J86264A RECTIFIER
METALLIC TYPE — MANUAL REGULATION
SINGLE-CELL CHARGER — 210 AMPERES
DESCRIPTION

1. GENERAL

1.01 This section describes the characteristics of the J86264A rectifier unit. This rectifier is a portable unit designed for use in charging single cells of central office storage batteries. It is expected that considerable savings in central office battery life can be attained by the use of this rectifier in recharging or conditioning individual cells of a battery where it would be undesirable to impose a sustained charge on the other cells of the string.

1.02 The rectifier will be used in conjunction with a single-cell discharge unit in making tests to determine the available reserve capacity of a battery, as well as in general recharging or conditioning of "sick" cells. The rectifier is also capable of charging the equivalent of two lead-acid cells in series, at a reduced current, and therefore may be used for end-cell charging.

1.03 It may be applied to a cell in a working string without any interference with service or any change in office control equipment settings.

2. CAPACITY

2.01 For single-cell charging the rectifier will deliver 2.5 volts at the battery terminals at charging currents up to 210 amperes, continously. When charging two cells in series the rectifier will

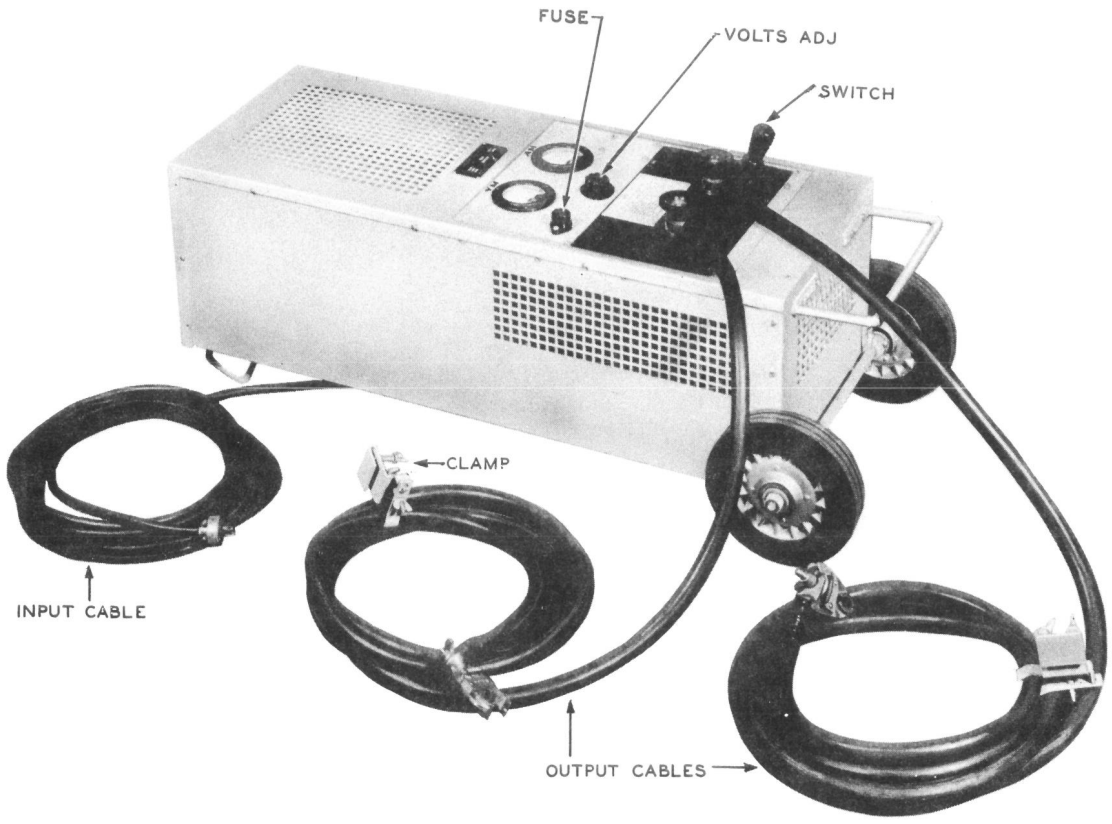

FIG. 1 – SINGLE CELL CHARGER

continuously deliver 4.8 volts at the battery terminals at charging currents of up to about 100 amperes.

3. CIRCUIT FEATURES

3.01 The rectifier circuit SD-81188-01 consists essentially of an auto-transformer for continuous adjustment of the output voltage and charging rate, a center-tapped transformer, and two selenium rectifier stacks arranged for full-wave rectification. A 20-foot input cord equipped with a nonpolarized cap is provided for connection to a 115-volt, 60-cycle service outlet and fused at 15 amperes. An ammeter, voltmeter, and knife switch are provided in the output circuit, and the output leads are terminated at binding posts mounted on the rectifier cabinet. Two 12-foot detachable charging leads are furnished as list 2 for connecting the charger to the battery terminals.

4. EQUIPMENT FEATURES

4.01 The rectifier equipment arrangements are covered on ED-81660-01. The apparatus is mounted in a ventilated cabinet approximately 42 inches high, 20 inches wide, and 15 inches deep, over-all. The cabinet is mounted on wheels for ease in transporting and storing in the upright position. To prevent overheating the rectifier must be lowered to the horizontal position for operation as shown in Fig. 1. An instruction card covering operation of the charger is mounted on the control panel. More detailed information on use of the rectifier is covered in BSP 169-621-301.

4.02 The charging leads are equipped with two sets of clamps, one for securing the lead to the battery stand framework and the other for fastening to the terminal posts at the battery. The combined weight of the leads and clamps is approximately 30 pounds. The rectifier unit less the charging leads weighs approximately 185 pounds.