

MAINTENANCE MANUAL

25-50 MHz RF ASSEMBLY 19D416478GI - G4

AND

MIXER/IF/NOISE BLANKER BOARD 19D416562GI - G4. 19D43268IGI - 4

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DESCRIPTION

The RF Assembly uses two tuned helical resonators and four L-C tuned circuits to provide front end selectivity.

The Mixer/IF/Noise Blanker board (MIF/NB) uses the RF input from the RF Assembly and the mixer injection frequency from the oscillator/multipler board to generate the IF frequency. The noise blanker eliminates undesirable noise interference in the received audio.

--- NOTE -

The 19D416562 and 19D432681 Mixer/IF/Noise Blanker Boards are directly interchangeable. Earlier models used the 19D416562 board which is no longer in production. The Schematic Diagram is valid for both boards. Separate Parts Lists are provided.

CIRCUIT ANALYSIS

RF ASSEMBLY

ANTENNA INPUT A301A/A301B

An RF signal is applied from the antenna input circuit (L551) of the noise blanker section of the MIF/NB board to A301-J1. The antenna input circuit provides an AC ground between vehicle ground and receiver A-. Resistor R1 prevents a static charge from building up on the vehicle antenna. The output of A301 is coupled through two high-Q helical resonators (L301, C301 and L302, C302) to the RF amplifier. The coils are tuned to the incoming frequency by C301 and C302. Lamp DS1 protects the RF amplifier stage against an excessive RF input.

RF AMPLIFIER A302

RF Amplifier Q1 is a Field-Effect Transistor (FET). Q1 operates as a grounded gate amplifier, with the RF input applied to the "source" terminal. This method of operation provides a low impedance input to the amplifier. The amplified output is taken from the "drain" terminal and coupled through four L-C tuned circuits (L1-C7, L2-C8, L3-C9 and L4-C10) to the mixer. The four tuned circuits and the two helical resonators provide the receiver front end selectivity.

MIXER/IF/NOISE BLANKER

MIXER & CRYSTAL FILTER

The mixer uses a FET (Q501) as the active device. The FET mixer provides a high input impedance, high power gain, and an output relatively free of harmonics (low in intermodulation products).

In the mixer stage, RF from the RF amplifier stage is coupled through tuned circuit L501 and C502 which matches the RF output to the gate of mixer Q501. Injection voltage from the multiplier-selectivity stages is inductively coupled through L502 to the source of the mixer. The mixer IF output signal is coupled from the drain of Q501 through a tuned circuit (L504 and C511) to the first FET noise blanker gate Q502. The IF signal is then coupled through a tuned circuit (L506 and C517) to the second FET noise blanker gate Q503.



During the presence of impulse noise from the antenna, the noise blanker circuit (U551) provides a positive pulse to the gates of Q502 and Q503 which attenuates the IF signal during the noise pulse period (see Noise Blanker description for details). This eliminates undesirable noise interference in the received audio without degrading receiver performance.

The mixer IF output signal is then coupled to the input of the four-pole monolithic crystal filter. The highly selective crystal filter (FL501 and FL502) provides the first portion of the receiver IF Selectivity. The output of the crystal filter is coupled through impedance-matching network Z502 (L520 and C501) to IF Amplifier Q520.

Service Note: Variable capacitor C521 does not require adjustment when performing normal alignment. If the four-pole monolithic crystal filter is replaced, then adjustment of C521 is necessary for optimum IF response.

IF AMPLIFIER

IF amplifier Q520 is a dual-gate FET. The crystal filter output is applied to Gate 1 of the amplifier, and the output is taken from the drain. The biasing on Gate 2 and the drain load determines the gain of the stage. The amplifier provides approximately 20 dB of IF gain. The output of Q520 is coupled through a network (L521 and C528) that matches the amplifier output to the next IF stage. The output of the MIF/NB board is applied through feed-through capacitor C305 to the next IF stage or to the MIF switch when a dual front end is used.

Supply voltage for the RF amplifier and MIF/NB board is supplied through feed-through capacitor C306.

NOISE BLANKER

An RF signal and noise pulse from the antenna (J551) fed simultaneously to the Noise Blanker 1st RF Amplifier and the RF Assembly (A302) RF Amplifier. The signal and noise is transformer coupled through L551 to the 1st RF amplifier Q551 (dualgate FET). The input signal is applied to Gate 1 of the amplifier, and the output is taken from the drain. The biasing of Gate 2 and the drain load determines the gain of the stage. The signal is then coupled through tuned circuits L552/C558 and L553/C560 to the 2nd RF amplifier Q552, which is also a dual-gate FET. The combined gain of Q551 and Q552 is approximately 50 dB.

The amplified signal is coupled through tuned circuit L554/C564 to pulse detector/amplifier/switch IC (U551). IC (U551) is

a custom hybrid integrated circuit which contains a pulse detector, pulse amplifier, pulse amplifier/switch, intermodulation detector and a blanker disable switch. The IC functions as a pulse detector and processing circuit for the noise blanker. Regulated 10 VDC, which powers U551, is applied through pin 3. The associated capacitors (C571, C572 and C574) provide emitter decoupling for various stages of the IC.

Pulse Detector

The impulse noise from the RF amplifier is applied to pin 6 of U551 through tuned circuit L554/C564 to the pulse detector. Bias for the detector is established by R563, R564 and CR551. Diode CR551 is normally conducting, thus biasing the pulse detector. A positive pulse applied to the pulse detector causes it to conduct heavily. The output of the detector is a negative going pulse that is relatively free of any RF components. The pulse detector metering point (Blanker Meter) connects from pin 2 of U551 thru P553 to J605 on the next IF stage (J2305 on MIF switch when a DFE is used) and serves as a convenient measuring point when performing alignment.

$\frac{\textbf{Pulse Amplifier and Noise Blanker Disable}}{\textbf{Switch}}$

The negative pulse output from the pulse detector turns the pulse amplifier on, producing a positive output pulse. The threshold point of the pulse amplifier and the RF gain of the 1st and 2nd RF amplifier stages (Q551 and Q552) in the noise blanker circuit prevent noise blanking due to any low-level inherent receiver noise.

A noise blanker disable switch provides a means for manually disabling the noise blanker circuits. Connecting pin 4 of U551 to A- turns the disable switch on, which in turn inhibits the pulse amplifier. The blanker disable function is also provided at pin 5 of the system plug (P904) for external control.

Pulse Amplifier/Switch

The positive output pulse from the pulse amplifier is fed to the pulse amplifier/switch. This circuit functions as a constant width pulse generator whose output is a positive 6 Volt pulse with a duration of 2 microseconds. This pulse is applied from pin 11 of U551 to the noise blanker gates (Q502 and Q503).

Noise blanker gates Q502 and Q503 are turned ON (conducting) during the presence of the noise blanking pulse. These gates present a low impedance RF path to A- for the pulse duration (approximately 3 microseconds), providing approximately 60 dB attenuation of the IF signal and the impulse noise present. As the noise signal from the antenna is applied to the noise blanker circuits, the RF signal is also applied to

the receiver RF input. The inherent delay presented to the received RF signal and the impulse noise by the helical resonators in the receiver RF assembly (L301 and L302) and the four tuned circuits (L1/C7 through L4/C10) allows the noise blanking pulse to turn on the blanking gates. This attenuates the received signal just prior to the arrival of the impulse noise.

Intermodulation (IM) Detector

The output of the pulse amplifier is also applied to the IM detector. The IM detector does not respond to noise pulses appearing at its input because of the cir-

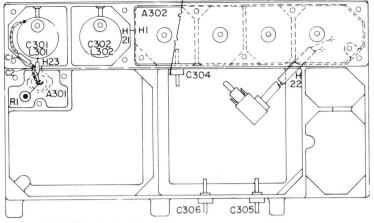
cuit design utilized, but the detector is activated during the presence of a sinusoidal signal. This sinusoidal signal is the beat frequency difference of two signals present in the noise blanker channel.

A resultant AGC voltage (approximately +3 VDC) is developed through the integrating action of C573 and is applied from pin 13 of U551 to the 2nd RF amplifier (Q552) of the noise blanker circuit. This action sufficiently reduces the gain of the noise blanker RF stage (Q552) so that receiver performance is not degraded by blanking pulses which would create receiver intermodulation close to the receiver operating frequency.

GENERAL ELECTRIC COMPANY • MOBILE COMMUNICATIONS DIVISION WORLD HEADQUARTERS • LYNCHBURG, VIRGINIA 24502 U.S.A.



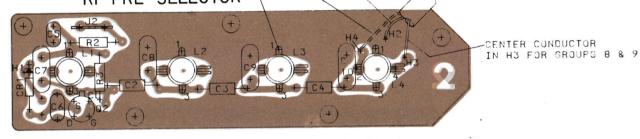
RF ASSEMBLY BOTTOM VIEW



CENTER CONDUCTOR
IN H4 FOR GROUPS 1 THRU 4

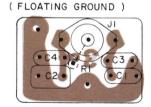
RAISED TAB ON
COIL FORM INDICATES
PIN 1 ON L1 - L4

A302
RF PRE-SELECTOR



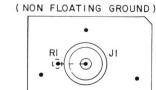
(19C327759, Rev. 1) (19B219444, Sh. 1, Rev. 2) (19B219444, Sh. 2, Rev. 2)

A30IA ANT INPUT



(19B219449, Sh. 1, Rev. 3) (19B219449, Sh. 2, Rev. 3)

A30IB ANT INPUT



NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

TWISTED

SHIELD

LEAD IDENTIFICATION FOR Q502, Q503



IN-LINE VIEW FROM CASE END

NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

2 X X 1 3 X X 4



LEAD IDENTIFICATION

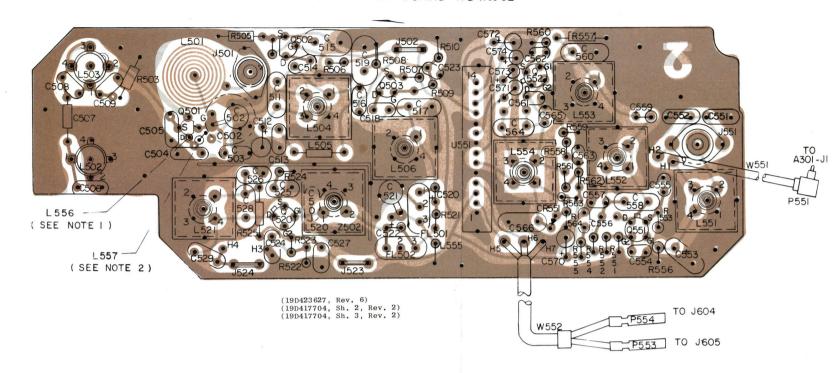
Q520,Q551,Q552



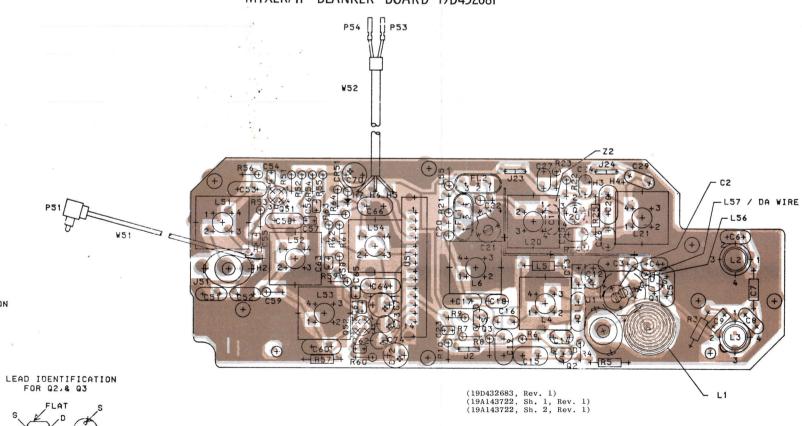
BOTTOM VIEW

NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

MIXER/IF BLANKER BOARD 19D416562



MIXER/IF BLANKER BOARD 19D432681



- RUNS ON SOLDER SIDE

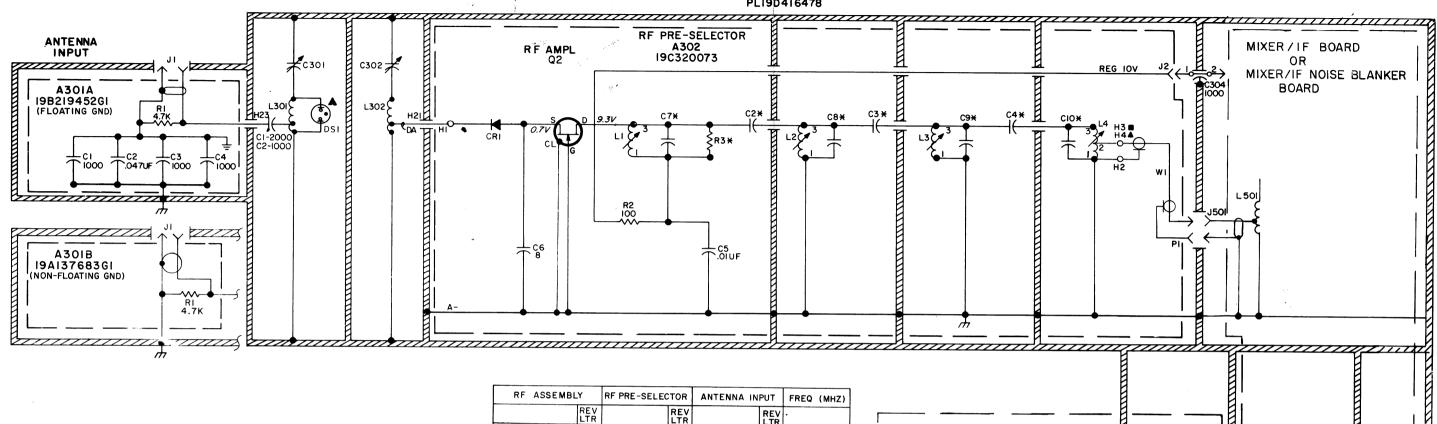
- RUNS ON COMPONENT SIDE

RUNS ON BOTH SIDES

OUTLINE DIAGRAM

25-50 MHz RF ASSEMBLY AND MIXER/IF/NOISE BLANKER

R F ASSEMBLY PL19D416478



* COMPONENT VALUE TABLE						
COMP DESIG	LL	L	M	Н		
RF FREQ	25-30 MHZ	30-36 MHZ	36-42 MHZ	42-50 MHZ		
IF FREQ	II.2 MHZ	9.4 MHZ	II.2 MHZ	9.4 MHZ		
C2	1.0	.75	.68	.82		
C3	1.0	.75	.68	.82		
C4	1.0	.75	.68	.82		
C7	51	39	30	18		
C8	51	39	30	18		
C9	51 •	39	30	18		
C10	56	39	30	18		
R3			24K	6.2 K		

MID BAND								
* COMPONENT VALUE TABLE								
SPLIT	ML LOW	MH HIGH						
RF FREQ	66-78MHZ	77-88MHZ						
IF FREQ	II.2 MHZ	11.2 MHZ						
C 2	. 47	.39						
C 3	. 56	. 47						
C4	1.0	.82						
C7	15	10						
C8	18	13						
C 9	18	13						
CIO	18	13						
R3	6.8K	6.8K						

25-50 MHz RF AMPLIFIER ASSEMBLY

RF ASSEMBLY		RF PRE-SELECTOR		ANTENNA INPUT		FREQ (MHZ)
	REV LTR		REV LTR		REV LTR	
19D416478GI	С	19C320073GI	С	19B219452G1		25-30 (LL)
19041647862	С	19C32O073G2	F	19B219452G1	_	30-36 (L)
19D416478G3	В	19C320073G3	Ε	19B219452GI	-	36-42 (M)
19D416478G4	В	19C320073G4	C	19B219452GI	_	42-50 (H)
19D416478G8	-	19C32O073G8	-	19B219452G1		66-78 (ML)
19D416478G9	-	19C32O073G9	-	19B219452G1	-	77-88 (MH)
19D416478GIO	-	19C320073G1	С	19B219452GI	_	25-30 (LL)
19D416478GII	_	19C320073G2		19A137683GI		30-36 (L)
19D416478G12	-	19C32O073G3	Ε	19A137683GI	-	36-42 (M)
19D416478GI3	-	19C32O073G4	С	19A137683GI	-	42-50 (H)
19D416478G14	-	19C32O073G8	-	19A137683GI	-	66-78 (ML)
19D416478GI5	-	19C320073G9	-	19A137683GI		77-88 (MH)

VOLTAGE READINGS

VOLTAGE READINGS ARE TYPICAL READINGS MEASURED TO SYSTEM NEGATIVE (P903-10) WITH TEST SET MODEL 4EX3AII OR A 20,000 OHM-PER-VOLT METER.

- INDICATES A-
- INDICATES VEHICLE GROUND

ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS ON MEG = 1,000,000 OHMS CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H=HENRYS.

▲ NOT PRESENT IN M.B.
■ NOT PRESENT IN L.B.

OSCILLATOR/MULTIPLIER

BOARD

C507

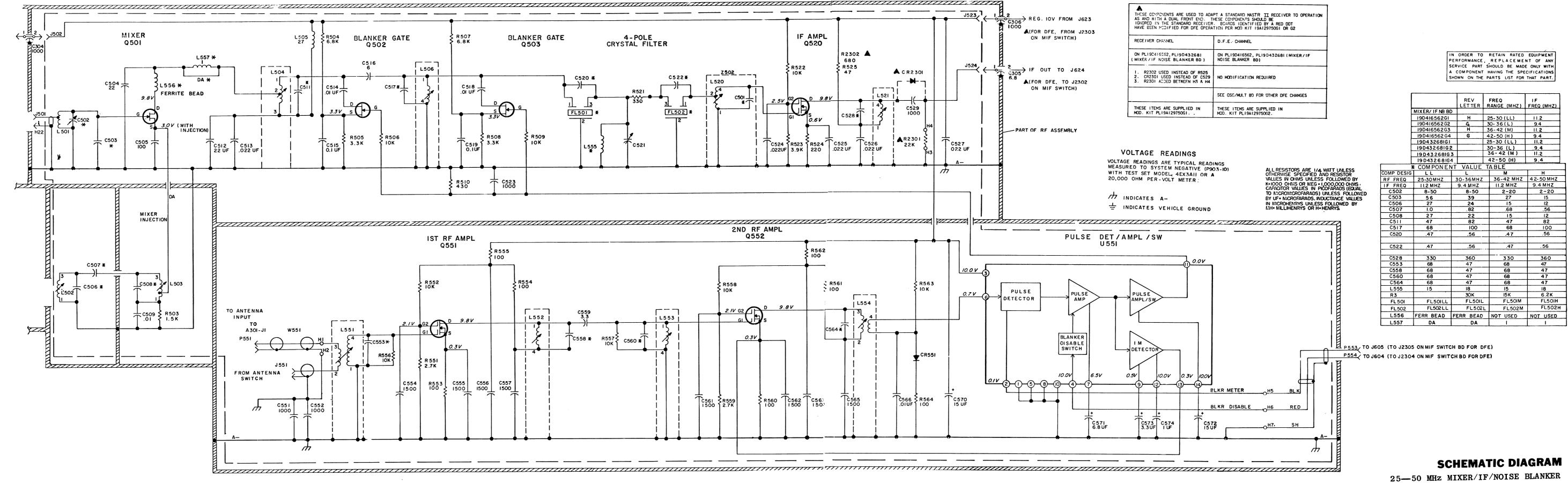
, minimum minimum

SCHEMATIC DIAGRAM

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

18 6.2K FL50IH FL502H

MIXER/IF NOISE BLANKER BD. PL19D416562



PARTS LIST

			C3L*	5491601P118	Phenolic: 0.75 pr +5%, 500 VDCW.
		LBI4992H			In REV B and earlier:
		25-50 MHz		5491601P120	Phenolic: 1.0 pF ±5%, 500 VDCW.
	RF AS	SEMBLY 19D416478G1-G4, G10-13 AND	C3M*	19A700013P11	Phenolic: 0.68 pF ±5%, 500 VDCW.
		MIXER/IF/NOISE BLANKER 19D416562G1-G4			In REV C and earlier:
				5491601P119	Phenolic: 0.82 pF +5%, 500 VDCW.
SYMBOL	GE PART NO.	DECODIDATION		1	
SIMDUL	GE PART NO.	DESCRIPTION	СЗН*	19A700013P12	Phenolic: 0.82 pF <u>+</u> 5%, 500 VDCW.
			1		In REV A and earlier:
		RF ASSEMBLY	ì	5491601P120	Phenolic: 1.0 pF ±5%, 500 VDCW.
		19D416478G1 25-30 MHz (LL) FLOATING GRD. 19D416478G2 30-36 MHz (L) FLOATING GRD.	C4LL*	19A700013P13	Phenolic: 1.00 pF ±5%, 500 VDCW.
		19D416478G3 36-42 MHz (M) FLOATING GRD. 19D416478G4 42-50 MHz (H) FLOATING GRD.			In REV A and earlier:
		19D416478G10 25-30 MHz (LL) NON FLOATING GRD.		5491601P122	Phenolic: 1.2 pF ±5%, 500 VDCW.
		19D416478G11 30-36 MHz (L) NON FLOATING GRD. 19D416478G12 36-42 MHz (M) NON FLOATING GRD.	C4L*	5491601P118	Phenolic: 0.75 pF ±5%, 500 VDCW.
,		19D416478G13 42-50 MHz (H) NON FLOATING GRD.			In REV B and earlier:
A301A		COMPONENT BOARD		5491601P120	Phenolic: 1.0 pF ±5%, 500 VDCW.
		19B219452G1		1	· !
		() A DA CAMODO	C4M*	19A700013P11	Phenolic: 0.68 pF ±5%, 500 VDCW.
					In REV C and earlier:
C1	19A116655P19	Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to RMC Type JF Discap.		5491601P119	Phenolic: 0.82 pF ±5%, 500 VDCW.
C2	19A700005P11	Polyester: 0.047 uF ±10%, 50 VDCW.	C4H*	19A700013P12	Phenolic: 0.82 pF ±5%, 500 VDCW.
СЗ	19A116655P19	Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to			In REV A and earlier:
and C4		RMC Type JF Discap.		5491601P120	Phenolic: 1.0 pF ±5%, 500 VDCW.
C-9			C5	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
]	JACKS AND RECEPTACLES	C6	19A116656P8K8	Ceramic disc: 8 pF ±10%, 500 VDCW; temp. coef -80
J1	19A700049P2	Connector, receptacle; 500 VDCW maximum; sim to			PPM.
		NTTF-1058.	C7LL	5496219P256	Ceramic disc: 51 pF ±5%, 500 VDCW, temp. coef -80 PPM.
			C7L	5496219P253	Ceramic disc: 39 pF ±5%, 500 VDCW, temp. coef -80
R1	19A700106P79	Composition: 4.7K ohms ±5%, 1/4 w.	C/L	54962197255	PPM.
	100000000000000000000000000000000000000	30 mposition. 11/1 0.000 10/1/1 11	C7M	5496219P250	Ceramic disc: 30 pF ±5%, 500 VDCW, temp. coef -80
A301B		ANTENNA PLATE ASSEMBLY			PPM.
		19A137683G1	С7Н	5496219P245	Ceramic disc: 18 pF ±5%, 500 VDCW, temp. coef -80 PPM.
		JACKS AND RECEPTACLES	CSLL	5496219P256	Ceramic disc: 51 pF ±5%, 500 VDCW, temp. coef -80
J1	7104941P20	Jack, phono: coaxial.	00111	04002151250	PPM.
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CSL	5496219P253	Ceramic disc: 39 pF ±5%, 500 VDCW, temp. coef -80
		RESISTORS			PPM.
R1	19A700106P79	Composition: 4.7K ohms ±5%, 1/4 w.	C8M	5496219P250	Ceramic disc: 30 pF ±5%, 500 VDCW, temp. coef -80 PPM.
	Į.		СВН	5496219P245	Ceramic disc: 18 pF ±5%, 500 VDCW, temp. coef -80
A302		COMPONENT BOARD A302LL 19C320073G1 25-30 MHz (LL)			PPM.
		A302L 19C320073G2 30-36 MHz (L) A302M 19C320073G3 36-42 MHz (M)	C9LL	5496219P256	Ceramic disc: 51 pF ±5%, 500 VDCW, temp. coef -80 PPM.
		A302H 19C320073G4 42-50 MHz (H)		5406010D050	
			C9L	5496219P253	Ceramic disc: 39 pF ±5%, 500 VDCW, temp. coef -80 PPM.
			СЭМ	5496219P250	Ceramic disc: 30 pF ±5%, 500 VDCW, temp. coef -80
C2LL*	19A700013P13	Phenolic: 1.00 pF ±5%, 500 VDCW.]	!	PPM.
		In REV A and earlier:	СЭН	5496219P245	Ceramic disc: 18 pF ±5%, 500 VDCW, temp. coef -80 PPM.
	5491601P22	Phenolic: 1.2 pF ±10%, 500 VDCW.	C1011	E406010D057	
C2L*	5491601P118	Phenolic: 0.75 pF ±5%, 500 VDCW.	C10LL	5496219P257	Ceramic disc: 56 pF ±5%, 500 VDCW, temp. coef -80 PPM.
]		In REV B and earlier:	C10L	5496219P253	Ceramic disc: 39 pF ±5%, 500 VDCW, temp. coef -80
	5491601P120	Phenolic: 1.0 pF ±5%, 500 VDCW.	1		PPM.
C2M*	19A700013P11	Phenolic: 0.68 pF <u>+</u> 5%, 500 VDCW.	C10M	5496219P250	Ceramic disc: 30 pF ±5%, 500 VDCW, temp. coef -80 ppM.
		In REV C and earlier:	С10Н	5496219P245	Ceramic disc: 18 pF ±5%, 500 VDCW, temp. coef -80
	5491601P119	Phenolic: 0.82 pF +5%, 500 VDCW.	-		PPM.
C2H*	19A700013P12	Phenolic: 0.82 pF ±5%, 500 VDCW.		1	DIODES AND RECTIFIERS
, , , , , , , , , , , , , , , , , , ,		In REV A and earlier:			
	E4016017100		CR1	19A116052P2	Silicon, fast recovery; sim to Hewlett Packard 5082-2811.
	5491601P120	Phenolic: 1.0 pF ±5%, 500 VDCW.	1		
C3LL*	19A700013P13	Phenolic: 1.00 pF ±5%, 500 VDCW.	1		JACKS AND RECEPTACLES
		In REV A and earlier:	J2	19A116975P1	Contact, electrical.
	5491601P122	Phenolic: 1.2 pF ±5%, 500 VDCW.			
		j	1		
			1]
		Į l			
	1	1	1	1	
				1	

SYMBOL GE PART NO.

C3L* 5491601P118 Phenolic: 0.75 pF ±5%, 500 VDCW.

SYMBOL	GE PART NO.	DESCRIPTION
L1* thru	19C307170P306	Coil, RF: variable, wire size No. 20 AWG; si Paul Smith Co. Sample No. 092574-DS-3.
L3*		In 19C320073G1 REV A and earlier: In 19C320073G2 REV B and earlier: In 19C320073G3 REV C and earlier: In 19C320073G4 REV A and earlier:
	19B219419G2	Coil. Includes:
	5491798P5	Tuning slug.
L4*	19C307170P308	Coil, RF: variable, wire size No. 20 AWG; si Paul Smith Co. Sample No. 071774-DG-7.
		In 19C320073G1 REV A and earlier: In 19C320073G2 REV B and earlier: In 19C320073G3 REV C and earlier: In 19C320073G4 REV A and earlier:
	19B219419G1	Coil. Includes:
	5491798P5	Tuning slug.
P1		(Part of W1).
Q2	19A116960P1	N Type, field effect; sim to Type 2N4416.
		RESISTORS

R2

R3L*

R3H

C304

C305

C306

L301LL and L301L

L301M and L301H

C2

L302LL and L302L

L302M and L302H

C1*

19A700106P39

3R152P303J

3R152P153J

3R152P622J

5491689P85

19B209488P2

19B209488P1

19B209488P2

19B219455G1

5494481P13

5494481P11

19B209067P1

19B219455G3

5494481P11

19B209067P1

19B219455G2

19B219455G4

R3M* 3R152P243J

DESCRIPTION

DESCRIPTION	SYMBOL	GE PART NO.	DESCRIPTION
			MISCELLANEOUS
oil, RF: variable, wire size No. 20 AWG; sim. to aul Smith Co. Sample No. 092574-DS-3.		19B201074P305	Tap screw, Phillips POZIDRIV: No. 6-32 x 5/16. (Secures A301 and A302).
n 19C320073G1 REV A and earlier: n 19C320073G2 REV B and earlier:		19B219451P1	Cover.
n 19C320073G3 REV C and earlier: n 19C320073G4 REV A and earlier: oil. Includes:			MIXER/IF/NOISE BLANKER BOARD 19D41656261 25-30 MHz (LL) 19D41656262 30-36 MHz (L)
uning slug.			19D416562G3 36-42 MHz (M) 19D416562G4 42-50 MHz (H)
oil, RF: variable, wire size No. 20 AWG; sim. to aul Smith Co. Sample No. 071774-DG-7.			CAPACITORS
n 19C320073G1 REV A and earlier: n 19C320073G2 REV B and earlier:	C501LL		(Part of Z502LL).
n 19C320073G3 REV C and earlier: n 19C320073G4 REV A and earlier:	C501L		(Part of Z502L).
oil. Includes:	C501M C501H		(Part of Z502M).
uning slug.	C502LL and	5490446P1	(Part of Z502H). Variable, ceramic: approx. 8-50 pF, 350 VDCW, temp. coef -750 PPM; sim. to Erie Style 557-36.
	C502L C502M	19A700012P2	Variable, ceramic: 2.5 to 20 pF 200 VDCW, temp
Part of W1).	and C502H	2550012F2	coef -250 -700 PPM; sim to Panasonic ECX1ZW20X3:
Type, field effect; sim to Type 2N4416.	C503LL	5490008P21	Silver mica: 56 pF ±5%, 500 VDCW, sim. to Electi Motive Type DM-15.
	C503L	5490008P17	Silver mica: 39 pF ±5%, 500 VDCW, sim. to Electi Motive Type DM-15.
omposition: 100 ohms ±5%, 1/4 w.	C503M	5490008P13	Silver mica: 27 pF ±5%, 500 VDCW, sim. to Elect. Motive Type DM-15.
omposition: 30K ohms ±5%, 1/4 w. Deleted by SEV B. Added to G2 by REV D. Deleted in G2 by SEV F.	С503Н	5490008P8	Silver mica: 15 pF ±5%, 500 VDCW, sim. to Elect: Motive Type DM-15.
omposition: 24K ohms ±5%, 1/4 w. Added by	C504	19A116656P22J0	Ceramic disc: 22 pF ±5%, 500 VDCW, temp coef 0 PPM.
mposition: 15K ohms ±5%, 1/4 w. Deleted by	C505	5490008P27	Silver mica: 100 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.
mposition: 6200 ohms ±5%, 1/4 w.	C506LL	19A116656P27J8	Ceramic disc: 27 pF ±5%, 500 VDCW, temp coef -
	C506L	19A116656P22J8	Ceramic disc: 22 pF ±5%, 500 VDCW, temp coef -
able, RF: approx 4 inches long. (Includes P1).	C506M	19A116656P15J8	Ceramic disc: 15 pF ±5%, 500 VDCW, temp coef -
	С506Н	19A116656P12J8	PPM. Ceramic disc: 12 pF ±5%, 500 VDCW; temp. coef -6
Part of L301).	C507LL	19A700013P13	Phenolic: 1 00 pF 45% 500 UDGW
Part of L302). eramic: 1000 pF -10+100%, 500 VDCW; sim to	C507L	19A700013P13	Phenolic: 1.00 pF ±5%, 500 VDCW. Phenolic: 0.82 pF ±5%, 500 VDCW.
llen Bradley Style FA5D.	C507M	19A700013P11	Phenolic: 0.68 pF ±5%, 500 VDCW.
eramic: 6.8 pF +20%, 500 VDCW; sim to Allen radley Style FA5D.	С507Н	19A700013P10	Phenolic: 0.56 pF ±5%, 500 VDCW.
eramic: 1000 pF -10+100%, 500 VDCW; sim to	C508LL	19A116656P27J8	Ceramic disc: 27 pF ±5%, 500 VDCW, temp coef -{
INDUCTORS	C508L	19A116656P22J8	Ceramic disc: 22 pF ±5%, 500 VDCW, temp coef -8 PPM.
oil. Includes:	C508M	19A116656P15J8	Ceramic disc: 15 pF ±5%, 500 VDCW, temp coef -8 PPM.
eramic disc: 2000 pF ±20%, 1000 VDCW; sim. to	С508Н	19A116656P12J8	Ceramic disc: 12 pF ±5%, 500 VDCW; temp. coef -8 PPM.
ype JF Discap.	C509	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
n REV B and earlier: Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to	C511LL	5490008P119	Silver mica: 47 pF ±10%, 500 VDCW, sim. to Electro Motive Type DM-15.
amp, glow: 0.7 mA; sim to GE NE2ET.	C511L	5490008P125	Silver mica: 82 pF ±10%, 500 VDCW; sim to Electro Motive Type DM-15.
oil. Includes:	C511M	5490008P119	Silver mica: 47 pF ±10%, 500 VDCW, sim. to Electro Motive Type DM-15.
	C511H	5490008P125	Silver mica: 82 pF ±10%, 500 VDCW; sim to
pramic disc: 1000 pF ±20%, 1000 VDCW; sim to MC Type JF Discap.	C512	5496267P10	Electro Motive Type DM-15. Tantalum: 22 uF ±20%, 15 VDCW; sim to Sprague
amp, glow: 0.7 mA; sim to GE NE2ET.	(510	10470000500	Type 150D.
Coil. Includes:	C513	19A700005P9	Polyester: 0.022 uF ±10%, 50 VDCW.
coil. Includes:	C514 C515	19A700005P7 19A116080P107	Polyester: 0.01 uF ±10%, 50 VDCW. Polyester: 0.1 uF ±10%, 50 VDCW.

SYMBOL	GE PART NO.	DESCRIPTION	SYMBOL	GE PART NO
C516	19A116656P6J0	Ceramic disc: 6 pF ±0.5 pF, 500 VDCW, temp coef 0 PPM.	C560L	5490008P19
C517LL*	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	C560M	5490008P23
		In REV G and earlier:	С560Н	5490008P19
	5490008P119	Silver mica: 47 pF ±10%, 500 VDCW, sim. to Electro Motive Type DM-15.	C561 thru	19 A116192 P10
C517L	5490008P127	Silver mica: 100 pF +10%, 500 VDCW, sim. to Electro Motive Type DM-15.	C563	
C517M*	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	C564LL	5490008P23
		In REV G and earlier:	C564L	5490008P19
	5490008P119	Silver mica: 47 pF ±10%, 500 VDCW, sim. to Electro Motive Type DM-15.	C564M	5490008P23
C517H	5490008P127	Silver mica: 100 pF +10%, 500 VDCW, sim. to Electro Motive Type DM-15.	С564Н	5490008P19
C518	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.	C565	19A116192P1
C519	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.	C566	19A116080P1
C520LL	19A700013P9	Phenolic: 0.47 pF ±5%, 500 VDCW.	C570	19A134202P8
C520L	19A700013P10	Phenolic: 0.56 pF ±5%, 500 VDCW.	C571	19A134202P1
C520M	19A700013P9	Phenolic: 0.47 pF ±5%, 500 VDCW.	C572	19A134202P8
C520H	19A700013P10	Phenolic: 0.56 pF ±5%, 500 VDCW.	C573	19A134202P5
C521	19A700012P2	Variable, ceramic: 2.5 to 20 pF 200 VDCW, temp coef -250 -700 PPM; sim to Panasonic ECX1ZW20X32.	C574	19A134202P3
C522LL	19A700013P9	Phenolic: 0.47 pF +5%, 500 VDCW.		
C522L	19A700013F3	Phenolic: 0.56 pF ±5%, 500 VDCW.		
C522M	19A700013P10	Phenolic: 0.47 pF ±5%, 500 VDCW.	CR551	19A115775P1
C522H	19A700013P9	Phenolic: 0.56 pF ±5%, 500 VDCW.		
C523	19A116192P13	Ceramic: 1000 pF ±10%, 50 VDCW; sim to Erie	FL501LL	19B219573G3
C524 thru	19A700005P9	8121-A050-W5R-102K. Polyester: 0.022 uF ±10%, 50 VDCW.	FL501L	19B219574G3
C527	5400000000	0.13	120012	10021001100
C528LL	5490008P39	Silver mica: 330 pF +5%, 500 VDCW, sim. to Electro Motive Type DM-15.	PL501M	19B219573G3
C528L	5490008P40	Silver mica: 360 pF +5%, 500 VDCW, sim. to Electro Motive Type DM-15.	PL501H	19B219574G3
C528M	5490008P39	Silver mica: 330 pF +5%, 500 VDCW, sim. to Electro Motive Type DM-15.		
C528H	5490008P40	Silver mica: 360 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	FL502LL	
C529	19A116655P19	Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to RMC Type JF Discap.	FL502L FL502M	
C551 and C552	19A116655P19	Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to RMC Type JF Discap.	FL502H	
C553LL	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	J501	19A700049P2
C553L	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	J502	19A116975P1
C553M	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	J523 and	19A116975P1
С553Н	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro	J524	1017000:
C554 thru	19A116192P10	Motive Type DM-15. Ceramic: 1500 pF +10%, 50 VDCW; sim to Erie 8121-A050-W5R-152K.	J551	19A700049P2
C557 C558LL	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro	L501	
C558L	5490008P19	Motive Type DM-15. Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro	L502	19B219419G2
C558M	5490008P23	Motive Type DM-15. Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro	L503	5491798P5 19B219419G4
		Motive Type DM-15.	1503	198219419G4 5491798P5
С558Н	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L504	19C320141G24
C559	5491601P130	Phenolic: 3.6 pF ±5%, 500 VDCW.		5493185P12
C560LL	5490008P23	Silver mica: 68 pF \pm 5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L505	19A700024P30

BOL	GE PART NO.	DESCRIPTION	SYMBOL	
L	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L506	
4	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L520LL	
H	5490008P19	Silver mica: 47 pF +5%, 500 VDCW, sim. to Electro	L502L	
	19A116192P10	Motive Type DM-15. Ceramic: 1500 pF ±10%, 50 VDCW; sim to Erie	L520M	l
		8121-A050-W5R-152K.	L520H	
LL	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L521	
L	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L551	
M	5490008P23	Silver mica: 68 pF <u>+</u> 5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L552	
Н	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	and L553	
	19A116192P10	Ceramic: 1500 pF +10%, 50 VDCW; sim to Erie 8121-A050-W5R-152K.	L554	
	19A116080P107	Polyester: 0.1 uF +10%, 50 VDCW.	L555LL	
	19A134202P8	Tantalum: 15 uF ±20%, 20 VDCW.		
	19A134202P1	Tantalum: 6.8 uF ±20%, 6 VDCW.	L555L	
	19A134202P8	Tantalum: 15 uF ±20%, 20 VDCW.	L555M	l
	19A134202P5 19A134202P14	Tantalum: 3.3 uF ±20%, 15 VDCW. Tantalum: 1 uF ±20%, 35 VDCW.		
	138134202714	· .	L555H	
1	19A115775P1	DIODES AND RECTIFIERS	L556*	
			L557*	
1 LL	19B219573G3	Crystal, freq: Resonator A - 11,200.000 KHz, Resonator B - 11,196.024 KHz.	P551	
lL	19B219574G3	Crystal, freq: Resonator A - 9400.000 KHz, Resonator B - 9396.024 KHz.	P553 and P554	
l M	19B219573G3	Crystal, freq: Resonator A - 11,200.000 KHz, Resonator B - 11,196.024 KHz.	1001	
l H	19B219574G3	Crystal, freq: Resonator A - 9400.000 KHz,	Q501 Q502*	
2LL		Resonator B - 9396.024 KHz. (Part of FL501LL).	and Q503*	
2L		(Part of FL501L).		
2M		(Part of FL501M).	Q520	l
2H		(Part of FL501H).	Q551 and	
		JACKS AND RECEPTACLES	Q552	
	19A700049P2	Connector, receptacle; 500 VDCW maximum; sim to NTTF-1058.		
	19A116975P1	Receptacle, wire spring.	R503	
	19A116975P1	Receptacle, wire spring.	R504	
		i	R505	
	19A700049P2	Connector, receptacle; 500 VDCW maximum; sim to NTTF-1058.	R506 R507	
			R508	
		(Part of printed board).	R509	
	19B219419G2	Coil. Includes:	R510	
	5491798P5	Tuning slug.	R521	
	19B219419G4	Coil. Includes:	R522	
	5491798P5	Tuning slug.	R523	
	19C320141G24	Coil. Includes:	R524	
	5493185P12	Tuning slug.	R525	
	19A700024P30	Coil, RF: 27 uH ±10%.	R551	
			R552	
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SYMBOL	GE PART NO.	DESCRIPTION	SYMBOL	GE PART NO.	DESCRIPTION
L506	19C320141G23 5493185P9	Coil. Includes:	R553 thru R555	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.
L520LL		(Part of Z502LL).	R556	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
L502L		(Part of Z502L).	thru R558		
L520M		(Part of Z502M).	R559	19A700106P73	Composition: 2.7K ohms ±5%, 1/4 w.
L520H		(Part of Z502H).	R560 thru	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.
L521	19C320141G6	Coil. Includes:	R562		
	5493185P9	Tuning slug.	R563	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
L551	19C320141G12	Coil. Includes:	R564	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.
L552	5493185P9 19C320141G7	Tuning slug. Coil. Includes:			INTEGRATED CIRCUITS
and L553	19032014167	Coll. Includes:	U551	19D417378G2	Noise Blanker.
	5493185P9	Tuning slug.			
L554	19C320141G13	Coil. Includes:	₩551	19B232879G1	Cable, RF: approx 2-1/4 inches long; 350 VRMS,
	5493185P9	Tuning slug.			500 VDC operating voltage.
L555LL L555L	19B209420P27 19B209420P28	Coil, RF: 15.0 uH ±5%, 2.80 ohms DC res max; sim to Jeffers 1316-2J. Coil, RF: 18.0 uH ±5%, 3.00 ohms DC res max; sim	W552	19B219764G3	Cable: 2 conductor with shield, approx 8-1/4 inches long.
Lossi	198209420726	to Jeffers 1316-38.			
L555M	19B209420P27	Coil, RF: 15.0 uH ±5%, 2.80 ohms DC res max; sim to Jeffers 1316-2J.	Z502LL		COIL ASSEMBLY 19C320141G16
L555H	19B209420P28	Coil, RF: 18.0 uH \pm 5%, 3.00 ohms DC res max; sim to Jeffers 1316-3S.			
L556*	19A700103P1	Torridal core. Added to G1 & G2 by REV G. Added to G3 & G4 by REV F.	C501LL	19A700220P63	Ceramic: 91 pF ±5%, 100 VDCW; temp coef -30 P.
L557*	19A700024P13	Coil, RF: 1.0 uH <u>+</u> 10%. Added to G3, G4 by REV G.			
			L520LL	19C320141P26	Coil. Includes:
				19B209674P2	Tuning slug.
P551		(Part of W551).	Z502L		COIL ASSEMBLY 19C320141G27
P553 and P554		(Part of W552).			
1004			C501L	19A700220P64	
			C301B	138700220104	PPM.
Q501	19A116154P1	N Type, field effect.			
Q502* and	19A134137P6	N Type, field effect.	L520L	19C320141P26	Coil. Includes:
Q503*		In REV D and earlier:		19B209674P2	Tuning slug.
	19A115934P3	N Channel, field effect; sim to Type 2N3819.	Z502M		COIL ASSEMBLY
Q520	19A116818P1	N Channel, field effect.			19C320141G16
Q551 and	19A116818P1	N Channel, field effect.			
Q552		1	C501M	19A700220P63	Ceramic: 91 pF ±5%, 100 VDCW; temp coef -30 P
R503	19A700106P67	Composition: 1.5K ohms ±5%, 1/4 w.	L520M	19C320141P26	Coil. Includes:
R504	19A700106P83	Composition: 6.8K ohms ±5%, 1/4 w.		19B209674P2	Tuning slug.
R505	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.	Z502H		COIL ASSEMBLY
R506	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.			19C320141G27
R507	19A700106P83	Composition: 6.8K ohms ±5%, 1/4 w.			
R508	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.	C501H	19A700220P64	Ceramic: 100 pF ±10%, 100 VDCW, temp coef -30 PPM.
R509	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.			
R510	3R152P431J	Composition: 430 ohms ±5%, 1/4 w.			
R521 R522	19A700106P51 19A700106P87	Composition: 330 ohms ±5%, 1/4 w. Composition: 10K ohms ±5%, 1/4 w.	L520H	19C320141P26	Coil. Includes:
R523	19A700106P87	Composition: 3.9K ohms ±5%, 1/4 w.		19B209674P2	Tuning slug.
R524	19A700106P47	Composition: 220 ohms ±5%, 1/4 w.			MISCELLANEOUS
- 1	19A700106P31	Composition: 47 ohms ±5%, 1/4 w.		19B219470P2	Shield.
R525		I		19A129424G1	Can. (Used with L504, L506, L520, L521,
R551	19A700106P73	Composition: 2.7K ohms ±5%, 1/4 w.			L551-L554).

SYMBOL	GE PART NO.	DESCRIPTION
-	4035306P23	Insulator, fiber. (Used with J501).
	4035306P59	Insulator, fiber. (Used with L501).
		DUAL PRONT END MOD KIT 19A129750G1 RECEIVER 19A129750G2 DPE
C2301*	19A116656P8J0	Ceramic disc: 8 pF ±0.5 pF, 500 VDCW; temp coef 0 PPM. Deleted by REV B.
		DIODES AND RECTIFIERS
CR2301	19A116925P1	Silicon, pin: 35 volt Reverse Breakdown, 400 mW.
		RESISTORS
R2301	19A700106P95	Composition: 22K ohms ±5%, 1/4 w.
R2302 R2303	19A700106P59 3R152P911J	Composition: 680 ohms ±5%, 1/4 w.
12303	3R132F3113	Composition: 910 ohms ±5%, 1/4 w.
W2301	19B219999G2	Cable, RF: approx 1 foot long. Includes: (1)
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PARTS LIST

MIXER/IF/NOISE BLANKER BOARD 19D432681G1 25-30 MHz (LL) 19D432681G2 30-36 MHz (L) 19D432681G3 36-42 MHz (M) 19D432081G4 42-50 MHz (H)

ISSUE 2

			C517M	549
SYMBOL	GE PART NO.	DESCRIPTION	С517Н	54!
			C518	T64
			C519	Т64
C501LL		(Part of Z502LL).	C520LL	194
C501L		(Part of Z502L).	C520L	194
C501M		(Part of Z502M).	C520M	19/
C501H		(Part of Z502H).	C520H	19/
C502LL and C502L	5490446P1	Variable, ceramic: approx. 8-50 pF, 350 VDCW, temp. coef -750 PPM; sim. to Erie Style 557-36.	C521 C522LL	19/
C502M and C502H	19A700012P2	Variable, ceramic: 2.5 to 20 pF 200 VDCW, temp coef -250 -700 PPM; sim to Panasonic ECX1ZW20X32.	C522L C522M	19 <i>!</i> 19 <i>!</i>
C503LL	5490008P21	Silver mica: 56 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	C522H C523	19/
C503L	5490008P17	Silver mica: 39 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	C524	19/
C503M	5490008P13	Silver mica: 27 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	thru C527	
С503Н	5490008P8	Silver mica: 15 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	C528LL	549
C504	19A701624P16	Ceramic, disc: 22 pF ±5%, 500 VDCW, temp coef 0 PPM ±30.	C528L	549
C505	5490008P27	Silver mica: 100 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	C528M	549
C506LL	19A701624P118	Ceramic, disc: 27 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	C528H	549
C506L	19A701624P116	Ceramic, disc: 22 pF +5%, 500 VDCW, temp coef N80 PPM +30.	C529	19
C506M	19A701624P112	Ceramic, disc: 15 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	C551 and C552	19,
С506Н	19A701624P110	Ceramic, disc: 12 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	C553LL	54
C507LL	19A700013P13	Phenolic: 1.00 pF ±5%, 500 VDCW.	C553L	54
C507L	19A700013P12	Phenolic: 0.82 pF ±5%, 500 VDCW.	C553M	54
C507M C507H	19A700013P11 19A700013P10	Phenolic: 0.68 pF ±5%, 500 VDCW. Phenolic: 0.56 pF ±5%, 500 VDCW.		
C507H	19A701624P118	Ceramic, disc: 27 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	С553Н	54
C508L	19A701624P116	Ceramic, disc: 22 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	C554 thru C557	19
C508M	19A701624P112	Ceramic, disc: 15 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	C558LL	54
С508Н	19A701624P110	Ceramic, disc: 12 pF ±5%, 500 VDCW, temp coef N80 PPM ±30.	C558L	54
C509	T644ACP310K	Polyester: 0.01 uF ±10%, 50 VDCW.	C558M	54
C511LL	5490008P119	Silver mica: 47 pF ±10%, 500 VDCW, sim. to Electro Motive Type DM-15.	С558Н	54
C511L	5490008P125	Silver mica: 82 pF ±10%, 500 VDCW; sim to Electro Motive Type DM-15.	C559	54
C511M	5490008P119	Silver mica: 47 pF ±10%, 500 VDCW, sim. to Electro Motive Type DM-15.	C560LL	54
C511H	5490008P125	Silver mica: 82 pF \pm 10%, 500 VDCW; sim to Electro Motive Type DM-15.	C560L	54
C512	315A6047P226N	Tantalum: 0.47 uF ±20%, 35 VDCW.	C560M	54
C513	19A143477P17	Polyester: 0.22 uF ±20%, 50 VDCW.	С560Н	54
C514	T644ACP310K	Polyester: 0.01 uF ±10%, 50 VDCW.		1
C515	T644ACP410K	Polyester: 0.1 uF ±10%, 50 VDCW.		

LBI4991

C516	
C517LL S49008P23	DCW, temp coef
C517L S490008P127 Silver mica: 100 pF 105, 500 VDCW, si Motive Type DM-15.	im. to Electro
C517H S490008P127 Silver mics: 100 Df ±105, 500 VDCW, Electro Motive Type DM-15.	sim. to
C518	im. to Electro
C519	sim. to
C520LL	
C520L	
C520M	
C520H	
C521	
C522LL	
C522L	O VDCW, temp c ECX1ZW20X32.
C522M	
C522H	
C523	
S121-A050-W5R-102K.	
C524	m to Erie
C527 C528LL 5490008P39 Silver mica: 330 pf ±5%, 500 VDCW, silver mica: 360 pf ±20%, 1000 VDCW; silver mica: 368 pf ±5%, 500 VDCW, silver mica: 47 pf ±5%, 500	
Electro Motive Type DM-15.	sim. to
C528M 5490008P39 Silver mica: 330 pF ±5%, 500 VDCW, silver mica: 360 pF ±20%, 1000 VDCW; silver mica: 360 pF ±20%, 1000 VDCW; silver mica: 360 pF ±5%, 500 VDCW, silver mica: 360 pF ±5%,	
C528H 5490008P40 Silver mica: 360 pF ±5%, 500 VDCW, silver mica: 360 pF ±5%, 500 VDCW, silver mica: 360 pF ±5%, 500 VDCW, silver mica: 360 pF ±20%, 1000 VDCW; silver mica: 1000 pF ±5%, 500 VDCW, silver mica: 1000 pF ±5%, 500 VDCW, silver mica: 1000 pF ±5%, 500 VDCW, silver mica: 1000 pF ±10%, 500 VDCW, silver mica: 1000 pF ±10%, 500 VDCW; silver mica: 1000 pF ±10%	
C529	
Type JF Discap. C551 and C552 C553L 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s: Motive Type DM-15. C553L 5490008P19 Silver mica: 47 pF ±5%, 500 VDCW, s: Motive Type DM-15. C553H 5490008P19 Silver mica: 68 pF ±5%, 500 VDCW, s: Motive Type DM-15. C553H 5490008P19 Silver mica: 47 pF ±5%, 500 VDCW, s: Motive Type DM-15. C553H 5490008P19 Silver mica: 47 pF ±5%, 500 VDCW, s: Motive Type DM-15. C554 19A116192P10 Ceramic: 1500 pF ±10%, 50 VDCW; sir 8121-A050-W5R-152K. C558L 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s: Motive Type DM-15. C558L 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s: Motive Type DM-15. C558H 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s: Motive Type DM-15. C559 5491601P130 Phenolic: 3.6 pF ±5%, 500 VDCW, s Motive Type DM-15. C560L 5490008P23 Silver mica: 47 pF ±5%, 500 VDCW, s Motive Type DM-15. C560L 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560L 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560L 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560H 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560H 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560H 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560H S490008P23 Silver mica: 47 pF ±5%, 500 VDCW, s Motive Type DM-15. Silver mica: 47 pF ±5%, 500 VDCW, s Motive Type DM-15. Silver mica: 47 pF ±5%, 500 VDCW, s	
Type JF Discap. Type JF Discap. Type JF Discap. C553L	
Motive Type DM-15.	
thru C557 8121-A050-W5R-152K. C558LL 5490008P23 Silver mica: 68 pf ±5%, 500 VDCW, s: Motive Type DM-15. C558L 5490008P19 Silver mica: 47 pf ±5%, 500 VDCW, s: Motive Type DM-15. C558M 5490008P23 Silver mica: 68 pf ±5%, 500 VDCW, s: Motive Type DM-15. C558H 5490008P19 Silver mica: 47 pf ±5%, 500 VDCW, s: Motive Type DM-15. C559 5491601P130 Phenolic: 3.6 pf ±5%, 500 VDCW. C560LL 5490008P23 Silver mica: 68 pf ±5%, 500 VDCW, s: Motive Type DM-15. C560L 5490008P19 Silver mica: 47 pf ±5%, 500 VDCW, s: Motive Type DM-15. C560M 5490008P23 Silver mica: 68 pf ±5%, 500 VDCW, s: Motive Type DM-15. C560H 5490008P19 Silver mica: 68 pf ±5%, 500 VDCW, s: Motive Type DM-15. C560H 5490008P19 Silver mica: 47 pf ±5%, 500 VDCW, s: Motive Type DM-15.	
Motive Type DM-15.	to bile
Motive Type DM-15.	sim. to Electro
Motive Type DM-15.	
Motive Type DM-15.	
C560LL 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560L 5490008P19 Silver mica: 47 pF ±5%, 500 VDCW, s Motive Type DM-15. C560M 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560H 5490008P19 Silver mica: 47 pF ±5%, 500 VDCW, s	sim. to Electro
Motive Type DM-15.	
Motive Type DM-15. C560M 5490008P23 Silver mica: 68 pF ±5%, 500 VDCW, s Motive Type DM-15. C560H 5490008P19 Silver mica: 47 pF ±5%, 500 VDCW, s	
Motive Type DM-15 C560H	
motive Type Dm 15.	

DESCRIPTION

SYMBOL GE PART NO.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

LBI4991

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SYMBOL	GE PART NO.	DESCRIPTION	SYMBOL	GE PART NO.	DESCRIPTION	SYMBOL	GE PART NO.	DESCRIPTION
C561	19A116192P10	Ceramic: 1500 pF ±10%, 50 VDCW; sim to Erie	L521	19C320141G6	Coil. Includes:			
thru C563	134110102110	8121-A050-W5R-152K.		5493185P9	Tuning slug.	U551	19D417378G2	INTEGRATED CIRCUITS Noise Blanker.
C564LL	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L551	19C320141G12 5493185P9	Coil. Includes: Tuning slug.			
C564L	5490008P19	Silver mica: 47 pF $\pm 5\%$, 500 VDCW, sim. to Electro Motive Type DM-15.	L552 and	19C320141G7	Coil. Includes:	W551	19B232879G1	Cable, RF: approx 2-1/4 inches long; 350 VRMS, 500 VDC operating voltage.
C564M	5490008P23	Silver mica: 68 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L553	5493185P9	Tuning slug.	₩552	19B219764G3	Cable: 2 conductor with shield, approx 8-1/4 inches long.
С564Н	5490008P19	Silver mica: 47 pF ±5%, 500 VDCW, sim. to Electro Motive Type DM-15.	L554	19C320141G13	Coil. Includes:			
C565	19A116192P10	Ceramic: 1500 pF ±10%, 50 VDCW; sim to Erie 8121-A050-W5R-152K.		5493185P9	Tuning slug.	Z502LL		COIL ASSEMBLY 19C320141G16
C566	T644ACP410K	Polyester: 0.1 uF ±10%, 50 VDCW.	L555LL	19B209420P27	Coil, RF: 15.0 uH ±5%, 2.80 ohms DC res max; sim to Jeffers 1316-2J.			
C570	19A143486P10	Tantalum: 15 uF ±20%, 20 VDCW	L555L	19B209420P28	Coil, RF: 18.0 uH ±5%, 3.00 ohms DC res max; sim to Jeffers 1316-38.	C501LL	19A700220P63	
C571 C572	19A143486P1 19A143486P10	Tantalum: 6.8 uF ±20%, 6 VDCW. Tantalum: 15 uF ±20%, 20 VDCW.	L555M	19B209420P27	Coil, RF: 15.0 uH ±5%, 2.80 ohms DC res max; sim to Jeffers 1316-2J.			
C573	19A143486P7	Tantalum: 3.3 uF ±20%, 15 VDCW.	L555H	19B209420P28	Coil, RF: 18.0 uH ±5%, 3.00 ohms DC res max; sim to Jeffers 1316-38.	L520LL	19C320141P26	
C574	315A6047P105U	Tantalum: 1 uF ±20%, 35 VDCW.	L556	19A700103P1	Torridal core.	102022	19B209674P2	Tuning slug.
		DIODES AND RECTIFIERS	L557	19A700024P13	Coil, RF: 1.0 uH ±10%.	Z502L		COIL ASSEMBLY 19C320141G27
CR551	19A115775P1	Silicon, fast recovery, 225 mA, 50 PIV.						
			P551		(Part of W551).	C501L	19A700220P64	
FL501LL	19B219573G3	Crystal, freq: Resonator A - 11,200.000 KHz;	P553 and		(Part of W552).	CSOIL	194700220764	PPM.
		Resonator B - 11,196.024 KHz.	P554					
FL501L	19B219574G3	Crystal, freq: Resonator A - 9400.000 KHz,	1			L520L	19C320141P26	Coil. Includes:
FL501M	19B219573G3	Resonator B - 9396.024 KHz. Crystal, freq:	Q501	19A116154P1	N Type, field effect.	1	19B209674P2	Tuning slug.
rL301m	19821907503	Resonator A - 11,200.000 KHz; Resonator B - 11,196.024 KHz.	Q502 and Q503	19A134137P6	N Type, field effect.	Z502M		COIL ASSEMBLY 19C320141G16
FL501H	19B219574G3	Crystal, freq: Resonator A - 9400.000 KHz, Resonator B - 9396.024 KHz.	Q520	19A116818P1	N Channel, field effect.			
FL502LL		(Part of FL501LL).	Q551 and	19A116818P1	N Channel, field effect.	C501M	19A700220P63	Ceramic: 91 pF ±5%, 100 VDCW; temp coef -30 PPM.
FL502L		(Part of FL501L).	Q552					
FL502M		(Part of FL501M).			RESISTORS	L520M	19C320141P26 19B209674P2	Coil. Includes: Tuning slug.
FL502H		(Part of FL501H).	R503 R504	19A700106P67 19A700106P83	Composition: 1.5K ohms ±5%, 1/4 w. Composition: 6.8K ohms +5%, 1/4 w.	Z502H	19820967472	COIL ASSEMBLY
		JACKS AND RECEPTACLES	R505	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.			19C320141G27
J501	19A700049P2	Connector, receptacle; 500 VDCW maximum; sim to NTTF-1058.	R506	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.			
J502	19A116975P1	Receptacle, wire spring.	R507	19A700106P83	Composition: 6.8K ohms ±5%, 1/4 w.	C501H	19A700220P64	Ceramic: 100 pF ±10%, 100 VDCW, temp coef -30 PPM.
J523 and	19A116975P1	Receptacle, wire spring.	R508	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.			
J524	19A700049P2	Connector, receptacle; 500 VDCW maximum; sim to	R509 R510	19A700106P87 3R152P431J	Composition: 10K ohms ±5%, 1/4 w. Composition: 430 ohms ±5%, 1/4 w.	L520H	19C320141P26	Coil. Includes:
J551	19470004992	NTTF-1058.	R521	19A700106P51	Composition: 330 ohms ±5%, 1/4 w.		19B209674P2	Tuning slug.
			R522	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.			
L501		(Part of printed board).	R523	19A700106P77	Composition: 3.9K ohms ±5%, 1/4 w.		19B219470P2	Shield.
L502	19B219419G2	Coil. Includes:	R524	19A700106P47 19A700106P31	Composition: 220 ohms ±5%, 1/4 w. Composition: 47 ohms ±5%, 1/4 w.		19A129424G1	Can. (Used with L504, L506, L520, L521, L551-L554).
L503	5491798P5 19B219419G4	Tuning slug. Coil. Includes:	R525 R551	19A700106P31 19A700106P73	Composition: 47 onms ±5%, 1/4 w. Composition: 2.7K ohms ±5%, 1/4 w.		4031594P1	Insulator. (Used with C521).
1303	5491798P5	Tuning slug.	R552	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.		4035306P23	Insulator, fiber. (Used with J501).
L504	19C320141G24	Coil. Includes:	R553 thru	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.		4035306P59	Insulator, fiber. (Used with L501).
	5493185P12	Tuning slug.	R555					
L505	19A700024P30	Coil, RF: 27 uH ±10%.	R556 thru	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.			
L506	19C320141G23 5493185P9	Coil. Includes: Tuning slug.	R558 R559	19A700106P73	Composition: 2.7K ohms ±5%, 1/4 w.			
L520LL	0.10010079	(Part of 2502LL).	R560	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.			
L520L	l .	(Part of Z502L).	thru R562					
L520M		(Part of Z502M).	R563	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.			
L520H	[(Part of Z502H).	R564	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.			
			1					
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PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter," which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

- REV. A thru E Mixer/IF/Noise Blanker Board 19D416562G1,2 REV. A thru D - Mixer/IF/Noise Blanker Board 19D416562G3,4 REV. A - RF Filter Board 19C320073G1-4 The above revisions incorporated in initial shipment. REV. B - RF Filter Board 19C320073G2 & 3 To improve receiver sensitivity. Deleted R3L and R3M. REV. C - RF Filter Board 19C320073G3 To prevent oscillation. Added R3M. - RF Filter Board 19C320073G1, 4 - RF Filter Board 19C320073G2 REV. C - RF Filter Board 19C320073G3 REV. D To improve receiver sensitivity. Changed C2, C3 and C4 and L1 thru L4. REV. F - Mixer/IF/Noise Blanker Board 19D416562G1, 2 - Mixer/IF/Noise Blanker Board 19D416562G3, 4 To improve blanker operation. Changed Q502 and Q503. REV. G - Mixer/IF/Noise Blanker Board 19D416562G1, 2 - Mixer/IF/Noise Blanker Board 19D416562G3, 4 To improve operation. Added L556. REV. A & B - RF Assembly 19D416478G1-4 Incorporated in initial shipment
- REV. C RF Assembly 19D416478G1, 2
 To improve sensitivity in 25-30 MHz range.
 Changed C1 (part of L301).
- REV. D RF Filter Board 19C320073G2

 To prevent oscillations in pre-selector board Added R3L.

 REV. G Mixer/IF/Noise Blanker 19D416562G3, 4
- To prevent oscillations in mixer. Replace L556 with L557. Connected C504 to Q501D.

 REV. C RF Filter Board 19C320073G1, G4
- REV. E RF Filter Board 19C320073G2, G3
 To standardize components. Deleted Q1 and PWB 19C320072. Added Q2 and PWB 19C327760P1.
- REV. H Mixer/IF/Noise Blanker 19D416562G1 & G3

 To improve operation in the 25-30 MHz and 36-42 MHz range. Changed C517.