SNAP TEX Mounting/Wiring Tools and Spare Parts

Features

- ❯ Securely mount SNAP I/O racks, controllers, and power supplies to DIN rails
- ❯ Easily jumper 4-channel digital I/O modules
- ❯ Commission high-density digital modules
- ❯ Replace lost or damaged parts
- ❯ Use legacy and current brains and mounting racks together

SNAP TEX Family

Description

SNAP TEX mounting and wiring tools and spare parts are all part of the SNAP TEX family of wiring and mounting accessories. The parts in this data sheet are used for:

- Securely mounting SNAP I/O racks, controllers, power supplies, and other devices on DIN rails
- Wiring and commissioning SNAP I/O modules
- Replacing lost or damaged parts
- Adapting legacy parts to newer SNAP PAC parts

For cables and breakout boards in the SNAP TEX family, see form #1756, the *SNAP TEX Cables and Breakout Boards Data Sheet*.

DIN-Rail Mounting Clips and Kits

Opto 22 SNAP I/O mounting racks, controllers, power supplies, breakout boards, etc. can be panel mounted or DIN-rail mounted. For DIN-rail mounting, these clips and kits adapt the bottom of the hardware to attach securely to DIN rails.

Choose the kit or clips you need based on the table on .

Operator Interface for SNAP HDD Modules

The **OptoTerminal-G20** makes it easier to commission and troubleshoot SNAP high-density digital (HDD) modules such as the SNAP-IAC-16 and the SNAP-ODC-32-SRC.

The OptoTerminal-G20 displays the status of a high-density digital module's points on a two-line LCD display and can also be used to turn output points on and off. See Opto 22 form 1547, the *SNAP High-Density Digital Modules User's Guide*, for more details.

Part Numbers

Part	Description
DIN-Rail Mounting	
SNAP-PSDIN	DIN-rail adapter kit for most SNAP power supplies and controllers
SNAP-PSUDIN	DIN-rail adapter kit for large-footprint SNAP power supplies
SNAP-ROKDIN	DIN-rail adapter kit for SNAP-PAC-SRA or SNAP-RPSW
SNAP-TEX-DRC10	SNAP PAC rack DIN-rail adapter clip, 10-pack
SNAP-TEX-REC10W	Wide end cap for SNAP PAC racks DIN-rail assemblies, 10-pack
SNAP-TEX-REC10N	Narrow end cap for SNAP PAC racks DIN-rail assemblies, 10-pack
SNAP-S2DIN	DIN-rail adapter kit for SNAP-PAC-S2
SNAP-LCM4DIN	DIN-rail adapter kit for SNAP-LCM4
SNAP-CDBBDIN	DIN-rail adapter kit for classic digital brain boards (E1, B1, B5, B100)
Other Tools and Parts	
OPTOTERMINAL-G20	Operator interface for commissioning SNAP high-density digital modules
SNAP-STRAP	Jumper strap for digital I/O modules
SNAP-WIRESTRAP	Jumper connector for digital I/O modules
SNAP-MODTOOL	SNAP I/O module removal tool, 10-pack
SNAP-FIELDCONB	SNAP module field connector, 10-pack
SNAP-RCK-B2M	Adapter for using legacy SNAP brain on SNAP PAC or M-series racks
SNAP-RCK-M2B	Adapter for using SNAP PAC or SNAP M brains on SNAP B-series racks
SNAP-MR10	Mechanical relay replacement for breakout boards, 10 A

SNAP TEX Mounting/Wiring Tools and Spare Parts

DIN-Rail Clips and Kits

Use the DIN-rail adapter for the SNAP product you have:

For these SNAP products		Clips needed	Use this adapter clip	Use this end cap
Power Supplies				
SNAP-PS5 SNAP-PS24	SNAP-PS5-24DC	1 kit	SNAP-PSDIN	N/A
SNAP-PS5U	SNAP-PS24U	1 kit	SNAP-PSUDIN	N/A
Controllers				
SNAP-PAC-S1 SNAP-PAC-S1-W	SNAP-PAC-S1-FM	1 kit	SNAP-PSDIN	N/A
SNAP-PAC-S2	SNAP-PAC-S2-W	1 kit	SNAP-S2DIN	N/A
Mounting Racks				
SNAP-PAC-RCK4	SNAP-PAC-RCK4-FM	2 clips	SNAP-TEX-DRC10* (10 clips in package)	SNAP-TEX-REC10W* (10 in package; use 2 per rack)
SNAP-PAC-RCK8 SNAP-PAC-RCK8-FM	SNAP-PAC-RCK12 SNAP-PAC-RCK12-FM	3 clips		
SNAP-PAC-RCK16	SNAP-PAC-RCK16-FM	4 clips		
Breakout Boards				
SNAP-AIMA-HDB SNAP-AIMA-HDB-FM SNAP-AIV-HDB SNAP-AIV-HDB-FM SNAP-IDC-HDB	SNAP-IDC-HDB-FM SNAP-TEX-32 SNAP-TEX-FB16-H SNAP-TEX-FB16-L SNAP-TEX-MR10-4	2 clips	SNAP-TEX-DRC10* (10 clips in package)	SNAP-TEX-REC10N* (10 in package; use 2 per board)
SNAP-ODC-HDB SNAP-ODC-HDB-FM	SNAP-SCM-BB4 SNAP-TEX-MR10-16	3 clips		
Other SNAP Devices				
SNAP-PAC-SRA	SNAP-RPSW	1 kit	SNAP-ROKDIN	N/A

* Requires the black plastic extrusion that comes with new racks and boards. Older racks and boards have a light-colored plastic extrusion. The black plastic extrusion is not sold separately. It is included with a new board or rack.
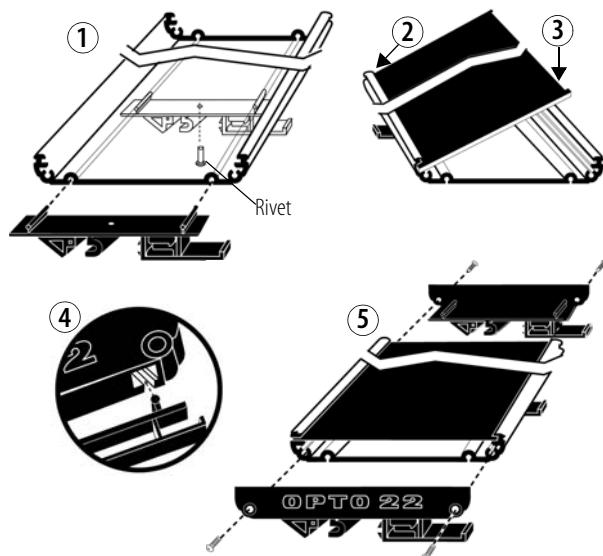

SNAP-PSDIN

SNAP-TEX-REC10W

SNAP-TEX-DRC10
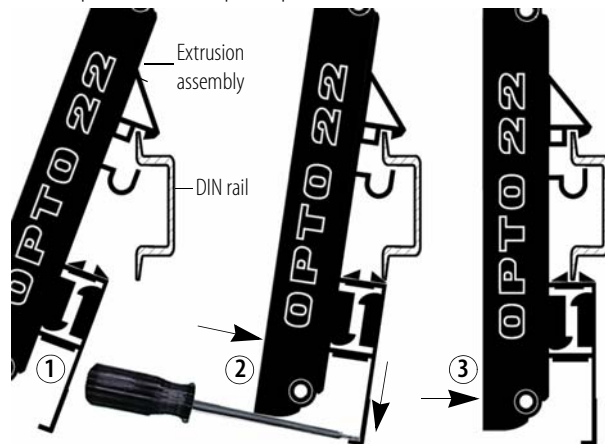
SNAP TEX Mounting/Wiring Tools and Spare Parts

Installing SNAP-Rack DIN-Rail Clips

1. (This step only for racks with three or more clips.) Slide one DIN clip to the middle position and secure with the rivet provided. For racks with four clips, add an additional middle clip.

2. Insert one edge of the circuit board into the extrusion.

3. Push down hard on the other edge to snap the board into place.

4. Attach one DIN clip to each end cap using the slots in the end caps as shown.

5. Using the screws provided, secure an end cap and DIN clip assembly to each end of the extrusion.
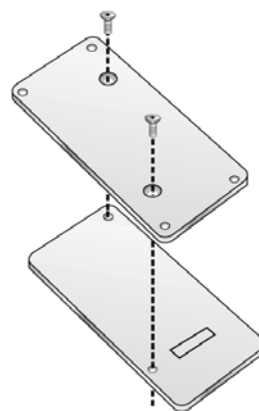

Attaching the Adapter Clip to a DIN Rail

1. Hook the DIN-rail clip over the top of the DIN rail.

2. Using a screwdriver, pry open the DIN-rail clip flange at the bottom of the DIN-rail clip and push the clip towards the DIN rail.
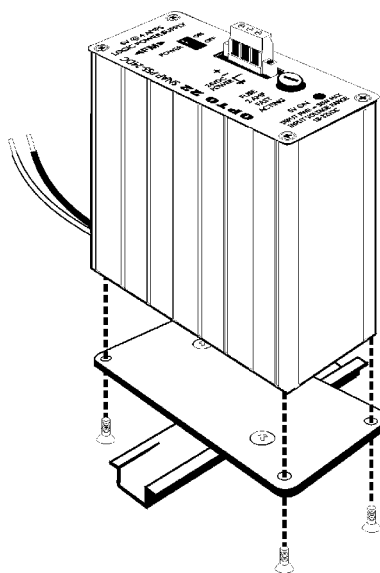
3. Snap the DIN-rail clip into place.

To remove: Use a screwdriver to pry open the DIN-rail clip flange.

Installing SNAP-PSDIN Adapters

1. Remove the four screws that fasten the panel mounting base plate to the power supply.

2. Remove the panel mounting base plate making sure to *save the screws*.

3. Using the two flat-head screws included with the kit, assemble the SNAP-PSDIN-RAIL adapter as shown.

4. Using the four screws removed in step 1, fasten the DIN-rail adapter to the power supply.

5. Mount the power supply on the DIN rail next to the rack or controller it will power.
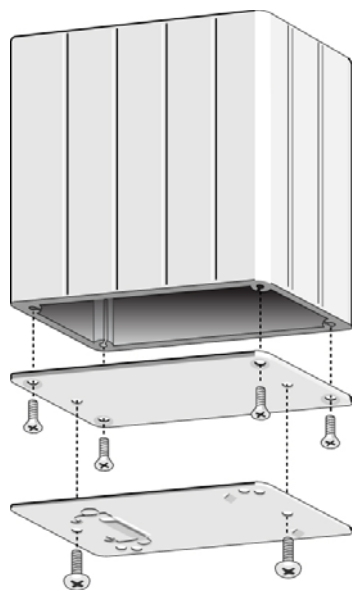

NOTE: The SNAP-PS5-24DC power supply is shown. Other power supplies have similar base plates.

Installing the SNAP-ROKDIN Adapter Kit

This adapter kit is for the SNAP-PAC-SRA arbiter or the SNAP-RPSW redundant power switch. The DIN-rail clip adds an additional 0.375 inches (0.95 cm) to the device's height. You need one adapter kit per device.

1. Turn the device over. Unscrew the four flat-head screws and remove the base plate. Save the screws.

2. Attach the new, plain base plate to the device using the saved screws.

3. Align the DIN-rail clip to the new base plate so that the spring will be at the bottom of the device when it is mounted on the DIN rail. Use the two round-head screws provided with the kit to attach the clip..

4. To mount, align the spring clip with the bottom edge of the DIN rail, push up to engage the spring, and slip the two top flanges over the top edge of the DIN rail.
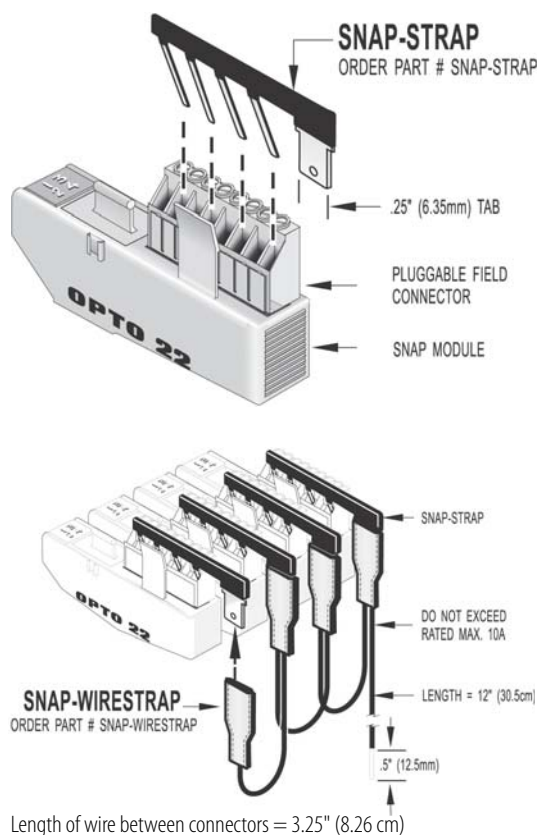
Wiring Accessories

Jumper Straps for SNAP Digital I/O

SNAP I/O module jumper straps let you easily make jumper connections on a SNAP digital I/O module.

The **SNAP-STRAP** plugs into individual wire connections on a module's pluggable field connector. SNAP-STRAPs on multiple modules can be connected using the **SNAP-WIRESTRAP**.

Both parts are Factory Mutual approved.

Length of wire between connectors = 3.25" (8.26 cm)

For other wiring options, see form #1756, the *SNAP TEX Cables and Breakout Boards Data Sheet*.

Replacement Parts

The **SNAP-FIELDCONB** replaces a lost or damaged field connector. It plugs into the top of a SNAP I/O module and is used for wiring field devices to the module. Used with most 1-, 2-, and 4-channel digital and analog modules, it accepts up to 14 AWG wire. Torque specifications for connector screws: 5.26 inch lbs (0.6 Newton m.)

The **SNAP-MR10** is a replacement mechanical relay (10 A) and clip for SNAP-TEX-MR10-16 and SNAP-TEX-MR10-4 breakout boards. Typical life expectancy (Electrical): 1×10^5.

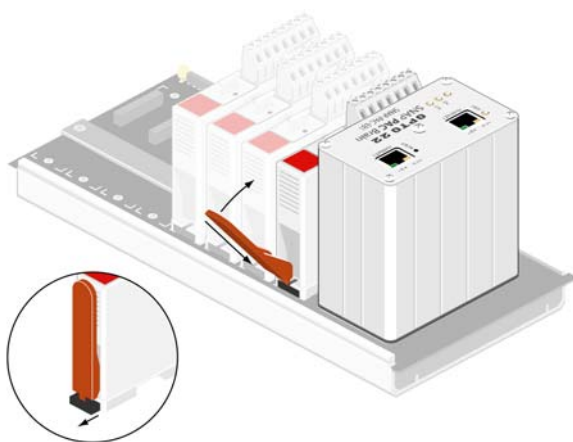# SNAP TEX Mounting/Wiring Tools and Spare Parts

Other Mounting Accessories

SNAP I/O Module Removal Tool

The **SNAP-MODTOOL**, included with each I/O mounting rack, is used to remove a SNAP I/O module from the rack. If you need extra tools, order this pack of 25.

To remove a module:

1. If the modules are held in place with screws, remove them.

2. Holding the SNAP module tool (provided) as shown in the illustration below, insert it into the notch at the base of the module.

3. Squeeze the module tool against the module to open the release latch, and pull straight up on the module to remove it.

Rack Adapters for Mixing Legacy and Current Brains and Racks

While it's always best to use brains and racks designed to work together, sometimes mixing them is temporarily necessary. Two rack adapters are available:

*   **SNAP-RCK-B2M** allows a legacy SNAP brain such as a SNAP-B3000-ENET (blue connector) to be used on a SNAP PAC rack or a SNAP M-series rack (black connector).

*   **SNAP-RCK-M2B** allows a newer SNAP PAC brain or rack-mounted controller, such as a SNAP-PAC-EB2 or a SNAP-PAC-R1 (black connector), to be used on an older SNAP B-series rack (blue connector).

Please note that the adapter does not change the functionality or limitations of the older products. For example, when used with a newer brain or controller, a SNAP B-series rack is still limited to digital modules in the first eight slots only.

For additional information, see form #1688, *SNAP PAC System Migration Technical Note* and form #1693, *Current and Legacy Product Compatibility Charts.*

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Products

Opto 22 develops and manufactures reliable, flexible, easy-to-use hardware and software products for industrial automation, remote monitoring, and data acquisition applications.

SNAP PAC System

Designed to simplify the typically complex process of understanding, selecting, buying, and applying an automation system, the SNAP PAC System consists of four integrated components:

- SNAP PAC controllers
- PAC Project™ Software Suite
- SNAP PAC brains
- SNAP I/O™

SNAP PAC Controllers

Programmable automation controllers (PACs) are multifunctional, multidomain, modular controllers based on open standards and providing an integrated development environment.

Opto 22 has been manufacturing PACs for many years. The latest models include the standalone SNAP PAC S-series and the rack-mounted SNAP PAC R-series. Both handle a wide range of digital, analog, and serial functions and are equally suited to data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

SNAP PACs are based on open Ethernet and Internet Protocol (IP) standards, so you can build or extend a system without the expense and limitations of proprietary networks and protocols.

PAC Project Software Suite

Opto 22's PAC Project Software Suite provides full-featured and cost-effective control programming, HMI (human machine interface) development and runtime, OPC server, and database connectivity software to power your SNAP PAC System.

These fully integrated software applications share a single tagname database, so the data points you configure in PAC Control™ are immediately available for use in PAC Display™, OptoOPCServer™, and OptoDataLink™. Commands are in plain English; variables and I/O point names are fully descriptive.

PAC Project Basic offers control and HMI tools and is free for download on our website, www.opto22.com. PAC Project Professional, available for separate purchase, adds OptoOPCServer, OptoDataLink, options for Ethernet link redundancy or segmented networking, and support for legacy Opto 22 serial *mistic*™ I/O units.

SNAP PAC Brains

While SNAP PAC controllers provide central control and data distribution, SNAP PAC brains provide distributed intelligence for I/O processing and communications. Brains offer analog, digital, and serial functions, including thermocouple linearization; PID loop control; and optional high-speed digital counting (up to 20 kHz), quadrature counting, TPO, and pulse generation and measurement.

SNAP I/O

I/O provides the local connection to sensors and equipment. Opto 22 SNAP I/O offers 1 to 32 points of reliable I/O per module, depending on the type of module and your needs. Analog, digital, serial, and special-purpose modules are all mixed on the same mounting rack and controlled by the same processor (SNAP PAC brain or rack-mounted controller).

Quality

Founded in 1974 and with over 85 million devices sold, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California. Because we do no statistical testing and each part is tested twice before leaving our factory, we can guarantee most solid-state relays and optically isolated I/O modules for life.

Free Product Support

Opto 22's Product Support Group offers free, comprehensive technical support for Opto 22 products. Our staff of support engineers represents decades of training and experience. Product support is available in English and Spanish, by phone or email, Monday through Friday, 7 a.m. to 5 p.m. PST.

Free Customer Training

Hands-on training classes for the SNAP PAC System are offered at our headquarters in Temecula, California. Each student has his or her own learning station; classes are limited to nine students. Registration for the free training class is on a first-come, first-served basis. See our website, www.opto22.com, for more information or email training@opto22.com.

Purchasing Opto 22 Products

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at 800-321-6786 or 951-695-3000, or visit our website at www.opto22.com.

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