

## DATA AUXILIARY SET 824B-TYPE

### 18.75 KILOBIT DATA RECOGNIZER

#### DESCRIPTION

#### 1. GENERAL

**1.01** This section contains the physical and functional description of Data Auxiliary Set (DAS) 824B-type and information pertinent to its application.

**1.02** Information pertaining to associated customer-owned equipment or other external equipment is not included.

#### 2. DESCRIPTION

##### GENERAL DESCRIPTION

**2.01** DAS 824B-type is designed to recognize 18.75 kilobit/second digital signals and can be used independently or in conjunction with a 303-type Data Station.

**2.02** The purpose of DAS 824B-type is to provide the customer with a set of contact closures when 18.75 kilobit/second digital signals are being received.

**2.03** The 824B1 Data Recognizer must obtain its operating power from an external source. When installed in a 303-type Data Station, the 824B1 obtains operating power from the associated DAS 806.

**2.04** When an 824B-type Data Recognizer is to be used as an independent unit, DAS 824B2 is used. A power supply (26A Power Unit) is included in DAS 824B2. When two DAS's 824B-type are used independently but are installed together, one must be an 824B1 and the other must be an 824B2. The 824B2 supplies operating power to both data recognizers.

**2.05** DAS 824B-type will operate within a temperature range of 40 to 120°F with a relative humidity of 20 to 95 percent.

**2.06** DAS 824B1 requires +18 vdc and -18 vdc at 300 milliamperes (ma). This power is obtained from an adjacent DAS 806B or DAS 824B2.

**2.07** DAS 824B2 requires +18 vdc and -18 vdc at 300 ma. This power is obtained from the attached 26A Power Unit. The 26A Power Unit requires 117 volts rms  $\pm 10$  percent at 60  $\pm 0.1$  Hz. The output of the 26A Power Unit is +18 vdc and -18 vdc at 650 ma.

##### PHYSICAL DESCRIPTION

**2.08** DAS 824B-type measures approximately six inches high by ten inches wide by ten inches deep. The 824B1 weighs approximately 8 pounds and the 824B2 weighs approximately 13 pounds. (Refer to Fig. 1, 2, 3, and 4.)

**2.09** When DAS 824B1 is used in a 303-type Data Station, DAS 824B1 is fastened to DAS 806. When the two sets have been connected together, they are capable of being mounted in Bell System-provided cabinets (KS-20018 and KS-20093 types), on 23-inch No. 5 crossbar, bulb angle type frames, and on 25-inch ESS type frames. For the procedure for fastening DAS 824B1 to DAS 806 and for mounting the combined sets, refer to the section entitled Data Auxiliary Set 824B-Type, 18.75 Kilobit Data Recognizer, Installation and Connection (598-060-201).

**2.10** DAS 824B2 can be mounted as an independent unit on 19-inch, 23-inch, or 25-inch relay racks, and in Bell System cabinets KS-20018 and KS-20093. For mounting procedures, refer to Section 598-060-201.

**2.11** A factory-installed power cable assembly (P95M090) is provided for supplying power to DAS 824B1 from DAS 806 or DAS 824B2. It is a three-conductor cable with a four-pin connector. Two pins of the connector share a conductor.

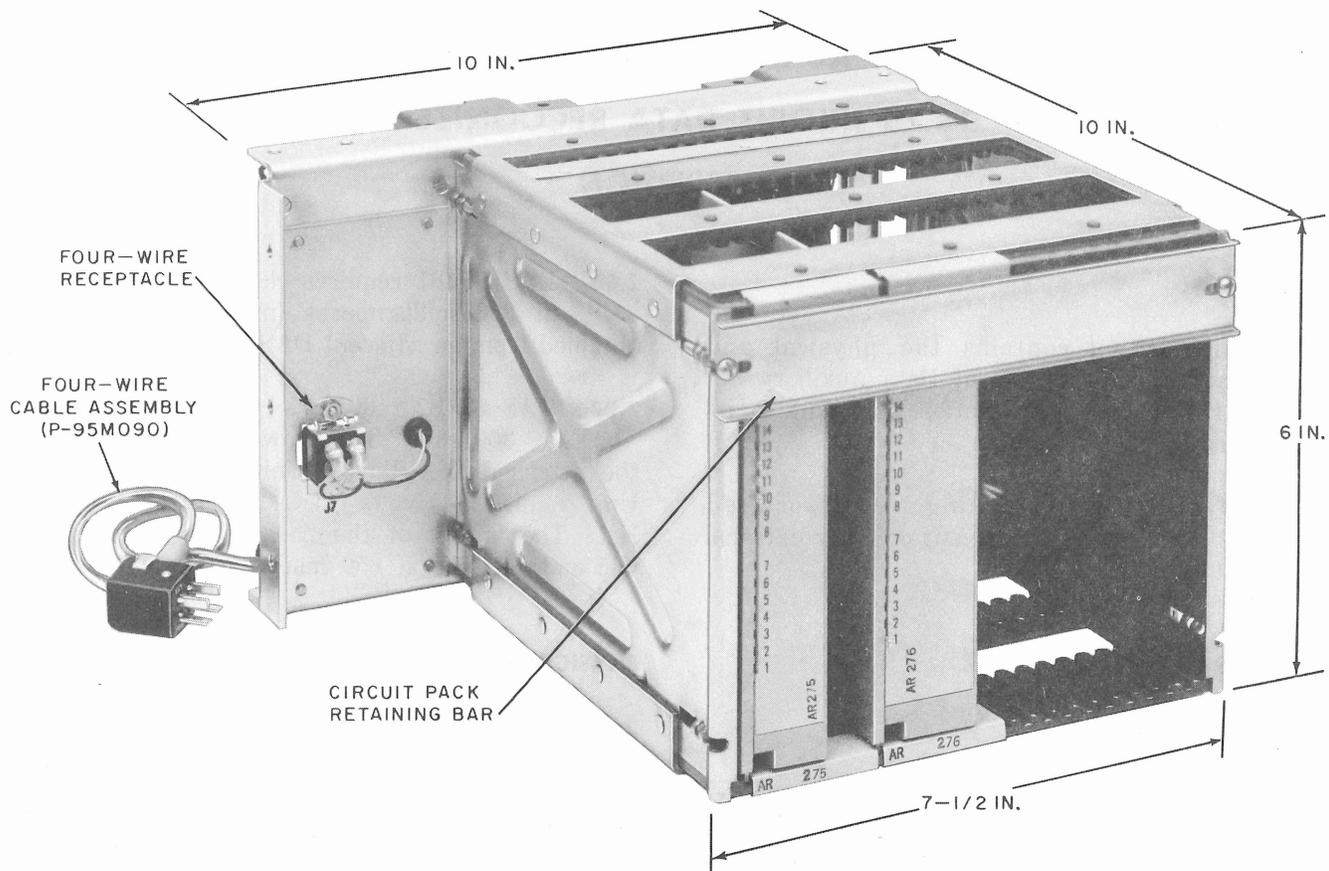


Fig. 1—Data Auxiliary Set 824B1, Front View

**2.12** Two connecting cables are supplied with DAS 824B2. A three-wire power cable assembly (P95M028) is provided for supplying 117 volts of ac power to DAS 824B2 from the customer-provided power receptacle. A factory-installed four-wire cable assembly (P95M090) connects DAS 824B2 to the 26A Power Unit.

**2.13** DAS 824B-type is comprised of two circuit packs. The 26A Power Unit on DAS 824B2 is not a circuit pack.

**2.14** Two terminal boards are located under the rear cover of DAS 824B-type which provide a means of connecting DAS 824B-type to the Bell System facility and to the customer equipment.

### FUNCTIONAL DESCRIPTION

**2.15** DAS 824B-type consists of two functional units. (Refer to Fig. 5.)

**2.16** The incoming line terminals (on TB2) are monitored to determine if 18.75 kilobit/second digital signals are being transmitted.

**2.17** When 18.75 kilobit/second digital signals are detected, the data recognizer applies a sinusoidal output signal to the data rate detector (CP AR276).

**2.18** The data rate detector rectifies the signal received from the data recognizer, and when the filtered dc component becomes of sufficient amplitude, the associated relay operates. The contacts of this relay provide the customer with the required contact closures.

### 3. OPTIONS

**3.01** There are no wiring options associated with DAS 824B-type.

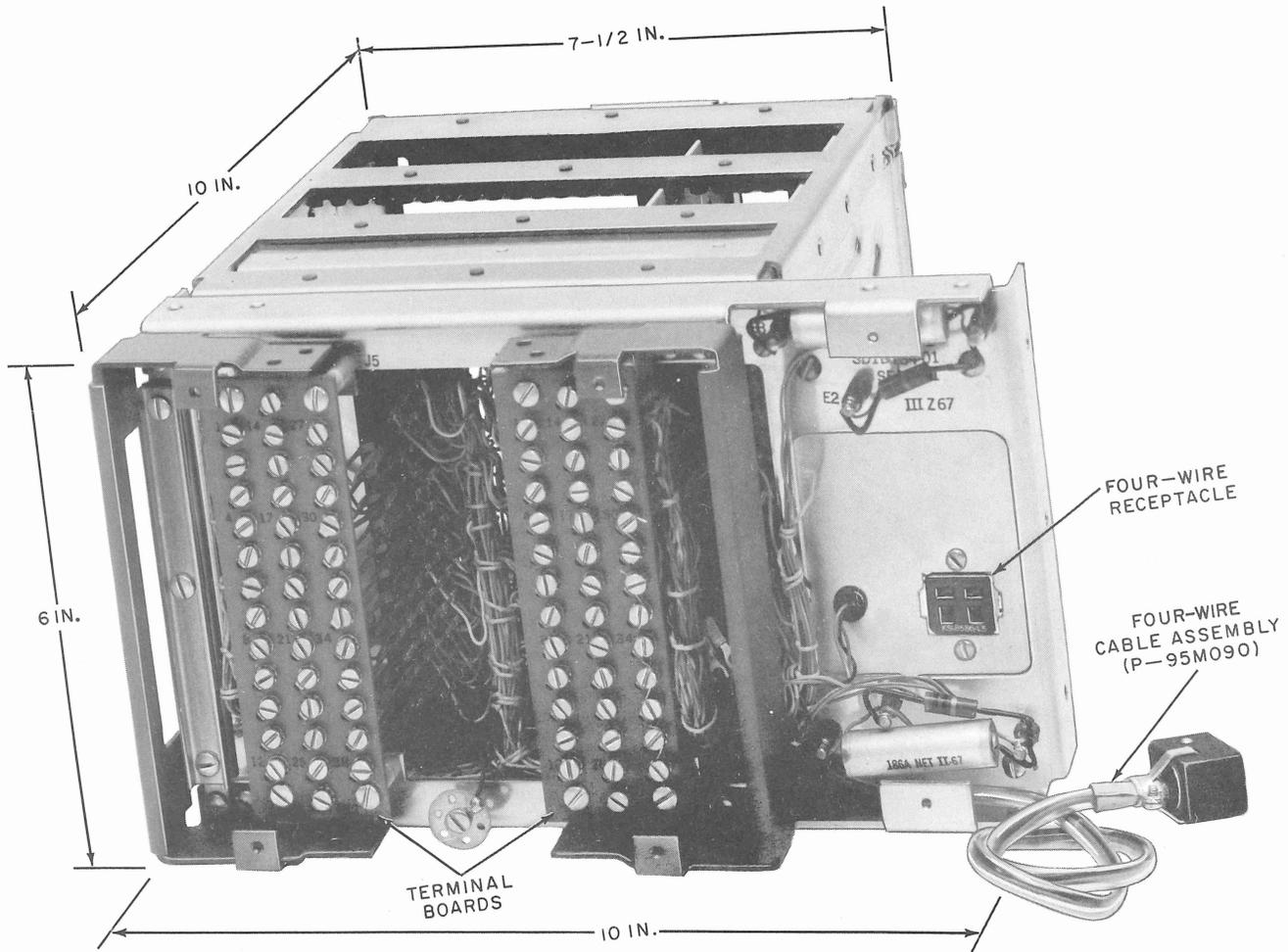


Fig. 2—Data Auxiliary Set 824B1, Rear View, Covers Removed

**4. OPERATION**

4.01 No operator or attendant is required for operation of DAS 824B-type. There are no controls associated with this unit.

4.02 DAS 824B-type is in service continuously.

**5. REFERENCES**

5.01 For additional information concerning DAS 824B-type and associated equipment, refer to Section 598-060-201 and CD- & SD-1D134-01.

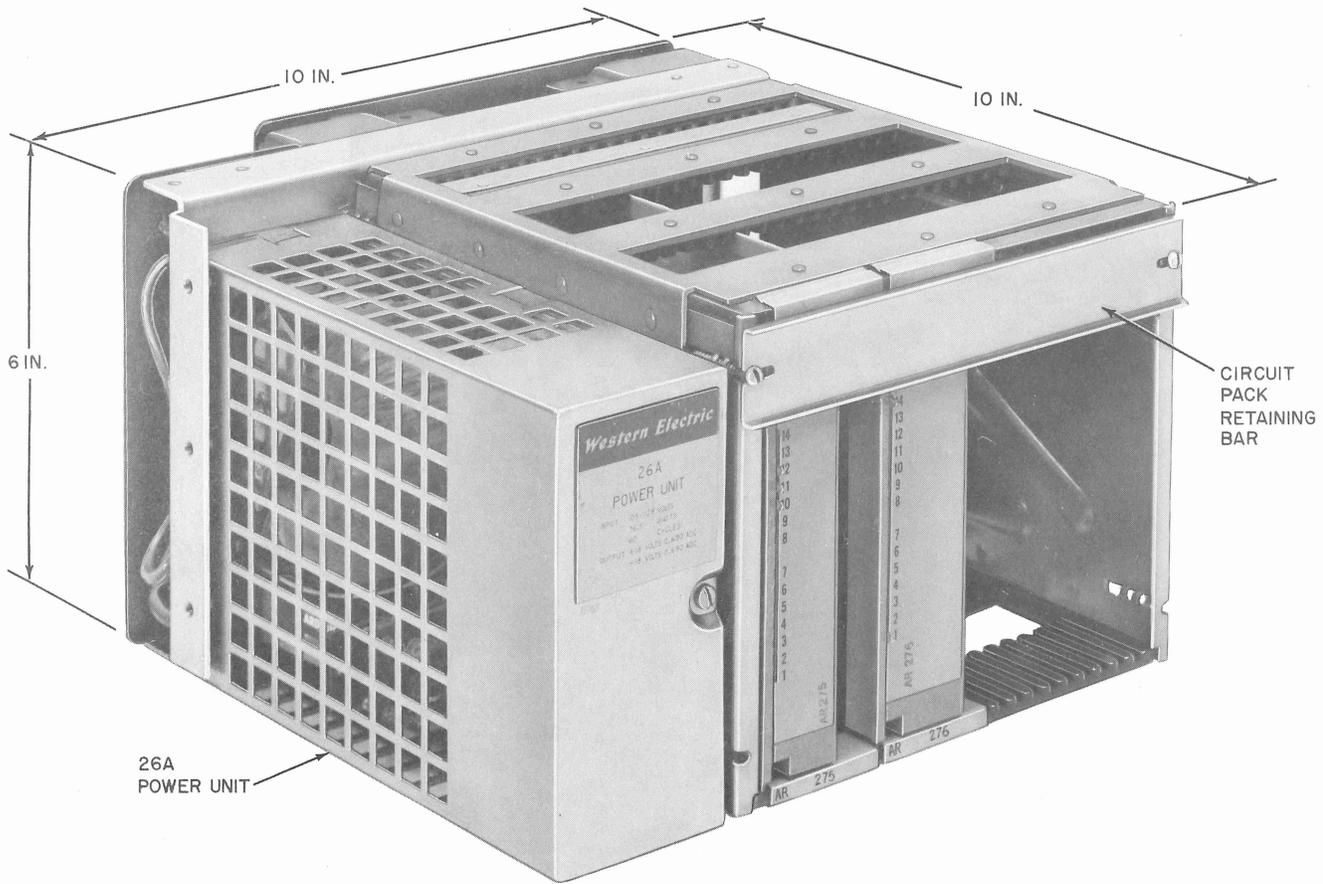


Fig. 3—Data Auxiliary Set 824B2, Front View

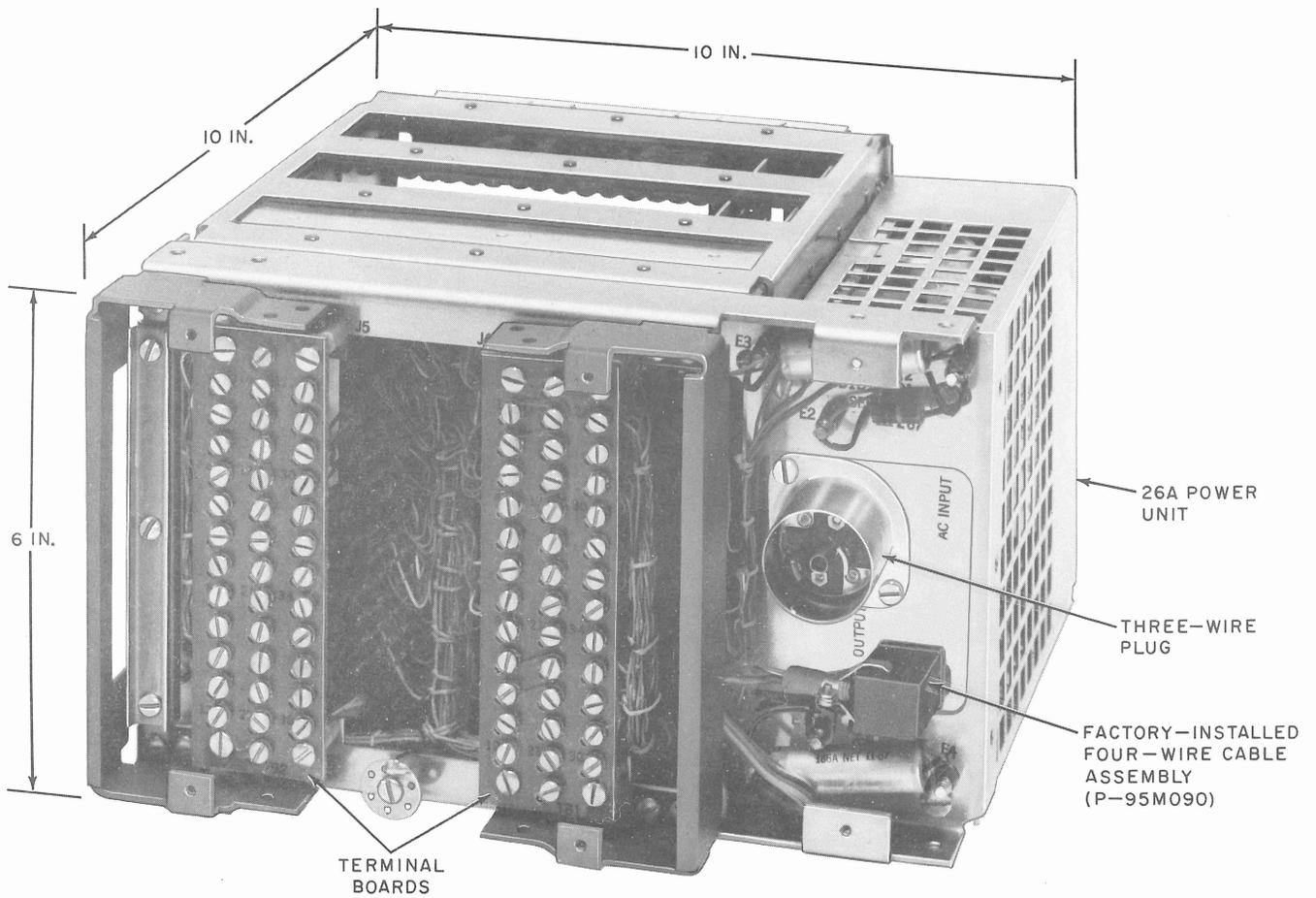


Fig. 4—Data Auxiliary Set 824B2, Rear View, Covers Removed

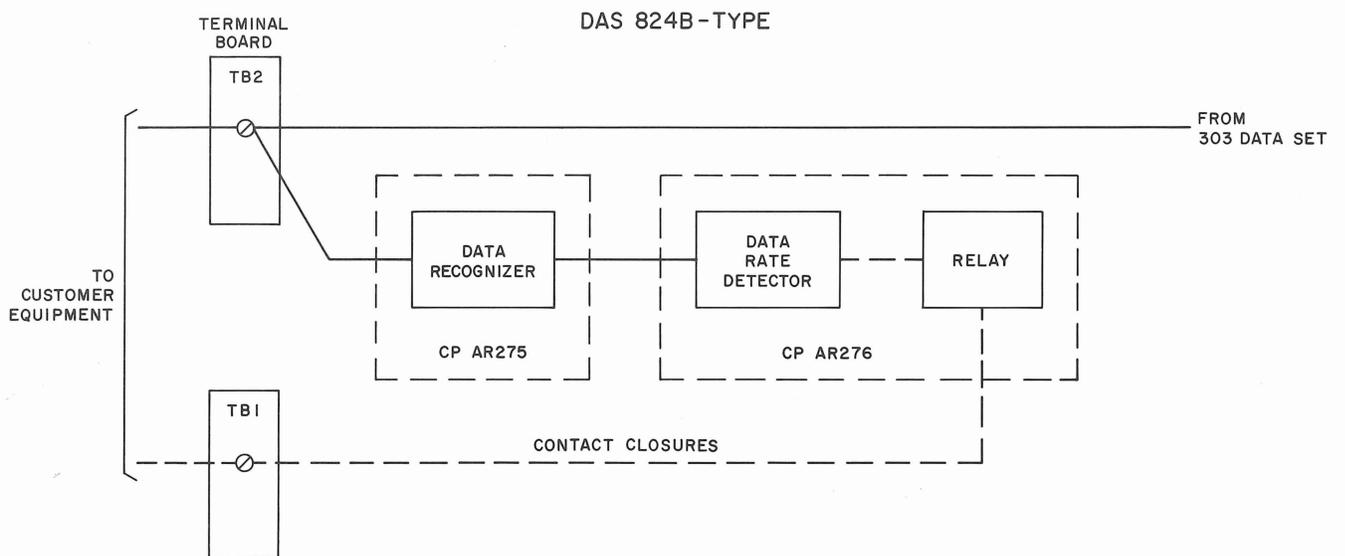


Fig. 5—Data Auxiliary Set 824B-Type, Functional Block Diagram