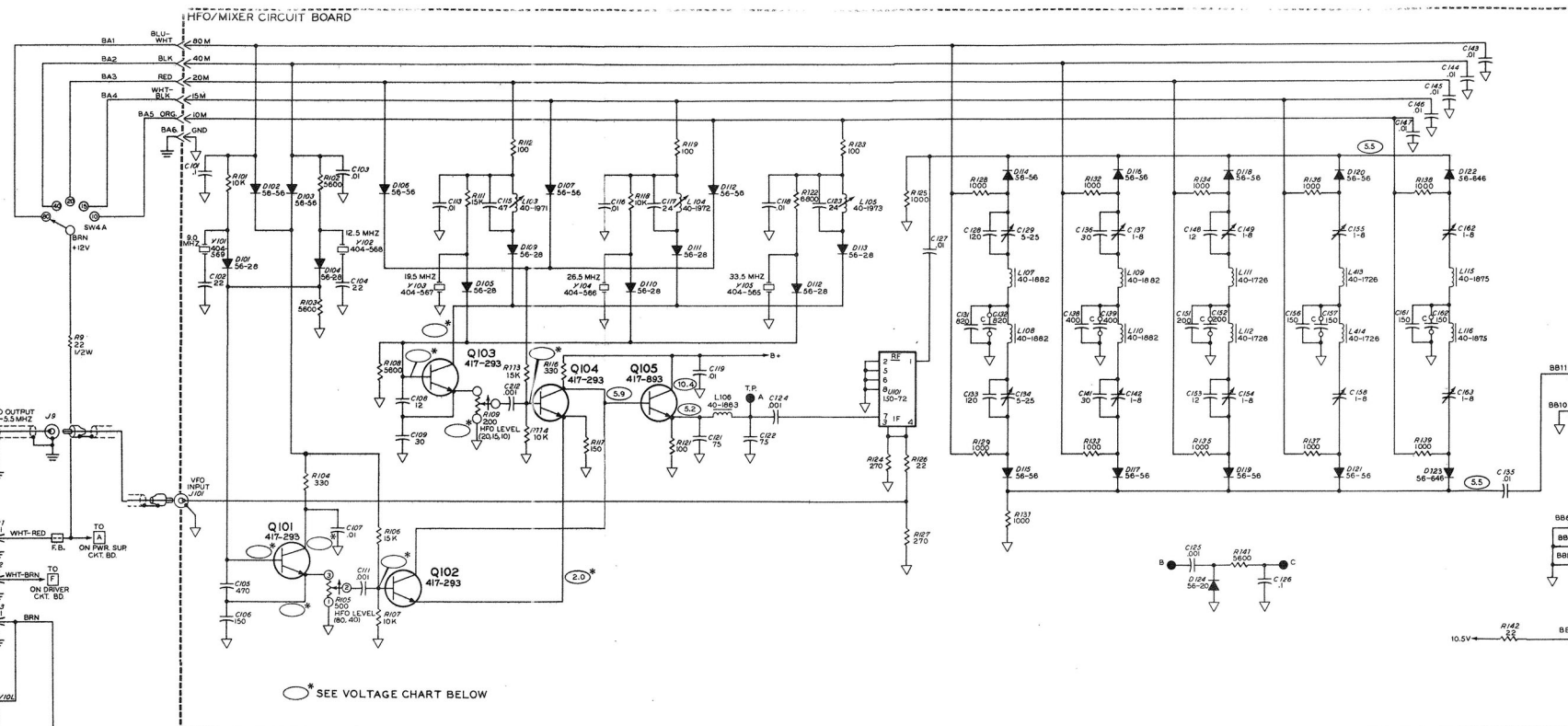
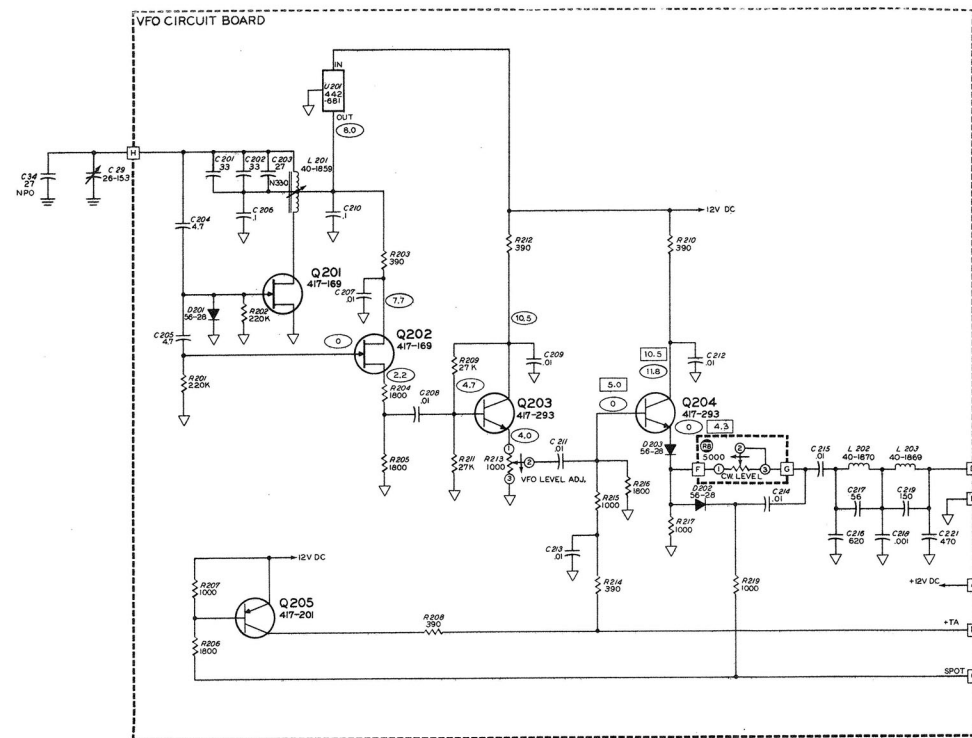




DRIVER CIRCUIT BOARD
VOLTAGE CHART

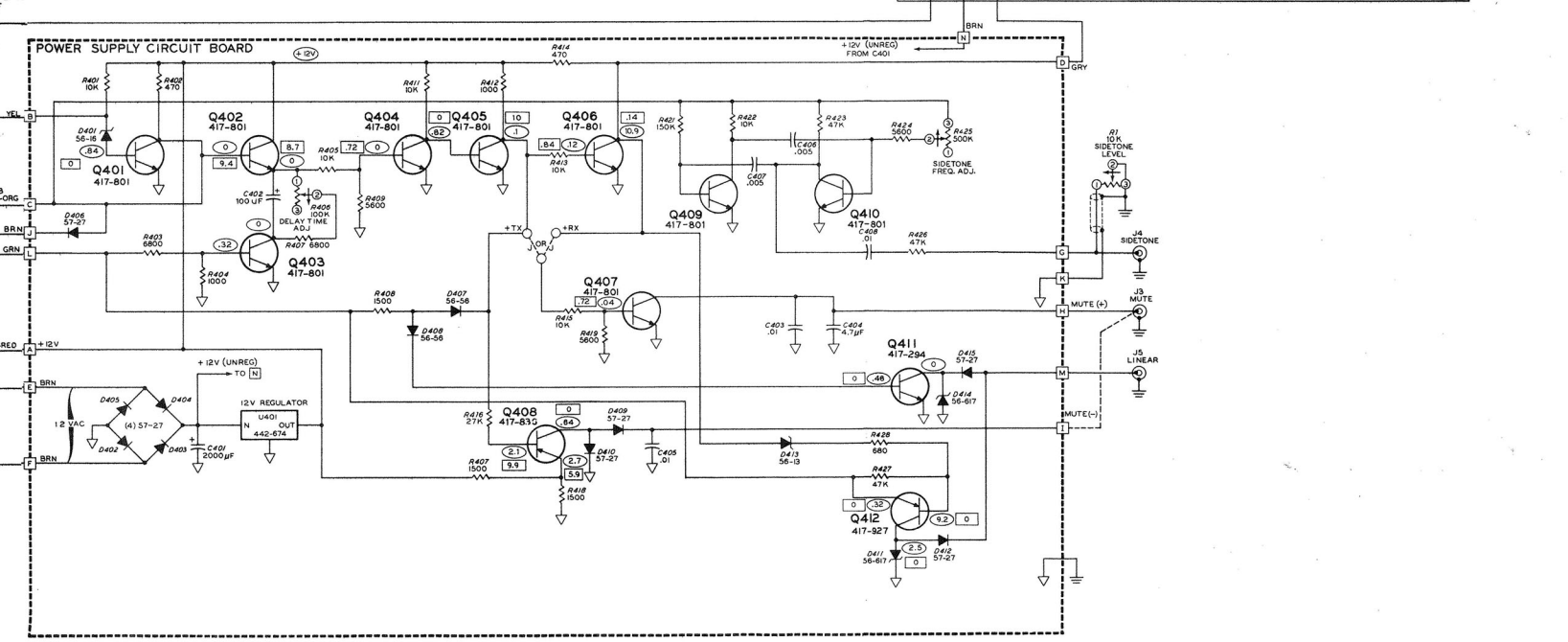
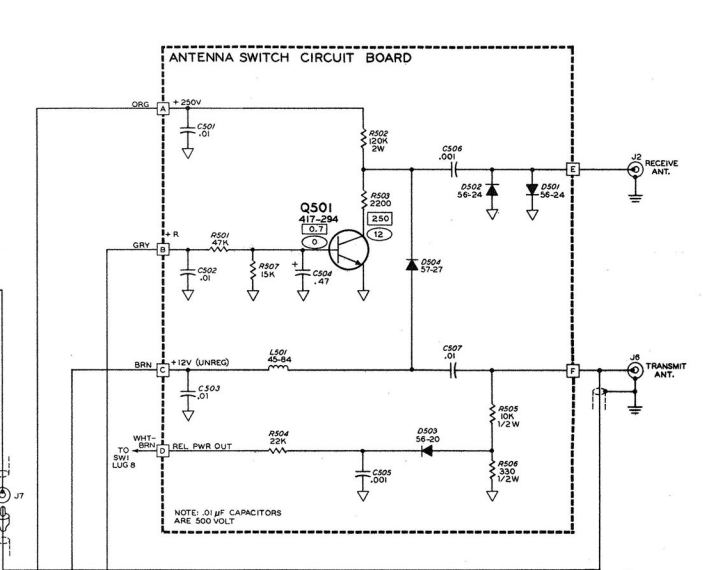
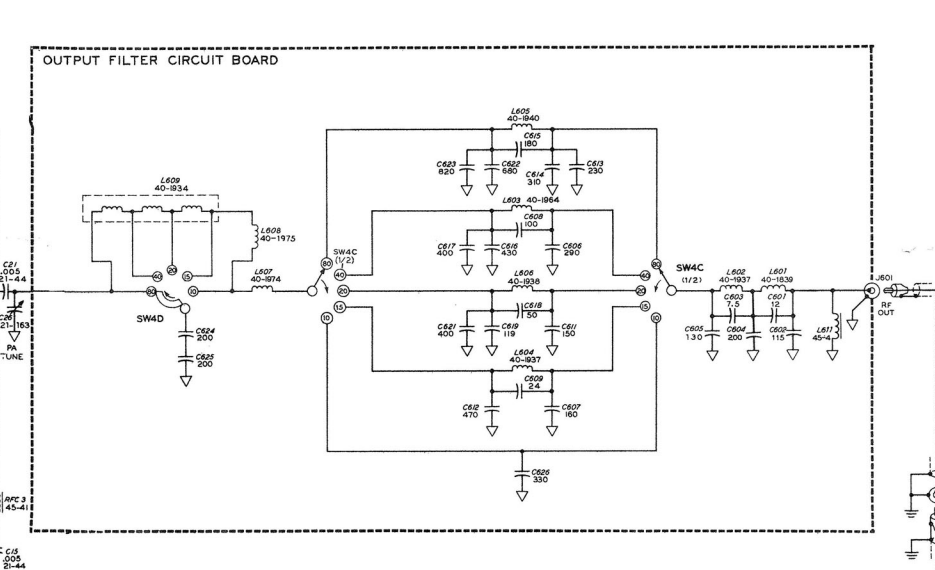
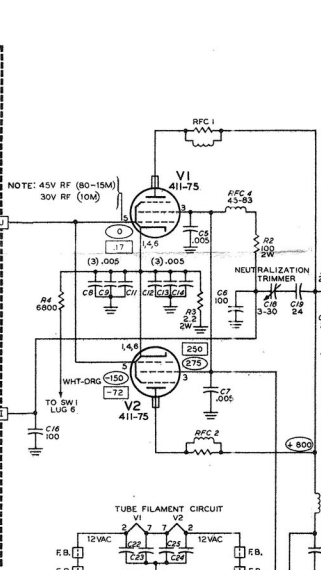
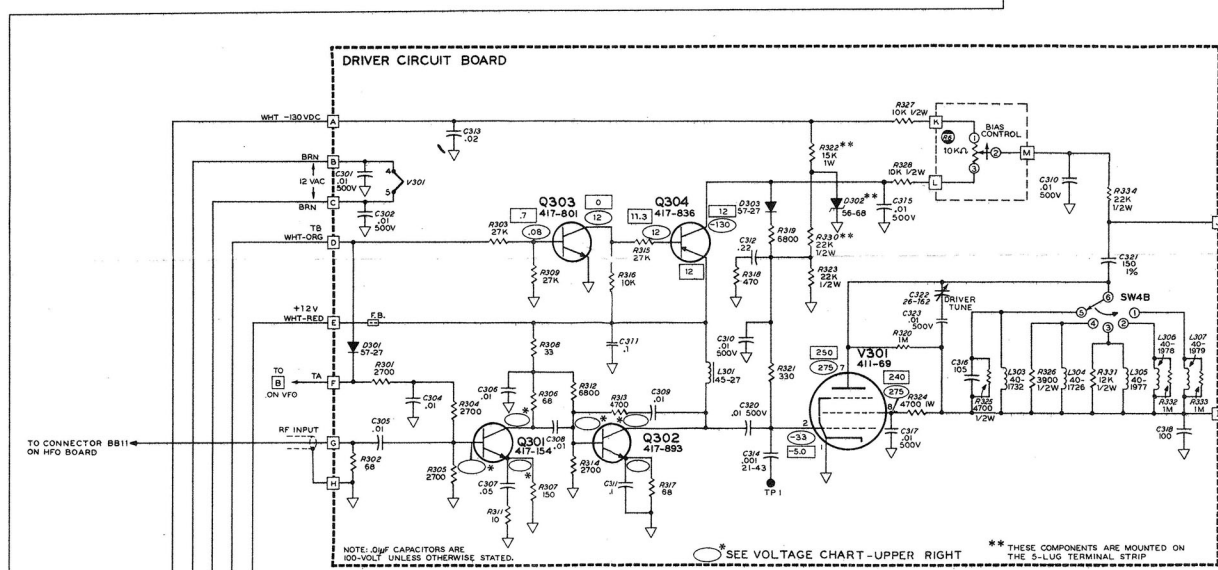
() = RF mV

Transistor	Lead	Receive Mode Opn.	MODE SWITCH POS.			
			Spot	Tune (No RF)	Tune (20 M, 100 W)	Tune (20 M, 100 W)
Q301	E	0 V	2.2 V (0)	2.0 V (0)	2.0 V (0)	2.0 V (0)
	B	0 V	2.9 V (55)	2.7 V (17)	2.7 V (21)	2.7 V (21)
	C	12 V	10.5 V (120)	10.5 V (11)	10.5 V (29)	10.5 V (29)
Q302	E	2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
	B	3.2 V	3.2 V (120)	3.2 V (3.5)	3.2 V	3.2 V
	C	12.0 V	12.0 V (5.3)	12.0 V (1.7)	12.0 V (1.7)	12.0 V (1.7)

HFO/MIXER VOLTAGE CHART

NOTE: READ + DC VOLTS. XMITR KEYS OR UNKEYED

Transistor	Lead	BAND SWITCH POSITION				
		80	40	20	15	10
Q101	E	3.2 V	3.2 V	3.2 V	(NOT USED)	
	B	4.0 V	4.0 V	4.0 V		
	C	8.5 V	8.5 V	8.5 V		
Q102	E	2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
	B	3.4 V	3.4 V	3.4 V	3.4 V	3.4 V
	C	6.0 V	6.0 V	6.0 V	6.0 V	6.0 V
Q103	E	(NOT USED)	2.0 V	2.4 V	3.4 V	3.4 V
	B	(NOT USED)	2.7 V	3.1 V	4.0 V	4.0 V
	C	(NOT USED)	11.0 V	10.0 V	10.0 V	10.0 V
Q104	E	2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
	B	0 V	0 V	3.4 V	3.4 V	3.4 V
	C	6.0 V	6.0 V	6.0 V	6.0 V	6.0 V



SCHEMATIC OF THE HEATHKIT® CW TRANSMITTER MODEL HX-1681

Part of 595-2240-01

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- NOTES:
- COMPONENT NUMBERS ARE IN THE FOLLOWING GROUPS.
 - 1-99 PARTS MOUNTED ON THE CHASSIS.
 - 100-199 PARTS MOUNTED ON THE HFO/MIXER CIRCUIT BOARD.
 - 200-299 PARTS MOUNTED ON THE DRIVER CIRCUIT BOARD.
 - 300-399 PARTS MOUNTED ON THE POWER SUPPLY CIRCUIT BOARD.
 - 400-499 PARTS MOUNTED ON THE ANTENNA SWITCH CIRCUIT BOARD.
 - 500-599 PARTS MOUNTED ON THE OUTPUT FILTER CIRCUIT BOARD.
 - ALL RESISTORS ARE 1/4-WATT, 5% TOLERANCE, UNLESS OTHERWISE NOTED. RESISTOR VALUES ARE IN OHMS (K=1,000; M=1,000,000).
 - CAPACITORS LESS THAN 1 ARE IN μ F (MICROFARADS). ALL OTHER CAPACITORS ARE IN P (PICOFARADS) UNLESS OTHERWISE NOTED.
 - ARROWS AT CONTROLS INDICATE CLOCKWISE ROTATION AS VIEWED FROM THE SHAFT END OF THE CONTROL.
 - THIS SYMBOL INDICATES A DC VOLTAGE ($\pm 10\%$) MEASURED WITH A HIGH-IMPEDANCE VOLTMETER FROM THE POINT INDICATED TO CHASSIS GROUND UNDER THE FOLLOWING CONDITIONS.
 - THE TRANSMITTER IS UNKEYED.
 - MODE SWITCH IN THE XMIT POSITION.
 - THIS SYMBOL INDICATES A DC VOLTAGE ($\pm 10\%$) MEASURED AS IN STEP 5, UNDER THE FOLLOWING CONDITIONS.
 - TRANSMITTER KEYS OR UNKEYED.
 - MODE SWITCH IN THE TUNE POSITION.
 - THIS SYMBOL INDICATES A CIRCUIT BOARD GROUND.
 - THIS SYMBOL INDICATES A CHASSIS GROUND.
 - THIS SYMBOL INDICATES A CHASSIS-MOUNTED PART, SHOWN ON A CIRCUIT BOARD.
 - THIS SYMBOL INDICATES A CIRCUIT BOARD WIRED CONNECTION.
 - THIS SYMBOL INDICATES AN EDGE-MOUNTED CIRCUIT BOARD CONNECTION.
 - THIS SYMBOL, SHOWN ON THE HFO/MIXER CIRCUIT BOARD, INDICATES A TEMPORARILY MOUNTED CAPACITOR USED ONLY DURING ALIGNMENT.
 - REPLACE CAPACITORS ONLY WITH HEATHKIT PART NUMBERS SHOWN.
 - REFER TO THE "CIRCUIT BOARD X-RAY VIEWS" FOR THE PHYSICAL LOCATION OF PARTS.