

Primary Relay Style No. 971130—Continued

INSTRUCTIONS—Continued

of the plunger overcomes the spring tension and the right hand contact is closed. As previously described the circuits are completed to the external apparatus and now the upper compounding coil is energized which helps to keep the contact closed. As the voltage again increases, the first additional pull on the plunger does not open the contact but finally it overcomes the pull of the upper compounding coil and the contacts snap apart and the relay comes to the balanced position.

ADJUSTMENT

As received by the customer, mounted on a regulator no adjustment should be made to the contacts or compounding coil cores. If it is desired to operate the relay at a higher "balance" voltage this is accomplished by decreasing the spring tension and thereby increasing the unbalanced weight of the plunger. Conversely, if it is desired to lower the "balance" voltage operating point then the spring tension should be increased

until the relay balances at the desired new voltage.

If the relay is out of adjustment as regards the range in voltage required to close the contacts, balance the relay arm at a convenient steady voltage with the contacts open, then reduce the voltage (an amount corresponding to a step change of voltage) and adjust right hand contact until it just closes and raise voltage one half this amount and adjust the upper compounding coil core by turning it in or out until it just releases. Now adjust the left hand contact by raising the voltage (an amount corresponding to a step change of voltage) above the steady balance voltage value and adjust the left hand contact until it just makes and then adjust the compounding coil until it just releases on decrease of one half this voltage step.

When making adjustments be sure that the contact arm does not touch the compounding coil cores, or the relay will chatter. The final stop should be the moving contact against the stationary contact.

One volt is the minimum range of adjustment but larger ranges are obtainable and desirable on some applications. These can be obtained by increasing the gap between the contacts so that they will close on 3, 4, or 5 volts change in voltage as desired.

MAINTENANCE

The relay should be inspected at regular intervals to see that the balance arm works freely and that the contacts are not burned. If contacts should be burned, dress down with .000 sandpaper or crocus paper.

If plunger is sluggish, remove the screw holding the guide bearing and then remove bearing screw at top and withdraw plunger and clean. There may be, dirt or packing in the solenoid opening, or a bent needle shaft or dirt in the guide bearing.

CAUTION—Do not lubricate bearings.

Keep cover on tight.

RENEWAL PARTS

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

Description of Part	Style No.	No. Per Unit
Moving Contact and Stud.....	817 696	2
Stationary Contact with Spring.....	817 697	2
Moving Contact Shunt.....	127 466	1
Main Solenoid Coil.....	934 283	1
Compounding Coil.....	406 173	2
* Resistor.....	303 004	1

* This is not a part of the relay but is separately mounted.

ORDERING INFORMATION

The complete relay or resistor should be ordered from Sharon Works. Parts only should be ordered from Newark Works by either identifying or giving a complete description of the desired part and the complete nameplate reading of the relay.

Westinghouse Electric & Manufacturing Company