

Programming your VHF mobile radio.

Many hams have a tendency to only program those frequencies that they use on a regular basis into their radios.

For a fixed station this isn't a big deal but for your mobile or a portable station, as in EmCom, this tends to leave one at a disadvantage. To fully take full advantage of your radio it is a recommendation that you should program all standard repeater pairs into your radio.

There are two different channel spacing plans depending upon what part of the country you are in. About 80-85% of the repeaters in the US are on 15 kHz spacing. Texas on the other hand uses 20 kHz spacing. In order to program all possible standard pairs you need to consider both plans. Both are shown both in the chart to the right.

By programming your mobile / portable radios beginning with 145.110 into memory 1 moving up the band from there. By doing so if you are on the 147.000 machine and need to QSY to 147.320 you only need to know to rotate your dial "UP" like you would your cars AM/FM radio in order to move higher in memories. This method is quicker than trying to remember where you may have programmed 147.320 is stored into your radio.

Another thing to remember is that you should program two memories for 147.000 as this machine can be either an up shift (+) or a down shift (-) offset. Obviously if you are traveling you probably won't know the CTCSS for every possible repeater you may come across but at least you will be able to pick up activity you may miss.

As for simplex, there are three FM simplex sub bands.

- 1) 145.500 – 145.800
- 2) 146.400 – 146.600
- 3) 147.400 – 147.600

Place them after the repeater pairs and use 10 kHz spacing beginning with 145.510 – 145.790 then 146. 410 – 147.590 followed with 147.410 – 147.590.

Memory	15 kHz	20 kHz	Memory	15 kHz	20 kHz
1	145.110	145.110	51	146.910	
2	145.130	145.130	52		146.920
3	145.150	145.150	53	146.925	
4	145.170	145.170	54	146.940	146.940
5	145.190	145.190	55	146.955	
6	145.210	145.210	56		146.960
7	145.230	145.230	57	146.970	
8	145.250	145.250	58		146.980
9	145.270	145.270	59	146.985	
10	145.290	145.290	60	147.000 (-)	147.000 (-)
11	145.310	145.310	61	147.000 (+)	147.000 (+)
12	145.330	145.330	62	147.015	
13	145.350	145.350	63		147.020
14	145.370	145.370	64	147.030	
15	145.390	145.390	65		147.040
16	145.410	145.410	66	147.045	
17	145.430	145.430	67	147.060	147.060
18	145.450	145.450	68	147.075	
19	145.470	145.470	69		147.080
20	145.490	145.490	70	147.090	
21	146.610		71		147.100
22		146.620	72	147.105	
23	146.625		73	147.120	147.120
24	146.640	146.640	74	147.135	
25	146.655		75		147.140
26		146.660	76	147.150	
27	146.670		77		147.160
28		146.680	78	147.165	
29	146.685		79	147.180	147.180
30	146.700	146.700	80	147.195	
31	146.715		81		147.200
32		146.720	82	147.210	
33	146.730		83		147.220
34		146.740	84	147.225	
35	146.745		85	147.240	147.240
36	146.760	147.760	86	147.255	
37	146.775		87		147.260
38		146.780	88	147.270	
39	146.790		89		147.280
40		146.800	90	147.285	
41	146.805		91	147.300	147.300
42	146.820	146.820	92	147.315	
43	146.835		93		147.320
44		146.840	94	147.330	
45	146.850		95		147.340
46		146.860	96	147.345	
47	146.865		97	147.360	147.360
48	146.880	146.880	98	147.375	
49	146.895		99		147.380
50		146.900	100	147.390	