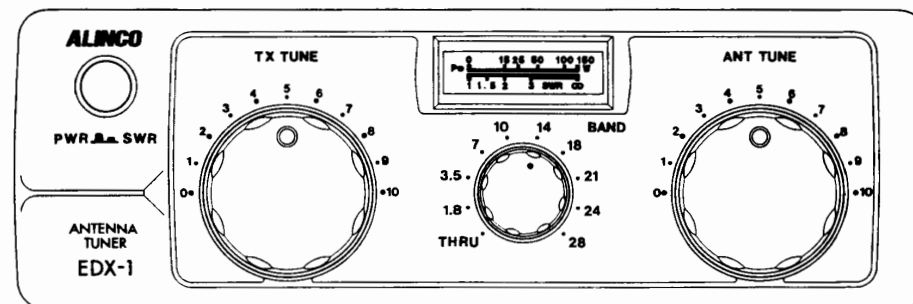


ANTENNA TUNER

EDX-1



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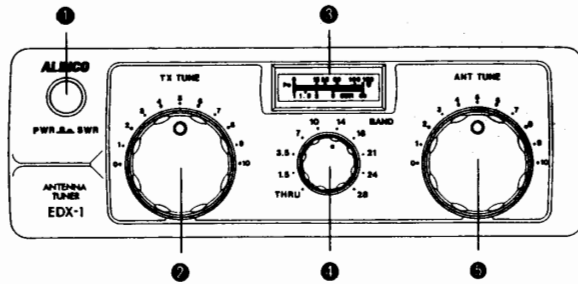
Instruction Manual

We at ALINCO would like to thank you for purchasing the ALINCO EDX-1. Radios and other products made by ALINCO rank as some of the finest in the world. Your EDX-1 has been manufactured and tested very carefully at the factory and will give you satisfactory operation for many years. We are confident that you will be very satisfied with your choice of this fine ALINCO product.

OPERATIONS

Controls and Functions

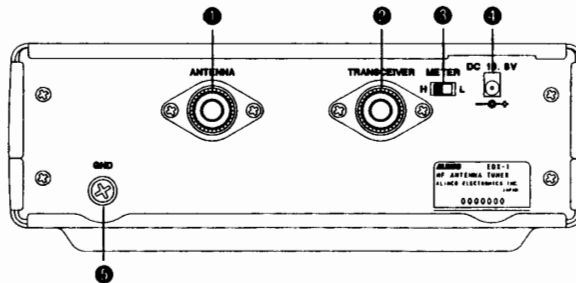
■ Front Panel



- ❶ PWR/SWR SWITCH
- ❷ TX TUNE DIAL
- ❸ MULTI METER
- ❹ BAND SWITCH
- ❺ ANTENNA TUNE DIAL

When this switch is pressed in, the meter can be used as a SWR meter. When the switch is pressed out, the meter will be used as a RF power meter. After the operating band is selected, rotate this dial along with the ANT TUNE dial so that you can get the lowest SWR reading. This meter is used as both the RF power meter and the SWR meter. While 13.8V DC of power is supplied, the meter will be illuminated. Select the desired operating band. When you want to receive any signal out of the amateur band, set this switch to the "THRU" position. After the operating band is selected, rotate this dial along with the TX TUNE dial so that you can get the lowest SWR reading.

■ Rear Panel



- ❶ ANTENNA CONNECTOR
- ❷ TRANSCEIVER CONNECTOR
- ❸ METER H/L SWITCH
- ❹ DC JACK
- ❺ GND TERMINAL

Connect the antenna cable. An antenna must be fed by a coaxial cable only. Any antenna that has a single wire (such as long wire antenna) should not be used. Connect the supplied coaxial cable between this connector and the transceiver. Sliding this switch to the "H" position will switch the power meter reading to 150 Watts range maximum. Sliding this switch to the "L" position will switch the power meter reading to 15 Watts range maximum. Plug in either the supplied DC cable, or the optional EDC-37 DC cable, or the EDC-43 cigarette lighter adapter with noise filter for mobile operation. The jack is polarized, center pin is positive and outer pin is negative. Applying the reverse voltage will cause severe damage and will void the warranty. Connect the wire to the ground. Make the wire as short and thick as possible to get the best result.

INSTALLATION (See Fig. 1 below)

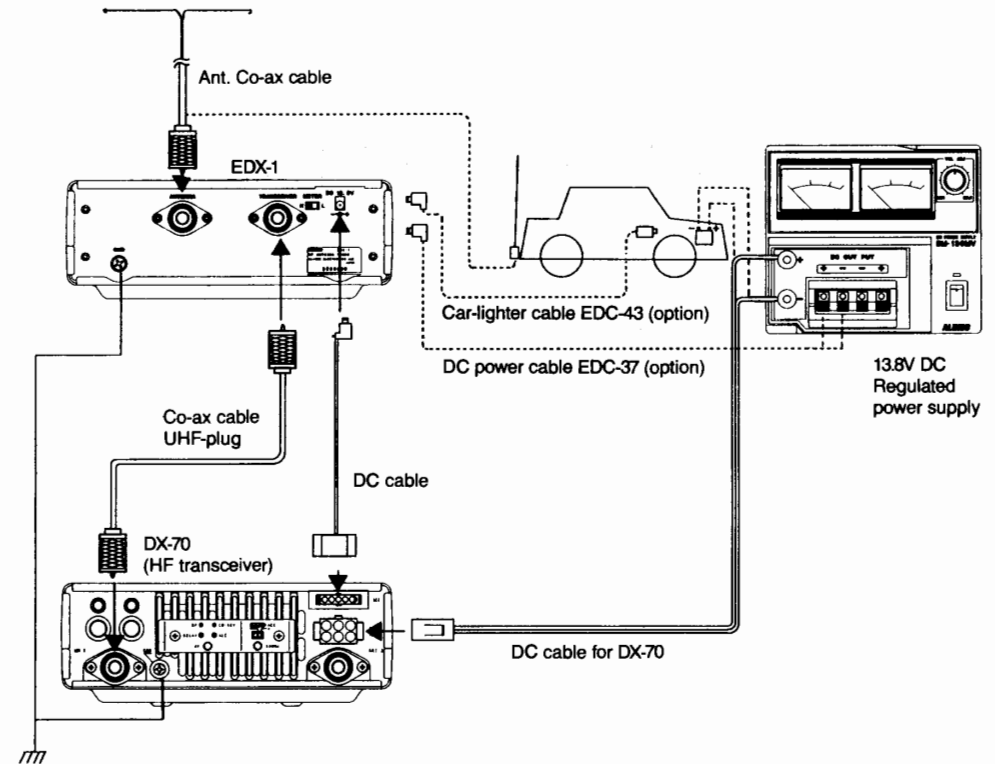
■ Mobile Installation

The EDX-1 may be installed in any position in your car, where the controls are easily accessible while maintaining safe operation of your vehicle.

■ Base Station Installation

For a fixed base operation, a 13.8V DC Regulated Power Supply providing a continuous minimum of 0.5A is required. Always use with the supplied DC cable or an optional EDC-37 DC cable. If you wish to use your own cable, the center pin of the DC jack is connected to the positive (+) and the outer terminal is for the negative (-) of the power supply.

■ Fig. 1 Connections



GETTING STARTED

■ Preparation

1. Adjust the following and controls of the unit.
PWR/SWR SWITCH: SWR
BAND SWITCH: Set to your desired operating band
TX TUNE dial: 5
ANT TUNE dial: 5
2. Connect the supplied cable or external 13.8 Volt DC Regulated Power Supply to the unit.
(The 13.8V DC supply is a must, otherwise the SWR meter will not read correct measurement and THRU position will be disabled.)
3. Ensure an antenna with the appropriate antenna connector is used.

■ Transmitting

Cautions: Ensure that you are always using an antenna that is designed for the amateur band. Improper antenna termination may cause damage to the unit and may void the warranty.

1. Make sure that you follow all steps instructed in the "Preparation" section first.
2. Select an operating band, frequency and select either the AM mode or the FM mode.
3. Check to see if the frequency is in use before transmitting.
4. Select appropriate transmitter output level.
5. Transmit from the transceiver. (Suggested mode: AM without modulating.)
6. Quickly rotate both the TX TUNE dial and the ANT TUNE dial one after another repeatedly of the EDX-1 so that you can get the lowest SWR reading with the meter. This should be done quickly to avoid damage to the power transistor of your transceiver.
7. After the adjustment is done successfully, switch the PWR/SWR switch to the "PWR" position. Now the meter will indicate the approximate output power.

(Note: The following chart provides the rough setting for each amateur band. The actual setting may vary from antenna to antenna. These settings will be available only when the output antenna impedance is 50 ohms.)

Frequency (MHz)	BAND SW	TX TUNE	ANT TUNE
1.9	1.8	4.0	4.0
3.5	3.5	7.0	7.0
7.1	7	6.0	6.0
10.125	10	7.5	7.5
14.175	14	8.0	8.0
18.1	18	8.5	8.5
21.225	21	9.0	9.0
24.9	24	9.0	9.0
28.85	28	9.0	9.0

CAUTION

- Using the EDX-1 will allow you to get the lowest SWR between the transceiver and the input of the EDX-1, however, the actual antenna SWR of the antenna will not be changed. Therefore, we strongly recommend that you finish adjustments of your antenna before operating the radio.
- Make sure that a 13.8V DC of power source is supplied continuously regardless of the PWR/SWR switch setting. The "THRU" setting of the BAND switch is available only when the power is supplied. Also the meter circuit will not work if no power is applied to the unit.
- There is no power ON/OFF switch with the EDX-1. When the EDX-1 is used with any transceiver other than DX-70T, ON/OFF powering should be controlled by an external power supply.
- Your EDX-1 will work only with 13.8V DC. Please do not apply 24V DC to the unit. Doing so will damage the circuit and will void the warranty.

FEATURES

The EDX-1 is specially designed as the matching antenna tuner for ALINCO DX-70 HF transceiver.

Our design policy at ALINCO is focused on developing innovative usable features, including features such as:

- Covers all HF amateur bands (including WARC bands).
- Has a built-in thru-line power meter and SWR meter.
- Utilizes the automatic calibration circuit, SWR reading can be obtained automatically.
- Has an illuminated meter.
- Is mountable in a vehicle with using an optional EBC-9 mounting bracket.

SPECIFICATIONS

The specifications outlined for this product are for use in the amateur band only. No guarantee or warranty, either specific or implied, will apply to any function or specification outside the amateur band.

Any modification for the purpose of operation outside of the amateur band will result in voiding any warranties associated with this antenna tuner and may be in violation of FCC regulations. All specifications and features are subject to change without notice or obligation.

Frequency Coverage:	160m band	1.8MHz — 2.0MHz
	80m band	3.5MHz — 4.0MHz
	40m band	7.0MHz — 7.5MHz
	30m band	10.0MHz — 10.5MHz
	20m band	14.0MHz — 14.5MHz
	17m band	18.0MHz — 18.5MHz
	15m band	21.0MHz — 21.5MHz
	12m band	24.5MHz — 25.0MHz
	10m band	28.0MHz — 29.7MHz

Power Supply Requirements:	13.8V DC
Current Consumption at 13.8V:	Less than 100mA
Input Antenna Impedance:	50 Ohms unbalanced
Output Antenna Impedance:	16.5 ~ 150 Ohms (at SWR less than 1:3)
Ground:	Negative
Maximum Power rating:	120 Watts
Power Meter readings:	150 Watts / 15 Watts maximum switchable
SWR Meter readings:	1:1 ~ 1:3
Dimensions:	178.5(W) × 66.2(H) × 220.5(D) (mm)
Weight:	Approx. 1.9kg

STANDARD ACCESSORIES

When you unpack your EDX-1, you will find these standard accessories:

1. Coaxial cable with a connector for both ends
2. DC power cable
3. Instruction Manual