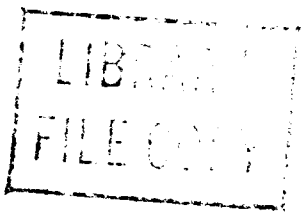
TURNUP METHODS
DS-0 FACILITY
DIGITAL DATA SYSTEM



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1. GENERAL

1.01 This practice provides methods for the turnup and verification testing of a DS-0 facility for service in the Digital Data System (DDS).

1.02 This practice is reissued to show revised facility arrangements and turnup methods. Change arrows are used to emphasize the more significant changes.

1.03 A DS-0 facility, as defined for DDS use, consists of two terminals connected by a digroup facility. The terminals can be subrate data multiplexers (SRDM) or integral subrate multiplexers (ISMX). The 64-kb/s multiplexed output (DS-0B) of the SRDM is normally cross-connected to a port of a T1 data multiplexer (T1DM), T1WB4 data-voice multiplexer (T1WB4), or T1WB5 data-voice multiplexer (T1WB5). The D3B or D4B type channel banks are used in place of the DDS multiplexers in the hybrid office application (Fig. 1). A DSX0B is typically used for cross-connections in hub offices. Earlier multiplex offices use the multiplexer jack and connector panel (M-JCP) that are now used mainly with the T1WB4. ▶The D3B and D4B type channel banks are cross-connected at a distributing frame. The DS-0 facilities can be terminated in SRDMs at both ends or in an SRDM at one end and an ISMX at the other end.◀

1.04 This practice provides, in flowchart form (Fig. 2), a list of activities required to turn up a DS-0 facility for service. It also includes a test (Fig. 3) for verifying that the facility is operating properly. At an office equipped with an SRDM, the verification test is made at the SRDM bay; at an office equipped with an ISMX, the test is made at the office channel unit (OCU) bay. A KS-20908 data test set (digital receiver) and a KS-20909 data test set (digital transmitter) are required at each end of the DS-0 facility for the verification test.

1.05 ▶The activities and methods given in this practice identify the testing activities performed by the near-end and far-end offices under the direction of the facility control office (FCO). Certain testing activities may involve intermediate offices. In Fig. 2, those activities common to all offices are marked with an asterisk (*).

2. INSTALLATION AND INTERCONNECTION

2.01 The list of activities shown in Fig. 2 provides a flowchart method for turning up a DS-0 facility for service. The flowchart user determines the completeness of each item and performs the required work or refers the item to the appropriate group for completion.

2.02 The near-end and far-end offices are responsible for ensuring that equipment installation, cross connects, and local testing have been completed in accordance with the facility work order and related equipment practices.

3. VERIFICATION TEST

3.01 After the components of a DS-0 facility have been installed and interconnected, the verification test in Fig. 3 must be performed to verify that all equipment has been interconnected properly and is operating satisfactorily. The test setups for an SRDM and an ISMX are shown in Fig. 4 and 5, respectively. A trouble sectionalizing procedure is provided in Fig. 6.

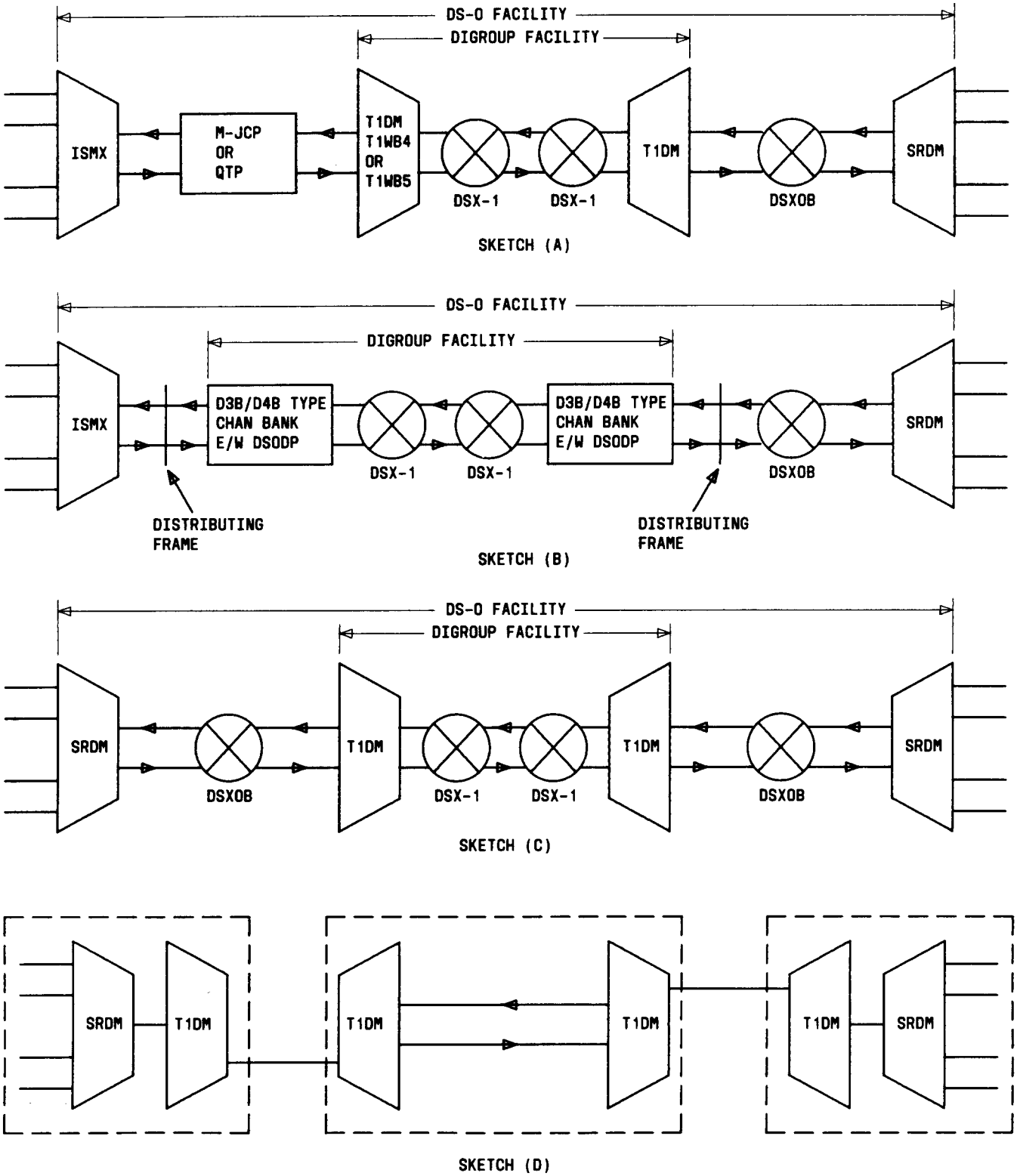


Fig. 1—DS-0 Facility Arrangement

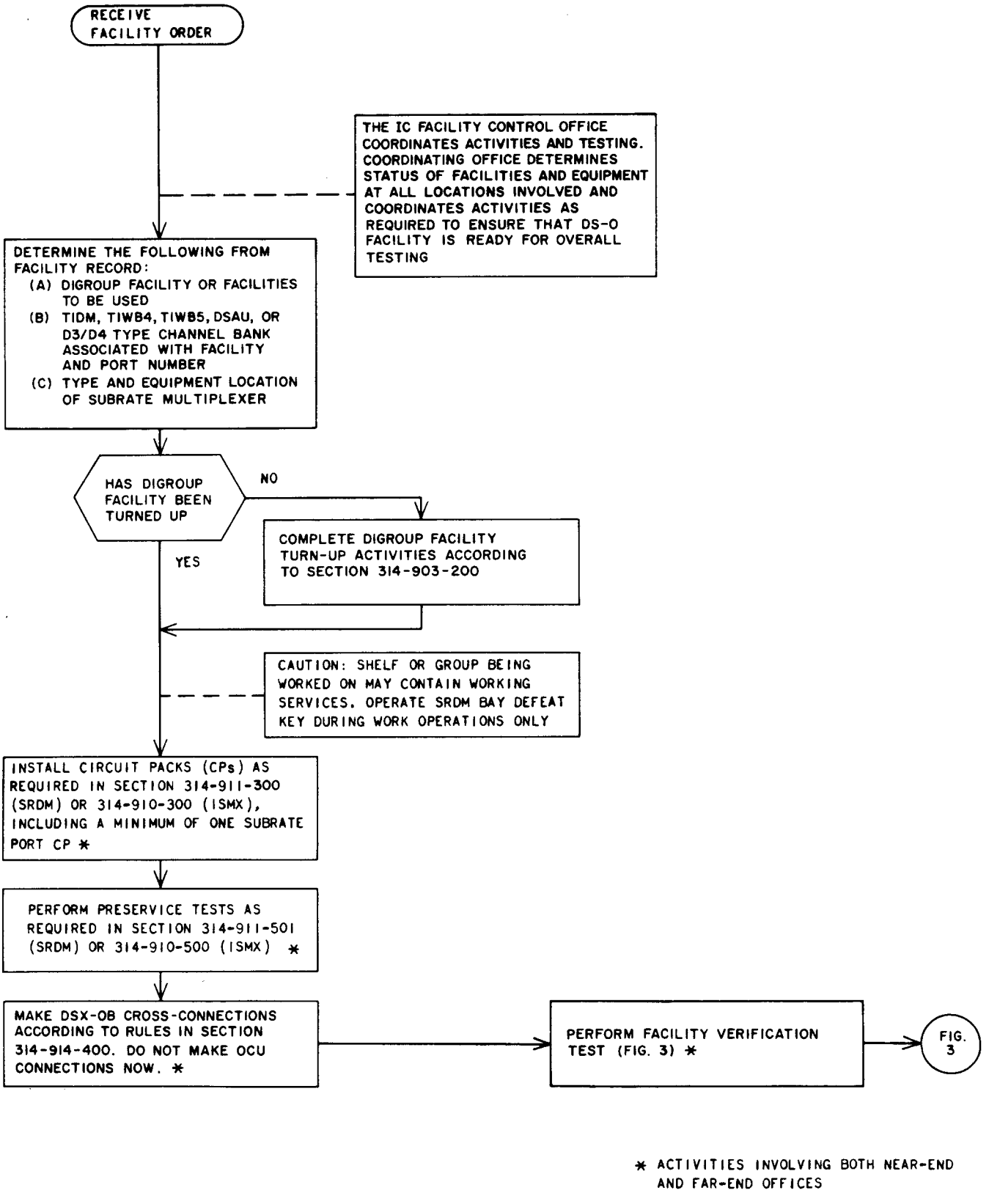


Fig. 2—Turnup Activities

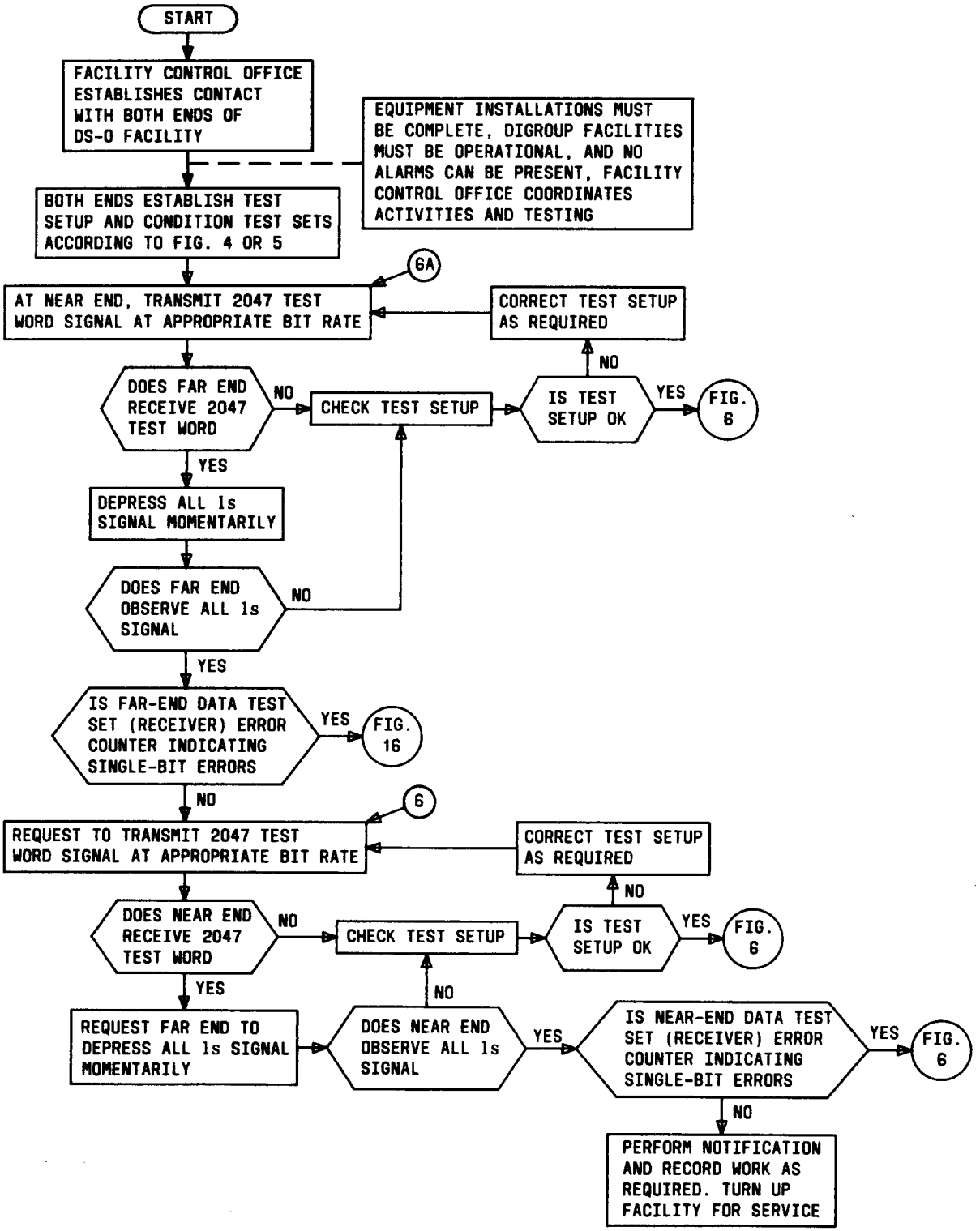


Fig. 3—Facility Verification Test (Sheet 1 of 2)

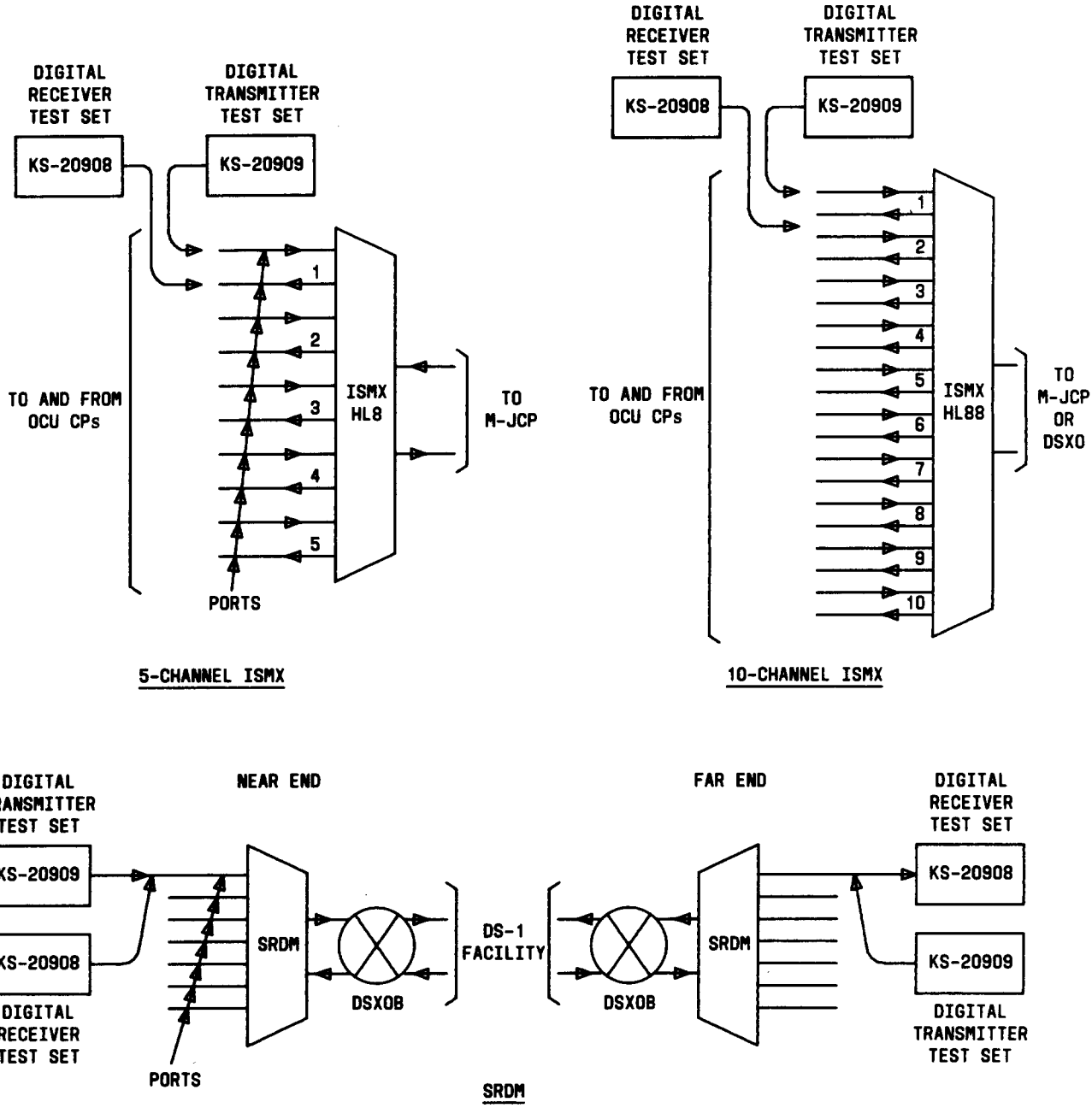
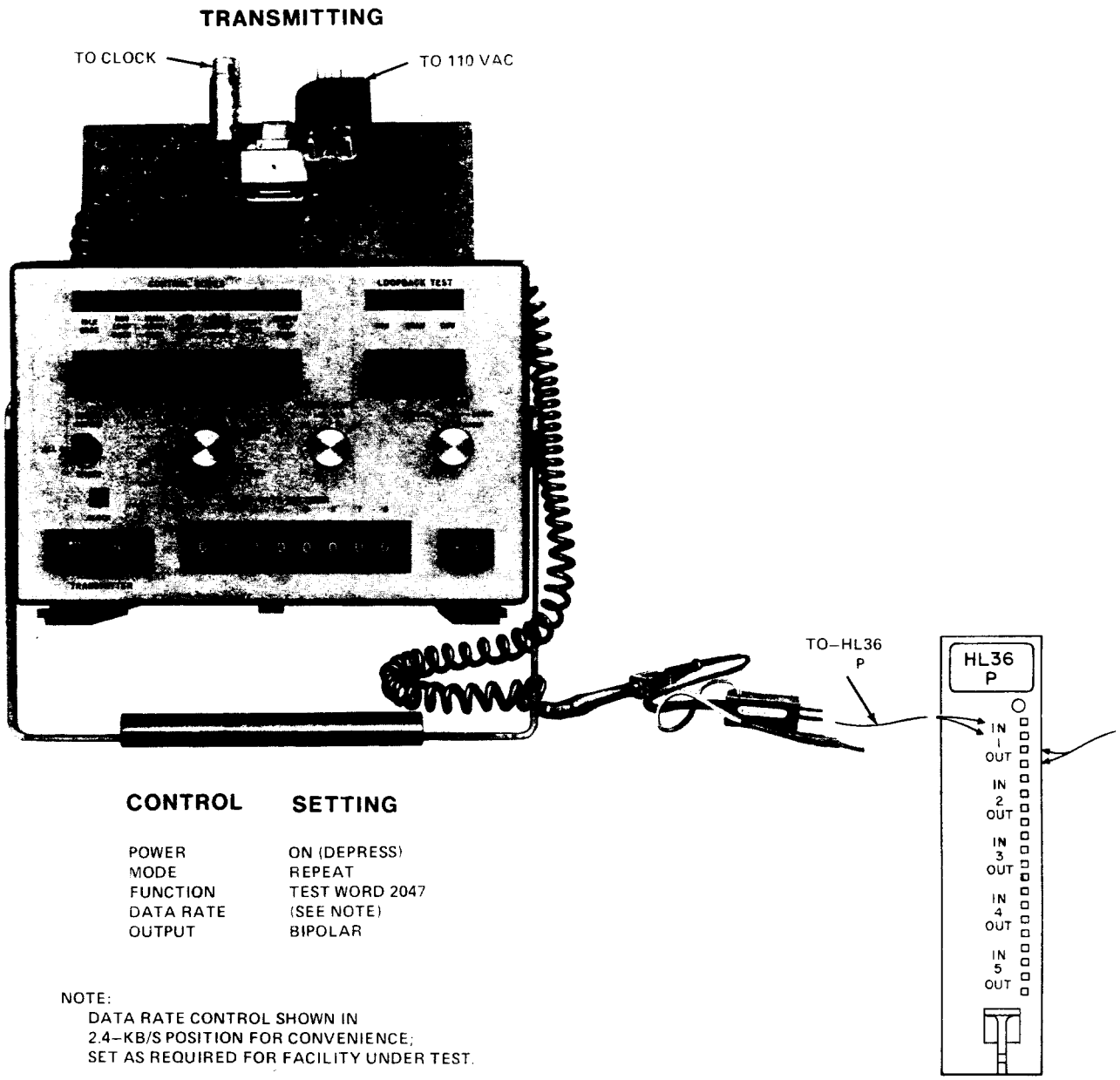


Fig. 3—Facility Verification Test (Sheet 2 of 2)

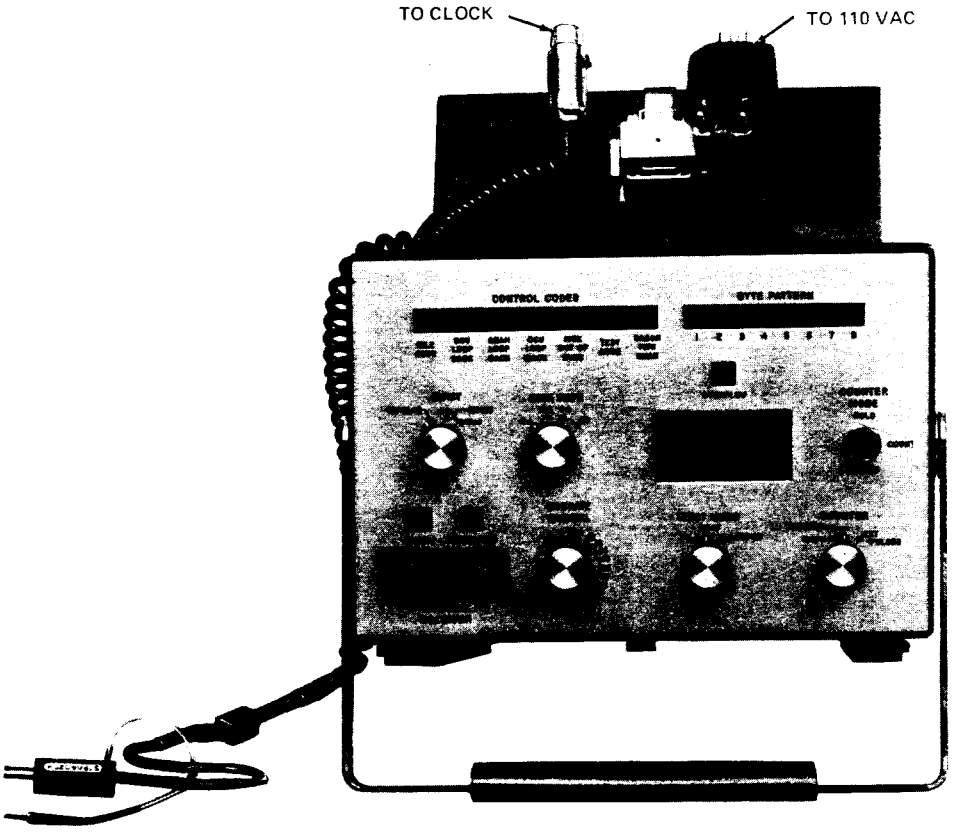


CONTROL	SETTING
POWER	ON (DEPRESS)
MODE	REPEAT
FUNCTION	TEST WORD 2047
DATA RATE	(SEE NOTE)
OUTPUT	BIPOLAR

NOTE:
DATA RATE CONTROL SHOWN IN 2.4-KB/S POSITION FOR CONVENIENCE; SET AS REQUIRED FOR FACILITY UNDER TEST.

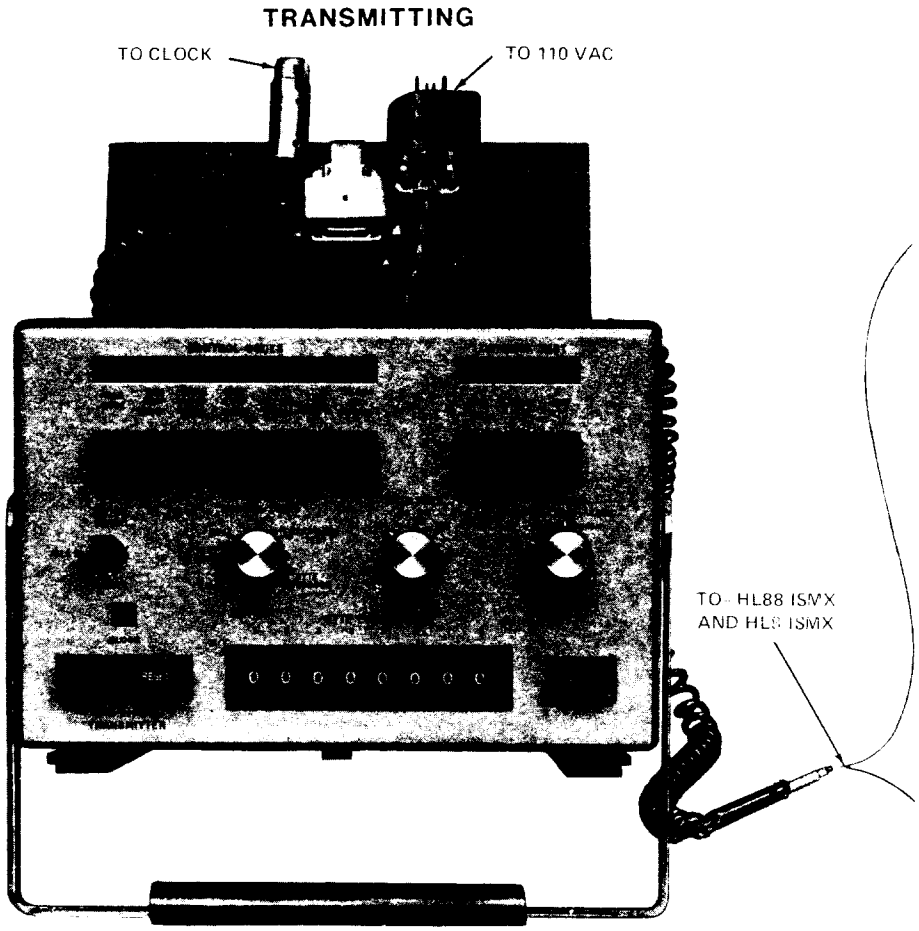
Fig. 4—Test Setup—SRDM (Sheet 1 of 2)

RECEIVING



CONTROL	SETTING
POWER	ON (DEPRESS)
CHANNEL	SINGLE
INPUT	BIPOLAR
DATA RATE	(SEE NOTE)
TEST WORD	2047
COUNTER MODE	COUNT (RESET AS REQUIRED)
COUNTER	ERRORS BIT

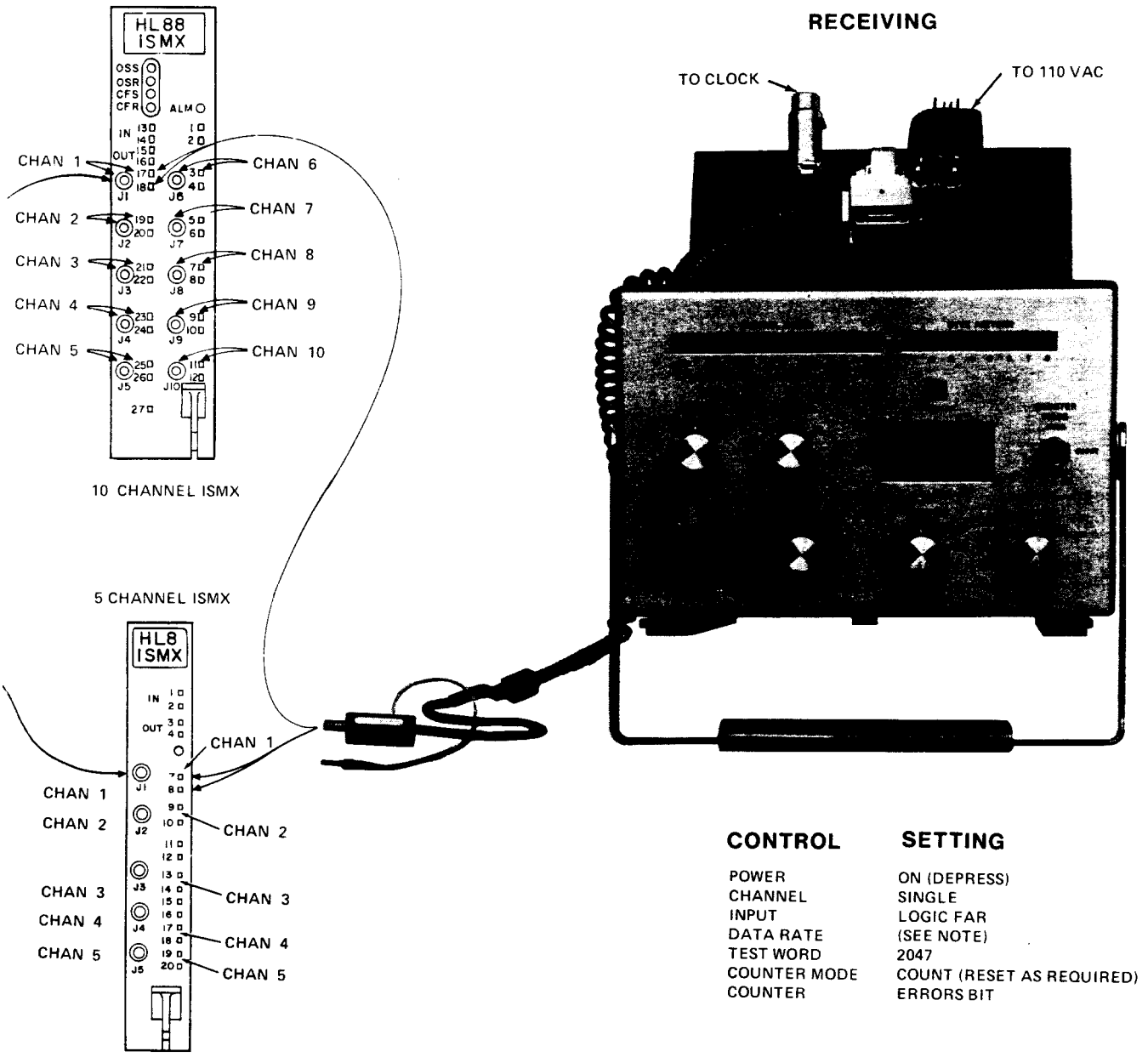
Fig. 4—Test Setup—SRDM (Sheet 2 of 2)



CONTROL	SETTING
POWER	ON (DEPRESS)
MODE	REPEAT
FUNCTION	TEST WORD 2047
DATA RATE	(SEE NOTE)
OUTPUT	LOGIC FAR

NOTE:
DATA RATE CONTROL SHOWN IN 2.4-KB/S POSITION FOR CONVENIENCE; SET AS REQUIRED FOR FACILITY UNDER TEST.

Fig. 5—Test Setup—ISMX (Sheet 1 of 2)



CONTROL	SETTING
POWER	ON (DEPRESS)
CHANNEL	SINGLE
INPUT	LOGIC FAR
DATA RATE	(SEE NOTE)
TEST WORD	2047
COUNTER MODE	COUNT (RESET AS REQUIRED)
COUNTER	ERRORS BIT

Fig. 5—Test Setup—ISMX (Sheet 2 of 2)

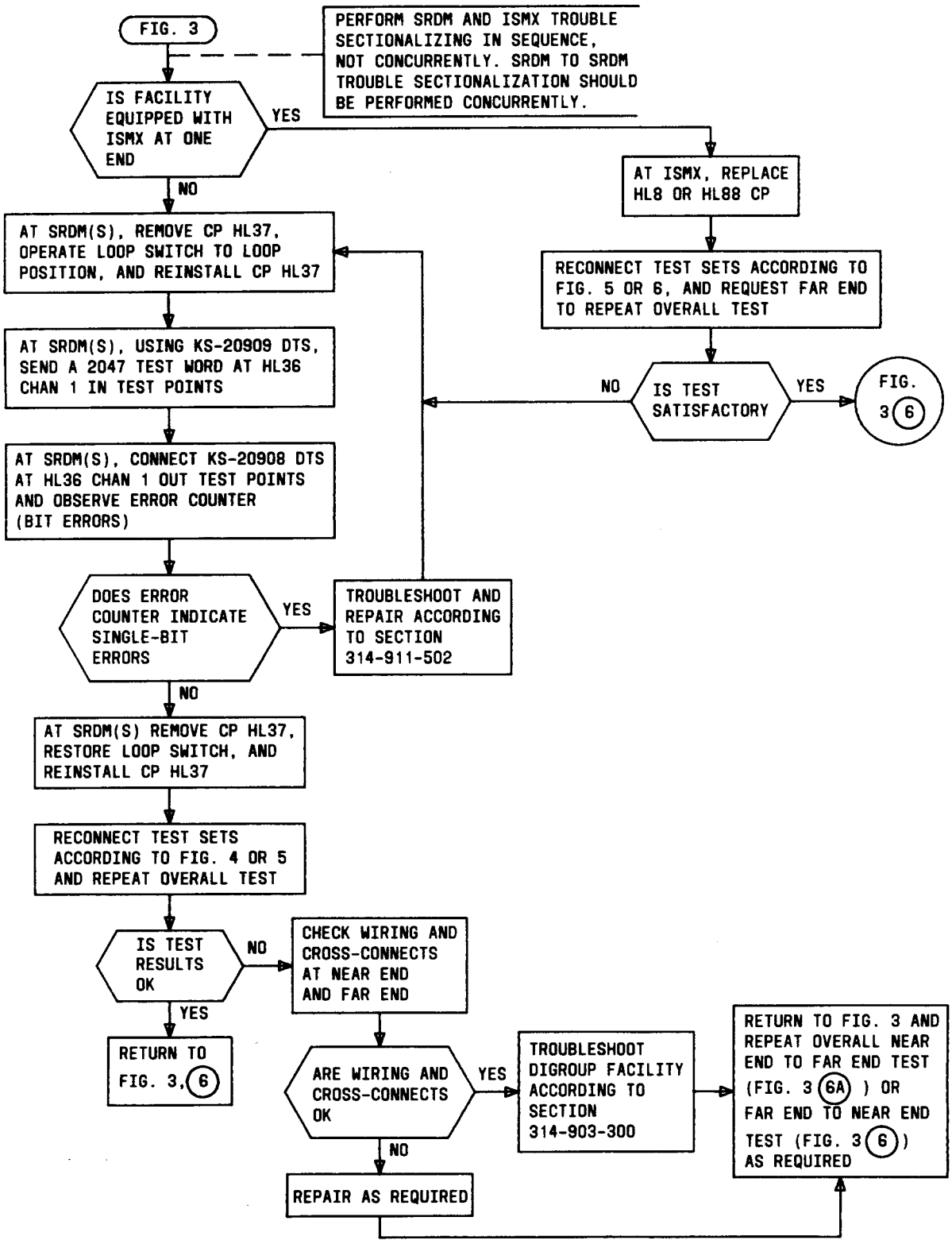


Fig. 6—Trouble Sectionalizing