5ESS® SWITCHING EQUIPMENT
DIGITAL LINE AND TRUNK UNIT
MODEL 3

Description of Changes

1.   Add apparatus figure 9 to introduce TN4011 circuit pack.

2.   Add wiring option U to provide wiring for TN4011 circuit pack.

3.   Add note 309.

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DEPT NAC120200-MLG-PK

5ESS® SWITCHING EQUIPMENT
DIGITAL LINE TRUNK UNIT 3
(DLTU3)
CIRCUIT

CONTENTS

1. GENERAL DESCRIPTION

1.1 PURPOSE OF CIRCUIT

The digital line and trunk unit-3 (DLTU3) provides for the termination of digital lines and trunks on a switching module (SM) of the 5ESS® switch. The DLTU3 is the container for both 24 channel and 30 channel digital facility interface (DFI) circuit packs.

1.2 GENERAL DESCRIPTION OF OPERATION

The DLTU3 is a single shelf unit mounted in the switching module controller cabinet of the SM. A fully equipped unit contains a power start card (SN346B or SN730) and twenty digital facility interface-2 (DFI-2) circuit packs.

There are five versions of the DFI-2 circuit packs, and each can terminate up to two T1 or 2 Mb/s facilities:

- DFI-2T (TN1611) terminates 24 channel interoffice trunks.

- DFI-2R (TN1612) terminates 24 channel trunks between host switching modules (HSM) and remote switching modules (RSM) or between RSMs.

- DFI2-X (TN1415) terminates 30 channel trunks between HSMs and RSMs.

- DFI2-XT (TN1414) terminates 30 channel interoffice trunks.

- DFI2-C 30 (TN1421) terminates 30 channel CMI inter-office trunks or RSM trunks.

The DLTU3 can be equipped with any mixture of DFI-2s (DFI-2Ts or DFI-2Rs) or DFI 2-Xs or DFI 2-XTs or DFI2-C30s.

While each DFI-2 circuit can terminate two T1/2 Mb/s facilities, both facilities need not be equipped. If only one facility is needed, it is required that facility A be equipped (B can be left unequipped).

2. DETAILED DESCRIPTION

2.1 GENERAL

All interconnections to other equipment are made through connectors on the backplane. Each DFI-2 circuit pack must have a minimum of three signal cables terminating on it.

The three signal cables are:

- T1/2 Mb/s facility for data path A.

- Duplex peripheral interface data bus (PICB) for data path A.

- Duplex peripheral interface control bus (PICB).

With these three sets of cables connected, the facility A of the DFI-2 will be equipped. For facility B to be equipped, additional facility and PIDB cables must be added. This configuration is valid for a DFI-2 for interoffice trunks or a DFI-2 in an HSM.

For DFI-2s in RSM applications, the PIDBs must be replaced with facility interface data bus (FIDB) cables and another cable must be added between the DLTU3 and the facility interface unit (FIU).

The DLTU3 requires seven -48V power feeds and seven -48V returns from the fuse panel. The feeds terminate to 14 lugs on the backplane.

3. REFERENCE DATA

3.1 WORKING LIMITS

None.

3.2 FUNCTIONS

None.

3.3 FUNCTIONAL DESIGNATIONS

None.

3.4 CONNECTING CIRCUITS

Information about the circuit packs used to equip the DLTU3 are found in CPS TN1611, TN1414, and TN1611B for the DFI-2T, CPS TN1612, TN1415, and TN1612B for the DFI-2R, and TN1421 for DFI2-C30.

4. ACRONYMS

CMI	Coded Mark Inversion
CPS	Circuit Pack Schematic
DFI	Digital Facility Interface
DLTU3	Digital Line and Trunk Unit 3
FIDB	Facility Interface Data Bus
FIU	Facility Interface Unit
HSM	Host Switching Module
PICB	Peripheral Interface Control Bus
PIDB	Peripheral Interface Data Bus
RSM	Remote Switching Module
SM	Switching Module

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