5ESS® SWITCHING EQUIPMENT OPERATING SUPPORT SYSTEMS INTERFACE CIRCUIT

Description of Changes

Changed the A25B cable to the ED5D621-11, G70 cable. Replaced the AT&T or Teletype 524161742, 759, and 767 cables with the M25B 102269677 (10') and 102986643 (25') cables. Changed the ED5D621-11, G62 cable from "Line 2" to the ED5D621-11, G61 cable. The cable supplied with the 3810 modem has been replaced with a D8W-87 cord and "Dial" has been changed to "Phone."

Changed host to remote, TN74C to TN75C and recent change and verify (RCV) to Billdats. Changed the wording on note 305 and added "Table B" to note 347.

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5ESS® SWITCHING EQUIPMENT OPERATING SUPPORT SYSTEMS INTERFACE CIRCUIT

CHANGES

D. Description of Changes

Changed B25A cable to A25B cable.

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CHANGES

D. Description of Changes

Showed existing arrangements as DA'd and added new arrangements to show the new modems.

Deleted existing 615 terminal information and added in 715 terminal information on a line out basis.

Added and/or updated notes.

Brought current application drawings up to date and added information for the equipment drawing (ED).

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5ESS® SWITCHING EQUIPMENT OPERATING SUPPORT SYSTEMS INTERFACE CIRCUIT

TABLE OF CONTENTS PAGE

SECTION I - GENERAL DESCRIPTION

1. PURPOSE OF CIRCUIT

1.01 This document describes various links in a 5ESS® Switch office between the 3B™ Input/Output Processor (IOP), 5ESS Operational Support Systems (OSSs), and various terminals.

2. GENERAL DESCRIPTION OF OPERATION

2.01 The OSSs are systems in an environment remote from the 5ESS Switch. They are designed to assist the Operating Telephone Companies (OTCs) in the administration and operation of the switch, and are accessed individually via synchronous data links.

2.02 Each link consists of a Peripheral Controller (PC) circuit pack in the 3B IOP which is connected to the terminal or OSS by various data sets, data auxiliary sets, and related hardware.

2.03 Power strips are provided in each data set cabinet. An entire cabinet is designated as either essential or protected. Two types of AC power may not be mixed in any one cabinet.

2.04 See SD-5D014-02 for all 3B IOP peripheral control slot assignments.

SECTION II - DETAILED DESCRIPTION

1. OPERATIONAL SUPPORT SYSTEMS

1.01 Automatic Message Accounting TeleProceSsing (AMATPS) (AS1,AS4)
POWER REQUIREMENTS - PROTECTED AC

Automatic Message Accounting (AMA) provides the means by which revenue information on charged calls is transferred from the 5ESS Switch to a Revenue Accounting Office (RAO).

1.02 CENTRALIZED TRUNK TEST UNIT (CTTU) (AS2) AC POWER REQUIREMENTS - ESSENTIAL AC

The CTTU is used to remotely test trunks and lines at a 5ESS Switch Office from a maintenance center.

1.03 SWITCHING CONTROL CENTER SYSTEM (NO. 2 SCCS)(AS 4) POWER REQUIREMENTS - PROTECTED AC

The SCCS is a duplex, remotely located monitor and control system that provides administrative, operational, and maintenance functions for various types of stored, program controlled systems.

1.04 AUTOMATIC MESSAGE ACCOUNTING RECORDING CENTER (AMARC) (AS3,AS4) POWER REQUIREMENTS - PROTECTED AC

The AMARC is a centralized minicomputer system that records billing data on customer-dialed calls.

1.05 ENGINEERING AND ADMINISTRATIVE DATA ACQUISITION SYSTEM (EADAS) (AS 5)
POWER REQUIREMENTS - ESSENTIAL AC

EADAS provides an electronic, software-controlled means of collecting traffic data, and is part of the Total Network Data System (TNDS).

1.06 RECENT CHANGE MEMORY ADMINISTRATION SYSTEM (RMAS) (AS 5) POWER REQUIREMENTS - ESSENTIAL AC

RMAS interfaces with the 5ESS Switch Data Base Manager (DBM) to perform Recent Change/Verify (RCV) and office record activities.

1.07 SERVICE EVALUATION SYSTEM (SES-2) (AS 5)
AC POWER REQUIREMENTS - ESSENTIAL AC

SES is a feature used to determine the quality of network service as viewed from the customer's perspective, and to direct quality control activities.

1.08 MECHANIZED LOOP TEST, SYSTEM (MLT-2) (AS 5) (AS 25)
AC POWER REQUIREMENTS - ESSENTIAL AC

MLT-2, designed to replace the Local Test Desk (LTD), is also used as a back up for MLT-1. MLT-2 provides a rapid and convenient method for automatically testing a subscriber's telephone line.

1.09 SOFTWARE CHANGE ADMINISTRATION AND NOTIFICATION SYSTEM (SCANS) (AS 6) POWER REQUIREMENTS - ESSENTIAL AC

SCANS provides a remote means of applying orderly changes to the 5ESS Switch software in the form of Broadcast Warning Messages (BWMs).

1.10 AUTOMATIC LINE INSULATION TESTING - REPAIR SERVICE BUREAU (ALIT-RSB) (AS 7) POWER REQUIREMENTS - ESSENTIAL AC

The ALIT-RSB is used to put high voltage on telephone lines and to test for shorts and insulation break down.

1.11 VERIFY REMOTE SERVICE BUREAU LOCAL TEST DESK (VFY RSB LTD) (AS 7)
POWER REQUIREMENTS - ESSENTIAL AC

The VFY RSB LTD is only used to verify, recent change, and to look at all lines, trunks, and circuit packs in the system. VFY RSB LTD cannot make changes to the system.

1.12 RECENT CHANGE AND VERIFY - SWITCHING CONTROL CENTER (RCV SCC) NETWORK ADMINISTRATION CENTER (RCV NAC) CALL TRANSFER ATTENDANT ??? (RCV CTA) (AS 7)
POWER REQUIREMENTS - ESSENTIAL AC

These are used to look at and change the Equipment Configuration Data (ECD), lines, and trunks, and can put a circuit into service or remove it from service.

1.13 CENTRALIZED AUTOMATIC REPORTING ON TRUNKS (CAROT)(AS 8)
POWER REQUIREMENTS - None (DATA SET NOT REQUIRED)

CAROT is used to provide automatic routine testing and to do demand testing on trunks.

1.14 MECHANIZED LOOP TEST SYSTEM (MLT 1) (AS 8) POWER REQUIREMENTS - NONE (Data Set Not Required)

MLT-1 provides a quick and convenient method for automatically testing a subscriber's telephone line. MLT-1 does not have the interactive testing capabilities that an LTD has.

1.15 MASTER CONTROL CONSOLE (MCC) (AS 9, AS 10 AS 24)
POWER REQUIREMENTS - PROTECTED AC

The MCC is used for maintenance of the 5ESS Switch, provides the Emergency Action interface (EAI), and displays hardware status.

1.16 SUPPLEMENTARY TRUNK LINE WORK STATION (STLWS) (AS 7, AS 11)
POWER REQUIREMENTS - ESSENTIAL AC

The STLWS provides a craft interface for trunk and line testing. Tests are requested via menu commands and TTY input messages. The STLWS also works like the MCC, but does not have EAI.

1.17 MOBILE CART (AS 12)
POWER REQUIREMENTS - ESSENTIAL AC

The DC jack used for trunk and line testing, CRT, or Printer is on a cart.

1.18 RECENT CHANGE AND VERIFY - LOCAL (RCV-L) (AS 13)
POWER REQUIREMENTS - ESSENTIAL AC

RCV-L is used to make changes to the ECD.

1.19 OFFICE RECORD PRINTER (ORP) (AS 7 AS 19)
POWER REQUIREMENTS - ESSENTIAL AC

The ORP is used to obtain a hard copy of any file from the 5ESS Switch.

1.20 TRANSMISSION MAINTENANCE TERMINAL (TMT) (AS 7) POWER REQUIREMENTS - ESSENTIAL AC

The TMT is used to test TIs for SLC 96 lines.

1.21 REMOTE SWITCHING MODULE INTERFACE (RSM) (AS 20)
POWER REQUIREMENT - ESSENTIAL AC

A maintenance terminal is used to maintain an RSM.

1.22 DEDICATED REMOTE STLWS (AS 21)
POWER REQUIREMENTS - ESSENTIAL AC

The STLWS (AS 21) is the same as the AS7 and AS 11, except that, with the use of a data set, it can be remoted off to a different location. STLWS (AS 21) provides a personnel interface for trunk and line testing.

1.23 HIGHGATE MODULE (AS 26)
POWER REQUIREMENTS - PROTECTED AC

The highgate module is a Datakit II VCS node coupled to the switch. It can be configured to accommodate a variety of network applications, such as:

- Asynchronous and synchronous communications.
- Point-to-point and multi-point synchronous connections.
- Local Area Network (LAN) routing and bridges.

1.24 CUSTOMER ORIGINATED TRACE (COT) (AS 27)

POWER REQUIREMENTS - ESSENTIAL AC

The Local Area Signaling Service (LASS) Customer-Originated Trace (COT) feature allows an end-user to request an automatic trace of the last call received. The results of the trace are not provided directly to the end-user, but to an authorized agency.

SECTION III - REFERENCE DATA

1. WORKING LIMITS

1.01 See BSP 590-010-201, Section 6, for thermal considerations.

2. CONNECTING CIRCUITS

(a) 5ESS Switch Applications Schematic - SD-5D014-02
(b) Interframe communications circuit SD-5D009-01
(c) 3B Peripheral Control Frame SD-4C106-01
(d) 5ESS Switch AC Power Distribution Circuit SD-5D004-01
(e) Miscellaneous Cabinet SD-5D130-01
(f) MCC/TLWS/STLWS SD-5D114-01
(g) 5ESS Switch DC Power Distribution Circuit SD-5D005-01

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