

DU 800 T

ANTENNA TUNER HF+6m



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DU 800 HF+6m ANTENNA TUNER

FEATURES

The DU 800 T optimizes the performance of your antenna and transmitter or SWL receiver by providing adjustable impedance matching. The DU 800 T also measures the Power and Standing Wave Ratio (SWR), which allows you to tune the indicated SWR to the lowest possible ratio for the selected transmit frequency.

SPECIFICATION

FRONT PANEL CONTROLS

Input Tuning Continuous rotation 2.5kV capacitor 330pF

Output TuningContinuous rotation 2.5kV capacitor 330pF

Band switch

REAR PANEL CONNECTORS

Coax 1..... SO-239 Teflon connector

Coax 2..... SO-239 Teflon connector

OTHERS

Frequency Coverage..... 1.8-30MHz + 50Mhz continuously tunable

Power Maximum..... 800 W

Input impedance..... 50 Ω

Output impedance..... 25-600 Ω

Dimension H250 x W240 x D120

Weight..... 10lbs (3.3kg)

CONTROL/CONNECTORS

FRONT PANEL FUNCTIONS

1. Output (Antenna)

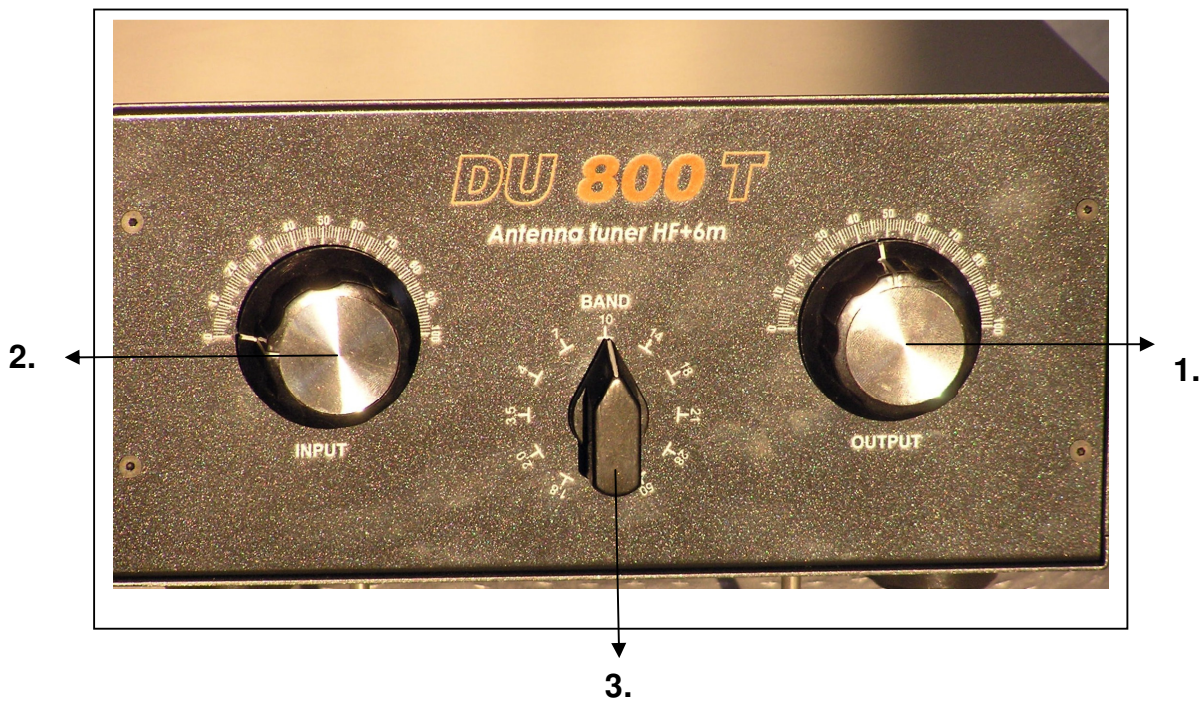
Continuously adjustable input capacitor.

2. Input (Transmitter)

Continuously adjustable output capacitor.

3. Band switch

The frequency arrangements on the front panel are only a value of the direction.



REAR PANEL CONNECTORS

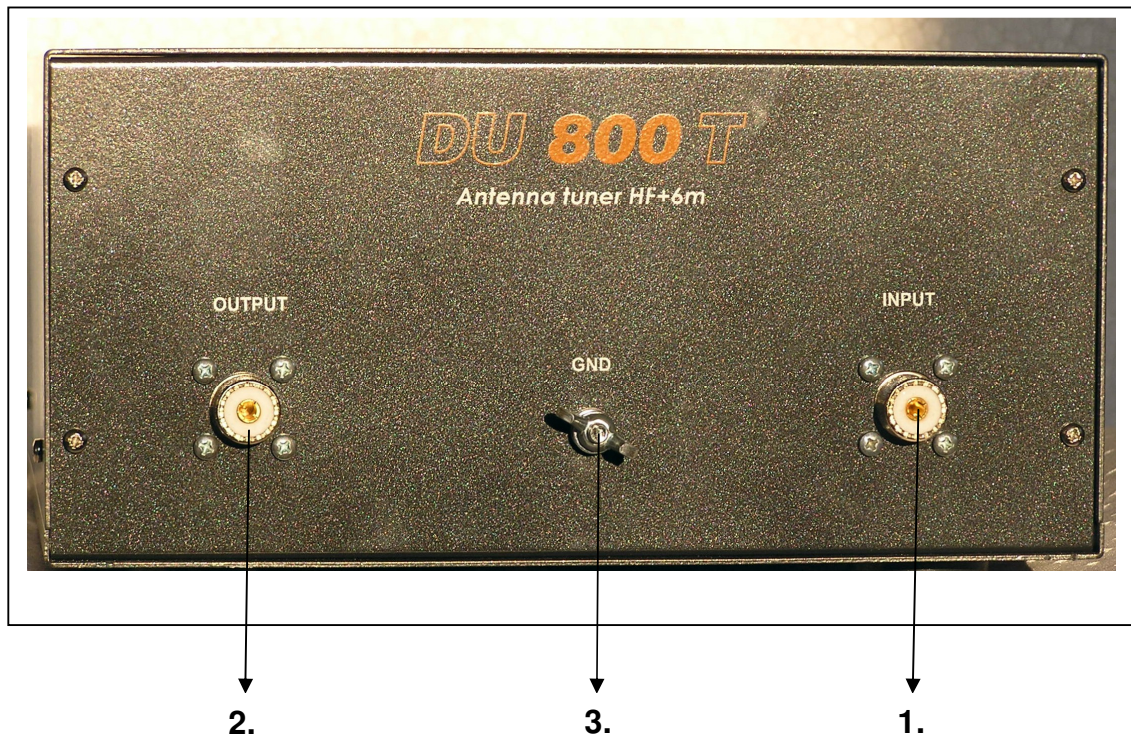
1. RF INPUT

Coaxial connector for input from SWL receiver or transmitter

2. RF OUTPUT

Coaxial connector for output to Antenna One or Wire Antenna

3. GROUND



INSTALLATION

Select a location for the DU 800 T that allows the connectors to be free of any possible contact during operation.

WARNING:

SOME BALANCED OR END-FED ANTENNAS WILL PRODUCE HIGH RF VOLTAGES AT THE BANANA CONNECTORS. RF BURNS MAY RESULT IF TOUCHED DURING TRANSMISSION.

INSTALLATION PROCEDURES

1. Connect a coax cable from your transmitter or receiver to the RF INPUT connector on the rear panel. Keep the cable as short as possible. If you use a linear amplifier connect your transmitter to the linear amplifier output to the DU 800 T.
2. Connect coax cable(s) from your antenna to RF OUTPUT connectors on the rear panel. These connectors are either direct from the transmitter or through the tuned circuit.

BEFORE OPERATION

1. To avoid possible damage to the DU 800T, set INPUT, OUTPUT, BAND SWITCH a switches as outlined in the next section before applying transmitter power. (Tuning Section)
2. Begin tuning with your transmitter set at a low power setting (50 to 100W)

WARNING:

DO NOT OPERATE THE DU 800 T WITH THE COVER OFF!

TUNING

1. Select the band and frequency of desired operation.
2. Set BAND SWITCH controls to the suggested settings before applying the transmitter power. Actual settings may vary from antenna to antenna.
3. Set up your transmitter to a low power output. If your transmitter has a TUNE position, select that position.
4. If you use a linear amplifier, set it to STAND BY. Do not use the linear amplifier until the DU 800 T is tuned.

WARNING:DO NOT EXCEED 800 WATTS AVERAGE (SINGLE TONE).

5. Rotate the INPUT and OUTPUT controls for maximum noise or signal as heard on your receiver.
6. Key your transmitter and adjust the power level for a reading of 50-100 watts on the FORWARD scale. Adjust the INPUT and OUTPUT controls for a minimum REFLECTED reading while maintaining a FORWARD reading of 50-100 watts using your transmitter power control.
7. Read the SWR on the red scale at the point where the two needles intersect. Repeat step 6 until the lowest SWR reading is obtained. The SWR should be 2:1 or lower.

NOTE: This procedure takes patience the first time. The INPUT and OUTPUT controls vary the capacitors and provide fine adjustments.

NOTES

1. An SWR or 1:1 is best, but an SWR as high as 2:1 may be acceptable. Check your transmitter manual for details.
2. If you can not get an acceptable SWR, lengthen or shorten your antenna and/or feedlines and retune.
3. If you get low SWR readings at more than one setting, use the setting that:
 - Gives the highest FORWARD power reading.
 - Gives the lowest REFLECTED power reading.
 - Uses the largest capacitance (highest number) on the TRANSMITTER and ANTENNA controls.
4. Anytime a new or different antenna is connected, it is necessary to repeat the tuning procedure for each antenna.

C-tech

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Made in EU



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