

BIX in-building cross-connect system (50-, 250-, and 300-pair mounts)

Installation guide

VERSION A OCTOBER 2008

P0741014

Purpose of document

This document provides data on how to install and terminate BIX connectors in the 50-, 250-, and 300-pair BIX mounts.

Note: This document gives wall installation instructions *only*. Frame mounting is also possible. BIX connector termination procedures are the same for a frame mounted unit, but mounting and wire routing may be different. Refer to BELDEN OPD publication 060-BXFM-200 for frame installation instructions.

References

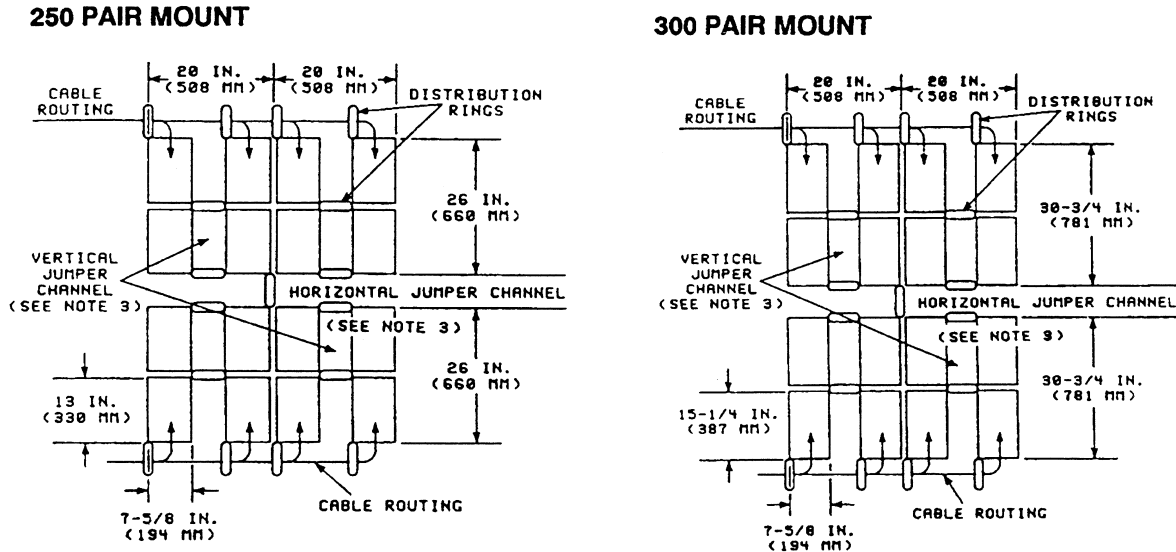
<i>Publication</i>	<i>Description</i>
450-1150	BIX In-Building Cross-Connect System Equipment Description
450-1151	BIX In-Building Cross-Connect System Installation and Service
631-4511-150	BIX In-Building Cross-Connect System Planning Practice

Note 1: 50-pair mount dimensions are : 7-3/4 in. (197 mm) wide by 3-3/8 in. (86 mm) high by 2 in. (51 mm) deep.

Note 2: To save wall space and avoid jumpering congestion, it is recommended that BIX mounts *not* be laid out like 66 blocks.

Note 3: Do not run cables in jumper channels.

Figure 1
BIX mount assembly dimensions and routing, 250- and 300-pair mounts



Installation and termination procedures

Step 1

1. Draw positioning lines on mounting wall.

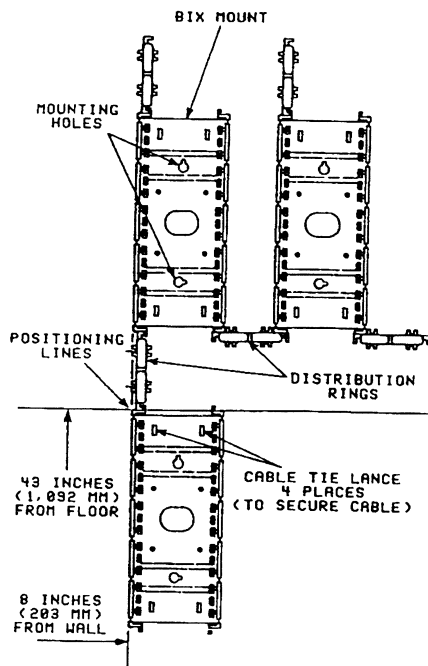
Vertical positioning line should be about 8 inches (200 mm) from lefthand side wall, or from other equipment. Horizontal positioning line should be 43 inches (1100 mm) from floor level.

2. Attach BIX mount to wall with two screws.
3. Snap distribution rings onto additional mount. (Distribution rings act as spacers for aligning additional mounts in the horizontal and vertical planes. See figure 1.)

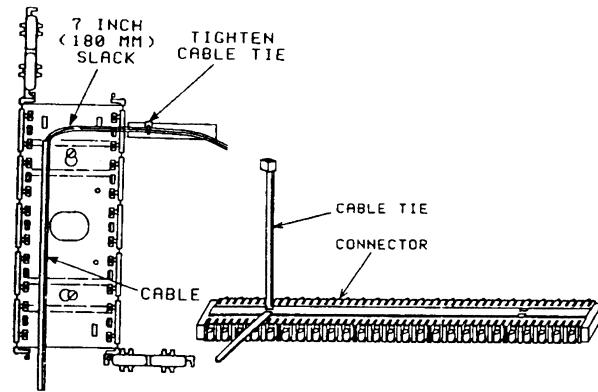
Step 2

1. Insert cable tie through one of the two slots in BIX connector. Use only one cable tie per connector.
2. Remove cable sheath to the level of the connector being worked on, and insert wire pairs through cable tie. Cable tie is toward the sheath. Allow about 7 inches (180 mm) of slack from end of sheath to cable tie. Place cable in large cable way.
3. Tighten cable tie to secure wire pairs to BIX connector.

Step 1



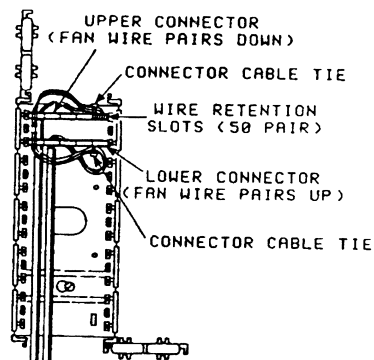
Step 2



Step 3

1. Snap BIX connector into the mount. Wire pairs should face toward the front. Wire bundles should be on top of connector for upper connectors; on bottom of connector for lower connectors.
2. Cable ties should be toward jumper side of the mount.
3. Fan and position wire pairs in wire retention slots. Upper BIX connector wires are fanned down; lower BIX connector wires are fanned up. (A designation strip separates upper and lower BIX connector pair — step 6.)

Step 3



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Step 4

1. Use BIX tool to seat and cut the wires. BIX tool *must* completely bottom out to effectively seat the wires.

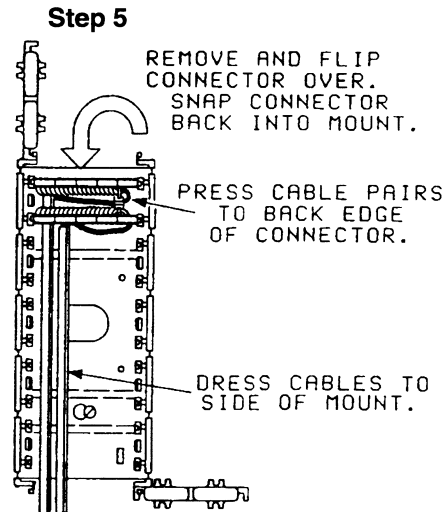
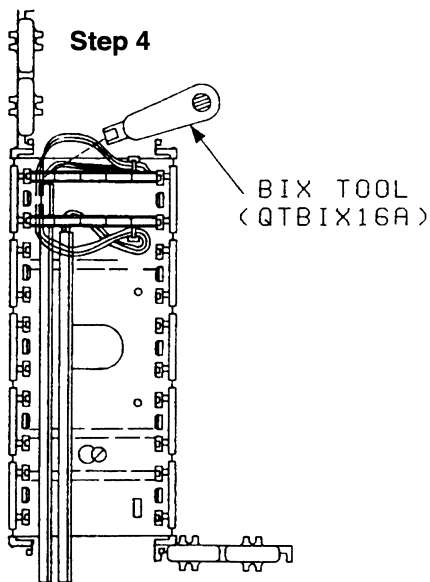
If only looping is required, the tool can be adjusted to seat the wire without cutting.

Step 5

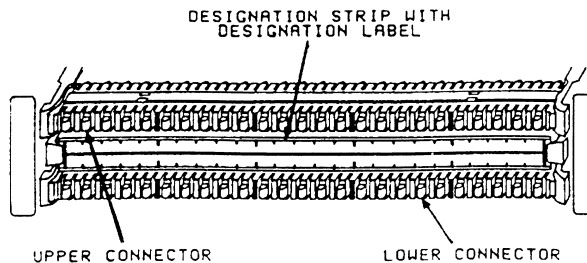
1. Flip BIX connector over, and snap BIX connector into the mount. The wire bundle should be at the:
 - bottom of upper BIX connector
 - top of lower BIX connector.
2. The cable tie should be toward the jumper side of the mount. Use only one side of the mount for jumpers to exit.
3. Dress cable pairs to back edge of BIX connector, leaving area clear for connecting jumper wires.

Step 6

1. Attach designation label to designation strip.
2. Snap designation strip in place between BIX connectors.



Step 6



Step 7

1. Insert cross-connect wire in BIX connector, and fanning strip slot.
2. Feed cross-connect wire in jumper channel, and pull taut.

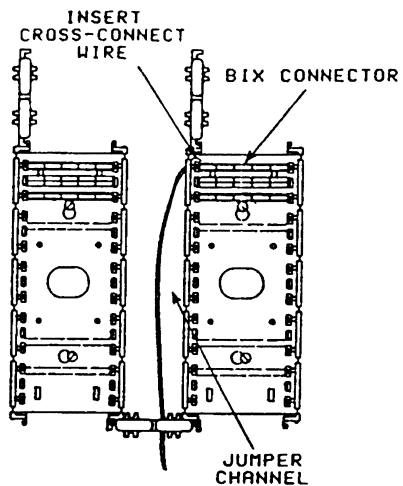
Step 8

1. Insert cross-connect wire in BIX connector, and fanning strip slot. Allow about 3 inches (75 mm) of slack wire. (The width of a hand is an approximate measurement of the necessary slack.)
2. Terminate cross-connecting wire on both connectors with BIX tool.

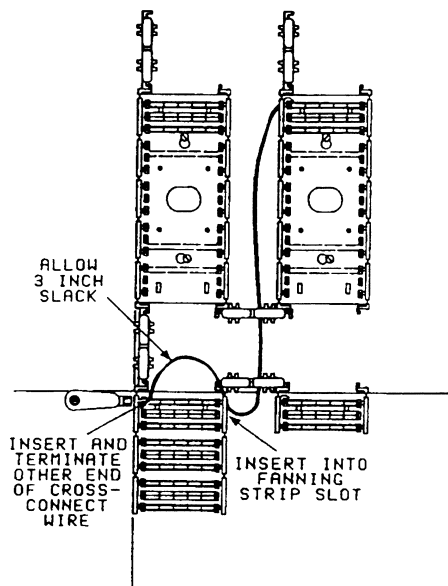
Step 9

1. Pull cross-connect wire taut.
2. Dress slack wire in jumper channel.

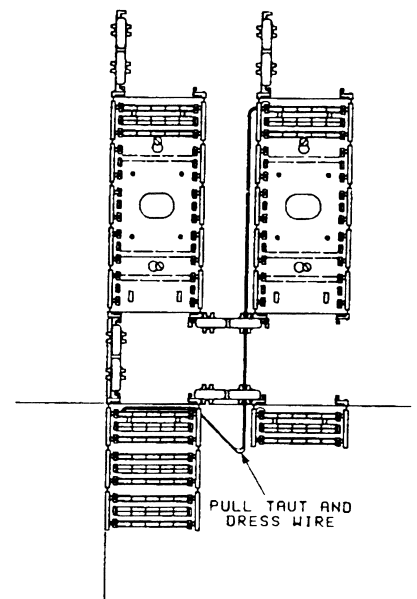
Step 7



Step 8



Step 9



Note: Cable wiring not shown in steps 7, 8, and 9.

Color field planning

Color fields simplify identification of different terminations in a cross-connect system. The color field principle is:

- Green (G) toward switching center.
- Blue (B) toward telephone sets.

Equipment terminations are identified by the following colors:

- Red (R) — Key system apparatus
- White (W) — PBX (Canada)
- Purple (P) — PBX (USA)
- Yellow (Y) — Miscellaneous equipment
- Slate (S) — Multiple bunching connectors, data.

Note: Pre-printed and color-coded designation labels with adhesive backing are available for standard or special wiring arrangements.

Figure 2 shows a typical color field system. Arrows denote interconnections between various terminations.

Color fields should be located so that jumpers transverse the horizontal jumper channels. The recommended color field design of a BIX installation should conform to configurations shown in the following illustrations:

- figure 3 — key and PBX apparatus cross-connect terminal
- figure 4 — SL-1 apparatus cross-connect terminal
- figure 5 — satellite cross-connect terminal.

Figure 2
Typical color field system

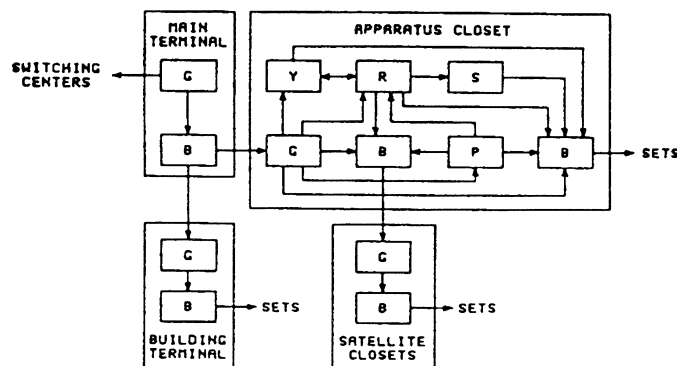


Figure 3
Typical configuration, key and PBX apparatus cross-connect terminal

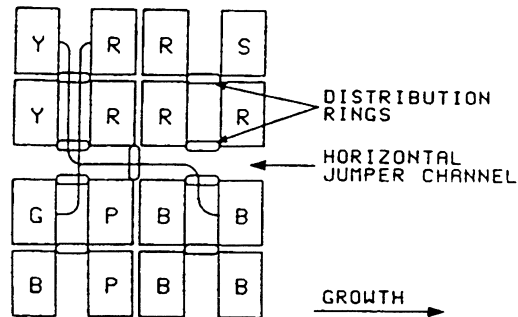


Figure 4
Typical configuration, SL-1 apparatus cross-connect terminal

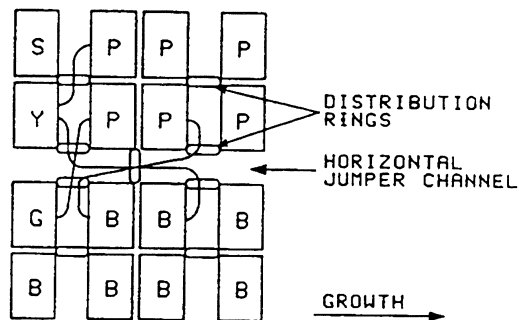
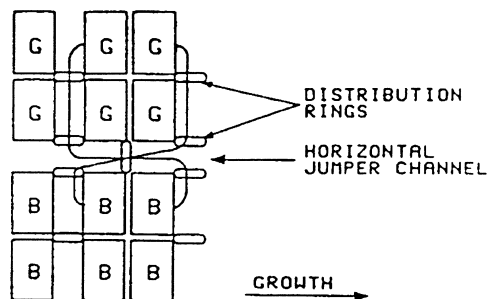


Figure 5
Typical configuration, satellite cross-connect terminal



Revision history

- Nov. 1992** Revision 04. All pages are at revision level 04. This version documents installation for the OPD BIX in-building cross-connect system (50-, 250-, and 300-pair mounts). This edition makes all previous editions obsolete.
- Revision 05: Documents change to Division responsible.
- Feb. 1997** Revision 06: Modification of trade mark name
from Northern Telecom to NORDX/CDT.
- Oct. 2008** Revision A: NORDX/CDT logo & reference changed to BELDEN.

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