

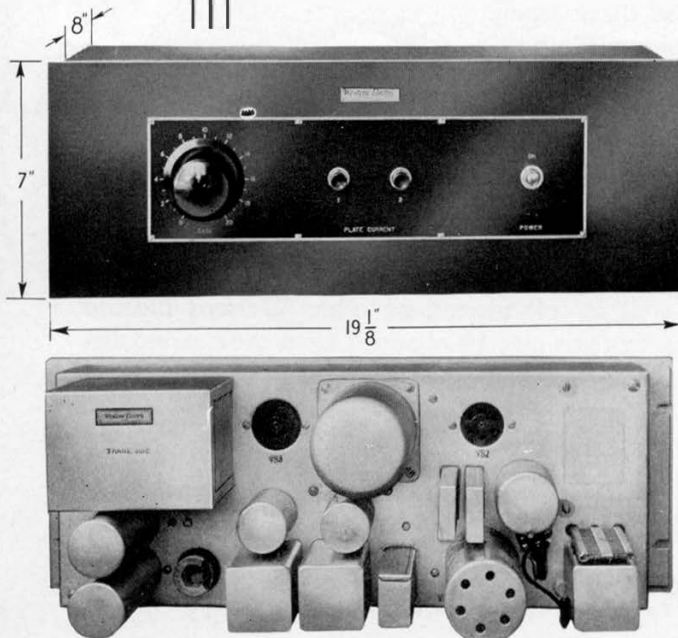
LINE AMPLIFIER

106A

*Western Electric*

# 106A

# LINE AMPLIFIER



The 106A Amplifier is a two-stage, AC operated line amplifier for bridging or matching service where compactness and high quality amplification are desired. It is used to provide isolation between outgoing program lines fed from the same source and to compensate for output switching circuit and line equalization losses. It may also be used as a general purpose amplifier for applications where its gain and power level are adequate.

### TYPICAL PERFORMANCE CHARACTERISTICS

Frequency Range	30 to 15,000 cycles, within $\pm 1$ db gain range.
Source Impedance	600 ohms.
Internal Input Impedance	600 ohms or 10,000 ohms.
Load Impedance	600 ohms.
Internal Output Impedance	600 ohms.
Gain	45 db when operated as a line amplifier between 600 ohm circuits; 20 db when operated as a high impedance (10,000 ohms) bridging amplifier across 600 ohm line.
Gain Control	Nineteen 2 db steps (38 db reduction from maximum) and "off" position.
Output Power for less than 1% total harmonics	+30 dbm* at a fundamental frequency of 400 cycles; +26 dbm* at a fundamental frequency of 50 cycles.
Noise	-60 dbm* Unweighted, for 45 db gain condition. (Signal to noise ratio 90 db for 30 dbm* output.)
Monitoring	Separate winding on output transformer delivers voltage approximately 20 db below that of main output; useful for monitoring bus.
Power Supply	105/125 volts, 50 or 60 cycles, AC.
Power Consumption	Approximately 50 watts at 120 volts.
Plate Metering	Two keys included for plate current measurement by KS-10003 external meter.

\*dbm = single frequency level in db referred to 1 milliwatt.

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## MECHANICAL CHARACTERISTICS

Overall Dimensions	Length 19", Height 7", Depth 7¼" (see photograph).
Weight	Approximately 22 lbs.
Finish	106A-3 Rubber Finish Black Japan. 106A-15 Dark Aluminum Gray.
Mounting	Relay rack or equipment cabinet. Recessed panel construction. Panel has removable front mat to allow access to wiring and terminals in recessed portion of panel.
Vacuum Tubes (Specify separately on order)	One W.E. 310B, one W.E. 336A and one W.E. 274A.

Additional information on the 106A Amplifier as well as information on other Western Electric Radio Broadcast Equipment and Sound Distribution Systems may be obtained from the nearest distributor listed below:

DISTRIBUTOR IN THE UNITED STATES

**Graybar**  
ELECTRIC COMPANY

General Offices: 420 Lexington Avenue, New York, N. Y.  
A NATIONAL ELECTRIC SERVICE

GENERAL DISTRIBUTOR FOR CANADA AND NEWFOUNDLAND

**Northern Electric Company**  
LIMITED

General Offices and Plant: 1261 Shearer Street, Montreal, P. Q.  
TWENTY-ONE BRANCHES FROM COAST TO COAST

DISTRIBUTOR IN OTHER COUNTRIES

**International Standard Electric Corporation**

67 Broad Street

New York, U. S. A.

Offices in all principal cities