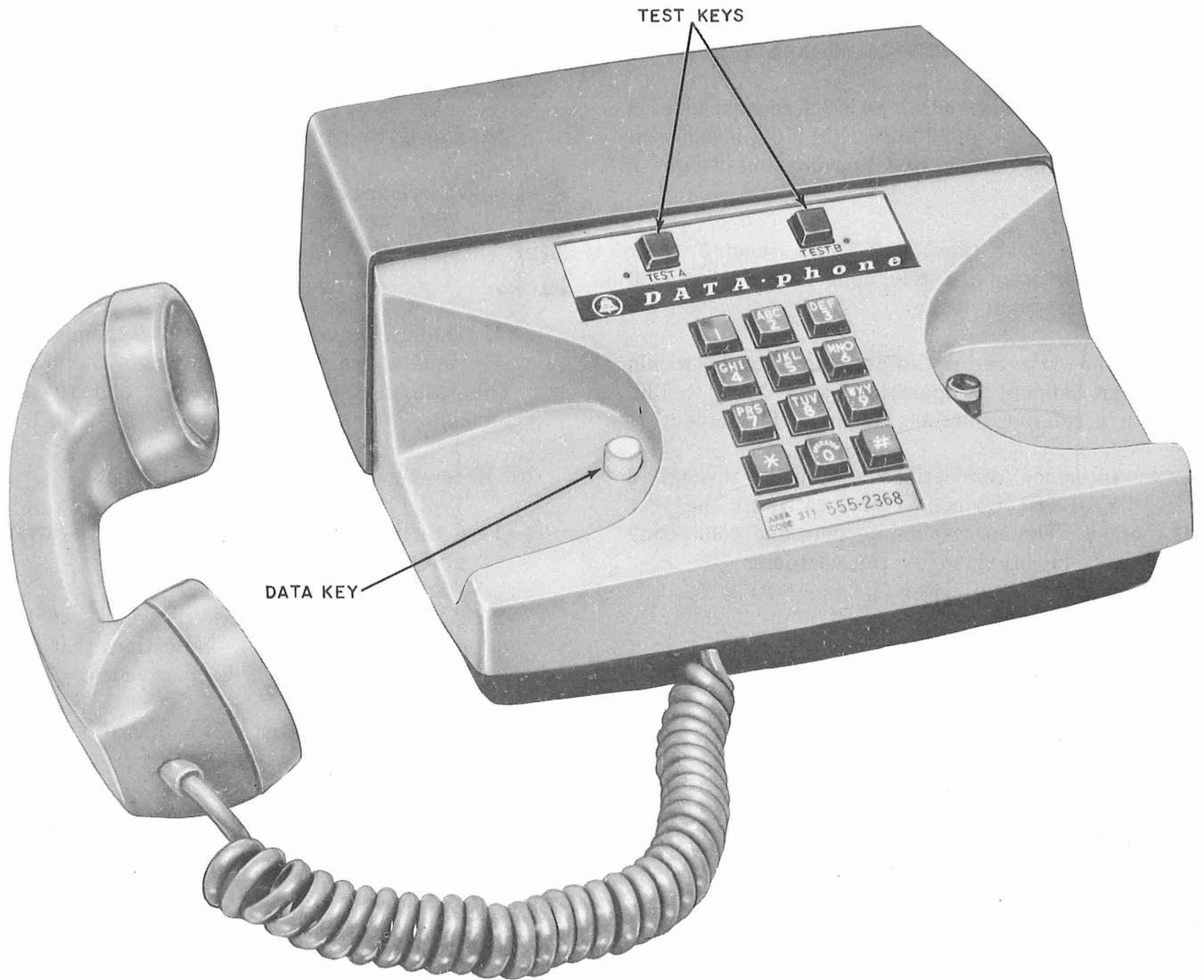


DATA SET 401E-TYPE REFERENCE GUIDE



Data Set 401E-Type (Available Also With Rotary Dial)

1. GENERAL

1.01 Data Set 401E-type is intended to provide one-way transmission of alpha-numeric information over the DDD network or 2-wire private lines. The 401E is a 3-out-of-14 multifrequency parallel data transmitter that accepts any of 99

possible characters from the business machine at any rate up to 20 characters per second, and transmits these to a 401J or 403-type Data Set at the receiving station. The 401E1, E2, and E4 provide two audible answer-back tones while the 401E3 and E5 provide circuitry for a voice answer-back. The 401E1, E2, and E3 are rotary dial models,

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while the 401E4 and E5 are TOUCH-TONE® dial models. Data Set 401E derives its power from the telephone central office via the subscriber line. The 401E1 has been rated MD and replaced by the 401E2.

2. PHYSICAL AND ELECTRICAL CHARACTERISTICS

2.01 The data set, which is 8-3/4 inches wide, 9 inches deep, and 3-1/2 inches high, is enclosed in a 2-tone gray integrated housing and weighs 6 pounds.

2.02 Since 401E-type Data Sets receive their power from the telephone line, no external power source is necessary.

2.03 The data set is designed to operate within an ambient temperature range of 40 to 120° F with a relative humidity of 20 to 95 percent.

2.04 Interface connections are made through a KS-19087 L2 connector located at the rear of the set. The corresponding plug and connecting cord must be provided by the customer.

3. OPERATION

3.01 The data key is located on the switchhook assembly in the same position as an exclusion key. Functions of the key are as follows:

Key in Normal Position (Down)

- Connects telephone circuit to the line.
- Connects extension telephone leads to the line.
- Removes data transmitter from the line.

Key in Operated Position (Up)

- Connects data transmitter to the line.
- Disconnects telephone circuit and extension telephone leads from the line.

3.02 To transmit data, dial the receiving station and proceed in the following manner:

(a) Receiving Station Attended:

- (1) Establish connection with the receiving station and verbally agree to begin data transmission.
- (2) Pull up data key (leave handset off-hook).
- (3) Slowly count to 5 and then transmit data.



Caution customer not to restore the data key or hang up handset during data transmission.

(4) Upon completion of data transmission, replace the handset on the switchhook. This will restore the data key and release the line.

(b) Receiving Station Unattended:

- (1) Call is placed and receiving station automatically answers.
- (2) A 2- or 5-second tone is heard at the transmitting station, indicating that the distant data station has been reached.
- (3) Proceed as in attended operation from 3.02 (2) through (4).

3.03 An answer-back amplifier receives and amplifies supervisory signals from the receiver station. These signal tones as well as transmitted signals may be heard through a loudspeaker located in certain customer equipment. The specific manner in which the supervisory tones are used is determined by the business machine operating procedure. A typical message could be:

- An error has occurred.
- An error has not occurred.
- Resume voice communication.

3.04 To stop data transmission and resume voice communication, restore the data key to its normal off-hook position. Do not cradle the handset as this will terminate the call.

4. SERVICE ORDER INFORMATION

4.01 Refer to Section 590-000-101 entitled Reference Guide—Description of Data Set Features and Options for a more detailed explanation of features and options common to most data sets. Service offerings are outlined in Table A.

4.02 Customer Options: There are no customer options available with this data set.

4.03 Telco Options: There are no Telco options with this data set.

5. COMPATIBLE DATA SETS

5.01 The data set models listed in Table B may be used to supply the services described in this section.

6. REFERENCES

6.01 The following drawings, specifications, and sections provide additional information on Data Set 401E-type and associated equipment.

- (a) BSPs 594-014-Series
- (b) PELs 7022 and 7383
- (c) PEM 9992 dated 8/24/66
- (d) BSRs 480.002, 480.060 (Repair Specifications)
- (e) Bell System Data Communications Technical Reference "Data Sets 401A and 401E Interface Specification" July 1963
- (f) ENG-UNL dated 2/62
- (g) PLT-UNL dated 3/62
- (h) SD-1D011-01 (J1D401E1) SD-1D063-01 (401E2 Through 401E5)
- (i) CD-1D011-01 (J1D401E1) CD-1D063-01 (401E2 Through 401E5)

TABLE A**SERVICE OFFERINGS — CURRENT STANDARD MODELS**

CODE	FEATURE	USOC
401E2	Rotary dial	DAC (Note)
401E4	Tone answer-back TOUCH-TONE dial	DAS
401E3	Tone answer-back Rotary dial	DBF
401E5	Voice answer-back TOUCH-TONE dial Voice answer-back	DBM

Note: 401E2 Series 2 Data Sets are standard. All Series 1 sets should be upgraded (Field wiring change per SD-1D063, Issue 6).

TABLE B

USOC	SUBSTITUTE	REMARKS
DAC	401E1	See Note 1
DAS	none	
DBF	401E2	See Note 2
DBM	401E4	See Note 3

Note 1: 401E1 and previously coded J1D401E, list 1 are reusable for 401E2 in all cases except when "A" lead control is required (use "W" wiring). (Cord and wiring change SD-1D011, Issue 8).

Note 2: Can be converted to 401E3 (shop change).

Note 3: Can be converted to 401E5 (shop change).