

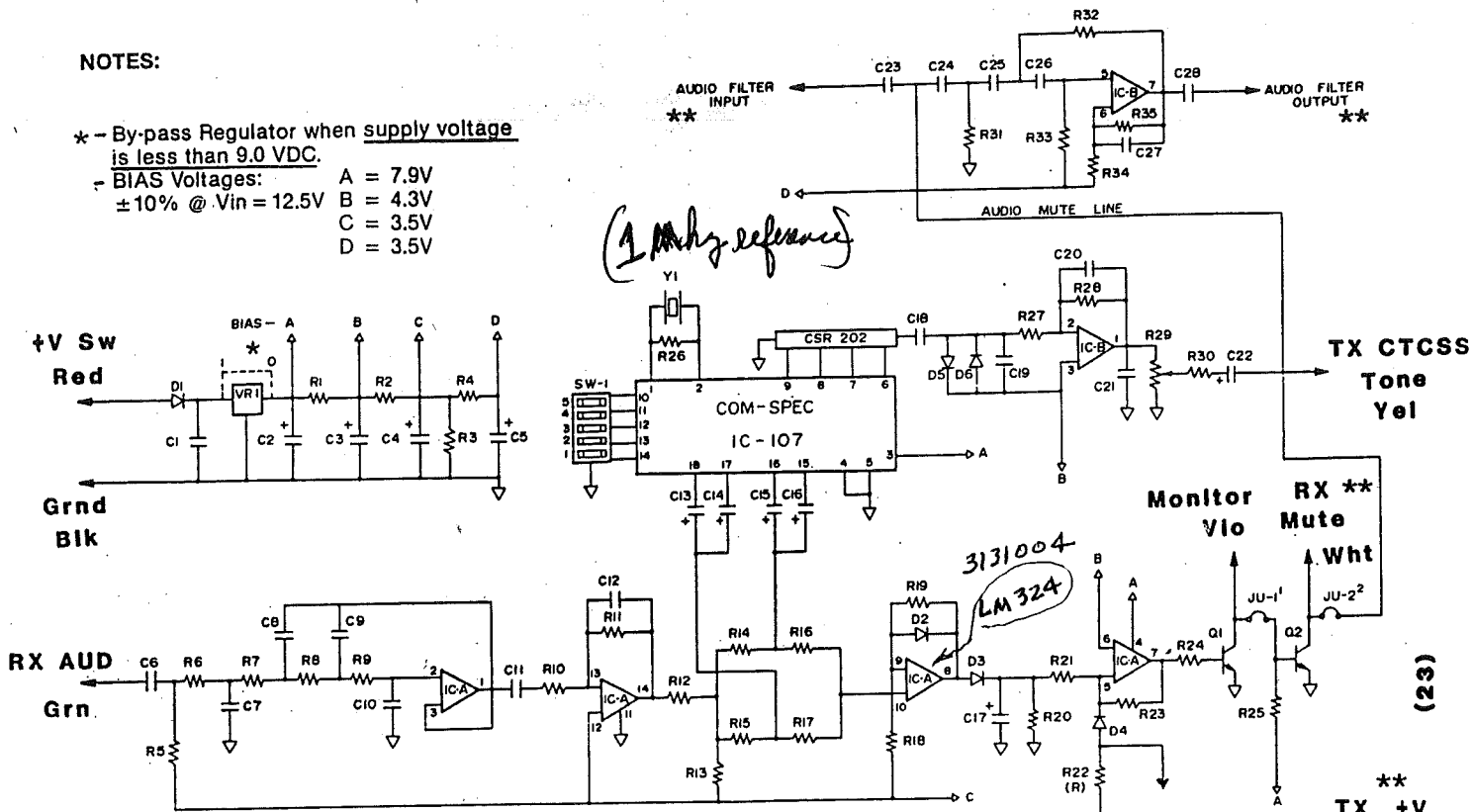
RITRON, INC.

RTS-32 TECHNICAL DATA

148 W. Carmel Drive • Carmel, IN 46032 • 317-846-1201
P. O. BOX 1998 • TWX: 8102603967 RITRONINC CRML

NOTES:

- * - By-pass Regulator when supply voltage is less than 9.0 VDC.
- BIAS Voltages:
A = 7.9V
B = 4.3V
±10% @ $V_{in} = 12.5V$
C = 3.5V
D = 3.5V



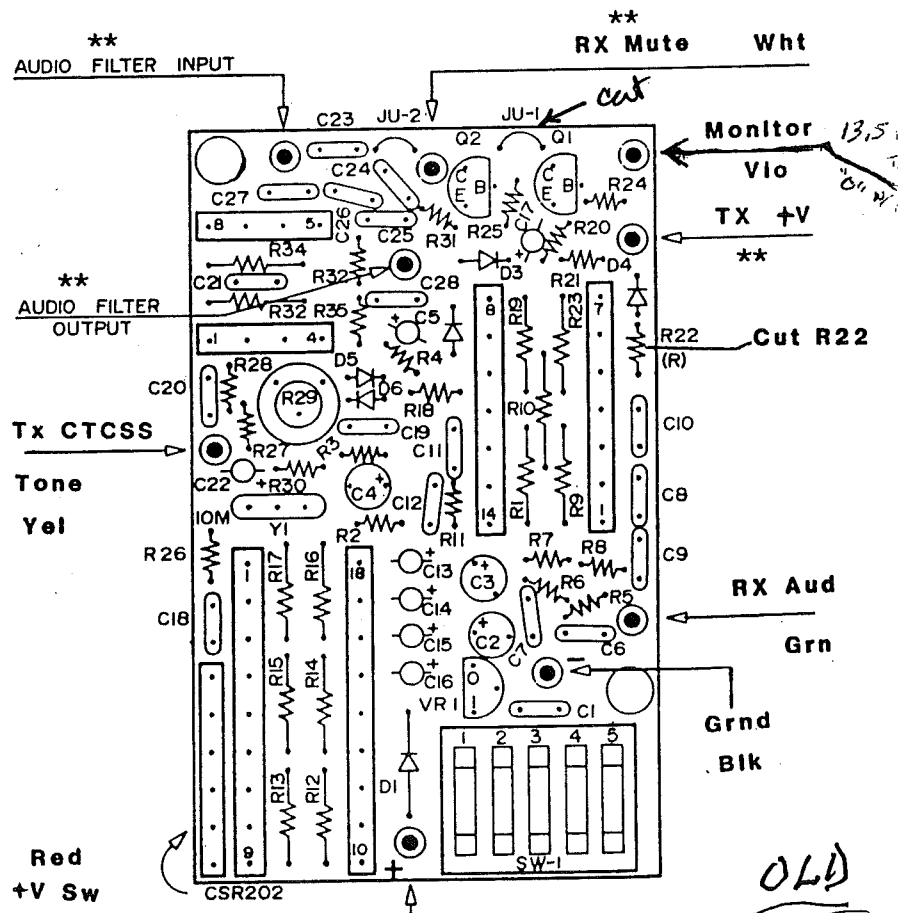
** Connection not used in RR-150 or RR-450 Repeater; cut JU-1 and R22.

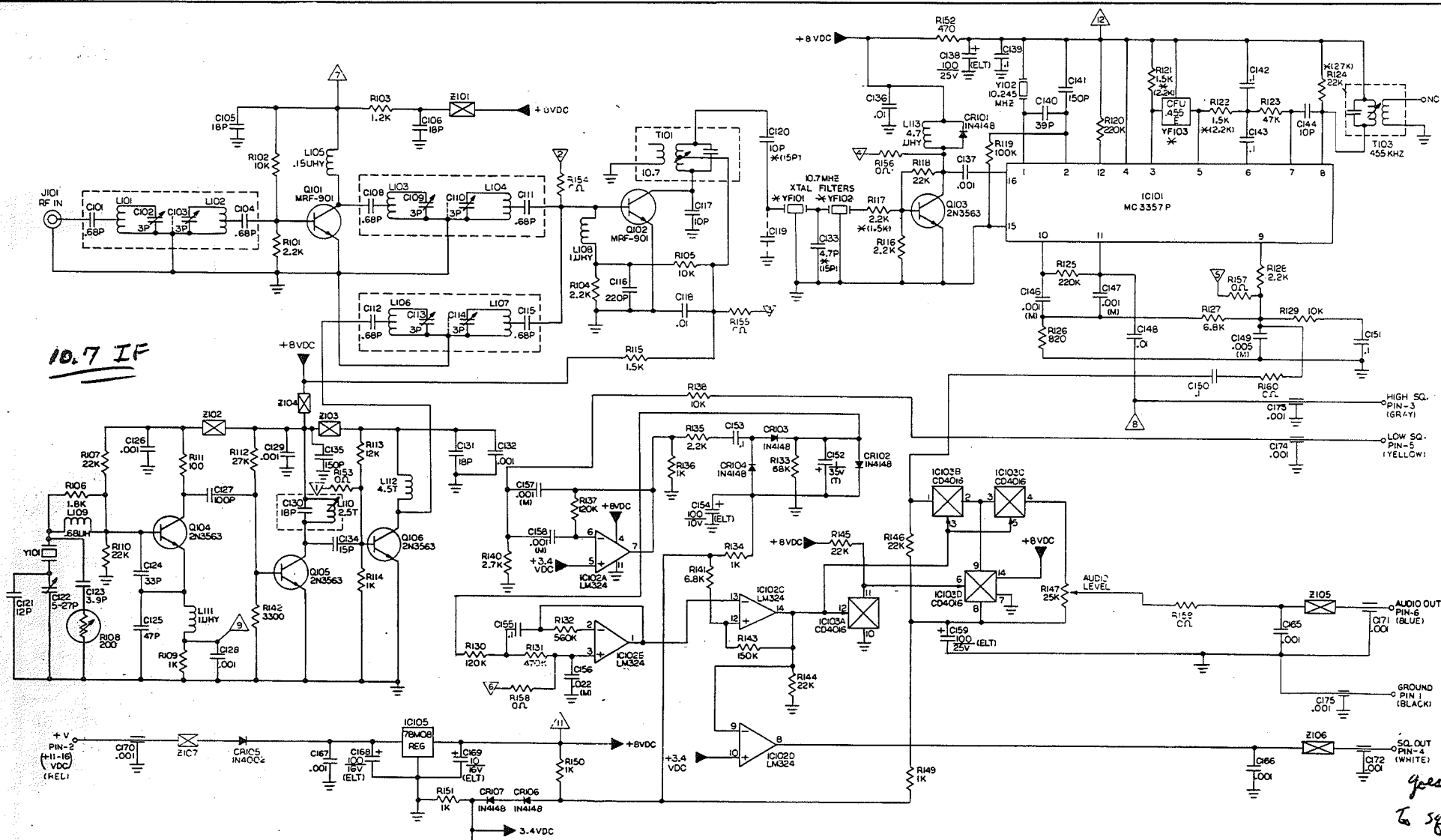
Handhelds use RX Mute & TX +V.

DIP SWITCH PROGRAMMING (FOR CTCSS PRODUCTS)

#	FREQ.	CODE	SWITCH NUMBER*				
			5	4	3	2	1
1	67.0	XZ	0	0	0	0	0
2	71.9	XA	0	0	0	0	1
3	74.4	WA	0	0	0	1	0
4	77.0	XB	0	0	0	1	1
5	79.7	SP	0	0	1	0	0
6	82.5	YZ	0	0	1	0	1
7	85.4	YA	0	0	1	1	0
8	88.5	YB	0	0	1	1	1
9	91.5	ZZ	0	1	0	0	0
10	94.8	ZA	0	1	0	0	1
11	97.4	ZB	0	1	0	1	0
12	100.0	IZ	0	1	0	1	1
13	103.5	1A	0	1	1	0	0
14	107.2	1B	0	1	1	0	1
15	110.9	2Z	0	1	1	1	0
16	114.8	2A	0	1	1	1	1
17	118.8	2B	1	0	0	0	0
18	123.0	3Z	1	0	0	0	1
19	127.3	3A	1	0	0	1	0
20	131.8	3B	1	0	0	1	1
21	136.5	4Z	1	0	1	0	0
22	141.3	4A	1	0	1	0	1
23	146.2	4B	1	0	1	1	0
24	151.4	5Z	1	0	1	1	1
25	156.7	5A	1	1	0	0	0
26	162.2	5B	1	1	0	0	1
27	167.9	6Z	1	1	0	1	0
28	173.8	6A	1	1	0	1	1
29	179.9	6B	1	1	1	0	0
30	186.2	7Z	1	1	1	0	1
31	192.8	7A	1	1	1	1	0
32	203.5	M1	1	1	1	1	1

*CLOSED = 0 (ON)
OPEN = 1 (OFF)





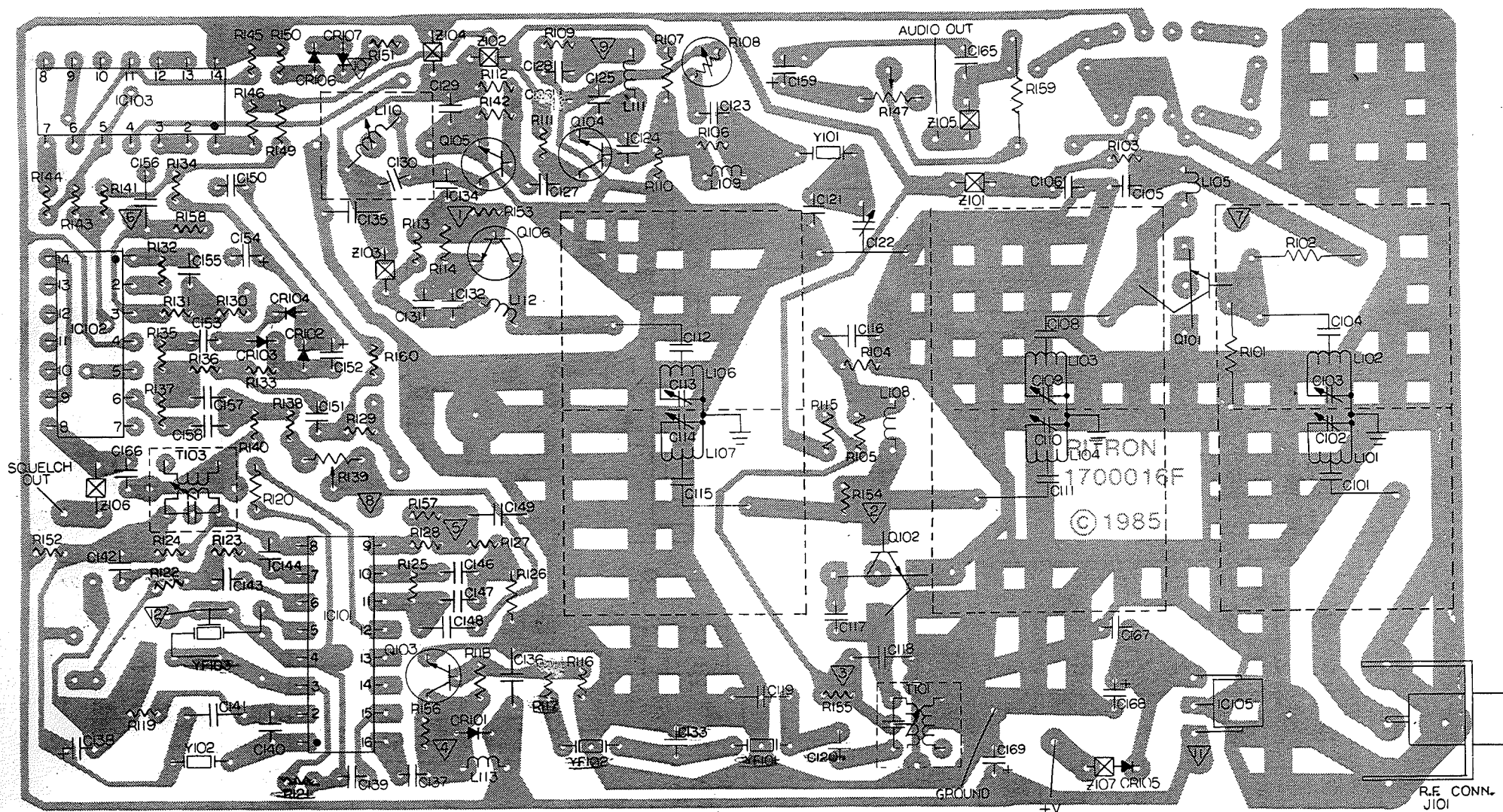
NOTES: UNLESS OTHERWISE SPECIFIED;
 1. ALL RESISTOR VALUES ARE IN OHMS.
 2. ALL CAPACITOR VALUES ARE IN MFD.
 △ DENOTES TEST POINT.
 * VALUES FOR RIFF-2 MOD, SEE MANUAL.

LAST NO. USED	NO. OMITTED
J101	L113
Y102	R160
T103	C106
Y103	Y107
IC102	CR107
C172	

TOPSIDE PART PL. REV. F
 BOTTOMSIDE PART PL. REV. F
 P.C. BOARD REV. F

TOLERANCES	REVISIONS	DATE	BY	REVISIONS
RESISTOR	1			
CAPACITOR	1			
INDUCTOR	1			
DIODE	1			
TRANSISTOR	1			
IC	1			
RELAY	1			
WIRE	1			
PCB	1			
OTHER	1			

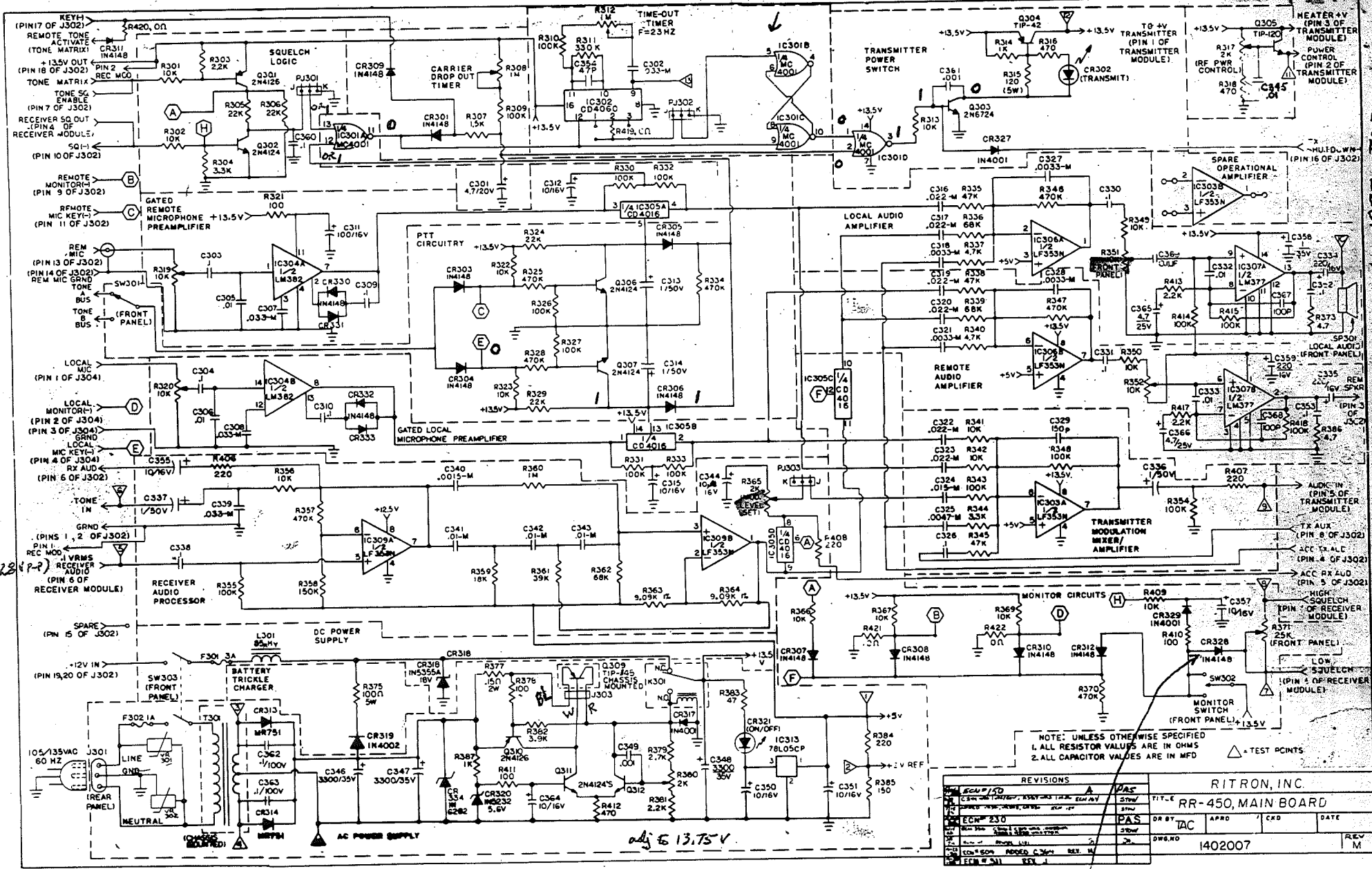
RR-450



TOPSIDE COMP. PL.1750016 REV. F
 SCHEMATIC 1770016 REV. F
 P.C. BOARD 1700016 REV. F

RITRON, 148 W CARMEL DR INC. CARMEL IN 46032		SCALE: 4X		REV. A. DELPH	
BOTTOMSIDE PART PLACEMENT		REV. 8-14-85		DR-451	
REV. 8-14-85		DR-451		1760016	
REV. 8-14-85		DR-451		F	

LATCH... 4.5s
+ inputs



NOTE: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTOR VALUES ARE IN OHMS
2. ALL CAPACITOR VALUES ARE IN MFD

REVISIONS		RITRON, INC.			
REV	DESCRIPTION	DATE	BY	CHKD	DATE
1	RR-450, MAIN BOARD				
2	RR-450, MAIN BOARD				
3	RR-450, MAIN BOARD				
4	RR-450, MAIN BOARD				
5	RR-450, MAIN BOARD				
6	RR-450, MAIN BOARD				
7	RR-450, MAIN BOARD				
8	RR-450, MAIN BOARD				
9	RR-450, MAIN BOARD				
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98	RR-450, MAIN BOARD				
99	RR-450, MAIN BOARD				
100	RR-450, MAIN BOARD				

adj 5 13.75V

CUT IF
TONE

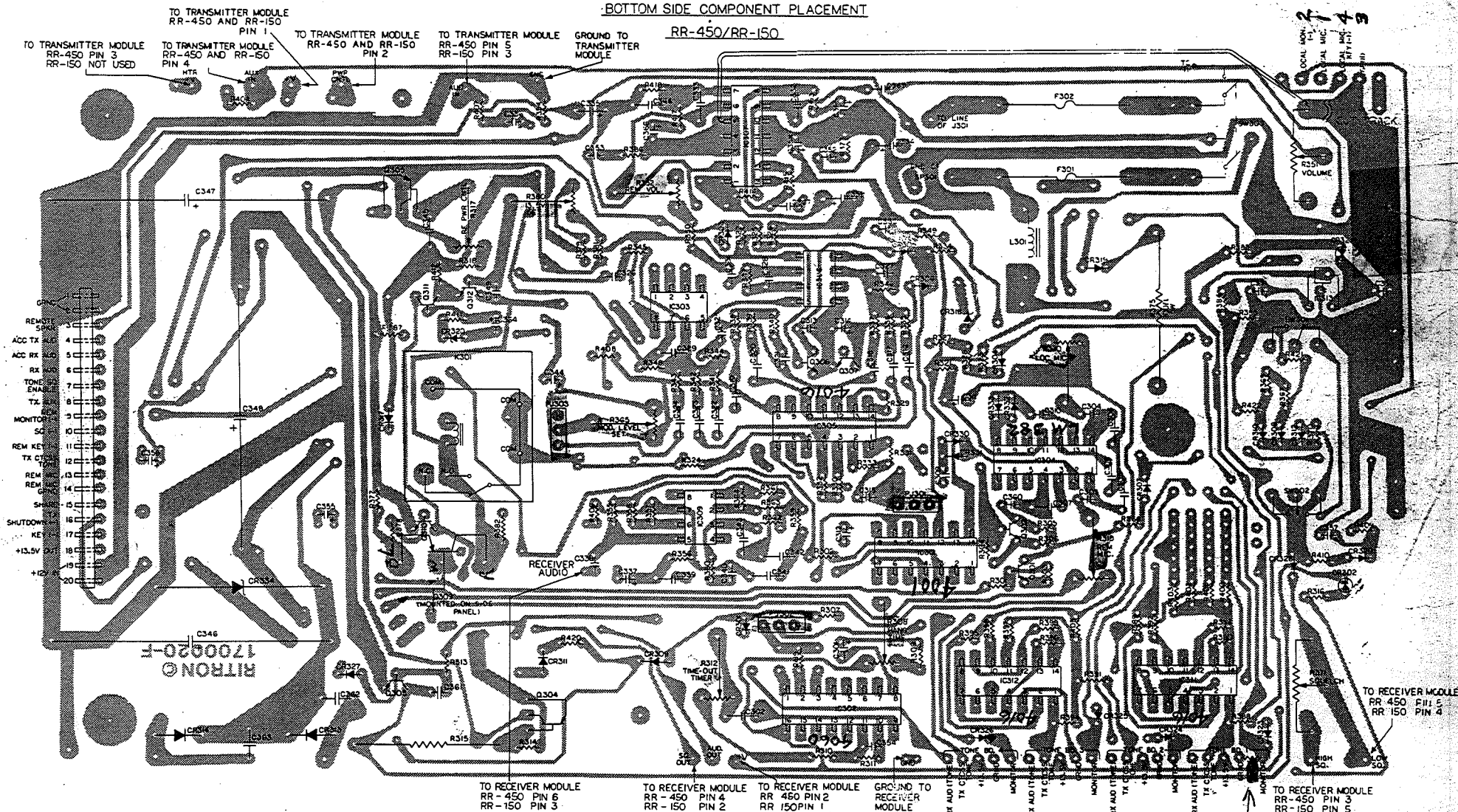
G5

NEW RR 450

LM1877-IC307

BOTTOM SIDE COMPONENT PLACEMENT

RR-450/RR-150



P.C. BOARD REV. "F"
COMPONENT DRAWING REV. "M"

PROGRAM JUMPERS

- "J" REPEATER (OR RP100)
- "K" TELETYPE OR MODEM (OR RP200)

REMOVE R423
when using
TONE BOARD

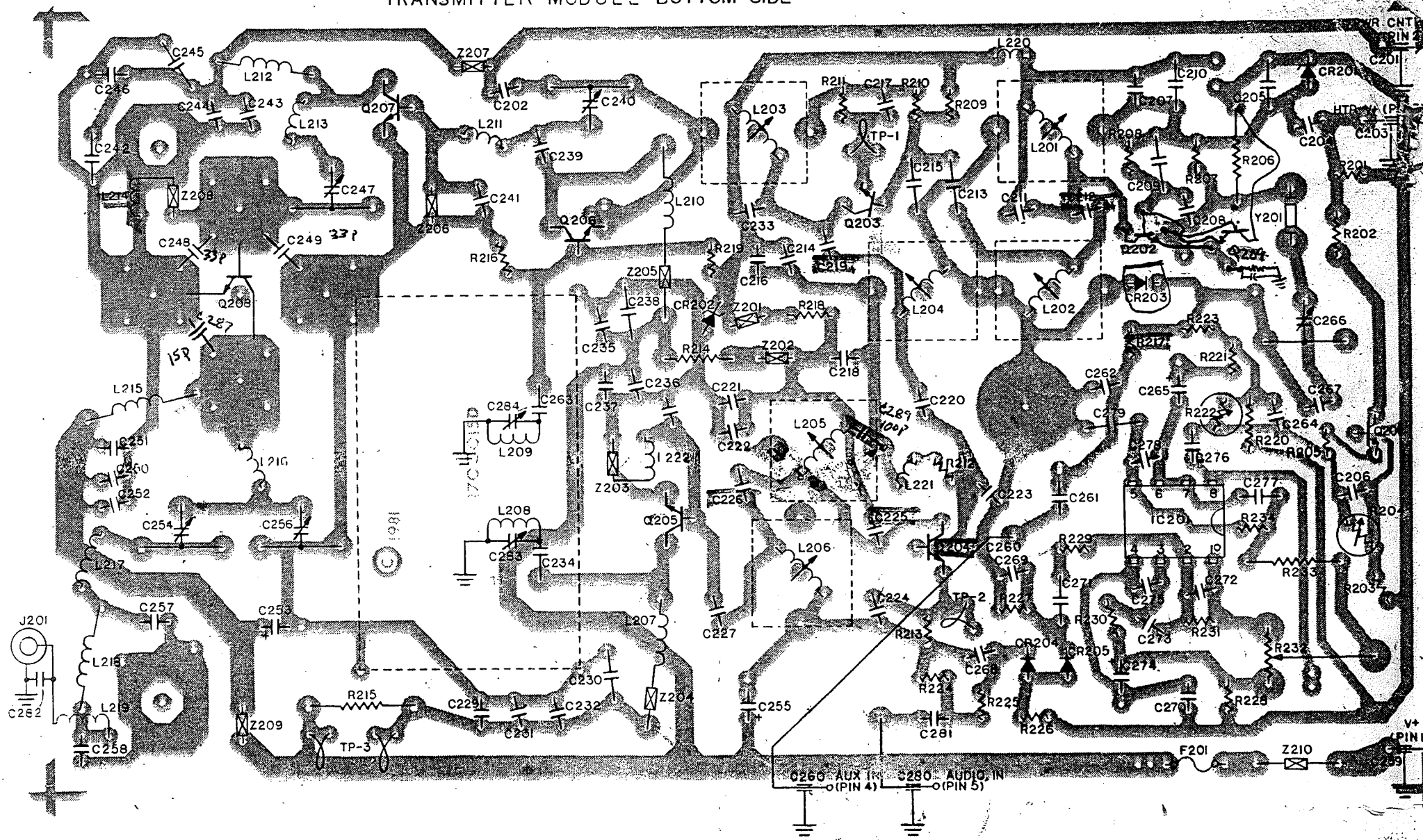
NEW RR450/150

8/14 88

UPDATES

R217 → 15K
C212 → 3.3P
C219 → 1.5P
C225 → 18P
C226 → 1.5P
L214 → .15uH
Q204 → 3866
add → 100P4 (C106) (L205 & gnd)

TRANSMITTER MODULE BOTTOM SIDE

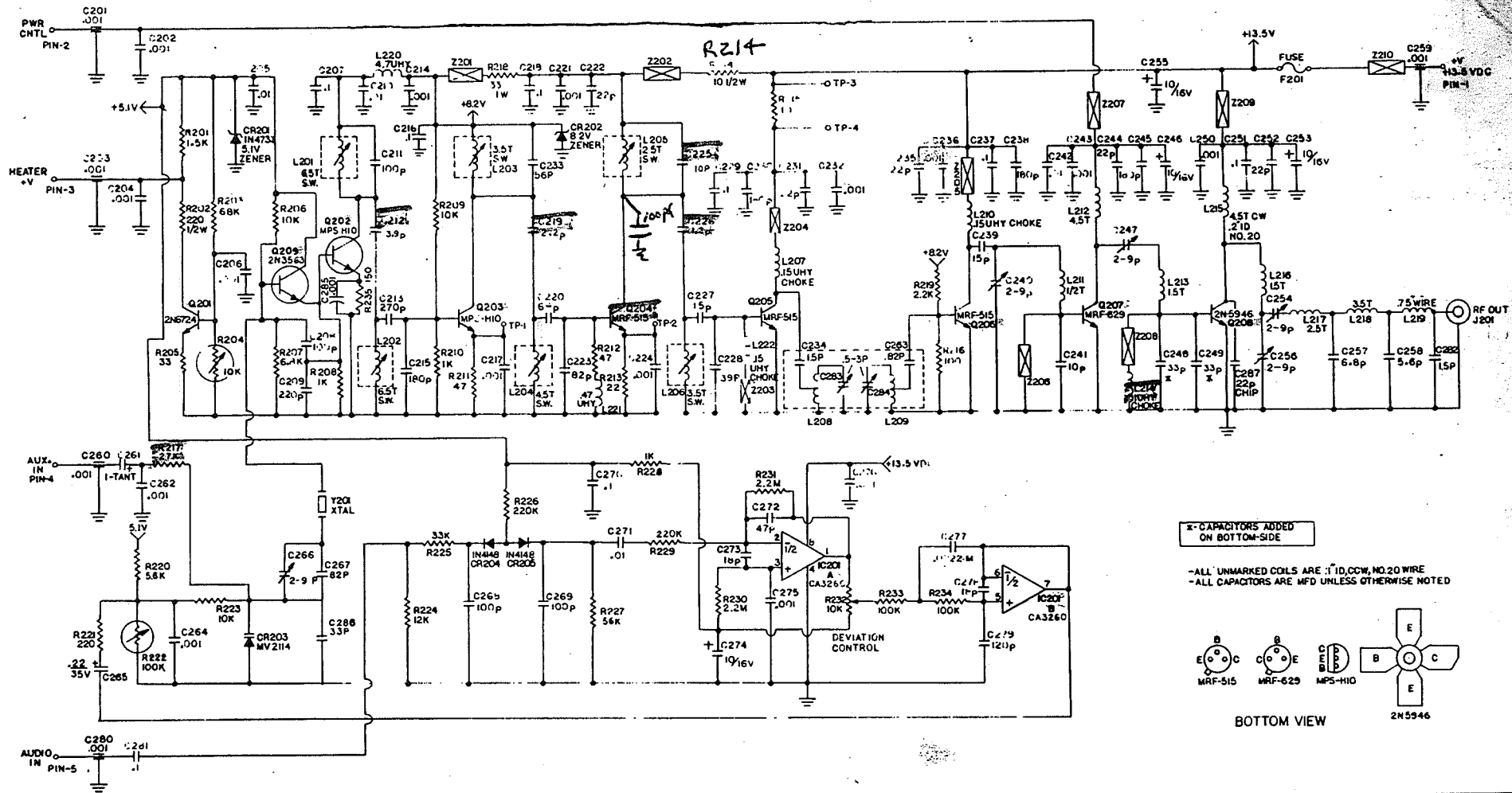


DT 450

BT Board

8/14 *dy*

REV	1	DATE	8/14/81	BY	dy
DESCRIPTION	DT-450 XMITTER MODULE				
DESIGNED BY	RITRON, INC.				
CHECKED BY	RITRON, INC.				
APPROVED BY	RITRON, INC.				



NOTES:

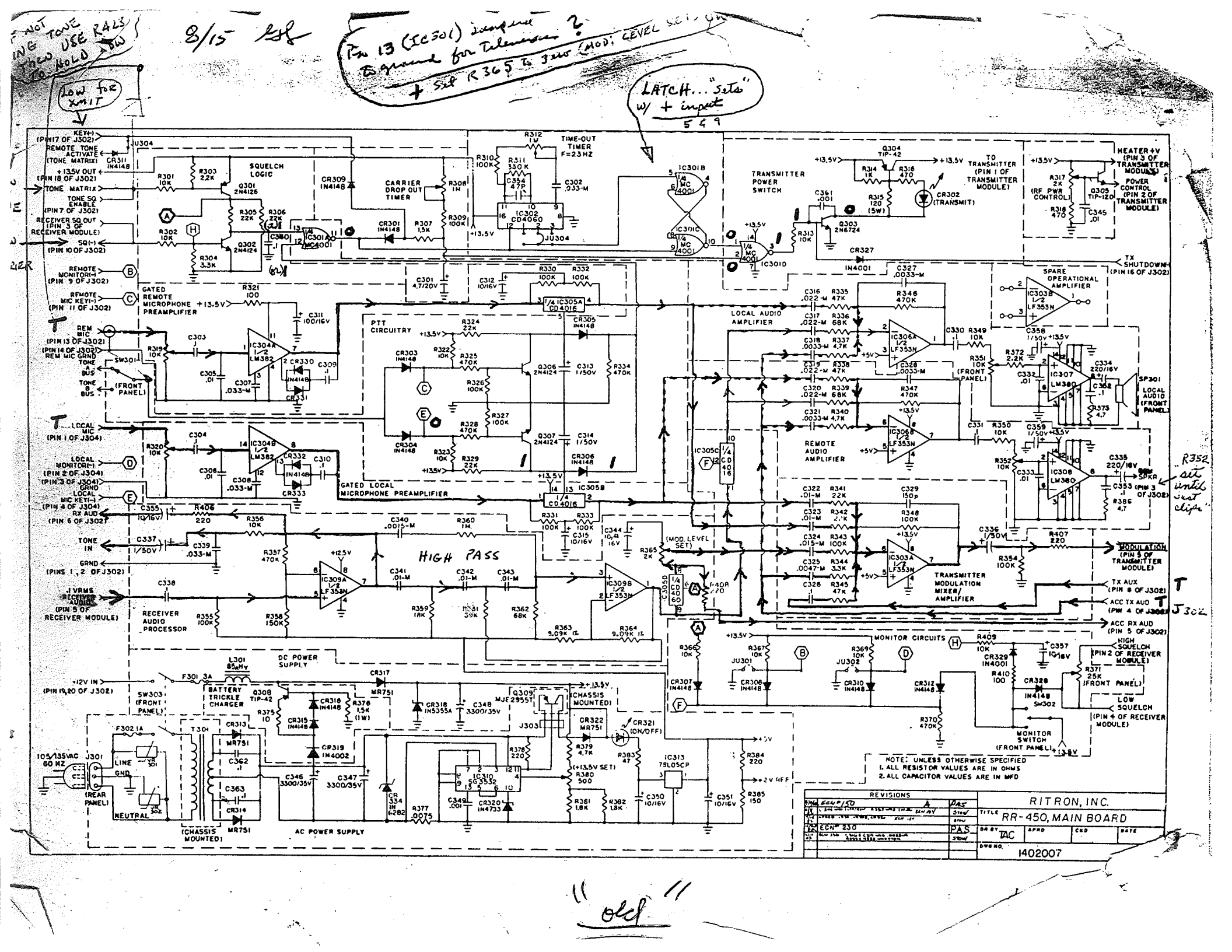
- X-CAPACITORS ADDED ON BOTTOM-SIDE
- ALL UNMARKED COILS ARE 1"ID,CCW,NO.20 WIRE
- ALL CAPACITORS ARE MFD UNLESS OTHERWISE NOTED

BOTTOM VIEW

2N5946

RITRON, INC.	
SCHEMATIC	DATE: 7-1-81
DT-450 XMITTER MODULE	1400072

OLD **DT450** BT Board



C240
C247
C254
C256

2-9PF caps
01550002

MRF-585 4801006
MRF-629 4801001 Q267
2N5946 4801011 Q268

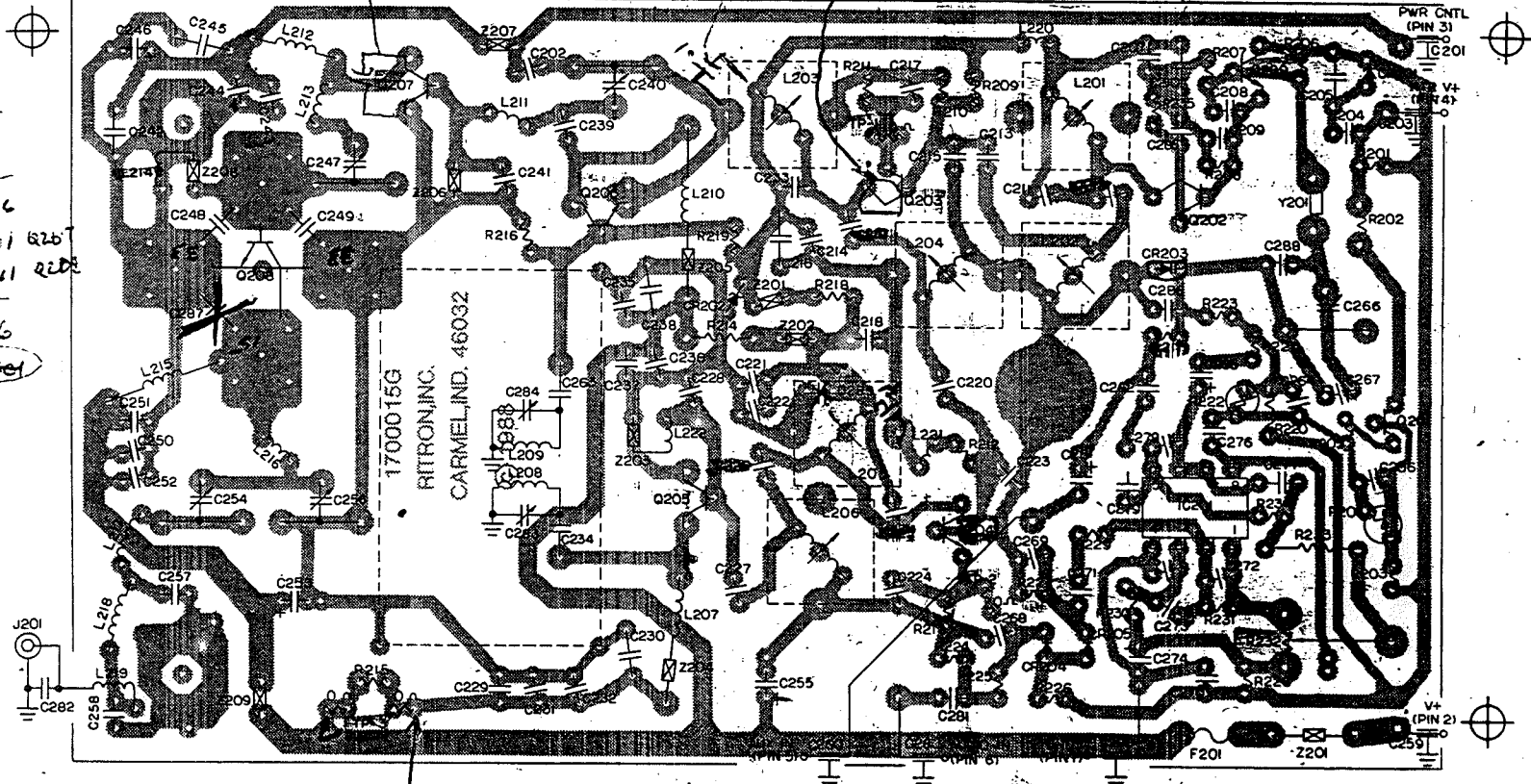
10K 16V 1503006
(220) 01503201

C246
C255
C265
C274
C253

15P
add
for 40W
short lead
C247 → 38P

add &
make
stable
ONCE WINDS

TRANSMITTER MODULE BOTTOMSIDE DT-450



UPDATES

R217 → 15K
C212 → 3.3P
C219 → 1.5P
C226 → 1.8P
L214 → 0.15μh
add → 100p (Lg)
(L205 + C289 & gnd)
Remove 22pF (bottom 5) Rd
C225 → 18P
Q204 → 3866

* only apply 12V when "tune" tool is in slot... (min heat)

① "E" Q203 "+" def L201 & L202 (2.1V)

② "E" Q204 "+" def L203 & L204 (2.1.5V)

③ TP-4 min voltage L205, L206, plus outside (C283) can (this is not...)

④ for Max Power... inside (C284) can... plus 4 caps...

* (- start - 10W w/ C247) (30) CLOAKWISE

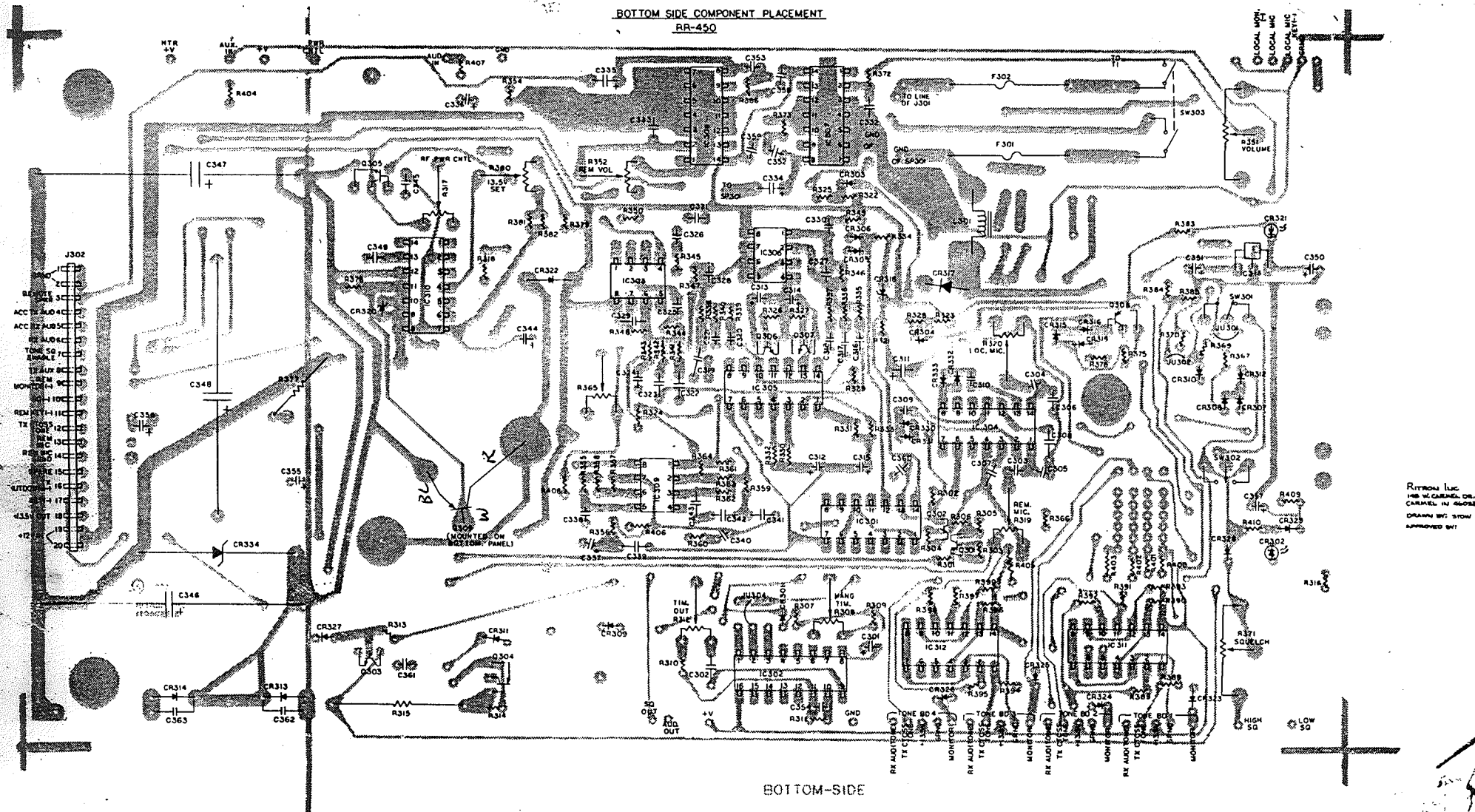
Tuning Procedure

SCHEMATIC		1770015 REV P
P.C. BOARD		1700015 REV G
TOP SIDE PARTS PLACEMENT		1700015 REV H
RITRON INC		
505 W CARMEL DR CARMEL INDIANA 46032		
DATE	4X	REV BY
3-18-87		L. OSBORNE
DT-450		
BOTTOMSIDE PARTS PLACEMENT		
		1760015 H

DT-450 (RR455)

GJ

BOTTOM SIDE COMPONENT PLACEMENT
RR-450



RITRON INC
148 W CARMEL DR.
CARMEL IN 46032
DRAWN BY: STW
APPROVED BY:

BOTTOM-SIDE

OLD