

1-21-46

MODEL 106-A

TYPE

Two stage, fixed, medium gain, low noise, pre-amplifier for use in high quality speech input systems.

TYPICAL ELECTRICAL CHARACTERISTICS

GAIN: Approximately 38 db with provisions for decreasing to 28 or 18 db maximum.

OPERATES FROM: Source impedance of 30, 250, or 600 ohms.

OPERATES INTO: Load impedance of 600 ohms.

OUTPUT POWER: Approximately .038 watt (16DBM) with less than 1% TOTAL R.M.S. harmonic distortion at 400 cycle single frequency.

OUTPUT NOISE: Better than 80 db below .001 watt. SEE SPECIAL NOTE

FREQUENCY CHARACTERISTICS: Production run -5 to 1 db over the range 30-15,000 cycles.

EXTERNAL POWER SUPPLY REQUIREMENTS: FILAMENT 6.3 volts .6 amperes.

PLATE 275 volts 8 milliamperes. (Filament and plate may be obtained from 201 series rectifiers).

EXTERNAL CONNECTIONSTERMINAL NUMBERS

1-2

2-3

1-3

5

6

7

8

9-10

11-12

13

EXTERNAL CONNECTIONS

30 ohm input (note 1)

250 ohm input (note 2)

600 ohm input (note 1)

Plate current meter (positive) first stage

Plate current meter (positive) second stage

275 volts DC

-275 volts DC, plate current meter (negative)

and circuit ground

Output 600 ohms (note 3)

6.3 volts AC .6 amperes

Chassis ground

NOTE

1. On unbalanced INPUT circuits, the grounded side should be connected to Terminal #1.
2. On unbalanced INPUT circuits, the grounded side should be connected to Terminal #2.
3. On unbalanced OUTPUT circuits, the grounded side should be connected to Terminal #10.

METERING CIRCUITS

Metering circuits are designed for a percentage type meter with a 200 microampere movement. A series resistor should be added of such value that the total resistance of meter and resistor is 1000 ohms. 100% on the meter will be at 75% of full scale.

CAUTION

Due to the extended frequency range in this amplifier, careful shielding and grounding of all input circuits and output must be observed.

TUBE COMPLEMENT

1-1603

1-6SJ7

SPECIAL NOTE:

Unweighted noise generated within the 106-A amplifier is equivalent to an input signal of -118 dbm (db below .001 watt) over a band width of 20,000 cycles.

MODEL 106-B

TYPE

Two stage, fixed, medium gain, low noise, pre-amplifier or booster amplifier for use in high quality speech input systems.

TYPICAL ELECTRICAL CHARACTERISTICS

GAIN: Approximately 38 db with provisions for decreasing to 28 or 18 db maximum.

OPERATES FROM: Source impedance of 30, 250, or 600 ohms.

OPERATES INTO: Load impedance of 150 or 600 ohms.

OUTPUT POWER: Approximately .038 Watt (16 DBM) with less than 1% total R.M.S. harmonic distortion at 400 cycle single frequency.

OUTPUT NOISE: Better than 80 db below .001 watt. SEE SPECIAL NOTE.

FREQUENCY CHARACTERISTIC: Production run -1 db over the range 30-15,000 cycles.

EXTERNAL POWER SUPPLY REQUIREMENTS: FILAMENT 6.3 volts .6 amperes.

PLATE 275 volts 8 milliamperes. (Filament and Plate may be obtained from 201 series rectifiers.)

EXTERNAL CONNECTIONSTERMINAL NUMBERS

1-2

2-3

1-3

5

6

7

8

9-10

11-12

13

EXTERNAL CONNECTIONS

30 ohm input (note 1)

250 ohm input (Note 2)

600 ohm input (Note 1)

Plate Current Meter (positive)

First Stage

Plate Current Meter (negative)

Second Stage

275 Volts DC

-275 Volts DC Plate Current (negative) and circuit ground

Output 150 or 600 ohms (Note 3)

6.3 Volts AC .6 amperes

Chassis Ground

NOTES

1. On unbalanced INPUT circuits, the grounded side should be connected to Terminal #1.
2. On unbalanced INPUT circuits, the grounded side should be connected to Terminal #2.
3. On unbalanced OUTPUT circuits, the grounded side should be connected to Terminal #10 (supplied strapped for 600 ohms. For 150 Ohms remove strap between Terminals #4 and #5 and restrap #3 to #5 and #4 to #6.)

METERING CIRCUITS

Metering circuits are designed for a percentage type meter with a 200 microampere movement. A series resistor should be added of such value that the total resistance of meter and resistor is 1000 ohms. 100% on the meter will be at 75% of full scale.

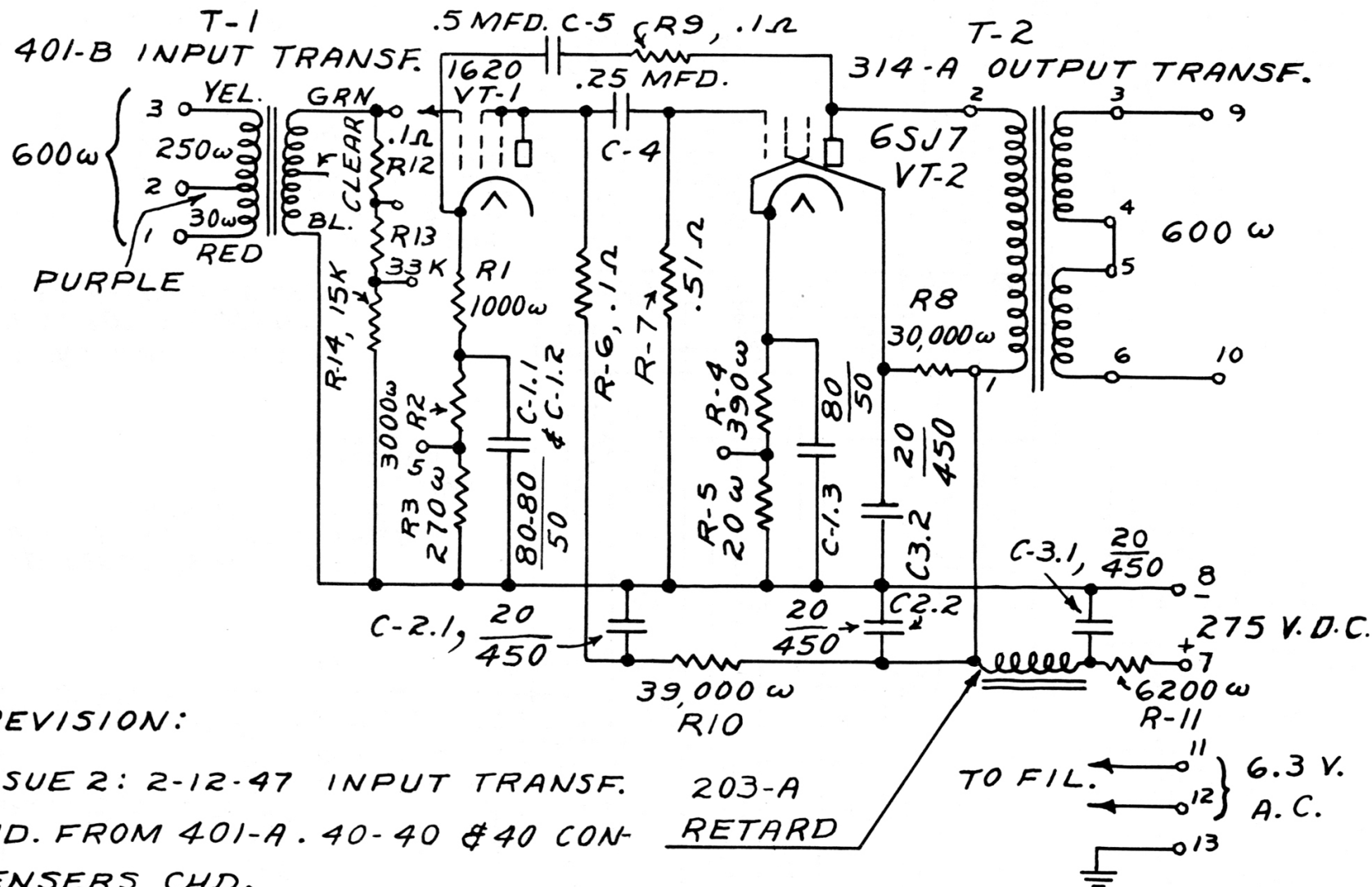
CAUTION

Due to the extended frequency range in this amplifier, careful shielding and grounding of all input and output circuits must be observed.

TUBE COMPLEMENT

1 - 1620

1- 6SJ7



REVISION:

ISSUE 2: 2-12-47 INPUT TRANSF. 203-A
CHD. FROM 401-A. 40-40 & 40 CON- RETARD
DENSERS CHD.

SPECIAL NOTE: Unweighted noise generated within the 106-B amplifier is equivalent to an input signal of -118 dbm (db below .001 watt) over a band width of 20,000 cycles.