DXM240

40 Meters

ASSEMBLY/INSTALLATION

DIEX

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.

THE ANTENNA PARTS

-The boom has 4 parts.
-The larger “u” clamps are the supports for the elements.
-Take a good look at all the components and familiarize yourself with them.
-Aluminum tubes are identified with colors

-RED –RADIANT (I)

-BLUE – REFLECTOR (R)

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 DXM240 following the instructions as per the diagrams and illustrations, assemble the boom first, then the elements, place the elements on the boom, 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.

FIGURE 1

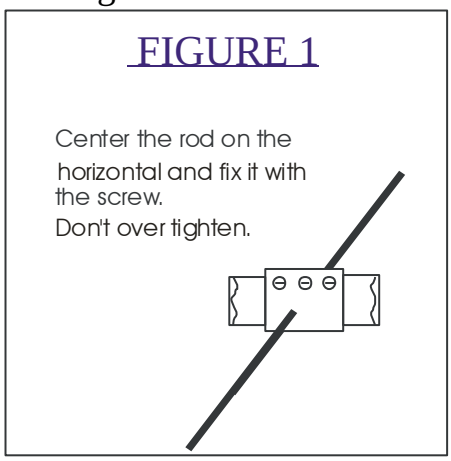
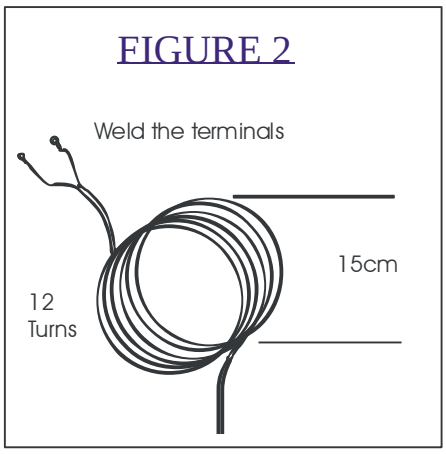


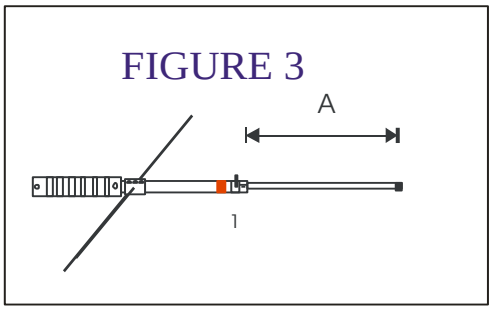
FIGURE 2



ADJUSTES

-The fine adjustment is made by the clamps (1) at the ends of the radiant (red) and reflector (blue), the initial measurements of A (figure 3) are: 79cm for the middle of the band (phone), 81cm for the beginning (CW) and 77cm for high band. Start the assembly, measure the roe and if necessary make small adjustments (1 cm at a time) on both sides equally, increasing if you want to lower the resonance frequency or decreasing if you want to raise the resonance frequency. With the antenna adjusted, measure the length of the end tube (7) and place the same measurement on the end tube of the reflector (14).
The SWR check must be done with the antenna pointed upwards and preferably supported on something insulating 50cm from the floor (it can be a wooden box, a chair, etc. 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 ½ wave from the ground or buildings, if you do not have this possibility, use ¼ wave or at least 1/8 wave, however the efficiency and bandwidth can be changed.
Remember, biger 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.

FIGURE 3



LIST OF COMPONENTS AND PARTS BY SECTION

REFLECTOR – (BLUE)

ITEM	DESCRIPTION	QTY
1	ALUMINUM PIPES 1 1/8" 1ª SECTION	01
2	ALUMINUM PIPES 1" 2ª SECTION	02
3	ALUMINUM PIPES 7/8" 3ª SECTION	02
4	ALUMINUM PIPES 3/4" 4ª SECTION	02
5	ALUMINUM PIPES 5/8" 5ª SECTION WITH COIL	02
6	SOLID ALUMINUM ¼" CROSS	02
7	ALUMINUM PIPES ½" (FINAL)	02
GU	"U" BOLT	01
APE	SUPPORT ELEMENT	01
CB	RUBBER COVER 1/2	02
CB	RUBBER COVER 1/4	04
CS	SUPPORT STRING 4,5M	02

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

ITEM	DESCRIPTION	QTY
8	ALUMINUM PIPES 1 1/8" 1ª SECTION	02
9	ALUMINUM PIPES 1" 2ª SECTION	02
10	ALUMINUM PIPES 7/8" 3ª SECTION	02
11	ALUMINUM PIPES 3/4" 4ª SECTION	02
12	ALUMINUM PIPES 5/8" 5ª SECTION WITH COIL	02
13	SOLID ALUMINUM ¼" CROSS	02
14	ALUMINUM PIPES ½" (FINAL)	02
IS	INSULATOR PEAD	04
ABL-BAA	"U" BOLT WITH SUPPORT	01
CFI	DRIVE SUPPORT U	01
CB	RUBBER COVER 1/2	02
CB	RUBBER COVER 1/4	04
CS	SUPPORT STRING 4,5M	02

BOOM

ITEM	DESCRIPTION	QTY
GA	ALUMINUM CONNECTION	03
GB	BOOM DE 2”	04
CP	RUBBER COVER	02
P	SCREWS 1/4" X 2 1/2"	12

MAST SUPPORT

ITEM	DESCRIPTION	QTY
CPM	ALUMINUM PLATE	01
GBB-U51	“U” BOLT WITH LOW SUPPORT	04

STRING SUPPORT

ITEM	DESCRIPTION	QTY
1	ALUMINUM PIPES ¾”	02
2	ALUMINUM PIPES 7/8”	02
AB	CLAMP 7/8”	02
SP	STRING SUPPORT	02
CP	RUBBER COVER ¾”	02
GBB-U51	“U” BOLT WITH LOW SUPPORT	02

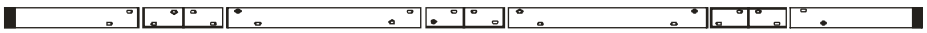
ASSEMBLY THE ANTENNA

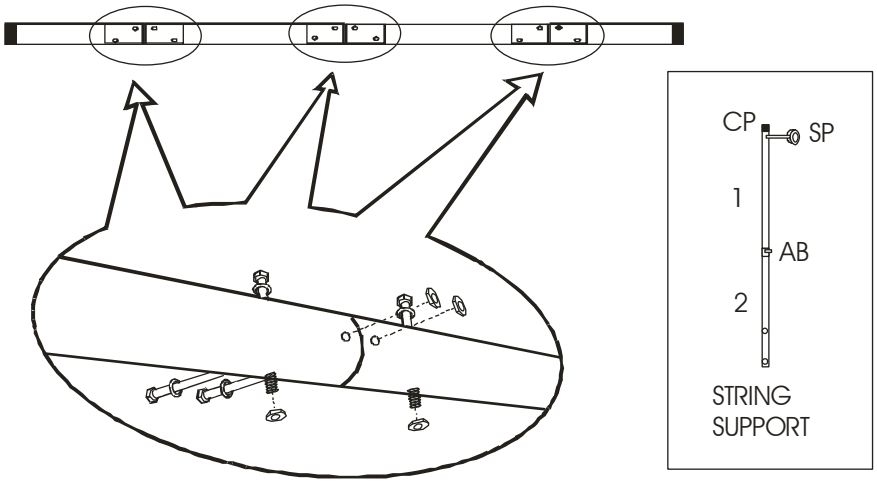
- Separate the items for each element.

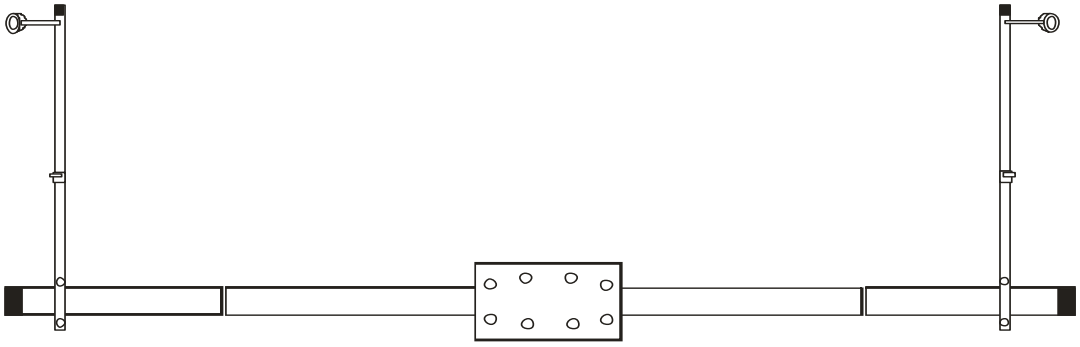
- The Elements must be assembled and positioned according to the next figures.

BOOM ASSEMBLY

-Fit the 4 tubes using the splices, place the screws and nuts, tighten enough to lock and secure the tension rod supports and the aluminum plate as shown in the figure below.

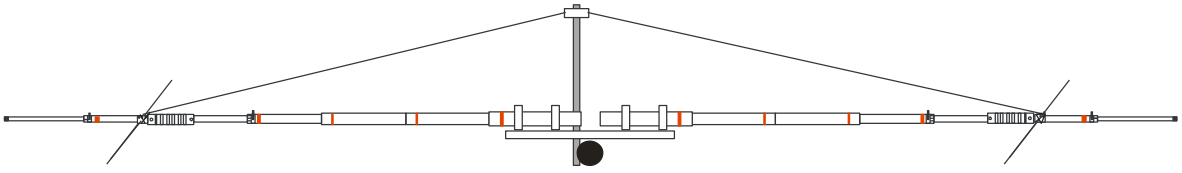






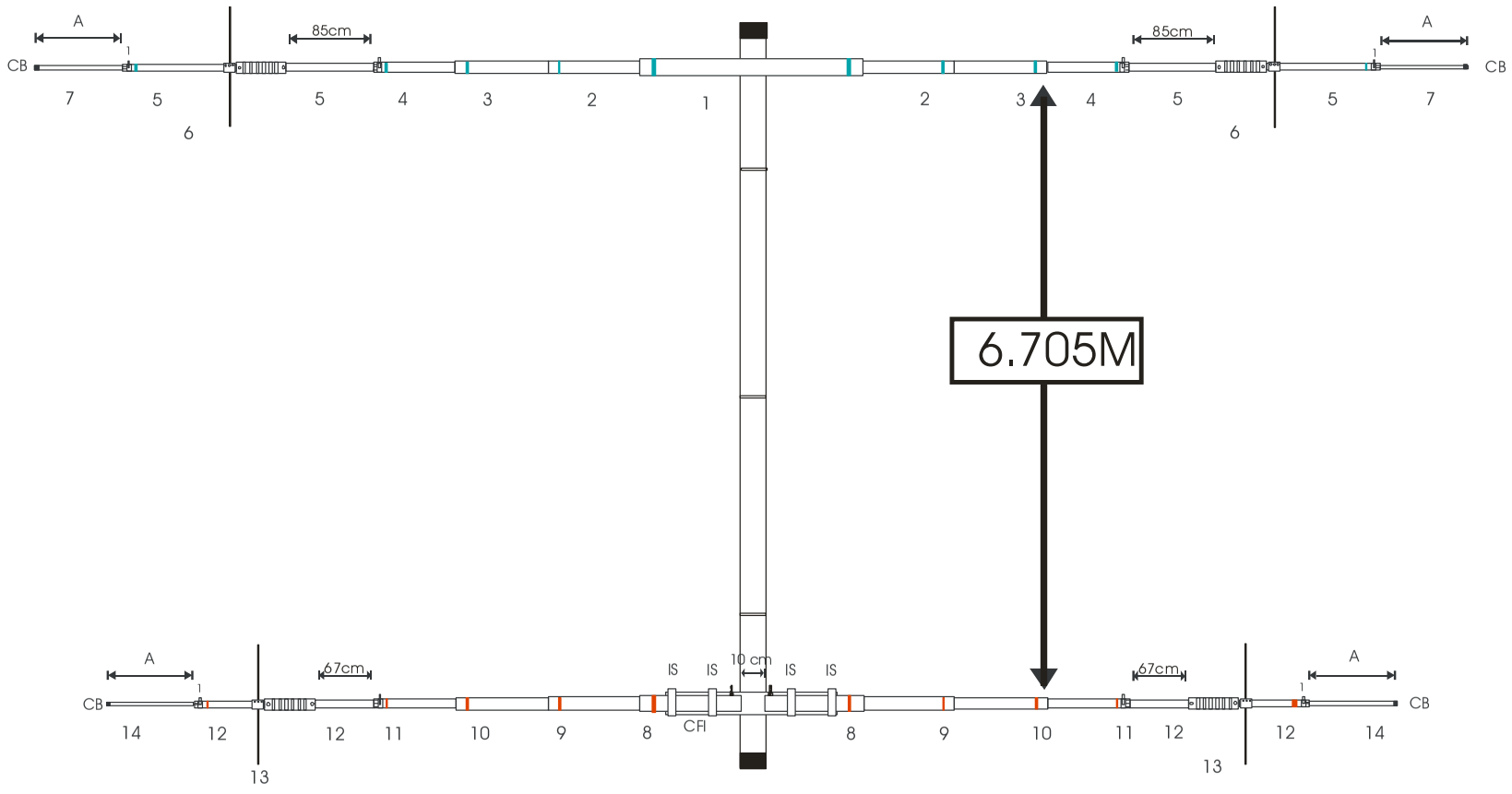
Position the tie rod supports as close as possible to the element, make sure the support through which the string passes is well aligned with the element, do the positioning using the nuts that secure the plastic support, the height of the support is not critical, 1.20m It is enough.

With the antenna mounted, find the balance point and position the mounting plate on the mast.



Tie the strings this way on both elements.

DIEX - DXM240



NO SCALE

FRONT

-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	DXM240
BAND	40 m
GAIN	6 dBI
F/B	25 dB
2;1 SWR BANDWIDTH	+ 200 KHZ
MAX. POWER	2.000 W
BOOM	680 cm
> ELEMENT	1322 cm
TURNIG RADIUS	750 cm
MAST	1.¼" A 2"
WIND-LOAD AREA	0,51 m^2
WEIGHT	19 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.

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