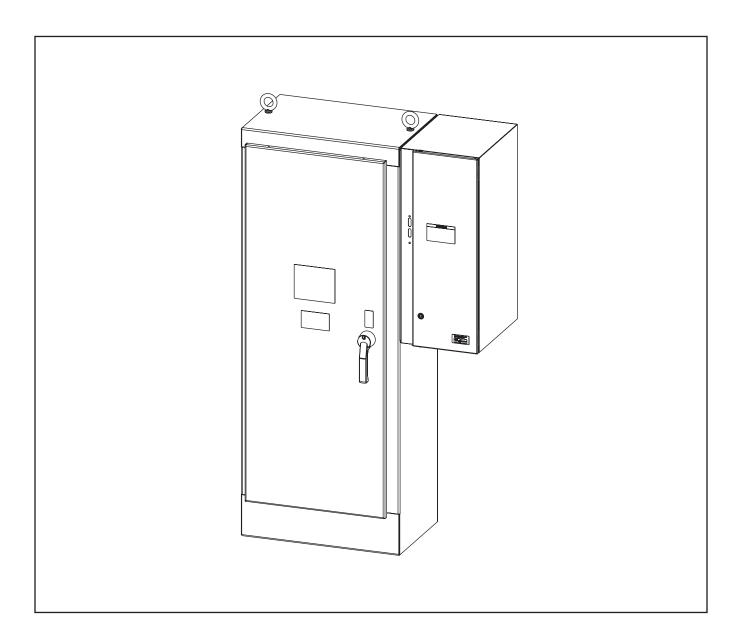
Hoffman®

SEQUESTR[™]

External Disconnect Enclosure



PENTAIR

SEQUESTR™ Instruction Table of Contents

Hardware Included
SEQUESTR Retrofit Instructions
SEQUESTR Mounting Instructions
Installing the Disconnect Device and Associated Hardware
Adjusting Hooks to Maintain SEQUESTR Door Interlock with Power Off
Powering Up the System
Accessing the Enclosures
Grounding Instructions for the Door and the SEQUESTR Mounting Panel
Repainting Instructions
Accessories

Note: These instructions are for assembling the following:

- SEQUESTR Package: A disconnect enclosure with a SEQUESTR external disconnect enclosure.
- SEQUESTR Retrofit: A SEQUESTR external disconnect enclosure accessory for retrofitting an existing disconnect enclosure.

WARNING

The functions, fits, and clearances of the installation described hereon are calculated from information supplied by the manufactures of the equipment to be installed. Be certain to check the function, fits, and clearances of all equipment both before and after installation to assure that it operates properly and safely and meets all applicable codes, standards, and regulations.

In the event the completed installation does not function properly or fails to meet any such codes, standards, or regulations, <u>do not attempt to make alterations or operate the equipment.</u> Report such facts immediately to:

Customer Service Dept. Pentair Equipment Protection 2100 Hoffman Way Anoka, MN 55303–1745 (763) 422–2211

To avoid personal injury and/or product damage, DO NOT attempt the installation alone. The installation of the SEQUESTR[™] enclosure to the control enclosure requires two people.

 Control Enclosure is TOP–HEAVY Stabilize the control enclosure before mounting the SEQUESTR[™] external 							
 disconnect enclosure to it. Follow guidelines in "Large Enclosure Handling Manual" supplied with the control enclosure. To get additional copies of the "Large Enclosure Handling Manual", call 1–800–355–3560. 							

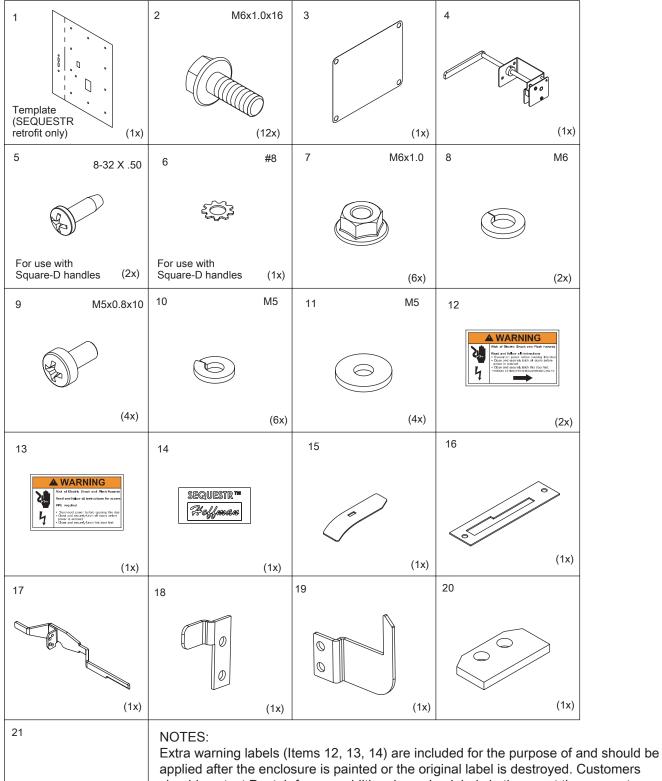
NOTICE

To maintain the environmental rating of this enclosure, install in any opening, only listed or recognized disconnect

devices, hole seals, and/or conduit hubs that have the same environmental rating as the enclosure. Install in

compliance with the installation instructions of the device.

SEQUESTR™ Hardware



applied after the enclosure is painted or the original label is destroyed. Customers should contact Pentair for any additional warning labels in the event they cannot find the extra labels or need more.

Allen-Bradley's 1494F-M1 and Square D's 9422A1 operating handles are shown in these instructions.

Grounding hardware listed in the grounding section of these instructions.

(1x)

SEQUESTR™ Retrofit Installation Instructions

NOTE: The instructions on this page are for preparing to mount a SEQUESTR enclosure to an existing disconnect control enclosure. If you do not have a retrofit situation, proceed to the instructions on page 5.

Powering Down the System

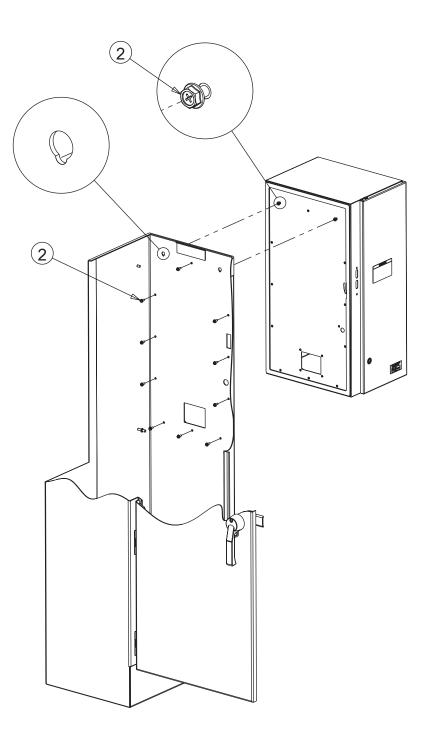
- 1. Turn off the local disconnect installed in the control enclosure using the appropriate right or left hand rule.
- 2. Turn off the feeder disconnect. It could possibly be the disconnect on the bus bar.
- 3. Put on the correct level of Personal Protective Equipment (PPE).
- 4. Open the control enclosure.
- 5. Test for power on the incoming side of the disconnect using a volt meter.

Removing Old Hardware and Preparing the Control Enclosure

- 1. Remove the existing disconnect from the control enclosure.
- 2. Cover and protect all components installed in the control enclosure.
- 3. Position the template (Item 1) by aligning it with the disconnect cutout on the control enclosure and wrapping it around the side.
- 4. Drill and cut the holes in the side of the control enclosure.
- 5. De-burr the holes.
- 6. Remove the incoming power feed and seal the existing hole using a Hoffman hole seal (order separately).
- 7. Install a Hoffman blank adapter plate (order separately) over the existing cutout.

Mounting SEQUESTR[™] Enclosure Instructions

- 1. Remove the subpanel from the SEQUESTR enclosure for installation of the disconnect switch or circuit breaker.
- 2. Thread two M6x16mm bolts (Item 2) from the outside of the SEQUESTR enclosure halfway into the two outer holes of the upper row.
- 3. Slide the two bolts into the slotted holes in the side of the control enclosure.
- 4. Install the remaining M6x16mm bolts (Item 2) from inside the control enclosure and torque to 50 in–lbs.



Installing the Circuit Breaker/Disconnect Switch and Associated Hardware

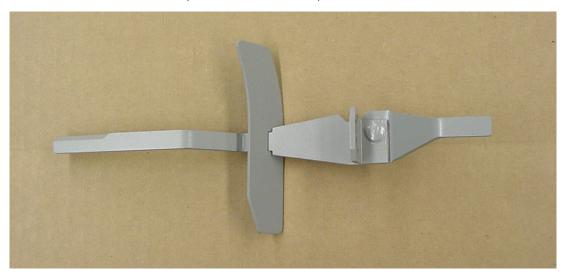
- 1. Drill mounting holes in the panel for the specific disconnect switch/circuit breaker being installed. Additional holes may be required when using fused switches. See the manufacturer's instructions.
- 2. Install the backer plate (Item 16) on the inside flange of the SEQUESTR[™] enclosure with the long side of the slot on the control enclosure side of the SEQUESTR enclosure. About one third of the right side of the lower slot width will be covered.



- 3. Install the operating handle on the SEQUESTR enclosure flange. Follow the device's manufacturer's instructions.
- 4. Install the left–hand configuration circuit breaker mechanism or disconnect switch, trailer fuse block, and fuses onto the panel per the device's manufacturer's instructions.
- 5. Install the populated panel into the SEQUESTR enclosure. Secure with the six hex nuts.
- 6. a. Retrofit: Add wiring from the trailer fuse block/circuit breaker to the existing wiring in the control enclosure. Punch a hole in the blank terminal block plate (Item 3) to allow wire to pass through. Install the plate over the four studs in the side of the SEQUESTR enclosure, install four M6 nuts (Item 7), and torque to 50 in–lbs. Seal around the wires to maintain a Type 1 rating. Terminal blocks (order separately) are also available to aid in the effort (see accessories, page 15).

b. Package (new installation): Add wiring from the trailer fuse block/circuit breaker to the incoming power side of omponents in the control enclosure. Punch a hole in the blank terminal block plate (Item 3) to allow wire to pass through. Install the plate over the four studs in the side of the SEQUESTR enclosure, install four M6 nuts (Item 7), and torque to 50 in–lbs. Seal around the wires to maintain a Type 1 rating. Terminal blocks (order separately) are also available to aid in the effort (see accessories, page 15).

- 7. Cut a hole on the top of the SEQUESTR enclosure for the incoming power wires.
- 8. Install conduit and wires to the incoming side of the circuit breaker/disconnect switch in the SEQUESTR enclosure.
- 9. Install the sliding cover plate (note the curved end is on the top and pointing toward the front of the enclosure) onto the longer arm of the dual defeater bracket. Continue to slide the plate until it hits the stops on the bracket.



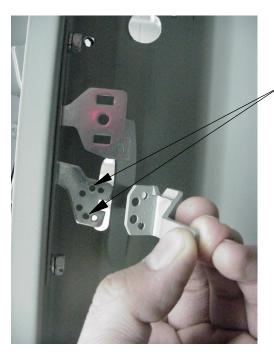
10. Carefully insert the longer arm of the dual defeater bracket through the slot in the side of the SEQUESTR[™] enclosure until the sliding cover plate is in place over the slot and the mounting portion of the dual defeater bracket aligns with the operating handle lower (defeater) arm.

Note: Operating handle removed for clarity.



11. Attach the dual defeater bracket to the arm.

Using the Allen–Bradley handle:



Install the bracket using these two threaded holes and the two screws provieded by Allen-Bradley. Torque to 10 in-lbs. Installed:



Using the Square D handle:



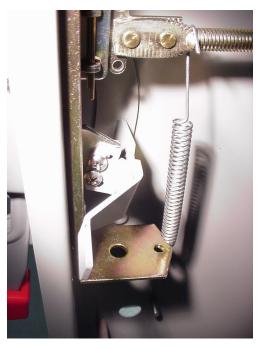
Install the bracket using these two holes and two 8-32 x .50 screws (Item 5) and star washers (Item 6) provided by Hoffman. Torque to 10 in-lbs.

Installing the threaded nut plate:

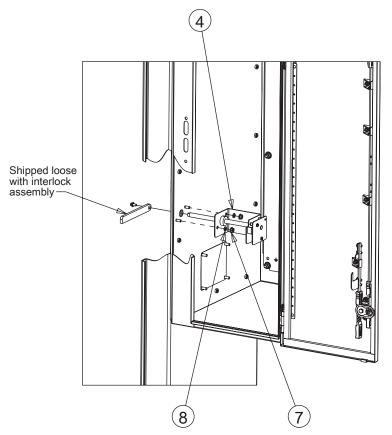


Note: The handle defeater arm is "sandwiched" between the dual defeater bracket and the nut plate.

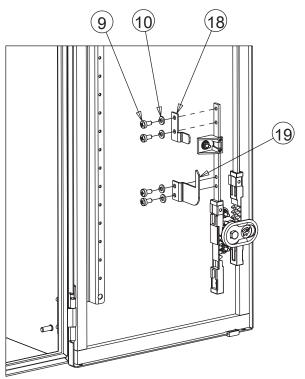
In order to provide clearance between the dual defeater bracket and the spring, reverse the spring and attach the longer end to the connecting rod at the beginning of the threads instead of the eyehook:



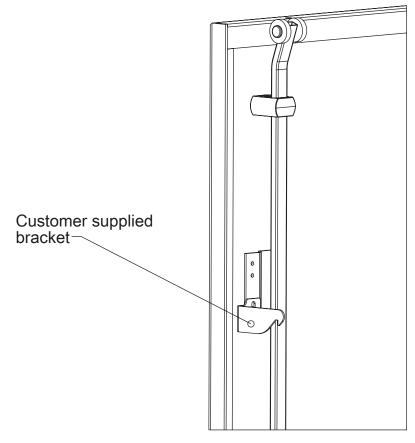
- 12. Remove the screw and washers from the door stop (Item 4) and remove the arm if installed.
- 13. Install the control enclosure door stop by sliding the shaft through the hole in the SEQUESTR[™] enclosure and the hole in the control enclosure. Align the holes on the door stop bracket and slide the bracket until it is snug against the SEQUESTR side wall. Install two M6 nuts (Item 7) and lockwashers (Item 8). Tighten to 50 in–lbs.



- 14. Slide the arm onto the shaft so that the free end is sticking out of the control enclosure door opening and perpendicular to the flange wall. Secure the arm with the hardware removed in step 12.
- 15. Install the L-bracket (Item 18) and hook (Item 19) on the interlock rod using M5 screws (Item 9) and lock washers (Item 10). Torque to 50 in-lbs.



Adjusting Hooks to Maintain SEQUESTR[™] Door Interlock with Power Off



NOTES: The standard disconnect door configuration is unhooked when the power is off.

Adjusting the hook to a position too low will compromise the ability to open the SEQUESTR enclosure door.

- 1. Install the control enclosure adjustable door hook onto the door of the control enclosure using two 10–32 screws (provided by the disconnect switch/circuit breaker manufacturer), lockwashers (item 10), and flat washers (Item 11) to the highest position. Close the control enclosure door and see if the handle can be moved to the "ON" position.
- 2. If the handle cannot be moved to the "ON" position, adjust the height of the control enclosure adjustable door hook downward until the dual defeater bracket is pushed down just to the point where the power can be turned on.
- 3. Torque to 25 in-lbs.

NOTE: Adjusting the hook to a position too low will compromise the ability to open the control enclosure door.

Powering Up the System

- 1. Remove any component protective covering that may have been installed per item 2 of "Removing Old Hardware and Preparing the Control Enclosure" on page 4.
- 2. Verify the operator handle is in the "OFF" position.
- 3. Close the SEQUESTR[™] enclosure door and latch securely. The door stop arm should rotate downward.
- 4. Close the control enclosure door and latch securely.
- 5. Turn on the feeder disconnect switch (possibly the disconnect on the bus bar).
- 6. Flip the operator handle on the SEQUESTR enclosure to the "ON" position using the appropriate right or left hand rule.
- 7. Verify that the machine / system operates with the new electrical connection.

Accessing the Enclosures

Opening the Control Enclosure Door with Power "ON"

- 1. Defeat the operator handle per the device's manufacturer's instructions.
- 2. Open the control enclosure door
- 3. SEQUESTR door can be opened after control enclosure door is opened.

Opening the SEQUESTR Enclosure Door with Power "OFF"

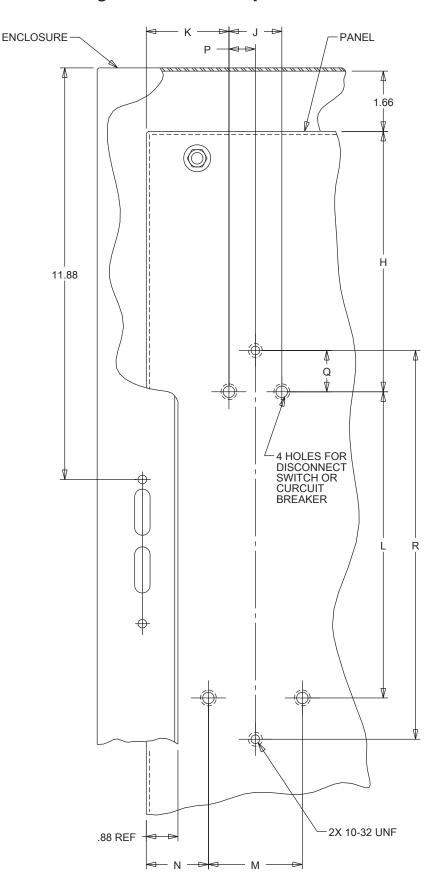
- 1. Open the master door on the control enclosure. Door stop arm will move to horizontal.
- 2. Open the SEQUESTR enclosure door.

Labeling

(Retrofit Only) Add the derived power label (Item 12) to the control enclosure below the tipping warning label as shown on the cover page of this instruction. The arrow on the label should be pointing toward the SEQUESTR enclosure.

NOTE: Extra warning labels (Items 12, 13, 14) are included for the purpose of and should be applied after the enclosure is painted or the original label is destroyed. Customers should contact Pentair for any additional warning labels in the event they cannot find the extra labels or need more.

SEQUESTR™ External Disconnect Enclosures Installation Instructions for Allen–Bradley Left–Hand 1494V and Square D Class 9422 Left–Hand Configured (Variable Depth) Disconnect Switches



SEQUESTR External Disconnect Enclosures Installation Instructions for Allen–Bradley Left–Hand 1494V (Variable Depth) Disconnect switches

Table 1 Sub-Panel Drilling										
Allen–Bradley Bulletin 1494V Disconnect or operator for Circuit Breaker	н	ſ	к	L	м	N	Ρ	Q	R	Hole Size
*1494V–DSX30 (30A./Series D)										
*1494V–DSX60 (60 A. /Series D)	5.25	2.25	1.25	5.25	2.25	1.25				.159Ø 10–32 UNF
*1494V–DSX100 (100A./Series D)										
*1494V–DSX200 (200 A./Series D)	4.29	2.00	1.72	8.25	4.25	.59				.201Ø 1/4–20 UNC
1494V–M40 for 15–150 AMP West.	10.98	1.38	1.08	4.50	1.38	1.08				.136Ø 8–32 UNF
1494V–M50 for 15–150 AMP West.	11.54	1.38	1.25	7.25	1.38	1.25	.69	2.03	10.62	.201Ø 1/4–20 UNC
1494V–M60 for 70–400 AMP West.	10.48	1.72	1.78	8.44	1.72	1.78	.86	1.16	10.75	.201Ø 1/4–20 UNC

* See Allen-Bradley instructions for locating trailer fuse blocks.

NOTE: Allen–Bradley variable depth disconnects are provided with connecting rods that must be cut to length to fit the enclosure depth (from flange surface to subpanel surface). See Allen–Bradley instructions.

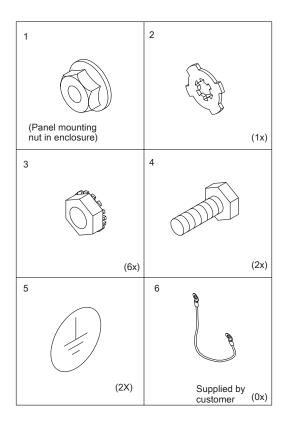
SEQUESTR External Disconnect Enclosures Installation Instructions for Square D Class 9422 Left–Hand Configured (Variable Depth) Disconnect Switches

TABLE 2 Sub-Panel Drilling										
Square D Bulletin 9422 Operating Mechanism	н	J	к	L	м	N	Р	Q	R	Hole Size
* TCN, TCF										
* TDN, TDF	9.14	5.50	2.21	4.50	4.00	2.96				10.24
* TEN, TEF										
* TF	8.09	9.44	1.88	8.00	9.44	1.88				5/16-18

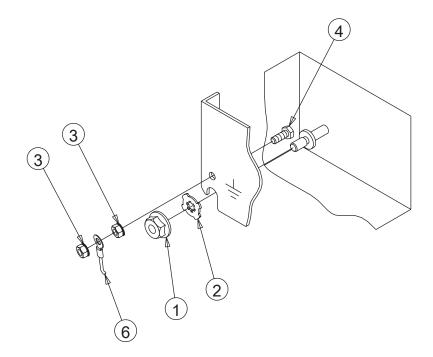
* See Square D instructions for locating trailer fuse blocks.

NOTE: Square D variable depth disconnects are provided with connecting rods that must be cut to length to fit the enclosure depth (from flange surface to subpanel surface). See Square D instructions.

SEQUESTR[™] Enclosure Grounding



SEQUESTR[™] Panel Installation / Grounding



HARDWARE KITS

Shown are the proper installation procedures for grounding the doors, covers, and optional panels and mounting the optional side and back panels.

Ground wires (Item 6) are available from Pentair Equipment Protection at hoffmanonline.com.

REPAINTING INSTRUCTIONS

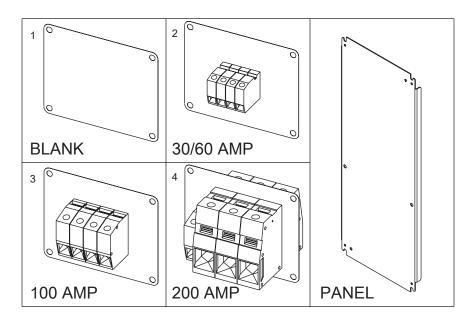
SUGGESTED PAINTS: The following paints typically provide superior adhesion qualities:

- Two Component Epoxies
- Two Component Polyurethanes
- Lacquers
- Acrylics
- Alkyd Baking Enamels
- Industrial Enamel

SURFACE PREPARATION: Wet wipe all surfaces to be painted with xylene solvent. Allow surfaces to flash dry three to five minutes. If a delay of greater than two hours occurs before painting, wet wipe again.

PAINTING: Apply top coat per paint manufacturer's instructions. Allow adequate cure time between coats. Allow top coat to cure completely prior to testing paint adhesion. Consult with the paint manufacturer for proper cure time.

SEQUESTR™ Enclosure Accessories



Additional General Accessories

Temperature Control

Accessories are available to provide an optimal environment for your controls. Options include louvers, filter fans, heat exchangers, air conditioners, and electric heaters.

Drip Shield Kits

Field or factory installation available on single or double door enclosures.

Corrosion Inhibitors

Protect interior components from corrosion.

Hole Seals

Used to seal extra conduit openings, pushbutton holes, or cutouts against dust, dirt, oil, and water.

Folding Shelves

Can be used to support instruments and test equipment.

Safety Lockouts

Protect personnel and equipment by enabling multiple padlocks to be installed on a de-energized switch.

Touch-Up Paint

Used to repair the finish of enclosures and panels.

Data Pocket Kits

Convenient place for documentation