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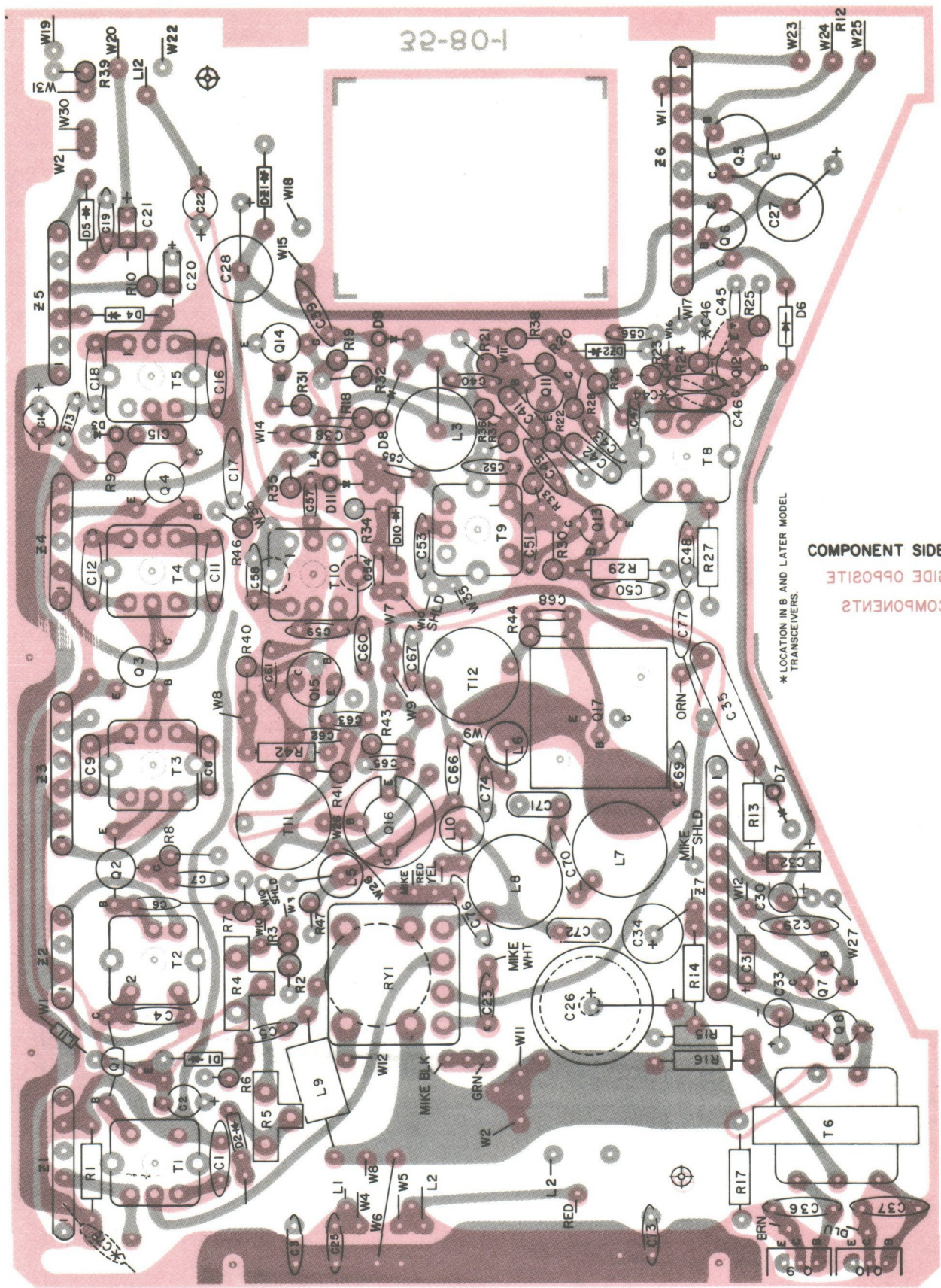
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PARTS LIST (cont'd)

SYMBOL NO.	DESCRIPTION	PART NO.	SYMBOL NO.	DESCRIPTION	PART NO.
<b>TRANSFORMERS</b>			<b>ACCESSORY PACKAGE ITEMS</b>		
T1	27MHz, input	592-5016-001	Accessory Package	023-2576-001	
T2	27MHz, RF amp	592-5006-002	Operating Manual	002-0071-001	
T3	mixer	592-5016-005	FCC Rules-Part 95	022-1635-001	
T4	1st IF	592-5016-006	License Application, FCC		
T5	2nd IF	592-5016-007	Form 505	022-1636-001	
T6	audio driver	592-1007-004	Transmitter ID Card	564-1001-001	
T7	audio out/ modulation	592-1013-001	Warranty Registration Card	041-0419-017	
T8	32MHz, oscillator	592-5010-011	Instruction Sheet	004-0022-001	
T9	26.5MHz, mixer	592-5008-011	Tap Connector Assembly	023-2209-001	
T10	27MHz, xmit RF amp input	592-5023-001	Tap connector	515-9005-001	
T11	27MHz, xmit RF amp output	592-5014-001	Instructions envelope	559-4013-001	
T12	driver	592-5014-002	Microphone Holder	537-9004-002	
<b>CRYSTALS</b>			Screws	011-0807-006	
Crystal	Frequency		Mounting Bracket Hardware	023-2615-001	
Y1	5.735	519-0023-004	2 screws, No. 10-32 x 5/8	011-0229-020	
Y2	5.725	519-0023-003	2 nuts, No. 10-32	012-0109-002	
Y3	5.715	519-0023-002	2 lockwashers, No. 10	029-0001-003	
Y4	5.695	519-0023-001	2 screws, 1/4 x 20 x 5/16	011-0322-010	
Y5	6.190	519-0023-008	2 screws, 1/4 x 20 x 3/8	011-0322-012	
Y6	6.180	519-0023-007	2 washers, cushion	018-0822-001	
Y7	6.170	519-0023-006	2 screws, No. 10 sheet metal	011-0808-012	
Y8	6.150	519-0023-005	2 screws, No. 8-32 x 1/4	011-0221-008	
Y9	32.700	519-0024-001	2 screws, 1/4 - 20 x 3/4	011-0052-024	
Y10	32.750	519-0024-002	2 nuts, 1/4 - 20	012-0011-001	
Y11	32.800	519-0024-003	2 lockwashers, 1/4	029-0031-003	
Y12	32.850	519-0024-004	3 screws, 1/4 sheet metal	011-0800-016	
Y13	32.900	519-0024-005	2 screws, 10-32 x 1/4		
Y14	32.950	519-0024-006	slotted hex head	011-0358-008	
<b>NOTE</b>			Reduced Schematic	564-3001-123	
When ordering crystals, specify if the crystal has an orange or red color code.			Power Cable	023-1652-001	
<b>PEC</b>			Fuse holder, (1/4 dia.		
Z1	RF amp	544-0003-001	1 1/4 long fuse)	534-1004-005	
Z2	mixer	544-0002-001	Fuse, 2 ampere	534-0003-024	
Z3	1st IF	544-0003-003	Quick disconnect lead ass'y	023-2558-001	
Z4	2nd IF	544-0002-004	Quick disconnect lead ass'y	597-0003-005	
Z5	noise limiter	544-0002-015	Fuse, 1 ampere	534-0002-019	
Z6	squelch	544-0002-008	Wire No. 18, stranded, red	071-0912-042	
Z7	audio	544-0002-006	Marker, fuse value (2 amp)	559-3009-002	
			Marker, fuse value (1 amp)	559-3009-001	

1-08-2M



COMPONENTS  
SIDE OPPOSITE  
COMPONENT SIDE

\* LOCATION IN B AND LATER MODEL  
TRANSCEIVERS.

MESSANGER I23 CIRCUIT BOARD

## 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

<u>Components Changed</u>	<u>From</u>	<u>To</u>	<u>New Part Number</u>	<u>Reason</u>
* C45	18pF, N750	100pF, N150	510-03016-101	To improve crystal starting
* C32	1.0 $\mu$ F	2.2 $\mu$ F	510-2045-229	Corrects a self modulation problem in transmit.

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

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

### REVISION C

<u>Component Changed</u>	<u>Schematic Location</u>	<u>From</u>	<u>To</u>	<u>New Part Number</u>	<u>Reason for Change</u>
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 $\mu$ F	47 $\mu$ F	510-4003-004	Squelch delay
<u>Components Added</u>					
C81	B-7	-	0.0047 $\mu$ F	510-3003-472	Increased modulation
R48	B-7	-	330 $\Omega$	569-1004-331	Increased modulation
<u>Components Deleted</u>					
C78	A-1	(Connected from pin 4 of T1 to chassis)			Improvement no longer needed (See Service Manual Revision B)

## REVISION D

### Components Changed

Q6	B-4	1003	3017	576-0003-017	} Cost Reduction
Q7	B-6	1003	1013	576-0001-013	
Q8	B-7	1009	1013	576-0001-013	
Z7	B-6	2006	2026	544-0002-026	

## REVISION E

<u>Component Changed</u>	<u>Schematic Location</u>	<u>From</u>	<u>To</u>	<u>New Part Number</u>	<u>Reason For Change</u>
C68	D9	Y5U	Y5S	510-3061-102	Improved cold weather performance Availability
MK1	B10	Turner	E. F. Johnson	023-2708-001	

### Component Added

<u>Component Added</u>	<u>Schematic Location</u>	<u>Description</u>	<u>New Part Number</u>	<u>Reason For Change</u>
C79	B9	470 pF capacitor	510-3004-471	Improved EFJ microphone performance

### Component Deleted

C23	B9	0.047 $\mu$ F coupling capacitor		Not required with EFJ microphone
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## REVISION F

<u>Component Changed</u>	<u>Schematic Location</u>	<u>From</u>	<u>To</u>	<u>New Part Number</u>	<u>Reason For Change</u>
D8	C2	0881	0882	523-1000-882	Transmitter crystal starting
D9	C2	0881	0882	523-1000-882	Receiver crystal starting
Q2		3025	3009	576-0003-009	Availability
Q11, 12 and 13		3024	3008	576-0003-008	Availability

### Component Added

<u>Component Added</u>	<u>Schematic Location</u>	<u>Description</u>	<u>New Part Number</u>	<u>Reason For Change</u>
L3 and R49 network	C2	220 $\mu$ H choke in series with a 1K ohm resistor	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
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## REVISION G

<u>Component Changed</u>	<u>Schematic Location</u>	<u>From</u>	<u>To</u>	<u>Reason For Change</u>
C38	C1	0.047 $\mu$ F	jumper wire	Prevents 30 pF crystal dropout
C39	C2	0.047 $\mu$ F	jumper wire	Prevents 30 pF crystal dropout

Refer to the back side for field rework procedure.