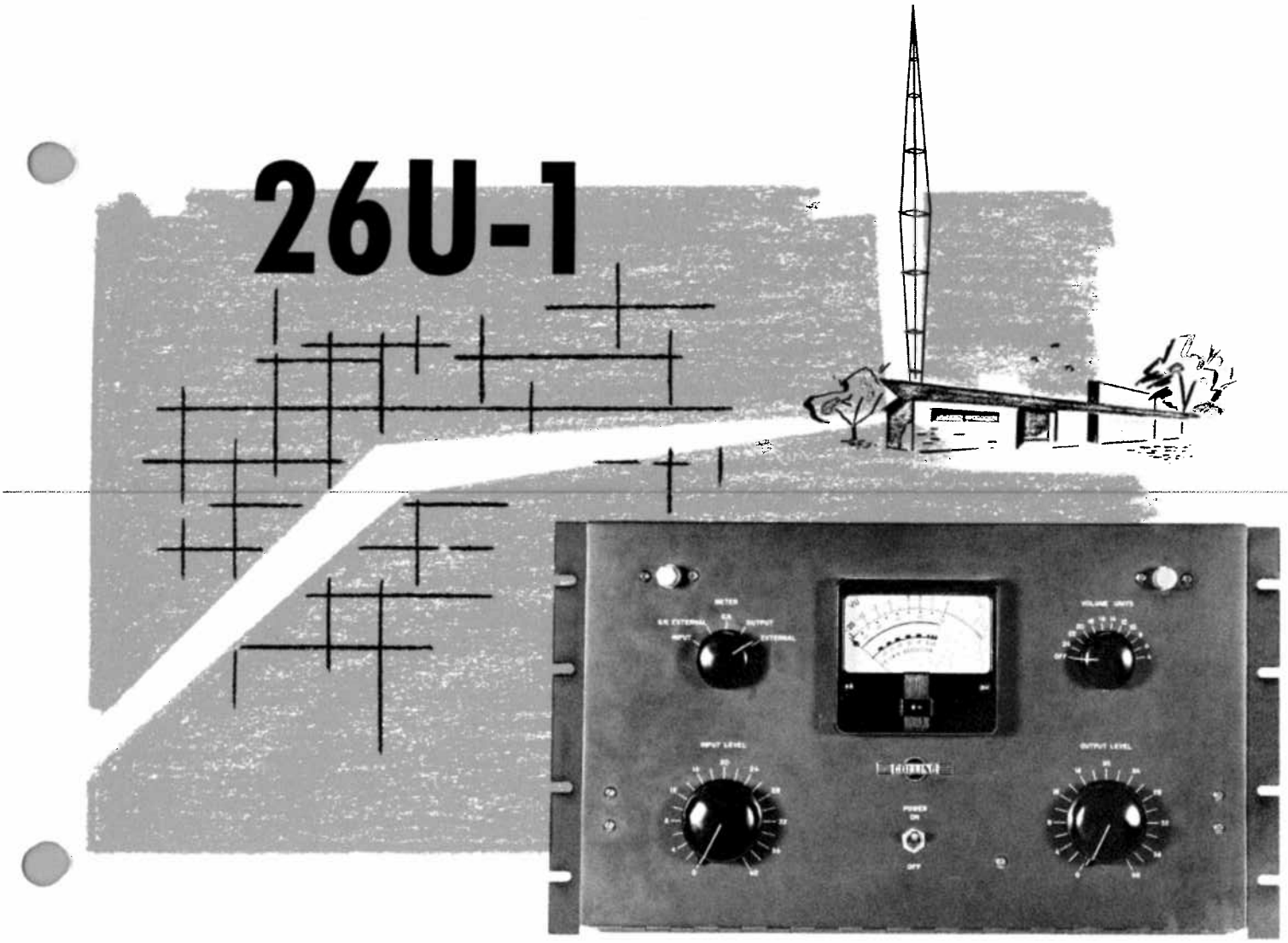


Collins Limiting Amplifier

— an easy-to-operate peak limiter to reduce audio distortion due to overloading

Designed to achieve maximum modulation with minimum distortion, the Collins 26U-1 Limiting Amplifier provides full tonal range broadcasting with thump-free performance.

The Collins Limiting Amplifier limits loud audio passages to prevent overmodulation, distortion and adjacent channel interference, while allowing low level passages to be broadcast in their true range.

The transmission range of the station's signal and the over-all efficiency of the transmitter is increased through the limiting action which permits a higher average modulation level.

When used with recording equipment or with a public address system, the 26U-1 prevents overloading, and by allowing a higher average audio level, the Limiting Amplifier improves the signal-to-noise ratio.

A self-balancing circuit eliminates the need of tube selection or delicate balancing procedures usually associated with peak limiters. The Collins Limiting Amplifier is capable of greater than 30 db compression.

Conventional circuitry, negative feedback, full wave rectification for control voltage and silicon rectifiers in the power supply are incorporated into this unit.

An illuminated VU meter with a special scale calibrated in VU and db of compression, which measures five functions, is provided in the Collins Limiting Amplifier. The VU meter attenuator and a rotary switch allow measurement of external gain reduction, db of compression and levels of input, output and external audio circuits. This external meter circuit measures audio levels on other program lines, eliminating the need for an additional VU meter panel.

Silicon diodes and extended life electrolytic capacitors provide an efficient, low heat power supply with a minimum of maintenance. A voltage regulator provides stabilized reference voltages. Input, output and VU meter level controls are Daven step-type attenuators.

Designed for rack mounting, the Collins Limiting Amplifier has a minimum number of controls, tubes and tube types. It has a hinged front panel for access to internal wiring and components.

SPECIFICATIONS:

Type of Service: Continuous, unattended operation.

Size: 10½" H, 19" W, 9" D.

Audible Noise: None.

Shock and Vibration: Normal handling and transportation.

Power Source: 115 v or 230 v ac, 50-60 cps, single phase. Shipped wired for 115 v.

Input Impedance: 600 ohms unbalanced.

Input Level: —20 dbm to +20 dbm. Note: 0 dbm equals 1 mw across 600 ohms.

Output Impedance: 600 ohms unbalanced adjustable, or 600 ohms balanced fixed level.

Output Level: —20 dbm to +20 dbm.

Response: ±1.5 db, 50-15,000 cps.

Distortion: 1.5 % maximum.

Output Noise: —50 dbm or less.

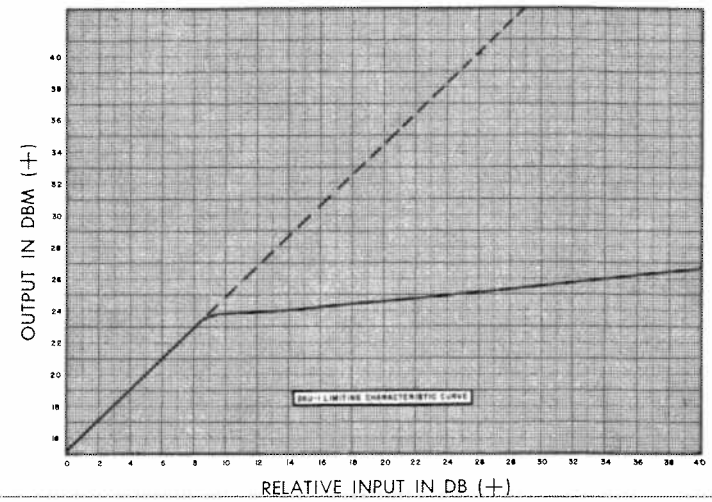
Compression Ratio: 12:1 first 10 db above threshold.

Attack Time: Adjustable, .5 to 3.0 milliseconds.

Release Time: Adjustable, 2.2 to 5.2 seconds for 63 % recovery.

Gain: 32 db minimum.

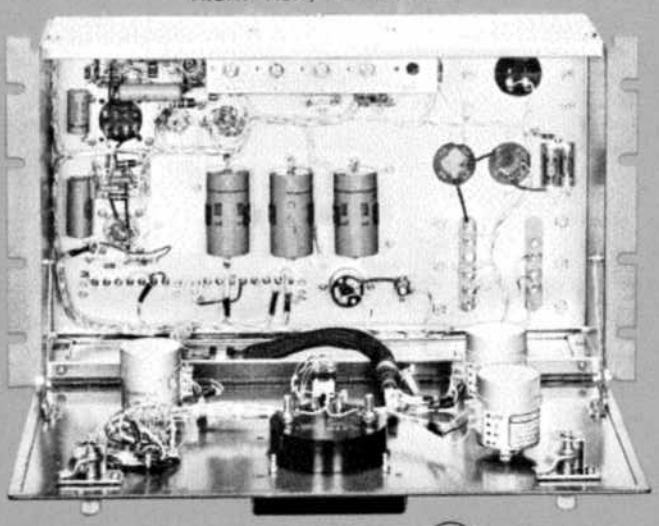
Fuse: Equipped with a ¾ amp 250 v, post-mounted, slow-blow fuse.



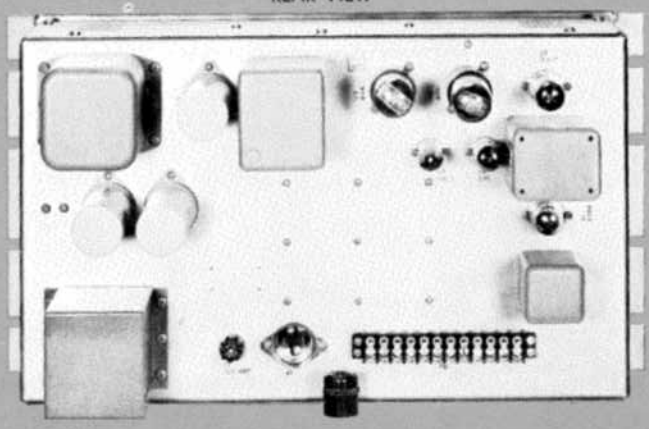
CONTROLS

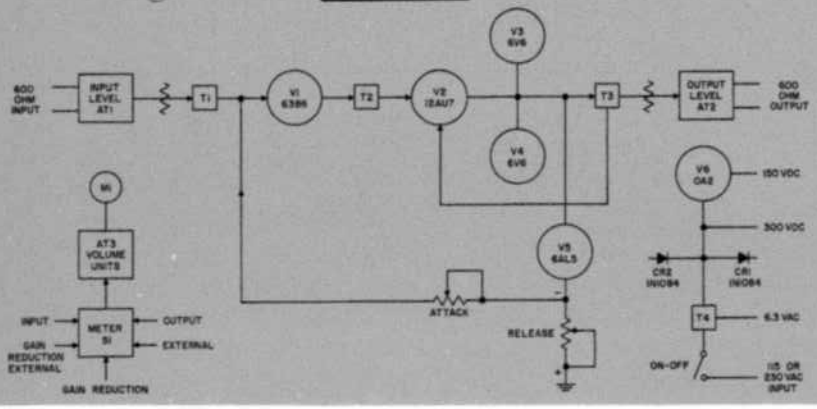
1. Meter Selector Switch
2. VU Meter Attenuator
3. Input Level
4. Output Level
5. Power On/Off Switch
6. Meter Zero
7. G. R. Balance
8. Attack Time
9. Release Time

FRONT VIEW, PANEL DOWN



REAR VIEW





Quantity	Type	Application
1	GL-6386	Variable gain input stage
1	12AU7	Interstage voltage amplifier
2	6V6GR	Output amplifier
1	6AL5	Limiter bias rectifier
2	1N1084	Power rectifier (silicon, commercial)
1	OA2	Voltage regulator

TUBE AND RECTIFIER COMPLEMENT

COLLINS

CREATIVE LEADER IN COMMUNICATION

COLLINS RADIO COMPANY • CEDAR RAPIDS, IOWA • DALLAS, TEXAS • BURBANK, CALIFORNIA

Part No. 056 0567 00

10M-1P-10-59

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