DRAKE

SERVICE MANUAL



MODEL TR-4C

SIDEBAND TRANSCEIVER

R. L. DRAKE COMPANY, MIAMISBURG, OHIO, U.S.A.

TR-4C Service Supplement
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PREFACE

The information on this CD was derived from a TR-4C built to the 38800 schematic, with additional information from a later TR-4Cw/RIT, to cover the CW filter and RIT features.

Examination of other versions of TR-4C schematics shows that there were very few changes over the four known schematics. Although there are a few "additional" Resistor and Capacitor designators used in other versions, most are related to the addition of the CW filter and later RIT function over the life of the design. The device changes are tabulated in Figure 1.

All known schematic versions of the TR-4C are included on this CD, which should enable the user to locate a specific component from an earlier or later version. The small underchassis boards remain almost identical through the versions, with an occasional change in a component value.

The first TR-4C schematic I have has an illegible s/n. The date reads as 3/24/73, and I'm guessing the s/n is around 34000. I have been unable to find a TR-4C with a serial number in the 33000 range, and I suspect that group was skipped. The last TR-4 I have seen was at 326xx and the first TR-4C carries a s/n of 34049. Major changes included the dual dial PTO, a PTO-in-use light placed to the right of the dial window, an alodined chassis and a plug-in T/R relay. The sideband filters were a "silver" unpainted color, manufactured by Network Sciences.

The next version is dated 3/14/74, s/n 35161. I have seen one unit in this range (367xx) with what appears to be a factory installed 500 Hz CW filter, with a sticker overlay on the front panel and the three position SIDEBAND switch. This is probably a Drake retrofit, since the Cw model with the 500 Hz filter was not introduced until late November 1976.

The schematic dated 4/7/75, s/n 38800 was next, and showed no significant changes, other than the addition of small value coupling capacitors across the receive IF transformers to increase the gain. A few minor circuit changes were made as well to increase the receiver gain to compensate for the higher loss of the CW filter. Band crystals to provide coverage of 28.0–28.6 MHz and 29.0-29.7 MHz were no longer included, but were optional at extra cost, leaving 10M coverage of 28.5-29.1 MHz.

The last version was dated 11/1/76, s/n 42500. The schematic is labeled TR-4C, and did not show the 500 Hz CW filter. The manual cover showed TR-4Cw, and a two-page addendum was added to cover the addition of the CW filter. Although I understand there are TR-4Cs with s/n above 42500, the majority of units built after this change had the front panel marked TR-4Cw and had the 500 Hz filter position labeled on the SIDEBAND switch.

Of course it didn't take long for people to realize they needed an RIT control to compensate for the 900 Hz CW offset, so shortly (earliest I've seen was a 43500 range unit) the TR4-Cw/RIT was born. This replaced the front panel NB switch with the RIT variable control and added two front panel pushbuttons for NB and RIT control, between the BAND and SIDEBAND switches. A small PC board was added under the chassis for the RIT and associated switching circuitry, and the side terminal on the PTO was changed from RTTY shift to RIT. Earlier PTOs from the TR-4/C will NOT work with the RIT board.

Unlike the majority of Amateur Radio equipment in use today, this equipment, like most of the era, operates on very high voltages. These voltages are exposed and easily accessible when covers are removed for servicing. Contact with these voltages can be dangerous, even lethal, and safe practices must always be followed when working on these units. The author hereby disclaims any liability for injury to persons or property that may result while using the information presented herein.

The information on this CD has been gathered from many sources. Special thanks to Bill Frost of R L Drake Company, THE source of Drake information for many years, who has always gone out of his way to make it available to us.

Drake TR-4/C Versions Tubes & Transistors

Model	Version	S/N	Schematic Date	V1	V2	V3	V4	V5	V6	V7	V8	V9
TR-4	1	16050	July 15, 1965	6EA8	12AV6	6EA8	6HS6	12BA6	12BY7A	12BA6	6JB6	6JB6
TR-4	2	19500	February 5, 1966	6EA8	12AV6	6EA8	6EJ7	12BA6	12BY7A	12BA6	6JB6	6JB6
TR-4	3	26000	January 5, 1967	6EA8	12AV6	6EA8	6EJ7	12BA6	12BY7A	12BA6	6JB6	6JB6
TR-4	4	27000	September 6, 1967	6EA8	12AV6	6EA8	6EJ7	12BA6	12BY7A	12BA6	6JB6	6JB6
TR-4	5	27500	April 6, 1968	6EA8	12AV6	6EA8	6EJ7	6BA6	12BY7A	12BA6	6JB6	6JB6
TR-4	6	28500	October 8, 1968	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6
TR-4	7	30500	August 11, 1970	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6
TR-4	8	32001	January 7, 1973	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6
TR-4	C	34XXX	March 24, 1973	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6
TR-4	C	35161	March 14, 1974	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6
TR-4	C	38800	April 7, 1975	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6
TR-4	C	42500	November 1, 1976	6EA8	12AV6	6EA8	6EJ7	6BZ6	12BY7A	12BA6	6JB6	6JB6

Model	Version	S/N	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
TR-4	1	16050	6JB6	12BA6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	2	19500	6JB6	12BA6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	3	26000	6JB6	12BA6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	4	27000	6JB6	12BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	5	27500	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	6	28500	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	7	30500	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	8	32001	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	C	34XXX	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	C	35161	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	C	38800	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6EV7	0A2
TR-4	C	42500	6JB6	6BZ6	12BA6	12AX7	13DE7	12BA6	6GX6	6AQ5A	12AX7	6FQ7	0A2

Model	Version	S/N	Q1	Q2	Q3	Q4	Q5
TR-4	1	16050	2N3394	2N3394			
TR-4	2	19500	2N3858	2N3858			
TR-4	3	26000	2N706	2N3858			
TR-4	4	27000	2N706	2N3858	2N3877A		
TR-4	5	27500	TIS34	2N3858	2N3877	2N3394	
TR-4	6	28500	TIS34	2N3858	2N3877	2N3394	
TR-4	7	30500	2N5950	2N3563	AT5059	2N3394	2N3877
TR-4	8	32001	2N5950	2N3563	AT5059	2N3394	2N3877
TR-4	C	34XXX	2N5950	2N3563	AT5059	2N3394	2N3877
TR-4	C	35161	2N5950	2N3563	AT5059	2N3394	2N3877
TR-4	C	38800	2N5950	2N3563	AT5059	2N3394	2N3877
TR-4	C	42500	2N5950	2N3563	AT5059	2N3394	2N3877

Model	Version	S/N	Schematic ID
TR-4	1	16050	7156516050
TR-4	2	19500	256619500
TR-4	3	26000	156726000
TR-4	4	27000	966727000
TR-4	5	27500	466827500
TR-4	6	28500	1086828500
TR-4	7	30500	8117030500
TR-4	8	32001	177332001
TR-4	C	34XXX	3247334???
TR-4	C	35161	3147435161
TR-4	C	38800	4077538800
TR-4	C	42500	11017642500

Notes:
1. S/N is first unit in each Version
2. Shaded number indicates device change from previous version
3. Version 1 has wired-in T-R relay, "Soupcan" 4-pole filter, no top on PA cage
4. Version 2 has TYCO hermetically sealed dual 4-pole filter
5. Version 3 has two gray painted 8-pole filters
6. Version 4 has B Line style PTO-in-use indicator behind tuning knob skirt, FET PTO, PA cage top
7. Version 7 has two blue painted 8-pole filters, NB socket and front panel knob, SS AF preamp
8. C Version has alodined chassis, PTO-in-use indicator to the right of main dial window, dual dial tuning assembly, two silver 8-pole filters

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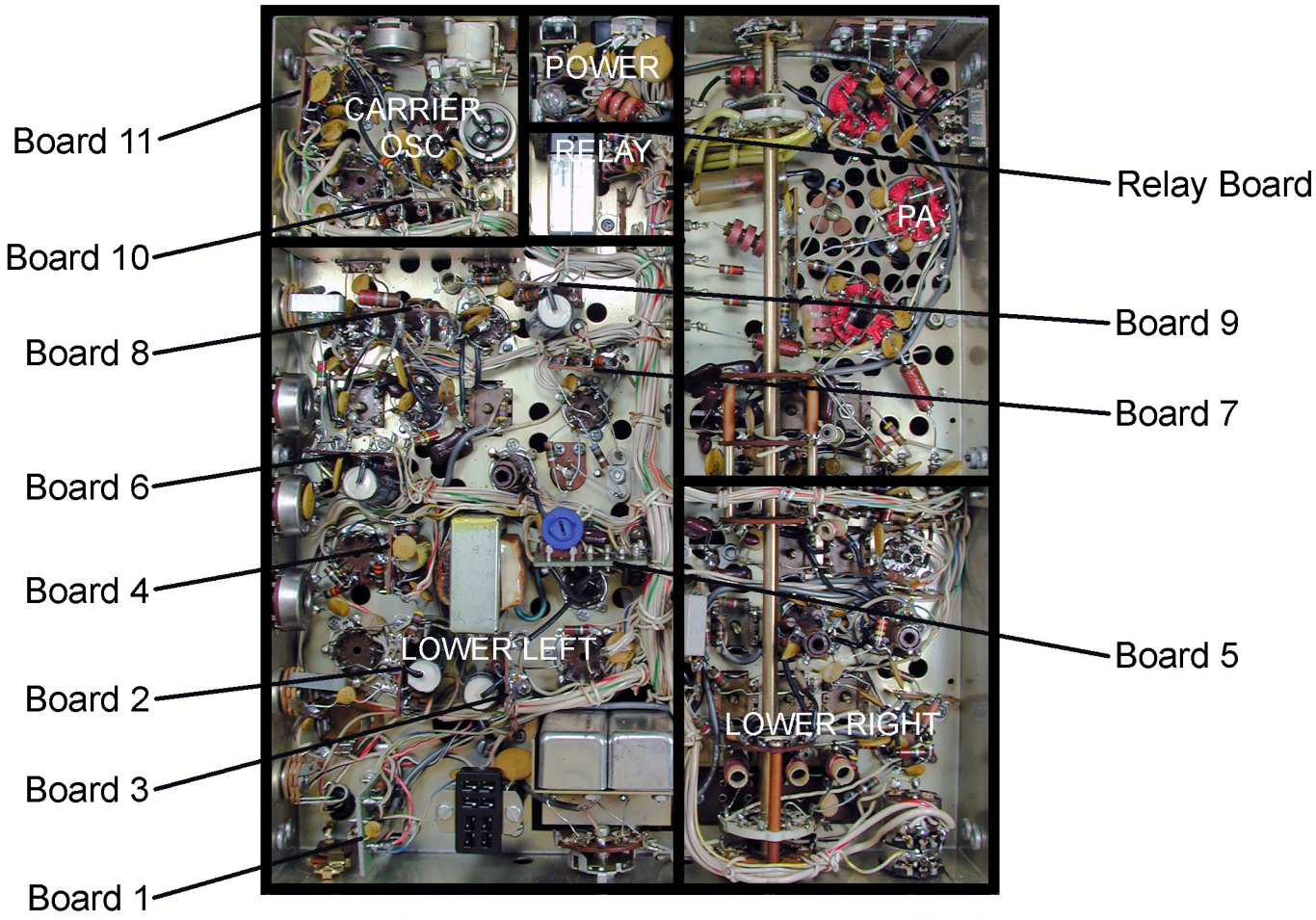

R L DRAKE TR-4C
Board Locator

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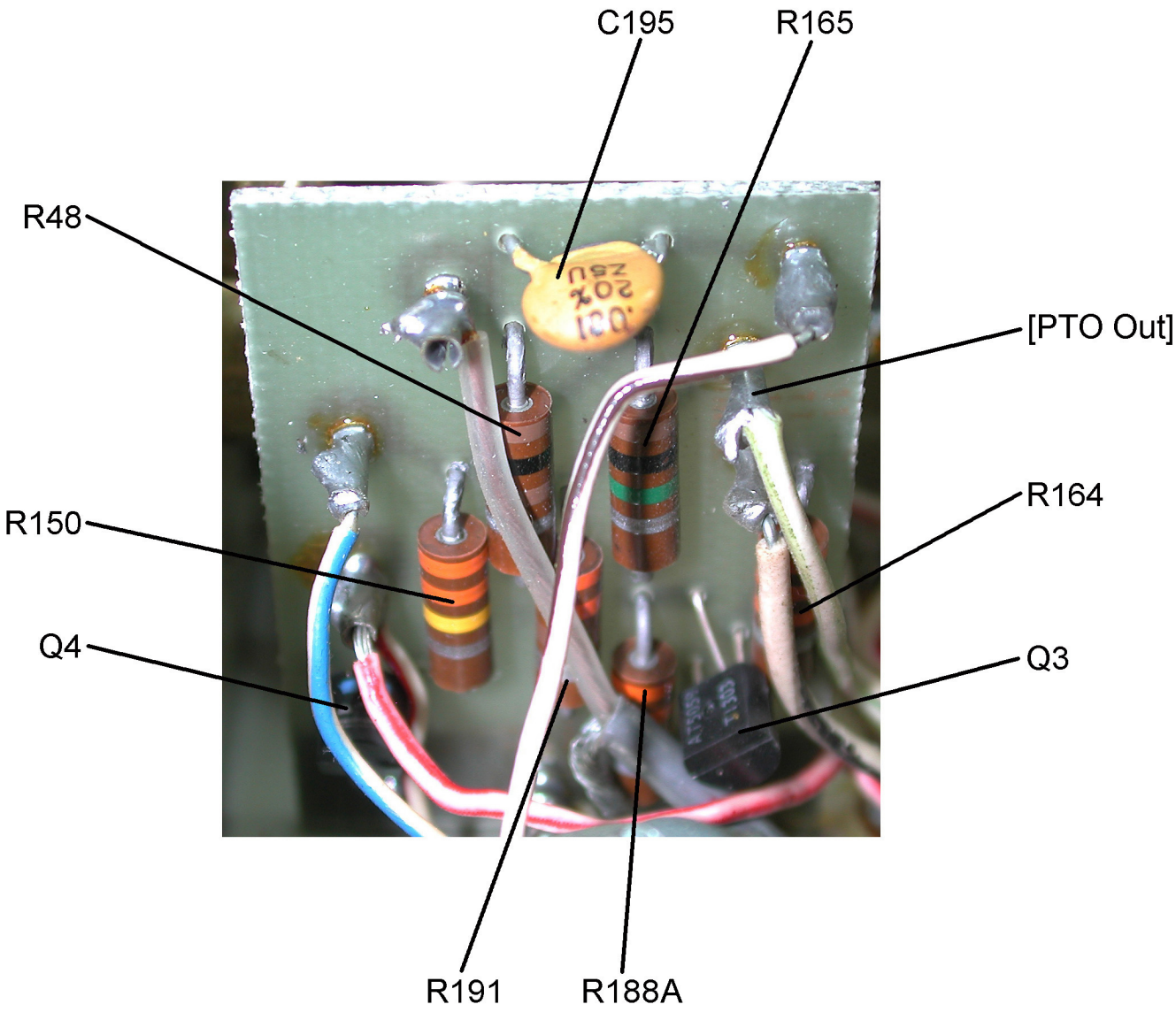
Figure 2



PTO, Indicator,
Ext PTO Control

R L DRAKE TR-4C
Board 1

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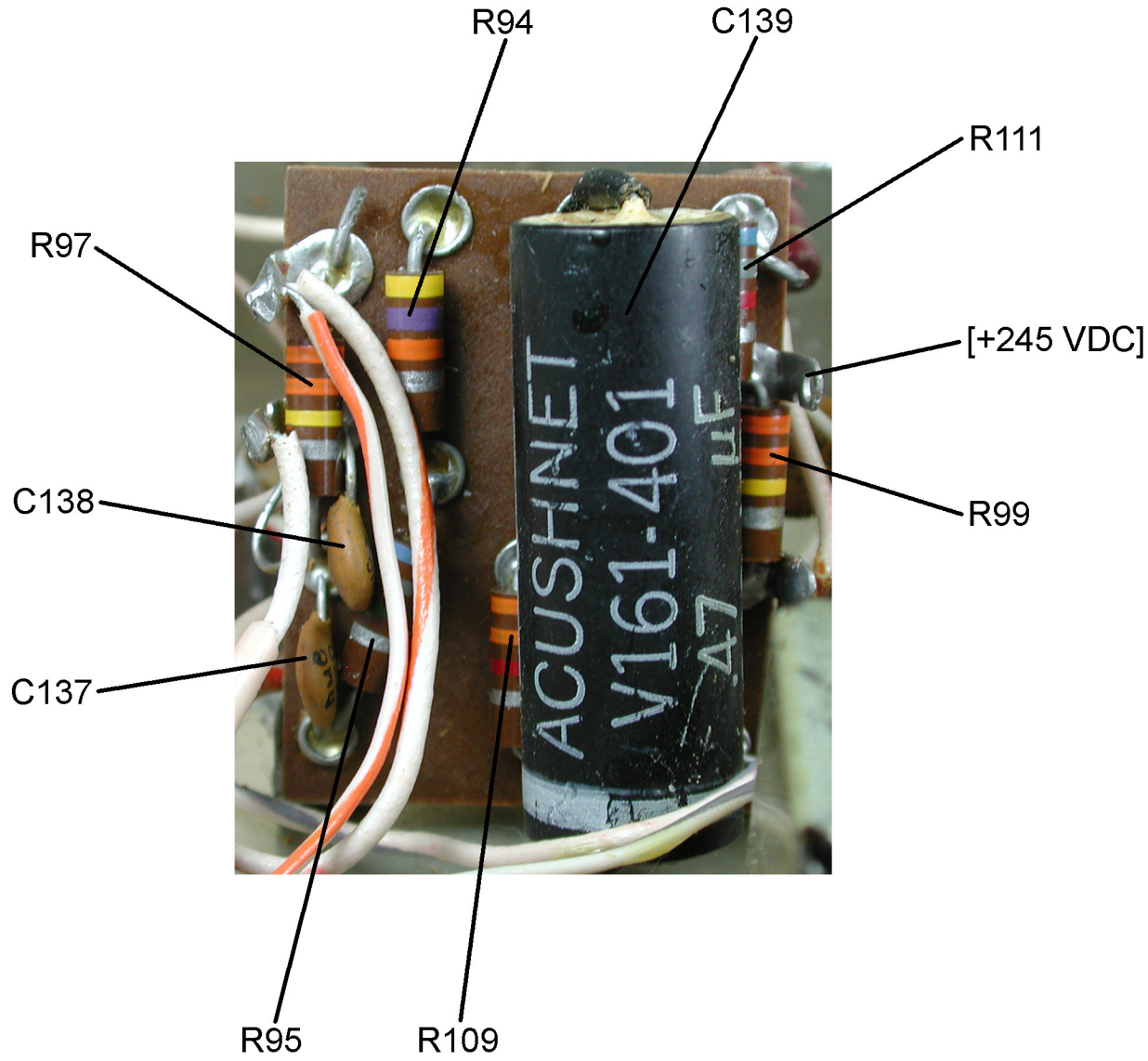

Mike Amp

R L DRAKE TR-4C
Board 2

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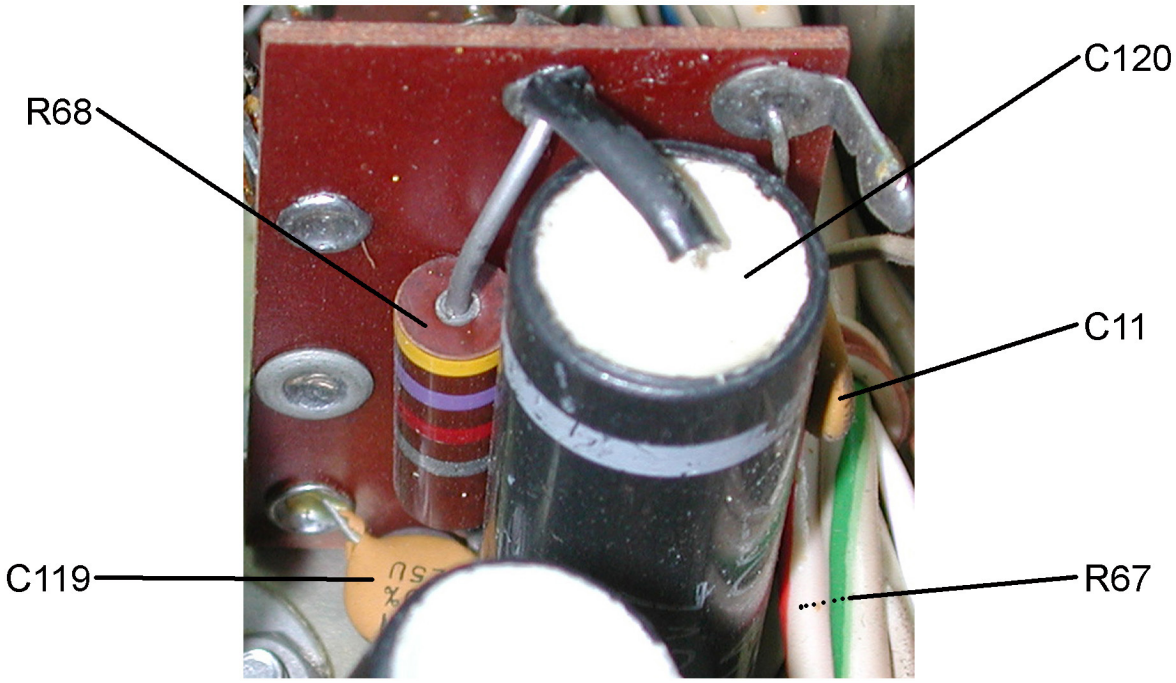

AM Screen
Modulator

R L DRAKE TR-4C
Board 3

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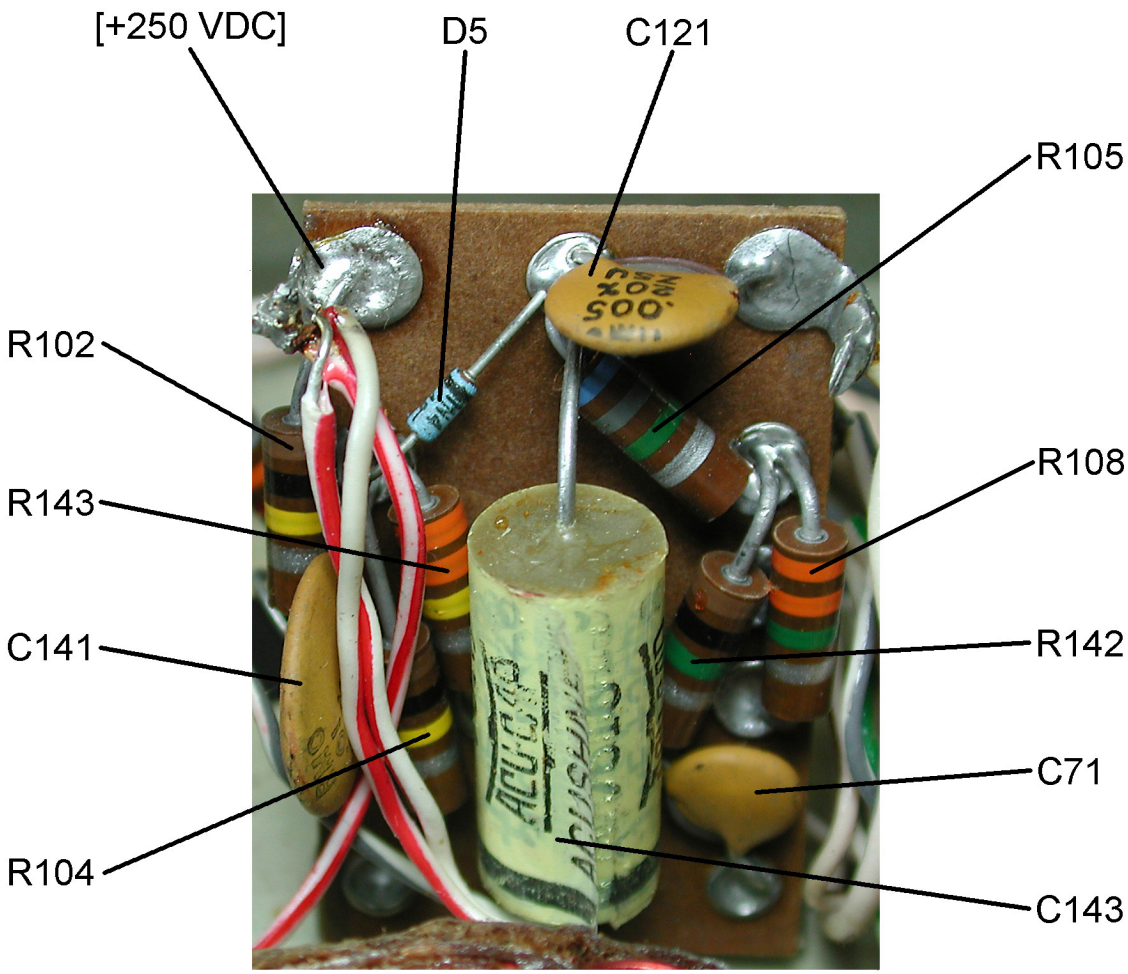

VOX

R L DRAKE TR-4C
Board 4

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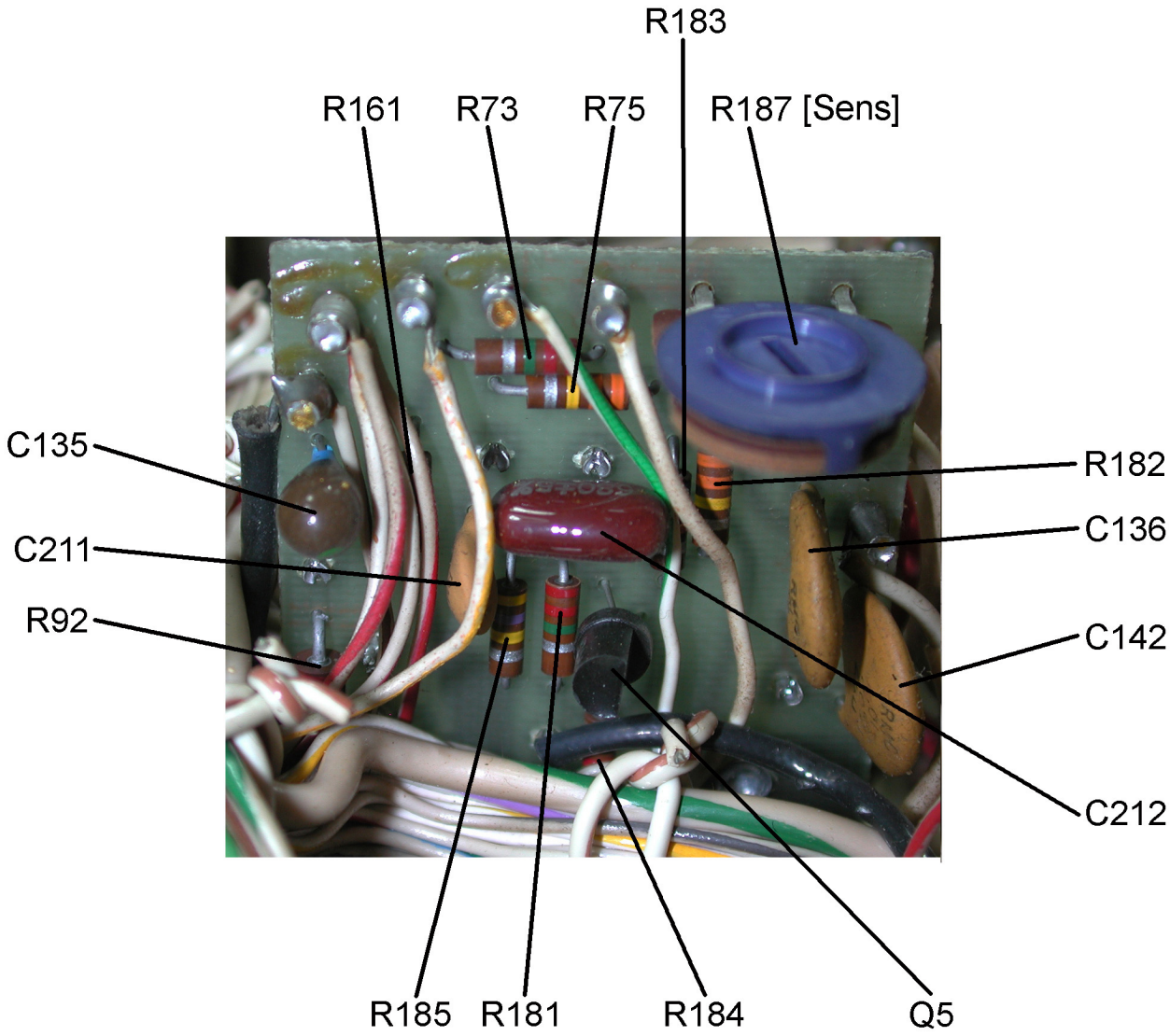

Audio Pre-Amp, S-Meter,
Rx AF Out, Xmit Gain

R L DRAKE TR-4C
Board 5

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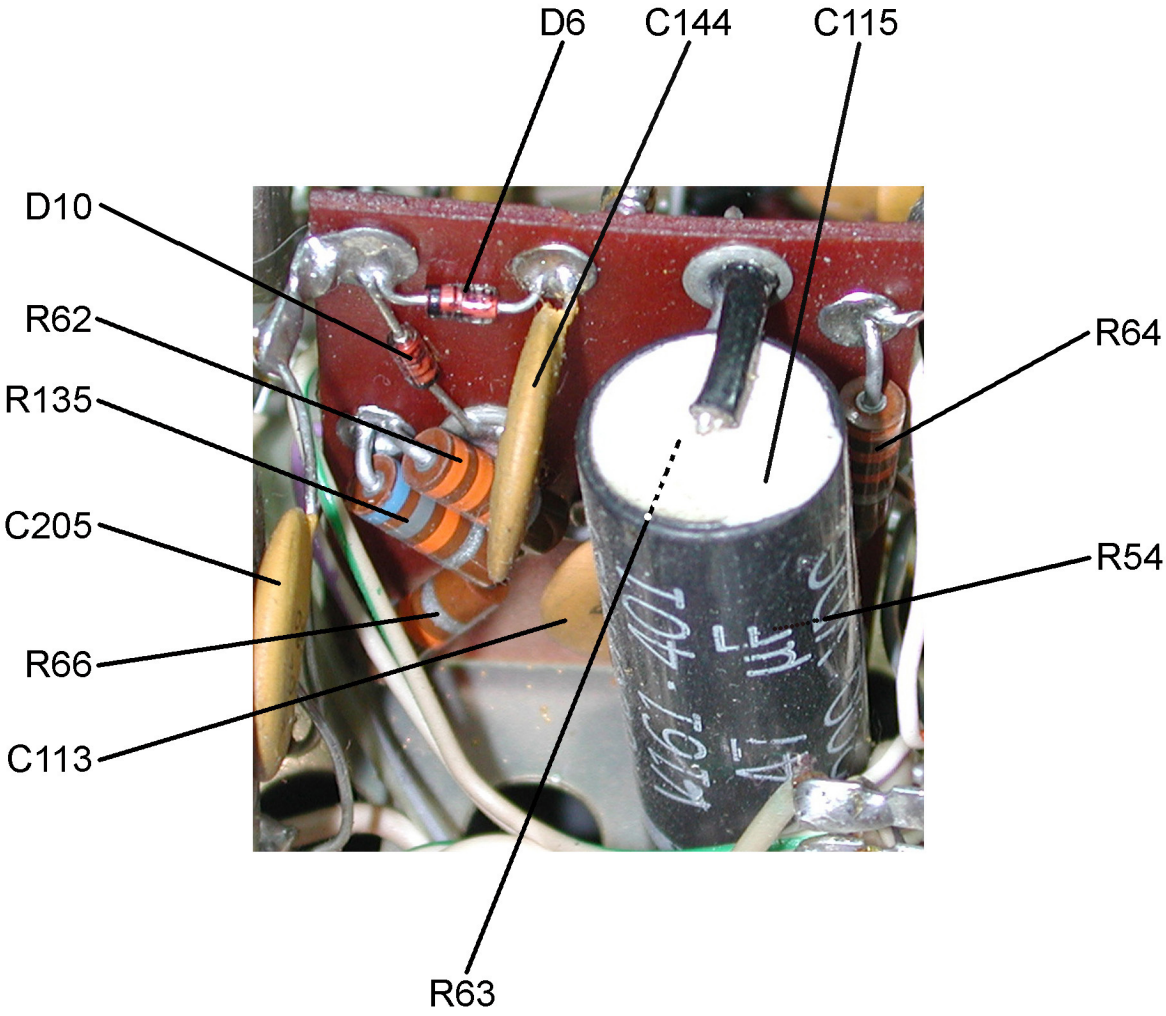

Rcvr AGC, VOX,
ANTI-VOX

R L DRAKE TR-4C
Board 6

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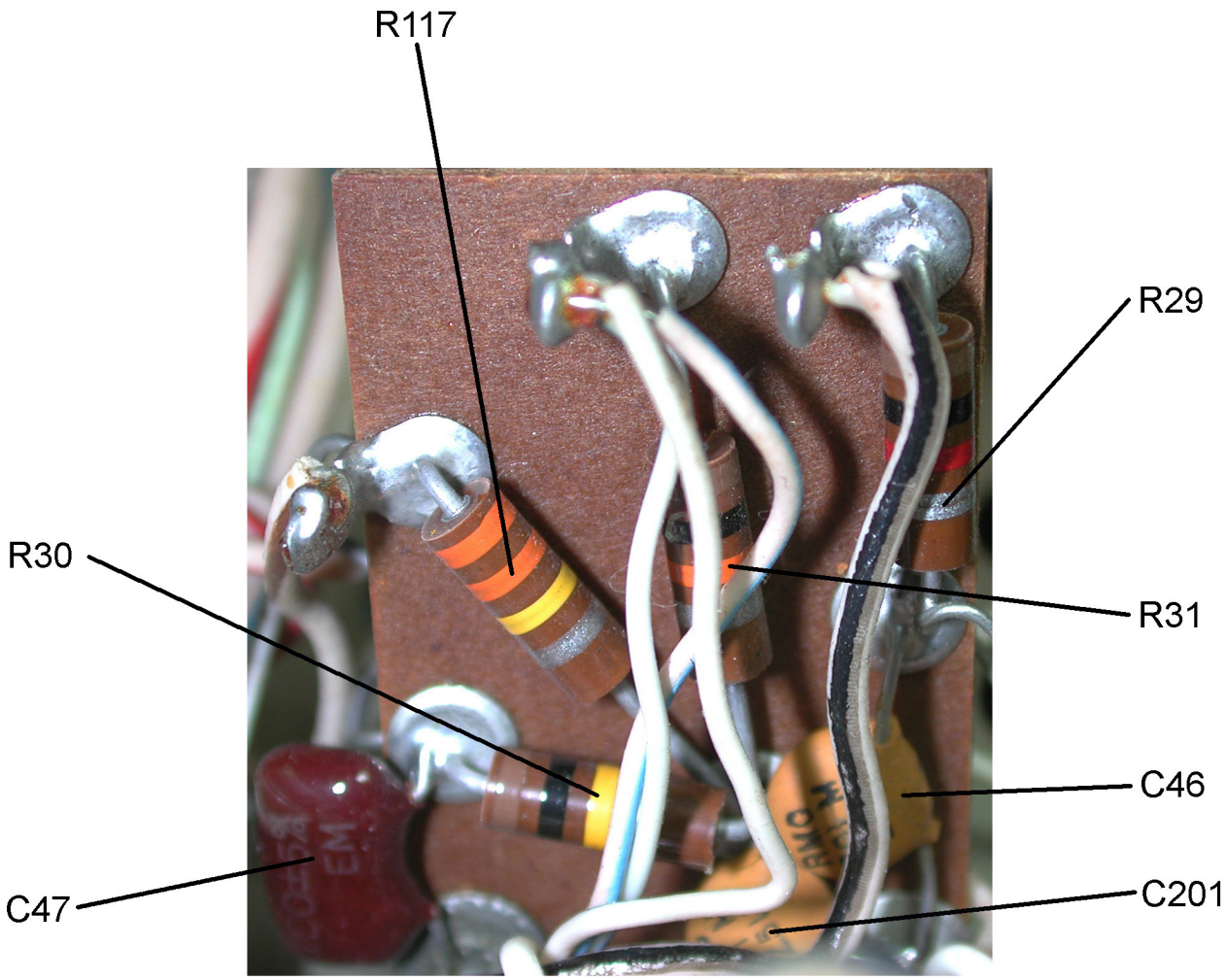

CRYSTAL CALIBRATOR

R L DRAKE TR-4C
Board 7

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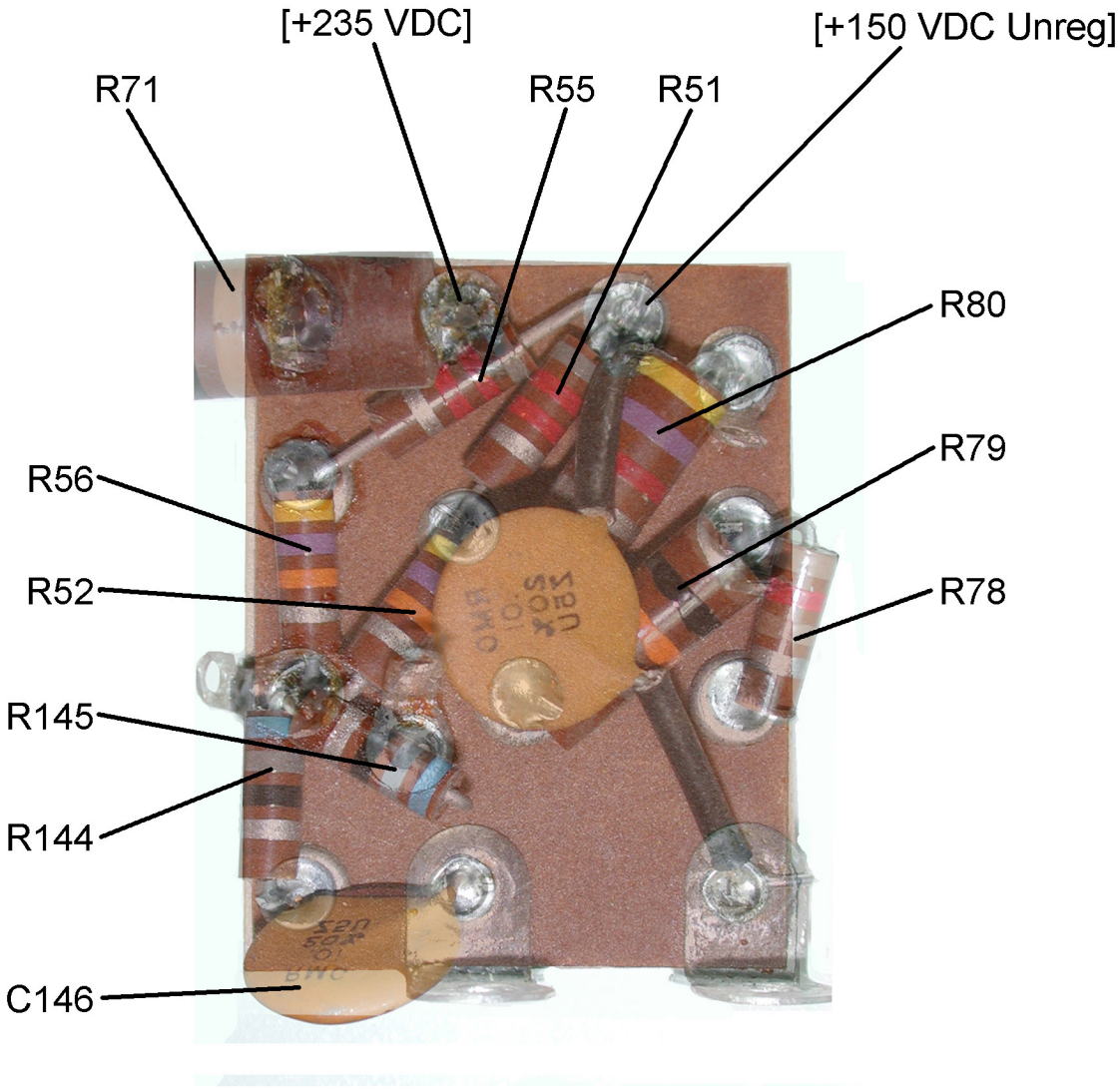
X-RAY VIEW FROM BOARD SIDE



Rcvr IF Amps, Xmit RF Amp,
S-Meter

R L DRAKE TR-4C
Board 8

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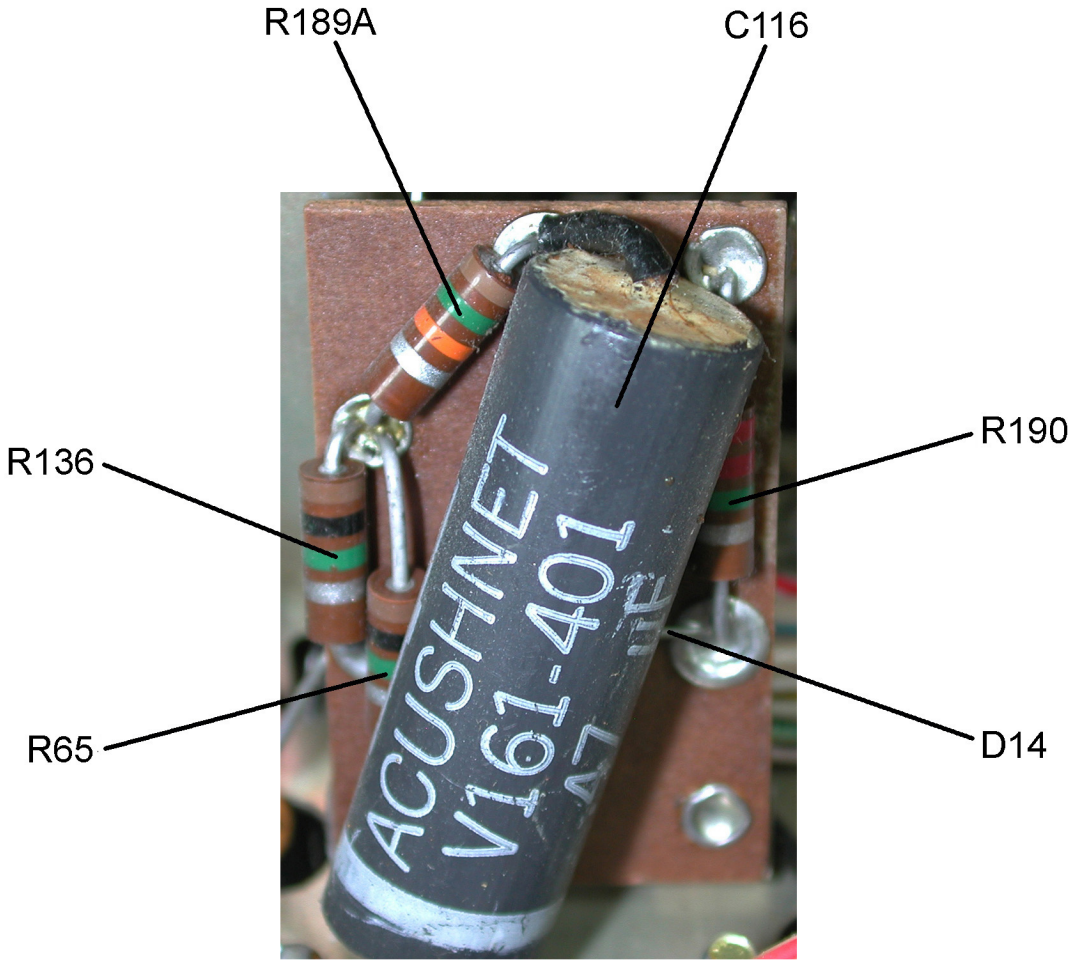

XMIT AGC

R L DRAKE TR-4C
Board 9

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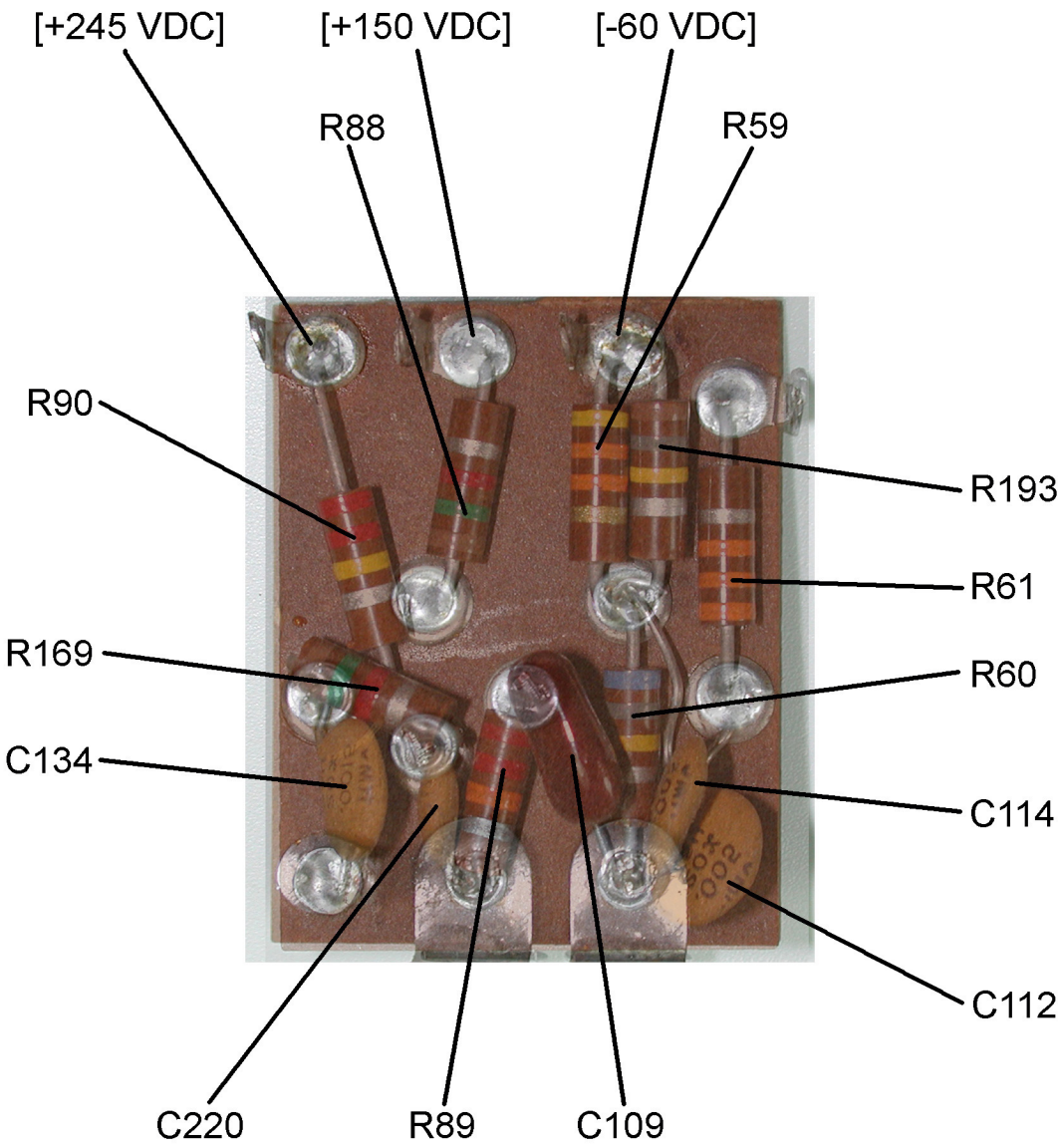
X-RAY VIEW FROM BOARD SIDE



RECEIVER AGC

R L DRAKE TR-4C
Board 10

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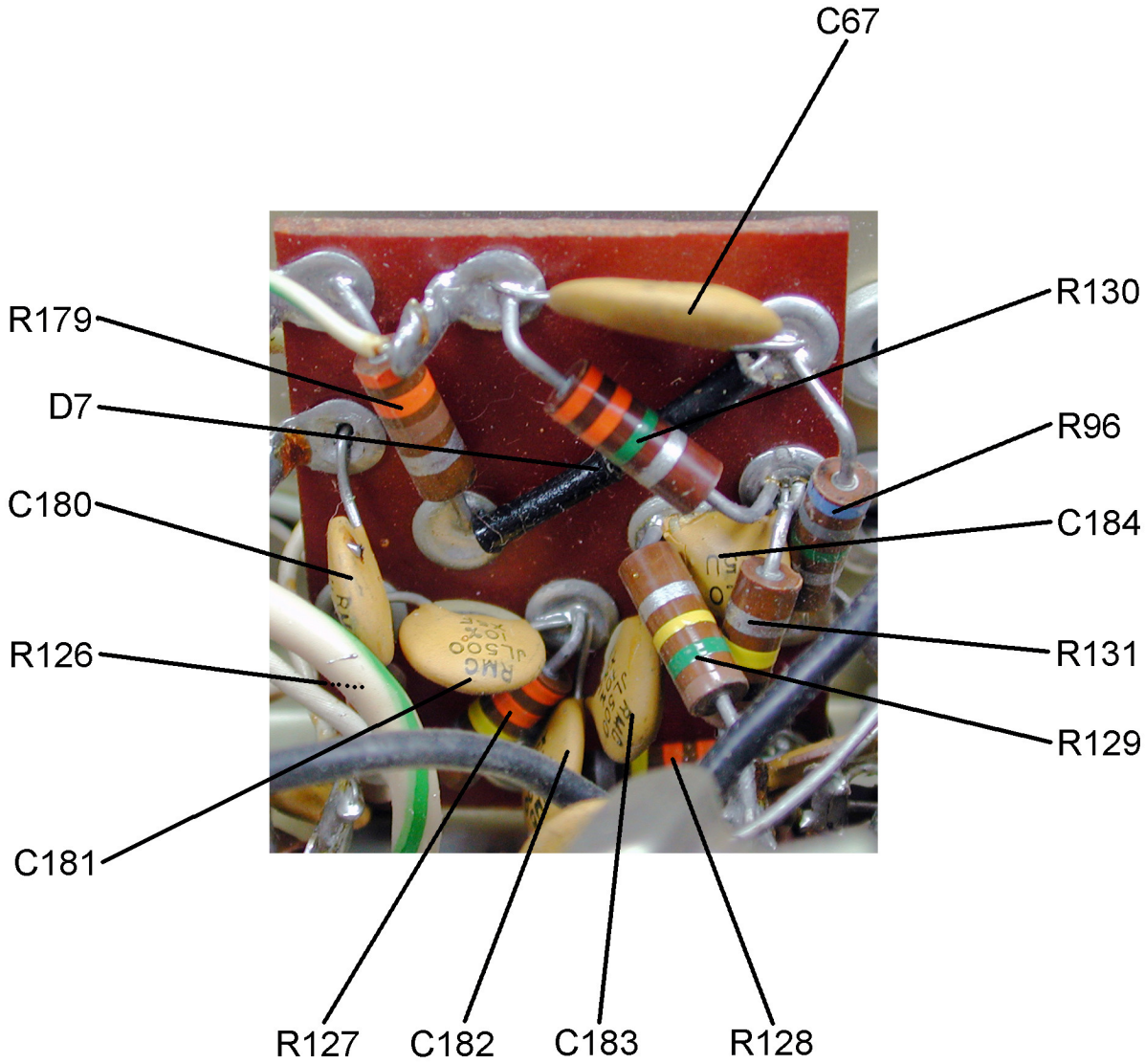

Sidetone, VOX

R L DRAKE TR-4C
Board 11

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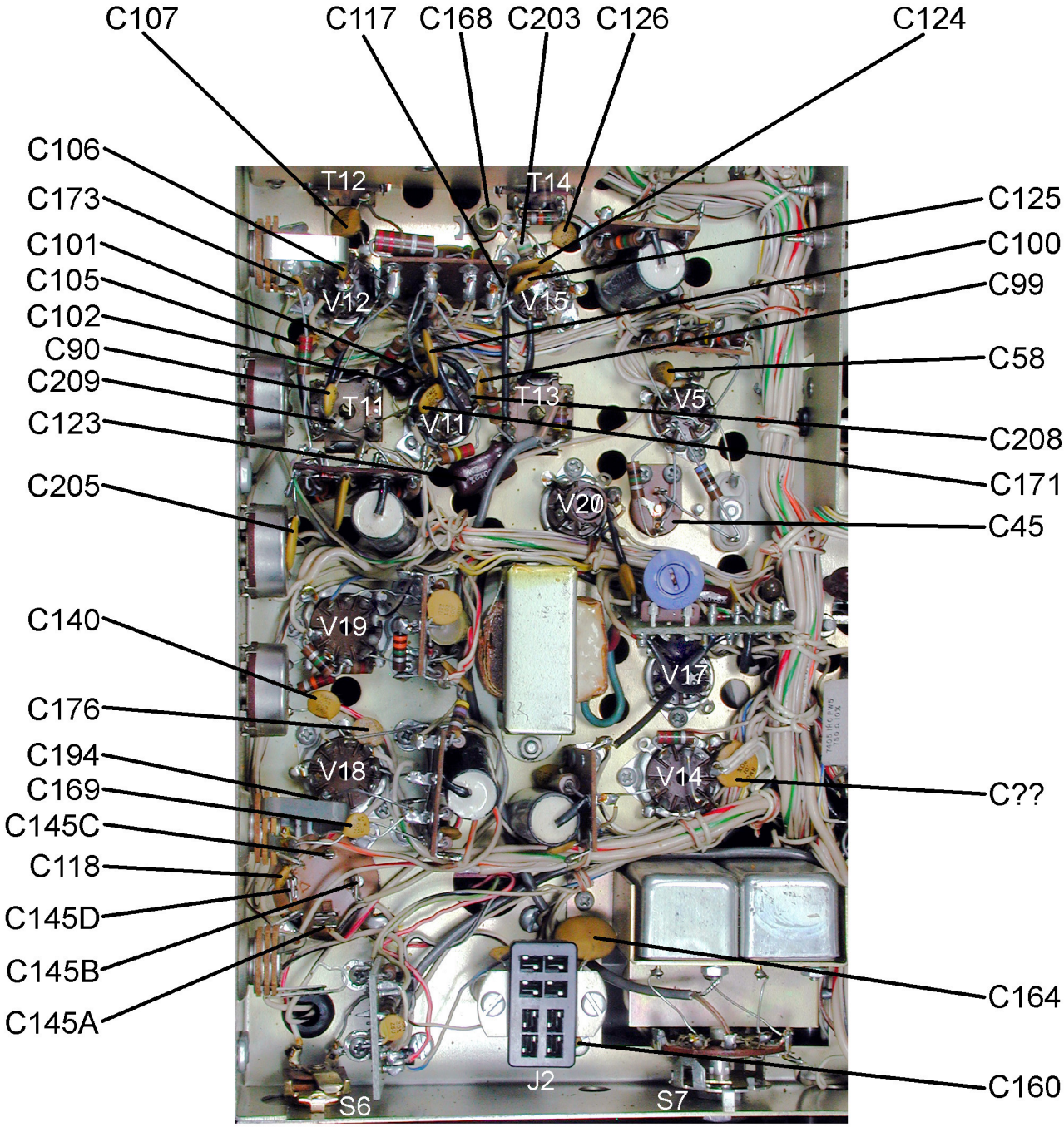

LOWER LEFT CHASSIS
CAPACITORS

R L DRAKE TR-4C
Lower Left Chassis

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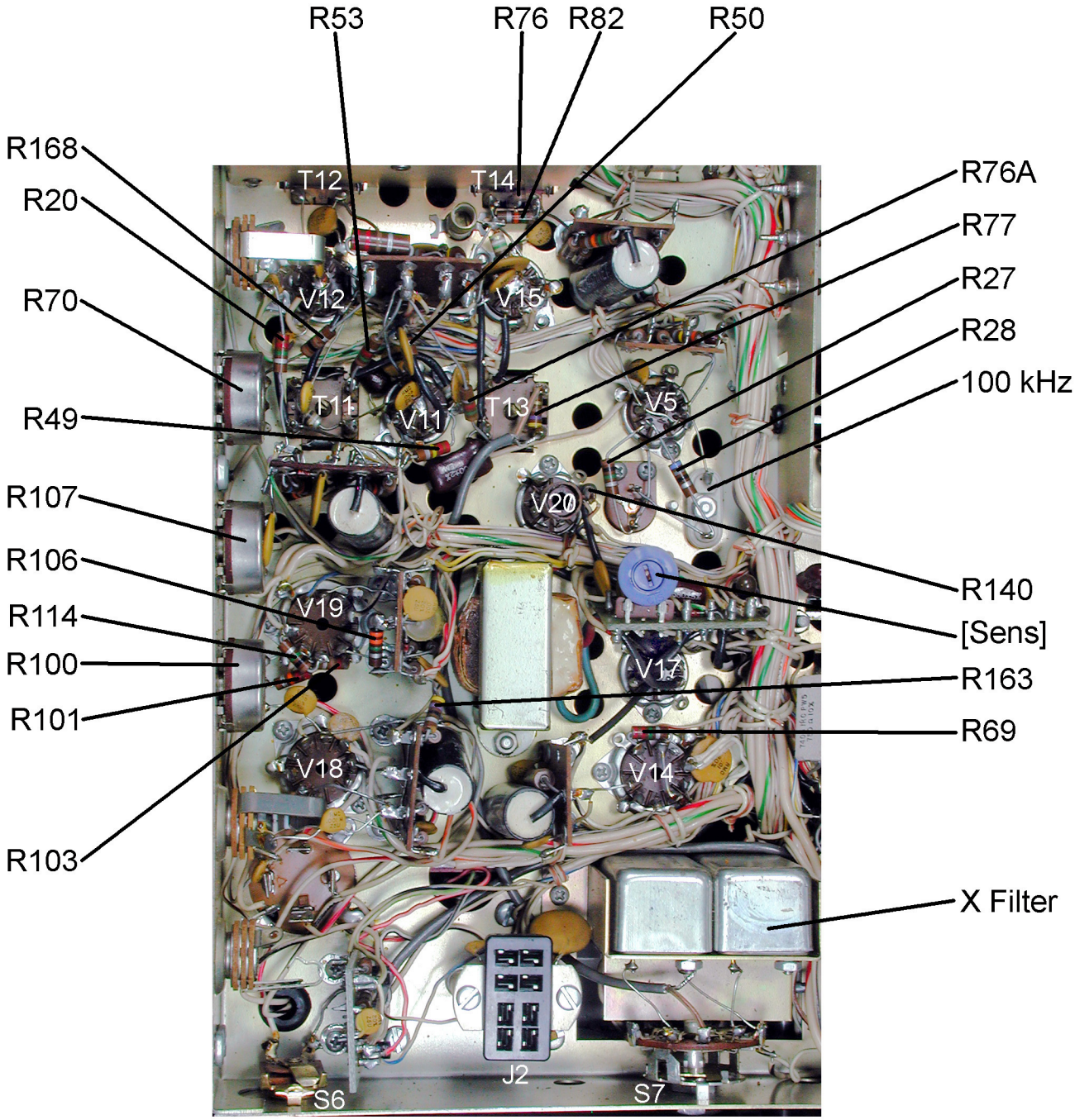

LOWER LEFT CHASSIS
RESISTORS

R L DRAKE TR-4C
Lower Left Chassis

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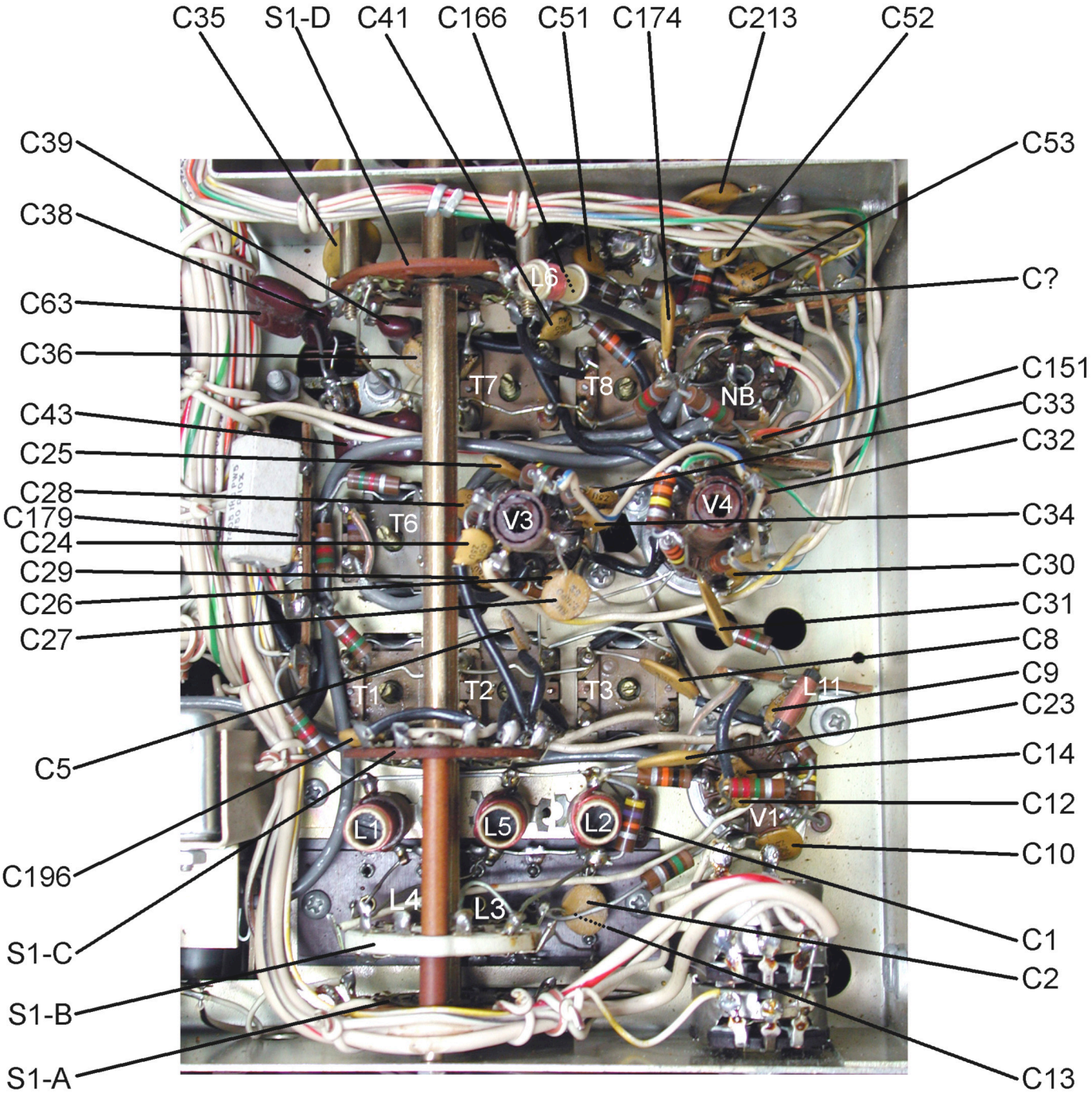

LOWER RIGHT CHASSIS
CAPACITORS

R L DRAKE TR-4C
Lower Right Chassis

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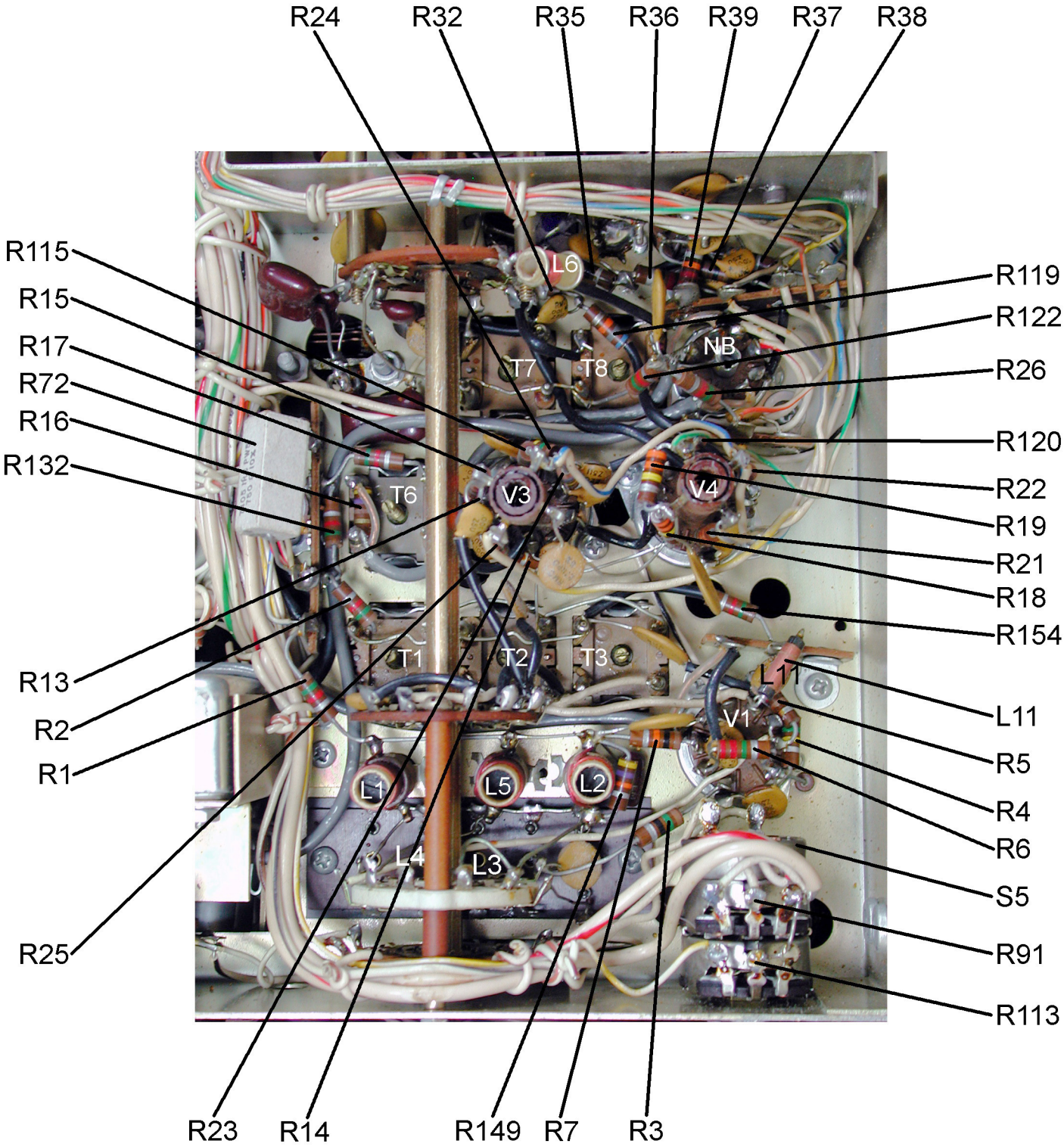

LOWER RIGHT CHASSIS
RESISTORS

R L DRAKE TR-4C
Lower Right Chassis

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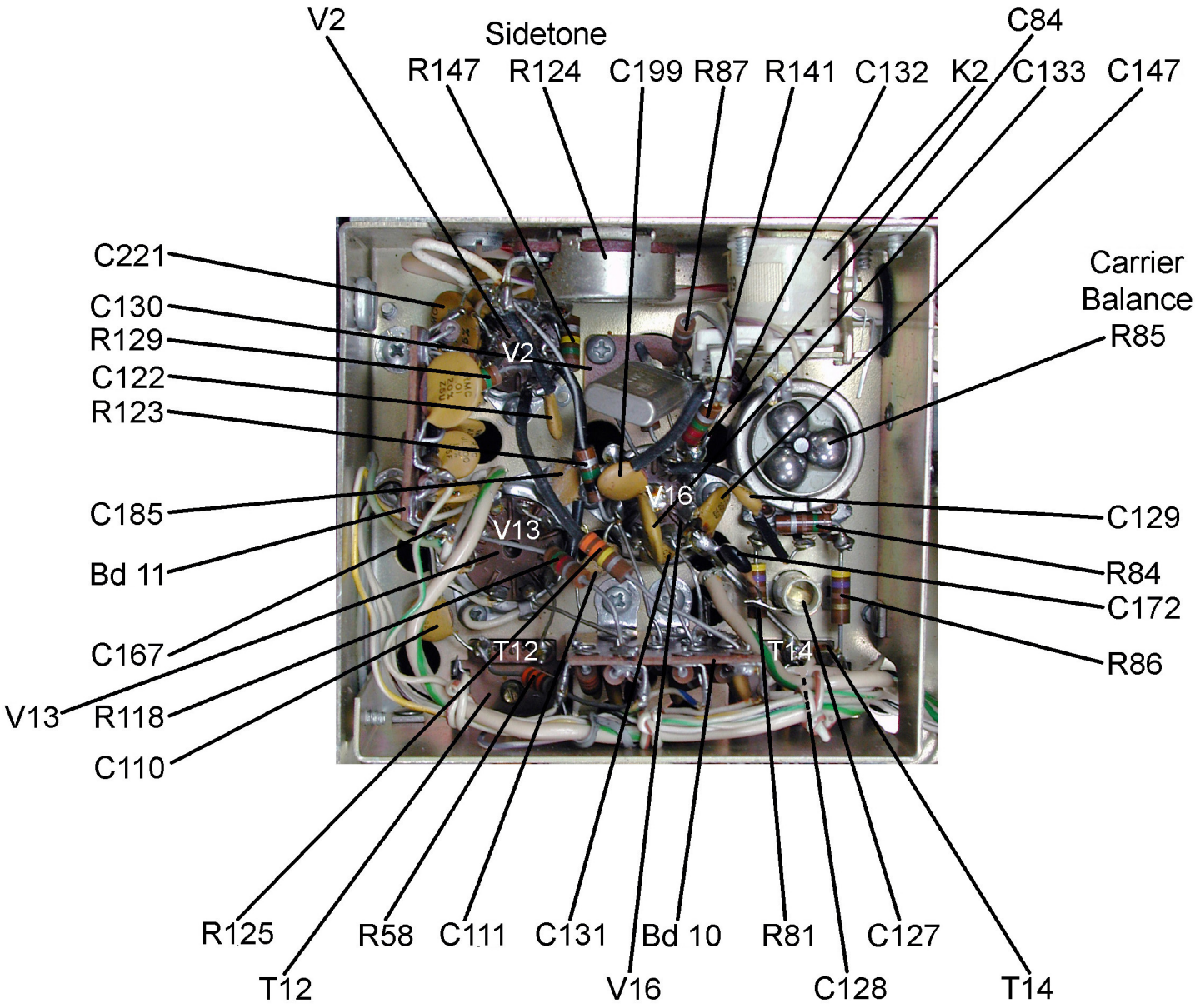

Balanced Modulator, XMIT IF, Sidetone Osc,
BFO-Prod. Det, Detector-1st AF Amplifier

R L DRAKE TR-4C
Carrier Oscillator

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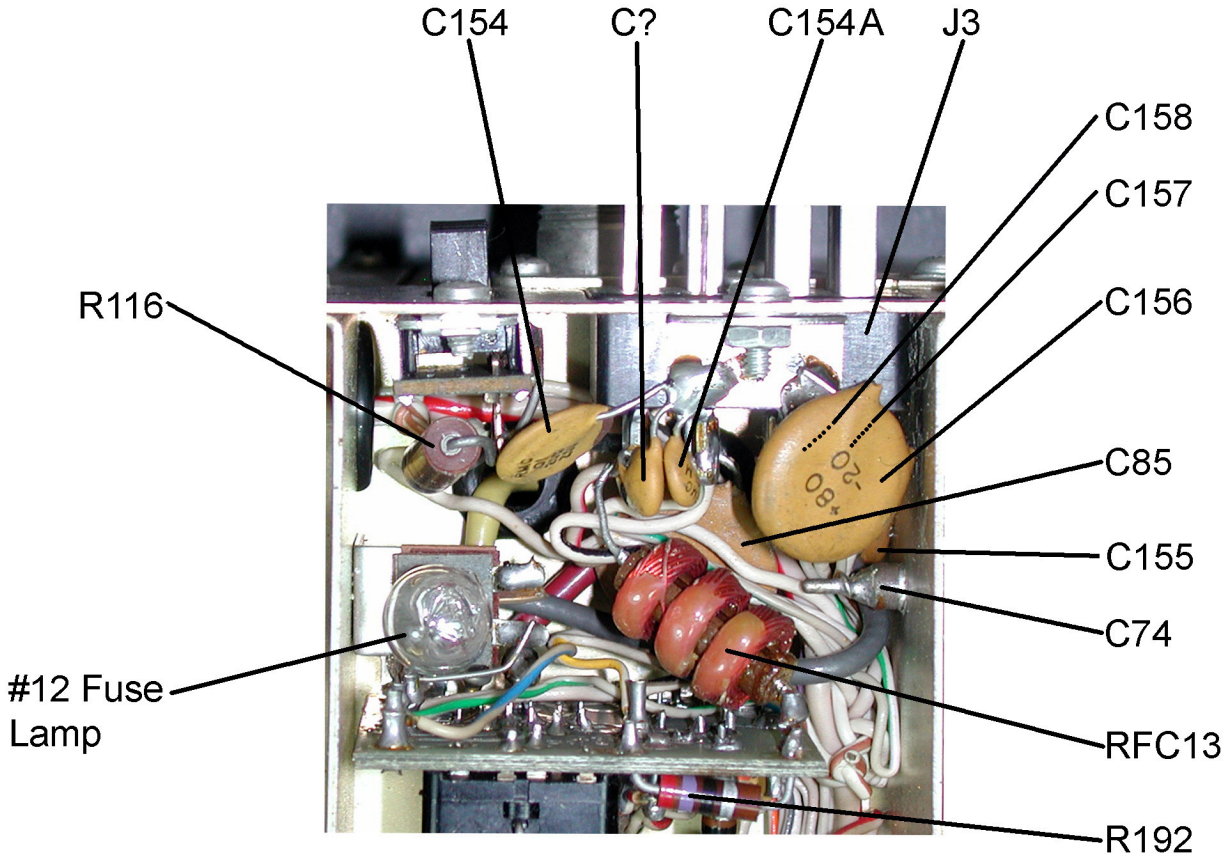

R L DRAKE TR-4C
Power Compartment

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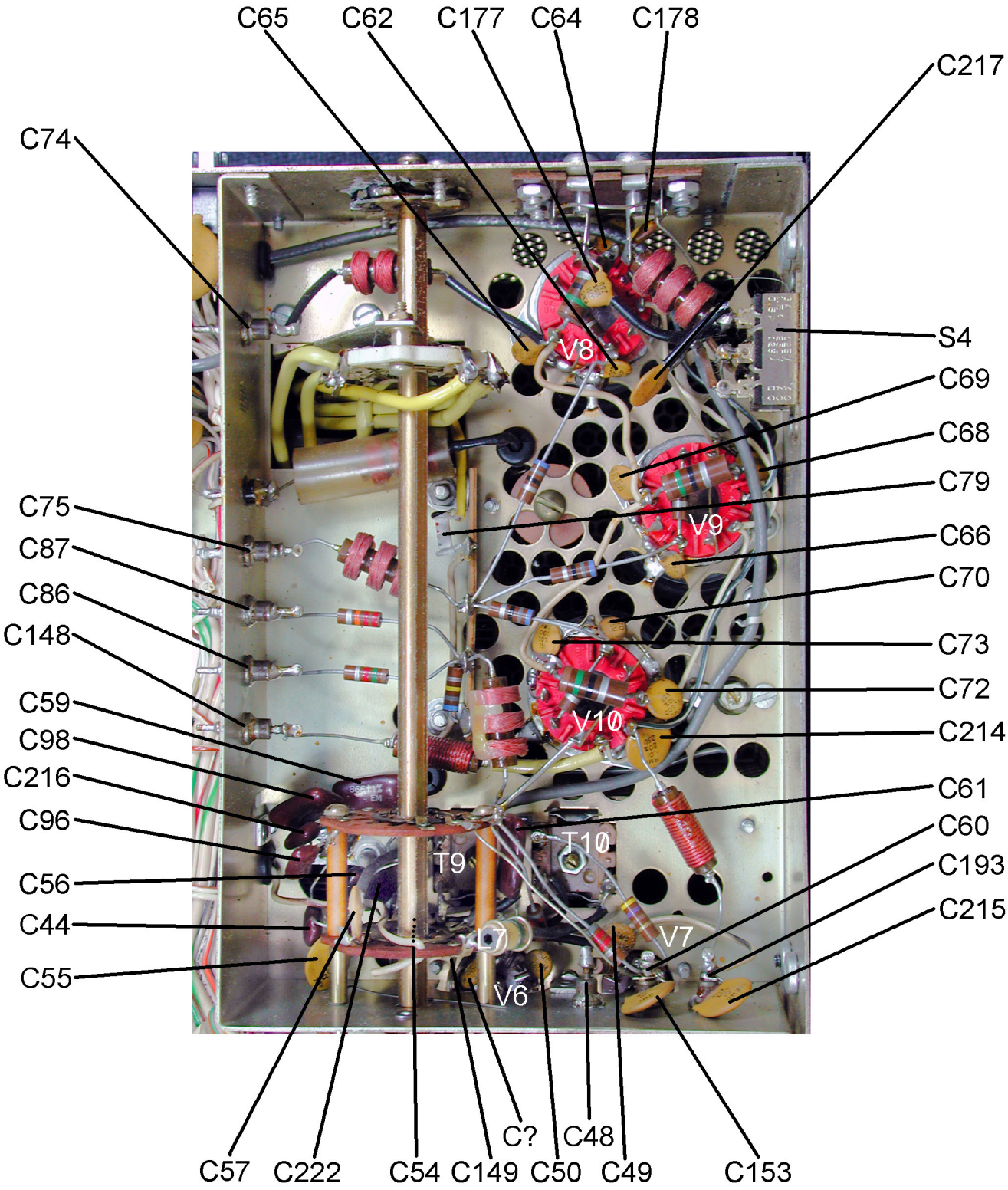

P A COMPARTMENT
BOTTOM - CAPACITORS

R L DRAKE TR-4C
P A Compartment - B

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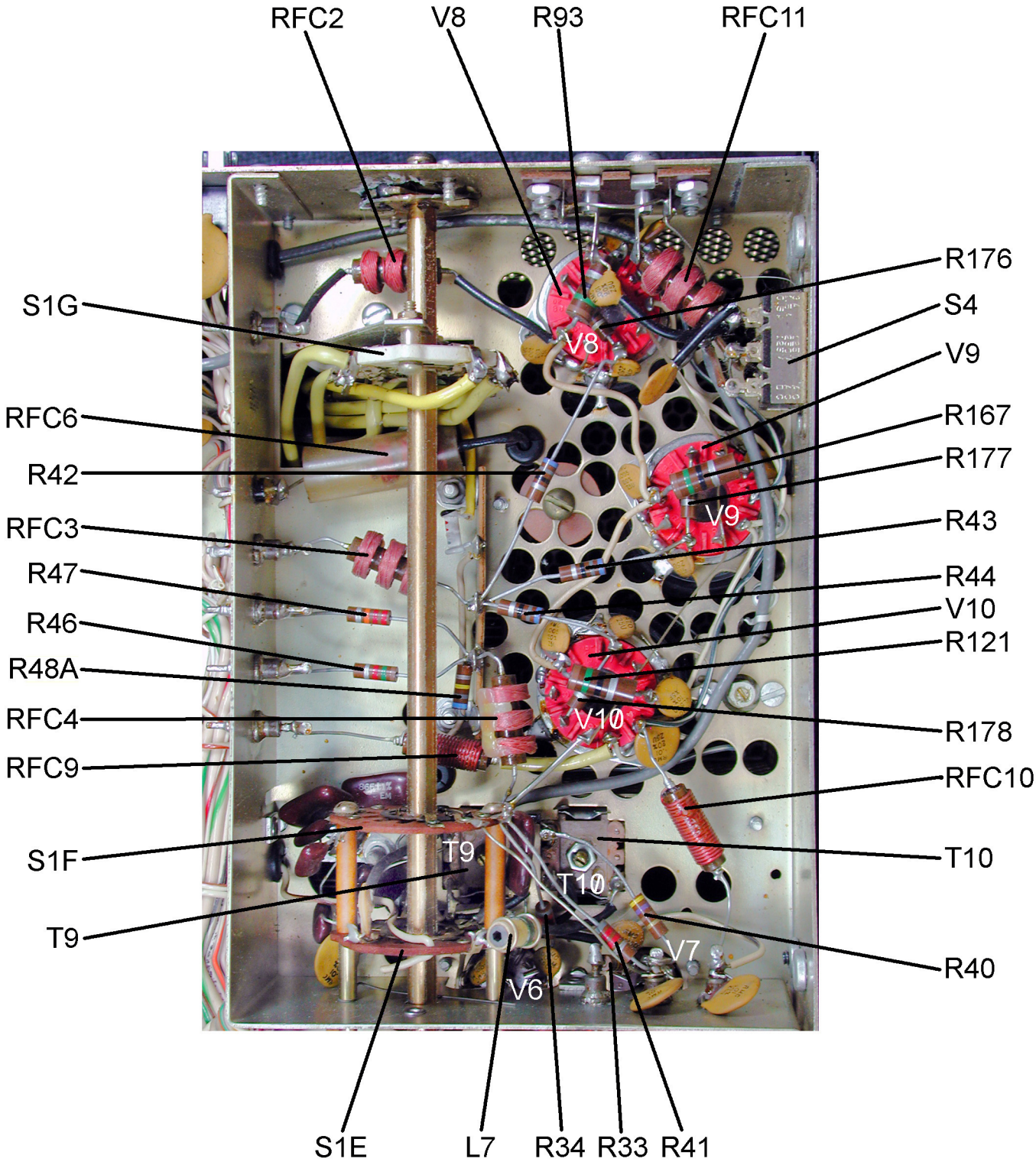

P A COMPARTMENT
BOTTOM - R & MISC

R L DRAKE TR-4C
P A Compartment - B

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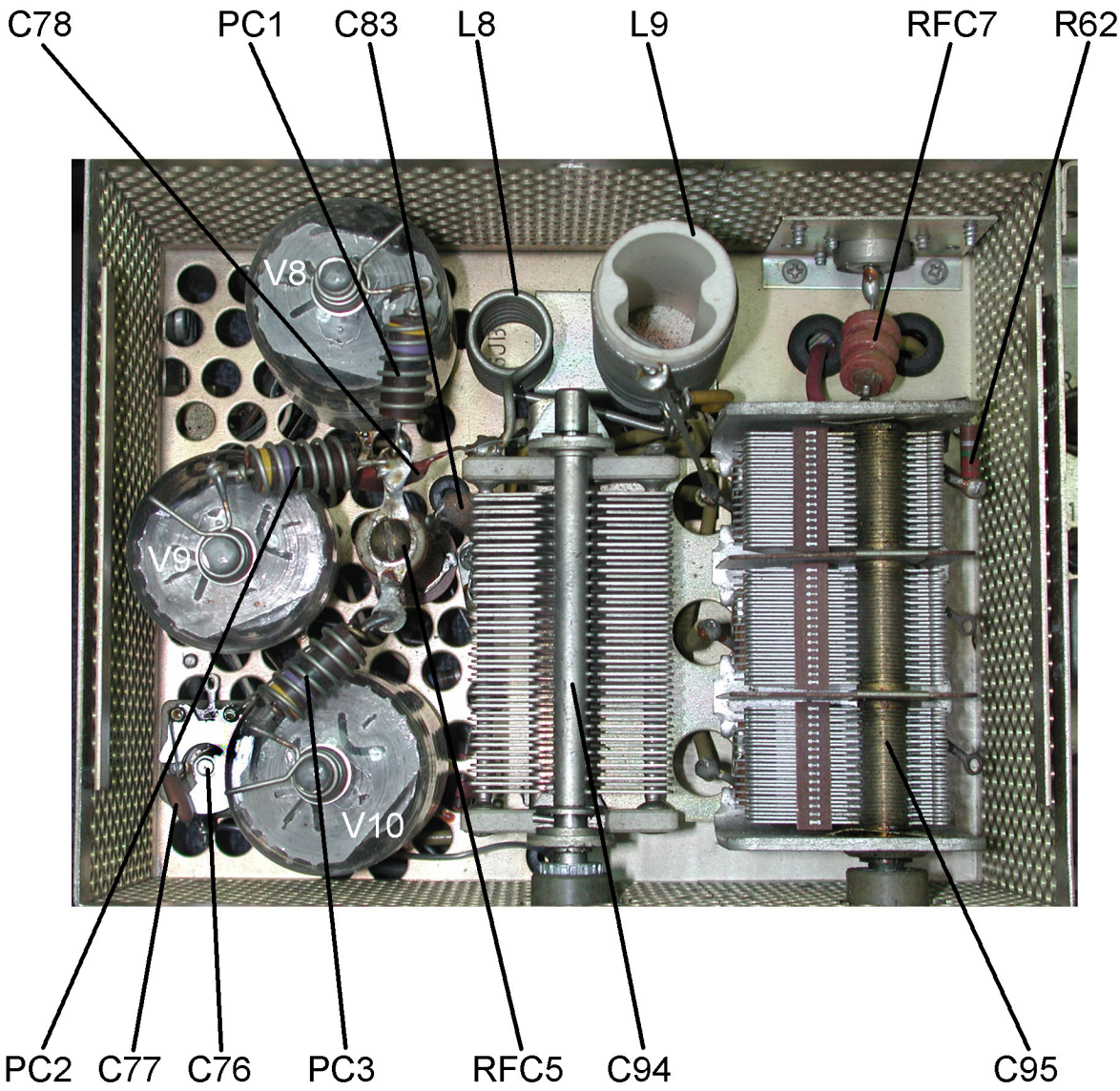

R L DRAKE TR-4C
PA Compartment -Top

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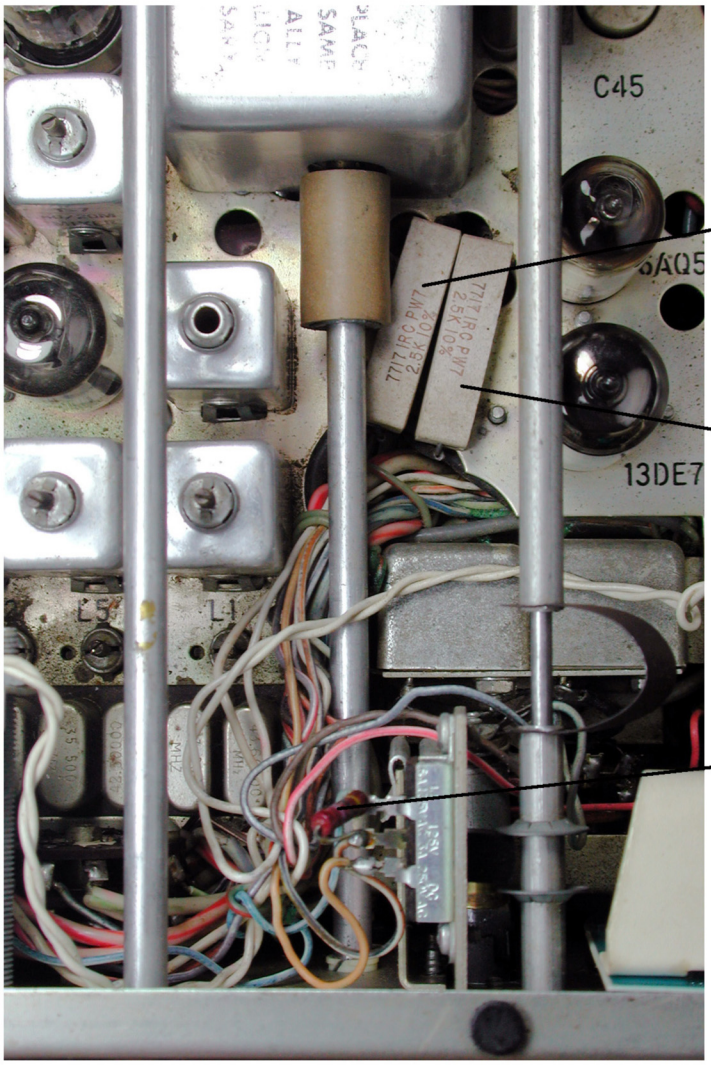

R L DRAKE TR-4C
Chassis Top

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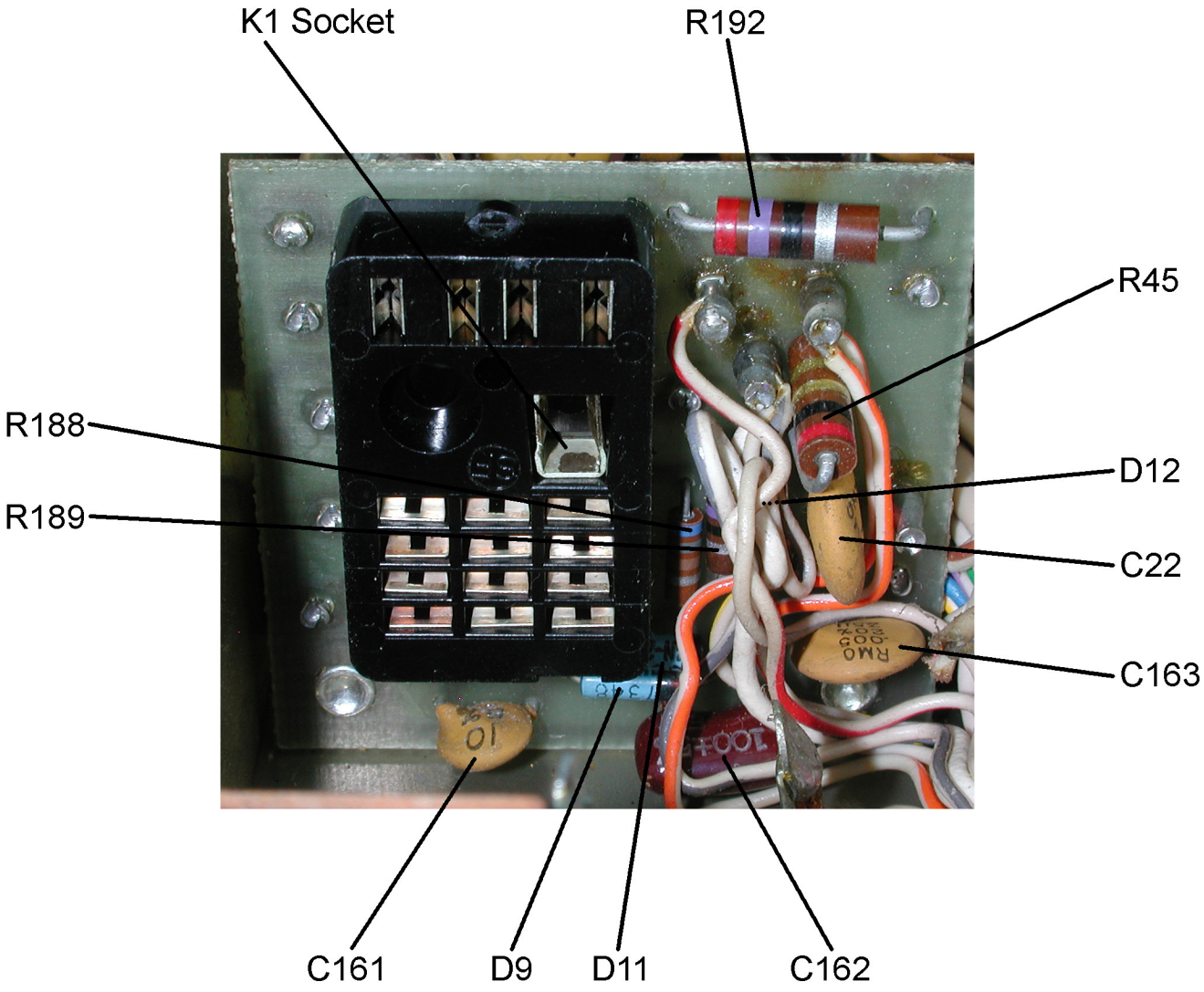

RELAY BOARD
Relay Removed

R L DRAKE TR-4C
Relay Board

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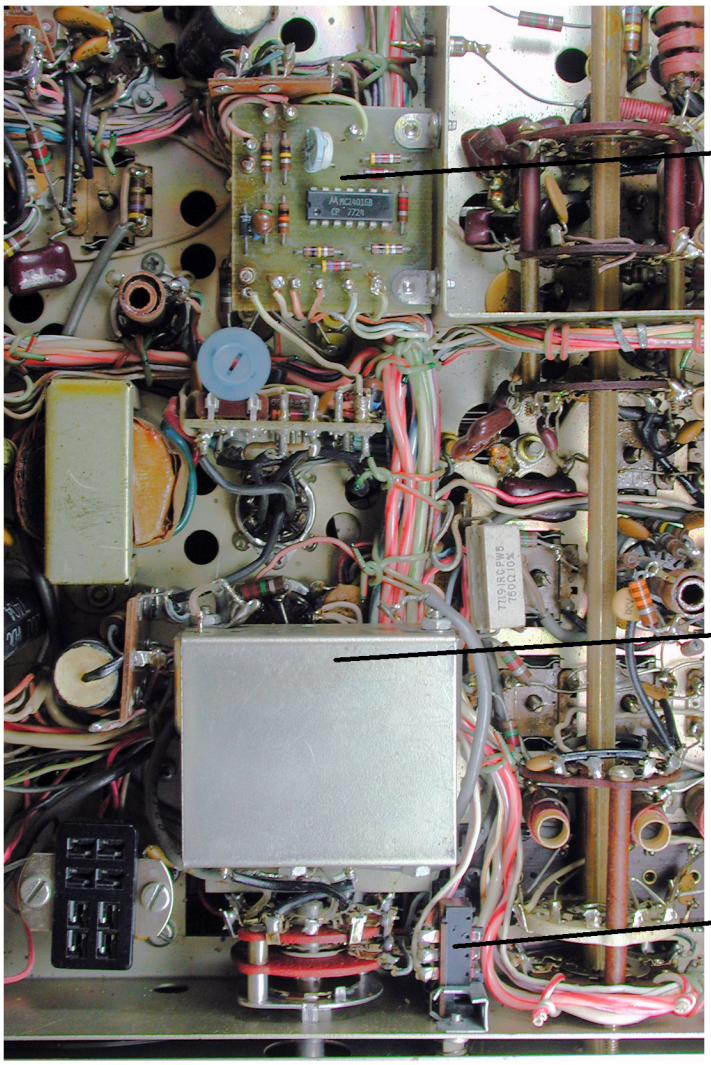

R L DRAKE TR-4Cw/RIT
Chassis Locator

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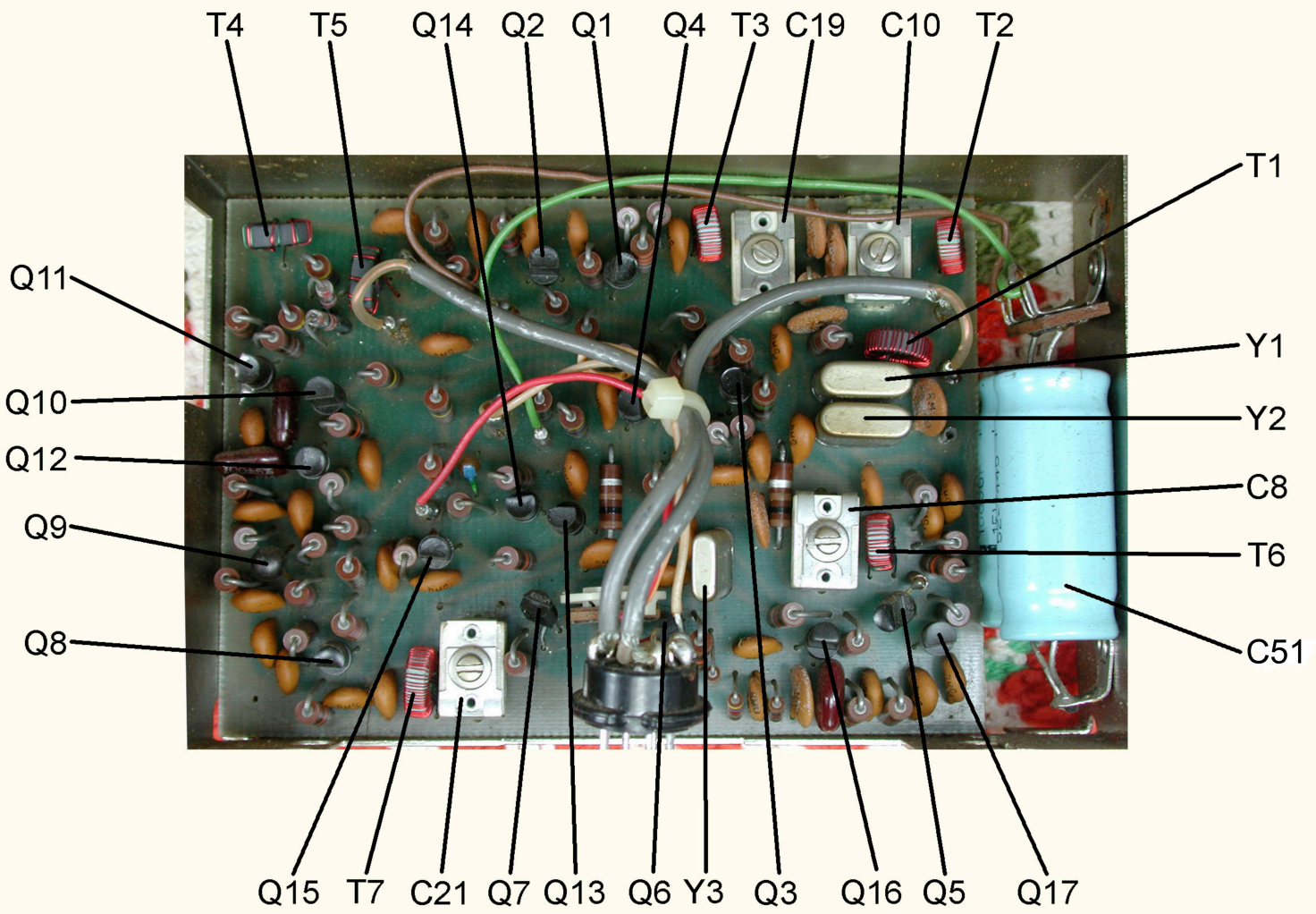

R L DRAKE TR-4C
34-PNB Noise Blanker

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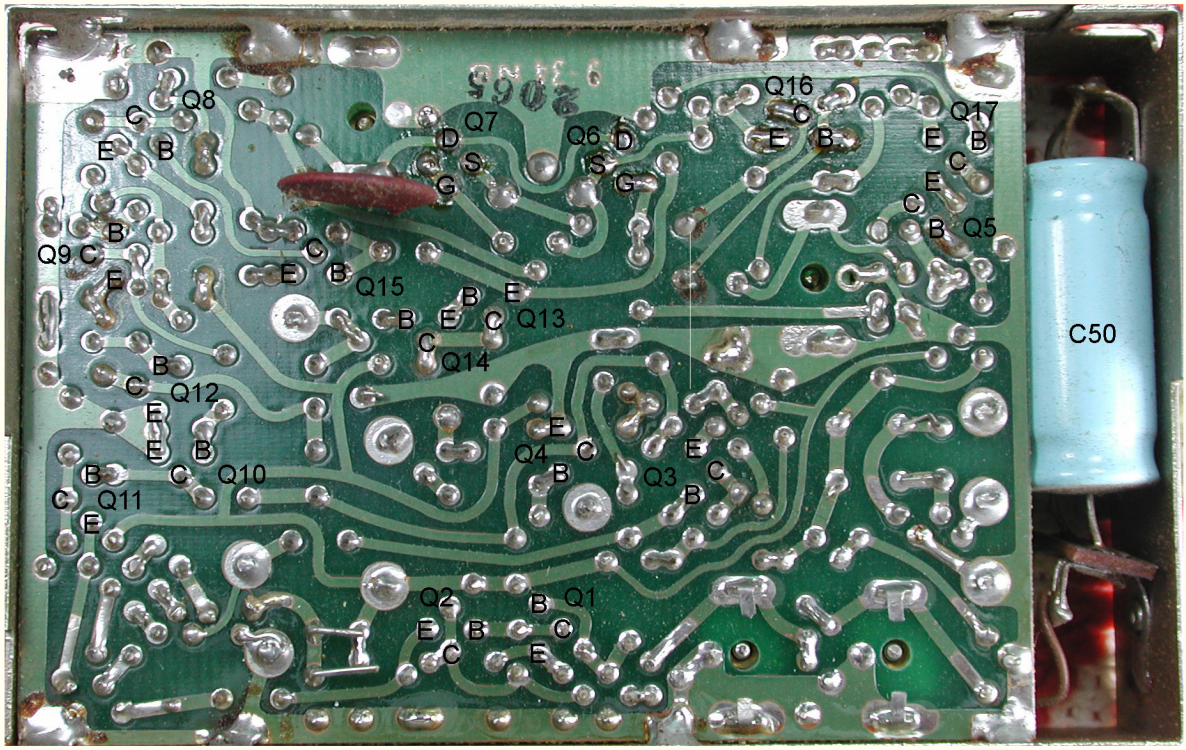

Device	E	B	C	Device	E	B	C	Device	G	D	S
Q1	2	2	8	**Q11**	6.5	7	13	**Q6**	0	11	0.8
Q2	7.5	8	12	**Q12**	0	2	5	**Q7**	0	11	0.92
Q3	13	12	13	**Q13**	4	4.5	13				
Q4	0	0	13	**Q14**	4.5	5	13				
Q5	13	3.5	4	**Q15**	3.2	4	3.5				
Q8	3.5	4	10.5	**Q16**	3.5	4	10				
Q9	3.5	4	10	**Q17**	3	3.5	3				
Q10	0	0	7								

Data Courtesy
Bill Frost, R L Drake Co.

R L DRAKE TR-4C
34-PNB Noise Blanker

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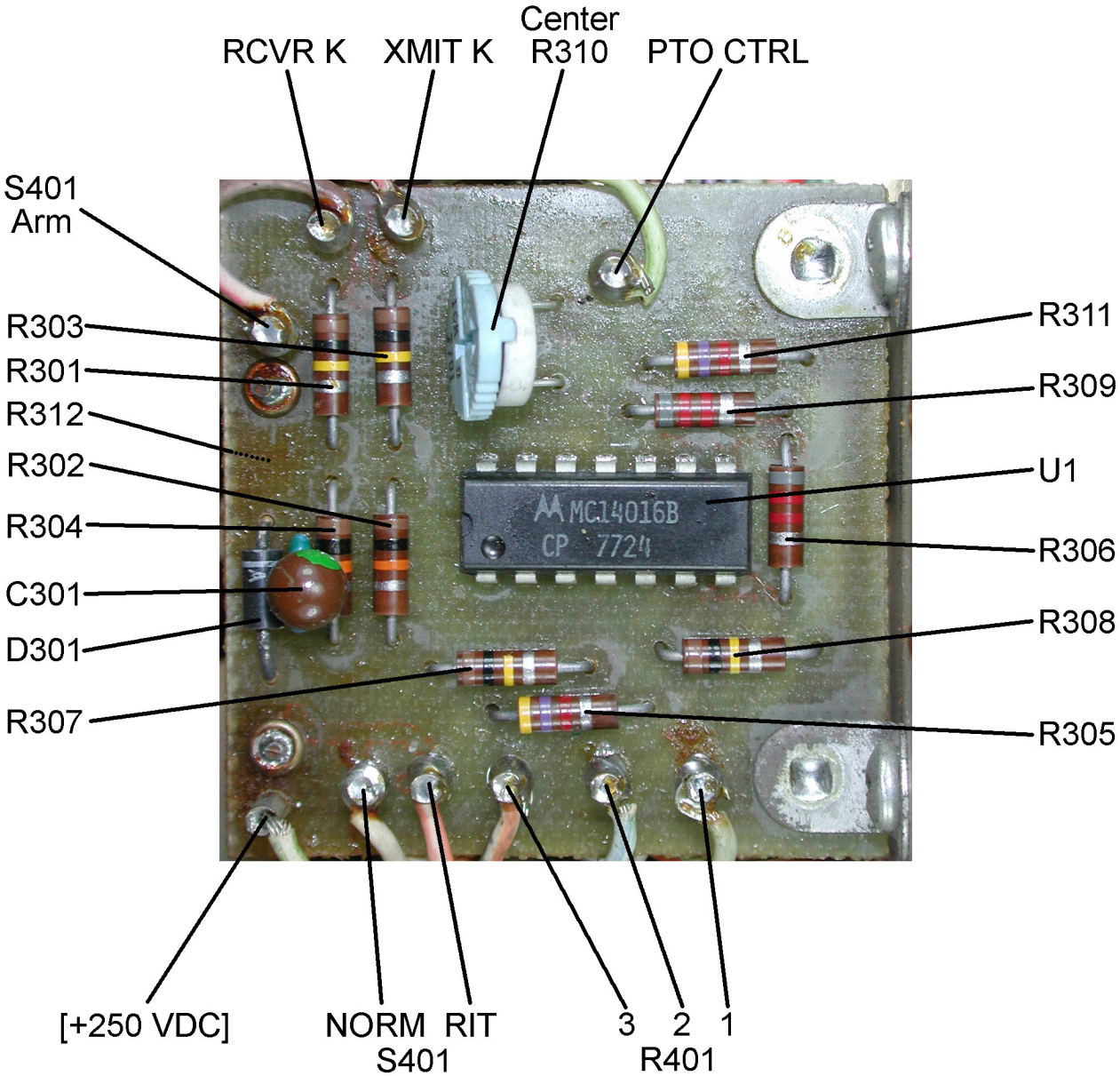

R L DRAKE TR-4CwRIT
RIT Control Board

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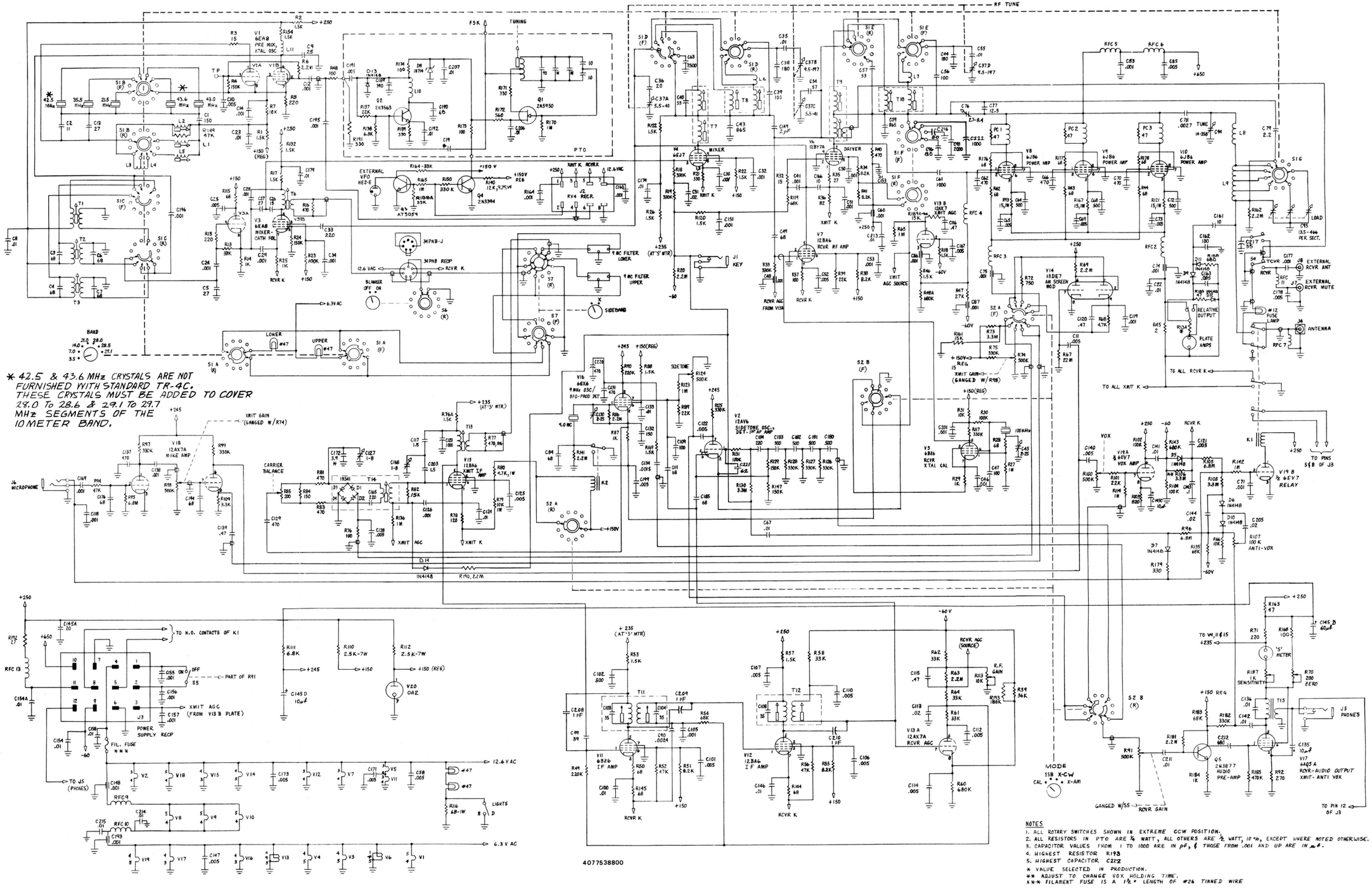


* 42.5 & 43.6 MHz CRYSTALS ARE NOT FURNISHED WITH STANDARD TR-4C. THESE CRYSTALS MUST BE ADDED TO COVER 28.0 TO 28.6 & 29.1 TO 29.7 MHz SEGMENTS OF THE 10 METER BAND.

NOTES

1. ALL ROTARY SWITCHES SHOWN IN EXTREME CCW POSITION.
2. ALL RESISTORS IN PTO ARE ¼ WATT, ALL OTHERS ARE ½ WATT, 10%, EXCEPT WHERE NOTED OTHERWISE.
3. CAPACITOR VALUES FROM 1 TO 1000 ARE IN pF, & THOSE FROM .001 AND UP ARE IN µF.
4. HIGHEST RESISTOR R193
5. HIGHEST CAPACITOR C222

* VALUE SELECTED IN PRODUCTION.
** ADJUST TO CHANGE VOX HOLDING TIME.
*** FILAMENT FUSE IS A 1½" LENGTH OF #26 TINNED WIRE

TR-4Cw SUPPLEMENTARY INSTRUCTION SHEET

The TR-4Cw incorporates all of the features contained in the TR-4C plus a 500 Hz bandwidth crystal filter to improve CW selectivity.

This instruction sheet deals only in differences and additions that this feature will add to the instruction manual supplied.

SPECIFICATIONS

Receiver Selectivity: 6 dB=500 Hz, 60 dB=2.0 kHz with Sideband Switch in 500 Hz position.

OPERATION

The Sideband Switch selects between upper, lower, and 500 Hz filters. The sideband being utilized is indicated by the upper/lower lights. When the sideband switch is in the 500 Hz position, the same light will light as when the switch is in the "X" position.

Tune Up is identical to that of the TR-4C.

Operation on CW is accomplished in the same manner as the TR-4C except that the sideband switch can be placed on the 500 Hz position to more easily separate stations under crowded band conditions.

It will be noted that when transmitting with the 500 Hz filter switched in, the XMTR Gain Control will have to be advanced slightly further clockwise to obtain the same plate current as obtained when either upper or lower filters are used.

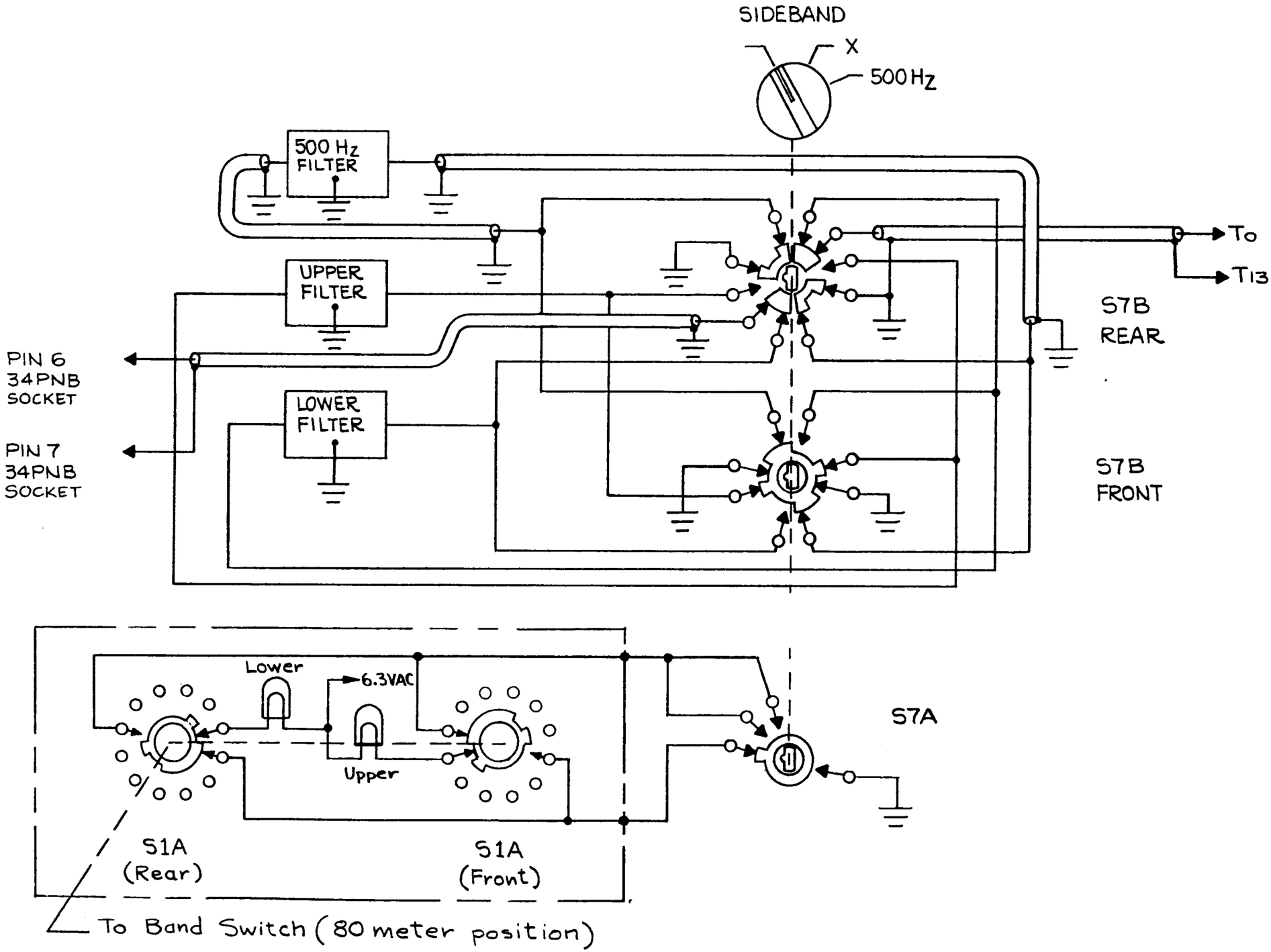
The center frequency of the CW filter is such that when a signal is tuned for maximum S-meter reading, an audio beat note of approximately 800 Hz will be produced. Therefore, when tuning in CW signals with the filter switch in the "X" position, signals should be tuned for this audio frequency so they will still be tuned in when switching to the 500 Hz filter.

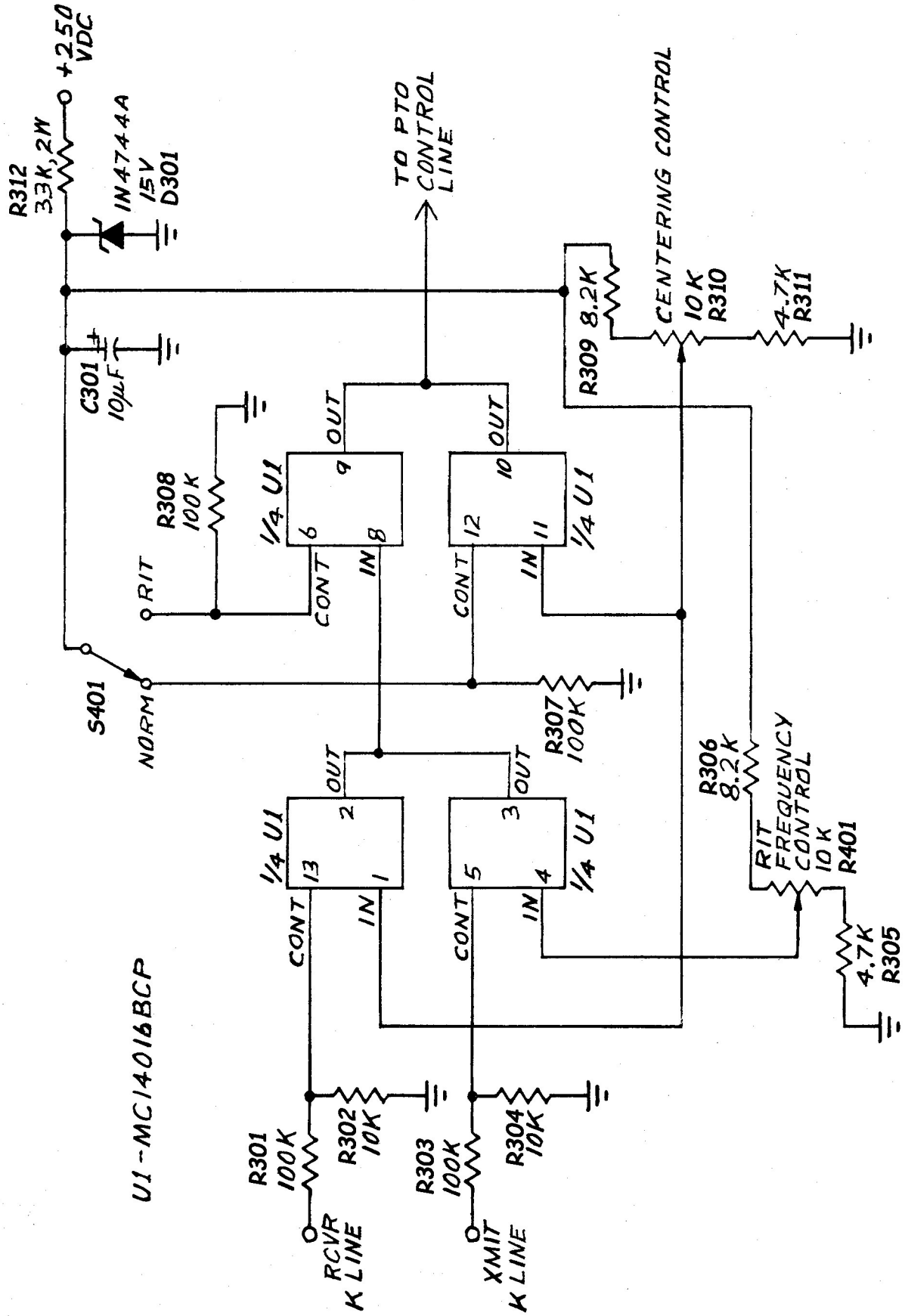
SSB Operation is not recommended with the 500 Hz filter switched in since it will narrow the bandwidth of both transmitted and received audio sufficiently to make it virtually unintelligible.

MAINTENANCE

Alignment is accomplished in exactly the same manner as the TR-4C. No special tuning of T6 or T13 is required.

Access to circuitry hidden by the 500 Hz filter is obtained by loosening the two nuts holding the 500 Hz filter bracket to the upper/lower filter bracket and lifting the filter and bracket as a unit off the transceiver.


SIDEBAND
X
500 Hz
500 Hz FILTER
UPPER FILTER
LOWER FILTER
PIN 6 34PNB SOCKET
PIN 7 34PNB SOCKET
To
T13
S7B REAR
S7B FRONT
Lower
6.3VAC
Upper
S7A
S1A (Rear)
S1A (Front)
To Band Switch (80 meter position)



RIT Schematic Diagram

TR-4 Troubleshooting

Bill Frost, R. L. Drake Co.

TR-4 TRANSMITTER

SSB, Distortion on transmit signal:
- (1) C-116 leaky.
- (2) 9 MC carrier oscillator not centered.
- (3) Defective diode in balanced modulator.
- (4) V-6 soft.

SSB Flat topping on transmit signal:
- (1) V-13 defective.
- (2) C-116 shorted.
- (3) V-8, V-9, V-10 soft.

AM, No carrier:
- (1) K-2 defective.

AM, No modulation:
- (1) V-14

VOX Operation, relay cycles Anti-VOX control has no effect:
- (1) D-6
- (2) (2) V-19
- (3) (3) Anti VOX Pot corroded.

X-CW, Relay chatters, key up:
- (1) V-4 or V-6 leaky.

X-CW, Keys O.K. But relay drops out with no time delay, VOX control has no effect:
- (1) D-7

Plate meter reads full scale, spurious oscillation on all bands (taking off). S-meter reads up scale 50 to 60/9 :
- (1) Receiver cathode line shorted to ground.

SSB, AM, Feedback in receiver when transmitting:
- (1) Adjust C-168 for null with unit is SSB mode, receiver and transmitter gain at 3 o'clock, VOX gain CCW, audio tone fed to mike amplifier stage.

SSB, AM, excessive RF feedback in receiver when transmitting:
- (1) Check grounding system
- (2) SWR

Excessive carrier persists after adjustment of R-85 and C-127:
(1) Defective D-l, D-2, D-3, or D-4 in balanced modulator.

SSB. Cannot set VOX but PTT functions normal , Relay will not close when switched to X-CW:
(1) D-5

X-CW. Relay will not close. SSB, functions normal using PTT or VOX:
(1) V-2
(2) Sidetone oscillator not running.

No relative output indication when unit is loaded:
(1) D-9, check antenna VSWR.

SSB, Hum on transmit signal:
(1) Check shield lead at mike cable.
(2) Check coaxial leads from mike amplifier stage to balanced modulator for loose ground shield. NOTE: Lead from C-139 to S2A, from S2A, to R-76.

SSB, Hum on transmit and received signal:
(1) C-145

X-CW, SSB, AM, decrease in transmitter output:
(1) V-8, V-9, V-10.
(2) V -6

SSB, decrease in transmitter output:
(1) V-18
(2) V-15
(3) Switch to X-CW mode, advance transmitter gain to about 11 o'clock, peak T-14.

Low output SSB, AM , CW
(1) Change V-8, V-9, V-10. Reneutralize.

TR-4 RECEIVER

Receiver. No indication on S-meter of signal strength or very low S-meter readings:
(1) Turn receiver RF gain completely CCW, S-meter should read 50 to 60/9. If S-meter pointer does not move meter movement is probably open, If S-meter reads up scale but less than 50/9, change V-11.

S-meter zero, adjustment very erratic:
(1) S-meter zero potentiometer (R-70) corroded.

S-meter reading up scale and cannot be zeroed:

(1) C-135 shorted, V-17 drawing excessive current.

S-meter pointer pegs to right (60/9) and does not return to normal resting point:

(1) Center contact on relay K-1 burned or pitted. Receiver cathode circuit open.

S-meter pegs to left, Receiver dead:

(1) Transmitter cathode short

(2) Plate meter leads shorted going into meter housing.

Receiver, Only very strong signals audible, very low S-meter readings:

(1) Antenna relay (K-1) contact corroded.

(2) Fuse lamp open.

(3) Receiver coaxial from relay (K-l) to T-9 shorted.

(4) Receiver coil at T-9 open.

(5) TCVR switch in RCVR position.

Low receiver sensitivity:

(1) V-13 leaky, high residual AVC voltage

(2) V-11, V-12, V-7.

(3) T-11, T-12 not peaked.

Receiver, weak audio:

(1) C-135 Open

(2) V-17

(3) C-136 partial short.

Receiver, SSB, audio distortion:

(1) V-2 cathode qrounded (2) 9Mc oscillator off frequency, adjust C-130 for same noise pitch on USB and LSB or use signal generator, couple 9 Mc signal to control grid of V-12, zero heat oscillator by adjusting C-130. If oscillator cannot be zeroed, change 9 MC crystal.

Receiver, relay closes when in receive mode:

(1) C-142 partial short

(2) V-19.

SSB, X-CW, AM. No crystal oscillation. Output on 40, 15 , and 10 meter bands.

(1) V-1

(2) Tune L-1, L-2, and L-5 on appropriate bands for maximum negative voltage at TP.

SSB, 40, 15, and 10 meter bands. Sudden shift in frequency of 50 Kc's or more from 100 Kc crystal calibrator check points:

(1) Crystal is spurious. Replace.

Receiver, excessive popping noise in receiver:

(1) C-78 leaky.

Receiver dead, Resistors R-168 and R -71 burnt:

(1) S-meter shorted (2) Meter leads pinched where going into meter housing.

Frequency jump or shift 1 or 2 Kc, both transmit and receive :

(1) PTO cover loose

(2) Zener diode in PTO bad (check Zener voltage).

(4) K-2 has bad contacts.

ID	Location	Page	Value	Unit	W	Tol.	Type
R1	LR-R	15	1.5k	Ohms	0.5	10%	CC
R2	LR-R	15	1.5K	Ohms	0.5	10%	CC
R3	LR-R	15	15	Ohms	0.5	10%	CC
R4	LR-R	15	150k	Ohms	0.5	10%	CC
R5	LR-R	15	220	Ohms	0.5	10%	CC
R6	LR-R	15	2.2M	Ohms	0.5	10%	CC
R7	LR-R	15	10k	Ohms	0.5	10%	CC
R8	N/A	N/A					
R9	N/A	N/A					
R10	N/A	N/A					
R11	N/A	N/A					
R12	N/A	N/A					
R13	LR-R	15	33k	Ohms	0.5	10%	CC
R13A	LOAD SW	21	Selected	Ohms	0.5	10%	CC
R14	LR-R	15	1k	Ohms	0.5	10%	CC
R15	LR-R	15	220	Ohms	0.5	10%	CC
R16	LR-R	15	470	Ohms	0.5	10%	CC
R17	LR-R	15	1.5k	Ohms	0.5	10%	CC
R18	LR-R	15	330K	Ohms	0.5	10%	CC
R19	LR-R	15	330K	Ohms	0.5	10%	CC
R20	LL-R	13	2.2M	Ohms	0.5	10%	CC
R21	LR-R	15	330	Ohms	0.5	10%	CC
R22	LR-R	15	1.5K	Ohms	0.5	10%	CC
R23	LR-R	15	100k	Ohms	0.5	10%	CC
R24	LR-R	15	150k	Ohms	0.5	10%	CC
R25	LR-R	15	1k	Ohms	0.5	10%	CC
R26	LR-R	15	1.5K	Ohms	0.5	10%	CC
R27	LL-R	13	1M	Ohms	0.5	10%	CC
R28	LL-R	13	68	Ohms	0.5	10%	CC
R29	B7	7	1K	Ohms	0.5	10%	CC
R30	B7	7	100K	Ohms	0.5	10%	CC
R31	B7	7	10K	Ohms	0.5	10%	CC
R32	LR-R	15	15	Ohms	0.5	10%	CC
R33	PAB-R	19	330K	Ohms	0.5	10%	CC
R34	PAB-R	19	8.2K	Ohms	0.5	10%	CC
R35	LR-R	15	27	Ohms	0.5	10%	CC
R36	LR-R	15	82	Ohms	0.5	10%	CC
R37	LR-R	15	100	Ohms	0.5	10%	CC
R38	LR-R	15	8.2K	Ohms	0.5	10%	CC
R39	LR-R	15	22K	Ohms	0.5	10%	CC
R40	PAB-R	19	470	Ohms	0.5	10%	CC
R41	PAB-R	19	8.2K	Ohms	0.5	10%	CC
R42	PAB-R	19	68	Ohms	0.5	10%	CC
R43	PAB-R	19	68	Ohms	0.5	10%	CC
R44	PAB-R	19	68	Ohms	0.5	10%	CC
R45	RB	22	2	Ohms	0.5	5%	CC
R46	PAB-R	19	1.5K	Ohms	0.5	10%	CC
R47	PAB-R	19	27K	Ohms	0.5	10%	CC
R48	B1	1	100	Ohms	0.5	10%	CC
R48A	PAB-R	19	680K	Ohms	0.5	10%	CC
R49	LL-R	13	220K	Ohms	0.5	10%	CC

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ID	Location	Page	Value	Unit	W	Tol.	Type
R50	LL-R	13	68	Ohms	0.5	10%	CC
R51	B8	8	8.2K	Ohms	0.5	10%	CC
R52	B8	8	47K	Ohms	0.5	10%	CC
R53	LL-R	13	1.5K	Ohms	0.5	10%	CC
R54	B6	6	68K	Ohms	0.5	10%	CC
R55	B8	8	8.2K	Ohms	1	10%	CC
R56	B8	8	47K	Ohms	0.5	10%	CC
R57	LL-R	13	1.5K	Ohms	0.5	10%	CC
R58	CO	16	33K	Ohms	0.5	10%	CC
R59	B10	10	36K	Ohms	0.5	10%	CC
R60	B10	10	680K	Ohms	0.5	10%	CC
R61	B10	10	33K	Ohms	0.5	10%	CC
R62	B6	6	33K	Ohms	0.5	10%	CC
R63	B6	6	2.2M	Ohms	0.5	10%	CC
R64	B6	6	33K	Ohms	0.5	10%	CC
R65	B9	9	1M	Ohms	0.5	10%	CC
R66	B6	6	10K	Ohms	0.5	10%	CC
R67	B3	3	22M	Ohms	0.5	10%	CC
R68	B3	3	4.7K	Ohms	1	10%	CC
R69	LL-R	13	2.2M	Ohms	0.5	10%	CC
R70	LL-R	13	200	Ohms	0.5	10%	ZERO
R71	B8	8	220	Ohms	1	10%	CC
R72	LR-R	15	750	Ohms	5	10%	WW
R73	B5	5	2.2M	Ohms	0.25	10%	CC
R74	FP	N/A	500K	Ohms			XMIT GAIN
R75	B5	5	330K	Ohms	0.25	10%	CC
R76	LL-R	13	100	Ohms	0.5	10%	CC
R76A	LL-R	13	1.5K	Ohms	0.5	10%	CC
R77	LL-R	13	470	Ohms	0.5	5%	CC
R78	B8	8	120	Ohms	0.5	10%	CC
R79	B8	8	10K	Ohms	1	10%	CC
R80	B8	8	4.7K	Ohms	1	10%	CC
R81	CO	16	470	Ohms	0.5	10%	CC
R82	LL-R	13	15K	Ohms	0.5	10%	CC
R83	CO	16	470	Ohms	0.5	10%	CC
R84	CO	16	150	Ohms	0.5	10%	CC
R85	CO	16	200	Ohms			Trimpot
R86	CO	16	2.2M	Ohms	0.5	10%	CC
R87	CO	16	1K	Ohms	0.5	10%	CC
R88	B10	10	1.5K	Ohms	0.5	10%	CC
R89	B10	10	22K	Ohms	0.5	10%	CC
R90	B10	10	220K	Ohms	0.5	10%	CC
R91	LR-R	15	500K	Ohms			AF GAIN
R92	B5	5	270	Ohms	0.5	10%	CC
R93	PAB-R	19	15	Ohms	1	10%	CC
R94	B2	2	47k	Ohms	0.5	10%	CC
R95	B2	2	6.8M	Ohms	0.5	10%	CC
R96	B11	11	6.8M	Ohms	0.5	10%	CC
R97	B2	2	330k	Ohms	0.5	10%	CC
R98	FP	N/A	500K	Ohms			XMTR GAIN
R99	B2	2	330k	Ohms	0.5	10%	CC

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ID	Location	Page	Value	Unit	W	Tol.	Type
R100	LL-R	13	500K	Ohms			VOX GAIN
R101	LL-R	13	82K	Ohms	0.5	10%	CC
R102	B4	4	100K	Ohms	0.5	10%	CC
R103	LL-R	13	820	Ohms	0.5	10%	CC
R104	B4	4	100K	Ohms	0.5	10%	CC
R105	B4	4	6.8M	Ohms	0.5	10%	CC
R106	LL-R	13	3.3M	Ohms	0.5	10%	CC
R107	LL-R	13	100K	Ohms			ANTI VOX
R108	B4	4	3.3M	Ohms	0.5	10%	CC
R109	B2	2	3.3k	Ohms	0.5	10%	CC
R110	TOP	21	2.5K	Ohms	7	10%	WW
R111	B2	2	6.8k	Ohms	0.5	10%	CC
R112	TOP	21	2.5K	Ohms	7	10%	WW
R113	LR-R	15	10K	Ohms			RF GAIN
R114	LL-R	13	1M	Ohms	0.5	10%	CC
R115	LR-R	15	68	Ohms	0.5	10%	CC
R116	PC	17	68	Ohms	1	10%	CC
R117	B7	7	330K	Ohms	0.5	10%	CC
R118	CO	16	1.5K	Ohms	0.5	10%	CC
R119	LR-R	15	68K	Ohms	0.5	10%	CC
R120	LR-R	15	1.5K	Ohms	0.5	10%	CC
R121	PAB-R	19	15	Ohms	1	10%	CC
R122	LR-R	15	1.5K	Ohms	0.5	10%	CC
R123	CO	16	1M	Ohms	0.5	10%	CC
R124	CO	16	500K	Ohms			SIDETONE
R125	CO	16	330K	Ohms	0.5	10%	CC
R126	B11	11	330K	Ohms	0.5	10%	CC
R127	B11	11	330K	Ohms	0.5	10%	CC
R128	B11	11	330K	Ohms	0.5	10%	CC
R129	B11/CO	11, 16	150K	Ohms	0.5	10%	CC
R130	B11	11	3.3M	Ohms	0.5	10%	CC
R131	B11	11	100K	Ohms	0.5	10%	CC
R132	LR-R	15	1.5k	Ohms	0.5	10%	CC
R133	N/A	N/A					
R134	N/A	N/A					
R135	B6	6	33K	Ohms	0.5	10%	CC
R136	B9	9	1M	Ohms	0.5	10%	CC
R137	PTO	N/A	22k	Ohms	0.5	10%	CC
R138	PTO	N/A	6.8k	Ohms	0.5	10%	CC
R139	PTO	N/A	330	Ohms	0.5	10%	CC
R140	LL-R	13	12K	Ohms	9.75		WW
R141	CO	16	2.2M	Ohms	0.5	10%	CC
R142	B4	4	1M	Ohms	0.5	10%	CC
R143	B4	4	330K	Ohms	0.5	10%	CC
R144	B8	8	68	Ohms	0.5	10%	CC
R145	B8	8	68	Ohms	0.5	10%	CC
R146	N/A	N/A					
R147	CO	16	150K	Ohms	0.5	10%	CC
R148	N/A	N/A					
R149	LR-R	15	47k	Ohms	0.5	10%	CC
R150	B1	1	330K	Ohms	0.5	10%	CC

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ID	Location	Page	Value	Unit	W	Tol.	Type
R151	N/A	N/A					
R152	N/A	N/A					
R153	N/A	N/A					
R154	LR-R	15	1.5K	Ohms	0.5	10%	CC
R155	N/A	N/A					
R156	N/A	N/A					
R157	N/A	N/A					
R158	N/A	N/A					
R159	N/A	N/A					
R160	N/A	N/A					
R161	B5	5	15K	Ohms	0.25	10%	CC
R162	PA - TOP	21	2.2M	Ohms	0.5	10%	CC
R163	LL-R	13	47	Ohms	0.5	10%	CC
R164	B1	1	27K	Ohms	0.5	10%	CC
R165	B1	1	1M	Ohms	0.5	10%	CC
R166	N/A	N/A					
R167	PAB-R	19	15	Ohms	1	10%	CC
R168	LL-R	13	100	Ohms	0.5	10%	CC
R169	B10	10	1.5K	Ohms	0.5	10%	CC
R170	PTO	N/A	1M	Ohms	0.5	10%	CC
R171	PTO	N/A	330	Ohms	0.5	10%	CC
R172	PTO	N/A	560	Ohms	0.5	10%	CC
R173	PTO	N/A	100	Ohms	0.5	10%	CC
R174	PTO	N/A	100	Ohms	0.5	10%	CC
R175	N/A	N/A					
R176	PAB-R	19	68	Ohms	0.5	10%	CC
R177	PAB-R	19	68	Ohms	0.5	10%	CC
R178	PAB-R	19	68	Ohms	0.5	10%	CC
R179	B11	11	330	Ohms	0.5	10%	CC
R180	N/A	N/A					
R181	B5	5	2.2M	Ohms	0.25	10%	CC
R182	B5	5	330K	Ohms	0.25	10%	CC
R183	B5	5	68K	Ohms	0.25	10%	CC
R184	B5	5	1K	Ohms	0.25	10%	CC
R185	B5	5	470K	Ohms	0.25	10%	CC
R186	N/A	N/A					
R187	B5	5	1K	Ohms			TRIM
R188	RB	23	680	Ohms	0.5	10%	CC
R188A	B1	1	33K	Ohms	0.5	10%	CC
R189	RB	24	47	Ohms	0.5	10%	CC
R189A	B9	9	15K	Ohms	0.5	10%	CC
R190	B9	9	2.2M	Ohms	0.5	10%	CC
R191	B1	1	330	Ohms	0.5	10%	CC
R192	PC / RB	17, 22	27	Ohms	0.5	10%	CC
R193	B10	10	180k	Ohms	0.5	10%	CC

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ID	Location	Figure	Value		V	Tol.	Type
C1	LR-C	14	150	pF	500	5%	Dipped Mica
C2	LR-C	14	11	pF	1000	5%	NPO - D Ceramic
C3	Inside T2	14, 15	68	pF	1000	5%	NPO - D Ceramic
C4	Inside T3	14, 15	68	pF	1000	5%	NPO - D Ceramic
C5	LR-C	14	27	pF	1000	5%	NPO - D Ceramic
C6	Inside T2	14, 15	68	pF	1000	5%	NPO - D Ceramic
C7	Inside T3	14, 15	68	pF	1000	5%	NPO - D Ceramic
C8	LR-C	14	.01	uF	1000	20%	Z5U - D Ceramic
C9	LR-C	14	25	pF	1000	5%	NPO - D Ceramic
C10	LR-C	14	.005	uF	1000	20%	Z5U - D Ceramic
C11	B3	3	.005	uF	1000	20%	Z5U - D Ceramic
C12	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C13	LR-C	14	27	pF	500	5%	Dipped Mica
C14	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C15	N/A	N/A					
C16	N/A	N/A					
C17	N/A	N/A					
C18	N/A	N/A					
C19	N/A	N/A					
C20	N/A	N/A					
C21	N/A	N/A					
C22	RB	22	.01	uF	1000	20%	Z5U - D Ceramic
C23	LR-C	14	.01	uF	1000	20%	Z5U - D Ceramic
C24	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C25	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C26	LR-C	14	15	pF	1000	5%	NPO - D Ceramic
C27	LR-C	14	27	pF	1000	5%	NPO - D Ceramic
C28	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C29	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C30	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C31	LR-C	14	.02	uF	1000	20%	Z5U - D Ceramic
C32	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C33	LR-C	14	220	pF	1000	20%	Z5U - D Ceramic
C34	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C35	LR-C	14	.01	uF	1000	20%	Z5U - D Ceramic
C36	LR-C	14	20	pF	1000	5%	NPO - D Ceramic
C37A	RF TUNE	21	5.5-41	pF			Air Variable
C37B	RF TUNE	21	9.5-197	pF			Air Variable
C37C	RF TUNE	21	5.5-41	pF			Air Variable
C37D	RF TUNE	21	9.5-197	pF			Air Variable
C38	LR-C	14	180	pF	500	5%	Dipped Mica
C39	LR-C	14	100	pF	500	5%	Dipped Mica
C40	Inside T7	14, 15	53	pF	1000	5%	NPO - D Ceramic
C41	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C42	N/A	N/A					
C43	LR-C	14	865	pF	500	5%	Dipped Mica
C44	PAB-C	18	180	pF	500	5%	Dipped Mica
C45	LL-C	12	2-25	pF			Ceramic Trimmer
C46	B7	7	.001	uF	1000	20%	Z5U - D Ceramic
C47	B7	7	100	pF	500	5%	Dipped Mica
C48	PAB-C	18	.001	pF	500	20%	FT

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ID	Location	Figure	Value		V	Tol.	Type
C49	PAB-C	18	68	pF	1000	5%	N750 - D Ceramic
C50	PAB-C	18	.001	uF	1000	20%	Z5U - D Ceramic
C51	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C52	LR-C	14	.005	uF	1000	20%	Z5U - D Ceramic
C53	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C54	PAB-C	18	57	pF	1000	5%	NPO - D Ceramic
C55	PAB-C	18	.01	uF	1000	20%	Z5U - D Ceramic
C56	PAB-C	18	100	pF	1000	5%	Dipped Mica
C57	PAB-C	18	53	pF	1000	5%	N330 - D Ceramic
C58	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C59	PAB-C	18	865	pF	1000	5%	Dipped Mica
C60	PAB-C	18	.001	pF	500	20%	FT
C61	PAB-C	18	1000	pF	500	5%	Dipped Mica
C62	PAB-C	18	470	pF	1000	20%	Z5U - D Ceramic
C63	LR-C	14	2500	pF	500	5%	Dipped Mica
C64	PAB-C	18	500	pF	1000	10%	X5F - D Ceramic
C65	PAB-C	18	.005	uF	1000	20%	Z5U - D Ceramic
C66	PAB-C	18	470	pF	1000	20%	Z5U - D Ceramic
C67	B11	11	.01	uF	1000	20%	Z5U - D Ceramic
C68	PAB-C	18	500	pF	1000	10%	X5F - D Ceramic
C69	PAB-C	18	.005	uF	1000	20%	Z5U - D Ceramic
C70	PAB-C	18	470	pF	1000	20%	Z5U - D Ceramic
C71	B4	4	.001	uF	1000	20%	Z5U - D Ceramic
C72	PAB-C	18	500	pF	1000	10%	X5F - D Ceramic
C73	PAB-C	18	.005	uF	1000	20%	Z5U - D Ceramic
C74	PC/PAB-C	17, 18	.001	uF	500	20%	FT
C75	PAB-C	18	.001	uF	500	20%	FT
C76	PA-T	20	2.7-8.4	pF			Air Variable
C77	PA-T	20	12.5	pF	2000	5%	NPO - D Ceramic
C78	PA-T	20	.0027	uF	2000	10%	Z5U - D Ceramic
C79	PAB-C	18	2.2	pF	1000	5%	Tubular Ceramic
C80	N/A	N/A					
C81	N/A	N/A					
C82	N/A	N/A					
C83	PA-T	20	.001	uF	2000	20%	Z5U - D Ceramic
C84	CO	16	68	pF	1000	5%	N750 - D Ceramic
C85	PC	17	.005	uF	2000	20%	Z5U - D Ceramic
C86	PAB-C	18	.001	uF	500	20%	FT
C87	PAB-C	18	.001	uF	500	20%	FT
C88	N/A	N/A					
C89	N/A	N/A					
C90	LL-C	12	.0024	uF	1000	20%	Z5U - D Ceramic
C91	N/A	N/A					
C92	N/A	N/A					
C93	N/A	N/A					
C94	PAT	20	14-358	pF			TUNE
C95	PA-T	20	13.5-466	pF			LOAD (4 Section)
C96	PAB-C	18	80	pF	500	5%	Dipped Mica
C97	N/A						
C98	PAB-C	18	2000	pF	500	5%	Dipped Mica
C99	LL-C	12	39	pF	1000	5%	NPO - D Ceramic

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ID	Location	Figure	Value		V	Tol.	Type
C100	LL-C	12	.01	uF	1000	20%	Z5U - D Ceramic
C101	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C102	LL-C	12	500	pF	500	5%	Dipped Mica
C103	Inside T11	12, 13	35	pF	1000	5%	NPO - D Ceramic
C104	Inside T11	12, 13	35	pF	1000	5%	NPO - D Ceramic
C105	LL-C	12	.001	uF	1000	20%	Z5U - D Ceramic
C106	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C107	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C108	Inside T12	12, 13	35	pF	1000	5%	NPO - D Ceramic
C109	B10	10	100	pF	500	5%	Dipped Mica
C110	CO	16	.005	uF	1000	20%	Z5U - D Ceramic
C111	CO	16	68	pF	1000	5%	N750 - D Ceramic
C112	B10	10	.005	uF	1000	20%	Z5U - D Ceramic
C113	B6	6	.02	uF	100	+80-20%	Z5U - D Ceramic
C114	B10	10	.005	uF	1000	20%	Z5U - D Ceramic
C115	B6	6	0.47	uF	200	10%	FILM
C116	B9	8	0.47	uF	200	10%	FILM
C117	LL-C	12	1.5	pF	500	10%	NPO - T Ceramic
C118	LL-C	12	.001	uF	1000	20%	Z5U - D Ceramic
C119	B3	3	.001	uF	1000	20%	Z5U - D Ceramic
C120	B3	3	0.47	uF	200	10%	FILM
C121	B4	4	.005	uF	1000	20%	Z5U - D Ceramic
C122	CO	16	.005	uF	1000	20%	Z5U - D Ceramic
C123	LL-C	12	1000	pF	500	5%	Dipped Mica
C124	LL-C	12	.01	uF	1000	20%	Z5U - D Ceramic
C125	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C126	LL-C	12	.001	uF	1000	20%	Z5U - D Ceramic
C127	CO	16	1-8	pF			Piston Trimmer
C128	CO	16	.005	uF	1000	20%	Z5U - D Ceramic
C129	CO	16	470	pF	1000	20%	Z5U - D Ceramic
C130	CO	16	2-25	pF			Ceramic Trimmer
C131	CO	16	470	pF	1000	20%	Z5U - D Ceramic
C132	CO	16	150	pF	500	5%	Dipped Mica
C133	CO	16	.01	uF	1000	20%	Z5U - D Ceramic
C134	B10	10	.0015	uF	1000	20%	Z5U - D Ceramic
C135	B5	5	10	uF	25	10%	Dipped Tantalum
C136	B5	5	.01	uF	1000	20%	Z5U - D Ceramic
C137	B2	2	470	pF	1000	20%	Z5U - D Ceramic
C138	B2	2	.001	pF	1000	20%	Z5U - D Ceramic
C139	B2	2	0.47	uF	200	10%	FILM
C140	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C141	B4	4	.01	uF	1000	20%	Z5U - D Ceramic
C142	B5	5	.01	uF	1000	20%	Z5U - D Ceramic
C143	B4	4	0.1	uF	200	10%	FILM
C144	B6	6	.02	uF	100	+80-20%	Z5U - D Ceramic
C145A	LL-C	12	20	uF	250	+80-20%	Twist-Lok Electro
C145B	LL-C	12	60	uF	250	+80-20%	Twist-Lok Electro
C145C	LL-C	12	10	uF	25	+80-20%	Twist-Lok Electro
C145D	LL-C	12	10	uF	250	+80-20%	Twist-Lok Electro
C146	B8	8	.01	uF	1000	20%	Z5U - D Ceramic
C147	CO	16	.005	uF	1000	20%	Z5U - D Ceramic

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ID	Location	Figure	Value		V	Tol.	Type
C148	PAB-C	18	.001	uF	1000	20%	Z5U - D Ceramic
C149	PAB-C	18	2	pF	500	10%	NPO - T Ceramic
C150	N/A						
C151	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C152	N/A						
C153	PAB-C	18	.01	uF	1000	20%	Z5U - D Ceramic
C154	PC	17	.01	uF	1000	20%	Z5U - D Ceramic
C154A	PC	17	.01	uF	1000	20%	Z5U - D Ceramic
C155	PC	17	.001	uF	1000	20%	Z5U - D Ceramic
C156	PC	17	.001	uF	1000	20%	Z5U - D Ceramic
C157	PC	17	.001	uF	1000	20%	Z5U - D Ceramic
C158	PC	17	.01	uF	1000	20%	Z5U - D Ceramic
C159	N/A						
C160	LL-C	12	.001	uF	1000	20%	Z5U - D Ceramic
C161	RB	22	10	pF	1000	5%	NPO - D Ceramic
C162	RB	22	100	pF	500	5%	Dipped Mica
C163	RB	22	.005	uF	1000	20%	Z5U - D Ceramic
C164	LL-C	12	.001	uF	1000	20%	Z5U - D Ceramic
C165	Inside T14	12, 16	220	pF			
C166	LR-C	14	10	pF	1000	5%	NPO - D Ceramic
C167	CO	16	.005	uF	1000	20%	Z5U - D Ceramic
C168	LL-C	12	1-8	pF			
C169	LL-C	12	.001	uF	1000	20%	Z5U - D Ceramic
C170	N/A						
C171	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C172	CO	16	3.9	pF	1000	5%	NPO - D Ceramic
C173	LL-C	12	.005	uF	1000	20%	Z5U - D Ceramic
C174	LR-C	14	.01	uF	1000	20%	Z5U - D Ceramic
C175	N/A						
C176	LL-C	12	68	pF	1000	5%	N750 - D Ceramic
C177	PAB-C	18	.001	uF	1000	20%	Z5U - D Ceramic
C178	PAB-C	18	.005	uF	1000	20%	Z5U - D Ceramic
C179	LR-C	14	.01	uF	1000	20%	Z5U - D Ceramic
C180	B11	11	500	pF	1000	10%	X5F - D Ceramic
C181	B11	11	500	pF	1000	10%	X5F - D Ceramic
C182	B11	11	500	pF	1000	10%	X5F - D Ceramic
C183	B11	11	500	pF	1000	10%	X5F - D Ceramic
C184	B11	11	220	pF	1000	20%	Z5U - D Ceramic
C185	CO	16	68	pF	1000	5%	N750 - D Ceramic
C186	N/A						
C187	N/A						
C188	N/A						
C189	PTO	N/A	390	pF	500	5%	Dipped Mica
C190	PTO	N/A	68	pF	1000	5%	N750 - D Ceramic
C191	PTO	N/A	.005	uF	1000	20%	Z5U - D Ceramic
C192	PTO	N/A	.01	uF	1000	20%	Z5U - D Ceramic
C193	PAB-C	18	.001	uF	1000	20%	Z5U - D Ceramic
C194	LL-C	12	68	pF	1000	5%	N750 - D Ceramic
C195	B1	1	.001	uF	1000	20%	Z5U - D Ceramic
C196	LR-C	14	.001	uF	1000	20%	Z5U - D Ceramic
C197	N/A						

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ID	Location	Figure	Value		V	Tol.	Type
C198	N/A						
C199	CO	16	.005	uF	1000	20%	Z5U - D Ceramic
C200	N/A						
C201	B7	7	.001	uF	1000	20%	Z5U - D Ceramic
C202	N/A						
C203	LL-C	12	1.5	pF	500	10%	NPO - T Ceramic
C204	N/A						
C205	LL-C	12	.02	uF	100	+80-20%	Z5U - D Ceramic
C206	PTO	N/A	.01	uF	1000	20%	Z5U - D Ceramic
C207	PTO	N/A	.01	uF	1000	20%	Z5U - D Ceramic
C208	LL-C	12	1	pF	500	10%	NPO - T Ceramic
C209	LL-C	12	1	pF	500	10%	NPO - T Ceramic
C210	Inside T12	12, 13	1	pF	500	10%	NPO - T Ceramic
C211	B5	5	.01	uF	25	10	Z5U - D Ceramic
C212	B5	5	680	pF	500	5%	Dipped Mica
C213	LR-C	14	.01	uF	1000	20%	Z5U - D Ceramic
C214	PAB-C	18	.01	uF	1000	20%	Z5U - D Ceramic
C215	PAB-C	18	.01	uF	1000	20%	Z5U - D Ceramic
C216	PAB-C	18	80	pF	500	5%	Dipped Mica
C217	PAB-C	18	35	pF	1000	5%	NPO - D Ceramic
C218	N/A						
C219	N/A						
C220	B10	10	470	pF	1000	20%	Z5U - D Ceramic
C221	CO	16	62	pF	1000	5%	NPO - D Ceramic
C222	PAB-C	18	1000	pF	500	5%	Dipped Mica
C223	N/A						
C224	N/A						
C225	N/A						

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ID	Location	Device	Page	Description
D1	Inside T14	1N541	12, 13, 16	
D2	Inside T14	1N541	12, 13, 17	
D3	Inside T14	1N541	12, 13, 18	
D4	Inside T14	1N541	12, 13, 19	
D5	B4	1N4148	4	GP Silicon Switching Diode
D6	B6	1N4148	6	GP Silicon Switching Diode
D7	B11	1N4148	11	GP Silicon Switching Diode
D8	Inside PTO	1N714	N/A	10V, 0.5W Zener Diode
D9	RB	1N4148	22	GP Silicon Switching Diode
D10	B6	1N4148	6	GP Silicon Switching Diode
D11	RB	1N4148	22	GP Silicon Switching Diode
D12	RB	1N4148	22	GP Silicon Switching Diode
D13	Inside PTO	1N714	N/A	
D14	B9	1N4148	9	GP Silicon Switching Diode

ID	Location	Device	Page	Description
Q1	Inside PTO	2N5950	N/A	
Q2	Inside PTO	2N3563	N/A	
Q3	B1	AT5059	1	
Q4	B1	2N3394	1	
Q5	B5	2N3877	5	

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ID	Location		Figure	Description
T1	LR		14, 15	10M Injection
T2	LR		14, 15	15M Injection
T3	LR		14, 15	40M Injection
T4				
T5				
T6	LR		14, 15	Filter Match
T7	LR		14, 15	80 / 20M Mixer
T8	LR		14, 15	40 / 10 Mixer
T9	PAB		18, 19	80 / 20 M RF
T10	PAB		18, 19	40 / 10M RF
T11	LL		12, 13	Receiver 2nd IF
T12	LL / CO		12, 13. 16	Receiver 1st IF
T13	LL		12, 13	Filter Match
T14	LL / CO		12, 13, 16	Balanced Modulator
T15	LL		12, 13	AF Output

ID	Location	Device	Figure	Description
K1	RB	T/R Relay	22	P&B (Tyco) R10-E1-Y4-V2.5k
K2	CO	Car. Shift Relay	16	SPDT - 12 VDC coil (1600 ohms)

ID	Location		Figure	Description
L1	LR		14, 15	Slug Tuned Coil
L2	LR		14, 15	Slug Tuned Coil
L3	LR		14, 15	Wire Loop
L4	LR		14, 15	Wire Loop
L5	LR		14, 15	Slug Tuned Coil
L6	LR		14, 15	Slug Tuned Increment Coil
L7	PAB		18, 19	Slug Tuned Increment Coil
L8	PA-T		20	RF Plate Coil - 10M
L9	PA-T		20	RF Plate Coil
L10	Inside PTO		N/A	
L11	LR		14, 15	Solenoid RFC - 15 uHy
PC1	PA-T		20	47 Ohm, 2W CC w/ 6 t #22 Space Wound
PC2	PA-T		20	47 Ohm, 2W CC w/ 6 t #22 Space Wound
PC3	PA-T		20	47 Ohm, 2W CC w/ 6 t #22 Space Wound

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ID	Location		Figure	Description
RFC1				
RFC2	PAB			3-Pi Air Core - 750 uHy
RFC3	PAB			3-Pi Air Core - 750 uHy
RFC4	PAB			3-Pi Air Core - 750 uHy
RFC5	PA-T			RF Choke - Final Plate - 130 uHy
RFC6	PAB			3-Pi Air Core - 750 uHy - Insulated Cover
RFC7	PA-T			3-Pi Air Core - 750 uHy
RFC8	N/A			
RFC9	PAB			Solenoid RFC - 0.750 uHy (20t #20 on 7/32" form)
RFC10	PAB			Solenoid RFC - 0.750 uHy (20t #20 on 7/32" form)
RFC11	PAB			3-Pi Air Core - 750 uHy
RFC12				
RFC13	PC			3-Pi Air Core - 120 uHy

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ID	Location	Page	Value	Unit	W	Tol.	Type
R301	RIT Board	26	100K	Ohms	0.5	10%	CC
R302	RIT Board	26	10K	Ohms	0.5	10%	CC
R303	RIT Board	26	100K	Ohms	0.5	10%	
R304	RIT Board	26	10K	Ohms	0.5	10%	
R305	RIT Board	26	4.7K	Ohms	0.5	10%	
R306	RIT Board	26	8.2K	Ohms	0.5	10%	
R307	RIT Board	26	100K	Ohms	0.5	10%	
R308	RIT Board	26	100K	Ohms	0.5	10%	
R309	RIT Board	26	8.2K	Ohms	0.5	10%	
R310	RIT Board	26	10K	Ohms	0.5	10%	TRIMPOT
R311	RIT Board	26	4.7K	Ohms	0.5	10%	
R312	RIT Board	26	33K	Ohms	2	10%	CC
C301	RIT Board	26	10	uF		20%	Dipped Electrolytic
D301	RIT Board	26	15	VDC	1	5%	1N4744A Zener Diode
U1	RIT Board	26					MC14016B
R401	FRONT PANEL	N/A	10K				RIT Control
S401	FRONT PANEL	N/A					RIT Push Button
S402	FRONT PANEL	N/A					NB Push Button

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