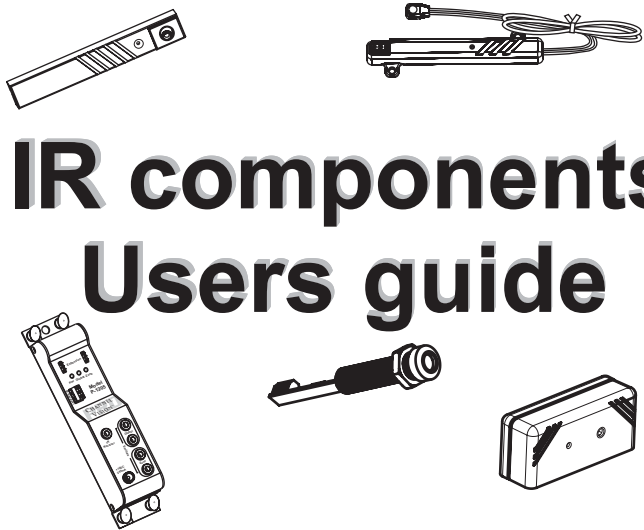


# CHANNEL VISION™

## IR components Users guide



### CHANNEL VISION Limited Warranty

Channel Vision Technology will repair or replace any defect in material or workmanship which occurs during normal use of this product with new or rebuilt parts, free of charge in the USA, for two years from the date of original purchase. This is a no hassle warranty with no mail in warranty card needed. This warranty does not cover damages in shipment, failures caused by other products not supplied by Channel Vision Technology, or failures due to accident, misuse, abuse, or alteration of the equipment. This warranty is extended only to the original purchaser, and a purchase receipt, invoice, or other proof of original purchase date will be required before warranty repairs are provided.

Mail in service can be obtained during the warranty period by calling (800) 840-0288 toll free. A Return Authorization number must be obtained in advance and can be marked on the outside of the shipping carton.

This warranty gives you specific legal rights and you may have other rights (which vary from state to state). If a problem with this product develops during or after the warranty period, please contact Channel Vision Technology, your dealer or any factory-authorized service center.

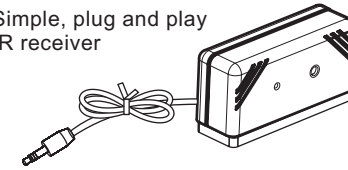
500-127

### Plasma-proof IR-Receivers

All Channel Vision IR receivers are plasma-proof and work with IR signals from 30kHz to 60kHz.

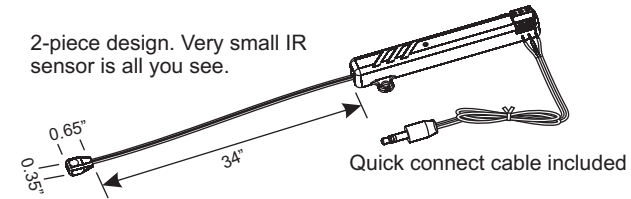
#### IR-2301 Table top IR receiver

Simple, plug and play IR receiver



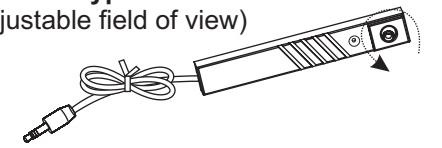
#### IR-2400 2-piece mini IR receiver

2-piece design. Very small IR sensor is all you see.



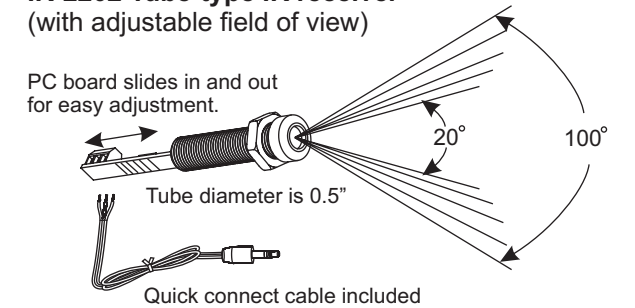
#### IR-2105 Stick-type IR receiver (with adjustable field of view)

Swivel shade rotates to point toward a specific area of the room for added rejection of optical interference.

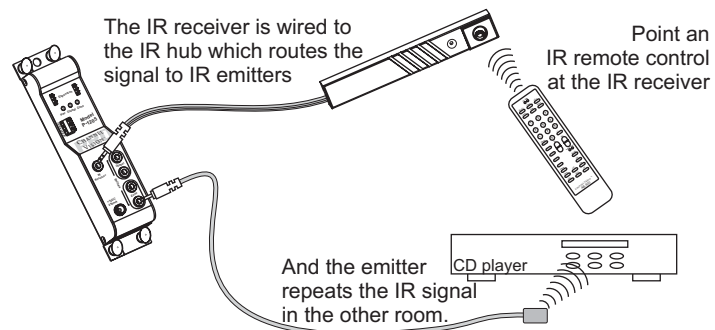


#### IR-2202 Tube-type IR receiver (with adjustable field of view)

PC board slides in and out for easy adjustment.



#### How IR repeating works



Be sure the emitter is attached directly over the component's IR receiver. To locate the IR receiver, shine a flashlight into the unit and look for the sensor.

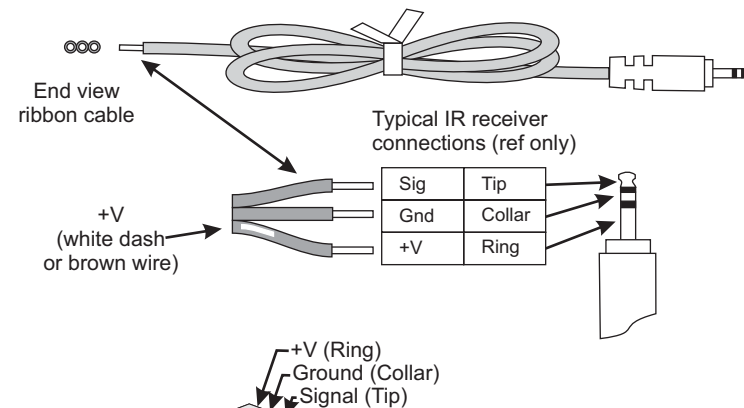
#### IR Receiver Specifications: (typical)

- Power Supply Voltage:** 8 - 12 VDC
- IR Frequency range supported:** 30 kHz - 60 kHz
- \*Max. wire distance from IR hub:** 200 ft. (24 AWG)
- IR pickup range:** 40 ft. @ 38kHz, 25 ft. @ 56kHz

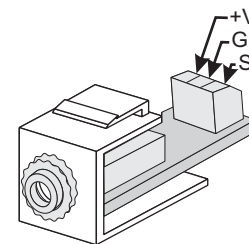
Specifications subject to change without notice.

\*To extend wire, simply cut and splice in a longer 3-conductor wire (CAT5 will work). Be sure to follow the wiring configuration above.

#### IR receiver wire pinout



#### G-IRBW, J-IRBA, & J-IRBI Jack inserts to fit Channel Vision wall plates.



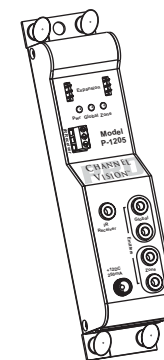
#### Wiring for specific applications

Application	Ring	Collar	Tip
IR Receiver	+ Voltage	Ground	IR Signal
IR Emitter	N.C.	Ground	IR Signal
Audio	Ground	Right Sig.	Left Sig.

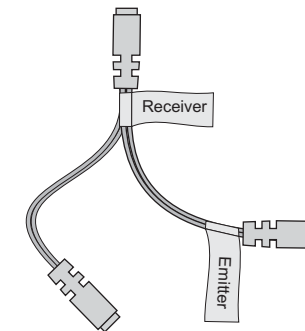
Note: N.C = No Connection.

### IR-Hubs and accessories

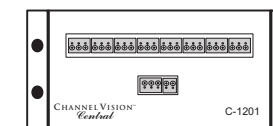
#### P-1205 Amplified IR-Hub



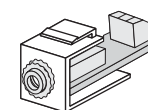
#### IR-1200 Simple IR-Hub



#### C-1201 IR-Receiver Termination Module



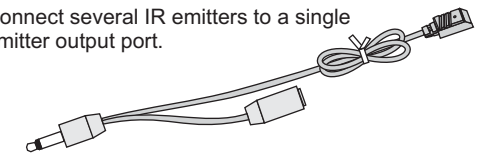
#### G-IRBW Wall Plate Insert Connector



### IR-emitters

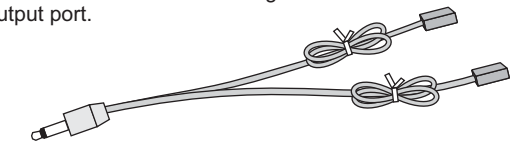
#### IR-3003 Expandable IR Emitter

Connect several IR emitters to a single emitter output port.



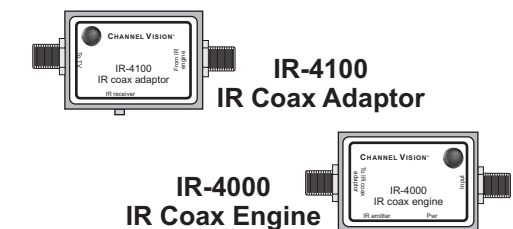
#### IR-3002 Dual Head IR Emitter

Control two devices with a single emitter output port.



### IR-on-coax

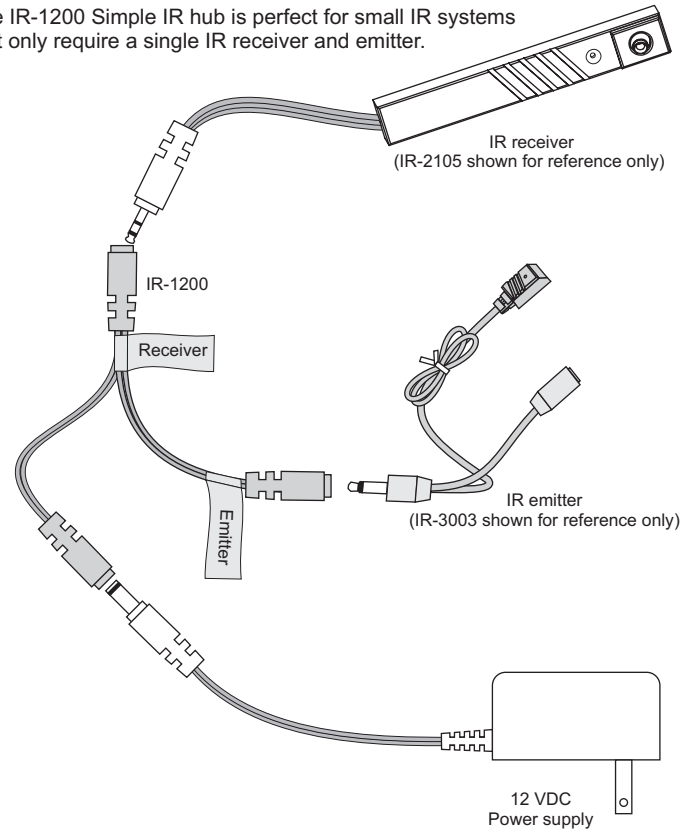
Create an IR system using your existing coax cable.



Power as many 8 IR receivers with one IR-4000.

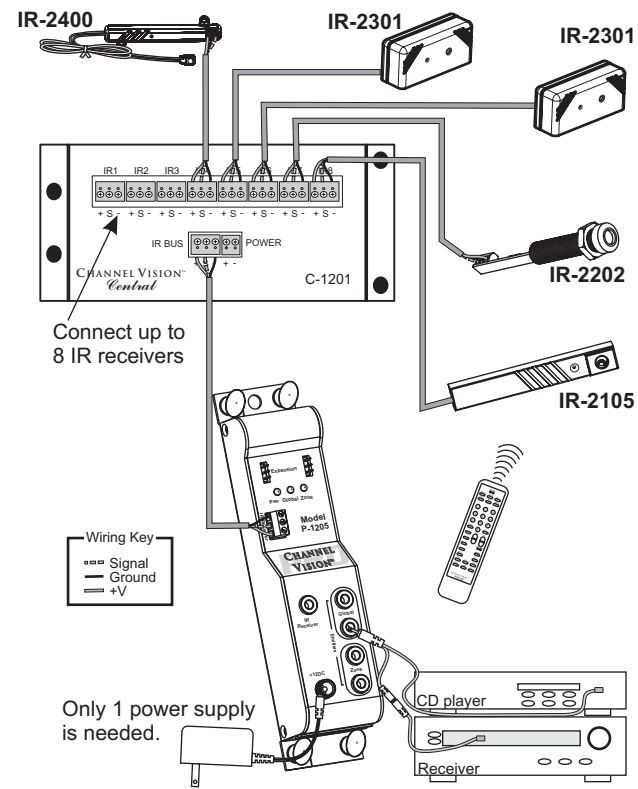
### Simple system

The IR-1200 Simple IR hub is perfect for small IR systems that only require a single IR receiver and emitter.



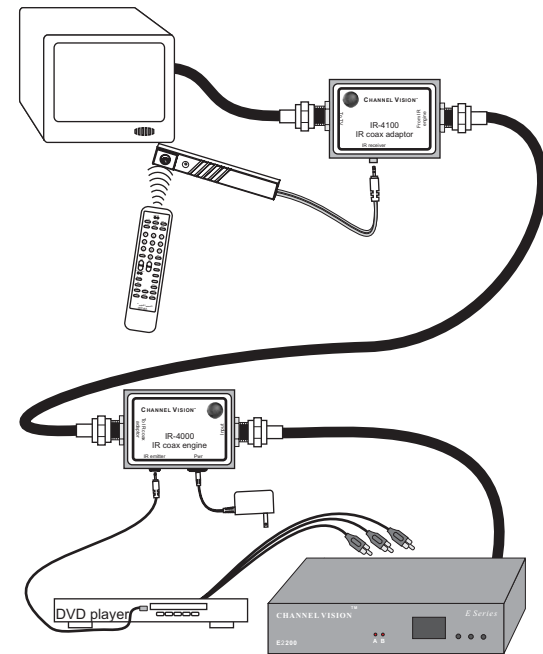
### Connecting multiple receivers to a single hub

IR systems may include several different styles of IR receivers depending on the specific application in each room. The C-1201 joins all the signals from the IR receivers and outputs the to the P-1205.

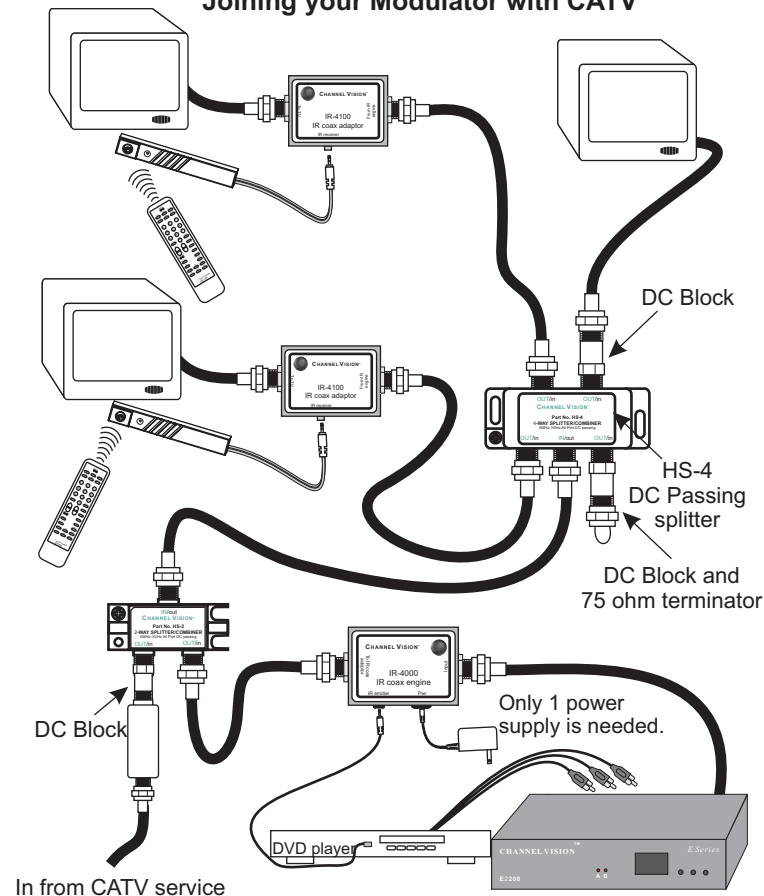


### Basic IR-on-coax Setup

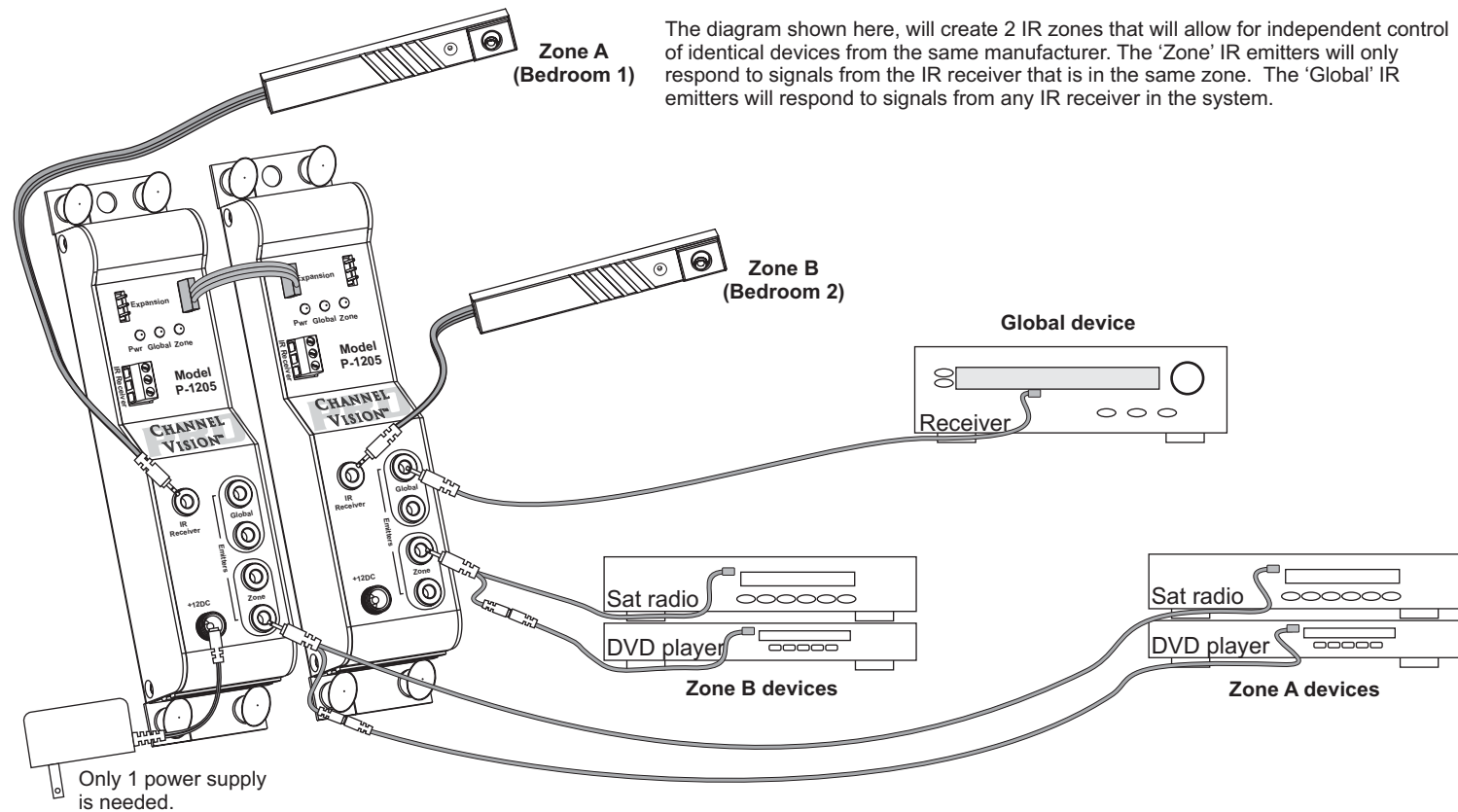
A basic IR system, like the one shown below, is often used when an audio/video signal is distributed to a remote TV location using an RF modulator. The IR-4100 is located near the TV, providing a connection for an IR receiver, and the IR-4000 is located near the audio/video source, providing an IR emitter output.



### Joining your Modulator with CATV



### Zoned IR system



The diagram shown here, will create 2 IR zones that will allow for independent control of identical devices from the same manufacturer. The 'Zone' IR emitters will only respond to signals from the IR receiver that is in the same zone. The 'Global' IR emitters will respond to signals from any IR receiver in the system.

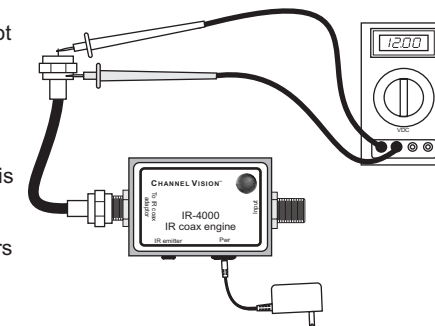
### General Troubleshooting for IR Systems

If your IR system is not working:

1. Try using your remote control directly on the source component (without using IR repeating). Make sure there's not a simple problem such as weak batteries in the remote control.
2. Try controlling a different device to see if the problem only occurs when attempting to control a specific device. There are some devices that use unusual IR frequencies that these IR receivers cannot detect.
3. Make sure you have positioned the IR emitter over the IR sensor on your equipment. It may be difficult to locate; you may find it helpful to have another person use the remote through one of the IR receivers while you slowly move the IR emitter across the face of the component, when you are directly over the IR sensor, your equipment should respond to the IR signals from the emitter. Use the provided double stick tape to attach the emitter to your equipment at that location.
4. Sometimes signals from the IR emitter can be too strong for the sensor in your component. If you suspect this, hold the emitter a few inches away from your component and see if it responds. If it does, you can place an extra piece of foam tape (which is provided for attaching the emitter) directly over the emitters LED. This will attenuate the signal and solve the problem.

### Troubleshooting Coax IR systems

If your coax IR system is not working, check to see if the IR engine is feeding approximately 12 Volts DC onto the coax between the shield and center pin. (Any voltage between 8-12VDC is OK). If there is no voltage between the center pin and shield, check the connectors on each end of the coax.



If you are trouble shooting a whole-house IR system and you measure approximately 8-12 Volts DC on the output of the IR engine, but 0 Volts DC on the output of your RF splitter, check the following items:

1. Make sure you are using a DC passing splitter. Traditional splitters will short out DC voltage traveling on the coax and prevent your IR system from working.
2. Make sure that there are DC blocks (model 3109) on any output from the RF splitter that will not be connected to an IR-4100. If outputs from the splitter are connected directly to TV sets without going through a IR-4100 or DC block, the system voltage will be shorted out by the input of the TV set.
3. Double check the fittings at the end of your coax cables. If a little bit of shielding is touching the center pin, the voltage will be shorted out and the system will not work.

Don't worry. The IR-4000 engine has a current limiting circuit. If the engine is shorted (due to a bad connection or a non-DC passing splitter) nothing will be harmed.