

# AMPEX

Publication No. 4890164

Issued: March 1967

## MICROPHONE PREAMPLIFIER

### Catalog No. 4010066

Ampex Microphone Preamplifier, Catalog No. 4010066, is a plug-in unit which utilizes two stages of amplification. It is wired so that a variable gain control may be inserted between the two stages; when used with Ampex recorders such as the Models AG-440, AG-500, and AG-600, the record level control on the equipment is so connected. This makes the preamplifier a variable gain device, capable of accommodating a wide variety of professional quality microphones.

The unit can be used to drive any amplifier with a 100,000 ohm input impedance, at a 0.1 volt rms level. When so used, the signal input is connected across pins 4 and 8, the unbalanced output is taken across pins 7 and 2 (ground). Power (+24 volts dc) is connected to pin 5 with pin 2 again ground. As previously mentioned, a variable gain control (100,000 ohms) is connected across pins 3 and 6. Pin 1 is connected to the case of the unit, and should also be grounded.

Specifications for the unit are as follows:

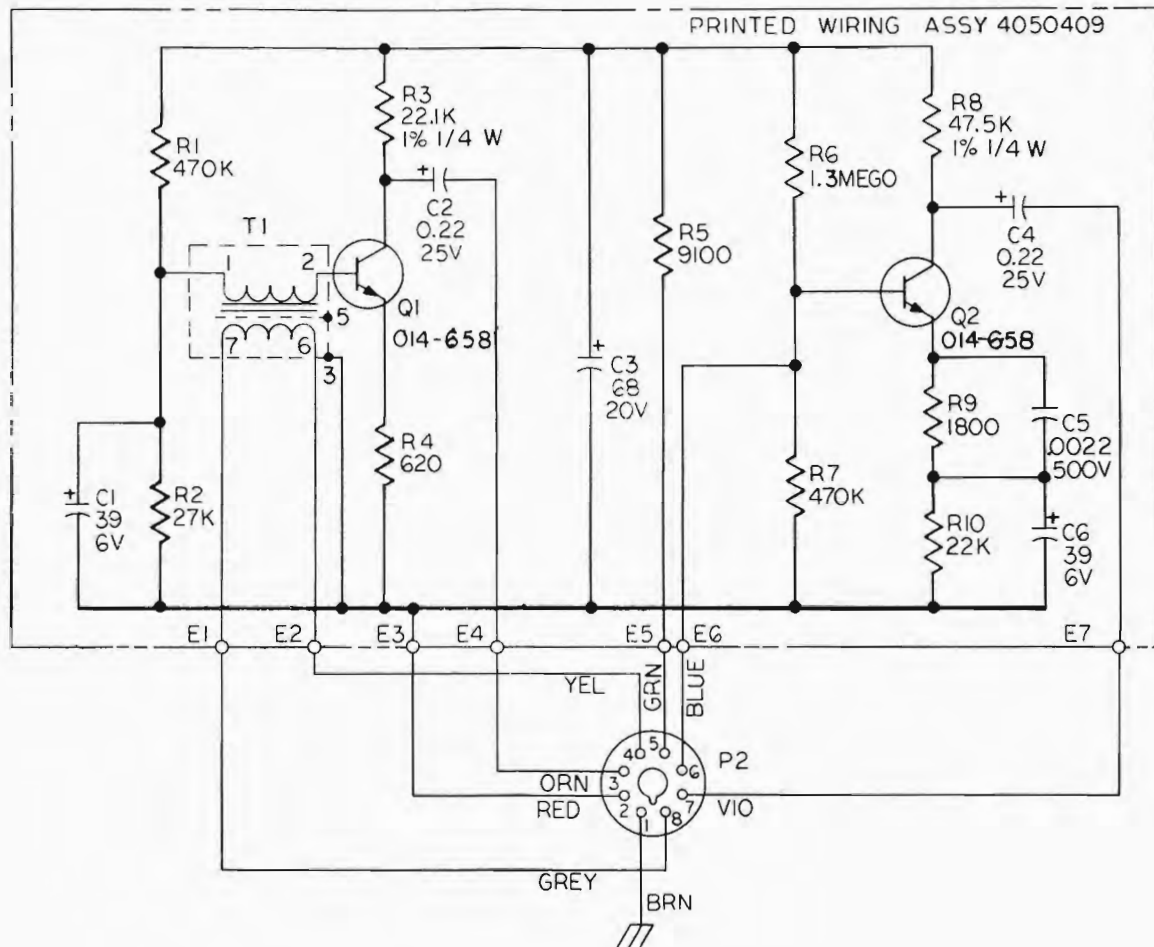
Gain	At least 57.5 db
Frequency Response	$\pm 1$ db, 50 Hz to 15,000 Hz (500 Hz reference)
Output Clipping Level	Not less than 2.5 volts rms
Signal-to-Noise Ratio	Not less than 55 db at maximum gain

## MICROPHONE PREAMPLIFIER

CATALOG NO. 4010066

(see Fig. 6-31)

Ref.	Qty	DESCRIPTION	Ampex Part No.
	1	Printed Circuit Board, assembly	4050409-01
C1	2	Capacitor, tantalum; 39 mfd, $\pm 20\%$ , 6 vdcw	037-452
C2	2	Capacitor, tantalum; 0.22 mfd, $\pm 20\%$ , 25 vdcw	037-450
C3	1	Capacitor, tantalum; 68 mfd, $\pm 20\%$ , 20 vdcw	037-451
C4	-	Same as C2	
C5	1	Capacitor, ceramic disc; .0022 mfd, $\pm 10\%$ , 500 vdcw	030-102
C6	-	Same as C1	
Q1	2	Transistor, silicon; low noise, low level	014-658
Q2	-	Same as Q1	
R1	2	Resistor, fixed, comp; 470,000 ohms, $\pm 5\%$ , 1/2w; RC20GF474J	041-029
R2	1	Resistor, fixed, comp; 27,000 ohms, $\pm 5\%$ , 1/2w; RC20GF273J	041-015
R3	1	Resistor, metal film; 22,100 ohms, $\pm 1\%$ , 1/4w	057-208
R4	1	Resistor, fixed, comp; 620 ohms, $\pm 5\%$ , 1/2w; RC20GF621J	041-006
R5	1	Resistor, fixed, comp; 9,100 ohms, $\pm 5\%$ , 1/2w; RC20GF912J	041-373
R6	1	Resistor, fixed, comp; 1.3 meg ohms, $\pm 5\%$ , 1/2w; RC20GF135J	041-377
R7	-	Same as R1	
R8	1	Resistor, metal film; 47,500 ohms, $\pm 1\%$ , 1/4w	042-482
R9	1	Resistor, fixed, comp; 1,800 ohms, $\pm 5\%$ , 1/2w; RC20GF182J	041-009
R10	1	Resistor, fixed, comp; 22,000 ohms, $\pm 5\%$ , 1/2w; RC20GF223J	041-016
T1	1	Transformer, microphone	4580197-01
	2	Sockets, transistors	150-103
	1	Can, plug-in	4290201-10



*Microphone Preamplifier*