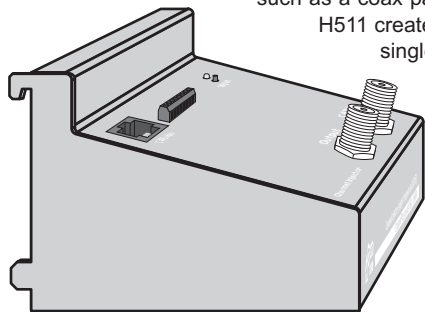


ChannelPlus Channel Injector

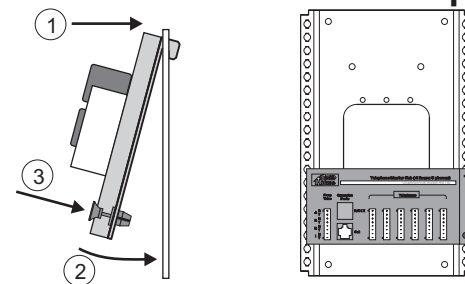
The **H511 channel injector** creates a new channel to add to existing television channels. The H511 is designed to work with an existing installation without the need to add additional hardware such as a coax panel or additional coax wiring to the video source. The H511 creates this new channel from 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.



Two models are available:
 The **H511HHR** has the isolation required by the FCC for a system with an antenna.
 The **H511BID** has a 5-42MHz reverse channel to support bidirectional cable systems (cable modems, pay-per-view and interactive cable).

OpenHouse™ modules attach from the top

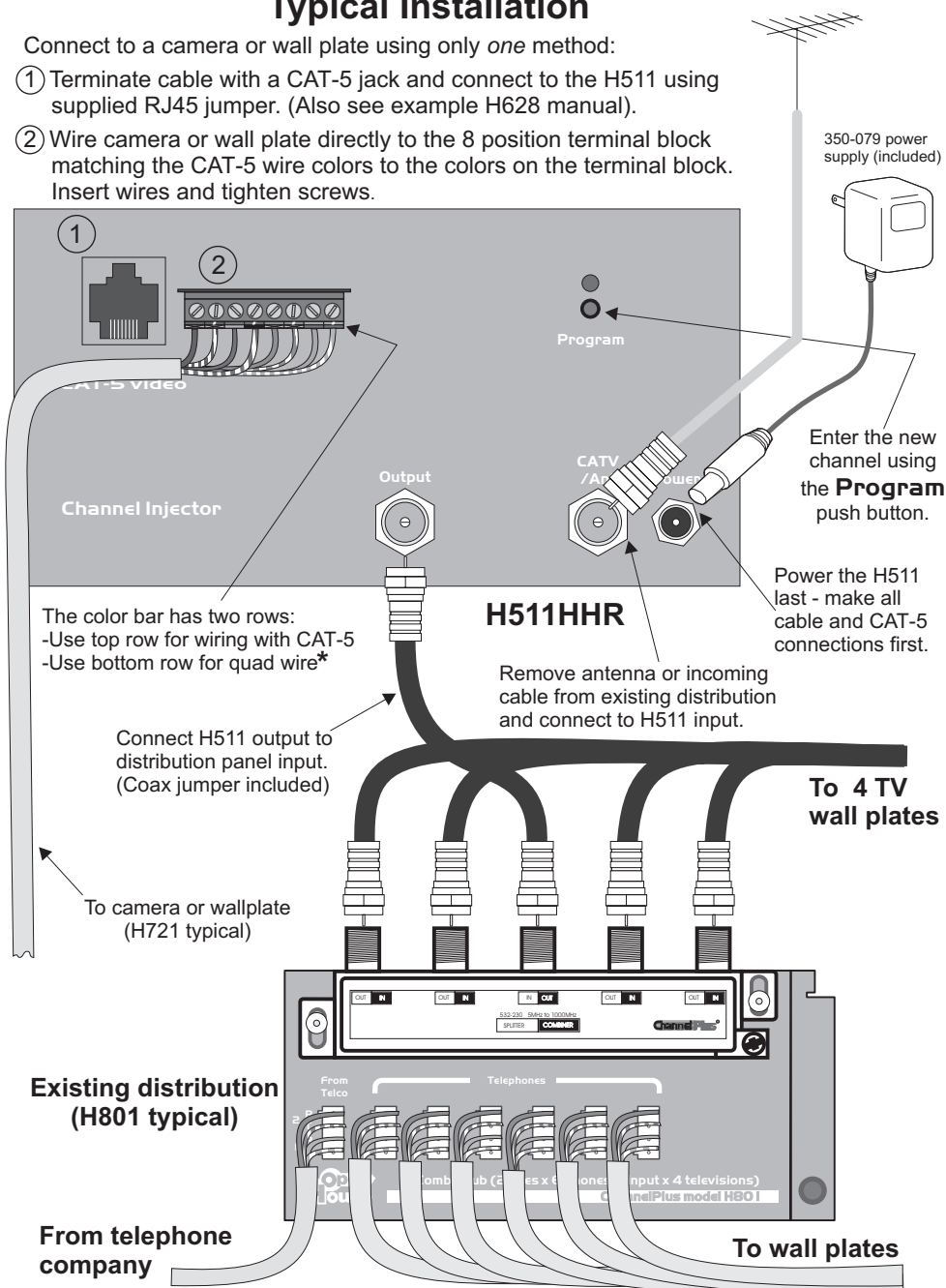
- 1) Hook from the top
- 2) Swing into place
- 3) Push button to lock



Typical Installation

Connect to a camera or wall plate using only *one* method:

- ① Terminate cable with a CAT-5 jack and connect to the H511 using supplied RJ45 jumper. (Also see example H628 manual).
- ② Wire camera or wall plate directly to the 8 position terminal block matching the CAT-5 wire colors to the colors on the terminal block. Insert wires and tighten screws.



The color bar has two rows:
 -Use top row for wiring with CAT-5
 -Use bottom row for quad wire*

H511HHR

Remove antenna or incoming cable from existing distribution and connect to H511 input.

To 4 TV wall plates

Existing distribution (H801 typical)

From telephone company

To wall plates

*The H511 was designed to work with CAT-5 wiring. Although the system will function with quad wire, CAT-5 delivers the highest quality picture. CAT-5 allows the use of an automatic line length sensor and picture compensator. Quad wire does not take advantage of this enhancement.

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 H511 and camera or wall plate are wired properly - CAT-5 colors must match connector colors.

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

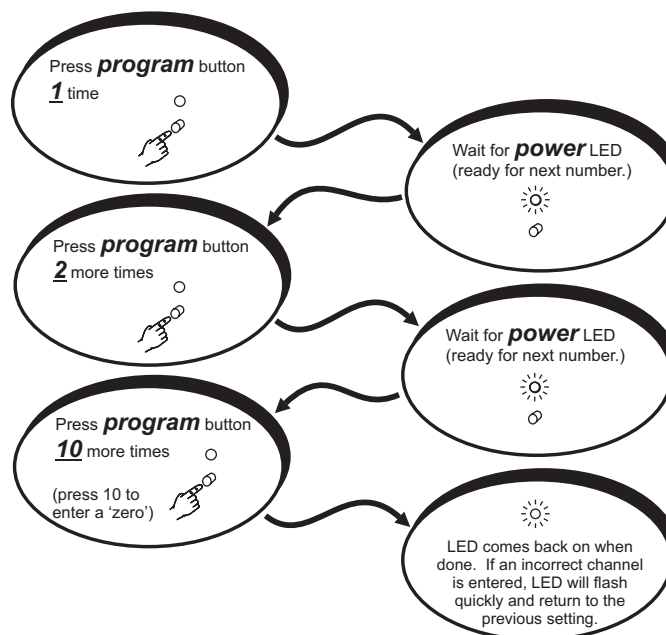
Herringbone interference on modulator channel (diagonal lines): You may have chosen a channel number that is not completely vacant. Distant UHF stations may not be watchable, but will cause interference if you try to create a new channel at the same frequency. Also, cable companies often have extra signals 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.

Program the new channel using the **Program** push button to enter channel digits into the H511. 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 H511. 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 H511 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

		H511HHR	H511BID
RF gain	CATV/Ant input to output	2dB	2dB
	Output to CATV/Ant input 5-42MHz reverse channel	na	-4dB
Bandwidth	Forward	5-806MHz	54-806MHz
	Reverse	na	5-42MHz
Max CATV/Ant input	(64 channels)	20dBmV	
RF output	channel ranges	UHF	14-64
		CATV	65-125 (excluding 95-99)
	output level	+12 dBmV nominal	
	IM distortion	-60 dBC	
	alternate channel	-45dBC @ 12MHz	
Video performance	differential gain	4%	
	differential phase	<4°	
	signal/noise	55 dB	
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 H511 has the necessary characteristics to comply with the above requirements as designed without additional accessories. The H511HHR is suitable for use with an antenna or with CATV systems. The H511BID is suitable for use with CATV systems only.

