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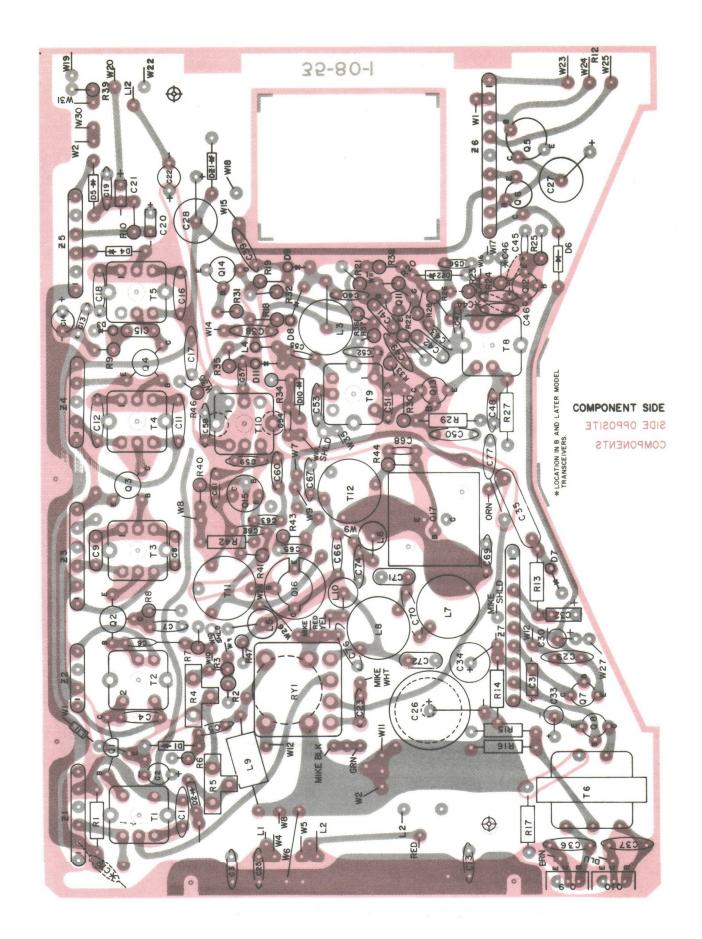
Thank you for any support you can give.

### PARTS LIST (cont'd)

SYMBOL NO.	DESCRIPTION	PART NO.	SYMBOL NO.	DESCRIPTION	PART NO.
**************************************					
	HARDWARE		Q5	squelch	576-0001-002
			Q6	squelch, audio, gate driver	576-0001-003
HW	Screw, 4-40 x 3/16, B.H.,	011-0012-006	Q7	Same as Q6	
	N.P.B. (board to rail)		Q8	audio driver	576-0001-009
HW	Screw, 4-40 x 1/4, B.H.,	011-0012-008	Q9	audio output	576-0002-001
	N.P.B. (audio transistors to rail)		Q10	Same as Q9	
HW	Screw, 6-32 x 1/4, B.H.,	011-0114-008	Q11	L.F.osc, H.F.osc, mixer	576-0003-024
	N.P.B., (front panel to rail)		Q12	Same as Q11	
HW	Screw, 8-32 x 1/4, B.H.,	011-0221-008	Q13	Same as Q11	
	N.P.B. (cabinet to rail)		Q14	1013	576-0001-013
HW	Screw, 8-18 x 3/8 cps,	011-0823-012	Q15	RF amp, RF driver	576-0004-004
	hex sheetmetal (L2 & T7 to rail)		Q16	Same as Q15	
HW	Nut, 4-40, NPB	012-0823-012	Q17	RF output	576-0004-005
	(audio transistors to rail)			PECICTORS	
				RESISTORS	
	JACKS		D.	(0.1 1507 170	5(0,1000,100
			R1	62 ohm , ±5%, 1/2watt	569-1003-620
Jl	Jack, power	515-4100-001	R2	150 ohm ±10%, 1/2watt	569-1004-151
J2	Jack, PA	515-2001-002	R3	680 ohm, ±10%, 1/2 watt	569-1004-681
	shoulder bushing for PA jack	029-0211-004	R4	Potentiometer, 2.0k ohm,	562-0004-202
J3	Jack, antenna	142-0101-002	7.5	1/8 watt, thumb wheel	5(0,0004,500
			R5	Potentiometer, 5.0k ohm,	562-0004-502
	SPEAKER			1/8 watt, thumb wheel	E ( 0 . 100 ( . 100 )
			R6	3.3k ohm, $\pm 10\%$ , $1/2$ watt	569-1004-332
LS1	Speaker	589-1002-002	R7	47 ohm, ±10%, 1/2 watt	569-1004-470
			R8	1.0k ohm, ±10%, 1/2 watt	569-1004-102
			R9	5.6k ohm, $\pm 10\%$ , $1/2$ watt	569-1004-562
			R10 R13	10k ohm, ±10%, 1/2 watt	569-1004-103
	INDUCTORS		R14	3.3k ohm, $\pm 10\%$ , 1/2 watt 470 ohm, $\pm 10\%$ , 1/2 watt	569-1004-332
			R15	680 ohm, ±10%, 1/2 watt	569-1004-471 569-1004-681
L1	13μH, RF choke	542-3003-001	R16	27 ohm, ±10%, 1/2 watt	
L2	18mH, filter choke	542-5007-001	R17		569-1004-270 569-2003-109
L3	2.4mH	022-1193-001	R18	1.0 ohm, $\pm 10\%$ , $1/2$ watt 22k ohm, $\pm 10\%$ , $1/2$ watt	569-1004-223
L4	$20\mu H$	542-3002-002	R19	Same as R18	307-1004-223
L5	13μH, RF choke	542-3003-001	R 20	39k ohm, ±10%, 1/2 watt	569-1004-393
L6	Same as L5		R21	33k ohm, ±10%, 1/2 watt	569-1004-333
L7	series output	542-1005-010	R22	2.7k ohm, ±10%, 1/2 watt	569-1004-272
L8	pi output	542-1005-004	R23	Same as R22	007 1001 272
L9	13μH, RF choke	542-3003-001	R 24	470 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-471
L10	Same as L9	5.40 2000 000	R 25	680 ohm, $\pm 10\%$ , 1/2 watt	569-1004-681
L11	20μΗ	542-3002-002	R26	120 ohm, $\pm 10\%$ , 1/2 watt	569-1004-121
			R 27	390 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-391
	HEAT SINK		R28	120 ohm, $\pm 10\%$ , 1/2 watt	569-1004-121
	HEAT SINK		R29	6.8k ohm, $\pm 10\%$ , $1/2$ watt	569-1004-682
MP1	driver	013-1074-001	R30	39k ohm, $\pm 10\%$ , $1/2$ watt	569-1004-393
MP2	final	016-1773-001	R31	10k ohm, $\pm 10\%$ , 1/2 watt	569-1004-103
			R32	330 ohm, ±10%, 1/2 watt	569-1004-331
	MICROPHONE		R33	120 ohm, $\pm 10\%$ , $1/2$ watt 2.2k ohm, $\pm 10\%$ , $1/2$ watt	569-1004-121
			R34	2.2k onm, ±10%, 1/2 watt Same as R34	569-1004-222
MIC1	Microphone	023-2708-001	R35 R36	200 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-221
	-		R37	120 ohm, ±10%, 1/2 watt	569-1004-221
			R38	68 ohm, ±10%, 1/2 watt	569-1004-680
	MECHANICAL PARTS		R39	33 ohm, ±10%, 1/2 watt	569-1004-330
		5.5 4.0- cc-	R40	470 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-471
MP4	Terminal tab, solder type	515-4101-001	R41	$3.3k$ ohm, $\pm 10\%$ , $1/2$ watt	569-1004-332
	(for power jack)		R42	47 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-470
			R43	120 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-121
MP5	Dash mounting bracket	017-1249-001	R44	47 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-470
			R45	$47k$ ohm, $\pm 10\%$ , $1/2$ watt	569-1004-47
	TDANCICTORS		R47	2.2k ohm, ±10%, 1/2 watt	569-1004-22
	TRANSISTORS		R48	330 ohm, $\pm 10\%$ , $1/2$ watt	569-1004-33
Q1	RF amp, receive	576-0003-012			
Q2	Mixer, transistor	576-0003-012		RELAY	
			1		
Q3	IF amp	576-0003-010			

### PARTS LIST (cont'd)

		PARTS LIS			
SYMBOL NO.	DESCRIPTION	PART NO.	SYMBOL NO.	DESCRIPTION	PART NO
	TRANSFORMERS		A CCESSO	DRY DACKAGE ITEMS	
	TRANSFORMERS		ACCESSC	DRY PACKAGE ITEMS	
T1	27MHz, input	592-5016-001	Accessory	7 Package	023-2576-001
T2	27MHz, RF amp	592-5006-002		ing Manual	002-0071-001
T3	mixer	592-5016-005		ules-Part 95	022-1635-001
T4 T5	1st IF 2nd IF	592-5016-006 592-5016-007		e Application, FCC	
T6	audio driver	592-1007-004	Form 5		022-1636-001
T7	audio out/ modulation	592-1013-001		nitter ID Card ity Registration Card	564-1001-001 041-0419-017
T8	32MHz, oscillator	592-5010-011		tion Sheet	004-0022-001
T9 T10	26.5MHz, mixer 27MHz, xmit RF amp input	592-5008-011 592-5023-001	•	nnector Assembly	023-2209-001
T11	27MHz, xmit RF amp output	592-5014-001		connector	515-9005-001
T12	driver	592-5014-002		tructions envelope Hone Holder	559-4013-001
			Screws		537-9004-002 011-0807-006
	CRYSTALS			ng Bracket Hardware	023-2615-001
Crystal	Frequency			ews, No. 10-32 x 5/8	011-0229-020
Y1	5.735	519-0023-004		s, No. 10-32	012-0109-002
Y2	5.725	519-0023-004		twashers, No. 10 ews, 1/4 x 20 x 5/16	029-0001-003
Y3	5.715	519-0023-002		ews, $1/4 \times 20 \times 5/16$ ews, $1/4 \times 20 \times 3/8$	011-0322-010 011-0322-012
Y4	5.695	519-0023-001		hers, cushion	018-0822-001
Y5	6.190	519-0023-008		ews, No. 10 sheet meta	
Y6	6.180	519-0023-007		ews, No. 8-32 x 1/4	011-0221-008
Y7 Y8	6.170 6.150	519-0023-006 519-0023-005		ews, 1/4 - 20 x 3/4	011-0052-024
Y9	32.700	519-0024-001		s, 1/4 - 20 twashers, 1/4	012-0011-001 029-0031-003
Y10	32.750	519-0024-002		ews, 1/4 sheet metal	011-0800-016
Y11	32.800	519-0024-003		ews, 10-32 x 1/4	011 0000 010
Y12	32.850	519-0024-004	slotte	d hex head	011-0358-008
Y13	32.900	519-0024-005		d Schematic	564-3001-123
Y14	32.950	519-0024-006	Power		023-1652-001
				holder, (1/4 dia.	504 1004 005
	NOTE			long fuse) 2 ampere	534-1004-005 534-0003-024
				disconnect lead ass'y	023-2558-001
	ering crystals, specify if the cryst	al has an	•	disconnect lead ass'y	597-0003-005
orange or	red color code.		Fuse,	1 ampere	534-0002-019
				No. 18, stranded, red	071-0912-042
	PEC			er, fuse value (2 amp) er, fuse value (1 amp)	559-3009-002 559-3009-001
Z1	RF amp	544-0003-001			
Z 2	mixer	544-0002-001			
Z3	1st IF	544-0003-003			
Z4	2nd IF	544-0002-004			
Z5	noise limiter	544-0002-015			
Z6	squelch audio	544-0002-008 544-0002-006			
Z7	audio	544-0002-006			



# **ENGINEERING CHANGES**

Serial Number stickers can be used as a guide to unit revisions, but should not be considered absolutely accurate in every instance. For example, a D Model unit might not include every D Model change, and an E Model might include an F Model change. These changes are listed as a servicing aid, they should not be considered absolutely accurate in all cases.

## REVISION B

Compone	nts Changed	From	To	New Part Number	Reason
*	C45	18pF, N750	100pF, N150	510-03016-101	To improve crystal starting
*	C32	1.0µF	2.2μF	510-2045-229	Corrects a self modulation problem in transmit.

Components Added	Description	Part Number	Reason
C78	$0.001 \mu F$ , $\pm 20\%$ , $50V$	510-3002-102	Improve receiver front end stability.

<sup>\*</sup> Location changed on circuit board. Refer to the transparency for the location in Revision B transceivers.

# **REVISION C**

Component Changed	Schematic Location	From	То	New Part Number	Reason for Change
Q2	A-4	3009	3025	576-0003-025	Oscillation
R31	C-4	22K	10K	569-1004-103	Q14 bias change
C16	A-8	Mica Disc	Polystyrene	510-1103-191	Oscillation
C18	A-8	Mica Disc	Polystyrene	510-1103-191	Oscillation
C27	B-3	$470\mu\mathrm{F}$	$47\mu\mathrm{F}$	510-4003-004	Squelch delay
Components Added					
C81	B-7	-	0.0047μ F	510-3003-472	Increased modulation
R 48	B-7	-	330 Ω	569-1004-331	Increased modulation
Components					
Deleted					
C78	A-1	(Connected fro	m pin 4 of T1 to chas	sis)	Improvement no longer needed (See Service Manual Revision B)

# **REVISION D**

Components Changed					
Q6 Q7 Q8 Z7	B-6	1003 1003 1009 2006	3017 1013 1013 2026	576-0003-017 576-0001-013 576-0001-013 544-0002-026	Cost Reduction
REVISION E					
Component Changed	Schematic Location	From	<u>To</u>	New Part Number	Reason For Change
C68	D9	Y5U	Y5S	510-3061-102	Improved cold weather performance
MK1	B10	Turner	E.F. Johnson	023-2708-001	Availability
Component Added		Description			
C79	B9	470 pF capacit	or	510-3004-471	Improved EFJ microphone performance
Component Deleted					
C23	B9	0.047 μF coup	ling capacitor		Not required with EFJ microphone
REVISION F					
Component Changed	Schematic Location	From	То	New Part Number	Reason For Change
D8	C2	0881	0882	523-1000-882	Transmitter crystal
D9	C2	0881	0882	523-1000-882	starting Receiver crystal starting
Q2 Q11,12 and 13		3025 3024	3009 3008	576-0003-009 576-0003-008	Availability Availability
Component Added		Description			
L3 and R49 network	C2	220 μH choke i with a 1K ohm		542-2004-221 and 569-1002-102	Low frequency crystal dropout
Component Deleted					
L3	C2	2.4 mH choke			Replaced with new L3 and R49 network
REVISION G					
Component Changed	Schematic Location	From	<u>To</u>		Reason For Change
C38	C1	$0.047\mu\mathrm{F}$	jumper wire		Prevents 30 pF crystal
C39	C2	0.047 μF	jumper wire		dropout Prevents 30 pF crystal dropout

Refer to the back side for field rework procedure.