





AUTOMATIC STANDBY TRANSFER

Double or single molded-case transfer breaker sections can have load bussing connecting to adjacent distribution sections or lug terminations for remote loads. Full manual controls are standard as well as LED-lamped pilot lights. Plug-in relays are used in the transfer controls, that have integral pilot lights that illuminate when the relay is energized to aid in maintenance. A microprocessor-based Automatic Transfer Logic panel can be integrated into the transfer switchboard or wall mounted. Our transfer logic panel can operate any number of transfer switches from one master control. This control can be integrated into a priority load acquisition, load shed system when used with paralleled standby generators and energy management systems.

NORCONIAN CLUB, NORCO, CALIFORNIA - CIRCA 1928



MAIN-TIE-MAIN GEAR



5000 Ampere Service entrance switchboard utilizing stored-energy encased power circuit breakers. Automatic tie breaker controls are used to transfer load to alternative sources as necessary. Complete microprocessor controls are designed to save customer downtime by continuously monitoring sources and responding accordingly. We have built many tie breaker systems that are part of double-ended unit substations.

FIELD RETRO-FITS



We are a manufacturer that offers our clients the ability to enhance their existing switchgear investment. To accomplish this we produce mounting hardware for today's technologically advanced circuit breakers to be mounted into almost any other manufacturers' switchgear. We stock mounting hardware and devices to add on to our distribution switchboards as well as those built by manufacturers such as Bulldog, Westinghouse, ITE and Mullenbach Electric, companies which are no longer in production. Additionally, we are able to manufacture panelboard and switchboard interiors to fit existing enclosures, greatly saving on the time and expense of completely replacing equipment. Our retro-fit designs conform to U.L. procedures and are listed for their intended use. They are complete with all necessary brackets, hardware, doors and covers to properly finish the project.

Our distribution switchboards are provided with silver-plated copper or tin-plated aluminum bussing that is punched and tapped the entire panel length to accept any combination of bolt-on circuit breakers, motor starters or fusible switch devices. Cross bussing is extended for future additions by simply installing a short jumper bus between sections. Raintight NEMA 3R enclosures are supplied to fit the application. Welded formed steel frames and structures, and steel channel mounting bases are provided to ensure proper alignment of the switchgear as well as seismic stabilization.



DISTRIBUTION SWITCHBOARDS



VERNON POWER PLANT, 1932

These controls are responsible for insuring reliable power quality for one of the largest telecommunications distribution network sites in the world. It provides complete power telemetry, in the form of graphical and digital information, for the status of a number of buildings. It contains complete alarming, controls and annunciation for two Fire/Life Safety standby generators, which are equipped with our paralleling controls. The controls provide proper distribution to the loads connected to the generators and full annunciation of the automatic operation.

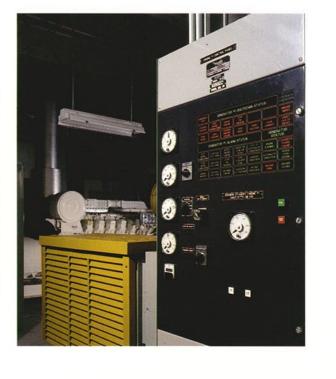
1111111

The console additionally provides telemetry for four paralleled standby generators for the medium voltage distribution system of the facility. In order to enable complete Load Management, should the operators wish to disable the Automatic controls, this console allows for total remote manual controls of the generators as well as manual controls of the distribution breakers. The entire system has been designed with a minimum of "N+1" redundancy to enhance the system's reliability to our client.

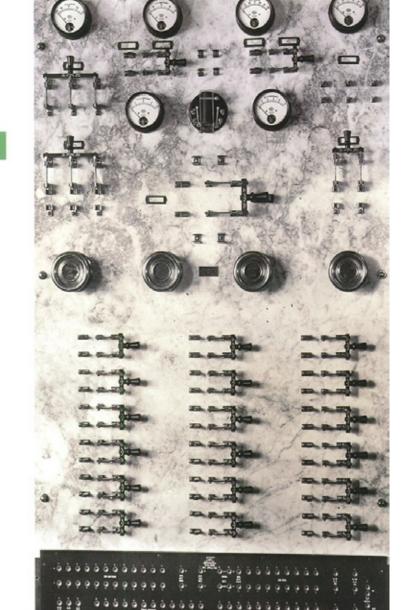
1 Mark

ENGINE CONTROLLER

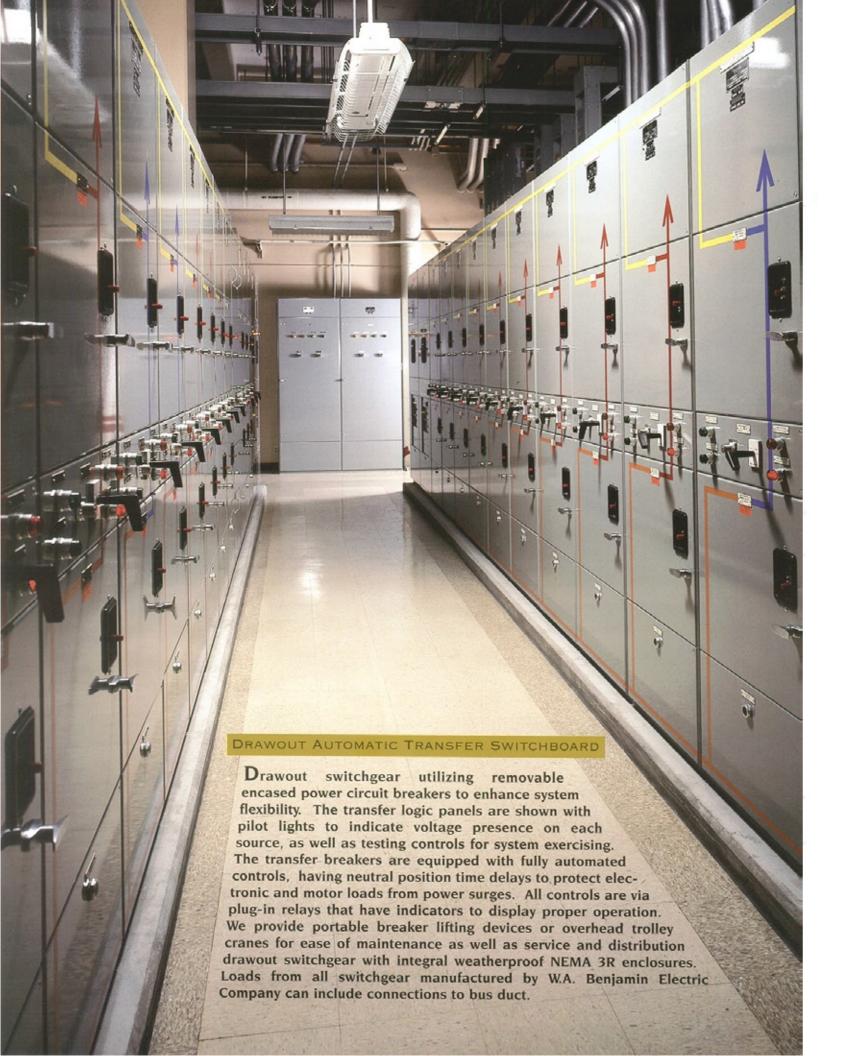
Engine Controller, includes start-stop controls with full engine annunciation and metering, first on-line, paralleling and integrated circuit breakers. Our engine controls project bussing into the generator cubicle in order to accept the generator leads connected directly to our bus. The vibration from the generator operation is negated by a floating collar between the engine controller and the generator cubicle on the engine set.







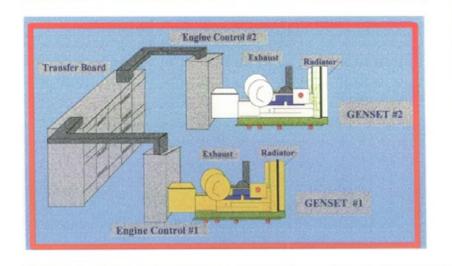
Panelboards include copper bussing, up to 1600 Amperes, with interrupting capacities to 200,000 AIC, symmetrical. Options include contactors bussed to sub panels, remote controlled switches, solid-state lighting controls, time clock spaces, NEMA 3R weatherproof enclosures. W.A. Benjamin Electric will provide new panelboards that can be installed into existing enclosures to upgrade to the newest technology available while minimizing downtime by not having to remove the enclosure.



MOTOR CONTROLS



ENERGY MANAGEMENT COMPUTER SYSTEMS



We offer across-the-line starters, soft starters, and variable frequency or variable torque drives that are integrated into our switchgear line-ups. These starters and drives can control motors that range from fractional to over 1000 horsepower. The switchgear has bussing provisions for future additions as standard equipment and are built with weatherproof enclosures to suit the application. Bypass contactors, along with runtime meters and local controls are typical options that are available. Seen here is a space-saving combination service and distribution switchboard that can provide 800 to 2000 amperes of commercial power. The metering compartment is located in the underground pull section, and the main breaker is located in the distribution section. Another space saving option is the corner switchboard section.

Switchgear that is being built today is not only used for distributing power, but also to manage resources. Circuit breakers and monitoring equipment integrated into the switchboards are sending information to Operator/Machine Interfaces so that more intelligent decisions can be made. The benefits of these systems include cost savings, minimized downtime and preventive maintenance.

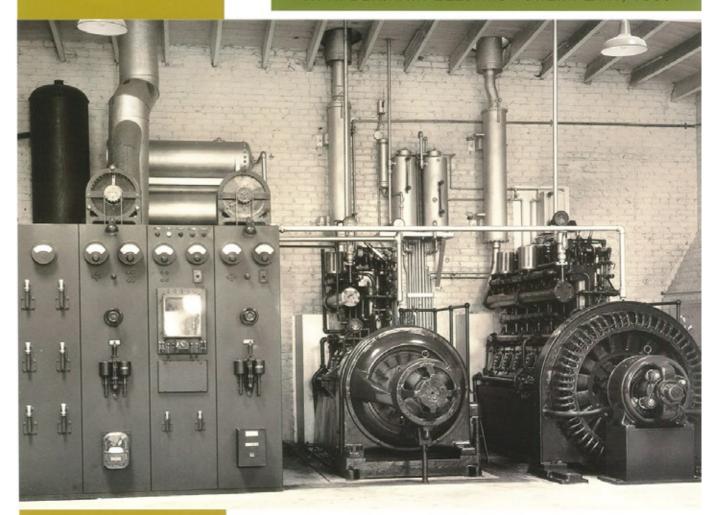
We produce a lighting controller panel. These panels utilize the same controls as our switchboard information management systems, and enhance the client's abilities to adhere to mandated policies related to energy utilization. Our lighting controllers incorporate all existing building lighting protection devices by merely adding the solid-state contactors into the existing or new circuits. There is no costly downtime because our system does not involve adding a new panel and enclosure to replace the existing equipment. Our system simply splices into the breaker-protected circuit to add the necessary controls and can be cut over one circuit at a time. This method results in a competitive cost advantage over existing methods.

Local controls to operate standby generator sets include controls for integrated load bank controls, and priority load acquisition/load shed. Our designs integrate Kilowatt load sensing to better react to system loading. The system will only acquire the loads that it has the capability to handle. We incorporate "look-ahead" circuitry so that a load is only acquired if there is ample capacity to reliably carry the acquired load.



ENGINE GENERATOR PARALLELING CONTROLS

W. A. BENJAMIN ELECTRIC POWER PLANT, 1935



FOUNDED IN 1911

We still offer the same quality in the construction of our products that was the basis for the success of a fledgling business that started as gas lights were being replaced. The methodology by which we seek to maintain this high level of quality includes:

State of the art manufacturing facilities that produce parts to exacting tolerances - it'll work, the first time and every time.

Flexibility which allows designs to match your specifications - you need it, we'll build it.

A reputation for dependability that is based on an unequalled track record of performance - on time, any time.

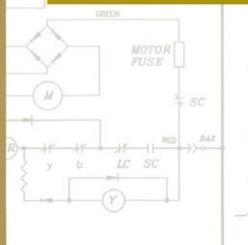
Loyalty to the convictions which founded this company and set standards to this day - you can count on us.

When you want the best, the first time around. Call W. A. Benjamin Electric and experience the best this industry has to offer.

PORTABLE POWER DISTRIBUTION EQUIPMENT

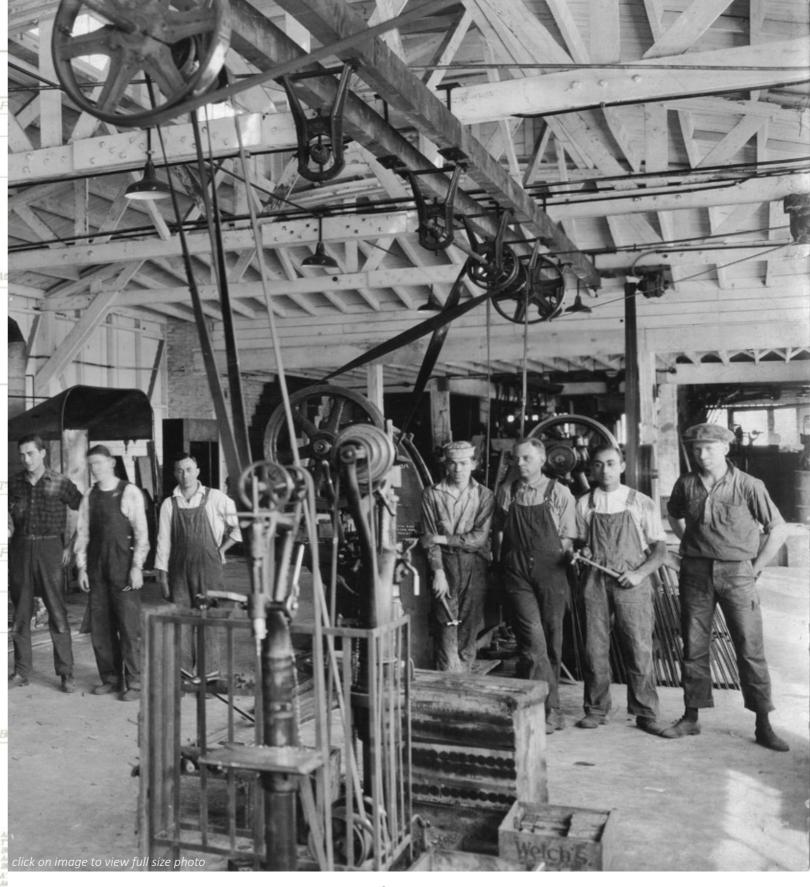


We offer a complete line of U.L. Listed portable power distribution equipment that was originally designed for the motion picture and television production industries. This product line is also being used by the construction, convention center, and carnival industries to assist in providing their customers a safe arena for work or play. Wherever there is a need for the finest quality and value in portable power distribution, you will find us included at the top of the list of providers.



LOAD CENTER TP8B "B"

Γ			NJAMIN Avenue Phone 213-	
o	ONTRACT	OR	FIELDING	ELECTRIC
50	CALE	NORE		APPROVE
0.0	RAWN BY	.E		S O No.



DECEMBER 1924

FROM LEFT TO RIGHT

Fred Henkelman, Jack Doyle, L. Cashio, Louis Seal, John Unfried, Frank Ablahad, Arthur Casad (other employees are shown on the front-inside page)

W. A. Benjamin Electric Company 1615 Staunton Avenue Los Angeles, California 90021 213-749-7731 contact-sales@benjaminelectric.com Copyright © 1997 W. A. Benjamin Electric Co.