

# Installation Instructions

HUS00030



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## Introduction





This document explains the procedures for how to install the Hexatronic Fiber Distribution Hub Street Cabinet in a feeder network.

This document is for a certified Hexatronic Installation Specialist.

Technicians working on Hexatronic products or systems must have the necessary training and skills to perform their work correctly.

## Tools and Materials

This section presents the recommended tools for handling Hexatronic Microduct Assemblies. All listed hand tools can be purchased at <https://lightbrigade/tools-tool-kits>.

Name	Description	Picture
Microduct Assembly Cutter by Jonard® PN: HT-MDC-64	Designed to cut microduct assemblies up to 64 mm in diameter.	
Microduct Cutter by Jonard® PN: HT-MDC-14	Used to cut microducts cleanly at 90°. Able to cut microducts up to 14 mm in diameter.	
Insulated Cable Sheathing Knife by Jonard® PN: HTKN-100INS	Tool for slitting or cutting the sheathing off microduct assemblies without damaging the microducts inside.	
Multi-Socket Can Wrench by Jonard® PN: M-216C/EX	Can Wrench used to lock and unlock pedestal lid.	

*Table 1 - Duct Management Tools*

Name	Description
Concrete Mix and Wire Mesh	Used in tandem with water to create concrete pad.
1/4" x 4" Anchors and Bolts	Anchors are placed in the concrete as a fastening point for the cabinet.
Formwork	2" x 4" works best in this application.

*Table 2 – Concrete Pad Materials*

**Documentation**

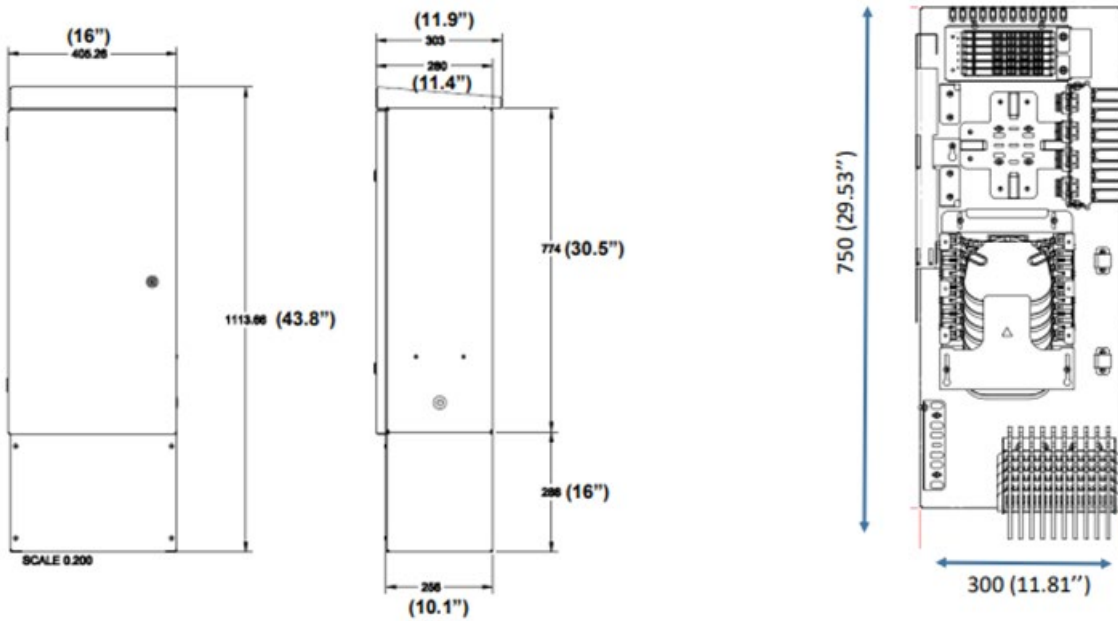
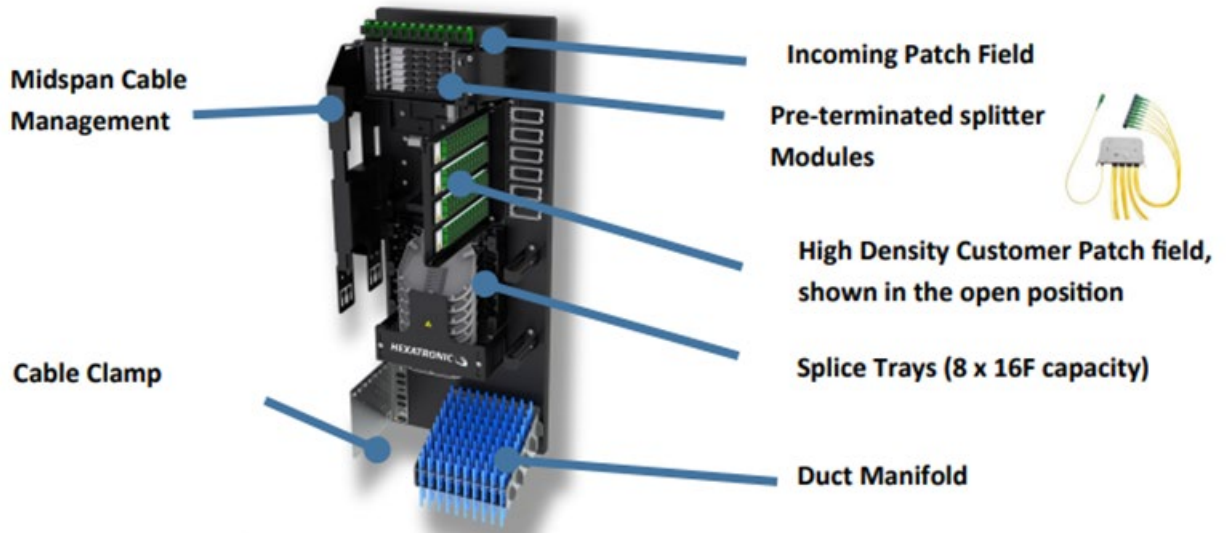
Make sure that the following documents are read and understood:

- Direct Buried Installation of Microduct Assemblies, 1531-MPB30270

**Product Description**

The Hexatronic Street Cabinet 96 is a Fiber Distribution Hub (FDH) used in a Passive Optical Network (PON) configured to host splitter modules for incremental growth. It is specifically designed to manage Hexatronic Microcable, and Air Blown Fiber (ABF).

## Overview

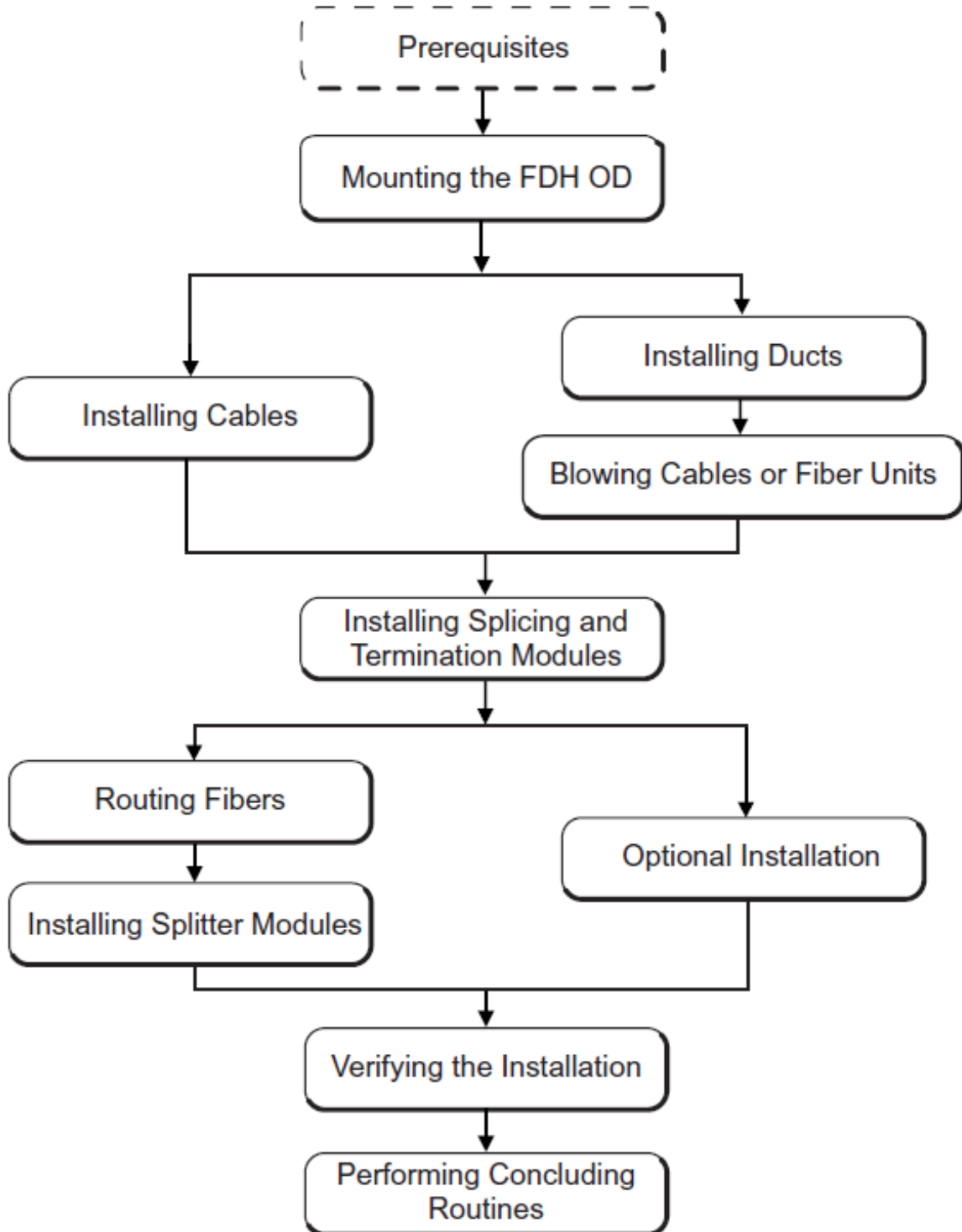


\* All Dimensions in mm (inch)

Figure 1 – HUS00030

## Installation Procedure

Please follow the instructions when installing the Hexatronic Street Cabinet:



## Prerequisites

### Concrete Pad

If a prefabricated concrete pad is not provided, one must be poured on site. Pour a 36" x 36" x 3" concrete pad with a 3" x 6" rectangle opening in the center.

### Preparation:

Begin by marking the dimensions of the pad on the ground using stakes and string. Clear the area of any grass, plants, or debris. If microduct routes have been placed, bundle routes together in the middle of the marked location. You will want the microducts to come through the center rectangle opening in the formwork. Excavate the marked area to a depth of approximately 4 inches. This extra depth allows space for a 1-inch base of sand or gravel and 3 inches of concrete.

### Base:

Once the area is excavated, add a layer of compacted sand or gravel to the bottom. This layer enhances stability and drainage. Distribute the base material evenly and compactly. Ensure the base is level and smooth.

### Formwork:

Build the formwork using wooden boards around the excavated area. Make sure the formwork is secure and level. Use a level and stakes to ensure accuracy. Apply release agent or cooking spray to the inside of the formwork for easy removal later. Microduct routes will be fed through the center of the formwork.

### Reinforcement:

Add reinforcement to the pad using wire mesh. This increases the strength and durability of the concrete.

### Mixing Concrete:

Follow the instructions on the concrete mix bag to determine the correct water-to-mix ratio. Mix the concrete in a wheelbarrow or concrete mixer until it reaches a homogeneous consistency. Make sure there are no dry or wet spots.

### Pouring:

Start pouring the concrete into the formwork. Use a shovel or concrete pouter to distribute the concrete evenly. Avoid pouring too quickly to prevent the concrete from segregating. Use a screed board to level the concrete surface. Move it back and forth in a sawing motion to create a smooth, flat surface. After screeding, use a float or trowel to smooth the surface further.

### Curing:

Cover the pad with a plastic sheet or use a curing compound to retain moisture during the curing process. This ensures proper strength development. Allow the concrete to cure for at least 24-48 hours before removing the formwork or applying any load to the pad.

### Anchors:

Place the base of the cabinet onto the pad and center the opening. Mark the anchor locations and remove the base. Now drill four holes and tap in anchors. The Cabinet is now ready to be bolted to the pad.

Remember to always follow safety precautions when working with concrete, such as wearing protective gear and ensuring proper ventilation.

## Mounting Street Cabinet

Once the concrete pad is ready, mount the street cabinet to the concrete pad using four ¼-inch bolts.

## Microducts

1. Remove all duct organizers from the backboard.
2. Organize each row of microducts for each route being brought into the cabinet.
3. Attach the duct organizers one by one to the mounting plate on the right.
4. Cut the ducts in the back row 2-inches above the organizer.
5. Route all tracer wires to the right of the cabinet to the busbar.
6. Attach the grounding wire to the grounding screw.

## Splitter and Termination Module

1. Insert splitter and termination module starting with the first slot.
2. Route tails around the back of the holder and plug to the back of the adapter panel.
3. Connect incoming fiber to the top input adapters.
4. Add more splitter modules if necessary.



# Fiber Management

## Cables and Fiber Units

### Micro cable (open end)

1. Blow micro cable into the cabinet.
2. Measure the length of cable inside the cabinet at approximately 10ft above the gas-block connector.
3. Attach the gas-block connector to the cable holder.
4. Remove the sheath of the cable ½” from the connector and tape the end of sheath.
5. Cut the strength member.
6. Clean and mark the fiber units.
7. Tighten the gas-block connector.
8. Attach the strength member to the strain relief.
9. Route the spare buffer tubes on the left side of the cabinet.

### Blown Fiber Units

1. Blow the ABF unit into the cabinet.
2. Measure 10ft of the fiber from the end of the microduct.
3. Install Fiber strain relief.
4. Route fiber into splice tray and burn on pigtail.
5. Additional slack can be stored inside the splice tray.

## Verifying the Installation

Verification of the installed network is carried out by the quality control department. It is advisable to blow a sponge into each connected microduct to guarantee continuity and cleanliness. Once confirmed, an End Stop at the customer side and a strain relief at the cabinet. Any observations made during the verification process are duly recorded and communicated to the person responsible for the installation.

## Performing Concluding Routines

Please perform a final physical inspection of the installation to ensure that all microducts are securely fastened, sealed, and properly labeled. This will help with future fiber installations.

Verify that all fiber is organized, and slack is properly managed. This will promote ease of access and prevent any accidental fiber damage in the future.

Lock the cabinet to ensure the security of the installed components and prevent unauthorized access or tampering.

Clean up the job site by removing all waste materials and tools used during the installation process.

Update any relevant documentation, such as configuration records or network diagrams, to reflect any changes made during the installation. This will help ensure accurate and up-to-date information for future reference.

By following these concluding routines, you can ensure the successful completion of the installation procedure for the HexPed6 and maintain a well-organized and secure fiber network system.

## Glossary

### **PON**

Passive Optical Network

### **P2P**

Point to Point

### **ABF**

Air-Blown Fiber

### **FDH**

Fiber Distribution Hub

### **NID**

Network Interface Device

### **FRP**

Fiberglass-Reinforced Plastic

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