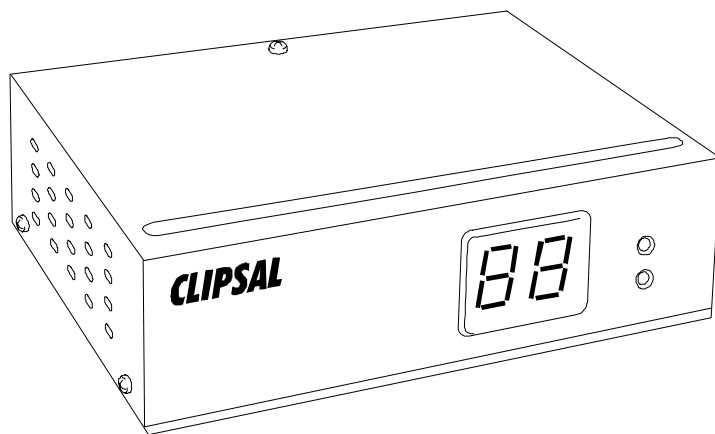




## StarServe Contractor Series Stereo Single Channel Video Modulator Installation Instructions

8071VMS



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### Disclaimer

Clipsal Integrated Systems reserves the right to change specifications or designs described in this manual without notice and without obligation.

## 1.0 Product Range

<b>8071VMS</b>	StarServe Contractor Series Stereo Single Channel Video Modulator
<b>E8071VMS</b>	StarServe Contractor Series Stereo Single Channel Video Modulator (Power Supply Not Included)

## 2.0 Description

The 8071VMS StarServe Contractor Series Stereo Video Modulator is a single-channel modulator unit, housed in a set top box.

The unit comprises a digitally tuned video modulator that converts any baseband video and audio signals to a user-selected UHF channel. An internal quartz crystal reference oscillator and PLL circuitry ensure drift-free performance. The user selects the output frequency (channel) by pressing the "UP" and "DOWN" buttons to enter the number of the desired channel. Any TV connected to the output via coax can receive the signal, when the TV is tuned to the proper channel.

- Creates TV channel for a video entertainment device.
- 25dBmV output level
- Push button programming
- Tuning range: UHF 21-69
- User selectable buttons to enable selection of desired channel.
- Loop-through termination capability for a local monitor or VCR
- FCC Part 15 B compliant

## 3.0 Features

### Set Top Modulator

The model 8071VMS is a digital modulator, is stereo and installer friendly. It has push-button programming for setting the desired channel. Additionally it provides an output signal level of 25dBmV.

### Single Modulator

The model 8071VMS is a single-channel modulator. The model outputs on a single coax to a StarServe distribution unit, such as the 8073/8VHPIR Contractor Series Video Hub.

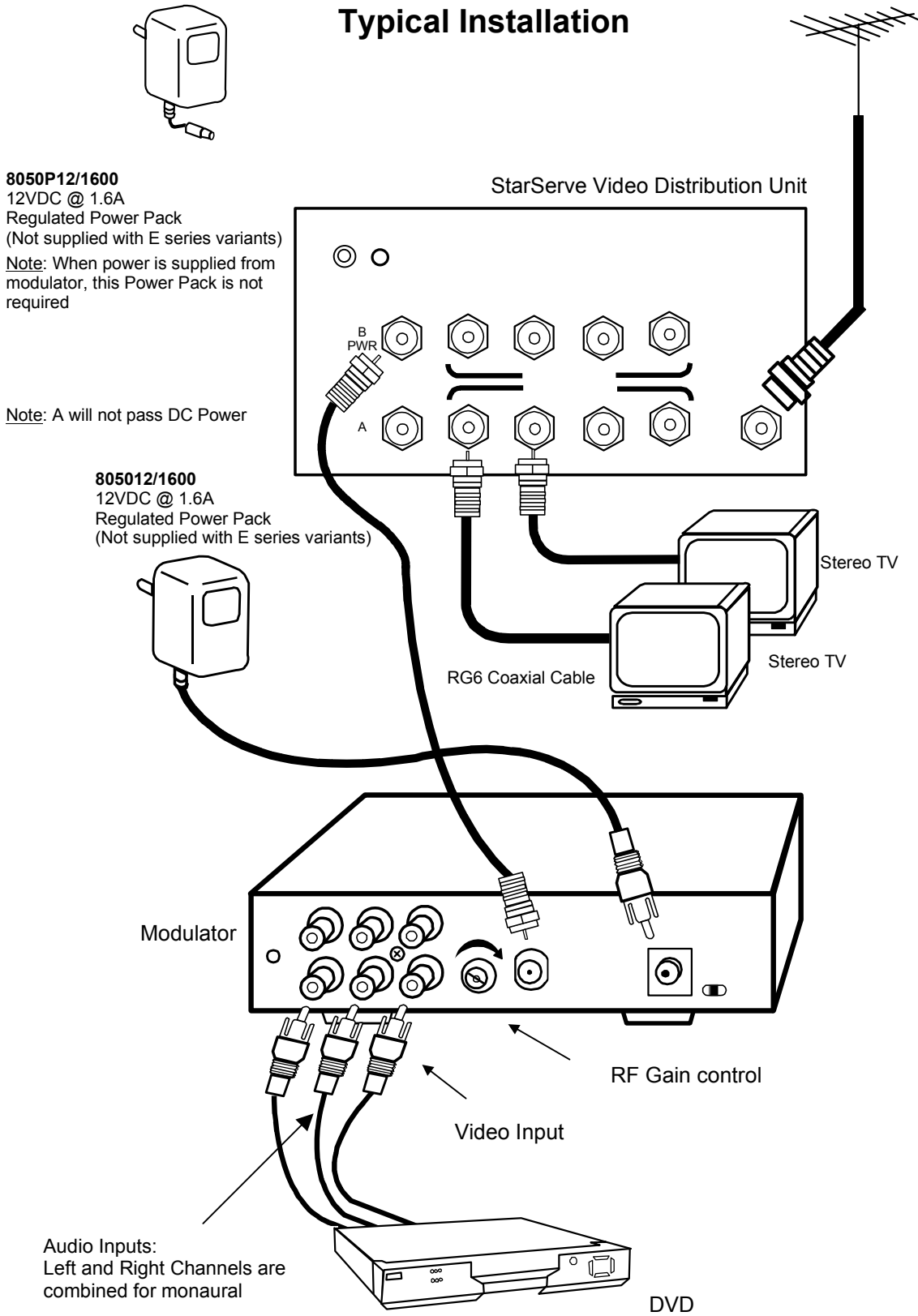
### Loop-Through Capability

All StarServe Video Modulators offer loop-through features. This set top modulator unit incorporates a high impedance switch, located on the back of the unit. When switched, composite/baseband video input signals can be looped to a local monitor or VCR.

### RF Gain

The model 8071VMS offers the ability to adjust the RF Gain of the unit by using a screwdriver to gently adjust the control knob on the rear of the modulator. Rotate clockwise to increase the output and counter clockwise to decrease the output.

### 4.0 Installation Instructions



## 5.0 Programming Requirements

### 5.1 Channel Setup

To program a new channel, press the “Up” and “Down” push buttons on the front of the unit, until the desired number is displayed on the seven-segment display.

This new channel should be an unused channel. It should have no interference or trace of a picture – just “snow”.



### 5.2 Channel Selection Guide

PAL AUS			
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
28	527.25	49	695.25
29	535.25	50	703.25
30	543.25	51	711.25
31	551.25	52	719.25
32	559.25	53	728.25
33	567.25	54	735.25
34	575.25	55	743.25
35	583.25	56	751.25
36	591.25	57	759.25
37	599.25	58	767.25
38	607.25	59	775.25
39	615.25	60	783.25
40	623.25	61	791.25
41	631.25	62	799.25
42	639.25	63	807.25
43	647.25	64	815.25
44	655.25	65	823.25
45	663.25	66	831.25
46	671.25	67	839.25
47	679.25	68	847.25
48	687.25	69	855.25

### 5.3 Additional Information

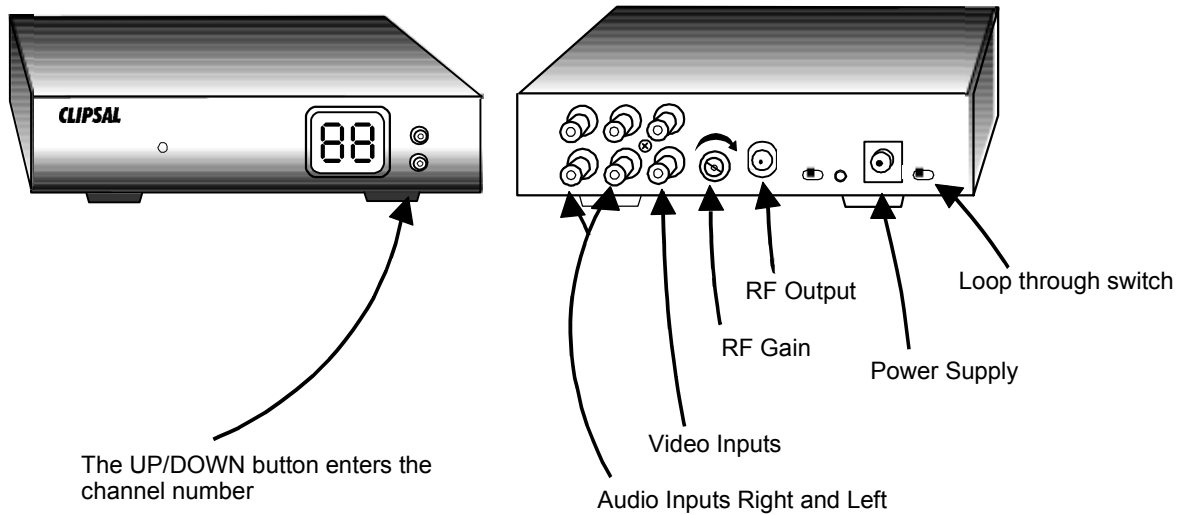
Item	Description
Valid Channels	21-69 UHF Channels

**Please Note:**

Channels 20 through to 27 are available on the 8071VMS StarServe Stereo modulator, however these channels are not recommended for general use. Interference with local cable operator channel allocations may be experienced when using these frequency settings.

## 6.0 Loop-Through Input Termination Settings

The Hi-z switch is located at the back of the unit. You must switch this to activate the loop through input.



RCA Y-Lead Adaptors may be used on each input channel. As shown below.



## 7.0 Troubleshooting

Symptoms	Remedy
<b>No picture ...</b>	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.
<b>A weak StarServe UHF channel ...</b>	If the TV has a separate UHF input, be sure that it is connected.
<b>Herringbone interference on modulator channel (diagonal lines) ...</b>	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.
<b>Herringbone interference on many channels, including modulated channel (disappears when you remove the CATV/antenna feed) ...</b>	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.
<b>No Stereo Signal</b>	The television being used could be an AV-Stereo unit. These units may not accept stereo audio via a coaxial connection

## 8.0 Product Specifications

Catalogue No.		8071VMS
<b>Inputs</b>	Video	1V p-p @ 75Ω
	Loop Through Termination (switch selectable)	75Ω in normal mode (NORM) >1MΩ in loop through mode (LOOP)
	Audio (L+R)	300mVp-p
	Connector Type	2 x 3 x RCA
<b>Video Performance</b>	Differential Gain	3-5%
	Differential Phase	<4°
	Signal/Noise	54dB
<b>RF Output</b>	Modulation	PAL-B
	Standard	UHF
	Channel Ranges	21-69
	Output Level	+25 dBmV (+85dBuV)
	Adjustment range	0~-20dB
	Output Frequency	477MHz to 820MHz
	IM Distortion	-55dBC
	Frequency stability	PLL (+/- 25KHz)
	Alternate Channel	-45dBC @ 12MHz
	Connector Type	1 x F-Type
	Stereo Format	A2
<b>Power Supply</b> (Not supplied with E-Series variant)	Model Number	8071VMS
	Power Supply Model	8050P12/1600
	Output Current	1.6A
	Output Voltage	12VDC REGULATED
	Input Power	240VAC / 50Hz
<b>Mechanical Details</b>	Dimensions	135 x 95 x 38mm (LxWxD)
	Shipping Weight	2kg
	Operating Temperature	0 – 50°C
	Operating Humidity	10 – 90% RH
Specifications typical @ 25°C ± 5°C		
No user serviceable parts inside.		

**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 UNDESIRE 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)*.

The system you design must comply with these regulations. As the installer, you are responsible. The easiest way to be fully compliant is to use a pre-configured StarServe panel. StarServe panels have the necessary isolation from the modulator input ports to the antenna input port and gain characteristic from the modulator input ports to the television output ports. These features will make your modulator comply with the above requirements.





**Further Information**

For further information about Clipsal StarServe, please consult the documentation supplied. Further assistance can be obtained as follows:

- **StarServe Installers Guide**

A printed booklet containing detailed information for the installer regarding StarServe system design.

- **Technical Support and Troubleshooting**

For further assistance in using Clipsal StarServe, please consult your nearest Clipsal Integrated Systems Sales Representative or Technical Support Officer.

**Technical Support Hotline**

**1300 722 247 (Cost 25c per Call)**

**Technical Support Email**

**[techsupport.cis@clipsal.com.au](mailto:techsupport.cis@clipsal.com.au)**

**Sales Support Email**

**[sales.cis@clipsal.com.au](mailto:sales.cis@clipsal.com.au)**

**Clipsal Integrated Systems Website**

**[clipsal.com/cis](http://clipsal.com/cis)**

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