



VHF-TV/FM "COLORCASTER PLUS"

MODEL TAC-246X

U.S. Patent 3,673,517

DESCRIPTION

Model TAC-246X is a four-output, solid-state VHF-TV/FM amplifier designed for use in small MATV systems. The unit consists of a one-stage VHF-TV/FM amplifier and a built-in -12 V supply and line cord which permits direct operation from a 117 V a.c. wall outlet. The unit also includes a factory-tuned filter for attenuating strong, interfering signals in the FM band.

Model TAC-246X is housed in a metal and plastic case designed for indoor surface mounting. Both the input terminal and the four output terminals are 75Ω F-type fittings.

For separation of the VHF and FM signals, and for matching the 75Ω outputs of the amplifier to 300Ω TV receivers, matching transformers/splitters Jerrold Models FSX-1314 FM are recommended; the FSX-1314 FM also permits connection of an FM tuner.

SPECIFICATIONS

PASSBAND, in MHz		54-216
NUMBER OF OUTPUTS		4
GAIN, in dB (average)	Chs. 2-6	7.5
	Chs. 7-13	6.5
	FM	-4.5
FLATNESS, in dB		± 1
NOISE FIGURE, in dB		4.5
OUTPUT CAPABILITY, per channel, in dBmV		38 for 7 channels
MAX. RECOMMENDED INPUT, per channel, in dBmV		31 for 7 channels
DISTORTION (Cross-Mod.) at max. input		0.5% (-46 dB)
TERMINAL IMPEDANCE, in Ω		75, all terminals
ISOLATION BETWEEN OUTPUTS, in dB		15
POWER REQUIREMENTS, at 117 V, 60 Hz		8.2 W, 65 mA

INSTALLATION

ACCESSORIES SUPPLIED

- 2 No. 6 x ½" wood screws.
- 5 Model F-659 adjustable coaxial connectors with ferrules and an expansion tool.
- 1 Instruction Sheet 435-650.

MATERIALS AND TOOLS SUPPLIED

1. A sufficient length of 75 Ω coaxial cable for interconnecting the amplifier and TV receiver.
2. A screwdriver.
3. An adjustable wrench.
4. A Jerrold Model PL-659 Crimping Tool.
5. Up to four 75/300 Ω impedance matching transformers/splitters Jerrold Model FSX-1314 FM for applying the signals to 300 Ω TV receiver terminals.

MOUNTING AND CONNECTIONS

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

If the unit is mounted on the back of a TV receiver, DO NOT BLOCK THE RECEIVER VENTILATION HOLES.

1. For mounting on wood surfaces at least ½ inch thick, use the two #6 x ½" screws supplied with the unit.
2. For mounting on other surfaces, including plasterboard, attach a wood panel to the surface as described in para. 3 below, then mount the unit to the panel with the two #6 x ½" screws supplied with the unit.
3. Wood panel to be ½ inch thick plywood or equal, at least 4½" x 18", attached to the surface at a minimum of two points at least 8" apart to:
 - a. Studs: use #10 x 1½" round head wood screws with flat washers;
 - b. Hollow Cement Blocks: use ¾" x 3½" butterfly bolts with flat washers;
 - c. Other Masonry: use ¾" x 1½" expansion bolts with flat washers.
4. Prepare the input cable and output cable ends and install the F-659 connectors as described in Instruction Sheet 436-650, shipped in the accessory bag.
5. Connect the cables to their associated fittings on the amplifier; hand-tighten, then wrench-tighten each F-659 not more than 1/6 turn.

NOTE: Any unused output terminal on a Model TAC-246X must be terminated in 75 Ω (use Jerrold Model TR-75). It is not recommended to use a TAC-246X for a single output only.

SERVICING

To permit qualified personnel to service the equipment, a schematic circuit diagram and relevant parts list are given here.

REPLACEMENT PARTS LIST

MODEL TAC-246X			
SCHEMATIC DESIGNATIONS	JERROLD PART No.	SCHEMATIC DESIGNATIONS	JERROLD PART No.
CAPACITORS		RESISTORS (Continued)	
C101	128-570	R102	112-215-95
C102, C110, C111	S124-078	R103	112-970-95
C103, C113	124-195	R104	112-922-95
C105	127-168	R105	112-927-95
C106	124-172	R106	112-212-95
C108	124-104		
C109	124-048		
DIODES		TRANSFORMERS	
CR101	137-788	T1	B141-233
CR102	137-824	T2, T3	B144-409
		T103	C144-186-01
RESISTORS		TRANSISTOR	
R1	112-743-95	Q101	S130-265-01

LIMITED WARRANTY

Jerrold equipment is warranted for 90 days against original factory imperfections in material and workmanship.

In the event that service is required during this period, preferably return the defective unit to the Jerrold dealer from whom it was purchased. Alternatively, pack the complete defective unit carefully, enclose a letter stating the reasons the unit is believed to be defective, and return it directly to Jerrold Electronics Corp., Factory Parts and Service Dept., 1322 Atlantic St., North Kansas City, Mo. 64116, pre-paying transportation charges. The unit will be repaired or replaced at no charge. Such service or repairs as may be necessary as the result of abuse or accident are not included in the warranty.

In the event that service is required after the warranty period, the unit may be returned to Jerrold at the above address where it will be repaired or replaced at the established service charge.

All data subject to change without notice.

Published by

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Technical Publications Department

Printed in U.S.A. BAEE, 5/79 435-707-03