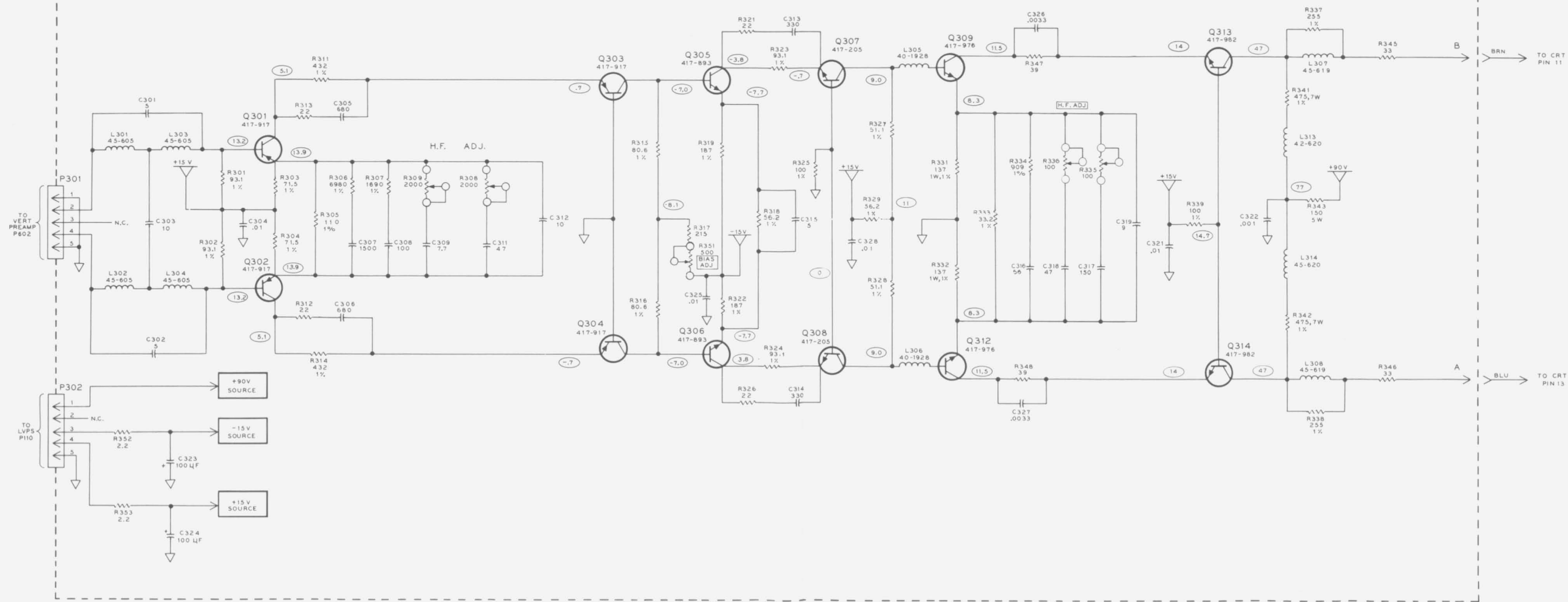
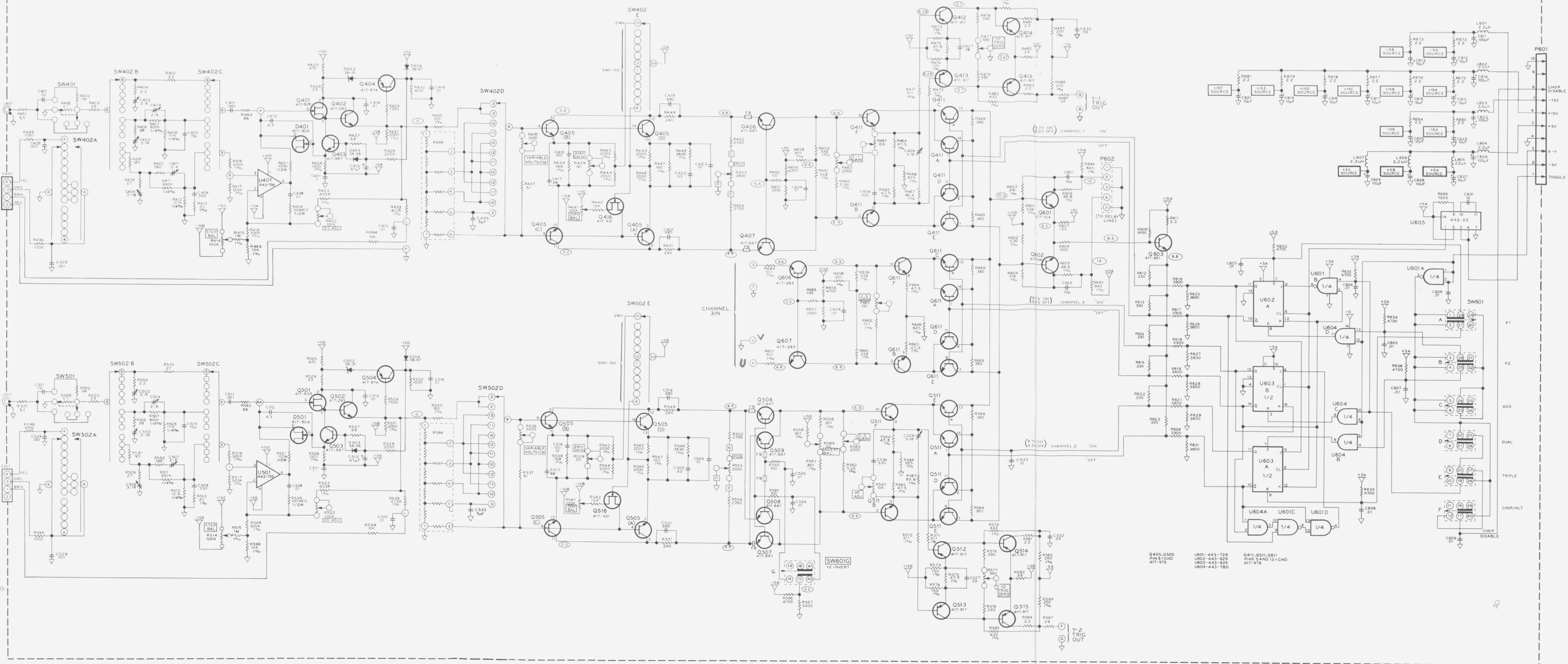


VERTICAL DEFLECTION CIRCUIT BOARD



VERTICAL PREAMP CIRCUIT BOARD



SCHEMATIC OF THE HEATHKIT® 60 MHz TRIPLE TRACE OSCILLOSCOPE MODEL IO-4360A

- NOTES:
- ALL RESISTORS ARE 1/4 WATT, 5% UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (K=1,000; M=1,000,000).
 - ALL CAPACITOR VALUES LESS THAN 1 ARE IN uF, VALUES GREATER THAN 1 ARE IN pF, UNLESS OTHERWISE SPECIFIED.
 - INDICATES A LETTERED WIRE CONNECTION ON A CIRCUIT BOARD.
 - INDICATES A CIRCUIT BOARD PLUG (PINS NUMBERED AS SHOWN).
 - INDICATES A CIRCUIT BOARD SINGLE-WIRE PCB PIN W/ FEMALE TERMINAL CONNECTION.
 - INDICATES A CHASSIS GROUND.
 - INDICATES CIRCUIT BOARD GROUND.
 - INDICATES A PART MOUNTED ON THE CHASSIS, ALTHOUGH ITS LOCATION IN THE SCHEMATIC SUGGESTS ANOTHER LOCATION.
 - CIRCUIT COMPONENT NUMBERS ARE IN THE FOLLOWING GROUPS:
1-99 PARTS ON THE CHASSIS.
101-199 PARTS ON THE LOW VOLTAGE POWER SUPPLY BOARD.
201-299 PARTS ON THE HIGH VOLTAGE CIRCUIT BOARD.
301-359 PARTS ON THE VERTICAL DEFLECTION CIRCUIT BOARD.
361-399 PARTS ON THE CONTROL CIRCUIT BOARD.
401-699 PARTS ON THE VERTICAL PREAMPLIFIER CIRCUIT BOARD.
701-999 PARTS ON THE HORIZONTAL CIRCUIT BOARD.
 - INDICATES A DC VOLTAGE MEASURED FROM THE POINT INDICATED TO GROUND WITH THE VERTICAL AMPLIFIERS BALANCED AND THE HORIZONTAL POSITION CONTROL CENTERED. VOLTAGE MAY VARY ± 20%, OTHER SWITCHES ARE SET AS FOLLOWS:
VERTICAL DISPLAY-Y1.
HORIZONTAL DISPLAY-A.
TRIGGER MODE-NORM.
TRIG COUPLING-DC. TRIGG
TRIGGER SELECT-EXT.
TIME/cm-X-Y.
VOLT/cm-2mV.
 - ALL WAVEFORMS ARE MEASURED FROM THE POINT INDICATED TO GROUND. THE FRONT PANEL CONTROLS ARE SET AS FOLLOWS:
HORIZONTAL POSITION - FOR TRACE TO START AT LEFT EDGE OF SCREEN.
HORIZONTAL DISPLAY - A.
TRIGGER MODE - AUTO.
TRIGGER COUPLING - DC.
TRIGGER SELECT - Y1.
EXT ± 10p, B, - s1.
 - TRANSISTOR TRANSISTOR LOGIC (TTL) LEVELS ARE AS FOLLOWS: A LOGIC 0, OR LOW, IS < 0.8 VOLTS. A LOGIC 1, OR HIGH, IS > 2.0 VOLTS BUT < 5.5 VOLTS. A LOGIC 0 CONTROLS SET/RESETS.
 - ECL LEVELS ARE AS FOLLOWS: A LOGIC 0, OR LOW, IS -1.6 VOLTS. A LOGIC 1, OR HIGH, IS -.9 VOLT. A LOGIC 1 CONTROLS SET/RESETS.
 - ONLY IN CHOP MODE.

