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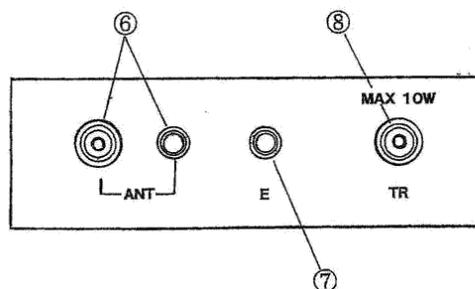
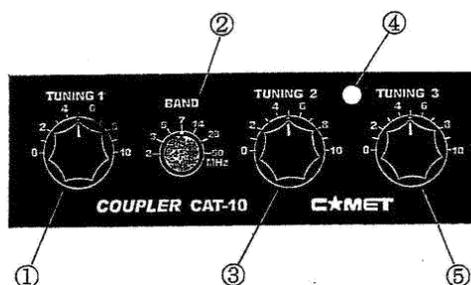
To deliver the performance of CAT-10 fully, please read through this instruction manual so that you can use this product correctly for a long period.

Features

- CAT-10 can be used to tune to dipole, vertical, automotive whip, long wire and other various types of antenna for QRP (small power) telecommunication or BCL reception with low-power operation at 10W or lower so that the user can enjoy all bands between 3.5MHz and 50MHz.
- CAT-10 can tune in a wide range of 50 to 600Ω .
- CAT-10 is equipped with an indicator lamp that shows the tuning point proximity and allows the user to match the tuning point quickly (when transmission power is provided) .

Precautions for use

- Although CAT-10 is designed to sufficiently endure 10W input, please set up the transmission output during tuning to 5W or lower to protect the transmitter since extremely high voltage may occur in the tuning circuit and the impedance seen from the transmitter may fluctuate dramatically.
- Do not operate the BAND switch while the transmitter is transmitting. It may temporarily increase the load SWR to infinite size and cause failure in the transmitter or CAT-10. Furthermore, do not apply transmission power of 10W or larger on CAT-10.



Parts names and descriptions

(1) TUNING 1

A variable capacitor that changes the impedance on the output side (transmitter side).

(2) BAND

Switch to select the band between 3.5MHz and 50MHz.

(3) TUNING 2

A variable capacitor that changes the matching.

(4) Indicator lamp

Lights up near the tuning point during tuning adjustment with transmission power applied.

(5) TUNING 3

A variable capacitor that changes the impedance on the input side (antenna side).

(6) ANT (connector/terminal)

Connects an antenna, dummy load and so forth.

(7) E (terminal)

Connects to the GND terminal of the transmitter and delivers the effect to reduce TVI and BCI by grounding this terminal.

(8) TR (connector)

Connects to the ANT terminal of the radio or receiver.

Rating

Frequency range : 3.5 – 50MHz

Band : 7 bands

Input impedance : 50 – 600Ω

Output impedance : 50Ω

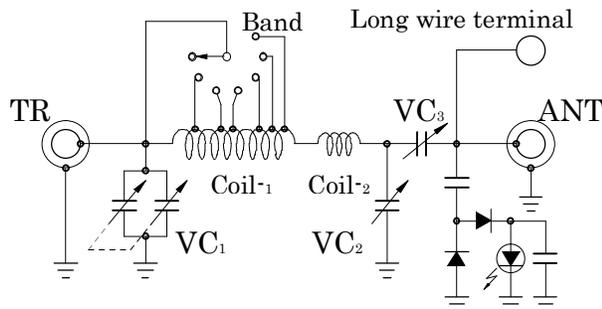
Tolerable transit power : 10W or lower (CW)

Dimensions/weight : 162(W) x 58(H) x 120(D)

Weight 900g

Additional circuit: Tuning indicator

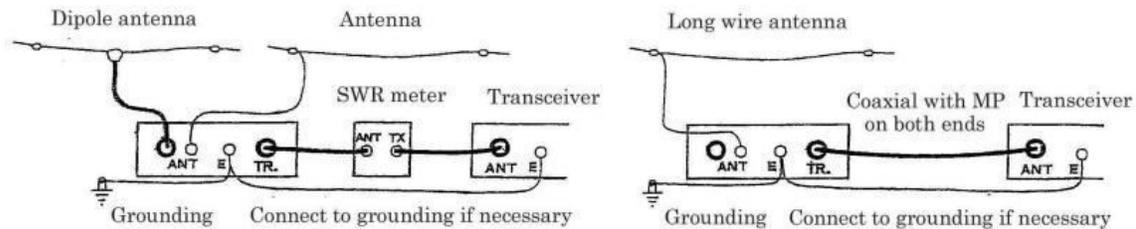
(tuning indication with LED)



Connection procedures

CAT-10 shall be connected between the radio and the antenna or among the radio, the SWR meter and the antenna using a 50Ω coaxial cable of type 3D2V, 5D2V and so forth.

If the antenna is a long wire type, connect via ANT (terminal) . Connect the ground wire to E (terminal) .



Operation procedures

To use CAT-10 exclusively for reception such as BCL, adjust the [BAND] switch and [TUNING 1/2/3] so that the S meter of the receiver or the reception signal level is maximized. Use the tuning table below for reference.

To use CAT-10 for transmission, operate according to the procedures below:

1. Lower the power control for the transmitter completely (set the transmitter power to 5W or lower) .
2. Set the [BAND] switch to the transmission frequency band and set the [TUNING 1/2/3] scales to the the values specified in the tuning table below:

Tuning table

Frequency (MHz)	BAND	TUNING 1	TUNING 2	TUNING 3
3.5MHz	3MHz	3.5	0.3	8.5
3.8MHz	3MHz	2.0	0.6	7.0
7MHz	7MHz	4.2	0.5	9.0
10MHz	14MHz	0.5	4.1	6.0
14MHz	14MHz	3.8	1.3	3.2
18MHz	14MHz	4.0	1.0	1.5
21MHz	28MHz	4.7	2.0	3.0
24MHz	28MHz	4.6	1.8	1.5
28MHz	28MHz	5.4	1.1	1.6
50MHz	50MHz	7.0	0.9	1.3

Note: This is the data for input impedance 50Ω load. These values are strictly for reference.

3. Input the transmission power until the needle of the reflection power meter of the connected SWR meter deflects with CW, AM or FM modulation.
4. Turn the [TUNING 1] dial while transmitting to match the point where meter needle of deflection is minimized . To adjust using the indicator lamp, match the point where the lamp brightness is maximized although it cannot be read in values as in a SWR meter.
5. Then turn the [TUNING 2] dial to match the point where meter deflection is smaller than the degree in previous Section 4.
6. Then turn the [TUNING 3] dial to match the point where meter deflection is smaller than the degree in previous Section 5.
7. Repeat the procedures 4 – 6 to find the point where the meter deflection is minimized. This point is the turning point (best SWR value) .
8. If low SWR cannot be obtained, stop transmission immediately and set the [BAND] switch one step lower to resume the tuning operation again from previous Section 3.
9. Operation at the maximum transmission output 10W is possible when a low SWR is obtained.

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Product appearance and specifications are subject to change without notice for improvement of the product.