



RADIO FREQUENCY INDUSTRIES (PTY.) LTD.

"Simply The Best"

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Corner 5th Avenue ALBERTON
ALBERTON NORTH, 1450 1450

MA-COMPACT-XDX-DB DUAL BAND MOBILE ANTENNA FOR AMATEUR USE ONLY

Tuning of the Antenna:

The MA-XDX-DB Dual Band antenna is pre set in the factory to approximately 136.00 MHz. The reason for this is that where the antenna is used with very small ground planes the whip needs to be longer. The use of this antenna on magnet mounts with a floating earth also requires the whip to be slightly longer. The best procedure is to mount the antenna first to the required position on the vehicle. Select the position and angle required, and do not move it again. Make sure that this is where the antenna will remain on the vehicle. The best position is obviously in the centre of the vehicle's roof, but this is not always practical. Once the antenna is completely mounted, start to trim the antenna until a low VSWR is reached on 144.00MHz. Use an analyser or VSWR meter in line with a radio to take VSWR readings. Don't even look at the VSWR on 420 to 440MHz. because as the antenna gets to resonance (145.0 to 145.2MHz.) the VSWR will come down on the 70cm. band. NOTE: ALWAYS CHECK THE RESONANCE WITH THE ANTENNA CAP IN PLACE, THE CAP AFFECTS THE VSWR. Now cut very small pieces (1 to 3 mm at a time) from the whip. Cut from the top of the antenna only (The Long Side of the whip). Never cut the bottom (Short Side) of the antenna whip. The frequency will now approach 145MHz. as you cut it down. Set the frequency to about 145.1MHz.as this is where the transmit portion is for the repeaters. Now check VSWR on 431MHz. and it should be below 1.3:1 over the most of the 70cm. band.

VSWR Readings should be below 1.4:1 on 144MHz. and below 1.5:1 on 146.0MHz. On the 70cm. band the VSWR should be below 1.4:1 on 420MHz. and below 1.5:1 on 439.0MHz. The MA-XDX-DB Dual Band antenna gives very low VSWR readings over both bands if the above tuning procedure is followed accurately.

Now all that remains is to enjoy many hours of operation with the MA-XDX-DB.

<u>MODEL</u>	<u>FREQ.</u>	<u>GAIN</u>	<u>IMP.</u>	<u>POWER</u>	<u>LENGTH</u>
MA-COMPACT-XDX-DB	144-146 MHz.	UNITY	50 Ohm	200Watt	600 mm
	420-440 MHz.	3 dBi	50 Ohm	200Watt	



Manufacturers of : Two-Way Radio Antennas, Duplexers, Filters, Combiners, Splitters, Lightning protectors & other RF Products.
Sales and Distribution of: Two-Way Radios, Repeater Systems, Power Meters, Microphones, Power Supplies, Cables & Connectors.



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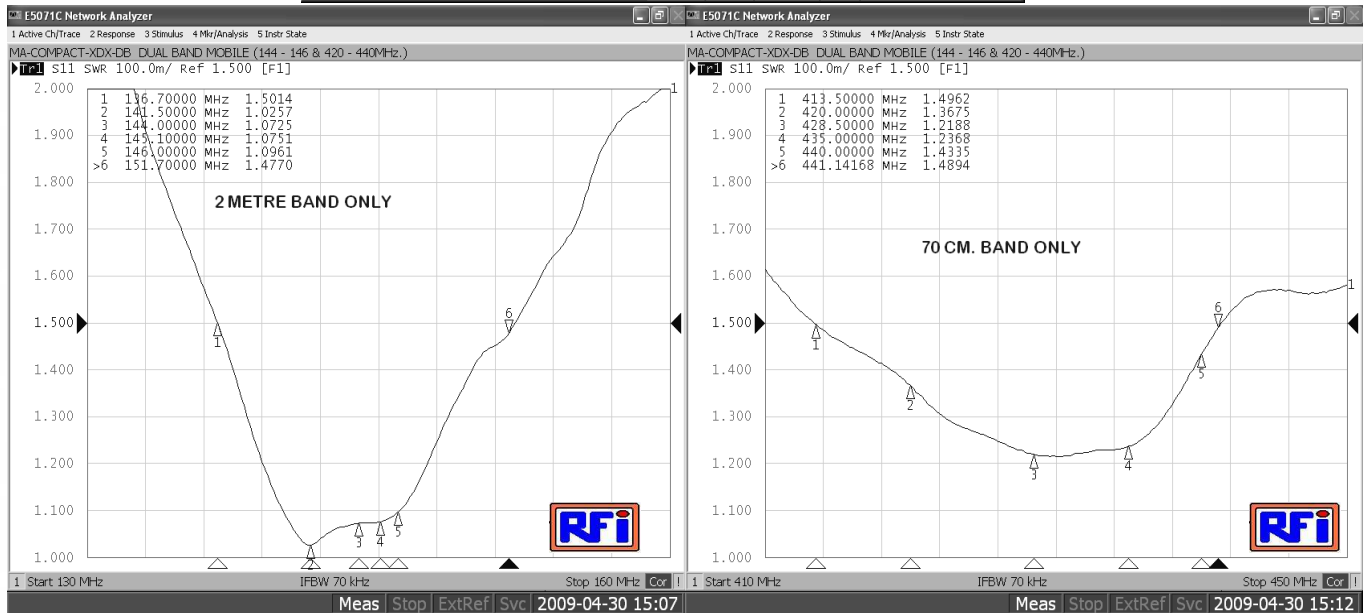
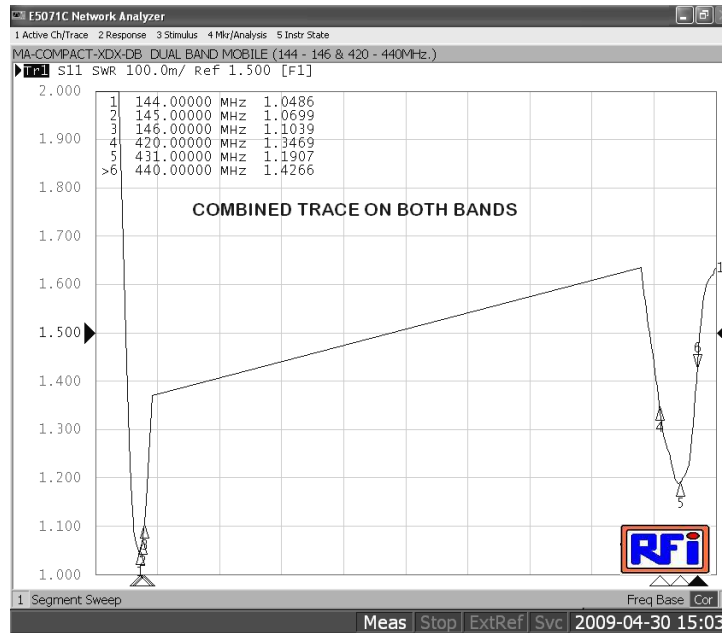
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TYPICAL ANTENNA VSWR TRACES ON BOTH BANDS AFTER TUNING



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