

# TRAVELLER Nr. 1

2mtr Sendeempfänger 25/2 Watt  
mit eingebautem  
4 Kanalsuchlaufempfänger



Bedienungsanleitung  
mit Schaltplan und Teileliste

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## BEDIENUNGSANLEITUNG für

# TRAVELLER Nr. 1

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**Links oben: Tonruftaste**  
Gedrückt strahlt der Sender den 1.750 Hz Ton ab bei einem Output von 20 Watt.

**Kanalschalter:** Das grüne Kontroll-Licht links unten neben dem Kanalschalter zeigt an, ob der eingeschaltete Empfangskanal mit Quarzen bestückt ist oder nicht.

**Der Schalter SW vol:** ist der Einschalter und Lautstärkenregler.

**Der Schalter SQ/pull scan:** ist der Rauschsperreregler.

Wenn dieser herausgezogen wird und der Hebelschalter darüber auf Automatik gestellt wird, fängt der Scanner d. h. der Suchlauf an zu arbeiten und sucht die 4 Suchlaufkanäle nach einfallenden Signalen ab.

Wenn der Automatikschalter nach unten gedrückt wird, kann man mit diesem Schalter den Suchlauf unterbrechen und bei jedem Herunterdrücken des Schalters die Suchlaufkanäle separat einschalten.

Durch Eindrücken des Squelchschalters kann man mit dem Kanalschalter wieder die gewünschten Kanäle schalten.

Der rechte Schalter Rit dient zur Feineinstellung und wenn er herausgezogen wird, wird der Sender von 20 Watt auf kleine Leistung 2 Watt umgeschaltet. Zur Kontrolle schaltet sich dabei die S-Meterbeleuchtung von grün auf blau um.

**Der Hebelschalter rechts oben mit der Bezeichnung: Wide – NAR –** schaltet die Bandbreite von "weit" oder "breit" auf "schmal" um.

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• PARTS LIST OF CRYSTAL & SCAN

Circuit No.	Part No.	Description	Remarks
<b>CAPACITOR</b>			
C1 ~C23	MCC1H270K	Ceramic 27PF ± 10 %	
C24~C27	MCC1H330K	Ceramic 33PF ± 10 %	
C28,C29	MCC1H222MF	Ceramic 1000PF ± 20 %	
C30,C31	MCC1H1032F	Ceramic 0.01 $\mu$ F +80 % , -20 %	
C32	MCD16A470	Electrolytic 47 $\mu$ F 16 WV	
C33	MCC1H473K	Mylar 0.047 $\mu$ F ± 10 %	
<b>RESISTOR</b>			
R1,R2	MRK14VJ182	Carbon 1.8K $\Omega$ ± 5 %	
R3~R6	MRL14VJ222	Carbon 2.2K $\Omega$ ± 5 %	
R7	MRM2TJ820	Metal Film 82 $\Omega$ ± 5 %	
<b>SEMICONDUCTOR/P.C.B.</b>			
IC 1	MIC 001	IC SN7438N	
IC 2	MIC 002	IC SN7473N	
	UPB005T	PC Board	
<b>DIODE</b>			
D1~D6	MDS0005	Diode 1N4448	
D7	MDS0005	Zener Diode BZ-050	
<b>COIL</b>			
L1,L2	MLM102F	Ferri Inductance 1 mH	
<b>MISCELLANEOUS</b>			
	MNS0002	Crystal Socket 12P	
	MNS0003	Crystal Scocket 4 P	
	MGH0003	Wrapping pin	

Circuit No.	Part No.	Description			Remarks
C61	MCC1H680JC	Ceramic	68P	± 5 %	
C62,C63	MCC1H103FZ	Ceramic	0.01 $\mu$ F	+80 %, -20 %	
C64	MCD16A101	Electrolytic	100 $\mu$ F	16 WV	
C65	MCC1H103FZ	Ceramic	0.01 $\mu$ F	+80 %, -20 %	
C66	MCC1H150JC	Ceramic	15P	± 5 %	
C67	MCC1H1ROCC	Ceramic	1 P	± 10 %	
C68,C69	MCC1H330JC	Ceramic	33P	± 5 %	
C70	MCC1H102KB	Ceramic	0.001 $\mu$ F	+100 %, -0 %	
C71	MCC1H2ROCC	Ceramic	2 P	± 0.25 PF	
C72	MCC1H1ROCC	Ceramic	1 P	± 10 %	
C73,C74	MCC1H7ROCC	Ceramic	7 P	± 0.25 PF	
C75	MCC1H102KB	Ceramic	0.001 $\mu$ F	+100 %, -0 %	
C76	MCC1H103FZ	Ceramic	0.01 $\mu$ F	+80 %, -20 %	
C77	MCC1H100DT	Ceramic	10P	± 0.5 PF	
C78	MCC1H103FZ	Ceramic	0.01 $\mu$ F	+80 %, -20 %	
C79	MCC1H7ROCC	Ceramic	7 P	± 0.25 PF	
C80	MCC1H102KB	Ceramic	0.001 $\mu$ F	+100 %, -0 %	
C81	MCC1H221KB	Ceramic	220P	+100 %, -0 %	
C82	MCC1H331KB	Ceramic	330P	+100 %, -0 %	
C83	MCC1H103FZ	Ceramic	0.01 $\mu$ F	+80 %, -20 %	
C84	MCC1H330JC	Ceramic	33P	± 5 %	
C85	MCC1H103FZ	Ceramic	0.01 $\mu$ F	+80 %, -20 %	
C86	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C87	MCD16A470	Electrolytic	47 $\mu$ F	16 WV	
C88	MCQ1H103K	Mylar	0.01 $\mu$ F	± 10 %	
C89	MCQ1H223K	Mylar	0.022 $\mu$ F	± 10 %	
C90	MCQ1H222K	Mylar	0.0022 $\mu$ F	± 10 %	
C91	MCQ1H223K	Mylar	0.022 $\mu$ F	± 10 %	
C92	MCQ1H102K	Mylar	0.001 $\mu$ F	± 10 %	
C93	MCD16A470	Electrolytic	47 $\mu$ F	16 WV	
C94	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C95	MCQ1H393K	Mylar	0.039 $\mu$ F	± 10 %	
C96	MCC1H270K	Ceramic	27P	± 10 %	
C97	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C98	MCQ1H393K	Mylar	0.039 $\mu$ F	± 10 %	
C99,C100	MCD16A4R7	Electrolytic	4.7 $\mu$ F	16 WV	
C101	MCD16A470	Electrolytic	47 $\mu$ F	16 WV	
C102	MCD16A330	Electrolytic	33 $\mu$ F	16 WV	
C103	MCD16A1RO	Electrolytic	1 $\mu$ F	16 WV	
C104	MCD16A4R7	Electrolytic	4.7 $\mu$ F	16 WV	
C105	MCQ1H103K	Mylar	0.01 $\mu$ F	± 10 %	
C106,C107	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	

■ PARTS LIST OF RX UNIT (UPB-003T)

Circuit No.	Part No.	Description	Remarks
<b>CAPACITOR</b>			
C 1	MCC1H100DR	Ceramic 10P	± 0.5 PF
C 2	MCC1H330JC	Ceramic 33P	± 5 %
C 3	MCC1H7RODC	Ceramic 7P	± 0.5 PF
C 4	MCC1H180JC	Ceramic 18P	± 5 %
C 5	MCC1H5ROCC	Ceramic 5P	± 0.25 PF
C 6	MCC1H102KB	Ceramic 0.001 $\mu$ F	+100 %, -0 %
C 7	MCC1H102KB	Ceramic 0.001 $\mu$ F	+100 %, -0 %
C 8	MCC1H102KB	Ceramic 0.001 $\mu$ F	+100 %, -0 %
C 9	MCK1H102	Feed through 1000PF	50 V
C10	MCQ1H103FZ	Ceramic 0.01 $\mu$ F	+80 %, -20 %
C11	MCQ1H103FZ	Ceramic 0.01 $\mu$ F	+80 %, -20 %
C12	MCT2D6ROSI	Cylinder trimmer 6PF	
C13	MCT2D6ROSI	Cylinder trimmer 6PF	
C14	MCT2D6ROSI	Cylinder trimmer 6PF	
C15	MCC1H101JC	Ceramic 100P	± 5 %
C16	MCC1H102KB	Ceramic 0.001 $\mu$ F	+100 %, -0 %
C17	MCC1H102KB	Ceramic 0.001 $\mu$ F	+100 %, -0 %
C18	MCQ1H1032F	Ceramic 0.01 $\mu$ F	+80 %, -20 %
C19	MCD16A470	Electrolytic 47 $\mu$ F	50 V
C20	MCC1H101JC	Ceramic 100P	± 5 %
C21	MCQ1H223K	Mylar 0.022 $\mu$ F	10 %
C22	MCQ1H393K	Mylar 0.039 $\mu$ F	10 %
C23	MCQ1H1032F	Ceramic 0.01 $\mu$ F	+80 %, -20 %
C24,C25	MCQ1H223K	Mylar 0.022 $\mu$ F	± 10 %
C26	MCD16A101	Electrolytic 100 $\mu$ F	16 WV
C27,C28,C29	MCQ1H103K	Mylar 0.01 $\mu$ F	± 10 %
C30	MCQ1H102K	Mylar 0.001 $\mu$ F	± 10 %
C36	MCQ1H223K	Mylar 0.022 $\mu$ F	± 10 %
C37	MCQ1H103K	Mylar 0.01 $\mu$ F	± 10 %
C38	MCC1H471KB	Ceramic 470P	+100 %, -0 %
C39	MCC1H103FZ	Ceramic 0.01 $\mu$ F	+80 %, -20 %
C40	MCQ1H393K	Mylar 0.039 $\mu$ F	± 10 %
C41	MCQ1H223K	Mylar 0.022 $\mu$ F	± 10 %
C42,C43	MCC1H221KB	Ceramic 220P	+100 %, -0 %
C44	MCC1H470K	Ceramic 47P	± 10 %
C45	MCQ1H472K	Mylar 0.0047 $\mu$ F	± 10 %
C46	MCQ1H223K	Mylar 0.022 $\mu$ F	± 10 %
C47	MCC1H221KB	Ceramic 220P	+100 %, -0 %
C48	MCC1H681KB	Ceramic 680P	+100 %, -0 %
C49	MCC1H221KB	Ceramic 220P	+100 %, -0 %
C50	MCQ1H332K	Mylar 0.0033 $\mu$ F	± 10 %
C51,C52	MCQ1H223K	Mylar 0.022 $\mu$ F	± 10 %
C53	MCD16A4R7	Electrolytic 4.7 $\mu$ F	16 WV
C54	MCQ1H153K	Mylar 0.015 $\mu$ F	± 10 %
C55	MCQ1H223K	Mylar 0.022 $\mu$ F	± 10 %
C56	MCD16A1RO	Electrolytic 1 $\mu$ F	16 WV
C57	MCC1H103FZ	Ceramic 0.01 $\mu$ F	+80 %, -20 %
C59	MCC1H471KB	Ceramic 470P	+100 %, -0 %
C60	MCC1H820JC	Ceramic 82P	± 5 %

■ PARTS LIST OF TRAVELLER Nr. 1

Circuit No.	Part No.	Description	Remarks
<b>CAPACITOR</b>			
C103	MCC1H103ZF	Ceramic 0.01 $\mu$ F + 80 %, - 20 %	
<b>SEMICONDUCTOR</b>			
D101	MDS-0007	Diode GP-30B	
D103	MDL-0001	Diode TLR-102	
D105	MDL-0001	Diode TLR-102	
D107	MDL-0001	Diode TLR-102	
D108	MDL-0002	Diode TLG-102	

■ PARTS LIST OF PA UNIT (UPB-001T)

<b>CAPACITOR</b>			
C1	MCC1H103ZF	Ceramic 0.01 $\mu$ F + 80 %, - 20 %	
C2	MCC1H473ZF	Ceramic 0.047 $\mu$ F + 80 %, - 20 %	
C3	MCD50A100	Electrolytic 10 $\mu$ F 50 WV	
C4	MCC1H103ZF	Ceramic 0.01 $\mu$ F + 80 %, - 20 %	
C5	MCC1H473ZF	Ceramic 0.047 $\mu$ F + 80 %, - 20 %	
C6	MCD50A100	Electrolytic 10 $\mu$ F 50 WV	
C7	MCC1H390KC	Ceramic 39PF $\pm$ 10 %	
C8	MCC1H222MB	Ceramic 0.0022 $\mu$ F $\pm$ 20 %	
C9, C10	MCK1H152	Ceramic 0.001 $\mu$ F	
C11, C12, C13	MCK1H152	Ceramic 0.001 $\mu$ F	
CT1, CT2	MCT2B500MI	Mica trimmer 50PF	
CT3, CT4	MCT2B500MI	Mica trimmer 50PF	
CT5	MCT2B151MI	Mica trimmer 150PF	
CT6	MCT2B500MI	Mica trimmer 50PF	
<b>RESISTOR</b>			
R1	MRK12TJ470	Carbon 47 $\Omega$ $\pm$ 5 % 1/2W	
R2	MRK12TJ181	Carbon 180 $\Omega$ $\pm$ 5 % 1/2W	
R3	MRK14VJ102	Carbon 1K $\Omega$ $\pm$ 5 % 1/2W	
<b>SEMICONDUCTOR</b>			
Q1	MQC1971	2SC1971	
Q2	MQC1946	2SC1946	
Q3	MOD359	2SD359	
Q4	MQC711	2SC711	
<b>COIL</b>			
L1	MLA-0003	VHF coil	
L2	MLA-0004	Choke coil	
L3	MLA-0006	VHF coil	
L4	MLA-0004	Choke coil	
L5	MLA-0009	VHF coil	
L6	MLA-0010	VHF coil	
L7	MLA-0005	Choke coil	
L8	MLA-0008	Choke coil	
	UPB-001T	PC board	

Circuit No.	Part No.	Description			Remarks	
R22	MRD14VJ561	Carbon	560Ω	± 5 %	¼ W	
R23	MRD14VJ472	Carbon	4.7KΩ	± 5 %	¼ W	
R24	MRD14VJ680	Carbon	68Ω	± 5 %	¼ W	
R25	MRD14VJ151	Carbon	150Ω	± 5 %	¼ W	
R26	MRD14VJ331	Carbon	330Ω	± 5 %	¼ W	
R27	MRD14VJ472	Carbon	4.7KΩ	± 5 %	¼ W	
R28	MRD14VJ680	Carbon	68Ω	± 5 %	¼ W	
R29	MRD14VJ151	Carbon	150Ω	± 5 %	¼ W	
R30	MRD14VJ331	Carbon	330Ω	± 5 %	¼ W	
R31	MRD14VJ472	Carbon	4.7KΩ	± 5 %	¼ W	
R32	MRD14VJ220	Carbon	22Ω	± 5 %	¼ W	
R33	MRD14VJ470	Carbon	47Ω	± 5 %	¼ W	
R34	MRD14VJ560	Carbon	56Ω	± 5 %	¼ W	
R35	MRD14VJ473	Carbon	47KΩ	± 5 %	¼ W	
R36	MRD14VJ681	Carbon	680Ω	± 5 %	¼ W	
R37	MRD14VJ101	Carbon	100Ω	± 5 %	¼ W	
R38	MRD14VJ102	Carbon	1KΩ	± 5 %	¼ W	
R39	MRD14VJ682	Carbon	6.8KΩ	± 5 %	¼ W	
R40	MRD14VJ103	Carbon	10KΩ	± 5 %	¼ W	
R41	MRD14VJ223	Carbon	22KΩ	± 5 %	¼ W	
R42,R43	MRD14VJ103	Carbon	10KΩ	± 5 %	¼ W	
R44	MRD14VJ472	Carbon	4.7KΩ	± 5 %	¼ W	
R45	MRD14VJ332	Carbon	3.3KΩ	± 5 %	¼ W	
R46	MRD14VJ223	Carbon	22KΩ	± 5 %	¼ W	
R47	MRD14VJ472	Carbon	4.7KΩ	± 5 %	¼ W	
R48	MRD14VJ152	Carbon	1.5KΩ	± 5 %	¼ W	
R49	MRD14VJ471	Carbon	470Ω	± 5 %	¼ W	
R50	MRD14VJ683	Carbon	68KΩ	± 5 %	¼ W	
R51	MRM2TJ5R6	Metal Film	5.6Ω	± 5 %	2 W	
R52	MRD14VJ471	Carbon	470Ω	± 5 %	¼ W	
R53	MRD14VJ561	Carbon	560Ω	± 5 %	¼ W	
R54	MRD14VJ102	Carbon	1KΩ	± 5 %	¼ W	
R55	MRD14VJ223	Carbon	22KΩ	± 5 %	¼ W	
R56	MRD14VJ222	Carbon	2.2KΩ	± 5 %	¼ W	
R57	MRD14VJ123	Carbon	120KΩ	± 5 %	¼ W	
R58,R59	MRD14VJ474	Carbon	470KΩ	± 5 %	¼ W	
R60	MRD14VJ103	Carbon	10KΩ	± 5 %	¼ W	
R61	MRD14VJ682	Carbon	6.8KΩ	± 5 %	¼ W	
R62	MRD14VJ151	Carbon	150Ω	± 5 %	¼ W	
R63	MRD14VJ393	Carbon	39KΩ	± 5 %	¼ W	

Circuit No.	Part No.	Description			Remarks
C61	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C62	MCD50A1RO	Electrolytic	1 $\mu$ F	50 WV	
C63,C64	MCQ1H473K	Mylar	0.047 $\mu$ F	$\pm$ 10 %	
C65	MCD50A1RO	Electrolytic	1 $\mu$ F	50 WV	
C66	MCC1H103ZF	Ceramic	0.01 $\mu$ F	+ 80 %, - 20 %	
C67	MCQ1H223K	Mylar	0.022 $\mu$ F	$\pm$ 10 %	
C68	MCD50A1RO	Electrolytic	1 $\mu$ F	50 WV	
C69~C71	MCQ1H103K	Mylar	0.01 $\mu$ F	$\pm$ 10 %	
C72	MCC1H102ZF	Ceramic	1000PF	+ 80 %, - 20 %	
C73	MCU16A4R7	Tantalum	4.7 $\mu$ F	16 WV	
C74	MCC1H102ZF	Ceramic	1000PF	+ 80 %, - 20 %	
C75	MCQ1H103K	Mylar	0.01 $\mu$ F	$\pm$ 10 %	
C76	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C77	MCC1H103ZF	Ceramic	0.01 $\mu$ F	+ 80 %, - 20 %	
C78	MCD16A470	Electrolytic	47 $\mu$ F	16 WV	
C79	MCC1H103ZF	Ceramic	0.01 $\mu$ F	+ 80 %, - 20 %	
C80	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C81	MCC1H103ZF	Ceramic	0.01 $\mu$ F	+ 80 %, - 20 %	
C82,C83	MCQ1H332K	Mylar	3300PF	$\pm$ 10 %	
C84	MCD16A330	Electrolytic	33 $\mu$ F	16 WV	
C85	MCQ1H153K	Mylar	0.015 $\mu$ F	$\pm$ 10 %	
C86	MCD50A1RO	Electrolytic	1 $\mu$ F	50 WV	
C87	MCD16A470	Electrolytic	47 $\mu$ F	16 WV	
C88	MCD16A100	Electrolytic	10 $\mu$ F	16 WV	
C89	MCQ1H333K	Mylar	0.033 $\mu$ F	$\pm$ 10 %	
C90	MCD16A330	Electrolytic	33 $\mu$ F	16 WV	
C91	MCD16A101	Electrolytic	100 $\mu$ F	16 WV	
C92	MCQ1H102K	Mylar	1000PF	$\pm$ 10 %	
C93	MCC1H331KB	Ceramic	330PF	$\pm$ 10 %	
C94	MCQ1H472K	Mylar	4700PF	$\pm$ 10 %	
C95	MCD16A330	Electrolytic	33 $\mu$ F	16 WV	
C96	MCQ1H104K	Mylar	0.1 $\mu$ F	$\pm$ 10 %	
C97	MCD16A221	Electrolytic	220 $\mu$ F	16 WV	
TC1	MCT2B180C1	Ceramic trimmer	18PF		
TC2	MCT3B230C1	Ceramic trimmer	23PF		
<b>RESISTOR</b>					
R1	MRD14VJ223	Carbon	22 K $\Omega$	$\pm$ 5 % 1/4W	
R2	MRD14VJ562	Carbon	5.6 K $\Omega$	$\pm$ 5 % 1/4W	
R3,R4	MRD14VJ102	Carbon	1 K $\Omega$	$\pm$ 5 % 1/4W	
R5	MRD14VJ223	Carbon	22 K $\Omega$	$\pm$ 5 % 1/4W	
R6	MRD14VJ472	Carbon	4.7 K $\Omega$	$\pm$ 5 % 1/4W	
R7,R8	MRD14VJ221	Carbon	220 $\Omega$	$\pm$ 5 % 1/4W	
R9~R11	MRD14VJ470	Carbon	47 $\Omega$	$\pm$ 5 % 1/4W	
R12	MRD14VJ683	Carbon	68 K $\Omega$	$\pm$ 5 % 1/4W	
R13	MRD14VJ473	Carbon	47 K $\Omega$	$\pm$ 5 % 1/4W	
R14	MRD14VJ333	Carbon	33 K $\Omega$	$\pm$ 5 % 1/4W	
R16	MRD14VJ331	Carbon	330 $\Omega$	$\pm$ 5 % 1/4W	
R17	MRD14VJ221	Carbon	220 $\Omega$	$\pm$ 5 % 1/4W	
R18	MRD14VJ471	Carbon	470 $\Omega$	$\pm$ 5 % 1/4W	
R19	MRD14VJ272	Carbon	2.7 K $\Omega$	$\pm$ 5 % 1/4W	
R20,R21	MRD14VJ101	Carbon	100 $\Omega$	$\pm$ 5 % 1/4W	

■ PARTS LIST OF FILTER UNIT (UPB-008T)

Circuit No.	Part No.	Description	Remarks
<b>CAPACITOR</b>			
C1	MCC1H1ROD	Ceramic 1PF ± 0.5 PF	
C2	MCC1H222MD	Ceramic 0.002 $\mu$ F ± 20 %	
C3	MCC1H150JC	Ceramic 15PF ± 0.5 PF	
C4	MCC1H220JC	Ceramic 22PF ± 0.5 PF	
C5	MCC1H150JC	Ceramic 15PF ± 0.5 PF	
C6,C7	MCC1H102MD	Ceramic 0.001 $\mu$ F ± 20 PF	
C8	MCC1H103ZF	Ceramic 0.01 $\mu$ F +80, -20 %	
C9	MCC1H7RODC	Ceramic 7PF ± 0.5 PF	
C10	MCC1H150JC	Ceramic 15PF ± 0.5 PF	
C11	MCC1H220JC	Ceramic 22PF ± 0.5 PF	
<b>RESISTOR/POTENTIOMETER</b>			
R1	MRK14TJ102	Carbon 1 K $\Omega$ ± 5 % 1/4W	
VR1		Variable resistor 5 K $\Omega$	
VR2		Variable resistor 100 K $\Omega$	
VR3		Variable resistor 500 $\Omega$	
<b>DIODE</b>			
D1	MDC0001	1N60	
D2,D3	MDS0004	1S955	
D4,D5	MDS0004	1S955	
D6,D7	MDS0004	1S955	
D8,D9	MDS0004	1S955	
D10	MDS0001	1N60	
D11	MDS0001	1N60	
<b>COIL/P.C.B.</b>			
L1	MLA0011	VHF coil	
L2,L3,L4	MLA0012	VHF coil	
L5	MLA0014	VHF coil	
L6	MLA0013	VHF coil	
RFC1	MLZ004N	Choke coil	
	UPB-008T	PC board	

■ PARTS LIST OF RELAY UNIT (UPB-009T)

K1	MYR0001	Relay	
L101	MTC0001	Choke coil	
D102	MDS0005	Diode 1N4448	
C102	MCD16A102	Electrolytic 1000 $\mu$ F 16 WV	
	UPB-009T	PC board	

Circuit No.	Part No.	Description	Remarks
VR1	MRT102B	Volume 1 K $\Omega$	
VR2,VR3	MRT502B	Volume 5 K $\Omega$	
VR4	MRT302B	Volume 3 K $\Omega$	
VR5	MRT502B	Volume 5 K $\Omega$	
<b>MISCELLANEOUS</b>			
	MJC4C001	IL Connector 4 P	
	MJC6C003	IL Connector 6 P	
	MJC7C004	IL Connector 7 P	
	MGH0003	Wrapping pin	
<b>SEMICONDUCTOR</b>			
Q1~Q4	MQC460	Transistor 2SC460	
Q5,Q6	MQC388A	Transistor 2SC388A	
Q7	MQC2053	Transistor 2SC2053	
Q8	MQC1970	Transistor 2SC1970	
Q9	MQC460	Transistor 2SC460	
Q10	MQC496	Transistor 2SC496	
Q11	MQA495	Transistor 2SA495	
Q12	MOC1000	Transistor 2SC1000	
IC1	MIC 004	TA7061AP	
IC2	MIC 005	AN 315	
<b>DIODE</b>			
D1	MDC0001	Diode 1S1658	
D2	MDS0006	Diode 1N4002	
D3	MDR0001	SCR SP4002	
D4,D5	MDS0005	Diode 1N4448	
D6	MDS0006	Diode 1N4002	
D7	MDZ0004	Zener Diode WZ-100	
	UHD0005	IC Heat Sink	
	UHD0009	Heat Sink	
	UPB002T	PC Board	
T1~T3	MLS001C	Tuning Coil 12 MHz	
T4	MLT001C	Tuning Coil 24 MHz	
T5	MLT002C	Tuning Coil 24 MHz	
T6	MLT003C	Tuning Coil 72 MHz	
T7,T8	MLT004C	Tuning Coil 72 MHz	
T9	MLT005C	Tuning Coil 145 MHz	
T10	MLT006C	Tuning Coil 145 MHz	
L1	MLM102F	Ferri Inductance 1 mH	
L2	MLZ003N	Coil S6B (YLW)	
L3	MLZ002N	Coil S10H3 (ORG)	
L4	MLZ001N	Coil S10H3 (RED)	
L5	MLM102F	Ferri Inductance 1 mH	
L6	MLM153F	Ferri Inductance 150 mH	

Circuit No.	Part No.	Description			Remarks
R63	MRK14VJ331	Carbon	330Ω	± 5 % ¼W	
R64	MRK14VJ101	Carbon	100Ω	± 5 % ¼W	
R65	MRK14VJ102	Carbon	1 KΩ	± 5 % ¼W	
R66	MRK14VJ223	Carbon	22KΩ	± 5 % ¼W	
R67	MRK14VJ221	Carbon	220Ω	± 5 % ¼W	
R68	MRK14VJ471	Carbon	470Ω	± 5 % ¼W	
R69	MRK14VJ332	Carbon	3.3KΩ	± 5 % ¼W	
R70	MRK14VJ222	Carbon	2.2KΩ	± 5 % ¼W	
R73	MRK14VJ471	Carbon	470Ω	± 5 % ¼W	
R74	MRK14VJ473	Carbon	47KΩ	± 5 % ¼W	
R75	MRK14VJ472	Carbon	4.7KΩ	± 5 % ¼W	
R76	MRK14VJ473	Carbon	47KΩ	± 5 % ¼W	
R77	MRK14VJ682	Carbon	6.8KΩ	± 5 % ¼W	
R78	MRK14VJ153	Carbon	15KΩ	± 5 % ¼W	
R79	MRK14VJ102	Carbon	1 KΩ	± 5 % ¼W	
R80	MRK14VJ561	Carbon	560Ω	± 5 % ¼W	
R81	MRK14VJ471	Carbon	470Ω	± 5 % ¼W	
R82	MRK12VJ5R6	Carbon	5.6Ω	± 5 % ¼W	
R83	MRK14VJ471	Carbon	470Ω	± 5 % ¼W	
R84	MRK14VJ102	Carbon	1 KΩ	± 5 % ¼W	
R85	MRK14VJ473	Carbon	47KΩ	± 5 % ¼W	
R86	MRK14VJ472	Carbon	4.7KΩ	± 5 % ¼W	
R87	MRK14VJ333	Carbon	33KΩ	± 5 % ¼W	
R88	MRK14VJ102	Carbon	1 KΩ	± 5 % ¼W	
R89	MRK14VJ332	Carbon	3.3KΩ	± 5 % ¼W	
R90	MRK14VJ103	Carbon	10KΩ	± 5 % ¼W	
R91	MRK14VJ101	Carbon	100Ω	± 5 % ¼W	
R92	MRK14VJ104	Carbon	100KΩ	± 5 % ¼W	
R93	MRK14VJ472	Carbon	4.7KΩ	± 5 % ¼W	
R94,R95	MRK14VJ563	Carbon	56KΩ	± 5 % ¼W	
R96	MRK14VJ473	Carbon	47KΩ	± 5 % ¼W	
R97	MRK14VJ273	Carbon	27KΩ	± 5 % ¼W	
R98	MRK14VJ154	Carbon	150KΩ	± 5 % ¼W	
R99	MRK14VJ153	Carbon	15KΩ	± 5 % ¼W	
R100	MRK14VJ223	Carbon	22KΩ	± 5 % ¼W	
R101	MRK14VJ103	Carbon	10KΩ	± 5 % ¼W	
R102	MRK14VJ562	Carbon	5.6KΩ	± 5 % ¼W	
R103	MRK14VJ223	Carbon	22KΩ	± 5 % ¼W	
R104	MRK14VJ102	Carbon	1 KΩ	± 5 % ¼W	
R105	MRK14VJ222	Carbon	2.2KΩ	± 5 % ¼W	
R106	MRK14VJ222	Carbon	2.2KΩ	± 5 % ¼W	
Q1,Q2	MQF-3SK41	FET	3SK-41		
Q2,Q3,Q4	MQC 460	FET	2SC 460		
Q5,Q7,Q8	MQC 460	FET	2SC 460		
Q9,Q10,Q11	MQC 460	FET	2SC 460		
Q12,Q13,Q14	MQC 460	FET	2SC 460		
Q15,Q16	MQC 496	FET	2SC 460		
Q17	MQA 495	FET	2SA 495Y		
Q18,Q20	MQC 458	FET	2SC 458		
Q21,Q22	MQC 458	FET	2SC 458		
Q23	MQC 945	FET	2SC 945		

Circuit No.	Part No.	Description	Remarks
IC-1 VR-1 VR-2	MIC-003 MRT-303B MRT-103B	TA7120P 30K $\Omega$ Preset Resistor 10K $\Omega$ Preset Resistor	
	USC-0001 USC-0002 UOX-0007 UOX-0009 UOX-0006 UOX-0008 UOX-0005 MGH-0001	Shield Case Shield Case Cover Holder Holder Nat Tuning Screw Tapered Nat Ceramic Tube Hermetic Terminal	
<b>DIODE</b>			
D 1 ~ D 5 D 6 ~ D 7 D 8 ~ D11 D12 ~ D13 D14 D15 D16 ~ D17 D18	MDS-0005 MDG-0001 MDS-0005 MDG-0001 MDC-0001 MDZ-0003 MDG-0001 MDS-0005	Diode 1N4448 Diode 1N 60 Diode 1N4448 Diode 1N 60 Diode 1S2208 Zener Diode WZ090 Diode 1N 60 Diode 1N4448	
	UPB-003T	RX P.C.B.	
<b>COIL/FILTER/CRYSTAL</b>			
L1,L2 L3,L5 L4 L6 L7 L9 L10 L11,L12 L13,L14 L15 L16 L17 L18	MLT-007C MLA-0002 MLA-0001 MLS-003C MLS-002C MLS-005C MLS-006C MLT-008C MLT-009C MLM-100V MLM-100F MLM-102F MLM-222F	ANT Coil VHF Coil (A) VHF Coil (B) IFT (10.7 MHz) IFT (10.7 MHz) 455 DISL Trans 455 DISL Trans Tuning Coil Multiplier Coil Choke Coil Choke Coil Choke Coil Choke Coil	
CF-1 CF-2 CF-3 CF-4	MFX-0001 MFC-0001 MFC-0003 MFC-0002	Crystal Filter 10F20AG Ceramic Filter (CF-107) Ceramic Filter (LFC-20) Ceramic Filter (LFB-15)	
CX-1	MXT-0001	Crystal (10.245 MHz)	
<b>MISCELLANEOUS</b>			
	MJI-12P007 MJI-10P006 MGH-0003	Connector 12P Connector 10P Wrapping Pin	

Circuit No.	Part No.	Description			Remarks
<b>RESISTOR</b>					
R1	MRK14VJ103	Carbon	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R2,R3	MRK14VJ104	Carbon	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R4	MRK14VJ823	Carbon	82K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R5,R6	MRK14VJ101	Carbon	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R7	MRK14VJ104	Carbon	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R8	MRK14VJ102	Carbon	1K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R9	MRK14VJ331	Carbon	330 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R10	MRK14VJ101	Carbon	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R11	MRK14VJ562	Carbon	5.6K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R12	MRK14VJ472	Carbon	4.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R13	MRK14VJ153	Carbon	15K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R14	MRK14VJ151	Carbon	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R15	MRK14VJ331	Carbon	330 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R16	MRK14VJ333	Carbon	33K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R17	MRK14VJ472	Carbon	4.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R18	MRK14VJ471	Carbon	470 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R19	MRK14VJ222	Carbon	2.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R20	MRK14VJ101	Carbon	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R21,R22	MRK14VJ471	Carbon	470 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R23	MRK14VJ222	Carbon	2.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R24	MRK14VJ332	Carbon	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R25	MRK14VJ470	Carbon	47 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R26	MRK14VJ222	Carbon	2.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R27	MRK14VJ332	Carbon	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R28	MRK14VJ470	Carbon	47 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R29,R30	MRK14VJ332	Carbon	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R31	MRK14VJ104	Carbon	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R32	MRK14VJ222	Carbon	2.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R38	MRK14VJ562	Carbon	5.6K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R39	MRK14VJ333	Carbon	33K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R40	MRK14VJ681	Carbon	680 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R41	MRK14VJ561	Carbon	560 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R42	MRK14VJ154	Carbon	150K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R43	MRK14VJ681	Carbon	680 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R44	MRK14VJ472	Carbon	4.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R45	MRK14VJ104	Carbon	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R46	MRK14VJ471	Carbon	470 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R47	MRK14VJ332	Carbon	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R48	MRK14VJ103	Carbon	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R49	MRK14VJ472	Carbon	4.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R50	MRK14VJ471	Carbon	470 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R51	MRK14VJ561	Carbon	560 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R52,R53	MRK14VJ102	Carbon	1K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R54	MRK14VJ472	Carbon	4.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R56	MRK14VJ153	Carbon	15K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R57	MRK14VJ223	Carbon	22K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R58	MRK14VJ682	Carbon	6.8K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R59	MRK14VJ103	Carbon	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R60	MRK14VJ561	Carbon	560 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R61	MRK14VJ472	Carbon	4.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R62	MRK14VJ332	Carbon	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$