

Step 1: Unpacking

- Open the box.
- Remove the ODU from the box.
- Remove the IDU from the box.
- Verify the package contents against your purchase order.
- Remove the protective material.
- Inspect the unit for any shipping damage.

If any items are damaged, contact Foxcom customer support immediately.



Step 2: Mounting the ODU

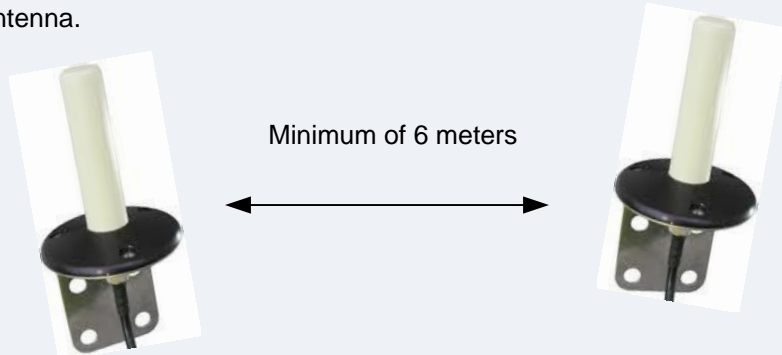
- The ODU is designed to be mounted either on a wall or a pole. For pole installation use the supplied pole mount brackets.
- Use a Philips screwdriver to attach either the wall ears or the pole mount. (Pole mounted is an option.)



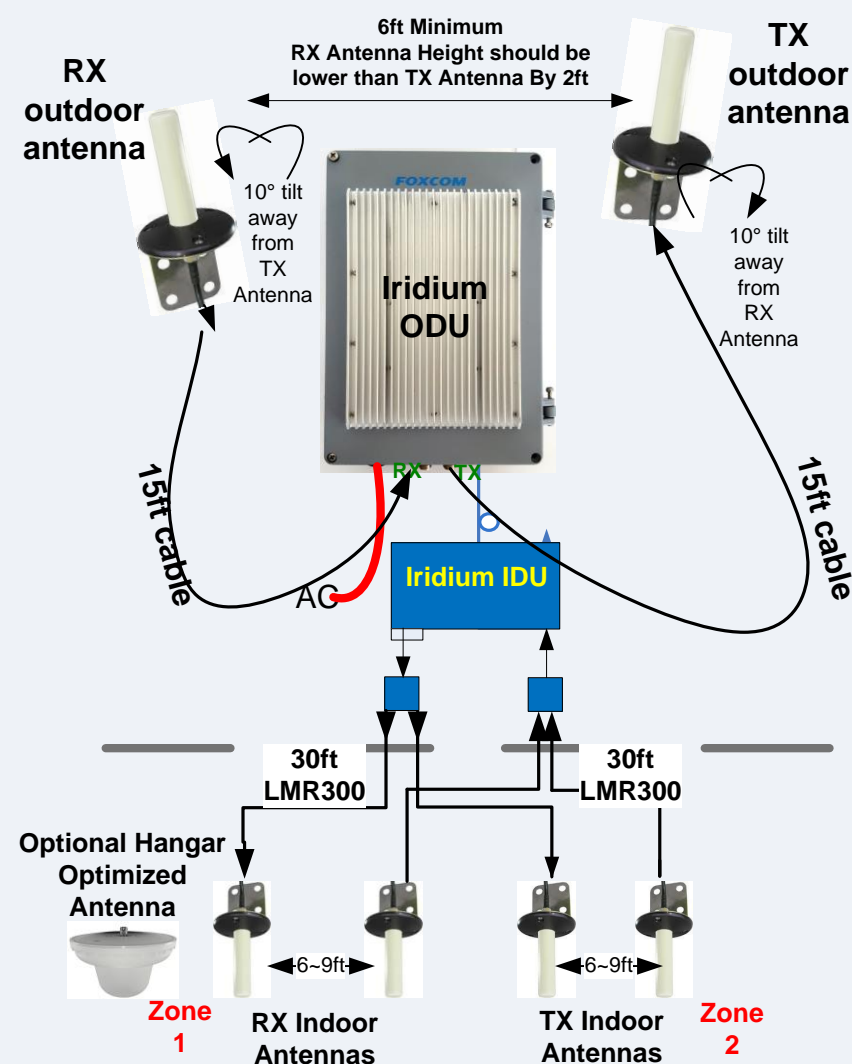
Pole Mount

Step 3: Mounting Outdoor Antennas

- Iridium Kit is supplied with two outdoor pole mounted antennas.
- One antenna is used for transmit (UL) and the other to receive (DL).
- When mounting the two antenna place the two antennas as far from one another as possible. In any case make sure you have a minimum distance of 6 meters between the two antennas.
- There should be a 10 degree tilt between the antennas.
- Install Transmit Antenna 2 feet above the height of the Receive Antenna.



Iridium Dual Zone Fiber Repeater Installation & Setup



Step 4: Connecting ODU to Outdoor Antennas

The ODU kit is supplied with two 5Meter LMR400 RF Coax cables. Use the two cables to connect the outdoor antenna to the ODU.



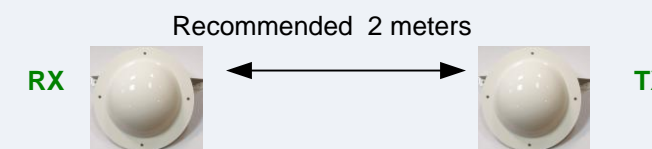
Step 5: Mounting the IDU Unit

IDU unit is designed to sit on a shelf or be mounted to a wall, secure it properly and apply power using the supplied power adapter.

Step 6: Mount & Connect IDU to Indoor Antennas

- Kit is supplied with four ceilings mount antennas that support coverage zones
- Install this antenna on the ceiling at the center of the room in each zone.
- Make sure there is a minimum distance of 2 meters between the two antennas.
- Connect the antennas to the IDU unit using the four supplied 10Meter (30 feet) LMR300 cables (TNC-SMA)

*Note: The antennas shown here are for use in hangars. For non-hangar applications the outdoor antennas are also used indoors.



Step 7: Connecting the Fiber Optic Cables between IDU and ODU and Powering the Units

- Connect the fiber between the IDU and ODU.
- Apply power to the ODU.
- Apply power to the IDU.
- After securing all the fiber connections verify that on the indoor unit the OPT LED is "ON".
- Verify that on the ODU UL RX LED is "ON".

Step 8: Aligning the Gain

- Adjust Downlink (D/L) gain for optimal reception on your Iridium phone.
- Adjust Uplink (U/L) gain for a normal voice call.



IDU Front View



IDU Rear View

For more information on the features of the chassis refer to Iridium Fiber Optic Repeater Manual

Warranty and Repair Policy

Global Foxcom performs testing and inspection to verify the quality and reliability of our products. Global Foxcom uses every reasonable precaution to ensure that each unit meets specifications before shipment. Customers are asked to advise their incoming inspection, assembly, and test personnel as to the precautions required in handling and testing our products. Many of these precautions are to be found in this manual.

The products are covered by the following warranties:

General Warranty

Global Foxcom warrants to the original purchaser all standard products sold by Global Foxcom to be free of defects in material and workmanship for 24 months from date of shipment from Global Foxcom. During the warranty period, Global Foxcom will repair or replace any product that Global Foxcom proves to be defective. This warranty does not apply to any product which has been subject to alteration, abuse, improper installation or application, accident, electrical or environmental over-stress, negligence in use, storage, transportation or handling.

Specific Product Warranty Instructions

All Global Foxcom products are warranted against defects in workmanship, materials and construction, and to no further extent. Any claim for repair or replacement of units found to be defective on incoming inspection by a customer must be made within 30 days of receipt of shipment, or within 30 days of discovery of a defect within the warranty period.

This warranty is the only warranty made by Global Foxcom and is in lieu of all other warranties, expressed or implied. Global Foxcom sales agents or representatives are not authorized to make commitments on warranty returns.

Returns - RMA Procedure

In the event that it is necessary to return any product against above warranty, the following procedure shall be followed:

▪Return authorization is to be received from Global Foxcom prior to returning any unit. Advise Global Foxcom of the model, serial number, and discrepancy. The unit may then be forwarded to Global Foxcom, transportation prepaid by the customer. Devices returned collect or without authorization may not be accepted.

▪Prior to repair, Global Foxcom will advise the customer of our test results and any charges for repairing customer-caused problems or out-of-warranty conditions etc.

▪Repaired products are warranted for the balance of the original warranty period, or at least 90 days from date of shipment.

Repackaging for Shipment

The following list is a general guide for repackaging a card for shipment. If you have any questions, contact your authorized Global Foxcom sales representative.

▪Read the section Returns - RMA Procedure.

▪If possible, use the original container designed for the product,

▪Wrap the product in heavy paper or plastic before placing it in the shipping container.

▪Use plenty of packing material around all sides of the product and protect the front and back with cardboard strips.

▪Use a heavy cardboard carton or wooden box to house the product and use heavy tape or metal bands to seal.

▪Mark the packing box with **Fragile**.

If the product is to be shipped to Global Foxcom for service or repair, attach to the product a tag identifying the RMA number clearly and the owner and indicating the service or repair to be accomplished. In any correspondence be sure to identify the Product by model number, serial number and description.

LIMITATIONS OF LIABILITIES

GLOBAL FOXCOM'S LIABILITY ON ANY CLAIM, OF ANY KIND, INCLUDING NEGLIGENCE FOR ANY LOSS OR DAMAGE ARISING FROM, CONNECTED WITH, OR RESULTING FROM THE PURCHASE ORDER, CONTRACT, QUOTATION, OR FROM THE PERFORMANCE OR BREACH THEREOF, OR FROM THE DESIGN, MANUFACTURE, SALE, DELIVERY, INSTALLATION, INSPECTION, OPERATION OR USE OF ANY EQUIPMENT COVERED BY OR FURNISHED UNDER THIS CONTACT, SHALL IN NO CASE EXCEED THE PURCHASE PRICE OF THE DEVICE WHICH GIVES RISE TO THE CLAIM.

EXCEPT AS EXPRESSLY PROVIDED HEREIN, GLOBAL FOXCOM MAKES NO WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO ANY GOODS, PARTS AND SERVICES PROVIDED IN CONNECTION WITH THIS AGREEMENT INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. GLOBAL FOXCOM SHALL NOT BE LIABLE FOR ANY OTHER DAMAGE INCLUDING, BUT NOT LIMITED TO, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH FURNISHING OF GOODS, PARTS AND SERVICE HEREUNDER, OR THE PERFORMANCE, USE OF, OR INABILITY TO USE THE GOODS, PARTS AND SERVICE.



Safety Instructions

Personal Safety

Optical Radiation: Applying power to the transmitter unit will create a laser energy source operating in Class 1 as defined by the IEC 825-1. Use either an infrared viewer, optical power meter or fluorescent screen for optical output verification

Equipment Safety

- To avoid damaging your Foxcom equipment always observe the following:
- DC polarity: verify that the 24VDC is connected with the correct polarity. Use to markings on the PCB boards as a reference.
- Connect both LNB and BUC RF cable before switching the power ON using the ODU internal jumpers.
- Do not use the ODU with a BUC that consumes more than 3.5A.
- Do not allow any dirt or foreign material to get into the optical connector bulkheads. This may cause damage to the polished optical connector end faces.
- The optical fiber jumper cable bend radius is 3 cm. Smaller radii can cause excessive optical loss and/or fiber breakage.

General Maintenance

Sat-Light Gold line uses a high performances FC/APC angle polished optical connector. The units are specified into single mode fiber i.e. 9/125 micron core diameter. The smallest particles of dust or other contaminants can vastly affect performance. All connectors should be properly cleaned prior to initial installation and at any time after a connector is removed for test and measurement purposes. Once properly done, fiber optic connectors require no maintenance and offer years of trouble-free operation.

Applying power to the transmitter unit will create a laser energy source operating in Class I as defined by IEC 825-1. Use an infrared viewer, optical power meter or fluorescent screen for optical output verification. Never use a microscope to examine a fiber optic cable, which is connected to a transmitter.

○ **Never** look directly into a fiber optic port or connector. Always keep unused optical ports covered.

○ **Never** turn on the transmitter before a fiber optic cable is connected to the output port.

○ **Always** disconnect power to the transmitter before making connections for testing or operational purposes.

if there is low/no signal or noisy signal from a FO TX or point downstream, the connectors should be cleaned. Even if optical power levels seem nominal, poor return loss performance caused by contaminated connector surfaces can cause optical reflections, standing waves and signal degradation if only at certain portions of the bandwidth utilized.

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Cleaning Methods

Dry Method

Fiber optic connectors should be cleaned using one of several commercially available products on the market specifically designed for the task. The dry method of cleaning involves using a lint free material such as a **Kimwipe™** or **Cletop™**. The wipe may be held in the hand or placed on a smooth, pliable surface. The connector is held at a slight angle to match the taper on the APC. Rotating the connector in a figure eight pattern a few times will usually suffice. Always use a clean wipe for each connector.

The **Cletop™** mechanism contains a lint-free fabric. Opening the slide exposes a clean, unused piece of fabric. As before, the connector can be rotated across the surface. Releasing the slide closes the Cletop™ to insure against contamination and prepares the reel for the next application.

Wet and Dry Method

The wet and dry method involves the use of wipes and a commercially available solution such as **Chemtronics QbE™** wipes and **ElectroWash PX™** solution. In this method, a small amount of solution is placed on the wipe as it is stretched across the platen. The connector is then moved from the wet area to the dry area a few times for cleaning. An advantage of the wet-dry method is the solution will also help remove substances such as human oils or other organic chemicals. These commercial, specially prepared solutions have high degrees of purity and fast rates of residue free evaporation.

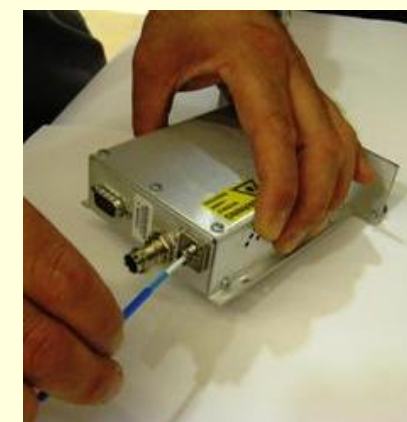
The use of alcohol for cleaning is not recommended.

Cleaning Bulkheads

The input and output optical ports of fiber optic equipment are known as bulkhead ports. Bulkheads are essentially a mechanical adapter that will accurately and reliably hold two fiber optic connectors together so their core mating surfaces are in contact and in near perfect alignment. Since one half of the connector pair is usually located within a device such as a fiber optic transmitter or receiver, optical splitter, etc., in most cases, it is impractical and not recommended to disassemble the device for cleaning.

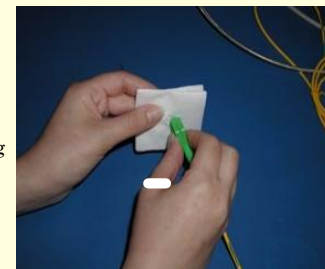
To clean bulkhead ports, specially designed cleaning swabs are available for this purpose. The FC/APC connector port uses a 2.5 mm cleaning swab. The swab is designed with a lint-free, soft material tip to clean the connector end face. Use a clean fiber optic cleaning swab, gently wipe out the optical port. Discard the swap after use.

As with standard connector end face cleaning, dry or wet/dry products are available. The swab is inserted in the port opening and gently rotated. In the case of wet/dry, first slightly dampened with solution, than with a dry swab. Always use a new swab for each port. Never use household product swabs or insert other utensils in the port opening. Doing so may permanently damage the port. Only clean equipment ports when there is evidence of reduced performance or contamination.



Compressed Air Method

The use of compressed air is **not** recommended for fiber optic cleaning. In many environments, compressed air will actually increase the amount of dust on a surface. In some cases, specially packaged and purified compressed air can be used to clean away dust from around the outside of the bulkhead while the connector is inserted or the port is covered or within receptacles. Never use shop or machine air as they contain oil or other contaminants. Always clean the connector surface after using compressed air in this manner.



Use a wipe to gently wipe the end face surface of the connector



Cletop™ Connector Cleaner The connector end face is wiped across the material in the cassette opening.



ElectroWashPX™ Connector Cleaner Solution Solutions can be used in combination with wipes for the wet/dry method.



2.5 mm cleaning swabs for optical ports