

DESCRIPTION, ADJUSTMENTS, AND ORDERING INFORMATION
TELETYPE MODEL REC-23 RECTIFIER

Description

The Model REC-23 rectifier is designed to deliver continuously .6 ampere at 120 volts D.C. when operated on a 105 to 125 volt 50 cycle A.C. single phase power supply. The direct current output of this rectifier is filtered so that it has no more than 1 per cent ripple (r.m.s.) at .6 ampere load. The no-load voltage of a new rectifier should not exceed 135 volts.

The rectifier consists essentially of a transformer, a full wave rectifying assembly utilizing selenium coated discs, a filter consisting of a condenser and choke coil, a voltage regulator, a condenser for correcting the power factor, input and output panels, and a bleeder resistor. The transformer is protected by a 6 ampere fuse mounted on the input panel. To protect the rectifier against overload the output circuit is provided with a 1.25 ampere fusetron which is mounted on the output panel. All parts are secured to a metal base which is provided with rubber feet. The rectifier is furnished complete with cords, plug, and receptacle 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 as follows: length 21"; width 7 3/4"; height 9".

Adjustments

CAUTION: The secondary voltage of the transformer is 300 volts. Do not regulate the output voltage while the rectifier is in operation.

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 flexible lead is used for connecting A.C. to the primary tap with the marking nearest to the voltage of the A.C. power supply. 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.

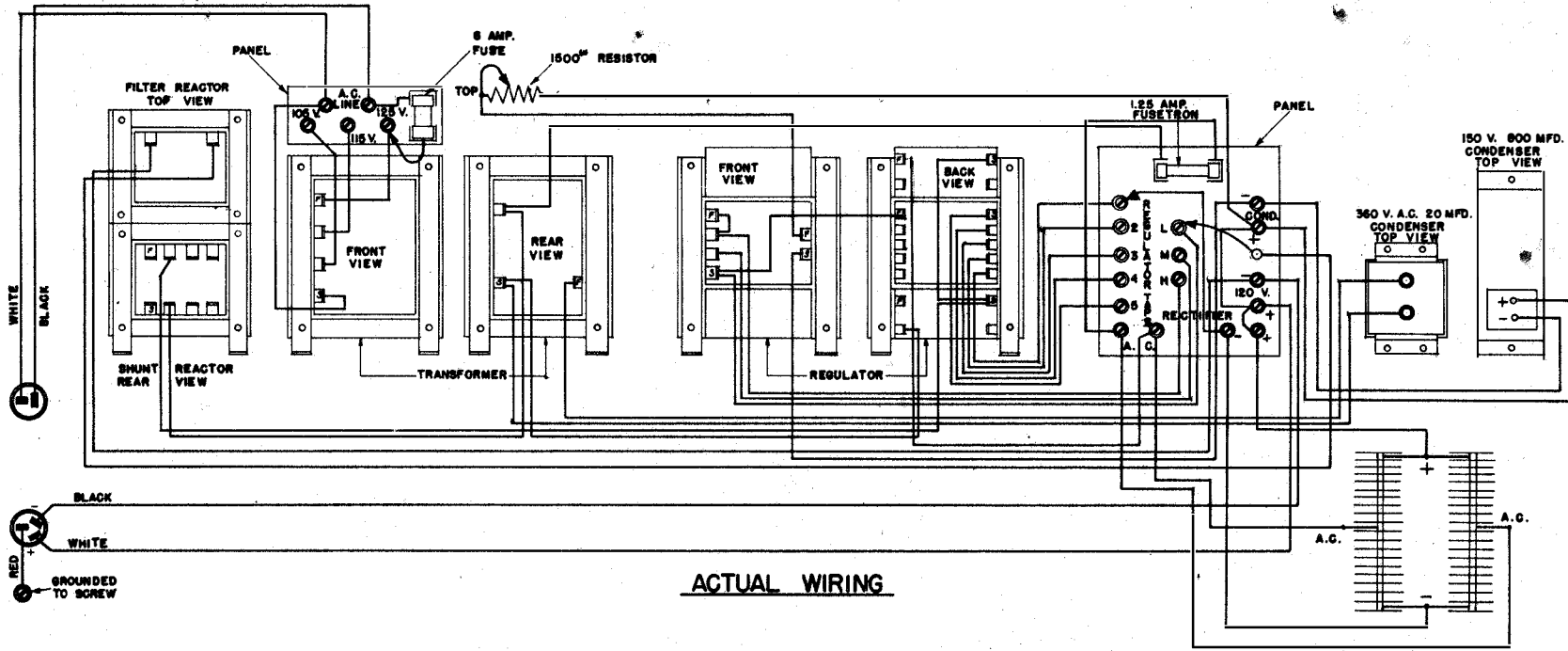
The secondary of the transformer is provided with taps so that the output voltage of the rectifier can be adjusted to suit requirements and to compensate for voltage drop due to aging of the rectifying assembly. These taps are connected to eight terminal screws on the output (right-hand) panel. Three terminals provide coarse voltage adjustment and are labeled "L", "M", and "H". Five terminals provide fine voltage adjustment and are labeled "1", "2", "3", "4", and "5". Connections to these terminals are made by means of spade terminals attached to flexible leads. Each fine adjustment tap will change the D.C. output voltage approximately 2 volts and each coarse adjustment tap, approximately 8 volts when the output current is .5 ampere.

The method normally employed in checking the output of this rectifier is to disconnect all apparatus from the output side and to connect a 60 watt lamp in series with a suitable ammeter across the output. For correct adjustment, the spade terminals should be connected to the terminal screws which cause the ammeter to register a current flow which is nearest to, but not less than, .5 ampere. This adjustment should be checked when the rectifier is installed and periodically thereafter.

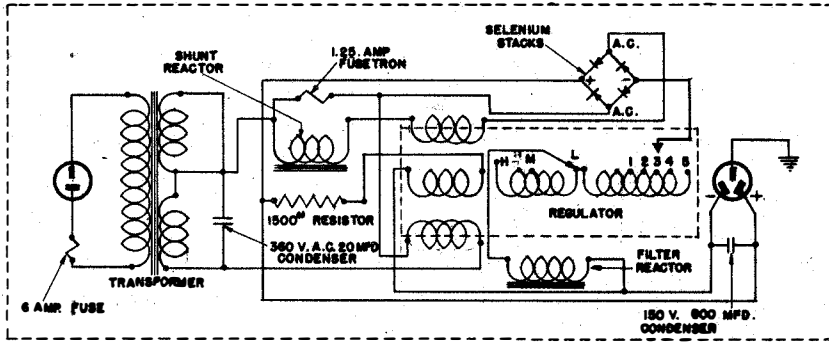
Voltage drop due to aging of the rectifying assembly decreases with service. After the first few months of use the rectifier should operate for long periods without the necessity of readjustment. If at any time it is necessary to use the maximum regulating tap to obtain the proper output current, the rectifier should be withdrawn from service and repaired.

Internal wiring of the rectifier is shown in drawing WD-2118. An assembly drawing is also furnished showing names and numbers of the component parts of the rectifier.

REVISIONS



ACTUAL WIRING



SCHEMATIC WIRING

SELENIUM STACKS
TOP VIEW

TELETYPE CORPORATION

WD-2118
2-22-48

WIRING DIAGRAM
FOR
REC - 23

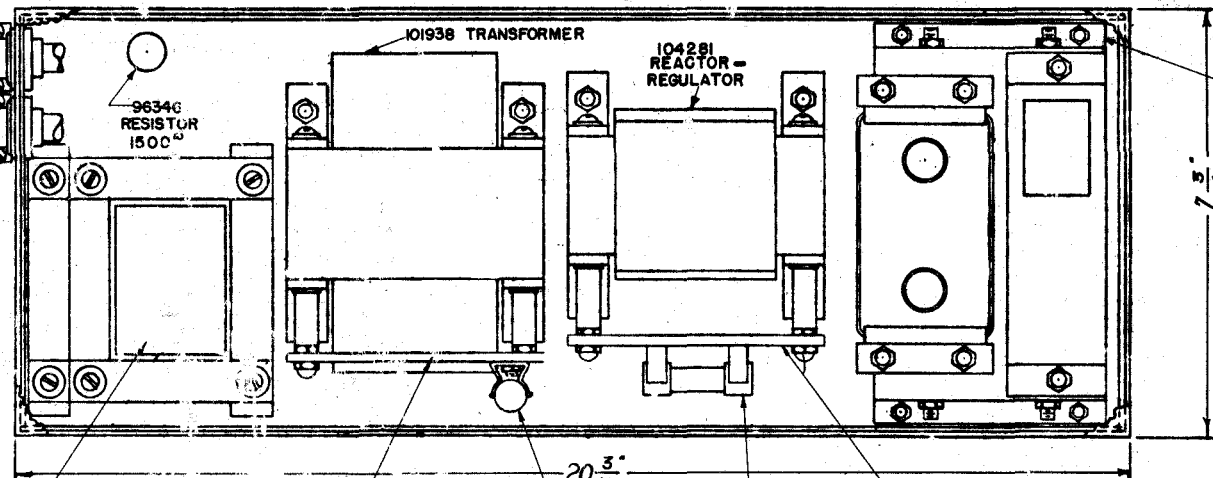
DRAWN *el. b. st.*
TRACED
CHECKED *B.W.*
ENG'N'G *B.W.*
APPROVED *R. [signature]*

101956
CORD & PLUG
(ASSEMBLY)

72481
PLUG

89239
RECEPTACLE

101957
CORD & PLUG
RECEPTACLE
(ASSEM.)



101943
FILTER
REACTOR

101952
PANEL

102715
6 AMP. FUSE

96349
1.25 AMP
FUSETRON

101951
PANEL

95280
CONDENSER
20 MF.

104 .80
SHUNT
REACTOR

101718
RUBBER FOOT

