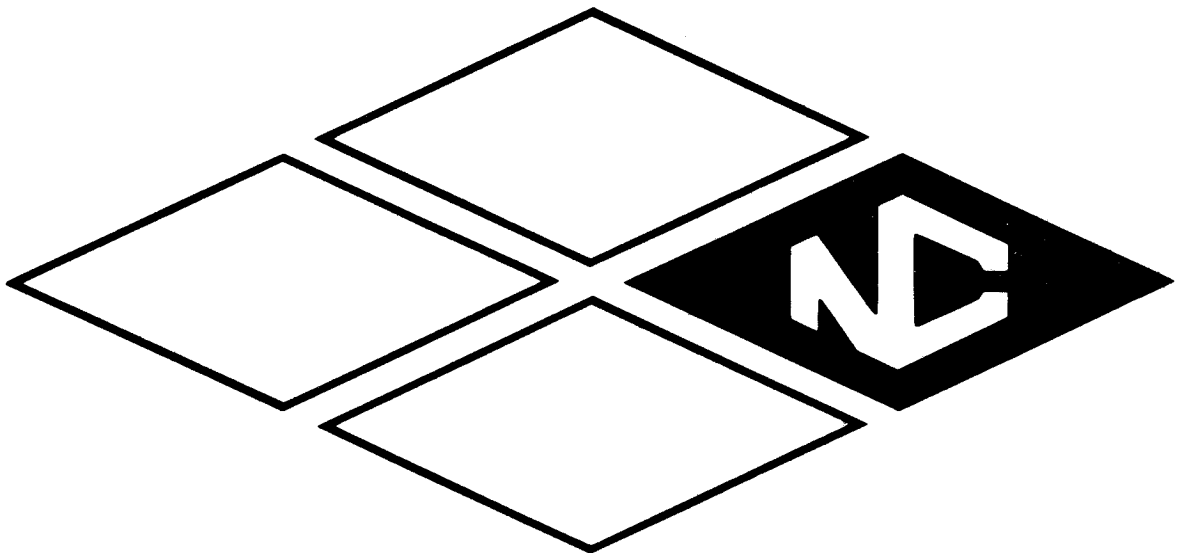


AC 41-289

ACCESSORY POWER SUPPLIES

Instruction Manual

MODEL NCX-A
MODEL NCX-D



NATIONAL RADIO COMPANY

Scanned by Lynn Bisha W2BSN

Courtesy of the
Antique Wireless Association's
Museum of Electronic Communications
Bloomfield New York

NCX-A POWER SUPPLY

The NCX-A Power Supply is a conservatively rated supply capable of providing all necessary power to operate the National NCX-3 transceiver or other similar equipment. The supply is housed in a gray-blue perforated cabinet with a front panel matching the styling of the NCX-3. Included with the supply is a 4" x 6" oval speaker which is mounted behind the front panel. The supply is equipped with a power plug and 3' cable so that it may be connected directly to the NCX-3 transceiver, with no other power or speaker connections required.

Referring to the schematic diagram, 117 VAC is supplied from the line cord through the power supply protection fuse. A pair of switching leads is connected to the NCX-3 through Pins 1 and 2 of the cable and plug. A bridge rectifier using diodes D1, D2, D3 and D4, swinging choke L1 and the filter capacitors C1 and C2 provide 700 volts dc to the final amplifier tubes in the NCX-3. This high-voltage sup-

tap is filtered by choke L2 and capacitor C3. It is dropped and further filtered by resistor R5 and R6 and a filter capacitor inside the NCX-3 transceiver. This provides 280 volts at 125 ma. at terminal 9 of plug P1. Resistor R8 is a 30,000 ohm bleeder resistor to prevent shock hazard.

The output of the bias winding of T1 is rectified by diodes D5 and D6. This rectified output is filtered by the combination of resistor R7 and capacitor C4 and provides -80 volts at approximately 10 ma. for bias purposes to terminal 3 of the power plug P1.

NCX-A SUPPLY RATINGS

INPUT:

117 V AC \pm 10%, 50-60 cycles/second

1.4 Amperes, 140 Watts receive

3.7 Amperes, 365 Watts CW transmit

OUTPUT:

High Voltage 700 VDC at 50 to 300 ma.

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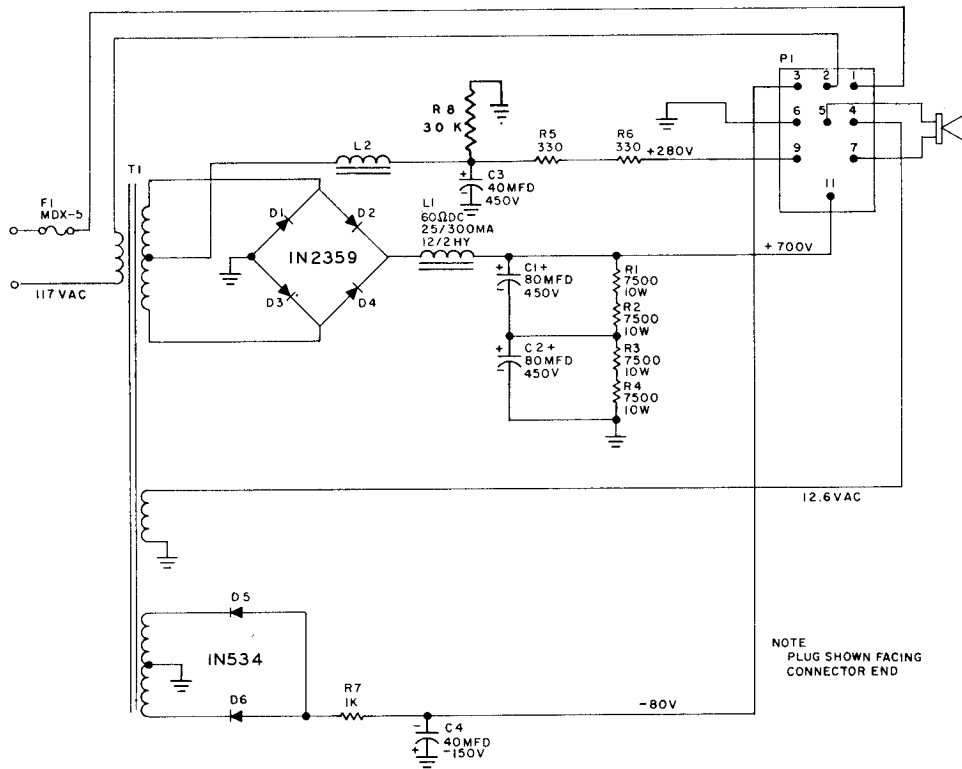


Figure 1. NCX-A Power Supply Schematic

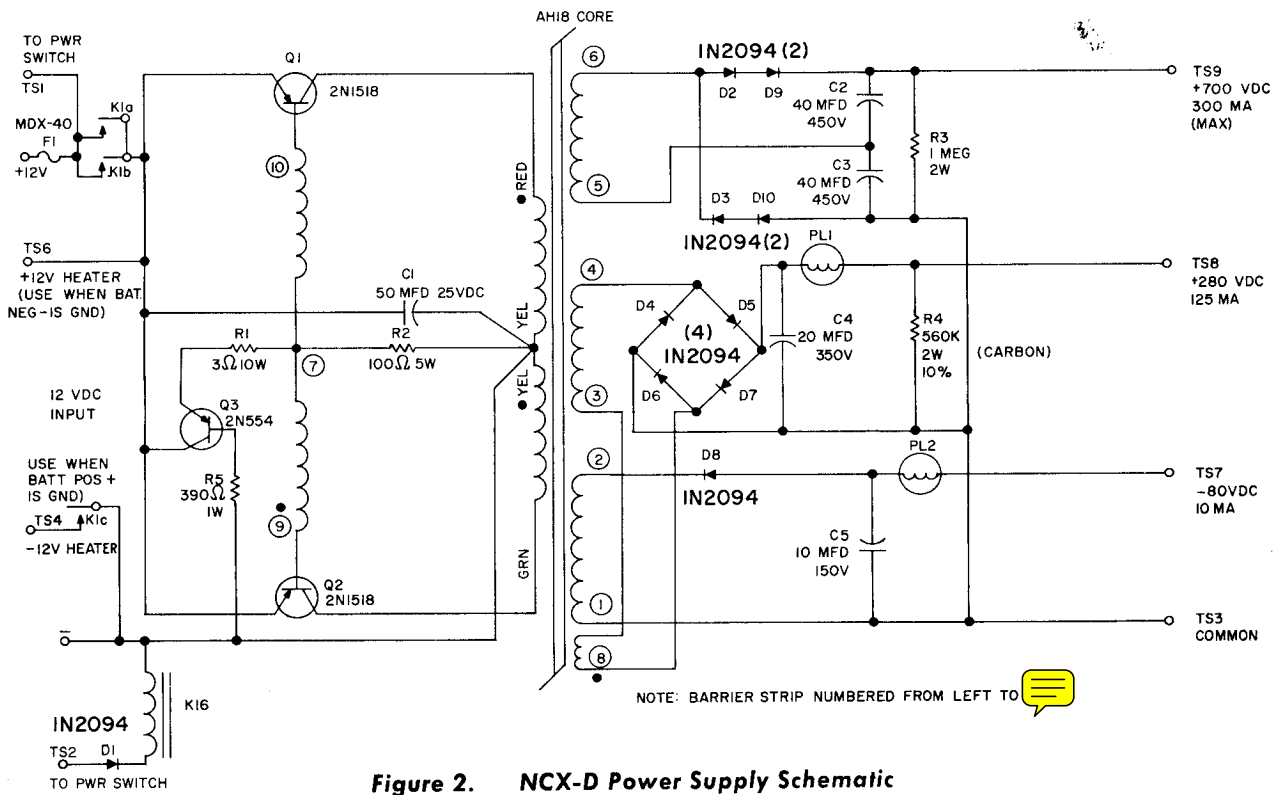


Figure 2. NCX-D Power Supply Schematic

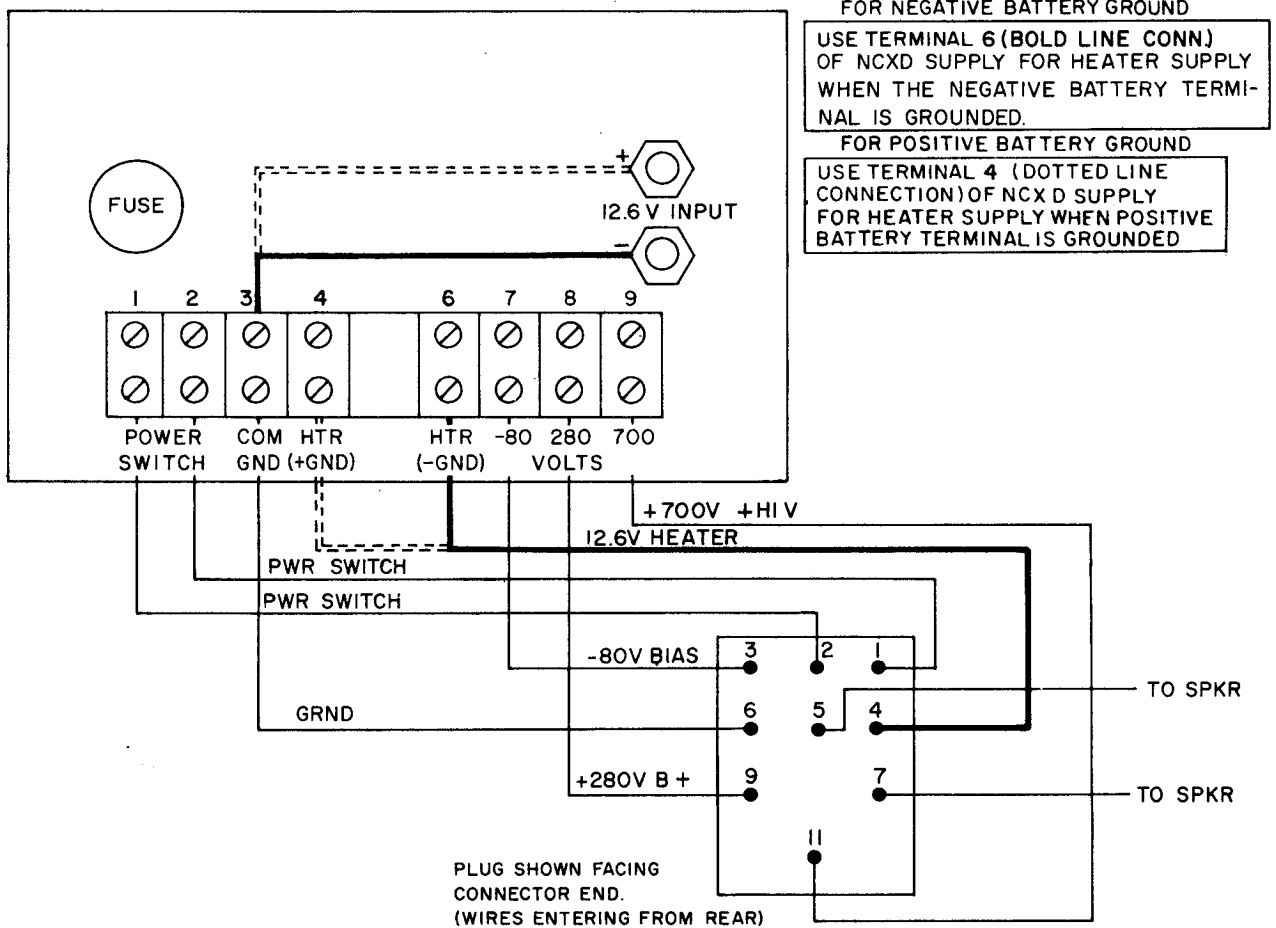


Figure 3. NCX-D Wiring Connections