

AC-4 Power Supply Notes

Garey Barrell, K4OAH

AC-4 Connector

The schematic diagram of the AC-4 power supply shows the connector pin-out from the BACK of the connector, (where the wires are,) while the transmitter schematic shows the pin numbers as seen looking from the PIN (outside) side.

Looking at the back of the transmitter power connector, (P-312-AB,) the top left pin is the +650 V.

10 - 7 - 4 - 1 || - -
11 - 8 - 5 - 2 - - - -
12 - 9 - 6 - 3 || - -

Looking at the front of the supply cable connector, (S-312-CCT,) with the vertical pins to the RIGHT, the pins are as follows, left to right.

1 - 4 - 7 - 10 - - ||
2 - 5 - 8 - 11 - - - -
3 - 6 - 9 - 12 - - ||

Row 1 - AC primary 1 - 12V AC filament - Chassis ground - +650 VDC

Row 2 - AC primary 2 - VOX 1 - VOX 2 - +250 VDC

Row 3 - Xmit ALC - Chassis ground - Bias (ADJ -40 to -80VDC) - Speaker

Shorting the AC primary 1 and 2 pins together turns the supply on. All voltages, ALC and Speaker are referenced to chassis ground, Pins 6 & 7.

VOX 1 and 2 are both isolated from ground.

AC-4 Power Transformer Specifications

Red/Red - 266 VAC - 2.8 ohms - 740 VDC NO LOAD, 650VDC Full Load. 30 V p-p Ripple at Full Load.

TR-4(any) = (300 mA continuous, 500 mA maximum)

T-4X(any) = (200 mA continuous, 350 mA maximum)

Yel/Yel - 108 VAC - 6.5 ohms - 300 VDC No Load, 250 VDC Full Load

TR-4(any) = (200 mA continuous)

T-4X(any) = (120 mA continuous)

Blu/Blu - 98 VAC - 6 ohms - Adjustable -50 to -100 VDC No Load (2 mA continuous)

Grn/Grn - 14 VAC - 0.2 ohms - (12.6 VAC)

TR-4(any) = (5.5 A continuous)

T-4X(any) = (3 A continuous)

Primary Voltage for all readings 121.5 VAC @ 60 Hz