Installation Guide
Belden 110 Cross-Connect System
Multi-Pair Cable

Belden 110 Wiring Block Kits-Multi-Pair Cable

Belden 110 System - Basic Components
- 100-Pair Wiring Block with Legs
  (4 and 5-Pair) AX100691
- 300-Pair Wiring Block with Legs
  (4 and 5-Pair) AX100692
- (5-Pair) Connecting Block AX100708

Belden 110 System - Accessories
- Design Strip: AX100721
- Cable Management Trough: AX100706
- Pre-Printed Label Sheets: AX100712 to 720
- Cable Management Ring
  Small: AX100703
  Large: AX100704

Kit Configurations

<table>
<thead>
<tr>
<th>Kit Configuration</th>
<th>AX100693</th>
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<td>Designation Strip</td>
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Installing Wiring Blocks with Legs

Marking Wall/Mounting Surface
Measure, and using a level, mark wall or mounting surface.

- Draw a vertical line (8" or more from the wall plus half the frame width).
- 76" Maximum
- Draw a horizontal line 76" maximum from the floor.

Attaching 300-Pair Wiring Block

1A Orient trough vertically on lines and using #12 x 3/4" wood screws, fasten to wall. Orient 300-Pair wiring block on lines and using #12 x 3/4" wood screws, fasten to wall.

Attaching 100-Pair Wiring Block

1B Orient trough horizontally on lines and using #12 x 3/4" wood screws, fasten to wall. Position 100-Pair wiring block below trough and using #12 x 3/4" wood screws, fasten to wall.
Preparing Multi-Pair Cables

2. Identify cable positions on wall next to corresponding slots in block. Sort pair binders into 25-Pair groups.

3. Following cable binders, route binder groups through appropriate slots in channel.

Caution: Use pencil for marking.

Wiring the Block

4. Following color code, position conductors over pair splitter into slots. Continue positioning the remaining twenty four pairs, always working from the furthest position, back to binder entry point.

5. Set the five groups of binder #2 in lower row, according to color code, and dress wires neatly in channel. Start with pair #1 and work to the right.

Important! Before terminating, visually check wiring to color code! (Use black markings as reference).

The top two rows are now ready for terminating!

Binder #1
(Odd numbered binder groups)

Pair #1

Binder #2
(Even numbered binder groups)

Pair #25

5-Pair Group (Violet)

V/Bl-Bl  V/O-O  V/Gr-Gr  V/Br-Br  V/Si-Si
After terminating the first two rows, select and install binders #3 and #4 in the same way as binders #1 and #2.

**Note:** All subsequent upper and lower rows are wired in the same sequence.

**Terminating Multi-Pair Cable**

7. Using the **BELDEN 110 Connecting Tool**, terminate the top row.

8. Terminate bottom row in the same sequence as the top row.

**Important!:**
Before terminating, again visually check wiring to color code!

**Terminate subsequent cables repeating all previous steps!**

**5-Pair Connecting Blocks**

9. Position 5-Pair connecting blocks and seat with Multi-Pair Impact Tool.

**Note:** Care must be taken to align all connecting blocks with the blue color code on the left!

**Caution:** The blocks can be accidently installed up-side-down!

Position and seat one block at a time.

**Caution:** Be sure blocks are completely seated!!

10. Repeat procedure for remaining blocks in frame. The block is now ready for cross-connect wiring or patch cords.
Preparring Labels

11 Slide pre-printed or hand written I.D. strips into clear protective covers.

12 Snap designation strips into channels between upper and lower rows.

Terminating Jumper Wires

13 Run jumper wires through slots to connecting blocks. Position jumpers in slots according to color code/wiring plan marked on block.

Do NOT use Multi-Pair Impact Tool to terminate cross-connect wires in connecting blocks.

NOTE: Only 22 to 26 AWG insulated wire should be terminated to the connecting block. (Maximum diameter over insulation is 1.3 mm (.050 in.).)

14 Connect jumpers using the Belden 110 Connecting Tool.

15 AX100749 Tool Bottom Row: Cutting blade on top!

16 Using finger, form approx. 1.5" of slack at each end of the jumper wire connection.

Field Connection: Jumper Wires

Typical Belden 110 System: 300-Pair Blocks, Jumper Wires, Small Distribution Rings

Field Connection: Patch Cords

Typical Belden 110 System: 100-Pair Blocks, Patch Cords, Small Distribution Rings

Capacity: 3,600 Pairs (for larger installations up to 7200 pairs, use Large Distribution Ring).