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Lexington, KY, USA

Instruction Bulletin

Replaces 40271-419-04 dated 03/2005

QO® and Homeline® Load Centers

Class 1100

ENGLISH

Retain for future use.

INTRODUCTION

This bulletin contains instructions for the installation and operation of QO® and Homeline® load centers.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.
- Do not allow petroleum-based paints, solvents, or sprays to contact the nonmetallic parts of this product.
- Before starting a wiring installation or addition, consult a local building or electrical inspector for current National Electrical Code requirements. Local codes vary, but are adopted and enforced to promote safe electrical installations. A permit may be needed to do electrical work, and some codes may require an inspection of the electrical work.
- This equipment may not be suitable for use in corrosive environments present in agricultural buildings. See NEC 547 or CEC 2–400.

Failure to follow these instructions will result in death or serious injury.

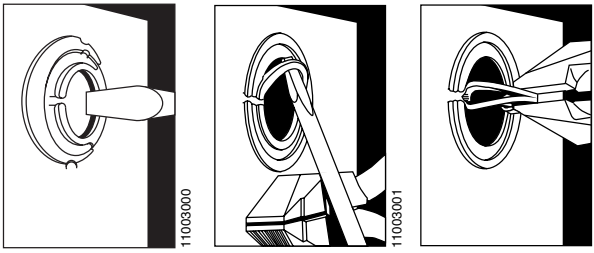
PREPARATION

1. Determine the wiring or conduit requirements for the main and branch circuits, as required by local electrical codes.
2. Select the proper cable clamp, or use other approved methods for securing the cable or conduit to the enclosure.
3. Remove the appropriate knockouts required for installation of cable clamps or conduit (Table 1). To remove the knockouts, see Figure 1.

Table 1: Bolt-On Conduit Hubs for Outdoor Load Centers

Conduit	Hub No.
3/4 in.	B-075
1 in.	B-100
1-1/4 in.	B-125
1-1/2 in.	B-150
2 in.	B-200
2-1/2 in.	B-250

Figure 1: Removing the Knockouts



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ENCLOSURE MOUNTING

Surface Mounting (Indoor or Outdoor)

Fasten the enclosure to the wall with screws or nails. Use all of the pre-cut holes in the back of the enclosure. See Figure 2.

Flush Mounting (Indoor Enclosure Only)

1. Remove the small mounting knockouts on the side of the enclosure. See Figure 3.
2. Position the load center so the front edge of the enclosure is flush with the finished wall.
3. Nail or screw through the small knockouts on the enclosure sides. See Figure 2.

Figure 2: Surface Mounting

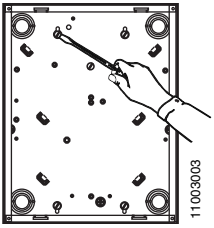
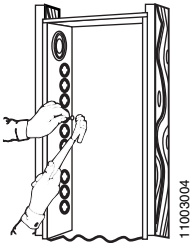


Figure 3: Flush Mounting



MAIN CIRCUIT BREAKER OR MAIN LUG WIRING

1. Pull the conductors into the enclosure. Use approved wire clamps, conduit bushings, or other approved methods to secure the conductor to the enclosure and prevent damage to the conductor insulation.
2. Connect the main and neutral wires.
   a. Install the main and neutral wires according to the load center wiring diagram.
   b. Connect the service ground, equipment grounding wire, or both as required by the local electrical code.
   c. Torque each connection to the value specified on the load center wiring diagram attached to the enclosure.
3. If required by the local code, install the enclosed green neutral bonding screw through the hole in the neutral bar. Thread the screw into the hole in the enclosure and torque to the value specified on the card shipped with the bonding screw.

BRANCH CIRCUIT BREAKER INSTALLATION AND REMOVAL

⚠ WARNING

HAZARD OF EQUIPMENT DAMAGE

This equipment is designed and tested by Square D® to performance levels which exceed Underwriter's Laboratories (UL) standards and Mexican Official Standards (NOM) listing.

Use only Square D circuit breakers and accessories.

Failure to follow this instruction can result in death or serious injury.

Standard Branch Circuit Breakers—Installation

1. Determine the wiring or conduit requirements for the branch circuit.
2. Turn OFF (O) circuit breaker.

3. Install the wire terminal end of the circuit breaker to the mounting rail and push inward until the plug-on jaw fully engages the bus bar connector. Keep the bottom of the circuit breaker case against the mounting rail.
4. Remove the wire insulation from the branch wire as required. Install the branch wire into the load terminal of the branch circuit breaker.
5. Torque each branch circuit breaker connection to the value specified on the circuit breaker.
6. Torque each neutral and ground connection to the value specified on the load center circuit breaker.

Removal

1. Turn OFF (O) the circuit breaker. Remove the wires.
2. To disconnect the plug-on jaw from the connector and mounting rail, pull the circuit breaker outward until it disengages from the mounting rail. See Figure 4 or Figure 5 depending on the circuit breaker type.

Figure 4: QO Branch Circuit Breaker

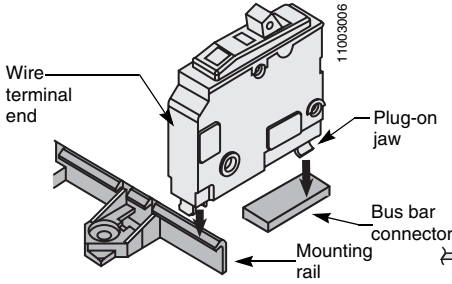
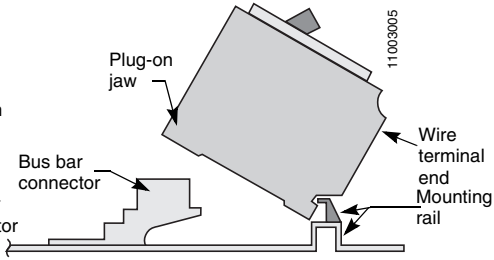


Figure 5: Homeline Branch Circuit Breaker



Tandem Branch Circuit Breakers—Installation

Install QOT and HOMT tandem-type circuit breakers only in single-phase load centers. Refer to the wiring diagram on the load center for the installation location.

1. Determine the wiring or conduit requirements for the branch circuit.
2. Turn OFF (O) the circuit breaker.
3. Hold the tandem circuit breaker at 30°–45° angle.
4. Install the wire terminal end of the circuit breaker into the mounting rail.
5. Rotate the circuit breaker inward until the plug-on jaw fully engages the bus bar connector. Keep the bottom of the circuit breaker case against the mounting rail.
6. Remove the wire insulation from the branch wire as required. Install the branch wire into the load terminal of the branch circuit breaker.
7. Torque each branch circuit breaker connection to the value specified on the circuit breaker.
8. Torque each neutral and ground connection to the value specified on the load center wiring diagram attached to the enclosure.

Removal

1. Turn OFF (O) the circuit breaker.
2. To disconnect the plug-on jaw from the connector, pull the circuit breaker outward until it disengages from the mounting rail. See Figure 6 or Figure 7, depending on the circuit breaker type.

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Figure 6: QO Tandem Circuit Breaker

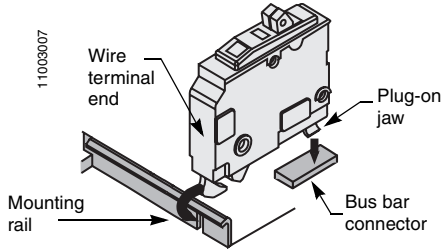
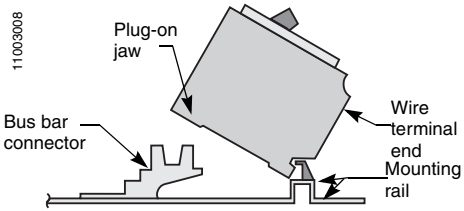


Figure 7: Homeline Tandem Circuit Breaker



INSTALLING THE COVER

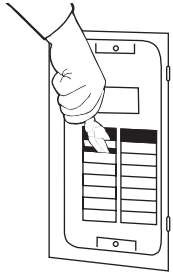


Figure 8: Removing Twistouts

1. Remove the cover twistouts.
   a. Remove only enough twistouts to match the number of circuit breakers being installed.
   b. Twist out with pliers at the center of the twistout. See Figure 8.
   c. Close all unused open spaces in the cover using filler plates as listed on the cover directory label.
2. Attach the Spanish translation label, if supplied with the load center, to the rear of the cover. See Figure 9.
3. Identify the branch circuits on the directory label.
4. If the load center is used as service equipment, apply the "Service Disconnect" label to the part of the cover nearest the main circuit breaker handle. If the load center is not used as service equipment, apply the "Main" label to the part of the cover nearest the main circuit breaker handle.
5. Install the cover using the screws provided.

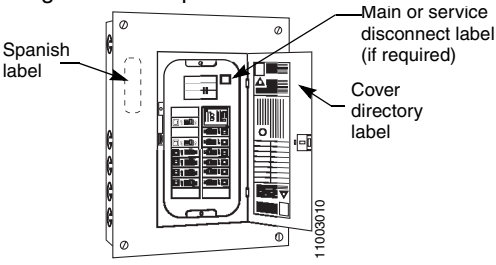


Figure 9: Label Locations

ENERGIZING THE LOAD CENTER

1. Before energizing the load center, turn off the main and all branch circuit breakers.
2. After power is turned on to the load center, first turn on the main circuit breaker and then turn on the branch circuit breakers.

Schneider Electric USA
1601 Mercer Road
Lexington, KY 40511 USA
1-888-SquareD (1-888-778-2733)
www.us.SquareD.com