

MODEL ST-1 ANTENNA TUNER

The SWAN ST-1 Antenna Tuner is designed to match a 160-10 meter Transmitter to almost any type antenna system.

The ST-1, when properly adjusted, will transform the load impedance to 50-70 ohms.

The ST-1 also includes a balun, so antennas fed with open wire feeders may be properly tuned to desired frequency.

The ST-1 may be used with coaxial fed antennas as well as end-fed single wire types.

INSTALLATION

1. Hook a ground wire to the ground post on back of tuner.
 - a. A good earth ground is a must when using end-fed wire antennas. It is also very important when using other type antenna systems.
2. From the rear panel marked "transmitter" connect a coaxial cable to a VSWR bridge or preferably one of the SWAN wattmeters that is connected to the station transmitter.
3. ANTENNA CONNECTIONS:
 - a. Coaxial fed antennas to coaxial feedline.
 - b. End-fed wire to single wire terminal (Recommend 50 feet).
 - c. Open wire feed to Balanced Feed Line terminals and also jumper wire terminal (dotted line).

OPERATIONWARNING

Do not apply more than 100 watts into the ST-1 prior to tuning. Always tune with low power. Only after tuning should the driver gain be increased to maximum output. DO NOT use inductance selector with power applied or transmitter keyed.

1. Set "Transmitter Matching" and "Antenna Matching" controls to "5".
2. Listen on receiver for maximum band noise while turning Inductance control for maximum noise. (A is least inductance, R is maximum inductance)

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3. Key transmitter and apply just enough power through the system to obtain a reading on the VSWR bridge or wattmeter in the reflected power position.
4. Check Inductance for a drop in VSWR or reflected power. NOTE: When checking for a drop in VSWR or reflected power forward power should rise.
5. Adjust "Transmitter Matching" and "Antenna Matching" controls for minimum VSWR or reflected power.
6. Apply full power and touch up "Transmitter Matching" control if necessary.

