

## DATA SETS 603A-TYPE AND 603D REFERENCE GUIDE



### Data Set 603A-Type

#### 1. GENERAL

1.01 Data Set 603A-type is a frequency-modulated voiceband analog transmitter used for sending electrocardiographic or similar information over 2-wire telephone facilities.

1.02 Data Sets 603A1 and 603A2 are similar, except for having a rotary dial and a TOUCH-TONE® dial, respectively. The integral

telephone set is used to establish data calls and also may be used as a conventional telephone.

1.03 Data Set 603D is *functionally similar* to Data Sets 603A1 and 603A2. However, Data Set 603D is a portable, battery-operated, acoustically-coupled set without a telephone handset. The acoustic coupler is designed to accept a 300-type, 500-type, or TRIMLINE® handset.

## SECTION 590-006-102

**1.04** All of these data sets have a reverse-channel receiver which provides circuit assurance and permits signaling from the data receiver during data transmission. The reverse-channel signal may be switch-selected for either an audible or a visual indication.

**1.05** When testing is required on any of these data sets, it is best done with a Telco employee at the customer location, working in conjunction with the data test center.

### 2. PHYSICAL AND ELECTRICAL CHARACTERISTICS

**2.01** Data Sets 603A1 and 603A2 are 9 inches wide, 4-1/2 inches high, and 11-3/4 inches deep. Data Set 603D, with cover closed, measures 12-3/4 inches wide, 8-1/2 inches deep, and 4 inches high.

**2.02** Data Sets 603A1 and 603A2 weigh 10 pounds; Data Set 603D weighs 6 pounds with battery.

**2.03** Data Sets 603A1 and 603A2 require 4 watts of customer-provided 117-volt, 60-Hz power. Data Set 603D requires eight standard D-size dry cells. The dry cells may be replaced by the customer as required. A battery test circuit is provided in Data Set 603D.

**2.04** Data Sets 603A1 and 603A2 have a 2-tone gray finish. Data Set 603D has a dark and light gray finish.

**2.05** Interface connections to each of the data sets described herein are made through a customer-supplied 25-pin connector cord from the business machine to the interface connector on the back of the data set.



**Data Set 603D-Type**

**3. OPERATION****Data Sets 603A1 and 603A2**

**3.01** Depress the TALK button and establish a connection with the receiving station in the normal telephone manner.

**3.02** When agreement to send data has been reached, the receiving station attendant places the receiving data set (Data Set 603B-type) in the data mode. This causes a 2025-Hz answer-back tone to be sent to the transmitting data set for about 3 seconds, after which the 2025-Hz tone ceases and a 387-Hz reverse-channel tone is heard. After the 387-Hz tone is heard, the transmitting station attendant places the set in data mode by depressing the DATA key and placing the handset on the cradle. Data Set 603B-type may automatically answer, in which case the transmitting station attendant hears the 2025-Hz tone followed by the 387-Hz tone as the receiver automatically goes into data mode.

**3.03** The 387-Hz tone is normally sent continuously by the receiver. A pushbutton selected visual or audible reverse-channel indication is produced by the absence of the 387-Hz tone. The reverse-channel indication may be used to indicate a failure somewhere on the line, to signal the transmitting station attendant during data transmission to return to voice mode, or to perform other functions previously agreed upon.

**3.04** Termination of the call is accomplished by returning to the talk mode and placing the handset back on the cradle.

**Data Set 603D**

**3.05** Place the data set on a flat surface that is convenient to both the telephone and the business machine and open the top cover.

**3.06** Depress the BATTERY pushbutton and make sure the lamp lights, indicating that the battery is satisfactory for normal operation.

**3.07** Select the type of reverse-channel indication desired by depressing either the TONE or the LAMP pushbutton.

**3.08** Connect the business machine interface connector plug to the data set interface connector jack.

**3.09** Call the receiving station from the telephone to be used with the data set. After agreeing on procedures with (or receiving a tone from) the receiving station, place the handset in the data set cradle to turn the data set ON, and begin sending data.

**3.10** A reverse-channel signal (interrupted tone) from the receiving station, or a circuit interruption, will cause the reverse-channel indicator (TONE or LAMP) to operate. The transmitting attendant should then take any predetermined action, or lift the telephone handset and listen to determine the cause of the reverse-channel signal. It may be caused by the receiving station attendant signaling for a telephone conversation.

**3.11** Termination of the call is accomplished by returning the telephone handset to the telephone set cradle.

**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 and customer options are outlined in Table A and Table B, respectively. The ITEM column provides a reference to descriptive information contained in Section 590-000-101.

**4.02** The following paragraphs provide additional information on customer options:

(a) **Decision A—Reverse-Channel Indicator—Lamp or Tone, or Contact Reverse-Channel Indicator:**

(1) **1. Reverse-Channel Indicator—Lamp or Tone:** With this option, reverse-channel signaling is provided by visual or audible means.

(2) **2. Reverse-Channel Indicator—Contact:** With this option, reverse-channel indication is provided to the business machine by a contact closure.

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

MODEL	FEATURE	USOC
603A1	Rotary dial-type analog data transmitter	DKA
603A2	TOUCH-TONE dial-type analog data transmitter	DLA
603D	Portable acoustical-coupled analog data transmitter	DCZ00

**TABLE B**  
**CUSTOMER OPTION DECISION TABLE**  
**(DATA SET 603A-TYPE)**

DECISION	OPTION	USOC SUFFIX	ITEM
A	1. Reverse-channel indicator — lamp or tone	OA*	A3
	2. Reverse-channel indicator — contact	OB	A3

\* Factory wired.

**Note:** There are no customer options for Data Set 603D.

**4.03** Telephone company engineering options are listed in Table C.

(a) BSPs 596-012-100, -200, -300, -500; 596-014-100, -200, -300, -500

**5. SUBSTITUTE DATA SETS**

**5.01** There are no substitutes for Data Sets 603A1, 603A2, and 603D.

(b) PELs 7389, 7474

(c) PEM 9573

**6. REFERENCES**

**6.01** The following references provide additional information on Data Sets 603A1, 603A2, and 603D.

(d) Data Sets 603A, 603B, and 603D Interface Specification.

**TABLE C**  
**TELCO ENGINEERING OPTIONS**  
**(DATA SET 603A-TYPE)**

OPTION	DESIGNATION	ITEM
Termination:  600 ohms 900 ohms	  N Q*	  C1
Output Level:  -9 dBm -6 dBm -3 dBm 0 dBm	  W X* Y Z	  C2

\* Factory wired.

**Note:** There are no Telco options for Data Set 603D.