

AT-440

INSTRUCTION MANUAL

Thank you for purchasing the Automatic Antenna Tuner unit AT-440. This unit has been designed for installation in the HF transceiver TS-440S.

1. SPECIFICATIONS

Frequency range	: 3.5 to 29.7 MHz (All amateur bands)
Input impedance	: 50 ohms, unbalanced
Output impedance	: 20 to 150 ohms (at SWR less than 2.5)
Insertion loss	: Less than 1 dB
Maximum input power	: 100 watts
SWR for motor stop	: Less than 1.3
Minimum power for activation	: Less than 3 watts
Current consumption	: 13.8 VDC approx. 200 mA 10 VDC approx. 80 mA 5 VDC approx. 80 mA

Operating temperature	: -10°C to +50°C (14°F to 122°F)
Dimensions	: Wide 74 x High 96 x Deep 215 (mm)
Weight	: 1.2 kg

2. ACCESSORIES

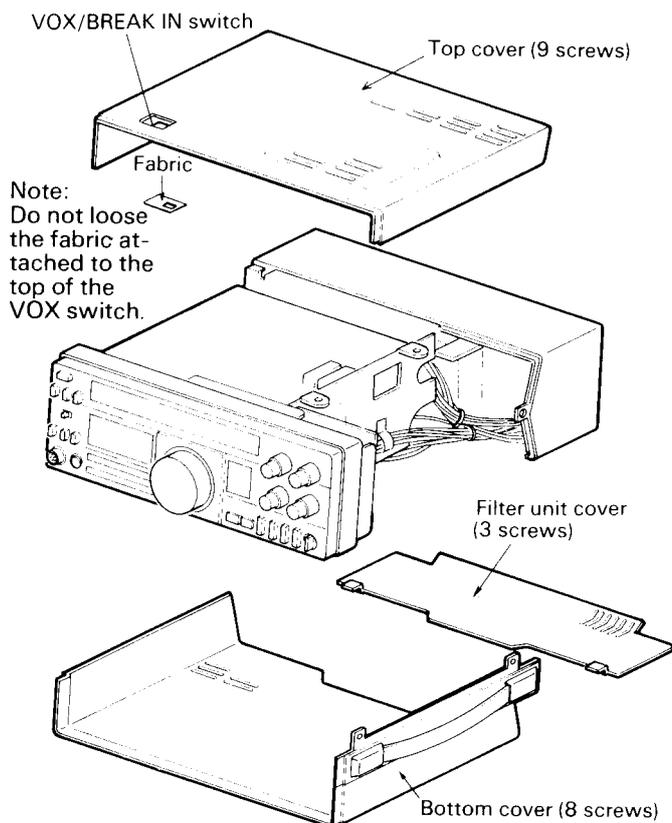
The following accessories are included.

Tapping screw.....	N87-3006-46	4 pcs.
Instruction manual.....	B50-8054-30	1 copy
Warranty card		
(U.S.A. only).....	B46-0411-00	1 copy

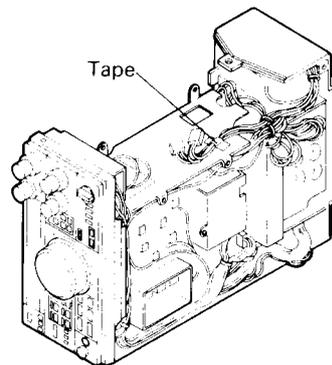
3. INSTALLATION

Refer to the accompanying illustrations.

1. Remove the top cover, filter unit cover and the bottom cover.

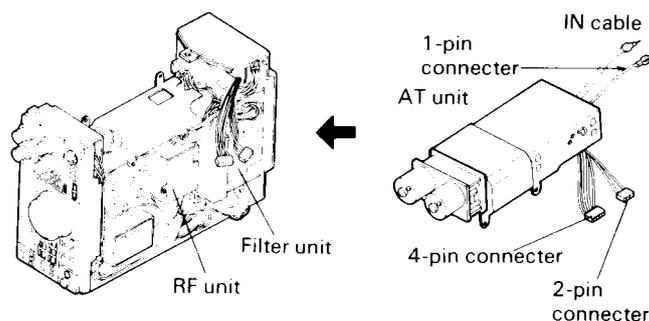


2. Place the radio on its side with the large open area up. Remove and save the tape securing the wiring harness taped to the chassis.

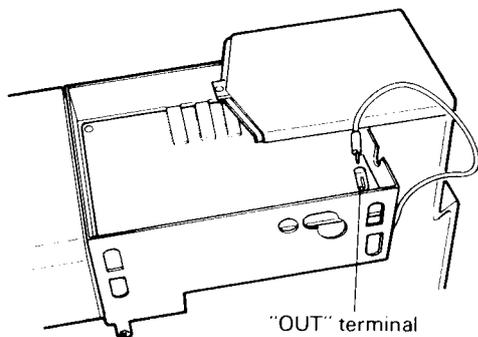


Note:
Do not throw away the tape it will be used later.

3. Insert the Antenna Tuner assembly into the opening as shown, pay attention to the orientation.



- Unplug the cable attached to the "FO" terminal on the filter unit and plug it in to the "OUT" terminal of the AT unit. For the location of terminal "FO", refer to the figure in step 8.



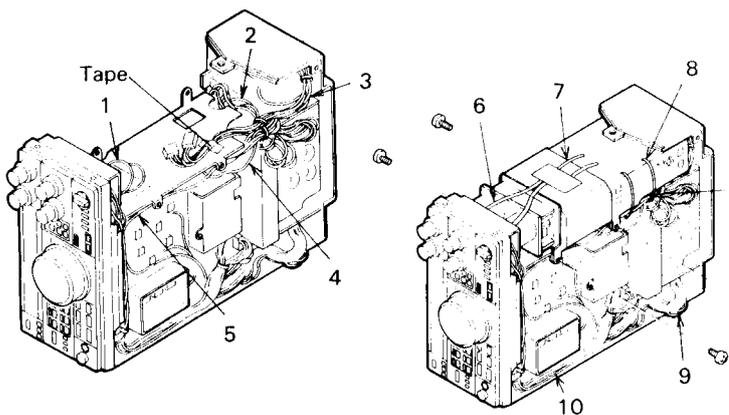
Note:

The coaxial cable should be routed so that it passes thru the cut-out of the AT unit so that the cable does not become pinched when the tuner is installed in its final location.

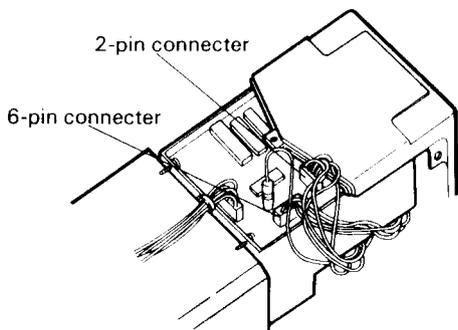
- Secure the antenna tuner to the chassis using the 4 screws that were provided.

"CAUTION"

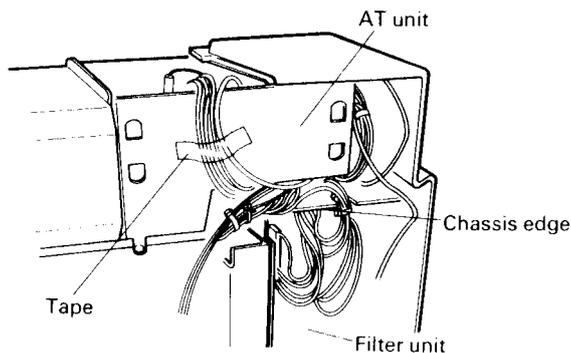
When positioning the antenna tuner to make sure that you do not pinch any wires in the areas shown below (# 1 - 10).



- Connect the 6-pin and 2-pin plugs as shown.



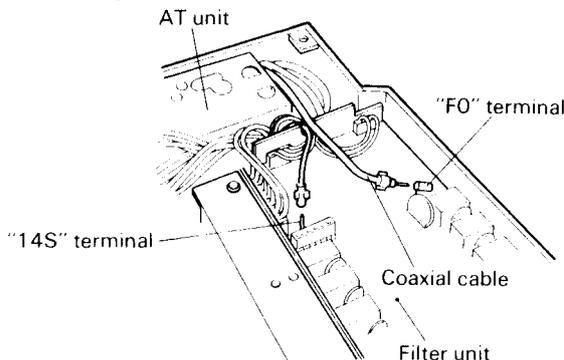
- Attach the wiring harness to the antenna tuner chassis using the tape that was saved in step 2.



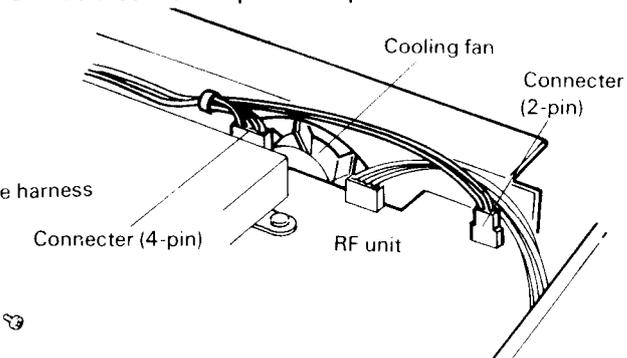
Note:

Don't damage the insulation of the wiring harness by scraping it against the edges of the antenna tuner assembly.

- Connect the coaxial cable and 1-pin connector to Filter unit.



- Connect both 4-pin and 2-pin connectors to RF unit.



- Ensure that the cables have been installed correctly and that the tuner is securely attached.
- Connect a dummy load to the antenna connector on the rear of the radio, turn on the power, and confirm that the tuner functions normally.
- Reinstall the top cover, filter unit cover, and the bottom cover to complete the installation.

4. OPERATION

Refer to the TS-440S instruction manual.

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