BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G86.062.2
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AT&TCo Standard

13-A AND 13-B POWER UNITS

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1. GENERAL

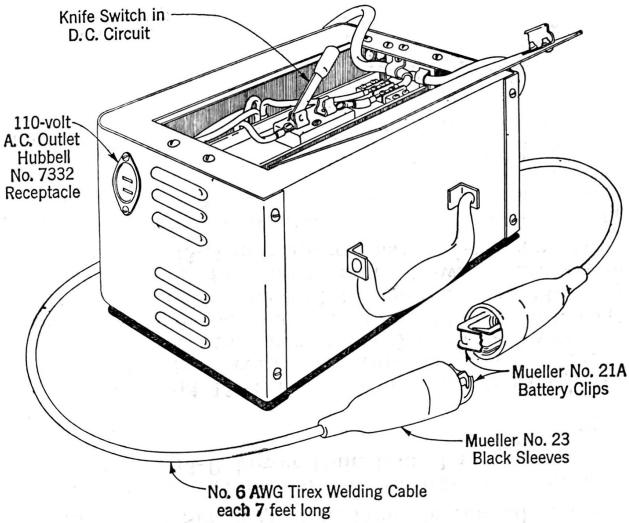
1.01 This section describes the 13-A and 13-B Power Units which are used to supply alternating current for operating the 90-A Test Set in locating faults in coaxial cables.

1.02 The section was reissued to include information on the 12-volt, 13-B Power Unit. Issue 1 is replaced.

2. DESCRIPTION

2.01 The 13-A and 13-B Power Units are storage battery operated rotary converters capable of delivering up to 1 ampere of alternating current at 110 volts. These units operate on ordinary automobile type lead-acid storage batteries of 6 volts for the 13-A type and 12 volts for the 13-B type. Under normal load, the 13-A unit draws approximately 15 amperes and the 13-B unit approximately 7-1/2 amperes.

2.02 The two units are of the same size, each housed in a ventilated metal box about 12-1/2 inches by 8-1/2 inches by 9 inches which is illustrated on the following page. Each unit comes equipped with permanently connected No. 6 gauge, rubber insulated Tirex cords with heavy duty storage battery clips.



2.03 When the set is not in use the leads can be stored inside the box beside the rotary converter.

3. OPERATION

3.01 Since these power units draw heavy current from their respective storage batteries, make sure that the battery is in good condition before starting to the job. The motor vehicle battery can be used if it is well charged; otherwise use a separate, freshly charged lead-acid battery of at least 80-ampere-hour capacity.

3.02 The 13-A unit **must be** operated on 6-volt batteries only; the 13-B unit on 12-volt batteries only. Operation at other than the approved voltage may lead to serious damage of the rotary converter.

3.03 Remove the cords from the box and open the knife switch.

3.04 The cords can be connected to the + and — terminals of the battery without regard to polarity.

3.05 Closing the knife switch will start the converter.

3.06 The 110-volt power is obtained by plugging the cord from the 90-A Test Set in the 110-volt receptacle on the power unit.

4. MAINTENANCE

4.01 **Rotary Converter:** Since the converter is used intermittently, there will be relatively little wear on the commutator or brushes. Their condition should, however, be checked at about one-year intervals. They can be examined by taking the side panels off the box and then removing the ventilated plate covers on the motor and generator ends of the converter.

4.02 If heavy arcing is noticeable on the low voltage motor commutator, the latter should be cleaned and dressed in accordance with local routines for maintenance of electric motors.

4.03 The roller bearings are packed in grease and should require no attention.

4.04 **Cords:** Since the unit draws heavy current it is important to maintain solid connections throughout. If a cord becomes frayed or weak at any of the terminations, cut off a short length of the cord and resolder the cord to the spade connector.

4.05 If the battery connectors become badly corroded or worn to a point where they cannot be relied upon, replace the connectors.

4.06 If a cord becomes damaged, replace it with 7 feet of No. 6 A.W.G. Tirex Welding Cord.