

**1270 Terminal Control Unit  
Maintenance Manual, Volume I**

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## PREFACE

This manual provides Memorex Field Service Representatives with procedural data, maintenance instructions, theory of operation, and testing procedures to be used when servicing the Memorex 1270 Terminal Control Unit. The manual is divided into two volumes. This manual, *Volume I*, provides the procedural data and maintenance instructions for general servicing of the TCU. *Volume II* contains material concerning the theory of 1270 TCU operation and also provides detailed procedures to be used when conducting tests from the test panel of the 1270 TCU.

The contents of *Volume I* of this maintenance manual are divided into six sections. Section 1 describes each of the standard and optional features and groups these features into the functional sections of the 1270 to which they are pertinent. Section 2 provides a procedure for use when installing the TCU and briefly describes each of the options which may be plugged on the 1270 PCBs. Section 3 briefly describes the function of the switches and indicators on both the control panel and each of the roller bar positions of the test panel. Section 4 discusses maintenance aids and the general maintenance requirements for performing scheduled and unscheduled servicing. Section 5 provides instructions for installing and removing replaceable components and Section 6 provides procedures to be used when adjusting components of the power supply assemblies.

In addition to *Volume I* and *Volume II*, *1270 Terminal Control Unit Maintenance Manual*, 1270.20-00, the following publications should be readily available for reference.

- 1270.51-00 *1270 Terminal Control Unit Diagnostic System User's Guide*
- 1270.70-00 *1270 Terminal Control Unit Diagnostic System Reference Card*
- 2870.001 *1270 Terminal Control Unit Illustrated Parts Catalog*
- 2579.001 *Modems Technical Descriptions*
- 2979.001 *Modems General Descriptions*
- The Technical Bulletin Manual*
- Logic Manuals*

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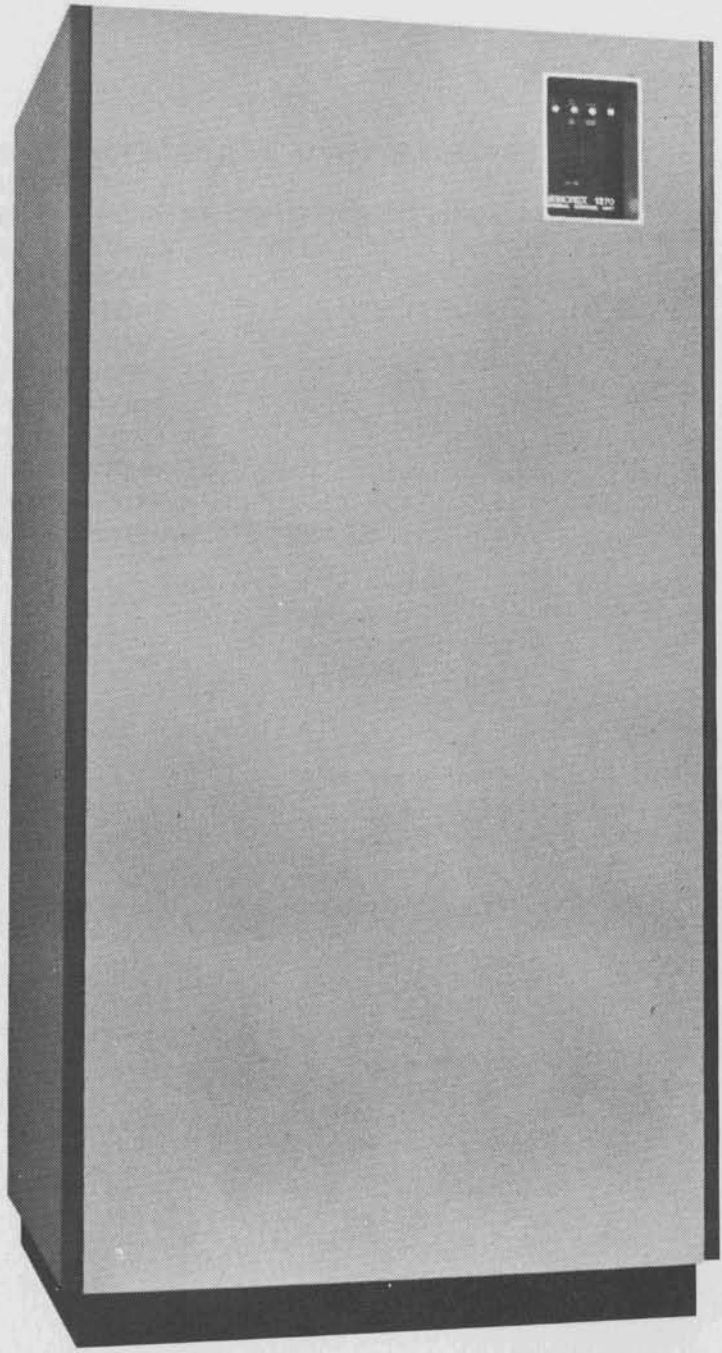
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Memorex 1270 Terminal Control Unit



# SECTION 1.

## GENERAL INFORMATION

### 1.1 GENERAL DESCRIPTION

The Memorex 1270 Terminal Control Unit is designed to provide the IBM System/360 or System/370 user with a versatile interface to a wide range of local and remote communication devices. In providing this versatility, the 1270 accommodates 1 to 96 communication lines and is capable of operation in half- or full-duplex mode over two- or four-wire facilities for asynchronous (start/stop) and synchronous transmissions. Asynchronous transmission facilities may be voice grade and may be switched, leased, or privately owned. Synchronous transmission facilities are supported via voice-grade and wideband line control.

For low-speed transmissions, the basic 1270 supports communication terminals in asynchronous mode at line speeds of 110, 134.5, 150, 300, 600, and 1200 bits per second (bps). Synchronous mode is used for high-speed devices which follow established IBM Binary Synchronous Communication (BSC) conventions and is supported at line speeds up to 9,600 bps with a synchronous adapter and up to 50,000 bps with a wideband adapter. Figure 1-1 illustrates the types of devices that can be attached to the 1270.

The 1270 attaches to the multiplexer channel of the IBM System/360 or System/370. When communicating with the channel, the 1270 operates in multiple-byte multiplex mode to request and transfer data to or from the CPU. Data is transferred in bursts of up to four bytes during any one I/O channel servicing cycle. In communicating with a remote terminal, the 1270 transmits and receives serially by bit. It provides internal character buffering of up to eight bytes for both asynchronous and synchronous transmissions. The 1270 does not impose restrictions on message length and may be equipped to recognize and translate transmission codes which do not exceed an eight-level, eleven-unit structure (eight data bits and three start/stop bits). These transmission codes include ASCII, Correspondence, PTTC, and BCD in asynchronous mode and ASCII and EBCDIC in synchronous mode. Synchronous transparency is also supported.

All character and bit control, character decoding, data handling, and matching to common-carrier equipment is accomplished by the functional sections within the 1270. Specifically, the 1270 performs the following functions, when applicable, during a transmit or receive operation:

- Inserts and deletes certain control characters that are required by the remote terminals but which are not part of the data required by the CPU.
- Generates timeout intervals to ensure that no unreasonable delays occur.
- Handles the polling and selection of remote terminals under control of the CPU.
- Provides for the recognition of different transmission codes and speeds.
- Signals an interrupt to the CPU when the data transmission is ended.

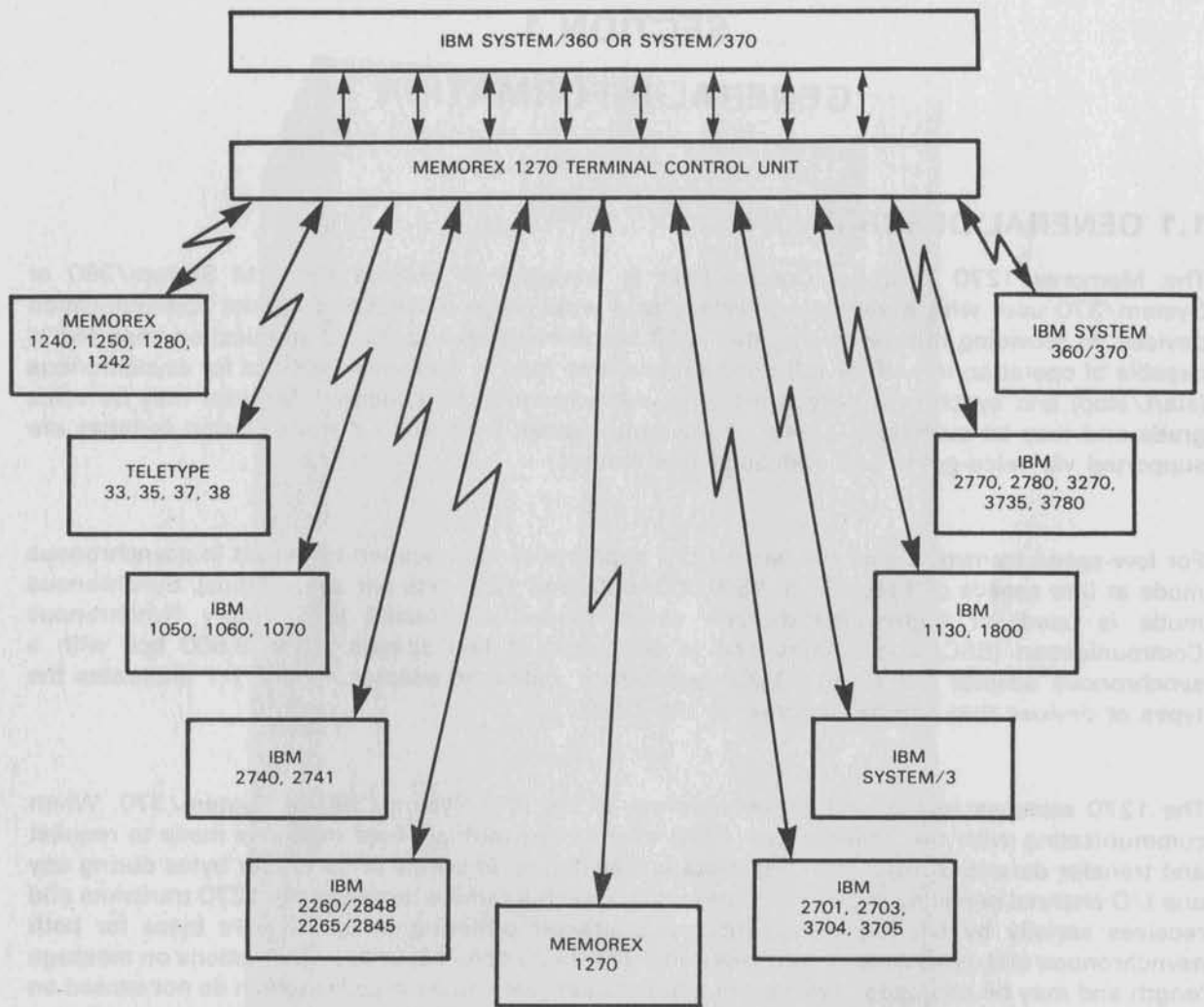


Figure 1-1. Examples of Compatible Devices

- Provides wrap-around checking of individual communication lines under program control from the CPU.
- Handles line control operations.

## 1.2 MAJOR COMPONENTS AND FEATURES

The main functional sections of the 1270 Terminal Control Unit are the I/O (Input/Output) Control, the Terminal Control, the Assemble/Disassemble Section and the Line Interface Section (see Figure 1-2). These are described in the following paragraphs.

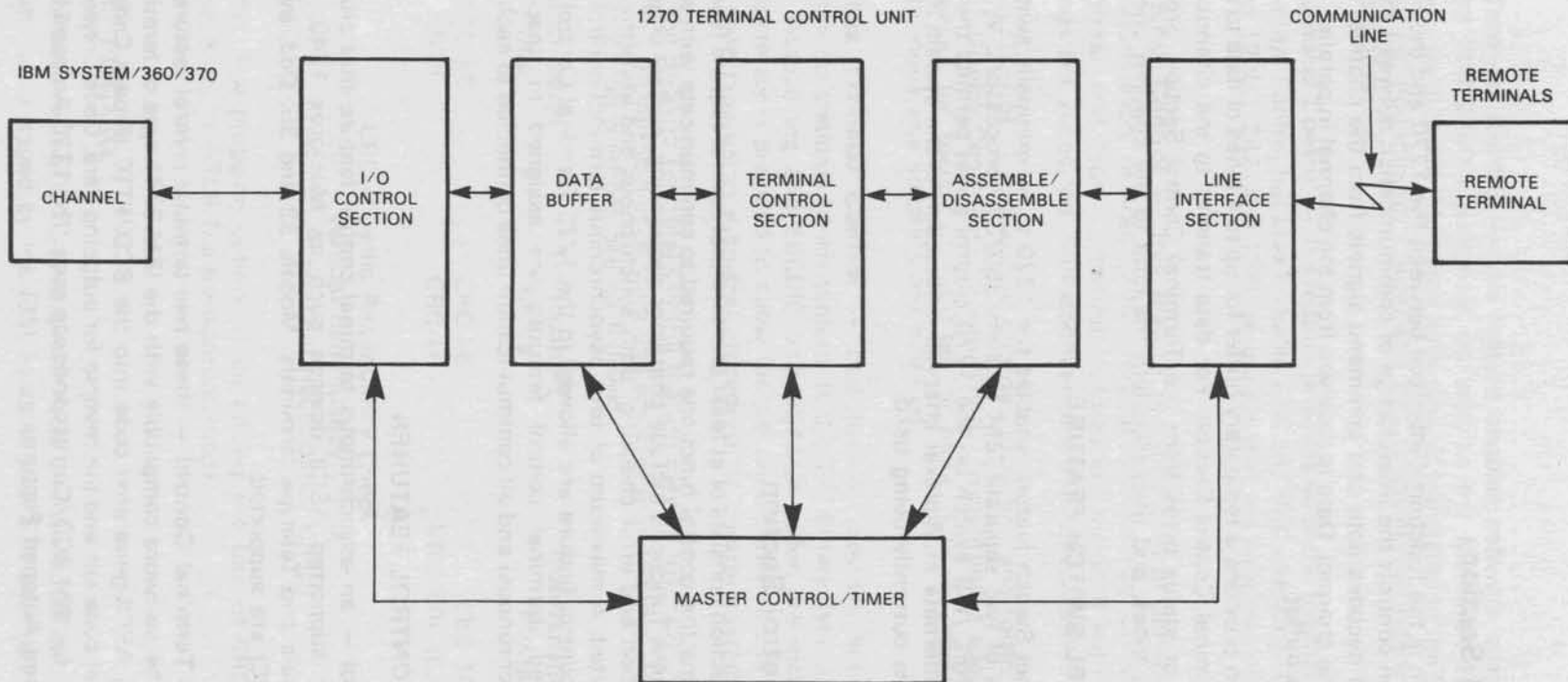


Figure 1-2. Major Components and Basic Data Flow of the 1270 TCU.

### 1.2.1 I/O Control Section

The I/O Control Section is the functional interface between the 1270 and the multiplexer channel of the CPU. This section controls the interchange of communication between the channel and the 1270. The I/O Control decodes data and command signals from the channel and transfers data and status signals to the channel. Data is received from the channel in parallel, one byte at a time, and stored in a 4-byte buffer.

The I/O Control Section provides a temporary buffer for up to 4 bytes of data to be transmitted and transfers it to the Terminal Control Section. For data transfer to the channel, the I/O Control Section receives data or status bytes from the Terminal Control Section, provides a temporary buffer for the outgoing bytes, and then transfers the data to the channel one byte at a time.

### ALTERNATE CHANNEL SWITCH FEATURE

The Alternate Channel Switch feature enables the 1270 to be manually switched between the multiplexer channels of two separate IBM System/360/370 processors. When this feature is installed, the CHANNEL A/B switch on the 1270 control panel permits the 1270 operator to manually select an alternate multiplexer channel connection in the system if problems develop at the channel that is currently being used.

### 1.2.2 Terminal Control Section

The Terminal Control Section consists of at least one terminal control feature (see Terminal Control Features) which performs the control functions required to communicate with a particular type of terminal equipment. These functions include character sequencing, control-character recognition, character length definition and error checking. Both synchronous and asynchronous communication devices are supported. A maximum of **four** asynchronous terminal control features and **one** synchronous terminal control feature are allowed in the 1270 Terminal Control Section. With the exception of Autospeed, terminal control features are assigned to specific line adapters (asynchronous and synchronous) and all communication lines connected to each line adapter must be of the same type.

#### 1.2.2.1 TERMINAL CONTROL FEATURES

**ASCII Terminal Control** — an asynchronous terminal control feature that provides control and validation services for supported ASCII devices such as Memorex 1240, 1250, and 1280 Communication Terminals and Teletype terminals, Models 33 and 35. Odd, even, and no parity character checking (VRC) are supported.

**Code Convert 1A, 1B Terminal Control** — these two terminal control features allow the 1240 and 1280 terminals to be software compatible with the IBM 2741 type of terminal. Code Convert 1A translates incoming ASCII-generated code into the BCD/PTTC (Binary Coded Decimal/Paper Tape Transmission Code) code set and the reverse for outgoing data. Code Convert 1B provides the same kind of conversion for IBM BCD/Correspondence code. The 1270 Autopad feature is required with Code Convert 1 (see Autopad Feature).

**Code Convert 2 Terminal Control** — this feature enables software compatibility between the Memorex 1280 and IBM 2740-1 terminals, as well as the Memorex 1242 and IBM 2740-2 terminals. ASCII code, used by the Memorex terminals, is translated to the BCD code set and vice-versa. LRC (Longitudinal Redundancy Check) and VRC (Vertical Redundancy Check) checking are standard with Code Convert 2.

**ASCII Checking Terminal Control** — this feature provides all of the functions and capability of the standard ASCII Terminal Control but also includes LRC and VRC checking. The feature is designed to support Memorex 1240, 1242, and 1280 terminals that are equipped with the ASCII Checking feature.

**IBM Type 1 Terminal Control** — this feature provides control services for supported IBM asynchronous communication devices. VRC (Vertical Redundancy Check) and LRC checking, autopolling, 2741 Break and Type-1 interrupt features are included with this terminal control. Three code groupings are supported: Correspondence, PTTC/EBCD, and PTTC/BCD.

**IBM TA-3 Terminal Control** — this feature provides validation and control functions for remote IBM 2848 and 2845 Display Controllers (or equivalent). Asynchronous speeds of up to 9600 bps are supported; however, for speeds of 1200 bps or more, data set clocking (in lieu of internal clocking) and synchronous line adapters are required.

**IBM Bi-Synchronous Terminal Control** — this feature provides line control services for synchronous terminals (or stations) which conform to the IBM Binary Synchronous Communication (BSC) conventions. Autopolling and EBCDIC and USASCII codes are included in this support. Synchronous Transparency is provided to allow for the unrestricted use of all bit patterns within each transmission code type using a special procedure for control character recognition.

Error detection for the Bi-Sync Terminal Control feature may be VRC/LRC, VRC/CRC-16, or CRC-16, depending on the transmission code used and whether or not Transparent mode is being used. The various error detection methods are as follows:

Transmission Code	Transparent Mode	Nontransparent Mode
EBCDIC	CRC-16	CRC-16
ASCII	CRC-16	VRC/LRC (CRC-16)*

CRC = Cyclic Redundancy Check  
VRC = Vertical Redundancy Check  
LRC = Longitudinal Redundancy Check

\* This is a plugging option which allows the use of CRC while operating in ASCII Nontransparent mode.

### 1.2.2.2 AUTOCALL FEATURE

The Autocall feature enables the 1270 to originate calls on a switched communication network by processing Dial commands issued by the IBM System/360/370 user application programs. This

permits the 1270 to establish a communication link with a remote terminal, via an asynchronous or synchronous communication line, without manual intervention.

The Autocall feature is supported by one or more of the following communication line interface combinations:

1. An Asynchronous Line Adapter and Memorex Integral Modems (1220-B2, 1222-2A) interfacing to a Bell System CBT 1001B Automatic Data Access Arrangement (ADAA) in an autocall environment.
2. An Asynchronous Line Adapter and the 801 Autocall Adapter interfacing to a Bell 801C2 or 801C4 Autocalling Unit in a Touch-Tone autocall environment with an asynchronous Western Electric Autocall modem.
3. A Synchronous Line Adapter and the Synchronous Autocall Adapter interfacing to non-Western Electric Autocall modems in an autocall environment.
4. A Synchronous Line Adapter and the 801 Autocall Adapter interfacing to a Bell 801C2 or 801C4 Autocalling Unit in a Touch-Tone autocall environment.

The Autocall feature is available only with 60 Hz models (Domestic and Canadian) of the 1270.

#### **1.2.2.3 AUTOSPEED FEATURE**

The Autospeed feature allows a variety of asynchronous terminals with different speed and code characteristics to share the same line. Autospeed is used to optimize the usage of available line and modem facilities and thus reduce the user's overall operation costs.

An Asynchronous Line Adapter plugged for Autospeed will automatically adjust the 1270 clocking rate to inbound and outbound data based on the first character transmitted or received. At least one asynchronous terminal control ( e.g., ASCII TC) and one Asynchronous Line Adapter are required for Autospeed operation. Terminal speeds supported by the Autospeed feature include 110, 134.5, 150, 300, 600, and 1200 bps. Modem limitations, rather than the 1270, normally result in line speeds to 110-300 bps or 600-1200 bps.

#### **1.2.2.4 AUTOPAD FEATURE**

The Autopad feature was designed to support Memorex terminals and provides software compatibility by automatically compensating for Memorex 1240 and 1280 carriage return/line feed timing characteristics. This feature may be used with all asynchronous terminal control features except IBM TA-3 Terminal Control. It must be installed with Code Convert 1 or Code Convert 2 Terminal Controls whether or not the feature is used (selected). The Autopad feature can be selected or deselected under program control (via Set Mode commands) for operation on individual, predesignated communication lines dedicated to a given asynchronous terminal control. It also may be dedicated to operate with a given asynchronous terminal control for all lines assigned to that Terminal Control.

### 1.2.2.5 STATION SELECTION FEATURE

A 1270, equipped with Bi-Sync Terminal Control, may be operationally used as a control station or may be used in a synchronous-equipped, multipoint network as a tributary (remote) station. The basic 1270 that is equipped with the Bi-Sync Terminal Control feature is designed to operate as a control station on a point-to-point or multipoint basis. However, with the installation of the Station Selection feature, a 1270 equipped with Bi-Sync Terminal Control can be used as a tributary station, thus allowing it to exist as a remote station on a multipoint line with other similar binary-synchronous terminals.

The Station Selection feature eliminates interference that would otherwise be caused by interstation transmission on the line. With this feature, the CPU is interrupted only when the 1270's selection or polling address is received and transferred to main storage, at which time main storage can be interrogated for proper program action.

The Station Selection feature is required when the 1270 is attached to a multipoint network and the station is operating as a remote station.

Synchronous-equipped stations can operate on the same multipoint lines provided they (1) all use the same transmission code, (2) all utilize the same error checking features, (3) all are able to handle the same optional features and special operations, and (4) all operate at the same line speed. The Station Selection feature implements two additional commands: Address Prepare (Adprep) and Search.

### 1.2.2.6 MULTIFUNCTION ASCII LINE ADAPTER

This feature permits the user of a teletype terminal operating at speeds from 50 to 9600 bit/s to interface to the 1270 provided the High Speed Asynchronous Support feature is also installed. The Multifunction ASCII Line Adapter provides the same capabilities as the High Speed ASCII Line Adapter and also includes options for:

- Autospeed
- Echoplex
- Flow Control

The Autospeed option permits the user of a teletype terminal to dial into the 1270 and establish the transmission speed of his terminal by typing in a space\* character. The speeds supported by this option are 50, 75, 110, 134.5, 150, 200, 300, 600, 1200, 1800, 2000, 2400, 3600, 4800, 7200, and 9600 bit/s. The speed of the terminal can also be established by the host if the host transmits a Speed Selection Character (ASCII A-P) before the terminal enters a space.\*

The Echoplex option permits the user of a full-duplex teletype terminal to have all characters (except ENQ), which are transmitted to the 1270, reflected or echoed back to the terminal before the characters are input to the host. This feature requires a full-duplex transmission facility.

The Flow Control option permits the user of a full-duplex teletype terminal to stop and start the transmission of data to the terminal from the host using the DC3 (X-OFF) and DC1 (X-ON) control characters. This feature requires a full-duplex transmission facility.

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\*Terminals must be set or strapped at EVEN or NONE parity, otherwise parity error will occur.

The Timed Flow Control option permits the user of a full-duplex teletype terminal to stop and start the transmission of data to the terminal using the DC3 and DC1 control characters. This feature requires a full-duplex transmission facility. The Write command will terminate with Unit Check Status and sense of Intervention Required when the transmission is stopped for more than 60 seconds by the receipt of a DC3 control character.

#### **1.2.2.7 HIGH SPEED ASCII LINE ADAPTER**

This feature permits the user of a teletype terminal operating at speeds of 1200, 1800, 2000, 2400, 3600, 4800, 7200, or 9600 bit/s to connect to the 1270. Lower speeds are not supported.

#### **1.2.2.8 HIGH SPEED ASYNCHRONOUS SUPPORT**

This feature permits the user of an asynchronous terminal operating at speeds in the range of 1200 to 9600 bit/s to operate with the 1270. This feature is required by the High Speed ASCII Line Adapter, the Multifunction ASCII Line Adapter, and for asynchronous terminals operating in an asynchronous mode.

#### **1.2.2.9 DUAL SPEED FEATURE**

This feature is required to allow use of the Memorex 1222-2 Dual Speed Modem in the 1270 TCU. The Dual Speed feature is a unique Memorex feature which enables the 1222 Integral Modem to operate at the following transmit/receive speeds simultaneously:

<b>Transmit</b>	<b>Receive</b>
1500 bps	150 bps
150 bps	1200 bps
600 bps	150 bps
150 bps	600 bps

Transmit and receive speeds may also be changed during transmission by using an ESC X sequence where X is an uppercase L, M, N, or O character.

#### **1.2.3 Assemble/Disassemble Section**

The Assemble/Disassemble (A/D) Section converts outgoing data from parallel to serial, and incoming data from serial to parallel. It stores the data byte being transmitted or received. Data in the A/D Unit can be shifted one bit position at a time until the entire eight-bit character is transferred. Each line has its own A/D.

#### **1.2.4 Line Interface Section**

The Line Interface Section attaches selected communication lines to the 1270. This section consists of line adapter gates, line adapters, and line interfaces (EIA, modems).



#### 1.2.4.1 LINE ADAPTER GATES

Line adapter gates permit passage of data from the 1270 A/D Section to the selected line adapter or vice-versa. The line adapter gates also condition and route control signals and responses from the line adapters to the Terminal Control Section of the 1270.

#### 1.2.4.2 LINE ADAPTERS

Line adapters serve as the interface between the communications lines and the 1270. These units provide bit buffering.

- Asynchronous Line Adapters

The three Asynchronous Line Adapters available for the 1270 are:

- Low Speed Line Adapter
- High Speed ASCII Line Adapter
- Multifunction ASCII Line Adapter

The Low Speed Line Adapter supports asynchronous speeds of 110, 134.5, 150, 300, 600 and 1200 bit/s.

The High Speed ASCII Line Adapter supports speeds of 1200, 1800, 2000, 2400, 3600, 4800, 7200, and 9600 bit/s and requires the High Speed Asynchronous Support, and the ASCII Terminal Control.

The Multifunction ASCII Line Adapter supports speeds of 110, 300, 600, 1200, 2000, 2400, 4800, 9600 bit/s if the High Speed Autospeed option is not utilized and the additional speeds of 50, 75, 134.5, 150, 200, 1800, 3600, and 7200 bit/s if High Speed Autospeed option is used. The Multifunction ASCII Line Adapter incorporates the Echoplex and Flow Control option in addition to the High Speed Autospeed option.

The above line adapters support up to two line interfaces (four lines) provided they have similar operating characteristics. Multiple line adapters may be required if full- and half-duplexed or leased and switched lines are intermixed. The Low Speed Adapter further requires that all four lines operate at the same speed whereas the High Speed and Multifunction ASCII Line adapters do not. The Low Speed Asynchronous Line Adapter supports any synchronous protocol whereas the High Speed ASCII and the Multifunction are restricted to teletype terminals.

- Synchronous Line Adapter

The Synchronous Line Adapter provides addressing for data transfer between the 1270 equipped with the IBM BSC-Synchronous Terminal Control or the IBM TA-3 Terminal Control and up to four synchronous communication lines at speeds up to 9600 bps. Since the external modems must supply the clocking for inbound and outbound data, lines of varying speeds may be attached to the same Synchronous Line Adapter. The following limitations apply to line mix on the **same** Synchronous Line Adapter.

1. Code Type — all ASCII or all EBCDIC
2. Modem Characteristic — all half duplex or all full duplex
3. Switched or leased line.

Any group of lines not conforming to the above criteria will require additional line adapters.

- Terminal Initiated Application Switching (TIAS) Line Adapter

The TIAS Line Adapter provides addressing for data transfers between the 1270 equipped with binary synchronous terminal control and one full- or half-duplex multipoint synchronous communication line at speeds up to 9600 bit/s. The TIAS Line Adapter only supports EBCDIC code.

- Wideband Line Adapter

This feature enables the 1270 to support synchronous transmission over wideband lines at speeds of up to 50,000 bits per second. One Wideband Line Adapter is required for each wideband line. The 1270 supports up to six Wideband Line Adapters. Synchronous Line Adapter and EIA Interface features are included with the Wideband Line Adapter feature. A prerequisite for the Wideband Line Adapter feature is the IBM Bi-Synchronous Terminal Control feature. The Wideband Line Adapter interfaces to the following Bell System data sets:

Speed	Data Set
19.2 K bps	Western Electric 303B
40.8 K bps	Western Electric 301B
50.0 K bps	Western Electric 303C

Use of the wideband feature requires two line addresses for each wideband line that is to be installed. Wideband Line Adapters must occupy the first even-numbered line addresses (i.e., 0, 2, 4, 6, 8, A) of the 1270. Interspersed odd-numbered addresses (i.e., 1, 3, 5, 7, 9) cannot be used. For example when all six wideband lines are installed, they physically occupy the space for 16 lines (0 through 10<sub>16</sub>); all lines, except for the six wideband lines (0, 2, 4, 6, 8, A), are not available for use (see Table 1-1).

TABLE 1-1. EXAMPLES OF WIDEBAND LINE ADAPTER FEATURE

Physical Address	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	10	11	12	13	14	
2 Lines	WB	NA	WB	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4 Lines	WB	NA	WB	NA	WB	NA	WB	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6 Lines	WB	NA	WB	NA	WB	NA	WB	NA	WB	NA	WB	NA	NA	NA	NA	NA	X	X	X	X	X	X

Where: WB = Wideband line, NA = Not Available, and X = Any standard type of line

Example: A six-line wideband machine with the starting channel address as 020:

1st WB Line = 020

2nd WB Line = 022

3rd WB Line = 024

4th WB Line = 026

5th WB Line = 028

6th WB Line = 02A

Next available address = 030

### 1.2.4.3 LINE INTERFACES

Line interfaces provide cabling and, in some applications, modem functions required in attaching the 1270 to a communications network. There are several types of line interfaces, including both asynchronous and synchronous types. A brief description of each type is given below.

- **Asynchronous Line Interfaces**

Asynchronous communication line interfaces available with the 1270 include the Asynchronous Dual EIA feature, Memorex Integral Modems, and the 801 Autocall Adapter feature.

**Asynchronous Dual EIA** — the Asynchronous Dual EIA feature performs the interface functions necessary to attach external modems to Asynchronous Line Adapters in the 1270. The Asynchronous Dual EIA feature will support two asynchronous communication modems (lines).

**Asynchronous Dual CCITT** — the Dual CCITT feature is functionally identical to the Asynchronous Dual EIA feature with the exception of additional control lines for European modems. The Dual CCITT interface will support two asynchronous communication lines.

Memorex Integral Modems are available for internal installation in the 1270. They allow for attachment of two asynchronous lines with DAAs (Data Access Arrangements).

**Memorex 1220-B2 Modem** — this integral modem is compatible with Western Electric 103-series modems and is capable of full duplex transmission over switched lines. The 1220-B2 is capable of operating at speeds up to 300 bits per second. When operating in conjunction with the Autocall feature, the 1220-B2 provides autocall/autoanswer capabilities. This modem also has autosearch capability which allows it to operate in answer or originate mode based on initial contact with another terminal or control unit. This design eliminates the need for operator intervention to select the operating mode. Prerequisites for the 1220-B2 modem are at least one Asynchronous Terminal Control feature, one Asynchronous Line Adapter, and one of the following Bell System Data Couplers: 1001B (CBT), 1001D, 1000A (CDT), or F58118.

**Memorex 1220-DA Modem** — this integral modem is compatible with Western Electric 103-series data sets and is capable of full duplex transmission over switched lines at speeds up to 300 bits per second. The 1220-DA also provides an autoanswer facility. Prerequisites for the 1220-DA modem are at least one Asynchronous Terminal Control feature, one Asynchronous Line Adapter, and a Bell System CBT 1001B Data Coupler.

**Memorex 1221-LD1 Modem** — the 1221-LD1 modem is compatible with the IBM Limited Distance Line Adapter (IBM Type 1 support) for transmission over two-wire or four-wire leased networks. The 1221-LD1 is capable of transmissions up to 45 miles at speeds of 134.5 bits per second. Prerequisites for the 1221-LD1 modem are the IBM-1 Terminal Control feature and at least one Asynchronous Line Adapter.

**Memorex 1221-LD2 Modem** — this integral modem is compatible with the IBM Limited Distance Line Adapter, Type 2B, for transmission over two-wire leased or private line

facilities. The 1221-LD2 Integral Modem is capable of transmissions up to eight wire miles at speeds of 134.5 or 600 bits per second. A prerequisite for the 1221-LD2 modem is the IBM-1 Terminal Control feature on the 1270 and an Asynchronous Line Adapter.

**Memorex 1222-2 Dual Speed Modem** — this integral modem is a Memorex exclusive and is therefore only compatible with a Memorex 1222 Integral Modem at the terminal end of the communication line facility. The modem is capable of dual-speed transmission in opposite directions, provides autoanswering service, autodial when Autocall feature selected, and operates at the following transmit/receive speeds:

Transmit	Receive
1200 bps	150 bps
600 bps	150 bps
150 bps	600 bps
150 bps	1200 bps

A prerequisite for the 1222-2 modem is the Dual Speed feature on the 1270. One of the following Bell System Data Couplers is also required: 1001B (CBT), 1001D, 1000A (CDT), or F58118.

**801 Asynchronous Autocall Adapter** — the 801 Autocall Adapter (in conjunction with the Autocall feature) performs the interface, translation, and control functions required for operation of Bell System 801C4 Automatic Calling Units (801C4 ACU-parallel tone —Bell Touch-Tone) along with compatible Western Electric or equivalent modems. The 801 Autocall Adapter feature is designed to operate in conjunction with the basic Autocall feature in the 1270.

The 801 Autocall Adapter will service two asynchronous communication lines and interfaces with the 1270 line adapter exactly the same as the Dual EIA feature.

- **Synchronous Line Interfaces**

Synchronous line interfaces available with the 1270 include the Synchronous Dual EIA feature, the Wideband Line Adapter feature (see 1.2.4.2, Line Adapters), the Autocall Adapter feature, and the Synchronous 801 Autocall Adapter.

**Synchronous Dual EIA Feature** — the Synchronous Dual EIA feature performs the interface functions required to attach external modems to Synchronous Line Adapters in the 1270. The Synchronous Dual EIA feature will support two synchronous communication lines.

**Synchronous Autocall Adapter** — the Autocall Adapter feature provides the interface functions required to attach non-Memorex and non-Bell modems to the 1270 in an Autocall environment. The Autocall Adapter feature is designed to operate with the basic Autocall feature in the 1270.

The Autocall Adapter feature will support two synchronous communication lines which interface with the corresponding line adapters. This feature will not support reverse channel disciplines (i.e., Western Electric 202C-type reverse channel capability).

**801 Synchronous Autocall Adapter** — the 801 Autocall Adapter (in conjunction with the Autocall feature) performs the interface, translation, and control functions required for operation of Bell system 801C4 Automatic Calling Units (801C4 ACU-parallel tone—Bell Touch-Tone) along with compatible Western Electric or equivalent modems. The 801 Autocall Adapter will service two synchronous communication lines and interfaces with the 1270 line adapter exactly the same as the Dual EIA feature.