

HSM55-**

Fixed Channel SAW Filtered Modulator

HSM55 SPECIFICATIONS:

RF	RF Channels	2-110
	Output Levels	45-55 dBmV (Adjustable)
	Output Range	10dB min
	A/V Ratio	-11 to -22 dB (Adjustable)
	Spurious Harmonics	-60dB
	Frequency Accuracy	±5 kHz
	C/N (In Channel)	60 dBc
	Out-of-Band Noise	-95 dBc (4MHz Bandwidth)
	Video	Minimum Input Level
	Flatness	±1.5 dB, 30 Hz to 4.2 MHz
	Modulation Range	60-95% (Adjustable)
	Input Impedance	75 Ohms
	Differential Phase	2°
	Differential Gain	3%
Audio	Input Level	500mV p-p for ±25 kHz Dev
	Aural Frequency	4.5 MHz ±1.5 (Above Video)
	Distortion	Less than 1.5%
	Input Impedance	600 Ohms Unbalanced
	Flatness	±1 dB (50Hz to 15kHz)

Installation Instructions:

1. Your HSM55 may be mounted in any standard 19" rack using one or two screws on each side.
2. Use 3 F type input/output cables to your HSM55 as follows:
 - A: Connect Video from any VCR, Satellite Receiver, Demod or Character generator to the video input.
 - B: Connect Audio from any VCR, Satellite Receiver or Demod to the audio input.
 - C: Connect output to system or system combiner

Required Equipment:

1. Spectrum Analyzer or Field Strength Meter
2. TV or Monitor

Operation Instructions:

Please note: A 30-Minute warm up prior to adjustments is necessary.

1. Plug the power cord into either a 110VAC outlet, or another HSM55 via the auxiliary outlet on the rear panel. It is recommended that a SURGE PROTECTOR be used between the modulator (s) and the 110VAC outlet.
2. Connect your analyzer or field strength meter to the HSM55's test port (-20dB) or combiner.
 - A. Adjust the RF output to the desired level (See Specifications)
 - B. Adjust aural carrier @ -12dB to -16dB below the picture carrier by pressing A/V button on front panel. Connect the TV or Monitor to the test port (-20dB) or to your combiner output, using proper attenuation in order to prevent overdrive of the TV or Monitor.
3. Adjust the audio deviation (sound level) until the sound on the TV set is an equal level to that of an off-air channel.
4. Adjust video modulation until the proper viewing level is achieved. Overmodulation causes buzzing, overly bright scenes, and distortion. Under modulation results in dullwhite levels and dark colors.

IMPORTANT!!

WARNING: Holland Electronics does NOT represent this product to be WATERPROOFED. To reduce risk of electrical shock, fire hazard, or damage to the unit, do not expose to rain or moisture.

CAUTION: To prevent electric shock, do not use this plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

NOTE TO INSTALLER: This reminder calls the system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

**WARNING:
TO PREVENT FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS UNIT
TO RAIN OR MOISTURE**



HOLLAND ELECTRONICS LLC LIMITED WARRANTY

Holland Electronics LLC, warrants that the product enclosed with this Limited Warranty statement will conform to the manufacturer's specifications and be free of defects in the workmanship and material for a period of five years (5) from the date of original purchase.

WARRANTY PROCEDURE:

If the product appears to be defective contact Holland Electronics LLC at (805) 339-9060. We will analyze the problem and offer solutions to prevent removing the unit from service. If the unit is to be returned for evaluation, you will be issued a Return Material Authorization (RMA) number.

Holland Electronics LLC will, at its option, repair or replace the defective unit, under warranty, without charge for parts or labor. This repair will be subject to charges if signs of tampering or misuse are detected. Incoming shipping costs will be the customer's responsibility. Returns will not be accepted without an RMA number.

The warranty and remedy provided above are exclusive and in lieu of all other express warranties and unless stated herein, any statements or representations made by any other person or firm are void. The duration of any implied warranties of merchantability or fitness for a particular purpose on this product shall be limited to the duration of the express warranty set fourth above. Except as provided in this written warranty, Holland Electronics LLC shall not be liable for any loss, inconvenience, or damage, including direct, special, incidental, or consequential damages, resulting from the use or inability to use this product, whether resulting from breach of warranty or any other legal theory.

Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To arrange for Warranty Service: Call Holland Electronics LLC (805) 339-9060

