

DATA SET 403E-TYPE
SINGLE RECEIVER STATION
MAINTENANCE

1. GENERAL

1.01 This section contains information for the maintenance of Data Set 403E-type single receiver station employing Data Set 403D-type.

1.02 This section is reissued for the following reasons:

- To show Data Sets 403E2, 3, and 4 rated manufacture discontinued (MD).
- To show Data Sets 403E5, 6, and 7 as the respective replacing data sets.
- To include new circuit packs used in the current standard data sets, which provide for operation with ESS and on Unigauge loops, and meet the signal level constraints of FCC Tariff No. 263.
- To show circuit pack (CP) AR250 rated Additions and Maintenance (A&M) only.
- To show 8A3 and 8A4 Data Units rated MD and to show 8A5 Data Unit as their replacement.
- To show 3A2 Data Mounting rated MD and to show 3A3 Data Mounting as the replacement.
- To include new attendant alert feature (except on DS 403E7) and to include third-wire out-of-service option for single set use. These require a CP AR429 instead of CP AR253. The CP AR253 is rated MD.

Because many of the Data Sets 403E2, 3, and 4 are still used in the field, information on these units is retained. Since this reissue constitutes a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 Data Set 403E-type consists of Data Set 403D-type and an 8A-type Data Unit housed in a KS-20018-L1 cabinet. Except for some private line applications, Data Auxiliary Set 804G-type is usually supplied as a part of the station.

1.04 No routine maintenance is required for Data Set 403E-type. Maintenance for the purpose of clearing trouble shall be limited to complete Data Set 403D-type receiver replacement, replacement of the basic receiver or the 15A-type interface unit, replacement of the 8A-type Data Unit, or circuit pack replacement.

1.05 The current and superseded data sets and the current and superseded circuit pack complement of the basic receiver are given in Tables A and B, respectively.

1.06 When test or demonstration calls are made, refer to the section entitled Crediting Charges on Test Calls (010-250-001) for proper procedure for crediting charges.

2. TESTING

2.01 Before proceeding with data station repair, perform the following:

- (1) Confirm, if possible, that customer equipment is operating properly.
- (2) Check for cord and connector defects. Check that the 117V 60 Hz power source is energized.
- (3) Check for tone from the transmitting station.
- (4) Confirm that Data Auxiliary Set 804G-type is operating properly. If a Data Auxiliary Set 801-type (ACU) is supplied with the station, make sure that it is operating properly.

TABLE A
DATA SETS 403D-TYPE BASIC RECEIVER AND INTERFACE UNIT
USED WITH DATA SETS 403E-TYPE
SINGLE RECEIVER STATION

SINGLE RECEIVER STATION CODE AND DATA UNIT		USES DATA SET AND INTERFACE COUPLER (DU)		TYPE OF INTERFACE PROVIDED
DATA SET	DATA UNIT	DATA SET	DATA UNIT	
403E2*	8A3*, 8A4*	403D4*	15A1	{ 2-out-of-8 Contact
403E5	8A5	403D10	15A1	
403E3*	8A3*, 8A4*	403D6*	15A2	{ 4-Level Binary Coded Matrix (EIA Voltage)
403E6	8A5	403D12	15A2	
403E4*	8A3*, 8A4*	403D8*	15A3	{ Serial ASCII (EIA Voltage)
403E7	8A5	403D14	15A3	

* Rated MD

TABLE B
CIRCUIT PACK COMPLEMENT OF DATA SET 403D-TYPE BASIC RECEIVERS
USED WITH DATA SET 403E-TYPE SINGLE RECEIVER STATION

DATA SET 403E-TYPE	DATA SET 403D-TYPE	CIRCUIT PACK USED							
		CONT UNIT	LINE CONT	OPTION BOARD	AGC	FLT'R	GROUP LIMITERS	CHANNEL DET'R	TIMERS, DET'R
CURRENT STANDARD		↑	↑	↑	↑	↑	↑	↑	↑
403E5	403D10	AR429	AR422	AR461	AR249	755A	AR248	AR246 & AR247	AR245
403E6	403D12	↓	↓	↓					
403E7	403D14	↓	↓	↓					
RATED MD		↑	↑	↑	↓	↓	↓	↓	↓
403E2	403D4	AR253 ¹	AR251 ¹	AR250 ²	↓	↓	↓	↓	↓
403E3	403D6	↓	↓	↓	↓	↓	↓	↓	↓
403E4	403D8	↓	↓	↓	↓	↓	↓	↓	↓

Note 1: Rated MD

Note 2: Rated A&M

(5) Check for intermittent trouble in inside wiring, drop wire, and protector, and check for central office trouble.

(6) Request a loop-back test from the data test center.

2.02 The front and rear panels of the cabinet are held in the closed position by two spring-lock catches (Fig. 1). Either panel may be removed

by applying outward pressure at the top of the panel until the catches disengage, then lifting it from the brackets holding the bottom in position.

3. 8A-TYPE DATA UNIT REPLACEMENT



Before attempting assembly replacement, disconnect the power cord from the unit being replaced.

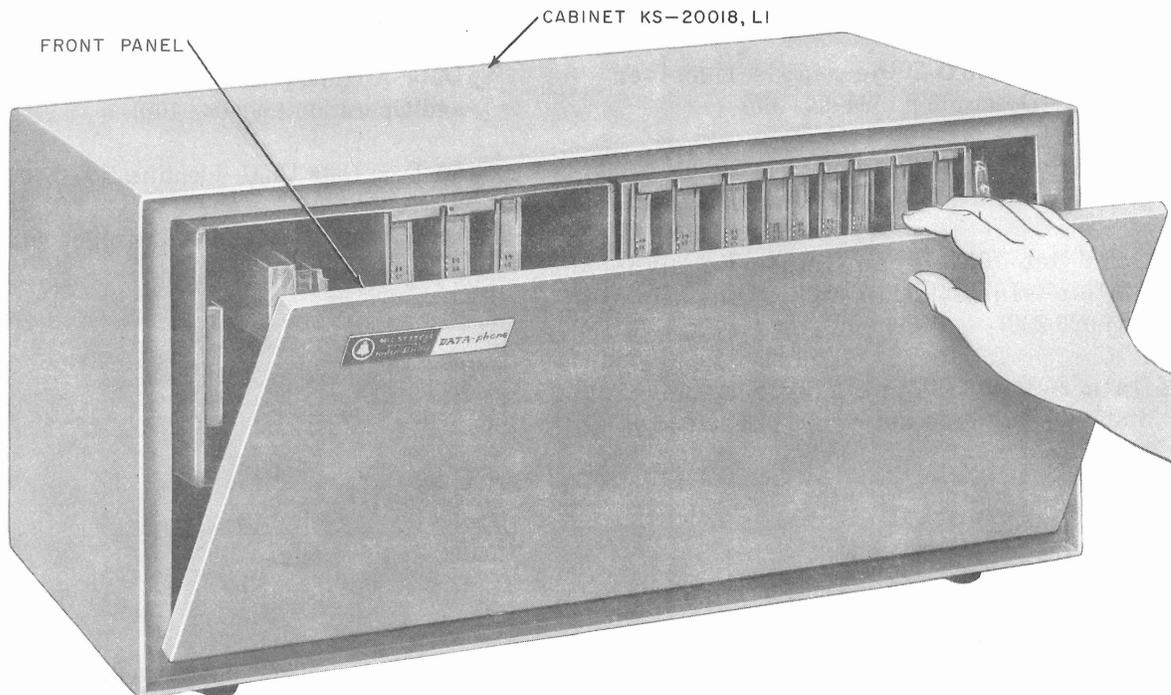


Fig. 1—Removing Front Panel of Data Set 403E-Type

- 3.01** Remove the front and rear panels of the KS-20018-L1 cabinet.
- 3.02** Disconnect the 117 Vac power connector from the power supply.
- 3.03** Disconnect the power cord interconnecting the 8A-type Data Unit to the receiver.
- 3.04** Disconnect all other cords that may be connected to Data Auxiliary Sets 804G-type or 801-type and Data Set 403D-type.
- 3.05** Tag or otherwise identify connections and remove connections to the terminal board.
- 3.06** Remove the four 12-24 screws and remove the 8A-type Data Unit through the rear of the cabinet.
- 3.07** To install a replacement 8A-type Data Unit, place the unit in the mounting position and secure with four 12-24 screws.
- 3.08** Connect interconnecting cables, as necessary.
- 4. DATA SET 403D-TYPE RECEIVER REPLACEMENT**
- 4.01** Disconnect interconnections between 8A-type Data Unit and Data Set 403D-type receiver.
- 4.02** Remove the four 12-24 screws and remove the receiver through the rear of the cabinet.
- 4.03** Position the replacement Data Set 403D-type and secure with four 12-24 screws.
- 4.04** Connect cables to the interconnecting components.
- 5. DATA SET REPLACEMENT**
- 5.01** If unit or assembly replacement of the above two units fails to correct the trouble, replace the complete data set in accordance with the section entitled Data Set 403E-Type—Installation and Connections (594-026-200).
- 6. REFERENCES**
- 6.01** For additional information on data sets and other components making up a Data Set

SECTION 594-026-300

403E-type single data set station, refer to the following:

- Data Set 403D-Type Single Receiver Station—Description (594-025-100)
- Data Set 403E-Type Single Receiver Station—Description and Operation (594-026-100)
- Data Set 403E-Type Single Receiver Station—Installation and Connections (594-026-200)
- Data Set 403E-Type Single Receiver Station—Test Procedures (594-026-500)
- Data Sets 403A-, D-, and E-Types—Reference Guide (590-004-106)
- Data Auxiliary Set 804G-Type—Description and Operation (598-048-100)
- 8A-Type Data Unit—Identification (590-100-110)
- Data Systems Station—Data Set 403E-Type (SD- and CD-1D093-01)