

Q	RX			TX		
	B	C	E	B	C	E
501	0	7	0	7	0	0
502	.7	0	0	0	.2	0
503	3.3	5.0	2.7	—	—	—
504	2.7	0	3.3	—	—	—

Q	RX			TX		
	B	C	E	B	C	E
404	1.9*	5	1.4*	1.9*	5	1.4*
405	0	3.5	0	0	3.5	0
407	.7	0	0	.7	0	0
408	0	12.2	0	0	12.2	0
409	0	0	0	0	3.7	0
410	0	11	0	.7	0	0
411	.7	0	0	0	.7	0
412	.7	0	0	0	0	0
413	.7	0	0	0	3.8	0
414	0	12.8	0	.7	0	0

* THIS VOLTAGE WAS TAKEN AT 146.000MHZ.

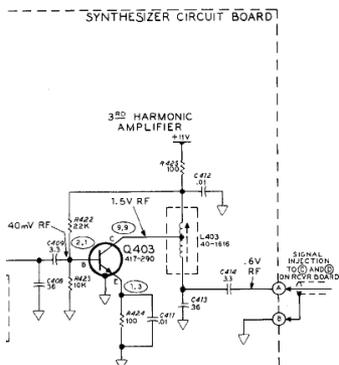
RX			TX		
B	C	E	B	C	E
0	7	0	.7	0	0
.7	0	0	0	.2	0
3.3	5.0	2.7	—	—	—
2.7	0	3.3	—	—	—

SCHEMATIC OF THE HEATHKIT® SYNTHESIZED 2-METER FM TRANSCEIVER MODEL HW-2036A

NOTES:

- COMPONENT NUMBERS ARE IN THE FOLLOWING GROUPS.
1-99 PARTS MOUNTED ON THE CHASSIS.
100-199 PARTS MOUNTED ON THE TRANSMITTER CIRCUIT BOARD.
200-299 PARTS MOUNTED ON THE RECEIVER CIRCUIT BOARD.
300-399 PARTS MOUNTED ON THE POWER AMPLIFIER CIRCUIT BOARD.
400-499 PARTS MOUNTED ON THE SYNTHESIZER CIRCUIT BOARD.
500-599 PARTS MOUNTED ON THE VCO CIRCUIT BOARD.
- ALL RESISTORS ARE 1/4-WATT, 5% TOLERANCE, UNLESS OTHERWISE NOTED. RESISTOR VALUES ARE IN OHMS; k=1000, M=1,000,000.
- CAPACITORS LESS THAN 1 ARE IN μ F (MICROFARADS). ALL OTHER CAPACITORS ARE IN pF (PICOFARADS) UNLESS OTHERWISE NOTED.
- ARROWS AT CONTROLS INDICATE CLOCKWISE ROTATION AS VIEWED FROM THE SHAFT END OF THE CONTROL.
- THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASURED WITH A HIGH IMPEDANCE VOLTMETER FROM THE POINT INDICATED TO CHASSIS GROUND UNDER THE FOLLOWING CONDITIONS:
 - NO SIGNAL INPUT.
 - RECEIVER SQUELCHED AT THRESHOLD.
 - VOLUME CONTROL FULLY COUNTERCLOCKWISE.
 - TRANSMITTER VOLTAGES: KEYED WITHOUT MODULATION.

- ▽ THIS SYMBOL INDICATES CIRCUIT BOARD GROUND.
- ≡ THIS SYMBOL INDICATES CHASSIS GROUND.
- THIS SYMBOL INDICATES A SOLDERED CONNECTION TO A CIRCUIT BOARD.
- ▼ THIS SYMBOL INDICATES A COIL WOUND BY THE KIT BUILDER.
- REFER TO THE "CIRCUIT BOARD X-RAY VIEWS" FOR THE PHYSICAL LOCATION OF PARTS.
- ⊙ THIS SYMBOL INDICATES A TEST POINT.
- THIS VOLTAGE WAS MEASURED WITH A FULL QUIETING SIGNAL INPUT, MODULATED AT 1 kHz WITH ± 3 kHz DEVIATION. AUDIO OUTPUT IS SET FOR 1 WATT (2.8V IN AN 8 Ω LOAD)
- MEASURED WITH A 1 kHz SIGNAL (OR STEADY WHISTLE) INPUT AT MICROPHONE.
- MEASURED WITH NO SIGNAL INPUT.
- ALL RECEIVER RF LEVELS WERE MEASURED WITH CIRCUIT IN FULL LIMITING.



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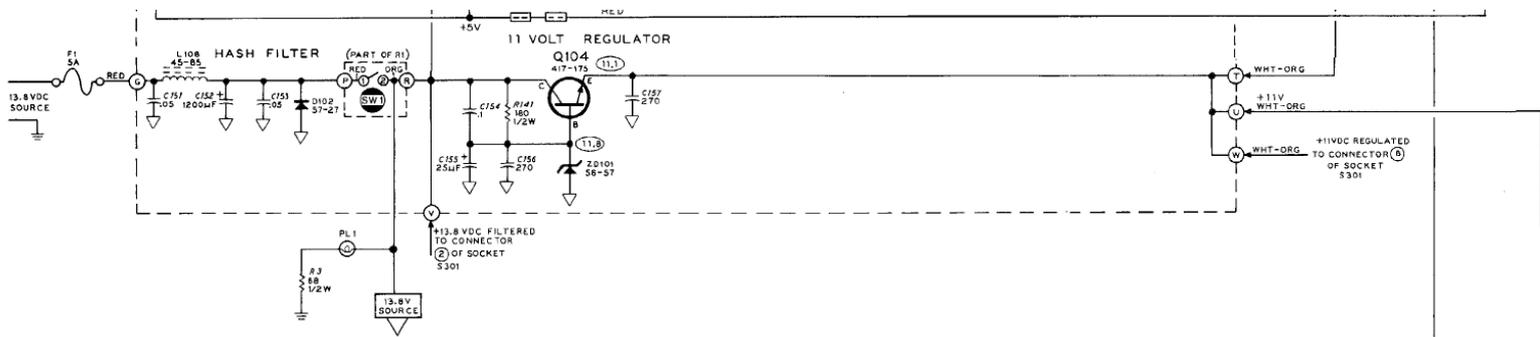
Part of 595-2086-02

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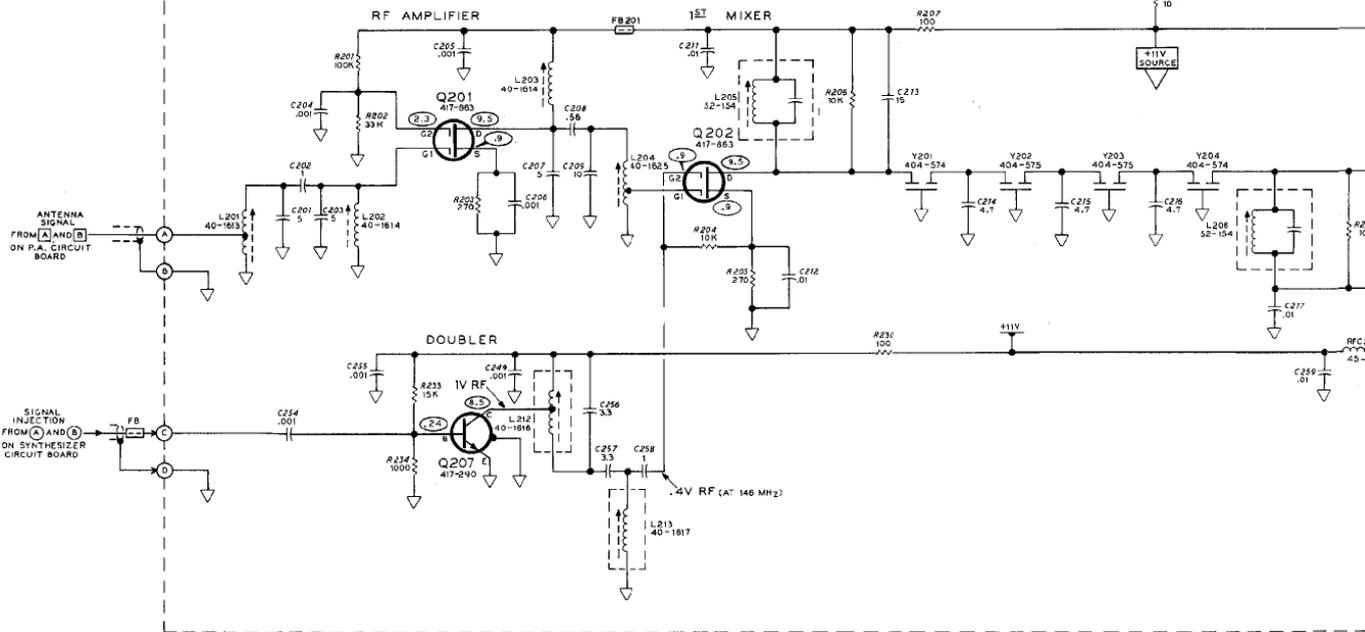
Q	RX			TX		
	B	C	E	B	C	E
404	1.9*	5	1.4*	1.9*	5	1.4*
405	0	3.5	0	0	3.5	0
407	.7	0	0	.7	0	0
408	0	12.2	0	0	12.2	0
409	0	0	0	0	3.7	0
410	0	11	0	.7	0	0
411	.7	0	0	0	.7	0
412	.7	0	0	0	11	0
413	.7	0	0	0	3.8	0
414	0	12.8	0	.7	0	0

* THIS VOLTAGE WAS TAKEN AT 148,000 MHz.

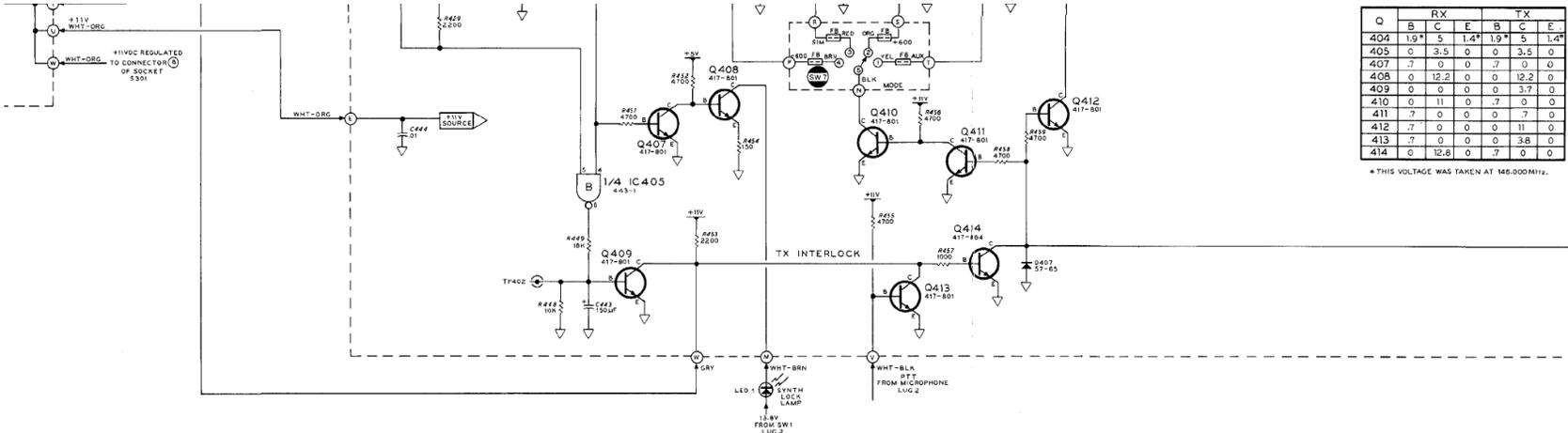




RECEIVER CIRCUIT BOARD
(SEE NOTE 15)

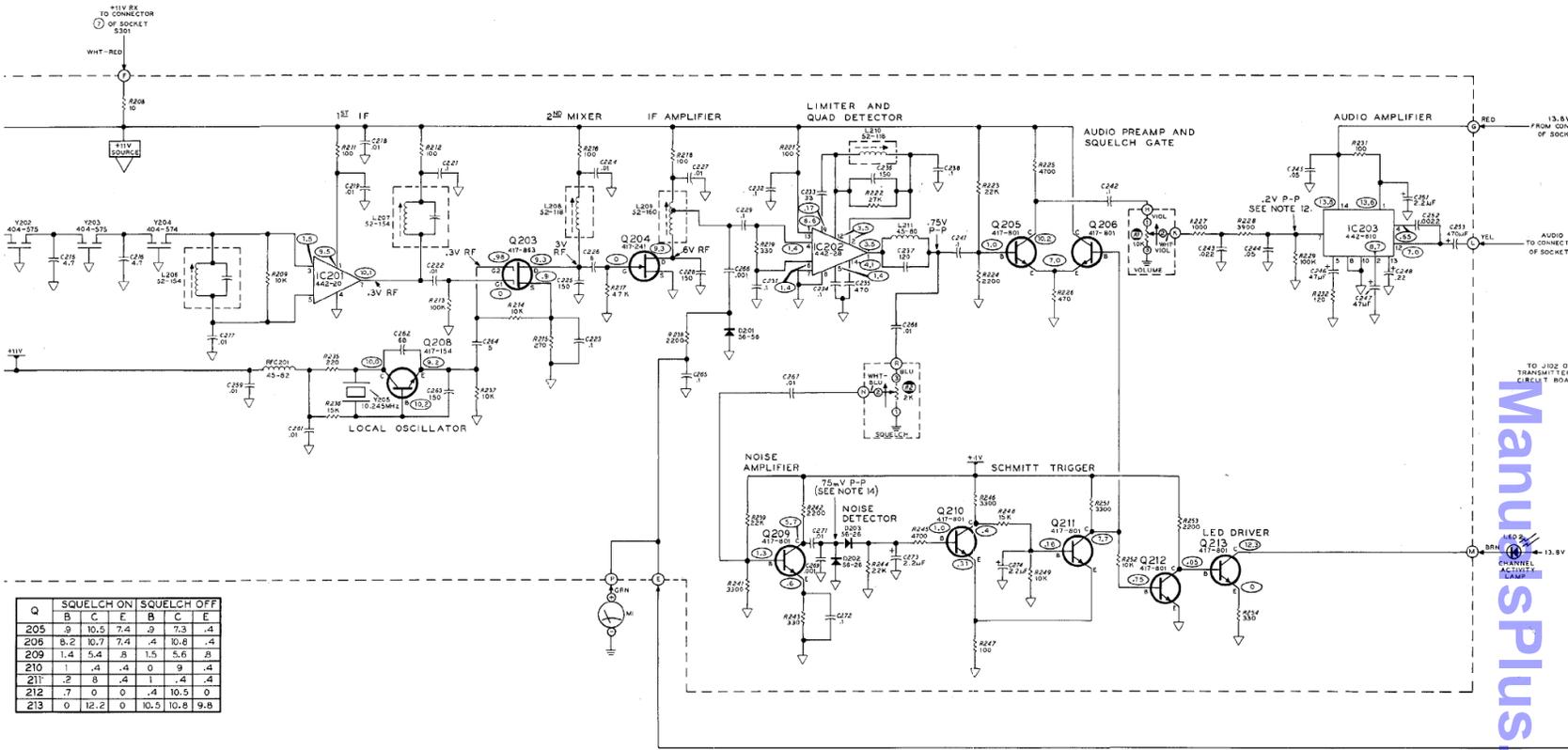


Q	SQUELCH ON			SQUELCH OFF		
	B	C	E	B	C	E
205	.9	10.5	7.4	.9	7.3	.4
206	8.2	10.7	7.4	.4	10.8	.4
209	1.4	5.4	.8	1.5	5.6	.8
210	1	.4	.4	0	9	.4
211	.2	8	.4	1	.4	.4
212	.7	0	0	.4	10.5	0
213	0	12.2	0	10.5	10.8	9.8



Q	RX			TX		
	B	C	E	B	C	E
404	1.9*	5	1.4*	1.9*	5	1.4*
405	0	3.5	0	0	3.5	0
407	.7	0	0	.7	0	0
408	0	12.2	0	0	12.2	0
409	0	0	0	0	3.7	0
410	0	11	0	.7	0	0
411	.7	0	0	0	.7	0
412	.7	0	0	0	11	0
413	.7	0	0	0	3.8	0
414	0	12.8	0	.7	0	0

* THIS VOLTAGE WAS TAKEN AT 146.000MHz.



Q	SQUELCH ON			SQUELCH OFF		
	B	C	E	B	C	E
205	9	10.5	7.4	9	7.3	.4
206	8.2	10.7	7.4	.4	10.8	.4
209	1.4	5.4	.8	1.5	5.6	.8
210	1	.4	.4	0	9	.4
211	.2	8	.4	1	.4	.4
212	.7	0	0	.4	16.5	0
213	0	12.2	0	10.5	10.8	9.8

