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## **Cobra 200GTL DX Frequency Modification**

Rev 1.1

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## Cobra 200GTL DX Frequency Modification Package Introduction

#### Read the complete mod package before starting

**NOTE:** Exercise a great deal of care with this mod! Due to the placement, size, and close proximity of the surrounding traces. If done wrong you could destroy the PCB and / or the transistors.

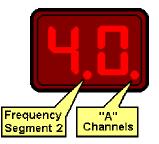
If you have even the slightest doubts or the proper equipment, it would be wise to have someone else you trust perform the mod for you.

The Cobra 200GLT DX is a 10 Meter Amateur Radio with some unique features not found on other Amateur radios. SMT (Surface Mount Technology) design and other advanced features such as the Bi-Polar Power Transistors used in the High Power Transmitter circuit give it superiority over other radios in it's class. The Microprocessor Controlled PLL circuit allows the frequency range to extend far beyond many of it's competitors. (Export Only!)

#### **Channel Display:**

The Channel Display has visual indicators for Band Segments, and "A" Channels Export mode consists of 8 Bands divided into 4

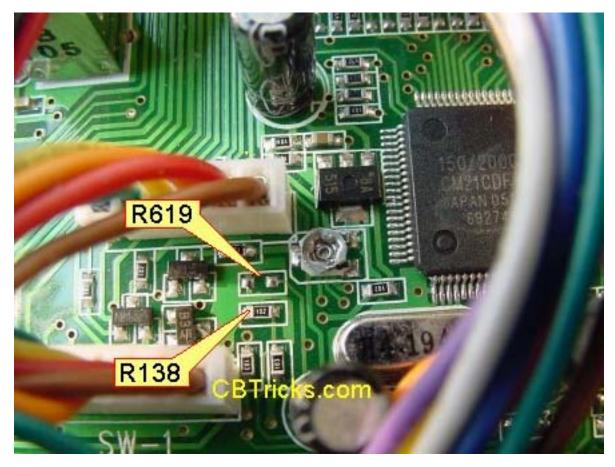
switch positions. The 4 Position Band Switch (A Through D) represents two 45 channel frequency blocks for each letter. For example, Position A would start on the lower frequency segment (1 - 40), and then continue the next segment above when channel 40 is passed. The channel display will show a small dot on the center of the display indicating that the radio is in the Upper Segment of the 2 bands.



#### "A" channels

The Cobra radios also have "continuous" coverage of each band by not skipping the "A" channels between 3, 7, 11, 15, and 19, as other radios do. As the channel selector reaches channel 3, the next channel up will display 3 again with a small dot on the Right Side. This represents channel 3A, which is normally skipped by most radios and only accessible if the radio has a "slider" control or a 10Khz offset switch. The Cobra 200GTL-DX has a built-in Frequency Display so it is much less confusing than other models having no display.

See page 2 for diagram for modification.



(1)	Remove the covers and locate the TMP87PP21DF Microprocessor near the front right of the unit.
(2)	Locate and Remove the surface mount Resistor R138 to the left side of the Microprocessor this will let the radio TX on all the channels but the "Government Frequency" range which is Listen Only!.
(3)	Resistor R619 controls the TX on the "Government Frequency" range and is not installed from the factory. Install the resistor that you removed from R138 to the R619 pads. (1k) to activate the "Government Frequency" range.
(4)	Remove Power from the radio by disconnecting the Power leads for 15 seconds to reset the Microprocessor.

#### Cobra 200GTL DX Frequency Modification Package

	Ва	nd A	
Freq. S	egment 1	Freq. Segment 2	
Freq.	Display	Freq.	Display
26.065	1	26.515	.1
26.075	2	26.525	.2
26.085	3	26.535	.3
26.095	3.	26.545	.3.
26.105	4	26.555	.4
26.115	5	26.565	.5
26.125	6	26.575	.6
26.135	7	26.585	.7
26.145	7.	26.595	.7.
26.155	8	26.605	.8
26.165	9	26.615	.9
26.175	10	26.625	1.0
26.185	11	26.635	1.1
26.195	11.	26.645	1.1.
26.205	12	26.655	1.2
26.215	13	26.665	1.3
26.225	14	26.675	1.4
26.235	15	26.685	1.5
26.245	15.	26.695	1.5.
26.255	16	26.705	1.6
26.265	17	26.715	1.7
26.275	18	26.725	1.8
26.285	19	26.735	1.9
26.295	19.	26.745	1.9.
26.305	20	26.755	2.0
26.315	21	26.765	2.1
26.325	22	26.775	2.2
26.355	23	26.805	2.3
26.335	24	26.785	2.4
26.345	25	26.795	2.5
26.365	26	26.815	2.6
26.375	27	26.825	2.7
26.385	28	26.835	2.8
26.395	29	26.845	2.9
26.405	30	26.855	3.0
26.415	31	26.865	3.1
26.425	32	26.875	3.2
26.435	33	26.885	3.3
26.445	34	26.895	3.4
26.455	35	26.905	3.5
26.465	36	26.915	3.6
26.475	37	26.925	3.7
26.485	38	26.935	3.8
26.495	39	26.945	3.9
26.505	40	26.955	4.0

Band B						
Freq. Se	gment 1	Freq. Segment 2				
Freq.	Display	Freq. Display				
26.965	1	27.415	.1			
26.975	2	27.425	.2			
26.985	3	27.435	.3			
26.995	3.	27.445	.3.			
27.005	4	27.455	.4			
27.015	5	27.465	.5			
27.025	6	27.475	.6			
27.035	7	27.485	.7			
27.045	7.	27.495	.7.			
27.055	8	27.505	.8			
27.065	9	27.515	.9			
27.075	10	27.525	1.0			
27.085	11	27.535	1.1			
27.095	11.	27.545	1.1.			
27.105	12	27.555	1.2			
27.115	13	27.565	1.3			
27.125	14	27.575	1.4			
27.135	15	27.585	1.5			
27.145	15.	27.595	1.5.			
27.155	16	27.605	1.6			
27.165	17	27.615	1.7			
27.175	18	27.625	1.8			
27.185	19	27.635	1.9			
27.195	19.	27.645	1.9.			
27.205	20	27.655	2.0			
27.215	21	27.665	2.1			
27.225	22	27.675	2.2			
27.255	23	27.705	2.3			
27.235	24	27.685	2.4			
27.245	25	27.695	2.5			
27.265	26	27.715	2.6			
27.275	27	27.725	2.7			
27.285	28	27.735	2.8			
27.295	29	27.745	2.9			
27.305	30	27.755	3.0			
27.315	31	27.765	3.1			
27.325	32	27.775	3.2			
27.335	33	27.785	3.3			
27.345	34	27.795	3.4			
27.355	35	27.805	3.5			
27.365	36	27.815	3.6			
27.375	37	27.825	3.7			
27.385	38	27.835	3.8			
27.395	39	27.845	3.9			
27.405	40	27.855	4.0			

#### Cobra 200GTL DX Frequency Modification Package

	Bai	nd C	
Freq. Se	egment 1	Freq. Se	egment 2
Freq.	Display	Freq.	Display
27.865	1	28.315	.1
27.875	2	28.325	.2
27.885	3	28.235	.3
27.895	3	28.345	.3.
27.905	4	28.355	.4
27.915	5	28.365	.5
27.925	6	28.375	.6
27.935	7	28.385	.7
27.945	7.	28.395	.7.
27.955	8	28.405	.8
27.965	9	28.415	.9
27.975	10	28.425	1.0
27.985	11	28.435	1.1
27.995	11.	28.445	1.1.
28.005	12	28.455	1.2
28.015	13	28.465	1.3
28.025	14	28.475	1.4
28.035	15	28.485	1.5
28.045	15.	28.495	1.5.
28.055	16	28.505	1.6
28.065	17	28.515	1.7
28.075	18	28.525	1.8
28.085	19	28.535	1.9
28.095	19.	28.545	1.9.
28.105	20	28.555	2.0
28.115	21	28.565	2.1
28.125	22	29.575	2.2
28.155	23	28.605	2.3
28.135	24	28.585	2.4
28.145	25	28.595	2.5
28.165	26	28.615	2.6
28.175	27	28.625	2.7
28.185	28	28.635	2.8
28.195	29	28.645	2.9
28.205	30	28.655	3.0
28.215	31	28.665	3.1
28.225	32	28.675	3.2
28.235	33	28.685	3.3
28.245	34	28.695	3.4
28.255	35	28.705	3.5
28.265	36	28.715	3.6
28.275	37	28.725	3.7
28.285	38	28.735	3.8
28.295	39	28.745	3.9
28.305	40	28.755	4.0

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