

Automatic Antenna Tuner FC-30

Installation Instructions

Thank you for your purchase of the model FC-30 Automatic Antenna Tuner, designed specifically for the FT-897 HF/VHF/UHF Transceiver. The FC-30 includes a cooling fan to ensure thermal stability of the critical matching elements within its compact case.

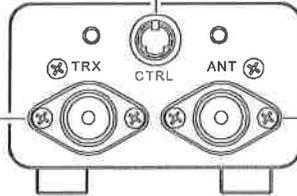
The FC-30 Automatic Antenna Tuner responds to control commands from the FT-897/D Transceiver, providing microprocessor-based impedance matching on the 160 through 6 meter Amateur bands. On the HF and 50 MHz bands the impedance matching range is from 16.5Ω to 150Ω (up to 3:1 SWR). Accordingly, the FC-30 should not be expected to match "long wire" type antennas unless you have taken specific design steps to ensure that the impedance presented to the FC-30 is within these specifications:

Please refer to the FT-897/D Operating Manual for operating instructions.

Rear Panel Information

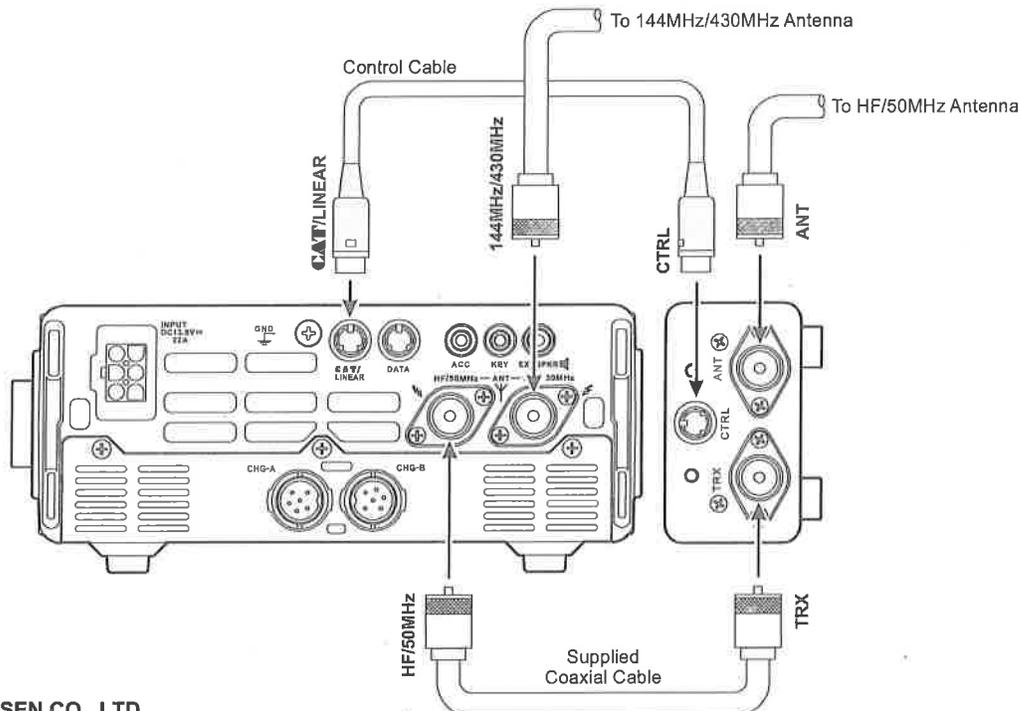
Connect the interconnecting Control Cable from the FT-897/D to this miniature DIN connector.

Use this "M" type ("SO-239") jack for connection of the interconnecting coaxial cable from the FT-897/D.



This "M" type ("SO-239") coaxial jack accommodate the antenna input for the FC-30.

Interconnections to FT-897/D



YAESU MUSEN CO., LTD.

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2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002 Japan

YAESU USA

6125 Phyllis Drive, Cypress, CA 90630, U.S.A.

YAESU UK

Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

1506S-BM



Various setting

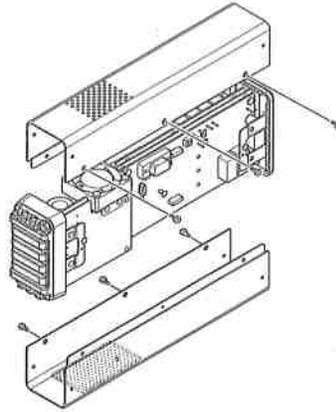
By changing the configuration of an internal DIP switch, you may change the RF signal path (to enable the FC-30 both on receive and transmit), and you may also clear all the tuner's memories.

A) By default, the FC-30 is only engaged in the transmit mode. To activate the tuner circuit while receiving.

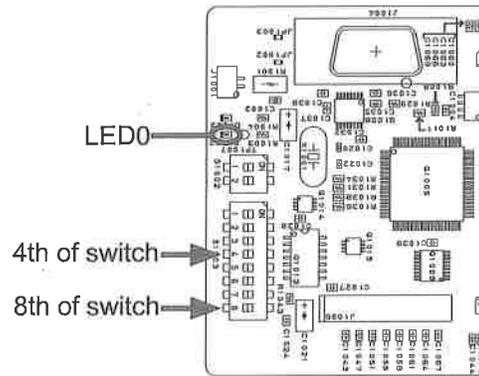
1. Turn the FT-897/D POWER switch OFF.
2. Remove the 6 screws affixing the case of the FC-30, then remove the case.
3. Turn the 8th switch of S1003 to "on."
4. Replace the case, using the 6 screws removed in step (2) above.

B) Memory clear

1. Turn the FT-897/D POWER switch OFF.
2. Remove the 6 screws affixing the case of the FC-30, then remove the case.
3. Turn the 4th switch of S1003 to "on."
4. Turn the FT-897/D POWER switch ON.
5. LED0 will glow green, then disappear, after a short time.
6. Return the 4th switch of S1003 to "off."
7. Turn the FT-897/D POWER switch OFF.
8. Replace the case, using the 6 screws removed in step (2) above.



⚠ The bottom case is the case half that has a sponge affixed to the ventilation screen. If the case parts are reversed, the sponge can touch the fan blades, disabling the fan and allowing the FC-30's control circuitry to overheat.



Cautions

○ Please note the default positions of the internal DIP switch components. All switches, except for the 4th and 8th switches of S1003, are for factory setup use only, and they should not be touched. If you accidentally set a switch to the wrong position, please refer to the table below to correct the situation.

S1002

No.	Switch
1	OFF
2	OFF

S1003

No.	Switch	No.	Switch
1	OFF	5	ON
2	OFF	6	ON
3	OFF	7	OFF
4	OFF	8	OFF

- Only connect cables to the FC-30 after switching the transceiver off.
- If the FC-30 doesn't tune even though you have pushed the TUNER switch of FT-897/D, it may be because the antenna or its coaxial cable have a serious problem (very high or low impedance due to "open" or "short"). Please check the antenna and coax if this happens.
- Do not place any objects next to the ventilator ducts on the FC-30, especially those in the front.

Specifications

FREQUENCY RANGE: 1.8 ~ 30 MHz, 50 ~ 54 MHz

INPUT IMPEDANCE: 50Ω

MAXIMUM POWER: 100 Watts

MATCHED SWR: 1.5:1 or less

TUNE-UP POWER: 4 W ~ 60 W

TUNE-UP TIME: 5 seconds or less

IMPEDANCE MATCHING RANGE:

1.8 ~ 30 MHz, 50 ~ 54 MHz: 16.5Ω ~ 150Ω

IMPEDANCE MATCHING MEMORIES: 100 channels

INPUT VOLTAGE REQUIREMENT: 13.8V ±15% (supplied from transceiver)

OPERATING TEMPERATURE RANGE: 14° F ~ 122° F (-10 °C ~ +50 °C)

CASE SIZE (WHD): 3.1" x 1.8" x 10.2" (80 x 45 x 260 mm)

WEIGHT: 1 kg (2.2 lb.)

Specifications subject to change without notice of obligation.

Supplied Accessories

Coaxial Cable (0.5 m)	1
Control Cable (0.5 m)	1
Mounting Screw Assy.....	1

Disposal of your Electronic and Electric Equipment

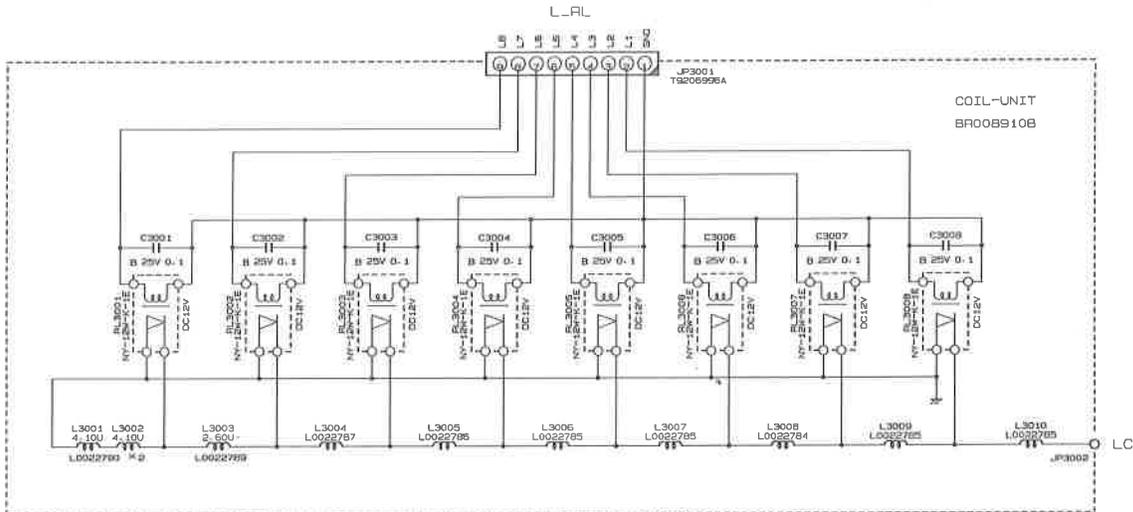
Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste.

Electronic and Electric Equipment should be recycled at a facility capable of handling these items and their waste byproducts.

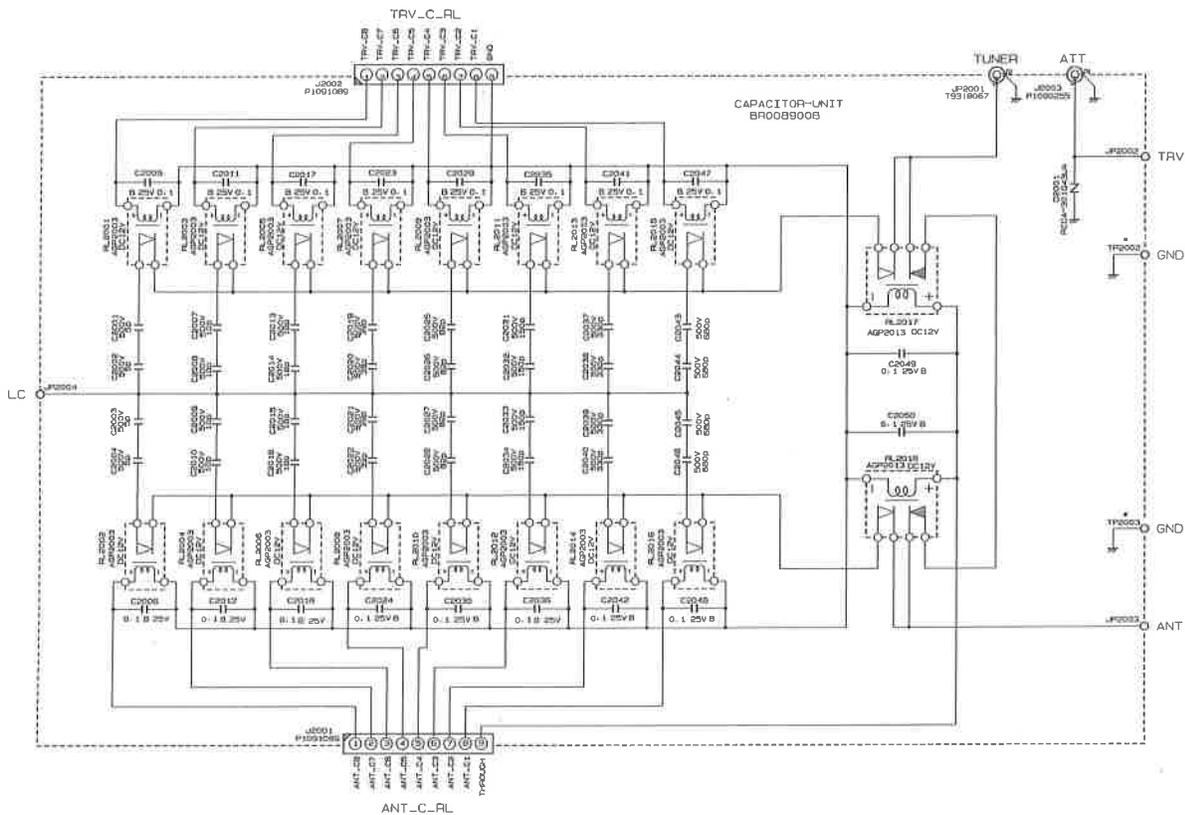
In EU countries, please contact your local equipment supplier representative or service center for information about the waste collection system in your country.



Coil Unit Circuit Diagram



Capacitor Unit Circuit Diagram



YAESU

Declaration of Conformity

We, YAESU UK LTD. declare under our sole responsibility that the following equipment complies with the essential requirements of the Directive 1999/5/EC and 2011/65/EU.

Type of Equipment:	Automatic Antenna Tuner
Brand Name:	YAESU
Model Number:	FC-30
Manufacturer:	YAESU MUSEN CO., LTD.
Address of Manufacturer:	Tennozu Parkside Building, 2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002 Japan



Applicable Standards:

This equipment is tested and conforms to the essential requirements of directive, as included in following standards.

Safety	EN 60950-1:2006 + A12:2011
1999/5/EC Art. 3 (1) (a)	
EMC	EN 301 489-01 V1.9.2
1999/5/EC Art. 3 (1) (b)	EN 301 489-15 V1.2.1
RoHS2	EN 50581:2012
2011/65/EU Art. 7 (b)	

The technical documentation as required by the Conformity Assessment procedures is kept at the following address:

Company: Yaesu UK Ltd.
Address: Unit 12, Sun Valley Business Park, Winnall Close, Winchester Hampshire, SO23 0LB, U.K.

