



## EDX-2 AUTOMATIC ANTENNA TUNER

Alinco's EDX-2 is an automatic antenna tuner that matches your transceiver to an antenna of over 3 meters in length ( 3.5MHz and above ), or over 12 meters in length ( 1.6MHz and above ). This manual contains information you should know before installing the EDX-2 and describes how to set up, connect, and operate.

### SPECIFICATIONS

■ Frequency Range	3.5 – 30MHz( with over 3 meter element ) 1.6 – 30MHz( with over 12 meter element )
■ Input power (MAX)	200W P.E.P.
■ Input impedance	50 $\Omega$
■ Tuning Voltage	13.8V DC $\pm$ 10%

### ENCLOSURE

The following items are enclosed in the package of the EDX-2:

- (1) EDX-2 itself
- (2) U-bolts, 2 pcs.
- (3) U- bolt plates, 2 pcs.
- (4) Flat washers ( large ), 8 pcs.
- (5) Flat washers ( small ), 4 pcs.
- (6) Spring washers, 8 pcs.
- (7) Nuts, 8 pcs.
- (8) Hex bolts, 4 pcs.
- (9) Self-tapping screws, 4 pcs.
- (10) Rubber cap, 1 pc.

### CAUTION !

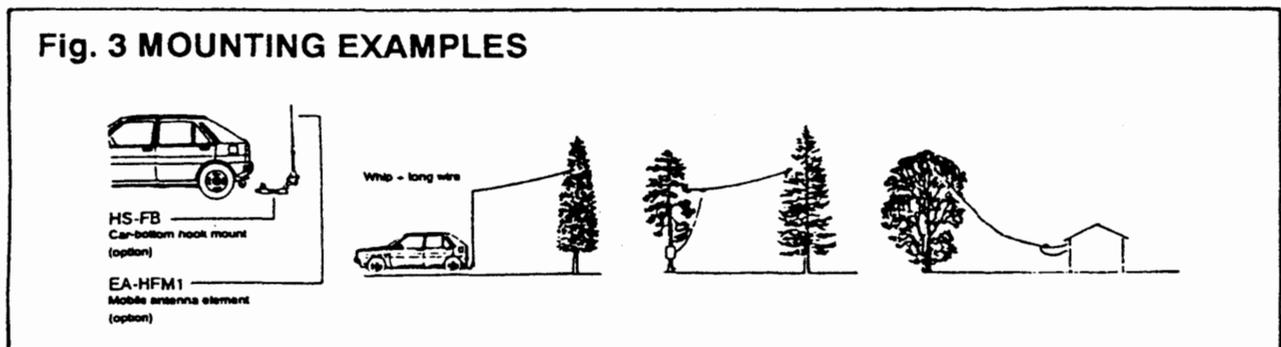
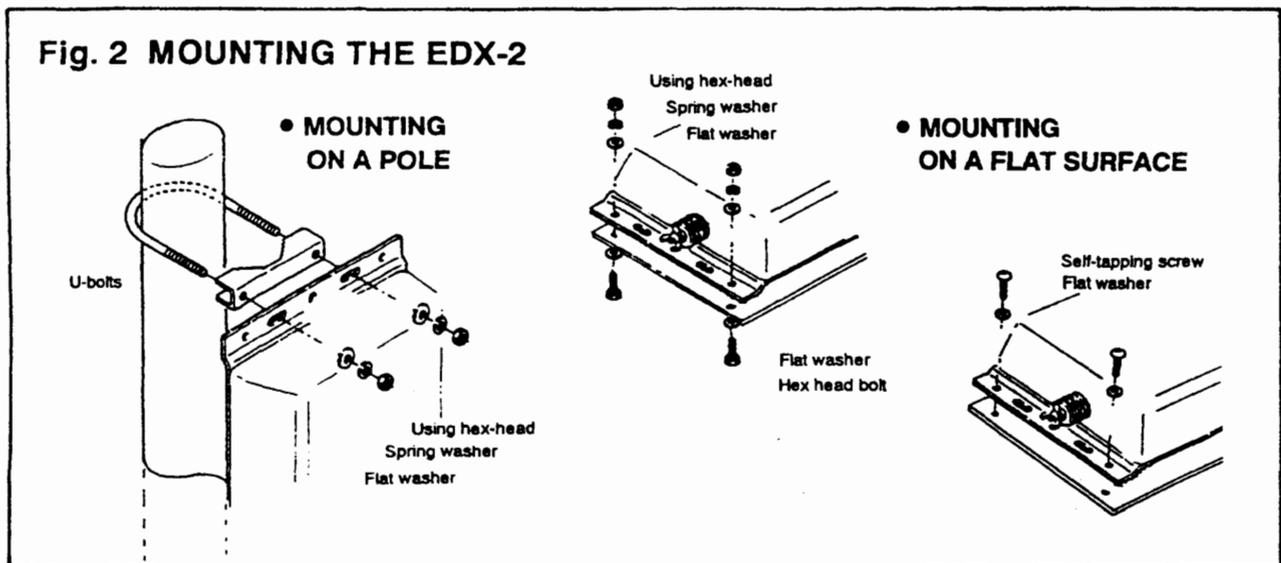
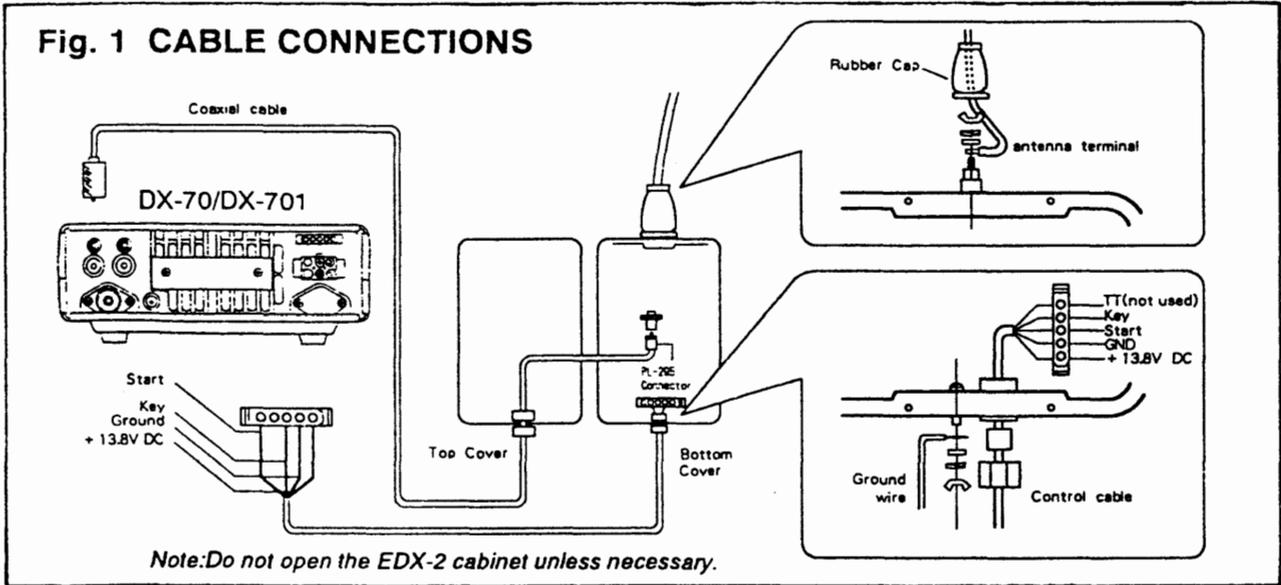
- **DO NOT** use this tuner when it is not grounded. You must ground the tuner through the ground terminal before operating. **DO NOT** use the mounting plates for grounding ; the ground-terminal should be grounded independently.
- **DO NOT** use gas pipes for grounding.
- **DO NOT** transmit or tune without an antenna.
- **DO NOT** touch the antenna, ground wire, or come close to the antenna element while transmitting or tuning. Place the EDX-2 and antenna in a position where you are sure it will not be touched.

# INSTALLATION

- (1) Mount the EDX-2 to the desired position.(Figs. 2 & 3)
- (2) Ground the EDX-2 grounding-terminal through an independent wire as short as possible.
- (3) Connect an antenna element \*to EDX-2's antenna element terminal.(Fig.1)
- (4) Connect the EDX-2's control cable to your radio's accessory terminal.(Fig.1)
- (5) Connect the EDX-2's co-ax cable to your radio's antenna terminal.(Fig.1)

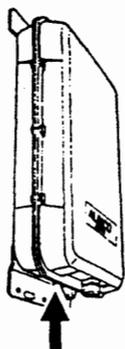
You may extend the control and co-ax cables to the desired length.(co-ax impedance is 50 Ω .)

\*Avoid undesirable antenna length(See p.3)



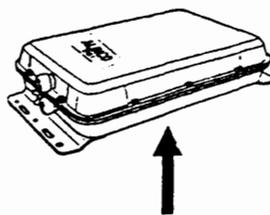
## Fig.5 DRAIN HOLE

Depending on the position of EDX-2, you may choose a drain-hole (a hole to let the inside water drain out) from one of the two locations:



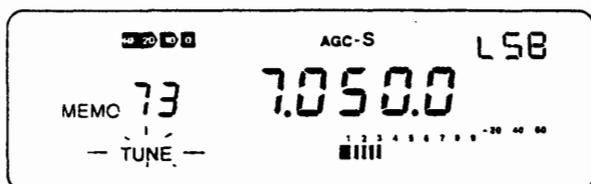
If positioned vertically:

Unscrew the Phillips-head screw located between the GND terminal and the control cable hole.



Unscrew the Phillips-head screw located in the centre of the lower cover.

## OPERATION



appears while tuning

- (1) Set the desired band and frequency of the transceiver.
- (2) Push the TUNE switch on the transceiver.\*
  - "TUNE" appears in the LCD while tuning.
  - Do not change the frequency or mode while tuning.
- (3) After tuning is completed "TUNE" disappears.
  - Normally, tuning requires less than 20 secs; average tuning time is 4-6 secs.

\*For DX-70 press FUNC then TUNE.

## ■ CALCULATION OF UNDESIRABLE ANTENNA LENGTH

Certain lengths of antenna element could be extremely difficult to tune with EDX-2, besides causing high-voltage on the radio chassis. Such lengths are dependent on your operating frequency, and can be calculated as follows.

$$\text{Length of half-wave and its multiples } (1/2 \lambda) = \frac{300}{\text{Operating frequency (MHz)}} \times \frac{1}{2} \times n$$

Where n is an integer.

**[EXAMPLE]** Undesirable antenna length with an operating frequency of 29.00MHz

$$\text{Multiple of } 1/2 \lambda = \frac{300}{29} \times \frac{1}{2} \times (1,2,3,4,\dots) = 5.2, 10.3, 15.5 \text{m etc.}$$

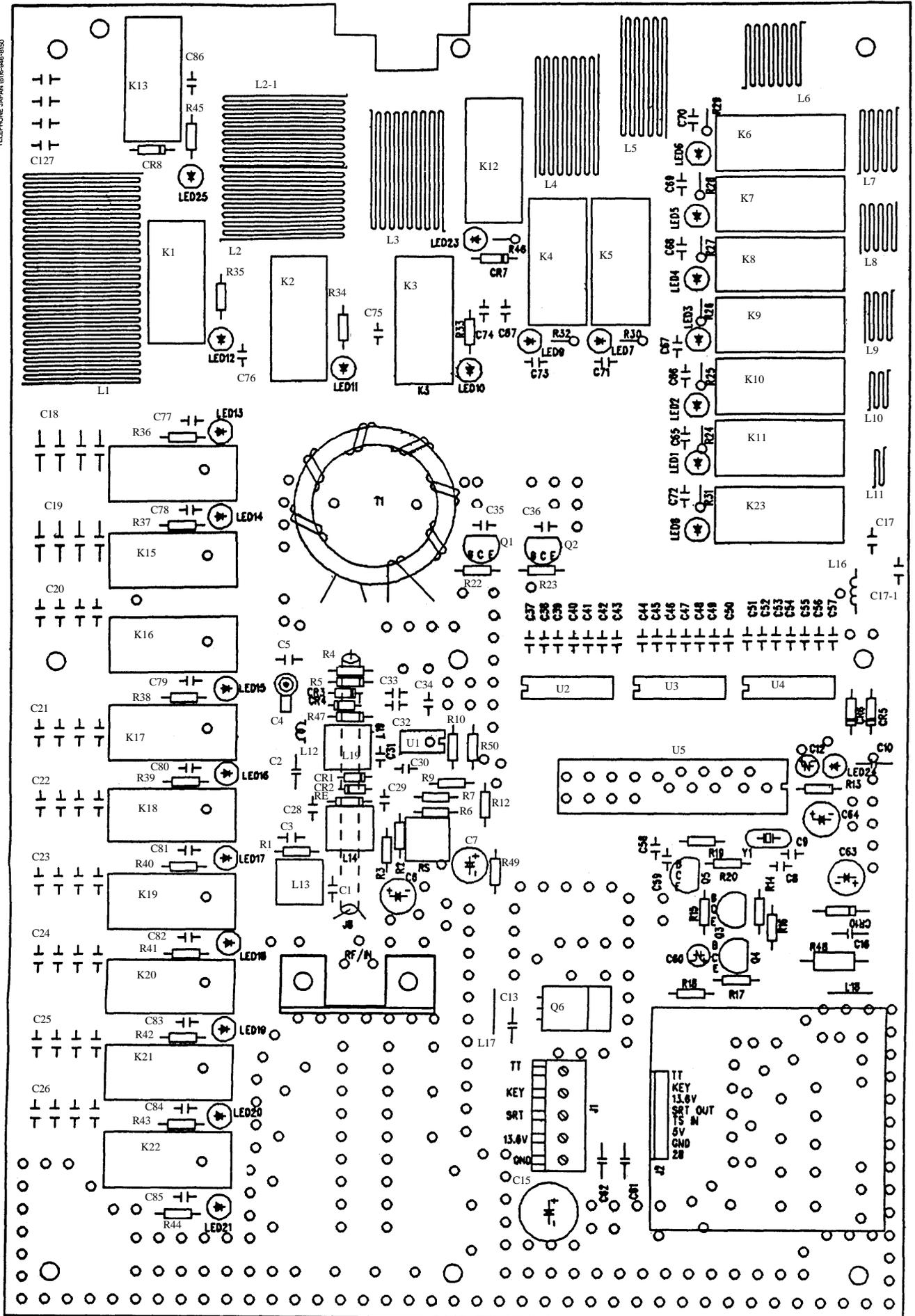
*NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.*

*However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.*

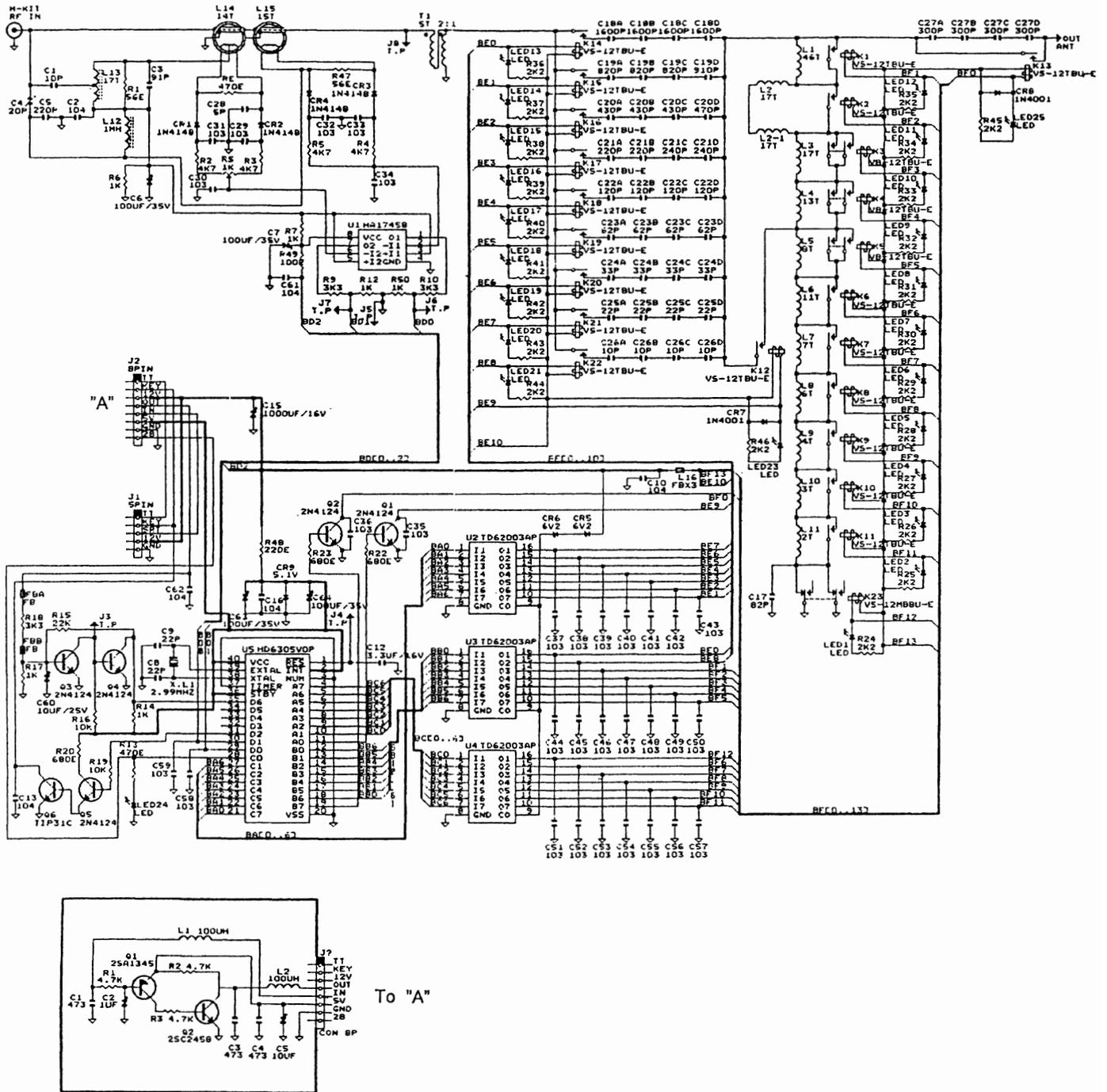
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

All stated specifications and circuits are subject to change without notice.

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**SCHEMATIC DIAGRAM**



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