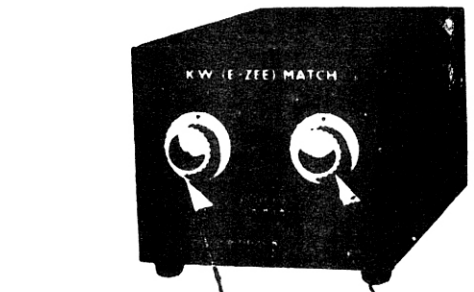
K W Electronics Ltd

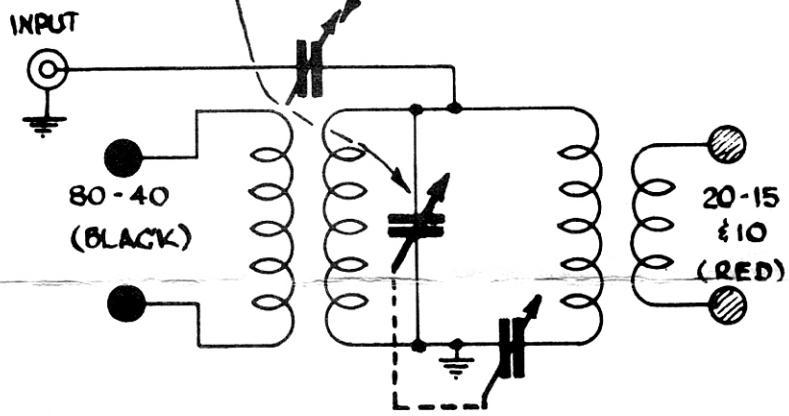
SPECIFICATIONS AND INSTRUCTIONS

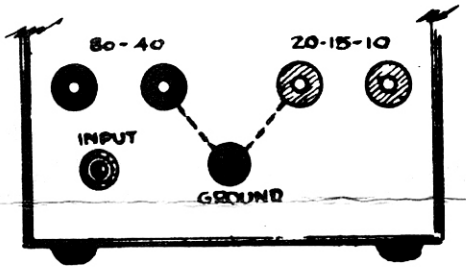
KW E-ZEE MATCH ANTENNA TUNING UNIT

471-600-021



The KW E-Zee Match is designed to provide an improved system of matching between a Transmitter output or Receiver input and an antenna system. The unit covers bands 10-80 meters inclusive and enables resistive loads from 15 ohms to 5,000 ohms to be matched. Re-active components in an antenna system can be considerably reduced and the standing-wave-ratio (S. W. R.) improved. This will also tend to improve results when dealing with television interference (TV I). Maximum power should not exceed 400 watts p. e. p. SSB (100 watts power output A. M. with 100% modulation).





TRANSMITTER OPERATION Connect the low impedance output of the transmitter to the RF input of a standing-wave-ratio bridge (e. g. the KW Match) and the RF "output" of the SWR Bridge to the RF input co-axial socket on the KW E-Z Match. Connect the antenna to the appropriate terminals at the rear of the E-Z Match. (See instructions below). With the SWR Bridge switched to "reflected" power, tune the two controls at the front of the E-Z Match for minimum SWR indication. NOTE: It may be necessary to re-adjust the sensitivity of the SWR indicator, with the switch in the "forward" power position, to obtain optimum SWR indication. When the correct match has been found, log the dial reading of E-Z Match for easy reference after a frequency change.

WARNING During the tuning process, always ensure that the P. A. stage is not pulled off-resonance. Slight re-adjustment to maintain resonance may be necessary.

RECEIVER OPERATION The same principals apply when using the E-Z Match with a Receiver only. Adjustment should be made for optimum signal strength. An SWR Indicator is not required. From experience, it may be found, that a quick approximate method of tuning the E-Z Match for transmission is to adjust on a received signal at the required transmission frequency. Final adjustment of the E-Z Match should be done using the SWR Indicator method.

ANTENNA CONNECTIONS to the E-Z Match. At the rear of the unit are two pairs of terminals - Black and Red - each will accept a 'Banana' plug or screw down on to wire or to a 'spade' tag. A fifth terminal, black in colour, situated below the two pairs of terminals, is provided for ground connection and for a connection link to one of the terminal pairs when using a single-wire-feed-antenna. The BLACK pair of terminals are for use on 40 and 80 meters. The RED pair of terminals are for use on 10, 15, and 20 meters. A pair of terminals should always be used when the antenna is fed with co-axial cable, twin cable or open wire feeder. For single-wire-feed use only one terminal of the pair (Black 40/80 - Red 10/15/20) for the antenna connection and link the other terminal of the pair to the ground terminal. Try reversing the connections to antenna and ground terminal pairs for best SWR. ALWAYS connect a ground wire to the E-Z Match. It is desirable that this be made as short as possible to a ground-post and not to the ground of the domestic electricity supply.

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THE K.W. BALUN

HELPS ELIMINATE T.V.I. - BROAD BAND 3-30 MHz - WATERPROOF - FOR USE WITH ALL TYPES OF ANTENNA - FED WITH UNBALANCED CO-AXIAL CABLE - WILL HANDLE A KILOWATT - VIRTUALLY NO INSERTION LOSS.

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The K.W. Balun is designed for 50 ohm or 75 ohm unbalanced co-axial input and gives a balanced output, with 1:1 impedance ratio. It is intended to be installed at the feed point of a dipole, beam or any similar balanced type of antenna.

Connect the output terminals (marked with a white spot) to the feed point of the antenna with short lengths of wire. Connect the co-axial cable 'Outer' and 'Inner' to the terminals marked on the label. The co-axial cable should be suitably sealed to prevent ingress of moisture.

In many cases, the installation of the K.W. Balun in a balanced antenna system fed with co-axial cable has improved the efficiency and radiation pattern of the system. Furthermore, a significant reduction of T.V.I. usually occurs.

The K.W. Balun is compact, lightweight, and the performance has been achieved only after considerable development using modern ferrite techniques.

Size: 4" long x 1¼" O.D. Weight: Less than 4 ozs.