DATA SET 109D-TYPE

MULTIPLE DATA SET ARRANGEMENT

USING 28A1 DATA MOUNTING AND 27A1 DATA UNIT

MAINTENANCE

1. GENERAL

1.01 This section describes the maintenance requirements for the Data Set 109D-type multiple data set arrangement which uses the 28A1 Data Mounting and 27A1 Data Unit as the associated mounting apparatus.

1.02 The Data Set 109D-type, 28A1 Data Mounting, and 27A1 Data Unit require no routine maintenance after the installation tests and adjustments have been made.

1.03 Care should be exercised when handling and transporting the data sets, data mountings, or data units. If possible, use the original cartons to store, transport, or ship these units.

1.04 If maintenance spares are stocked, verify that they are checked and ready for immediate installation. When replacing a data set or data unit, ensure that the proper options are installed in the replacement.

2. MAINTENANCE PHILOSOPHY

2.01 Since there is no routine maintenance required for the Data Set 109D-type, 28A1 Data Mounting, and 27A1 Data Unit, maintenance of the Data Set 109D-type multiple data set arrangement is limited to detection and replacement of defective units.

2.02 Data Set 109D-type multiple data set arrangements suspected of being in trouble should be tested as described in the section entitled Data Set 109D-Type—Multiple Data Set Arrangement—Using 28A1 Data Mounting and 27A1 Data Unit—Test Procedure (591-029-501).

3. TROUBLESHOOTING PROCEDURES

Multiple Data Set Trouble

3.01 When a trouble report includes all of the data sets either in slots 1 through 8, 9 through 16, or both, it indicates a dc power source failure. In this case, check that the power source is properly powered, the power source fuses are not blown, P1 of the 27A1 Data Mounting is properly connected to J1 and/or J2 of the data mounting, and then perform Test A of the section referenced in 2.02.

3.02 If the power source *does not* meet the requirements of Test A, perform Test B.

Note: Some installations will use limited output power supplies such as the KS-20575 rectifier for the dc power source. If this type power supply is overloaded (eg, shorted output), the output voltage will drop to zero and the current will be limited to a safe value.

3.03 If the power source does not meet the requirements of Test B, replace it with a power source that is known to be operating properly.

3.04 If the power source *does* meet the requirements of Test B but not those of Test A, proceed as follows.

(1) Use a KS-14510-L1 volt-ohm-milliammeter, or equivalent, to monitor the power source output voltage.

(2) Disconnect the 27A1 Data Unit associated with the slots in trouble from the 28A1 Data Mounting connector J1 (slots 1 through 8) or J2 (slots 9 through 16).

Note: If all slots are in trouble, disconnect the data unit associated with slots 1 through 8 from data mounting connector J1 first. If trouble persists, disconnect the data unit associated with slots 9 through 16 from data mounting connector J2.

(3) If disconnection of a 27A1 Data Unit restores the power source to normal, verify that the leads connected to terminals 48 and 49 of the data unit plug are properly insulated and stored at the mounting plate end of the cable. Reconnect the 27A1 Data Unit to the 28A1 Data Mounting. If the trouble returns, replace that data unit with one that is known to be operating properly.

(4) If disconnection of the 27A1 Data Unit(s) does not clear the trouble, continue to monitor the power source output voltage, and using the 748A tool supplied with the 28A1 Data Mounting, remove all of the data sets reported to be in trouble from the data mounting.

(5) If the power source output returns to normal, replace the data sets one at a time until the trouble returns, and then replace that data set with one that is known to be operating properly.

(6) If the power source output is still incorrect after the data sets have been removed, replace the 28A1 Data Mounting with one that is known to be operating properly.

Single Data Set Troubles

3.05 When the trouble report indicates that one specific data set is in trouble, the data set should be tested in accordance with Tests C and/or D of the section referenced in 2.02. If the data set passes the test(s), a failure in the customer-provided terminal (CPT) is indicated and trouble should be referred to the customer. However, if the data set fails the test, replace it with a data set that is known to be operating properly and repeat the test.

3.06 If the replacement data set passes the test, the loop may be returned to service. If it fails, obtain a release for the other circuits connected through the 27A1 Data Unit associated with that data set, and then replace that data unit with one that is known to be operating properly and repeat the tests(s).

3.07 If the data set passes the test(s), the loop may be returned to service. If it again fails, obtain a release for the 28A1 Data Mounting, and then replace the 28A1 Data Mounting with one that is known to be operating properly and repeat the test(s).

3.08 If the data set passes the test(s), the loop may be returned to service. If it again fails, a remote terminal or transmission facility trouble is indicated.