SYSTIMAX® M36CPP Data/Communication Distribution Box Installation Instructions

General

These instructions cover the M36CPP Data/Communication Distribution Box (see figure, Page 3). The M36CPP is a **SYSTIMAX**® Structured Connectivity Solutions (SCS) approved product. This zone wiring box provides distribution of data and telecommunications signals throughout the work area environment. The M36CPP Data/Communication Distribution Box (plenum box) has 36 positions for M-series (copper and/or fiber) connectors. It is intended to mount above ceilings or below floors in open office buildings (see figure, Page 4) to save rewiring cost when the modular offices are rearranged. The horizontal cable from the telephone closet comes to the M36CPP Data/Communication Distribution Box and is connectorized inside it (see figure, Page 5). It is a *consolidation point* as defined by TIA/EIA TSB75. The work area outlets of the modular offices are then plugged into the connectors inside the M36CPP. When these offices are rearranged, this much of the horizontal cable run does not need to be rewired. The box measures 14.14 inches (35.91cm) wide by 19.12 inches (48.56cm) deep by 2 inches (5.08cm) tall. These distribution boxes should be installed at approximately 25-foot (7.58m) centers (15 to 35 foot [4.55m to 10.61m]) in the zone office areas. The internal mounting ports for up to 36 M-type modules or duplex SC fiber connectors should serve as many as 12 work areas.

Ordering information is listed below:

Material ID	Part No.	Description
108482845	M36CPP Data	M36CPP type zone box

How to Contact Us

- To find out more about **CommScope**® products, visit us on the web at http://www.commscope.com/

- For technical assistance:

  - Within the United States, contact your local account representative or technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized Business Partner.

  - Within the United States, report any missing/damaged parts or any other issues to **CommScope** Customer Claims at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized Business Partner.

This product is covered by one or more of the following U.S. patents or their foreign equivalents: 6,291,767.

at work

CE

For RoHS Inquiries:
CommScope Inc.
Corke Abbey, Bray
Co. Dublin, Ireland
Attn: Legal Department

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Parts List

Verify parts against the parts list below:

Quantity	Description
1	M36CPP Distribution Box Assembly
6	Connectors Bracket
1	Plenum Cover
1	Plenum Box
1	Foam Fence
2	Fiber Reel (optional to use)
2	Foam Retainer
1	Bushing (optional to use)
12	Fire Foam
1	Interconnection Label
1	Installation Instructions
12	No. 4-40 hex nut
4	No. 8-32 by 3/8-inch (9.5mm) long pan-head screw
6	Plenum Cable Tie: Panduit PLT 2S-C702

Safety Considerations

There are limitations for where this plenum distribution box may be installed. The National Electrical Code (NFPA 70) does not allow locating distribution boxes in air handling ducts. It does allow locating them in *other space used for environmental air*, defined as the space above a removable suspended ceiling or below a removable raised floor. When this distribution box is located in a plenum, fire foam must be properly applied to block openings including the openings around cables coming in to and out of the distribution box.

Important Safety Instructions

When installing and using this product, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

⚠ CAUTION:

- All cabling that connects to this equipment must meet applicable local and national building codes and network cabling standards for communications cable.
- Read and understand all instructions.
- Follow all warnings and instructions marked on the product.
- Never install cable, connectors, or jacks in a wet location unless they are specifically designed for wet locations.
- Never install this product during a lightning storm. There is a remote risk of electric shock from lightning.
- Never touch uninsulated live communication wires or terminals. They must be disconnected first.
- Be careful terminating fiber optic cable. The small fiber is sharp and can penetrate skin or eyes. Safely dispose of all loose fiber particles in a hard sided, sealed container.
- Do not look into a fiber optic cable unless you are 100% sure it is not active. Laser light can do permanent damage to your eyes.
- Mount the unit according to these instructions only using the recommended or supplied hardware.
- Wear proper eye protection when terminating fiber optic cable and when using power and hand tools. Follow all safety instructions provided with the tools and materials.
- Install only approved devices in the distribution box.
- During assembly, never place the plenum box cover anywhere it could fall and injure someone.
- After assembly, make sure the plenum box cover is securely fastened to the plenum box with the two No. 8-32 screws provided.
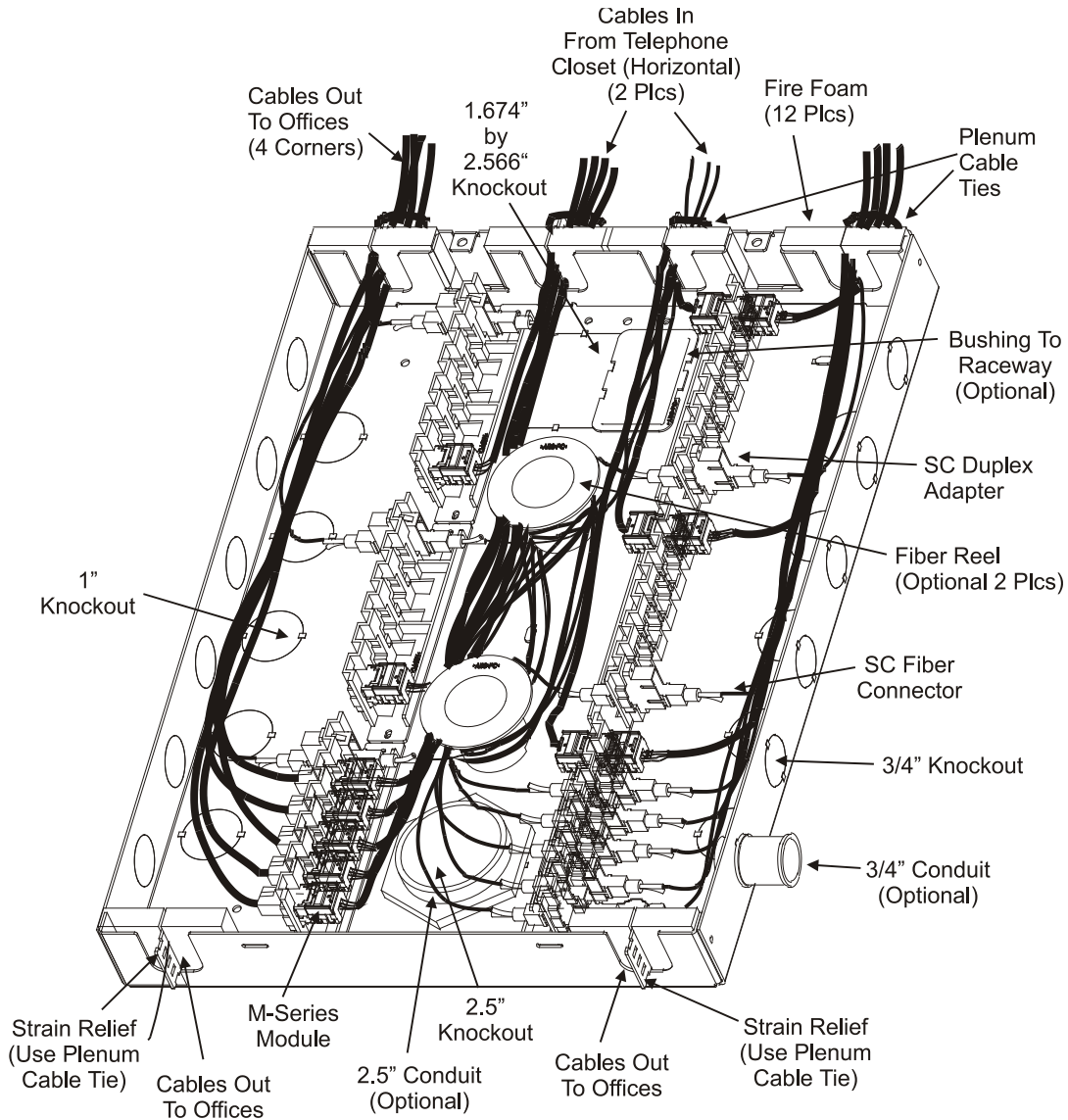
Equipment Specifications

The operating characteristics of this equipment are listed in the tables below.

General Operating Specifications

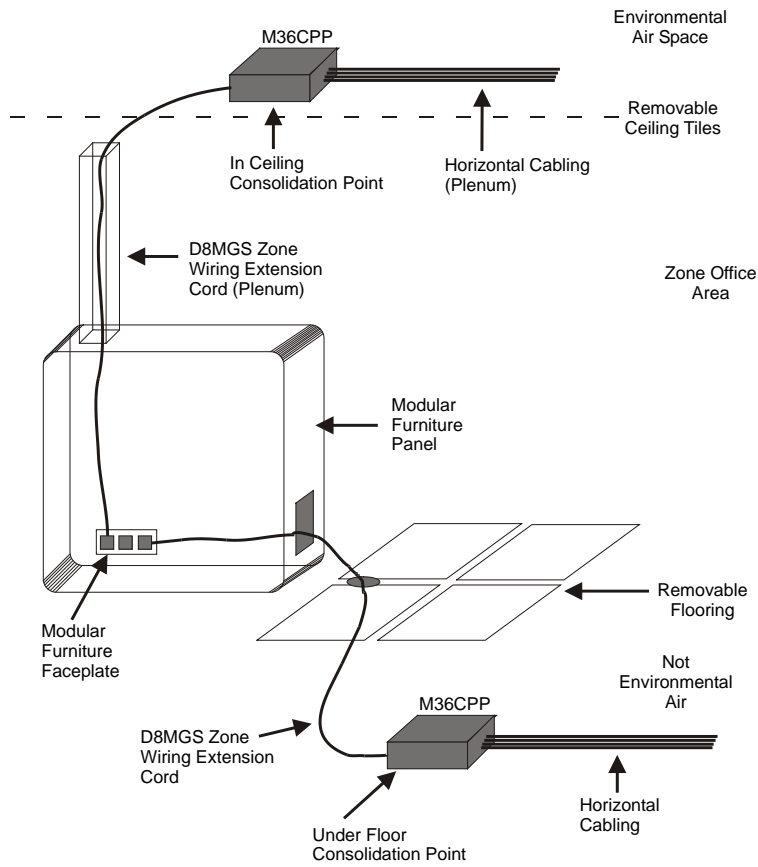| Parameter	Value
Temperature	32°F to 122°F (0°C to 50°C) (Operating)
Pressure	Sea level to 6500 ft (2000m)
Relative Humidity	5% to 95%, non-condensing

Connector Specifications

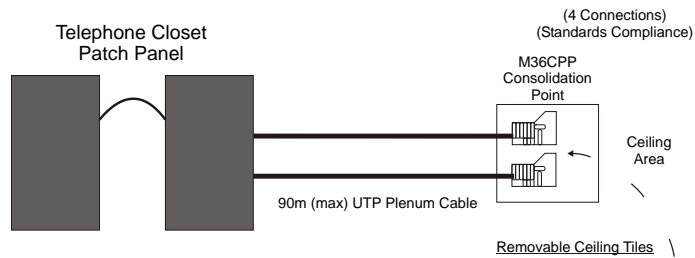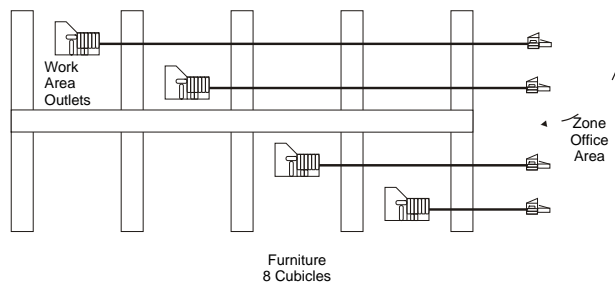| Parameter	Value
UTP eight-position, eight-conductor connectors	**SYSTIMAX SCS** MPS100 Powersum and MGS400 **GigaSPEED**® Modules
Fiber Optic Connectors	**SYSTIMAX SCS** SC and **LC** Connectors

M36CPP Data/Communications Distribution Box

M36CPP Common Implementations

Environmental
Air Space

M36CPP

Removable
Ceiling Tiles

In Ceiling
Consolidation Point

Horizontal Cabling
(Plenum)

D8MGS Zone
Wiring Extension
Cord (Plenum)

Zone Office
Area

Modular
Furniture
Panel

Removable
Flooring

Modular
Furniture
Faceplate

Not
Environmental
Air

M36CPP

D8MGS Zone
Wiring Extension
Cord

Under Floor
Consolidation Point

Horizontal
Cabling

M36CPP Typical Uses

Telephone Closet
Patch Panel

(4 Connections)
(Standards Compliance)

M36CPP
Consolidation
Point

Ceiling
Area

90m (max) UTP Plenum Cable

Removable Ceiling Tiles

Variable Length, Pre-Terminated Plenum Extension Cords

Work
Area
Outlets

Zone
Office
Area

Furniture
8 Cubicles

Consolidation Point Example

Cabling Options

This distribution box (see figure, Page 7) has two fire foam entrances and four fire foam exit areas for plenum cable (for example, 2071, 4-pair **GigaSPEED**, 2061, 4-pair and 25-pair **PowerSUM**, or other approved **SYSTIMAX**® fiber optic cable). It also has twelve 3/4-inch (19.05mm) knockouts for conduit, six on each long side. A 3/4-inch (19.05mm) conduit will accommodate up to four 4-pair copper size or one 25-pair copper cable. It also has ten 1-inch (25.40mm) floor knockouts for 1-inch (25.40mm) conduit. A 1-inch (25.40mm) conduit will accommodate up to seven 4-pair cables or two 25-pair cables. The box also has one 2-1/2-inch (63.50mm) bottom knockout.   A 2-1/2-inch (63.50mm) conduit will accommodate up to 36, 4-pair cables, or six 25-pair cables. This distribution box also has two 1.674-inch (42.52mm) by 2.566-inch (65.18mm) rectangular bottom knockouts for interfacing with the **SYSTIMAX** PathMax 8300, 5300, and 5200 or other raceways. This rectangular knockout will accommodate up to 36 of the previously mentioned 4-pair cables, or six of the 25-pair cables. Only one of these 1.674-inch (42.52mm) by 2.566-inch (65.18mm) knockouts should be used. A plastic bushing is provided for protecting the cable from abrasion as required by *UL*. The rectangular knockout hole can also be positioned over a standard wall box to bring the cable in from a wall.

Modular Connector and Cabling Options

Because of *UL* testing requirements, only the following list of approved **SYSTIMAX** connectors and cabling are permitted within the M36CPP Distribution Box:

The fiber optic connectors include:

- M81LC **LC** Duplex Adapter (Multimode) use with:
  P1001A- or P1002A-Z-125 **LC** Fiber Optic Connectors (0.9mm or 1.6mm Field Terminated)

- C6060A-4 SC Duplex Adapter (Multimode/Singlemode) use with:
  P6200A or P6201A-Z-125 SC Fiber Optic Connectors (3.0mm or 0.9mm Field Terminated) and
  2A1 SC Duplex Connector Clip (optional)

- M81SC SC Simplex Adapter (Multimode/Singlemode) use with:
  P6200A or P6201A-Z-125 SC Fiber Optic Connectors (3.0mm or 0.9mm Field Terminated).

These connectors can be used with the fiber optic cables listed in the table below..
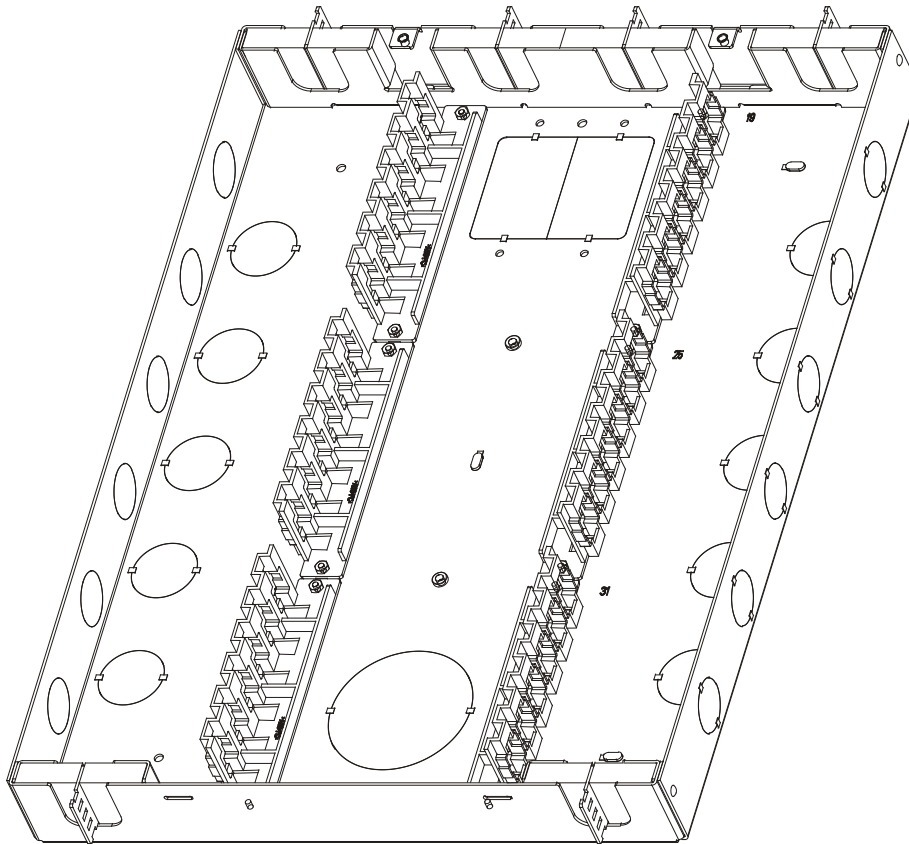
OptiSPEED™ 62.5μM Multimode Optical Cable

Description	Material ID
5201 002A MPSL	700009657
5201 004A MPSL	700009582
5201 006A MPSL	700009517
5201 008A MPSL	700009442
5201 012A MPSL	700009392
5301 018A MPSL	700009319
5301 024A MPSL	700009277
5301 036A MPSL	700009186
5301 048A MPSL	700009095
5301 072A MPSL	700009004

The following Modular 8-conductor Information Outlets can be used with the cables shown in the table below. Be sure to use plenum-rated cables in spaces used for environmental air and not in metal conduit.

- MGS400 Modular 8-conductor Information Outlet use with
  2071 **GigaSPEED** Plenum Premises Cable (Level 7) for horizontal wiring.
- MPS100 Modular 8-conductor Information Outlet use with
  2061 Powersum Plenum Premises Cable (Level 6) for horizontal wiring.

D8MGS Zone Wiring Extension Cords

Apparatus Code	Length (ft/m)	Color	Plenum	Material ID
D8MGSNIV-5BA	5 ft/1.5m	Ivory	No	108430844
D8MGSNIV-10BA	10 ft/3m	Ivory	No	108430851
D8MGSNIV-15BA	15 ft/4.5m	Ivory	No	108430869
D8MGSNIV-20BA	20 ft/6m	Ivory	No	108430877
D8MGSNIV-25BA	25 ft/7.5m	Ivory	No	108430885
D8MGSNIV-33BA	33 ft/10m	Ivory	No	108430893
D8MGSNWH-5BA	5 ft/1.5m	White	No	108430901
D8MGSNWH-10BA	10 ft/3m	White	No	108430919
D8MGSNWH-15BA	15 ft/4.5m	White	No	108430927
D8MGSNWH-20BA	20 ft/6m	White	No	108430935
D8MGSNWH-25BA	25 ft/7.5m	White	No	108430943
D8MGSNWH-33BA	33 ft/10m	White	No	108430950
D8MGSNBK-5BA	5 ft/1.5m	Gray	No	108430968
D8MGSNBK-10BA	10 ft/3m	Gray	No	108430976
D8MGSNBK-15BA	15 ft/4.5m	Gray	No	108430984
D8MGSNBK-20BA	20 ft/6m	Gray	No	108430992
D8MGSNBK-25BA	25 ft/7.5m	Gray	No	108431008
D8MGSNBK-33BA	33 ft/10m	Gray	No	108431016
D8MGSPIV-20BA	20 ft/6m	Ivory	Yes	108431024
D8MGSPIV-25BA	25 ft/7.5m	Ivory	Yes	108431032
D8MGSPIV-33BA	33 ft/10m	Ivory	Yes	108431040
D8MGSPIV-40BA	40 ft/12m	Ivory	Yes	108431057
D8MGSPIV-50BA	50 ft/15m	Ivory	Yes	108431065
D8MGSPWH-20BA	20 ft/6m	White	Yes	108431073
D8MGSPWH-25BA	25 ft/7.5m	White	Yes	108431081
D8MGSPWH-33BA	33 ft/10m	White	Yes	108431099
D8MGSPWH-40BA	40 ft/12m	White	Yes	108431107
D8MGSPWH-50BA	50 ft/15m	White	Yes	108431115
D8MGSPBK-20BA	20 ft/6m	Gray	Yes	108431123
D8MGSPBK-25BA	25 ft/7.5m	Gray	Yes	108431131
D8MGSPBK-33BA	33 ft/10m	Gray	Yes	108431149
D8MGSPBK-40BA	40 ft/12m	Gray	Yes	108431156
D8MGSPBK-50BA	50 ft/15m	Gray	Yes	108431164

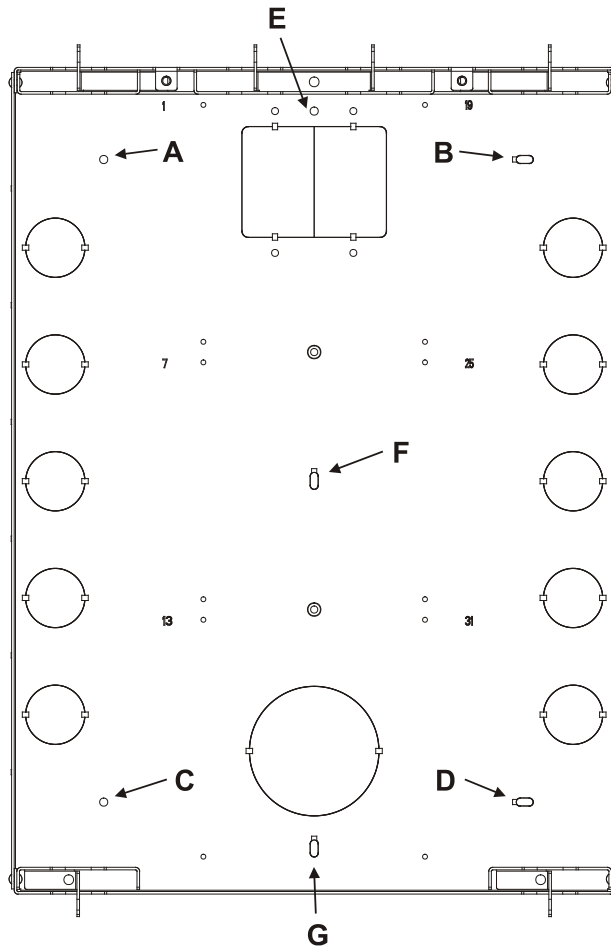**M36CPP Distribution Box as Shipped**

Mounting

Mount the distribution box (see figure, Page 8) to a permanent post, wall, floor, or ceiling. Mount it facing out from a wall or post, or up in a floor or ceiling installation. For post mounting, use three No. 8 screws through holes E, F, and G. For wall or floor mounting, use four No. 8 screws through holes A, B, C, and D. For ceiling mounting, mount the box facing up supported by a trapeze mounting arrangement. Use holes A and B to fasten to a cross bracket and holes C and D to fasten to a second cross bracket. These cross brackets are then held to the ceiling by four 3/8-inch threaded rods or other method. Allow at least 18 inches of headroom above the distribution box for working in this up facing ceiling arrangement. This box can also be configured to snap mount to the **SYSTIMAX** PathMax 5200, 5300, or 8300 aluminum raceways by attaching it to a 2-foot length of snap on cover. Make a hole for the incoming cable, matching one of the rectangular knockouts equipped with the optional bushing. Use three No. 8-32 screws to attach it to the distribution box holes E, F, and G.

Fire/Foam Gaskets

All fire/foam gaskets *must* close off their openings when no cable is passing through them and *must* be positioned to seal around all the cables that go through them. Strain relief for these cables is provided by cinching plenum cable ties (shipped loose) around all the cables coming through each fire foam area to tie them securely to the metal tabs extending outward through the middle of the fire foam. *Do not cinch so tightly that the cables are crunched which would deform the inner twist and increase cross talk between pairs.*

Reliability

This box is designed for indoor use only, which will provide a useful service life of at least 20 years.

Mounting Hole Locations

Interconnection Label

The Interconnection Label (see figure, Page 9) (shipped loose) should be filled out per TIA/EIA 606 Labeling Requirements and attached to the outside of the top cover. (Optionally: The label could go inside the cover.) The interconnection label can also be filled in as a portable record of this distribution box wiring if needed.

SYSTIMAX®
SOLUTIONS

Box No. _____

Outlet Information Below:

1	19
2	20
3	21
4	22
5	23
6	24
7	25
8	26
9	27
10	28
11	29
12	30
13	31
14	32
15	33
16	34
17	35
18	36

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Interconnection Label (8-1/2 x 11)

Cable Installation

The following steps are for copper 4-pair twisted (UTP) cable or fiber optic cable installation
(see figure on Page 3).

After mounting the distribution box (consolidation point) to the desired mounting point using appropriate
No. 8 screws:

1. Snap the selected interconnect modules into the 36 ports in the distribution box arranged as needed.

2. Route the horizontal supply cables coming from the telephone closet into the center area of the distribution box and connect them to the appropriate modules using the instructions provided with them. For copper, be careful to keep the outer jacket as far up the cables as possible. Observe the 3/4-inch (19.05mm) maximum unwrapping for the twisted pairs and the 4 times the cable diameter for copper and 10 times for fiber minimum bend radii. For fiber optic cable, install the fiber reels (shipped loose) with the two screws provided and wrap the 3.28 feet (1m) of buffered fiber around them. Be careful to maintain the 3/4-inch (19.05mm) minimum bend radius for the buffered fibers.

3. Plug modularized plenum extension cables into the modules or fiber adapters and route the cables out of the box observing the above minimum radius rules.

4. Check that there are no slivers of loose wire or fiber left in the box and that all cabling is neatly arranged, meeting all the minimum radii requirements.

5. Cinch the cable ties provided around the cables coming in and out of the box to hold them tight against the metal strain reliefs sticking out from the box. *Do not crunch tight enough to distort the inner conductors*.

6. Reposition the fire foam gaskets to close off the openings around the cables.

7. Designate the box number and 36 ports on the interconnection label. Attach it to the outside of the zone box's top cover using the line under *M36CPP Data/Communication Distribution Box* as a positioning guide.

8. Install the top cover securely using the two No. 8-32 by 3/8-inch (9.5mm) long screws provided.