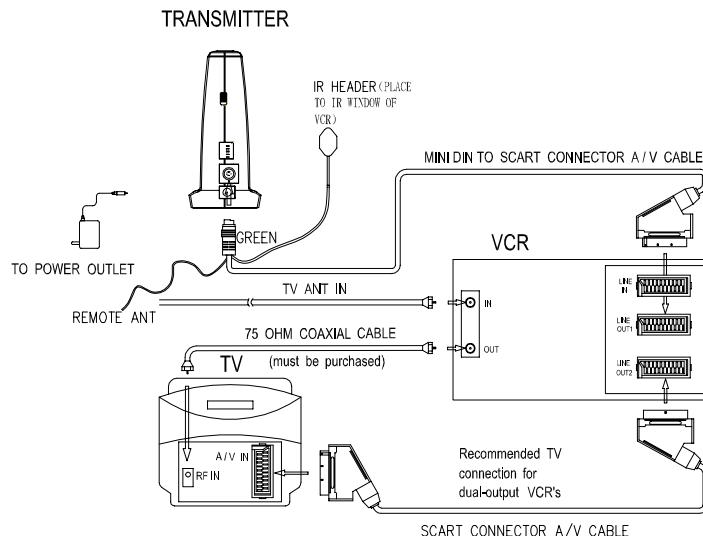
Receiver:

CH1	CH2	CH3	CH4	Channel	LED
ON	ON	ON	ON	Circle scan CH1~4	Circle flash CH1~4
OFF	ON	ON	ON	Circle scan CH2~4	Circle flash CH2~4
OFF	OFF	ON	ON	Circle scan CH3~4	Circle flash CH3~4
OFF	OFF	OFF	ON	CH4	Long light
OFF	OFF	OFF	OFF	CH1	Long light

The LED long light when work in single channel, When two or more switches on, it work in scanning mode, and the LED flash accordingly, switches can be selected arbitrarily.

■ How To Transmit Audio/Video from Your VCR

1. Connect VCR and transmitter using the provided "MINI DIN TO SCART A/V CABLE" with green MINI DIN plug, plug SCART to VCR output jack, MINI DIN to transmitter. Please follow the instruction figure below.
2. Plug one end of the power adapter into the back of the transmitter and the other end into any 230-volt wall outlet (or 120-volt). Use only the adapter provided.
3. If your VCR has only one set of A/V output jacks and you want to use it with a nearby TV. Connect 75ohm RF coaxial cable from the modulator signal OUT port on your VCR to the RF IN port on your TV. (Note: In order to also view cable programs on that TV, connect your incoming cable TV source to the IN port of the VCR.)
4. Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimum Performance" for best performance of transmitter.

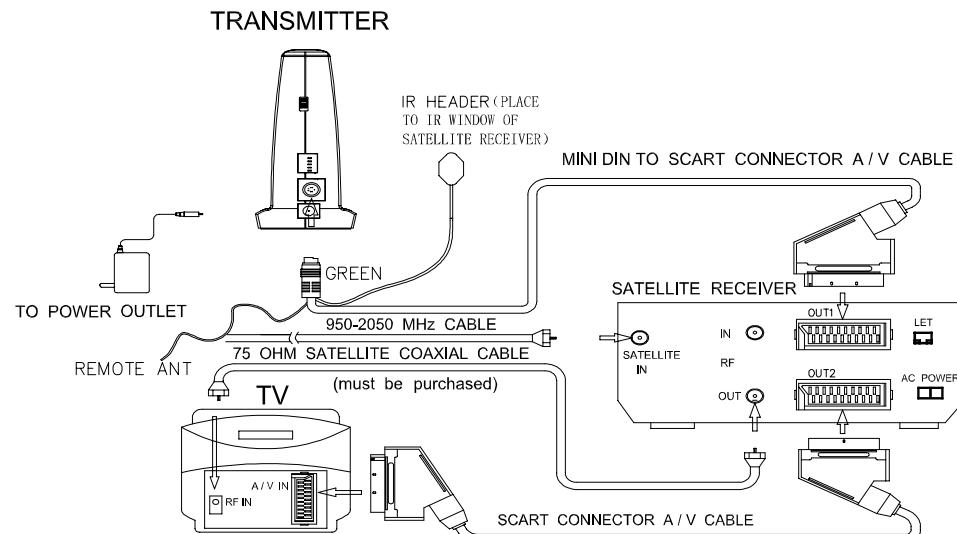


Units for Optimum Performance for best performance of transmitter.

■ How To Transmit MINI DIN from Your Satellite Receiver

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

1. Connect satellite receiver and transmitter using the provided "MINI DIN TO SCART A/V CABLE" with green MINI DIN plug, plug SCART to any SCART jack of satellite receiver, MINI DIN to transmitter. Please follow the instruction figure below.
2. Plug one end of the power adapter into the back of the transmitter and the other end into any 230-volt wall outlet (or 120-volt). Use only the adapter provided.
3. If your satellite receiver or laser disc player has only one set of A/V output jacks, in this case, please connect 75ohm RF coaxial cable from satellite receiver's modulator output port to TV RF input terminal.
4. Locate and orient the transmitter according to the section of this manual titled "Orienting Units for Optimum Performance" for best performance of transmitter.



■ How To Receive Wireless Audio/Video Signals on Your TV

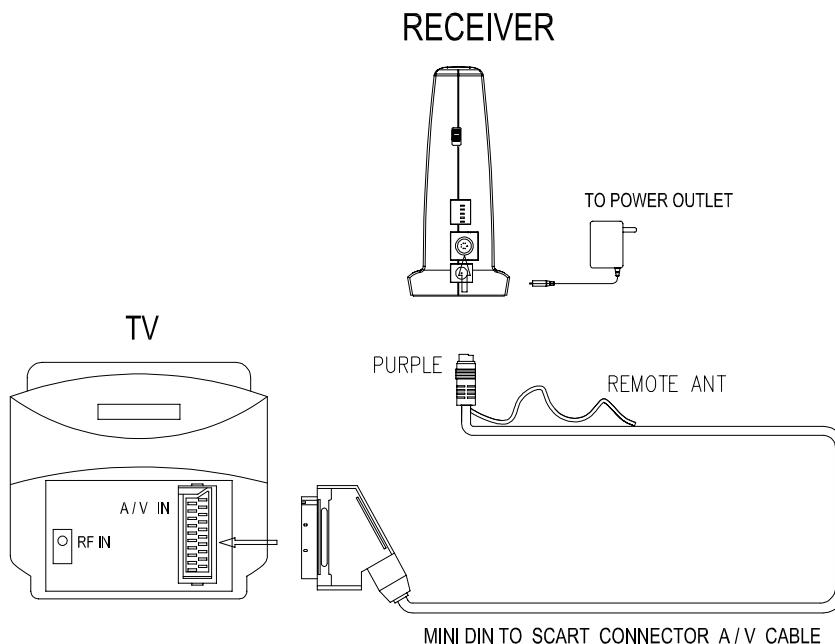
There are two ways to receiver wireless audio/video signals on your remote TV (TV in another location such as in bedroom, kitchen).

- 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 sender, 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

Connect TV and receiver using the provided "MINI DIN TO SCART A/V CABLE" with purple MINI DIN plug, plug SCART TO TV, MINI DIN to receiver. Please follow the instruction figure below.



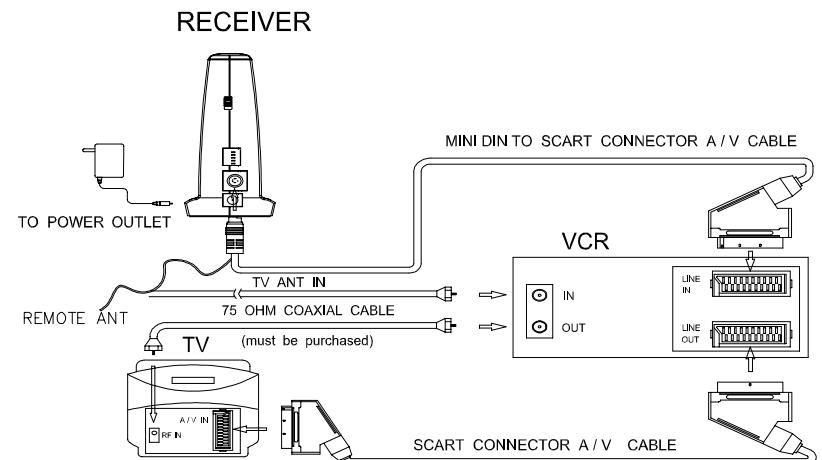
■ Connecting Receiver to Remote TV through VCR

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 at the same time.

1. Connect VCR and receiver using the provided "MINI DIN TO SCART A/V CABLE" with purple MINI DIN plug, plug SCART to the SCART input of VCR, MINI DIN to receiver. Then connect TV and SCART output of VCR using a "SCART to SCART A/V CABLE" (with must be purchased additionally). Please follow the instruction figure below.
2. If your TV has A/V input jacks, connect another set of A/V cables to the TV's A/V input jacks and to the A/V output jacks on your VCR.
3. If your TV does not have any A/V input jacks, please connect a 75ohm coaxial cable from the TV's antenna in (or RF in) to VCR's modulator output.

This feature is optional

4. Plug one end of the sender power adapter into the back of the receiver and the other end into any 230-volt (or 120 volt) wall outlet, DC in jack 9V/300mA. Use only the adapter provided.
5. Locate and orient the receiver to best video and sound quality please according to the section of this manual titled "Orienting Units for optimum Performance".



E. Orienting Units for Optimum Performance

This sender system should be placed on a flat, stable surface to prevent damage to it from falling.

For optimum performance, both the audio/video and remote control antennas should be carefully oriented as described below. In addition, to use the remote extension feature, the transmitter itself must be specially oriented so it can relay the converted remote control signal back to the audio/video source (see following section titled "Using The Remote Control extension Feature"). For maximum operating range, try to minimize the number of obstacles (e.g. your TV or other electronics, large furniture) where between the transmitter and receiver units.

THE AUDIO/VIDEO QUALITY ADJUST

Sender broadcast their high-quality audio and video using hidden omnidirectional antennas, only need to put the transmitter and receiver vertically and make some adjustments, until picture and sound quality became perfect.

F. Using the Remote Control Feature

This sender system 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. It converts the infrared (IR) signal emitted by your remote control to a radio frequency (RF) signal in UHF band at the receiver and sends it back to the transmitter where the RF signal is converted back to the original IR signal and beamed to the audio/video source.

There is one way to get your source A/V equipment to be controlled by using existing remote control through remote control feature:
There's a IR output cable wiring of 2280T, put the IR end close to IR receiving part of A/V source.

Sometimes, it may be difficult or even impossible to orient the transmitter unit such that it can be "seen" (means face-to-face) by the A/V equipment you wish to control. Perhaps there is no good surface that allows for this or perhaps you wish to control. Or perhaps you wish to remotely control A/V equipment in different locations

without re-orienting the transmitter. So, in this case, to use in extender will be more convenient.

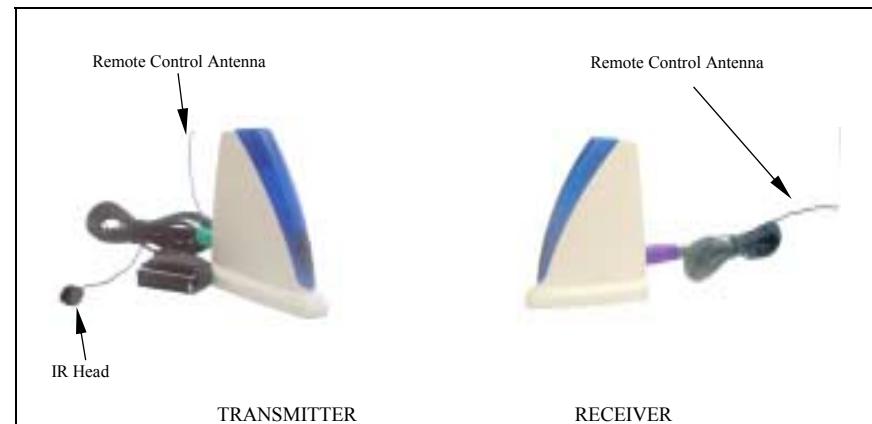
In order to obtain optimum performance of the remote control extender, please operate as follow:

At the transmitter: Put IR Header near opposite to AV source IR receiver, and keep remote antenna (outlet of A/V cable), in loose state with its end away from cable.

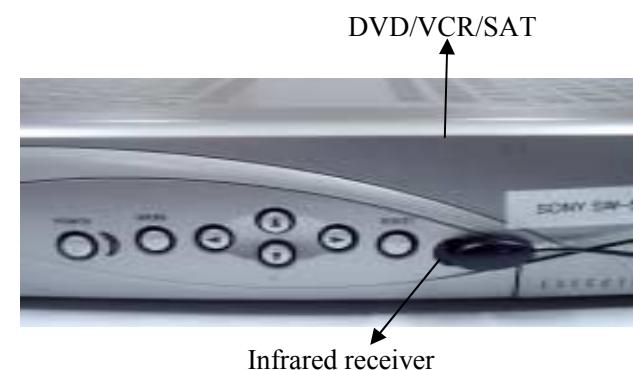
At the receiver:

Direct remote control straightly against IR receiver in a distance of 5 meter, and keep remote antenna (outlet of A/V cable), in loose state with its end away from cable.

Sketch map as follow:



How to orienting the remote control antenna



Infrared receiver

G. Troubleshooting, Care and maintenance

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.

Problem	Possible solutions
No picture or sound	<ul style="list-style-type: none"> • Check all cable connections. • Make sure power plugs are pushed all the way in. • Check power switches on the remote TV and Video source. (VCR, laser disc player, satellite receiver, ect.) • Check the power on/off switches on the transmitter and receiver.
Interference: Noisy picture or audio	<ul style="list-style-type: none"> • Adjust receiver and transmitter antenna orientation. (see section on "Orienting Units for Optimum Performance" in this manual) • Select a different channel by pushing the channel selector button on both transmitter and receiver so that the channels match. • If using a microwave oven, turn it off. • Remove microwave oven from path between transmitter and receiver.
Remote control extender does not work	<ul style="list-style-type: none"> • Check the path between the transmitter and the audio/video source and clear any obstructions. • Check to see if the IR window on the bottom front of the transmitter is blocked. • Make sure IR extender is properly rotated in the A/V equipment you wish to control. • Adjust remote control antennas. (see section on "Using the Remote Control Feature " in this manual)

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

H. Specifications

Transmitter:

Operating Frequency Band	2.400GHz~2.4835GHz
Output Level	90 dB μ V/m at 3 meters
Modulation	FM (video and audio)
Video Input Level	1V p-p @ 75 ohm
Audio Input Level	1V p-p @ 600 ohm (STEREO)
Input Port	MINI DIN 6 PIN socket
Antenna	Hidden omni-directional
IR-remote IR output	940nm with ON/OFF keying
Power consumption	9V DC, 300mA
Dimension	105mm×52mm×110mm
Weight	130g

Receiver:

Operating Frequency Band	2.400GHz~2.4835GHz
Noise Figure	3.5dB
Video Output Level	1V p-p @ 75 ohm
Audio Output Level	1V p-p @ 600 ohm (STEREO)
Output Port	MINI DIN 6 PIN socket
Antenna	Hidden omni-directional
IR-remote Modulation	ASK
Transmit Frequency	433.92 MHz
Infrared freq. Input	35 KHz ~41 KHz
Power consumption	9V DC, 300mA
Dimension	105mm×52mm×110mm
Weight	140 g

System:

Operational range	up to 100 meter (line of sight)
Remote control range	up to 50 meter (line of sight)
Operating temperature	10°C~50°C (14 F~122 F)

• All specification subject to change without notice