50A1 DATA UNIT
IDENTIFICATION

1. GENERAL

1.01 This section provides an identification and description of the 50A1 data unit. Information pertaining to tests which can be performed using the 50A1 data unit is not included in this section. Refer to Section 592-032-150 for the test descriptions and procedures.

1.02 The 50A1 data unit, as shown in Fig. 1, is used in conjunction with data set 209A-L1 to identify channel and/or data set impairments. Output signals from the 50A1 data unit can be displayed on an oscilloscope to provide a visual indication of transmission impairments.

Fig. 1—50A1 Data Unit—Front View

2. PHYSICAL DESCRIPTION

2.01 The 50A1 data unit consists of a PB1 circuit pack contained in a black plastic housing. A 37-pin male plug is provided at the rear of the 50A1 data unit for connection to the TEST connector of data set 209A-L1. Two female BNC plugs are provided at the front of the data unit for connection to the horizontal and vertical inputs of an oscilloscope. Two 8-foot coaxial cables are supplied with the 50A1 data unit. The coaxial or twisted pair test leads used for connection to an oscilloscope must not exceed 50 feet in length.

2.02 The overall dimensions of the data unit are approximately 2.9 inches high, 4.0 inches wide, and 2.4 inches deep (including connectors). The approximate weight is 6 ounces.

2.03 Power for the data unit is provided by the associated data set 209A-L1.

2.04 The data unit will operate in an environment of 40°F to 120°F with a relative humidity of 20 to 95 percent.

3. FUNCTIONAL DESCRIPTION

3.01 Data demodulated by data set 209A-L1 is defined by digital representations of the X and Y values. The 50A1 data unit converts these digital representations of demodulated data into corresponding analog voltages, which can then be applied to the horizontal and vertical inputs of an oscilloscope.

3.02 Input signals provided to the data unit through the 37-pin plug consist of digital data, timing, and power supply voltages of +5, +12, -12 Vdc. Data unit output is provided on the HOR and VERT BNC connectors and appears as a 16-point pattern when viewed on an oscilloscope.

4. REFERENCES

4.01 The schematic drawing and circuit description covering the 50A1 data unit are SD- and CD-1D261-01.

4.02 Bell System Practices covering data set 209A-L1, which must be used in conjunction with the 50A1 data unit, are listed as follows:

SECTION	TITLE
592-032-100	Data Set 209A-L1 Transmitter-Receiver—Description and Operation
592-032-150	Data Set 209A-L1 Transmitter-Receiver—Supplementary Information
592-032-200	Data Set 209A-L1 Transmitter-Receiver—Installation and Connections
592-032-300	Data Set 209A-L1 Transmitter-Receiver—Maintenance
592-032-500	Data Set 209A-L1 Transmitter-Receiver—Test Procedures