

# CUE DEE

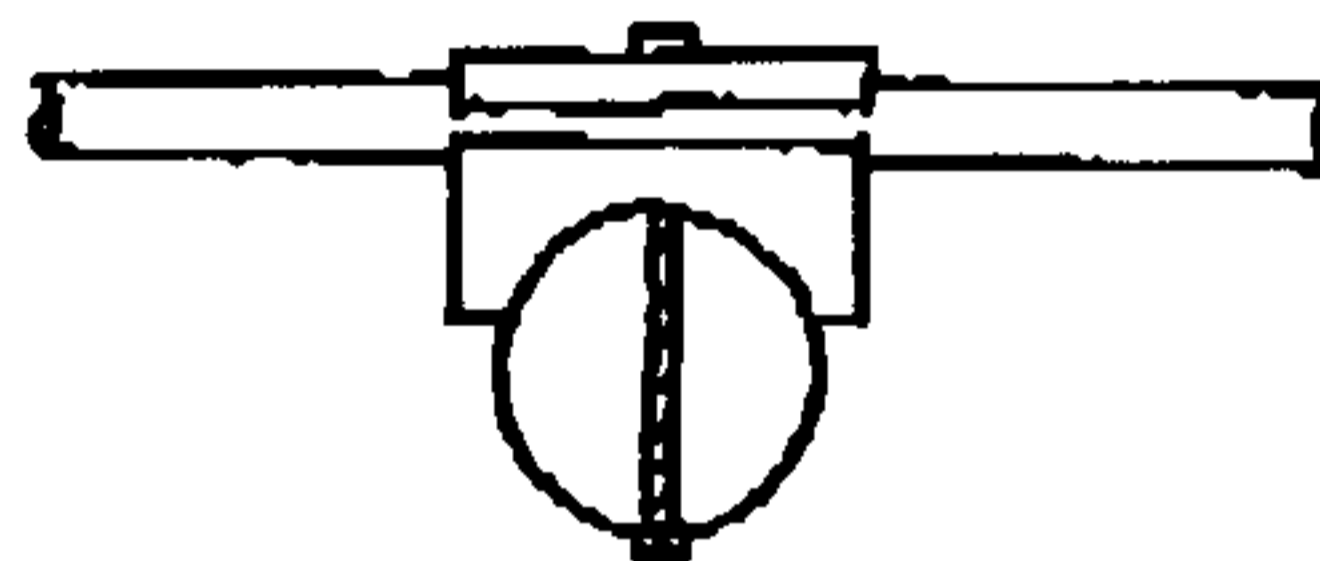
## VHF - UHF ANTENNAS

### ASSEMBLY MANUAL FOR CUE DEE ANTENNAS

Read the manual thoroughly before starting the assembly.

**GENERAL:** The antenna is delivered with the boom drilled for a 3 mm screw. All elements are drilled in the middle and should be fastened with a 3 x 45 mm screw. This screw goes through the element - washer, the element, the boom-element piece and the boom. It is then locked with a M 3 nut.

Fitting of the element to the boom.



The reflector and all directors are made of 6 mm Aluminium rod. The driver element is made of 12 mm Aluminium tubing. The driver element also have a gamma match, adjusted for 50 ohms coaxial cable, fastened to it. All driver elements are fitted with a N-connector.

### COLOUR MARKING OF BOOM AND ELEMENTS.

Boom	Colour	4144AN	10144AN 10X144AN	15144AN 15X144AN	17432AN 17X432AN	23432AN
	BLACK	-----Reflector-----				
	BROWN	1st	1st	1st	1st	1st director
	GREEN	2nd	2nd	2nd	2nd	2nd
	RED	-	3 + 4th	3 + 4th	3 + 5th	3 + 5th
	YELLOW	-	5 + 6th	5 + 6th	4 th	4th
	BLUE	-	7 + 8th	7 + 8th	6 + 7th	6 + 7th
	WHITE	-	-	9 + 10th	8 + 10th	8 + 10th
	ORANGE	-	-	11 + 12th	11 - 15th	11 - 21st
	VIOLET	-	-	13th	9th	9th

*11 ELEMENT  
9 FOR 1st ELEMENT REPT DRIV*

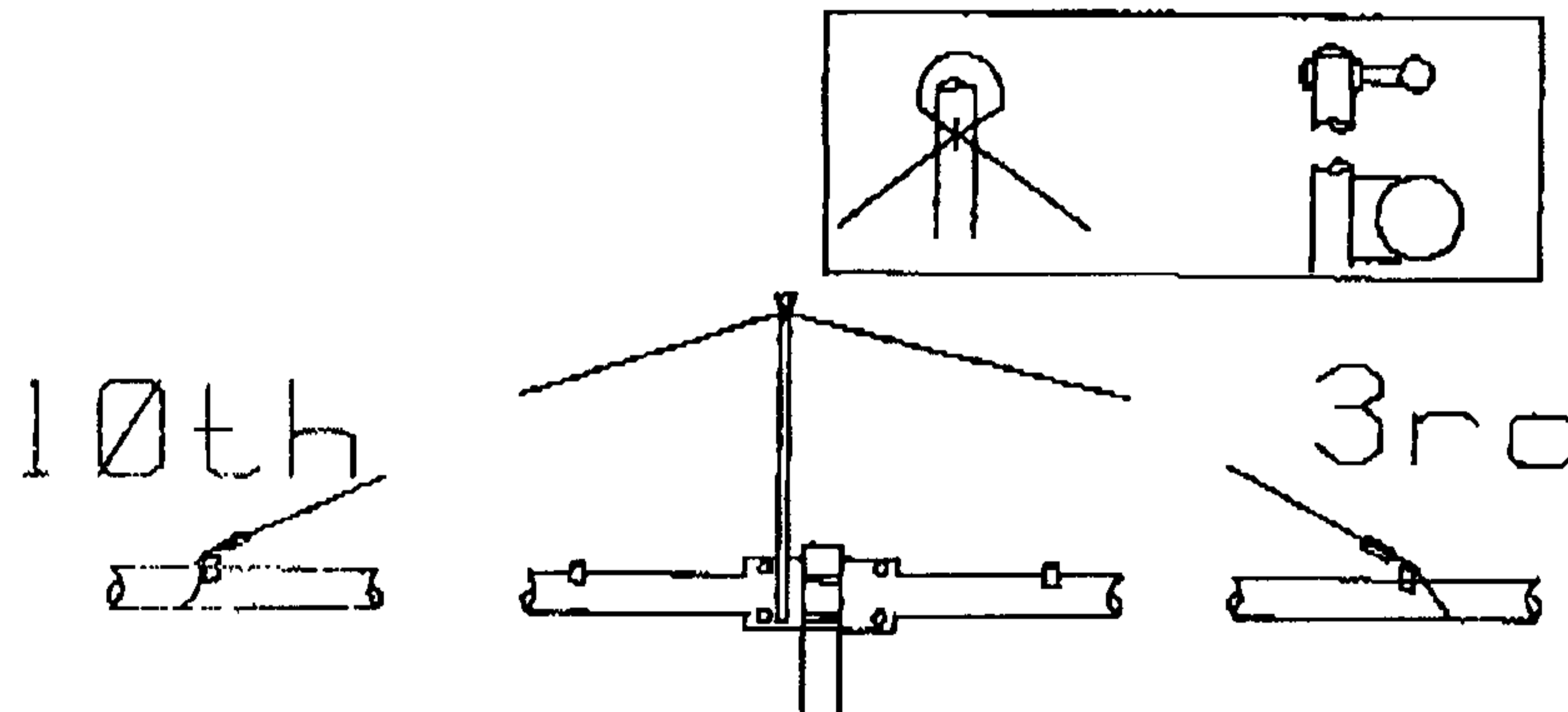
**NB!** The driver element is not colour marked. For the elements there are corresponding colour marks on the boom. Fit all elements on the same side as the marking on the boom.

## GUY WIRE ASSEMBLY

10X144AN, 15144AN + 15X144AN.

These three antennas are supplied with materials for guying the boom. The X-yagis have a 19 mm fibre glass tube and the 15144AN has an aluminium tube for guying the boom. These tubes have got a screw-eye fastened to one end. The other end should be fitted to the boom-mast plate with 2 pcs 5 X 30 mm screws in the 2 holes with 5 mm thread. These 2 screws are locked at the opposite side ( boom side ) with 2 pcs M5 locking nuts.

Weigh the antenna in the palm of your hand to find the point of balance of the antenna. This point will differ pending on what kind of coaxial cable you are using. Fasten the boom-mast plate with 2 pcs 1 1/4" clamps. The PARAFIL cord supplied with the antenna is fitted according to the drawing below. For the 15144AN and 15X144AN, form a loop around the boom at the 3rd horizontal director ( red ) and lock it with a wire clamp. Then pull the cord through the screw-eye twice so that a loop is formed to prevent the cord from slipping. Form another loop at the 10th horizontal director ( white ) and lock it with a wire clamp. To get the boom straight stretch the guy cord at the wire clamps. Mount the guy wire on the 10X144AN in a simulare way.



## STACKING DISTANCES OF CUE DEE ANTENNAS.

Antenna Model	4	10	10X	15	15X	17	17X	23
Horizontal	1.4	3.3	3.3	4.3	4.3	1.43	1.43	1.52 mtrs
Vertical	1.1	3.1	3.3	4.0	4.3	1.33	1.43	1.37 mtrs

NB! The antennas should be exactly above and/or beside each other. The gamma matches should be pointing in the same direction, i.e. when you are watching the single yagis from behind - all horizontal gamma matches should be to the right side of the boom.

For phasing the antennas we recommend a "power divider" or a phasing harness made out of 75 ohm coaxial cable. Make sure all cables in the phasing harness is exactly the right length. For using the X-yagis in circular polarisation we recommend our C-type harness. Our L-type stacking kits includes cable and "power-divider".

**DANGER!! KEEP CHILDREN AND PETS AWAY FROM THE ANTENNA WHEN YOU ASSEMBLE IT OR SERIOUS INJURY MAY OCCUR!**  
**WHEN PUTTING THE ANTENNA TO THE TOP OF YOUR TOWER MAKE SURE TO KEEP THE ANTENNA AWAY FROM ELECTRIC LINES, DO NOT INSTAL THE ANTENNA CLOSE TO POWER LINES.**

**BOOM ASSEMBLY**

Begin with fitting the elements to the boom pieces, if any element is out of line turn the plastic boom-element piece 180 degrees.

4144AN The boom is delivered in one piece.

10144AN The boom is delivered in 3 parts with telescoping joining pieces  
10X144AN fastened at the end of each part to be joined. Use 5 x 35 mm screws when the parts are put together. Make sure all elements are in line before tightening these screws. Black boom mark at the rear ( reflector ) and yellow mark at the front.

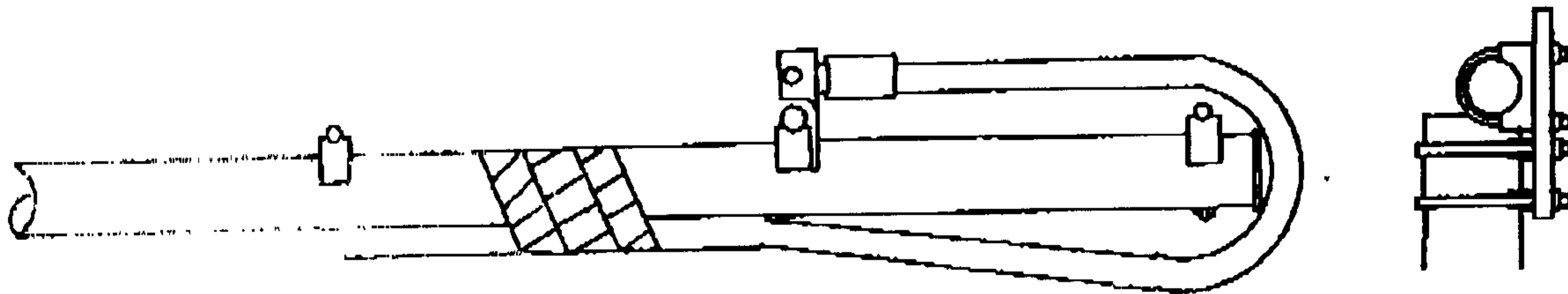
15144AN The antenna is delivered with the boom in 4 parts and the parts  
15144AN are joined in the same way as 10144AN. Black boom mark at the rear and violet mark at the front.

17432AN The antenna is delivered with the boom in two parts and assembled  
17X432AN in the same way as the VHF antennas above.

23432AN This antenna has three boom parts.

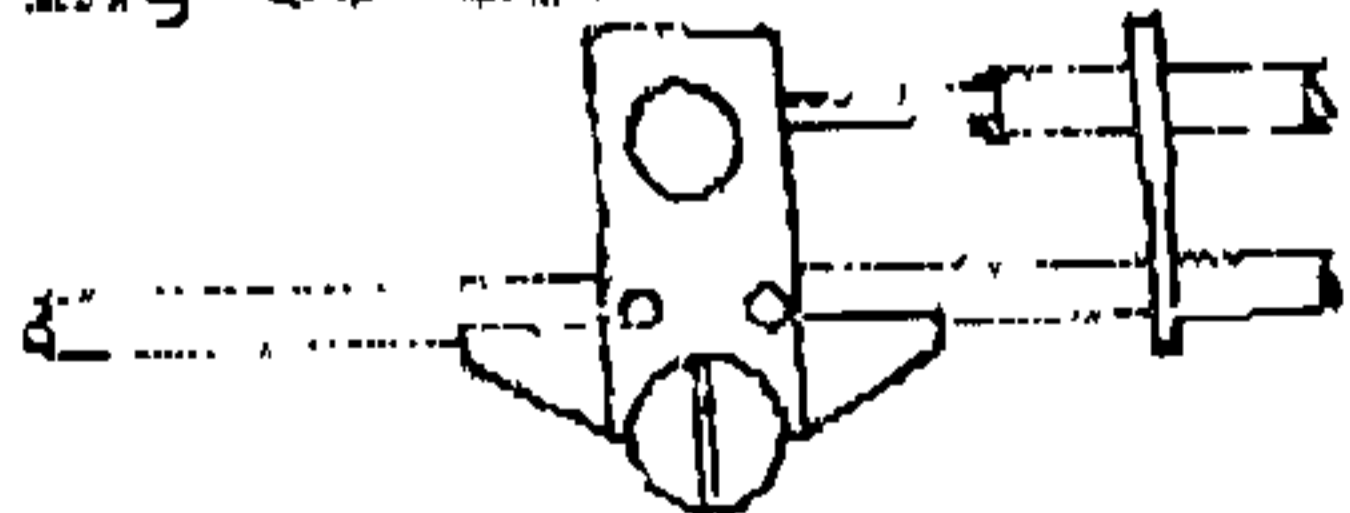
**GENERAL** Identify each element by colour according to the list on the front page of this manual. Check the colour markings with the colour markings on the boom. Also check if you have joined the boom parts in the right order. All CUE DEE vhf uhf antennas are designed to have the elements on the upper side of the boom. On vhf the coaxial cable should be pulled down between the driven element and the first director and fasten it with electric tape along the lower side of the boom.

**UHF** The coaxial cable of the UHF antennas ( 17, 17X and 23 ) should be located as a loop behind the boom. ( drawing below ). Fit the boom-mast plate as shown below.

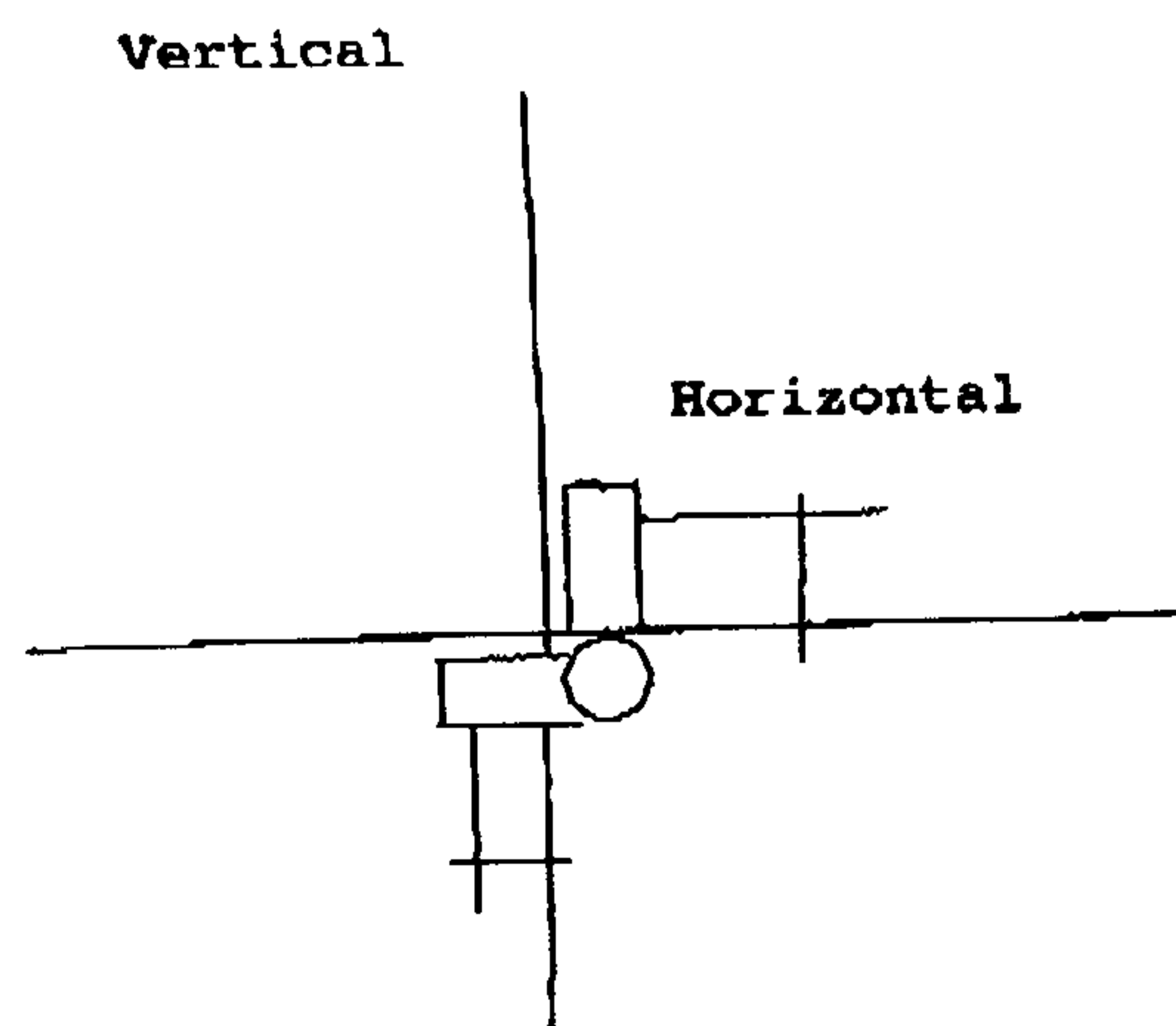


**DRIVER ELEMENT** The driver element is pretuned for 50 ohm coaxial cable and will not need any adjustment. Simply connect your cable and you will be on the air. For the driver elements of the X-yagis refer to the drawings below.

Fitting of driver element to boom



**NB!** The fitting of the driver element on X-yagis are shown from the front of the antenna the gamma matches should be pointing away from each other.





**PARTS INCLUDED WITH THE ANTENNA.**

PART	4	10	10X	15	15X	17	17X	23
Boom	1	3	3	4	4	2	2	3
Boom-mast plate	1	1	1	1	1	1	1	1
Guy tube alu	-	-	-	1	-	-	-	-
Guy tube fibre glass	-	-	1	-	1	-	-	-
PARAFIL guy wire	-	-	1	1	1	-	-	-
Wire clamps	-	-	2	2	2	-	-	-
Clamp 1 1/4"	2	2	2	2	2	2	2	2
Clamp 2"	2	2	2	2	2	2	2	2
Boom-element piece 6mm	3	9	18	14	28	16	32	22
Element washer	3	9	18	14	28	16	32	22
Room-element piece 12mm	1	1	2	1	2	1	2	1
Driver element	1	1	2	1	2	1	2	1
Screw 3 X 45 mm	3	9	18	14	28	16	32	22
Screw 3 X 50 mm	1	1	2	1	2	1	2	1
Screw 5 X 30 mm	-	-	2	2	2	-	-	-
Screw 5 X 35 mm	-	2	2	3	3	1	1	2
Nut M 3	4	10	20	15	30	17	34	23
Nut M5 locking	-	2	4	5	5	1	1	2

# GUARANTEE

ANTENNA NO..... TYPE CUE DEE.....

PURCHASED AT .....DATE.....

THIS ANTENNA IS COVERED BY CUE DEE 5 YEARS GUARANTEE.

If any materials or manufacturing fault occur on your CUE DEE antenna within 5 years from the date of purchase, CUE DEE will ship a new part in place of the damaged one without cost under the following conditions:

1. That the antenna has been correctly assembled.
2. No alterations have been made.
3. All previous replacement parts have been shipped by us or by an authorized dealer.

This guarantee covers only CUE DEE products and is not extended to allied equipment or components used in conjunction with our products. We are not responsible for incidental or consequential damages.

CUE DEE Produkter AB  
 BOX 10  
 S-915 00 ROBERTSFORS  
 SWEDEN

Mail this slip to the above adress, or to the distributor in your country, no later than 30 days after purchase to register the guarantee.

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 ANTENNA NO.....  
 CUE DEE.....  
 YOUR NAME.....  
 DATE.....  
 YOUR ADRESS.....  
 PURCHASED AT.....  
 .....