

3DXFS12

12 Meters



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.

THE ANTENNA PARTS

- The boom has 2 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
-
- GREEN – DIRECTOR (D)
-
- RED –DRIVE (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
- 3 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 3DXFS12 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.

ADJUSTES

-The fine adjustment is made by the clamps at the ends of the drive (red), start the assembly with the size indicated in the diagram, measure the roe and if necessary make small adjustments (1 cm at a time) on both sides evenly, increasing if want to lower the resonance frequency or decreasing if you want to raise the resonance frequency. Temporarily mount the antenna with the boom vertically, element blue at least 40 cm off the ground on a non-metallic support (wooden box/chair) to avoid antenna detuning. Support the top of the boom with a non-conductive line. Do not try to measure the VWSR close to the ground, with the boom parallel to the ground, this will nullify any results. Connect a coaxial cable between the radio and the antenna, the length of this cable is not critical, use a good meter, which is reliable. Stay away from the antenna during measurements as your body may cause an erroneous reading.

LIST OF COMPONENTS AND PARTS BY SECTION

REFLECTOR – (BLUE) Total length 6,10m (3,05 each side)

ITEM	DESCRIPTION	QTY
1	ALUMINUM PIPES 7/8” 1ª SECTION	01
2	ALUMINUM PIPES 3/4” 2ª SECTION	02
3	ALUMINUM PIPES 5/8” FINAL	02
GU/SPL	“U” BOLT/SUPPORT 1 ½”	01
AB	CLAMPS	02
CB	RUBBER COVER	02

DRIVE – (RED) Total length 5,70m (2,80m) each side plus 10cm of spacing between elements)

ITEM	DESCRIPTION	QTY
4	ALUMINUM PIPES 3/4” 1ª SECTION	02
5	ALUMINUM PIPES 5/8” 2ª FINAL	02
6 CFI	DRIVE FIXATION SUPPORT L	01
7	INSULATOR PEAD	04
GU/SPA	“U” BOLT/SUPPORT 1 ½”	01
AB	CLAMPS	02
CB	RUBBER COVER	02

DIRECTOR – (GREEN) Total length 5,26m (2,63m de each side)

ITEM	DESCRIPTION	QTY
8	ALUMINUM PIPES 7/8” 1ª SECTION	01
9	ALUMINUM PIPES 3/4” 2ª SECTION	02
10	ALUMINUM PIPES 5/8” FINAL	02
GU/SPL	“U” BOLT/SUPPORT 1 ½”	01
AB	CLAMPS	02
CB	RUBBER COVER	02

BOOM

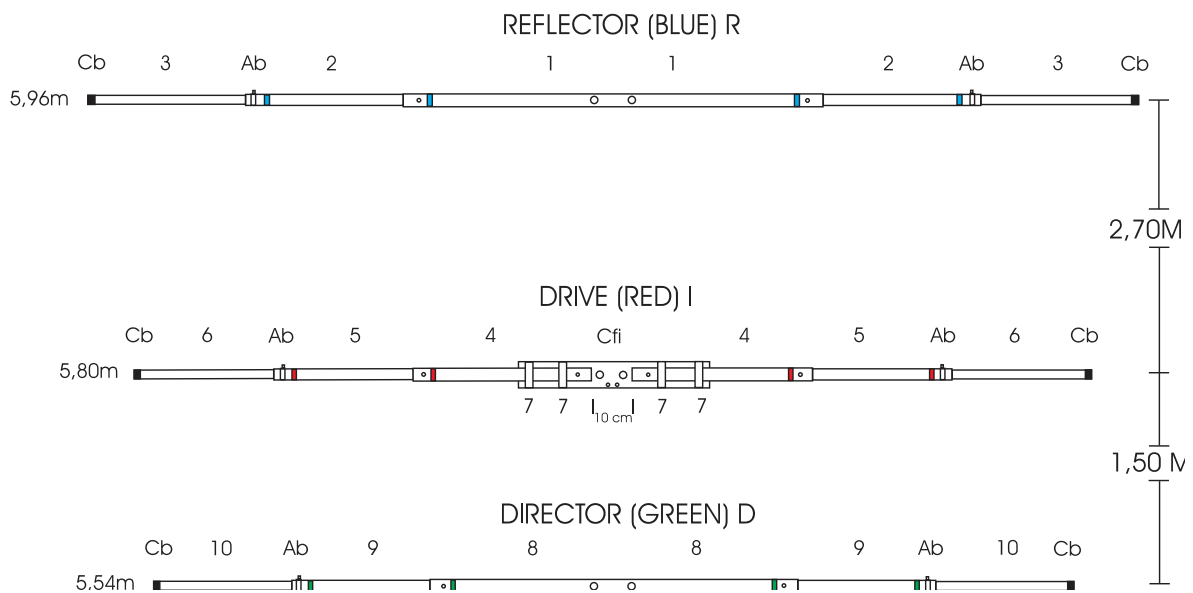
ITEM	DESCRIPTION	QTY
GA	ALUMINUM CONNECTION	01
GB	BOOM DE 1 1/2"	02
CP	RUBBER COVER	02
P	SCREWS 1/4" X 2"	04

MAST SUPPORT

ITEM	DESCRIPTION	QTY
CPM	ALUMINUM PLATE	01
GU-SPB	"U" BOLT WITH LOW SUPPORT 1 1/2"	02
GU-SPB	"U" BOLT WITH LOW SUPPORT 2"	02

ASSEMBLY THE ANTENNA

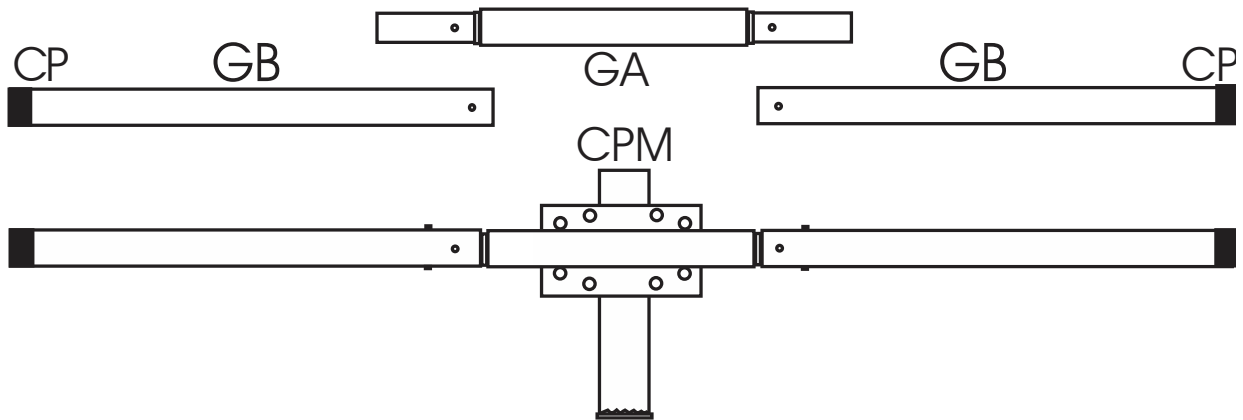
- Separate the items for each element.
- The Elements must be assembled and positioned according to the next figures.



BOOM ASSEMBLY

-Fit the tubes GB using the splice GA, secure the mast fixing plate CPM and after final assembly look for the balance point which is close to from element driver.

(Sizes may vary depending on the model, figure without scale, illustrative only.)



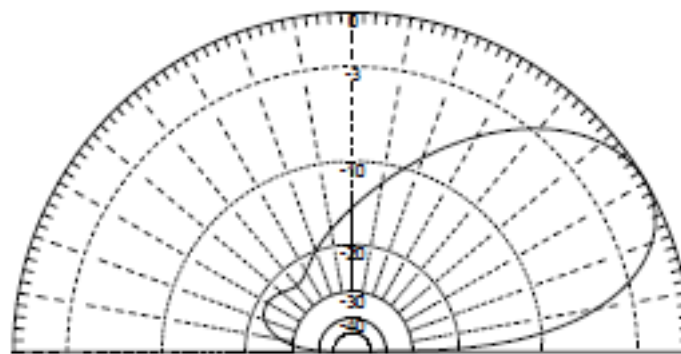
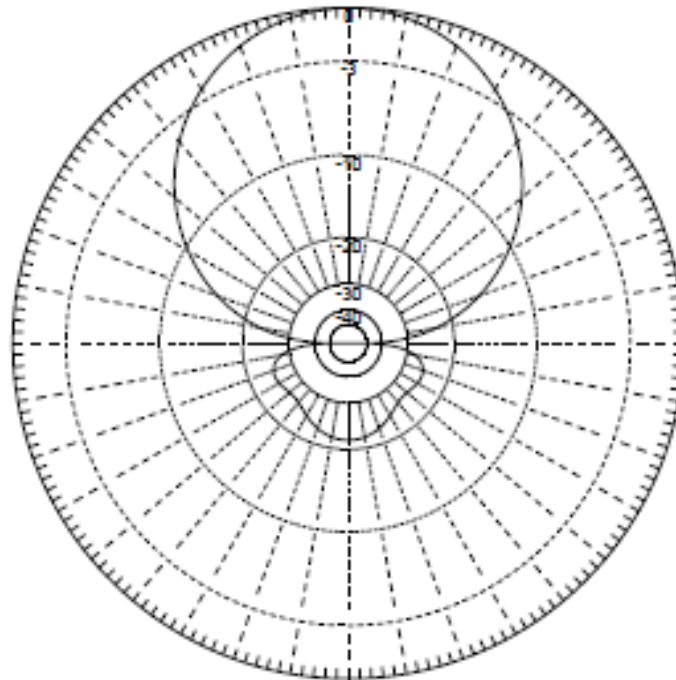
- Clip the I element and align the R and D elements.

-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.

Irradiation Diagram



Ga : 10.72 dBi = 0 dB (Horizontal polarization)
F/B: 21.53 dB; Rear: Azim. 120 deg, Elev. 60 deg
Freq: 24.940 MHz
Z: 56.131 - j5.485 Ohm
SWR: 1.2 (50.0 Ohm),
Elev: 30.3 deg (Real GND :5.00 m height)

SPECIFICATIONS

MODEL	3DXFS12
BAND	12 m
GAIN	10,72 dBi
F/B	21,53 dB
BANDWIDTH	+ 500 (2:1)
MAX. INPUT POWER	2.000 W PEP
BOOM	4,30 m
> ELEMENT	6,10 m
TURNING RADIUS	4,20 m
MAST DIAMETER	1.¼” to 2”
WIND-LOAD AREA	0,55 m ²
WEIGHT	8,7 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 3DXFS12 f.e.

Rua Almirante Lobo 310 – Ipiranga – São Paulo – SP – Brazil
TELEPHONE: +55-11-9-7616-9780 –Whatsapp/Telegram – E-mail: diexantennas@gmail.com.br