



ROTARY SWITCHES—TYPE W

Instrument, Control and Auxiliary Types

GENERAL

Application

The Westinghouse type W switches are of the rotary type. They are made in three classifications: namely, instrument, control and auxiliary switches for various applications. These switches are notable for their ruggedness, accessibility and smooth, reliable operation. They are recommended for use with all types of circuit breakers and other classes of apparatus which are electrically controlled. They are insulated for 600 volts and have a continuous current carrying capacity of 10 amperes which is very conservative as indicated by the curve below.

Recommended Interrupting Ratings

Alternating Current
125 Volts—10.0 Amperes
250 Volts— 7.5 Amperes
600 Volts— 1.5 Amperes

Direct Current
125 Volts—4.0 Amperes
250 Volts—2.0 Amperes
600 Volts—0.5 Amperes

The interrupting capacity depends upon the voltage, current and inductance of the circuit controlled. Control relays are to be used in conjunction with control switches on heavy current circuits.

Construction

From the front of the panel, the switch presents a pleasing appearance with its sturdy, convenient black-molded handle and light finished dial plate.

From the rear, the black polished sides and cadmium plated steel end plates make a neat looking switch.

An operating shaft, made from a

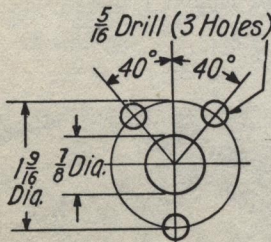


FIG. 3—DRILLING PLAN FOR TYPE W INSTRUMENT AND CONTROL SWITCHES

*This dimension is 3 3/8-inches for switches Style No. 519110 and 519116.

†This dimension is 4 3/8-inches for switches Style No. 519110 and 519116.

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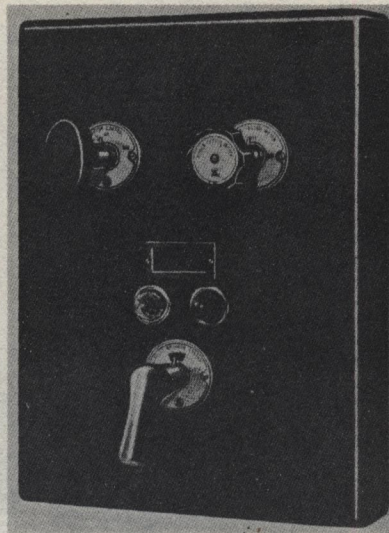


FIG. 1—ILLUSTRATION OF THE OVAL, NOTCHED AND PISTOL-GRIP HANDLES FOR THE TYPE W ROTARY SWITCHES

1/8-inch diameter cold rolled steel rod, rotates in bronze bearings which are riveted in steel end plates. The steel end plates provide ample support for

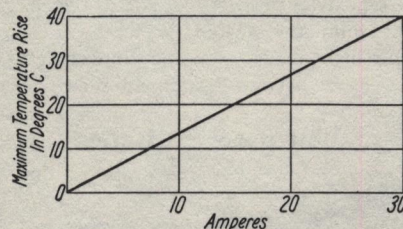


FIG. 2—CURVE SHOWING CAPACITIES OF TYPE W SWITCHES

the base and the enameled steel top which is channel-shaped to secure strength. This arrangement assures permanent alignment of the contacts.

The moving contacts are brass segments with a corrosion resisting finish. The segments are separated by spacers of molded moisture-proof composition.

All of the contacts are keyed to an insulated micarta tube which covers the steel operating shaft. These have numbered key notches to facilitate assembling. Spacers and contacts are securely clamped to the shaft.

The stationary contacts are of the self-aligning type and are made of a

suitable material selected for the highest wearing and arc resisting characteristics. Good contact pressure between the moving and stationary contacts is obtained by the use of compression springs which do not carry current. This combination of contact materials operates with a high pressure, wiping action, assuring clean low resistance contacts, with long life.

Multiple laminated copper shunts conduct the current from the contacts to the terminal studs. These studs are mounted on the base in such a manner that they positively will not turn or become loose.

The base is made of an excellent grade of black molded material which has both very high mechanical and dielectric strength, and is ribbed to give ample creepage distance between studs. Each stud hole is numbered for the purpose of identifying the connections on the wiring diagram.

Sheet Micarta side plates slide in grooves in the top and bottom of the switch, snapping snugly into the closed position. This arrangement provides immediate access for the inspection of contacts.

All switches are easily mounted on panels 1/8, 1/4, 1, 1 1/2 or 2 inches in thickness without changing any of the parts except the mounting screws—the length of which depends upon the thickness of the panel. Correct shaft length is obtained by simply sliding the handle

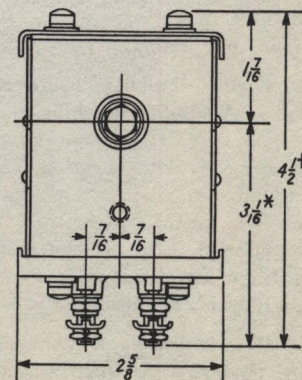


FIG. 4—REAR VIEW AND DIMENSIONS OF TYPE W INSTRUMENT AND CONTROL SWITCHES

ROTARY SWITCHES—TYPE W—Continued

GENERAL—Continued

over the shaft until the pointer screw fits into the proper tap-hole in the shaft.

Segments, contacts, studs, shunts, etc., are the same for the entire line of switches. This permits great flexibility of design so that type W switches can be easily supplied for special requirements other than those for which style numbers have been listed. The maximum number of circuits in the unit switch is 10 but multiple switches

operated from one handle can be obtained with up to 40 circuits.

Style Numbers

Switch style numbers include mounting screws for a 2-inch panel. When required for other than 2-inch panels, add the style number of extra mounting screws.

The round notched handle is standard for instrument switches, and the pistol-grip handle is standard for control

switches. Either of the switches may be obtained with the round notched, or pistol grip handle or with an oval handle.

Special combinations of keys or handles can be obtained on request.

The style number for instrument switches with removable keys does not include keys. Such keys are listed under separate style numbers. Other switches are supplied with non-removable handles.

INSTRUMENT SWITCHES

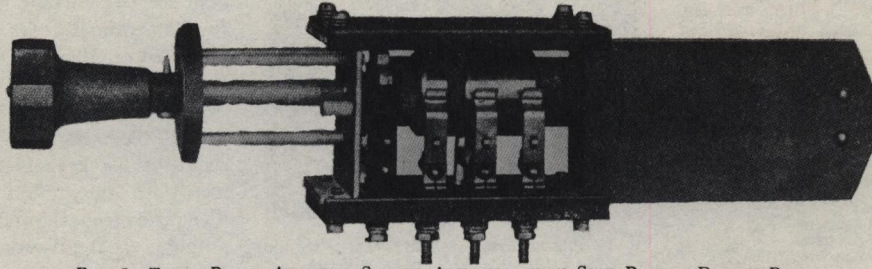


FIG. 5—THREE-PHASE AMMETER SWITCH ASSEMBLY WITH SIDE PANELS DRAWN BACK

General

All type W instrument switches, with the exception of ammeter, regulator transfer and temperature indicator switches, have removable keys.

These keys, besides being labelled, are constructed so that they can be inserted only in the proper switch and can be withdrawn only when the switch is in the off position. This precludes the possibility of trouble when several independent circuits may be connected to the same instrument through similar switches. If only one key is used, only one switch can be operated at a time. A key from any dissimilar switch cannot be inserted.

Large notched handles insure easy operation. A suitable notching device assures permanent alignment of the contact segments with the dial marking, and holds the switch in the position to which it is turned. Length of key to suit different panel thicknesses is obtained in a similar manner to that for non-removable handles.

Type W instrument switches are made in standard styles for connecting any instrument or group of instruments selectively to various circuits as may be required for metering or synchronizing.

Ammeter Switches

The ammeter switches are arranged to connect instruments to any phase without opening the secondary circuit of the current transformers. The three-circuit ammeter switch is used where other instruments are to be connected in the circuit beyond the ammeter switch.

are supplied for reading the voltage from one to six independent circuits.

Frequency Meter Switch

This switch connects the frequency meter to one circuit only. In order to use one frequency meter on several circuits, a separate switch is required for each circuit.

Wattmeter, Power Factor Meter and Reactive Factor Meter Switches

These switches connect the instrument transformers of any one polyphase circuit to the proper instrument by means of a suitable combination of voltage and current contacts. A separate switch is required for each polyphase circuit. Power factor meter switches can be used for reactive factor meters by using a suitably marked nameplate.

Voltmeter Switches

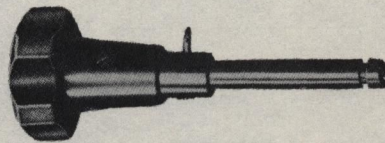


FIG. 6—OPERATING KEY FOR TYPE W INSTRUMENT SWITCH

These switches are arranged to connect the voltmeter to the individual circuit of which the voltage is to be read. Switches

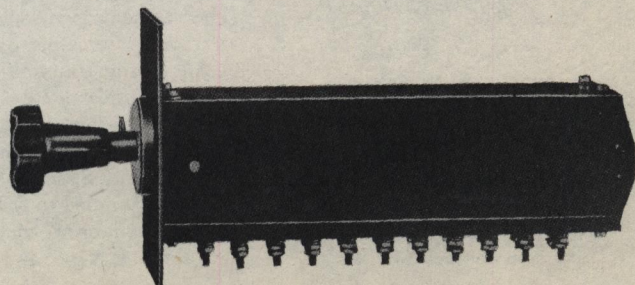


FIG. 7—TYPE W INSTRUMENT SWITCH WITH SIDE PLATES IN PLACE

ROTARY SWITCHES—TYPE W—Continued

INSTRUMENT SWITCHES—Continued

Temperature Indicator Switches

Each temperature switch is arranged to connect the temperature measuring instrument to any one of six exploring coils located in the apparatus, the temperature of which is to be read. Two forms of this switch can be supplied, single-pole and double-pole. Double-pole construction is for use with exploring coil leads of appreciably different lengths. For thermo-couple switch refer to headquarters.

Synchroscope Switch for Synchronizing Between Machine and Bus

The synchronizing switch connects the potential transformer of the circuit to be synchronized and the bus potential transformer to the synchroscope.

One switch is required for each machine when synchronizing to a single bus system and two are required when synchronizing to a double bus system. One form of this switch includes interlock contacts for connecting in the control circuit of the circuit breaker to prevent closing the breaker unless the synchronizing switch is in use.

Synchroscope Switch for Synchronizing Between Machines

This type of switch is double-throw and requires a different key for each throw. One switch is required for each machine.

The running key turns the switch so as to connect the voltage transformer of the running machine to the running side of the synchroscope.

The incoming key is used in the switch of the circuit which is to be synchronized, and connects its voltage transformer to the incoming side of the synchroscope. By this means any circuit may be treated either as an incoming or a bus circuit. One form of this switch includes interlock contacts for connecting in the control circuit of the circuit breaker to prevent closing the breaker unless the synchronizing switch is in use.

Test Switches

The standard type W ammeter, voltmeter or combination instrument switch can be used as a test switch for instruments, relays, etc. The type W switch can be used in any conventional testing system, using independent connection studs, test bus, etc. The key handle can be fixed or removable, with interlocking key.

STYLE NUMBERS SWITCHES

Description of Switches	Schematic Diagram Fig. No.	Drilling Plan Fig. No.	Dimension A, Inches*	Switch Style No.	Key Style No.
Ammeter, two-phase.....	8	3	5 $\frac{3}{8}$	519 108	†
Ammeter, three-phase.....	9	3	5 $\frac{3}{8}$	519 109	†
Ammeter, three independent circuits.....	10	3	11 $\frac{1}{16}$	519 110	†
Voltmeter, a-c. or d-c. single-pole.....	11	3	4 $\frac{1}{2}$	519 111	519 126
Voltmeter, single-phase or d-c., two-pole.....	12	3	4 $\frac{1}{2}$	519 112	519 127
Voltmeter, two-phase or d-c., three-wire.....	13	3	6 $\frac{1}{32}$	519 113	519 128
Voltmeter, three-phase, four-wire.....	14	3	6 $\frac{1}{32}$	591 454	591 660
Voltmeter, three-phase, a-c., three-wire.....	15	3	6 $\frac{1}{32}$	519 114	519 129
Voltmeter, four-circuit a-c. or d-c. two-wire.....	16	3	7 $\frac{3}{32}$	519 115	†
Voltmeter, six-circuit a-c. or d-c. two-wire.....	17	3	11 $\frac{1}{32}$	519 116	†
Frequency meter, two-pole.....	12	3	4 $\frac{1}{2}$	519 117	519 132
Wattmeter, polyphase.....	18	3	7 $\frac{3}{32}$	519 118	519 133
Power factor meter.....	19	3	7 $\frac{1}{16}$	591 626	519 134
Temperature indicator, single-pole, six circuits.....	20	3	7 $\frac{3}{32}$	940 082	†
Temperature indicator, two-pole, six circuits.....	24	3	11 $\frac{1}{16}$	895 355
Synchroscope to bus without interlocks.....	21	3	5 $\frac{3}{8}$	519 122	519 136
Synchroscope to bus with interlocks.....	21	3	6 $\frac{1}{32}$	519 123	519 137
Synchroscope between machines, without interlocks.....	22	3	4 $\frac{1}{2}$	519 124	519 138†
Synchroscope between machines, with interlocks.....	22	3	5 $\frac{3}{8}$	519 125	519 139§
Regulator transfer switch.....	23	3	7 $\frac{3}{32}$	591 571	519 140†
					519 141
				

MOUNTING SCREWS FOR INSTRUMENT SWITCHES

Description—Three per set	Style No.
Screws for $\frac{1}{8}$ -inch thick panel.....	555 659
Screws for $\frac{1}{4}$ -inch thick panel.....	555 658
Screws for 1-inch thick panel.....	555 657
Screws for 1 $\frac{1}{2}$ -inch thick panel.....	555 656

*Dimension A is the distance from rear of panel to rear end of switch.
 †Running key.
 ‡Separate key not required.
 §Incoming key.

Order by Style Number

ROTARY SWITCHES—TYPE W—Continued
INSTRUMENT SWITCHES—Continued
DIAGRAMS OF CONNECTIONS

NOTE—Instrument switches are shown for handle end at the top.

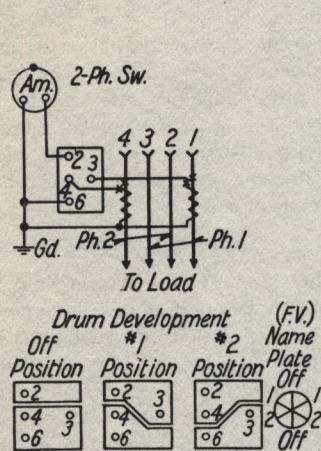


FIG. 8—TWO-PHASE AMMETER SWITCH, STYLE No. 519108

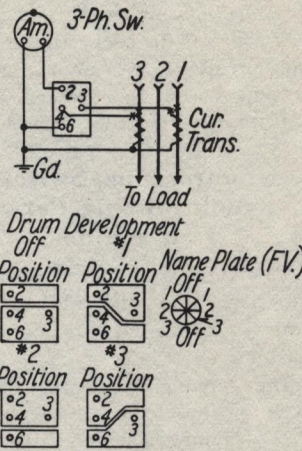


FIG. 9—THREE-PHASE AMMETER SWITCH, STYLE No. 519109

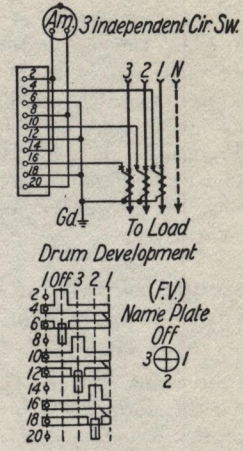


FIG. 10—AMMETER SWITCH 3 INDEPENDENT CIRCUITS, STYLE No. 519110

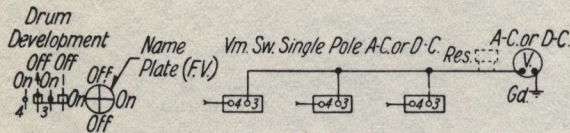


FIG. 11—SINGLE-POLE, VOLTMETER SWITCH A-C. OR D-C., STYLE No. 519111

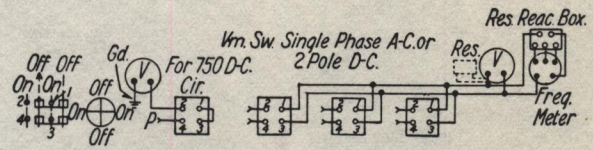


FIG. 12—SINGLE-PHASE A-C. OR TWO-POLE D-C. VOLTMETER SWITCH, STYLE No. 519112
FREQUENCY METER SWITCH, STYLE No. 519117

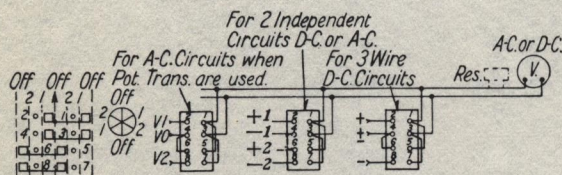


FIG. 13-A—FOR A-C. CIRCUIT WHEN POTENTIAL TRANSFORMERS ARE USED, STYLE No. 519113

FIG. 13-B—FOR TWO INDEPENDENT CIRCUITS D-C. OR A-C., STYLE No. 519113

FIG. 13-C—FOR THREE-WIRE D-C. CIRCUITS, STYLE No. 519113

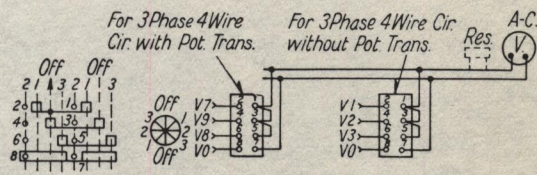


FIG. 14—VOLTMETER SWITCH, 3-PHASE, 4-WIRE CIRCUITS, STYLE No. 591454

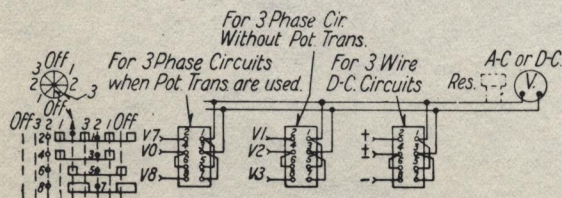


FIG. 15-A—THREE-PHASE CIRCUITS WHEN POTENTIAL TRANSFORMERS ARE USED, STYLE No. 519114

FIG. 15-B—THREE-PHASE CIRCUIT WITHOUT POTENTIAL TRANSFORMERS, STYLE No. 519114

FIG. 15-C—THREE-WIRE D-C. CIRCUITS, STYLE No. 519114

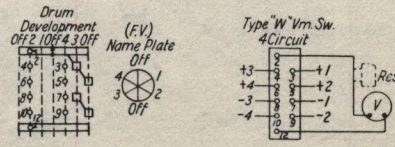


FIG. 16—FOUR-CIRCUIT, 2-POLE SWITCH, STYLE No. 519115

ROTARY SWITCHES—TYPE W—Continued
INSTRUMENT SWITCHES—Continued
DIAGRAMS OF CONNECTIONS—Continued

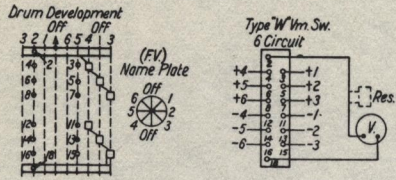


FIG. 17—SIX-CIRCUIT, 2-POLE SWITCH, STYLE NO. 591116

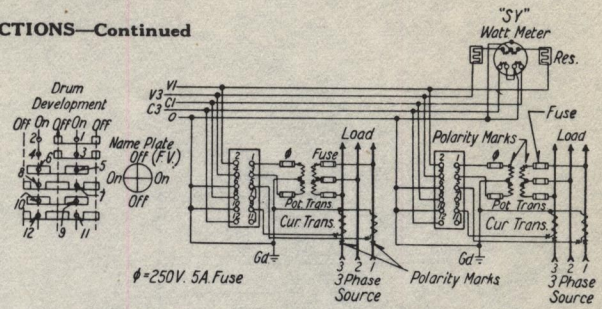


FIG. 18—WATTMETER SWITCH, STYLE NO. 591918

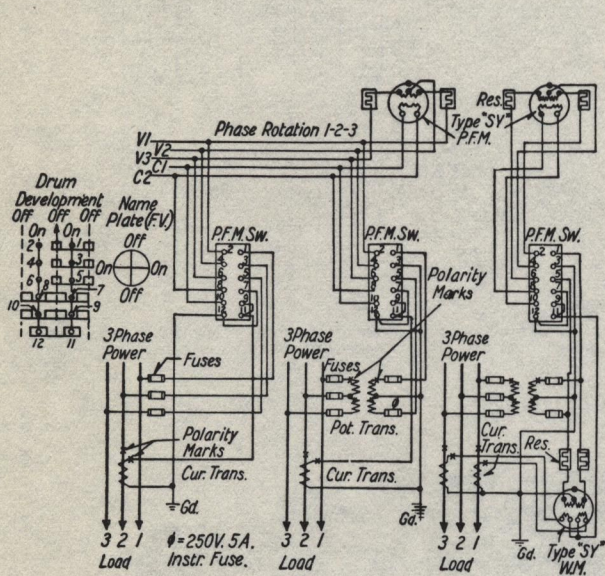


FIG. 19—POWER-FACTOR METER SWITCH, STYLE NO. 591626

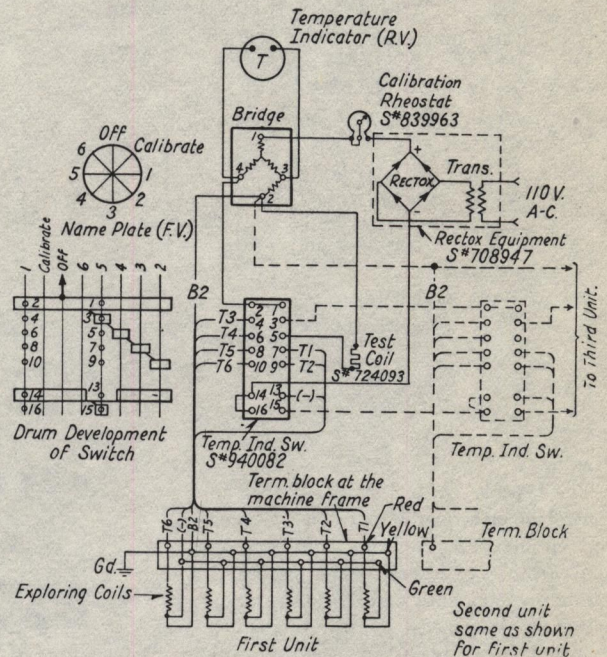


FIG. 20—TEMPERATURE INDICATOR SWITCH, STYLE NO. 940087
SINGLE-POLE SIX-CIRCUIT FOR APPROXIMATE LEAD COMPENSATION

NOTE—For six exploring coils, wire as per solid lines. For more than six exploring coils, wire as per solid and dotted lines, using two or more switches as needed. For each generator, use six hot-test coils.

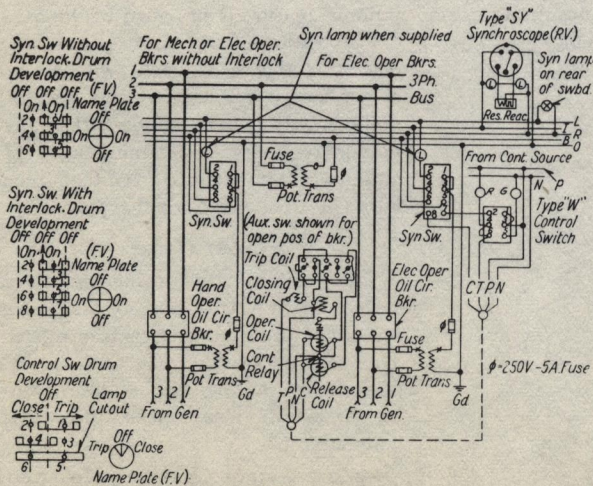


FIG. 21—SWITCH FOR SYNCHRONIZING BETWEEN BUS AND MACHINE
WITHOUT INTERLOCKS, STYLE NO. 519122
WITH INTERLOCKS, STYLE NO. 519123

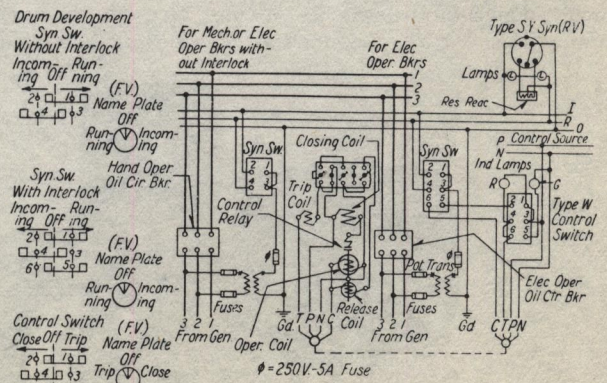


FIG. 22—SWITCH FOR SYNCHRONIZING BETWEEN MACHINES
WITHOUT INTERLOCKS, STYLE NO. 519124
WITH INTERLOCKS, STYLE NO. 519125

ROTARY SWITCHES—TYPE W—Continued

INSTRUMENT SWITCHES—Continued

DIAGRAMS OF CONNECTIONS—Continued

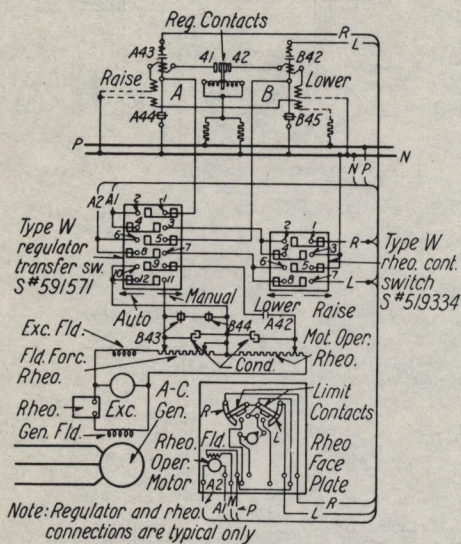


FIG. 23—REGULATOR TRANSFER SWITCH STYLE No. 591571

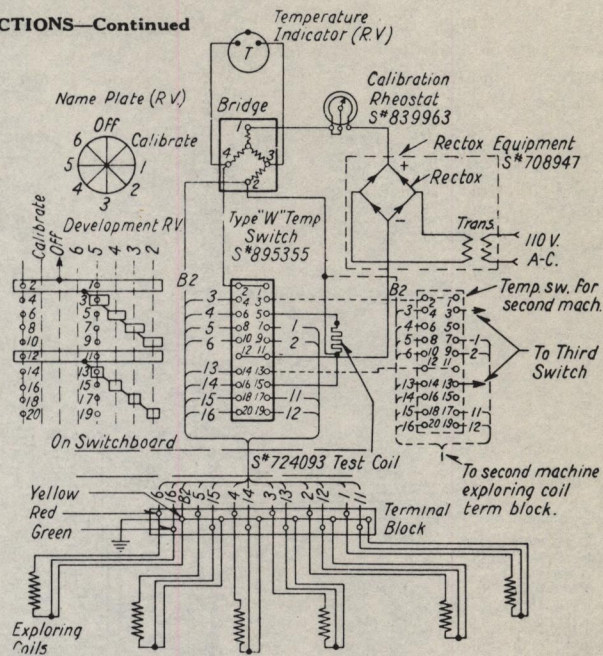


FIG. 24—TEMPERATURE INDICATOR SWITCH, STYLE No. 895355, DOUBLE-POLE, SIX-CIRCUIT FOR COMPLETE LEAD COMPENSATION

CONTROL SWITCHES

Application

The type W control switch is for the control of electrically-operated switches and circuit breakers, rheostats, engine and turbine governors, feeder potential regulators, etc., both motor and solenoid-operated. In general control relays are operated directly from the control switches in order to handle such heavy capacity operating current as may be met with, particularly in the case of switches and circuit breakers.

These switches are essentially multi-circuit double-throw switches. One form of this switch is used for starting

induction or synchronous motors, one position being used to close the starting breakers, the other position being used to close the running breakers. A special

pull-out feature is provided in the usual "off" position to trip the breakers when desired. These control switches are also adapted for raising and lowering voltage, both in conjunction with feeder-voltage regulators of the induction type, and automatic generator-voltage regulators of any conventional type.

Operation

Trip Position—By turning the control switch to the trip position, the trip coil of the oil circuit breaker is energized. The control switch is latched in this position by pulling the handle forward which action also opens the signal lamp circuit.

Spring Return Handle—Control switches are provided with large pistol-grip handles to facilitate operation by

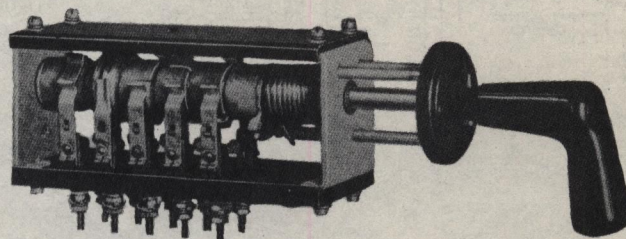


FIG. 25—CONTROL SWITCH FITTED TO STEEL PANEL WITH SIDE PLATES IN PLACE

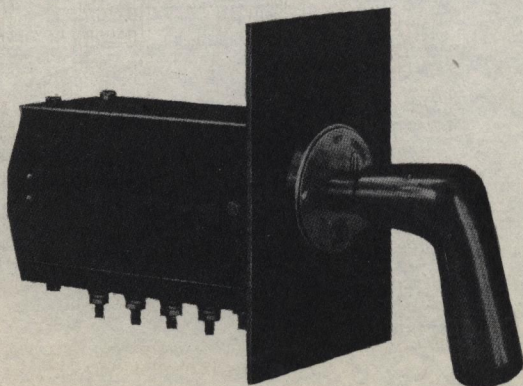


FIG. 26—CONTROL SWITCH ASSEMBLY WITH SIDE PANELS REMOVED

ROTARY SWITCHES—TYPE W—Continued

CONTROL SWITCHES—Continued

the switchboard attendant. These switches are provided with a spring return mechanism which causes the switch to return automatically to the "off" position, when released from the operating position.

Mechanical Indicator—All circuit breaker control switches are provided with a mechanical indicating device which shows a red or green marker to

indicate the last manual operation of the switch.

Signal Lamp—Signal lamp cutouts may be obtained with circuit breaker control switches. This lamp cutout is in circuit with one or all of the indicating lamps.

Automatic Indicator Cutouts—This arrangement is generally used for an alarm system, causing the sounding of

an alarm or the lighting of a lamp on the occurrence of an automatic operation. These contacts are also used for interlocking a common tripping circuit with several control switches.

Indicating Lamps—Suitable indicating lamps can be used in conjunction with control switches to obtain electrical indication of the position of circuit breakers or other devices.

STYLE NUMBERS

SWITCHES

Application	Description	Schematic Diagram Fig. No.	Dimension A, Inches *	Style No.
Oil circuit breaker control switches	S. P. D. T. switch with lamp cutouts.....	28	5 7/8	519 330
	S. P. D. T. switch with lamp and automatic indicator cutouts	29	6 3/4	519 331
	S. P. D. T. switch with lamp and two automatic indicator cutouts	30	...	780 374
	S. P. D. T. switch with overload relay contacts and lamp cutouts	31	7 1/8	519 332
	S. P. D. T. switch with overload relay contacts, lamp and automatic indicator cutouts.....	32	7 3/4	519 333
Voltage control switches, field rheostat and induction regulator	S. P. D. T. switch with overload relay contacts, lamp and two automatic indicator cutouts.....	33	...	780 375
	2-P. D. T. switch.....	34	6 7/8	519 334
	3-P. D. T. switch.....	34	7 3/4	519 335
	2-P. D. T. switch with regulator contacts.....	35	7 3/4	519 336
Motor control switches	2-P. D. T. switch (induction regulator, 5 position).....	36	5 3/8	592 128
	D. T. with two-circuit pull-out trip.....	37	7 3/4	519 337
Speed control switch	2-P. D. T.....	38	6 3/4	519 338

MOUNTING SCREWS FOR CONTROL SWITCHES

Description	Style No. Per Set
Screws for 1/8-inch thick panel, 3 per set.....	519 480
Screws for 1/4-inch thick panel, 3 per set.....	519 479
Screws for 1-inch thick panel, 3 per set.....	519 478
Screws for 1 1/2-inch thick panel, 3 per set.....	519 477

*Dimension A is distance from rear end of the switch to the panel.

DIAGRAMS OF CONNECTIONS

NOTE:—Auxiliary switches are shown for the open position of the breaker. Control switches are shown as top view, with the handle end at the top of the diagram.

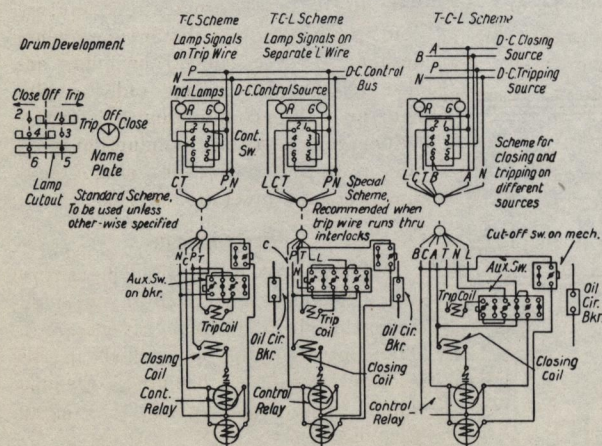


FIG. 28—CIRCUIT BREAKER CONTROL SWITCH, STYLE NO. 519330

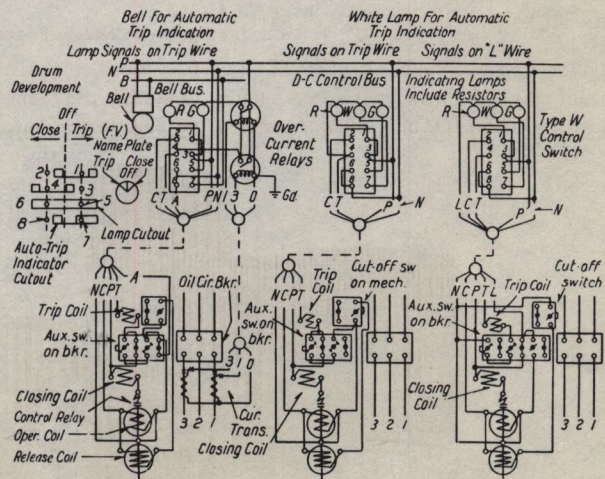


FIG. 29—CIRCUIT BREAKER CONTROL SWITCH, BELL AND WHITE LAMP FOR AUTOMATIC TRIP, STYLE NO. 519331

Order by Style Number

ROTARY SWITCHES—TYPE W—Continued

CONTROL SWITCHES—Continued

DIAGRAMS OF CONNECTIONS—Continued

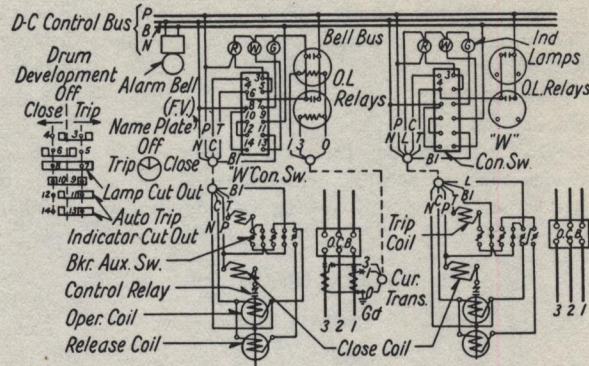


FIG. 30—CIRCUIT BREAKER CONTROL SWITCH BELL AND WHITE LAMP FOR AUTOMATIC TRIP INDICATION, STYLE NO. 780374
 A—LAMP SIGNALS ON TRIP WIRES
 B—LAMP SIGNALS ON L WIRES

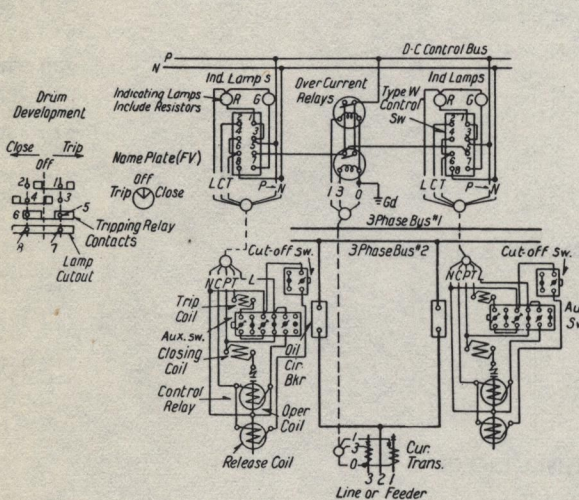


FIG. 31—STYLE NO. 519332
 CIRCUIT BREAKER CONTROL SWITCHES FOR DOUBLE-BUS SYSTEMS

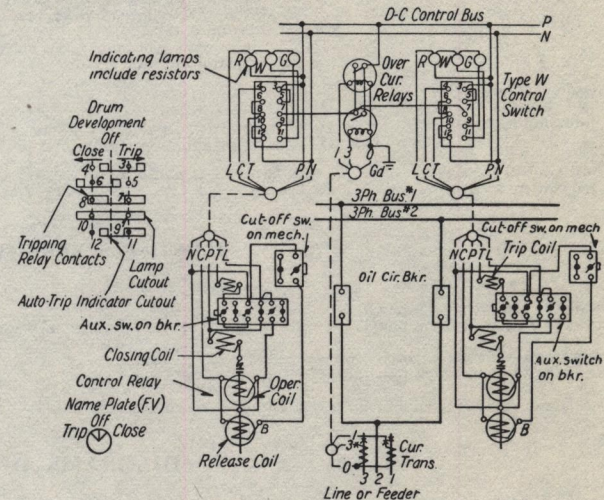


FIG. 32—STYLE NO. 519333

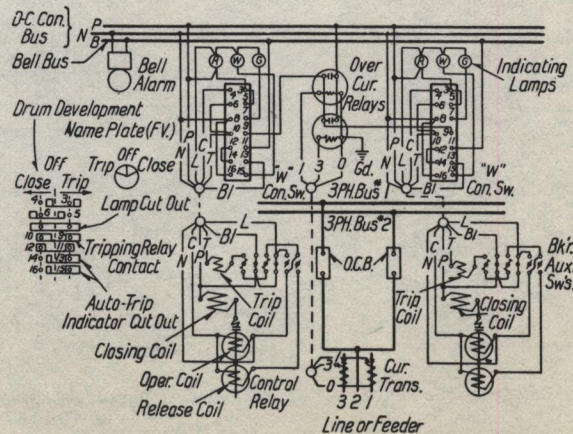


FIG. 33—CIRCUIT BREAKER CONTROL SWITCH FOR DOUBLE BUS SYSTEM, STYLE NO. 780375

ROTARY SWITCHES—TYPE W—Continued

CONTROL SWITCHES—Continued

DIAGRAMS OF CONNECTIONS—Continued

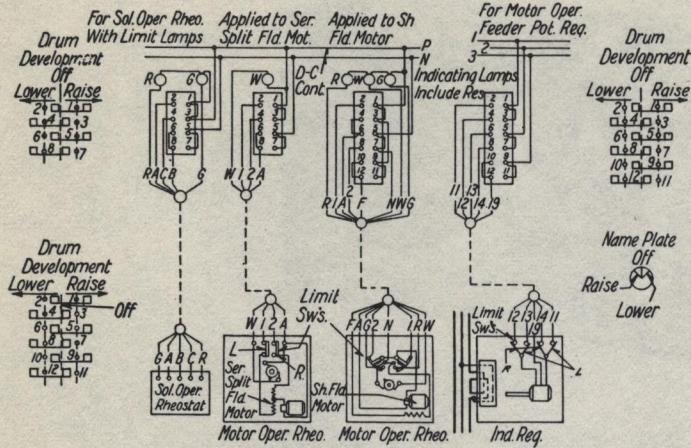


FIG. 34—SOLENOID, OR MOTOR-OPERATED RHEOSTAT AND INDUCTION REGULATOR CONTROL SWITCHES, STYLE No. 519334, 519335

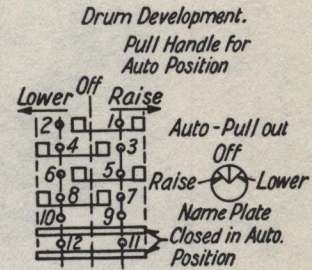


FIG. 35—RHEOSTAT CONTROL SWITCH WITH REGULATOR CUT-OUT CONTACTS, STYLE No. 519336

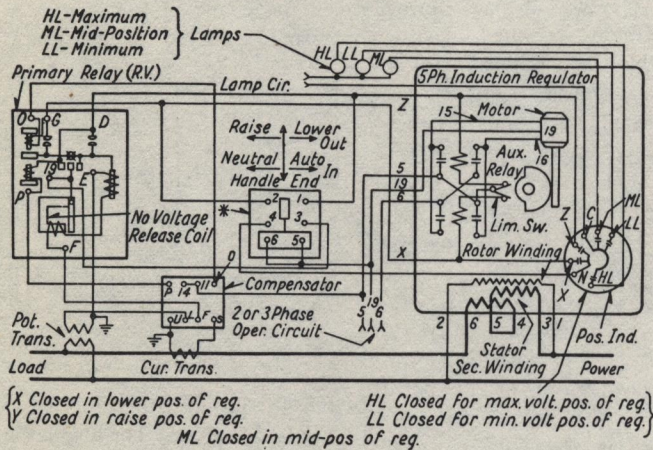


FIG. 36—INDUCTION REGULATOR CONTROL WITH INDUCTION REGULATOR CONTROL SWITCH, STYLE No. 592128

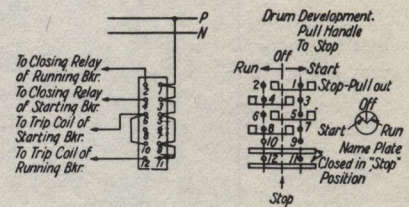


FIG. 37—SWITCH FOR MOTOR CONTROL, STYLE No. 519337

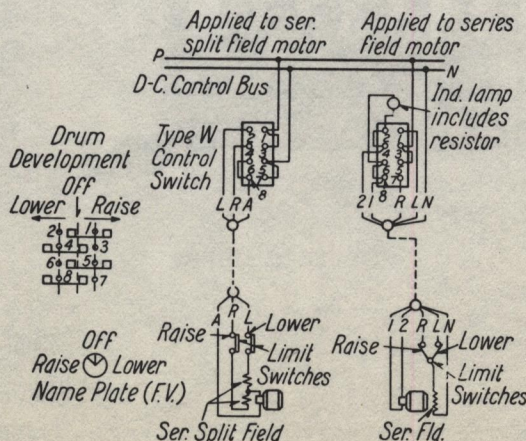


FIG. 38—GOVERNOR MOTOR-SPEED CONTROL SWITCH, STYLE No. 519338

ROTARY SWITCHES—TYPE W—Continued

AUXILIARY SWITCHES

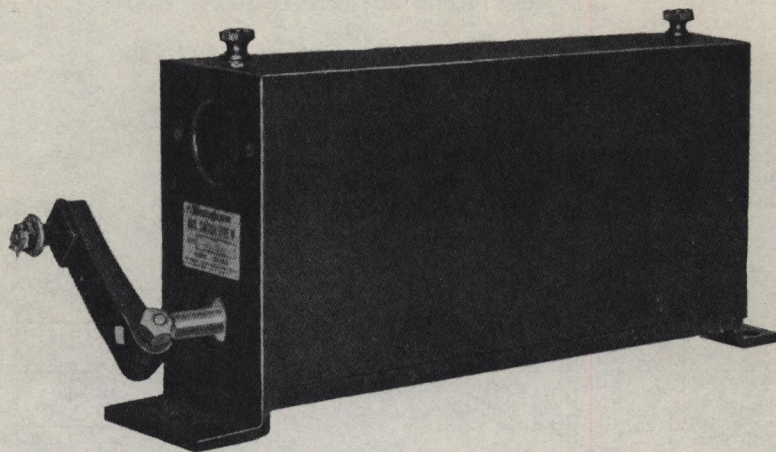


FIG. 39—AUXILIARY SWITCH COMPLETE WITH COVER

Application

The type W auxiliary switch is similar to the instrument and control switches having identical control fingers, rotor segments and molded base. They are applicable to circuit breakers, operating mechanisms, or other apparatus requiring auxiliary switches. These switches are made with 2, 4, 6 and 10 contact circuits. The rotor turns to two positions 90 degrees apart. The rotor segment makes contact with its pair of stationary fingers in one or the other 90-degree position. Any individual rotor segment can be rotated 90 degrees to change from a "make" contact to a "break" contact or vice versa. Special

segments can be supplied for special switching arrangements.

The switch is made in two forms with and without terminal covers. The switch which is equipped with a Micarta cover, as shown in Fig. 39, has provision for bringing leads out of either end of the switch through holes provided in the end brackets. A cover-plate is supplied for the hole not in use.

The switch without cover is used on applications where the apparatus is otherwise housed, as for example, with the operating mechanism on outdoor oil circuit breakers. This switch is shown in Fig. 40. The operating lever of both

types of switches clamp to the squared end of the rotor shaft. Provision is made for changing the length of the operating lever so as to adapt the

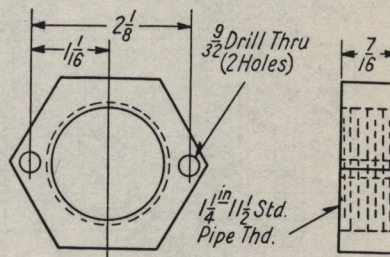


FIG. 41—PIPE FLANGE STYLE NO. 762198 FOR USE ON AUXILIARY SWITCHES

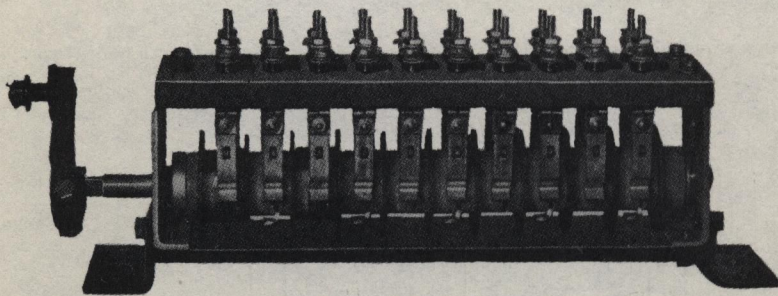


FIG. 40—AUXILIARY SWITCH ASSEMBLY

switch to an operating rod travel of from 1 to 3 inches. The angular travel of the rotor is always 90 degrees.

Where the wires are to be carried in conduit, the auxiliary switches are arranged to accommodate a special nut, Fig. 41, with 1 1/4-inch pipe threads which can be bolted to the switch bracket. The nut with mounting bolts Style No. 762198 is not included with the switch style number, but will be furnished, if desired, without additional charge.

STYLE NUMBERS

Description	Over-All Length in Inches from Front of Base to Rear of Switch	STYLE No.	
		With Cover	Without Cover
2-pole, 1-"a"—1-"b"*	4 5/8	676 957	591 816
4-pole, 2-"a"—2-"b"*	6 5/8	676 960	591 819
6-pole, 3-"a"—3-"b"*	8	676 963	591 822
10-pole, 5-"a"—5-"b"*	11 3/8	676 966	591 825

*The letter "a" and "b" designate "make" and "break" as shown in the N. E. M. A. hand book on switching equipment.

Order by Style Number

ROTARY SWITCHES—TYPE W—Continued

WEATHER-PROOF AUXILIARY SWITCHES

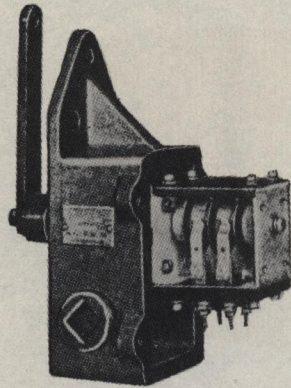


FIG. 42—2-POLE AUXILIARY SWITCH, COVER REMOVED

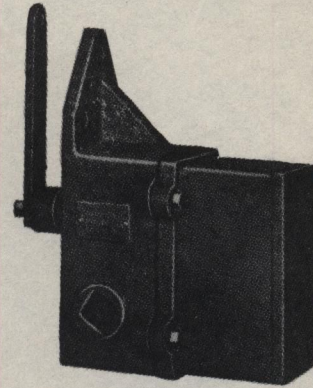


FIG. 43—2-POLE AUXILIARY SWITCH, COVER IN PLACE

The type W weatherproof auxiliary switches are completely housed for outdoor applications. See Fig. 43. They are used with remotely controlled, gang-operated, disconnecting switches, or for any other application where it is desired to give a signal or alarm as to the action of some mechanical device.

These switches can be furnished in

2, 4, 6 or 10-pole types and are manufactured from standard indoor switch parts mounted on a cast brass base to which the cover is bolted.

The base contains 3 holes for $\frac{3}{8}$ -inch mounting bolts. Holes tapped for conduit connection are provided on two sides and the top, two of which are fitted with pipe plugs. These holes are for

1-inch conduit on the 2 and 4-pole switches, $1\frac{1}{4}$ -inch conduit on the 6-pole switch and $1\frac{1}{2}$ -inch on the 10-poleswitch.

A substantial cover, with a cast alloy flange, is provided to cover the switch. This cover contains an inner lining of insulating material. All joints are fitted with gaskets to assure weatherproof construction.

STYLE NUMBERS

Description	Over-All Length in Inches from Front of Base to Rear End of Switch	Style No.
2-pole, 1-"a"—1-"b"*	7 $\frac{1}{8}$	599 938
4-pole, 2-"a"—2-"b"*	8 $\frac{3}{4}$	599 939
6-pole, 3-"a"—3-"b"*	10 $\frac{3}{4}$	599 940
10-pole, 5-"a"—5-"b"*	13 $\frac{3}{8}$	599 941

*The letters "a" and "b" designate "make" and "break" as shown in the N.E.M.A. hand book on switching equipment.

Dimensions are for reference only. For official dimensions apply to the nearest district office.

OUTLINE DIMENSIONS IN INCHES

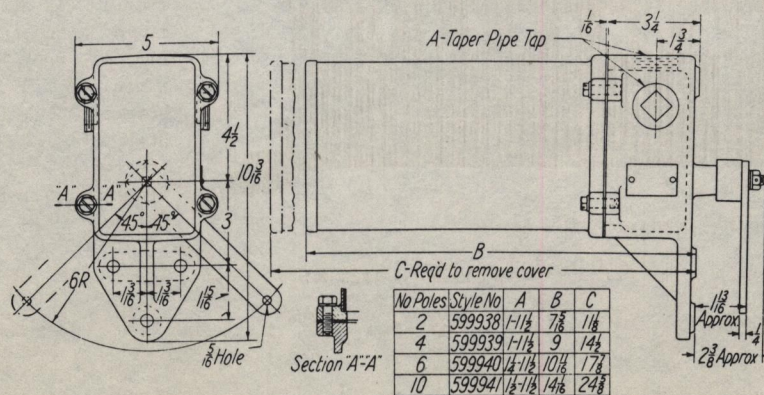


FIG. 44—2, 4, 6 AND 10-POLE, 10-AMPERE, 250-VOLT AUXILIARY SWITCH

Order by Style Number

Printed in U.S.A.