

138F MAINTENANCE MANUAL

4.3 PARTS LIST

4.3.1 RT-138F TRANSCEIVER

CKT SYMBOL	DESCRIPTION	GWS P N	400-014525-XX REV. A							
			-00	-01	-02	-03	-50	-51	-52	-53
A1	CHASSIS (STD)	300-014520-00	01	01	01	00	00	00	00	00
A1	CHASSIS (HI SENS)	300-014520-03	00	00	00	01	00	00	00	00
A1	CHASSIS (DVP)	300-014520-50	00	00	00	00	01	01	01	00
A1	CHASSIS (HI SENS/DVP)	300-014520-53	00	00	00	00	00	00	00	01
A2	FLEXCOMM PWR SUPPLY	300-2183-000	01	01	01	01	01	01	01	01
A3	FLEXCOMM DVP AUDIO BOARD	300-2181-050	01	01	01	01	01	01	01	01
A4*	TS-32 GD TN MODULE	300-1046-000	00	00	01	00	00	00	01	00
A5	NOT USED									
A6	NOT USED									
A7	R/T ASSY (STD)	300-2239-000	01	01	01	00	01	01	01	00
A7	R/T ASSY (HI SENS)	300-2239-001	00	00	00	01	00	00	00	01
A8	GUARD RECEIVER	300-2241-000	00	01	01	00	00	01	01	00
A9	FAST LOCK SYNTHESIZER	300-014519-00	01	01	01	01	01	01	01	01
	RT-30 BOTTOM COVER	146-0514-001	01	01	01	01	01	01	01	01
	RT-30 TOP COVER	146-0515-001	01	01	01	01	01	01	01	01
	SIDETONE TAG	156-0212-000	01	01	01	01	01	01	01	01
	GD RCVR FREQ LABEL	156-0244-000	00	01	01	00	00	01	01	00
	RT-138F NAMEPLATE	156-014543-01	01	01	01	01	01	01	01	01
	DOC TAG	156-014544-01	01	01	01	01	01	01	01	01
	SCREW, 4-40 x 3/16 FHP	MS24693-C1	08	08	08	08	08	08	08	08
	SCREW, 4-40 x 1/4 SEMS	188-0208-008	16	20	22	16	16	20	22	16
	RUBBER BUMPER	179-0025-000	01	00	00	01	01	00	00	01
	MOD LABEL	156-014675-01	01	01	01	01	01	01	01	01

*SEE SECTION 5.2 FOR TS-32 PARTS LIST

138F MAINTENANCE MANUAL

4.3.2 RT-138F CHASSIS (A1)

CKT SYMBOL	DESCRIPTION	GWS P N	300-014520-XX REV. A				VENDOR	VENDOR P N
			-00	-03	-50	-53		
C1	CAP, TANT 1.0 μ F 100V	195-0107-039	01	01	01	01	31433	T110B105M100AS
C2	THROUGH C5							
	CAP, MYLAR 0.1 μ F	204-0002-000	04	04	04	04	27735	MPE21-.01-100-5
C6	CAP, ALUM 470 μ F 40V	196-0006-000	01	01	01	01	25088	470/40/82000
C7	THROUGH C13							
	CAP, DISC-CER 470PF	208-0006-000	07	07	07	07	71590	CE-471
CR1	1N4002 RECTIFIER	106-5009-000	02	02	02	02	04713	1N4002
CR2	1N4002 RECTIFIER	106-5009-000	02	02	02	02	04713	1N4002
E1	CERAMIC INSUL TERM	107-0012-000	03	03	03	03	17117	
E2	CERAMIC INSUL TERM	107-0012-000	03	03	03	03	17117	
E3	CERAMIC INSUL TERM	107-0012-000	03	03	03	03	17117	
E4	THROUGH E8							
	TERM INSUL FEED THRU	107-0024-000	05	05	05	05	98291	
J1	JACK, 24-61P BOX MTG, SOLDER	129-2136-000	01	01	01	01	71468	KPT02A-24-61P
J2	10 POS PC CONN	129-2023-000	02	02	02	02	07233	50-10A-20
J3	2/22 POS PC CONN	129-2032-000	01	01	01	01	07233	50-44A-30
J4	2/18 POS PC CONN	129-2026-000	02	02	02	02	07233	50-36A-30
J5	2/18 POS PC CONN	129-2026-000	02	02	02	02	07233	50-36A-30
J6	22 POS PC CONN	129-2027-000	01	01	01	01	07233	50-22A-20
J7	18 POS PC CONN	129-2006-000	01	01	01	01	07233	50-18A-20
J8	10 POS PC CONN	129-2023-000	02	02	02	02	07233	50-10A-20
K1	RELAY, DPDT, 24V, SA	131-0004-000	01	01	01	01	77342	R10-E1-X2-V700
L1	TOROID 65 μ H CHOKE	118-314-627	01	01	01	01	11402	06-3194-00
L2	FERRITE CHOKE	112-0002-000	01	01	01	01	02114	
L3	FERRITE BEAD	112-0003-000	03	03	03	03	33062	
L4	FERRITE BEAD	112-0003-000	03	03	03	03	33062	
L5	FERRITE BEAD	112-0003-000	03	03	03	03	33062	
L7	THROUGH L68							
	FERRITE BEAD	112-0003-001	62	62	62	62	33062	
L69	FERRITE BEAD	112-0006-000	01	01	01	01	33062	
R1	RESISTOR, 3.0 OHM, 10W, 5%	232-0027-000	01	01	01	01	91637	HLM-10-10Z, 3 $\pm$ 5%
R2	RESISTOR, 9.0 OHM, 20W, 5%	232-0032-000	01	01	01	01	91637	HLM-20-10Z, 9 $\pm$ 5%
R3	RESISTOR, 15 OHM, 10W, 5%	232-0031-000	01	01	01	01	91637	HLM-10-10Z, 15 $\pm$ 5%
U1	7815, 15V REG, LIN	106-7113-000	02	02	02	02	07263	μ A7815UC
U2	7815, 15V REG, LIN	106-7113-000	02	02	02	02	07263	μ A7815UC
	NO. 4 GROUND LUG	109-0004-000	22	22	22	22	79963	1485-4
	NO. 4 GROUND LUG, LONG SHANK	109-0008-000	02	02	02	02	79963	501-120
	POLARIZING KEY (DALE)	129-1061-000	03	03	03	03	09969	
	POLARIZING KEY	129-1043-000	06	06	06	06	07233	456-07-35-003-(50-PK-2)
	RT-30 REAR PANEL	146-0512-002	01	01	01	01		

138F MAINTENANCE MANUAL

4.3.2 RT-138F CHASSIS (A1) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	300-014520-XX REV. A				VENDOR	VENDOR P N
			-00	-03	-50	-53		
	RT-30 FRONT PANEL	146-0513-001	01	01	01	01	GWS	
	RT-30 MAIN CHASSIS	146-0518-002	01	01	01	01	GWS	
	RT-30 CABLE SHIELD	146-0527-002	01	01	01	01	GWS	
	CV-28A COVER	146-0584-001	01	01	01	01	GWS	
	RT-138 CONN GND STRAP	146-0638-001	02	02	02	02	GWS	
	HANDLE, 4-3/8 IN	189-0013-000	01	01	01	01	06540	
	HANDLE DECAL	156-012793-01	01	01	01	01	GWS	
	7/8 IN GROMMET	179-0011-000	01	01	01	01	83330	2187
	1/2 IN CABLE CLAMP	180-0006-000	01	01	01	01	37942	
	TOROID RETAINER	180-0100-000	01	01	01	01	06915	
	SCREW, 4-40 x 5/16 PHP	MS51957-14	06	06	06	06		
	SCREW, 4-40 x 1/2 PHP	MS51957-17	12	12	12	12		
	SCREW, 4-40 x 5/8 PHP	MS51957-18	02	02	02	02		
	SCREW, 4-40 x 1-1/8 PHP	MS51957-121	04	04	04	04		
	SCREW, 4-40 x 3/16 FHP	MS24693-C1	03	03	03	03		
	SCREW, 4-40 x 1/4 FHP	MS24693-C2	01	01	01	01		
	SCREW, 4-40 x 5/16 FHP	MS24693-C3	01	01	01	01		
	SCREW, 4-40 x 1/2 FHP	MS24693-C6	06	06	06	06		
	SCREW, 4-40 x 5/8 FHP	MS24693-C7	01	01	01	01		
	SCREW, 4-40 x 1/4 SEMS	188-0208-008	09	09	09	09	70318	
	SCREW, 10-32 x 1/2 FHP	MS24693-C272	02	02	02	02		
	NUT, 3-48 x 3/16	188-2150-000	01	01	01	01		
	NUT, 4-40 x 3/16	NAS671-C4	06	06	06	06		
	NUT, 4-40 x 1/4 KEP	188-2202-000	08	08	08	08		
	WASHER, SPLITLOCK NO.3	188-4150-000	01	01	01	01		
	WASHER, SPLITLOCK NO.4	MS35338-135	10	10	10	10		
	WASHER, FLAT NO.4	MS15795-803	03	03	03	03		
	WASHER, EXT STARLOCK, NO.4	MS35335-37	15	15	15	15		
	ANGLE BRKT, NO.3 HOLE	189-0006-004	01	01	01	01		
	RUBBER WSHR, 0.750 DIA	190-0021-000	01	01	01	01		
	SPCR, 0.31 OD x 0.12 ID x 0.19 L	191-0019-001	02	02	02	02	13861	10R5-04-X3A
	NYLON CARD GUIDE	246-0040-000	02	02	02	02	18915	26-8
	RT-30 CABLE SHIELD	146-0527-002	01	01	01	01	GWS	
	RT-138F GUARD COAX ASSY	300-014673-01	01	00	01	00	GWS	
	COAX FENCE SHIELD	146-0753-01	01	01	01	01	GWS	
	SHRINK TUBING (BLK)	16022-X	61	61	61	61		
	INSUL VARNISH	246-014696-01	A/R	A/R	A/R	A/R		
	MICA WASHER	111-0008-000	01	01	01	01	08530	
	BUSS WIRE NO. 22 GA	16017-22	A/R	A/R	A/R	A/R		
	TEF TUBING 14 GA 3/8"L	16016-14	61	61	61	61		
	TEF TUBING 22 GA	16016-XX	A/R	A/R	A/R	A/R		

138F MAINTENANCE MANUAL

4.3.2 RT-138F CHASSIS (A1) (cont.)

		300-014520-XX					
CKT		GWS	REV. A				
<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>P N</u>	<u>-00</u>	<u>-03</u>	<u>-50</u>	<u>-53</u>	<u>VENDOR</u>
	PURPLE LOCTITE	16012-1	A/R	A/R	A/R	A/R	
	SEALANT	16012-3	A/R	A/R	A/R	A/R	
	THERM COMPOUND	600-0008-000	A/R	A/R	A/R	A/R	
	RED LOCTITE	16012-4	A/R	A/R	A/R	A/R	

138F MAINTENANCE MANUAL

4.3.3 FLEXCOMM POWER SUPPLY (A2)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
A2	POWER SUPPLY REV.L	300-2183-000	01		
C1	CAP, MONO-CER 470PF X7R	209-2471-112	01	31433	C320C471M2R5CA
C2 THROUGH C4					
	CAP, TANT 4.7μF 50V	195-0477-026	08	31433	T110B475K050AS
C5	CAP, POLYCARB 0.022μF	205-0002-000	01	27735	PC-21-.022-50-5
C6	CAP, MONO-CER 0.01μF X7R	209-1103-011	06	31433	C315C103K5R5CA
C7	CAP, TANT 1.0μF 35V	195-0107-035	01	31433	T110A105M035AS
C8	CAP, MONO-CER 0.47μF	209-6474-011	02	31433	C330C474K5R5CA
C9	CAP, MONO-CER 0.47μF	209-6474-011	02	31433	C330C474K5R5CA
C10	CAP, TANT 4.7μF 50V	195-0477-026	08	31433	T110B475K050AS
C11	NOT USED				
C12	NOT USED				
C13	CAP, ALUM 470μF 40V	196-0006-000	02	25088	470/40/82000
C14	CAP, TANT 4.7μF 50V	195-0477-026	08	31433	T110B475K050AS
C15	CAP, MYLAR 0.1μF 50V	204-0002-000	02	27735	MPE-21-.1-100-5
C16	CAP, TANT 4.7μF 50V	195-0477-026	08	31433	T110B475K050AS
C17	CAP, TANT 4.7μF 50V	195-0477-026	08	31433	T110B475K050AS
C18	CAP, MYLAR 0.1μF 50V	204-0002-000	02	27735	MPE-21-.1-100-5
C19	CAP, TANT 4.7μF 50V	195-0477-026	08	31433	T110B475K050AS
C20	CAP, ALUM 470μF 40V	196-0006-000	02	25088	470/40/82000
C21	CAP, TANT 15μF 20V	195-0156-034	01	31433	T110B156M020AS
C22 THROUGH C26					
	CAP, MONO-CER 0.01μF X7R	209-1103-011	06	31433	C315C103K5R5CA
C27	CAP, MONO CER .001μF	209-2102-100	01	31433	C320C102J1G5CA
CR1 THROUGH CR3					
	1N914 SILICON DIODE	106-5007-000	03	07263	1N914
CR4 THROUGH CR10					
	A115A RECTIFIER	106-5004-000	07	03508	A115A
CR12 1N4002 DIODE		106-5009-000	01	04713	1N4002
F1	FUSE, 3A, WIRE LEADS	135-0009-000	01	75915	275 0003
L1	850μH TOROID	118-1094-000	01	11402	06-3194-00
L2	850μH TOROID SHIELDED	118-1095-000	01	11402	26-5281-00
Q1	2N5447 PNP	106-0008-000	01	01295	2N5447
Q2	TIP-116	106-0046-000	02	01295	TIP-116
Q3	TIP-116	106-0046-000	02	01295	TIP-116
Q4	2N3904 NPN	106-0041-000	01	04713	2N3904
R1	RESISTOR, 0.3 OHM 4W	232-0010-000	02	91637	R52-3 OHM-5%
R2	RESISTOR, 100 OHM 1/4W	230-0103-022	02	01121	RCR07G101KS
R3	RESISTOR, 22K OHM 1/4W	230-0225-022	02	01121	RCR07G223KS
R4	RESISTOR, 1K OHM 1/4W	230-0104-022	02	01121	RCR07G102KS
R5	RESISTOR, 1.8K OHM 1/4W	230-0184-022	01	01121	RCR07G182KS
R6	RESISTOR, 5.23K OHM 1%	231-5234-021	03	91637	RN55D5231F
R7	RESISTOR, 5.23K OHM 1%	231-5234-021	03	91637	RN55D5231F
R8	RESISTOR, 56K OHM 1/4W	230-0565-022	01	01121	RCR07G563KS
R9	RESISTOR, 4.75K OHM 1%	231-4754-021	02	91637	RN55D4751F

138F MAINTENANCE MANUAL

4.3.3 FLEXCOMM POWER SUPPLY (A2) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R10	RESISTOR, 4.75K OHM 1%	231-4754-021	02	91637	RN55D4751F
R11	RESISTOR, 1K OHM 1/4W	230-0104-022	02	01121	RCR07G102KS
R12	RESISTOR, 22K OHM 1/4W	230-0225-022	02	01121	RCR07G223KS
R13 THROUGH R16					
	RESISTOR, 5.6K OHM 1/4W	230-0564-022	07	01121	RCR07G562KS
R17	RESISTOR, 24.3K OHM 1%	231-2435-021	01	91637	RN55D2432F
R18	RESISTOR, 5.23K OHM 1%	231-5234-021	03	91637	RN55D5231F
R19	RESISTOR, 25.5K OHM 1%	231-2555-021	01	91637	RN55D2552F
R20	RESISTOR, 2.21K OHM 1%	231-2214-021	01	91637	RN55D2211F
R21	RESISTOR, 0.3 OHM 4W	232-0010-000	02	91637	R52-.3 OHM-5%
R22	RESISTOR, 100 OHM 1/4W	230-0103-022	02	01121	RCR07G101KS
R23	RESISTOR, 100 OHM 1/2W	230-0103-032	01	01121	RCR20G101KS
R24	RESISTOR, 10 OHM 1/4W	230-0102-022	01	01121	RCR07G100KS
R25 THROUGH R27					
	RESISTOR, 5.6K OHM 1/4W	230-0564-022	07	01121	RCR07G562KS
R28	RESISTOR, ADJ 1K OHM	233-0015-007	01	32997	3329H-1-102
T1	PWR XFMR	118-3010-000	01	11402	24-0586-00
U1	LM3524 IC	106-7082-000	01	18324	LM3524N
U2	78MGUIC LIN ADJ REG	106-7048-000	01	07263	μA78MGU1C
U3	79MGUIC NEG VOLT REG	106-7081-000	01	07263	μA79MGU1C
VR1	1N4735A 6.2V ZENER	106-4016-000	01	04713	
	PC BOARD	108-6091-000	01		
	TO-220 MICA INS	111-0019-000	04	50012	
	PWR SUP XSTR HEATSINK	146-0575-001	01		
	PWR SUP CARD BACK	146-0576-002	01		
	P.S. REG HEATSINK	146-0577-001	01		
	PWR SUP SHIELD PLATE	146-0685-002	01		
	TOROID RETAINER	180-0010-000	01	15857	
	SCREW, 2-56 x 5/16 PHP	188-0100-010	02		
	SCREW, 4-40 x 5/16 PHP	188-0200-010	02	70318	
	SCREW, 4-40 x 11/16 PHP	188-0200-022	03		
	SCREW, 4-40 x 7/16 FHP	188-0201-014	02	70318	
	SCREW, 4-40 x 1/4 SEMS	188-0208-008	06	70318	
	NUT, 4-40 x 1/4 KEP	188-2202-000	01		
	WASHER, SPLITLOCK NO.2	188-4100-000	02		
	WASHER, FLAT NO.2	188-4101-000	02		
	WASHER, SPLITLOCK NO.4	188-4200-000	04		
	WASHER, FLAT NO.4	188-4201-000	02		
	NO.4 NYLON SCREW INSUL	190-0017-001	02	06915	
	RUBBER WASHER	190-0021-000	01		
	NO.2 NYLON SCREW INSUL	190-0022-000	02	86928	5607-2

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
A3	AUDIO BOARD REV.D	300-2181-050	01		
C1	CAP, MONO-CER 0.22 μ F	209-6224-011	07	31433	C330C224K5R5CA
C2	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C3	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C4	CAP, DIP-MICA 510PF	199-5112-013	03	14655	CD15FD511J03
C5	CAP, DIP-MICA 510PF	199-5112-013	03	14655	CD15FD511J03
C6	CAP, DIP-MICA 510PF	199-5112-013	03	14655	CD15FD511J03
C7	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C8	CAP, MONO-CER 0.01 μ F	209-1103-011	06	31433	C315C103K5R5CA
C9	CAP, MONO-CER 0.22 μ F	209-6224-011	07	31433	C330C224K5R5CA
C10	CAP, MONO-CER 0.22 μ F	209-6224-011	07	31433	C330C224K5R5CA
C11	CAP, MONO-CER 0.01 μ F	209-1103-011	06	31433	C315C103K5R5CA
C12	CAP, MONO-CER 0.01 μ F	209-1103-011	06	31433	C315C103K5R5CA
C13	CAP, MONO-CER 0.22 μ F	209-6224-011	07	31433	C330C224K5R5CA
C14	CAP, MONO-CER 0.22 μ F	209-6224-011	07	31433	C330C224K5R5CA
C15 THROUGH C19					
	CAP, POLYCARB 0.01 μ F 200V	205-0005-000	05	14752	650B1C103G
C20	CAP, TANT 100 μ F 10V	195-0105-032	02	31433	T110C107M010AS
C21	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C22	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C23	CAP, MONO-CER 0.1 μ F X7R	209-6104-011	02	31433	C330C104K1R5CA
C24	CAP, TANT 100 μ F 10V	195-0105-032	02	31433	T110C107M010AS
C25	CAP, MONO-CER 0.056 μ F 10%	209-2563-011	04	31433	C320C563K5R5CA
C26	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C27	CAP, TANT 6.8 μ F 20V	195-0687-024	01	31433	T110B685K020AS
C28	NOT USED				
C29	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C30	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C31	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C32	CAP, POLYCARB 0.47 μ F	205-0004-000	01	14752	650B1B474J
C33	CAP, MONO-CER 0.22 μ F 100V	209-6224-011	07	31433	C330C224K5R5CA
C34	CAP, MONO-CER 0.01 μ F	209-1103-011	06	31433	C315C103K5R5CA
C35	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C36	NOT USED				
C37	NOT USED				
C38	NOT USED				
C39	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C40	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C41	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C42	CAP, MONO-CER 0.056 μ F 10%	209-2563-011	04	31433	C320C563K5R5CA
C43	NOT USED				
C44	CAP, POLYCARB 0.01 μ F 200V	205-0001-000	01	14752	650B1C103J
C45	CAP, MONO-CER 0.47 μ F	209-6474-011	03	31433	C330C474K5R5CA
C46	CAP, MONO-CER 0.47 μ F	209-6474-011	03	31433	C330C474K5R5CA
C47	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C48	NOT USED				
C49	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA
C50	THROUGH C52				
	CAP, MONO-CER 4700PF 2%	209-2472-004	08	31433	C320C472G1G5CA
C53	NOT USED				
C54	NOT USED				
C55	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA
C56	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C57	THROUGH C59				
	CAP, MONO-CER 4700PF 2%	209-2472-004	08	31433	C320C472G1G5CA
C60	CAP, DIP-MICA 510PF	199-4712-013	01	14655	
C61	CAP, MONO-CER 0.22 μ F X7R	209-6224-011	07	31433	C330C224K5R5CA
C62	CAP, MONO-CER 1000PF COG	209-2102-100	01	31433	C320C102J1G5CA
C63	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C64	CAP, TANT 1.0 μ F	195-0107-035	05	31433	T110A105M035AS
C65	NOT USED				
C66	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA
C67	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C68	CAP, MONO-CER 470PF 2%	209-2471-112	01	31433	C320C471M2R5CA
C69	CAP, MONO-CER 150PF 2%	209-2151-111	17	31433	C320C151K1G5CA
C70	CAP, MONO-CER 100PF	209-2102-100	01	31433	C320C102J1G5CA
C71	CAP, MONO-CER 47 μ F	209-6474-011	03	31433	C330C474K5R5CA
C72	CAP, 47 μ F 16V ELECTRO	15020-1	01		
C73	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA
C74	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C75	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C76	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C77	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C78	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C79	CAP, POLYCARB 0.022 μ F	205-0002-000	01	27735	PC-21-.022.50-5
C80	NOT USED				
C81	NOT USED				
C82	CAP, 1000PF COG	209-2102-100	01	31433	C320C102J1G5CA
C83	NOT USED				
C84	NOT USED				
C85	THROUGH C90				
	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA
C91	CAP, TANT 15 μ F 20V	195-0156-034	08	31433	T110B156M020AS
C92	CAP, MONO-CER 0.01 μ F	209-1103-011	06	31433	C315C103K5R5CA
C93	CAP, MONO-CER 0.056 μ F 10%	209-2563-011	04	31433	C320C563K5R5CA
C94	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C320C151K1G5CA
C95	CAP, MONO-CER 4700PF 2%	209-2472-004	08	31433	C320C472G1G5CA
C96	CAP, MONO-CER 4700PF 2%	209-2472-004	08	31433	C320C472G1G5CA
C97	CAP, MONO-CER 0.01 μ F	209-1103-011	06	31433	C315C103K5R5CA

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C98 THROUGH C101					
	CAP, MONO-CER 150PF 10%	209-2151-111	17	31433	C330C151K1G5CA
C102	CAP, TANT 3.3 μ F	195-0337-023	11	31433	T110A335K015AS
C103	CAP, MONO-CER 0.056 μ F 10%	209-2563-011	04	31433	C320C563K5R5CA
CR1	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR2	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR3	NOT USED				
CR4	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR5	1N5711 HOT CARRIER DIODE	106-5002-000	02	50434	HP5082-2800
CR6	1N5711 HOT CARRIER DIODE	106-5002-000	02	50434	HP5082-2800
CR7	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR8	1N4738A 8.2V ZENER	106-4007-000	02	04713	1N4738A
CR9 THROUGH CR17					
	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR18	1N4738A 8.2V ZENER	106-4007-000	02	04713	1N4738A
CR19 THROUGH CR50					
	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR51	1N4625	12935-1	01		
CR52	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
CR53	1N914 SILICON DIODE	106-5007-000	47	07263	1N914
K1	RELAY, DPDT, 12V, 2A	131-0005-000	01	02289	2K-2299-035
L1	4.7 μ H CHOKE	118-1061-000	01	24226	10/471
Q1	2N3904 NPN	106-0041-000	07	04713	2N3904
Q2	2N5447 PNP	106-0008-000	05	27014	2N5447
Q3	2N3904 NPN	106-0041-000	07	04713	2N3904
Q4	2N5447 PNP	106-0008-000	05	27014	2N5447
Q5	2N3904 NPN	106-0041-000	07	04713	2N3904
Q6	2N3904 NPN	106-0041-000	07	04713	2N3904
Q7	2N5447 PNP	106-0008-000	05	27014	2N5447
Q8	2N3904 NPN	106-0041-000	07	04713	2N3904
Q9	2N3904 NPN	106-0041-000	07	04713	2N3904
Q10	2N5447 PNP	106-0008-000	05	27014	2N5447
Q11	2N5447 PNP	106-0008-000	05	27014	2N5447
Q12	2N3904 NPN	106-0041-000	07	04713	2N3904
R1	RESISTOR, 49.9K OHM 1/4W 1%	231-4995-021	01	91637	RN55D4992F
R2	RESISTOR, 59K OHM 1/4W 1%	231-5905-021	01	91637	RN55D5902F
R3	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R4	RESISTOR, 4.75K OHM 1/4W 1%	231-4754-021	03	91637	RN55D4751F
R5	RESISTOR, 5.9K OHM 1/4W 1%	231-5904-021	02	91637	RN55D5901F
R6	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R7	RESISTOR, 5.23K OHM 1/4W 1%	231-5234-021	02	91637	RN55D5231F
R8	RESISTOR, 5.23K OHM 1/4W 1%	231-5234-021	02	91637	RN55D5231F
R9	RESISTOR, 23.2K OHM 1/4W 1%	231-2325-021	01	91637	RN55D2322F
R10	RESISTOR, 73.2K OHM 1/4W 1%	231-7325-021	01	91637	RN55D7322F
R11	RESISTOR, 48.7K OHM 1/4W 1%	231-4875-021	01	91637	RN55D4872F

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R12	RESISTOR, 147K OHM 1/4W 1%	231-1476-021	02	91637	RN55D1473F
R13	RESISTOR, 147K OHM 1/4W 1%	231-1476-021	02	91637	RN55D1473F
R14	RESISTOR, 4.7K OHM 1/4W 10%	230-0474-022	06	01121	RCR07G472KS
R15	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	08	01121	RCR07G682KS
R16	RESISTOR, 4.75K OHM 1/4W 1%	231-4754-021	03	91637	RN55D4751F
R17	TRIMPOT 50K	233-0010-000	01	32997	3006P-1-503
R18	RESISTOR, 4.75K OHM 1/4W 1%	231-4754-021	03	91637	RN55D4751F
R19	RESISTOR, 22K OHM 1/4W 10%	230-0225-022	04	01121	RCR07G223KS
R20	RESISTOR, 22.1K OHM 1/4W 1%	231-2215-021	02	91637	RN55D2212F
R21	RESISTOR, 56.2K OHM 1/4W 1%	231-5625-021	02	91637	RN55D5622F
R22	RESISTOR, 33.2K OHM 1/4W 1%	231-3325-021	03	91637	RN55D3322F
R23	RESISTOR, 150K OHM 1/4W 1%	231-1506-021	03	91637	RN55D1503F
R24	RESISTOR, 499K OHM 1/4W 1%	231-4996-021	02	91637	RN55D4993F
R25	RESISTOR, 330K OHM 1/4W 10%	230-0336-022	02	01121	RCR07G334KS
R26	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R27	RESISTOR, 5.90K OHM 1/4W 1%	231-5904-021	02	91637	RN55D5901F
R28	RESISTOR, 3.92K OHM 1/4W 1%	231-3924-021	01	91637	RN55D3921F
R29	RESISTOR, 22.1K OHM 1/4W 1%	231-2215-021	02	91637	RN55D2212F
R30	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R31	RESISTOR, 220K OHM 1/4W 10%	230-0226-022	02	01121	RCR07G224KS
R32	RESISTOR, 150K OHM 1/4W 1%	231-1506-021	03	91637	RN55D1503F
R33	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R34	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	08	01121	RCR07G682KS
R35	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R36	RESISTOR, 1K OHM 1/4W 10%	230-0104-022	06	01121	RCR07G102KS
R37	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R38	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R39	NOT USED				
R40	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R41	NOT USED				
R42	RESISTOR, 86.6K OHM 1/4W 1%	231-8665-021	01	91637	RN55D8662F
R43	RESISTOR, 34.8K OHM 1/4W 1%	231-3485-021	02	91637	RN55D3482F
R44	RESISTOR, 47K OHM 1/4W 10%	230-0475-022	05	01121	RCR07G473KS
R45	RESISTOR, 499K OHM 1/4W 1%	231-4996-021	02	91637	RN55D4993F
R46	RESISTOR, 10.2K OHM 1/4W 1%	231-1025-021	01	91637	RN55D1022F
R47	RESISTOR, 140K OHM 1/4W 1%	231-1406-021	01	91637	RN55D1403F
R48	RESISTOR, 31.6K OHM 1/4W 1%	231-3165-021	01	91637	RN55D3162F
R49	RESISTOR, 34.8K OHM 1/4W 1%	231-3485-021	02	91637	RN55D3482F
R50	RESISTOR, 316K OHM 1/4W 1%	231-3166-021	01	91637	RN55D3163F
R51	RESISTOR, 4.7K OHM 1/4W 10%	230-0474-022	06	01121	RCR07G472KS
R52	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	08	01121	RCR07G682KS
R53	RESISTOR, 4.7K OHM 1/4W 10%	230-0474-022	06	01121	RCR07G472KS
R54	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R55	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R56	RESISTOR, 1.5K OHM 1/4W 10%	230-0154-022	01	01121	RCR07G152KS

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R57	POTENTIOMETER 5K	233-0011-000	05	32997	3006P-1-502
R58	RESISTOR, 47K OHM 1/4W 10%	230-0475-022	05	01121	RCR07G473KS
R59	POTENTIOMETER 5K	233-0011-000	05	32997	3006P-1-502
R60	RESISTOR, 39K OHM 1/4W 10%	230-0395-022	02	01121	RCR07G393KS
R61	RESISTOR, 3.3K OHM 1/4W 10%	230-0334-022	01	01121	RCR07G332KS
R62	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R63	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R64	RESISTOR, 3.3 OHM 1/4W 10%	230-0331-022	02	01121	RCR07G3R3KS
R65	RESISTOR, 3.3 OHM 1/4W 10%	230-0331-022	02	01121	RCR07G3R3KS
R66	RESISTOR, 33.2K OHM 1/4W 1%	231-3325-021	03	91637	RN55D3322F
R67	RESISTOR, 33.2K OHM 1/4W 1%	231-3325-021	03	91637	RN55D3322F
R68	RESISTOR, 15K OHM 1/4W 10%	230-0155-022	03	01121	RCR07G153KS
R69	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R70	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R71	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R72	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R73	RESISTOR, 47K OHM 1/4W 10%	230-0475-022	05	01121	RCR07G473KS
R74	RESISTOR, 100K OHM 1/4W 1%	231-1006-021	05	91637	RN55D1003F
R75	RESISTOR, 100K OHM 1/4W 1%	231-1006-021	05	91637	RN55D1003F
R76	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	12	01121	RCR07G104KS
R77	POTENTIOMETER 5K	233-0011-000	05	32997	3006P-1-502
R78	RESISTOR, 22K OHM 1/4W 10%	230-0225-022	04	01121	RCR07G223KS
R79	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R80	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R81	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R82	RESISTOR, 1K OHM 1/4W 10%	230-0104-022	06	01121	RCR07G102KS
R83	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R84	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	08	01121	RCR07G682KS
R85	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R86	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	08	01121	RCR07G682KS
R87	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R88	RESISTOR, 4.7K OHM 1/4W 10%	230-0474-022	06	01121	RCR07G472KS
R89	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R90	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R91	NOT USED				
R92	RESISTOR, 22K OHM 1/4W 10%	230-0225-022	04	01121	RCR07G223KS
R93	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R94	RESISTOR, 330 OHM 1/4W 10%	230-0333-022	01	01121	RCR07G331KS
R95	RESISTOR, 470 OHM 1/4W 10%	230-0473-022	08	01121	RCR07G471KS
R96	RESISTOR, 100 OHM 1/4W 10%	230-0103-022	03	01121	RCR07G101KS
R97	RESISTOR, 1K OHM 1/4W 10%	230-0104-022	06	01121	RCR07G102KS
R98	RESISTOR, 100 OHM 1/4W 10%	230-0103-022	03	01121	RCR07G101KS
R99	RESISTOR, ADJ 5K OHM	233-0011-000	05	32997	3006P-1-502
R100	RESISTOR, 100 OHM 1/4W 10%	230-0103-022	03	01121	RCR07G101KS
R101	RESISTOR, 27K OHM 1/4W 10%	230-0275-022	01	01121	RCR07G273KS

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R102	RESISTOR, 120K OHM 1/4W 10%	230-0126-022	01	01121	RCR07G124KS
R103	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R104	RESISTOR, 470 OHM 1/4W 10%	230-0473-022	08	01121	RCR07G471KS
R105	RESISTOR, 10K OHM 1/4W 1%	231-1005-021	01	91637	RN55D1002F
R106	RESISTOR, 56.2 OHM 1/4W 1%	231-5625-021	02	91637	RN55D5622F
R107	RESISTOR, 12.1K OHM 1/4W 1%	231-1215-021	02	91637	RN55D1212F
R108	RESISTOR, 392K OHM 1/4W 1%	231-3926-021	02	91637	RN55D3923F
R109	NOT USED				
R110	RESISTOR, 301K OHM 1/4W 1%	231-3016-021	02	91637	RN55D3013F
R111	RESISTOR, 270K OHM 1/4W 10%	230-0276-022	01	01121	RCR07G274KS
R112	RESISTOR, 2.8K OHM 1/4W 1%	231-2804-021	01	91637	RN55D2801F
R113	RESISTOR, 26.7K OHM 1/4W 1%	231-2675-021	01	91637	RN55D2672F
R114	NOT USED				
R115	NOT USED				
R116	RESISTOR, 1.82K OHM 1/4W 1%	231-1824-021	02	91637	RN55D1821F
R117	RESISTOR, 1.82K OHM 1/4W 1%	231-1824-021	02	91637	RN55D1821F
R118	RESISTOR, 12.1K OHM 1/4W 1%	231-1215-021	02	91637	RN55D1212F
R119	RESISTOR, 61.9K OHM 1/4W 1 %	231-6195-021	01	91637	RN55D6192F
R120	RESISTOR, 20.5K OHM 1/4W 1%	231-2055-021	01	91637	RN55D2052F
R121	RESISTOR, 3.9K OHM 1/4W 10%	230-0394-022	01	01121	RCR07G392KS
R122	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R123	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	08	01121	RCR07G682KS
R124	RESISTOR, 680K OHM 1/4W 10%	230-0686-022	01	01121	RCR07G684KS
R125	RESISTOR, 301K OHM 1/4W 1%	231-3016-021	02	91637	RN55D3013F
R126	RESISTOR, 392K OHM 1/4W 1%	231-3926-021	02	91637	RN55D3923F
R127	RESISTOR, 475K OHM 1/4W 1%	231-4756-021	03	91637	RN55D4753F
R128	RESISTOR, 1.8K OHM 1/4W 1%	230-0184-022	01	01121	RCR07G182KS
R129	RESISTOR, 1 MEG OHM 1/4W 10%	230-0107-022	03	01121	RCR07G105KS
R130	RESISTOR, 1 MEG OHM 1/4W 10%	230-0107-022	03	01121	RCR07G105KS
R131	RESISTOR, 330K OHM 1/4W 10%	230-0336-022	02	01121	RCR07G334KS
R132	RESISTOR, 15K OHM 1/4W 10%	230-0155-022	03	01121	RCR07G153KS
R133	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R134	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R135	RESISTOR, 470K OHM 1/4W 10%	230-0476-022	03	01121	RCR07G474KS
R136	RESISTOR, 470K OHM 1/4W 10%	230-0476-022	03	01121	RCR07G474KS
R137	RESISTOR, 220K OHM 1/4W 10%	230-0226-022	02	01121	RCR07G224KS
R138	RESISTOR, 5.6K OHM 1/4W 10%	230-0564-022	05	01121	RCR07G562KS
R139	RESISTOR, 4.7K OHM 1/4W 10%	230-0474-022	06	01121	RCR07G472KS
R140	RESISTOR, 1.2K OHM 1/4W 10%	230-0124-022	01	01121	RCR07G122KS
R141	RESISTOR, 470K OHM 1/4W 10%	230-0476-022	03	01121	RCR07G474KS
R142	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R143	RESISTOR, 1 MEG OHM 1/4W 10%	230-0107-022	03	01121	RCR07G105KS
R144	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R145	RESISTOR, 4.7K OHM 1/4W 10%	230-0474-022	06	01121	RCR07G472KS
R146	RESISTOR, 39K OHM 1/4W 10%	230-0395-022	02	01121	RCR07G393KS

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R147	RESISTOR, 18K OHM 1/4W 10%	230-0185-022	01	01121	RCR07G183KS
R148	RESISTOR, 68K OHM 1/4W 10%	230-0685-022	01	01121	RCR07G683KS
R149	RESISTOR, 5.6K OHM 1/4W 10%	230-0564-022	05	01121	RCR07G562KS
R150	RESISTOR, 5.6K OHM 1/4W 10%	230-0564-022	05	01121	RCR07G562KS
R151	RESISTOR, 390K OHM 1/4W 10%	230-0396-022	01	01121	RCR07G394KS
R152	POTENTIOMETER 5K	233-0011-000	05	32997	3006P-1-502
R153	RESISTOR, 47K OHM 1/4W10%	230-0475-022	05	01121	RCR07G473KS
R154	THROUGH R159				
	RESISTOR, 470 OHM 1/4W10%	230-0473-022	08	01121	RCR07G471KS
R160	RESISTOR, 5.6K OHM 1/4W10%	230-0564-022	05	01121	RCR07G562KS
R161	NOT USED				
R162	NOT USED				
R163	RESISTOR SIP, 6.8K OHM	234-0002-000	01	91637	MSP08A01-682G
R164	RESISTOR SIP, 15K OHM	234-0003-000	01	91637	MSP08A01-153G
R165	RESISTOR, 19.1K OHM 1/4W1%	231-1915-021	02	91637	
R166	RESISTOR, 2.7K OHM 1/4W10%	230-0274-022	01	01121	RCR07G272KS
R167	RESISTOR, 6.8K OHM 1/4W10%	230-0684-022	08	01121	RCR07G682KS
R168	RESISTOR, 1K OHM 1/4W10%	230-0104-022	06	01121	RCR07G102KS
R169	RESISTOR, 6.8K OHM 1/4W10%	230-0684-022	08	01121	RCR07G682KS
R170	RESISTOR, 15K OHM 1/4W10%	230-0155-022	03	01121	RCR07G153KS
R171	NOT USED				
R172	RESISTOR, 100K OHM 1/4W 1%	231-1006-021	05	91637	RN55D1003F
R173	RESISTOR, 100K OHM 1/4W 1%	231-1006-021	05	91637	RN55D1003F
R174	RESISTOR, 47K OHM 1/4W 10%	230-0475-022	05	01121	RCR07G473KS
R175	RESISTOR, 100K OHM 1/4W 1%	231-1006-021	05	91637	RN55D1003F
R176	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R177	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R178	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	08	01121	RCR07G222KS
R179	RESISTOR, 22K OHM 1/4W 10%	230-0225-022	04	01121	RCR07G223KS
R180	RESISTOR, 5.6K OHM 1/4W 10%	230-0564-022	05	01121	RCR07G562KS
R181	RESISTOR, 1K OHM 1/4W 10%	230-0104-022	06	01121	RCR07G102KS
R182	RESISTOR, 1K OHM 1/4W 10%	230-0104-022	06	01121	RCR07G102KS
R183	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R184	RESISTOR, 100K OHM 1/4W 10%	230-0106-022	14	01121	RCR07G104KS
R185	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R186	RESISTOR, 19.1K OHM 1/4W1%	231-1915-021	02	91637	
R187	THROUGH R190				
	RESISTOR, 10K OHM 1/4W 10%	230-0105-022	22	01121	RCR07G103KS
R191	RESISTOR, 560 OHM 1/4W 10%	230-0563-022	01	01121	
T1	AUDIO XFMR, OUTPUT	118-4015-000	01	43818	130-A-8
T2	AUDIO XFMR, MIKE	118-4014-000	01	43818	130-T-5
U1	MC-1458 DUAL OPAMP	106-7006-000	06	04713	MC1458CPI
U2	MC-1458 DUAL OPAMP	106-7006-000	06	04713	MC1458CPI
U3	LM358N DUAL OPAMP	106-7044-000	04	27014	LM358N
U4	MC-1458 DUAL OPAMP	106-7006-000	06	04713	MC1458CPI

138F MAINTENANCE MANUAL

4.3.4 DVP AUDIO BOARD (A3) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
U5	MC-1458 DUAL OPAMP	106-7006-000	06	04713	MC1458CPI
U6	MC-1458 DUAL OPAMP	106-7006-000	06	04713	MC1458CPI
U7	LM358N DUAL OPAMP	106-7044-000	04	27014	LM358N
U8	LM358N DUAL OPAMP	106-7044-000	04	27014	LM358N
U9	LM358N DUAL OPAMP	106-7044-000	04	27014	LM358N
U10	CD4066A	106-7019-000	02	04713	MC14066BCP
U11	LM380 AUDIO PWR AMP	106-7009-000	01	27014	LM380N
U12	78MGUIC REG	106-7048-000	01	07263	μA78MGU1C
U13	4049 CMOS HEX NV	106-7047-000	01	04713	MC14049UBCP
U14	CTCSS CUSTOM LSI IC	106-714330-01	01		
U15	MC-1458 DUAL OPAMP	106-7006-000	06	04713	MC1458CPI
U16	CD4066A	106-7019-000	02	04713	MC14066BCP
Y1	XTAL, 1.0 MHz CTCSS	139-0060-000	01	88407	110H-3
	PC, RT-30 AUDIO	108-6090-000	01		
	RUBBER BUMPER, 0.156 HIGH	179-0017-000	01	24324	REC-2061
	SCREW, 4-40 x 1/4 PHP	188-0200-008	02	70318	
	NUT, 4-40 x 1/4 KEP	188-2202-000	02		
	WASHER, INT STAR LOCK NO.4	188-4206-000	01		
	ANGLE BRKT 0.166 HOLE	189-0006-003	01		
	SOCKET, ZERO PROFILE IC	129-314228-01	16		
	TEF TUB 22GA (THIN WALL)	190-0002-00	A/R	92194	

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
A7	R/T ASSY REV.R	300-2239-000	01	GWS	
C1	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220 PF)
C2	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220 PF)
C3	CAP, TUBULAR-CER 0.33PF	208-0020-000	01	95121	QC-.33-5%
C4	CAP, DIP-MICA 47PF	199-4701-013	01	14655	CM04ED470J03
C5	CAP, DIP-MICA 10PF	199-1001-013	02	14655	CM04CD100D03
C6	CAP, TUBULAR-CER 3.3PF	208-0018-000	01	95121	QC-3.3-5%
C7	CAP, DIP-MICA 24PF	199-2401-013	02	14655	CM04ED240J03
C8	CAP, TUBULAR-CER 7.5PF	208-0022-000	01	95121	QC-7.5-5%
C9	CAP, DIP-MICA 24PF	199-2401-013	02	14655	CM04ED240J03
C10	CAP, TUBULAR-CER 4.7PF	208-0019-000	01	95121	QC-4.7-5%
C11	CAP, DIP-MICA 27PF	199-2701-013	03	14655	CM04CD150J03
C12	CAP, TUBULAR-CER 0.82PF	208-0024-000	01	95121	QC-.82-5%
C13	CAP, DIP-MICA 15PF	199-1501-013	03	14655	CM04CD150J03
C14	NOT USED				
C15	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C16	CAP, FEED-THRU 470PF	198-0001-000	05	51406	654-017-471K
C17	CAP, FEED-THRU 470PF	198-0001-000	05	51406	654-017-471K
C18	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C19	CAP, DISC-CER 470PF	208-0006-000	03	71590	CE-471
C20	CAP, TANT 1.0μF 35V	195-0107-035	05	31433	T110A105M035AS
C21	CAP, DIP-MICA 56PF	199-5601-013	02	14655	CM04ED560J03
C22	CAP, FEED-THRU 470PF	198-0001-000	05	51406	654-017-471K
C23	CAP, MONO-CER 220PF COG	209-2221-100	03	31433	C312C221J1G5CA
C24	CAP, MONO-CER 0.056μF X7R	209-2563-011	09	31433	C320C563K5R5CA
C25	CAP, DIP-MICA 56PF	199-5601-013	02	14655	CM04ED560J03
C26	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C27	CAP, MONO-CER 220PF COG	209-2221-100	03	31433	C312C221J1G5CA
C28	CAP, MONO-CER 0.056μF X7R	209-2563-011	09	31433	C320C563K5R5CA
C29	CAP, FEED-THRU 470PF	198-0001-000	05	51406	654-017-471K
C30	CAP, FEED-THRU 470PF	198-0001-000	05	51406	654-017-471K
C31	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C32	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220 PF)
C33	CAP, DIP-MICA 27PF	199-2701-013	03	14655	CM04ED270J03
C34	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C35	CAP, MONO-CER 8.2PF	209-1829-106	01	31433	C315C829D1G5CA
C36	CAP, DIP-MICA 15PF	199-1501-013	03	14655	CM04CD150J03
C37	CAP, MONO-CER 0.01μF X7R	209-2103-011	06	31433	C320C103K2R5CA
C38	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C39	CAP, MONO-CER 0.01μF X7R	209-2103-011	06	31433	C320C103K2R5CA
C40	CAP, MONO-CER 1000PF X7R	209-2102-100	02	31433	C312C102K1R5CA
C41	CAP, MONO-CER 0.01μF X7R	209-2103-011	06	31433	C320C103K2R5CA
C42	CAP, MONO-CER 1000PF X7R	209-2102-100	02	31433	C312C102K1R5CA
C43	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C44	CAP, MONO-CER 0.01μF X7R	209-2103-011	06	31433	C320C103K2R5CA

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C45	CAP, DIP-MICA 27PF	199-2701-013	03	14655	CM04ED270J03
C46	CAP, DIP-MICA 10PF	199-1001-013	02	14655	CM04CD100D03
C47	CAP, ADJ 3-12PF	201-0002-000	01	52763	10-ST-22 3/12 N470
C48	CAP, DIP-MICA 15PF	199-1501-013	03	14655	CM04CD150J03
C49	CAP, DIP-MICA 220PF	199-2212-013	01	14655	CM04FD221J03
C50	CAP, MONO-CER 220PF COG	209-2221-100	03	31433	C312C221J1G6CA
C51	CAP, DISC-CER 0.05 μ F	208-0015-000	05	71590	UK20-503
C52	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220PF)
C53	CAP, DISC-CER 100PF	208-0004-000	02	33498	TYPE S (100PF)
C54	CAP, DISC-CER 1000PF	208-0007-000	01	91418	JE-.001-10%-Y5E
C55	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220PF)
C56	CAP, DIP-MICA 100PF	199-1011-013	01	14655	CM04FD101J03
C57	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220PF)
C58	CAP, DISC-CER 470PF	208-0006-000	03	71590	CE 471
C59	CAP, DISC-CER 470PF	208-0006-000	03	71590	CE 471
C60 THROUGH C63					
	CAP, MONO-CER 470PF X7R	209-2471-112	05	31433	C320C471M2R5CA
C64	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220PF)
C65	CAP, MONO-CER 0.01 μ F X7R	209-2103-011	06	31433	C320C103K2R5CA
C66	CAP, MONO-CER 100PF COG	209-2101-100	01	31433	C320C101J2G5CA
C67	CAP, MONO-CER 0.01 μ F X7R	209-2103-011	06	31433	C320C103K2R5CA
C68	CAP, MONO-CER 47PF COG	209-2470-105	01	31433	C320C470F2G5CA
C69	CAP, MONO-CER 150PF X7R	209-2151-111	01	31433	C320C151K1G5CA
C70	CAP, MONO-CER 0.056 μ F X7R	209-2563-011	09	31433	C320C563K5R5CA
C71	CAP, MONO-CER 0.056 μ F X7R	209-2563-011	09	31433	C320C563K5R5CA
C72	CAP, MONO-CER 4.7PF	209-1479-106	02	31433	C315C339D1G5CA
C73	CAP, MONO-CER 0.056 μ F X7R	209-2563-011	09	31433	C320C563K5R5CA
C74	CAP, DISC-CER 0.05 μ F	208-0015-000	05	71590	UK20-503
C75	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C76	CAP, DISC-CER 0.05 μ F	208-0015-000	05	71590	UK20-503
C77	CAP, DISC-CER 0.05 μ F	208-0015-000	05	71590	UK20-503
C78 THROUGH C81					
	CAP, MONO-CER 0.056 μ F X7R	209-2563-011	09	31433	C320C563K5R5CA
C82	CAP, MONO-CER 470PF X7R	209-2471-112	05	31433	C320C471M2R5CA
C83	CAP, DISC-CER 0.05 μ F	208-0015-000	05	71590	UK20-503
C84	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C85	CAP, MONO-CER 2200PF COG	209-2222-004	01	31433	C320C222G1G5CA
C86	CAP, MONO-CER 0.1 μ F X7R	209-6104-011	01	31433	C330C104K1R5CA
C87	CAP, TANT 3.3 μ F 15V	195-0337-023	01	31433	T110A335M015AS
C88	CAP, MONO-CER 330PF COG	209-2331-100	01	31433	C320C331J2G5CA
C89	CAP, POLYCARB 0.01 μ F	205-0001-000	01	14752	650B1C103J
C90	CAP, MONO-CER 1000PF COG	209-2102-100	01	31433	C320C102J1G5CA
C91	CAP, TANT 4.7 μ F 10V	195-0477-032	01	31433	T110A475M010AS
C92	CAP, DISC-CER 220PF	208-0005-000	08	33498	TYPE S (220PF)
C93	CAP, DISC-CER 100PF	208-0004-000	02	33498	TYPE S (100PF)

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C94	CAP, RF-CHIP 200PF	210-0201-111	05	51642	UC1209-100-HF0-201K
C95	CAP, DISC-CER 0.01 μ F	208-0011-000	03	71590	UK50-103
C96	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C97	CAP, RF-CHIP 27PF	210-0270-211	01	51642	UC1209-100-HF0-270J
C98	CAP, RF-CHIP 68PF	210-0680-211	02	51642	UC1209-100-HF0-680J
C99	CAP, RF-CHIP 200PF	210-0201-111	05	51642	UC1209-100-HF0-201K
C100	CAP, RF-CHIP 200PF	210-0201-111	05	51642	UC1209-100-HF0-201K
C101	CAP, DISC-CER 0.01 μ F	208-0011-000	03	71590	UK50-103
C102	CAP, TANT 1.0 μ F 35V	195-0107-035	05	31433	T110A105M035AS
C103	CAP, ADJ 10-60PF	201-0004-000	02	52763	10-ST-22 10/60 N1500
C104	CAP, RF-CHIP 68PF	210-0680-211	02	51642	UC1209-100-HF0-680J
C105	CAP, RF-CHIP 82PF	210-0820-211	01	51642	UC1209-100-HF0-820J
C106	CAP, RF-CHIP 200PF	210-0201-111	05	51642	UC1209-100-HF0-201K
C107	CAP, RF-CHIP 200PF	210-0201-111	05	51642	UC1209-100-HF0-201K
C108	CAP, DISC-CER 0.01 μ F	208-0011-000	03	71590	UK50-103
C109	CAP, TANT 1.0 μ F 100V	195-0107-039	01	31433	T110B105M100AS
C110	CAP, ADJ 10-60PF	201-0004-000	02	52763	10-ST-22 10/60 N1500
C111	CAP, MONO-CER 4.7 μ F	209-1479-106	02	31433	C315C339D1G5CA
CR1	1N4002 RECTIFIER	106-5009-000	02	04713	1N4002
CR2	HOT CARRIER DIODE 1N5711	106-5002-000	05	50434	HP5082-2800
CR3	HOT CARRIER DIODE 1N5711	106-5002-000	05	50434	HP5082-2800
CR4 THROUGH CR7-BB409					
	HYPERABRUPT VARACTOR	106-5032-001	04	25088	BB 409
CR8	PIN DIODE	106-5011-000	03	50434	HP5082-3188
CR9	PIN DIODE	106-5011-000	03	50434	HP5082-3188
CR10	1N914 SILICON DIODE	106-5007-000	02	07263	1N914
CR11	1N4002 RECTIFIER	106-5009-000	02	04713	1N4002
CR12	1N914 SILICON DIODE	106-5007-000	02	07263	1N914
CR13 THROUGH CR15					
	HOT CARRIER DIODE	106-5002-000	05	50434	HP5082-2800
CR16	PIN DIODE	106-5011-000	03	50434	HP5082-3188
FL1	20 MHz XTAL FILTER, 4-POLE	139-2024-000	02	56187	03920-001
FL2	20 MHz XTAL FILTER, 4-POLE	139-2024-000	02	56187	03920-001
FL3	FILTER, 455 kHz CFM 455C	139-2007-000	01	51406	CFM-455C
FL4	455 kHz CER DISCRIMINATOR	139-2023-000	01	51406	SFD-455S
FL5	FILTER, R-L MODE SUPPR	139-2028-000	02	GWS	
FL6	FILTER, R-L MODE SUPPR	139-2028-000	02	GWS	
J12	JACK, SMB, BULKHD MTG	129-0028-000	01	16733	700 163
J13	JACK, N, MOD FLANGE MTG	129-0006-001	01	05209	
K1	RELAY, DPDT, 12V, 2A	131-0005-000	02	02289	2K-2299-035
L1	0.47 μ H CHOKE	118-1002-000	03	24226	10/470
L2	0.47 μ H CHOKE	118-1002-000	03	24226	10/470
L3	2-3/4T, 1/4 IN, AIR COIL	118-1117-000	02	GWS	
L4	2-3/4T, 1/4 IN, AIR COIL	118-1117-000	02	GWS	
L5	3T, 1/4 IN, AIR COIL	118-1037-000	02	GWS	

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
L6	3T, 1/4 IN, AIR COIL	118-1037-000	02	GWS	
L7	NOT USED				
L8	2T, CW, AIR COIL (Modified to 1-1/2 T)	118-1080-000	02		
L9	1.0μH CHOKE	118-1003-000	02	24226	10/101
L10	2T, CCW, AIR COIL (Modified to 1-1/2 T)	118-1080-001	02		
L11	0.33μH CHOKE	118-1048-000	02	24226	10/330
L12	2T, CW, AIR COIL (Modified to 1-1/2 T)	118-1080-001	02		
L13	1.0μH CHOKE	118-1003-000	02	24226	10/101
L14	2T, CCW, AIR COIL (Modified to 1-1/2 T)	118-1080-001	02		
L15	1.8μH SHIELDED CHOKE	118-1108-000	01	99800	0925-182
L16	THROUGH L18				
	3.3μH SHIELDED CHOKE	118-1102-000	03	99800	0925-332
L19	0.47μH CHOKE	118-1002-000	03	24226	10/470
L20	NOT USED				
L21	4.7μH CHOKE	118-1061-000	01	24226	10/471
L22	0.22μH CHOKE	118-1007-000	03	24226	15/220
L23	NOT USED				
L24	0.33μH CHOKE	118-1048-000	02	24226	10/330
L25	3-1/2T, 3/16 IN, AIR COIL	118-1115-000	01	GWS	
L26	BUS WIRE, NO.20 AWG, 1 IN	090-1000-002	02		
L27	0.22μH CHOKE	118-1007-000	03	24226	15/220
L28	1-1/2T, 3/16 IN, AIR COIL	118-1116-000	01	GWS	
L29	BUS WIRE, NO.20 AWG, 1 IN	090-1000-002	02		
L30	0.22μH CHOKE	118-1007-000	03	24226	15/220
MX1	BALANCED MIXER	118-2001-000	01	15542	SRA-1
PS1	INSUL, XTAL CAN RELAY	111-0026-000	02	53174	
Q1	BFR-91, LOW NOISE, RFAMP	106-0053-000	01	04713	BFR-91
Q2	3N203 RF	106-0027-000	01	01295	3N203
Q3	2N3904 NPN	106-0041-000	05	04713	2N3904
Q4	2N3904 NPN	106-0041-000	05	04713	2N3904
Q5	MPS-4355	106-0040-000	01	04713	MPS-4355
Q6	2N5179 NPN RF	106-0005-000	01	04713	2N5179
Q7	2N3904 NPN	106-0041-000	05	04713	2N3904
Q8	2N5245 JFET	106-0004-000	01	01295	2N5245
Q9	2N3904 NPN	106-0041-000	05	04713	2N3904
Q10	MRF559, 1/2W RF AMP	106-0054-000	01	04713	MRF559
Q11	MRF237, RF AMP	106-0064-000	01	04713	MRF237
Q12	MRF323, UHF RF PWR	106-0056-000	01	04713	MRF323
Q13	2N3904NPN	106-0041-000	05	04713	2N3904
R1	RESISTOR, 2.2K OHM 1/4W	230-0224-022	05	01121	RCR07G222KS
R2	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R3	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R4	RESISTOR, 56 OHM 1/4W	230-0562-022	03	01121	RCR07G560KS
R5	RESISTOR, 680 OHM 1/4W	230-0683-022	05	01121	RCR07G681KS
R6	RESISTOR, 4.7K OHM 1/4W	230-0474-022	03	01121	RCR07G472KS
R7	RESISTOR, 560 OHM 1/4W	230-0563-022	01	01121	RCR07G561KS
R8	RESISTOR, 680 OHM 1/4W	230-0683-022	05	01121	RCR07G681KS
R9	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R10	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R11	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R12	RESISTOR, 56 OHM 1/4W	230-0562-022	03	01121	RCR07G560KS
R13	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R14	RESISTOR, 100K OHM 1/4W	230-0106-022	01	01121	RCR07G104KS
R15	RESISTOR, 47K OHM 1/4W	230-0475-022	03	01121	RCR07G473KS
R16	RESISTOR, 22K OHM 1/4W	230-0225-022	01	01121	RCR07G223KS
R17	RESISTOR, 390 OHM 1/4W	230-0393-022	02	01121	RCR07G391KS
R18	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R19	RESISTOR, 4.7K OHM 1/4W	230-0474-022	03	01121	RCR07G472KS
R20	RESISTOR, 680 OHM 1/4W	230-0683-022	05	01121	RCR07G681KS
R21	RESISTOR, 680 OHM 1/4W	230-0683-022	05	01121	RCR07G681KS
R22	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R23	RESISTOR, 150 OHM 1/4W	230-0153-022	02	01121	RCR07G151KS
R24	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R25	RESISTOR, 680 OHM 1/4W	230-0683-022	05	01121	RCR07G681KS
R26	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R27	RESISTOR, 56 OHM 1/4W	230-0562-022	03	01121	RCR07G560KS
R28	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R29	RESISTOR, 2.2K OHM 1/4W	230-0224-022	05	01121	RCR07G222KS
R30	RESISTOR, 150 OHM 1/4W	230-0153-022	02	01121	RCR07G151KS
R31	RESISTOR, 2.2K OHM 1/4W	230-0224-022	05	01121	RCR07G222KS
R32	RESISTOR, 5.6K OHM 1/4W	230-0564-022	06	01121	RCR07G562KS
R33	RESISTOR, 1K OHM 1/4W	230-0104-022	01	01121	RCR07G102KS
R34	RESISTOR, 5.6K OHM 1/4W	230-0564-022	06	01121	RCR07G562KS
R35	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R36	RESISTOR, 1.2K OHM 1/4W	230-0124-022	01	01121	RCR07G122KS
R37	RESISTOR, 5.6K OHM 1/4W	230-0564-022	06	01121	RCR07G562KS
R38	RESISTOR, 47K OHM 1/4W	230-0475-022	03	01121	RCR07G473KS
R39	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R40	RESISTOR, 1.5K OHM 1/4W	230-0154-022	01	01121	RCR07G152KS
R41	RESISTOR, 390 OHM 1/4W	230-0393-022	02	01121	RCR07G391KS
R42	RESISTOR, 10K OHM 1/4W	230-0105-022	08	01121	RCR07G103KS
R43	RESISTOR, 2.2K OHM 1/4W	230-0224-022	05	01121	RCR07G222KS
R44	RESISTOR, 220 OHM 1/4W	230-0223-022	03	01121	RCR07G221KS
R45	RESISTOR, 27 OHM 1/4W	230-0272-022	01	01121	RCR07G270KS
R46	RESISTOR, 47 OHM 1/4W	230-0472-022	02	01121	RCR07G470KS
R47	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R48	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R49	RESISTOR, 6.8K OHM 1/4W	230-0684-022	01	01121	RCR07G682KS
R50	RESISTOR, 1.8K OHM 1/4W	230-0184-022	01	01121	RCR07G182KS
R51	RESISTOR, 470 OHM 1/4W	230-0473-022	02	01121	RCR07G471KS
R52	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R53	RESISTOR, 220 OHM 1/4W	230-0223-022	03	01121	RCR07G221KS
R54	RESISTOR, 47 OHM 1/4W	230-0472-022	02	01121	RCR07G470KS
R55	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R56 THROUGH R58					
	RESISTOR, 5.6K OHM 1/4W	230-0564-022	06	01121	RCR07G562KS
R59	RESISTOR, 47K OHM 1/4W	230-0475-022	03	01121	RCR07G473KS
R60	RESISTOR, 1.3K OHM 1%	231-1304-021	01	91637	RN55D1301F
R61	RESISTOR, 22.1K OHM 1%	231-2215-021	01	91637	RN55D2212F
R62	RESISTOR, 2.2K OHM 1/4W	230-0224-022	05	01121	RCR07G222KS
R63	RESISTOR, 2.7K OHM 1/4W	230-0274-022	01	01121	RCR07G272KS
R64	RESISTOR, 2.55K OHM 1%	231-2554-021	01	91637	RN55D2551F
R65	RESISTOR, 4.99K OHM 1%	231-4994-021	01	91637	RN55D4991F
R66	RESISTOR, 3.32K OHM 1%	231-3324-021	01	91637	RN55D3321F
R67	RESISTOR, 8.2K OHM 1/4W	230-0824-022	01	01121	RCR07G822KS
R68	RESISTOR, ADJ 2K OHM	233-0015-008	01	32997	3329H-1-202
R69	RESISTOR, 82 OHM 2W	230-0822-052	01	01121	RCR42G820KS
R70	RESISTOR, 1.1K OHM 1%	231-1104-021	01	91637	RN55D1101F
R71	RESISTOR, 180 OHM 1/4W	230-0183-022	01	01121	RCR07G181KS
R72	RESISTOR, 3.3 OHM 1/4W	230-0331-022	02	01121	RCR07G3R3KS
R73	RESISTOR, 68 OHM 1/4W	230-0682-022	01	01121	RCR07G680KS
R74	RESISTOR, 10 OHM 1/4W	230-0102-022	01	01121	RCR07G100KS
R75	RESISTOR, 470 OHM 1/4W	230-0473-022	02	01121	RCR07G471KS
R76	RESISTOR, 220 OHM 1/4W	230-0223-022	03	01121	RCR07G221KS
R77	RESISTOR, 4.7K OHM 1/4W	230-0474-022	03	01121	RCR07G472KS
R78	RESISTOR, 3.3 OHM 1/4W	230-0331-022	02	01121	RCR07G3R3KS
T1	5T RF BALUN, T30-12	118-2012-000	01	11402	
T2	5T RF BALUN, T25-12	118-2002-000	02	29032	
T3	5T RF BALUN, T25-12	118-2002-000	02	29032	
TP1 THROUGH TP3					
	JACK, 2-PIN, PC MTG	129-2059-002	03	22526	
U1	LM 358 DUAL OPAMP	106-7044-000	01	04713	
U2	2111 FM-IF AMP	106-7007-000	02	27014	LM2111N
U3	2111 FM-IF AMP	106-7007-000	02	27014	LM2111N
U4	1458 LIN DUAL OPAMP	106-7006-000	01	04713	MC1458CPI
Y1	XTAL, RT-9600, 20.455	139-0043-000	01	33096	
	TEFLON FEED-THRU	107-0019-000	02	83330	82-1033
	RT-138 R/T PC BOARD	108-6138-000	01	GWS	
	RT-138 XMTR PC BOARD	108-6139-000	01	GWS	
	NO.4 GND LUG, LONG SHANK	109-0008-000	02	79963	501-120
	SPLIT TERMINAL, HOLLOW	109-0020-000	05	58712	2006 B

138F MAINTENANCE MANUAL

4.3.5 R/T ASSEMBLY (A7) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
	BIFURCATED TERMINAL	109-0023-000	17	98291	229-3036-59
	EYELET, 0.048 X 0.095	109-0024-000	08	57771	A1041
	TRANSISTOR INSULATOR	111-0024-000	02	13103	43-18-1
	INSUL, XTAL CAN RELAY	111-0026-000	02	53174	AP-81
	RT-138 R/T MODULE CHASSIS	146-0516-004	01	GWS	
	RT-30 R/T MOD FNT MTG PL	146-0546-001	01	GWS	
	RT-138 RCVR FENCE	146-0634-006	01	GWS	
	RT-138 R/T MODULE CVR	146-0635-001	01	GWS	
	RT-138 XMTR HEATSINK	146-0636-002	01	GWS	
	RT-138 CONN MTG PLATE	146-0637-001	01	GWS	
	RT-138 L.O. FENCE	146-0676-002	01	GWS	
	RT-138 L.O. BOTTOM CVR	146-0677-001	01	GWS	
	TEFLON STANDOFF	107-0017-000	01	98291	
	WIRE 28 AWG KYNAR	600-0055-000	A/R		
	SOLID COAX .085	123-0001-000		82413	
	RT-138 ANT CVR PLT	146-0681-001	01	GWS	
(Q1)	RT-138 TRANS HEAT BAR	146-0682-001	01	GWS	
	MOD STATUS TAG	156-0100-000	01	GWS	
	SCREW, 2-56 X 3/16 FHP	188-0101-006	18		
	SCREW, 4-40 X 7/16 PHP	188-0200-014	05	70318	
	SCREW, 4-40 X 11/16 PHP	188-0200-022	02		
	SCREW, 4-40 X 5/16 FHP	188-0201-010	02	70318	
	SCREW, 4-40 X 1/2 FHP	188-0201-016	04	70318	
	SCREW, 4-40 X 1/4 SEMS	188-0208-008	08	70318	
	NUT, 8-32 X 11/32	188-2350-000	01		
	WASHER, SPLITLOCK NO.4	188-4200-000	05		
	WASHER, INT STARLOCK 1/4	188-4703-000	01	78189	
(Q12)	WASHER, COPPER, NO.8	188-4353-000	01	86928	
	M/F HEX SPCR, 0.765L	191-2029-002	03	GWS	

CHANGES TO THE STANDARD R/T MODULE (300-2239-000) PARTS LISTING
FOR THE HIGH SENSITIVITY R/T MODULE (300-2239-001) PARTS LISTING.

DELETE:

J1	JACK, SMB, BULKHD MTG	129-0028-000	01		
PS1	RF PWR SPLITTER	118-2009-000	01	15542	
	NO.4 GROUND LUG, LG SHANK	109-0008-000	02	79963	

DECREASE QTY:

	INSUL, XTAL CAN RELAY	111-0026-000	01	53174	
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INCREASE QTY:

	WASHER, SPLITLOCK NO.4	188-4200-000	02		
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138F MAINTENANCE MANUAL

4.3.6 GUARD RECEIVER (A8)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
A8	GUARD RCVR REV.G	300-2241-000	01		
C1	CAP, ADJ 10-40PF	201-0003-000	04	52763	10-ST-22 10/40 N750
C2	CAP, ADJ 10-40PF	201-0003-000	04	52763	10-ST-22 10/40 N750
C3	CAP, DIP-MICA 56PF	199-5601-013	02	14655	CM04ED560J03
C4	CAP, MONO-CER 470PF X7R	209-2471-112	04	31433	C320C471M2R5CA
C5	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C6	CAP, MONO-CER 220PF	209-2221-100	07	31433	C312C221J1G5CA
C7	CAP, DIP-MICA 56PF	199-5601-013	02	14655	CM04ED560J03
C8	CAP, ADJ 10-40PF	201-0003-000	04	52763	10-ST-22 10/40 N750
C9	CAP, ADJ 10-40PF	201-0003-000	04	52763	10-ST-22 10/40 N750
C10	CAP, DIP-MICA 30PF	199-3001-013	01	14655	CM04ED300J03
C11	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C12	CAP, DIP-MICA 10PF	199-1001-013	04	14655	CM04CD100D03
C13	CAP, DIP-MICA 18PF	199-1801-013	02	14655	CM04CD180J03
C14	CAP, DISC-CER 0.01 μ F	208-0011-000	07	71590	UK50-103
C15	CAP, ADJ 4.5-15PF	208-0013-000	07	95121	274-1015-005
C16	CAP, DISC-CER .001PF	208-0007-000	02	91418	JE-.001-10%-Y5E
C17	CAP, MONO-CER 1000PF	209-2102-100	03	31433	C312C102K1R5CA
C18	CAP, DISC-CER 0.01 μ F	208-0011-000	07	71590	UK50-103
C19	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C20	CAP, DIP-MICA 33PF	199-3301-013	01	14655	CM04ED330J03
C21	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C22	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C23	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C24	CAP, MONO-CER 0.01 μ F	209-2103-011	03	31433	C320C103K2R5CA
C25	CAP, MONO-CER 100PF COG	209-2101-100	01	31433	C320C101J2G5CA
C26	CAP, MONO-CER 0.01 μ F	209-2103-011	03	31433	C320C103K2R5CA
C27	CAP, MONO-CER 47PF	209-2470-105	02	31433	C320C470F1G5CA
C28	CAP, MONO-CER 150PF	209-2151-111	01	31433	C320C151K1G5CA
C29	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C30	CAP, TANT 1 μ F 35V	195-0107-035	03	31433	T110A105M035AS
C31 THROUGH C37					
	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C38	CAP, MONO-CER 470PF X7R	209-2471-112	04	31433	C320C471M2R5CA
C39	CAP, TANT 1 μ F 35V	195-0107-035	03	31433	T110A105M035AS
C40	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C41	CAP, DISC-CER .001PF	208-0007-000	02	91418	JE-.001-10%-Y5E
C42	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA
C43	CAP, DIP-MICA 100PF	199-1011-013	01	14655	CM04FD101J03
C44	CAP, DIP-MICA 150PF	199-1512-013	01	14655	CM05FD151J03
C45	CAP, DISC-CER 0.01 μ F	208-0011-000	07	71590	UK50-103
C46	CAP, DISC-CER 220PF	208-0005-000	02	33498	TYPE S (220PF)
C47	CAP, MONO-CER 220PF	209-2221-100	07	31433	C312C221J1G5CA
C48	CAP, DISC-CER 220PF	208-0005-000	02	33498	TYPE S (220PF)
C49	CAP, MONO-CER 0.056 μ F	209-2563-011	16	31433	C320C563K5R5CA

138F MAINTENANCE MANUAL

4.3.6 GUARD RECEIVER (A8) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C50	CAP, MONO-CER 220PF	209-2221-100	07	31433	C312C221J1G5CA
C51	CAP, DIP-MICA 10PF	199-1001-013	04	14655	CM04CD100D03
C52	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C53	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C54	CAP, DIP-MICA 10PF	199-1001-013	04	14655	CM04CD100D03
C55	CAP, MONO-CER 1000PF	209-2102-100	03	31433	C312C102K1R5CA
C56	CAP, MONO-CER 0.056μF	209-2563-011	16	31433	C320C563K5R5CA
C57	CAP, MONO-CER 0.056μF	209-2563-011	16	31433	C320C563K5R5CA
C58 THROUGH C60					
	CAP, MONO-CER 220PF	209-2221-100	07	31433	C312C221J1G5CA
C61	CAP, DIP-MICA 10PF	199-1001-013	04	14655	CM04CD100D03
C62	CAP, ADJ 4.5-15PF	201-0013-000	07	74970	274-1015-005
C63	CAP, MONO-CER 2200PF	209-2222-004	01	31433	C320C222G1G5CA
C64	CAP, MONO-CER 0.01μF X7R	209-6104-011	02	31433	C330C104K1R5CA
C65	CAP, TANT 3.3μF 15V	195-0337-023	02	31433	T110A335K015AS
C66	CAP, MONO-CER 330PF	209-2331-100	01	31433	C320C331J2G5CA
C67	CAP, POLYCARB 0.01μF	205-0001-000	01	14752	650B1C103J
C68	CAP, MONO-CER 1000PF	209-2102-100	03	31433	C312C102K1R5CA
C69 THROUGH C71					
	CAP, DIP-MICA 510PF	199-5112-013	03	14655	CD15FD511J03
C72	CAP, DISC-CER 0.01μF	208-0011-000	07	71590	UK50-103
C73	CAP, TANT 3.3μF 15V	195-0337-023	02	31433	T110A335K015AS
C74	CAP, MONO-CER 0.01μF	209-2103-011	03	31433	C320C103K2R5CA
C75	CAP, DISC-CER 0.01μF	208-0011-000	07	71590	UK50-103
C76	CAP, MONO-CER 0.22UF X7R	209-6224-011	01	31433	C330C224K5R5CA
C77	CAP, TANT 1.0μF 35V	195-0107-035	03	31433	T110A105M035AS
C78	CAP, MONO-CER 0.1μF X7R	209-6104-011	02	31433	C330C104K1R5CA
C79	CAP, MONO-CER 470PF X7R	209-2471-112	04	31433	C320C471M2R5CA
C80	CAP, TANT 15μF 20V 10%	195-0156-034	01	31433	T110B156M020AS
C81	CAP, MONO-CER 470PF X7R	209-2471-112	04	31433	C320C471M2R5CA
C82	CAP, TANT 4.7μF 50V	195-0477-026	01	31433	T110B475K050AS
C83	CAP, DISC-CER 470PF	208-0006-000	01	71590	CE-471
C84	CAP, TANT 4.7μF 10V	195-0477-032	01	31433	T110A475M010AS
C85	CAP, MONO-CER 220PF	209-2221-100	07	31433	C312C221J1G5CA
C86	CAP, DISC-CER 0.01μF	208-0011-000	07	71590	UK50-103
C87	CAP, DIP-MICA 18PF	199-1801-013	02	14655	CM04CD180J03
C88	NOT USED				
C89	CAP, DIP-MICA 5PF	199-0501-013	01	14655	CM04CD050D03
C90	CAP, DISC-CER 0.01μF	208-0011-000	07	71590	UK50-103
C91	CAP, MONO-CER 12PF	209-2120-100	01	31433	C320C120J2G5CA
C92	CAP, MONO-CER 47PF	209-2470-105	02	31433	C320C470F1G5CA
C93	CAP, MONO-CER 10PF	209-1100-106	01	31433	C315C100D1G5CA
CR1	HOT CARRIER DIODE	106-5002-000	04	50434	HP5082-2800
CR2	HOT CARRIER DIODE	106-5002-000	04	50434	HP5082-2800
CR3	NOT USED				

138F MAINTENANCE MANUAL

4.3.6 GUARD RECEIVER (A8) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
CR4 THROUGH CR6					
	IN914	106-5007-000	05	07263	1N914
CR7	HOT CARRIER DIODE	106-5002-000	04	50434	HP5082-2800
CR8	HOT CARRIER DIODE	106-5002-000	04	50434	HP5082-2800
CR9	IN914	106-5007-000	05	07263	1N914
CR10	IN914	106-5007-000	05	07263	1N914
FL1	FILTER, 16.9 MHz, 4-POLE	139-2025-000	02	56187	03940-001
FL2	FILTER, 16.9 MHz, 4-POLE	139-2025-000	02	56187	03940-001
FL3	FILTER, 455 kHz CFM 455C	139-2007-000	01	51406	CFM-455C
FL4	455 kHz CER DISCRIMINATOR	139-2023-000	01	51406	SFD-455S
HR1	CRYSTAL OVEN, T0-5, 15/28V	189-0058-001	01	12020	T05P-24-80
J11	JACK, SMB, BULKHD MTG	129-0028-000	01	16733	700 163
L1	2T AIR COIL, CW	118-1080-000	04	GWS	
L2	1.2μH CHOKE	118-1041-000	02	24226	10/121
L3	2T AIR COIL, CW	118-1080-000	04	GWS	
L4	0.33μH CHOKE	118-1048-000	01	24226	10/330
L5	2T AIR COIL, CW	118-1080-000	04	GWS	
L6	1.2μH CHOKE	118-1041-000	02	24226	10/121
L7	2T AIR COIL, CW	118-1080-000	04	GWS	
L8	2.2μH SHIELDED CHOKE	118-1105-000	01	99800	0925-222
L9	3.3μH SHIELDED CHOKE	118-1102-000	02	99800	0925-332
L10	3.3μH SHIELDED CHOKE	118-1102-000	02	99800	0925-332
L11	3.9μH SHIELDED CHOKE	118-1114-000	01	99800	0925-392
L12	0.15μH CHOKE	118-1031-000	02	24226	10/150
L13	10μH SHIELDED CHOKE	118-1068-000	01	99800	0925-103
L14	0.22μH CHOKE	118-1007-000	02	24226	15/220
L15	1μH CHOKE	118-1003-000	01	24226	10/101
L16	RED MOLDED VAR COIL	118-7003-001	02	02113	T7-115
L17	0.15μH CHOKE	118-1031-000	02	24226	10/150
L18	RED MOLDED VAR COIL	118-7003-001	02	02113	T7-115
L19	NOT USED				
L20	0.22μH CHOKE	118-1407-000	02	24226	
L21	4.7μH CHOKE	118-1061-000	01	24226	10/471
MX1	BALANCED MIXER	118-2001-000	01	15542	SRA-1
Q1	BFR-91 LOW NOISE, RF AMP	106-0053-000	01	04713	BFR-91
Q2	3N203 RF MOSFET	106-0027-000	01	01295	3N203
Q3	2N5245 FET	106-0004-000	01	01295	2N5245
Q4	2N3904 NPN	106-0041-000	01	04713	2N3904
Q5 THROUGH Q7					
	2N5179 NPN RF	106-0005-000	03	04713	2N5179
R1	RESISTOR, 4.7K OHM 1/4W	230-0474-022	03	01121	RCR07G472KS
R2	RESISTOR, 560 OHM 1/4W	230-0563-022	02	01121	RCR07G561KS
R3	RESISTOR, 56 OHM 1/4W	230-0562-022	03	01121	RCR07G560KS
R4	RESISTOR, 680 OHM 1/4W	230-0683-022	02	01121	RCR07G681KS
R5	NOT USED				

138F MAINTENANCE MANUAL

4.3.6 GUARD RECEIVER (A8) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R6	RESISTOR, 100K OHM 1/4W	230-0106-022	01	01121	RCR07G104KS
R7	RESISTOR, 47K OHM 1/4W	230-0475-022	03	01121	RCR07G473KS
R8	RESISTOR, 22K OHM 1/4W	230-0225-022	02	01121	RCR07G223KS
R9	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R10	RESISTOR, 390 OHM 1/4W	230-0393-022	02	01121	RCR07G391KS
R11	RESISTOR, 4.7K OHM 1/4W	230-0474-022	03	01121	RCR07G472KS
R12	RESISTOR, 220 OHM 1/4W	230-0223-022	03	01121	RCR07G221KS
R13	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R14	RESISTOR, 1.5K OHM 1/4W	230-0154-022	01	01121	RCR07G152KS
R15	RESISTOR, 390 OHM 1/4W	230-0393-022	02	01121	RCR07G391KS
R16	RESISTOR, 10K OHM 1/4W	230-0105-022	04	01121	RCR07G103KS
R17	RESISTOR, 27 OHM 1/4W	230-0272-022	02	01121	RCR07G270KS
R18	RESISTOR, 47 OHM 1/4W	230-0472-022	02	01121	RCR07G470KS
R19	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R20	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R21	RESISTOR, 6.8K OHM 1/4W	230-0684-022	03	01121	RCR07G682KS
R22	RESISTOR, 1.8K OHM 1/4W	230-0184-022	01	01121	RCR07G182KS
R23	RESISTOR, 470 OHM 1/4W	230-0473-022	04	01121	RCR07G471KS
R24	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R25	RESISTOR, 220 OHM 1/4W	230-0223-022	03	01121	RCR07G221KS
R26	RESISTOR, 47 OHM 1/4W	230-0472-022	02	01121	RCR07G470KS
R27	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R28	RESISTOR, 5.6K OHM 1/4W	230-0564-022	04	01121	RCR07G562KS
R29	RESISTOR, 5.6K OHM 1/4W	230-0564-022	04	01121	RCR07G562KS
R30	RESISTOR, 6.8K OHM 1/4W	230-0684-022	03	01121	RCR07G682KS
R31	RESISTOR, 10K OHM 1/4W	230-0105-022	04	01121	RCR07G103KS
R32	RESISTOR, 470 OHM 1/4W	230-0473-022	04	01121	RCR07G471KS
R33	RESISTOR, 560 OHM 1/4W	230-0563-022	02	01121	RCR07G561KS
R34	RESISTOR, 220 OHM 1/4W	230-0223-022	03	01121	RCR07G221KS
R35	RESISTOR, 18K OHM 1/4W	230-0185-022	01	01121	RCR07G183KS
R36	RESISTOR, 470 OHM 1/4W	230-0473-022	04	01121	RCR07G471KS
R37	RESISTOR, 150 OHM 1/4W	230-0153-022	02	01121	RCR07G151KS
R38	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R39	RESISTOR, 1K OHM 1/4W	230-0104-022	03	01121	RCR07G102KS
R40	RESISTOR, 10K OHM 1/4W	230-0105-022	04	01121	RCR07G103KS
R41	RESISTOR, 2.2K OHM 1/4W	230-0224-022	04	01121	RCR07G222KS
R42	RESISTOR, 150 OHM 1/4W	230-0153-022	02	01121	RCR07G151KS
R43	RESISTOR, 100 OHM 1/4W	230-0103-022	05	01121	RCR07G101KS
R44	RESISTOR, 1K OHM 1/4W	230-0104-022	03	01121	RCR07G102KS
R45	RESISTOR, 5.6K OHM 1/4W	230-0564-022	04	01121	RCR07G562KS
R46	RESISTOR, 47K OHM 1/4W	230-0475-022	03	01121	RCR07G473KS
R47	RESISTOR, 1.30K OHM 1%	231-1304-021	01	91637	RN55D1301F
R48	RESISTOR, 22.1K OHM 1%	231-2215-021	03	91637	RN55D2212F
R49	RESISTOR, 2.2K OHM 1/4W	230-0224-022	04	01121	RCR07G222KS
R50	RESISTOR, 2.7K OHM 1/4W	230-0274-022	01	01121	RCR07G272KS

138F MAINTENANCE MANUAL

4.3.6 GUARD RECEIVER (A8) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R51	RESISTOR, 2.55K OHM 1%	231-2554-021	01	91637	RN55D2551F
R52	RESISTOR, 4.99K OHM 1%	231-4994-021	01	91637	RN55D4991F
R53	RESISTOR, 3.32K OHM 1%	231-3324-021	01	91637	RN55D3321F
R54	RESISTOR, 8.2K OHM 1/4W	230-0824-022	01	01121	RCR07G822KS
R55	RESISTOR, 23.2K OHM 1%	231-2325-021	01	91637	RN55D2322F
R56	RESISTOR, 73.2K OHM 1%	231-7325-021	01	91637	RN55D7322F
R57	RESISTOR, 48.7K OHM 1%	231-4785-021	01	91637	RN55D4782F
R58	RESISTOR, 147K OHM 1%	231-1476-021	02	91637	RN55D1473F
R59	RESISTOR, 147K OHM 1%	231-1476-021	02	91637	RN55D1473F
R60	RESISTOR, 4.75K OHM 1%	231-4754-021	02	91637	RN55D4751F
R61	RESISTOR, ADJ 50K OHM	233-0010-000	01	32997	3006P-1-503
R62	RESISTOR, 4.75K OHM 1%	231-4754-021	02	91637	RN55D4751F
R63	RESISTOR, 22K OHM 1/4W	230-0225-022	02	01121	RCR07G223KS
R64	RESISTOR, 22.1K OHM 1%	231-2215-021	03	91637	RN55D2212F
R65	RESISTOR, 4.7K OHM 1/4W	230-0474-022	03	01121	RCR07G472KS
R66	RESISTOR, 6.8K OHM 1/4W	230-0684-022	03	01121	RCR07G682KS
R67	RESISTOR, 56.2K OHM 1%	231-5625-021	01	91637	RN55D5622F
R68	RESISTOR, 33.2K OHM 1%	231-3325-021	01	91637	RN55D3322F
R69	RESISTOR, 150K OHM 1%	231-1506-021	02	91637	RN55D1503F
R70	RESISTOR, 330K OHM 1/4W	230-0336-022	01	01121	RCR07G334KS
R71	RESISTOR, 499K OHM 1%	231-4996-021	01	91637	RN55D4993F
R72	RESISTOR, 470 OHM 1/4W	230-0473-022	04	01121	RCR07G471KS
R73	RESISTOR, 5.90K OHM 1%	231-5904-021	01	91637	RN55D5901F
R74	RESISTOR, 3.92K OHM 1%	231-3924-021	01	91637	RN55D3921F
R75	RESISTOR, 22.1K OHM 1%	231-2215-021	03	91637	RN55D2212F
R76	RESISTOR, 150K OHM 1%	231-1506-021	02	91637	RN55D1503F
R77	RESISTOR, 47K OHM 1/4W	230-0475-022	03	01121	RCR07G473KS
R78	RESISTOR, 10K OHM 1/4W	230-0105-022	04	01121	RCR07G103KS
R79	RESISTOR, 5.6K OHM 1/4W	230-0564-022	04	01121	RCR07G562KS
R80	RESISTOR, 1.50K OHM 1%	231-1504-021	01	91637	RN55D1501F
R81	RESISTOR, 226 OHM 1%	231-2263-021	01	91637	RN55D2260F
R82	RESISTOR, ADJ 2K OHM	233-0015-008	01	32997	3329H-1-202
R83	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R84	RESISTOR, 56 OHM 1/4W	230-0562-022	03	01121	RCR07G560KS
R85	RESISTOR, 1K OHM 1/4W	230-0104-022	03	01121	RCR07G102KS
R86	RESISTOR, 2.2K OHM 1/4W	230-0224-022	04	01121	RCR07G222KS
R87	RESISTOR, 680 OHM 1/4W	230-0683-022	02	01121	RCR07G681KS
R88	RESISTOR, 820 OHM 1/4W	230-0823-022	05	01121	RCR07G821KS
R89	RESISTOR, 56 OHM 1/4W	230-0562-022	03	01121	RCR07G560KS
R90	RESISTOR, 27 OHM 1/4W	230-0272-022	02	01121	RCR07G270KS
R91	RESISTOR, 2.2K OHM 1/4W	230-0224-022	04	01121	RCR07G222KS
T1	5T RF BALAN, T-30-12	118-2012-000	01	11402	
TP1 THROUGH TP4					
	JACK, 2-PIN, PC MTG	129-2059-002	04	22526	
U1	2111 LIN FM-IF AMP	106-7007-000	02	27014	LM2111N

138F MAINTENANCE MANUAL

4.3.6 GUARD RECEIVER (A8) (cont.)

<u>CKT</u> <u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>GWS</u> <u>P N</u>	<u>ASSY</u> <u>QTY</u>	<u>VENDOR</u> <u>CODE</u>	<u>VENDOR</u>
U2	2111 LIN FM-IF AMP	106-7007-000	02	27014	LM2111N
U3	1458 LIN DUAL OPAMP	106-7006-000	02	04713	MC1458CPI
U4	1458 LIN DUAL OPAMP	106-7006-000	02	04713	MC1458CPI
U5	358 LIN DUAL OPAMP	106-7044-000	01	27014	LM358N
U6	78L08 LIN 8V REG	106-7043-000	01	01295	LM78L08ACZ
VR1	1N758A 10V ZENER	106-4002-000	01	04713	1N758A
Y1	XTAL, RT-9600, 17.355 MHz	139-0014-000	01	33096	
Y2	XTAL, RT-138 GD CHNL	139-1013-000	01	33096	
	RT-138 GUARD RCVR P.C. BD.	108-6140-000	01	GWS	
	EYELET, .048 X .095	109-0024-000	09	98291	229-3036-59
	TRANSISTOR INSULATOR	111-0023-000	02	13103	7717-15N
	TRANSISTOR INSULATOR	111-0024-000	04	13103	43-18-1
	RT-30 GUARD MDL. CHASSIS	146-0511-002	01	GWS	
	RT-138 GUARD RCVR. FENCE	146-0639-002	01	GWS	
	RT-138 GUARD MOD COVER	146-0640-001	01	GWS	
	RT-138 L.O. FENCE	146-0676-002	01	GWS	
	RT-138 L.O. BOTTOM COVER	146-0677-001	01	GWS	
	SCREW, 2-56 X 3/16 FHP	188-0101-006	12		
	SCREW, 4-40 X 1/4 SEMS	188-0208-008	04	70318	
	SPACER, MF 0.765	191-2029-002	04	GWS	

138F MAINTENANCE MANUAL

4.3.7 SYNTHESIZER ASSEMBLY (A9)

<u>CKT</u> <u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>GWS</u> <u>P N</u>	<u>ASSY</u> <u>QTY</u>	<u>VENDOR</u> <u>CODE</u>
A9	FAST LOCK SYNTH ASSY REV.A	300-314519-00	01	GWS
	VCO/MODULATOR COVER	146-0519-001	01	GWS
	SYNTH LOGIC COVER	146-0520-001	01	GWS
	SYNTH MODULE CHASSIS	146-0521-006	01	GWS
	RT-138 SYNTH LABEL	156-014676-01	01	GWS
	SCREW, 4-40 x 1/4 PHP	MS51957-13	01	GWS
	SCREW, 2-56 x 1/4 PHP	MS51957-3	05	GWS
	SCREW, 2-56 x 3/16 FHP	MS51959-2	14	GWS
	WASHER, LOCK-HELICAL NO.2	MS35338-134	05	GWS
	SPACER, M/F 3/16 X 0.281	191-2029-000	05	GWS
	SPACER, M/F 3/16 X 0.343	191-2029-001	05	GWS
A10	SYNTH LOGIC BOARD	300-014420-01	01	GWS
A11	SYNTH VCO CONTROL BD	300-014231-01	01	GWS
A12	RT-138F VCO ASSY	300-2245-001	01	GWS

138F MAINTENANCE MANUAL

4.3.8 SYNTHESIZER LOGIC BOARD (A10)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
A10	LOGIC BD REV.A	300-014420-01	01		
C1 THROUGH C4					
	CAP, MONO-CER 470PF	209-2471-112	09	31433	C320C471M2R5CA
C5	CAP, DIP-TANT, 10 μ F 35V	15047-1	01		
C6 THROUGH C26					
	CAP, MONO-CER 100PF	209-2101-100	28	31433	C320C101J2G5CA
C27	CAP, MONO-CER 470PF	209-2471-112	09	31433	C320C471M2R5CA
C28	NOT USED				
C29	NOT USED				
C30	CAP, MONO-CER 470PF	209-2471-112	09	31433	C320C471M2R5CA
C31 THROUGH C33					
	CAP, MONO-CER 0.1 μ F	209-6104-011	06	31433	C330C104K1R5CA
C34 THROUGH C36					
	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C37	CAP, MONO-CER 0.1 μ F	209-6104-011	06	31433	C330C104K1R5CA
C38	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	
C39	CAP, MONO-CER 100PF	209-2101-100	28	31433	C320C101J2G5CA
C40	NOT USED				
C41 THROUGH C43					
	CAP, MONO-CER 100PF	209-2101-100	28	31433	C320C101J2G5CA
C44	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C45 THROUGH C47					
	NOT USED				
C48 THROUGH C50					
	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C51	CAP, MONO-CER 100PF	209-2101-100	28	31433	C320C101J2G5CA
C52	CAP, MONO-CER 470PF	209-2471-112	09	31433	C320C471M2R5CA
C53	CAP, MONO-CER 470PF	209-2471-112	09	31433	C320C471M2R5CA
C54	NOT USED				
C55	CAP, MONO-CER 470PF	209-2471-112	09	31433	C320C471M2R5CA
C56	CAP, MONO-CER 47PF	209-2470-105	22	31433	C320C470F1G5CA
C57	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C58	CAP, MONO-CER 100PF	209-2101-100	28	31433	C320C101J2G5CA
C59	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C60	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C61	CAP, ELECTRO 47 μ F 16V	15020-1	01		
C62	CAP, TANT 1 μ F 35V	195-0107-035	02	31433	T110A105M035AS
C63	CAP, MONO-CER 100PF	209-2101-100	28	31433	C320C101J2G5CA
C64	NOT USED				
C65	NOT USED				
C66 THROUGH C86					
	CAP, MONO-CER 47PF	209-2470-105	22		C320C470F1G5CA
C87	NOT USED				
C88	CAP, TANT 15 μ F 20V	195-0156-034	01	31433	T110B156M020AS
C89	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA

138F MAINTENANCE MANUAL

4.3.8 SYNTHESIZER LOGIC BOARD (A10) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C90	NOT USED				
C91	THROUGH C96				
	CAP, MONO-CER 220 PF	209-2221-100	06	31433	C320C221J1G5CA
C97	CAP, TANT 1 μ F 35V	195-0107-035	02	31433	T110A105M035AS
C98	CAP, MONO-CER 0.1 μ F	209-6104-011	06	31433	C330C104K1R5CA
C99	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C100	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C101	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
C102	CAP, MONO-CER 0.1 μ F	209-6104-011	06	31433	C330C104K1R5CA
C103	CAP, MONO-CER .33 μ F	209-4334-011	01	31433	C330C334K5R5CA
C104	CAP, MONO-CER 0.01 μ F	209-1103-011	16	31433	C315C103K5R5CA
CR1	THROUGH CR22				
	1N914 SILICON DIODE	106-5007-000	22	07263	1N914
FT1	FEED THRU, TEFLON	107-0019-000	01	98291	
J12	RECEPT, SNGL ROW 14 PIN	129-2117-014	01	00779	
L1	4.7 μ H CHOKE	118-1061-000	02	24226	10/471
L2	1.2 μ H CHOKE	118-1041-000	04	24226	
L3	4.7 μ H CHOKE	118-1061-000	02	24226	10/471
L4	NOT USED				
L5	THROUGH L7				
	1.2 μ H CHOKE	118-1041-000	04	24226	
Q1	2N3904 NPN	106-0041-000	01	04713	2N3904
Q2	MPS-3702 PNP	106-0057-000	01	04713	
R1	NOT USED				
R2	NOT USED				
R3	RESISTOR, 6.8K OHM 1/8W 2%	RLR05C6801GR	01	01121	
R4	RESISTOR, 8.2K OHM 1/8W 2%	RLR05C8201GR	01	01121	
R5	RESISTOR, 470 OHM 1/8W 2%	RLR05C4700GR	02	01121	
R6	RESISTOR, 470 OHM 1/8W 2%	RLR05C4700GR	02	01121	
R7	RESISTOR, 270 OHM 1/8W 2%	RLR05C2700GR	01	01121	
R8	RESISTOR, 1K OHM 1/8W 2%	RLR05C1001GR	01	01121	
R9	RESISTOR, 200 OHM 1/8W 2%	RLR05C2000GS	01	01121	
R10	THROUGH R12				
	NOT USED				
R13	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R14	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R15	NOT USED				
R16	TRIMPOT, 50K OHM	233-0010-000	04	01121	
R17	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R18	NOT USED				
R19	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R20	RESISTOR, 5.1K OHM 1/8W 2%	RLR05C5101GR	02	01121	
R21	RESISTOR, 33K OHM 1/8W 2%	RLR05C3302GR	01	01121	
R22	TRIMPOT, 50K OHM	233-0010-000	04	01121	
R23	RESISTOR, 20K OHM 1/8W 2%	RLR05C2002GR	01	01121	

138F MAINTENANCE MANUAL

4.3.8 SYNTHESIZER LOGIC BOARD (A10) (cont.)

<u>CKT SYMBOL</u>	<u>DESCRIPTION</u>	<u>GWS P N</u>	<u>ASSY QTY</u>	<u>VENDOR CODE</u>	<u>VENDOR P N</u>
R24	RESISTOR, 10K OHM 1/8W 2%	RLR05C10R0GR	01	01121	
R25	TRIMPOT, 50K OHM	233-0010-000	04	01121	
R26	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R27	RESISTOR, 20K OHM 1/8W 2%	RLR05C2002GR	02	01121	
R28	RESISTOR, 200K OHM 1/8W 2%	RLR05C2003GR	01	01121	
R29	TRIMPOT, 50K OHM	233-0010-000	04	01121	
R30	NOT USED				
R31	RESISTOR, ADJ 5K OHM	233-0011-000	01	32997	
R32	NOT USED				
R33	RESISTOR, 20K OHM 1/8W 2%	RLR05C2002GR	02	01121	
R34	RESISTOR, ADJ 500 OHM	233-0015-006	01	32997	
R35	RESISTOR, 5.1K OHM 1/8W 2%	RLR05C5101GR	02	01121	
R36	RESISTOR, 2.2K OHM 1/8W 2%	RLR05C2201GS	01	01121	
R37	RESISTOR, 3.3K OHM 1/8W 2%	RLR05C3301GR	02	01121	
R38	RESISTOR, 3.3K OHM 1/8W 2%	RLR05C3301GR	02	01121	
R39	NOT USED				
R40	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
RP1 THROUGH RP3					
	RESISTOR, SIP 10K OHM	15500-103	06	01121	
RP4 THROUGH RP6					
	RESISTOR, DIP 10K OHM	234-012769-103	03	01121	
RP7 THROUGH RP9					
	RESISTOR, SIP 10K OHM	15500-103	06	01121	
U1 THROUGH U3					
	I.C. 74HC253	106-7147-000	03		
	DUAL 4 TO 1 MULTI				
U4	I.C. MICROMONITOR DS 1232N	106-711094-01	01		
U5	I.C. MICROPROCESSOR 8749H	106-7132-000	01	34649	
U6	I.C. HEX INVERT SN7406	106-7039-000	02	01295	
U7	I.C. HEX INVERT SN7406	106-7039-000	02	01295	
U8	I.C. 12 STAGE BIN	12605-2	01		
	RIP 74HC4040				
U9 THROUGH U11					
	I.C. DAC-0832	106-712754-03	03		
U12 THROUGH U14					
	I.C. DUAL OP AMP MC-1458	106-7006-000	03	04713	
U15	I.C. MC1404AU6 6.25V REF	106-7150-000	01		
U16	MC79L05AC VOLT REG	106-014566-04	01		
	SOCKET, ZERO PROFILE I.C.	129-314228-01	40		

138F MAINTENANCE MANUAL

4.3.9 VCO CONTROL BOARD (A11)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
A11	VCO BD REV. A	300-014231-01	01	GWS	
C1	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C2	CAP, TANT 1.0 μ F 35V	195-0107-035	06	31433	T110A105M035AS
C3					
C4	CAP, TANT 2.2 μ F 20V	195-0227-024	01	31433	T110A225K020AS
C5	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C6	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C7	CAP, MONO-CER 47PF	209-2470-105	03	31433	C320C470F1G5CA
C8	CAP, MONO-CER 47PF	209-2470-105	03	31433	C320C470F1G5CA
C9	CAP, MONO-CER 47PF	209-2470-105	03	31433	C320C470F1G5CA
C10	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C11	CAP, TANT 1.0 μ F 35V	195-0107-035	06	31433	T110A105M035AS
C12	CAP, CER 0.033 μ F 50V	198-0025-000	02	51406	8005BX7R333K
C13	CAP, TANT 4.7 μ F 35V	1992-00	01	71590	
C14	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C15	CAP, TANT 1.0 μ F 35V	195-0107-035	06	31433	T110A105M035AS
C16	CAP, MONO-CER 0.33 μ F	209-4334-011	02	31433	C330C334K5R5CA
C17	CAP, MYLAR 0.01 μ F 63V	204-015612-02	03	71590	
C18	CAP, MONO-CER 0.33 μ F	209-4334-011	02	31433	C330C334K5R5CA
C19	CAP, MYLAR 0.01 μ F 63V	204-015612-02	03	71590	
C20	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C21	CAP, TANT 1.0 μ F 35V	195-0107-035	06	31433	T110A105M035AS
C22	CAP, CER 0.033 μ F 50V	198-0025-000	02	51406	8005BX7R333K
C23	CAP, ALUM ELECT 10 μ F 25V	12135-1	01		
C24	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA
C25	CAP, CER 1500PF	209-2152-111	01	31433	C320C152K1R5CA
C26	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA
C27	CAP, MYLAR 0.01 μ F 63V	204-015612-02	03	71590	
C28	CAP, POLY 0.01 μ F 50 WVDC	12101-1	01		
C29	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA
C30	CAP, MONO-CER 0.001 μ F 10%	209-2102-100	03	31433	C320C102J1G5CA
C31	CAP, MONO-CER 0.001 μ F 10%	209-2102-100	03	31433	C320C102J1G5CA
C32	CAP, MONO-CER 220 PF	209-2221-100	01	31433	C320C221J1G5CA
C33	NOT USED				
C34	NOT USED				
C35	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA
C36	CAP, MONO-CER 0.001 μ F 10%	209-2102-100	03	31433	C320C102J1G5CA
C37	CAP, STACK FILM 0.47 μ F	198-014567	01		
C38	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA
C39	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA
C40	CAP, MONO-CER 0.022 μ F	209-2223-010	01	31433	C320C223J5R5CA
C41	NOT USED				
C42	NOT USED				
C43	CAP, TRIMMER 1.2-10PF	201-0001-000	01	52763	
C44	CAP, MONO-CER 0.01 μ F	209-1103-011	07	31433	C315C103K5R5CA

138F MAINTENANCE MANUAL

4.3.9 VCO CONTROL BOARD (A11) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
C45	CAP, CER N750 100PF 50V	208-014377-01	01		
C46	CAP, CER 470PF 50V	208-014374-01	01		
C47	CAP, TANT 1.0 μ F 35V	195-0107-035	06	31433	T110A105M035AS
C48	CAP, MONO-CER 100PF	209-2101-100	01	31433	C320C102J1G5CA
C49	CAP, MONOLITHIC 4.7PF 100V	208-0033-000	01	31433	C312C479J2G5CA
C50	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C51	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C52	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C53	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C54	CAP, MONO-CER 0.01 μ F	209-2103-011	03	31433	C320C103K5R5CA
C55	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C56	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C57	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C58	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C59	CAP, MONO-CER 0.01 μ F	209-2103-011	03	31433	C320C103K5R5CA
C60	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C61	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C62	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C63	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C64	CAP, DISK CER 470PF	208-0006-000	13	71590	CE-471
C65	CAP, MONO-CER 0.01 μ F	209-2103-011	03	31433	C320C103K5R5CA
C66	CAP, MONO-CER 470PF	209-2471-112	07	31433	C320C471M2R5CA
C67	CAP, TANT 1.0 μ F 35V	195-0107-035	06	31433	T110A105M035AS
C68	CAP, MICA 330PF	199-3311-013	01	14655	
CR1	NOT USED				
CR2	DIODE, VARACATOR MV-2110	106-5017-000	01	04713	MV2110
CR3	DIODE, SILICON 1N914	106-5007-000	01	07263	1N914
L1	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L2	NOT USED				
L3	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L4	0.22 μ H CHOKE, MOLDED	118-1007-000	01	24226	
L5	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L6	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L7	1.2 μ H CHOKE, MOLDED	118-1041-000	01	24226	10/121
L8	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L9	8.2 μ H CHOKE, MOLDED	118-1005-000	01	24226	
L10	0.33 CHOKE, MOLDED	118-1048-000	01	24226	10/330
L11	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L12	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
L13	4.7 μ H CHOKE, MOLDED	118-1061-000	08	24226	10/471
P12	CONNEC 14 PIN SINGLE ROW	129-2122-014	01	00779	
P15	PIN SOCKET 22 PIN	129-2117-014	01	00779	
Q1	TRANSISTOR, 2N5179 NPN	106-0005-000	01	04713	
Q2	TRANSISTOR, 2N2222A NPN	12702-1	01		
Q3	NOT USED				

138F MAINTENANCE MANUAL

4.3.9 VCO CONTROL BOARD (A11) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
Q4	NOT USED				
Q5	TRANSISTOR, 2N7000 PWR, MOSFET	106-0073-000	02	17856	
Q6 THROUGH Q8	TRANSISTOR, BFR-91, LOW NOISE RF AMP	106-0053-000	03	04713	BFR-91
Q9	TRANSISTOR, 2N7000 PWR, MOSFET	106-0073-000	02	17856	
R1 THROUGH R3	RESISTOR, 100 OHM 1/8W 2%	RLR05C1000GR	03	01121	
R4	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R5	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R6	RESISTOR, 2.7K OHM 1/8W 2%	RLR05C2701GR	01	01121	
R7	RESISTOR, 2.4K OHM 1/8W 2%	RLR05C2401GR			
R8 THROUGH R10	RESISTOR, 3.0K OHM 1/8W 2%	RLR05C3001GR	03	01121	
R11	RESISTOR, 27K OHM 1/8W 2%	RLR05C2702GR	01	01121	
R12	RESISTOR, 47 OHM 1/8 W 2%	RLR05C4702GR	01	01121	
R13	NOT USED				
R14	RESISTOR, 1K OHM 1/8W 2%	RLR05C1001GR	02	01121	
R15	RESISTOR, 4.7K OHM 1/8 2%	RLR05C4701GR	01	01121	
R16	RESISTOR, 100K OHM 1/8 2%	RLR05C1003GR	03	01121	
R17	RESISTOR, 6.2K OHM 1/8 2%	RLR05C6201GR	01	01121	
R18	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R19	NOT USED				
R20	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R21	RESISTOR, 16K OHM 1/8W 2%	RLR05C1602GR	01	01121	
R22	RESISTOR, 100K OHM 1/8 2%	RLR05C1003GR	03	01121	
R23	NOT USED				
R24	RESISTOR, 100K OHM 1/8 2%	RLR05C1003GR	03	01121	
R25	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06	01121	
R26	NOT USED				
R27	NOT USED				
R28	NOT USED				
R29	RESISTOR, 20K OHM 1/8W 2%	RLR05C2002GR	01	01121	
R30 THROUGH R32	RESISTOR, 2.2K OHM 1/8W 2%	RLR05C2201GR	03	01121	
R33	RESISTOR, 330 OHM 1/8W 2%	RLR05C3300GR	01	01121	
R34	RESISTOR, 1K OHM 1/8W 2%	RLR05C1001GR	02	01121	
R35	RESISTOR, 220 OHM 1/4W 5%	RC07GF221J	01	01121	
R36	RESISTOR, 1K OHM 1/4W 10%	230-0104-022	01	01121	RCR07G102KS
R37	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	05	01121	RCR07G222KS
R38	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	03	01121	RCR07G682KS
R39	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	05	01121	RCR07G222KS

138F MAINTENANCE MANUAL

4.3.9 VCO CONTROL BOARD (A11) (cont.)

CKT SYMBOL	DESCRIPTION	GWS P N	ASSY QTY	VENDOR CODE	VENDOR P N
R40	RESISTOR, 470 OHM 1/4W 10%	230-0473-022	03	01121	RCR07G471KS
R41	RESISTOR, 150 OHM 1/4W 10%	230-0153-022	03	01121	RCR07G151KS
R42	RESISTOR, 270 OHM 1/4W 10%	230-00273-022	01	01121	
R43	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	05	01121	RCR07G222KS
R44	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	03	01121	RCR07G682KS
R45	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	05	01121	RCR07G222KS
R46	RESISTOR, 470 OHM 1/4W 10%	230-0473-022	03	01121	RCR07G471KS
R47	RESISTOR, 150 OHM 1/4W 10%	230-0153-022	03	01121	RCR07G151KS
R48	RESISTOR, 6.8K OHM 1/4W	230-0684-022	03	01121	RCR07G682KS
R49	RESISTOR, 100 OHM 1/4W 10%	230-0103-022	02	01121	RCR07G101KS
R50	RESISTOR, 100 OHM 1/4W 10%	230-0103-022	02	01121	RCR07G101KS
R51	RESISTOR, 6.8K OHM 1/4W 10%	230-0684-022	03	01121	RCR07G682KS
R52	RESISTOR, 2.2K OHM 1/4W 10%	230-0224-022	05	01121	RCR07G222KS
R53	RESISTOR, 470 OHM 1/4W 10%	230-0473-022	03	01121	RCR07G471KS
R54	NOT USED				
R55	RESISTOR, 10K OHM 1/8W 2%	RLR05C1002GR	06		
R56	NOT USED				
R57	RESISTOR, 150 OHM 1/4W 10%	230-0153-022	03	01121	RCR07G151KS
T1 THROUGH T3					
	ST RF BALUN, T-30-12	118-2012-000	03	11402	
U1	I.C. MC145159	106-7146-000	01	04713	
	PLL FREQ SYNTH				
U2	I.C. SP8793 PRESCALER	106-714479-04	01	52648	
U3	I.C. LM833 LOW NOISE OP-AMP	106-712761-02	01	27014	
VR1	I.C. MC78L18AC POS VOLT REG	106-712984-01	01	04713	
VR2 THROUGH VR3					
	I.C. UA78MGUIC VOL REG	106-7048-000	02	07263	μA78MGUIC
VR4	I.C. MC79L15AC NEG VOL REG	106-712983-01	01	04713	
Y1	CRYSTAL 12.8 MHZ TO-5	139-1016-000	01	33096	

138F MAINTENANCE MANUAL

4.3.10 VCO ASSEMBLY (A12)

<u>CKT SYMBOL</u>	<u>DESCRIPTION</u>	<u>GWS P N</u>	<u>ASSY QTY</u>	<u>VENDOR CODE</u>
A12	VCO ASSY REV.B	300-2245-000	01	GWS

THE VCO IS AN ENCAPSULATED ASSEMBLY AND, WITH THE EXCEPTION OF THE FOLLOWING TWO REPLACEABLE COMPONENTS, IS CONSIDERED A "BLACK BOX".

J15	JACK, 14 POSITION	129-2122-014	01	22526
R26	RESISTOR, 15K OHM 1%	231-1505-021	01	91637