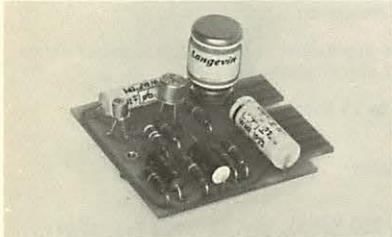
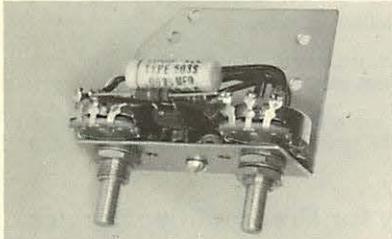


# LANGEVIN 4000 Series Sound Reinforcing Equipment



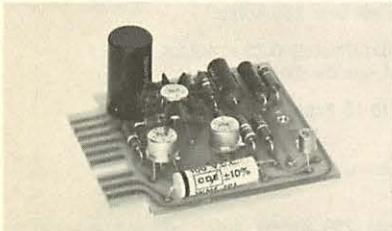
AM 4100

**SOLID STATE MODULAR CONSTRUCTION**



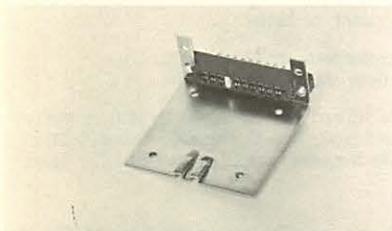
EQ 4008

**MATCHING HARDWARE TO SIMPLIFY  
INSTALLATION AND WIRING**



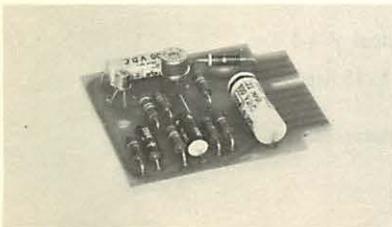
AM 4700

**PROVEN RELIABILITY - ADAPTED FROM  
LANGEVIN'S BROADCAST LINE**



TRY 4000

**SPECIFICATIONS SUPERIOR TO  
PUBLIC ADDRESS PRODUCTS**



AM 4300

**A PROFESSIONAL APPROACH TO THE  
SOUND REINFORCEMENT TRADE**

# Langevin

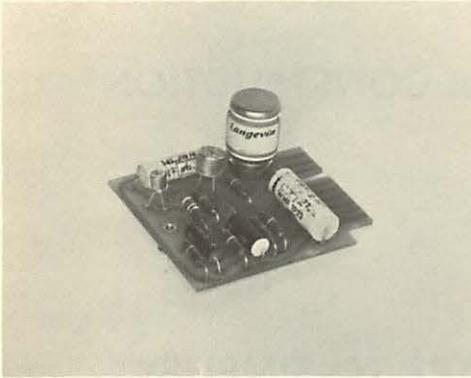
The Langevin 4000 series Sound Reinforcing Modules are basic solid state products designed for simplicity of assembly and operation yet represent a drastic improvement in quality and reliability over existing public address gear.

Engineering of the series comes from the same office that developed Langevins highly successful solid state broadcast and recording products.

Components for the 4000 series were selected to give long service with a minimum of maintenance.

Specifications of the products are the result of market surveys to the sound contractors and recommendations by leading sound consultants throughout the world.

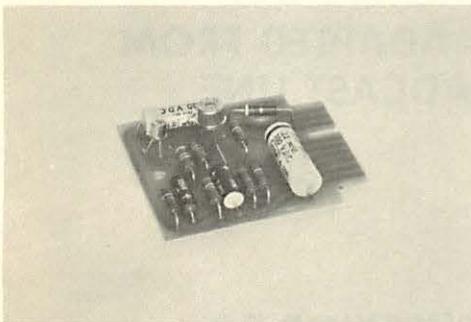
#### AM4100 AMPLIFIER (Primarily for Preamplifier Service)



<b>INPUT IMPEDANCE:</b>	250 ohms nominal, approximately 1500 ohms actual. Equipped with input transformer.
<b>GAIN:</b>	—53 dbm input causes approximately 0.25 v. r.m.s. output signal. (See note at bottom of specifications list.)
<b>FREQUENCY RESPONSE:</b>	±1.0 db from 30 cps to 15 Kcps.
<b>OUTPUT IMPEDANCE:</b>	To be loaded by 250 Kohm.
<b>HARMONIC GENERATION:</b>	At 5 v. r.m.s. out (into 250 Kohm), total harmonic generation will not exceed 0.25% at 1000 cps or 1.0% over the range 30 cps to 15 Kcps.
<b>NOISE:</b>	—116 dbm input equivalent, or better.
<b>POWER REQUIREMENT:</b>	Approximately 220 microamperes at 42 volts DC. NOTE: Do not supply from source over 50 volts.

Gain of this unit may be increased 10 db (for use with extremely low level devices). See instructions for AM4100. If it is desired that the increase in gain be variable (by screwdriver), use Modification Group MG4007.

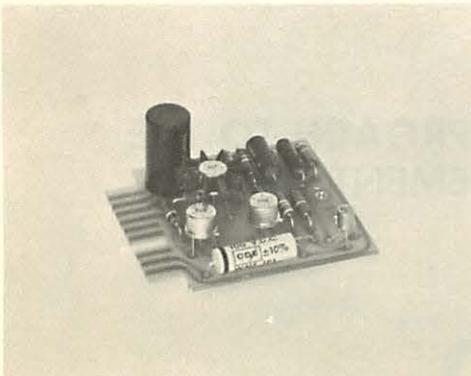
#### AM4300 AMPLIFIER (Primarily for Preamplifier Service)



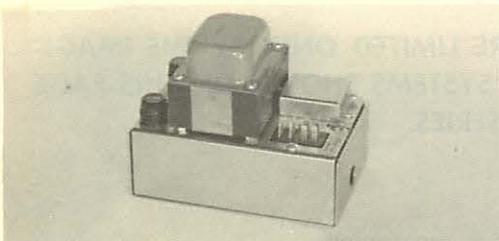
<b>INPUT IMPEDANCE:</b>	Over 250 Kohm. This device is meant to be driven from a high impedance microphone (or other transducer) or from a potentiometer (gain control) not over 250 Kohm.
<b>GAIN:</b>	25 millivolts causes approximately 0.25 v. output. (See note at bottom of specifications list.)
<b>FREQUENCY RESPONSE:</b>	±0.2 db from 30 cps to 15 Kcps.
<b>OUTPUT IMPEDANCE:</b>	To be loaded by 250 Kohm.
<b>HARMONIC GENERATION:</b>	At 5 v. r.m.s. out (into 250 Kohm), total harmonic generation will not exceed 0.25% at 1000 cps or 1.0% over the range 30 cps to 15 Kcps.
<b>NOISE:</b>	—116 dbm input equivalent, or better.
<b>POWER REQUIREMENT:</b>	Approximately 220 microamperes at 42 volts DC. NOTE: Do not supply from source over 50 volts.

Gain of this unit may be increased 10 db. See instructions for AM4300. If it is desired that the increase in gain be variable (by screwdriver), use Modification Group MG4007. This amplifier may be given a phonograph (RIAA) frequency response characteristic by use of Modification Group MG4001.

#### AM4700 AMPLIFIER (Line Driver or Program Amplifier)



<b>INPUT IMPEDANCE:</b>	Over 250 Kohm.
<b>GAIN:</b>	50 millivolts causes output of +4 dbm.
<b>FREQUENCY RESPONSE:</b>	±0.5 db from 30 cps to 15 Kcps.
<b>OUTPUT IMPEDANCE:</b>	600 ohms nominal, unbalanced.
<b>OUTPUT POWER:</b>	+18 dbm nominal.
<b>HARMONIC GENERATION:</b>	At +18 dbm into 600 ohms, total harmonic generation will not exceed 0.25% at 1000 cps or 0.8% over the range 30 cps to 15 Kcps.
<b>NOISE:</b>	Noise will be at least 60 db below an output level of +4 dbm.
<b>POWER REQUIREMENT:</b>	Approximately 36 milliamperes at 42 volts DC.



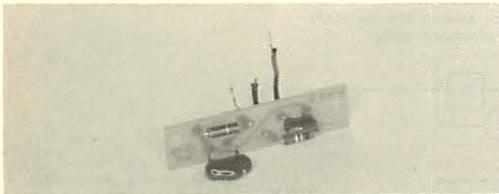
### PS4900

Regulated supply 42 volts (nominal) at 250 MA. with less than one millivolt ripple, mains: 117 volt 60 cycle. Also contains second-filter 40 volts 5 MA.

SIZE: 5 1/4" long, 3" wide, 4" high.

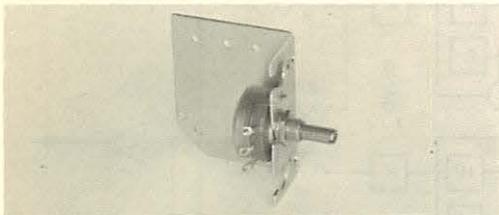
WEIGHT: 3 1/2 pounds.

Will power 20 preamplifiers type AM4100 or AM4300 plus 4 line amplifiers type AM4700.



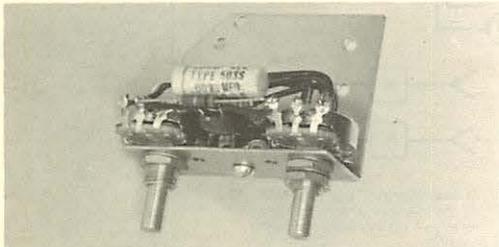
### MG4001

Converts AM4100 to RIAA disc playback frequency response. Five millivolts RMS 1000 CPS input to AM4100 produces 0.25 volt equalized output. Mounts on mounting holes "A" on tray TRY4000.



### MG4007

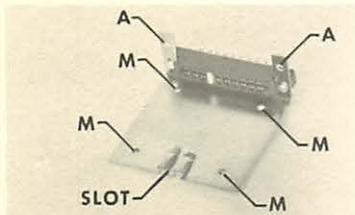
Gain control mounted on accessory bracket BKT4000.



### EQ4008

Tone Control. Modification group will boost or attenuate approximately 10 db at 50 CPS and 15,000 CPS. Used with AM-4300 Amplifier, total gain will be unity. Replaces BKT4000 Bracket for panel-mounting.

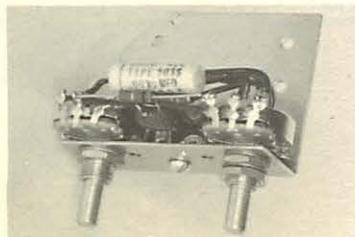
## BUILDING BLOCK HARDWARE FOR 4000 SERIES, SIMPLIFIES SOUND SYSTEM CONSTRUCTION



TRAY TRY 4000 can be mounted by means of 4 holes "M". The amplifiers plug into TRY 4000. The stud on the circuit board fits into slot on TRY 4000 to assure retention. Modification groups are mounted on holes "A".



Modification groups mounted on screw holes "A" with wires to terminal side of receptacle. Wires are soldered to appropriate terminals on receptacle.



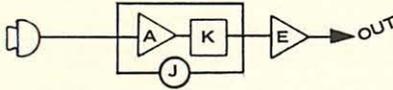
Equalization group EQ 4008 is mounted on a separate bracket that will accommodate the tray assembly. The assembly of equalization group, TRY 4000 with preamp or amplifier, may be panel mounted by means of the bushings on the equalizer controls.



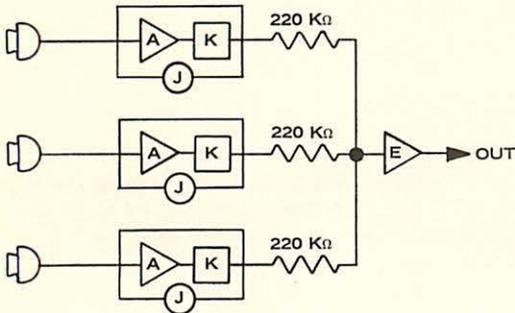
Mounting bracket BKT 4000 is used wherever it is necessary to mount the TRY 4000 on a non-horizontal plane. The TRY 4000 may be mounted in any one of four attitudes, rear down, front down, either side down. In addition, one or two rotary controls may be mounted on BKT 4000 and the assembly may be mounted on the bushing of the controls. The BKT 4000 has an angle cut on one side to permit mounting near the bottom of a sloping panel.

**THE APPLICATIONS OF LANGEVIN'S 4000 SERIES MODULES ARE LIMITED ONLY BY THE IMAGINATION AND INGENUITY OF THE CONSTRUCTOR. THE FOUR SYSTEMS SHOWN ON THIS PAGE DESCRIBE SOME OF THE POSSIBILITIES OF USE OF THE 4000 SERIES.**

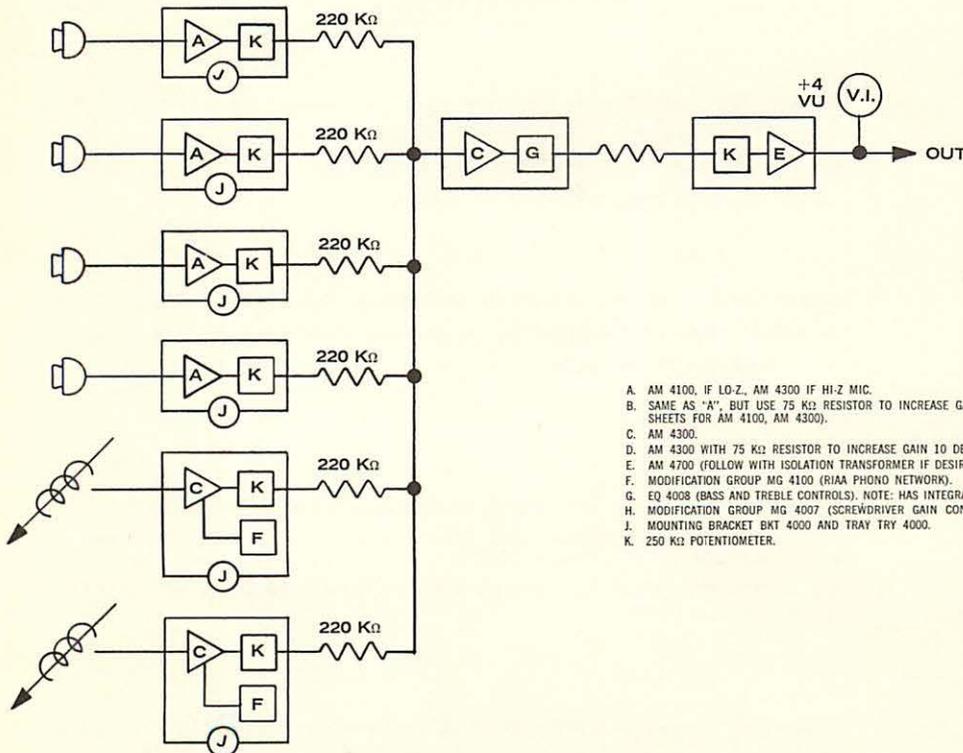
(1) MICROPHONE TO LINE



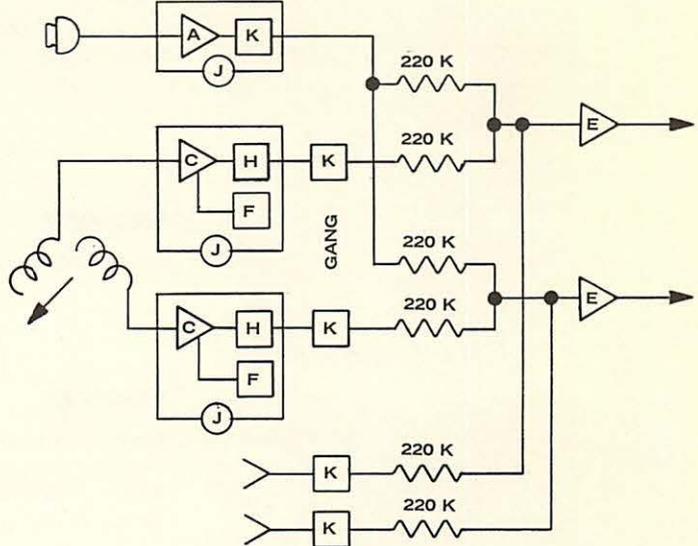
(2) MULTIPLE MICROPHONE TO LINE  
(Max. No. is 6)



(3) FOUR MICROPHONES, TWO PHONOGRAPHS TO LINE, WITH BASS AND TREBLE CONTROLS.



(4) MONOPHONIC (Split) MICROPHONE AND STEREO PHONOGRAPH  
(With aux. input for stereo source such as output of tape playback unit.)



(NOTE: Undesired cross-channel signals will be more than 30 DB below program, under worst conditions. There will be no cross-channel with mic. gain closed).

- A. AM 4100, IF LO-Z., AM 4300 IF HI-Z MIC.
- B. SAME AS "A", BUT USE 75 KΩ RESISTOR TO INCREASE GAIN 10 DB. (SEE SPEC. SHEETS FOR AM 4100, AM 4300).
- C. AM 4300.
- D. AM 4300 WITH 75 KΩ RESISTOR TO INCREASE GAIN 10 DB.
- E. AM 4700 (FOLLOW WITH ISOLATION TRANSFORMER IF DESIRED).
- F. MODIFICATION GROUP MG 4100 (RIAA PHONO NETWORK).
- G. EQ 4008 (BASS AND TREBLE CONTROLS). NOTE: HAS INTEGRAL MOUNTING BRACKET.
- H. MODIFICATION GROUP MG 4007 (SCREWDRIVER GAIN CONTROL).
- J. MOUNTING BRACKET BKT 4000 AND TRAY TRY 4000.
- K. 250 KΩ POTENTIOMETER.