

CIRCUIT BREAKER PANELBOARD

D2PB SERIES MODEL M2

Installation & Maintenance Information



SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

D2PB Series panelboards are designed for use in Class I, Division 2, Groups C, D hazardous (classified) areas as defined by the National Electrical Code® as well as in damp, wet, or corrosive locations – indoors or outdoors. D2PB Series panelboards provide a centrally controlled switching system for feeder or branch circuits to control lighting, heating, appliance, heat tracing, motor, and similar circuits. D2PB Series panelboards should be installed, inspected, maintained, and operated by qualified and competent personnel.

INSTALLATION

WARNING
To avoid electrical hazard, electrical power must be OFF before and during installation and maintenance.

1. Select a mounting location that will provide suitable strength and rigidity for supporting the panelboard and all contained wiring. The mounting dimensions for the four clearance holes for lag screws or mounting bolts in the back of the enclosure are shown in Dimensions illustration on page 3.



D2PB Panelboard

2. Remove the cover bolts and nuts from the two cover hanging studs, then lift cover off and carefully set it aside to prevent damage to the flange surface and flange gasket.

NOTE
DO NOT handle covers roughly or place them on surfaces that might damage or scratch the flange gasket or flange surfaces. Avoid sliding cover across body flange.

NOTE
DO NOT remove cover on main circuit breaker (if provided). Units are factory sealed and do not require any disassembly for installation of panelboard.

3. Remove the four (4) flat head screws from front plate, then remove plate and set it aside.
4. Securely fasten panelboard to the mounting surface, then attach into conduit system. Tapped conduit openings are provided for main circuit and branch circuits as shown in Figure 3.

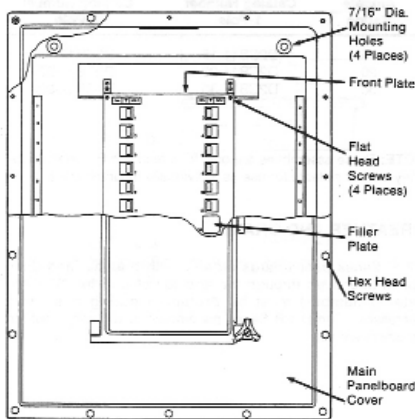


Figure 1

CAUTION

- Hazardous location information specifying class and group listing is marked on the nameplate of each panelboard.
- For safe operation, all unused conduit openings must be plugged.

5. Pull wires into panelboard making sure that they are long enough to make the required connections.
6. Make main circuit wiring connections. Individual wiring diagrams are packed with each D2PB Series panelboard.

TABLE 1
MAIN LUG SIZES

No. of 1-Pole Breakers	No. of 2-Pole Breakers	Panel Size	Main Lug Size*
6		1	4/0
8		1	4/0
10	4	1	4/0
12	5	1	4/0
12	6	1	4/0
12	6	2	4/0
14	7	2	4/0
16	8	2	4/0
18	9	2	4/0
20	10	2	4/0
22	11	2	4/0
24	12	2	4/0

Size 1 panels rated at 125 amperes.
Size 2 panels rated at 225 amperes.
Lug must be torqued to 32 ft-lbs.

7. Make branch circuit wiring connections to neutral bus and D2CB circuit breaker following approved wiring methods.

A conductor strip gage is molded into each circuit breaker for easy reference when removing insulation from branch circuit wiring.

NOTE: D2PB Series panelboards are factory wired from main terminal block (or bus) to line side of branch circuit breakers. The maximum wire size accepted by D2CB circuit breaker wire terminals is #10 AWG solid.

8. Test wiring for correctness with continuity checks and for unwanted grounds with insulation resistance tester.
9. Reinstall front plate to panelboard and secure with four flat head screws previously removed.

CAUTION
For safe operation, clean dirt or foreign material from both surfaces of body and cover before closing.

10. Install cover and securely tighten all cover bolts making certain that no cover bolts are omitted. Use only bolts supplied with the panelboard.

D2PB Series panelboards have two cover hanging studs so that the cover may be more easily taken off or put onto the panelboard.

NOTE: It is not necessary to use sealing washers on cover bolts or hanging studs.

REPLACEMENT CIRCUIT BREAKERS

Replacement circuit breakers can easily be added in the field. Available circuit breaker assemblies are listed in Table 2.

Install replacement circuit breakers following installation information supplied with each breaker.



Figure 2

TABLE 2
Replacement Circuit Breakers

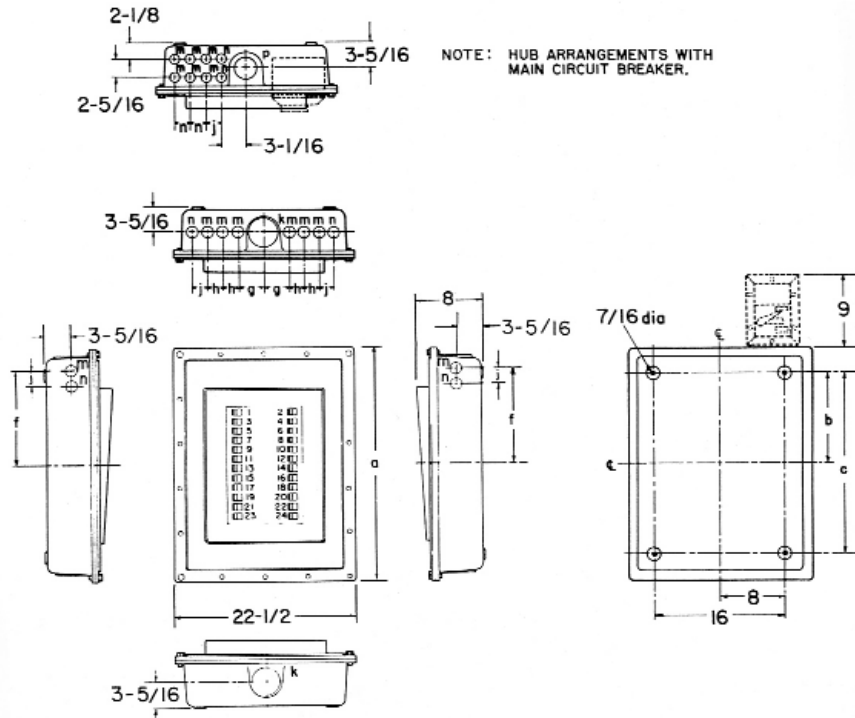
Ampere Rating	Catalog Number 1-Pole	Catalog Number 2-Pole
15	D2CB11-15	D2CB12-15
20	D2CB11-20	D2CB12-20
30	D2CB11-30	D2CB12-30

NOTE: These assemblies are only for use in D2PB panelboards. They are not suitable for use as individually mounted units.

BREATHER AND DRAIN

D2PB Series panelboards ordered with breather and drain option (identified through the addition of a suffix DV to the catalog number) must be protected during hose down operations. The D2PB Series panelboard is watertight, but the breathers are not.

DIMENSIONS



Panel Size	Overall and Mounting Dimensions (In.)		Conduit Openings Spacing (In.)						Size (In.)				Quantity	
	a	b	c	f	g	h	i	k	m	n	p	Main	Branches	
1	20 3/4	8	16	7 3/4	3 1/2	2		3	1 1/4		2 1/2	2	6	
2	28 1/4	11 3/4	23 1/2	11 3/8	3 1/16	1 15/16	1 15/16	3	1 1/4	1 1/4	2 1/2	2	12	

Figure 3

MAINTENANCE

1. Frequent inspection should be made. A schedule for maintenance check should be determined by the environment and frequency of use. It is recommended that it should be at least once a year.
2. If necessary to open panelboard for inspection or service, always disconnect primary power source before opening enclosure.
3. Perform visual, electrical, and mechanical checks on all components on a regular basis.
 - Visually check for undue heating evidenced by discoloration of wires or other components, damaged or worn parts, or leakage evidenced by water or corrosion in the interior.
 - Electrically check to make sure that all connections are clean and tight.
 - Mechanically check that all parts are properly assembled and operating mechanisms move freely.

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Cooper Industries Inc.
Crouse-Hinds Division
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