

TABLE OF CONTENTS

FOREWORD	iii	2 MAINTENANCE,	
SYSTEM CONFIGURATION	v	 TROUBLESHOOTING	27
PROGRAM NUMBER	vi	2.1 Maintenance.....	27
SYSTEM OVERVIEW	vii	2.2 Resetting the Breaker	28
SPECIFICATIONS	SP-1	2.3 Replacement of Battery.....	28
1 OPERATION	1	2.4 Troubleshooting.....	29
1.1 Description of Controls	1	2.5 Diagnostics.....	30
1.2 Turning On and Off	2	2.5.1 Displaying program number.....	30
1.3 Adjusting Display Brilliance and		2.5.2 Memory test	31
Contrast	3	2.5.3 Keyboard test.....	31
1.4 Menu Overview	4	2.5.4 LCD test	32
1.4.1 Menu operating procedure	4	2.5.5 On/off history.....	32
1.4.2 Remarks on menu operation	5	2.5.6 GPS test.....	33
1.5 Setting Up for a Voyage.....	7	2.6 Alarm Status	34
1.6 Setting CPA/TCPA	10	2.7 Error Messages	35
1.7 Plotter Display.....	11	2.8 GPS Monitor.....	36
1.8 Target Data Display	12	2.9 Displaying Sensor Status	37
1.8.1 Normal target data	12	2.10 Restoring Default Settings	38
1.8.2 Finding dangerous ship's data..	14		
1.9 Own Ship's Information.....	15	APPENDIX	AP-1
1.9.1 Own static data.....	15	Menu Tree	AP-1
1.9.2 Own dynamic data.....	17	Parts List.....	AP-3
1.10 Messages.....	18	Parts Location.....	AP-4
1.10.1 Sending a message.....	18	Digital Interface (IEC 61162-2)	AP-7
1.10.2 Receiving messages	20	VHF Frequency List.....	AP-26
1.10.3 Message logs	21		
1.11 Regional Operating Channels	22	INDEX	IN-1
1.11.1 Viewing channels, Tx power.....	22		
1.11.2 Displaying, editing regional		Declaration of Conformity	
operating area status	23		
1.12 Enabling/Disabling the Buzzer.....	25		
1.13 Long Range Mode	26		

VHF channel list

Ch No.	Frequency	Ch No.	Frequency	Ch No.	Frequency	Ch No.	Frequency
1001	156.05	1201	156.0625	2001	160.65	2201	160.6625
1002	156.1	1202	156.1125	2002	160.7	2202	160.7125
1003	156.15	1203	156.1625	2003	160.75	2203	160.7625
1004	156.2	1204	156.2125	2004	160.8	2204	160.8125
1005	156.25	1205	156.2625	2005	160.85	2205	160.8625
6	156.3	1206	156.3125	6	156.3	2206	160.9125
1007	156.35	1207	156.3625	2007	160.95	2207	160.9625
		208	156.4125	8	156.4		
		209	156.4625	9	156.45		
		210	156.5125	10	156.5		
		211	156.5625	11	156.55		
		212	156.6125	12	156.6		
		213	156.6625	13	156.65		
		214	156.7125	14	156.7		
		215	156.7625	15	156.75		
		216	156.8125	16	156.8		
		217	156.8625	17	156.85		
1018	156.9	1218	156.9125	2018	161.5	2218	161.5125
1019	156.95	1219	156.9625	2019	161.55	2219	161.5625
1020	157	1220	157.0125	2020	161.6	2220	161.6125
1021	157.05	1221	157.0625	2021	161.65	2221	161.6625
1022	157.1	1222	157.1125	2022	161.7	2222	161.7125
1023	157.15	1223	157.1625	2023	161.75	2223	161.7625
1024	157.2	1224	157.2125	2024	161.8	2224	161.8125
1025	157.25	1225	157.2625	2025	161.85	2225	161.8625
1026	157.3	1226	157.3125	2026	161.9125	2226	161.925
1027	157.35	1227	157.3625	2027	161.9625	2227	161.975
1028	157.4	1228	157.4125	2028	162	2228	162.0125
1060	156.025	1260	156.0375	2060	160.625	2260	160.6375
1061	156.075	1261	156.0875	2061	160.675	2261	160.6875
1062	156.125	1262	156.1375	2062	160.725	2262	160.7375
1063	156.175	1263	156.1875	2063	160.775	2263	160.7875
1064	156.225	1264	156.2375	2064	160.825	2264	160.8375
1065	156.275	1265	156.2875	2065	160.875	2265	160.8875
1066	156.325	1266	156.3375	2066	160.925	2266	160.9375
67	156.375	267	156.3875				
68	156.425	268	156.4375				
69	156.475	269	156.4875				
70	156.525	270	156.5375				
71	156.575	271	156.5875				
72	156.625	272	156.6375				
73	156.675	273	156.6875				
74	156.725	274	156.7375				
75	156.775	275	156.7875				
76	156.825	276	156.8375				
77	156.875	277	156.8875				
1078	156.925	1278	156.9375	2078	161.525	2278	161.5375
1079	156.975			2079	161.575		
1080	157.025	1280	157.0375	2080	161.625	2280	161.6375
1081	157.075	1281	157.0875	2081	161.675	2281	161.6875
1082	157.125	1282	157.1375	2082	161.725	2282	161.7375

1083	157.175	1283	157.1875	2083	161.775	2283	161.7875
1084	157.225	1284	157.2375	2084	161.825	2284	161.8375
1085	157.275	1285	157.2875	2085	161.875	2285	161.8875
1086	157.325	1286	157.3375	2086	161.925	2286	161.9375
1087	157.375	1287	157.3875	2087	161.975	2287	161.9625
1088	157.425	1288	157.4125	2088	162.025	2288	162.0125

Note: Add 1000 for one-digit, two-digit, and three-digit channel numbers.