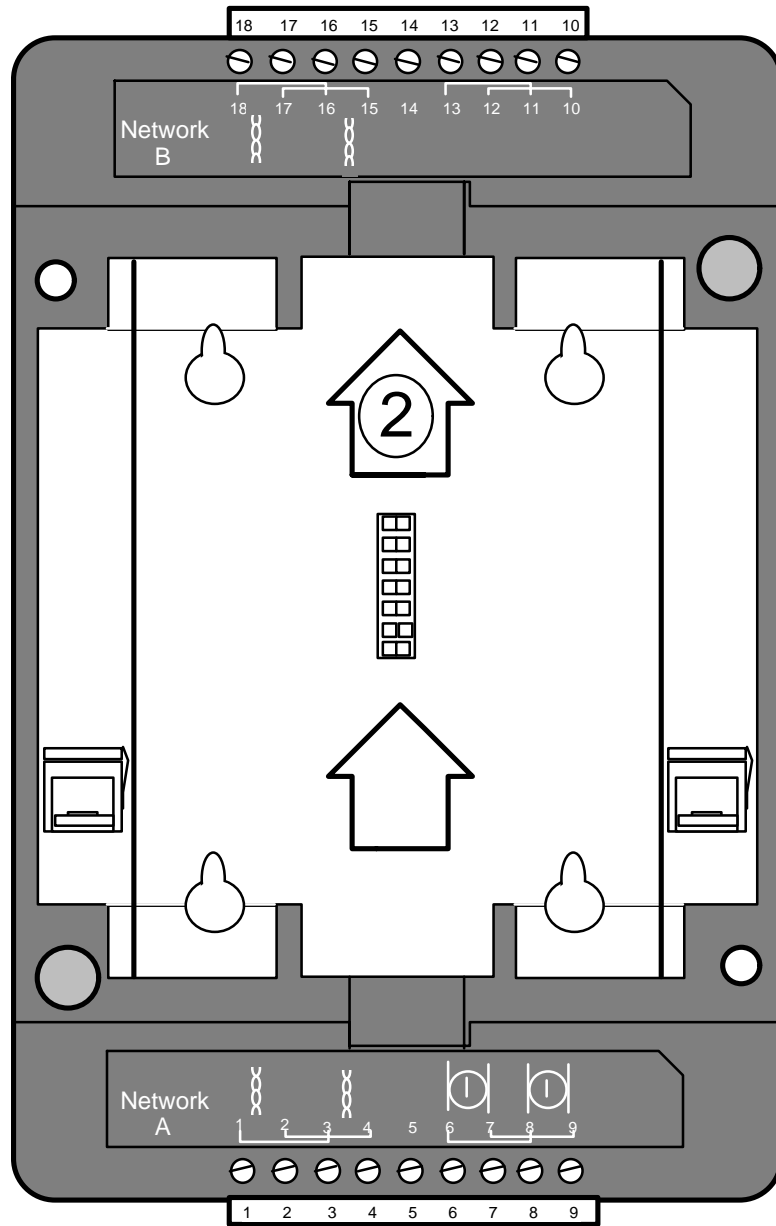

LonPoint Type 2D DIN Base Plate Installation

Figure 4.23 presents a detailed view of the front side of the base plate. The circuit board inside the Type 2D DIN Base Plate includes an arrow with the designation "2." The 2D Base Plate is intended to be installed either on a 35mm DIN rail or, using the integral keyhole slots, on a wall or panel. An arrow indicates the vertical orientation of the base plate which will provide the base viewing of the front panel legends of an installed LonPoint module.



Front View

Jumper Plug
(one supplied with
each DIN Base
Plate)

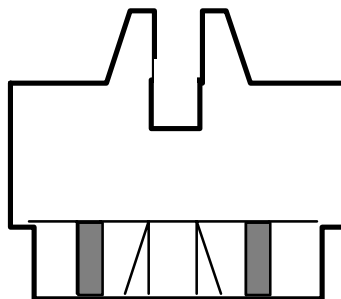


Figure 4.23 Front View of the Type 2D DIN Base Plate

The base plate contains two integral DIN rail locks which securely grab a 35mm DIN rail onto which the base plate is mounted. The Base Plate may be used on both 35mm x 7.5mm and 35mm x 15mm DIN rails. To release the Base Plate from the DIN rail, sequentially insert a flathead screwdriver into each DIN rail release tabs and gently pull away from the DIN rail (figure 4.24).

Four keyhole slots are provided for affixing the Type 2D DIN Base Plate to a wall or panel (figure 4.25).

The 2D Base Plate is supplied with a Jumper Plug that connects the power and network connections between adjacent base plates. The Jumper Plug is shipped inserted into the main cavity of the Base Plate, and can be removed by gently pulling the plug handle in the direction of the mounting arrow. The Jumper Plug **must** be removed before a LonPoint Router can be inserted into the Base Plate.

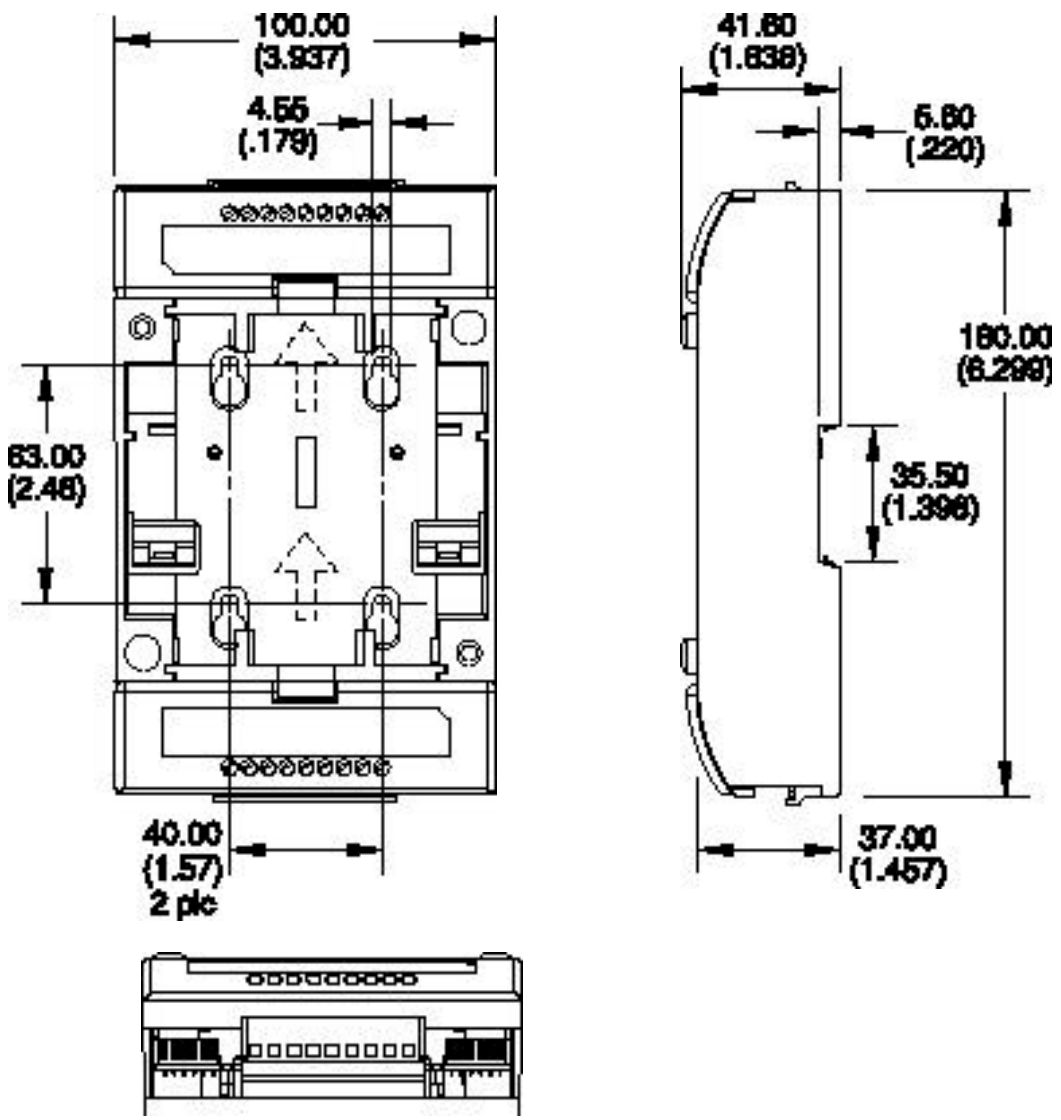


Figure 4.24 DIN Rail Base Plate Dimensions (Dimensions are in mm (inches).)

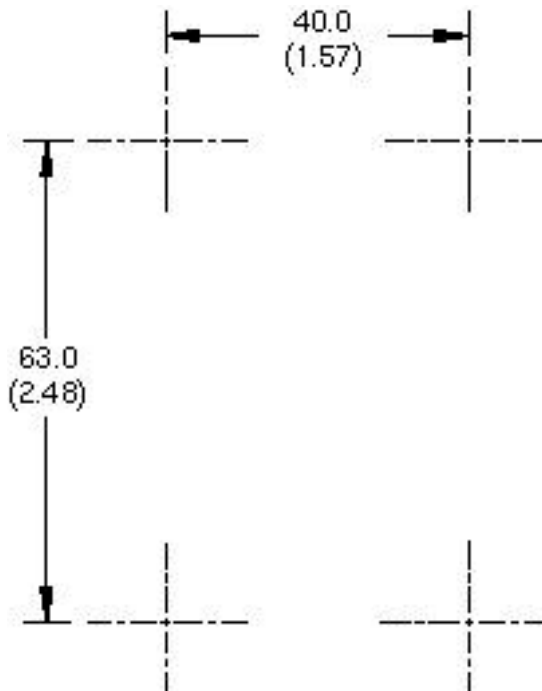


Figure 4.25 Mounting Hole Pattern Dimensions for Type 2D Base Plates

Connecting Wiring

Route all network and power cabling to the pertinent screw terminals located at the top and bottom of the Base Plate. It is good practice to separate any nearby input/output cabling as much as possible from the network and power cabling, especially if low-level analog signals are being supervised.

Strip the cable jacket and wire conductors. The base plate screw terminals will accept 24AWG (0.5mm) to 12AWG (2.2mm) wire, which should be stripped to a length of 0.32" (8mm). Although not required, it may be useful to use a soldering iron to tin the stripped lengths of any stranded wire to prevent fraying and inadvertent contact with adjacent terminals. Identifying screw terminal numbers are conveniently located both above and below each screw terminal. Symbols and/or language identifying the function of the screw terminals also are provided.



Note that terminals 1 to 9 are numbered from left to right, but terminals 10 to 18 are numbered from right to left.

The optimum tightening torque for the screw terminals is approximately 4 pounds (0.5Nm). The ideal flathead screwdriver tip width is 3/32" (2.5mm).

Table 4.4 Type 2D Base Plate Terminal Block Connections

<i>Terminal Number</i>	<i>Function</i>
1 -4	Network A
5	Cable shield, if used, internally connected to terminal 14
6 - 9	Power
10 and 12	None Jumpered together internally, may be used to land extra wires
11 and 13	None Jumpered together internally, may be used to land extra wires
14	Cable shield, if used, internally connected to terminal 5
15 - 18	Network B

Two sets of screws are provided for both the power and network wiring connections. These connections are internally jumpered on the Type 2D Base Plate PCB to provide continuity of the network and power wiring, even if no LonPoint module is installed, as shown in figure 4.26. This feature permits the Base Plate wiring to be pre-installed and the network and power circuits checked for continuity throughout the installation, before a single LonPoint module is ever installed. This feature also prevents network and power interruptions as a result of hot-swapping LonPoint modules during commissioning or service operations. Finally, providing two sets of screw terminals permits incoming and outgoing to be landed at separate screw terminals without the need to insert more than one wire in any given screw terminal.

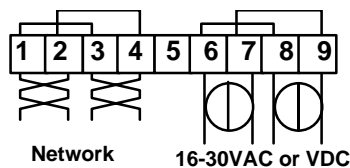


Figure 4.26 Base Plate Power and Network Wiring Connections

Connecting the Jumper Plug(s)

From time to time it may be necessary to mount two or more LonPoint Type 1D or 2D Base plates adjacent to one another. When this happens, power and network wiring must be daisy-chained between each Base Plate. Routing power and network wiring between multiple Base Plates can be a laborious and time consuming task, and there is always the risk of a wiring error. For this reason, the Type 1D and 2D Base Plates are each supplied with a Jumper Plug and Jumper Plug connectors which simply and easily bus the power and network between adjacent Base Plates.

The Jumper Plug connectors are located on either side of the terminal block with connections 1 to 9. The Jumper Plug connectors are wired in parallel with the network and power connections on the screw terminals. When two base plates are mounted adjacent to each other, with the mounting arrows pointing in the same direction, the Jumper Plug connectors will be aligned such that a Jumper Plug may be inserted into the two adjacent connectors thus bridging power and network between the two Base Plates (figure 4.27).

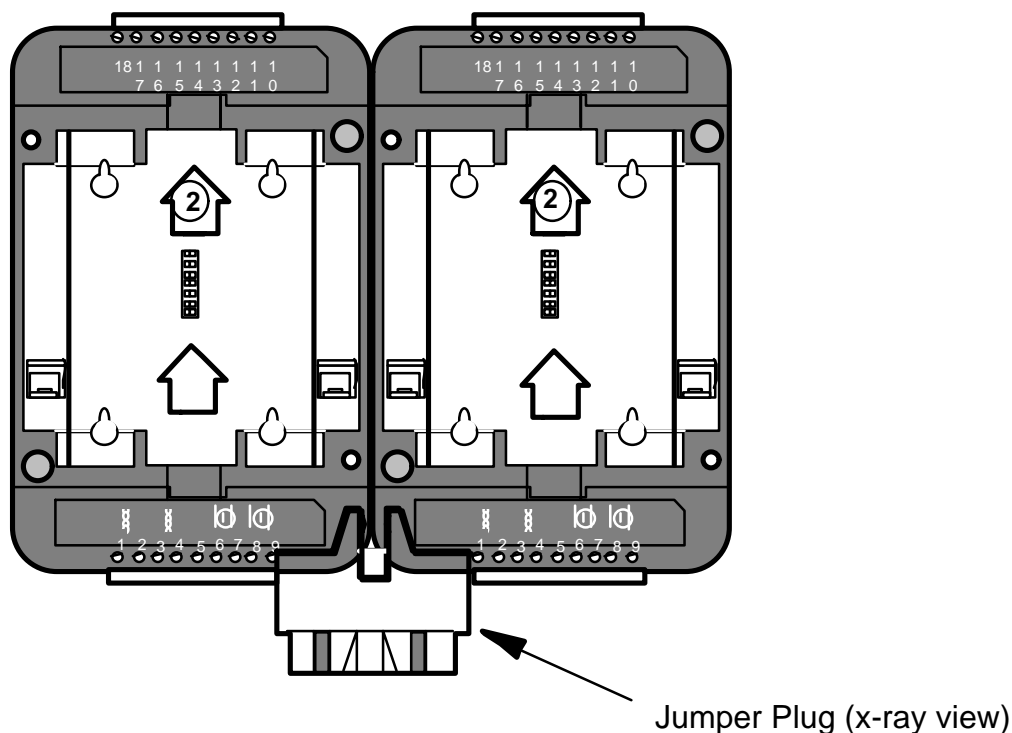


Figure 4.27 Jumper Plug Insertion Points for Type 2D Base Plates

There are restrictions about the placement of a Type 2D Base Plate relative to other Type 1D or Type 2D Base Plates to which it will be connected via Jumper Plugs. In all cases, any Type 2D Base Plates must be located to the left side of other Type 2D Base Plates (figure 4.28).

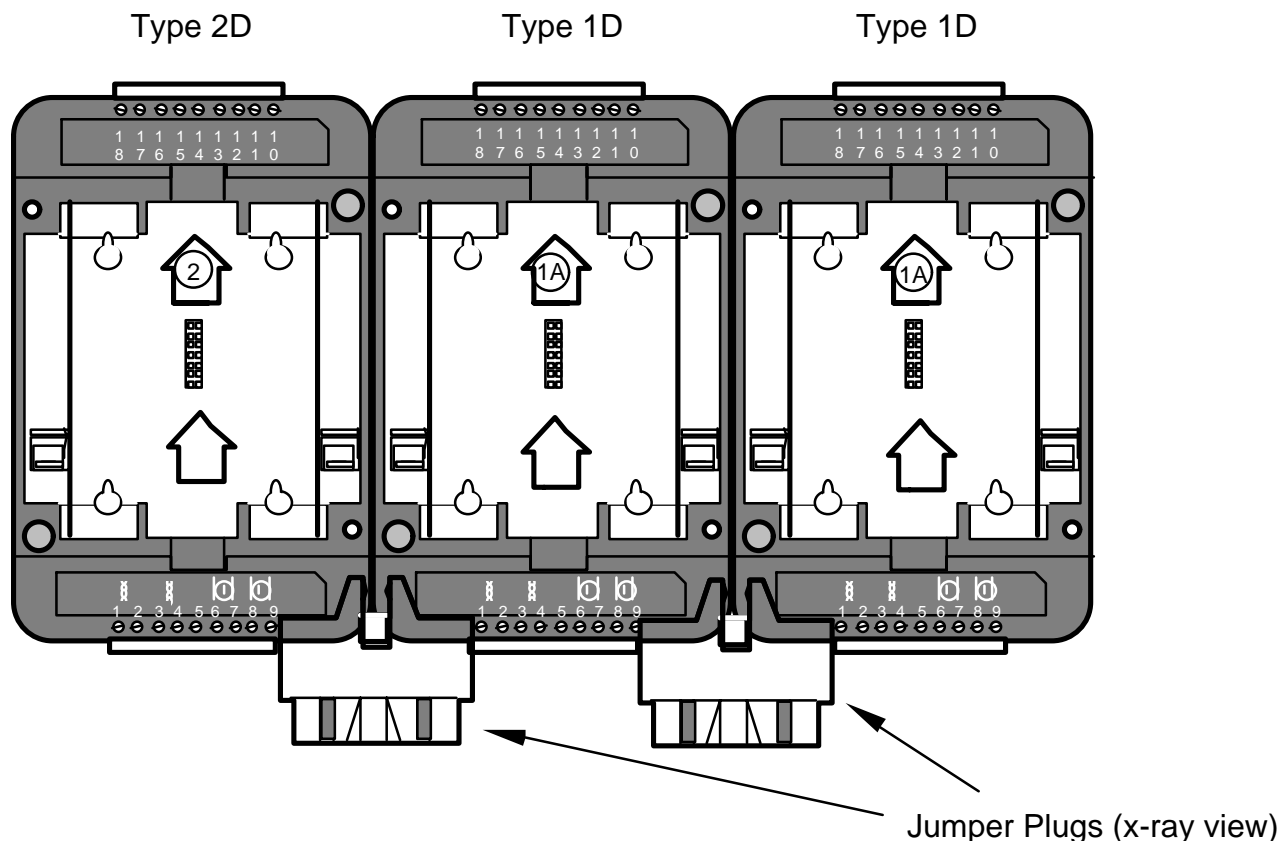


Figure 4.28 Locate the Type 2D Base Plate to the Left of Type 1D Base Plates

Type 1D Base Plates must be located to the right of any router in a Type 2D Base Plate with which they share a common channel. The reason for this limitation is that only the right Jumper Plug connector on a Type 2D Base Plate bridges the network connection, the left Jumper Plug connector on a Type 2D Base Plate bridges only the power connection. This arrangement permits several routers, each with a different channel type, to be connected to a common power supply. Figure 4.29 shows mounting configurations that are problematic and **must be avoided** because the router will be unable to communicate with the other LonPoint modules.

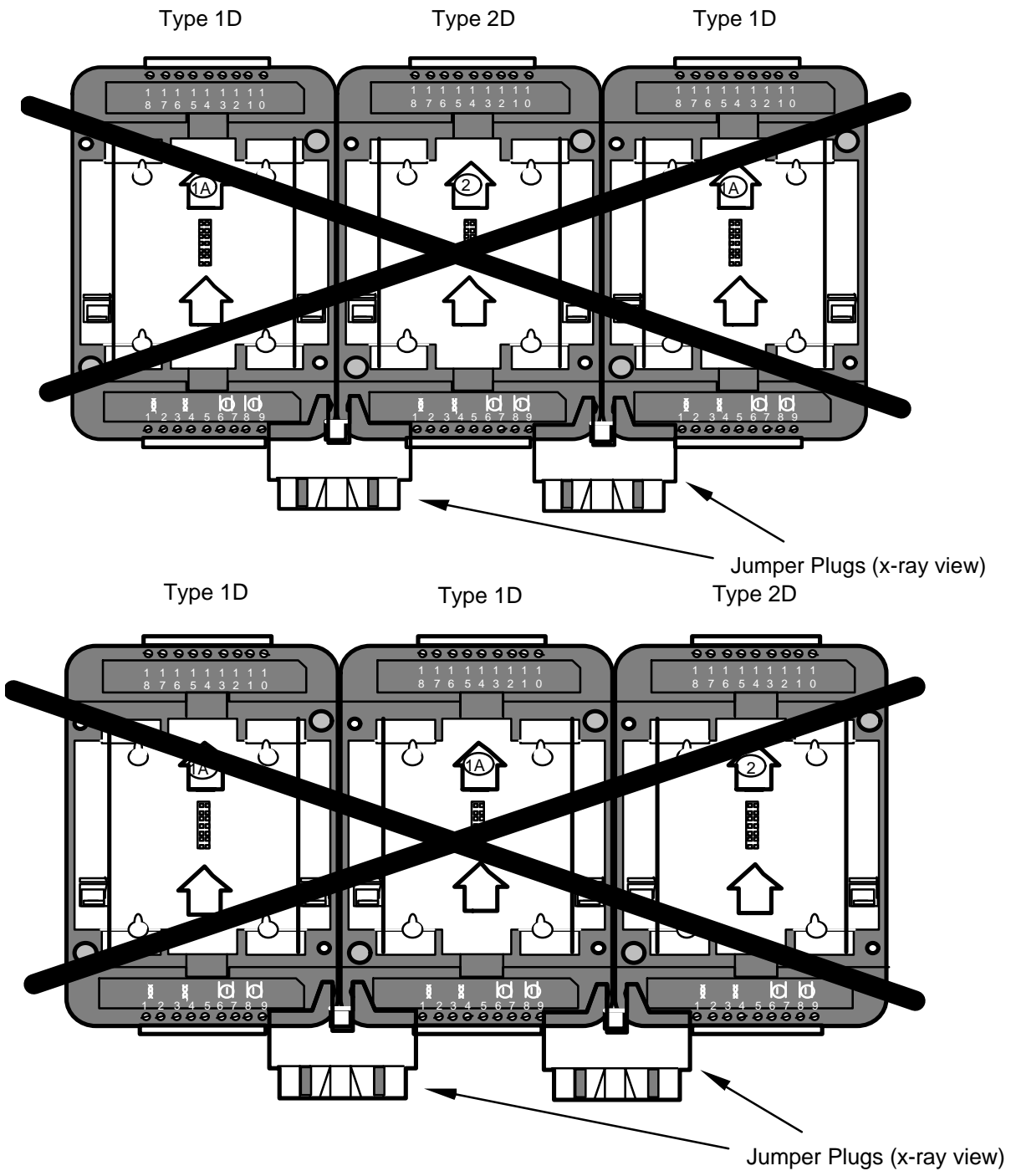


Figure 4.29 Problematic Mounting Configurations when Using Routers