

HEATH ELECTRONIC ANALOG computer KIT

AMPLIFIER POWER SUPPLY

MODEL ES-2

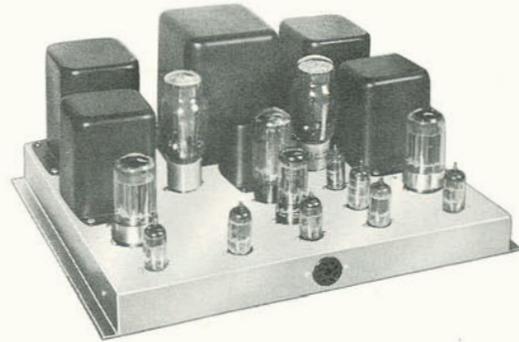
PURPOSE: To supply power to the amplifiers and function generators.

OUTSTANDING FEATURES: The plus and minus voltages are referenced from one standard and are so interconnected as to null or cancel power supply drift to the amplifiers.

POWER OUTPUT: Plus 250 V. at 250 mills, minus 250 V. at 250 mills, minus 450 V. at 50 mills, 6.3 V.A.C. at 12 amps, and 6.3 V.A.C. at 2.5 amps.

TUBE COMPLEMENT: 1-5651, 3-12AX7, 3-6U8, 2-6080, 1-6BX7, 2-5R4GY, 1-5U4GB.

MOUNTING: This unit may be mounted in the computer cabinet or on a rack for special purpose computers.



This power supply is a highly stable unit which features voltage regulation by a single 5651 tube. It is well rated for its use.

INITIAL CONDITIONS

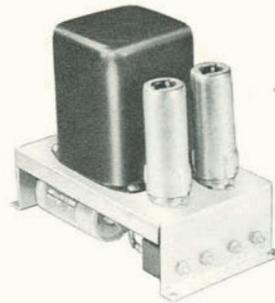
MODEL ES-100

PURPOSE: To supply initial condition voltage to integrators.

OUTSTANDING FEATURES: Low drift rate, ungrounded, floating supply, highly shielded.

TUBE COMPLEMENT: 2-OB2.

MOUNTING: Three of these dual initial conditions power supplies mount inside the computer cabinet. This makes a total of six floating power supplies available.



This unit contains two separate supplies both of which can be varied from zero to 100 volts. Since they are floating supplies, they may be used for offsetting amplifiers and biasing diodes.

AMPLIFIER

MODEL ES-201

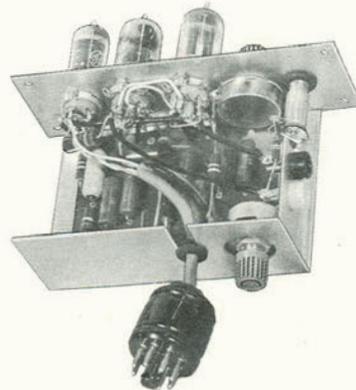
PURPOSE: To provide an amplifier for integration, sign changing, addition, and multiplication by a constant.

OUTSTANDING FEATURES: This unit is a highly stable unit with low drift. It is linear from plus 100 to minus 100 volts, will deliver 10 mills, and has an open loop gain of 50,000. Its phase shift when connected as a unity inverter is less than one degree at 1200 cycles.

TUBE COMPLEMENT: 1-12AX7, 1-6BQ7A, 1-6BH6.

POWER REQUIREMENTS: Plus 250 V., minus 250 V., minus 450 V. Quiescent power is less than 5 watts.

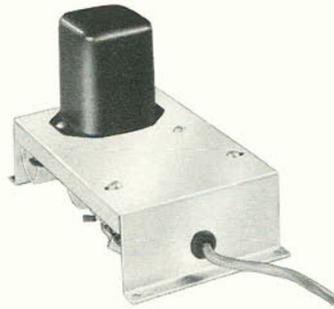
MOUNTING: This unit may be mounted at the rear of the computer or on a standard rack mounting for special purpose computer.



This unit has a shielded chassis and makes use of printed circuits for ease of construction and uniformity. It is mounted at the top rear of the computer where it is shielded thermally and electrically from the rest of the computer.

RELAY POWER SUPPLY

MODEL ES-151



PURPOSE: To supply power to operate the functional relays.

OUTSTANDING FEATURES: Has built in voltage surge network to insure simultaneous operation of the relays.

POWER OUTPUT: Designed to supply 50 volts across four 10,000 ohm relays.

MOUNTING: This unit may be mounted in the computer cabinet or in a special purpose computer.

This unit supplies a high surge voltage for rapid simultaneous operation of the relays, then the voltage drops to that necessary to hold the relays.

REFERENCE POWER SUPPLY

MODEL ES-50



PURPOSE: To supply highly stable and accurate reference voltages.

OUTPUT: Plus 100 volts and minus 100 volts.

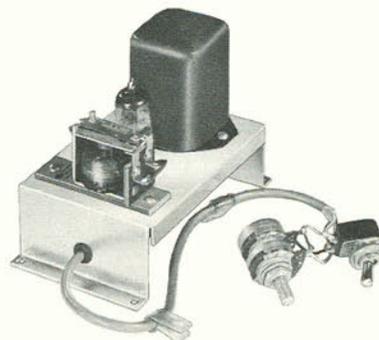
TUBE COMPLEMENT: 2-6X4, 2-6U8, 1-5651.

MOUNTING: This unit may be mounted in the computer cabinet or in a special purpose computer.

In this supply the positive and negative voltages are slaved together and referenced from a single 5651. When operated with the constant voltage transformer, the output ripple, jitter, and noise is negligible.

REPETITIVE OSCILLATOR

MODEL ES-505



PURPOSE: To provide repetitive operation of the functional relays.

OUTSTANDING FEATURES: Has an adjustable repetition rate of 0.6 to 6.0 times per second.

TUBE COMPLEMENT: 1-6J6.

MOUNTING: This unit may be mounted in the front of the computer cabinet or in a special purpose computer.

The repetitive oscillator allows problem solutions to be displayed on an oscilloscope.

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