



SUPER CASCADER

DISTRIBUTED AMPLIFIER MODEL SCA-213

with

PLUG-IN EQUALIZER MODEL PIE-24*

* Also available for 0, 18, and 20 db cable equalization values

Contents of Package

1 unit Model SCA-213
1 plug-in equalizer Model PIE-24 (plugged into socket on SCA-213)
2 mounting brackets
4 mounting screws
2 male connectors Model F-59
2 instruction sheets 435-330.1 and 435-138
1 warranty card (green)

Specifications

GAIN	28 db min. at 216 mc
GAIN (normal system operation)	24 db
(normal laboratory use)	26 db
BANDWIDTH (with PIE-0 pad)	4-216 mc
(with PIE-18, 20, or 24 pad)	50-216 mc
FLATNESS	$\pm \frac{1}{2}$ db max peak - to - valley deviation
INPUT (min.)	0 dbj* ; 10 to 15 dbj typical in cascade systems
OUTPUT (max.)	48 dbj. for 4 ch.; 44 dbj for 9 ch (4 hi, 5 lo) for 0.14% cross mod.
IMPEDANCE (input and output)	75 ohms
VSWR	1.2:1
NOISE FIGURE	10 db full gain; 12 db at -5 db down
GAIN CONTROL (manual)	8 db range
(automatic with AGC-213)	20 db range
TUBE COMPLEMENT	12 6CY5
POWER SUPPLY	117v 60 cycle ac
POWER CONSUMPTION	70 w

*0 dbj = 1,000 microvolts across 75 ohms

Description

The Jerrold Super Cascader Model SCA-213 is a two-stage, low-pass distributed amplifier for use in television systems with long repeater runs. With a slight modification in alignment Model SCA-213 is useful in the laboratory as a wide-band, flat frequency response amplifier.

For distribution system use, Model SCA-213 is equipped with a plug-in equalizer Model PIE-24 to compensate for 24 db of cable loss. When a splitter is used or the amplifiers are spaced closer together in a system Model PIE-18 or PIE-20 is used in place of Model PIE-24 to compensate for

DESCRIPTION *(Continued)*

18 or 20 db of cable loss respectively. Since the band-pass of PIE-18, 20, and 24 equalizers is 50 to 216 mc the band-pass of Model SCA-213 is limited to this range when used with these equalizers.

Model PIE-O is available for use when the amplifier is used in the laboratory where no cable compensation is necessary or when the amplifier is used in a system which employs other means of cable equalization.

The Super Cascader features a low noise figure and VSWR, a flat manual gain control action, a high undistorted output, and a line-regulated power supply. In addition, automatic gain control is available via a Jerrold Automatic Gain Control unit Model AGC-213.

Model SCA-213 is engineered for long life and trouble-free operation.

Maintenance

Model SCA-213 incorporates components carefully selected and tested to insure trouble-free performance and long life. No major problems should be encountered under normal use. The only maintenance required will be a periodic check of cable connections and the occasional replacement of a tube. No realignment is required after tube replacement.

Test points have been provided at the input and output of the amplifier for simple checking with Jerrold Field Strength Meter Model 704-B while the equipment is in operation.

A replacement parts list and schematic diagram are included for reference.

Replacement Parts List

SCHEM. DES.	DESCRIPTION	PART NO.
	CAPACITORS	
C-1,33	Trimmer, 1.5-7mmfd/350v	128-500
C-2	Mica, 1500 mmfd/500v VDCW	126-033
C-3	3.9 mmfd TCZ	121-045
C-4, 7, 8, 11, 12, 13, 14, 15,16, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 31	Cer. Disc, .01 mmfd/600 v VDCW/GMV	124-031

SCHEM. DES.	DESCRIPTION	PART NO.
C-5, 6, 9, 10, 26, 29, 30	Trimmer, .7-3 mmfd/350 v	128-515
C-19	2.0 mmfd NPO $\pm$.5 mmfd 600v TCZ	121-066
C-32	Cer. Disc 1000 mmfd/600 v GP $\pm$ 20%	123-124
C-34, 37, 41	Feed-thru 1000 mmfd	129-200
C-35, 36	Elect. tub. w/pigtails 100 mfd/15v VDCW	127-020
C-38A, B	Filter 40/20 @ 150 v	127-251
C-39	Elect. Twist Lock Can 200/250 v	127-508
C-40	on Transformer - Sola	141-113
C-42	50/6v BBR 50-6	127-006
FITTINGS		
J-2, 3, 4, 5	F-61 A	821-155
FUSE		
FS-1	$\frac{1}{4}$ amp Slo-Blo	101-327
RESISTORS		
R-1	360 - ohm $\frac{1}{2}$ w 5%	112-305
R-2	330 - ohm $\frac{1}{2}$ w 5%	112-292
R-3	158 - ohm $\frac{1}{2}$ w 1% Dep. carbon	115-097
R-4, 14	1000 - ohm $\frac{1}{2}$ w 10%	112-362
R-5, 15	259 - ohm $\frac{1}{2}$ w 1% Dep. carbon	115-098

SCHEM. DES.	DESCRIPTION	PART NO.
R-6, 7, 8, 9, 10, 11, 16 17, 18, 19, 20, 21	2.7 ohm ½w 10%	112-003
R-12, 25	33-ohm ½w 10%	112-173
R-13	130-ohm ½w 5%	112-251
R-22, 23	1800-ohm ½w 5%	112-392
R-24	75-ohm ½w 5%	112-221
R-26	10,000-ohm pat. w/s1 shaft and locknut	118-002
R-27	3600-ohm ½w 5%	112-431
R-28, 29	1500-ohm ½w 10%	112-383
R-30	33-ohm 2w 5%	112-172
R-31, 32	1500-ohm 1w 10%	112-384
R-33	22,000-ohm 2w 10%	112-532
R-34	18-ohm ½w 10%	112-143
SOCKETS		
P-1	Jones 4-pin	182-109
J-1	Jones 6-pin	182-114
SWITCH		
SW1-A,B	Wafer	161-128
TRANSFORMERS		
T-1	Input	141-166
T-2	Interstage	141-167
T-3	Output	141-165

Data subject to change without notice

[illegible]

NOTES -
1-ALL RESISTOR VALUES GIVEN IN OHMS, 1/2 WATT UNLESS OTHERWISE SPECIFIED.
2-UNSPECIFIED CAPACITOR VALUES ARE IN MMF
3-RF SIGNAL PATH INDICATED BY HEAVY LINES AND ARROWS

JERROLD ELECTRONICS CORPORATION
Community Systems Division

15th and LEHIGH AVENUE, PHILADELPHIA 32, PENNSYLVANIA

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