

CIRCUIT DESCRIPTION

CD-SD519-01  
ISSUE 1  
APPENDIX 3M  
DWG ISSUE 4M  
DISTN CODE AT13

**SESS® SWITCHING EQUIPMENT  
APPLICATION SCHEMATIC FOR  
THE SESS-2000 SWITCH  
(ADMINISTRATIVE WORKSTATION  
AND VERY COMPACT DIGITAL  
EXCHANGE)**

*Description of Changes*

D.1 Add the Combined Services Unit (CSU) information to this document.

Add the WP91652 (2KVA) inverter as AS39 for VCDX applications.

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DEPT NAC150300-MJK-FNG

CIRCUIT DESCRIPTION

CD-5D519-01  
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**5ESS® SWITCHING EQUIPMENT  
APPLICATION SCHEMATIC FOR  
THE 5ESS-2000 SWITCH  
(ADMINISTRATIVE WORKSTATION  
AND VERY COMPACT DIGITAL  
EXCHANGE)**

*Description of Changes*

D.1 Include schematic information for the Very Compact Digital Exchange (VCDX).

D.2 Add the SPARCstation 5 workstation required for VCDX applications.

D.3 Change the title of the drawing from the "5ESS Switching Equipment Application Schematic For The 5ESS-2000 Switch Administrative Workstation Option" to the "5ESS Switching Equipment Application Schematic For The 5ESS-2000 Switch (Administrative Workstation and Very Compact Digital Exchange)".

D.4 Update the AWS standard configuration for the SMC cabinet to reflect what is actually being sold to the customer.

D.5 Add peripheral hardware required specifically for VCDX applications (such as GDSU, MMSU, TU, etc.).

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CIRCUIT DESCRIPTION

CD-5D519-01  
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**5ESS® SWITCHING EQUIPMENT  
APPLICATION SCHEMATIC FOR  
THE 5ESS-2000 SWITCH  
ADMINISTRATIVE  
WORKSTATION OPTION**

*Description of Changes*

Provided a list of Mnemonics.

Showed the additional ED cabling (with group numbers) that is required between the modular controller time slot interchange unit (MCTU2) and the administrative workstation (AWS).

Added the 6417 printer as an alternative to the 577 printer.

Added AWS floor plan information (such as cabinet information, peripheral equipment dimensions, proposed table layout office layout, etc.).

Added the digital line trunk unit export (DLTUE) to the drawing so that 30 channel trunks may be supported.

Provided general corrections and updates to the document.

Provided supplementary trunk line workstation (STLWS) information.

AT&T BELL LABORATORIES

DEPT NA5350300-FNG-MJK

**5ESS® SWITCHING EQUIPMENT  
APPLICATION SCHEMATIC FOR  
THE 5ESS-2000 SWITCH  
ADMINISTRATIVE  
WORKSTATION OPTION**

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**1. GENERAL DESCRIPTION****1.1 PURPOSE OF CIRCUIT**

The schematic defines at a high level the engineering rules, interconnections, and floor plans for the SESS-2000 Switch Administrative Workstation. This workstation is composed of an administrative workstation (AWS) and a switching module (SM). The switching module is composed of a switching module control cabinet (SMC) and a line trunk peripheral cabinet (LTP). Every SM requires one SMC cabinet and from one to four LTP cabinets within the same line-up. The SM configuration is defined by the number of peripheral units.

**2. DETAILED DESCRIPTION****2.1 ADMINISTRATIVE WORKSTATION**

The AWS (ED5D764-30) is composed of the SPARCclassic™. The SPARCclassic™ is made up of the following:

- A 1.05 gigabyte internal disk and 48 megabytes of random access memory (RAM).
- A 4mm digital audio tape (DAT) tape unit.
- Eight serial parallel controller ports numbered 0-7. Port 0 provides the RS232 interface to side 0 of the modular controller time slot interchange unit (MCTU2) while port 1 provides the RS232 interface to side 1 of the MCTU2. Ports 2-7 can be used to interface with modems, supplementary trunk line work stations, etc.
- Four high speed interface ports.
- An ethernet transceiver which provides the primary interface to the switching module.
- A monitor with a keyboard and a printer.

The AWS is located on a table which is specified by the office engineer. Table recommendations are provided in the floor plan data portion of the drawing.

**2.2 SWITCHING MODULE CONTROL CABINET**

The switching module control (SMC) cabinet is composed of seven units and a cabinet:

J5D003N-0	SESS-2000 switch cabinet
J5D003FJ-0	modular fuse filter unit
J5D003BN-0	six fan unit
J5D003LA-0	modular controller time slot interchange unit (MCTU2)
J5D003EA-0	digital service unit model 2 (DSU2)
J5D003BC-0	global digital service unit - export (GDSU-E)
J5D003FD-0	modular metallic service unit - export model 1 (MMSU-E1)

The seventh unit in the SMC can be equipped with one of the following:

J5D003BA-0	digital line trunk unit - export (DLTU-E)
J5D024AA-0	digital line trunk unit model 2 (DLTU2)
J5D003FM-0	digital line trunk unit model 3 (DLTU3)

The SMC cabinet is always required in the SM and is designated as cabinet "1". The SESS-2000 switch cabinet which makes up the SMC is approximately 30 inches wide (762mm) x 24 inches deep (600mm) and

72 inches high (1828mm). A SMC provides 512 time slots, 32 electrical PIDBs per side, and 46 electrical PICBs per side. Of these one PIDB per side is dedicated for fast pump and one PICB per side is dedicated for local digital service functions.

### 2.3 LINE TRUNK PERIPHERAL CABINET

The LTP cabinet is optional in the SM and is designated as cabinet "0, 2, 3, or 4" with cabinet "0" being located at the left of the SMC (as viewed from the equipment aisle), and cabinets "2, 3, and 4" being located to the right of the SMC starting with cabinet number 2 (as viewed from the equipment aisle). The 5ESS-2000 switch cabinet which makes up the LTP cabinet is approximately 30 inches wide (762mm) x 24 inches deep (600mm) and 72 inches high (1828mm). The line trunk peripheral cabinet provides seven 8.5 inch spaces used to mount various peripheral units. One of the spaces is usually equipped with a fan unit:

J5D003BE-() Three fan unit  
J5D003BN-() Six fan unit  
J5D003FH-() Bi-direction fan unit

#### 2.3.1 LTP Peripheral Units

The units which may be equipped in the LTP cabinets of a SM are:

J5D004AD-() Line unit model 3 (LU3)  
J5D004AL-() Integrated services line unit model 2 (ISLU2)  
J5D003BL-() Packet switch unit (PSU)  
J5D003AW-() Periodic pulse metering unit (PPMU)

The LTP cabinet is equipped as the peripheral units' individual requirements dictate. A fan unit is mounted as required by the peripherals it is cooling.

Each LTP cabinet is equipped with a modular fuse filter unit (J5D003FJ - MFFU) in a configuration that supports the peripheral units in that LTP.

### 2.4 Floor Plan Data Information

The floor plan data information is provided as an aid to engineering the 5ESS-2000 switch AWS office layout. It provides data on the physical attributes of the AWS hardware and the 5ESS-2000 switch cabinet designs. Physical dimensions and cable locations are given for the AWS hardware, while weight, floor space requirements, limiting conductor information, cable build-up specifications, cabinet numbering schemes, and recommendations for placement within the office are provided for the cabinets.

Guidelines for the layout of the 5ESS-2000 switch AWS office are provided. Information requiring aisle numbering, aisle spacing, column spacing, and minimum clearance requirements is also given.

### 3. REFERENCE DATA

None.

### 4. REASONS FOR REISSUE

Not Applicable.

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