

Charles Fiber Hub Enclosure

CFITH-144 Series

General Description and Installation

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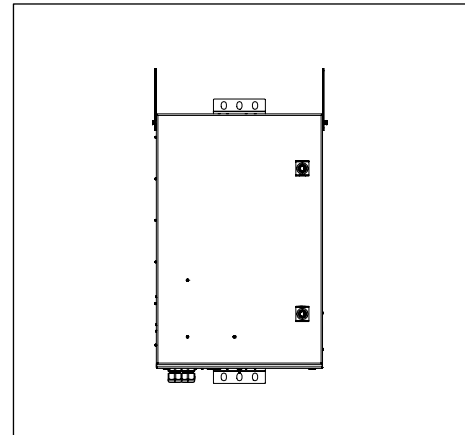


Figure 1 Front View of the CFIT

1. GENERAL INTRODUCTION

1.1. Document Purpose

This document provides general information for the CFITH-144 Series fiber hub enclosure. Figure 1 shows the front view of the pole/wall mount model.

-NOTE-

Hereafter, the Charles CFITH-144 Series will be referred to as the "CFIT."

1.2. Product Purpose

The CFIT consists of a protective housing for 156 SC/APC adapter ports (12 or 24 for feed, 144 for drop). Cable is routed through cord grip fittings on the bottom of the CFIT. The CFIT can house up to five splitter modules (sold separately).

1.3. Product Mounting and Location

The CFIT is intended for mounting on a wall, pole, or pad. CFIT dimensions are shown in Figures 2 and 3. The grounding studs on the bottom of each model are shown in Figure 4. CFIT components are shown in Figures 5 and 6.

2. SAFETY PRECAUTIONS



— WARNING —

Risk of serious eye damage! Never look into the end of a fiber optic line or use a magnifier in the presence of laser light or radiation. Exercise caution when installing, testing or maintaining live circuits. If eyes are exposed to laser light or radiation occurs, immediately seek treatment by a medical professional.



— WARNING —

Cable and fiber cleaning solvents may contain hazardous or harmful materials. Maintain good housekeeping practices and refer to the SDS when working with cleaning solvents or similar products.

Shards and cleaved glass fibers are very sharp and can easily pierce the skin. Use tweezers to pick up cut glass fibers and place them in a specifically designated container. Do not consume any food products near the cable installation site.

Corrugated metal or armor in feed cables is very sharp when cut or exposed. Exercise extreme caution to prevent personal injury. Use protective work gloves when handling armored cable.



— CAUTION —

Perform all bonding and grounding prior to making any electrical and communications connections.

Be careful not to damage any buried cables or service wires while digging either to expose cables or to prepare a hole or trench, or while driving stakes. Buffer tubes and fibers are sensitive to excessive bending, pulling, and crushing forces. To avoid kinking of buffer tubes and fiber damage or breakage, exercise great care when working with fiber, and do not exceed or violate minimum bend radius requirements for fibers, buffer tubes, and cables.

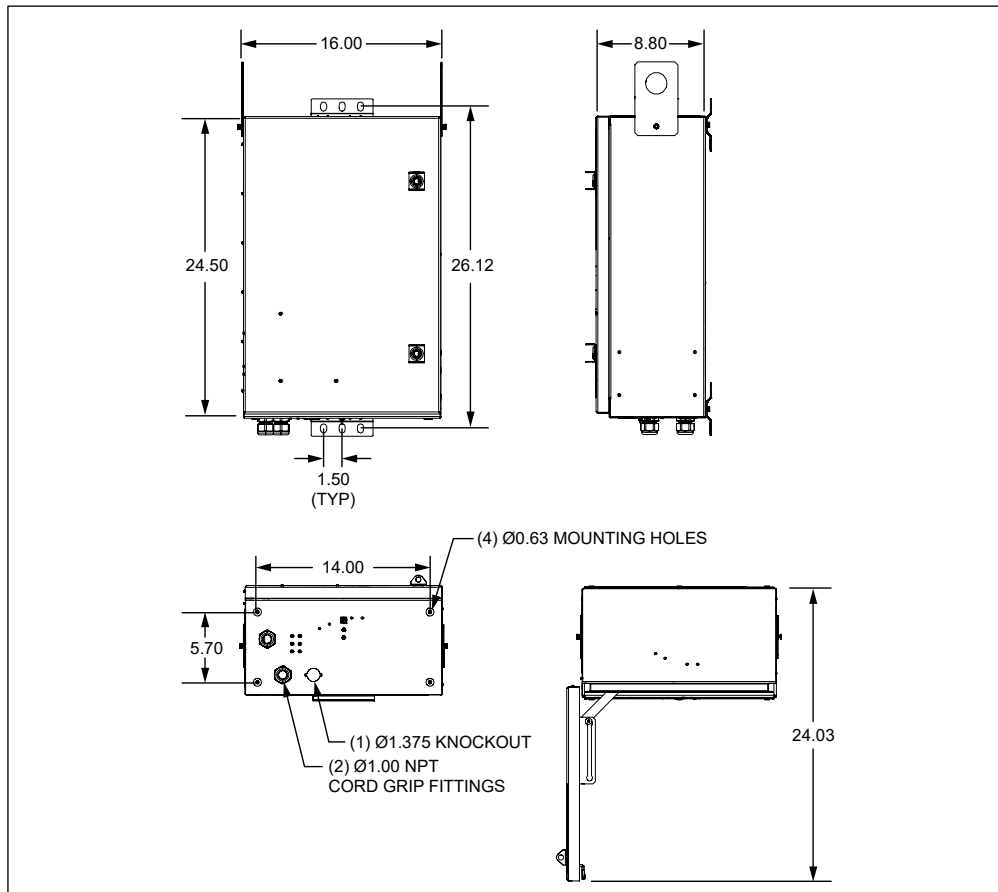


Figure 2 CFIT Dimensions (in inches) for Pole/Wall Mount Model

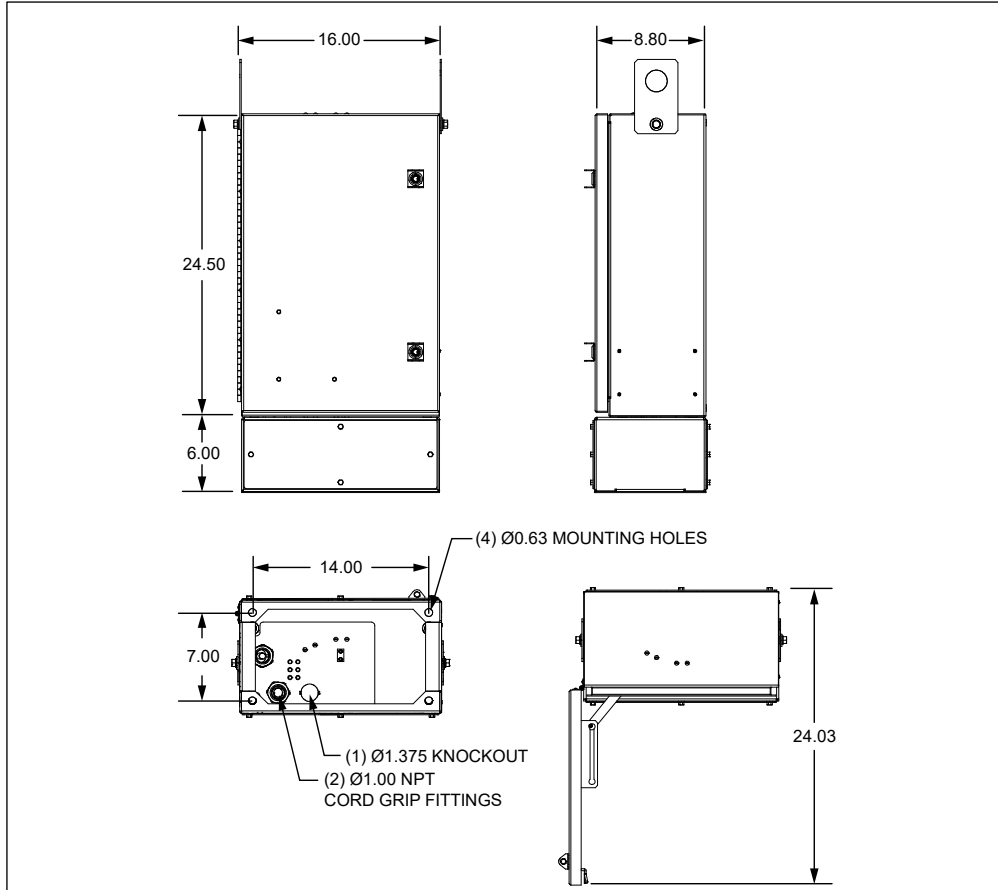


Figure 3 CFIT Dimensions (in inches) for Pad Mount Model

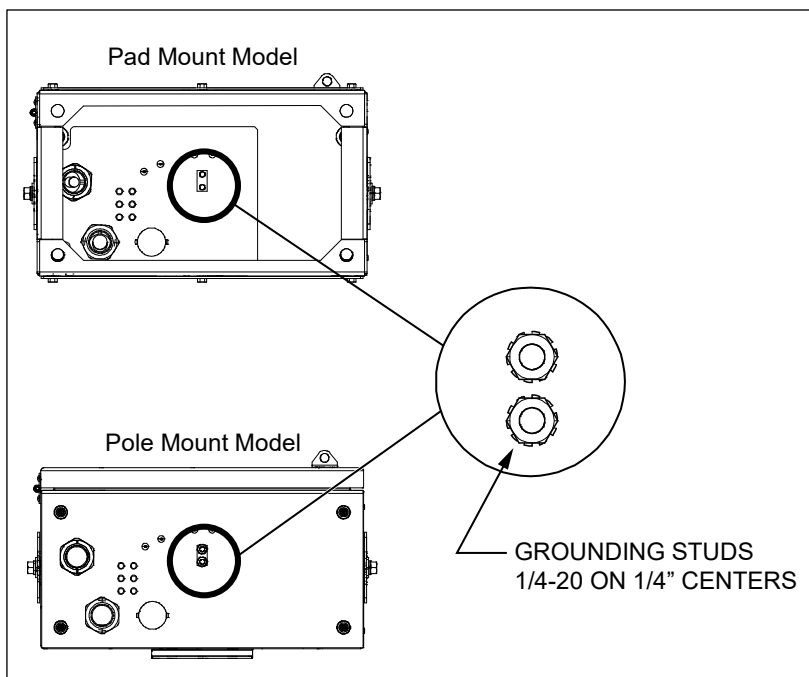


Figure 4 Mounting Studs on Bottom of Each Model

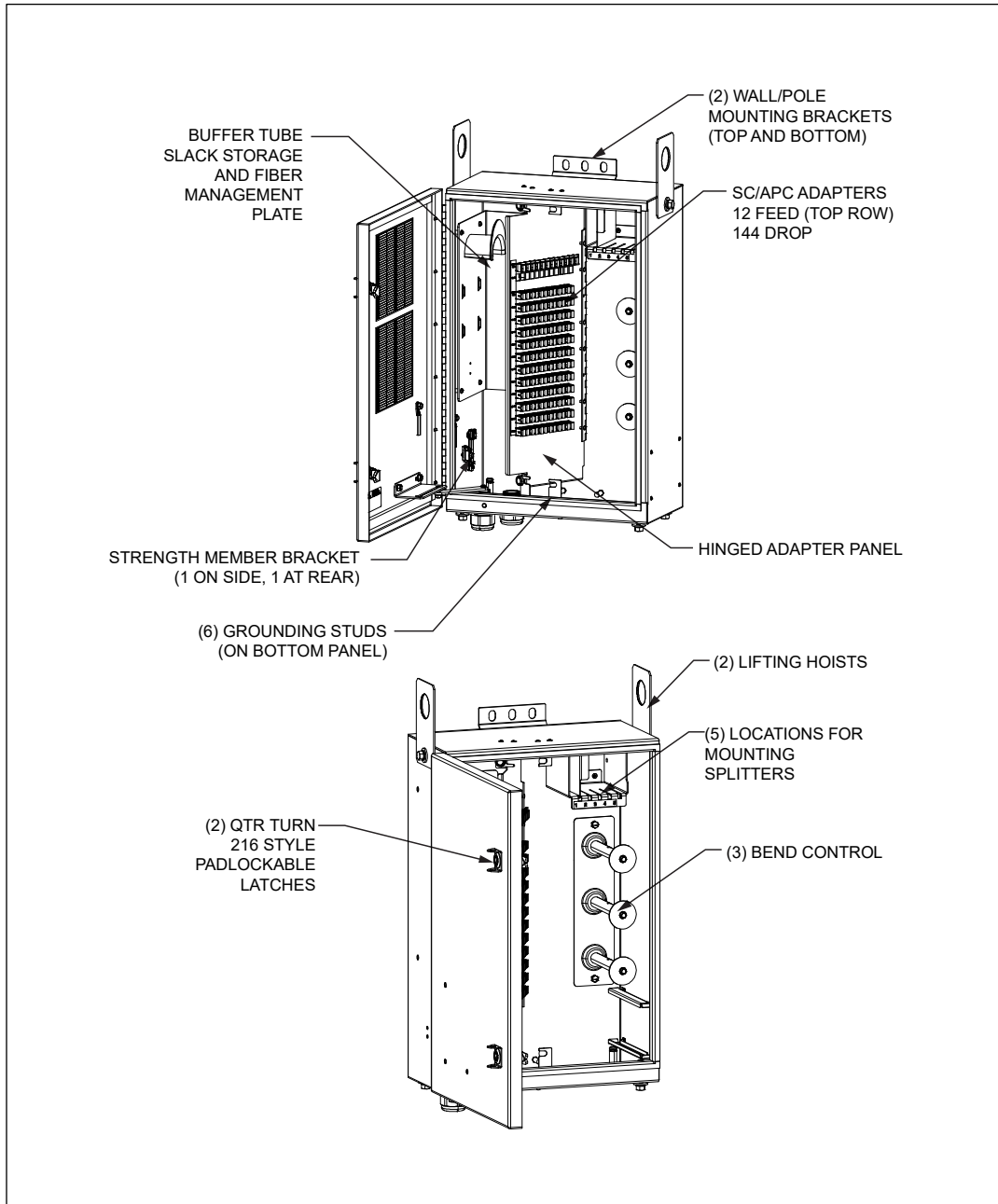


Figure 5 CFIT Components – Pole/Wall Mount
Factory installed fiber cables not shown.

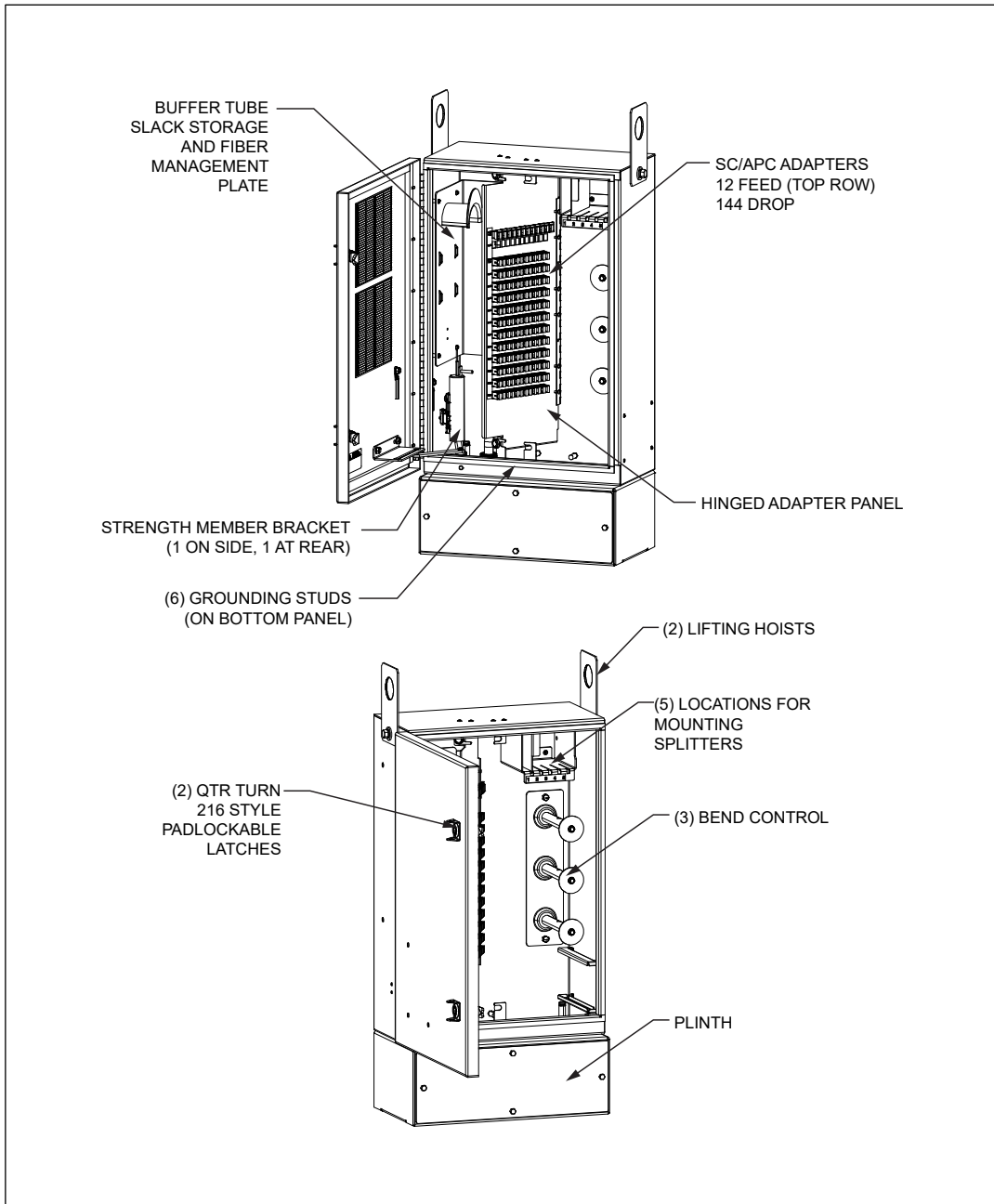


Figure 6 CFIT Components – Pad Mount
Factory installed fiber cables not shown.

3. INSTALLATION

3.1. Inspecting the Product

The CFIT is shipped in a carton. Unpack the unit, and dispose of the packaging material.

-INSPECTION NOTE-

Visually inspect the unit for damages prior to installation. If the equipment was damaged in transit, immediately report the extent of the damage to the transportation company.

3.2. Following and Using Safety Precautions

Read the following site and safety tips, cautions, and warnings, then proceed with the paragraphs that follow.

- Read all instructions, warnings and cautions on the equipment and in the documentation shipped with the product.
- Do not place this product on weak or unstable surfaces which may allow the product to fall, resulting in potentially serious damage(s) to persons or product.
- Only authorized trained personnel shall install the CFIT.

3.3. Obtaining Tools and Equipment

Obtain the following recommended or needed items for installing the CFIT.

- Sufficient length and quantities of pre-stubbed fiber cable
- Cable, tube, wire, and fiber cleaning materials
- Protective and/or insulated work gloves
- Safety glasses
- Marking utensil
- #6 ground wire or rod and earth ground materials
- Any exterior cable strain relief, per company practice
- Phillips screwdriver
- Assorted cable ties, clips, or fasteners (optional)

3.4. Mounting the CFIT

3.4.1. Wall and Pole Mounting

The CFIT pole/wall mount version is shipped with the mounting brackets positioned flush with the top and bottom of the enclosure. Prior to mounting, remove these brackets, rotate them 180°, and re-attach them to the CFIT. Views of this version of the CFIT show the brackets correctly positioned for wall or pole mounting. Mount the CFIT on a wall or pole using customer supplied hardware. See Figure 2 for mounting hole dimensions.

3.4.2. Pad Mounting

Use appropriate lifting equipment (e.g. a hand truck or dolly) to move the CFIT to its mounting location. Charles recommends using two people to lift and move the CFIT.

The CFIT can be mounted on a new or existing concrete pad. A gasket is provided for placing the CFIT on a concrete pad. If the gasket becomes damaged during installation, order a replacement under part number 39-001348-0. See Figure 3 for mounting hole dimensions.

Four customer supplied corrosion resistant 1/2"-13 hex head bolts with anchors are required for mounting the CFIT to the concrete pad. Use the following steps to mount the CFIT to a pad.

1. Layout, drill, and set the 1/2" anchors per manufacturer's recommendations. The embedment depth is not to exceed 3.5". Use the gasket as a mounting hole location template.
2. Clean any debris from the concrete pad.
3. Install the gasket by positioning it on the pad so that it is underneath the bottom of the CFIT when the cabinet is installed. Line up the gasket so that the cutouts are in proper position around the conduit opening and the bolt holes as shown in Figure 7.
4. Open the door and remove the front panel on the plinth to allow access to mounting holes.
5. Ensure that the CFIT is parallel to the pad surface as it is placed onto the pad and that it aligns with the holes in the pad and the gasket. Dress the cable/conduit so that it aligns with the CFIT openings as it is lowered onto the pad.
6. Place the CFIT on the pad. Check that the CFIT is properly aligned and level.
7. Secure the CFIT to the pad using the 1/2"-13 hex head bolts. Tighten all bolts securely.
8. Once the CFIT is secured, replace any panels removed and close door.

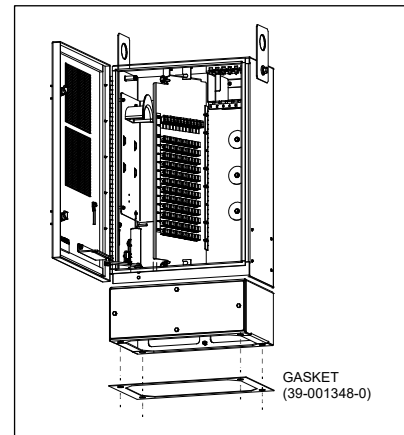


Figure 7 Gasket Installation

3.5. Fiber Routing

All incoming fiber routing is done at the factory. This routing is on the left side of the CFIT, behind the hinged adapter panel.

The customer is responsible for installing splitters and routing splitter input and output fibers (Figure 8, factory-installed fibers are not shown).

1. Install splitters on the shelves in the upper right corner of the CFIT.
2. Route splitter input connectors from the top (feed) row of adapters, downward and around the bend control pegs. Connect these fibers to the splitters.
3. Route splitter outputs downward from splitters, around the bend control pegs. Connect these fibers to the drop adapters.

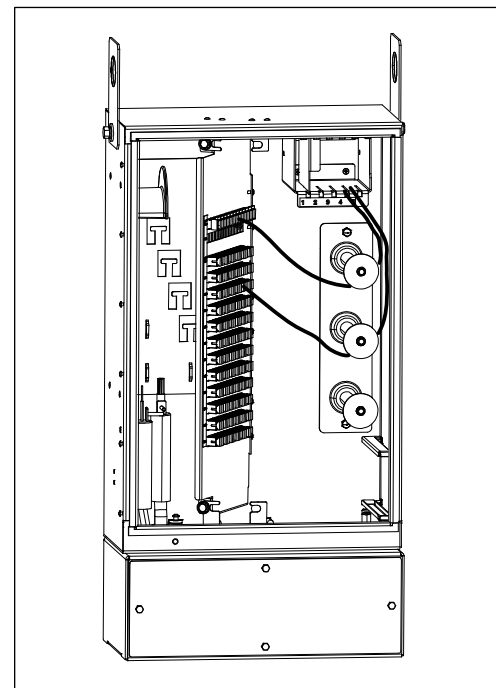


Figure 8
CFIT Fiber Routing

4. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support.

847-806-8500
techserv@charlesindustries.com (email)
<http://www.charlesindustries.com/techserv.htm>

5. WARRANTY & CUSTOMER SERVICE

Charles Industries LLC offers a one-year warranty on the CFIT product. The Charles warranty is limited to the operation of the CFIT hardware as described in this documentation and does not cover equipment that may be integrated by a third party. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract. For questions on warranty or other customer service assistance, contact your Charles Customer Service Representative.

847-806-6300
mktserv@charlesindustries.com (email)
http://www.charlesindustries.com/main/telecom_sales_support.htm

6. SPECIFICATIONS

Physical	
Dimensions	24"Hx16"Wx9"D
Weight	Wall/Pole Mount: Approx. 55 lbs. as shipped Pad Mount: Approx. 59 lbs. as shipped Weights include feed and drop cables installed at the factory
Materials	0.09" Aluminum
Color	Off-white
Environmental	
Operating Temp. Range, Outside Enclosure	-40° to +115°F, -40° to 46°C
Operating Temp Range, Inside Enclosure	-40° to +149°F, -40° to 65°C
Humidity	0 to 95% (non-condensing)
Altitude	Up to 2,000 meters (6560 feet)
Kits and Replacement Parts	
Touch-up Paint	02-000290-0

Table 1 CFIT Specifications