

BARKER & WILLIAMSON
603 CIDCO ROAD
COCOA, FL 32926
321-639-1510

MODEL TR TRAPS
MODEL LC LOADING COILS

Power Rating: 1000W PEP
500W Output

Barker & Williamson traps are ruggedly constructed in a weatherproof plastic enclosure with stainless steel hardware. Loading coils are wound on top of weatherproof plastic, and covered with a heat shrink sleeve. They will provide many years of trouble free service. This guide will assist in design and usage of these items. Remember that all short dipole antennas will have a bandwidth narrower than a full size half wave dipole. Therefore, an antenna tuner may be helpful. Installation is best done as an inverted Vee. Satisfactory results may be obtained with the center as low as 20 feet, however 30 feet or more is recommended. If a flat top installation is desired, it is best to have the center supported due to the weight of the traps/loading coils and coaxial feed line.

Assemble the sections of the antenna together paying attention to the figures. The wire segment lengths shown in the table are your starting point for tuning the antenna. *When you cut the wire, leave plenty of excess for making connection and lengthening if necessary.* Make sure that you make temporary connections as shown in figure 3. Raise your antenna, and check the VSWR on the highest frequency band first. If the resonant frequency is low, shorten the wire segments. If it is high, lengthen the wires. After the desired frequency is achieved, make permanent attachment for these segments as shown in figure 2, trimming off excess wire. Repeat this procedure for each band, going from highest to lowest frequency.

WARNING

Outdoor antennas and lead-in conductors from antenna to building shall not cross over electric light or power circuits and shall be kept well away from all such circuits so as to avoid the possibility of accidental contact. Where proximity to electric light or power service conductors of less than 250 volts cannot be avoided, the installation shall be such as to provide a clearance of at least 2 feet. Where practical, antenna conductors shall be installed so as to not cross under electric light or power conductors.

Figure 1: Wire and trap arrangement (one side only). Refer to table.

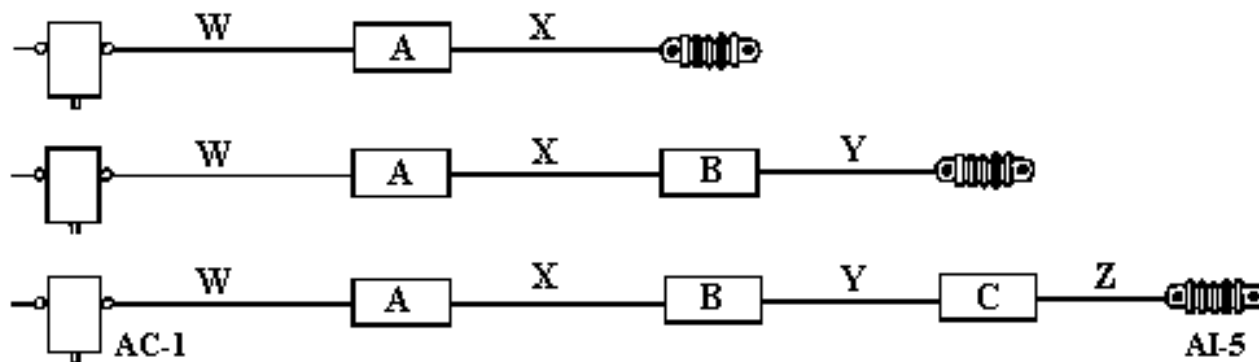


Figure 2: Permanent hookup. After passing through the eyebolt, wrap the wire around itself 5 times before soldering to the terminal.

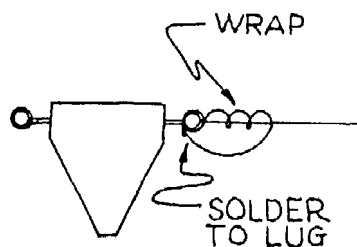
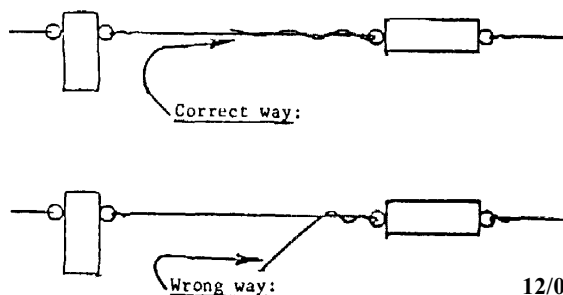


Figure 3: Temporary hookup for tuning. Loosely twist and tape ends in.



| Bands Covered | Approx Length Ft | A | B | C | W Ft | X Ft | Y Ft | Z Ft |
|-----------------|------------------|-------|------|------|-------|------|------|------|
| 10, 20 | 29 | TR10 | | | 8' 5" | 6' | | |
| 10, 15, 20 | 23 | TR10 | TR15 | | 8' 5" | 13" | 21" | |
| 10, 20, 40 | 43 | TR10 | TR20 | | 8' 5" | 6' | 7' | |
| 10, 20, 80 | 107 | TR10 | TR20 | | 8' 5" | 6' | 39' | |
| 10, 15, 20, 40 | 51 | TR10 | TR15 | TR20 | 8' 5" | 13" | 21" | 14' |
| 15, 40, 80 | 100 | TR15 | TR40 | | 12' | 16' | 22' | |
| 15, 40, 80, 160 | 174 | TR15 | TR40 | TR80 | 12' | 16' | 22' | 37' |
| 15, 40, 80 | 70 | LC2 | TR40 | | 12' | 9' | 14' | |
| 20, 40 | 56 | TR20 | | | 18' | 12' | | |
| 20, 80 | 120 | TR20 | | | 18' | 43' | | |
| 20, 40, 80 | 104 | TR20 | TR40 | | 18' | 8.5' | 12' | |
| 20, 40, 80, 160 | 136 | TR20 | TR40 | TR80 | 18' | 8.5' | 12' | 30' |
| 20, 80, 160 | 170 | LC2 | TR80 | | 18' | 30' | 38' | |
| 30, 160 | 94 | LC1 | | | 22' | 25' | | |
| 40, 80 | 98 | TR40 | | | 33' | 16' | | |
| 40, 80, 160 | 150 | TR40A | LC1 | | 33' | 22' | 20' | |
| 80, 160 | 200 | TR80 | | | 63' | 37' | | |

WARRANTY STATEMENT

Barker & Williamson guarantees each product to be free from defects in material and workmanship for 90 days from date of purchase. The warranty applies to the original purchaser only, and we will repair or replace the product at our discretion. Under no circumstances will Barker & Williamson be liable for any damages or consequential damages arising from use or misuse of our products. Warranty is voided if product is subject to misuse, neglect, accident, improperly installed or used in violation of the instructions furnished by us. We reserve the right to make changes in design at any time without obligation to update previously manufactured models. This warranty is given in lieu of any other warranty, expressed or implied.