

Dip Switch Info for R121 or R122 Rcvr

Here is a programming aid to help determine settings of the frequency control dip switch for the R121 and R122 Aviation Band Receivers. This is information too lengthy to publish in the instruction manuals, and it includes a chart for all possible frequencies.

Setting Channel Frequency.

The channel frequency is determined by frequency synthesizer circuits, which use a dip switch in conjunction with programming in a microcontroller to set the channel. The microcontroller reads the dip switch information and does mathematics, applying serial data to the synthesizer ic whenever power is applied or the dip switch is changed. Following is a discussion of how to set the dip switch to the desired channel frequency.

NOTE: If the frequency is changed more than about 1 MHz, a complete alignment of the receiver should be per-formed, as described in later text. Optimum operation only occurs if the synthesizer is adjusted to match the frequency switch setting and all the tuned amplifier circuits are peaked for the desired frequency.

Next to the frequency you choose in the chart is a stream of data, indicating settings for the ten dip switches positions, from 1 to 10, listed in two groups of 5 just to make it more readable. "0" indicates switch position open, and "1" indicates switch position closed.

Aircraft Receiver Freq. vs Dip Switch Setting:

118.025	00000	00001
118.050	00000	00010
118.075	00000	00011
118.100	00000	00100
118.125	00000	00101
118.150	00000	00110
118.175	00000	00111
118.200	00000	01000
118.225	00000	01001
118.250	00000	01010
118.275	00000	01011
118.300	00000	01100
118.325	00000	01101
118.350	00000	01110
118.375	00000	01111
118.400	00000	10000
118.425	00000	10001
118.450	00000	10010
118.475	00000	10011
118.500	00000	10100
118.525	00000	10101
118.550	00000	10110
118.575	00000	10111
118.600	00000	11000
118.625	00000	11001
118.650	00000	11010
118.675	00000	11011
118.700	00000	11100
118.725	00000	11101
118.750	00000	11110
118.775	00000	11111
118.800	00001	00000
118.825	00001	00001
118.850	00001	00010
118.875	00001	00011
118.900	00001	00100
118.925	00001	00101
118.950	00001	00110
118.975	00001	00111
119.000	00001	01000
119.025	00001	01001
119.050	00001	01010
119.075	00001	01011
119.100	00001	01100

119.125	00001	01101
119.150	00001	01110
119.175	00001	01111
119.200	00001	10000
119.225	00001	10001
119.250	00001	10010
119.275	00001	10011
119.300	00001	10100
119.325	00001	10101
119.350	00001	10110
119.375	00001	10111
119.400	00001	11000
119.425	00001	11001
119.450	00001	11010
119.475	00001	11011
119.500	00001	11100
119.525	00001	11101
119.550	00001	11110
119.575	00001	11111
119.600	00010	00000
119.625	00010	00001
119.650	00010	00010
119.675	00010	00011
119.700	00010	00100
119.725	00010	00101
119.750	00010	00110
119.775	00010	00111
119.800	00010	01000
119.825	00010	01001
119.850	00010	01010
119.875	00010	01011
119.900	00010	01100
119.925	00010	01101
119.950	00010	01110
119.975	00010	01111
120.000	00010	10000
120.025	00010	10001
120.050	00010	10010
120.075	00010	10011
120.100	00010	10100
120.125	00010	10101
120.150	00010	10110
120.175	00010	10111
120.200	00010	11000
120.225	00010	11001
120.250	00010	11010
120.275	00010	11011
120.300	00010	11100
120.325	00010	11101

120.350	00010	11110
120.375	00010	11111
120.400	00011	00000
120.425	00011	00001
120.450	00011	00010
120.475	00011	00011
120.500	00011	00100
120.525	00011	00101
120.550	00011	00110
120.575	00011	00111
120.600	00011	01000
120.625	00011	01001
120.650	00011	01010
120.675	00011	01011
120.700	00011	01100
120.725	00011	01101
120.750	00011	01110
120.775	00011	01111
120.800	00011	10000
120.825	00011	10001
120.850	00011	10010
120.875	00011	10011
120.900	00011	10100
120.925	00011	10101
120.950	00011	10110
120.975	00011	10111
121.000	00011	11000
121.025	00011	11001
121.050	00011	11010
121.075	00011	11011
121.100	00011	11100
121.125	00011	11101
121.150	00011	11110
121.175	00011	11111
121.200	00100	00000
121.225	00100	00001
121.250	00100	00010
121.275	00100	00011
121.300	00100	00100
121.325	00100	00101
121.350	00100	00110
121.375	00100	00111
121.400	00100	01000
121.425	00100	01001
121.450	00100	01010
121.475	00100	01011
121.500	00100	01100
121.525	00100	01101
121.550	00100	01110

121.575	00100	01111
121.600	00100	10000
121.625	00100	10001
121.650	00100	10010
121.675	00100	10011
121.700	00100	10100
121.725	00100	10101
121.750	00100	10110
121.775	00100	10111
121.800	00100	11000
121.825	00100	11001
121.850	00100	11010
121.875	00100	11011
121.900	00100	11100
121.925	00100	11101
121.950	00100	11110
121.975	00100	11111
122.000	00101	00000
122.025	00101	00001
122.050	00101	00010
122.075	00101	00011
122.100	00101	00100
122.125	00101	00101
122.150	00101	00110
122.175	00101	00111
122.200	00101	01000
122.225	00101	01001
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122.475	00101	10011
122.500	00101	10100
122.525	00101	10101
122.550	00101	10110
122.575	00101	10111
122.600	00101	11000
122.625	00101	11001
122.650	00101	11010
122.675	00101	11011
122.700	00101	11100
122.725	00101	11101
122.750	00101	11110
122.775	00101	11111

122.800	00110	00000
122.825	00110	00001
122.850	00110	00010
122.875	00110	00011
122.900	00110	00100
122.925	00110	00101
122.950	00110	00110
122.975	00110	00111
123.000	00110	01000
123.025	00110	01001
123.050	00110	01010
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123.100	00110	01100
123.125	00110	01101
123.150	00110	01110
123.175	00110	01111
123.200	00110	10000
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123.250	00110	10010
123.275	00110	10011
123.300	00110	10100
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123.350	00110	10110
123.375	00110	10111
123.400	00110	11000
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123.450	00110	11010
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123.500	00110	11100
123.525	00110	11101
123.550	00110	11110
123.575	00110	11111
123.600	00111	00000
123.625	00111	00001
123.650	00111	00010
123.675	00111	00011
123.700	00111	00100
123.725	00111	00101
123.750	00111	00110
123.775	00111	00111
123.800	00111	01000
123.825	00111	01001
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123.950	00111	01110
123.975	00111	01111
124.000	00111	10000

124.025	00111	10001
124.050	00111	10010
124.075	00111	10011
124.100	00111	10100
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124.400	01000	00000
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124.525	01000	00101
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125.000	01000	11000
125.025	01000	11001
125.050	01000	11010
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125.125	01000	11101
125.150	01000	11110
125.175	01000	11111
125.200	01001	00000
125.225	01001	00001

125.250	01001	00010
125.275	01001	00011
125.300	01001	00100
125.325	01001	00101
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125.925	01001	11101
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125.975	01001	11111
126.000	01010	00000
126.025	01010	00001
126.050	01010	00010
126.075	01010	00011
126.100	01010	00100
126.125	01010	00101
126.150	01010	00110
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129.125	01101	11101
129.150	01101	11110
129.175	01101	11111
129.200	01110	00000
129.225	01110	00001
129.250	01110	00010
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129.900	01110	11100
129.925	01110	11101
129.950	01110	11110
129.975	01110	11111
130.000	01111	00000
130.025	01111	00001
130.050	01111	00010
130.075	01111	00011
130.100	01111	00100
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130.150	01111	00110
130.175	01111	00111
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130.725	01111	11101
130.750	01111	11110
130.775	01111	11111
130.800	10000	00000
130.825	10000	00001
130.850	10000	00010
130.875	10000	00011
130.900	10000	00100
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131.600	10001	00000
131.625	10001	00001
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133.375	10011	00111
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135.425	10101	11001
135.450	10101	11010
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135.575	10101	11111
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135.675	10110	00011
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135.725	10110	00101
135.750	10110	00110
135.775	10110	00111
135.800	10110	01000
135.825	10110	01001
135.850	10110	01010
135.875	10110	01011
135.900	10110	01100
135.925	10110	01101
135.950	10110	01110
135.975	10110	01111
136.000	10110	10000
136.025	10110	10001
136.050	10110	10010
136.075	10110	10011
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136.125	10110	10101
136.150	10110	10110
136.175	10110	10111
136.200	10110	11000
136.225	10110	11001
136.250	10110	11010

136.275	10110	11011
136.300	10110	11100
136.325	10110	11101
136.350	10110	11110
136.375	10110	11111
136.400	10111	00000
136.425	10111	00001
136.450	10111	00010
136.475	10111	00011
136.500	10111	00100
136.525	10111	00101
136.550	10111	00110
136.575	10111	00111
136.600	10111	01000
136.625	10111	01001
136.650	10111	01010
136.675	10111	01011
136.700	10111	01100
136.725	10111	01101
136.750	10111	01110
136.775	10111	01111
136.800	10111	10000
136.825	10111	10001
136.850	10111	10010
136.875	10111	10011
136.900	10111	10100
136.925	10111	10101
136.950	10111	10110
136.975	10111	10111
137.000	10111	11000