ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Schneider Electric / Square D 8030-PS-11* at our website: *Click HERE*

Instruction Bulletin

Subject: **SY/MAX®**

CLASS 8030 TYPE HRK-150 REGISTER/DIGITAL RACK ASSEMBLY

DESCRIPTION

The Type HRK-150 Register/Digital Rack Assembly provides mounting slots for the Type HIM and HOM Eight (8) function digital I/O modules and register modules. The Type HRK-150 can accommodate up to four register modules and eight digital I/O modules (64 I/O points). The rack assembly is designed for 19 inch rack mounting, but can also be panel mounted by installing panel mount brackets.

The rack assembly is separated into two sections by a vertical divider plate (Figure 1). The section to the left of the divider plate provides four mounting slots for a SY/MAX Model 300 processor and/or other register modules. The left three slots are the register slots, while the slot adjacent to the divider plate is the CPU slot. This rack assembly may be used as a Model 300 CPU rack or a drop for any Model 300, 500 and 700 system.

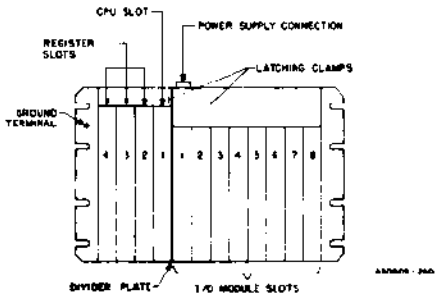
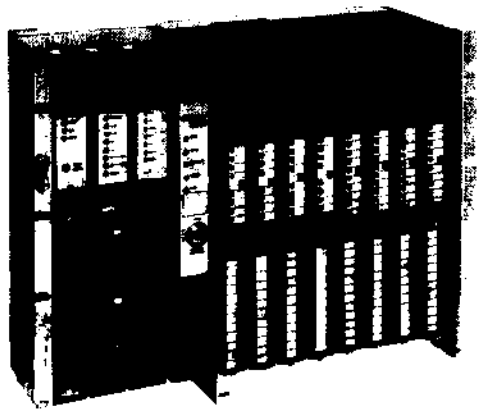


Figure 1 — Type HRK-150 Rack Slot Identification

The power supply connector located on the top of the rack provides the logic power for the register and I/O modules. See Instruction Bulletin 30598-156 for proper power supply sizing.

The modules to be mounted in the CPU and Register slots will vary, depending on the processor and system configuration being used. The eight slots to the right of the divider plate house the Type HIM and HOM digital I/O modules.

A latching clamp (Figure 2) is located at the top of each section of the rack assembly. By sliding the pull pins toward each other, the clamp is unlatched and can be pivoted up to allow the modules to be inserted into the rack. When a module is inserted into its slot (either section of assembly), the screw on the bottom of that module must be tightened to the rack to insure proper operation and grounding. By closing and latching the clamp over the top of the module, the module is properly secured within the rack assembly.



Nylon wire routing clips are provided to help route the input and output field wires to the proper I/O module. After the rack assembly has been mounted, install the routing clips by inserting them in the holes at the bottom front edge of the rack. See Figure 3. Depending on the wire routing to the I/O modules, the clips may be installed to the right or left of each I/O slot.

Click here for picture.

Figure 2 — Pull Pins and Latching Clamp Assembly

© Square D Company, 1985

NEW LISTING
Printed in U.S.A.

SQUARE D

Dedicated to Growth • Committed to Quality

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Click here for picture.

Figure 3 — Nylon Wire Routing Clip

A dead front cover (Figure 4) is provided with each Type HRK-150 rack assembly. Two mounting pegs are located on the lower front of the I/O section in the assembly. The type HIM, HOM I/O modules also provide a ridge for this cover. The grooved edge of the dead front cover is placed under the mounting pegs of the rack assembly. By snapping the top edge over the mounting ridge of the I/O module, the dead front cover is secured into place.

Click here for picture.

Figure 4 — Dead Front Cover Mounting

SPECIFICATIONS

I/O points per rack	64 digital I/O (8, 8 function modules) with 3 register slots
Ambient temperature	0 to 60°C
Humidity	0 to 95%, non-condensing
Weight	21 lb/9.4 kg

Module compatibility... I/O slots:
HIM-101, HOM-211,
HIM-131, HOM-221,
HIM-141, HOM-231,
HIM-151, HOM-241,
HIM-161, HOM-251,
HIM-191, HOM-261,
HOM-271

CPU slots:
All SCP-3XX procesors.
CRM-222, CRM-232

Register slots:
RIM-121, ROM-121,
RIM-131, ROM-131,
RIM-144, ROM-141,
DLM-110, DLM-120,
CRM-510, CRM-210,
CRM-211, CRM-310,
CRM-530, CRM-560,
CRM-601, CRM-720,
EQ5138-G1, EQ5138-G2

APPLICATION CONSIDERATIONS

- The rack assemblies (Figure 5) can be mounted above each other or directly side by side. A minimum clearance of 4 inches is required between racks mounted above each other. Additional space between racks must be added to accommodate a horizontal wiring duct.

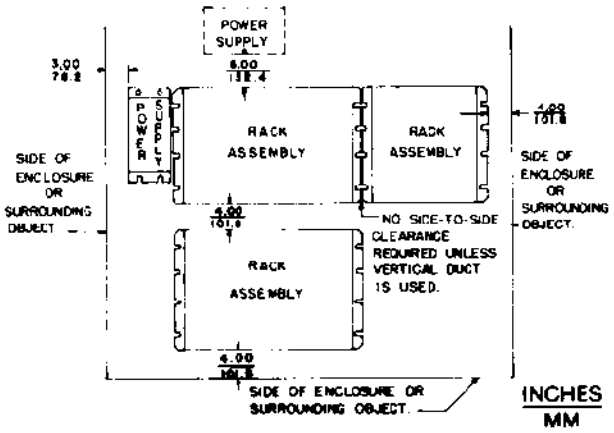


Figure 5 — Rack Assembly Mounting Configurations

- A minimum 4 inch clearance is required between the rack and surrounding objects or the sides of the enclosure.
- SY/MAX® power supplies may be mounted vertically directly adjacent to the rack assembly or horizontally above the rack. If mounted above the rack, a minimum clearance of 6 inches is required between the power supply and the top edge of the rack.
- Insure that the power supply is mounted within available cable distance from the rack assembly.
- Care in locating the rack in an enclosure must be taken to allow unobstructed insertion and removal of all modules.
- Leave a minimum of 6 inches between the rack and any electro-mechanical devices.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

- To minimize electrical noise pick-up, all AC power wires should be kept isolated from:

  1) DC signal wiring,

  2) Rack to rack communication cable, and

  3) SY/MAX power supply cables.

  AC and DC signal wires should not be combined in the same wire troughs or bundled together for parallel runs (right angle cross-overs should be used for wires crossing each other).

- When mounting electro-mechanical devices above the rack, a barrier between the two sections must be incorporated to prevent debris from falling onto the rack.

- To maintain battery back-up (and thus maintain stored program information) for a Class 8020 SY/MAX processor module plugged into the rack assembly, the cable from the power supply MUST REMAIN CONNECTED TO THE RACK.

I/O RACK KEYING

Each I/O connector on the rack assembly may be keyed to accept only one type of I/O module. A keying pin kit, Class 8030 Type CBP-104, is available for this purpose. The correct position of the keying pin for the appropriate I/O module is described in Figure 6. The keying pin is inserted manually (Figure 7) into the slot in the rack connector using the insertion tool provided with the kit.

Type	Description	Insert Keying Pin Between These Positions	Type	Description	Insert Keying Pin Between These Positions
HIM-101	120V AC DC Input Module	14 and 16	CRM-210	Local Interface	92 and 94*
HIM-131	6-24V AC DC Input Module	8 and 10	CRM-211	Local Interface	92 and 94*
HIM-141	48V AC DC Input Module	10 and 12	CRM-245†	Parallel Digital Driver	72 and 74*
HIM-151	TTL Input Module	12 and 14			
HIM-161	240V AC DC Input Module	16 and 18	CRM-246■	Parallel Digital Receiver	30 and 32*
HOM-211	12-50V AC Output Module	18 and 20	CRM-310	Fiber Optic Interface	76 and 78*
HOM-221	120V AC Output Module	20 and 22	CRM-510	Sy/Net Interface	14 and 16*
HOM-231	240V AC Output Module	22 and 24	DLM-110, 120	D-Log Data Controller	32 and 34*
HOM-241	9-55V DC Output Module	24 and 26			
HOM-251	60-160V DC Output Module	26 and 28	RIM-121	Std. Analog Input	82 and 84*
HOM-261	TTL Output Module	28 and 30	RIM-131	High Speed Counter	12 and 14*
HOM-271	Reed Relay (Form A) Output Module	30 and 32	RIM-144	BCD Multiplex Input	84 and 86*
			ROM-121	Std. Analog Output	90 and 92*
			ROM-131	Stepper Motor Output	8 and 10*
			ROM-141	BCD Multiplex Output	80 and 82*

* These modules are also keyed between positions 4 and 6 and between 96 and 98.

† Equivalent to EQ5138-G1.

■ Equivalent to EQ5138-G2.

Figure 6 — Keying Pin Positions

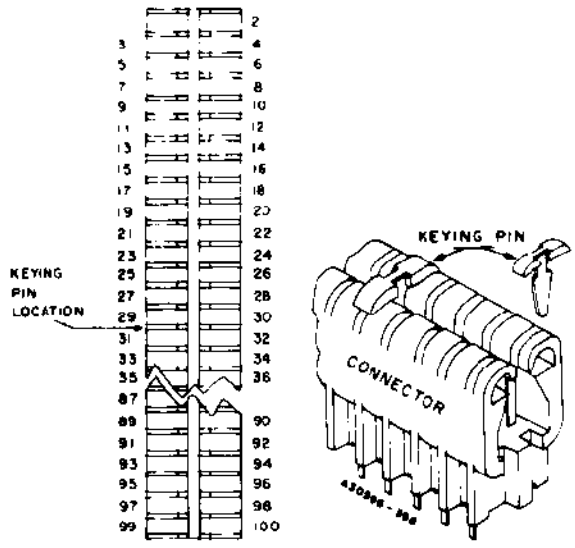


Figure 7 — Inserting Keying Pins

CAUTION: When inserting or removing the keying pins, use care to avoid touching the contact fingers within the connector. Improper insertion removal may damage the connector.

INSTALLATION INSTRUCTIONS

Observe the preceding application considerations before selecting a mounting location for the rack assemblies.

The Class 8030 Type HRK-150 is designed to be 19 inch rack mounted. See Figure 9. To panel mount the rack assembly, the panel mount brackets may be used. To install the brackets, simply align brackets with holes on the back of the rack and secure with the #8 mounting screws which are supplied. See Figure 8.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

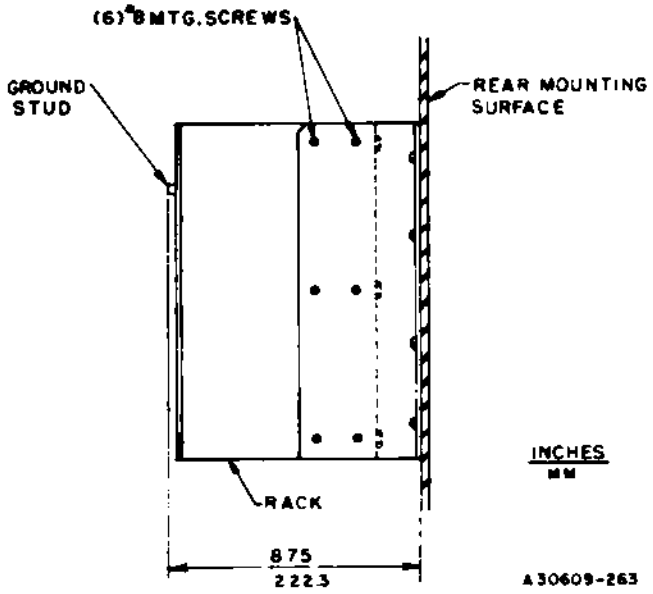


Figure 8 — Panel Mount Bracket Illustration

Using the slot or key holes, either rack or panel mount the rack assembly using 10-24 UNC mounting screws. See Figure 9 and 10 for dimensions.

If a Model 300 processor or any other module which utilizes the battery low signal is mounted in the rack, the rack must be connected to the "P1" connector of the power supply using a Type CC-10 cable. Care must be taken to insure that the power supply is mounted within cable length from the rack (See Instruction Bulletin 30598-156 for proper power supply cabling).

Be sure the rack assembly ground terminal, located on the left mounting bracket, is tied to a building column or grounding electrode determined to be a "true-earth" ground by means of wire equal in size to the incoming power wires (#14 guage minimum).

Unused register slots may be covered with the Class 8030 Type CBP-106 Register Slot Cover Plate. Unused I O slots may be covered with the Class 8030 Type CBP-107 I O Slot Cover Plate.

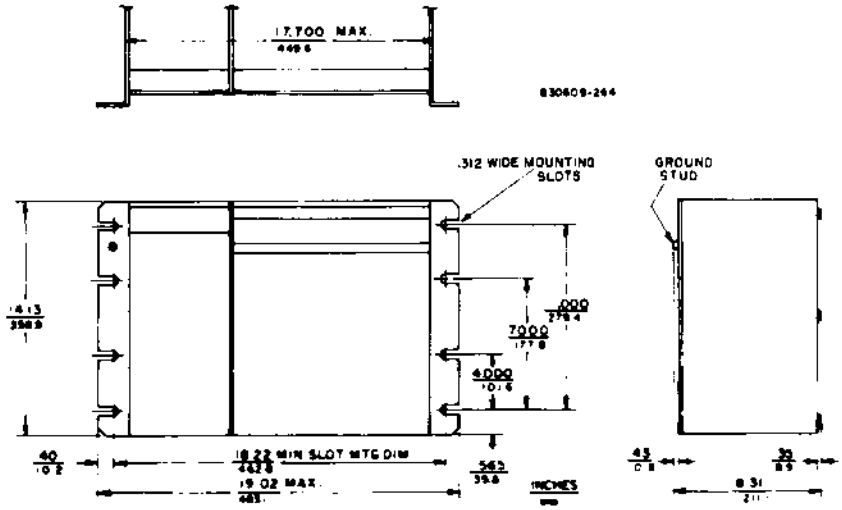


Figure 9 — 8030 HRK-150 Rack Assembly Rack Mounting Dimensions

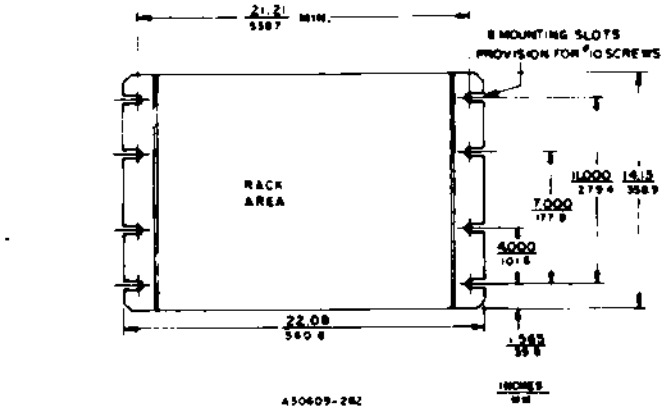
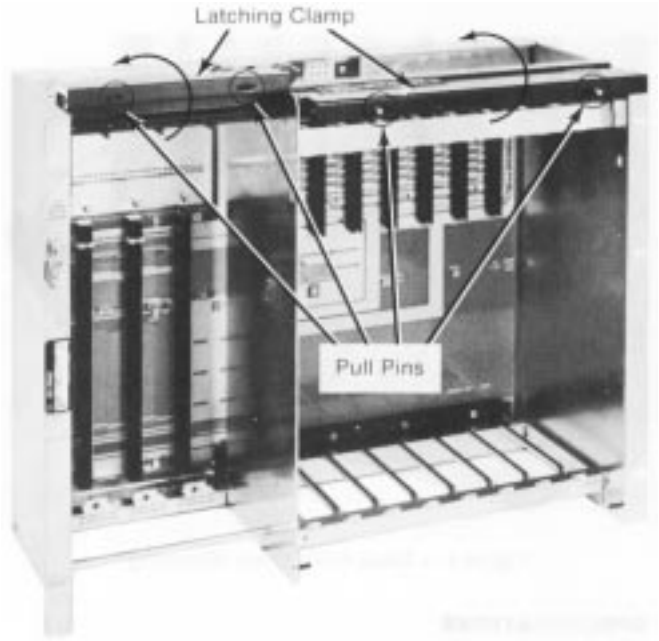
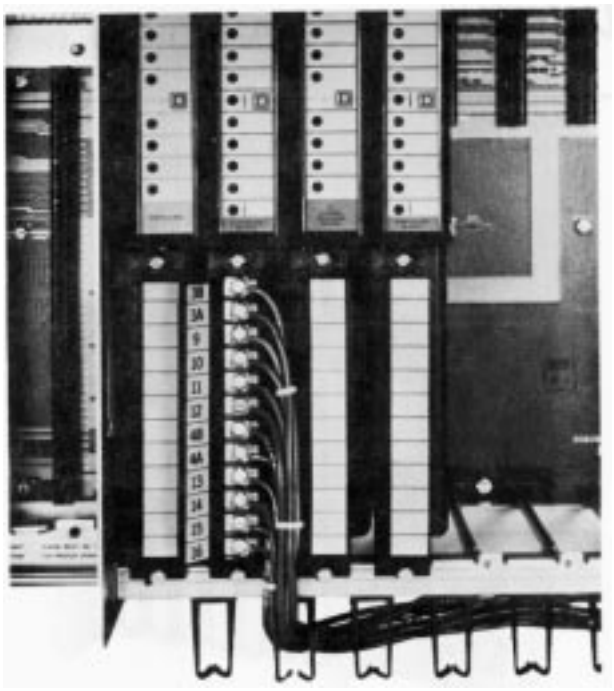


Figure 10 — 8030 HRK-150 Rack Assembly Panel Mounting Dimensions

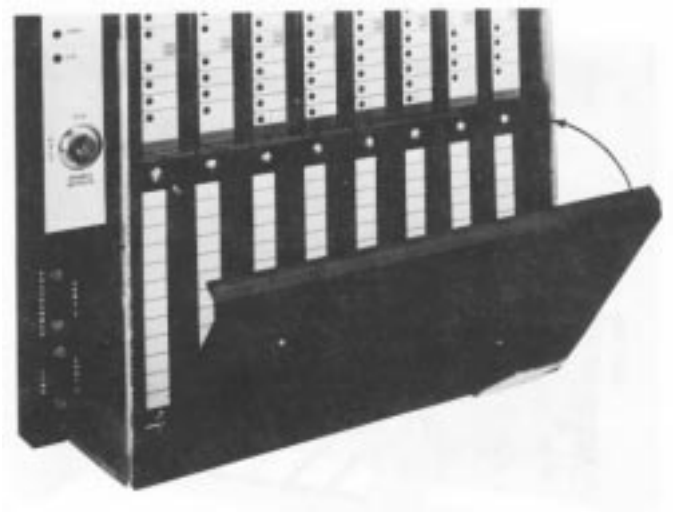
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP