OPTO 22

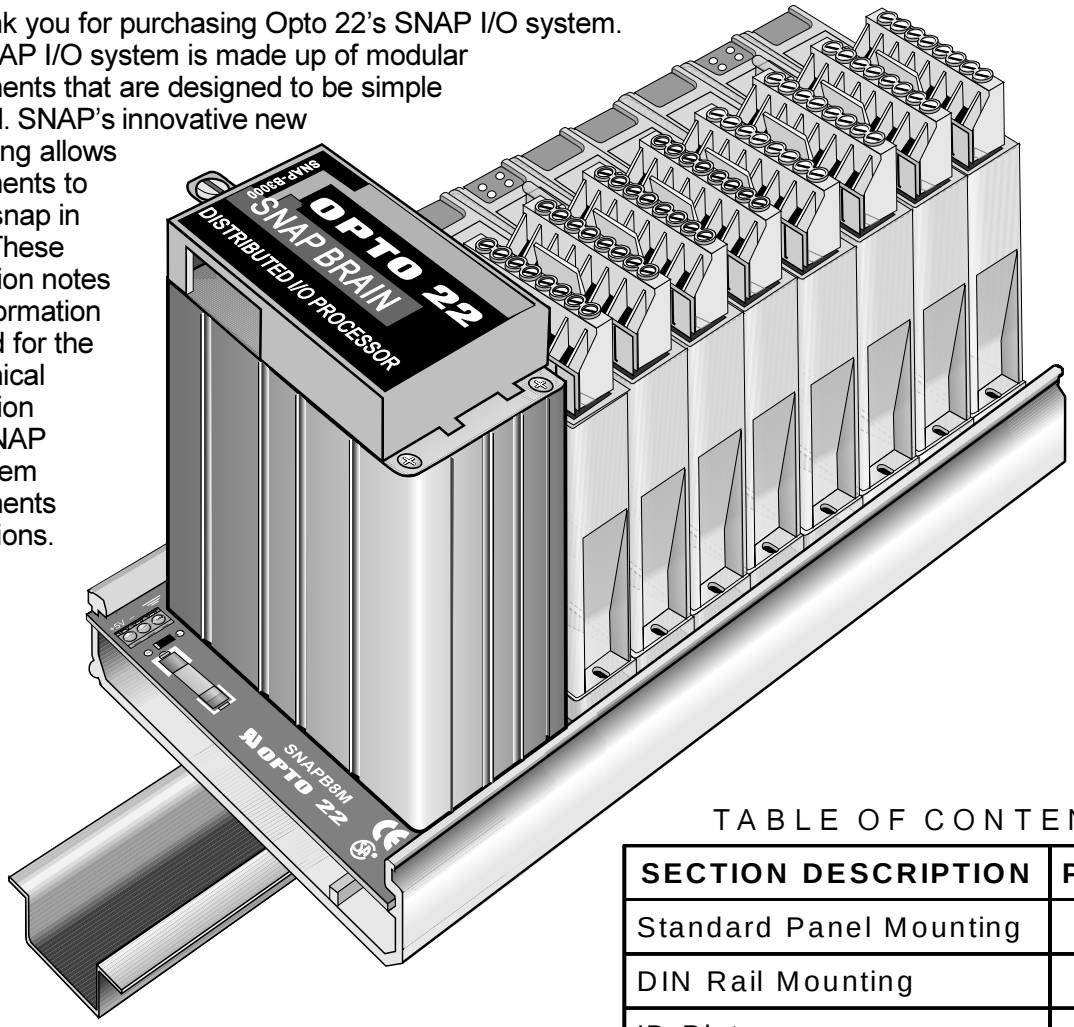
SNAP I/O MOUNTING RACKS D SERIES AND B SERIES

INSTALLATION NOTES

ALL MODELS

Form 776-960801

Thank you for purchasing Opto 22's SNAP I/O system. The SNAP I/O system is made up of modular components that are designed to be simple to install. SNAP's innovative new packaging allows components to simply snap in place. These installation notes give information required for the mechanical installation of all SNAP I/O system components and options.



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Note: If you are using the DIN rail mounting option, skip over the section on standard panel mounting. Refer to extrusion dimensional drawing only to determine appropriate clearance for circuit board and ID plate options.

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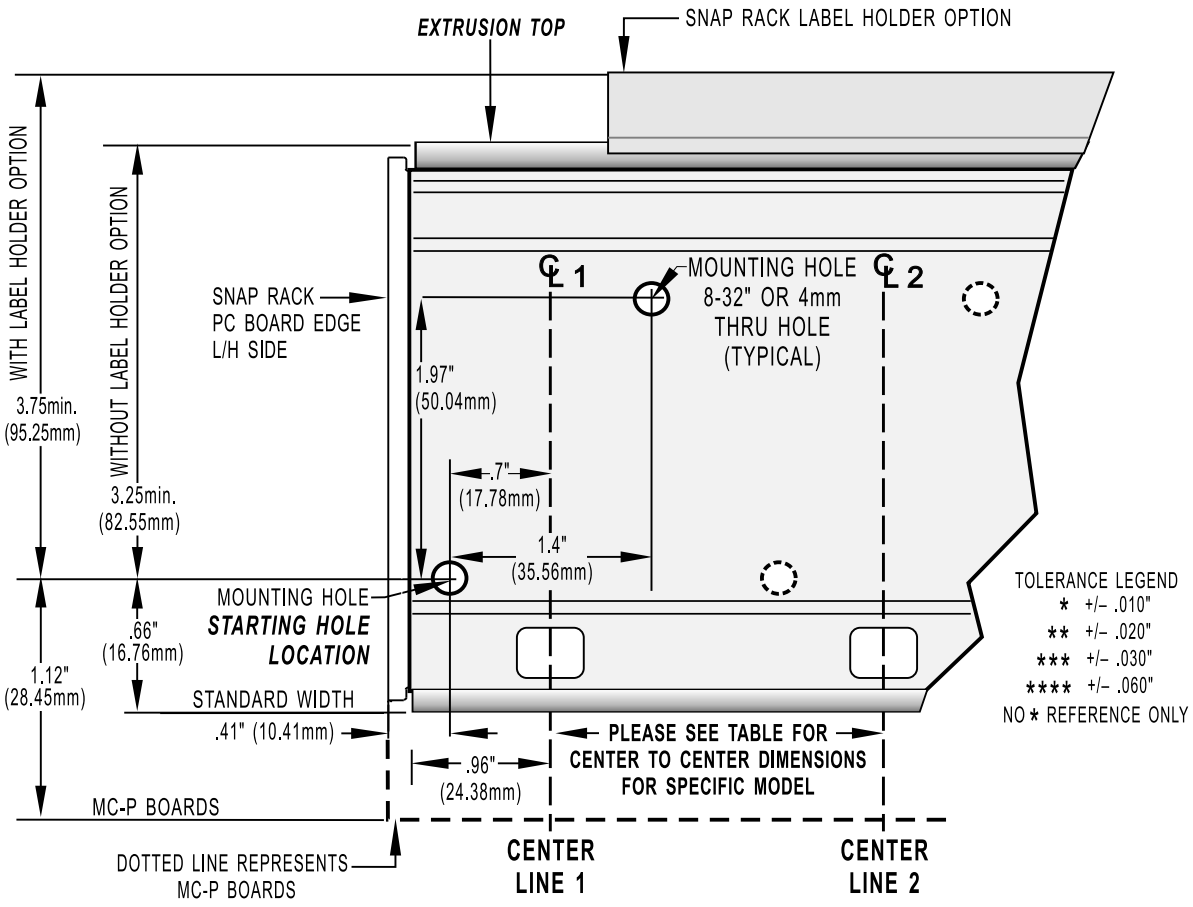
installation STANDARD PANEL MOUNTING

TYPICAL PLAIN VIEW OF SNAP MOUNTING EXTRUSION



GENERAL:
The SNAP rack assembly should be mounted horizontally, as shown in diagram if not using module hold-down screws.

Preferred Method: Template
(product on site)
1. Use SNAP rack mounting extrusion as template.
2. Be sure to use drawing to determine required product and option clearances.

Alternate Method: Prefabrication of panels
(no product on site)
1. Mounting holes are in sets of two located on lower left and upper right, with respect to a centerline (CL).
2. Using the drawing, determine (CL_1) mounting hole positions. (CL_1 is located on the left side of all SNAP rack mounting extrusions).
3. Use the center-to-center length specification table on following page to determine offset between centerlines and number of centerline positions for each model.
4. Repeat process for each centerline position.
5. Dimensions shown in drawing apply to all models.

installation STANDARD PANEL MOUNTING (CONTINUED)

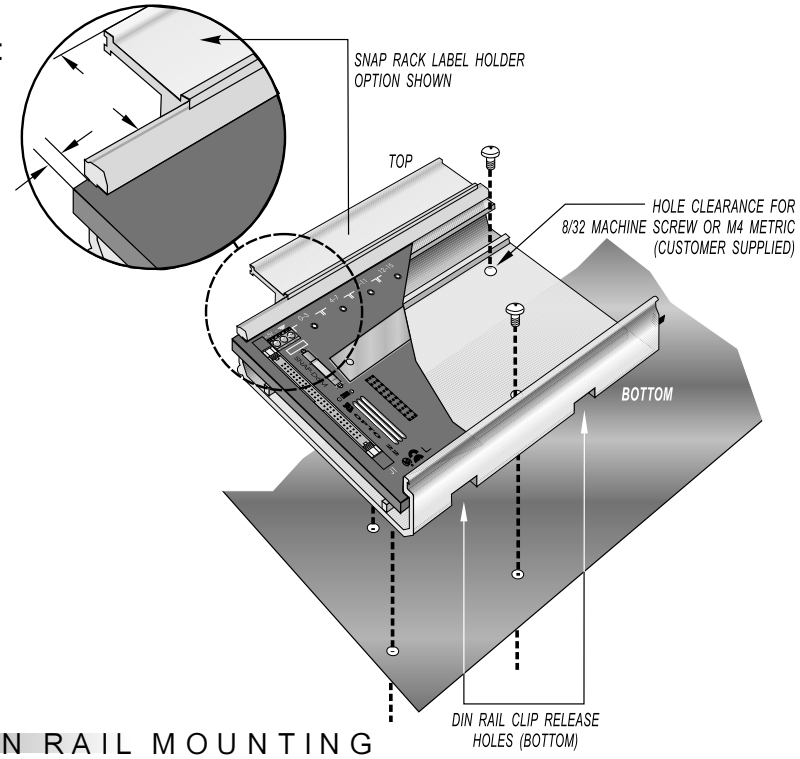
Center-to-Center Length (All SNAP Rack Models)
(see drawing on previous page)

Description	Part Number	Center to Center Length	# of Center Positions
SNAP I/O Mounting Rack: Digital 4-module rack with header connector	SNAP-D4M	1.98"	2
SNAP I/O Mounting Rack: Digital 4-module rack with header connector. Common terminal block	SNAP-D4MC	1.98"	2
SNAP I/O Mounting Rack: Digital 4-module rack with header connector. Common terminal block pluggable	SNAP-D4MC-P	1.98"	2
SNAP I/O Mounting Rack: Digital 6-module rack with header connector	SNAP-D6M	3.53"	2
SNAP I/O Mounting Rack: Digital 6-module rack with header connector. Common terminal block	SNAP-D6MC	3.53"	2
SNAP I/O Mounting Rack: Digital 6-module rack with header connector. Common terminal block pluggable	SNAP-D6MC-P	3.53"	2
SNAP I/O Mounting Rack: Digital 8-module rack with header connector	SNAP-D8M	5.53"	2
SNAP I/O Mounting Rack: Digital 8-module rack with header connector. Common terminal block	SNAP-D8MC	5.53"	2
SNAP I/O Mounting Rack: Digital 8-module rack with header connector. Common terminal block pluggable	SNAP-D8MC-P	5.53"	2
SNAP I/O Mounting Rack: Digital 12-module rack with header connector	SNAP-D12M	4.26"	3
SNAP I/O Mounting Rack: Digital 12-module rack with header connector. Common terminal block	SNAP-D12MC	4.26"	3
SNAP I/O Mounting Rack: Digital 12-module rack with header connector. Common terminal block pluggable	SNAP-D12MC-P	4.26"	3
SNAP I/O Mounting Rack: 8-module rack with SNAP brain connector	SNAP-B8M	3.51"	3
SNAP I/O Mounting Rack: 8-module rack with SNAP brain connector. Common terminal block	SNAP-B8MC	3.51"	3
SNAP I/O Mounting Rack: 8-module rack with SNAP brain connector. Common terminal block pluggable	SNAP-B8MC-P	3.51"	3
SNAP I/O Mounting Rack: 12-module rack with SNAP brain connector	SNAP-B12M	5.01"	3
SNAP I/O Mounting Rack: 12-module rack with SNAP brain connector. Common terminal block	SNAP-B12MC	5.01"	3
SNAP I/O Mounting Rack: 12-module rack with SNAP brain connector. Common terminal block pluggable	SNAP-B12MC-P	5.01"	3
SNAP I/O Mounting Rack: 16-module rack with SNAP brain connector	SNAP-B16M	4.34"	4
SNAP I/O Mounting Rack: 16-module rack with SNAP brain connector. Common terminal block	SNAP-B16MC	4.34"	4
SNAP I/O Mounting Rack: 16-module rack with SNAP brain connector. Common terminal block pluggable	SNAP-B16MC-P	4.34"	4

installation STANDARD PANEL MOUNTING (CONTINUED)

To install extrusion onto panel:

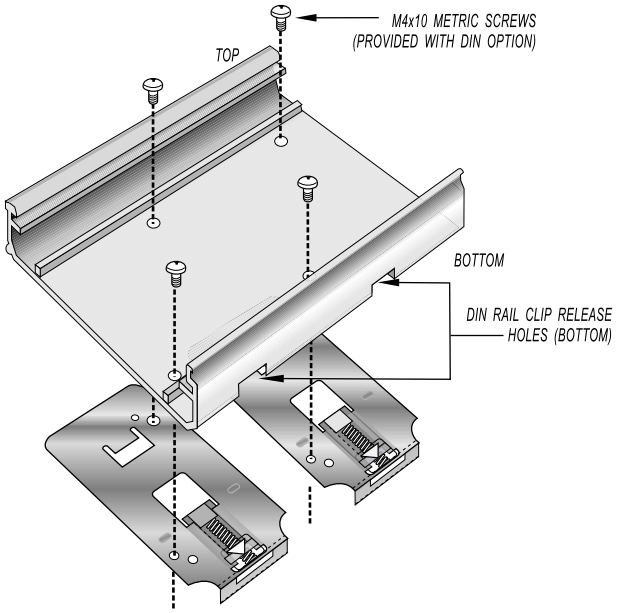
1. Use dimensional drawing to layout your panel, or use extrusion as a template to mark positions for mounting holes on panel (DIN rail clip release holes indicate the bottom of the extrusion).
2. Align screw holes on extrusion with holes on panel.
3. Install screws as shown.



installation options DIN RAIL MOUNTING

To install DIN rail clip onto extrusion:

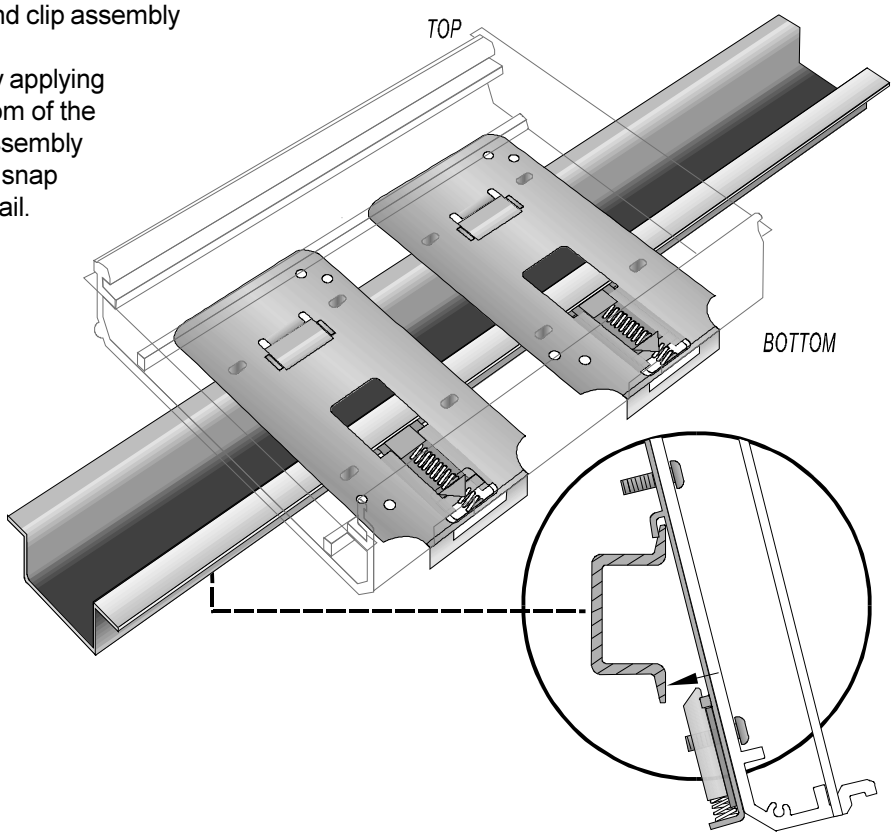
1. Align screw holes on DIN rail clip with screw holes on plastic extrusion, as shown in diagram.
2. Install screws as shown.



installation options DIN RAIL MOUNTING (CONTINUED)

To install extrusion and DIN rail clip assembly onto DIN rail:

1. Hang fixed end of the DIN rail clip over top edge of DIN rail, as shown in diagram.
2. Position extrusion and clip assembly flat against DIN rail.
3. Snap into position by applying pressure to the bottom of the extrusion and clip assembly so that DIN rail clips snap over bottom of DIN rail.

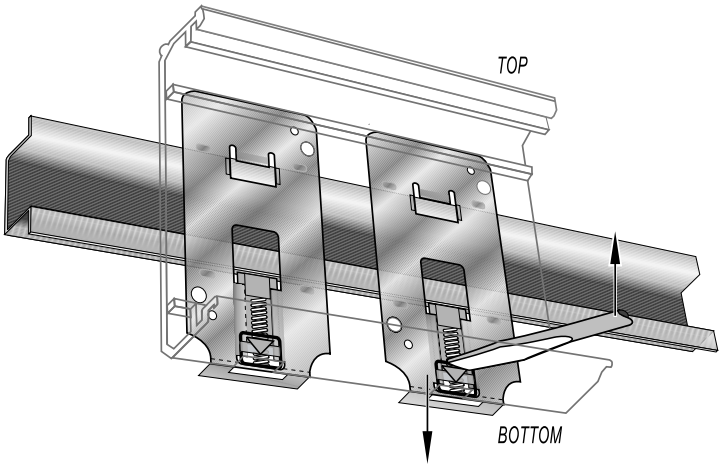


installation options DIN RAIL MOUNTING (CONTINUED)

Method 1

To remove extrusion and DIN rail clip assembly:

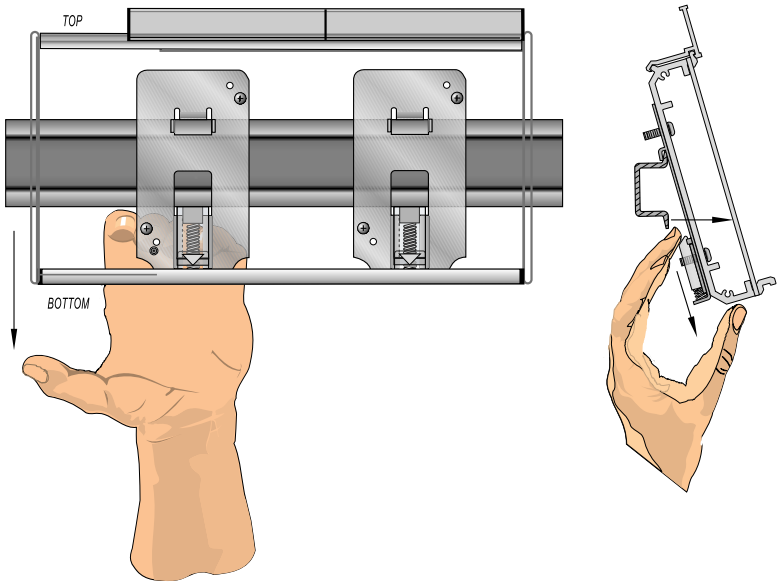
1. Remove circuit board and modules from extrusion.
2. The DIN rail adapter clips may be released by using a screwdriver or similar device as shown.
3. Flex bottom of extrusion and DIN rail clip assembly away from DIN rail as each clip is released. Do this until all clips are released.



Method 2

To remove extrusion and DIN rail clip assembly:

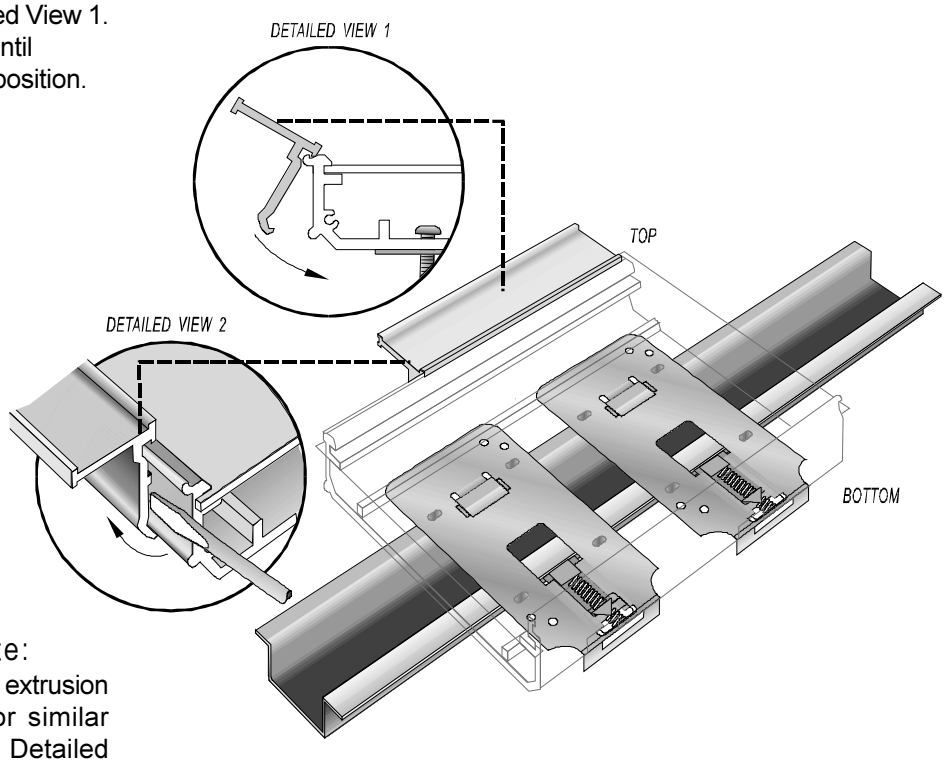
1. The DIN rail adapter clips may be released by hand as shown.
2. Flex bottom of extrusion and DIN rail clip assembly away from DIN rail as each clip is released. Do this until all clips are released.



installation options ID PLATE

To install ID plate onto extrusion:

1. Align ID plate with extrusion, as shown in Detailed View 1.
2. Press on ID plate until bottom snaps into position.



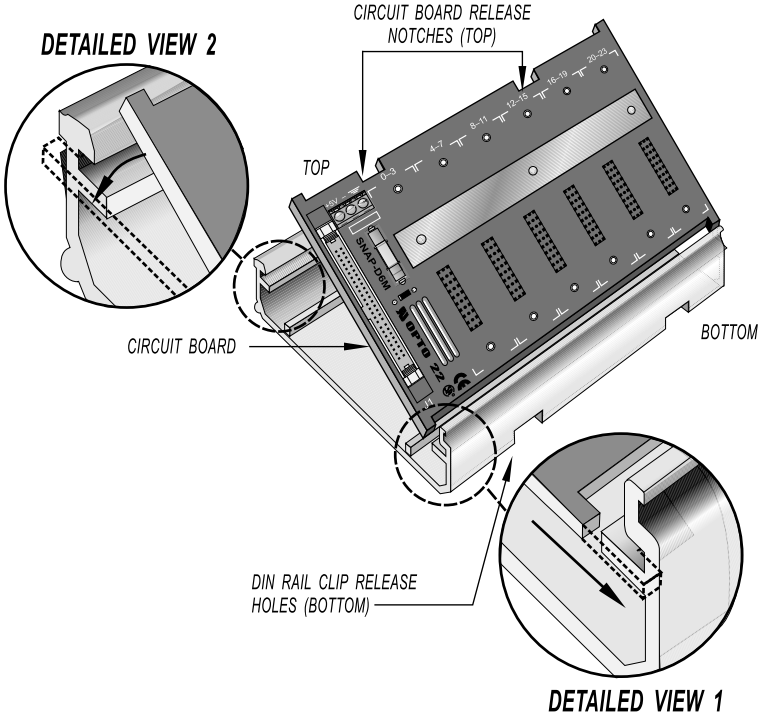
To remove ID plate:

Separate ID plate from extrusion with a screwdriver or similar device, as shown in Detailed View 2.

assembly CIRCUIT BOARD

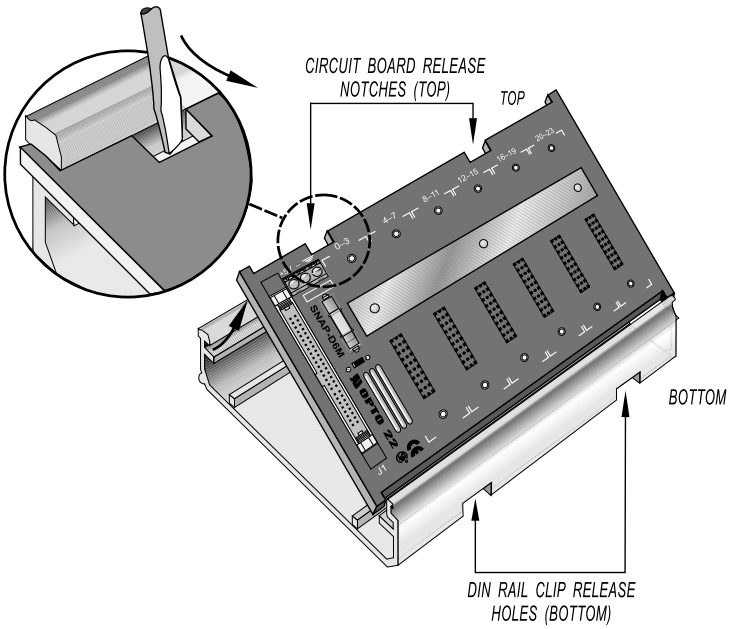
To install PC board into rack extrusion:

1. With the DIN rail clip release holes at the bottom of the extrusion, orient circuit board with the module connectors at the bottom and the circuit board release notches on the circuit board at the top.
2. Align bottom edge of circuit board with top groove in extrusion above DIN rail clip release holes, as shown in Detailed View #1.
3. Press top of circuit board against extrusion to snap into groove on top side of the extrusion, as shown in Detailed View #2.



To remove PC board from rack extrusion:

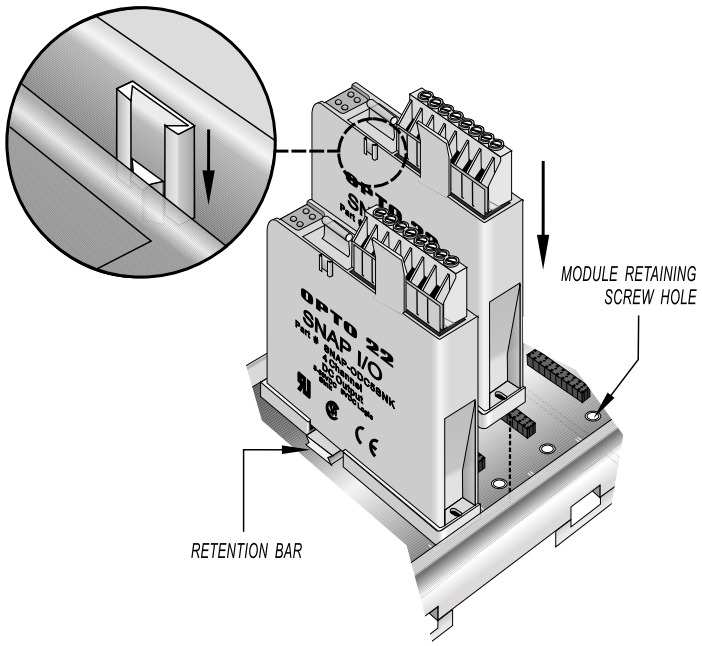
1. Insert flathead screwdriver into circuit board release notch and separate circuit board from extrusion, as shown in diagram.
2. Repeat this process for each circuit board release notch until board is free from extrusion.



assembly MODULE

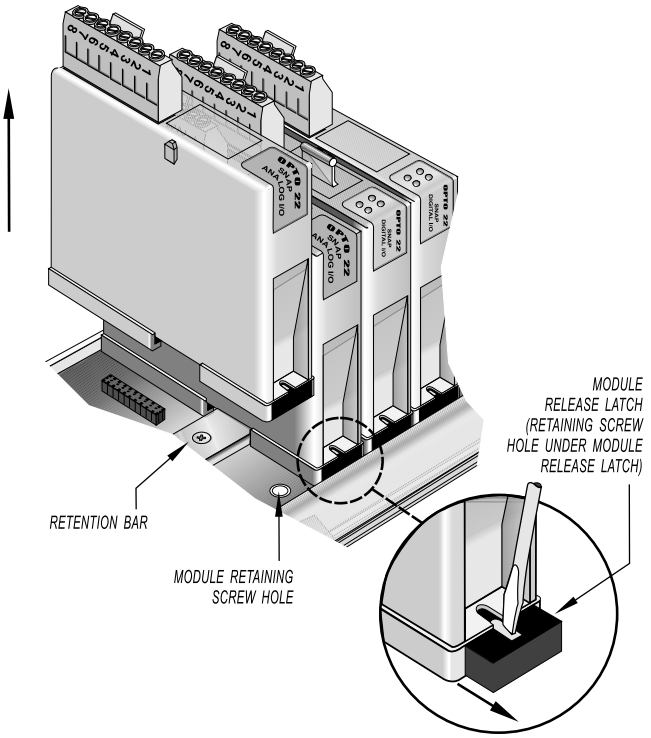
To install modules onto circuit board:

1. Position module over connector, aligning slot into module base with retention bar on circuit board. Push straight down on module. Module will snap into position.
2. When positioning modules next to each other, be sure to align the male and female module keys before snapping into position, as shown in detailed view.



To remove module from circuit board:

1. Retract and hold release latch on module base with a screwdriver or similar device as shown in detailed view. NOTE: Be careful not to insert removal tool into retaining screw hole in circuit board located under module release latch.
2. Pull straight up on the module.



assembly BRAIN BOARD

To install B3000 I/O processor onto B Series rack:

1. Loosen captive screw on cover.
2. Remove cover, and align B3000 processor connector with mating connector on rack.
3. Seat processor onto connector.
4. Use integral hold-down screw to secure in position.
   DO NOT OVERTIGHTEN!

To remove brain board from B Series rack:

1. Loosen captive screw and remove cover.
2. Loosen integral hold-down screw on B3000 processor.
3. Pull up on processor.