BARKER & WILLIAMSON

BROADCAST EQUIPMENT

INDEX

WARRANTY

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. Warranty is voided if product is subjected to misuse, neglect, accident, improperly installed or used in violation of the instructions furnished by us. Barker & Williamson reserves the right to make improvements and change 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.

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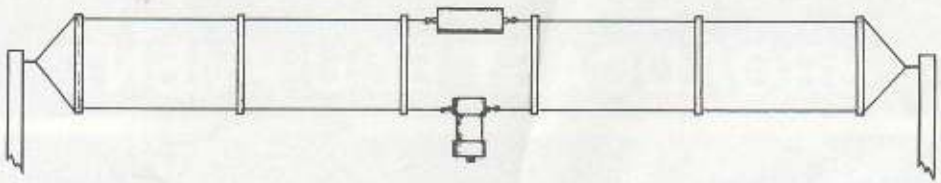
ANTENNAS FOR COMMERCIAL SERVICE



Model AC 3.5-30
(formerly 370-15)

CONTINUOUS COVERAGE FOLDED DIPOLE ANTENNA FOR 3.5-30 MHz
Power Rating 1KW (2KW PEP) ICAS

This new and patented design covers all frequencies from 3.5 to 30 MHz with a VSWR of less than 2:1 when fed with 50 ohm coaxial cable. No adjustments to the antenna or to antenna tuners are needed when changing frequency. The Model AC 3.5-30 antenna is the logical companion to modern solid state transmitters & receivers that require no tuning when making frequency changes. Use of this antenna is so simple that untrained personnel can operate it.

The AC 3.5-30 is constructed from rugged time-proven materials. Thousands of them are in service world-wide in all kinds of climates, from the tropics to the arctic regions. The antenna can be installed as a flat-top dipole, an inverted V, or a sloper. A minimum height of 25 feet is recommended, but the antenna may be used at lower heights with reduced efficiency. The higher the installation the more effective a radiator the antenna will be, particularly at lower frequencies.

The Model AC 3.5-30 covers the amateur 80, 40, 30, 20, 18, 15, 12, and 10 meter bands. Although the antenna is designed for commercial services, many amateurs are delighted with its performance on the ham bands, and for covering MARS frequencies. When compared to a resonant dipole on the lower frequency bands, the AC 3.5-30 radiates a signal approximately 2 S-units below a dipole cut to a specific frequency. At higher frequencies there is gain over a dipole because of the length of the AC 3.5-30. Amateurs like its ability to work over an entire band, such as 75 – 80 meters, without an antenna tuner.

Model AC 3.5-30 Supplied fully assembled. Shipping Wgt. 10 lbs. Length 90 ft. overall
US Patent No. 4,423,423

Model AC 2-22
(formerly 370-15/185)

CONTINUOUS COVERAGE FOLDED DIPOLE ANTENNA For 2 to 22 MHz

The same antenna as the Model 3.5-30 except for length, 185 feet overall, wire spacing 36 inches and frequency coverage.

US Patent No. 4,423,423
Shipping Wgt. 19 lbs.

Model AC 5-30
(formerly 370-15/65)

CONTINUOUS COVERAGE FOLDED DIPOLE ANTENNA For 5 to 30 MHz

Identical to Model AC 3.5-30 antenna, except for its length, 65 feet overall, and frequency coverage.

US Patent No. 4,423,423
Shipping Wgt. 10 lbs.

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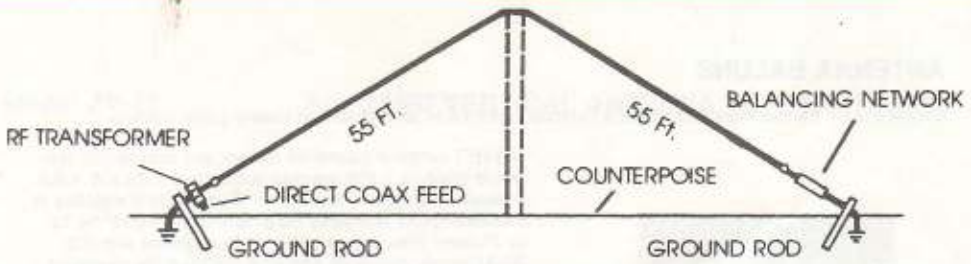
B&W

ANTENNAS FOR COMMERCIAL SERVICE



Model AC 1.8-30 CONTINUOUS COVERAGE END-FED VEE ANTENNA
Power Rating 1KW (2KW PEP) ICAS

The Model AC 1.8-30 radiates and receives on all frequencies from 1.8 to 30 MHz, with a VSWR of less than 2:1 when fed with 50 ohm coaxial cable. It features a special nonresonant design that maintains the impedance constant as the frequency is changed. The overall size of the antenna is very small compared to the wavelengths that it covers.

The AC 1.8-30 antenna system is made up of a 110 foot long wire in an inverted V configuration, terminated at one end by a special compensating network that is grounded, usually to a simple 4 foot ground stake. The center of the antenna is the high point, 20 to 25 feet high. The support for the center may be a pole, tree, or any convenient tie point. The other end is the driving point. Coaxial cable is connected to the antenna by means of a balun transformer. One side of the balun is also grounded by means of a simple stake. A counterpoise wire joins the two ground locations. This counterpoise wire is essential in roof mountings or other locations where uncertain ground conditions may exist.

The AC 1.8-30 is an omnidirectional antenna at the lower frequencies, with predominately high angle radiation which is most useful for transmissions of 40 to 1000 miles. From approximately 5 to 15 MHz the radiation at lower angles increases, and above 15 MHz the antenna becomes more directive in the line of antenna, toward the end terminated by the compensating network.

For installations where space is restricted, the AC 1.8-30 may be shortened in length by cutting equal portions of wire from each leg. This reduces the radiation efficiency as the antenna is shortened, but it still "talks", and many radio systems are functioning with reliable and consistent communications by means of shortened AC 1.8-30 antennas. The impedance characteristics are not much affected by changes in antenna length, so that the SWR remains less than 2:1 over the frequency range.

Model AC 1.8-30 Supplied fully assembled. Shipping Wgt. 7 lbs. US Patent No. 4,511,898

Model AC 1.8-30M Same specifications as above except built to rugged marine standards. Consult factory. Shipping Wgt. 10 lbs.

Model BN-1 BALANCING NETWORK

2 KW continuous duty balancing network for Models AC 1.8-30 and AC 3.5-30 antennas. Usable up to 5 KW intermittent duty (SSB, CW).
Shipping Wgt. 30 lbs.
Dimensions: 34" H × 15½" × 13" D

Model HFT-5 MATCHING TRANSFORMER

5 KW continuous duty matching transformer for use with Model AC 1.8-30 and AC 3.5-30 antennas.
Shipping Wgt. 18 lbs.
Dimensions: 18" × 15" × 7" D

Model HFT-1 MATCHING TRANSFORMER

1 KW continuous duty matching transformer for Models AC 1.5-30 and AC 3.5-30 antennas. Usable up to 2.5 KW intermittent duty (SSB & CW).
Shipping Wgt. 5 lbs.
Dimensions: 10" × 10" × 4" D

COMMERCIAL ANTENNA ACCESSORIES

ANTENNA BALUNS

Baluns are RF transformers that match a balanced antenna to an unbalanced coaxial cable feedline.

The HFT series of baluns for military and commercial service is rated for 5 KW average output power, 10 KW ICAS. Frequency range is 3 to 30 MHz. Each balun is supplied in a weather-proof fiberglass case, approximately 12" by 12" by 7" deep. Shipping weight is 18 lb. Supplied with UG-352/U female connector and a UG-154/U male connector, other types available on request.

Each balanced ouput impedance is available with either 50 Ohm or 70 Ohm unbalanced input.

B&W Model No	Input Impedance (unbalanced)	Output Impedance (balanced)	Power Capacity
HFT 5K/500/7008	50 ohms	700 ohms	5-KW Average 10 KW PEP
HFT 5K/500/6008		600 ohms	
HFT 5K/500/3008		300 ohms	
HFT 5K/500/2008		200 ohms	
HFT 5K/700		as above	
As Above	70 ohms		

DUMMY LOADS

Rhombic Antenna Terminators

The DL series of non-inductive resistors is designed for terminating rhombic and long wire V antennas, and for outdoor dummy load service. Each has a value of 600 Ohms, with other resistance loads available on special order.

The larger units are housed in weather-proof fiberglass boxes that provide screened vents for convective air cooling. Typical input VSWR is less than 1.5 to 1 from DC to 30 MHz.

Model Number	Power Rating	Case size	Shipping weight
DL-100/600	100 watts	2½" dia × 6½"	1 lb
DL-500/600	500 watts	11" × 13" × 7" deep	8 lb
DL-2K/600	2000 watts	28" × 14" × 12"	35 lb
DL-6K/600	6000 watts	65" × 53" × 32"	170 lb

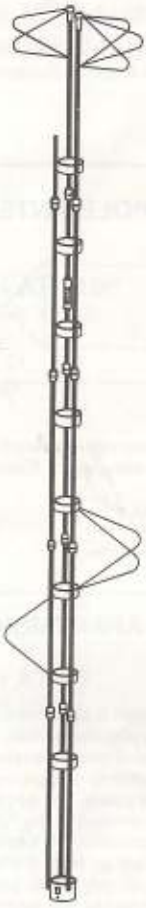
NOTE: The following abbreviations appear in this catalog:

CW	Continuous Wave (Code)	RTTY	Radioteletype
ICAS	Intermittent Commercial Amateur Service	SWR	Standing-Wave Ratio
MARS	Military Affiliate Radio System	SSB	Single Sideband
PEP	Peak Envelope Power	VSWR	Voltage Standing-Wave Ratio

ANTENNAS FOR AMATEUR SERVICE

Model AV-25

SIX BAND VERTICAL ANTENNA WITH NO TRAPS!



Covers 80, 40, 30, 20, 15, and 10 meters.
Can be supplied for commercial, military, or MARS frequency. Only 25 feet high.

Direct coax feed, low SWR.

Three parallel elements are combined to make this rugged vertical antenna. It is resonant on each band, yet no traps are included. Top and side capacity loading are used to reduce the overall height and achieve wide bandwidths.

Get good DX reports with this low-angle radiator!

Thin-walled steel conduit (EMT) having a heavy galvanized coating is used for durability and strength. Insulating rings are used to space the elements from each other, and as the base of the antenna. A radial system is needed for top performance.

Shipping Wgt. 38 lbs.

THEORY

The top-loaded quarter wave element for 40 meters is also resonant as three quarter waves on 15 meters, tuned by side capacitive loading. Similarly, the 30 meter element also tunes to 10 meters. A large coil in the third element is an rf choke at 14 MHz, isolating a quarter wave on 20 meters from the top of the element. On 75 or 80 meters the coil loads the entire element, including some top capacitance, to bring it into resonance.

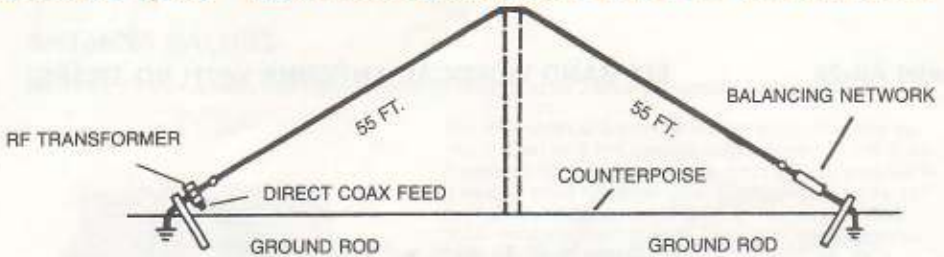
Model AR-25 Radial Kit. Sixteen resonant wires to be used in a radial system for ground or roof mounting of the AV-25 vertical antenna.

B & W VERTICAL BEAM ANTENNAS

Currently under development is a new line of vertical beam antennas covering the new high frequency bands. These will be announced following completion of the electrical and environmental testing. In the meantime, if you have specific interest or requirements, please contact the factory. Your inquiries will be given prompt and careful consideration.

ANTENNAS FOR AMATEUR SERVICE

Model AC 1.8-30 CONTINUOUS COVERAGE END-FED VEE ANTENNA

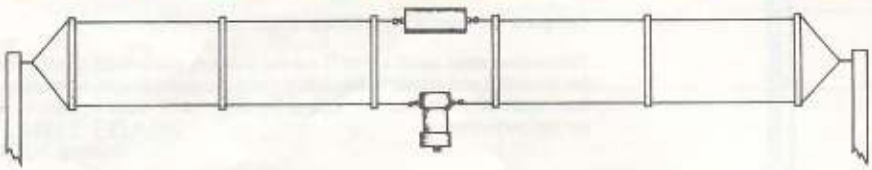


Originally designed for commercial and marine use, the AC 1.8-30 Antenna is finding increasing acceptance by amateurs as an ideal all-round antenna where ground area is limited. We have been receiving excellent performance reports on 160 meters.

See page 3 (Commercial Antenna Section) for description.

U.S. Patent No. 4,511,898

Model AC 3.5-30 CONTINUOUS COVERAGE FOLDED DIPOLE ANTENNA



This unique Barker & Williamson antenna was designed to provide optimum performance and reliability as an all-band communications antenna. The AC 3.5-30 is in service the world over, serving many commercial and government installations. Its flat response has made it a favorite with amateurs, too.

For complete description see page 2 (Commercial Antenna Section).

U.S. Patent No. 4,423,423

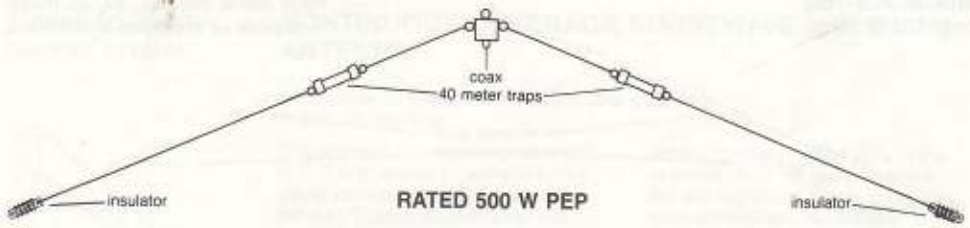
Model AP-10
(formerly 370-10)

PORTABLE AMATEUR ANTENNA FOR APARTMENTS, HOTELS, AND TRAVEL

Designed especially for those renters and travelers who cannot put up a permanent antenna, the AP-10 attaches quickly to a window. It tunes to low SWR with the aid of its counterpoise wire and puts out a remarkably potent signal on the 40, 30, 20, 18, 15, 12, CB, 10, 6, and 2 meter bands. Power rating is 300 watts CW and SSB. A new heavy-duty 40 meter coil is included. The AP-10 consists of an aluminum bracket which clamps to a window, a 10 ft. length of coax to connect the antenna to your radio, a set of loading coils which mount on a solid plastic-base insulator, a stainless steel whip which extends from 22-1/2" to 57", and an insulated counterpoise wire, 33 feet long. In use, a coil is selected for the desired band, 20 meters, for example, and attached to the antenna base with two screws. The whip is attached and extended, and the antenna is then clamped to the window with a large thumbscrew built into the window bracket. (Either vertically raised window sashes or horizontally sliding, or casement windows can be used). The counterpoise wire is then unrolled to the "20" mark where approximately 16 feet extends across the floor or along the wall of the room. With only a little power from the transmitter the length of the counterpoise is then adjusted by rolling up the wire, to bring the SWR down to a minimum, close to 1:1. The system is now matched and resonant and ready to radiate and receive quite effectively, despite the limitations of length and location. Thousands of these antennas are keeping hams on the air and working lots of DX. Have an AP-10 on hand for emergency work, don't be "off the air" because of an ice or wind storm!

Shipping Wgt. 3 lbs.

ANTENNAS FOR AMATEUR SERVICE



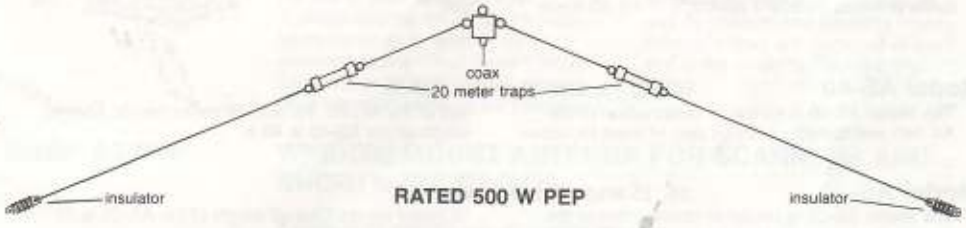
Model AT-110
(formerly 370-11)

FIVE BAND TRAP ANTENNA FOR 80, 40, 20, 15, and 10 METERS

This popular antenna is only 110 feet long and handles the highest amateur power. SO-239 coaxial cable connector for five band operation with one feedline. Antenna may be set-up as a flat-top, inverted V, or sloper. Wire length adjustments provided for tuning. The AT-110 has low SWR on 80 and 40 meters, but somewhat higher SWR on 20, 15, and 10 meters. Typical values are from 2:1 to 3:1 on these bands. An antenna tuner is recommended if a solid state rig will be used.
Shipping Wgt. 5 lbs.

Model AT-110K
(formerly 370-12)

Above antenna supplied as a kit consisting of #14 stranded copperweld antenna wire, center connector, two traps, end insulators, and complete instructions.
Shipping Wgt. 5 lbs.



Model AT-55
(formerly 370-13)

FOUR BAND TRAP ANTENNA FOR 40, 20, 15, and 10 METERS

Only 55 feet long, this trap dipole antenna provides efficient operation on four bands with one feedline. It has the same construction and ratings as the AT-110.
Shipping Wgt. 4-3/4 lbs.

Model AT-55K
(formerly 370-14)

The AT-55 four band trap antenna, supplied as a kit. Consists of #14 stranded copperweld antenna wire, center connector, two traps, end insulators, and complete instructions.
Shipping Wgt. 4-3/4 lbs.

Important Message — Please Read!

When installing an antenna, please observe the following rules:

Antenna or lead-in wires must *never* cross over power lines. Make every effort to avoid their crossing under power lines. Locate antenna and lead-in as far from power lines as possible. When installing antenna, do not use a metal ladder, or work on a wet or windy day. If antenna or mast starts to fall, get out of the way and let it fall free.

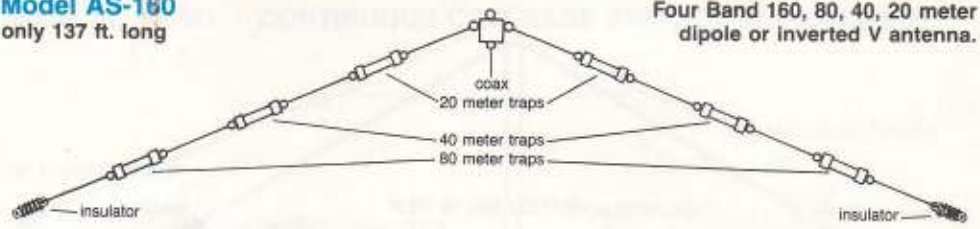
Do not work alone. Have someone nearby who understands the danger of electrocution.

In the event that your antenna system should come in contact with a power line, phone your power company for assistance; do not attempt to remove it yourself.

AMATEUR ANTENNAS FOR LIMITED SPACE

Model AS-160
only 137 ft. long

Four Band 160, 80, 40, 20 meter dipole or inverted V antenna.

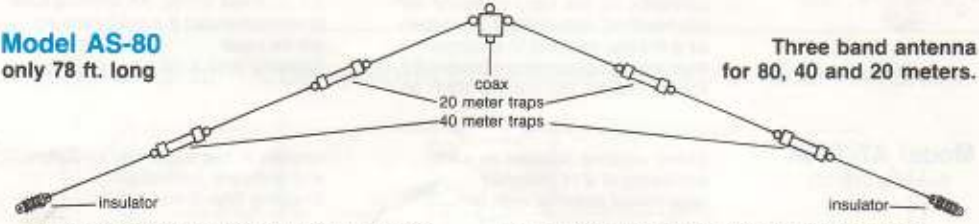


The Model AS-160 is nearly half the length of a half-wave antenna of 160 meters, yet it is an efficient resonator on the "top band". And it gives excellent results on the 80, 40 and 20 meter bands as well. Three sets of traps isolate a full half-wave on each band to the inside sections of the antenna. An antenna tuner is recommended for solid state transmitters on 160 meters to provide greater operating range and a better match. It is supplied with a SO-239 connector for direct feed with 50 ohm coax.

The Model AS-160, as well as all antennas on this page, is rated 500 W PEP. (with the exception of Model AXS-160).

Model AS-80
only 78 ft. long

Three band antenna for 80, 40 and 20 meters.



The Model AS-80 is similar in construction to the AS-160 above. Where space is at a premium this antenna provides excellent coverage of the 80 meter band with only 39 feet of wire on each side of the center connector. The SWR on all three bands is low.

Model AS-40
40, 20, 15, and 10 meter bands.

The Model AS-40 is similar in construction to the AS-160 and consists of three sets of traps for coverage of the 40, 20, 15, and 10 meter bands. Overall length of the AS-40 is 40 ft.

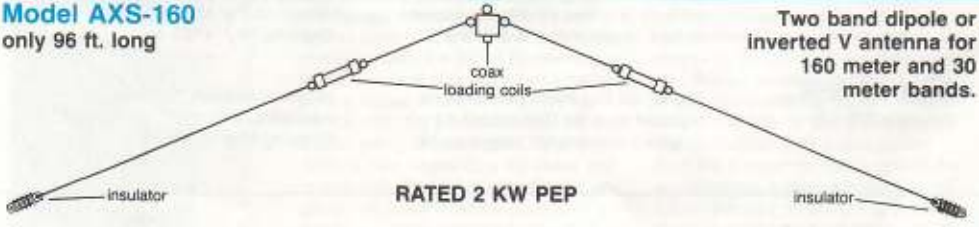
Model AS-20
20, 15 and 10 meter bands.

The Model AS-20 is similar in construction to the AS-80 with two sets of traps covering the 20, 15, and 10 meter bands. Overall length of the AS-20 is 23 feet.

AMATEUR ANTENNAS FOR VERY LIMITED SPACE

Model AXS-160
only 96 ft. long

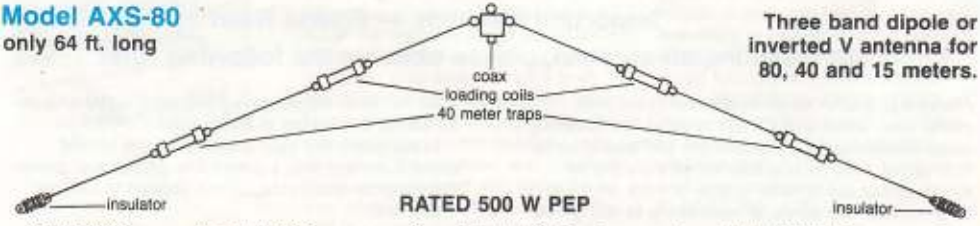
Two band dipole or inverted V antenna for 160 meter and 30 meter bands.



RATED 2 KW PEP

Model AXS-80
only 64 ft. long

Three band dipole or inverted V antenna for 80, 40 and 15 meters.



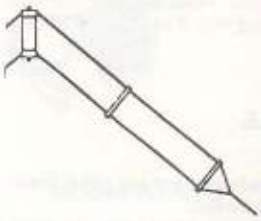
RATED 500 W PEP

SHIPPING WGTS. (Lbs.):					
	Model AS-160.....8	Model AS-40.....7	Model AXS-160 6
	Model AS-80.....6	Model AS-20.....6	Model AXS-80 6

SHORTWAVE LISTENING ANTENNAS

Model ASW-90

Patent No. 4,423,423



CONTINUOUS COVERAGE SHORTWAVE LISTENING ANTENNA

- Receives all frequencies from 3.5 MHz to 30 MHz
- Only 90 feet long

This antenna is a receive-only version of B & W's famous broadband folded dipole antenna, the AC 3.5-30. When fed with 50 ohm coaxial cable, this antenna has an SWR of less than 2:1 over this entire frequency range. This means that received signals are well matched to your receiver automatically, with no loss due to mismatch. Antennas such as dipoles or longwires will be matched to the low impedance input of a SW receiver at their resonant frequency and at odd multiples of this frequency. For other frequencies about 90% of the spectrum, they will receive signals, but with significant losses caused by mismatching. This remarkable antenna (US Patent Number 4,423,423) keeps the match good and the losses down! It is a large antenna and does a good job on medium wave and longwave reception, too. It features high strength #14 copper-clad wire for long life. It has an SO-239 connector at the center to attach coaxial cable to the antenna.
Shipping Wgt. 9 lbs.

Model ASW-60C
Model ASW-60L

(with 50 ft. twin feed line)

EIGHT BAND TRAP ANTENNA

- Only 35 Feet Long

The Model ASW-60 antenna resonates and gives top reception on the 11, 13, 16, 19, 25, 31, 49 and 60 meter shortwave bands. Its remarkable performance is achieved through the use of antenna traps. The ASW-60 may be set up as a horizontal dipole or an inverted V, as sketched above, which gives good reception from all directions. A connector is provided at the center insulator for attaching coaxial cable feedline to the radio. RG-59 cable is recommended.

The antenna is constructed from #16 stranded copper wire for maximum conductivity and reception as well as strength and flexibility. Heavy nylon guy lines are furnished at each end of the antenna. Shipping Wgt. 3 lbs.

Model ASW-5

WINDOW MOUNT ANTENNA FOR SCANNERS AND SHORTWAVE RADIOS

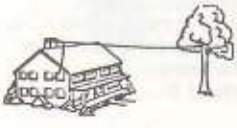
- Hear more stations with an outdoor antenna.
- For Apartments and Travel

The Model ASW-5 antenna is ideal for vacations, traveling, and apartments with antenna restrictions. It easily clamps to a window, and extends out to bring in more stations. It covers the UHF and VHF high and low bands for scanner receivers and does a remarkable job of picking up shortwave signals from distant continents.

The antenna consists of a sturdy aluminum bracket that secures to both vertically raised windows and ones that slide horizontally. A loading coil is mounted on an insulator at the end of the bracket, and a collapsible stainless steel whip that extends from 22 inches to 58 inches is mounted on the insulator. A 10 foot length of coaxial cable is supplied to connect the antenna to your shortwave or scanner receiver.

The antenna may be mounted on practically any support, and be used almost anywhere!
Shipping Wgt. 2 lbs.

Model ASW-100



LONGWIRE ANTENNA

- Fully assembled, not a kit.

The Model ASW-100 is a 100 foot long antenna made with #14 copper-clad steel wire. It is designed to run from a high point on a house such as a chimney or an upper story window, out to a remote point such as a tree, pole, or another building. If your yard will only permit a shorter span, the wire may be bent and/or cut to a shorter length. An insulated lead-in wire is provided to run from the end insulator down and into the house through a window to the receiver. A 25 foot length of braided nylon guy rope is also provided to insulate and secure the far end of the antenna to its support.
Shipping Wgt. 3 lbs.

ANTENNA ACCESSORIES

Model AI-5
(formerly 370-5)

ANTENNA END INSULATOR

Fabricated from rugged glass polymer material, these are ideal insulators for both receiving antennas and for transmitting up to the amateur power limit. They will survive a pull of more than 1,000 lbs., and are an excellent electrical insulator. 4" long, with a diameter of 1¼". Holes are .270" diameter. Shipping Wgt. 3 oz.

COAXIAL CABLE

Coaxial cable transmission line for connecting both receiving and transmitting antennas to radios. The RG-8 type cable has a characteristic impedance of 52 ohms and is used for transmitting service. The RG-59 type cable has a 75 ohm impedance and is for receiving and low power transmitting service.

The cables listed below are made up with PL-259 UHF coaxial connectors at each end and are ready to use.

Model Number	Length	Shipping Weight	Model Number	Length	Shipping Weight
RG-8/25	25 ft	2 lb 2 oz	RG-59/25	25 ft	1 lb 4 oz
RG-8/50	50 ft	4 lb 2 oz	RG-59/50	50 ft	2 lb
RG-8/75	75 ft	6 lb 4 oz	RG-59/75	75 ft	3 lb
RG-8/100	100 ft	8 lb 6 oz	RG-59/100	100 ft	3 lb 8 oz

ANTENNA WIRE

The ideal wire for making antennas. Strength is achieved with copper coated steel wire, stranded for greater flexibility and ease of handling. The copper assures excellent conductivity and good soldering properties. The wire is #14 copperweld made up of 7 strands of #22 wire.

Model Number	Length	Shipping Weight
AW-70	70 ft	1 lb
AW-100	100 ft	1½ lb
AW-140	140 ft	2 lb

Larger coils up to 1000 ft available.

Model AC-1

ANTENNA CENTER CONNECTORS

The AC-1 center connector is a combined center insulator for a dipole antenna and an SO-239 connector for attaching coaxial cable to the antenna. Eye bolts for attaching the antenna wire are provided for mechanical strength, and separate electrical connection is provided by wires which are ready to solder to the antenna wire. Stainless Steel Hardware.

A top eye bolt is provided to support the center of the antenna for an inverted V installation.
Shipping Wgt. ½ lb.

Model AC-51
(formerly CC-51)

The Model AC-51 is a military type center insulator and coaxial cable connector. It is made of cast aluminum with steatite insulators at the dipole wire connecting rings. Wing nuts are used to tighten the wire connections, ideal for quick assembly or antenna length modifications. A mounting hole at the top of the AC-51 is provided for center support of an inverted V antenna.
Shipping Wgt. 1 lb.

ANTENNA ACCESSORIES

Model AT-140 — CB ANTENNA MATCHER

This matcher allows you to use your regular automobile antenna as a CB antenna. Avoid announcing the fact that you have valuable radio equipment in your car to potential thieves. A tuning control and indicator light permits you to match the CB radio to the antenna for top performance for both receiving and talking. A front panel switch changes the antenna back to the car radio for listening to AM or FM.

Dimensions: 2-1/16" × 2-9/16" × 3-1/4" deep.

Shipping Wgt. 1 lb.

Model AT-200 — 2 METER MOBILE ANTENNA MATCHER

This matching unit permits you to use the AM-FM broadcast receiving antenna on your automobile for 2 meter amateur operating.

Don't advertise to potential thieves that you have valuable radio equipment in your car!

The AT-200 tunes from 144 to 148 MHz with front-panel tuning and loading controls. A LED tuning indicator shows maximum output. Supplied with universal mounting bracket and screws.

- Handles 25 watts.
- SWR adjusts to 1.2:1 or less with most antennas
- Motorola receptacle for vehicle antenna cable, coaxial cable outputs to AM-FM set and 2 meter transceiver.
- Front panel switch to transfer antenna to AM-FM radio.
- 2-1/16" × 2-9/16" × 3-1/4" deep.
- Shipping Wgt. 1 lb.

ANTENNA BALUNS

The BC series of baluns for amateur service is rated at 1.5 KW output, CW or SSB. They are furnished with a SO-239 connector for matching a balanced load to 50 ohm coaxial cable.

Model	Impedance	Frequency Range
BC-1	50 Ohms balanced to 50 Ohms unbalanced	1.8-30 MHz
BC-2	200 Ohms balanced to 50 Ohms unbalanced	1.8-30 MHz
BC-3	300 Ohms balanced to 50 Ohms unbalanced	3.5-30 MHz
BC-4	600 Ohms balanced to 50 Ohms unbalanced	3.5-30 MHz

Shipping weight 1½ lbs.

RECEIVING BALUNS

The RC series of baluns is designed to match balanced receiving antennas, such as dipoles, folded dipoles, inverted vees, and others, to an unbalanced transmission line. The baluns with a 50 ohm unbalanced transmission will match to RG-58 and RG-174 coaxial cable, and the 70 ohm unbalanced units will match to RG-59 cable.

Shipping Wgt. 1 lb.

Type	Standard Impedance Ratios	Freq. Range
RC-780	50 ohms balanced to 50 ohms unbalanced	3.5-30 MHz
RC-781	70 ohms balanced to 50 ohms unbalanced	3.5-30 MHz
RC-782	150 ohms balanced to 50 ohms unbalanced	3.5-30 MHz
RC-783	200 ohms balanced to 50 ohms unbalanced	3.5-30 MHz
RC-784	300 ohms balanced to 50 ohms unbalanced	3.5-30 MHz
RC-785	600 ohms balanced to 50 ohms unbalanced	3.5-30 MHz
RC-794	300 ohms balanced to 70 ohms unbalanced	3.5-30 MHz
RC-796	600 ohms balanced to 70 ohms unbalanced	3.5-30 MHz

ANTENNA ACCESSORIES

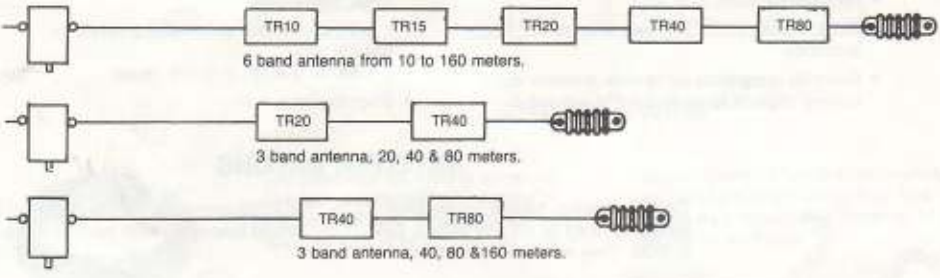
B & W ANTENNA TRAPS

All Barker & Williamson antenna traps are ruggedly constructed for long life under extreme atmospheric conditions. Housed in a weather proof plastic enclosure with stainless steel hardware, they will provide years of trouble-free performance.
Specifications: Size 2-5/8" dia. × 7-1/2" lg. overall
Wgt: 10 oz.
Rated 500 W PEP

Model No.	Band	Res. Freq.	Model No.	Band	Res. Freq.
TR80	80	3.5 MHz	TR20	20	14.0 MHz
TR40	40	7.0	TR20A	20	14.0
TR40A	40	7.0	TR15	15	21.0
TR30	30	10.0	TR10	10	28.0

Note: The TR40 and TR20 are higher in inductance than the TR40A and TR20A, which effectively reduces the antenna length.

Some typical applications: (only one arm of the dipole is shown)



B & W LOADING COILS

Use one in series with each leg of half-wave dipole antenna to shorten length of antenna. Rated 1KW (2KW PEP)

Model LC-1 Shortens 160 meter antenna by 157 feet per pair.
Size: 1-½" dia. × 7" lg. Wgt.: 8 oz. each

Model LC-2 Shortens 80 or 40 meter antenna by 30 to 35 feet per pair.
Size: 1-½" dia. × 5" lg. Wgt.: 8 oz. each

MODEL PL-259
(formerly 370-9)

PL-259 connector for use with RG-8 coaxial cable. UHF type, mates with SO-239 connector.

AIR-WOUND INDUCTORS

AIR WOUND COILS

BARKER & WILLIAMSON air wound inductors have been an industry standard since their introduction in 1932. They offer high Q and mechanical stability, and come in a variety of sizes. Diameters from 1/2 inch to six inches are in stock, coil lengths to 10 inches, and wire sizes from AWG #24 to #8. The coils are wound with tinned solid copper wire that is embedded in plastic ribs. Other finishes, such as silver plated, bare copper, or enamel insulation are available on special order.

Two coil styles are available. MINIDUCTOR coils have flat lightweight ribs, while the AIR DUX coils are wound into heavier rods that form the ribs. AIR DUX coils are also supplied with Lexan rod ribs. Add "L" to the model number and 10% to the price to order AIR DUX with Lexan.

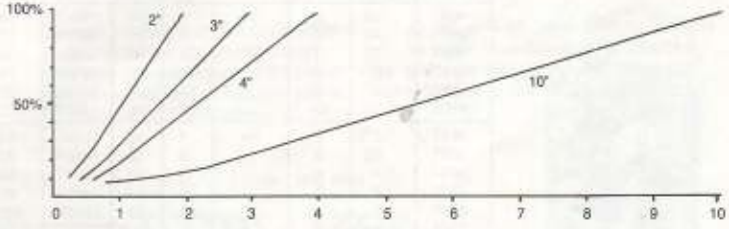
See complete listings on following page.

Coils from the MINIDUCTOR and AIR DUX series are electrically identical, provided the sizes, wires, and spacings are the same. They come in different coil lengths for some diameters.

INDUCTANCE

The inductance of each coil is given in the table. Be sure to read the inductance from the column next to the MINIDUCTOR or AIR DUX product number, since the coils having different lengths will of course have different inductances also.

The graphs below may be used to estimate the inductance of shorter coils. The vertical scale gives the percentage of the full coil inductance, and the horizontal scale the length of coil you would use. The four graphs represent the standard lengths of coils available: 2", 3", 4", and 10". Suppose, for example, that a 3.0 microhenry inductor is needed. What length of #3014 MINIDUCTOR whose total inductance is 4.1 uh should be used? Since 3.0 is 73% of 4.1, follow the horizontal 73% line over till it meets the graph for 3 inch length coils. About 2.3 inches will be needed. For a #3046 MINIDUCTOR a little less than 1 1/2 inches would be required.



Adjustable clips fasten directly to the wire of MINIDUCTOR and AIR DUX coils for a secure electrical and mechanical contact. The clips are tinned for ease of soldering. Available in packages of 25, 100, and 1,000.

Model 3942	Accommodates up to number 12 wire
Model 3943	Accommodates up to number 8 wire
Model 3944	Clips for large edgewound strip coils.

CUSTOM COIL PRODUCTS

In addition to the standard inductors shown on these pages, Barker & Williamson continues to produce a large variety of coils and coil products for manufacturers in the communication industry. These include edgewound coils, both rotating and fixed, in a wide range of sizes. We are always available to help solve problems of inductor design and production. Your inquiries will receive prompt attention.

AIR-WOUND INDUCTORS

B & W MINIDUCTOR COILS

Part Number	Induct-ance (µH)	Coil Length	Coil Diameter	Turns per Inch	Wire Size
3001	0.18	2"	1/2"	4	18
3036	0.40			6	18
3002	0.72			8	18
3037	1.10			10	18
3003	3.0			16	20
3038	6.75			24	22
3004	12.0			32	24
3005	0.275		5/8"	4	16
3039	0.620			6	18
3006	1.10			8	18
3040	1.70			10	18
3007	4.50			16	20
3041	10.0			24	22
3008	18.0			32	24
3009	0.620	3"	3/4"	4	16
3042	1.40			6	18
3010	2.50			8	18
3043	3.90			10	18
3011	10.0			16	20
3044	23.0			24	22
3012	40.0			32	24
3013	1.0		1"	4	16
3045	2.40			6	18
3014	4.10			8	18
3046	6.60			10	18
3015	17.0			16	20
3047	38.0			24	22
3016	68.0			32	24
3017	2.30	4"	1-1/4"	4	14
3048	5.0			6	14
3018	9.0			8	16

Part Number	Induct-ance (µH)	Coil Length	Coil Diameter	Turn per Inch	Wire Size
3049	14.0	4"		10	18
3019	36.0			16	18
3050	81.0			24	22
3020	145.0			32	24
3051	3.10		1-1/2"	4	14
3052	7.0			6	14
3053	12.5			8	16
3054	20.0			10	18
3055	50.5			16	20
3056	110.0			24	22
3057	200.0			32	24
3021	4.20	4"	1-3/4"	4	14
3058	9.40			6	14
3022	16.50			8	14
3059	26.0			10	16
3023	67.0			16	18
3060	150.0			24	22
3024	270.0			32	24
3061	15.0	10"	2"	4	12
3025	33.0			6	12
3026/3900	59.0			8	14
3027/3907-1	92.0			10	16
3062	238.0			16	16
3063	22.5		2-1/2"	4	12
3029/3905-1	51.0			6	12
3030/3906-1	90.0			8	14
3031	140.0			10	16
3064	32.0		3"	4	12
3033	71.0			6	12
3034	125.0			8	14
3035	198.0			10	16

B & W AIRDUX COILS

Model Number	Induct-ance (µH)	Length of Coil (Inches)	In. Dia.	TPI	Wire Size (AWG)
404T	.18	2	1/2	4	18
406T	.40	2		6	18
408T	.72	2		8	18
416T	3.0	2		16	20
432T	12.0	2		32	24
410T	1.10	2		10	18
504T	.275	2	5/8	4	16
506T	.62	2		6	18
508T	1.1	2		8	18
510T	1.7	2		10	18
516T	4.5	2		16	20
532T	18.0	2		32	24
604T	.38	2	3/4	4	16
606T	.86	2		6	18
608T	1.5	2		8	18
610T	2.4	2		10	18
616T	6.1	2		16	20
632T	25.0	2		32	24
804T	1.0	3	1	4	16
806T	2.4	3		6	18
808T	4.1	3		8	18
810T	6.6	3		10	18
816T	17.	3		16	20
832T	68.	3		32	24
1004T	5.9	10	1 1/4	4	14
1006T	14.	10		6	14
1008T	24.	10		8	16
1010T	37.	10		10	18
1016T	96.	10		16	20
1032T	380.	10		32	24
1204T	8.4	10	1 1/2	4	14
1206T	19.	10		6	14
1208T	33.	10		8	16
1210T	52.	10		10	18
1216T	134.	10		16	20
1232T	540.	10		32	24

Model Number	Induct-ance (µH)	Length Of Coil (Inches)	In. Dia.	TPI	Wire Size (AWG)
1404T	12.	10	1 3/4	4	14
1406T	27.	10		6	14
1408T	45.	10		8	14
1410T	75.	10		10	16
1416T	192.	10		16	18
1432T	770.	10		32	24
1604T	15.	10	2	4	12
1606T	33.	10		6	14
1608T	59.	10		8	14
1610T	92.	10		10	16
1616T	240.	10		16	18
2004T	23.	10	2 1/2	4	12
2006T	51.	10		6	12
2008T	90.	10		8	14
2010T	140.	10		10	16
2404T	32.	10	3	4	10
2406T	71.	10		6	12
2408T	125.	10		8	14
2410T	200.	10		10	14
3204T	57.	10	4	4	8
3206T	130.	10		6	10
3208T	230.	10		8	12
3210T	360.	10		10	12
4004T	75.	10	5	4	8
4006T	190.	10		6	10
4008T	340.	10		8	12
4010T	530.	10		10	12
4804T	120.	10	6	4	8
4806T	270.	10		6	10
4808T	470.	10		8	12
4810T	740.	10		10	12

AIR-WOUND INDUCTORS

INDENTED COILS FOR CONVENIENT TAPPING

The PI DUX® series of large AIR DUX coils, one to three inches in diameter, have alternate turns indented for ease of connecting taps to the coil. They are supplied with a mounting plate and are designed for use in pi networks.

Model Number	In. Dia.	Turns Per Inch	Wire Size (AWG)	Length of Coil (Inches)
816A	1	16	18	3-3/16
1014A	1 1/4	14	18	2 3/4
1212A	1 1/2	12	16	2 3/4
1411A	1 3/4	11	14	2-5/8
1609A	2	9	14	3
2007A	2 1/2	7	12	3 1/4
2406A	3	6	10	3-5/16

PI-DUX® COMPLETE INDUCTORS FOR PI NETWORK CIRCUITS

The PI DUX® Model 195-1 (500 watts) and Model 195-2 (1,000 watts) are constructed to provide optimum Q in a pi network inductor. The size and spacing of the coil conductor is made progressively larger toward the high frequency end of the inductor. At one end, a heavy strap coil has an inductance of 0.4 microhenry. In the Model 195-1, a variable pitch AIR DUX coil 3" in diameter, wound with #8 wire, provides most of the inductance. The coil spacing is greater toward the strap coil end. In Model 195-2, an intermediate coil section of tubing is placed between the strap coil and the main coil of #8 wire. The inductance at each turn and at tap points marked in the circuits is given in the table below.

MOUNTING

The coils are assembled on a mounting plate which may be mounted by standoff insulators in any position, preferably well spaced from the chassis or shielding.

TAP POSITIONS

Colored markings on the coils show the tap locations for an estimated tube load impedance of 1,000 ohms transformed by the pi network into a 50 ohm line on the amateur 10, 15, 20, 40, and 80 meter bands. Designs for other impedances and other frequencies may readily be made by reference to the inductance chart.

Model 195-1 (500 W - 1KW PEP)

strap vari-pitch #8 wire

Model 195-2 (1KW - 2KW PEP)

strap tubing #8 wire

TAPS			Inductance uh	
195-1	195-2	Turns	195-1	195-2
E	A	0	0.4	0.4
		1	0.8	0.45
		2	1.3	0.6
		3	1.6	0.8
	B	4	2.0	1.2
		5	2.7	1.6
		6	3.4	2.2
		7	4.0	2.7
		8	4.7	3.4
		9	5.6	4.2
		10	6.4	5.2
		11	7.2	6.1
		12	7.9	6.9
		13	8.8	8.0
		14	9.3	9.1
		15	10.7	10.0
		16	11.7	11.2
		17	12.7	12.6
		18	13.9	14.0
		19	15.2	15.2
F	C	20	16.4	16.4

MOUNTING COILS

The round ribs of the AIR DUX coils may be used to support large coils. If several turns are removed from one end, 3/8" legs, with a flat where the coil turns had been, can be drilled for mounting screws. Alternatively, 5/16" cable clamps will fit around the legs.

Where a large coil is to be suspended by its wire leads, as an antenna loading coil, for example, the wire should be wrapped around the plastic rib where it leaves the coil. This wrapped support will be many times stronger than the grip the plastic rib has on the coil wire.

Small coils may often be mounted directly to circuit boards or supported by their wire leads. Some hints for mounting large coils are suggested in the photographs below. A mounting plate may be passed through a coil lengthwise in the slot formed by the ribs and the coil wire. Such a plate can fit between adjacent ribs, or across the coil near the diameter. Plexiglas solvent cement and many other types of glues will secure the mounting plate to the coil.

CHOKES

FILAMENT CHOKES

BARKER & WILLIAMSON filament chokes are designed for commercial and amateur grounded grid amplifiers. They isolate the rf drive that is applied to the cathode from the transformer supplying the heating current. Magnetic shielding is provided internally by ferrite material used as cores in all filament chokes. This permits the chokes to be mounted close to metal without affecting their operation. There are no series resonances below 40 MHz to cause power losses.

Model FC-50 HIGH POWER FILAMENT CHOKE

The FC-50 is rated for 50 amperes continuous duty. I^2R heating losses are 18 watts at 50 amperes. Choke is supplied with 1/4-20 studs and hardware for electrical connections, and is enclosed in a heavy duty phenolic case.

Frequency:	2 to 30 MHz
Impedance:	Greater than 200 ohms, 2 to 4 MHz Greater than 1,000 ohms, 4 to 30 MHz
Dimensions:	6 inches long, 2-3/4 inches in diameter.
Shipping Wgt:	2 lbs.

Models FC-15A, FC-30A FILAMENT CHOKES FOR GROUNDED-GRID AMPLIFIERS

The Model FC-15A is a dual-winding choke with a current capacity of 15 amperes. The Model FC-30A is a twin dual-winding choke with a total current capacity of 30 amperes. The four-winding feature of the FC-30A makes it possible to use a separate filament transformer for each set of windings, and also makes it possible to meter each cathode circuit separately.

In both models, "IN" and "OUT" terminals are at opposite ends of the case and in line with each other. Either end may be used for source or load.

Frequency Range:	3.5 MHz to 30 MHz	Dimensions:	2" × 2-1/2" × 5"
RF Voltage:	150 volts rms maximum	Shipping Wgt.:	2 lbs.

Model FC-25A ECONOMY 30 AMP FILAMENT CHOKE

Bifilar wound on 1/2" ferrite core 7" long. Mounting hardware included.

Frequency Range:	1.8 MHz to 30 MHz	Dimensions:	1/2" dia. × 7
RF Voltage:	150 volts rms maximum	Shipping Wgt.:	1 lb.

PLATE CHOKES

Barker & Williamson Plate Chokes are designed for series or parallel feed or high voltage to final amplifiers. Wound on high quality grooved steatite form tapped for 1/4-20 machine screw both ends. Models 800 and 801 plate chokes are 6" long, 5/8" diameter.

Model 800 PLATE CHOKE

90 uH, 750 mA, frequency range 3.5—30 MHz Shipping Wgt. 3/4 lb.

Model 802 PLATE CHOKE

110 uH, 1 amp., frequency range 1.8—30 MHz Shipping Wgt. 3/4 lb.

Model BBC-5K PLATE CHOKE

The high-power broadband choke, BBC-5K, has been designed for application in continuous coverage high-frequency transmitters in the commercial or military service. This unit has been designed for high current or high voltage applications. There are no series resonant "suck-out" points in the 1.8 to 30 MHz high frequency spectrum.

Frequency Range:	1.8 — 30 MHz	RF Resistance:	2,000 ohms min.
Power Rating:	5 KW PEP or CW -	Reactance:	1,300 Ohms min.
Max DC Voltage:	5 KV	Dimensions:	2-1/4" diameter × 4" high
Mac DC Current:	2 AMP	Shipping Wgt.:	2 lbs.

VARIABLE INDUCTORS

ROTARY INDUCTORS FOR POWER UP TO 750 WATTS CW, 1,500 WATTS SSB

B & W rotary inductors provide a practical method of continuously varying the inductance in a circuit over the entire range of the coil. Ideally suited for use in antenna loading circuits. With proper mechanical coupling to tuning capacitors, a constant LC ratio may be obtained over a wide frequency range.
B & W rotary inductors may be connected to short out the unused portion of the coil. Shaft diameter is 1/4", shaft extension is 3/8" for all models.

Model	Inductance (μH)	Height	Width	Length
3851	6.2	4-3/4"	3"	6"
3852	15	4-3/4"	3"	6"
3853	72	3-3/4"	3-1/4"	8-1/2"

Shipping Weight (all): 2 lb.

BAND-SWITCHING PI-NETWORK INDUCTORS

Ideal for that homebrew final. Tune amateur bands 160 through 10 meters. Compact, highly efficient, heavy-duty construction with extra-heavy coils for higher frequencies, best quality insulation for lowest losses and heavy-duty silver-alloy switch contacts for long-time trouble-free operation.

Use Dial Plate Model 3829

Models 850A, 850/160

Model 852

Model 851

SPECIFICATIONS							
Model	Power (watts)	Plate Voltage (VDC)	Plate Load Impedance (ohms)	Output Impedance (ohms)	Inductance Tap Each Band (UH)	Capacity To Resonate Each Band (PF)	Suitable Tube Types
851	AM 250 CW/SSB 500	AM 1250 @200 MA CW/SSB 2000 @250 MA	2500-5000	50-75	14, 6.3, 1.6, 0.8, 0.52	150, 80, 70 55, 50	Single Tube: 4-125A, 4-250A 4-400A, 813 Parallel (2 or 4 Tubes) Shunt Fed: 807, 837, 6146, 811, 6DQ5
852	AM 1000 CW/SSB 2000	2000-4000	1500-3000	50-75 unbalanced	7, 3.72, 2.34, 1.34, 0.95	268, 144, 73 48.5, 36	Single Tube: 4-CX-1000A, PL-172, 3-1000Z Parallel (2 Tubes)3-400Z-8877 etc.
850A	AM 1000 CW/SSB 2000	2000-4000	2500-5000	50-75 unbalanced	13.6, 6.5, 1.75, 1.0, 0.6	150, 80, 70 55, 50	Single Tube or Parallel (2 Tubes) Series or Shunt Fed: 813, 4-125A, 4-250A, 4-400A, 4-1000A
850/160	AM 1000 CW/SSB 2000	2000-4000	2500-5000	50-75 unbalanced	27, 13.6, 6.5, 1.75, 1.0, 0.6	300, 150, 80, 70, 55, 50	Single Tube or Parallel (2 Tubes) Series or Shunt Fed: 813, 4-125A, 4-250A, 4-400A, 4-1000A

Dimensions (L × W × H): Model 851 - 7 × 3 × 3-1/2; Model 852 - 10 × 4-1/2 × 8; Models 850A, 850/160 - 10 × 4-1/2 × 7-1/2

Shipping Wgt.: Model 851 - 3-1/2 lbs.; Models 852, 850A, 850/160 - 7-1/2 lbs.

COAXIAL SWITCHES

ADD OPERATING CONVENIENCE AND PROFESSIONAL APPEARANCE TO YOUR STATION

BARKER & WILLIAMSON coaxial switches are made from the finest materials: heavy duty silver plated switch contacts, ceramic switch decks, and rugged steel enclosures. They handle the legal amateur power with ease and low SWR.

The attractive CS series of switches in rectangular boxes is designed for the HF bands from 1.8 to 30 MHz. All connectors are on one surface, and the box may be wall mounted by means of holes in the back, or rest on a surface. Cross-talk, measured at 30 MHz, is −45 dB between adjacent outlets and −60 dB between alternate outlets. Impedance is 50 to 75 ohms, VSWR less than 1.2 to 1, DC to 30 MHz. VSWR less than 1.5 to 1 to 150 MHz.

Model CS-3G (formerly 593)

Single Pole:	Three position switch with unused positions grounded. SO-239 UHF coaxial connectors.
Dimensions:	5" × 3" × 1-3/4" deep
Shipping Wgt.:	1 lb.

Model CS-6G (formerly 595)

Single Pole:	Six position switch with unused positions grounded. SO-239 UHF coaxial connectors.
Dimensions:	8-1/2" × 3" × 1-3/4" deep
Shipping Wgt.:	1-1/2 lbs

Model CS-2-2 (formerly 594)

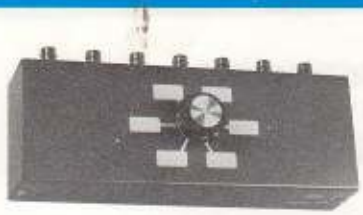
Discontinued

Double Pole:	Two position switch. May be used to interconnect two radios and two antennas, or two radios and an antenna and dummy load. It may also by-pass a test item like an SWR bridge. Shipping Wgt.: 1 lb.
Shipping Wgt.:	1 lb.

Model CS-3G-BNC (formerly 596)

Single Pole:	Three position switch with unused positions grounded. With BNC type coaxial connectors. Same size and weight as the Model CS-3G switch.

COAXIAL SWITCHES



Model CS-6G-BNC (formerly 597)

Single Pole: Six position switch with unused positions grounded. With BNC type coaxial connectors. Same size and weight as the Model CS-6G switch.

VHF COAXIAL SWITCHES

Model CSA-6G (formerly 375)

Single Pole: Six position switch with unused positions grounded. SO-239 UHF type coaxial connectors are mounted axially on the back surface of the switch case.

Dimensions: 4-1/4" dia. × 2-1/2" deep

Shipping Wgt.: 1 lb.

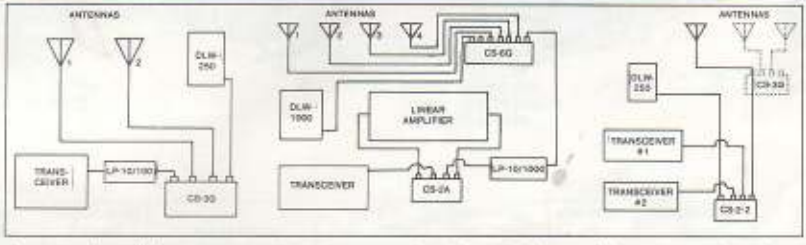
Model CSR-5G (formerly 376)

Single Pole: Five position switch with unused positions grounded. The sixth position of the switch grounds all outputs. With UHF type SO-239 coaxial connectors mounted radially on case.

Dimensions: Case 3-1/4" dia. × 2" deep

Shipping Wgt.: 1 lb.

TYPICAL USES FOR B & W COAXIAL SWITCHES AND ACCESSORIES



In a typical amateur installation having a transceiver and two separate antennas, a triband beam and a trap dipole for 40 and 80, for example, Model CS-3G coaxial switch is used to select either of the antennas or a dummy load, the Model DLW-250, for testing or power measuring. A low pass filter, the Model LP-10/100, is connected between the transceiver and the coax switch to attenuate harmonics and prevent TVI.

A high power station for 1.5 KW PEP. All of the B & W coax switches can handle the legal limit comfortably. The Model CS-6G switch was used since there are more antennas in this station. The linear can be by-passed with the CS-2A switch when operating "barefoot". Although the linear amplifier will switch the coax from the exciter to the antenna, many amateurs prefer to by-pass with a separate switch, since the amplifier tuned circuits can mismatch the line and remove power from it if they are tuned to the wrong band.

In a station having two transceivers, a two pole two position coaxial switch, the Model CS-2-2, is used to make sure that both rigs are always terminated in a proper load. Either #1 is connected to the antenna and #2 to the dummy load, or just the opposite, with #1 connected to the dummy load and #2 to the antenna. If several antennas are available, a second coaxial selector switch may be added as indicated by the dotted lines.

Model CR-115 COAXIAL RELAY

(formerly Model 377)

Model CR-115 coaxial relay may be used to change the antenna from receiver to transmitter automatically. The relay operation is economical and reliable, requiring .02 ampere, 48 to 120 volts AC.

Power: 1 KW, 2 KW PEP

VSWR: Less than 1.2:1, to 150 MHz

UHF Type SO-239 connectors

Dimensions: 3-1/2" × 1-1/2" deep

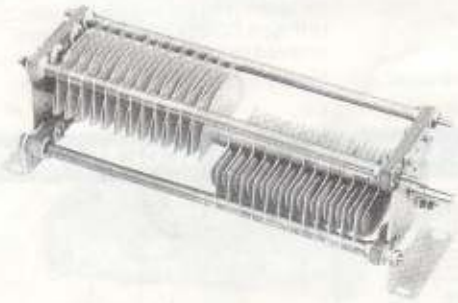
Shipping Wgt.: 1 lb.

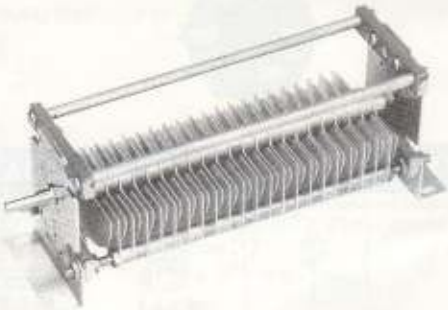
TRANSMITTING CAPACITORS

AIR VARIABLE TRANSMITTING CAPACITORS

The VC series of high voltage air variable capacitors are ideal for that high power antenna tuner or linear amplifier. With an air gap of .120" they will withstand 4,000 volts peak.

Model Number	Nominal Capacity		Number of Plates	Mounting Centers	Notes	Shipping Weight
	min	max				
VC-27	19	130	27	5 3/4 × 2 1/4		1 lb.
VC-35	24	170	35	7 × 2 1/4		1 1/2 lb.
VC-43	28	210	43	8 1/4 × 2 1/4		1 1/2 lb.
VC-34S	13/13	80/80	34	7 1/4 × 2 1/4	split stator, common rotor	1 1/2 lb.
VC-50S	18/18	120/120	50	9 1/2 × 2 1/4		2 lbs.





BUTTERFLY CAPACITORS Type JCX50E and Type JCX25E

Rugged, high-power capacitors with 1/8-inch air gap, high-quality steatite stator insulators, grounded rotor.

Type	Capacity (pF)			
	Per Section		Sections in Series	
	Max.	Min.	Max.	Min.
JCX50E	42	13	25	10
JCX25E	25	10	16	8

Dimensions
Length (including Shaft) 5"
Width 4-1/4"
Height 3-1/2"
Shipping Weight 1 lb.

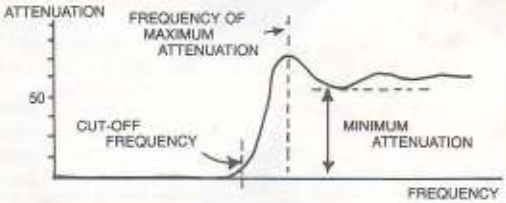
TVI FILTERS

LOW-PASS FILTERS TO ATTENUATE HARMONICS AND ELIMINATE TELEVISION INTERFERENCE AND INTERFERENCE TO OTHER RADIO SERVICES

B & W filters keep oscillator frequencies and harmonics where they belong, inside your rig and not on the air to cause interference. Two sizes of filter are available to meet your power requirements. All filters are equipped with SO-239 UHF type coaxial connectors so that they may be installed in the coaxial cable leading to the antenna.

A low pass filter allows all frequencies below the cut-off frequency to pass with no opposition. Above the cut-off it offers increasing opposition. A FL-10 filter, for example, permits signals below 34 MHz to pass through it. This would include all the amateur bands from 1.8 through 30 MHz. Harmonics of a radio signal in one of these bands that is higher in frequency than 34 MHz would be attenuated, reduced in strength by the filter. These are the frequencies that cause trouble with nearby TV receivers.

Above the cut-off frequency, the attenuation is not uniform. There is a frequency where the attenuation is greatest, usually at the edge of the attenuation plateau. Although the attenuation may vary, there is a minimum attenuation that is given for each filter. This tells the least amount of harmonic reduction the filter will supply, while most of the frequencies will be attenuated more than this.



Model FL10/100
Model FL6/100

Model FL10/1500
Model FL10/1500/70
Model FL6/1500

Model FL 2/200

Model Number	Superceded Part No.	Applications	Cut-Off Freq. (MHz)	Max. Atten. Freq. (MHz)	Min. Atten. (dB)	Impedance (ohms)	Power Rating
FL10/100	424	Amateur bands below 30 MHz, CB 27MHz	44	57	60	50	100
FL10/1500	425		34	52	70	50	1500
FL10/1500/70	426		34	52	70	70	1500
FL6/100	423	Amateur bands below 54MHz	55	64	50	50	100
FL6/1500	427		55	64	70	50	1500
FL2/200	422-2	Amateur bands below 148 MHz	160	180	69	50	200

Note: Insertion Loss Less than 0.5 Db

Shipping Wgts. 1 lbs.

CYCLOMETER-TYPE COUNTER

The perfect tuning control for antenna tuners, VFO's, frequency meters, variable inductors. Faceplate is 3" × 3" with 2-1/4" center mounting holes. Shaft is 1/4" diameter. The shaft extends 3-3/8" behind face plate.

Model 3902-1

100-turn counter. Numbers increase with clockwise rotation of handle. Black satin finish.

Mounting hardware included. Shipping Wgt. 1-1/4 lbs.

DUMMY LOADS AND WATTMETERS

Switch your transmitter into one of our dummy loads for off-the-air testing without worry about a pink ticket. All catalog dummy loads are monolithic 52-ohm non-inductive units for low VSWR to 250 MHz or above. High power loads are oil cooled with high temperature warning light.* All units use standard UHF connectors (SO-239). Precision meters on combination units show your transmitter's power output in four calibrated ranges.

1500 Watts—Oil Cooled

1000 Watts—Oil Cooled

250 Watt—Light Wt. Portable—Air Cooled

1500 Watt Oil Cooled

*Units with warning lights require 120 VAC, 6 W for warning light circuit.

Model 374 DUMMY LOAD WATTMETER

Our highest power combination unit. Rated to 1500 watts input (intermittent). Meter ranges are individually calibrated for highest accuracy.

- Specifications:

Frequency Range:	DC to 300 MHz
VSWR:	Less than 1.3:1 to 250 MHz
Power Range:	1500 watts DC intermittent. Warning light* signals maximum heat limit.
Wattmeter Ranges:	0-15, 0-50, 0-300, 0-1500
Input Connector:	UG-58 (hermetically sealed)
Size:	4¾" × 9" × 10¼"
Shipping Wgt.:	12 lbs.

Model 334A DUMMY LOAD WATTMETER

Our most popular combination unit. Handles full amateur power. Meter ranges individually calibrated. Can be panel mounted.

- Specifications:

Frequency Range:	DC to 300 MHz
VSWR:	Less than 1.3:1 to 250 MHz
Power Range:	1000 watts CW intermittent. Warning light* signals maximum heat limit.
Wattmeter Ranges:	0-10, 0-100, 0-300, 0-1000
Input Connector:	UG-58 (hermetically sealed)
Size:	4¾" × 9" × 10¼"
Shipping Wgt.:	12 lbs.

Model 333 DUMMY LOAD WATTMETER

Ideal field service unit for mobile 2-way radio-CB, marine, business band. Best for QRP amateur use, CB, with zero to 10 watts full scale low power range.

- Specifications:

Frequency Range:	DC to 300 MHz
VSWR:	Less than 1.3:1 to 250 MHz
Power Range:	250 watts intermittent.
Wattmeter Ranges:	0-10, 0-50, 0-125, 0-250
Connector:	SO-239
Size:	4" × 7" × 8"
Shipping Wgt.:	2 lbs.

Model 384 HIGH POWER LOAD

For high power when all you need is the load.

- Specifications:

Frequency Range:	DC to 300 MHz
VSWR:	Less than 1.3:1 to 250 MHz
Power Range:	1500 watts intermittent. Warning light* signals maximum heat limit.
Connector:	UG-58 (hermetically sealed)
Size:	4¾" × 9" × 10½"
Shipping Wgt.:	12 lbs.

VS 300A TRANSMATCH

DESCRIPTION AND FEATURES

The Barker & Williamson VS 300A Transmatch is designed to match virtually any receiver, transmitter or transreceiver in the 160 to 10 meter range (1.8 to 30MHz) with up to 300 watts RF power to almost any antenna, including dipoles, inverted vees, verticals, mobile whips, beams, random wires and others, fed by coax cable, balanced lines or a single wire. A 1:4 balun is built in for connection to balanced lines.

The TUNER switch, on the front panel, provides switching to one of two coax fed antennas (direct or through the tuner), and either a balanced line or wire antenna. The BYPASS (BYP) position allows switching to a dummy load or a direct connected coax antenna. In the BYPASS, COAX 1 OUT or COAX 2 OUT positions, the tuner is bypassed, but not the meter circuit.

The wattmeter of the VS 300A can be used with the tuner or when in the direct modes. The wattmeter is between the transmitter and the tuner when the TUNER switch is in the COAX 1 IN, COAX 2 IN or WIRE positions. To read the transmitter output power, set the wattmeter switch to FOR 300W and read the forward power on the 300W scale. To read the reverse power, set the wattmeter switch to REV 30W and read the reverse power on the 30W scale.

VS 1500 A TRANSMATCH

DESCRIPTION AND FEATURES

The Barker & Williamson VS 1500A Transmatch is designed to match virtually any receiver, transmitter or transreceiver in the 160 to 10 meter range (1.8 to 30 MHz) with up to 1500 watts RF power to almost any antenna, including dipoles, inverted vees, verticals, mobile whips, beams, random wires and others, fed by coax cable, balanced lines or a single wire. A 1:4 balun is built in for connection to balanced lines. The circuit uses the series parallel capacitor connection (SPC) for improved harmonic attenuation.

The LOAD SELECT switch, on the front panel, provides switching to one of two coax fed antennas (direct or through the tuner), a balanced line or wire antenna. The DUMMY LOAD and BYPASS positions allow switching to a dummy load and a direct connected coax antenna. In the DUMMY LOAD, BYPASS, COAX 1/TUNER OUT or COAX 2/TUNER OUT positions, the tuner is bypassed.

The wattmeter of the VS 1500A is always in the circuit and is connected directly to the TRANSMITTER connector on the back panel. To read the transmitter output power, set the wattmeter switch to FOR 300W or FOR 3KW and read the forward power on the respective scale. To read the reverse power, set the wattmeter switch to REV 300 W and read the reverse power on the 300W scale.

SPECIFICATIONS

Input Impedance	50 to 75 ohms unbalanced
Output Impedance	15 to 500 ohms unbalanced coaxial up to 500 ohms balanced feed 10 to 1000 ohms single ended feed (wire antenna).
Frequency Range	1.8 to 30 MHz continuously (roller inductor)
Power Handling	1500 watts continuous
Dimensions	11¼" W × 5¾" H × 13½" D (21.6 × 14.6 × 34.3 cm) (including dials)
Weight	6½ lb (3kg)

B&W MODEL PT-2500A

HIGH FREQUENCY LINEAR POWER AMPLIFIER
A REAL WORKHORSE—RUGGED COMPONENTS AND CONSTRUCTION

The Barker & Williamson PT-2500A is a completely self contained table top linear amplifier designed for continuous SSB, CW, RTTY, AM or ATV operations. Covers all amateur bands from 1.8 to 21 MHz. It also features wide frequency coverage for MARS and other services. Two type 3-500Z triodes provide reliability and rapid warm up time. Can be modified for frequencies other than amateur for commercial and military services.

FEATURES:

- Full 1500 watts output
- Pi-Network input for easy drive
- Dual cooling system extends component and tube life
- Illuminated S.W.R. and Power Meters
- Hum free D.C. Relay
- Vernier tuning controls for smooth and accurate settings on all frequencies
- Pi-L Silver Plated tank circuit for greater harmonic attenuation and efficiency
- Bleeder resistors (25K - 10 watt) across all computer grade filter capacitors. A real safety feature for the owner/operator
- Adjustable ALC to prevent overdriving
- SCR actuated grid protect circuit
- B+ surge protection in the event of tube ion flashover. Prevents tube failure and power supply components
- Ten meters (28 MHz) available for export models

Dimensions: 17" W × 19" Deep × 8½" High

Weight: 80 LBS (Shipped in 3 cartons to meet U.P.S. requirements)

Installation of Tubes and Power Transformer required by buyer.