

Installation Guide

BELDEN

BELDEN 110 Cross-Connect System Multi-Pair Cable

Version 02.00 2007

PX101723

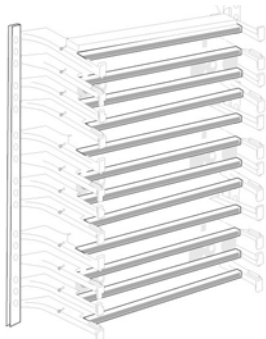
1 of 4 pages

BELDEN 110 Wiring Block Kits-Multi-Pair Cable

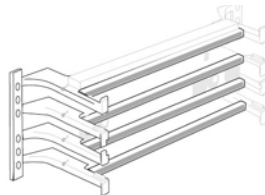
*BELDEN 110 System - Basic Components**BELDEN 110 System - Accessories*

Standard Tools and Materials

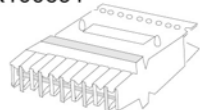
- Marker
- Measuring tape
- Spirit Level
- #12 x 3/4" wood screws (or appropriate wall anchors)
- Cutters
- 110 type connecting tool
- Multi-pair connecting tool



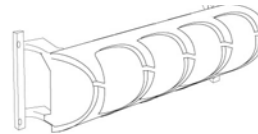
300-Pair Wiring Block with Legs (4 and 5-Pair) AX100692



100-Pair Wiring Block with Legs (4 and 5-Pair) AX100691



(5-Pair) Connecting Block AX100708



Cable Management Trough with Legs AX100706



Pre-Printed Label Sheets AX100712 to 720



Design Strip: AX100721



Cable Management Ring Small: AX100703 Large: AX100704

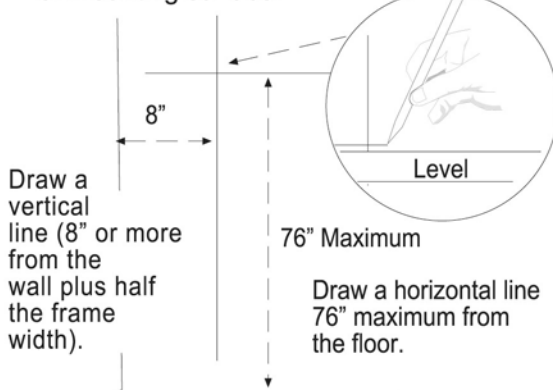
Kit Configurations

	AX100693	AX100694	AX100695	AX100696
Wiring Block, 100-Pair	1	1	-	-
Wiring Block, 300-Pair	-	-	1	1
Connecting Block, 4-Pair	20	-	60	-
Connecting Block, 5-Pair	4	20	12	60
Designation Strip	2	2	6	6

Installing Wiring Blocks with Legs

Marking Wall/Mounting Surface

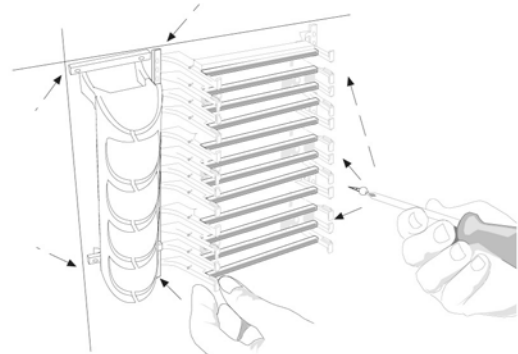
Measure, and using a level, mark wall or mounting surface.



Attaching 300-Pair Wiring Block

1A

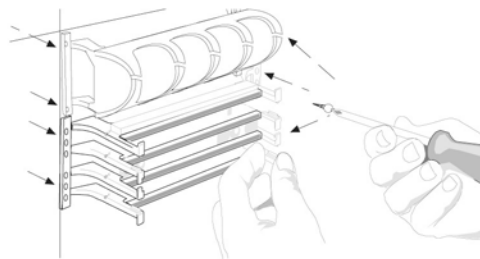
Orient trough vertically on lines and using #12 x 3/4" wood screws, fasten to wall. Orient 300-Pair wiring block on lines and using #12 x 3/4" wood screws, fasten to wall.



Attaching 100-Pair Wiring Block

1B

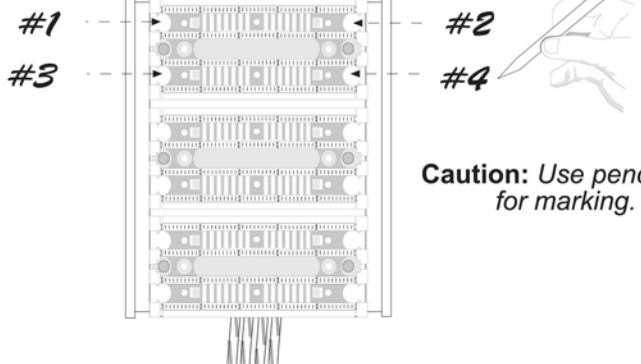
Orient trough horizontally on lines and using #12 x 3/4" wood screws, fasten to wall. Position 100-Pair wiring block below trough and using #12 x 3/4" wood screws, fasten to wall.



Preparing Multi-Pair Cables

2

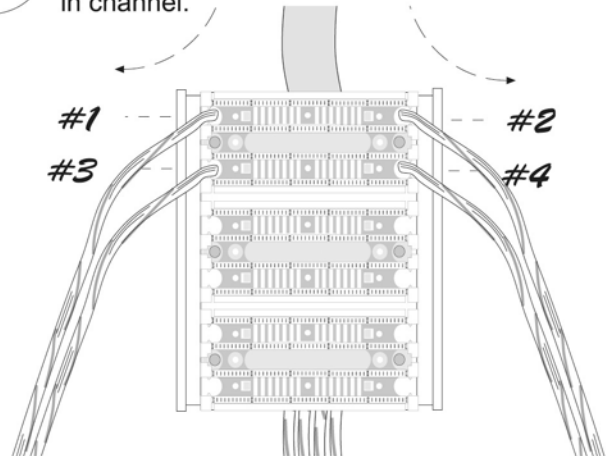
Identify cable positions on wall next to corresponding slots in block. Sort pair binders into 25-Pair groups.



Caution: Use pencil for marking.

3

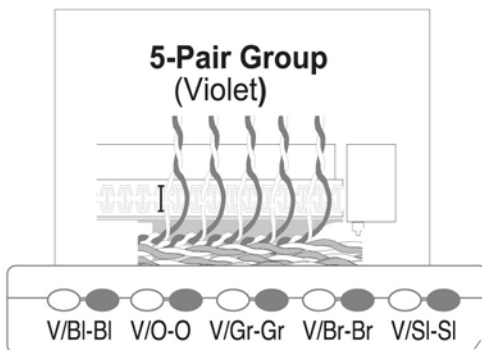
Following cable binders, route binder groups through appropriate slots in channel.



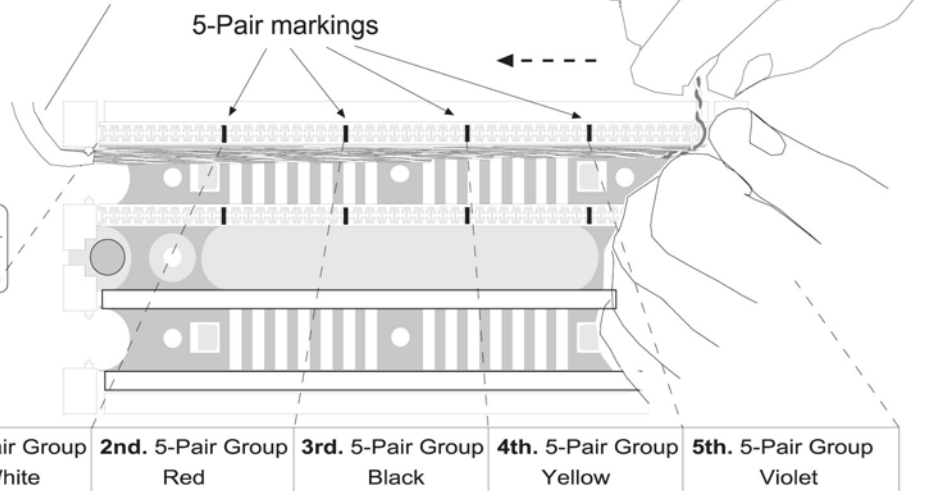
Wiring the Block

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.



25-Pair binder group



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.

Binder #1

(Odd numbered binder groups)

Pair #25

Pair #1

Binder #2

(Even numbered binder groups)

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



The top two rows are now ready for terminating!

6

After terminating the first two rows, select and install binders #3 and #4 in the same way as binders #1 and #2.

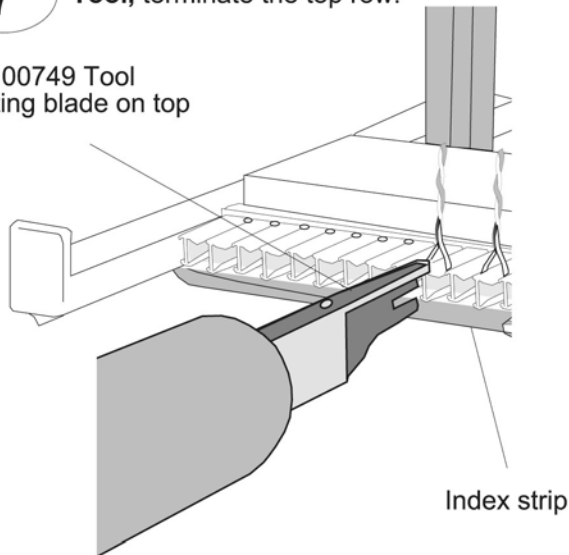
Note: All subsequent upper and lower rows are wired in the same sequence.

Terminating Multi-Pair Cable

7

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

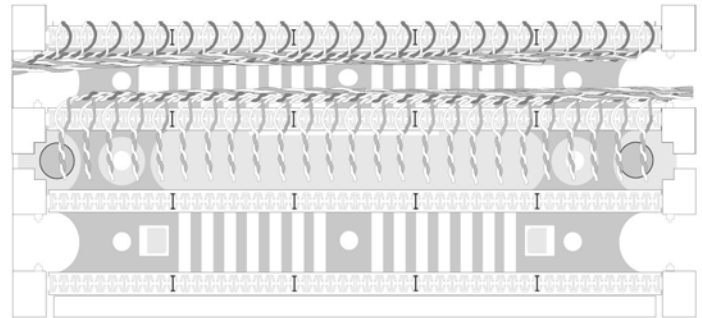
AX100749 Tool
Cutting blade on top



* or any commercially available 110 tool.

8

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



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

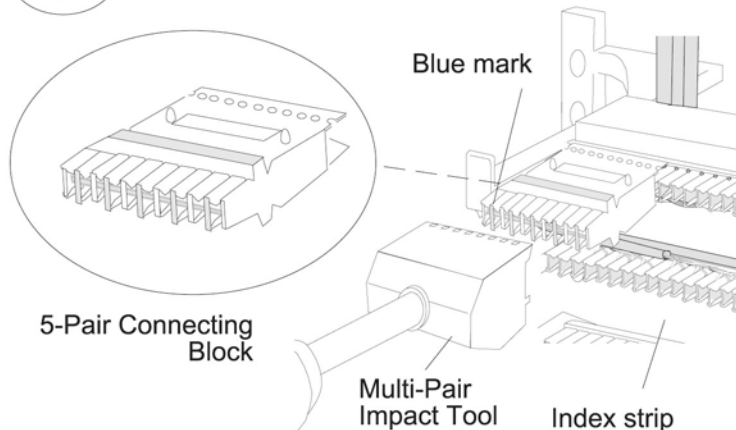


Terminate subsequent cables repeating all previous steps!

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 accidentally installed up-side-down!

Position and seat one block at a time.

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

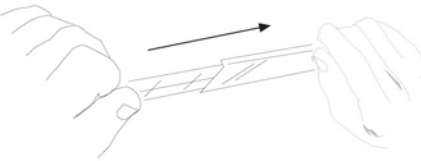
10

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

Preparing Labels

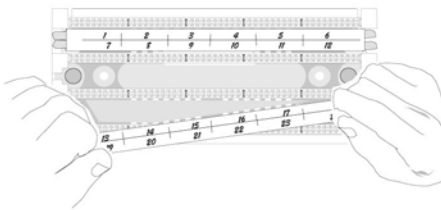
11

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



12

Snap designation strips into channels between upper and lower rows.



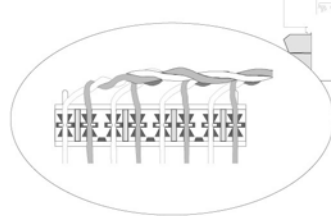
Terminating Jumper Wires

13

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



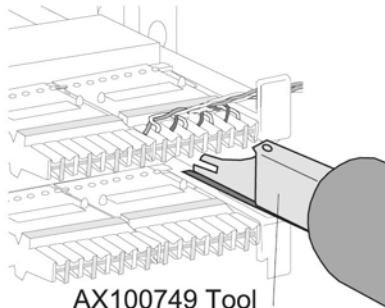
Do NOT use Multi-Pair Impact Tool to terminate cross-connect wires in connecting blocks.



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

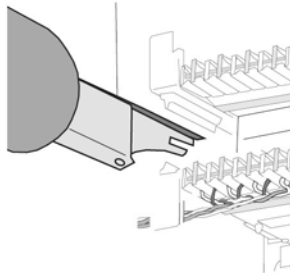
Connect jumpers using the **BELDEN 110 Connecting Tool**.



AX100749 Tool
Top Row: Cutting blade on bottom!

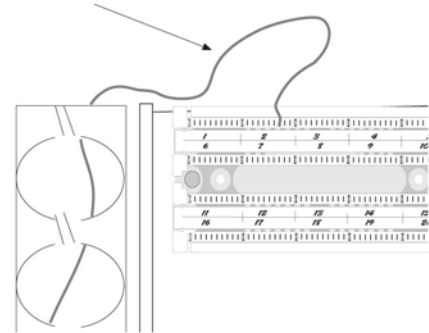
15

AX100749 Tool
Bottom Row: Cutting blade on top!



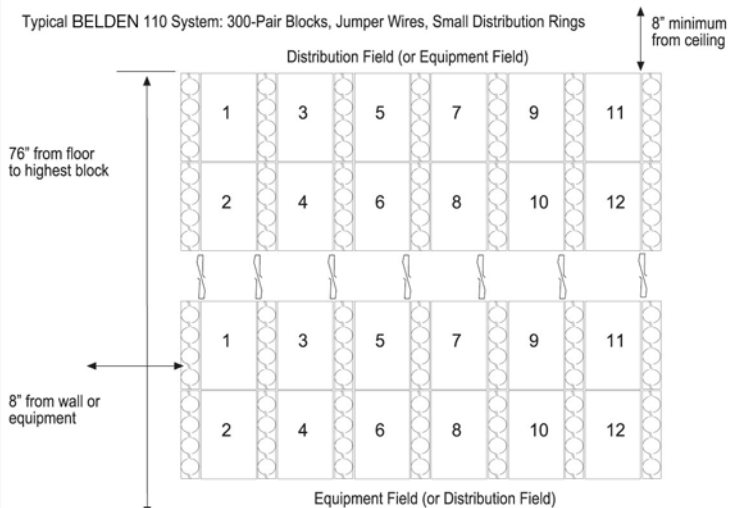
16

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



Field Connection: Jumper Wires

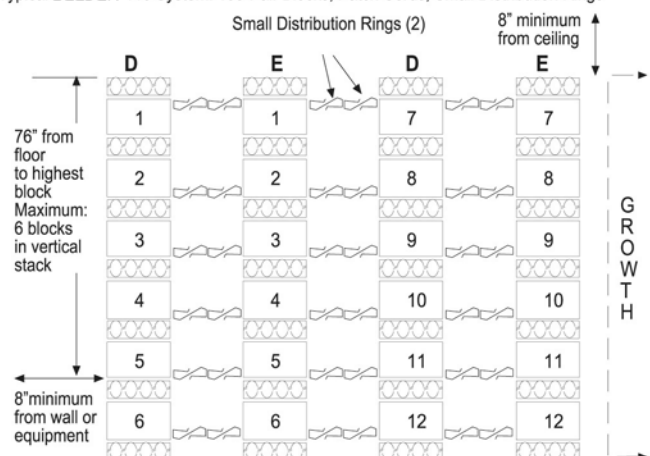
Typical BELDEN 110 System: 300-Pair Blocks, Jumper Wires, Small Distribution Rings



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

Field Connection: Patch Cords

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



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For additional technical information on our connecting products, call 1-800-858-7954

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