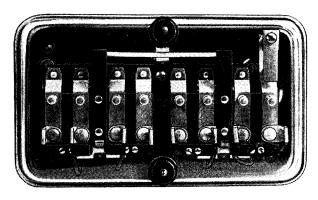
#### PAGE 1

# Type "SG" Secondary Relay for Step Voltage Regulators

Double Throw, Four Pole, Mechanically Interlocked

Style No. 1059227

## INSTRUCTIONS



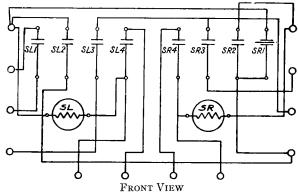


FIG. 1—Type SG Secondary Relay. Assembly and Wiring Diagram

#### **GENERAL**

The type SG secondary relay used on step voltage regulators consists of two small four pole A-C. magnet operated contactors, mounted on a common molded base, mechanically interlocked and enclosed in a dust proof glass cover. The contacts are of silver and only an occasional inspection of the relay is required.

#### CONSTRUCTION

This relay uses the same type of construction as the standard type SG relay but has two magnets, each of which operates four contacts, and a mechanical interlock so that they cannot close at the same time. The contacts are of silver and have an interrupting capacity of 20 amperes at 115 volts, 60 cycles.

The four contacts on each side are arranged for front or back contacts as required by the remainder of the circuit in which they are used. All contacts are independent, but internal connections are made to suit the requirements for a given type of service and only twelve studs are brought out of the case. The assembly and internal connections are shown in Fig. 1.

The solid base and felt gasketed glass cover make a dust tight enclosure over the relays. The cover can be easily removed by loosening two thumb nuts.

#### INSTALLATION AND OPERATION

When first installing a new regulator on which one of these relays is used or when installing a new relay, take off the cover and remove blocking from the relays. Close contactors by hand and see that they move freely on the knife edge bearing. Inspect shunts to see that they bend freely and are not bent at a sharp angle. Inspect each contact to see that it closes with a positive pressure.

Close one contactor by hand and check to see that the mechanical interlock prevents the contacts of the other switch from closing.

When checking out the complete control for the regulator, observe operation of the relay which should be positive and without chattering. If relay is noisy, see that the magnet pole faces are clean and make good contact.

#### MAINTENANCE

Only an occasional inspection is required to see that the switches make a good contact when they close. If contact surfaces are badly burned, clean with a very fine file or sand paper.

#### RENEWAL PARTS

The following are recommended as renewal parts to provide proper maintenance of this Relay.

Description of Part	Style No.	Unit
Contactor Operating Coil	1 008 516	2
Moving Contact and Arm, R. H	939 086	4
Moving Contact and Arm, L. H	939 087	4
Stationary Contacts—Make Contact	939 085	7
Stationary Contacts—Break Contact	1 099 949	1
Armature Hinge Spring	876 778	2
Complete Moving Armature	1 099 950	2

### ORDERING INFORMATION

The complete Relay should be ordered from Sharon Works. Parts only for Relay should be ordered from Newark Works by giving the correct identification of the desired part and the complete nameplate reading of the Relay.