

DATA SET 208A-TYPE TRANSMITTER-RECEIVER MAINTENANCE

1. GENERAL

1.01 This section contains information concerning the maintenance of data set (DS) 208A-type. It is designed to coordinate the efforts of the craft employee with the efforts of the serving test center (STC) to locate and eliminate trouble involving a DS 208A-type.

1.02 This section is reissued to add maintenance information pertaining to DS 208A-L1B, which replaces DS 208A-L1A. Concurrent with the introduction of DS 208A-L1B, DS 208A-L1A is rated manufacture discontinued (MD).

1.03 Routine maintenance is not required for a DS 208A-type. For information concerning maintenance of data auxiliary sets (DAS) 828A-L1 and 828C, refer to Sections 598-080-500 and 598-080-501, respectively. For information concerning maintenance of DAS 829-type, refer to Sections 598-082-500 and 598-082-501.

1.04 Due to backplane wiring changes required for large scale intergration (LSI) technology used in DS 208A-L1B, DS 208A-L1A cannot be converted to DS 208A-L1B. The CP complement for each DS 208A-type is given in Section 592-027-100.

1.05 DS 208A-L1 can be converted to DS 208A-L1A by removing circuit pack (CP) HG9 and replacing it with a CP HG23. The procedure for removing and replacing CPs is given in Section 592-027-200. CP HG23 requires a different front cover (840807655) for the data set.

2. MAINTENANCE

2.01 When investigating a trouble report on point-to-point service, proceed as directed in Fig. 1. Refer to Section 592-027-500 for test procedures applicable to DS 208A-type.

2.02 When DS 208A-type is used as an extension of a DS 209A-L1 multiplex system, refer to Section 592-032-300. When DS 208A-type is used as a substrate off-net extension of the digital data system, refer to Section 314-919-300. Procedures used at the serving test center (STC) to maintain such systems are contained in Section 666-511-504.

2.03 If the data set being used as a remote extension is a DS 208A-L1A or DS 208A-L1B, the self-test features are restricted as follows:

(a) Analog loop-back self test cannot be performed at a remote extension with options as installed. If the internal timing option is temporarily installed at the remote extension, this test can be performed.

(b) Digital loop-back test cannot be performed from a remote extension in toward a DS 208A-type collocated with DS 209A-L1 (with options as installed). If the internal timing option is temporarily installed at the remote extension, this test can be performed.

(c) Digital loop-back test cannot be performed from a remote extension in toward a hub office of the digital data system with data set options as installed. If the internal timing option is temporarily installed at the remote extension, this test can be performed.

2.04 If dispatch of a craft employee to the suspected defective data station becomes necessary, the craft employee should take along the following:

- 921A data test set (DTS) or
- 914-type DTS
- Diode test pin (white) for 914-type DTS

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SECTION 592-027-300

- Resistor test pin (yellow) for 914-type DTS
- ♦Maintenance kit (as shown in the following list)♦

MAINTENANCE KIT	DS 208A-TYPES
D-180468	208A-L1
D-180497	208A-L1 208A-L1A
D-180657	208A-L1 208A-L1A
D-180718	208A-L1 208A-L1A 208A-L1B

Note: Circuit packs contained in the maintenance kits which are not used in DS 208A-type are used to support DS 208B-type.

Maintenance kits should be kept on hand according to the following schedule:

NUMBER OF SETS IN SERVICE IN MAINTENANCE TERRITORY	RECOMMENDED NUMBER OF MAINTENANCE KITS
1 to 9	1
10 to 35	2
36 to 55	3
56 to 80	4
Over 80	Not more than 5 percent of number of sets in service.

2.05 When CP HG9 (208A-L1) or CP HG23 (208A-L1A or 208A-L1B) is replaced, install the correct options before testing the data set. Refer to Section 592-027-200 for information on installing options.

2.06 If CPs are replaced, the defective CPs should be tagged with the nature of the trouble, carefully packed, and returned to the service center for repair. AC power should remain applied to the data set when CPs are being replaced. After the data set has been repaired, verify with the customer that service is satisfactory.

2.07 If the trouble persists:

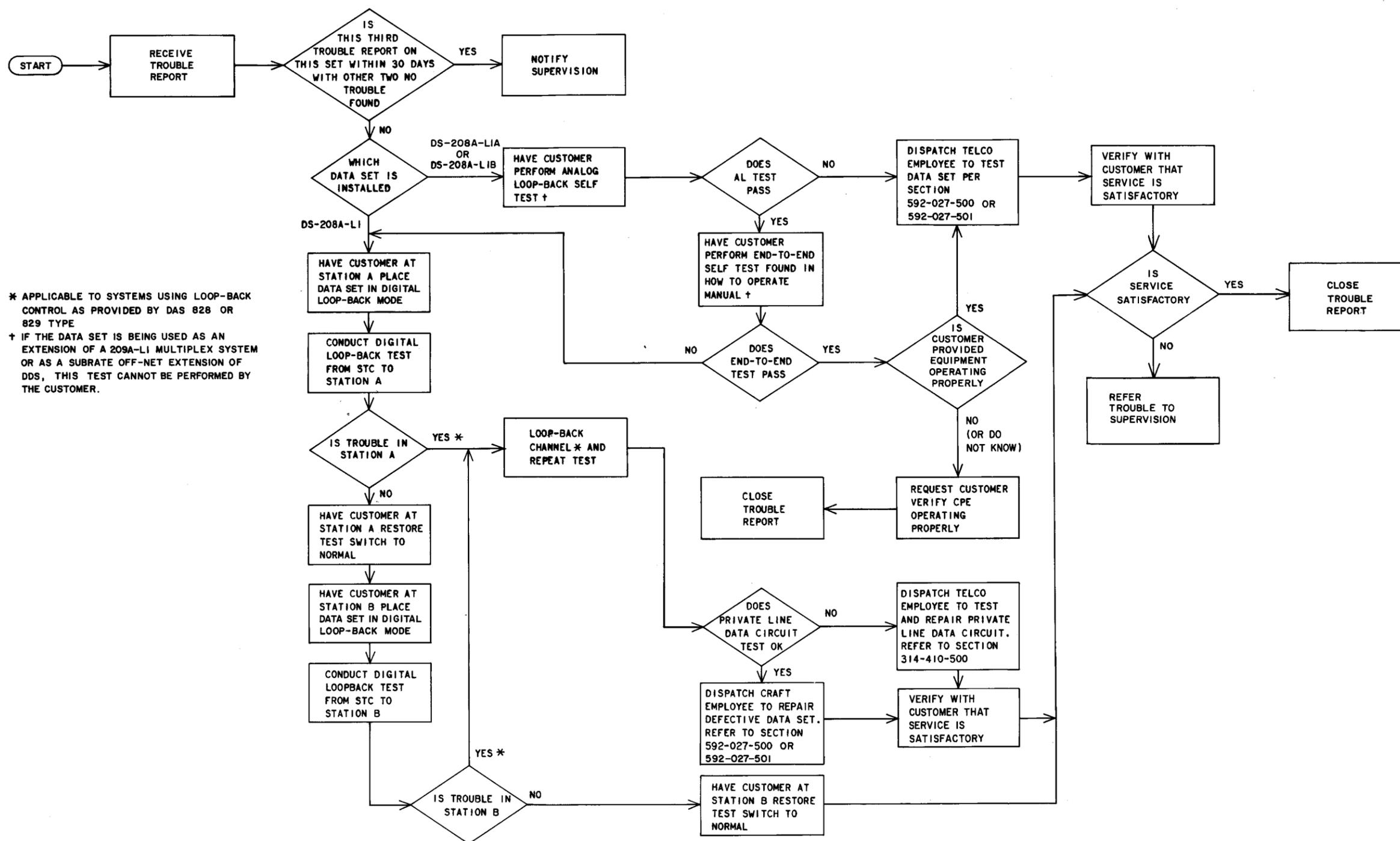
- (a) Check that the options installed in the data set agree with those called for on the service order.
- (b) Confirm that the customer-provided equipment (CPE) has been tested and checks satisfactorily.
- (c) Check for cord and connector defects.
- (d) Check for intermittent trouble in the station wiring.
- (e) Verify that the data set and CPE are wired to a common ground.
- (f) Refer to supervision and the STC for further analysis.

3. REFERENCES

3.01 The following documents provide information concerning DS 208A-type and DAS 828- and 829-type.

SECTION	TITLE
592-027-100	Data Set 208A-Type—Transmitter-Receiver—Description and Operation
592-027-150	♦Data Set 208A-Type—Supplementary Information♦
592-027-180	Data Set 208A-Type—Transmitter-Receiver—Summarizing Specification
592-027-200	Data Set 208A-Type—Transmitter-Receiver—Installation and Connections
592-027-400	Data Set 208A-Type—Transmitter-Receiver—Wiring Information

SECTION	TITLE	SECTION	TITLE
592-027-500	Data Set 208A-Type—Transmitter-Receiver—Test Procedures	598-082-101	Data Auxiliary Set 829-Type—Supplementary Functions For Voiceband Private Line Channels (Alternate Voice and Dial Backup)—Description
592-027-501	◆Data Set 208A-Type—Transmitter-Receiver—Test Procedures Using 921A Data Test Set◆	598-082-500	Data Auxiliary Set 829-Type—Channel Interface Units—Voiceband Private Line Channels—Maintenance and Test Procedures
598-080-100	Data Auxiliary Set 828A—Description and Operation	598-082-501	Data Auxiliary Set 829-Type—Supplementary Functions For Voiceband Private Line Channels (Alternate Voice and Dial Backup)—Test Procedures
598-080-101	Data Auxiliary Set 828C—Description and Operation	666-511-503	Test of Data Services Provided by Data Set 208A-Type from a Private Line Data Test Room
598-080-200	Data Auxiliary Set 828A—Installation and Connections	666-511-504	Test of Data Service Provided by Data Set 209A-L1 from a Private Line Test Room
598-080-201	Data Auxiliary Set 828C—Installation and Connections	999-100-105	Data Set 208A-Type—How to Operate Manual
598-080-500	Data Auxiliary Set 828A— Test Procedures		
598-080-501	Data Auxiliary Set 828C—Maintenance and Test Procedures		
598-082-100	Data Auxiliary Set 829-Type Channel Interface Units—Voiceband Private Line Channels—Data Only—Description		



* APPLICABLE TO SYSTEMS USING LOOP-BACK CONTROL AS PROVIDED BY DAS 828 OR 829 TYPE
 † IF THE DATA SET IS BEING USED AS AN EXTENSION OF A 209A-LI MULTIPLEX SYSTEM OR AS A SUBRATE OFF-NET EXTENSION OF DDS, THIS TEST CANNOT BE PERFORMED BY THE CUSTOMER.

Fig. 1—Maintenance Flowchart