

DATA SET 407-TYPE IDENTIFICATION

1. GENERAL

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

1.02 This section is reissued to add coverage on DS 407A-L1A and DS 407B.

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 DS 407A consists of two printed wiring circuit packs mounted together in sandwich fashion. DS 407A-L1 consists of circuit packs (CPs) coded JU1 and JU2. DS 407A-L1A consists of CPs coded JU1B and JU2. The JU1 board can be factory modified to update the data set to 407A-L1A. The DS 407A-L1A differs from DS 407A-L1 in that the tolerance of the 1.5-second answer tone has been improved in the -L1A to assure compatibility with the TRANSACTION* telephone. 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 set which enable the data set to plug into a data mounting. DS 407B is similar to DS 407A, but has a daughter board added between the two printed wiring circuit packs coded JU3 and JU2. The daughter board is coded CM1 (circuit module) and is part of CP JU3. DS 407-L1 is rated Manufacture Discontinued (MD).

2.02 Data sets 407-type are 8 inches high, 12.1 inches deep, 1.45 inches wide, and weigh

approximately 2.5 pounds. 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 407-type 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)

* Trademark of AT&TCo

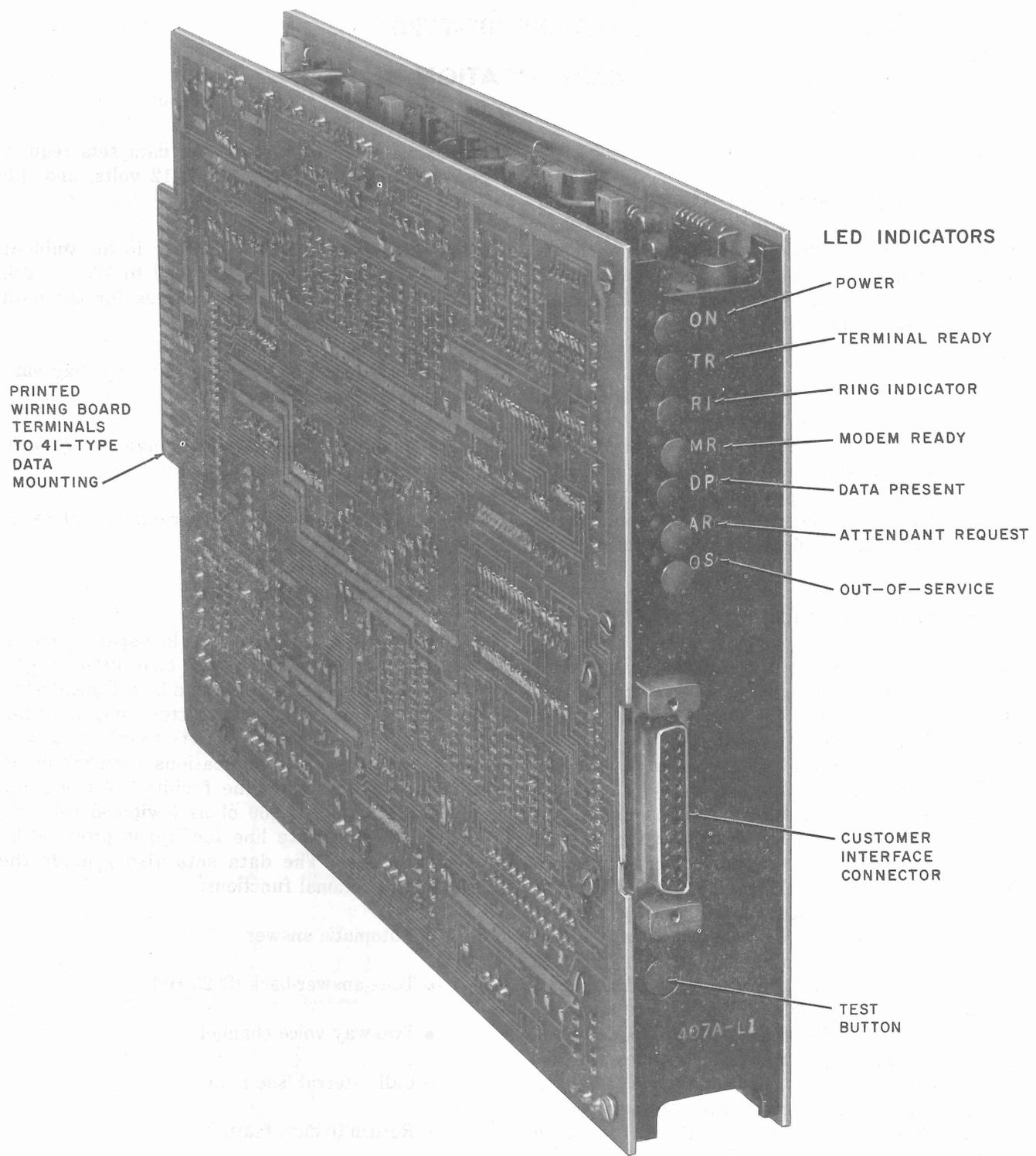


Fig. 1—Data Set 407A

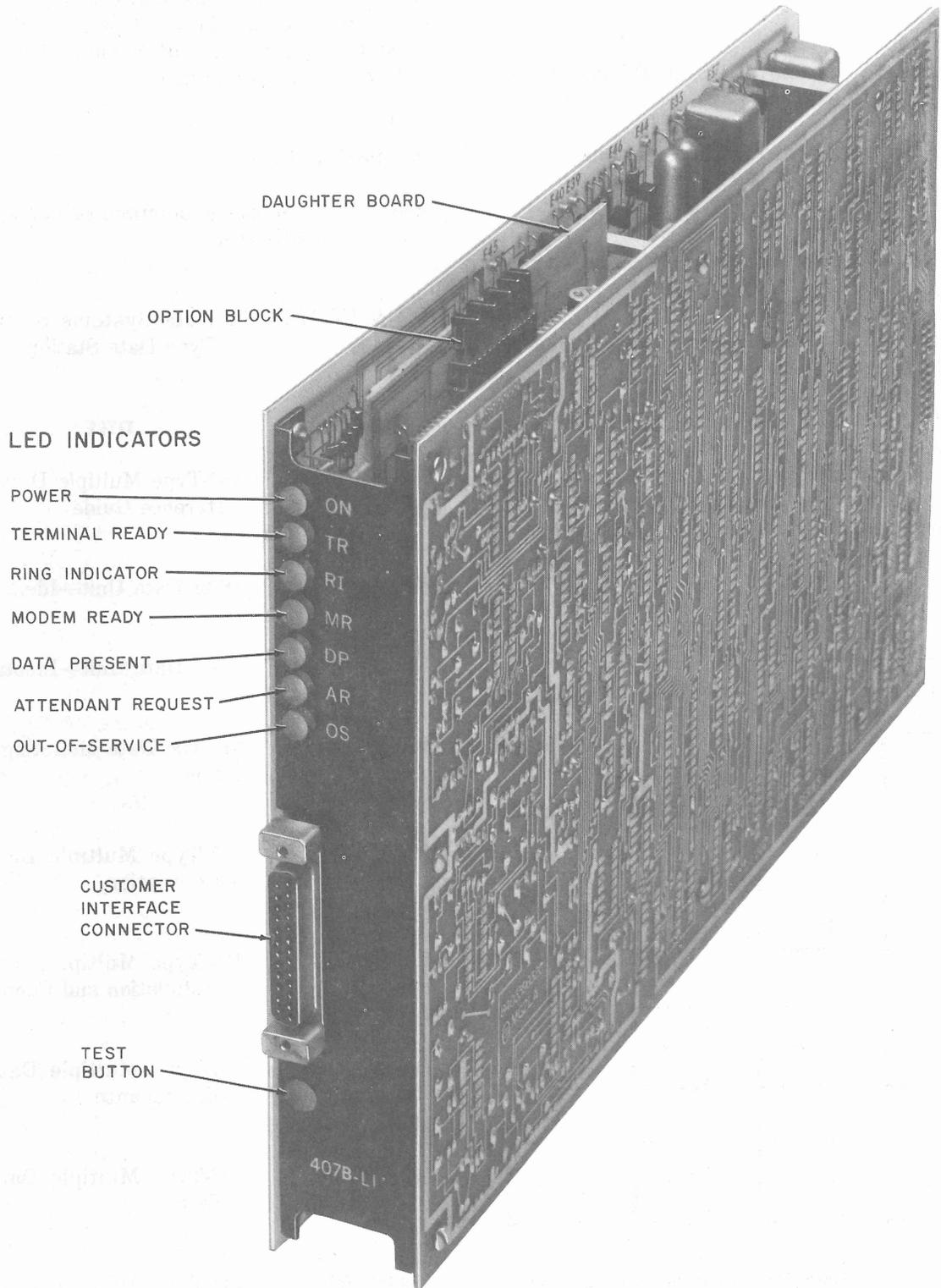


Fig. 2—Data Set 407B

- Compatibility with automatic call distributor (ACD)

In addition to the above, DS 407B 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).

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 407-type:

SD & CD-1D240-01 Data Systems Stations—407-Type Data Station

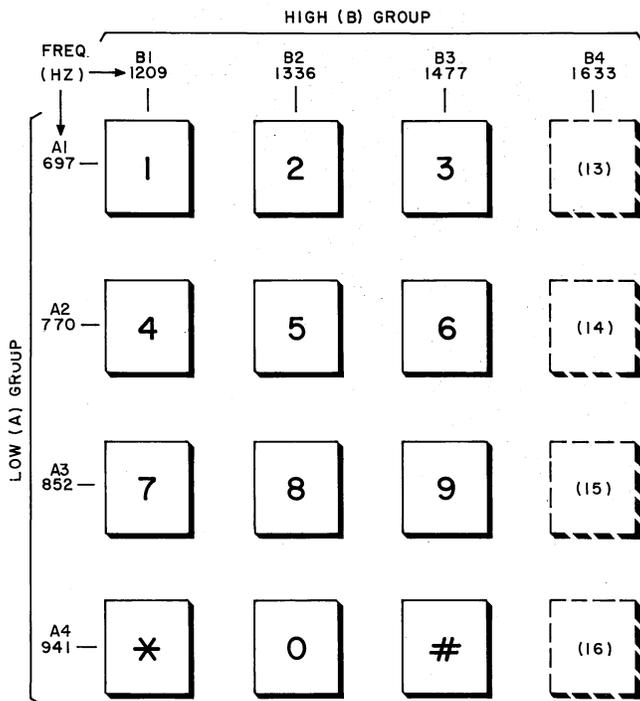


Fig. 3—Touch-Tone Dial Frequency Assignments

SECTION	TITLE
590-004-109	407-Type Multiple Data Station—Reference Guide
590-100-132	46A1 Data Unit—Identification
590-100-133	47A1 Data Unit—Identification
590-102-132	41-Type Data Mounting—Identification
594-800-100	407-Type Multiple Data Station—Description
594-800-200	407-Type Multiple Data Station—Installation and Connections
594-800-300	407-Type Multiple Data Station—Maintenance
594-800-500	407-Type Multiple Data Station—Test
594-800-501	407-Type Multiple Data Station Using 2B Automatic Call Distributor—System Test