

# DXS1

10/15/20 M



ASSEMBLY/INSTALLATION



Thank you for purchasing our products. Be sure to read the manual, it is important to know the product better to get the most out of it.

## **REQUIRED TOOLS**

- Assembly

Few tools required for assembly are these:

- Spanners, 10/11 mm and 12/13 mm and set Phillips screwdrivers
- 5 m tape measure
- Soldering iron

- Connection

The connection of the coaxial cable is of the “open” type, strip the coaxial cable approximately 10 cm, separate the mesh from the center of the cable, and solder the terminals that come with it.

Use self-amalgamating tape to protect the terminals and the cable from rainwater.

## **CHOOSING THE BEST LOCATION**

- The installation location is very important.

- Make a plan of all the actions you will take to install the antenna, if necessary, ask for help from professionals.

- Choose the location looking for the greatest distance from trees, metal structures, power lines, other antennas, distance from people, etc. The proximity of these elements can reduce efficiency and make installation difficult.

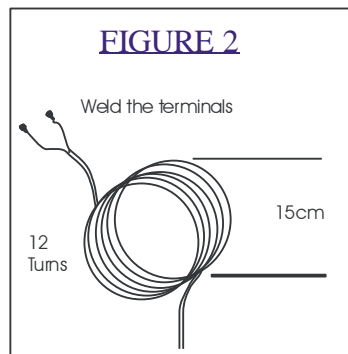
## **IMPORTANT**

**- Don't forget the security procedures.**

## **ASSEMBLY**

Assemble the DXS1 following the instructions as per the diagrams and illustrations, make the alignment, connect the coaxial, measurements and adjustments and finally attach to the mast.

The cable connection is open type, see the shock detail in figure 2, it can be done with the coaxial cable itself, strip 10 cm and separate the wires, solder the terminals and leave only 20 cm of space until the start of the shock, they are 12 turns in a diameter of 15cm, use a form for the turns to be well made and parallel, DO NOT use cell cables as the dielectric is made of foam and can deform when making the turns, thus altering the impedance, impairing the functioning.



## **ADJUSTES**

If there is a need for adjustments, make small adjustments to the element in 1 band at a time, starting at 10m and then at 15 and 20m increasing if you want to lower the resonance frequency or decreasing if you want to up the resonance frequency, as the adjustment of one band can interfere with the adjustment of another band, always mark what you are doing and then put the same measurement on the other side of the antenna.

Use a good meter that is reliable. Stay away from the antenna during measurements as your body can cause an erroneous reading. A SWR of 2:1 or less is satisfactory and will not decrease efficiency, if greater than 2:1, do a general check on measurements, position of traps and connections.

The SWR verification must be done in the definitive place, where the antenna must be installed. Measurements with the antenna close to the ground are wrong and will not hold up when raising the antenna.

The ideal height for installation is  $\frac{1}{2}$  wave from the ground or buildings, if you do not have this possibility, use  $\frac{1}{4}$  wave or at least  $\frac{1}{8}$  wave, however the efficiency and bandwidth can be changed.

Remember, bigger antenna, lower frequency or smaller antenna, higher frequency.

Find the resonance point on the antenna (smallest SWR) and use this reminder to see if you need to raise or lower the antenna to get the frequency you want as the center.

Raise the antenna and, if necessary, repeat the operations, the time invested in the adjustments returns in quality of operation.

## LIST OF COMPONENTS AND PARTS BY SECTION

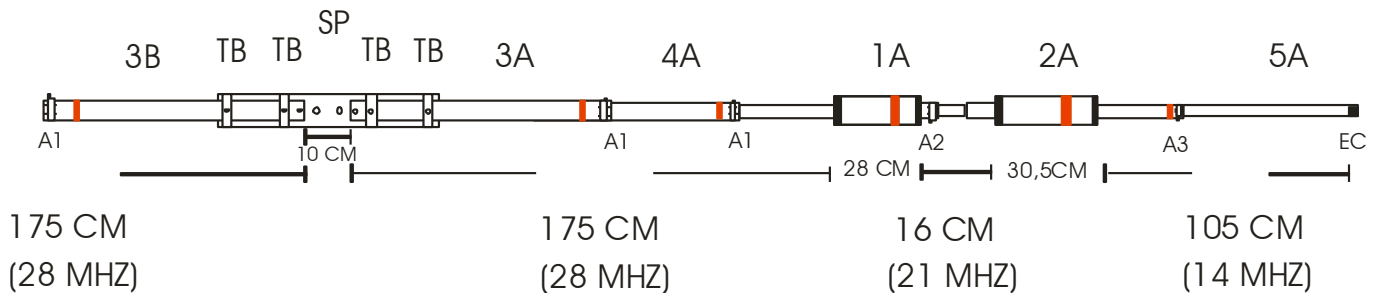
**DRIVE – (RED) Leave with 10cm of space between the elements.**

ITEM	DESCRIPTION	QTY
3	ALUMINUM PIPES 1 1/8" 1ª SECTION	02
4	ALUMINUM PIPES 1" 2ª SECTION	02
1	1ª TRAP (RED TAPE)	02
2	2ª TRAP (RED TAPE)	02
5	ALUMINUM PIPES 3/4" (FINAL)	02
SP	DRIVE SUPPORT "U"	01
TB	INSULATOR PEAD	04
GU1	"U" BOLT WITH SUPPORT	01
A1	CLAMP	04
A2/A3	CLAMP	06
EC	RUBBER COVER 3/4"	02

### ASSEMBLY THE ANTENNA

-SEPARATE THE ITENS FOR EACH ELEMENT.

***ATTENTION: WATER OUTLET HOLES FACING DOWN***



-Proceed with the measurement and permanently attach it to the mast and GOOD DX.

#### **ATTENTION**

If you want to disassemble the antenna, mark the elements again according to the manual, to facilitate the reassembly.

## **SPECIFICATIONS**

MODEL	DXS1
BAND	10/15/20m
GAIN	2,4 dBI
2:1 SWR BANDWIDTH	+500khz (10/20m) + 180khz (15m)
MAX. INPUT PWR	1.500 W PEP
> ELEMENT	7,80m
TURNIG RADIUS	3,90m
MAST DIAMETER	1.¼” to 2”
WIND-LOAD AREA	0,20 m <sup>2</sup>
WEIGHT	4,2 Kg

The contents of this manual are subject to change without notice.

## **WARRANTY**

Diex antenna products are guaranteed for One year against manufacturing defects, Diex may repair or replace parts or all of the product at its own discretion within the warranty period. Damage caused by lightning, falling, forces of nature, misuse, installation by an unqualified person, i.e., improper, negligent or incorrect assembly is not covered by the warranty.

Products that undergo any adaptation or alteration or repairs by unauthorized service automatically void the warranty.



Manual DXS1 fe

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