

DESCRIPTION, ADJUSTMENTS, AND ORDERING INFORMATION
TELETYPE REC-13 RECTIFIER

Description

The REC-13 rectifier is designed to deliver continuously 0.6 ampere at 120 volts D.C. from a 105 to 125 volt 60 cycle A.C. single phase power supply. It consists of an insulated type input transformer with primary taps, a full wave selenium rectifying element, a power factor correction condenser, a filter consisting of a choke and condenser, a bleeder resistor, and a regulator with taps. All parts are secured to a metal base which has rubber feet for shelf mounting. The rectifier is furnished complete with cover, cords, and plugs for making A.C. and D.C. connections.

The metal cover which is fastened to the base by means of screws is finished in black wrinkle enamel.

The approximate dimensions of the rectifier are 20-1/4" long, 8" wide, and 9" high.

Rating

Input: 105 to 125 volt, 60 cycle A.C. single phase.
Output: 0.6 ampere at 120 volts D.C.
A.C. component in D.C. output voltage: 1% r.m.s. at 0.6 ampere load.
No load voltage when new: Not over 135 volts.

Adjustments

CAUTION: The secondary voltage of the power transformer is 300 volts. All the control elements including the power factor correcting condenser are therefore 300 volts above ground potential.

This rectifier is provided with a door in the front of its cover to permit access to two regulating panels within the cover. The left-hand panel has terminals for the transformer primary taps which are marked for input voltages of 105, 115, and 125. A 6 ampere fuse for protecting the transformer is also mounted on this panel. A flexible lead is used for connecting A.C. to the proper primary tap. The selection of the primary tap will depend on the voltage of the A.C. power supply. In no case should the connection to these taps be changed for the purpose of regulating the D.C. output voltage.

To regulate the D.C. output and to compensate for aging of the rectifying element, three coarse regulator taps marked L, M, and H and five fine regulator taps marked 1, 2, 3, 4, and 5 terminate on the right-hand panel. The regulating taps are set at the factory on "L" and either 1, 2, or 3 to deliver a minimum of 120 volts D.C. at 0.6 ampere. Each fine tap will change the D.C. output voltage

approximately two volts and each coarse tap, approximately 8 volts when the D.C. output current is 0.5 ampere. The method normally employed in checking the D.C. output of this rectifier is to disconnect all apparatus from the D.C. side and connect a 60 watt Mazda lamp in series with a suitable ammeter across the output. For correct adjustment of the output, the flexible leads should be connected to those taps which will cause the ammeter to register a current flow which is nearest to but not less than 0.5 ampere. This adjustment should be checked when the rectifier is installed and periodically thereafter. The amount of aging will be somewhat greater during the first few months of use. After this, the rectifier should operate for long periods without the necessity of readjusting.

If at any time it is necessary to use the maximum regulating tap to obtain the proper output current, the rectifier should be withdrawn from service and repaired.

A 1.25 ampere fusatron is located on the right-hand panel for overload protection in the output circuit.

Wiring diagram W.D. 1959, which forms a part of this specification, shows the actual and theoretical wiring of the rectifier. An assembly drawing giving the names and numbers of the component parts is shown on the last page.

Reason for reissue: To correct the part number of the rectifying stack on the assembly drawing.

REVISIONS
 ① Change to
 C.A. 177000007
 P. 11-51 J. J. P.

TELETYPE
 CORPORATION
 WD-1959-A
 2-2-58

WIRING DIAGRAM
 FOR
 REC-13

REVIEWED BY
 A.F.B.
 CHECKED BY
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 APPROVED BY



