

KW E-Z MATCH

Most modern day transmitters need a proper termination of 50ohms in order to function satisfactorily. The KW E-Z MATCH is designed to transform a high impedance or mismatched transmission line to 50ohms resistive. The circuit and components used allow this to be done with a minimum loss. Modern transmitters and transceivers will meet their spurious and intermod specifications only if worked into a proper load. A low Pass Filter is almost useless for harmonic reduction if it is not terminated in a proper impedance. The KW E-Z Match will match 30-250ohms on 30, 35 and 40 metres and 30-100ohms on 50 and 60 metres. Impedances outside these limits can also be matched depending on the magnitude of the reactive component. Transmitters with power inputs as high as 1 KW PEP can be used if the natural SWR is less than 2:1 on a 50ohm line. For high impedance and end fed antennas the safe maximum transmitter input power is 350 watts PEP. The limitation is basically one of peak RF voltage and is dependent on the reactive component of the load. Tuning is simple and straightforward. For best results the transmitter should first be tuned into a dummy load. Preliminary tuning of the KW E-Z Match is done by adjusting the controls for maximum signal on receiver. Then using the lowest power (for minimum interference) final adjustments are made to bring the SWR to as near unity as possible. The dial readings of the KW E-Z Match are then lagged for easy reference. Connections are provided for balanced feeders to the antenna and a BNC coaxial connector (SWR30) for input. There is also provision for mounting an additional coax connector when the antenna feedline is coaxial.



1. 2. 300-500 MHz

ADJUSTING TUNING UNIT

The E.F. E-F Switch is designed to provide an improved system of matching between a transmitter output or Receiver input and an antenna system. The unit covers bands 10-30 metres inclusive and matches resistance loads from 15 ohms to 5000 ohms to be switched. RF-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 (TVI). Maximum power should not exceed 400 watts p.e.p. (AM), 150 watts power output A.F. with 100% modulation.

TRANSMITTER OPERATION

Connect the low impedance output of a transmitter to the RF input of a standing-wave-ratio bridge (e.g. The E.F. Switch) and the RF "output" of the SW Bridge to the E.F. input terminal socket on the E-F Switch. Connect the antenna to the appropriate terminals at the rear of the E-F Switch. (See instructions below). With the SW Bridge switched to "reflected" power, tune the two controls at the front of the E-F Switch for minimum SW indication. NOTE: It may be necessary to re-adjust the sensitivity of the SW Indicator, with the switch in the "forward" power position, to obtain optimum SW indication.

ADJUSTING DURING THE TUNING PROCESS. Always ensure that the P.A. stage is not pulled off-resonance. ALWAYS re-adjustment to maintain resonance may be necessary.

When the correct match has been found, log the dial readings of E-F Switch for easy reference after a frequency change.

RECEIVER OPERATION.

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

ANTENNA CONNECTIONS to the E-F Switch. At the rear of the unit are two pairs of terminals - Black and Red - each will accept a "Tangan" Plug or screw down an 18 wire or is a "spade" tag. A fifth terminal, black in colour, situated below the two pairs of terminals is provided for an earth 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 60 metres. The RED pair of terminals are for use on 10, 15 and 30 metres. A pair of terminals should always be used when the antenna is fed with co-axial cable, this cable or open wire feeder. For single-wire feed use only one terminal of the pair (black 40/60 - Red 10/15/30) for the antenna connection and link the other terminal of the pair to the earth terminal. Try reversing the connections to antenna and earth terminal pairs for best SW. ALWAYS connect an earth wire to the E-F Switch. It is desirable that this be made as short as possible to a ground-post and NOT to the earth of the domestic mains supply.

TVI - Preceding, A 50 or 75 ohm Low-Pass-Filter should be connected in the coax line between the transmitter and the S-S switch.

When using an SWR indicator, place this in the co-ax line between the transmitter and the Low-Pass Filter.

NOTE: E.V. Products is asked to the reduction of television interference.

E.V. Switch SWR Indicator. Dual impedance 50 and 75 ohms. Measures for best standing wave ratio on the antenna system.

Price...\$8.10.00.

SWR..... 1.00.

E.V. Balun, converts co-ax input to balanced output (e.g. fit at top of co-ax feeder to dipole or beam)

Price...\$1.15.00.

SWR..... 1.00.

E.V. Low Pass Filter. When ordering state whether for 50 or 75 ohm impedance, also channel number of local BBC/TF station.

Price...\$6.14.00.

SWR..... 1.00.

E.V. High Pass Filter. Fitted at the T.V. set to reduce the effect of "bleed emission".

Price...\$1. 0.00.

SWR..... 1.00.

E.V. T.V. Balun. Fitted at the T.V. antenna feed point to match the "isolated" antenna to current carrier. Reduces effect of "bleed-emission".

Price... 15.00.

SWR..... 1.00.

E.V. S-S Switch, as described above;

Price...\$18.10.00.

SWR.... 0.00.

E.V. ELECTRONICS LIMITED,
Rugby Road,
1, South Street,
Dorchester,
Dorset.

A switched "Z"-match
aerial unit

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

[I]t would be said sufficient needs have of argument that the "second thought", "if" -thesis, call it what you will, negates both our two theses. This shows a great deal too little understanding to get a more sufficient quantity of it from these hypotheses, and the still less of what they show us and say. I do say, indeed, that it is, of course, a thing hardly to be taken for granted that these hypotheses show.

[illegible]

- 101 Both include pre-arranged insurance coverage.
- 102 Any type of Master-Carding wire can be used, and
- 103 change wire frame and to the extent needed to protect the

Abstract

The following components are required:
 1. A low-voltage, low-current source, such as a battery, that can supply a current of 100 mA or less.

Other languages maintain word-*all* consistency, as English and the American one.

Abstract

First round and double knockout rule, with 120 of 144 players advancing.



Figure 1. Study design.



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Post-Test (see end of report, tables, and figures) (see end of report)

2011. *Journal of Management Education*, 35(1), 10-24.



Fig. 5. Correct connections with each cable end position

It is suggested that the following procedure be used:

- (1) Determine exactly which cable ends hook point, adjust to the most advantageous, so that the cable can be mounted on them instead of on the corner fittings.
- (2) Mark the hook point with clearance holes so that the two threaded rods passing through can be mounted before and pulled to each pair of wire terminals.
- (3) Carefully consider the end assemblies from the wire

terminals (1,2) and (3,4) and inspect to the standards so that the original position of the cable is maintained.

(4) Make up a simple "U" bracket of 1/2" diameter to mount the cable, as best as possible to the hook point and connect to the cable so as to get the shortest possible hook between cable ends and terminals. Use the "U" bracket as a template to mark out the position of the hole in the floor plate before mounting the switch assembly on the structure.

(5) Reference to Fig. 2 should make the string-up clear. The two control cables are, of course, wired to parallel to the same type terminal block, identically placed on each end. Control cable joints are necessary as per a standard soldering rule.

(6) The final operation is the timing of the sequence start, finish, coupled and home speed limits. Because of the length of the sequence start it is essential to fit a tie-rod back to the home magnet for speed support.

The switch has three positions, marked stop, start and a switch with the two cables pulled to the control plane:

"0" - closed stop on the 100.

"10" - 10, 11 and 12 on the 100.

"20" - 10, 11 and 12 on a double-ended stop.

Obviously any type of wire can be used and altered cable sheathings of the terminal. The addition of the control cable amplifier connection of the cable by means of the usual plug located at terminal, reference cable. The author's unit has been in use here for two years and each night that have been made there that there is still no maintenance.

A scaffold tilt-over

by A. M. FRASER, Gillingham

WITH the almost universal acceptance of the commercial RCM (remote control mechanism) for the average machine line in the building industry, as the author's previous location, a 100' telescopic pole, plus a 12' dual extension, supported the crane's frame and the end of a long-term period. Though various articles were published, the author got away with a—no doubt due to the presence of some 20 similar poles scattered about the construction industry.

However, at his last location, in a small village the telephone lines are in underground ducts, so that a long telescopic pole would introduce serious accessibility difficulty. It was essential to design and build a safe, compact, portable, and could be raised or lowered by one person in approximately 10 seconds with little effort. Furthermore, for the last four or five months, the author planned to do just that in each operating period, from breakfast and having one village official who might say: "That's all."



Figure 6. The scaffold tilt-over assembly

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