

DXM20

20M MONO BAND ANTENNA



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

ASSEMBLY AND INSTALLATION INSTRUCTIONS

1. GENERAL INFORMATION

DIEX manufactures a range of antennas designed and produced to give top performance and reliable long lasting service. They are completely manufactured of non-corrosive materials. The antennas come partly factory-assembled in order to facilitate and expedite your labor.

1.1. Introduction and Description

This manual explains how to assemble the DIEX DXM SERIES. The DXM20 is a bidirectional antenna that covers the HF spectrum between 14 - 14.3 MHz (tunable). It can be used with the full legal power of 100W continuously or 300W PEP.

1.2. Owner Assistance

If assistance or service is needed, your local dealer should be contacted first. In the unlikely event, you need further information you may get in touch with DIEX by email.
e-mail: diexantennas@gmail.com

1.3. Specifications

MODEL	DXM20
BAND	20m
GAIN	1 DBI
2:1 SWR BANDWIDTH	+100 KHZ
MAX. INPUT PWR	300 W PEP
>ELEMENT	880 cm
TURNING RADIUS	440 cm
MAST DIAMETER	<50mm
WIND-LOAD AREA	0,12 m ²
WEIGHT	3,0 Kg

1.4. SAFETY FIRST!

Get acquainted with and observe strictly the requirements and instructions of your local legislation. Direct grounding of the antenna and the tower structure is essential as protection from lightning strikes and static electricity. The entire earth-connection system must meet your local standard requirements.

Do not install the antenna close to power lines and cables, as their proximity, arc-over or contact with them during assembly, installation, and exploitation is hazardous and can be lethal.

Do not work alone! You must have at least one assistant always when you work on the antenna. If you have any doubt concerning the safety, please consult your dealer or engage a professional company.

1.5. Location

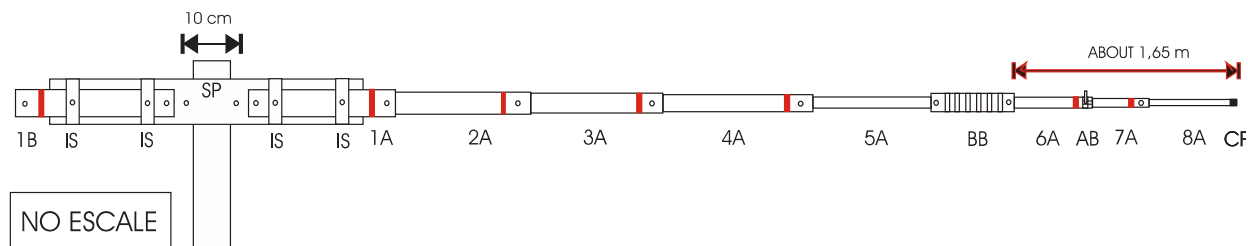
The antenna should be mounted on a support tower structure at a height between 10 and 15 meters (33-50ft) above the ground level. It must be located in the clear, away from trees, power installations, buildings, other antennas etc. Such objects can be dangerous and they can reduce the antenna efficiency or cause interference. If metal guy wires are used for the tower, they should be broken electrically with strain insulators, at 2 meters (6 ft) apart or less.

1.6. Your first steps

The first step to installation is to fully read this manual. Then, carefully inspect the shipping cartons for any physical damage. DIEX ships antennas in highly protected containers, but it cannot assure that

mistreatment by shippers will not occur. If there is any such damage, notify your DIEX dealer immediately. Failure to do so may invalidate your warranty.
Select a large and clear area to assemble the antenna.
The DIEX production uses metric (European) system of measurement units.

2. ASSEMBLING



2.1- Installing insulators (IS) on the support (SP).

2.1.1 - Fix the screws (PS) inside the support (SP) in insulators (IS) that should be as Figure 1.

Figure 1



2.2 - Fixing elements in insulators.

2.2.1 - Enter the element (1) in insulators and lock with screws (PS) at the top of the insulators.

2.2.2 - Leave a space of 10cm between the elements 1A and 1B.

2.2.3 - Place the contact screws (PC) as shown in figure 2.

Figure 2



2.3 - Assembling the elements.

2.3.1 - Place the element 2 inside the element 1, 3 in the 2, 4 in the 3, 5 in the 4 and 7 in the 6. Use the screw (PE) and then attach the loading coil (BB) element in 5 and 6 use the screw (PB) the last element 7 is adjustable with the clamp to the desired frequency 30m , start leaving the element with 1,65cm after coil, put the caps (CP).

NOTE: Cover the loading coil with a tape layer of self-fusing or thermo-retractable (not include) to protect from the sun, exceeding 3cm out of the loading coil to the element.

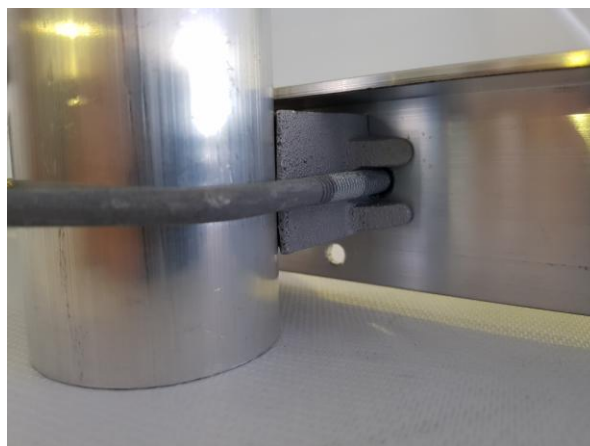
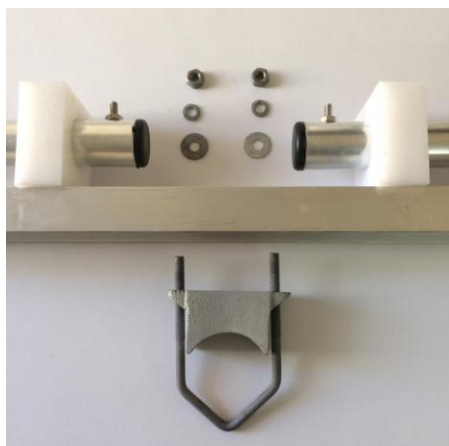
2.4 - Connecting the coaxial cable to the antenna.

2.4.1 - Separate the center of the cable loop about 10cm and solder the terminals (TM), connect the screws (PC) in the element 1 with nuts (NT), has no side seal well to prevent water from entering rain on the cable see in figure 2.

2.5 - Finishing the installation.

2.5.1 - Place the clip V in support as Figure 4/5 and install in mast in Maximum 50mm, attach the cable to the mast leaving off to avoid traction on the terminals.

Figures 4 / 5



2.5.2 - Perform the installation of the highest antenna possible and free of obstacles, other antennas, walls, etc. For optimum performance and good SWR install 10m height of the base of the antenna or at least 5.50m.

3 - Adjusting SWR

3.1 - With the antenna mounted and installed in the correct place, check SWR, note the frequency where it gets better.

3.2 – The bandwidth is narrow, you must choose which frequency will be the center, knowing the frequency that will be the center and comparing it with the frequency at which the antenna is tuned, it is possible to adjust the size of the antenna on the clamps (AB) for the frequency chosen as the center.

Antenna Frequency above the chosen; increase the antenna to lower the frequency. Going below the selected antenna, decrease the antenna to go up the frequency. The adjustment should be made on both sides of the antenna.

3.3 - Each 1cm equals about 20/30 khz.

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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OPTIONAL ACCESSORIES

BL11 - BALUN 1:1

Keep the system balanced with this excellent braided wire balun



KC - KIT CONECTION

With the KC connection kit, you can connect a cable with a connector to your antenna.



K6- KIT 6M

Add the 6m kit to your Diex antenna and have +1 band on the same cable

