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						Lincoln, Nebraska USA				879440	
APPROVALS:		DR BY: DDN		CHKD BY: TY		APPD BY: RB		PROD: _____		REV LEVEL:	A
		DATE: 10/17/00		DATE: 07/30/01		DATE: 07/30/01		DATE: _____			
TITLE:		PCB ASSY, MAIN HT/CSH-1000 SMT									
		U.S. LOW 680-704MHZ	U.S. HI 722-746MHZ	GERMAN 798-822MHZ	U.K. 841-862MHZ						
		879440-									
		-1	-2	-3	-4						
ITEM	NEW	QTY	QTY	QTY	QTY	TYPE	DESCRIPTION	PART NO.	DESIGNATOR		
1		5	5	5	5	CAP	10UF TANT A	102877047T	C1,C12,C14,C39,C43		
2		8	8	8	8	CAP	100PF 0603	723482130T	C2,C18,C22,C30,C54,C60,C65, C69		
3		5	5	5	5	CAP	1UF TANT A	102877012T	C3,C13,C15,C26,C31		
4		1	1	1	1	CAP	.1UF TANT A	102877006T	C4		
5		1	1	1	1	CAP	22UF TANT B	102877063T	C5		
6		2	2	2	2	CAP	470PF 0603	723482138T	C6,C23		
7		5	5	5	5	CAP	.1UF 0805	72338530T	C7,C8,C9,C19,C40		
8		2	2	2	2	CAP	.22UF TANT A	102877008T	C10,C21		
9		1	1	1	1	CAP	.0015UF 0805	7233859T	C11		
10		1	1	1	1	CAP	2.2UF TANT A	102877042T	C16		
11		1	1	1	1	CAP	4.7UF TANT A	102877067T	C17		
12		1	1	1	1	CAP	.047UF 0805	72338526T	C20		
13		1	1	1	1	CAP	.0068UF 0805	72338517T	C24		
14		1	1	1	1	CAP	.015UF 0805	72338520T	C25		
15		1	1	1	1	CAP	.01UF 0603	102881703T	C27		
16		18	18	18	18	CAP	.001UF 0603	102881717T	C28,C29,C32,C34,C37,C41,C42,C45,C48, C49,C50,C52,C55,C56,C58,C59,C61,C67		
17		3	3	3	3	CAP	.1UF 0603	723489101T	C33,C35,C36		
18		1	1	1	1	CAP	10PF 0603	723482116T	C38		
19		1	1	1	1	CAP	5.6PF 0603	723482113T	C44		
20						CAP	3.9PF 0603	723482110T			
		2	2	-	2				C46,C64		
		-	-	1	-				C46		
21		1	1	1	1	CAP	12PF 0603	723482117T	C47		
22		1	1	1	1	CAP	1.5PF 0603	723482103T	C51		
23						CAP	3.3PF 0603	723482109T			
		3	3	-	-				C53,C57,C63		
		-	-	2	2				C53,C57		
24		1	1	-	-	CAP	1PF 0603	723482101T	C62		
25		-	-	1	1	CAP	2.7PF 0603	723482107T	C63		
26		1	1	1	1	CAP	22PF 0603	723482121T	C66		
27		1	1	1	1	DIODE	BAW56	102253000T	D1		
28		1	1	1	1	DIODE	BAV99	760481T	D2		
29		1	-	-	-	VCO	680-704 MHz	7603004T	HY1		
30		-	1	-	-	VCO	722-746 MHz	7603006T	HY1		
31		-	-	1	-	VCO	798-822 MHz	7603009T	HY1		
32		-	-	-	1	VCO	841-865 MHz	76030010T	HY1		
33		1	1	1	1	CONN	SAMTEC TFM	640147	J1		
34		11	11	11	11	IND	.22UH 0805	72350828T	L1,L2,L3,L4,L5,L6,L7,L10,L11,L14,L15		

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						Lincoln, Nebraska USA				879440	
APPROVALS:		DR BY: DDN		CHKD BY: TY		APPD BY: RB		PROD: _____		REV LEVEL:	A
		DATE: 10/17/00		DATE: 07/30/01		DATE: 07/30/01		DATE: _____			
TITLE:		PCB ASSY, MAIN HT/CSH-1000 SMT									
		U.S. LOW 680-704MHZ	U.S. HI 722-746MHZ	GERMAN 798-822MHZ	U.K. 841-862MHZ						
		879440-									
		-1	-2	-3	-4						
35						IND	8NH 0805	72350812T			
		2	2	2	-					L8,L13	
		-	-	-	3					L8,L12,L13	
36		1	1	1	1	IND	22NH 0805	72350816T		L9	
37		1	-	-	-	IND	18NH 0805	72350815T		L12	
38		-	1	-	-	IND	15NH 0805	72350814T		L12	
39		-	-	1	-	IND	12NH 0805	72350813T		L12	
40		2	2	2	2	TRANS	MMBT5087	16025087SMT		Q1,Q2	
41		3	3	3	3	TRANS	MMBT3906	54716200		Q3,Q6,Q9	
42		4	4	4	4	TRANS	BFG540X	760209T		Q4,Q5,Q8,Q10	
43		1	1	1	1	TRANS	MMBT3904	54671200T		Q7	
44						RES	100 OHM 0603	723481100T			
		4	4	-	-					R1,R52,R65, R67	
		-	-	5	5					R1,R52,R62,R65,R67	
45		2	2	2	2	RES	475 OHM 0603	723481165T		R2, R48	
46		10	10	10	10	RES	10K 0603	723481300T		R3,R21,R22,R24,R25,R27,R28,R56,R59,R60	
47		1	1	1	1	RES	39.2K 0603	723481357T		R4	
48		1	1	1	1	RES	26.7K 0603	723481341T		R17	
49		1	1	1	1	RES	75K 0603	723481384T		R5	
50		1	1	1	1	RES	121K 0603	723481408T		R6	
51		2	2	2	2	RES	1.82K 0603	723481225T		R7,R9	
52		1	1	1	1	RES	332 OHM 0603	723481150T		R8	
53		8	8	8	8	RES	1K 0603	723481200T		R10,R11,R38,R39,R40,R41,R42, R66	
54		1	1	1	1	RES	249 OHM 0603	723481138T		R12	
55		1	1	1	1	RES	14.3K 0603	723481315T		R13	
56		1	1	1	1	RES	5.62K 0603	723481272T		R14	
57		1	1	1	1	RES	187K 0603	723481426T		R15	
58		1	1	1	1	RES	215K 0603	723481432T		R16	
59		1	1	1	1	RES	6.65K 0603	723481279T		R18	
60		1	1	1	1	RES	33.2 OHM 0603	723481050T		R19	
61		1	1	1	1	RES	3.32K 0603	723481250T		R20	
62		1	1	1	1	RES	12.1K 0603	723481308T		R23	
63		3	3	3	3	RES	20K 0603	723481329T		R26,R33,R36	
64		3	3	3	3	RES	4.75K 0603	723481265T		R29,R31,R47	
65		3	3	3	3	RES	2.21K 0603	723481233T		R30,R32, R34	
66		1	1	1	1	RES	30.1K 0603	723481346T		R37	
67		1	1	1	1	RES	56.2K 0603	723481372T		R43	
68		1	1	1	1	RES	200K 0603	723481429T		R44	
69						RES	47.5 OHM 0603	723481065T			
		4	4	-	-					R45,R49,R50,R61	

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APPROVALS:		DR BY: DDN		CHKD BY: TY		APPD BY: RB		PROD: ____		REV LEVEL:	A
		DATE: 10/17/00		DATE: 07/30/01		DATE: 07/30/01		DATE: ____			
TITLE:		PCB ASSY, MAIN HT/CSH-1000 SMT									
		U.S. LOW 680-704MHZ	U.S. HI 722-746MHZ	GERMAN 798-822MHZ	U.K. 841-862MHZ						
		879440-									
		-1	-2	-3	-4						
		-	-	3	3					R45,R49,R50	
70		1	1	1	1	RES	750 OHM 0603	723481184T	R46		
71		1	1	1	1	RES	22.1K 0603	723481333T	R51		
72		1	1	1	1	RES	22.1 OHM 0603	723481033T	R53		
73		1	1	1	1	RES	6.81K 0603	723481280T	R54		
74		1	1	1	1	RES	150 OHM 1206	102404117T	R55		
75		1	1	1	1	RES	47.5K 0603	723481365T	R57		
76		2	2	2	2	RES	10 OHM 0603	723481000T	R58, R64		
77		-	-	1	1	RES	26.7 OHM 0603	723481041T	R61		
78		1	1	-	-	RES	130 OHM 0603	723481111T	R62		
79		1	1	1	1	IC	5534AD-T T & R	53293002T	U1		
80		1	1	1	1	IC	LM833	16030833SMT	U2		
81		1	1	1	1	IC	LM358	53227104T	U3		
82		1	1	1	1	IC	SA571	53277002T	U4		
83		1	1	1	1	IC	TRF2050	760242S	U5		
84		1	1	1	1	POT	10K	7235209T	VR4		
85		1	1	1	1	POT	20K	72352010T	VR3		
86		1	1	1	1	PC BOARD	HH MAIN TRANSMIT	750554			
87		A/R	A/R	A/R	A/R	PASTE	SOLDER PASTE	BE738			
88		1	1	1	1	CAP	.0047UF 0603	723483111T	C68		
89		1	1	1	1	RES	4.75K 1206	102404265T	R63		
90		1	1	1	1	RES	18.2K 0603	723481325T	R35		
91		-	-	1	-	CAP	4.7PF 0603	723482111T	C64		

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			Lincoln, Nebraska USA				879442		
APPROVALS:		DR BY: SMH		CHKD BY:DDN		APPD BY:R.B.		PROD: ____	
		DATE: 10/03/00		DATE:8/4/01		DATE:8/7/01		DATE: ____	
								REV LEVEL:	A
TITLE:		PCB SMT ASSY DISPLAY, HT/CSH-1000 SMT							
ITEM	NEW	QTY	TYPE	DESCRIPTION	PART NO.	DESIGNATOR			
1		1	CAP	.1UF 0603	723489101T	C201			
2		1	IC	PCF8566 VSO40	760303T	U201			
3		1	XMIT HAND HELD DISPLAY PCB		750555				
4		A/R		SOLDER PASTE	BE738				

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			Lincoln, Nebraska USA				879445-	
APPROVALS:		DR BY: TJY		CHKD BY:DDN	APPD BY:R.B.	PROD:____	REV LEVEL:	A
		DATE: 01/05/01		DATE:8/13/01	DATE:8/15/01	DATE:____		
TITLE:		PCB ASSY, ROSE II TRANSMIT HAND HELD CARTRIDGE BOARD SMT						
		879445-2						
ITEM	NEW	QTY	TYPE	DESCRIPTION	PART NO.	DESIGNATOR		
1		1	CAP	.01UF 0805 16V	72350125T	C1		
2		1	CAP	.056UF 1210	72350134T	C2		
3		1	RES	100 OHM 0603	723481100T	R1		
4		1	PC BOARD	ROSE II CARTRIDGE	750557			
5		A/R	SOLDERPASTE		BE738			

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				Lincoln, Nebraska USA				879480	
APPROVALS:		DR BY: TJY		CHKD BY: T.Y.		APPD BY: RB		PROD: ____	
		DATE: 04/03/01		DATE: 07/27/01		DATE: 07/27/01		DATE: ____	
								REV LEVEL:	A
TITLE:		PCB ASSY SWITCH, HT/CSH-1000 SMT							
ITEM	NEW	QTY	TYPE	DESCRIPTION	PART NO.	DESIGNATOR			
1		2	CAP	.1UF 0603	723489101T	C101,C104			
2		1	CAP	10UF TANT B	102877065T	C102			
3		1	CAP	1UF TANT A	102877012T	C103			
4		1	CAP	18PF 0603	723482119T	C105			
5		1	CAP	33PF 0603	723482124T	C106			
6		1	CONN	SAMTEC SFM	640148	J101			
7		1	TRANS	MTSF3NO3HD	760199T	Q101			
8		1	TRANS	MMBT3906	54716200	Q102			
9		1	RES	100K 0603	723481400T	R101			
10		10	RES	10K 0603	723481300T	R102,R103,R105,R106,R107,R108,R110,R111,R112,R113			
11		1	RES	47.5K 0603	723481365T	R104			
12		1	SWITCH	EG 1257	700188	S101			
13		4	SWITCH	TACT SWITCH	700182T	S102,S103,S104,S105			
14		2	IC	ND59952A	760305T	U101,U102			
15		1	IC	TC55RP500	760296T	U103			
16		1	IC	PIC16F872	760292T	U104			
17		1	IC	24AA64	7602952T	U105			
18		1	TRIMMER	5-20PF	7234103T	VC101			
19		1	XMIT HH	SWITCH PCB	750575				
20		A/R	SOLDER	PASTE	BE738				
21		1	RES	4.75K 0603	723481265T	R109			
22		1	RES	475 0603	723481165T	R114			
23		2	CAP	100PF 0603	723482130T	C107, C108			

HT-1000 ACTIVE DEVICES

DES	DEVICE	FUNCTION
1. Q1	MMBT5087	AF Amplifier
2. Q2	MMBT5087	AF Amplifier
3. Q3	MMBT3906	DC Amplifier
4. Q4	BFG540X	RF Amplifier
5. Q5	BFG540X	RF Amplifier
6. Q6	MMBT3906	DC Amplifier
7. Q7	MMBT3904	Switch
8. Q8	BFG540X	RF Amplifier
9. Q9	MMBT3906	DC Amplifier
10. Q10	BFG540X	RF Amplifier
11. Q101	MTSF3N03	Switch
12. Q102	MMBT3906	Switch
13. U1	NE5534	AF Amplifier
14. U2	LM833	Filter
15. U3	LM358	Comparator
16. U4	SA571	Compandor
17. U5	TRF2050	PLL
18. U101	NDS9952	Switch
19. U102	NDS9952	Switch
20. U103	TC55RP500	Regulator
21. U104	PIC16F872	Microprocessor
22. U105	24LC64	Memory
23. U201	PCF8566	LCD Driver

HT-1000 ALIGNMENT PROCEDURE

1. Unsolder jumper at E7 and E8. Solder coaxial cable from E7 to ground to feed frequency counter, deviation meter and spectrum analyzer.
2. Connect audio source of 50mv at 1kHz to E2 (hot) and E1 (ground).
3. Connect 9VDC to battery contacts (because of autopolarity circuit + can be connected to either contact).
4. Adjust user gain control maximum clockwise and actuate user power switch.
5. After LCD displays group and channel, press menu button to display frequency.
6. Adjust VC101 for this frequency.
7. Adjust VR3 for 40kHz deviation.
8. Remove audio input and adjust VR4 so that the 31.25kHz sidebands are at -30dBc .