

**NERG4a EPROM for Philips FM92 (FM900) 2m transceiver**

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The NERG4a EPROM set includes all FM simplex, FM repeater, and Packet radio channels as specified by the WIA band plan. It also includes most other frequencies used by amateur groups around Melbourne. Additional channels are provided to monitor various beacons, satellites, and space station transmissions (please do not transmit on these frequencies!).

Channels are grouped according to usage:

Simplex call channels - Primary, Secondary, and National Calling frequencies as specified in the WIA band plan. 146.500 MHz and 146.550 MHz are most commonly used simplex channels for calling CQ.

Repeater channels - As specified in the WIA band plan. Split into groups with +600 kHz and -600 kHz transmit offsets. Some repeaters and repeater links can only be accessed using CTCSS (sub-audible tones). CTCSS is not enabled by the NERG4a EPROM even when a CTCSS module is fitted to the radio.

Liaison channels - As specified in the WIA band plan for coordinating special mode activities such as ATV, SSTV, RTTY, & FAX that may take place on other frequencies.

Packet Radio channels -

As specified in the WIA band plan. Many packet channels are used by packet repeaters and BBS stations.

Other simplex voice channels -

Club nets, CW practice, special event coordination frequencies.

Other non-voice channels -

Various foxhunt, ARDF beacons, SSTV, RTTY & FAX frequencies.

Miscellaneous channels -

Odd frequencies for monitoring such things as CW beacons that just happen to fall within a 25kHz channel. Don't expect to hear much on these channels unless propagation is exceptionally good!

Test channels -

To aid adjustment of the FM92 VCOs and receiver front-end, or measurement of antenna SWR across the whole amateur band.

**WARNING: Channels 52 & 58 are outside the amateur band and should only be used for radio adjustments using a dummy load.**

**Note:** Some frequencies have multiple uses and therefore may appear under several channel numbers. This is intentional and is part of the functional grouping of channels.

For instance, the NERG net frequency can be found on channel 7 (the WIA secondary simplex call freq.). However it is easier to select the same frequency on channel 99 by only one push of the channel select button after turning the radio on.

Also, the NERG net frequency appears on channel 98, but at a low output power setting and a low power standby mode.

**Scan Groups:** Push the AUX button to step through available scan groups (indicated by flashing left hand digit).

Scan Group #1

Simplex group includes NERG net, Foxhunt liaison, and ISS space station monitoring.

Scan Group #2

Melbourne repeaters - selected repeaters available North/East of Melbourne (restricted set due to limitations of radio programming).

**NERG4a EPROM channel list for Philips FM92 - In Channel Number order****Legend:**

P = Power ( H=20 Watts, L=2 Watts )  
 E = Economiser (low power receiver standby)  
 1 = Scan Group 1  
 2 = Scan Group 2  
 rpt = repeater  
 splx = simplex  
 pkt = packet radio

**WARNING:** Channels 52 & 58 are out of the amateur band and only intended for VCO tune-up purposes using a dummy load. Channel 55 (146.000 MHz) should be kept clear as transmission on this frequency can interfere with amateur satellites.

**Table 1 - NERG4a by channel number**

Ch	RX freq. MHz	TX offset MHz	P	E	1	2	Usage	Old Chan.
							<b>Simplex FM channels</b>	
1	146.425	0.000	H				ch 6425 splx secondary voice	
2	146.450	0.000	H				ch 6450 splx primary voice	Ch49
3	146.475	0.000	H				ch 6475 splx secondary voice	
4	146.500	0.000	H				ch 6500 splx national call	Ch50
5	146.525	0.000	H				ch 6525 splx secondary voice	
6	146.550	0.000	H				ch 6550 splx primary voice	Ch51
7	146.575	0.000	H				ch 6575 splx secondary voice	
8	147.500	0.000	H				ch 7500 splx national calling	Ch52
							<b>All repeaters with -600kHz offset</b>	
10	146.625	-0.600	H				ch 6625 rpt 7RMD	
11	146.650	-0.600	H			2	ch 6650 rpt 3REG 3RGV 7RAF	Ch1
12	146.675	-0.600	H				ch 6675 rpt	
13	146.700	-0.600	H			2	ch 6700 rpt 3RML 3RNC 3RON 7RHT	Ch2
14	146.725	-0.600	H				ch 6725 rpt 7RNE	
15	146.750	-0.600	H				ch 6750 rpt 3RBA 7RNW	Ch3
16	146.775	-0.600	H				ch 6775 rpt 3RAG	
17	146.800	-0.600	H				ch 6800 rpt 3RLV 3RMA	Ch4
18	146.825	-0.600	H				ch 6825 rpt	
19	146.850	-0.600	H			2	ch 6850 rpt 3RMN 3RDU 7RBW	Ch5
20	146.875	-0.600	H				ch 6875 rpt 3RRM	
21	146.900	-0.600	H				ch 6900 rpt 3RBS 3REB 3RSH 7REC	Ch6
22	146.925	-0.600	H				ch 6925 rpt	
23	146.950	-0.600	H				ch 6950 rpt 3RWZ	Ch7
24	146.975	-0.600	H			2	ch 6975 rpt 3RSR (scouts portable rpt)	
25	147.000	-0.600	H			2	ch 7000 rpt 3RGL 3RNE 7RAA	Ch8
							<b>All repeaters with +600kHz offset</b>	
26	147.025	0.600	H				ch 7025 rpt 3RGS 3RMK	
27	147.050	0.600	H				ch 7050 rpt 3RJK 3RVL 3RHO 3RWL	
28	147.075	0.600	H				ch 7075 rpt 3RRC 7RWC	
29	147.100	0.600	H				ch 7100 rpt 3RPB 3RSG 3RWA	
30	147.125	0.600	H				ch 7125 rpt 3RGC	
31	147.150	0.600	H				ch 7150 rpt 3RCV 3REM	
32	147.175	0.600	H			2	ch 7175 rpt 3REC	
33	147.200	0.600	H				ch 7200 rpt	
34	147.225	0.600	H				ch 7225 rpt 3RWG	
35	147.250	0.600	H			2	ch 7250 rpt 3RMM	
36	147.275	0.600	H				ch 7275 rpt 3ROW	
37	147.300	0.600	H				ch 7300 rpt 3RWP WICEN portable	
38	147.325	0.600	H				ch 7325 rpt 3RBB rtty	
39	147.350	0.600	H				ch 7350 rpt 3RTY rtty	
40	147.375	0.600	H				ch 7375 rpt	
41	147.300	0.000	H				WICEN 3RWP portable repeater simplex mode	

**Table 1 - NERG4a by channel number - Continued...**

Ch	RX freq. MHz	TX offset MHz	P	E	1	2	Usage	Old Chan.
							<b>Misc. ATV liaison, SSTV, RTTY</b>	
42	146.600	0.000	H				RTTY national	ch52
43	147.400	0.000	H				ATV liaison	ch68
44	147.425	0.000	H				EMDRC net, VK3COD Morse practice/ATV liaison	
45	147.450	0.000	H				ATV/SSTV/FAX liaison	ch69
46	147.475	0.000	H				SSTV/FAX liaison	
47	145.600	0.000	H				RTTY (AFSK)	
48	145.625	0.000	H				SSTV/FAX (AFSK)	
49	145.575	0.000	L				Info Beacons ?	
50	145.825	0.000	L				oscar-11, do-17 satellites - AFSK data (receive)	
51	145.400	0.000	H				Essdale net	
							<b>FM-900 VCO tuneup frequencies, SWR testing Use with care - may cause out of band emissions or interference to other services!</b>	
52	143.500	0.000	L				VCO test 0 *** out of band VCO test only ***	
53	144.025	0.000	L				VCO test 1 (lower end of amateur band)	
54	145.000	0.000	L				VCO test 2	
55	146.000	0.000	L				VCO test 3 (keep clear - satellite guard band)	
56	147.000	0.000	L				VCO test 4	
57	147.975	0.000	L				VCO test 5 (upper end of amateur band)	
58	148.525	0.000	L				VCO test 6 *** out of band VCO test only ***	
59	146.025	0.000	H				VCO tune up - FULL power	
							<b>Packet Radio</b>	
60	144.700	0.000	H				pkt 1200bps - VK3BEE	
61	144.725	0.000	H				pkt 1200bps - VK3RPE	
62	144.750	0.000	H				pkt 1200bps - VK3BBS	
63	144.775	0.000	H				pkt 1200bps - VK3FRS	
64	144.800	0.000	H				pkt 1200bps - VK3JBB	
65	144.825	0.000	H				pkt 1200bps - VK3KSK	
66	144.850	0.000	H				pkt 1200bps	
67	144.875	0.000	H				pkt 1200bps - VK3FRC	
68	144.900	0.000	H				pkt 1200bps - VK3BLW, 3RPP	
69	144.925	0.000	H				pkt 1200bps - VK3ATL, 3RGC	
70	144.975	0.000	H				pkt 1200bps - VK3DSE, 3JNJ	
71	145.000	0.000	H				pkt 1200bps	
72	145.025	0.000	H				pkt 1200bps - VK3RPA, 3BBS	
73	145.050	0.000	H				pkt 1200bps	
74	145.075	0.000	H				pkt >1200bps [John Knox AR club voice]	
75	145.100	0.000	H				pkt >1200bps	
76	145.125	0.000	H				pkt >1200bps	
77	145.150	0.000	H				pkt >1200bps	
78	145.175	0.000	H				pkt >1200bps	
79	145.200	0.000	H				pkt 1200 - WICEN Emergency Network - keep clear!	
80	147.550	0.000	H				pkt 1200bps (microprocessor net)	ch71
81	147.575	0.000	H				pkt 1200bps - VK3ECC, 3RMU	
82	147.600	0.000	H				pkt 1200bps (data net) - VK3RPS, 3DSE, 3FRC	
							<b>Beacon Frequencies (approximate only)</b>	
83	144.425	0.000	L				VK2 Beacon [3RTG Gln Wav'ley 144.430]	
84	144.450	0.000	L				VK5 Beacon	
85	144.475	0.000	L				VK7 Beacon	
86	144.525	0.000	L				VK2 Beacon [3RGG Geelong 144.530, 3RGI Moe 144.535]	
87	144.550	0.000	L				VK5 Beacon	
88	144.575	0.000	L				VK7 Beacon	
89	145.650	0.000	L				MORSE practice beacn (Melb)/broadcast relay	
90	143.625	0.600	L		1		ISS International Space Station (Receive only)	
							<b>NERG, Foxhunt &amp; ARDF liaison.</b>	
91	145.550	0.000	H				Space shuttle & ISS ???	
92	144.250	0.000	L				Original fox freq (Primary SSB calling)	
93	145.300	0.000	L				ARDF/Foxhunt fox primary	
94	145.075	0.000	H				John Knox AR club - also pkt >1200bps	
95	145.675	0.000	H		1		NERG/FOX Liaison [CW practice/Broadcast relay]	
96	147.425	0.000	H				EMDRC net [ATV/SSTV liaison]	
97	145.700	0.000	L				ARDF/Foxhunt fox home beacon	
98	146.575	0.000	L	E			NERG net/FOX-ARDF Liaison 1 Watt	
99	146.575	0.000	H		1	2	NERG net/FOX-ARDF Liaison 20 Watts (also on ch7)	

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E = Economiser (low power receiver standby)

1 = Scan Group 1

2 = Scan Group 2

rpt = repeater

splx = simplex

pkt = packet radio

**WARNING:** Channels 52 & 58 are out of the amateur band and only intended for VCO tune-up purposes using a dummy load. Channel 55 (146.000 MHz) should be kept clear as transmission on this frequency can interfere with amateur satellites.

**Table 2 - NERG4a channels in frequency order**

Ch	RX freq. MHz	TX offset MHz	P	E	1	2	Usage	Old Chan.
52	143.500	0.000	L				VCO test 0 *** out of band VCO test only ***	
90	143.625	0.600	L		1		ISS International Space Station (Receive only)	
53	144.025	0.000	L				VCO test 1 (lower end of amateur band)	
92	144.250	0.000	L				Original fox freq (Primary SSB calling)	
83	144.425	0.000	L				VK2 Beacons [3RTG Gln Wavley .430]	
84	144.450	0.000	L				VK5 Beacons	
85	144.475	0.000	L				VK7 Beacons	
86	144.525	0.000	L				VK2 Beacons [3RGG Geelong .530, 3RGI Moe .535]	
87	144.550	0.000	L				VK5 Beacons	
88	144.575	0.000	L				VK7 Beacons	
60	144.700	0.000	H				pkt 1200bps - VK3BEE	
61	144.725	0.000	H				pkt 1200bps - VK3RPE	
62	144.750	0.000	H				pkt 1200bps - VK3BBS	
63	144.775	0.000	H				pkt 1200bps - VK3FRS	
64	144.800	0.000	H				pkt 1200bps - VK3JBB	
65	144.825	0.000	H				pkt 1200bps - VK3KSK	
66	144.850	0.000	H				pkt 1200bps	
67	144.875	0.000	H				pkt 1200bps - VK3FRC	
68	144.900	0.000	H				pkt 1200bps - VK3BLW, 3RPP	
69	144.925	0.000	H				pkt 1200bps - VK3ATL, 3RGC	
70	144.975	0.000	H				pkt 1200bps - VK3DSE, 3JNJ	
54	145.000	0.000	L				VCO test 2	
71	145.000	0.000	H				pkt 1200bps	
72	145.025	0.000	H				pkt 1200bps - VK3RPA, 3BBS	
73	145.050	0.000	H				pkt 1200bps	
74	145.075	0.000	H				pkt >1200bps [John Knox AR club voice]	
94	145.075	0.000	H				John Knox AR club - also for pkt >1200bps ?	
75	145.100	0.000	H				pkt >1200bps	
76	145.125	0.000	H				pkt >1200bps	
77	145.150	0.000	H				pkt >1200bps	
78	145.175	0.000	H				pkt >1200bps	
79	145.200	0.000	H				pkt 1200 - WICEN Emergency Network - keep clear!	
93	145.300	0.000	L				ARDF/Foxhunt fox primary	
51	145.400	0.000	H				Essdale net	
91	145.550	0.000	H				Space shuttle & ISS ???	
49	145.575	0.000	L				Info Beacons ?	
47	145.600	0.000	H				RTTY (AFSK)	
48	145.625	0.000	H				SSTV/FAX (AFSK)	
89	145.650	0.000	L				MORSE practice beacon (Melb)/broadcast relay	
95	145.675	0.000	H		1		NERG/FOX Liaison [CW practice/Broadcast relay]	
97	145.700	0.000	L				ARDF/Foxhunt fox home beacon	
50	145.825	0.000	L				oscar-11, do-17 satellites - AFSK data (receive)	

Table 2 - NERG4a channels in frequency order - Continued...

Ch	RX freq. MHz	TX offset MHz	P	E	1	2	Usage	Old Chan.
55	146.000	0.000	L				VCO test 3 (keep clear - satellite guard band)	
59	146.025	0.000	H				VCO tune up - FULL power	
1	146.425	0.000	H				ch 6425 splx secondary voice	
2	146.450	0.000	H				ch 6450 splx primary voice	Ch49
3	146.475	0.000	H				ch 6475 splx secondary voice	
4	146.500	0.000	H				ch 6500 splx national call	Ch50
5	146.525	0.000	H				ch 6525 splx secondary voice	
6	146.550	0.000	H				ch 6550 splx primary voice	Ch51
7	146.575	0.000	H				ch 6575 splx secondary voice	
98	146.575	0.000	L	E			NERG net/FOX-ARDF Liaison 1 Watt	
99	146.575	0.000	H		1	2	NERG net/FOX-ARDF Liaison 20 Watts (also on ch7)	
42	146.600	0.000	H				RTTY national	ch52
10	146.625	-0.600	H				ch 6625 rpt 7RMD	
11	146.650	-0.600	H			2	ch 6650 rpt 3REG 3RGV 7RAF	Ch1
12	146.675	-0.600	H				ch 6675 rpt	
13	146.700	-0.600	H			2	ch 6700 rpt 3RML 3RNC 3RON 7RHT	Ch2
14	146.725	-0.600	H				ch 6725 rpt 7RNE	
15	146.750	-0.600	H				ch 6750 rpt 3RBA 7RNW	Ch3
16	146.775	-0.600	H				ch 6775 rpt 3RAG	
17	146.800	-0.600	H				ch 6800 rpt 3RLV 3RMA	Ch4
18	146.825	-0.600	H				ch 6825 rpt	
19	146.850	-0.600	H			2	ch 6850 rpt 3RMN 3RDU 7RBW	Ch5
20	146.875	-0.600	H				ch 6875 rpt 3RRM	
21	146.900	-0.600	H				ch 6900 rpt 3RBS 3REB 3RSH 7REC	Ch6
22	146.925	-0.600	H				ch 6925 rpt	
23	146.950	-0.600	H				ch 6950 rpt 3RWZ	Ch7
24	146.975	-0.600	H			2	ch 6975 rpt 3RSR (scouts portable rptr)	
56	147.000	0.000	L				VCO test 4	
25	147.000	-0.600	H			2	ch 7000 rpt 3RGL 3RNE 7RAA	Ch8
26	147.025	0.600	H				ch 7025 rpt 3RGS 3RMK	
27	147.050	0.600	H				ch 7050 rpt 3RJK 3RVL 3RHO 3RWL	
28	147.075	0.600	H				ch 7075 rpt 3RCR 7RWC	
29	147.100	0.600	H				ch 7100 rpt 3RPB 3RSG 3RWA	
30	147.125	0.600	H				ch 7125 rpt 3RGC	
31	147.150	0.600	H				ch 7150 rpt 3RCV 3REM	
32	147.175	0.600	H			2	ch 7175 rpt 3REC	
33	147.200	0.600	H				ch 7200 rpt	
34	147.225	0.600	H				ch 7225 rpt 3RWG	
35	147.250	0.600	H			2	ch 7250 rpt 3RMM	
36	147.275	0.600	H				ch 7275 rpt 3ROW	
41	147.300	0.000	H				WICEN 3RWP portable repeater simplex mode	
37	147.300	0.600	H				ch 7300 rpt 3RWP WICEN portable	
38	147.325	0.600	H				ch 7325 rpt 3RBB rty	
39	147.350	0.600	H				ch 7350 rpt 3RTY rty	
40	147.375	0.600	H				ch 7375 rpt	
43	147.400	0.000	H				ATV liaison	ch68
44	147.425	0.000	H				EMDRC net, VK3COD Morse practice/ATV liaison	
96	147.425	0.000	H				EMDRC net [ATV/SSTV liaison]	
45	147.450	0.000	H				ATV/SSTV/FAX liaison	ch69
46	147.475	0.000	H				SSTV/FAX liaison	
8	147.500	0.000	H				ch 7500 splx national calling	Ch52
80	147.550	0.000	H				pkt 1200bps (microprocessor net)	ch71
81	147.575	0.000	H				pkt 1200bps - VK3ECC, 3RMU	
82	147.600	0.000	H				pkt 1200bps (data net) - VK3RPS, 3DSE, 3FRC	
57	147.975	0.000	L				VCO test 5 (upper end of amateur band)	
58	148.525	0.000	L				VCO test 6 *** out of band VCO test only ***	