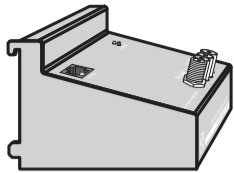
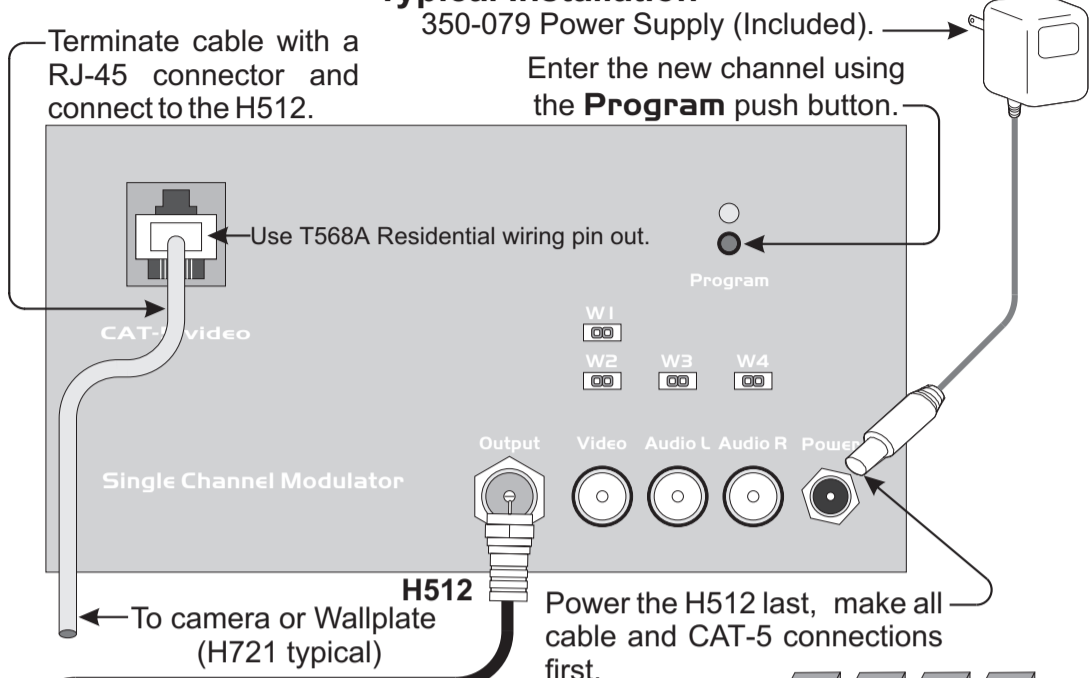


# ChannelPlus Single Channel Modulator



The H512 single channel modulator creates a new channel to add to existing television channels. The H512 creates this new channel from a video signal it receives via a single CAT-5 cable connected to one of its companion products such as the H721 camera or H110 wall plate. Any TV connected to the output via coax can receive the signal, when tuned to the proper channel.

## Typical Installation



### Default Setting for H512

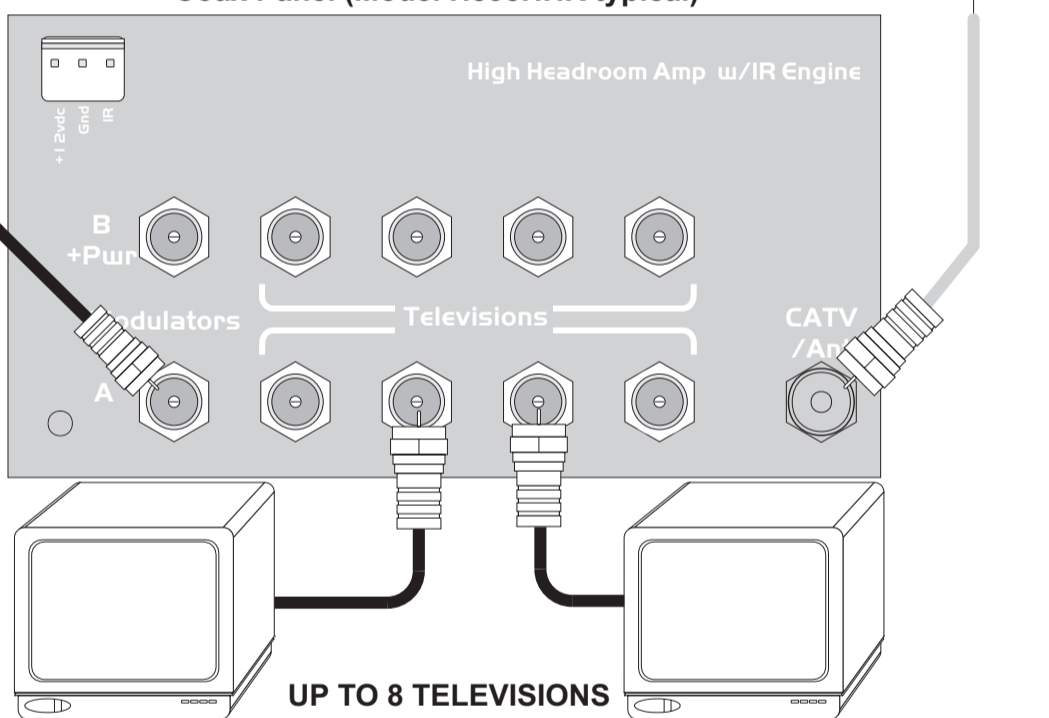
When not using baseband connectors insert all jumpers, (W1, W2, W3 & W4 are installed at factory).

### Optional Settings

To use baseband connectors as outputs when H512 receives video from Cat-5 video source, Insert W2, W3, & W4, Remove W1.

To use baseband connectors as inputs when using the H512 as a stand alone modulator. Insert W1 and remove W2, W3 & W4.

### Coax Panel (Model H838HHR typical)



### Things To Watch For:

**No picture ...** Check that the TV and the modulator are tuned to the same channel. For example, if the modulator is broadcasting on UHF channel 16, make sure the TV is on UHF 16 rather than CATV 16. UHF 16 and CATV 16 are at different frequencies. Also ... Make sure the H512 and camera or wall plate are wired properly.

**Weak ChannelPlus UHF channel ...** If the TV has a separate UHF input, be sure that it is connected.

**Herringbone interference on modulator channel (diagonal lines):** You may have chosen a channel number that is not completely vacant. Distant UHF stations may not be watchable, but will cause interference if you try to create a new channel at the same frequency. Also, cable companies often have extra signals where there should be none. Try moving the modulator channel to another number. You may have to add a low pass filter to remove the cable company noise. If the filter does not work, try adding a DC-block to remove common mode interference.

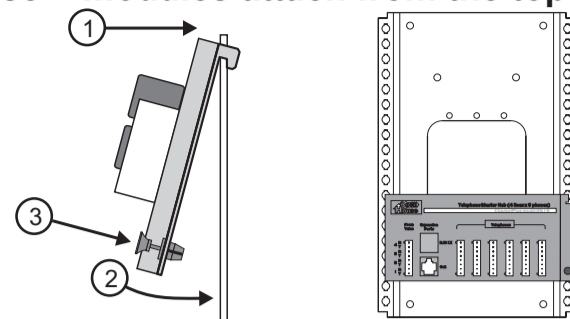
**Herringbone interference on many channels, including modulated channel (disappears when you remove the CATV/antenna feed):** The RF amplifier can be overloaded by abnormally strong signals. Often, you can cure the problem with a simple attenuator. Use a variable attenuator and try to find a signal level where the interference just disappears. Sometimes, the problem is one station is far stronger than the rest. In this case, attenuating all of the signals with a simple attenuator may cause the desired stations to be weak (snowy). You must reduce the strength of the only offending station. A common FM trap will help if the problem is a nearby FM tower. If the problem is a nearby TV station, often the station management can provide suitable filters.

**Audio volume is low ...** The left and right audio inputs are combined for monaural. For proper audio level, both right and left inputs must be used. If you have a mono source, connect it to both right and left inputs using an RCA 'Y' connector.

**No color on ChannelPlus channels ...** You may have chosen the incorrect cable standard. Not all televisions can accommodate the 1.25MHz frequency difference between the H and I cable standards. See the section on programming.

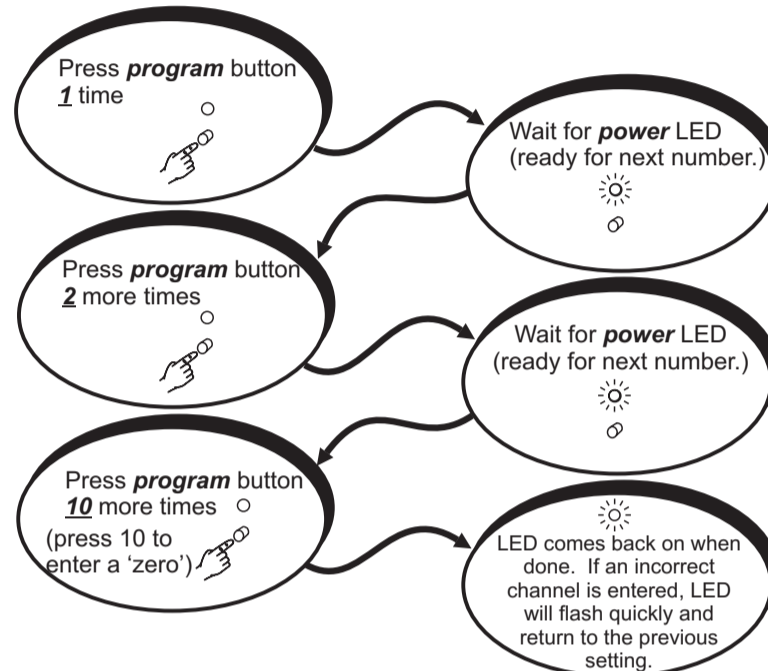
## OpenHouse™ modules attach from the top

- 1) Hook from the top
- 2) Swing into place
- 3) Push button to lock



## Programming the H512

Program the new channel using the **Program** push button to enter channel digits into the H512. This new channel should be an unused channel. It should have no interference or trace of a picture - just "snow". There must also be one unused channel both above and below the selected channel to avoid interference. Below is a simple step by step example of how to program a channel - cable channel 120:



### Cable HRC and IRC considerations:

Most cable services use standard or IRC frequency assignments. This is the default for the H512. However, if the cable services use HRC or the TV appears to search for the "created channel", program the channel injector for HRC.

**For HRC enter a 98. Reset to IRC by entering 99.**

Entries 98 and 99 are for setting HRC or IRC only. They do not change the channel number.

### CAT-5 Cable Length Limitations:

The length of the CAT-5 cable that runs between the H512 and the camera or wall plate is limited. See the individual camera or wall plate manuals for these CAT-5 cable run limitations.

### Specifications: typical @ 25°C ± 5°C

Inputs (Ports)	video	1 Vp-p @ 75 Ω	
	video termination (switch selectable)	75 Ω in normal mode (NORM) >1MΩ in loop through mode (LOOP)	
	audio	1 V rms @ 47kΩ L & R inputs combined for monaural	
Video performance	differential gain	4%	
	differential phase	<4°	
	signal/noise	55 dB	
	RF output	standard	UHF   CATV
		channel ranges	14-64   65-125(excluding 95-99)
	output level	+25 dBmV (+85dBuV)	
	IM distortion	-60 dBC	
	alternate channel	-45dBC @ 12MHz	
Power supply	model number	350-079	
	output current	600mA	
	output voltage	15 VDC	
	input power	105-125 VAC	

### DECLARATION OF CONFORMITY

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

### Installation requirements:

FCC classifies this product under part 15 of its rules as a "television interface device". Systems designed using television interface devices have the following legal requirements:

- 1) The modulated channel signal strength may not exceed 15.56dBmV at any television. *Federal Regulation 47CFR15.115(b)(1)(i).*
- 2) If an antenna is used in the system, the modulated channel signal strength may not exceed -51dBmV at the antenna input port. *Federal Regulation 47CFR15.115(c)(4).*

### For the Installer:

Any system you design must comply with these regulations. As the installer, you are responsible. The H512 has the necessary characteristics to comply with the above requirements as designed without additional accessories.

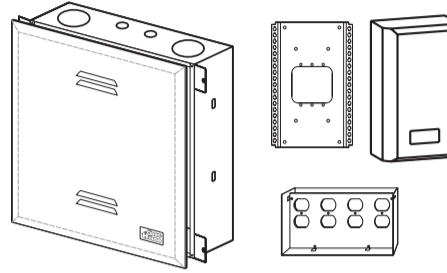


Compatible

# ChannelPlus Enclosures, Modules, Accessories & Wall Plates

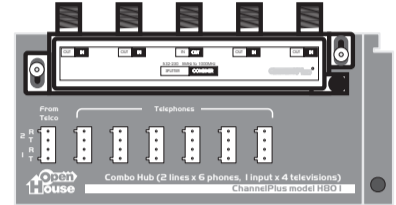
## Service center enclosures

A full line of OpenHouse compatible enclosures, from simple, inexpensive mounting plates to high capacity in-wall cabinets. AC outlets can be mounted inside the cabinets using a UL listed accessory.



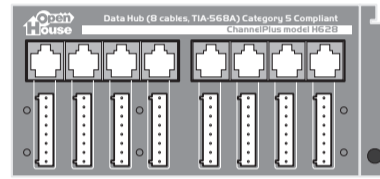
## Starter systems

RF splitters and telephone punch downs. When it is time to upgrade, just snap this module out and replace with one of more of the more sophisticated units.



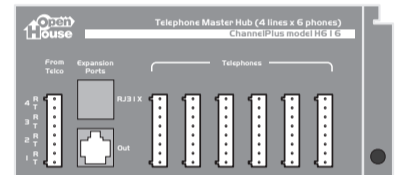
## Data hubs

Termination blocks for the CAT-5 cables, Ethernet hubs. Bring the Internet to any room in the home. Or create a home data network.



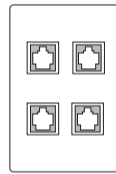
## Telephone hubs

Connections for 1-4 phone lines to every room. Starter hub adds RJ-31X jack for security system dialer.



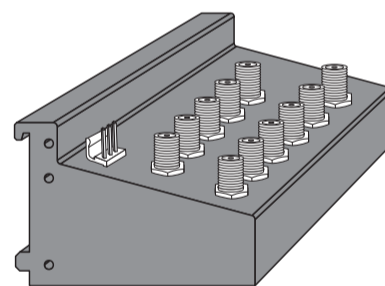
## Wall plates

Wall plate systems for all rooms. The typical room gets TV and telephone. The Home office wall plate adds data ports. The media center wall plate adds satellite feeds.



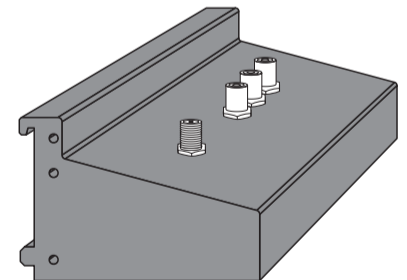
## Coax panels

Distribute antenna or cable TV to every room of the house. Some models include bi-directional amplifiers for interactive cable systems. Some models include modulator inputs and IR engines.



## AV modulators (for service center)

Create a new TV channel for a front door camera. Some models feature Cat-5 input connections.



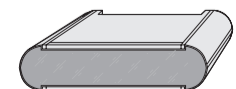
## AV modulators (for media center)

Create new TV channels for DVD, VCR, or a satellite receiver. These modulators sit in the media center. Some offer true MTS stereo.



## IR Accessories

Control video devices from any room.



**New ChannelPlus products are added all the time. Visit our website to learn more: [www.openhousesystems.com](http://www.openhousesystems.com)**

Good ...  
 Typical room - phone, TV  
 Media center - phone, satellite receiver, AV modulators  
 Home office - phone, TV, cable modem  
 Better ...  
 Typical room - phone, TV, ethernet  
 Media center - phone, TV, ethernet, satellite receiver, AV modulators  
 Home office - phone, TV, ethernet, cable modem  
 Best ...  
 Typical room - phone, TV, ethernet, satellite receiver  
 Media center - phone, TV, ethernet, satellite receiver, AV modulators, hi-speed data  
 Home office - phone, TV, ethernet, satellite receiver, cable modem, hi-speed data

	Good	Better	Best
Typical Room	1 Cat-5 1 RG-6	2 Cat-5 2 Cat-5 1 RG-6	2 Cat-5 3 Cat-5 2 RG-6
Media Center	1 Cat-5 3 RG-6	2 Cat-5 2 Cat-5 3 RG-6	3 Cat-5 3 RG-6
Home Office	1 Cat-5 2 RG-6	2 Cat-5 2 RG-6	3 Cat-5 3 RG-6

## Wiring a house for OpenHouse

The cables in an OpenHouse run from the various rooms of the house directly to the service center location. (This is known as 'home run' wiring.) Two types of wire are used for communication and entertainment: Cat-5, 4-UTP (4 Unshielded Twisted Pairs) wire handles data or 1 to 4 telephone lines. RG-6 coax handles television (antenna or cable), satellite dish, cable modem, or AV modulator signals. (An AV modulator creates new TV channels for front door camera, DVD player, a VCR or a satellite receiver.) We recommend the following pre-wire schemes. Run these wires from the service center to the rooms indicated.

## Single Channel Modulator Model H512



[www.openhousesystems.com](http://www.openhousesystems.com)

## Warranty

Multiplex Technology, Inc. warrants this product to be free from defects in materials and workmanship for a period of one year from the date of purchase or MTI will repair, or at its option, replace the defective product. To obtain warranty service, call MTI for a return material authorization (RMA) number and return the product prepaid.

Attention: Customer Service. Please put the RMA number on the outside of the carton.

Any implied warranty arising from the sale of the product including implied warranties of merchantability and fitness for purpose are limited to the warranty stated above. MTI shall not be responsible for losses or damages or expenses, whether direct, consequential or incidental arising from the use of or the inability to use this product. Some states do not allow limitations on how long the implied warranty lasts or the exclusion or limitation or incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which may vary from state to state.