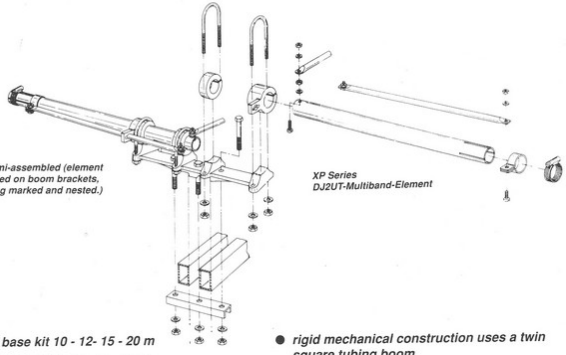
DJ2UT-MULTIBAND BEAMS WITHOUT TRAPS!

DJ2UT HAS DEVELOPED THE WORLD'S MOST ADVANCED ANTENNA SYSTEM!

WITH NOT A SINGLE WATT WASTED IN LOSSY TRAPS (There aren't any)

10 - 12 - 15 - 17 - 20 - 30 - 40 m IN ONE ANTENNA!



All beams semi-assembled (element pieces mounted on boom brackets, element tubing marked and nested.)

XP Series DJ2UT-Multiband-Element

- *4-band base kit 10 - 12- 15 - 20 m*
- *extendable to (6) - 17 - 30 - 40 m*
- *(thereby no restrictions for the other bands)*
- *30 and 40 m upgrades without mechanical extensions*
- *20 m full size operation*
- *collinear 2 x 1/2 λ element feeding on 10/12 m*
- *5/8 λ elements on 15/17 m*
- *MULTI ELEMENT FEEDING*
- *single 50 ohm coax-cable*
- *air-core Teflon ® coax-balun included in antenna price*
- *NO QRO-PROBLEMS*
- *low SWR - no matchbox needed*
- *all elements DC-grounded on boom*
- *MONOBAND PERFORMANCE ON 10 - 12 - 15 - 17 - 20 m (compared with monobanders having equivalent boomlengths and bandwidths. On 6 m eq. or better 3-4 el. Yagi, 30 and 40 m eq. rotary dipol)*
- *rigid mechanical construction uses a twin square tubing boom*
- *cast aluminium mounting brackets*
- *all stainless steel hardware*
- *any XP-series beam may become modified and upgraded to its next following XP-models.*

Beam Series Available:

XP 40 . . . . . 8 ft. boom 3-6 bands
XP 50 . . . . . 15 ft. boom 4-7 bands
XP 70 . . . . . 20 ft. boom 4-7 bands
XP 80 . . . . . 24 ft. boom 4-7 bands

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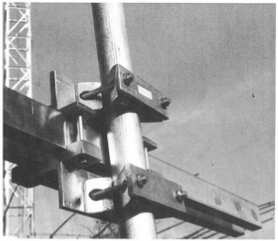
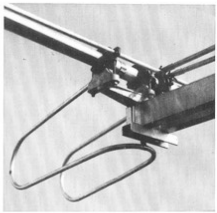
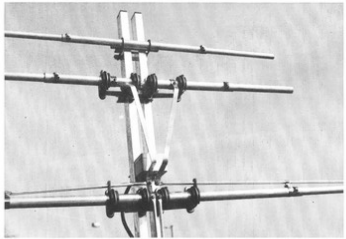


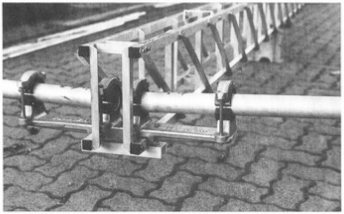
MASTHOLDER:
1 - 2 inch Ø, 50 - 75 mm Ø up to 4 inch/100 mm Ø



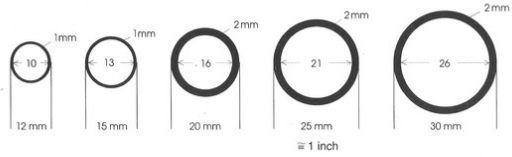
FINAL-ELEMENT "W-LINE" AND BOOM



FRONT-SIDE OF 4-BAND-BEAM 10 - 12 - 15 - 20 m



PART OF 40 m FULL-SIZE BEAM AND LOG-PER. 7-30 MHz



OUR ELEMENTS OFFER LOW WIND RESISTANCE BECAUSE OF SMALL DIAMETER ALUMINIUM TUBING. COUPLED WITH HEAVY TUBING WALL THICKNESSES, THE RESULTING STRUCTURE IS STRONG, LIGHT WEIGHT AND DURABLE.

DJ2UT - Multiband Beam

Series XP40 - 2,4 m / 8-Foot Boom

10 - 12 - 15 - 17 - 20 - 40 m

Basic-Kit: 3-Band: 10 - 15 - 20 m = XP403

Add on Kit: 12 - 17 and 40 m up to XP406

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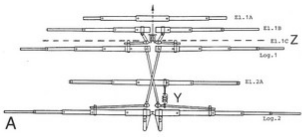
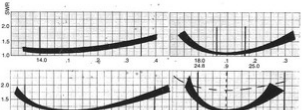
W. A. Sommer | Kandelstraße 35
W-7819 DENZLINGEN-GERMANY
FAX+TEL. (0 76 66) 17 04



Band	10	12	15	17	20	30	40
Gain dB/d*	6,0	4,5	5,5	5,5	5,5		0
f/b-r.**	8 ..... to 20						0
Power-r.	2 kW out cont.						
Impedance	50 Ohm Coax + Balun 1 : 1						
Physical Dimensions	403 + 40 m				+ 17 m		
Net weight***	18 kg - 40 lbs				21 kg - 45 lbs		
Wind load***	64 dm² - 6.8 ft²				75 dm² - 8 ft²		
max. El. length	10.8 m - 35.3 ft						
Turning radius	5.6 m - 18.3 ft						

Remember, a 3 el.monoband beam has 4 to 6 dB/D (see ARRL Antenna Book)



The XP 40 measures only 2.4 m / 8 ft and therefore is a small size beam with a low space requirement but offers great DX features.

When testing and comparing an XP 40 series antenna simultaneously side by side with a 3-element monobander at 18 m / 60 ft. height, one finds that the XP 40 turns out better DX results on 10 & 15 meters and shows no significant differences for gain and directivity on 20 meters.

The model XP404 antenna is shown in figure A. In this configuration the 20 meter band is using 2 actively driven elements and turns out a solid 5.5 dB/D forward gain. For the 15 m (and 17 m) band, 2 directly fed 5/8 elements form a typical band gain of 5.5 dB/D in conjunction with element 1 B, as well. The operation on 17 meters requires an optional 8.2 m (26 ft) element at boom location 'Z' which does not influence the 10 - 20 m settings but has the same properties as in 15 meters. It should be noted that ALL elements are working in the 10 and 12 m bands and contribute to a 4-6 dB/D gain. The 40 m band is activated by use of an individual power-coil being mounted at location 'Y' which yields a 0 to -2 db/D gain on this band.

* *Gain determined in the main lobe as described in the ARRL Antenna Book, 14th ed. pg. 15-23. Measurement accuracy acc. to CCIR ±2dB*

** *F/B ratio and SWR varies according to conditions such as e. g. electrical height above ground*

*** *±10 %*

DJ2UT - Multiband Beam

Series XP50 - 4,4 m / ~ 15-Foot Boom

10 - 12 - 15 - 17 - 20 - 30 - 40 m

Basic-Kit: 4-Band: 10 - 12 - 15 - 20 m = XP504

Add on Kit: 17 - 30 and 40 m up to XP507

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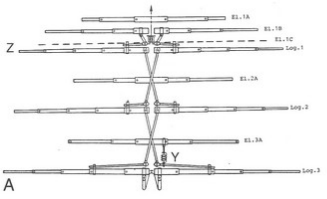
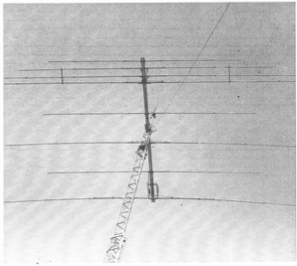
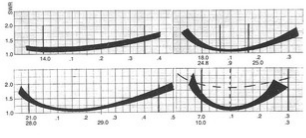




Band	10	12	15	17	20	30	40
Gain dBi/d*	7	5	7	6	6,5	0-2	0
f/b-r.**	15 ..... to 25					0-3	0
Power-r.	2 kW out cont.						
Impedance	50 Ohm Coax + Balun 1 : 1						
Physical Dimensions	504 + 30 m + 40 m			+ 17 m			
Net weight***	29 kg - 64 lbs			32 kg - 71 lbs			
Wind load***	93 dm² - 10 ft²			103 dm² - 11 ft²			
max. El. length	11.2 m - 36.8 ft						
Turning radius	5.8 m - 19.0 ft						

Remember, a 3 el.monoband beam has 4 to 6 dB/D (see ARRL Antenna Book)



The XP 50 antenna with a boomlength of only 4.4 m / 15 ft represents our most popular beam. Considering the cost-ratio for mast / rotor / beam in relation to its DX efficiency it becomes evident that a 4-element monobander reaches no better results under the same test conditions and, remember: commonly, 4-element monobanders are offered with a 10 dB gain!

The model XP 504 antenna is shown in figure A. In this configuration the 20 m band is using 3 actively driven fullsize elements and offers a solid 6 dB/D forward gain.

For the 15 m (and 17 m) band, 3 directly fed 5/8 elements form a typical band gain of 7 dB/D in conjunction with element 1 B. The operation on 17 meters requires an optional 8.2 m (26 ft) element at boom location 'Z' which does not influence the 10 - 20 m settings but has the same properties as on 15 meters. It should be stressed that ALL elements are working in the 10 and 12 m bands and contribute to a 6-7 dB/D. Moreover, a coaxial stub which is housed in a plastic box, enables the operation on the 30 m band without any mechanical extensions. By this, the typical gain is about 0 dB/D.

The 40 m band is activated by use of an individual power-coil being mounted at location 'Y' and comes out with a 0 db gain on this band.

* *Gain determined in the main lobe as described in the ARRL Antenna Book, 14th ed. pg. 15-23. Measurement accuracy acc. to CCIR ±2dB*

** *F/B ratio and SWR varies according to conditions such as e. g. electrical height above ground*

*** *±10 %*

DJ2UT - Multiband Beam

Series XP70 - 6 m / 20-Foot Boom

10 - 12 - 15 - 17 - 20 - 30 - 40 m

Basic-Kit: 4-Band: 10 - 12 - 15 - 20 m = XP704

Add on Kit: 17 - 30 and 40 m up to XP707

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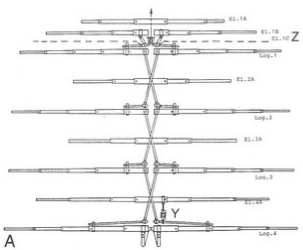
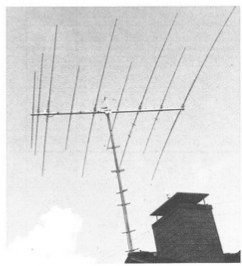
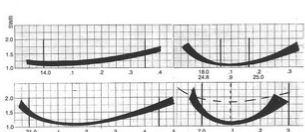




Band	10	12	15	17	20	30	40
Gain dB/d*	9.5	7.5	9	9	9	0-3	0-2
f/b-r.**	15 ..... to 30					0-10	0
Power-r.	2 kW out cont.						
Impedance	50 Ohm Coax + Balun 1 : 1						
Physical Dimensions	704 + 30 m + 40 m			+ 17 m			
Net weight***	37 kg - 82 lbs			40 kg - 90 lbs			
Wind load***	124 dm² - 13 ft²			134 dm² - 14 ft²			
max. El. length	11.6 m - 38 ft						
Turning radius	6.6 m - 21.5 ft						

Remember, a 3 el.monoband beam has 4 to 6 dB/D (see ARRL Antenna Book)



The XP 70 series beams are designed for the amateur with all-out performance in mind. Although the boom-length is only 20 feet, XP 70s have easily outspaced much larger, conventional antennas in careful testing. The key is the TOTAL elimination of traps, which rob performance from even the largest of multiband antennas. Because of their high efficiency, XP 70 series antennas suitably replace 4- and 5-element antennas of conventional design.

The model XP 704 antenna is shown in figure A. In this configuration the 20 m band is using 4 actively driven fullsize elements and turns out a solid 9 dB/D forward gain.

For the 15 m (and 17 m) bands, 4 directly fed 5/8 elements in conjunction with elements 1B/4A form a typical band gain of 9 dB/D as well. The operation on 17 meters requires an optional 8.2 m (26 ft) element at boom location 'Z' which does not influence the 10 - 20 m settings but has the same properties as in 15 meters.

It should be stressed that ALL elements are working in the 10 and 12 m bands and contribute to a 9.5 dB/D gain.

Moreover, a coaxial stub which is housed in a plastic box, enables the operation on the 30 m band without any mechanical extension. By this, the typical gain is about 2 dB/D. The 40 m band is activated by use of an individual power-coil being mounted at location 'Y' and which yields a 0 to 2 dB/D gain on this band.

* *Gain determined in the main lobe as described in the ARRL Antenna Book, 14th ed. pg. 15-23. Measurement accuracy acc. to CCIR ± 2dB*

** *F/B ratio and SWR varies according to conditions such as e. g. electrical height above ground*

*** *± 10 %*

DJ2UT - Multiband Beam

Series XP80 - 8 m / 24-Foot Boom

10 - 12 - 15 - 17 - 20 - 30 - 40 m

Basic-Kit: 4-Band: 10 - 12 - 15 - 20 m = XP804

Add on Kit: 17 - 30 and 40 m up to XP807

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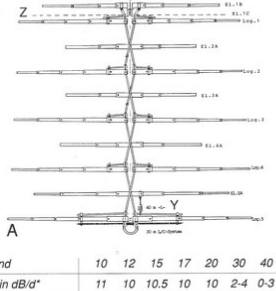
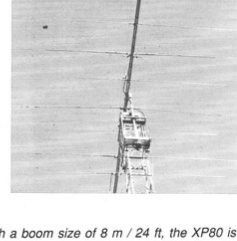
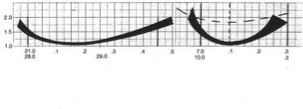




Band	10	12	15	17	20	30	40
Gain dB/d*	11	10	10.5	10	10	2-4	0-3
f/b-r.**	15 ..... to 30					6-10	0
Power-r.	2 kW out cont.						
Impedance	50 Ohm Coax + Balun 1 : 1						
Physical Dimensions	804 + 30 m + 40 m			+ 17 m			
Net weight***	45 kg - 100 lbs			48 kg - 106 lbs			
Wind load***	156 dm² - 17 ft²			170 dm² - 18 ft²			
max. El. length	11.6 m - 38 ft						
Turning radius	7.0 m - 23.0 ft						

Remember, a 3 el.monoband beam has 4 to 6 dB/D (see ARRL Antenna Book)



With a boom size of 8 m / 24 ft, the XP80 is a real surprise even for experienced DXers! Not only in the transmitting mode, but also when receiving rare DX signals near to the band ends and in critical pile-up situations the XP80 yields an outstanding and unexpected signal reading and shows well its enormous directivity and the capability to fade-out heavy QRM interfering from the side and the back.

The model XP 804 antenna is shown in figure A. In this configuration the 20 m band is using 5 actively driven fullsize elements and turns out a solid 10 dB/D forward gain.

For the 15 m (and 17 m) band, 5 directly fed 5/8 elements form a typical band gain of 10.5 dB/D in conjunction with elements 1B and 5A. The operation on 17 meters requires an optional 8.2 m (26 ft) element at boom location 'Z' which does not influence the 10 - 20 m settings but has the same properties as on the 15 m band..

It should be noted that ALL elements are working in the 10 and 12 m bands and contribute to a 10-11 dB/D gain.

Moreover, a coaxial T-match system on Log. 5 enables the operation on the 30 m band without any mechanical extensions. By this, the typical gain is about 2 dB/D. The 40 m band is activated by use of an individual power-coil being mounted at location 'Y', yielding a 0 to 3 dB/D gain in this band.

* *Gain determined in the main lobe as described in the ARRL Antenna Book, 14th ed. pg. 15-23. Measurement accuracy acc. to CCIR ± 2dB*

** *F/B ratio and SWR varies according to conditions such as e. g. electrical height above ground*

*** *± 10 %*

New!

The Sommer Two-Position Mast Clamp

Simplifies installation of the XP series antennas on your tower!

The new Sommer Two-Position Mast Clamp allows the element assemblies to be installed on the twin boom with the boom temporarily in a vertical position while clamped to the rotator mast. After installation of the elements and phasing sections, the boom and clamp are rotated to the horizontal position and permanently clamped.