

DATA SETS 407AR AND 407BR IDENTIFICATION

1. GENERAL

1.01 This section covers the identification and provides a general description of data sets (DS) 407AR-L1B and 407BR-L1A. The data sets, shown in Fig. 1 and 2, are used in the 407AR and 407BR multiple data station arrangement for either an Electronic Industries Association (EIA) (voltage) or a contact equivalent customer interface.

1.02 When this section is reissued, the reason for reissue will be presented in this paragraph.

1.03 The data sets are used primarily for Digital Inquiry Voice Answer-Back (DIVA) systems. These systems may be used in such applications as credit checking or retrieving information from a computer.

2. PHYSICAL DESCRIPTION

2.01 Data set 407AR-L1B consists of two printed wiring circuit packs (CPs) (JU1C and JU2) mounted together in sandwich fashion (Fig. 1). A KS-19087-type 25-pin connector is located on the front of the data set and provides the interface with the customer-provided terminal equipment. Printed wiring board terminals are located on the rear of the data sets which enable the data sets to plug into a data mounting. Data set 407BR-L1A is similar to DS 407AR-L1B but has a daughter board added between the two printed wiring circuit packs coded JU3B and JU2 (Fig. 2). The daughter board is coded CM1 (circuit module) and is part of CP JU3B.

2.02 Data sets 407AR and 407BR are about 8 inches high, 12-1/8 inches deep, 1-1/2 inches wide, and weigh about 2-1/2 pounds and 3 pounds, respectively. The data sets require power sources of +12 volts, -12 volts, and +5 volts.

2.03 The data sets will operate in an ambient temperature range from 40 to 120°F. The

relative humidity operating ranges for the data sets are as follows.

- Between 40 to 75°F the humidity may vary from 20 to 95 percent.
- At 100°F the humidity range is 20 to 70 percent.
- At 120°F the humidity range is 20 to 40 percent.

3. FUNCTIONAL DESCRIPTION

3.01 Data sets 407AR and 407BR are low-speed parallel receivers that detect two-out-of-eight multifrequency signals generated by a TOUCH-TONE® telephone or any other transmitter using a similar transmission code. The data sets receive data from the switched telecommunications network or an unconditioned private line facility. An optional impedance match of 900 ohms (switched network) or 600 ohms (private line facility) is provided by the data sets. The data sets also provide the following additional functions:

- Automatic answer
- Tone answer-back (2025 Hz)
- Two-way voice channel
- Call referral (see note)
- Return-to-data feature
- Full time remote control
- Local and remote test capability
- Indicator light emitting diodes (LEDs)
- Compatibility with automatic call distributor (ACD).

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

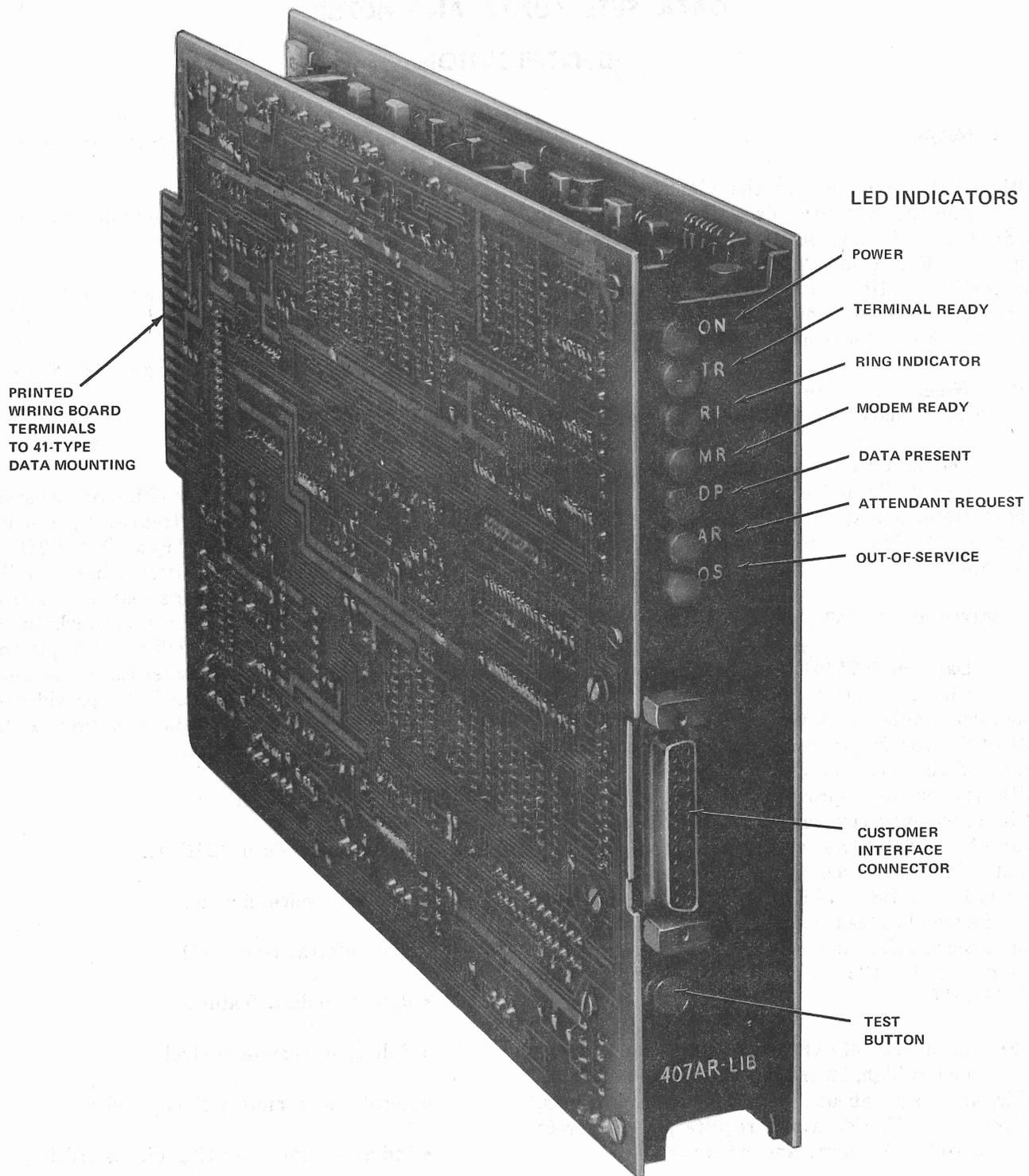


Fig. 1—Data Set 407AR-L1B

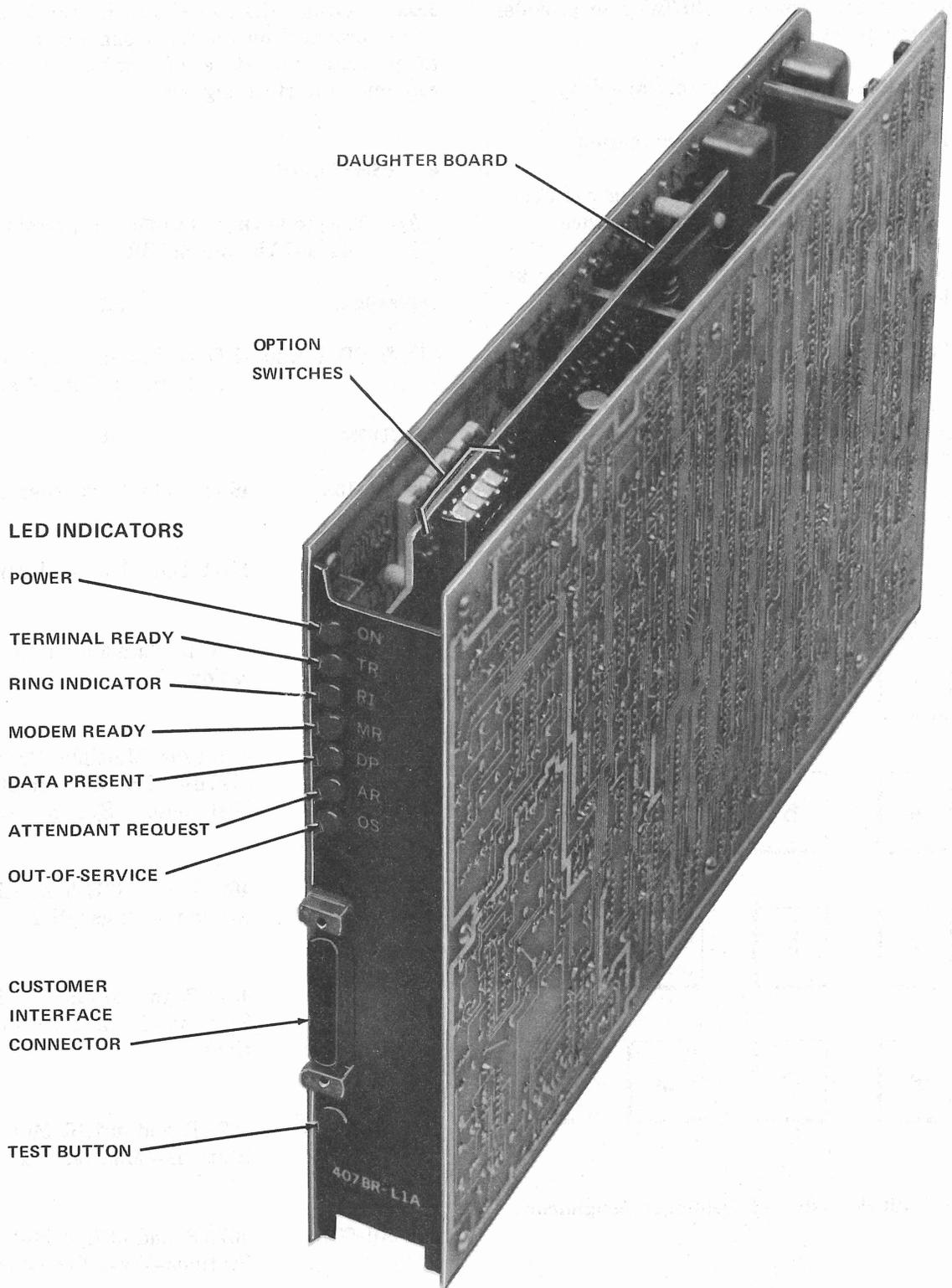


Fig. 2—Data Set 407BR-L1A

In addition to the above, DS 407BR also provides the following functions:

- Terminal initiated referral capability
- Positive automatic call termination
- Limited call-handling capability when customer provided equipment is out of service.

Note: Call referral is provided by using key telephones or a 2B or 3A ACD.

3.02 The data sets detect TOUCH-TONE signals at a maximum rate of ten characters per second. A character consists of one frequency from each group shown in Fig. 3. Therefore, the data set can detect 16 different frequency pairs (characters).

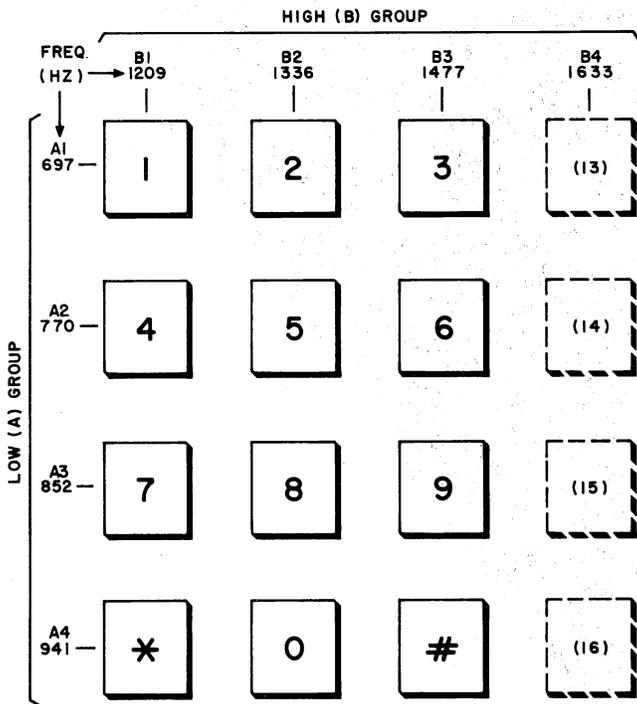


Fig. 3—TOUCH-TONE Dial Frequency Assignments

3.03 Status LEDs, as shown in Fig. 1 and 2, are provided on the front panel of the data sets to indicate the state of various functions and customer interface signals.

4. REFERENCES

4.01 The following documents pertain to data sets 407AR and 407BR:

NUMBER	TITLE
SD & CD 1D240-02	Data Systems Station—407AR and 407BR Data Stations
SECTION	TITLE
590-100-132	46A1 Data Unit—Identification
590-100-133	47A1 Data Unit—Identification
590-102-132	41-Type Data Mounting—Identification
594-800-501	407-Type Multiple Data Station Using 2B Automatic Call Distributor—System Test
594-801-100	407AR and 407BR Multiple Data Stations—Description
594-801-200	407AR and 407BR Multiple Data Stations—Installation and Connections
594-801-300	407AR and 407BR Multiple Data Stations—Maintenance
594-801-500	407AR and 407BR Multiple Data Stations—Test Procedures