



VHF Phantom[®] Tuning Instructions

U.S. Pat. No. 5,977,931

Congratulations on the purchase of your new tunable VHF Phantom[®] antenna!

Your new VHF Phantom[®] is a highly sophisticated, state of the art design. The antenna features the Laird exclusively patented “field diversity” radiator element, chrome plated brass mounting threads, and a high heat molded ABS radome.

WARNING: This antenna must be installed and tuned by a professional installer. All that is required for operation within the tunable range is to simply turn the internal tuning mechanism at low applied power (5 to 10 watts maximum), using the enclosed plastic tuning key. The bandwidth is approximately 1 MHz at the operating frequency. Therefore, **follow the tuning procedure below exactly. Severe damage to the antenna may otherwise occur.**

Follow steps 1 through 7 on the reverse side of this sheet

IMPORTANT: This antenna is rated at 60 watts maximum power for 60 seconds maximum duration.



VHF Field Tunable Phantom[®]
with Easy Tuning Port



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Tuning Instructions

1. Install on an appropriate ground plane (minimum 18 inch radius is recommended).
Upon shipment, the antenna is pre-tuned to the low end of the operating band.
2. Set your transmitter to your desired operating frequency.
WARNING: As noted above, the bandwidth is approximately 1 MHz. At any chosen transmitting frequency, reliable operation is possible within ½ MHz on either side of the chosen frequency. Severe damage may otherwise occur.
3. Remove the rubber cap from the side of the housing.
4. Apply no more than 5-10 watts of power to the antenna.
WARNING: Exciting the antenna with more than 10 watts of power before it is properly tuned may destroy the antenna.
5. While keying at 5-10 Watts, insert the included Laird Technologies tuning key into the tuning port. Turn the key counter-clockwise in one-half turn steps, until a minimum VSWR (reflected power) is achieved. Do not turn the key more than a total of 15 full revolutions.
WARNING: Use only the supplied Laird Technologies dielectric key. Any substitutions may likely damage the antenna.
6. If proper VSWR is not achieved, check your set-up and repeat step 5.
A VSWR better than 2.0:1 (10% reflected power or less) can be achieved using an adequate ground plane. Once an acceptable VSWR is achieved, remove the tuning key.
7. Replace the rubber cap to complete the installation.

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Upon shipment, the antenna is pre-tuned to the low end of the operating band.
2. Set your transmitter to your desired operating frequency.
WARNING: As noted above, the bandwidth is approximately 1 MHz. At any chosen transmitting frequency, reliable operation is possible within ½ MHz on either side of the chosen frequency. Severe damage may otherwise occur.
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