SYSTEM 80 MODEL 8

CONFIGURATION AID

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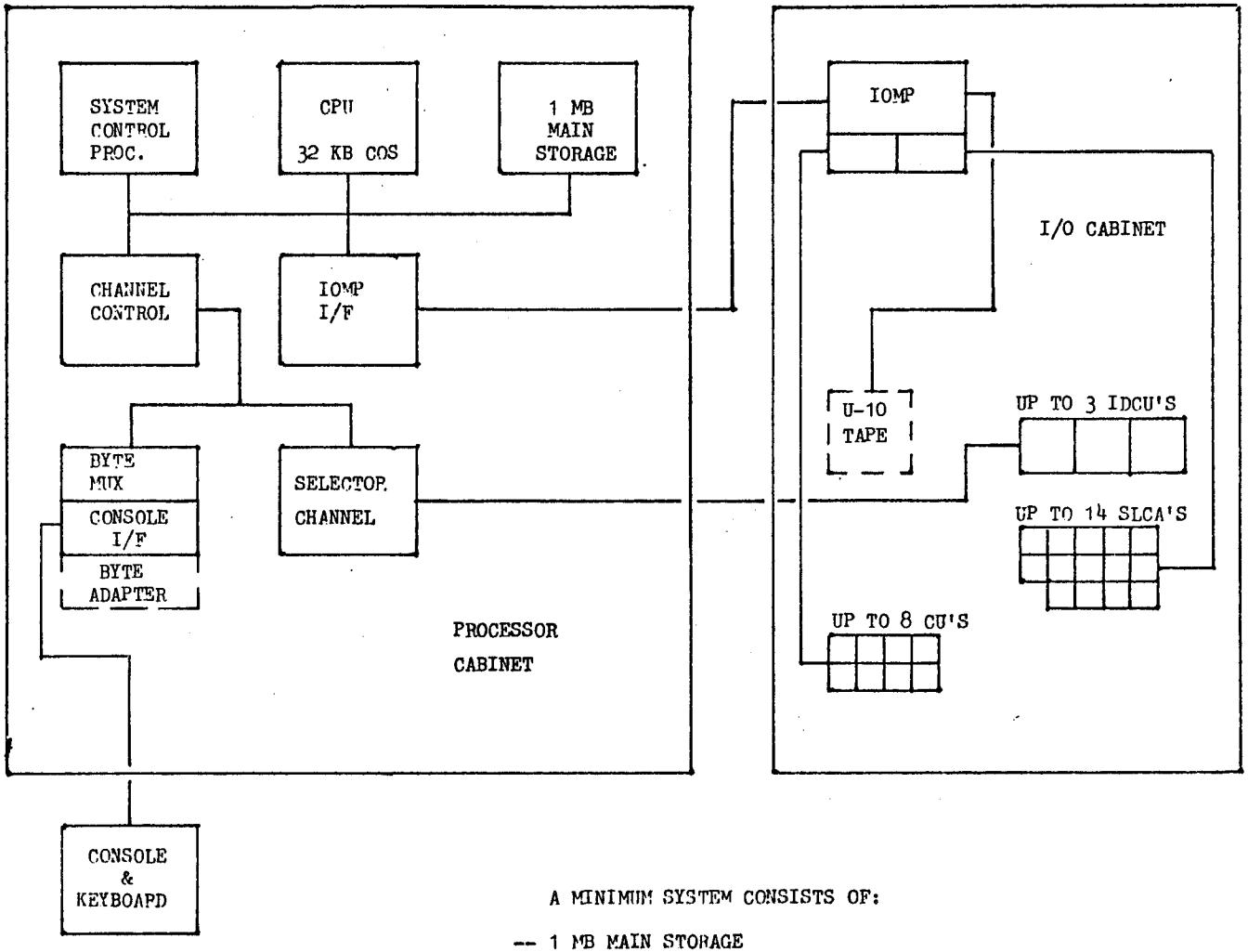
SYSTEM 80 MODEL 8 - MINIMUM CONFIGURATION



NOTE: -IDCU - Integrated Disk Control Unit for 8416/ 17,18,19 8470 Disks
- SLCA - Single Line Communication Adapter
- IOMP - Input-Output Microprocessor

A MINIMUM SYSTEM CONSISTS OF:

-- 1 MB MAIN STORAGE

-- 1 8470 OR 2 8416, 17,18,19 DRIVES ATTACHED TO SELECTOR CHANNEL VIA AN IDCU

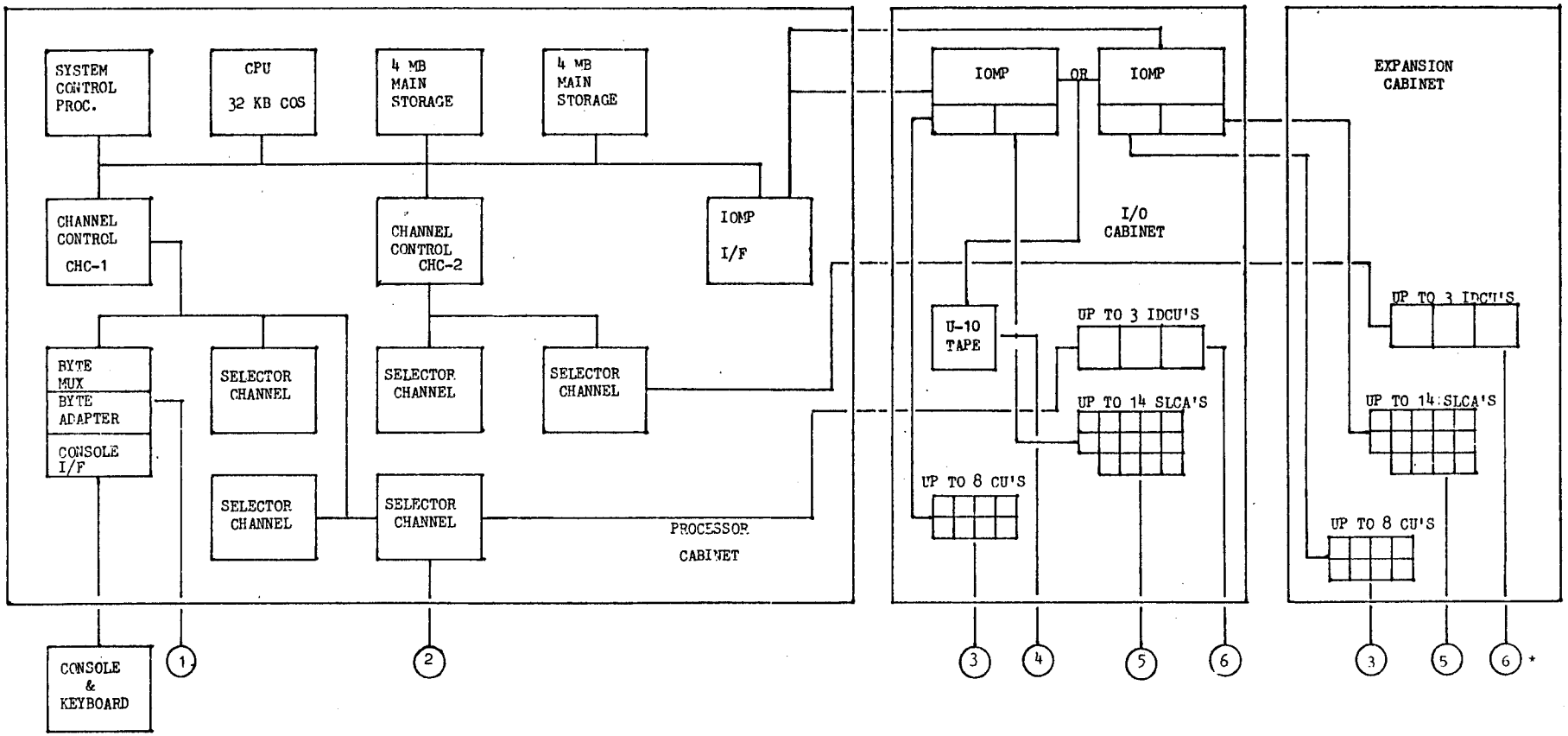
- OR -

-- 2 8430/33 ATTACHED TO A SELECTOR CHANNEL VIA A FREE STANDING CONTROLLER (5039-XX)

-- 1 LINE PRINTER ATTACHED TO A BYTE ADAPTER (90/30 CARRY-OVER) OR A PAPER PERIPHERAL CONTROLLER

-- 1 FLEXIBLE DISKETTE DRIVE

SYSTEM 80 MODEL 8 - MAXIMUM CONFIGURATION



(1) SERIES 90 PAPER PERIPHERALS (4 MAXIMUM)

(2) SUPPORT FOR (6) AND (SU39I/F) U-10,12,14,16,20, 22,24, TAPES. 8430/33 DISKS (8 SUBSYSTEMS PER CHANNEL.)

(3) STREAMING TAPE, DISKETTE CONTROL, WORKSTATION CONTROLS, PAPER PERIPHERAL CONTROLS, REMOTE PRINTER ATTACHMENTS, U-22 TAPES

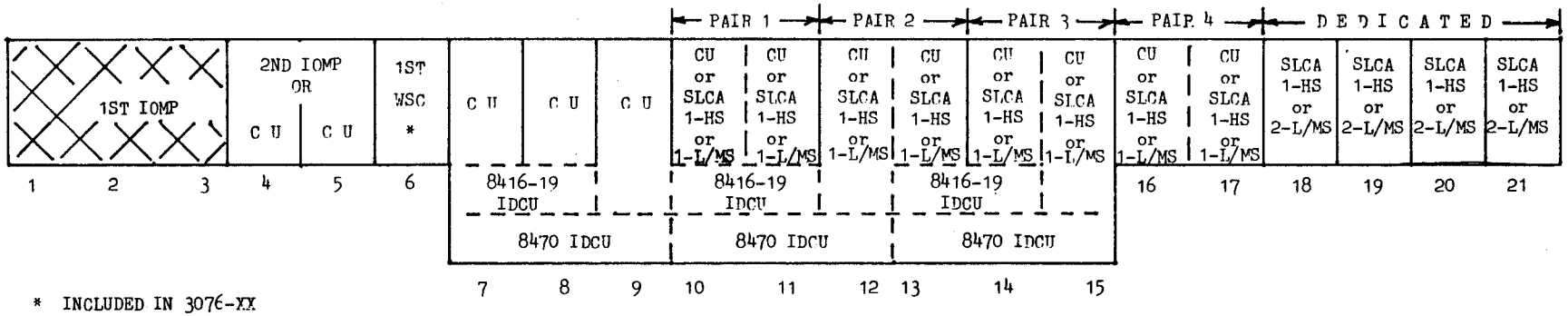
(4) UP TO 8 U10 TAPES. ONE I/O SUB-SYSTEM EXPANSION PER SYSTEM (ATTACHED TO EITHER IOMP)

(5) LOW SPEED ASYNCHRONOUS TO HIGH SPEED SYNCHRONOUS.

(6) UP TO 8-8416, 17, 18, 19, 8470 DISK DRIVES PER IDCU. 24 DRIVES MAX. VIA IDCU'S.

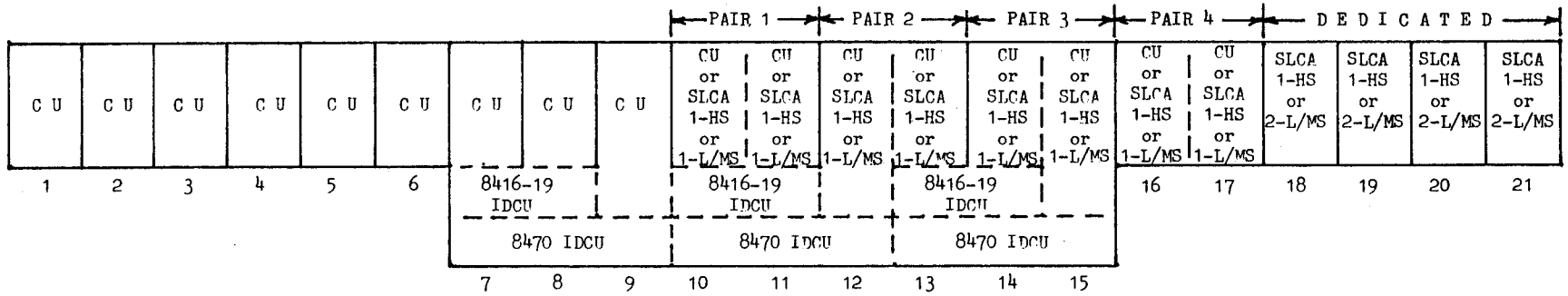
* IF AN IDCU RESIDES IN THE EXPANSION CABINET, THE ISC TO WHICH IT ATTACHES MAY NOT ALSO SUPPORT A FREE STANDING CONTROLLER.

I/O CABINET (INCLUDED IN 3076-XX PROCESSOR COMPLEX)



* INCLUDED IN 3076-XX PROCESSOR COMPLEX

EXPANSION CABINET



- As you begin populating the cabinets during the configuration process, work from right to left with SLCA's and from left to right with CU's and IDCU's.
- CU's and SLCA's in a cabinet must all be connected to the same IOMP. The IOMP included in the 3076 Processor Complex supports the I/O Cabinet and the (optional) 2nd IOMP supports the Expansion Cabinet.
- Only one CU or SLCA or IDCU may occupy a position except for the dedicated positions (18-21) which may contain up to 2 low or medium speed SLCA's.
- Both positions in Pairs 1 - 4 must contain the same type of hardware. No intermix of CU's and SLCA's is permitted.

  EXCEPTION: Position 12, Pair 2, and Position 15, Pair 3, may contain a CU or SLCA even if the other member of the pair is used for an IDCU.
- Each cabinet may contain up to 3 IDCU's, 8 CU's or 14 SLCA's. As the diagram indicates, all three maximums cannot exist in a single cabinet.

SYSTEM 80 MODEL 8 - CONFIGURATOR

The 3076-99,98 Processor Complex consists of:

CPU Cabinet
I/O Cabinet

1. CPU Cabinet contains:

1.a. CPU - Central Processing Unit

1.b. COS - Control Storage

1.c. MSU - Main Storage Unit and 1 MB Main Storage
(see Section on Main Storage Expansion)

1.d. CHC - Channel Control
- Supports a BTX and an ISC
- Can support 2 additional ISC (optional) (2nd and 3rd)
- A second CHC (optional) can support 2 additional ISC (4th and 5th)

1.e. BTX - Byte Multiplexer
- Supports the Console
- Can support a BA (Byte Adapter) to which the Series 90 paper peripherals can be attached (see Section on Series 90 paper peripherals)

1.f. ISC - Integrated Selector Channel
- Supports a required disk subsystem
- Has 8 subchannels to which disk and tape subsystems may be attached
- A maximum of 5 per System
- Supports attachment of:
  - o 8470 Disk Subsystem via an IDCU
  - o 8416/18 Disk Subsystem via an IDCU
  - o 8417/19 Disk Subsystem via an IDCU
  - o 8430/33 Disk Subsystem (see Section on Series 90 peripherals)
  - o U10,12,14,16,20 Tape Subsystems (see Section on Series 90 peripherals)
  - o U22,24, Tape Subsystems via 5058-XX Control
  - o 0770 Printer - 1400 and 2000 lpm

1.g. Console
- Attached to BTX
- No workstation functionality
- Includes 2 Diskette drives for IMPL and System maintenance

2. I/O Cabinet contains:

2.a. IOMP- Input/Output Microprocessor
- A second IOMP is optional and requires the Expansion Cabinet
- Supports up to 8 CU's and 14 SLCA's
- Supports Streaming Tape or U10 (low boy) tape subsystems
- CU's, SLCA's, and tape attach in the same manner as the System 80 Models 3,4,5,6

2.b. CU - Control Units
- Same as on current System 80, e.g.,
  WSC - Workstation Controller (1st WSC supports 8 workstations since it does not have to support a console)
  PPC - Paper Peripheral Controller
  FDC - Flexible Diskette Controller
  RPA - Remote Printer Attachment
  ITC - Integrated Tape Controller
- One WSC and FDC are included in 3076 Processor Complex
- Up to 8 CU's per IOMP
- ICCU Intercomputer Control Unit

2.c. SLCA- Single Line Communication Adapter
- Same support as current System 80
- Up to 14 SLCA's per IOMP

2.d. IDCU- Integrated Disk Control Unit
- Up to three in I/O Cabinet
- A maximum of three per ISC
- A maximum of one 8416/18 IDCU per System
- A maximum of 24 IDCU-connected drives per system

3. Expansion Cabinet - Optional
- Required if a 4th IDCU is configured
- Required if a 2nd IOMP is configured
- Same content as I/O Cabinet EXCEPT both IOMP's are located in the I/O Cabinet

4. Additional Requirements
- A minimum System requires a line printer, a disk subsystem and a diskette drive in addition to the 3076 Processor Complex (see Minimum Configuration drawing)

MAIN STORAGE

Main Storage can be configured up to eight (8) MB in 1 MB increments from 1 - 4 MB and 2 MB increments above 4 MB as follows:

Main Storage Content	MSU & 1 MB (incl. in 3076 Processor)	Expansion F3959-00 (1 MB)	Expansion F3959-01 (2 MB)	Expansion F3958-00 (MSU & 1 MB)
1 MB	1	-	-	-
2	1	1	-	-
3*	1	2	-	-
3	1	-	1	-
4	1	1	1	-
6	1	2	1	1
6	1	-	2	1
8	1	2	2	1

The Processor Complex contains two (2) Main Memory Units (MMU). Each MMU can contain to 4 MB on three (3) printed circuit boards. Each of the Main Storage increments shown above are the equivalent of one PC board.

When the 2nd MMU is utilized (for a configuration in excess of 4MB), each MMU must contain an equal number of bytes, e.g., 3MB each in a 6MB configuration or 4MB each in an 8MB configuration. Each MMU must contain one MSU with its 1MB counterpart.

MMU 1 - MSU and 1MB (included in 3076 Processor) in a 1 to 4MB configuration

-- AND --

MMU 2 - MSU and 1MB (F3958-00) in a configuration which exceeds 4MB.

You will encounter a condition when it may be necessary to return and replace a PC board. In an expansion (see * above) from 3 MB to 4 MB where the 3 MB configuration consists of three (3) 1 MB PC boards, it would be necessary to replace an F3959-00 (1 MB board) with an F3959-01 (2MB board).

POWER SUPPLIES

Power Supplies are configuration dependent and may be required in:

1. Processor Cabinet
2. I/O Cabinet
3. Expansion Cabinet

Reference the Minimum/Maximum Configuration drawings.

1. Processor Cabinet - contains the 1st Channel Control, the 1st Main Storage Unit and the 1st Selector Channel as part of the 3076-XX Processor Complex.

1a). If your configuration includes any of the following Features, compute their total value.

Feature	Description	Value	Configuration Value
F3960-00	2nd Channel Control	2	_____
F3958-00	2nd Main Storage Unit	2	_____
F3962-00	2nd (or more) Selector Channels	1 ea	_____
			_____
		Total	_____

If Configuration Value Total is 3 or greater, you require: F3964-00 +5V Power Supply.

1b). If the Processor Cabinet contains F3958-00 2nd Main Storage Unit, you require: F3964-01 -2.8V Power Supply.

2. I/O Cabinet - contains the 1st IOMP, the 1st Workstation Control and the 1st Diskette Control as part of the 3076-XX Processor Complex.

2a). If your configuration includes any of the following Features, which reside in the I/O Cabinet, compute their total value.

Feature	Description	Value	Configuration Value
F3734-XX	IDCU (any type)	3 ea	_____
F3367-01	2nd IOMP	1	_____
* FXXXX-XX	3rd (or more) Controller	1 ea	_____
** FYYYY-YY	SLCA (any type)	1 ea	_____
			_____
		Total	_____

If Configuration Value Total is 9 or greater, you require: F3964-02 +5V Power Supply.

3. Expansion Cabinet - (Optional)

3a). If your configuration includes any of the following Features, which will reside in the Expansion Cabinet, compute their total value.

	Feature	Description	Value	Configuration Value
	F3734-XX	IDCU (any type)	3 ea	_____
*	FXXXX-XX	1st (or more) Controller	1 ea	_____
**	FYYYY-YY	SLCA (any type)	1 ea	_____
				_____
			Total	_____

If Configuration Value Total is 12 or greater, you require: F3964-02 +5V Power Supply.

* FXXXX-XX represents any type control unit attached to an IOMP, e.g., WSC, PPC, FDC, RPA, ICCU, ITC.

** FYYYY-YY represents any half or full duplex (low, medium, or high speed) SLCA.

SERIES 90 EQUIPMENT

Three types of equipment, currently used on Series 90 Systems, may be contractually retained for use on the System 80 Model 8.

1. Disk Subsystems
2. Magnetic Tape Subsystems
3. Paper Peripheral Subsystems

1. Disk Subsystems

1.a) 8416, 8418 Disk Subsystem

Rules, Requirements, Restrictions

-- Only one 8416, 8418 Disk Subsystem may be configured (8 drives maximum)
-- If more than four (4) drives are used, a Disk Power Supply Expansion (2408-00,01) is required.
-- The Subsystem requires attachment to an Integrated Disk Control Unit (IDCU, F3734-00)
-- Only one IDCU (F3734-00) of this type is supported per system.
-- An IDCU requires attachment to an Integrated Selector Channel (ISC, F3962-00). One ISC is standard within the 3076-00,01 Processor Complex.
-- 8416 and 8418 disk drives may be intermixed within the Subsystem.
-- A minimum of two (2) drives are required if this is the only Disk Subsystem.

2.a) 8430, 8433 Disk Subsystem

Rules, Requirements, Restrictions

-- The Subsystem requires attachment to a free-standing Disk Control Unit (5039-97,96)
-- The 5039 Control Unit requires attachment to an Integrated Selector Channel (ISC, F3962-00). One ISC is standard within the 3076-00,01 Processor Complex.
-- Dual Channel, dual access functionality is supported.
-- 8430 and 8433 disk drives may be intermixed within a Subsystem.
-- A minimum of two (2) drives are required if this is the only Disk Subsystem.

2. Magnetic Tape Subsystems

2.a) U-10, 12, 14, 16, 20 Tape Subsystems

Rules, Requirements, Restrictions

-- A Subsystem requires attachment to a freestanding Tape Control Unit, e.g.,
U-10,14 - 5045-XX Control
U-12,16 - 5017-XX Control
U-12,26,20 - 5034-XX Control
-- The 50XX Control Unit requires attachment to an Integrated Selector Channel (ISC, F3962-00). One ISC is standard within the 3076-00,01 Processor Complex.
-- Refer to Series 90 Price Book for all rules regarding intermix of drives on a single control, dual channel, dual access, etc.

3. Paper Peripheral Subsystems

3.a) Card Readers - 0716

Rules, Requirements, Restrictions

-- The three (3) 0716-XX Series 90 Card Readers are supported, e.g.,
600 CPM - 80/96 col.
1000 CPM - 80 col and 80/96 col.
-- A Card Reader Subsystem requires attachment to a Byte Adapter (BA, F3961-00).
-- The BA (only one per System), which can support up to four (4) low speed peripherals, is attached to a Byte Multiplexer which is standard within the 3076-00,01 Processor Complex.

3.b) Line Printers - 0770, 0776

Rules, Requirements, Restrictions

-- The 800 lpm 0770 and the 760 lpm, 900 lpm and 1200 lpm 0776 printers are supported
-- A Printer Subsystem requires attachment to a Byte Adapter (BA, F3961-00)
-- The BA (only one per system) which can support up to four (4) low speed peripherals is attached to a Byte Multiplexer which is standard within the 3076-00,01 Processor Complex.
-- Maximum line printer speed is 1200 lpm.