



ZX 17-5

18 MHz 5-Element Beam item #11655



Assembly

**Deutsche Anleitung:
bitte wenden!**

- Locate all parts according to the parts list and **table 1**.
- Assemble the boom with the screw M5*10 and lock washers.
- Mark the location of the elements (**dimension U / V / W and X**) on the boom with a felt tip pen according to **table 1**. Distance from the end of the boom is around 75mm.
- Mark the center of the inner element tubes (30mm dia.) with your felt tip pen.
- Assemble all element tips to the elements according to table 1 and secure with the self-tapping screws. Note: Gamma slider to be put on the driven element (dipole) before inserting the screws! Take care to not overtighten the screws.
- Mount the element plates to the elements: 32mm U-bolts, mounting blocks, 8mm washer and nut. Make sure the elements are centered with the element plates.
Mount the element plates to the boom with 60mm U-bolts, mounting blocks, 8mm washer and nut. The elements should be **on top** of the boom. Make sure the elements are not confused.
- Gamma match assembly: mount UHF jack into the alu hinge and mount to element plate: remove ONE nut of the mounting plate of the driven element, attach the hinge and re-install the nut. Attach gamma match to UHF jack, order of parts: UHF jack / washer / lockwasher / gamma match / lockwasher / nut 5mm. See picture on last page. Note that the inner tube of the gamma match must go inside the gamma slider already installed on the driven element and that the inner tube of the gamma match is fully inserted in the outer tube.
- Secure the gamma slider at the correct position (dimension Z) with screws M4x16. Use a nut and a lock washer to fix the screw.
- Assemble the mast plate (same as element plate) and mount to boom: lift the antenna in order to check the correct place for the mast plate. The mast plate should be installed so the antenna is balanced.

You got it! Wishing you lot of DX with your new ZX-Yagi!

Depending on environmental conditions, yagi elements tend to self oscillate in a slight breeze. This will result in material fatigue which will cause the element to break. One simple way of damping possible oscillations is to insert a rope in the elements. The rope (typically 6 mm or 1/4inch in diameter) must lay loosely inside the element, but should be secured at both ends.

Adjustment

Adjustment for best SWR is to be done by sliding the inner tube of the Gamma match in or out and by moving the Gamma Slider forth and back (1 inch at a time) alternatively.

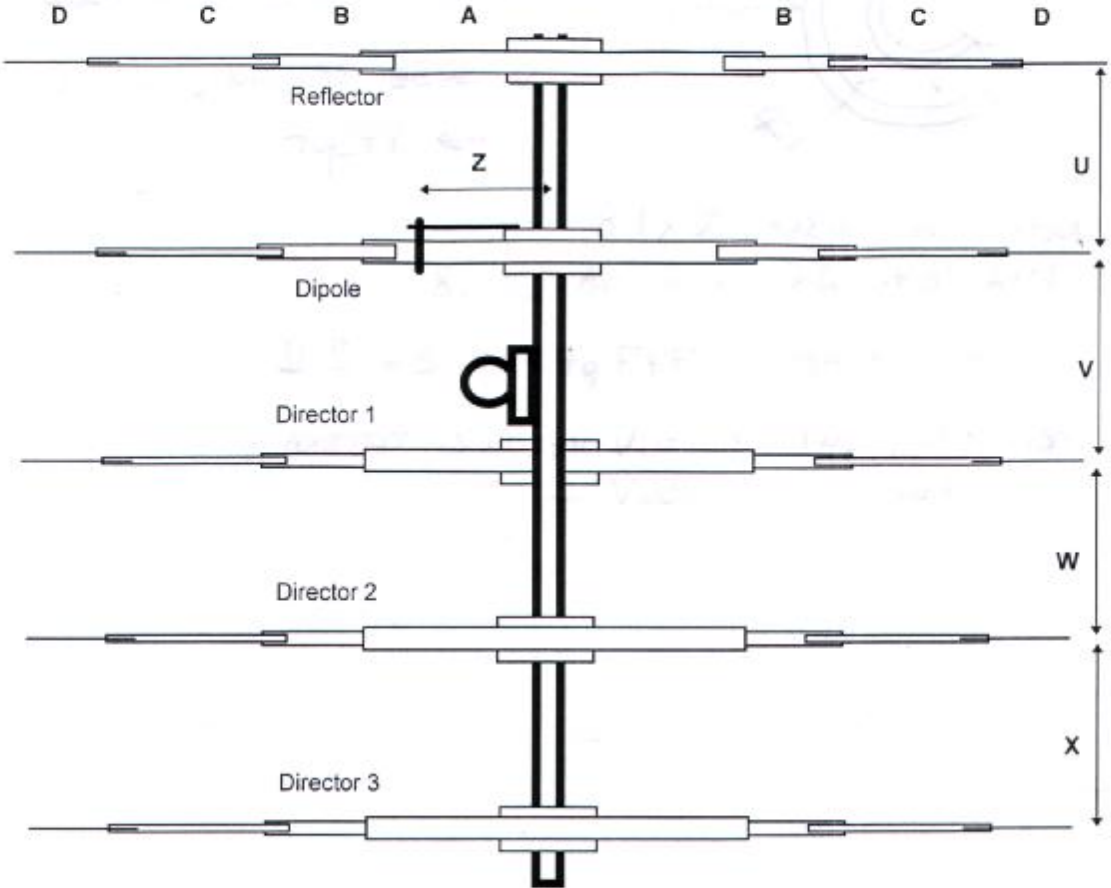
Parts List

Boom 60 mm Ø (3 parts)	1	mounting block 60mm	16
Elements according to Table 1	5	mounting block 32mm	10
slider for gamma-match 12/25mm	1	nut M4	2
Gamma-Match assembled 175pF	1	nut M5	1
Mounting hinge	1	nut M8	52
UHF-Jack with stub	1	lock washer 8mm	52
Element plates 200*100mm A-1305	4	lock washer 4mm	2
Mast plate 350 * 120 mm A-1314	1	lock washer 5mm	8
U-Bolt 60mm	16	self-tapping screw 3.5x9,5	64
U-Bolt 32mm	10	washer 5mm	1
		screw M4x16	2
		plastic caps 16mm	10

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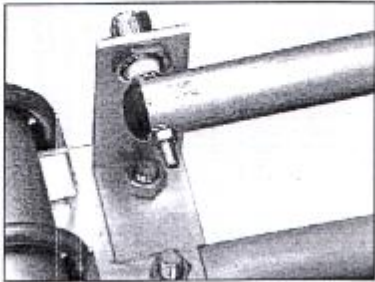
	Abstand Spacing (mm)	Elementlänge gesamt total ele length	Mittelrohr center tube (A): mm	1. Verl. 1. ext. (B): mm	2. Verl. 2. ext. (C): mm	3. Verl. 3. ext. (D): mm	4. Verl. 4. ext. (E): mm
Reflektor	U: 1468	8622	1990	1495	1495	1076	
Dipol	V: 1574	8170	1990	1495	1495	1850	
Direktor 1	W: 2052	7974	1990	1495	1495	752	
Direktor 2	X: 3204	7526	1990	1495	1495	528	
Direktor 3		7128	1990	1495	1495	329	
Rohrdurchmesser tube diameter (mm)			30x2	25x2	20x1,5	16x1,5	

Tabelle 1 Abmessungen / dimensions

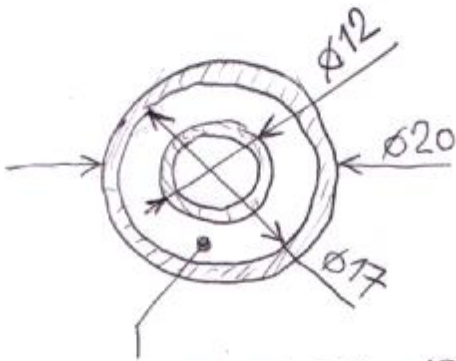
Abstand des Schiebers der Gamma-Match zur Boom-Mitte (Z):
 Distance of gamma slider to boom center (Z): 720mm

Einbau der Gamma-Match - Reihenfolge der Teile:
 Gamma match assembly: order of parts:

Buchse / 5mm -Scheibe / Zahnscheibe / Gamma-Match / Zahnscheibe / Mutter M5
 UHF jack / washer / lockwasher / gamma match / lockwasher / nut M5



GAMA MATCH



POLYETHYLEN TRUBKA 16x1.8

DIKA TE40 0.6MTRa KIWA 16x1.8

VÝPOČET KAPACITY : 77.7 pF $\rightarrow \epsilon = 2.2$

PŘI 100W OUT \rightarrow 70V vř MEZI TRUBKAMI

1KW \rightarrow 250V vř

SILNĚJŠÍ TRUBKA DĚLKA 500

SLABŠÍ TRUBKA DĚLKA 800

V SOBĚ ZASUNUTÉ NA DĚLCE 490

\rightarrow 172 pF