

PARK

SWITCHBOARDS



LOW VOLTAGE SWITCHGEAR



PANELBOARDS



*Engineered Solutions for
Power Distribution*

Switchboards

The Recognized Standard for Dependable Service

Park's line of Service Entrance Switchboards and Distribution Switchboards are single or multiple cabinet systems that can be shipped as single units for NEMA 3R, NEMA 3R/12 or NEMA 4XSS applications. As NEMA 1 indoor enclosures, they can be shipped broken down to single cabinets. These switchboards are designed to meet the needs of main overcurrent protection with properly coordinated distribution overcurrent devices. Main or distribution disconnects can be circuit breakers, fusible bolted pressure switches or fusible knife switches. Cost effective series rating assemblies are available with UL® listed combination ratings, in accordance with the UL® recognized component directory.

Our switchboard design and construction is state-of-the-art and complies with all applicable Federal, UL® and NEC specifications, as well as all U.S. utility requirements. Enclosures are constructed of heavy duty steel, and metering current transformer compartments can be customized to meet your utility requirements with hinged door and secure latch for utility company sealing. Metering current transformer compartments can be ahead of (Hot Metering), or after the main disconnect (Cold Metering). Potential transformer provision for complex metering is available. Park can also provide additive or subtractive metering designs.

Top or bottom feed lug landings or bus heads to terminate in NEMA type spades are standard designs. Bus risers can be made with bends to pass around obstacles, go straight up, take a 90 degree bend to go through a wall, etc. The bus can go out the back of the switchboard through a wall, and then covered by a bus head enclosure to terminate with underground feeds, outside the building. Park can also hard bus from the transformer spades into the switchboard or switchgear. The standard bus withstand rating is 65kA. The standard conductor is silver plated copper, typically 1000 amperes per square inch density or better.

Features & Advantages

- Park switchboards are typically NEMA 1 indoor construction. NEMA 3R, NEMA 3R/12 and NEMA 4XSS styles are overall enclosures that contain the basic switchboard in a NEMA 1 enclosure.
- Rating label information is clearly visible on the equipment front panel. Danger, arc flash, short circuit, continuous rating, UL® listing labels, SE labels (where required), present the required information to conform with NEMA standard PB-2, UL® 891 and the NEC.
- Incoming main lugs are mechanical screw type mounted on bus bar with sizes ranging from 750MCM to 1/0 AWG. Lugs are rated 90° centigrade and accept copper or aluminum wires. Crimp type lugs are available upon request.
- Fully insulated, barrier type utility metering compartments when required.
- Non tapered full horizontal bus. Continuous copper ground bar. Full neutral throughout, 200% neutral available.
- Tin plated copper conductor available where required for environments conducive to silver corrosion.
- Increased bus bracing of 100,000kA or 200,000kA available upon request.
- All Park equipment is delivered promptly.



*Outdoor switchboard
with dry transformer*

General Features

Specifications and Options

Versatile Switchboard Designs

Park switchboards are designed for ease of installation and field modifications. Bolted pressure switches are recommended for industrial applications as they are suitable for use on a circuit capable of delivering up to 200,000 RMS symmetrical amperes. These bolted pressure switches have an additional pressure or clamping action at both sides of the switchblade when the switchblade is in the fully closed position. The bolted pressure switches are available in current ratings from 800 to 5000 amperes. Fuses provided are current limiting class "L" fuses rated 200,000kA I.R. at 600V AC or 100kA I.R. at 300V DC. These fuses are a 100% rated device and may be applied to continuous currents up to their ampere rating. A 4 second minimum time delay at 500% of continuous current rating allows the class "L" fuse to pass normal current surges and to coordinate with ground fault relays and downstream protective devices.

Knife switches rated 30 to 600 amperes are recommended as distribution disconnects for industrial applications as they are suitable for use on a circuit capable of delivering 200,000 RMS symmetrical amperes or less. Fuses provided are current limiting class "RK5" fuses rated 200,000kA I.R. at 600V AC with visual blown fuse indicators. The 10 second minimum opening time on an overload current five times the rating of the fuse is a time delay feature that allows for motor start ups and transformer inrush currents without nuisance opening.

Molded case circuit breakers rated 15 to 2000 amperes continuous with thermal magnetic trip capabilities are standard overcurrent devices available as either main or distribution disconnects. Molded case circuit breakers rated 600 to 3200 amperes continuous with digital solid state electronic capabilities are also standard overcurrent devices available as either main or distribution disconnects.

Available Options

- Available options that can be incorporated into the overall enclosure with switchboard disconnects include contactors, lighting transformer, lighting panels, capacitor banks, time clocks, photo controls, control transformers, heaters, thermostats, lights, and receptacles.
- Ground fault relays, shunt trip operators, kirk key interlocks, auxiliary switches, blown fuse detectors and phase failure relays are also available options.
- End User electronic metering including harmonics is available.
- Manual and automatic transfer switches can be incorporated into the switchboard design.
- Main – Tie – Main with interlocking design is available.



Switchboard
with fusible switches



Switchboards

Dependable Overcurrent Protection for Medium Duty Applications

Park switchboards can be furnished in various types and models to meet your service needs and application requirements. We offer front accessible units that conserve floor space and can be installed against a wall. Rear-connected switchboards with drawout or fixed mount breakers are also available. Circuit breakers can be either molded case (MCCB's) or insulated case (ICCB's), depending on considerations for maintenance access, cost factors and other service criteria.

The Park switchboard shown at the right is a front accessible model that is available in both DC and AC versions and can be furnished for either single phase or 3 phase systems. Standard unit is supplied without an outer door.



Switchboard
with outer door removed



Manual transfer switch with two feeder switches
Switches are bolted pressure design

Low Voltage Switchgear

Insulated Case Circuit Breaker Switchgear

Park metal-enclosed low voltage switchgear is designed for use in electric power distribution systems for the control and protection of circuit conductors and equipment. These switchgear units are designed, manufactured and tested in accordance with all applicable ANSI and NEMA standards, and are suitable for the most severe duty in a wide range of service situations. Among the many facilities and installations that rely on Park L.V. Switchgear are...

Waste Water Treatment and Industrial Plants

– for power and lighting feeders, power generation and auxiliaries. Also to provide power for machine tools and material handling equipment drives.

Central Generating Stations

– protect and distribute power to station auxiliaries i.e.; blowers, compressors, fans, pumps and motors.

Military Installations, Commercial and Residential Buildings

– for protection and distribution of power for lighting, elevators, air conditioning, blowers, fans, motors and pumps.



All Park low voltage switchgear is available in indoor or outdoor walk-in construction. System voltage of 600, 480, 240 and 208 Volts. Circuit breakers can be manually or electrically operated, drawout or fixed mount.

Park L.V. Switchgear Offers Many Special Features

- **Space Saving Standard Sizes:** two widths of 30" and 22" with uniform depths of 60" simplifies floor space planning.
- **Flexible Mounting Arrangements:** four high stacking of ratings from 800A to 2,000A in 22" wide modules.
- **Solid State Tripping System:** by digitally sampling the entire electrical wave the trip device accurately measures true RMS current value. Harmonics caused by variable speed drive systems, induction heating and other SCR-controlled loads cannot produce nuisance tripping or inadequate thermal protection.
- **Bolted Copper Bus with Silver Plated Connections Reduces Maintenance**
- **Circuit Breakers Ship in Cubicles:** saves time and labor in handling, storage and installation.
- **Insulated Bus and Cable/Bus Area Barriers:** options that reduce risk of accidental contact with main bus and reduce the risk of main bus faults.
- **Closed Door Racking and Complete Drawout on Telescoping Rails**

Panelboards

Lighting and distribution

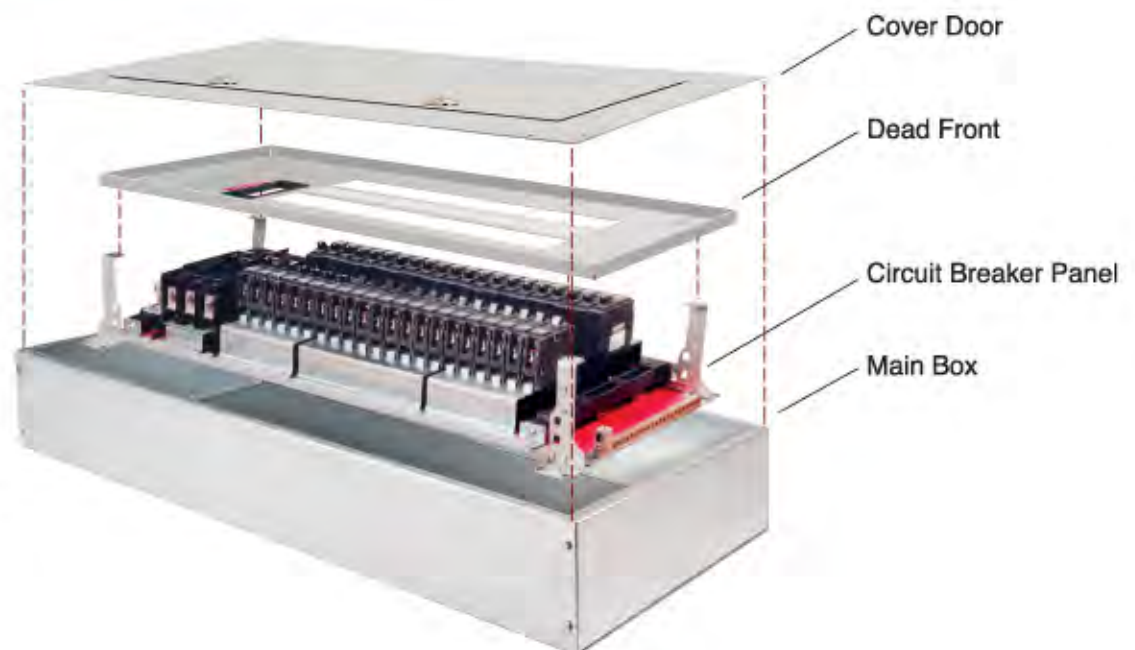
Models and Ampacities for Every Requirement Industrial — Commercial — Institutional

Park panelboards are available in a wide range of models and ampacities for power and distribution service in industrial plants, electric utilities, commercial facilities and other applications dealing with lighting control, telecom systems, etc. All of our panelboards share the same high standards of efficient design and quality construction that characterize our many other Park products. In addition to offering a selection of standard panelboard models, Park is well situated to design and manufacture custom panelboards to meet special customer needs. Retrofit panels are available to fit into existing back boxes. Please consult our sales staff.



Panelboard Construction

Park panelboards are bolt-on construction, and can be readily disassembled for installation, maintenance or service requirements. Cabinetry is heavy duty, code gauge steel with flush door and flush disc tumbler locks.



Park Panelboards Perform

- All breakers are bussed, including main breakers — no wires
- All bolt-on breakers
- Park design provides for adding more branch breakers, if required; all brackets and mounting hardware are included
- Modifications available — oversize lugs, compression lugs, double lugs, feed thru lugs, split bus, remote control switches, time clocks, rainproof enclosures and service entrance label
- Extruded branch bus has case hardened thread forming screws for greater engagement
- Bus supports provide bracing for currents up to 100,000 Amp symmetrical withstand
- Oversized boxes standard on all higher ampacity panelboards; provide increased gutters and pull space for handling larger wire sizes
- Directory frame mounted on the door
- Unique branch neutral accepts a range of aluminum or copper wire sizes from #14 to #1/0
- Self-aligning trim clamps feature a flat clamping head which engages box flanges
- Flush lock and recessed piano hinge
- End walls screwed to box; field removable and are available with or without KO's
- Both surface and flush front available

Specifications

1. Panelboards meet specifications of U.S. Standard No. 67 (Panelboards) UL® Reference File #E25329.
2. Panelboard and switchboard sections containing all UL® listed devices and components are UL® labeled.
3. Boxes are constructed of code gauge galvanized steel.
4. Fronts and doors are constructed of code gauge steel, finish painted with ANSI-61 light gray paint. Doors are equipped with flush disc tumbler locks, all keyed alike, and supplied with one key. Directory holder with directory card is provided on inside of door.
5. Main bus is silver plated copper; branch connectors are either copper or aluminum, based on requirement.

Box Selection

Box Height, Inches	Max. Available Branch Circuits								
	MAIN LUGS				MAIN CIRCUIT BREAKERS				
	100 A	225 A	400 A	600 A*	100 A BL, BQ, BQD, ED	225 A JD, QJ (240V)	225 A FD, FXD, HFD	400 A JXD, JD, HJD	600 A* LXD, LD, HLD
23	12	—	—	—	—	—	—	—	—
26	18	12	—	—	12	—	—	—	—
29	24	18	—	—	18	12	—	—	—
32	30	24	—	—	24	18	12	—	—
35	36	30	12	—	30	24	18	—	—
38	42	36	18	—	36	30	24	—	—
41	—	42	24	12	42	36	30	—	—
44	—	—	30	18	—	42	36	—	—
47	—	—	36	24	—	—	42	12	12
50	—	—	42	30	—	—	—	18	18
53	—	—	—	36	—	—	—	24	24
56	—	—	—	42	—	—	—	30	30
59	—	—	—	—	—	—	—	36	36
62	—	—	—	—	—	—	—	42	42

* 7 3/4" deep boxes.





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