Masterbuilt

MASTERBUILT MAGNETO SWITCHBOARDS BULLETIN 123, 1938

Bulletin of Kellogg 50, 150 and 200 line series magneto switchboards. A general overview and specifications with ordering information

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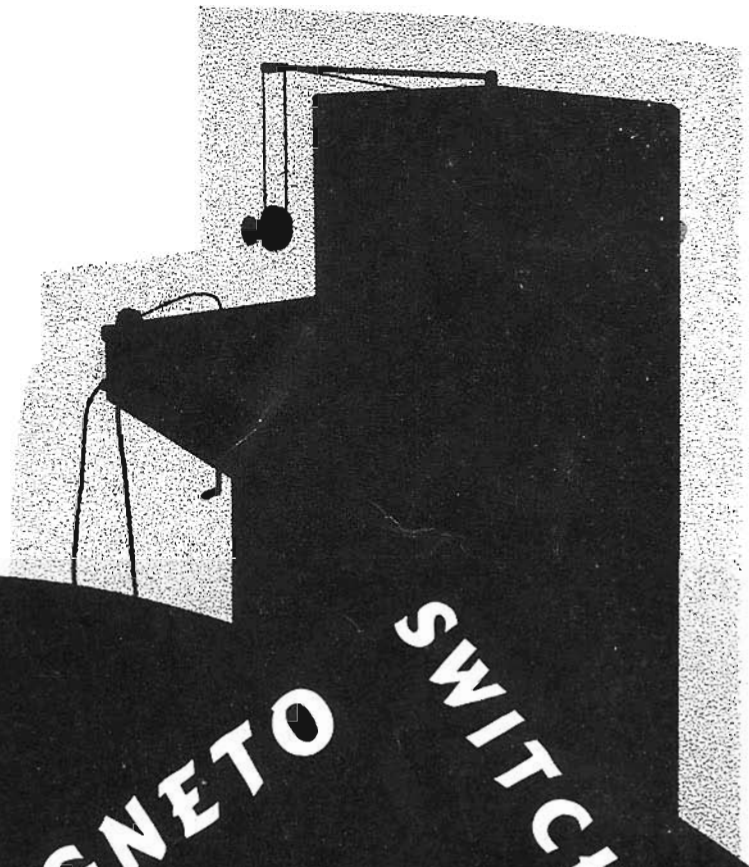
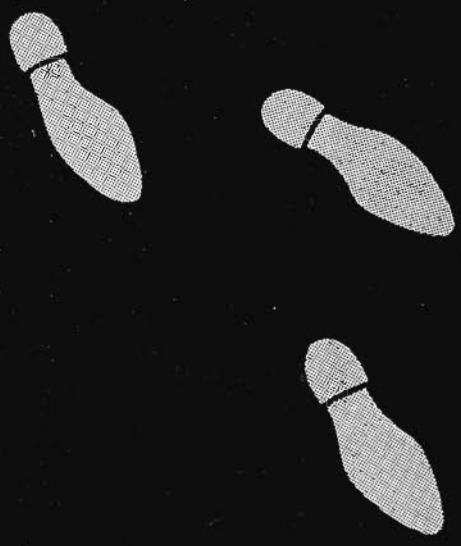
BULLETIN
123



Masterbuilt MAGNETO SWITCHBOARDS

KELLOGG

SWITCHBOARD & SUPPLY CO.



YOUR FIRST STEPS ARE IMPORTANT.

BUYING a new switchboard isn't always easy. . . . That's because you are actually buying more than a mere assortment of apparatus. What you are really buying is service and service life. After all, yours is a service business.

To stay in this business you must produce satisfactory service for your subscribers. You must get satisfactory service and service life from your equipment.

'Most any new switchboard will give service at the start, but service life is another matter. That means service over the long period of years you will be using the board.

That is why we caution you to study your purchase carefully before making your final decision, and

★★MAKE THEM COUNT!

why we are giving you this bulletin which will make this study easier and more understandable.

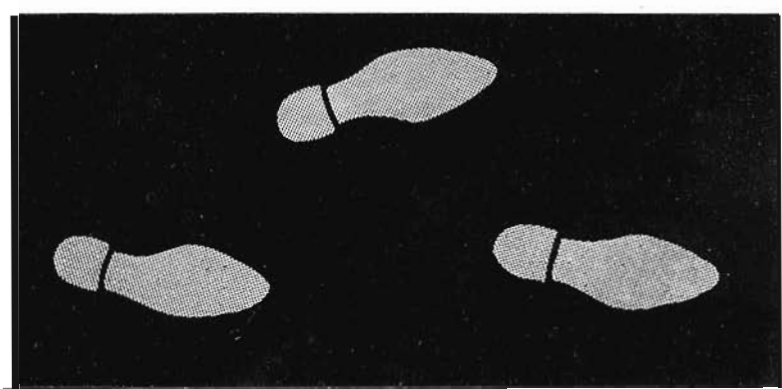
How well your switchboard will operate and how long it will continue to do so, depends entirely on the experience in engineering and manufacturing which goes into it. . . . How well each individual part is designed and made and the material which goes into it. . . . How well the parts work together to give smooth, satisfactory service.

But there is more than this necessary. There's appearance. You will want modern looking equipment, clean cut and business-like. You will want your subscribers to see that your new equipment is really new in every respect.

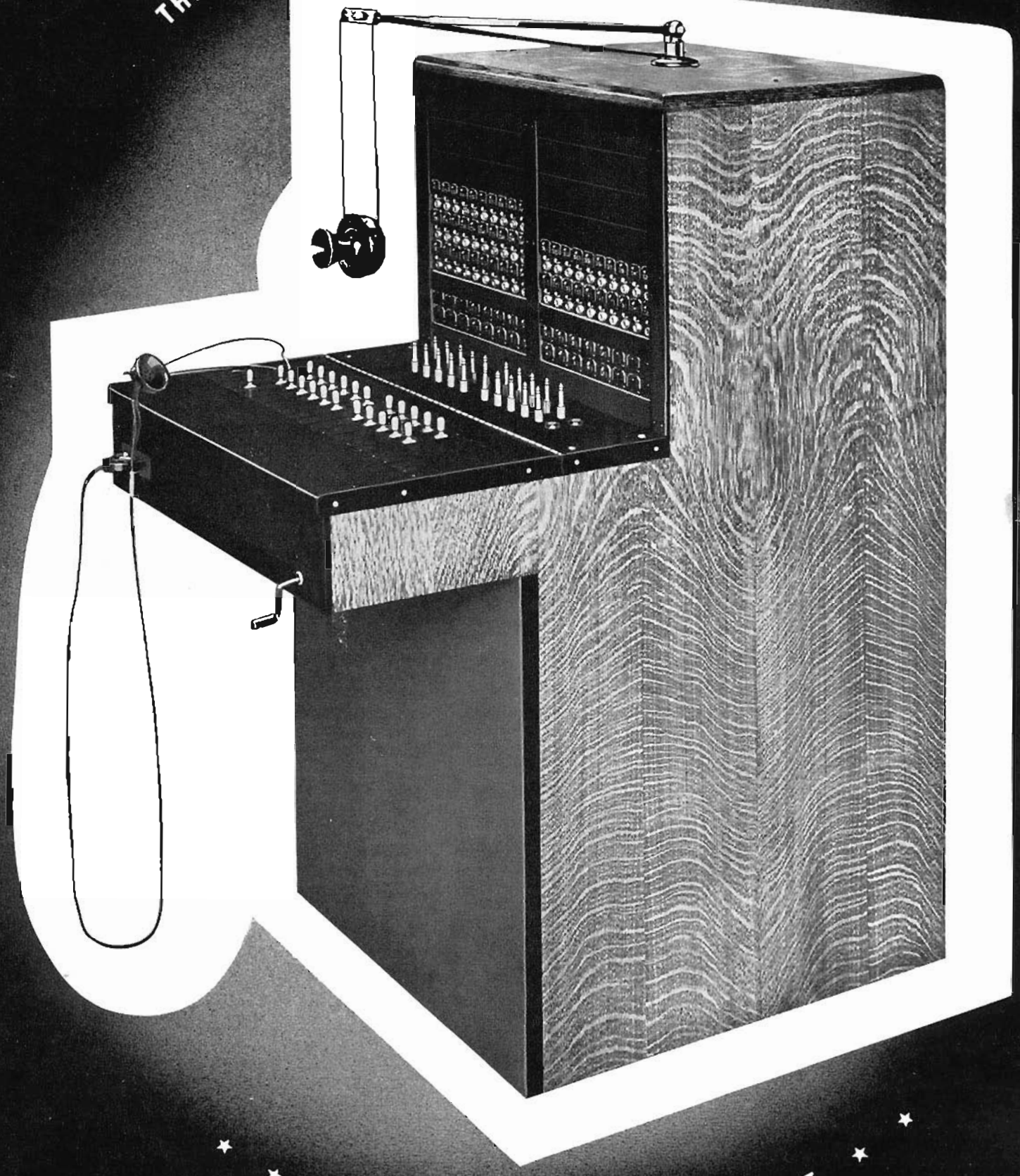
You will want simplicity of design and accessibility of parts, for after all, some care must be given to all switchboards. The easier this can be done, the better your service.

You will want to feel that the equipment is flexible enough to meet your service demands today and tomorrow. This new switchboard is going to be with you a long time.

Remember, there are more Kellogg Magneto Switchboards in use today than any other make. There must be some reason.



THE KELLOGG Masterbuilt MAGNETO SWITCHBOARD



HAS EVERYTHING YOU WANT

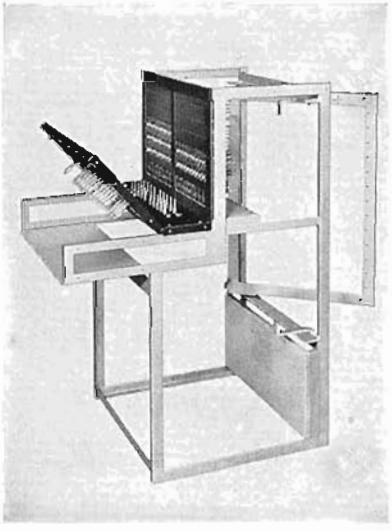
BEFORE you try to make any decision as to the kind or type or size of the switchboard you need, it might be well to start right at the bottom and study the things which go into the completed article. These are the things which insure service and service life. Let us guide you through this maze by telling you in simple language the how and why of these things.

THE FOUNDATION ★★★ SOLID AS A ROCK

FOR a good many years all manufacturers have constructed Magneto Switchboards on a foundation of wood. Sometimes steel braces were used, but the wooden cabinet itself had to support all of the weight of the equipment. The newest method of construction is all steel. In place of the old box-like cabinet, this modern switchboard is built upon a solid steel foundation . . . built like a modern skyscraper.

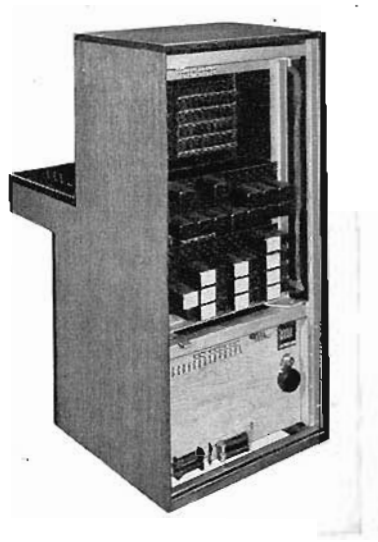
THE picture at the left shows the rigid, all-steel framework, fabricated into one complete interlocking unit. Angle irons and channels are used without stint. Rivets and spot welding fasten each piece permanently in position. How different this firm, all-steel structure is, compared to the all-wood jobs of past years! This construction not only provides ample strength to support the equipment and cabinet woodwork, but adds permanence to the installation.

BAKELITE SHELVES AND PANELS



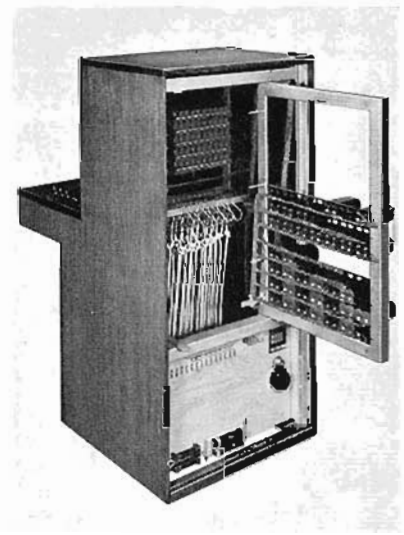
STARTING with this all-steel foundation, the modern switchboard begins to take shape with the addition of the keyshelf and face equipment. Here, rich, black Bakelite is used throughout. This is another departure from the old type switchboard which generally employed wood shelves, and in some cases even used wood face panels. Bakelite is used in these switchboards because of its unusual wearing qualities and its permanent lustre. It contrasts beautifully with any surroundings and particularly sets off the cords, plugs, keys, drops and lamps. The keyshelf, hinged with a full length piano hinge, can be raised to provide free and easy access to the key equipment.

THIS IS MASTERBUILT CONSTRUCTION.



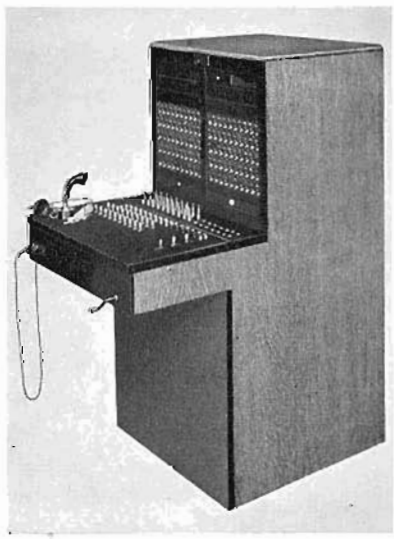
THE SWINGING GATE

HERE is another construction feature, comparatively new to magneto users. It is the swinging gate which carries the cord circuit repeating coils, condensers; and in the case of the lamp supervision switchboard, the supervisory relays. Below this steel gate is a maple panel which mounts the operator's telephone circuit and night alarm equipment, terminals for ringing current, battery supply, telephone switching circuits; and in the case of the lamp supervision switchboard, the fuses. This panel is conveniently located for easy access. Just swing the gate open and there are the line equipment, cords and both sides of the gate right before you. Nothing obstructs the wiring. Everything is exposed and easy to get at. Inspecting the switchboard is now a pleasure . . . and it's easy to keep the inside clean.



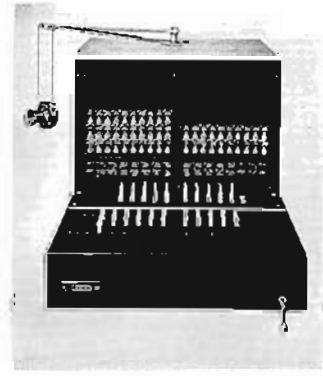
THE REMOVABLE WOODWORK

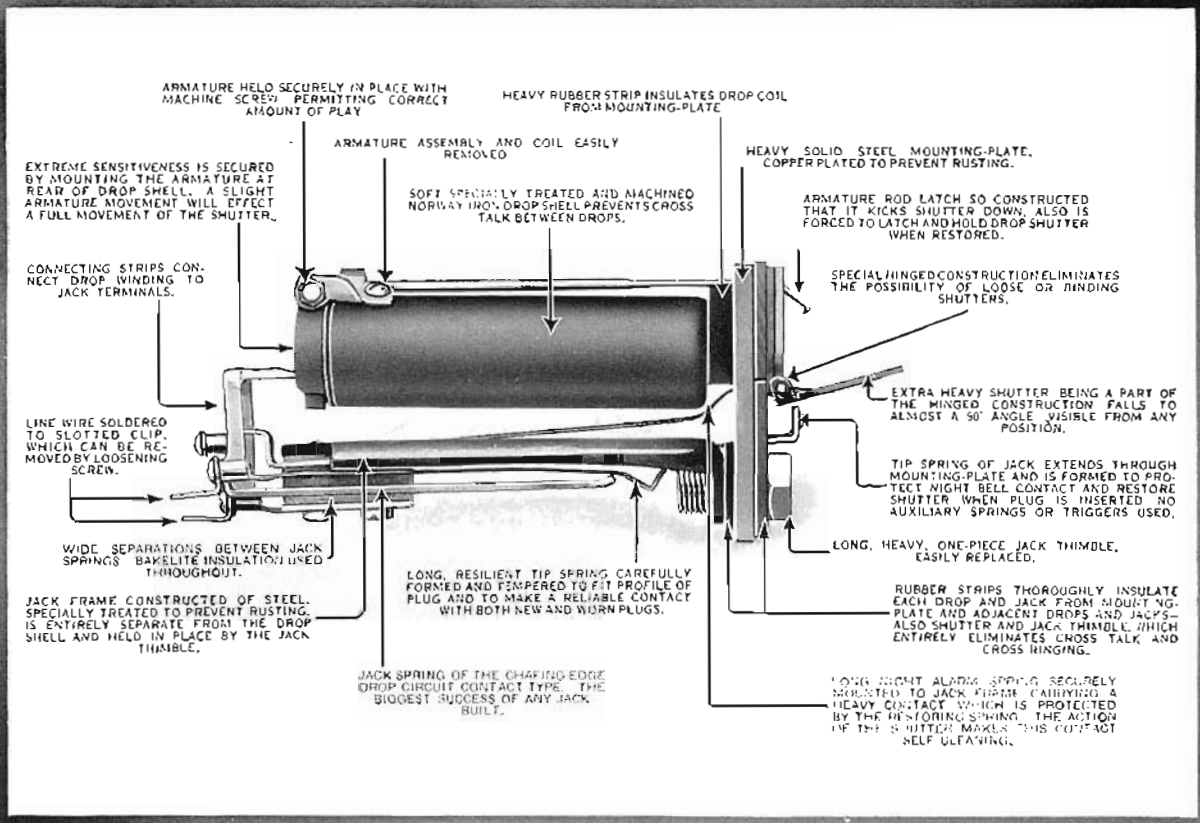
YOU can see that the beautiful hand-rubbed side panels and top are simply attached to the steel framework. This is the trim which adds the finishing touches to the switchboard. Unlike the old fashioned switchboard with its overhanging top, fancy mouldings and panels and extended, overlapping sides, the modern switchboard has a smooth, beveled top and sleek, flush sides. The kickboard is completely covered with a solid color battleship linoleum panel. Here is the modern switchboard, freed of all the gingerbread trapping. . . . A sleek, fine looking business machine.



THE FACE EQUIPMENT

THE close-up picture of the keyshelf emphasizes again the simplicity and attractiveness of the modern design. Nothing has been spared to make it convenient for your operator. The black all-Bakelite background is easy on the eyes. Drop shutters are clearly numbered. Jack mountings are bright nickel. Shiny brass plugs with red fibre jackets are positioned and spaced for maximum convenience. Even the key handles have gone modern with color. They are red, and contrast beautifully with the black key mountings. The continual scraping of plugs no longer mars the finish around the jacks such as that with which you have had to contend in the past. The permanence of Bakelite prevents this. Also, the problem of large holes being constantly worn around the plug seats is now solved. Every plug well in this switchboard has a plug well bushing to take up this wear . . . and these bushings are replaceable. THESE ARE MASTERBUILT FEATURES.





DROPS and JACKS★★

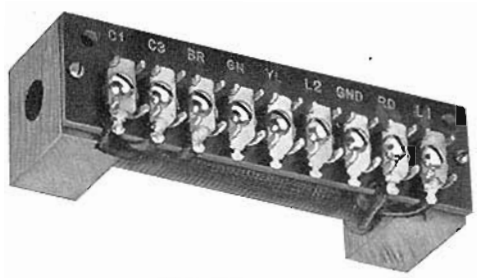
THE drops and jacks are really the heart of the magneto switchboard for the drops signal the operator and the jacks enable her to connect the parties. Each line has its own drop and a jack. Any line is only as good as the drop and jack to which it is connected.

The drop itself is merely a little shutter with the number of the line on it and a coil which moves a latch as the subscriber turns the handle of his telephone generator. Most drops, other than Kellogg, are hinged at the bottom so that they fall by gravity only when the latch is released. This is all right on short local lines provided that the ringing current is strong. But where there are long, heavily loaded lines, where the ringing current is weak, or where the shutters are sticky, this is another story.

If you will look at the picture above you will see how well the Kellogg drop insures positive operation. The armature which operates the latch is at the back end of the coil. This permits the use of a longer latch rod, with more positive action because the armature can be set closer and be pulled up easier by weaker currents. The slightest movement of the armature will cause full movement of the latch. The latch, as it is constructed, not only releases the shutter but kicks it down at the same time. Because Kellogg drops do not rely on gravity alone, you will never find a Kellogg switchboard tipped forward with wedges under the back.

You will seldom find it necessary to replace a Kellogg drop coil because extra heavy insulation and rugged construction guard against damage from lightning and other high voltage currents. Some other coils seem to sacrifice insulation and ruggedness merely to gain a few minutes replacing time. Even the inexperienced, however, can change a Kellogg coil in only 10 or 15 minutes.

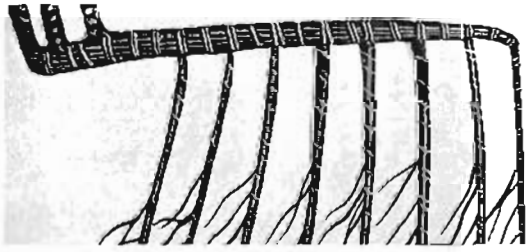
Jacks consist merely of thimbles or tubes, into which the plugs are inserted. These are mounted on a frame together with the necessary springs to which the line wires are connected. These thimbles are made of soft metal so that they will wear instead of the more expensive plugs. And Kellogg thimbles are easily removed from the front of the switchboard, and replaced inexpensively.



INDUCTION COIL

REPEATING COIL

CONDENSER



CABLE

PLUG

CORD CONSTRUCTION

INDUCTION COILS

MOST operators' telephone circuits do not have an anti-side tone feature unless it is ordered special. But Masterbuilt switchboards, whether drop or lamp supervision, have this as standard. The induction coil used is of the same three-winding, balanced type which was first introduced and made so popular in Kellogg Masterphones.

REPEATING COILS

WHERE rural lines are of the usual grounded type and town lines are of the metallic type, repeating coils are used in the switchboard cord circuits. These coils eliminate the noise which is generally induced by connecting lines of different types, and thereby improve transmission and reception. They also act as a check-valve on subscriber recalls. A subscriber can now make a recall immediately upon completing a former call, without ringing through the previous connection whether or not the operator had taken it down. Kellogg repeating coils have been known many, many years for their compactness and efficiency. Covers are finished in bright zinc.

CONDENSERS

EVEN the condensers in Masterbuilt switchboards receive their share of attention in engineering, design and construction. They are made especially for this service. The best grade of tinfoil and linen paper are used. Of course, this construction is somewhat more expensive than the usual, but it makes for an absolutely reliable and trouble-free unit. Covers are bright zinc plated.

CABLING

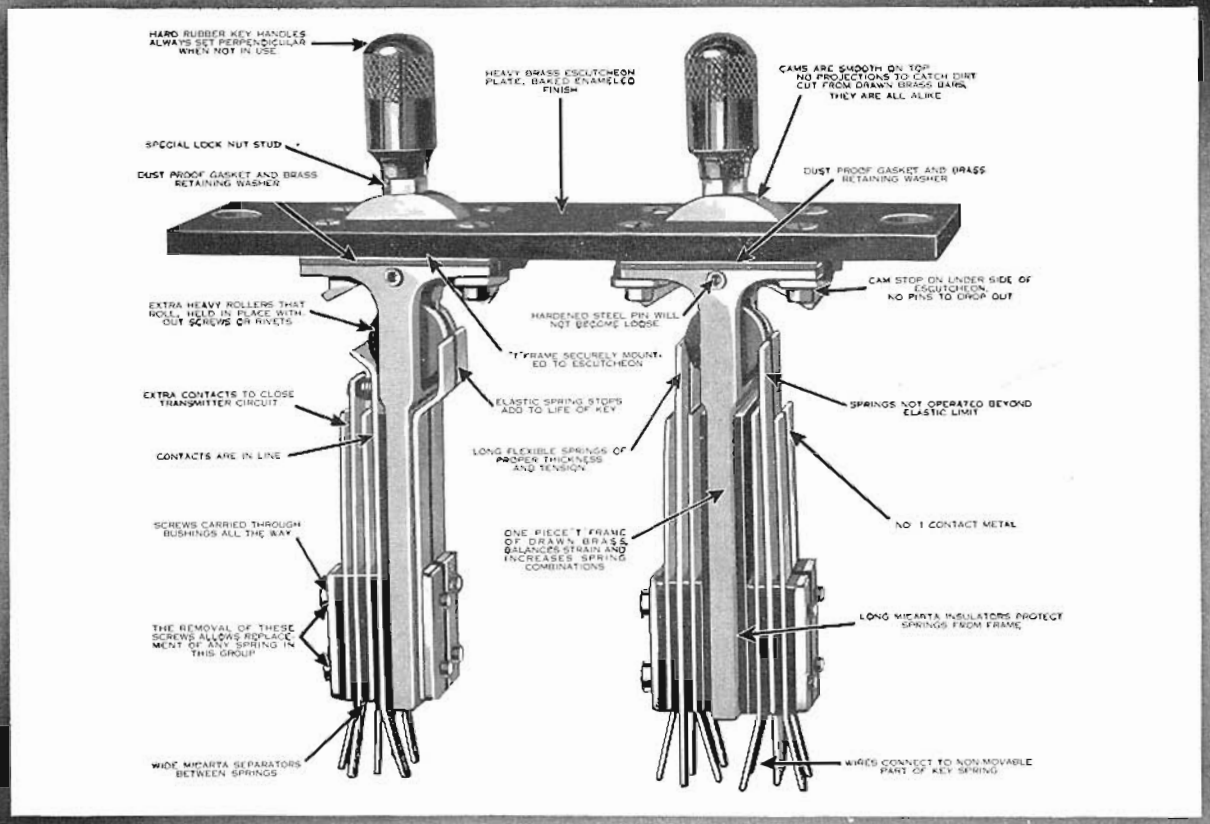
CABLING means much to the life of any switchboard. One of the things which most people marvel at is the neatness and compactness of Kellogg cabling. Accuracy and care are apparent.

SWITCHBOARD PLUGS

MOST switchboard plugs look alike and are constructed alike. Yet every telephone man, who has had experience with various makes, knows that there is something about Kellogg plugs which gives them extra stamina. One of the big reasons for this, although not seen in the finished article, is the micrometer exactness required of the raw materials used. The right kind of brass and insulation, the correct design and the care in manufacturing all contribute to this better plug.

SWITCHBOARD CORDS

NOTHING receives harder handling on a switchboard than the cords. The constant, everyday twisting and jerking would mean frequent, costly replacements if the finest long-life materials were not used. Materials alone, however, are not the only reason for the reputation of Kellogg cords. Design and manufacturing are equally important. And Kellogg cords of all kinds must withstand rigid tests all along the production line.



SWITCHBOARD KEYS

FOR every cord circuit in a magneto switchboard, there is a pair of keys. One is used for answering subscriber calls and the other for ringing. These keys are conveniently positioned on the shelf right in front of the operator. They receive a grueling workout day in and day out. Moisture from the hands, dirt and dust, are other everyday abuses to which these keys are subjected. While every switchboard part is as important as the next, yet we cannot overlook the fact that the keys control all the connections. This is the big reason why Kellogg engineers put so much emphasis on correct key design.

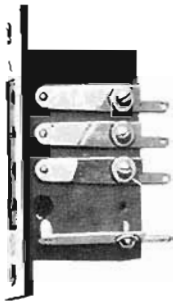
The picture points out many of the structural features which make for the reputation of Kellogg keys. Unlike a switchboard cord or plug, you can actually see the difference in various manufacturers' key designs, and easily draw your own conclusions as to which has the ruggedness and simplicity to stand the strain. Particularly note such vital things as the long, heavy, evenly shaped and properly tempered springs of nickel silver; contacts of the finest contact metal; heavy "T" shaped brass frame to which the springs are rigidly mounted; the cam and pivot rollers upon which depends smooth operation without wear; the felt dust-protecting cushion; and the extra heavy insulation.

Your first impression will be that here is, by far, the most reliable, trouble-free and rugged switchboard key . . . no trick designs or assemblies . . . no intricate springs or levers to require minute adjustment or otherwise get out of order and cause trouble . . . and no sacrifice of the amount or quality of the materials.

All Kellogg springs are heavily insulated with micarta and withstand the most severe breakdown test of any switchboard key on the market.

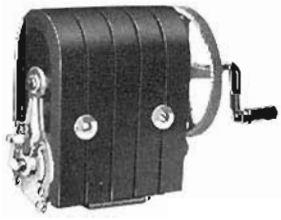
SUSPENDED TRANSMITTER

PLUG and JACK



BUZZER

BELL



GENERATOR

CORD WEIGHT

FASTENER

OPERATOR'S TRANSMITTER

TO give good service your operator must have an up-to-date efficient transmitter. Some prefer the suspended type pictured at the left. This Kellogg transmitter contains the famous NON-POSITIONAL unit used in all Masterphones. Its Bakelite front is the same as that used on the newer wall and desk sets. Its efficiency is equaled only by the new small breastplate set shown on the next page. You may have your choice of either type.

OPERATOR'S PLUGS AND JACKS

ALL Masterbuilt switchboards have the operator's jack located on the left side of the front of the keyshelf. The plug comes attached to the operator's receiver, and when a breastplate transmitter is used, the plug carries both the transmitter and receiver connections. Because dependable service hinges on positive operator's connections, these units are extremely vital. Kellogg constructs operator's plugs and jacks with the same care and precision used in making switchboard plugs and jacks.

CODE AND NIGHT ALARMS

A STANDARD Masterbuilt Magneto Switchboard feature is the night alarm. This consists of a bell mounted in the switchboard and a control key mounted on the keyshelf in front of the operator. At night, the bell signals the operator when any subscriber makes a call. Only one bell and key are required because they are wired to all line and supervisory signals.

CODE ringing alarm is often desired so that the operator, while not at the switchboard, can distinguish the difference between a subscriber's call to another party on the same line or a subscriber's call to central. This feature uses a separate buzzer and control key, and the party line drops are provided with a separate contact. When a code is rung on these party lines, the buzzer sounds the same code signals loud enough to be heard at a distance. Thus, the operator knows whether or not she must attend the switchboard.

HAND GENERATORS

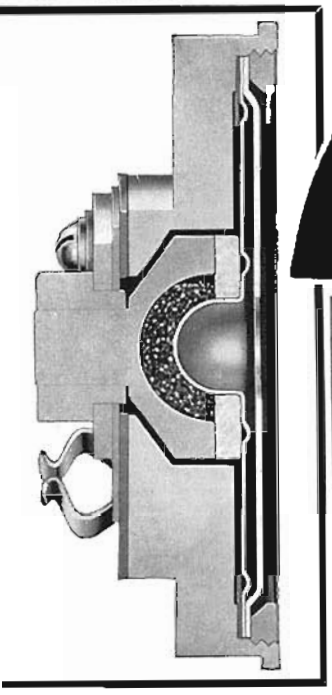
THE unusually strong output of Kellogg generators is primarily due to the special design and special materials used in the permanent magnets and in the revolving armature. These are most reliable generators and insure long life in all types of magneto service. A 5-bar generator, capable of furnishing 80 to 100 volts of 20 cycle ringing current, is standard on every Masterbuilt Magneto board. It is permanently wired into the switchboard, through a generator switching key, and is instantly available in the event of a failure of the power ringing current.

CORD WEIGHTS, RACKS, FASTENERS

MANY good cords do not serve their full life due to poorly improvised weights. Kellogg weights have a box-wood roller firmly pivoted in a steel shell which is then filled with lead to provide the proper weight for smooth operation without wear or damage to the cords. The cords hang from a maple rack and mount to heavily tin-coated fasteners which are properly spaced to prevent tangled cords.

OPERATOR'S BREASTPLATE SET.. SMALL, COMFORTABLE, CONVENIENT, EFFICIENT!

NON-POSITIONAL TRANSMITTER



THE famous Kellogg NON-POSITIONAL transmitter principle has now been incorporated in this 177 type lightweight operator's breastplate set. This feature eliminates the possibility of "dead" talking positions and means that transmission efficiency remains at its peak regardless of the position or angle of the instrument. The Kellogg patented spherical electrode construction of this NON-POSITIONAL transmitter guarantees a constant and uniform flow of current between the electrodes at all times, and the carbon granules will not pack. Because this transmitter covers a wider range of the voice frequencies, there is a decided gain in articulation and understandability of the transmitted voice.

This new breastplate transmitter is small in size, light weight, and is moistureproof. When used in anti-side tone circuits there is a decided gain in the effective reception because the operator's receiver does not have to compete with side tone and room noises.

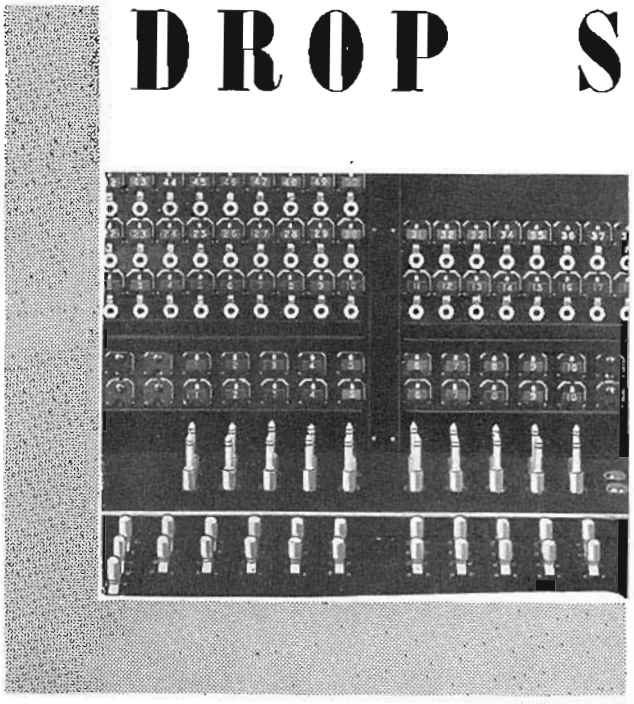
The NON-POSITIONAL unit is sealed in a sturdy aluminum housing only 1-13/16" in diameter. The hard rubber mouthpiece screws into a nickel plated front with a ball and socket joint that permits adjustment to any talking position. The black enameled aluminum breastplate is 4" x 5⅞". The adjustable band is made of a high grade, gray cotton tape with clips at both ends for easy removal or attachment. Overall length, including mouthpiece, is 6"; and the total weight, including band, is only 6⅜ ounces.

featherweight RECEIVER

There's real comfort for operators in this completely new watchcase type receiver. It weighs only 1¾ ounces! And with headband, only 3 ounces! The diameter of the case is only half that of older types but the Bakelite cap is large and so shaped that the receiver is more comfortable to the wearer, and better reception is assured. Cobalt steel magnets make possible this lighter weight and smaller size, and this assures long life and unusual sensitivity. The diaphragm is not affected by temperature variations. The wire headband is adjustable, and Cord terminals are concealed but easily accessible without removing the cap. The resistance of this receiver is 56 ohms, and its impedance is 300 ohms at 1000 cycles. It can be used equally well on magneto or common battery switchboards.

This new featherweight receiver and headband make an ideal companion unit for the new NON-POSITIONAL Breastplate Transmitter.

DROP SUPERVISION

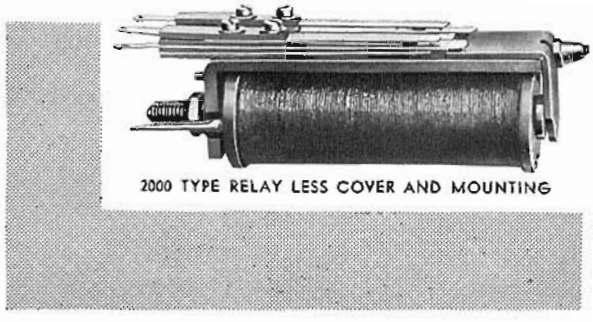


YOUR operator must have some method of supervision so that she will know when to take down the cord connections after each subscriber conversation. Various methods have been employed to signal the operator, some requiring mechanical signals or targets on the keyshelf. These have not always been satisfactory due to becoming clogged with dust, etc., and becoming partly if not wholly inoperative. The simplest and most reliable method is to use the same type of drop as is used for each line, and have it mounted on the face of the board. When the subscriber rings off, the shutter falls. The "kick" of the Kellogg latch is double insurance.

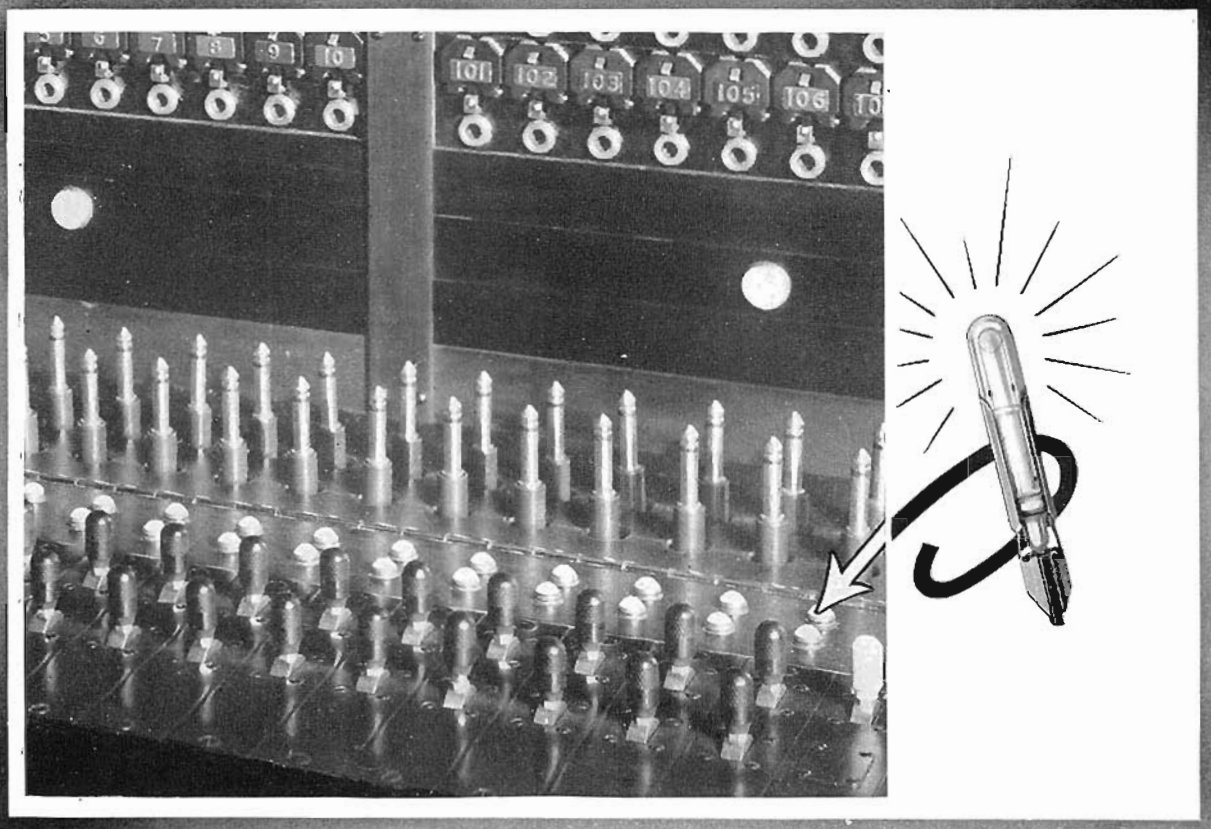
Most operators and subscribers prefer double drop supervision for then the subscriber ringing off signals only the operator and not the party he was talking to. Single drop supervision permits ringing through.

LAMP SUPERVISION ★ ★

THE newer method of providing operator's supervision is that employing lamps. The brilliant glow of these lamps, located in full view on the keyshelf of the switchboard, attracts and compels your operator's attention far better than drops . . . and the lamps are not obstructed by cords or affected by dirt or dust. Because this is a more positive signal, subscribers get better service. When a subscriber "rings off," a lamp immediately lights and continues to glow until the operator takes down the connection.



2000 TYPE RELAY LESS COVER AND MOUNTING



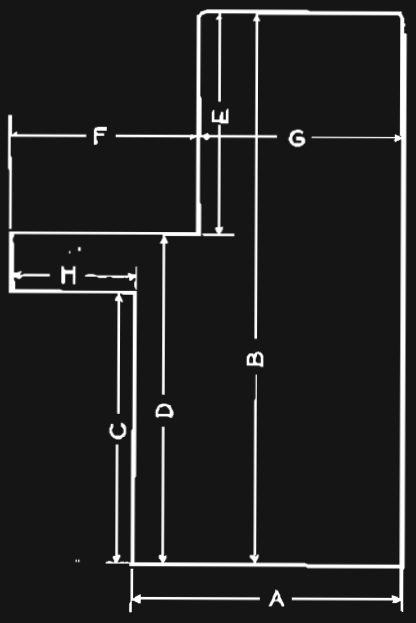
SPEEDS SERVICE . . . QUICK AS A FLASH!

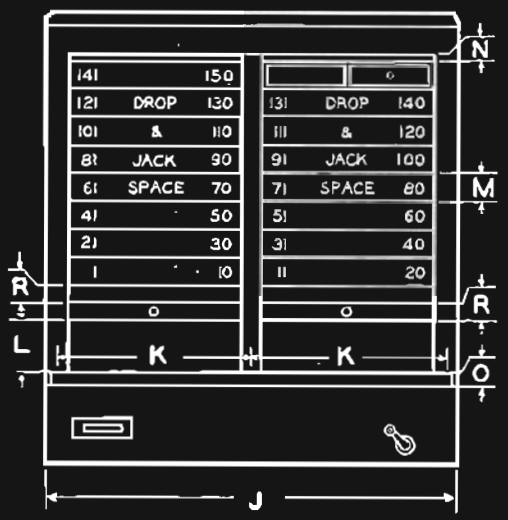
Obviously there are many technical advantages to be gained by having lamp supervision in your new switchboard. The foremost is maintenance. There are no moving parts on the keyshelf. The lamps alone will need occasional replacing, but they are very inexpensive and have a long life. The relays which light the lamps are located on the gate in back of the switchboard where they are protected from dust and injury. This type of supervision is economical from an operating standpoint because the same storage battery used for the operator's transmitter is also used to light the lamps. Too much emphasis cannot be placed upon the merits of lamp supervision. If you have commercial current available with which to keep a storage battery charged, by all means insist upon it. Lamps speed service and lighten the operator's job. They make for the finest type of magneto supervision. They provide a combination of satisfied subscribers and happy operators which is hard to beat. Kellogg engineers, as usual, are responsible for this better keyshelf supervision.

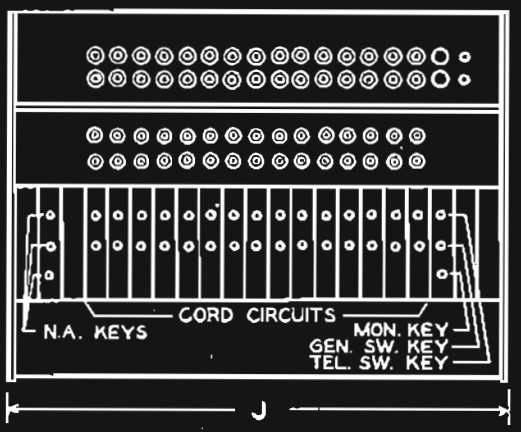
Masterbuilt

THE FINEST MAGNETO KELLOGG EVER

Comes in three cabinet sizes . . .





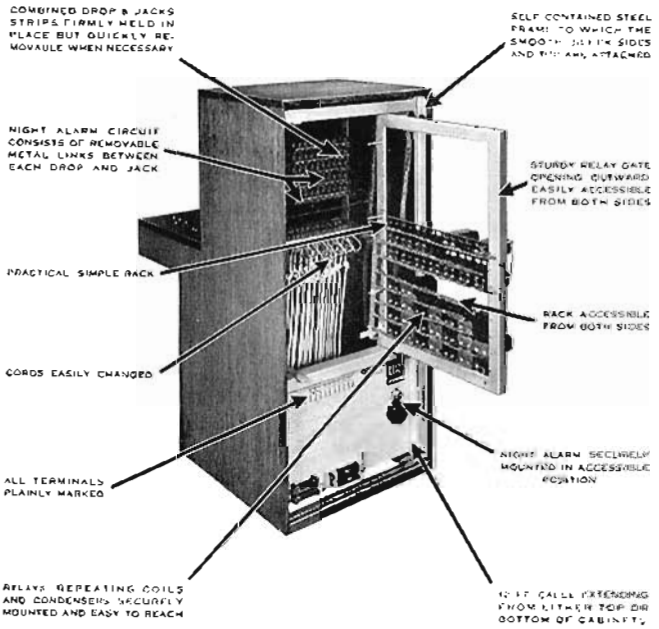


CODE NO. **DIMENSIONS**

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S
50	22¾"	46⁹⁄₁₆"	24¾"	30"	16⁹⁄₁₆"	18"	16¾"	11⅞"	23¹⁵⁄₁₆"	11⁵⁄₃₂"	4⅜"	1¾"	5⁄₈"	⅞"	1²⁹⁄₃₂"	1"	23¹⁵⁄₁₆"
150 E 150 F	24¾"	50⁹⁄₁₆"	24¾"	30"	24⁹⁄₁₆"	18"	18¾"	11⅞"	23¹⁵⁄₁₆"	11⁵⁄₃₂"	4⅜"	1¾"	⅜"	⅞"	1²⁹⁄₃₂"	1"	23¹⁵⁄₁₆"
200 E 200 F 200 G	26¼"	58⁵⁄₁₆"	27¾"	30"	25⁵⁄₁₆"	18"	20¼"	11⅞"	23¹⁵⁄₁₆"	11⁵⁄₃₂"	4⅜"	1¾"	5⁄₈"	⅞"	1²⁹⁄₃₂"	1"	23¹⁵⁄₁₆"

Masterbuilt

SWITCHBOARD ENGINEERED!



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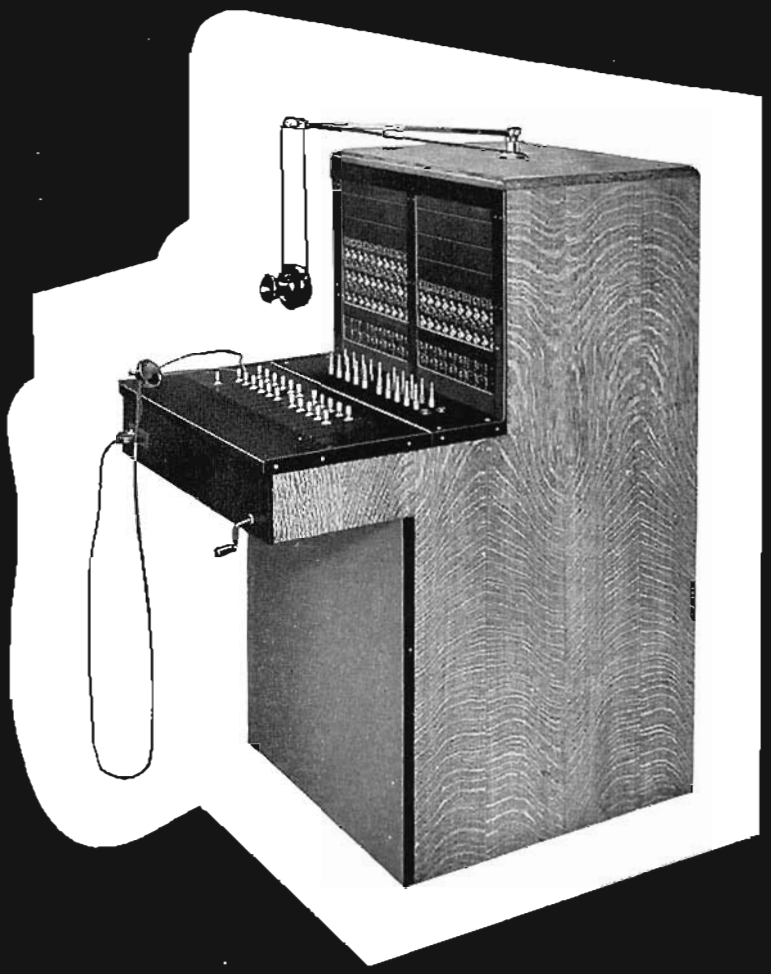
ORDERING INFORMATION

Page 18 contains complete details on "How To Order", including various capacities available and cord circuit descriptions.



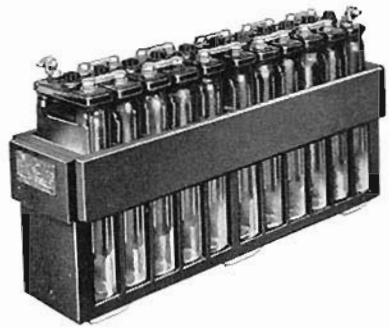
Beautiful!

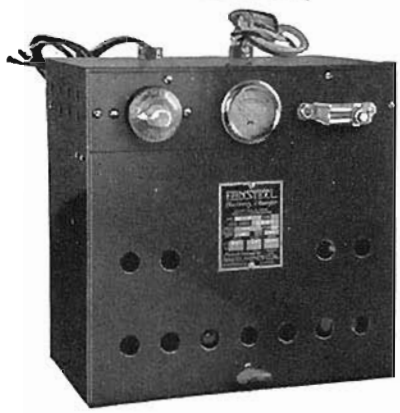
Simple!

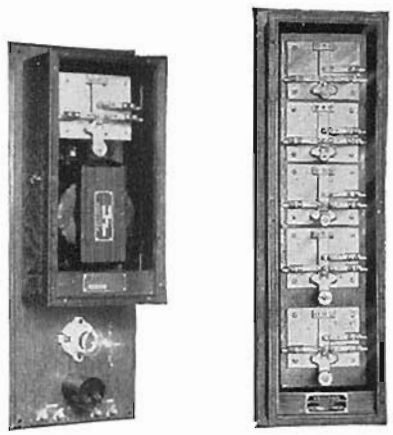
Rugged!

MAGNETO

POWER







STORAGE BATTERY

TO GIVE uninterrupted service, an exchange must have an uninterrupted source of current. This is the job for a storage battery and a rectifier. On lamp supervision switchboards, the battery furnishes current for the supervisory lamps, night alarm, operator's transmitter and ringing machine. While a storage battery is not absolutely necessary for drop supervision switchboards, it is highly recommended because it furnishes the most economical and reliable source of current for the operator's transmitter and night alarm. In addition, the same battery will operate a pole changer which gives you the advantage of obtaining steady, uniform ringing current without fear of interruptions caused by power line failures. Several makes of 11-cell storage batteries, especially designed for these 24-volt magneto telephone systems, are available.

COPPER OXIDE RECTIFIER

SOME exchange managers prefer this type of battery charger. The rectifying unit is a copper oxide assembly of proven reliability and safety. Its life is practically unlimited. There are no parts to replace, and no fluids are used. The dial on the front of the cabinet is used to adjust the charging rate of the battery. Quiet operation is insured because of an internal filter. Each rectifier comes equipped with a D'Arsonval instrument which indicates the accurate output current. These units keep storage batteries up by furnishing a constant trickle charge. They are a General Electric Company product.

ELECTROLYTIC RECTIFIER

THIS Fansteel battery charger introduced some new characteristics which has made it very popular for telephone use. It is known as a Taper-Charger because it delivers a high rate of charge when there is a heavy drain on the battery, and tapers off the charge when the battery drain tapers off. This means that you do not have to keep adjusting the charging rate after it has once been set. The rectifying electrodes are tantalum and lead and these are submerged in an electrolytic solution. Maintenance consists of adding water occasionally to the electrolyte in the cell. A built-in filter circuit eliminates all trace of AC hum. These chargers have an unconditional two-year guarantee and an additional five-year warranty covering any replaceable part on a service life basis.

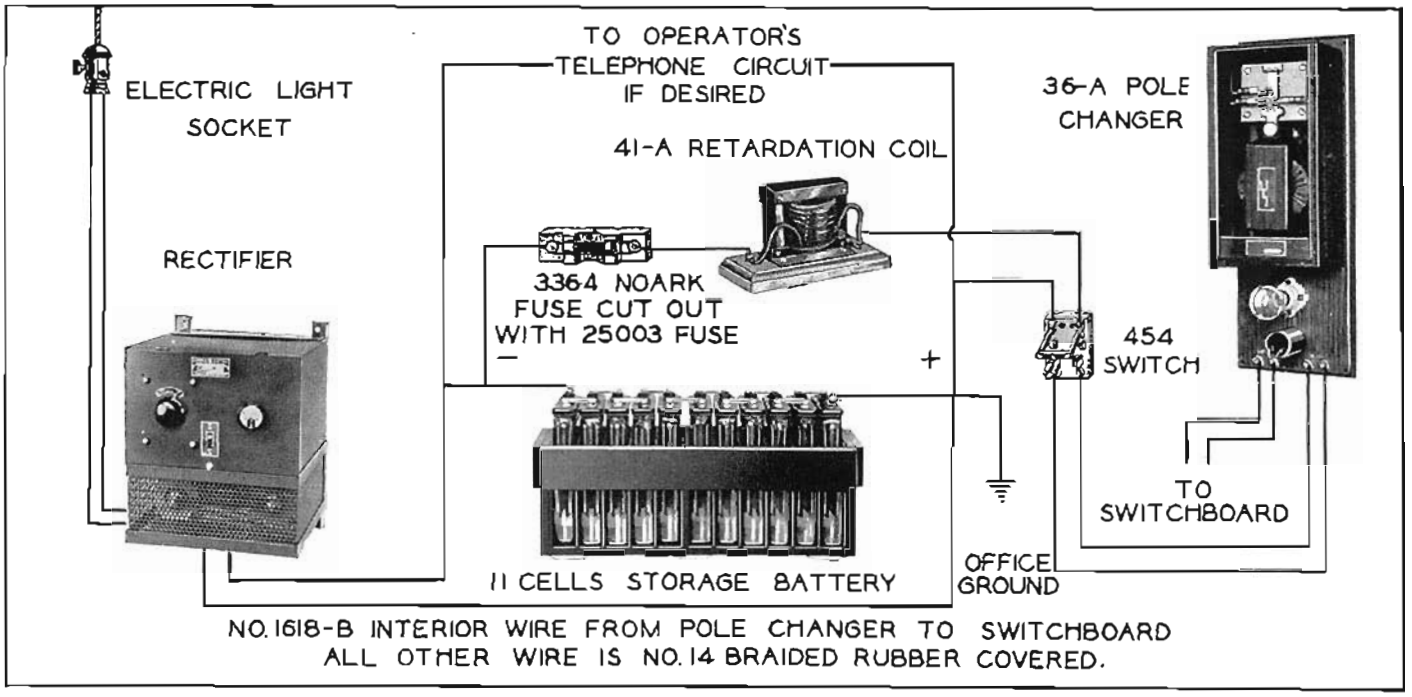
POLE CHANGERS

THESE are standard ringing machines, designed to operate from the regular exchange storage battery. They are the most economical to use. The smaller type consists mainly of one simple vibrator and a heavy duty ringing transformer. It produces 100-volt 20-cycle current for straight line and code party line ringing. The larger type is especially designed for selective party line ringing service and consists of five vibrating units with transformers mounted in an auxiliary cabinet. Each vibrator furnishes a different ringing current frequency to which one of the telephones on each party line is tuned.

OPERATOR'S POWER UNIT

THERE are several ways of furnishing battery supply to your operator's transmitter. Dry cells or primary batteries may be used, but, like most other managers, you may want to get away from the continual monthly expense and the nuisance of constantly replacing such batteries. That is the purpose of this compact, inexpensive operator's power unit. It consists of a small Fansteel charger and a sealed type four-volt Exide battery. It plugs into any convenient 110-volt AC outlet and can deliver sufficient DC power for two or three operators' transmitters and the night alarm. This unit provides a constant battery supply, year after year, without interruption. It has sufficient reserve power for approximately four days should the commercial current fail. The only attention required is the addition of water to the battery and charger two or three times a year.

APPARATUS



POWER PLANT No. 1

FOR MAGNETO SWITCHBOARDS HAVING DROP SUPERVISION, SINGLE FREQUENCY RINGING WHERE RINGING MACHINE, NIGHT ALARM, CODE ALARM AND OPERATOR'S SET IS TO OPERATE FROM THE SAME STORAGE BATTERY.

- 1 set 11 cells 24 ampere hour battery
- 1 1 ampere Copper Oxide or Electrolytic rectifier for charging battery
- 1 No. 36-A pole changer ringing machine
- 1 No. 41-A retard coil for ringing machine
- 2 No. 454 DPST knife switches
- 1 No. 3364 Noark fuse cutout base
- 3 No. 25003 Noark 3-ampere fuses, 1 extra
- 1 No. 9402 porcelain base lamp receptacle for each position
- 1 25-watt 110-volt Mazda lamp for each position
- 1 No. 3 battery feed coil for each position

  Necessary lengths No. 14-A BRC wire from battery to switches and switchboard, and, from switches to ringing machine.

  Necessary No. 1618-B copper interior wire to ringing machine from switchboard and switches.
- 1 No. 1-B 300-ohm bell and 1 10-B 300-ohm buzzer.

POWER PLANT No. 2

FOR MAGNETO SWITCHBOARDS HAVING LAMP SUPERVISION AND SINGLE FREQUENCY RINGING.

Same as Power Plant No. 1 except omit the No. 3 battery feed coil.

POWER PLANT No. 3

FOR MAGNETO SWITCHBOARD HAVING LAMP OR DROP SUPERVISION AND 5-FREQUENCY RINGING.

Same as Power Plant No. 1 except omit the No. 36-A pole changer, the No. 41-A retard coil, and add the following:

- 2 No. 19-A 5-frequency pole changers
- 1 No. 18-A transformer set
- 6 No. 456 DPDT knife switches
- 4 Additional No. 9402 porcelain base lamp receptacles per position
- 4 Additional 25-watt 110-V Mazda lamps per position

Necessary lengths No. 122 cable from pole changers to switches to transformer set.

Necessary No. 105 cable from switchboard to transformer set.

- 1 Fansteel TC-10 condenser noise killer (lamp supervision boards only).
- 1 No. 23-A retard coil (lamp supervision boards only).

NOTE: If any of these power plants are to be used with an existing switchboard which does not have a No. 110-A Induction Coil in it, then specify a No. 81-A Induction Coil in addition to the above equipment.

HOW TO ORDER

IT is easy to order a Masterbuilt Magneto Switchboard. Your first step is to decide whether you want lamp supervision or drop supervision. Your next step is to select the code number of the cabinet which has the capacity to meet your ultimate requirement:

LAMP SUPERVISION

	CABINET	MAXIMUM CAPACITY Lines	Cords	WIRED FOR Lines	Cords
☐	No. 150-EL	150	15	100	15
☐	No. 150-FL	150	15	150	15
☐	No. 200-EL	200	15	100	15
☐	No. 200-FL	200	15	150	15
☐	No. 200-GL	200	15	200	15

DROP SUPERVISION

	CABINET	MAXIMUM CAPACITY Lines	Cords	WIRED FOR Lines	Cords
☐	No. 50	50	10	50	10
☐	No. 150-E	150	15	100	15
☐	No. 150-F	150	15	150	15
☐	No. 200-E	200	15	100	15
☐	No. 200-F	200	15	150	15
☐	No. 200-G	200	15	200	15

WHEN ordering your new switchboard, or requesting quotations, give us the following information:

1. Do you want Lamp or Drop Supervision?
2. What cabinet code number did you select?
3. How many line drops do you now have?
4. How many line drops do you have with code alarm?
5. Do you want a suspended operator's transmitter or a breastplate type?
6. Should the 12-foot line cable, which comes with the switchboard, extend from the top or bottom of the cabinet? On the right or left side?
7. Will you need more than 12 feet of cable from the switchboard? If so, how much more?
8. How many cord circuits do you now use?
9. What kind of cord circuits do you want? (Specify the code numbers from the following descriptions.)

LAMP SUPERVISION

CORD CIRCUIT No. LR

For Double-Lamp Supervision

This circuit includes repeating coils and should be used where a grounded line is connected to a metallic line. It eliminates the noise generally induced when two different types of lines are connected together. This cord circuit also permits a subscriber to signal the operator when making a recall without ringing a previously connected phone whether or not that connection has been taken down.

CORD CIRCUIT No. LRK

For Double-Lamp Supervision

This circuit is the same as the No. LR type but has repeating coil cut-out keys added. It is needed only by those exchanges which handle through toll connections on metallic lines. Because such connections do not require the use of repeating coils, the keys are used to cut them out of the circuit.

CORD CIRCUIT No. L

For Double-Lamp Supervision

This circuit is also the same as the No. LR type but does not include the repeating coils. It is recommended where the lines in the whole system are either completely metallic or grounded.

DROP SUPERVISION

CORD CIRCUIT No. TR

For Double-Drop Supervision

This circuit has the same function as that of the No. LR type, and includes repeating coils. Its only difference is in its application to double-drop supervision switchboards.

CORD CIRCUIT No. TRK

For Double-Drop Supervision

This circuit, like the No. LRK, has repeating coils and repeating coil cut-out keys. Its use on double-drop supervision switchboards is the same as that of the No. LRK on lamp supervision boards.

CORD CIRCUIT No. T

For Double-Drop Supervision

This circuit is identical to the No. L type in its operation and is recommended for use on double-drop supervision switchboards where all the lines are either metallic or grounded. No repeating coils.

CORD CIRCUIT No. SR

Single-Drop Supervision

This circuit, employing repeating coils, is used for the same conditions as that of the No. LR type, only on single-drop supervision boards instead of lamp.

CORD CIRCUIT No. SRK

Single-Drop Supervision

This circuit, with repeating coil cut-out keys, is for the same purpose as the No. LRK, but for use on boards having single-drop supervision.

CORD CIRCUIT No. S

Single-Drop Supervision

This circuit is used where all lines are either metallic or grounded. Like the No. L type, it does not have repeating coils or cut-out keys.

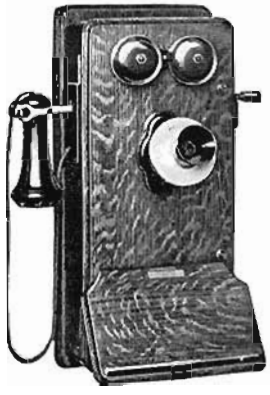
NOTE: Switchboards equipped with No. L or No. T type cords have wiring included so that repeating coils can be added at any time.

TELEPHONES

WALL Masterphone

This is the most popular magneto wall set of the Masterphone type. The all-Bakelite handpiece is the same as that used with all Masterphones. It contains the famous NON-POSITIONAL transmitter, and like the receiver, is a compact, self-contained capsule type unit. The ringer is non-adjustable and non-sticking, and can be had either 1000 ohm or 1600 ohm. This set is available with a 3-bar generator for local or lightly loaded farm lines, or with a 5-bar heavy duty generator for long, heavily loaded lines.

COMPACT WALL SET



Telephone men have long recognized this instrument as the standard of all magneto wall sets. It has space for two dry cells. The transmitter, receiver, ringer, and generator are all standard Kellogg parts, the same as those used in other conventional sets. This telephone can be had with 3- or 5-bar generators, and with 1000 or 1600 ohm ringers to fit any application. Write for descriptive bulletins.

NEW DESK STAND

From all appearances this is the same as the widely used Kellogg 118 desk stand, except that it comes with the new Bakelite transmitter front unit which contains the famous NON-POSITIONAL transmitter. This new 148 desk stand is equipped with a 4-conductor cord and a hookswitch arranged to connect with any TRIAD anti-side tone circuit desk set box. The Bakelite transmitter front will fit any of your present Kellogg sets. This means that you can now standardize on the NON-POSITIONAL transmitter for all uses.

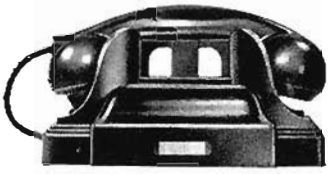
THE OLD FAVORITE

Here is the telephone universally recognized as the standard of comparison for good transmission, reception, ringing and low maintenance. It can be used for either magneto or common battery service, with any bell box arranged for the conventional 3-conductor circuit.

FOR OPERATOR'S NIGHT SERVICE

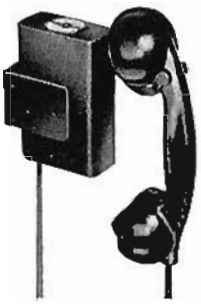
The all-Bakelite Masterphone handpiece is a very popular operator's set for night service. It is easy to pick up, fits the face comfortably, and provides the finest transmission and reception. This unit contains the same NON-POSITIONAL transmitter and capsule type receiver used in all Masterphones. It comes equipped with a plug to fit the operator's jack on your switchboard.

DESK Masterphone



This Masterphone really answers your handset problems. Aside from its beautiful, modern, streamline design, it is the most flexible telephone you can buy. You can use it with your present desk set boxes; then, any time in the future, you can add an induction coil for use as an ideal extension set . . . and, if you should convert your plant to common battery operation, you simply mount a condenser, coil and ringer inside the base. This makes a complete Combination Masterphone.

EXTENSION Masterphone



Where you have an installation problem, this side-mounting extension Masterphone is generally your best bet. The special bracket permits a wide variety of mounting positions . . . under desks, on the side of cabinets, on walls, etc. The black enameled steel housing and Bakelite handpiece make an attractive, compact unit. Of course, it has the NON-POSITIONAL transmitter, and comes equipped with a local battery TRIAD coil which assures "Quiet" conversations regardless of outside noises.

DESK SET BOXES

These boxes come in a variety of combinations to fit any magneto situation where desk stands, desk Masterphones or wall extension Masterphones are used. They can be had with 3-, 4-, 5-, or 6-bar generators, and with ringers of 1000, 1600 or 2500 ohms. Parts are Kellogg standard and readily accessible.

PROFITABLE COMBINATION

With a side-mounting Masterphone, you can convert your present desk set boxes into a complete, modern wall telephone! And the cost is less than that of a desk handset! Simply screw the bracket onto the side of the cabinet, run a piece of 3-wire twist from the terminal rack to the cord binding posts in the box, and the job is complete. This quick, inexpensive way of using present desk set boxes to build modern telephones appeals to large and small companies alike.

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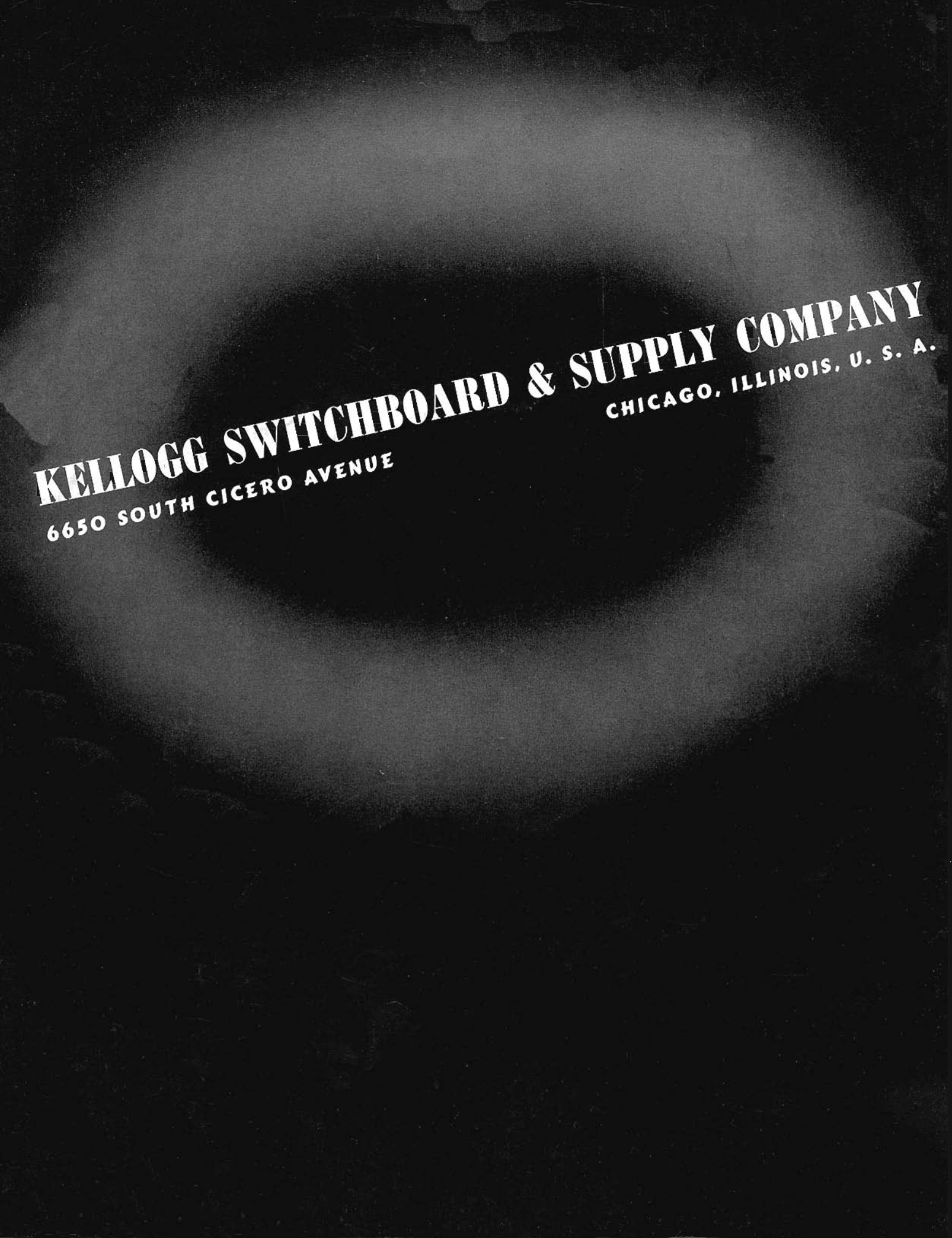
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