



**MAPLE COMPUTER CORPORATION**

*ET2000 User Manual*

Version 2.02

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# *Preface*

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## **Warnings and Environmental Recommendations**

- To prevent electrical shock or fire hazard, do not expose the ET2000, Power Cord or Monitor to rain or moisture.
- Do not set the monitor on the logic unit. The logic unit is not designed to support the weight of a monitor and it may pose a tip hazard.
- Use the ET2000 in a well ventilated area, in an office or business environment, not exposed to excessive dust or corrosive environments.
- Before connecting any cables, make sure the power cord is disconnected from the ET2000.

## **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class A digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. You are cautioned that any changes or modification not expressly approved in this manual could void your authority to operate this equipment

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

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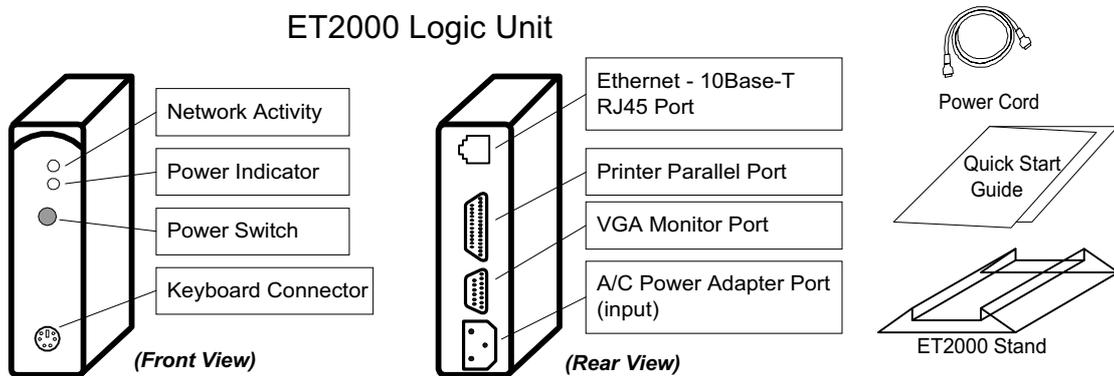
# Chapter 1. Setup and Quick Start

The ET2000 is a character based terminal designed to be connected to a TCP/IP, Ethernet network to allow Telnet access to Mini and Mainframe host computers.

Please refer to this manual for safety and complete installation instructions. Please follow the Quick-Start guide to setup and configure your ET2000.

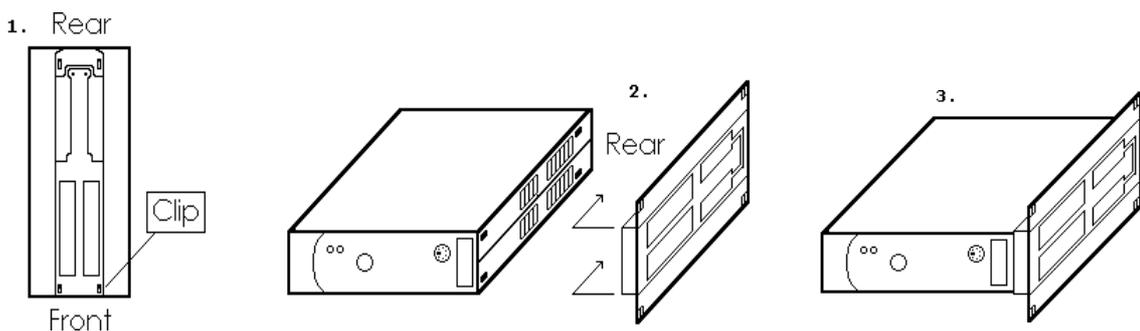
## 1.1 Components and Connections

### 1. You should find the following equipment in your package:



### 2. Steps to connect the stand to the ET2000 logic unit

- 1.) Identify the front and rear orientation of the stand.
- 2.) Place the four clips on the stand into the four holes on the ET2000 logic unit and firmly pull stand onto base so the locking clip engages.
- 3.) The stand will be attached as shown.



### 3. Connect all components:

- 1.) Connect your Keyboard to the ET2000 logic unit
- 2.) Connect the VGA cable from your PC VGA or SVGA monitor to the VGA monitor port on the ET2000
- 3.) Connect your Ethernet cable to the RJ45 port on the ET2000
- 4.) Connect Power to your VGA monitor
- 5.) Connect the power cord to the wall outlet, then to the ET2000 (Do not connect the power cord to the logic unit unless the VGA, keyboard and network cables are properly connected!!)
- 6.) DO NOT TURN ON THE LOGIC UNIT AT THIS TIME

## 1.2 Quick Start

**Please note:**

- The symbol: **?>** means you may require the assistance of your Data Processing / Information Services Department because many of the items on this Quick Start Document are technical by nature. Please keep in mind that the defaults provided are often sufficient for most applications.
- You **MUST** press **ENTER** after each selection or entry for the selection or entry to take effect.

### 1. ?> Determine and record your network and monitor settings.

(This form should be completed by your network support staff)

Menu Item	Options / IP Address		Notes
USE DHCP	YES	NO	
IP ADDRESS			N/A if using DHCP
SUBNET MASK			N/A if using DHCP
Gateway			N/A if using DHCP N/A if not using a gateway
DNS			N/A if not using DNS services
TFTP Server address			Static IP address for FlashRom Update N/A if not using ET2000 Flash Update
Monitor Type	Color	Monochrome	

### 2. ?> Determine and record your Host Computer settings

Session Number	* Emulation Type	IP address or Host Domain Name	Device Session Name	** Host Print Transform Object
* Valid types: TN5250 Display, TN5250 Printer, TN3270 Display, TN3270 Printer, VT100 Display				
** Printer Sessions Only				
1				
2				
3				
4				

### 3. Configure the ET2000 for your environment using the information above:.

- 1.) Hold the **SPACE BAR** down as you turn on the ET2000 (make sure the monitor is powered on) to go to the **OFF LINE SETUP MENU** of the ET2000.
- 2.) Use the arrow keys to select **CUSTOMIZE WORKSTATION** then press **ENTER**
- 3.) From the **CUSTOMIZE WORKSTATION MENU**, select **NETWORK SETTINGS** then press **ENTER**
- 4.) Select the **USE DHCP** menu item then press **ENTER**.
  - If your IP address is set by a DHCP server, then select **YES** on the **USE DHCP** menu item, press **ENTER** then press **F3** to go back to the **CUSTOMIZE WORKSTATION MENU**.
  - If you use a static IP address, select **NO** on the **USE DHCP** menu item. You will need to complete the IP settings for: **IP ADDRESS**, **SUBNET MASK**, **GATEWAY**, **DNS** and **TFTP SERVER**. Be sure to press **ENTER** after entering each IP address. Press the **F3** key to go back to the **CUSTOMIZE WORKSTATION MENU**
- 5.) From the **CUSTOMIZE WORKSTATION MENU**, select **SESSION SETUP**
- 6.) From the **SESSION SETUP MENU**, press **ENTER** on **SESSION1** and you will go into the **SESSION1 MENU**.
- 7.) From the **SESSION1** menu, specify the following:

<b>SESSION<sub>x</sub> CONFIGURATION MENU</b>	
<b>DEVICE NAME</b>	The name this session will be known as by the host. A blank entry will cause the host to create a virtual device name. <b>(TN5250e and TN3270e servers only!)</b> .
<b>DEVICE TYPE</b>	TN5250, TN3270 or ASCII
<b>EMULATION TYPE</b>	DISPLAY or PRINTER (TN5250e printer only) <b>Note: When you specify PRINTER, you will go to the Printer Configuration Sub Menu</b>
<b>HOST NAME / ADDRESS</b>	Static IP address or Fully Qualified Domain Name <i>(Example: 10.1.2.123 -or- host1.acme.com)</i>
<b>PORT NUMBER</b>	TCP/IP port for Telnet on your host – Default is port 23
<b>ACTIVATE SESSION</b>	Yes – Session will connect to host No – Session is inactive

- 8.) If you specified a Printer Session, you will be taken to the **PRINTER CONFIGURATION MENU**

<b>PRINTER CONFIGURATION MENU</b>	
<b>MESSAGE QUEUE</b>	?> We recommend the default setting: QSYSOPR
<b>LIBRARY</b>	?> We recommend the default setting: *LIBL
<b>FONT</b>	?> We recommend the default setting: 011
<b>FOR MFEED</b>	We recommend the default setting: CONT
<b>HOST PRINT TRANSFORM</b>	?> We recommend YES for this selection. When you select YES, you will be taken to the HOST PRINT TRANSFORM MENU

- 9.) If you specified HOST PRINT TRANSFORM – YES, then you will be taken to the **HOST PRINT TRANSFORM** menu

<b>HOST PRINT TRANSFORM MENU</b>	
<b>Printer Model</b>	Use the value you put in the worksheet under: “Host Print Transform Object” in the OTHERS field. OTHERS allows you to input the specific printer model type (see the AS/400 MFRTYPMDL supported printer table) * <b>IBM42011</b> will work for most dot matrix printers with ProPrinter emulation * <b>HP4</b> will work for most laser printers with PCL5 emulation * <b>EPLQ1170</b> will work for most dot matrix printers with “LQ” (esc/P) emulation
<b>PAPER SOURCE 1</b>	We recommend the default setting: <b>MFRTYPMDL</b>
<b>PAPER SOURCE 2</b>	We recommend the default setting: <b>MFRTYPMDL</b>
<b>ENVELOPE HOPPER</b>	We recommend the default setting: <b>MFRTYPMDL</b>
<b>ASCII CODEPAGE 899 SUPPORT</b>	We recommend the default setting: <b>NO</b>
<b>CUSTOM OBJECT</b>	We recommend the default setting: [blank]
<b>LIBRARY</b>	We recommend the default setting: [blank]

- 10.) If you specified a TN3270 printer, you will be taken to Tn3270 Printer Configuration MENU.  
**Associated Printer**                      **No**                      **Yes (pairs with session 1 2 3 4)**  
 If select ‘No’, the configured printer uses the specified Device Name to ‘Connect’ the server (if specified).  
 If select ‘Yes’, the paired terminal device name is used to request the TN3270e server. The TN3270e server may also have defined a ‘partner’ or ‘paired’ printer device for each terminal in the pool.
- 11.) When you are done configuring the Host Print Transform Settings press **F3** to return to the **PRINTER CONFIGURATION MENU**, press **F3** to return to the **SESSION1 CONFIGURATION MENU**, then press **F3** to return to the **SESSION SETUP MENU**
- 12.) Repeat the previous steps **F**. through **G**. to configure additional sessions. PLEASE NOTE: only one printer session can be configured for the ET2000!
- 13.) When at the **SESSION SETUP MENU**, press **F3** to return to the **CUSTOMIZE WORKSTATION MENU**.
- 14.) At the **CUSTOMIZE WORKSTATION MENU**, select MONITOR TYPE and press **ENTER**. Select either COLOR or MONOCHROME, press **ENTER** and press **F3** to return to the **CUSTOMIZE WORKSTATION MENU**.
- 15.) When at the **CUSTOMIZE WORKSTATION MENU** press **F3** to exit to the **OFFLINE SETUP MENU**. Press **F3** again, to go to On-line operations.

#### **4. In Case of Trouble**

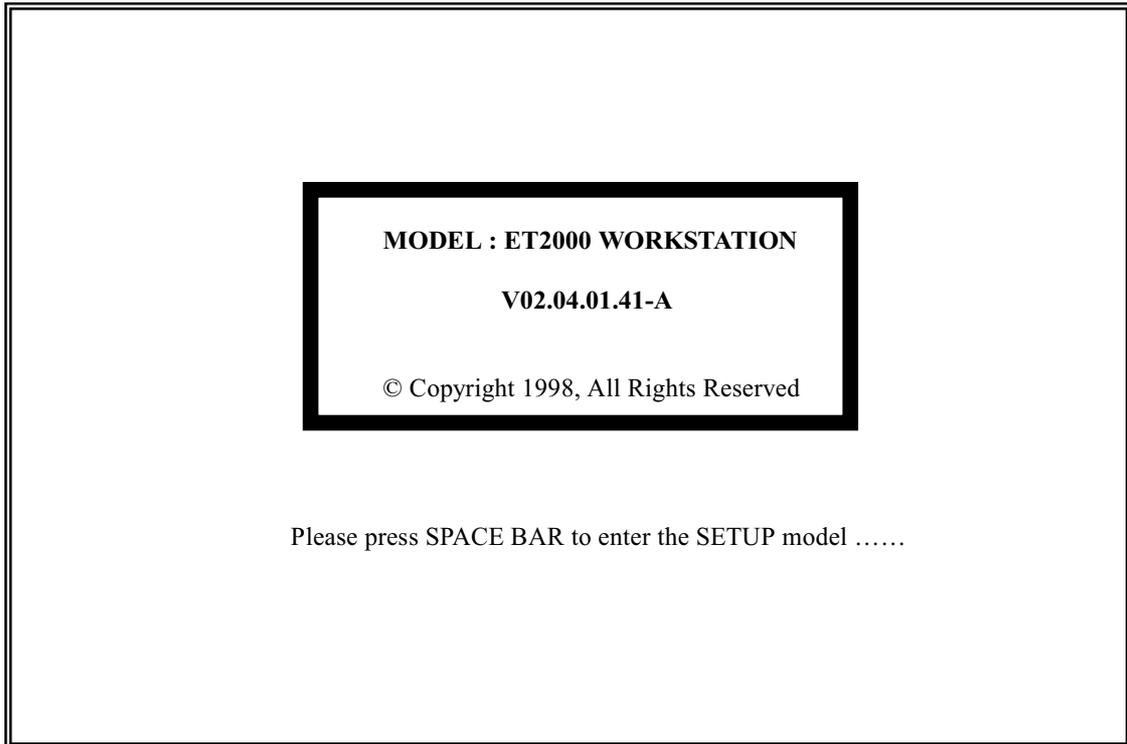
- Please record any error message displayed on the terminal and the circumstances surrounding the event
- Press the SETUP key to go to the **ONLINE SETUP MENU** and check the CONNECTION LOG for errors
- Refer to the ET2000 manual for detailed analysis and troubleshooting procedures
- Report the information to your help desk

## **Chapter 2. Offline Setup**

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### **Starting the Offline Setup Function**

Turn power on with the Space Bar held down. Hold the Space Bar until the Model number and Version number screen appears.



**NOTE :** *If the screen presents "CMOS MEMORY ERROR OR BATTERY FAILURE", reference "Appendix C. CMOS Memory Error or Battery Failure".*

## Offline Setup Menu

This screen allows you to :

- Set your Language Option - Character set and Language set.
- Customize the Workstation - Setup network and display/printer session options and values, specify the monitor type, and display the Ethernet MAC address.
- Set another Enter key to be different than the default Enter.
- Configure a printer - Printer type and character translation settings.
- Test the workstation - Keyboard and display.

Use the cursor key to select each function, and press the Enter key to enter the selected function.

Press the **F3** or **SetUp** key to quit the Main menu and connect the defined sessions to the host.

All the options selected in the Offline Setup Menu are stored in the display station and do not need to be reset each time you power on your unit.

MODEL: ET2000 OFFLINE SETUP MENU		V02.04.01.41-A
Move cursor to desired selection and press ENTER.		
Language option		
Customize workstation		
Define an additional ENTER key		
Printer configuration		
Test Workstation		
F3=Exit		
SETUP	Enhanced Keyboard	

### Offline Setup Menu

## 2.1 Language option

From the Main Menu, highlight Language option and press the Enter key. Select character set and language set with the cursor keys (arrow keys). Press the Space Bar at the desired setup parameters.

<b>Language option</b>		More: +
Move cursor to desired choice, then press SPACE BAR to select.		
Character set ....	<b>Country Specific</b>	Multinational
Language set ....	<b>U.S. English</b>	Italian
	U.K. English	French (AZERTY)
	Austrian/German	Belgian
	Swiss German	Swiss French
	Spanish	Spanish Speaking
	Portuguese	Finnish/Swedish
	Danish	Norwegian
	Islandic	Turkish
	Latin/ROECE	Canada (French)
	Netherlands	
F3=Save and Exit		
SETUP		

**Language Option Panel**

## 2.2 Customize workstation

The Customize workstation menus and screens provide the basic setup block for the ET2000. From the main menu one can select and configure the following:

- The network and server addresses for the ET2000.
- Display/printer sessions for various Hosts.
- The monitor type: Color or Monochrome.
- The Ethernet MAC address for the terminal can be displayed (and changed as per 2.7)
- Password protection for Customize workstation (optional).

From the Main Menu select Customize workstation and press Enter.

**Note:** *Within the Customize workstation screen set, press **ENTER** after each selection or entry (for that selection or entry to take effect). When editing or entering a field, the display **RESET=Cancel** at the bottom of the screen indicates that pressing **RESET** will cancel the entry and restore the original value.*

Customize workstation
Move cursor to desired selection and press ENTER.
Network settings
Session setup
Monitor type
Display Ethernet MAC address
Config password
F3=Save and Exit
SETUP

### Customize Workstation Menu

## **Network Settings**

Select Network settings from the Customize workstation menu and press Enter.

The screen shown below is used to setup your ET2000 network settings (IP addresses). Note: IP addresses (and masks) are entered in the form **n.n.n.n**; where **n** is a number in the range 0 through 255. A null address would be entered/displayed as **0.0.0.0** and any entry is validated against this form when Enter is pressed (prior value is re-displayed if entry is invalid).

**Customize workstation**

---

Move cursor to desired selection and press ENTER.

ET2000 addresses and network settings

<b>Use DHCP</b>	<b>No</b>	Yes
IP address	<u>0.0.0.0</u>	_____
Subnet mask	<u>0.0.0.0</u>	_____
Gateway	<u>0.0.0.0</u>	_____
DNS	<u>0.0.0.0</u>	_____
TFTP server	_____	

Network parameter

F3=Save and Exit

**SETUP**

### **Network Settings Panel**

**\* Use DHCP ( Yes / No )**

A DHCP (Dynamic Host Configuration Protocol) server provides the TCP/IP addresses used by the ET2000. If such a server exists, select **Yes** and press Enter; then F3 to return to the prior menu. Entries below can be made for addresses not provided by DHCP. If a DHCP failure occurs then any addresses entered will be used in place of those normally provided by DHCP. If DHCP is working, the address provided override any specified.

If **No** is selected, you must specify the at least the IP and Subnet addresses below and any other addresses defined by network operations.

**\* IP address**

The IP address for this terminal. Each device on a TCP/IP network is identified by a unique address.

**\* Subnet mask**

The Subnet address for this terminal. This determines which part of the address denotes the network.

\* **Gateway**

If a Host session address (see Session setup) refers to a Host outside the Subnet for this ET2000, the specified Gateway is addressed to connect to that Host.

\* **DNS**

A DNS (Domain Name System) server resolves symbolic (Host) names into IP addresses.

\* **TFTP server**

The firmware in the ET2000 can be updated from a TFTP server on the network. If such a server is provided (AS/400 or NT server) and ET2000 firmware flash update is to be supported, enter the address of this server (0.0.0.0 if none) or its fully qualified domain name.

\* **Network parameter**

Select and press Enter to view the following screen.

**Customize workstation**

---

Move cursor to desired selection and press ENTER.

MTU Size (576-1500)      **Default**      Custom 1500

F3=Save and Exit

**SETUP**

The MTU(maximum Transmission Unit) Size is shown with the valid value range shown in parenthesis. The Default size is 1500; but a custom value in the range shown can be specified.

***DO NOT CHANGE THIS VALUE UNLESS YOU HAVE A COMPLETE UNDERSTANDING OF PACKET SIZING AND HOW YOUR NETWORK IS CONFIGURED!***

In some networks, the packet size must be reduced to accommodate other high priority IP traffic such as Voice-Over-IP.

Some networks are setup where the host which is serving the Telnet data sends small packets to the ET2000. Other networks are setup where the router will fragment the packet into many smaller packets. This can cause the ET2000 to take a long time to display some application screens because there are not enough buffers available to process the fragmented packets.

The default packet size of 1500 is used in most Ethernet-2 networks and provides the best performance and reliability. If you know that the Telnet packets are being fragmented by a router or your Telnet host is set to transmit at a smaller value, you can modify the MTU value to reduce the packet size the ET2000 uses.

You must determine the correct value for you specific network needs. The only recommendation is that you set the MTU size to the smallest packet size to avoid fragmentation.

## **Session Setup**

Select Session setup from the Customize workstation menu and press Enter.

The Session setup screen shows the four supported Sessions and their current definition. Up to four displays or one printer session and up to three display sessions can be specified to one or more Hosts. Also shown is a Connect Retry option which can be set to continuously retry a "host-disconnected" or "host no response" session after so many minutes.

<b>Customize workstation</b>					
Move cursor to desired selection and press ENTER.					
<b>Connect Retry</b>		<b>No Retry</b>	5 minutes	10 minutes	30 minutes
Session 1	tn0101	TN5250 display	10.1.1.201		23
Session 2	tn0102	TN5250 display	10.1.1.201		23
Session 3		Inactive			
Session 4		Inactive			
F3=Save and Exit					
<b>SETUP</b>					

### **Session Setup Screen (Example)**

The Connect Retry option, if other than No Retry, tells the unit to continuously retry to connect any session that was disconnected by the host or which has a host no response status (see ET2000 Connection Exception Messages in Chapter 4). Its primary purpose is to restore connections after a Host failure or shutdown.

Each session display line is formatted as follows:

Session# <session name> <device type> <display or printer> <host address> <port#>

Example:

Session1 tn0101 TN5250 display 10.1.1.201 23

If the session is inactive the word "Inactive" is displayed following the session name.

Select the session to be configured and press enter to bring up the configuration screen.

## Session Definition

The setup configuration screen is shown below.

Customize workstation			
Move cursor to desired selection and press ENTER.			
Session1			
Device name	<u>tn0101</u>		
Device type	<b>TN5250</b>	TN3270	ASCII
Emulation type	<b>display</b>	printer	
Host name/Address	<u>10.1.1.201</u>		
Port Number	<b>Default</b>	Custom	<u>23</u>
Activate session	No	<b>Yes</b>	
F3=Save and Exit			
SETUP			

### Session Configuration Screen (Example)

**\* Device name**

Enter a unique name to be used by the Host in configuring the session. A blank entry will cause the host to create a virtual device name. A printer session must have a device name.

**\* Device type ( TN5250 / TN3270 / ASCII )**

A TN5250 display session has a terminal type of 3477-FC (Color) or 3477-FG (Monochrome); and for a printer session the type is 3812-1.

A TN3270 display session has a selectable terminal type of either 3278-2-E (24\*80), 3278-5-E(27\*132), 3278-3-E(32\*80), or 3278-4-E(43\*80). The TN3270 printer type supported is 3287-2.

An ASCII display session has a selectable terminal type: VT100, VT220, or Xterm.

**\* Emulation type ( display / printer )**

Select either a **display** or **printer** session.

TN5250: If you select **printer**, a TN5250 Printer Configuration screen will be displayed (see below) for entry of printer configuration parameters.

TN3270: If **display**, a terminal type selection screen is displayed (see below).

If **printer**, a TN3270 Printer Configuration panel is displayed for entry of printer configuration parameters.

ASCII : If **display**, a terminal selection screen is displayed (see below).

A **printer** session is not supported

\* **Host name/address**

Enter static IP address or fully qualified Host name (DNS server configured).

\* **Port Number ( Default / Custom )**

The TCP/IP port for TELNET on your host. The Default is 23. A Custom port can be specified.

\* **Activate session ( No / Yes )**

Yes - Session will connect to host.

No - Session will not connect to host and is Inactive.

## TN5250 Printer Configuration Parameters

When a printer session is specified the screen below is shown to capture AS/400 printer configuration data.

Customize workstation			
Move cursor to desired selection and press ENTER.			
Message queue	QSYSOPR		
Library	*LIBL		
Font	011		
Form feed	CONT	CUT	AUTOCUT
Host print transform	No	Yes	
F3=Save and Exit			
SETUP			

### Printer Configuration Panel

**\* Message Queue**

The default message queue is QSYSOPR.

**\* Library**

The default for the message queue is \*LIBL

**\* Font**

The default is 011 and this value is recommended.

**\* Form feed ( CONT/CUT/AUTOCUT )**

The default of CONT is recommended. The options are:

CONT - Continuous forms (continuous feed)

CUT - Single-cut sheets (manual feed)

AUTOCUT - Single-cut sheets automatically fed

**\* Host print transform ( No/Yes )**

No - normal print job (you must specify Printer Type from the main menu "Printer configuration" option, see section 2.4).

Yes - Host Print Transform is used and the Host Print Transform parameter screen will be displayed to capture the AS/400 transform parameters.

**Note:** Host Print Transform drives a printer not as an "emulated" printer but as the printer it actually is. The Host handles all data conversion and sends all native commands to the printer. This data is then passed directly to the printer by the ET2000.

If you specified **Host Print Transform - Yes**, the following screen is displayed for specification of AS/400 Host Print Transform parameters.

Customize workstation	
Move cursor to desired selection and press ENTER.	
Printer model	*IBM42011 *HP4 *EPLQ1170 OTHERS *IBM42001
Paper source 1	MFRTYPMDL LETTER LEGAL EXECUTIVE LEDGER A3 A4 A5 B4 B5 CONT80 CONT132 NONE
Paper source 2	MFRTYPMDL LETTER LEGAL EXECUTIVE LEDGER A3 A4 A5 B4 B5 CONT80 CONT132 NONE
Envelope hopper	MFRTYPMDL MONARCH NUMBER9 NUMBER10 B5 C5 DL NONE
Ascii codepage 899 support	No Yes
Custom object	_____
Library	_____
F3=Save and Exit	
SETUP	

### Host Print Transform Screen

**\* Printer Model**

\*IBM42011 will work with most dot matrix printers with ProPrinter emulation.

\*HP4 will work with most laser printers with PCL5 emulation.

\*EPLQ1170 works for most dot matrix printers with Epson "LQ" (Esc/P) emulation.

**OTHERS** allows you to input the specific model type (see AS/400 MFRTYPMDL supported printer table)

**\* Paper Source 1**

Type of paper used in paper source 1. **MFRTYPMDL** (use suggested printer setting) is the default.

**\* Paper Source 2**

Type of paper used in paper source 2. **MFRTYPMDL** (use suggested printer setting) is the default.

**\* Envelope Hopper**

Envelope size. **MFRTYPMDL** (use suggested printer setting) is the default.

**\* ASCII Codepage 899 Support (No / Yes)**

No is recommended.

**\* Custom Object**

Default is Blank

**\* Library**

Default is Blank

## TN3270 Display Model Selection

Select the desired 3270 Terminal (Display) model from the screen shown bel

**Customize workstation**

---

Move cursor to desired selection and press ENTER.

<b>Terminal Model</b>	<b>3278-2-E</b> (80*24)
	3278-5-E (132*27)
	3278-3-E (80*32)
	3278-4-E (80*43)

F3=Save and Exit

SETUP

## TN3270 Display Terminal Model

Select Terminal model and press Enter. The screen size for each model is shown in parenthesis (Columns\*rows).

## TN3270 Printer Configuration Parameters

When a 3270 printer session is specified, the screen panel below is shown to capture Mainframe printer configuration data.

Customize workstation	
Move cursor to desired selection and press ENTER.	
Associated printer	No      Yes (paired with session 1 2 3 4)
F3=Save and Exit	
SETUP	

### TN3270 Printer Configuration panel

If the 3287-2 printer you select is not associated with any terminal, you should choose NO (not an associated printer). If the printer is an associated printer, choose YES and select the paired terminal. If an Associated Printer is selected, the device name used by the host is the paired display session's name (any name entered for this printer session is ignored).

## ASCII Display Model Selection

Select the desired ASCII Terminal (Display) model from the screen below.

**Customize workstation**

---

Move cursor to desired selection and press ENTER.

Terminal Model	<b>VT100</b>
	VT220
	Xterm

F3=Save and Exit

SETUP

### ASCII Display Terminal Model

**\* VT100**

VT100 is the lowest basic terminal type. It supports 80X24 text mode only.

**\* VT220**

VT220 expands the control sequences provided by VT100.

**\* Xterm**

Xterm is a terminal emulator for the X window system. It partially emulates a VT100 terminal and supports most of the control sequences for VT220. It also supports 80X24 color text mode. It does not support graphic functions.

## **Monitor type**

To set the monitor type (Color or Monochrome), select this option from the Workstation menu and press Enter. Select either Color or Monochrome, press enter then **F3** to return to the prior menu.

<b>Customize workstation</b>		
Move cursor to desired selection and press ENTER.		
Select monitor type	<b>MONOCHROME</b>	COLOR
F3=Save and Exit		
SETUP		

### **Monitor Type Panel**

**Note:** When a Color monitor is configured as Monochrome, the primary color is purple. When a Monochrome monitor is configured as Color, some characters on the screen may appear very dim. Be sure to select the right monitor type.

## **Display Ethernet MAC address**

To display the Ethernet MAC address, select this option from the main menu and press Enter. The screen below shows an example of the display. The Ethernet address is 48 bits wide and is displayed as six pairs of hex digits with a colon (:) separating the hex values (8-bit bytes).

It is possible to change the MAC address for the terminal. This is not recommended and only the network manager should be responsible for such a change. See section 2. 7 for details.

<b>Customize workstation</b>	
Move cursor to desired selection and press ENTER.	
Ethernet MAC address	C0:01:02:03:04:01
F3=Save and Exit	
SETUP	

### **Display Ethernet Address Panel**

## **Config Password**

To password protect entry to **Customize workstation** select this option from the Workstation menu and press Enter. The screen below allows you to define a password which must then be entered to permit display of the **Customize workstation** menu.

**Customize workstation**

---

Move cursor to desired selection and press ENTER.

Config password \_\_\_\_\_

F3=Save and Exit

SETUP

### **Config Password panel**

The password may be from one to ten characters in length and is not case sensitive. A blank entry means "no password" is specified. Press Enter to go to the password field. Each character entered displays as an asterisk (\*). Press Enter after entering or deleting a password; or press Reset to cancel an entry.

When the **Customize workstation** main menu option is selected and a password has been specified, the user will be requested to enter this password in order to begin workstation customization. Key the password then press Enter to see the **Customize workstation** menu.

**Customize workstation**

---

**Enter Password : \_\_\_\_\_**

F3=Exit

SETUP

### **Customize Workstation Password Request**

**Notes:** To remove this password protection, select the *Config password* option again and delete the existing password then press F3. Should you forget the password, use the special function "Clear CMOS SRAM Data" (see section 2.6) to clear the requirement for a password. If this is done, all setup values must also be respecified.

## 2.3 Define an additional ENTER key

This option allows you to program a second Enter key on the keyboard. When you press the Enter key for this option, you will see a keyboard layout with the symbol 'X' in each position that cannot be changed, and a blank box  in each position that can be changed into a second Enter key. The solid box  shows the current position of the Enter key. Press the key that you want to map as a second Enter key, and press the F3 key to store and exit.

122-Key Keyboard:

**Define an additional ENTER key**
More: +

```

XXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXX

XX XXXXXXXXXXXXXXXXXXXX   X   XXX   XXXX
XX X XXXXXXXXXXXXXXXXXXXX   XXX   XXXX
XX X XXXXXXXXXXXXXXXXXXXX    X   XXXX
XX X XXXXXXXXXXXXXXXXXXXX   X   XXX   XXX 
XX X   X       X           X      X   XX
    
```

F3=Save and Exit

SETUP

Enhanced Keyboard:

**Define an additional ENTER key**
More: +

```

X   XXXX   XXXX   XXXX   XXX
XXXXXXXXXXXXXXXXXXXXX   X   XXX   XXXX
X XXXXXXXXXXXXXXXXXXXX   XXX   XXXX
X XXXXXXXXXXXXXXXXXXXX    XXXX
X XXXXXXXXXXXXXXXXXXXX   X   X   XXXX
X   X       X           X      XXX   XX
    
```

F3=Save and Exit

SETUP

## 2.4 Printer Configuration

From the Main menu, select this option and move the cursor to select the printer configuration and press the Enter key.

When you attach a printer to your display station and you are not using Host Print Transform, you must select the printer type and translation table. Move the cursor to the desired printer and press the Space Bar to select the printer.

The available selections are IBM Graphics (same as Proprinter), IBM Laser (HP Mode), HP Laser, EPSON FX/LQ, OKIDATA 321, 19X/29X/39X (IBM Mode), Panasonic KX-P109X (IBM Mode), and Others.

Press the **F10** key to enter the Printer support screen.

Printer configuration		More: +
Move cursor to desired choice, then press SPACE BAR to select.		
Printer type :	<b>IBM Graphics printer</b>	IBM Laser Printer, HP Mode
	EPSON FX Printer	HP Laser printer
	EPSON LQ Printer	Panasonic KX-P109X, IBM Mode
	OKIDATA 321, IBM Mode	OKI 19X/29X/39X, IBM Mode
	Other Printers	IBM Laser Printer, PPDS Mode
EBCDIC to ASCII translation table select :		
	<b>IBM character set</b>	NON-IBM Character set
F3=Save and Exit		F10=Printer support
SETUP		

### Printer Configuration Panel

#### Printer support

The Printer support screen is where you can choose the transparent mode lead and end characters, create a custom EBCDIC-ASCII character conversion, power on sequence, and select drawers.

You can edit the codes required by the host system to properly output on your printer. Enter the required codes on the screen. Editing these codes is required only if the printer output is not to desired specifications.

Make any necessary changes and press the F3 key to store.

If you want to delete codes of the cursor position, press the Delete key or F4 key.

Use the F12 key to cancel codes you just entered, and restore the original codes to screen.

<b>Printer support</b>		More: ++
Transparent Mode Sequences :	LEAD Code .... <u>6A</u> <u>79</u> (   ` ) END Code .... <u>5B</u> _ ( \$ )	
Customize EBCDIC to ASCII Conversion :		
(EBCDIC – ASCII) : ( _ - _ ), ( _ - _ ), ( _ - _ ), ( _ - _ ) ( _ - _ ), ( _ - _ ), ( _ - _ ), ( _ - _ ) ( _ - _ ), ( _ - _ ), ( _ - _ ), ( _ - _ )		
Power on Sequence .... _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _		
Select Drawer 1 .... _ _ _ _ _ _ _ _		
Select Drawer 2 .... _ _ _ _ _ _ _ _		
Select Drawer 3 .... _ _ _ _ _ _ _ _		
F3=Save and Exit      F4=Delete      F12=Cancel		
<b>SETUP</b>		

### Printer Support Panel

**\* Transparent Mode LEAD Code and END Code:**

This feature allows you to control your PC printer features that do not correspond to the emulated IBM models. An example would be to print bar codes on a printer that has a bar code mode.

Enter the lead and end codes that you wish to use to send with the printer codes from the host to enable or disable the special functions. You may use any characters you want, subject to the limitation below. You may use either 1 or 2 lead or end characters, however, we recommend the use of 2 lead characters and either 1 or 2 end codes, so as not to enter transparent mode in error. The codes you choose for the lead and end codes are shown next to their HEX equivalents.

Valid codes begin at HEX 40. Any character below HEX 40 is reserved as an attribute or a 5250 control character and therefore cannot be changed.

To use the PC printer enhanced functions from your AS/400, add the hex codes from your printer manual into the file that you want to print. In the example below, '| 7' is the lead code and '\$' is the end code.

*Example:* For example, character string includes  
 | 7 1B 41 0C \$ .( 6A 5F F1H C2H F4H F1H F0H C3H 5BH )  
 the printer emulation program will automatically take out  
 F1H C2H F4H F1H F0H C3H ( without the header '| 7' and end '\$' )  
 and pack every two bytes into one byte  
 ( F1H C2H -> 1BH; F4H F1H -> 41H; F0H C3H -> 0CH )  
 and then send those three bytes '1BH 41H 0CH' to the printer.

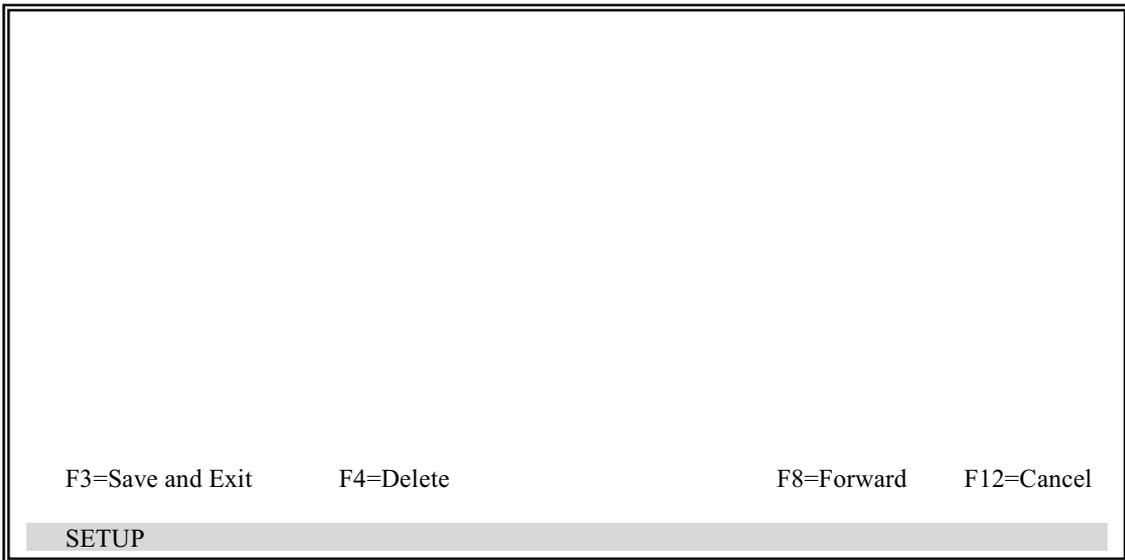
**\* Customize EBCDIC to ASCII Conversion (from EBCDIC change to ASCII):**

This item allows you up to twelve sets of customized printer codes.

The first code shows the EBCDIC hexadecimal value of the character to be changed. The second code shows the ASCII hexadecimal value of the character to be changed.

**Note:** *The table starts at HEX 40. Any character below HEX 40 is reserved as an attribute or a 5250 control character and therefore cannot be changed.*

**Other Printers:**



**Printer Support Screen**

If you selected 'Other printers' type, use the F8 key to page forward to the next screen (Other printers support screen). The table shown below provides the rules for entering data in these screens. In Other printers support screen, press the F7 key to page backward to the last screen.

The Other printers support screen is where you can choose the printer quality (Draft/Letter), character height (Standard/Double), lines per inch (3/4/6/8/ LPI), character per inch (5/8.5/10/12/15/17 CPI), LPI to nn/72 inch, nn lines per page, proportional space, superscript, subscript, bold print mode, underline, landscape mode, and portrait mode.

**Note:** *You must enter a printer code in each position without any spaces between the codes. If you enter a wrong code in any position, move the cursor to the wrong code and enter the correct code.*

Printer Support		More: ++
Printer quality :	Draft .... <input checked="" type="checkbox"/>	-----
	Letter ....	-----
Character height :	Standard ....	-----
	Double ....	-----
Lines per inch :	3 LPI ....	-----
	4 LPI ....	-----
	6 LPI ....	-----
	8 LPI ....	-----
Characters per inch :	5 CPI ....	-----
	8.5 CPI ....	-----
	10 CPI ....	-----
	12 CPI ....	-----
	15 CPI ....	-----
	17 CPI ....	-----
	* LPI to nn/72 inch ....	-----
	* nn lines per page ....	-----
	* : Enter "FF" if nn is HEX , "FE" if nn is ASCII Character.	
F3=Save and Exit      F4=Delete      F7=Backward      F8=Forward      F12=Cancel		
SETUP		

### Other Printers Support Panel.A

Printer support		More: ++
Proportional Space :	On .... <input checked="" type="checkbox"/>	-----
	Off ....	-----
Superscript :	On ....	-----
	Off ....	-----
Subscript :	On ....	-----
	Off ....	-----
Bold print mode :	On ....	-----
	Off ....	-----
Underline :	On ....	-----
	Off ....	-----
	Landscape Mode ....	-----
	Portrait Mode ....	-----
F3=Save and Exit      F4=Delete      F7=Backward      F12=Cancel		
SETUP		

### Other Printers Support Panel.B

**\* Control Code to set the LPI to nn/72 inch - Not needed with AS/400**

This string needs to be completed only if you will be printing Display Write/36 or other word processing documents; otherwise it may be left blank. The display program needs to compute various increments of 1/72 (nn/72) line spacing when supporting some word processing output. Therefore, the program must know whether the variable 'nn' in the printer string for nn/72 lines per inch should be an ASCII character or a hexadecimal value. Locate the printer control string for nn/72 of an inch line spacing. If the variable 'nn' is an ASCII character, then enter a constant "FE" in the 'nn' value. If the variable 'nn' is a hexadecimal value, then enter a constant "FF" in the place of the 'nn' in the string.

*Example:* Actual printer control string for nn/72 inch line spacing: 1B 26 6C nn 43

If the 'nn' value is to be a hexadecimal, enter the string as: 1B 26 6C FF 43

If the 'nn' value is to be an ASCII character, enter the string as: 1B 26 6C FE 43

**\* Control Code to set the Page Length (nn lines per page)**

The program must know whether the variable 'nn' in the printer string for page length should be an ASCII character or a hexadecimal value. Locate the printer control string for page length spacing. If the variable 'nn' is an ASCII character, then enter a constant "FE" in the 'nn' value. If the variable 'nn' is to be a hexadecimal value, then enter a constant "FF" in the place of the 'nn' in the string.

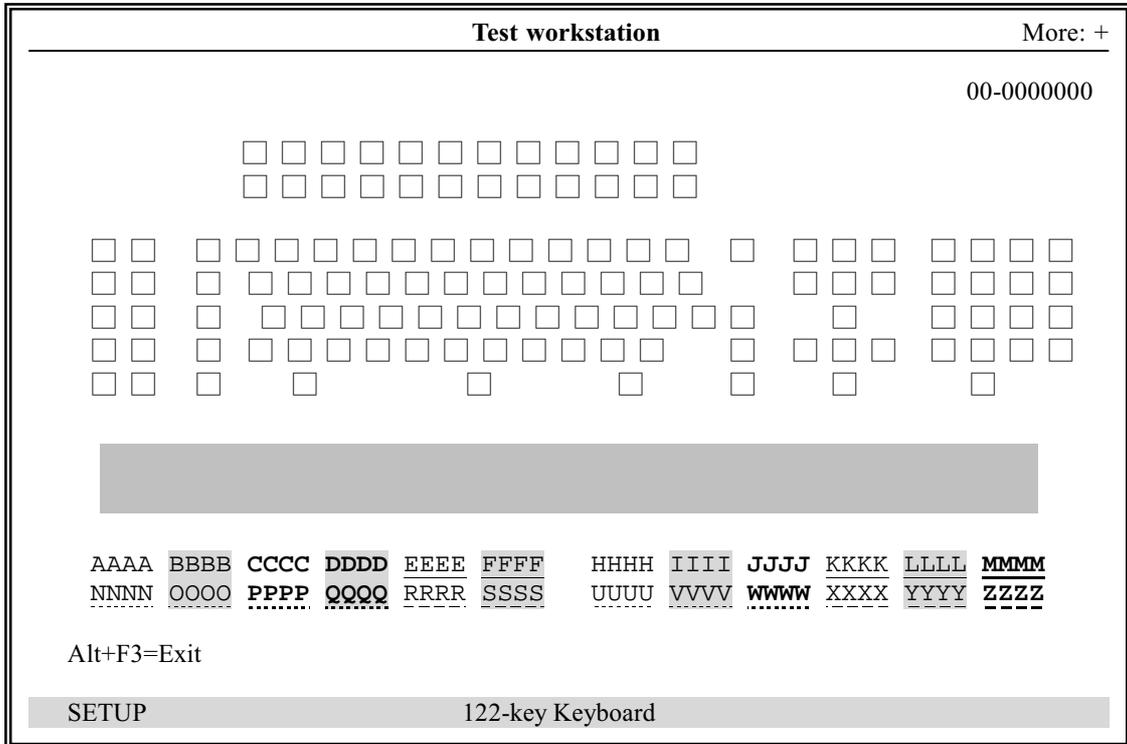
*Example:* Actual printer control string for page length spacing: 1B 26 61 nn 56

If the 'nn' value is to be a hexadecimal, enter the string as: 1B 26 61 FF 56

If the 'nn' value is to be an ASCII character, enter the string as: 1B 26 61 FE 56

## 2.5 Test Workstation

This function can be used to check the keyboard functions. By pressing any key on the keyboard, the equivalent key shown on the screen change from  to , or vice versa.



### Test Workstation Panel

The bottom of this screen shows the various display attributes. Between the keyboard and the field displays, the EBCDIC character set is displayed on three lines.

## 2.6 Special Functions

The following special functions are available with the ET2000 in Offline setup mode.

### **Flash Update**

The ET2000 firmware may need to be updated to a later revision. If a TFTP server on the network is available and setup for this purpose, a "flash" firmware update can be performed. This update preserves the current configuration data, only the firmware is updated. *See Appendix D for AS/400 TFTP setup.*

At the initial Offline Setup menu (before any other setup activity) and with the Network settings setup including the TFTP server address press: **Alt+F1**

*Note: To "downgrade" the firmware version, press **Alt+F10** instead of **Alt+F1**. When **Alt+F10** is used, no check of the version number is made; otherwise New Version must be greater than Current Version.*

When Flash update starts, the message "Loading TFTP server - Please Wait" may be temporarily displayed then the screen below. Other error displays are described below.

```

                                     ET2000 FLASH ROM Update

Current version: 01.20.01.12
Update version : 01.22.01.12

*****

+-----+
|               *** attention ***               |
| DO NOT TURN OFF DURING UPDATE                 |
| THIS UPDATE WILL TAKE 30 SECONDS              |
| TO 15 MINUTES TO COMPLETE                     |
+-----+

+-----+
|               UPDATE COMPLETE                  |
| PLEASE POWER TERMINAL OFF AND ON NOW          |
+-----+
```

The Current and Update firmware version numbers are shown. The line of \*'s is a progress bar which is highlighted as the update progresses. When the update completes, the message to that effect is displayed. Some updates will only cause the progress bar to advance 50%, then the "update complete" message is displayed. Turn power off then on to continue with the new firmware.

If no TFTP IP address or name is defined, the following message is displayed:

```
+-----+
| IP address not assigned. |
+-----+
```

Configure a TFTP address or name and retry.

If any Offline configuration was performed before pressing **Alt+F1** at the Offline Menu screen, the following message is displayed:

```
+-----+
| FLASH UPDATE NOT ALLOWED NOW. PLEASE |
| POWER OFF/ON AND TRY AGAIN.         |
|                                     |
| Press any key to continue           |
+-----+
```

When FLASH Update starts, but there is a network address problem, the following message is displayed:

```
+-----+
| FLASH UPDATE FAILED BECAUSE:        |
| TFTP SERVER NOT FOUND, NOT SETUP    |
| OR /ET2000/ETFLASH.UPD NOT FOUND.  |
+-----+
```

Specifically this message means either: TFTP server is not active, Files are in wrong directory, ETFLASH.UPD is not in \ET2000 directory, TFTP server is not specified in setup or by DHCP. Power Off/On to restart.

If one of the firmware (ROM) update files is missing from the \ET2000 directory, the message below is posted:

```
+-----+
| FLASH FILE ETROM*. * NOT FOUND      |
| FLASH UPDATE FAILED -PLEASE TRY AGAIN|
+-----+
```

The named file (ETROM\*.\*) was not found. Correct the problem and power Off/On to try again.

If there was an error in the update process (file transfer error), you will see the following:

```
+-----+
| FLASH UPDATE FAILED -PLEASE TRY AGAIN|
+-----+
```

Power Off/On to try again.

If the ET2000 is already at the latest version, the message below is displayed:

```
+-----+
| UPDATE VERSION IS THE SAME OR OLDER |
| THAN ORIGINAL.                      |
+-----+
```

Power Off/On to restart.

## **Change Ethernet MAC Address**

At the Display Ethernet MAC Address screen, press **Alt+Shift+F8**. Enter the new MAC address then press Enter and F3 to exit to the Offline Setup menu.

*Only under direct instruction from network management should this function be attempted!*

## **Clear CMOS SRAM Data**

If the memory that holds most of the setup and working parameters becomes corrupted, as may be possible if a power spike gets into the unit, it may be required that this memory be totally reset. Any passwords will also be cleared.

To clear the CMOS SRAM Data, power on the unit and immediately hold down (two hands) the following four keys: **Reset+Tab+Delete+F12**. If successful, the message "Selection have been reset to the default values" is displayed - press the Space Bar to enter Offline Setup.

Proceed to Offline setup to reconfigure the system.

## **Lockout User Setup**

User can be prevented from entering both Online and Offline Setup. To enter this "Lockout mode", hold down **Alt+Space** then press **F9** after Power is turned on. This will put you in Offline Setup mode with the Lockout set.

With Lockout set, a user will be unable to enter Offline Setup by pressing **Space** when the unit is powered on. In Online operation, the SetUp key will be disabled. The "key" symbol will be displayed following the session number on the status line to indicate Setup Lockout.

To remove Setup Lockout, power on the unit, hold down **Alt+Space**, then press **F12**.

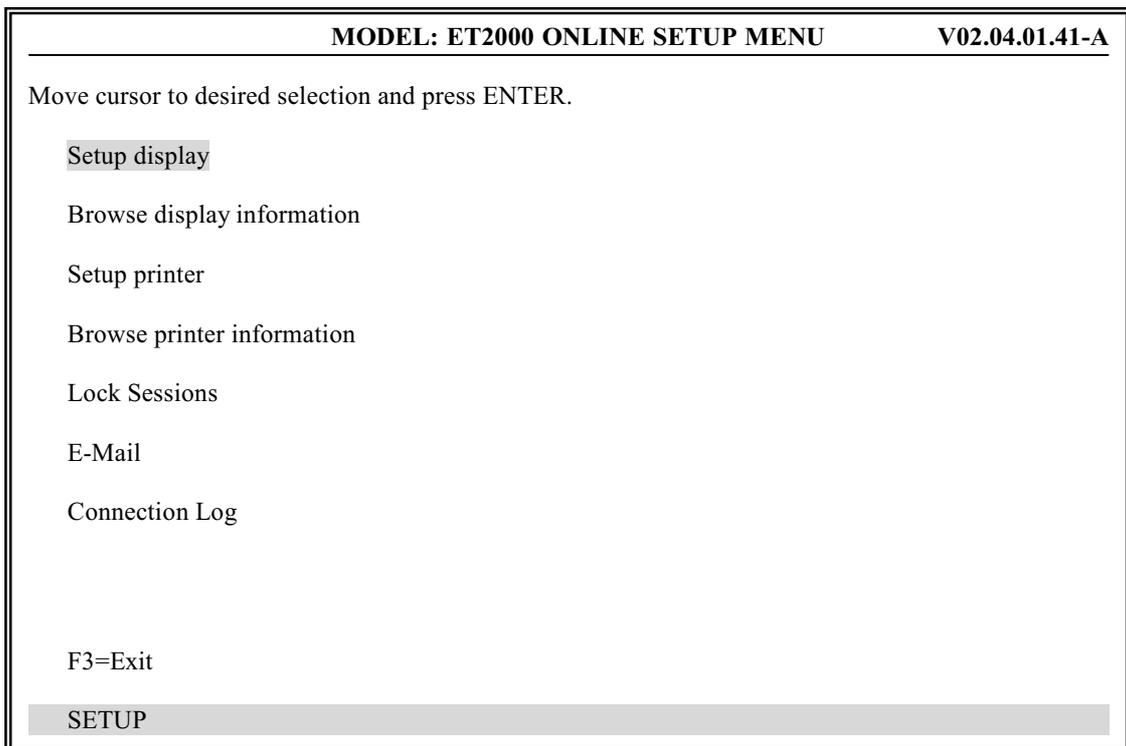
## Chapter 3. Online Setup

---

Set the power switch to on. The display station will connect to the host system automatically. Press the **SetUp** key to enter the Online Setup menu screen.

There are six selections on this screen - Setup Display, Setup Printer, Browse Display Information, Browse Printer Information, Lock Sessions, E-Mail functions, and Connection Log.

Use the cursor key to select each function, and press the Enter key to enter the selected function. Press the **F3** key or **SetUp** key to quit the Online Setup menu.



**Online Setup Menu Panel**

### 3.1 Setup display

Setup display allows you to configure various display and keyboard options. You will see twelve selections: Alarm volume, Clicker volume, Clicker action, Cursor style, Cursor blink, Rule style, Rule follow cursor, Auto dim, Row/Column indicator, Extended display, Background color (Color monitor), Reverse image (Monochrome monitor), Keyboard buffer, and Hot-key method.

Setup display							More: +
Move cursor to desired choice, then press SPACE BAR to select.							
Alarm volume.....	<b>Off</b>	1	2	3	4	<b>5</b>	Flash
Clicker volume.....	Off	1	2	3	4	<b>5</b>	
Clicker action.....	<b>On</b>				Off		
Cursor style.....	<b>Block</b>						Underline
Cursor blink.....	Yes						<b>No</b>
Rule style.....	Horizontal		Vertical				<b>Cross</b>
Rule Follow cursor.....	<b>Yes</b>						No
Auto dim.....	<b>Off</b>	2	5	10	20	20(Power Saver)	
Row/Column indicator.....	<b>On</b>				Off		
Extended display.....	On				<b>Off</b>		
Background color.....	On				<b>Off</b>		
Keyboard buffer.....	<b>On</b>				Off		
Hot-key method.....	Menu				<b>Circle</b>		
F3=Save and Exit				F8=Forward			
SETUP		Enhanced Keyboard					

#### Setup Display Panel (Color Monitor)

Move the cursor to the desired setup values/parameters and press the Space Bar for each selection. The selected values/parameters will be highlighted.

\* Alarm volume ( Off / 1 / 2 / 3 / 4 / 5 /FLASH)

The user can adjust the alarm volume including Off.

FLASH causes the screen to flash in reverse video when an alarm occurs.

\* Clicker volume ( Off / 1 / 2 / 3 / 4 / 5 )

Clicker action ( On / Off )

The user can turn On/Off and adjust the volume of the audible clicker.

\* Cursor style ( Block / Underline )

\* Cursor blink ( Yes / No )

The user can change the style and blinking state of the cursor.

\* Rule style ( Horizontal / Vertical / Cross )

\* Rule follow cursor ( Yes / No )

You can change the attributes of the rule line: style and whether the rule follows the cursor.

- \* Auto dim ( Off / 2 / 5 / 10 / 15 / 20 / 20 Power Saver )  
The screen becomes blank with only the status line visible when the user does not press a key, or the display station does not receive any data from the host, in the specified time (values in minutes). If Power Saver is selected, the screen will be totally blank after 20 minutes of inactivity.
- \* Row/Column indicator ( On / Off )  
When turned On, the current row (R) and column (C) numbers are displayed in the right of the operating status line as R/C.
- \* Extended display ( On / Off )  
The default is Off. Set to On to display screen attributes codes on the screen.
- \* Background color ( Black / Blue / Red / User Define) -- Color Monitor  
The user can select either of four background color: black, blue, red, or 'User Define'. You may use Color Palette to adjust the background color.
- \* Reverse image ( On / Off) -- Monochrome Monitor  
The user can select either of two screen images: ( On ) light text on dark background, or ( Off ) dark text on light background.
- \* Keyboard buffer ( On / Off )  
When turned On, up to 32 keystrokes can be buffered and played back as the system can accept them.
- \* Hot-key method ( Menu / Circle )  
The Hot-key method determines how the user can jump between sessions. When Circle is selected, only the keys **Alt+Jump** can be used to cycle between active display sessions.  
If Menu is selected, **Alt+d** (where d = session number from numeric pad) can be used to jump to a specific display session. Note that Alt+Jump will still cycle between sessions.

If you press F8 key, you will enter the following screen:

Setup display		More: +
Move cursor to desired choice, then press SPACE BAR to select..		
Color Mapping :		
Red.....	<b>Red</b> Green Blue Yellow Turquoise Pink White	
Green.....	Red <b>Green</b> Blue Yellow Turquoise Pink White	
Blue.....	Red Green <b>Blue</b> Yellow Turquoise Pink White	
Yellow.....	Red Green Blue <b>Yellow</b> Turquoise Pink White	
Turquoise....	Red Green Blue Yellow <b>Turquoise</b> Pink White	
Pink.....	Red Green Blue Yellow Turquoise <b>Pink</b> White	
White.....	Red Green Blue Yellow Turquoise Pink <b>White</b>	
Column Separator Type ( <u>ABCDE</u> )	..... <b>Off</b>	<b>Type 1</b> Type 2
Overscan Display.....	<b>Off</b>	On
Character Font Style.....	<b>Type 1</b>	Type 2
F3=Save and Exit                      F7=Backward                      F8=Forward		
<b>SETUP</b>		



## 3.2 Browse display information

The Browse display information screen shows the following information about the display: Language, Character set, Connect Retry option, and Session Configurations.

<b>Browse display information</b>				More: +
Language : U.S. English ( Country Specific )				
Connect Retry : No Retry				
Session1 :	TN0402	TN5250 display	10.1.1.201	23
Session2 :	TN0403	TN5250 display	10.1.1.201	23
Session3 :	TN0003P	TN5250 printer	10.1.1.201	23
Session4 :		Inactive		
F3=Exit				
SETUP				

### **Browse Display information Panel (Example)**

The Language and Character set (shown in parenthesis) are configured in Offline Setup (Language Option).

The Connect Retry option (No Retry or 5, 10, 30 minutes) is set in Offline Setup (Customize Workstation - Session Setup).

For the four (4) sessions configured in Offline Setup (Customize Workstation), the settings and status of each session is displayed:

Session#:	Name	Emulation	Display/Printer	Host-address	Port#
-----------	------	-----------	-----------------	--------------	-------

Example:

Session1:	TN0402	TN5250	display	10.1.1.201	23
-----------	--------	--------	---------	------------	----

If the session is not active, the word "Inactive" is displayed.

### 3.3 Setup printer

The Setup printer option allows you to set various printer parameters. You will see eight selections: Lines Per Inch, Characters Per Inch, Print Quality, Character Height, Sheet Feeder, Source Drawer, Buffer Print, and Print Key.

Move the cursor to the desired setup value/parameter and press the Space Bar for each selection. The selections are highlighted.

Setup printer								More: +
Move cursor to desired choice, then press SPACE BAR to select..								
Line per inch.....	<b>System</b>	3	4	<b>6</b>	8			
Character per inch.....	System	5	8.5	<b>10</b>	12	15	17	PS
Print quality.....	System	<b>Draft</b>			Letter			
Character height.....	<b>Standard</b>						Double	
Sheet feeder.....	Yes							<b>No</b>
Source drawer.....	System	<b>1</b>		2		3		
Buffer print.....	Yes							<b>No</b>
Print key.....	<b>System</b>							Local
F3=Save and Exit								
<b>SETUP</b>								

#### Setup Printer Panel

The printer setup values/parameters are:

\* Lines per inch ( System / 3 / 4 / 6 / 8 )

You can select the number of lines printed per inch.

If **System** is selected, the host system specified the Lines per inch.

\* Character per inch ( System / 5 / 8.5 / 10 / 12 / 15 / 17 / PS )

You can select the number of characters printed per inch. PS stands for Proportional Space.

If **System** is selected, the host system specifies the character pitch.

\* Print quality (System / Draft / Letter )

The Draft selection sets the printer into draft mode; the Letter selection sets the printer into letter quality mode. If **System** is selected, the host system specifies the Print quality.

\* Character height ( Standard / Double )

The user can select two character heights : Standard or Double.

\* Sheet feeder ( Yes / No )

\* Source drawer ( System / 1 / 2 / 3 )

The **No** selection means that the printer does not support cut sheet feeder drawer changing.  
If **Yes** selected, you can select the number of source drawer.

\* Buffer print ( Yes / No )

If the printer is not ready (the Printer ready indicator is off) and the System available indicator is on, you can turn on the Buffer print indicator to have the printer print out the received data directly (in the directly printing out mode).

\* Print key ( System / Local )

The 'System' selection allows the host system to directly address the printer if a print session was configured. The 'Local' selection allows the operator to determine when to print by pressing the Print key, the printer is not addressed by the host system in this mode, and does not use a Printer Session.

### **System Screen Data Print**

Assumption: You have data displayed that is ready to be printed. You want to use the system designated printer.

**Note:** *The function of the Print key can be defined by the host application program.*

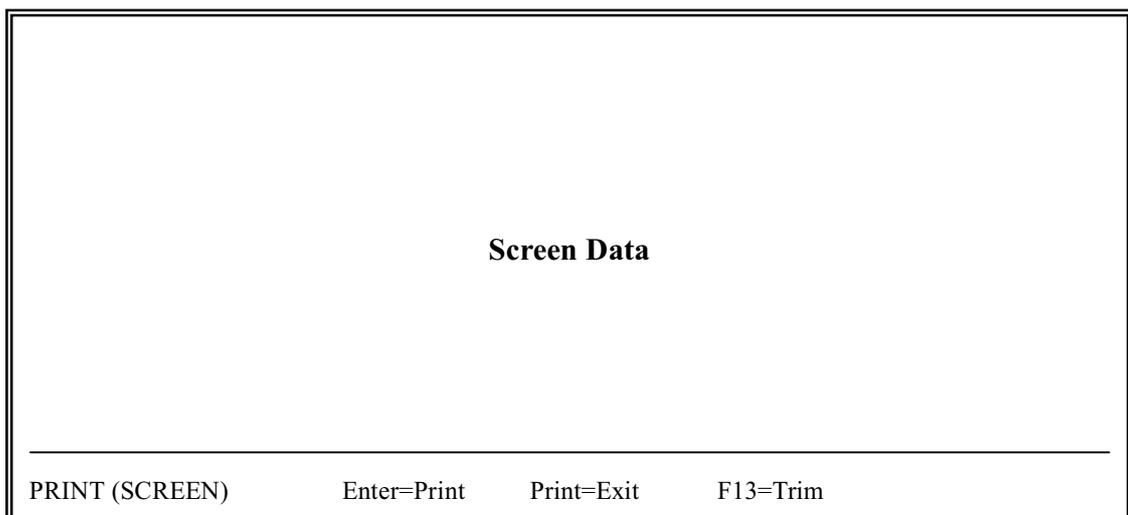
Pre-select the 'System' parameter in the 'Print key' on the Setup Printer panel.

1. Press the Print key. The terminal sends a screen print request to the host.
2. The system designated printer will start printing.

### **Local Screen Data Print**

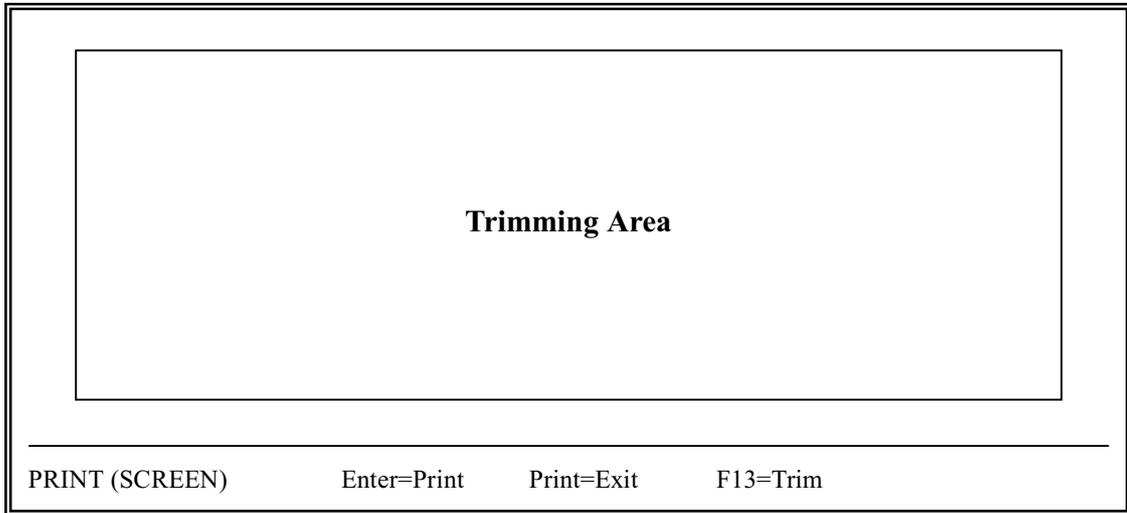
Set the 'Print key' parameter is set to 'Local'. To print the screen data, follow the steps below.

1. Press the Print key to enter print mode. The following messages appear at the bottom of the screen.



**Local Screen Print Panel**

2. If the following screen is displayed, press the F13 key to return to the screen data panel shown above.



### **Local Trim Print Panel**

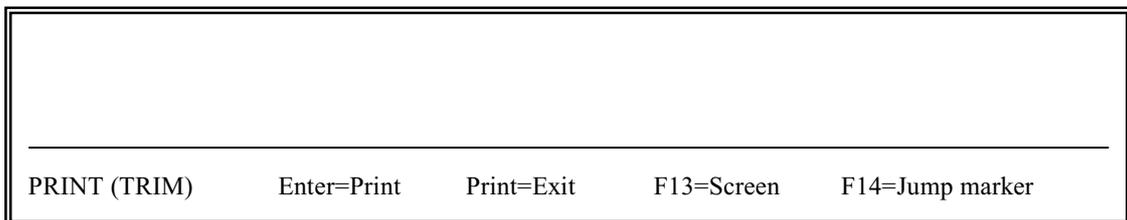
3. Check the indications on the bottom line.  
If a      is displayed, make sure that the printer is securely connected to the terminal and the printer power switch is set to On. If a      is displayed, the attached printer is ready to print.
4. Press the Enter key. The entire screen data will be sent to the attached printer and starts printing.

### **Partial Screen Data Print**

Assumption: You have data displayed that is ready to be printed. You want to print a part of the screen data.

1. Press the Print key to enter print mode. The following messages and trimming rectangle appear.

If the displayed screen is other than the panel shown below, press the F13 Key to return to the trimming panel.



### **Local Trim Print panel**

2. Check the indications on the bottom line.  
If a      is displayed, make sure that the printer is securely connected to the terminal and the printer power switch is set to On. If a      is displayed, the attached printer is ready to print.

3. The data within the trimming area can be printed. If you want to change the trimming area, move the Trim Marker (box cursor at upper left corner) using the cursor move keys. If the cursor is moved to the right, the width gets smaller.

If the cursor is moved downward, the depth gets smaller. If you want to move the Trim Marker from the upper left corner to the lower right corner, press the F14 key.

4. When you complete the trimming area definition and want to print the data, press the Enter key. The attached printer starts to print.

### 3.4 Browse printer information

The Browse printer information screen gives you the following information about the printer:

Configured Printer Session Parameters - Printer Name, Host address, and Host Print Transform (Yes or No). If no print session with the host has been configured, the parameters are blank.

The local attached printer type (from Printer Configuration).

Printer status indicators: System available, Printer ready, Buffer print, Graphic check, and Paper out. If an indicator is ON, the indicator box is filled in.

Browse printer information		More: +
Printer name :		
Host :		
Host Print Transform :		
Local Attach Printer Type : IBM Graphics Printer		
<b>INDICATORS :</b>		
<input type="checkbox"/> System available	<input type="checkbox"/> Printer Ready	
<input type="checkbox"/> Buffer print	<input type="checkbox"/> Graphics check	
<input type="checkbox"/> Paper out		
F3=Exit		
SETUP		

#### Browse Printer Information Panel

#### Cancellation of Print Operations

The operator can cancel the print request by performing the following steps:

1. Press the SetUp key to enter the Online setup menu screen.
2. Move the cursor to 'Setup printer' or 'Browse printer information' using the cursor move keys and press the Enter key. The " Quit=Print cancel " appears on the screen.
3. Press the Quit key (**Alt+Reset**). The cancel request will then be accepted. The printer will continue printing data that was sent to the printer buffer.
4. Press the SetUp key again to exit setup mode.

### 3.5 Lock Sessions

This option allows you to lock the ET2000 to protect the current state of your display session from viewing or modification while the terminal is unattended. When locked, a password is required to proceed from this locked state. You define the password which can be from 1 to 10 characters in length (not case sensitive).

If a password has been defined, the Lock Sessions option screen is as shown below:

<b>Lock Sessions</b>		More: +
Move cursor to desired selection and press ENTER.		
Lock Sessions		
Modify Password		
F3=Exit		
SETUP		

If Modify Password is selected or if no Password has been defined, the screen below requests entry and verification (enter twice) of a password.

<b>Lock Sessions</b>		More: +
Lock Sessions		
Modify Password		
<b>Specify password twice then press ENTER</b>		
Password: _____		
Password: _____		
F3=Exit		
F11=Clear Password		
SETUP		

When Lock Sessions is selected, the "lock" screen is displayed. Enter your password to continue. Online Setup will exit.

<b>Lock Sessions</b>		More: +
<b>Lock Sessions</b>		
Modify Password		
The session is locked now! Please enter password to unlock!		
Password: _____		
F3=Exit		
<b>SETUP</b>		

### 3.6 E-Mail

The E-mail option provides an "ultra-lite" E-mail function. When configured, the user may send/receive mail. The screen below is displayed when E-Mail is selected.

**Work with E-Mail**

---

Move cursor to desired selection and press ENTER.

**InBox**

OutBox

Account settings

F3=Exit

**E-Mail**

#### **Work With E-Mail**

Before you can send and receive mail, the Account settings must be set.

## E-Mail Account

Work with E-Mail Account	
Move cursor to desired selection and press ENTER.	
User Name	et2000
SMTP server	host.maple400.com
POP3 server(In)	host.maple400.com
E-Mail address	et2000@host.maple400.com
Username	et2000
Password	*****
POP3 server(Out)	host.maple400.com
E-Mail address	et2000@host.maple400.com
Username	et2000
Password	*****
F3=Exit	
E-Mail	

### Work With E-Mail Account (Example)

SMTP : Simple Mail Transfer Protocol. Server <--> Server

POP3 : Post Office Protocol. Send/Receive messages

**\* User Name (Optional)**

The sender field for any mail you send. If blank, your full E-mail address will be displayed in the sender field. For example : enter "et2000" for "et2000@host.maple400.com"

**\* SMTP server**

The SMTP server is the mail server which supports the Simple Mail Transport Protocol and is used to transmit email which you are sending. This value is normally the same as your POP server.

**\* POP3 server (General explanation)**

The POP server is the mail server which supports the Post Office Protocol (POP3) and is the server which hosts your mail account(s). This value may be entered as the fully qualified domain name (DNS server required) or an IP address. This value is normally the same as your SMTP server.

**\* POP3 server (IN)**

This is the mail server which host your mail account. For example if your administrator assigned you the mail address : et2000@host.maple400.com, then enter host.maple400.com in this field.

**\* E-mail address**

Your complete E-mail address. For example : et2000@host.maple400.com.

**\* Username**

The user ID for this mail account which you use to authenticate to the POP3 server when retrieving mail.

**\* Password**

The password for this mail account which you use to authenticate to the POP3 server when retrieving mail.

**\* POP3 server (OUT)**

This is the mail server which will store your out going mail. For example if your administrator assigned you the E-mail address : et2000@host.maple400.com, then enter host.maple400.com in this field. See the special note below :

***NOTE:** The ET2000 can not store E-mail which you send to others and therefore must have a mail account to keep your "sent" mail. Your E-mail administrator can setup a special E-mail account for you such as et2000@host.maple400.com to allow you store the mail which you send to others. The ET2000 will automatically "copy" all mail you send to this account so you have a record of your outgoing mail. If you use the same E-mail account for both "in" and "out" mail, no copy will keep of your outbound mail.*

**\* E-mail address**

Your complete E-mail address. For example : et2000@host.maple400.com.

**\* Username**

The user ID for this mail account which you use to authenticate to the POP3 server when retrieving mail.

**\* Password**

The password for this mail account which you use to authenticate to the POP3 server when retrieving mail.

## **In/Out Box**

<b>Work with E-Mail In Box</b>		
Move cursor to desired selection and press ENTER.		
Form	Subject	date
<hr/>		
F3=Exit    F4=New    F5=Reply    F6=Forward    F7=Reset    F8=Delete    F9=Checkmail F12=Toggle Mailbox		
<hr/>		
E-Mail		

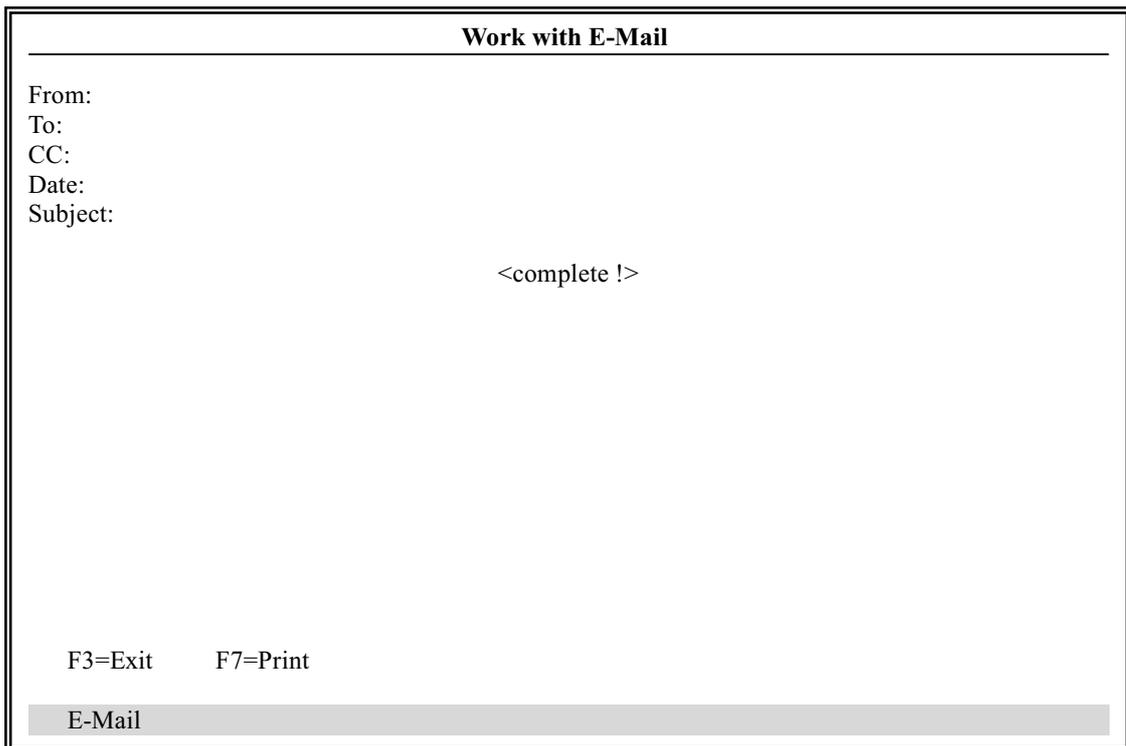
## **Work With In Box**

<b>Work with E-Mail Out Box</b>		
Move cursor to desired selection and press ENTER.		
Form	Subject	date
<hr/>		
F3=Exit    F4=New    F5=Reply    F6=Forward    F7=Reset    F8=Delete    F9=Checkmail F12=Toggle Mailbox		
<hr/>		
E-Mail		

## **Work With Out Box**

- F3=Exit      Exit. Any messages marked for deletion (by **F8**) will be deleted.
- F4=New      Start entry of new message (see following)
- F5=Repl;y    Reply to selected message
- F6=Forward   Forward selected message
- F7=Reset    Remove any mail deletion marks set by **F8**
- F8=Delete    Mark the selected message for deletion
- F9=CheckMail   Press **F9** to get list of In/Out mail.
- F12=Toggle Mailbox   Switch between In and Out boxes.

To get and see existing mail, press F9 (mail is not received automatically). To read mail, move the cursor to a mail entry and press ENTER. You can Scroll/Page up or down to see multiple pages. The screen below shows the display of an example message. For multiple page messages, Scroll/Page up or down



**Message Display (Example)**

## **New (F4)**

<b>Work with New E-Mail</b>	
Use Tab Key to move Cursor	
To	<u>test@host.maple400.com</u>
CC	_____
Subject	<u>Test Message</u>
This is a test message. Use the Field Exit key to start a new line. █ ==== Bottom ====	
F3=Exit    F4=send and Exit    F5=Delete Line	
E-Mail	

**New message Screen (Example)**



## Chapter 4. Online Operation

---

Online terminal mode starts after a normal Power On or on exit from Offline setup. The display screen is formatted into a display area and a status line at the bottom (see **Display and Operation** below). Connection to the host is first established and when a display session (one or more) is connected you see a normal Host display screen.

The data area receives data from your keyboard, the host system, or messages from the ET2000. It can display 24 lines of 80 characters (1920 characters) or 27 lines of 132 characters (3564 characters). The format depends on the host application program sending the display data.

You can setup the display and printer, or look at the session definitions, the printer status or the Connection Log by pressing **SetUp** (see Chapter 3). Note: Pressing **SetUp** does not affect any current terminal activity and on exit from this mode the original display is restored.

### Host Connection

Various connection messages are displayed as the Host sessions are established. In these messages described below, the name *HostID* stands for the IP address or the fully qualified host name, whichever is specified for the session Host address. Loss of connection with the Host will also cause a message to this effect to be displayed.

If there are no active sessions configured when the unit is powered on and enters Online mode, the following message is displayed:

```
+-----+
| There is no active session. |
| Go into Offline Setup to configure |
| a session. |
+-----+
```

Turn power off then on with the Space Bar held down to enter Offline Setup and configure an active session.

If only a Printer Session is configured (no display sessions), the message

#### **Printer Session Mode - Press SETUP for status.**

is displayed when that session is successfully connected to the host. You may press **Setup** and **Browse Printer Information** to check printer status or **Connection log** to check the connection.

With active display sessions configured, when online mode starts (Power on or exit from Offline setup) various "connection" messages are displayed for each active display session.

These messages are described below. Note: In the messages, **HostID** = IP address or fully qualified host name; whichever is specified for the session's Host address.

#### **Loading DHCP server, please wait ...**

- If in Offline setup the Network configuration specified DHCP=Yes, this message will be briefly displayed while the DHCP server is detected and parameters are retrieved. If this message is displayed for more than a few seconds, there is a problem with this process and a connection "failed" message may be forthcoming.

#### **Connecting to Host ( HostID ) .....**

- Some 5-20 seconds delay depending on network. This message will display for a longer time while TCP/IP retries are attempted on a failing session.

- After successful connection a Sign On screen is displayed and the message **Connecting to Host( HostID ) successful** is placed in the Connection Log for all successfully connected sessions.

Printer session note: If the attached printer is not Ready (press **SetUp** and select **Browse Printer Information** to check status) when the unit is powered on, no print session connection is attempted and no messages are logged. Power on the printer and place on-line to start the connection.

The following table list the exception messages that can occur. Press **SetUp** and select **Connection Log** to see more detailed information about the connection process and posted messages for all sessions.

<b>ET2000 Connection Exception Messages</b>
<p><b>Ethernet cable is disconnected. Connecting to Host failed.</b></p> <ul style="list-style-type: none"> <li>● On power-on, no Ethernet connection was detected.</li> <li>● During operation, the Ethernet connection was lost and the Enter key was pressed.</li> </ul> <p><b>Note:</b> 30 second to 3 minutes time out to detect this problem.</p>
<p><b>Host ( HostID ) no response. Connect failed.</b></p> <ul style="list-style-type: none"> <li>● Host (address) not found: undefined IP address or DNS name.</li> <li>● Host address outside of subnet and Gateway address undefined or invalid.</li> </ul>
<p><b>Connecting to Host( HostID ) failed.</b></p> <ul style="list-style-type: none"> <li>● TELNET server not started. (run NETSTAT *CNN, check for Telnet in the Local Port column)</li> <li>● Check Connection Log for DHCP failure.</li> <li>● DNS name resolution error (invalid name - no IP address).</li> <li>● Duplicate IP address found.</li> <li>● Printer Session (see Connection Log): Host needs PTF's to support printer; or causes listed in Log.</li> </ul>
<p><b>Host( HostID ) no response. Time-Out.</b></p> <ul style="list-style-type: none"> <li>● Host stopped responding (physical network disconnect, Host went down). Approximate 10 minutes timeout.</li> <li>● Host subsystem refuses connection due to unacceptable device name. Change (check subsystem name restrictions - WRKSBSD) or delete the session name.</li> <li>● "Destination Unreachable" ICMP message from Router/Gateway. Invalid address outside of local net.</li> </ul>
<p><b>Disconnect by Host ( HostID )</b></p> <ul style="list-style-type: none"> <li>● Too many invalid sign on attempts</li> <li>● Duplicated session name (another terminal with the same name; but different IP address).</li> <li>● Duplicate IP address (bad DHCP or user setup).</li> <li>● Host refused connection: wrong host address specified.</li> <li>● Printer session with Host Print Transform - invalid Printer Model or Message Queue specified. -- after successful connection --</li> <li>● TELNET inactivity timeout. (run CHGTELNA to check timeout, 0 is recommended)</li> <li>● Host operator terminated session.</li> <li>● Telnet Server stopped (run NETSTAT *CNN and check Telnet state).</li> </ul>
<p><b>DHCP failed, using ROM setting. IP address is n.n.n.n</b></p> <ul style="list-style-type: none"> <li>● Displayed only in Connection Log. The IP address used by the terminal was that explicitly specified and not that provided by DHCP. If no valid explicit values were specified, the connection will fail.</li> </ul>
<p><b>IP address conflict with hardware address xx.xx.xx.xx.xx</b></p> <ul style="list-style-type: none"> <li>● Displayed only in Connection Log, user sees <b>Connecting to Host( HostID ) failed</b> message on session screen. The ET2000 specified or assigned (DHCP) IP address is verified (ARP) and a duplicate IP address was found whose MAC address is specified by xx.xx.xx.xx.xx in this message. Respecify IP address.</li> </ul>

<p><b>IP address conflict, Disconnect Host ( HostID ) by ET2000.</b></p> <ul style="list-style-type: none"> <li>● (see above) An ET2000 received an Address Resolution (ARP) request which indicated another unit wants to use its IP address. It disconnects from Host to avoid a Time-Out delay. Resolve IP conflict.</li> <li>● Check that DHCP has IP conflict detection active (recommended state). If not, assigned IP could conflict.</li> </ul>
<p><b>Disconnect Host( HostID ) by ET2000</b></p> <ul style="list-style-type: none"> <li>● User typed <b>Alt+Shift+Delete</b> to disconnect unit from the Host.</li> </ul>
<p><b>xxxxxx: Attached printer powered off. Disconnect host( HostID )</b></p> <ul style="list-style-type: none"> <li>● Printer session (name=xxxxxx) was active and printer was powered off. Session should be re-connected when printer is powered on - <b>Connecting to Host( HostID ) successful</b> posted again. Displayed only in Connection Log.</li> </ul>

### **Reconnect Session**

You may retry to reconnect a failed session. With the failed session screen displayed, press **Alt+Shift+F9** to reconnect the session.

If the session connect failure is the result of a condition that can be corrected at the AS/400 or on the network, this action should be performed first; e.g. Vary Off device, End connection, etc.



## 5250 status line

The status symbols are described in the following table.

Symbol Name	Symbol	Meaning
System Available	■	The host system connected to your display station is operating and available.
Workstation Number	N	Indicates which logical screen is currently active with a number
Message Waiting	■	The symbol (■) Indicates that the host system has one or more messages for logical display station and the display screen for the logical display station is active.
	■x	The symbol (■x) indicates that the host system has one or more messages for logical display station “x” and the display screen for the logical display station “x” is inactive.
Input Inhibit	X	This symbol appears when: <ul style="list-style-type: none"> <li>● The host system is processing your input.</li> <li>● The host system is very busy.</li> <li>● The host system detects an error condition.</li> </ul> When the input inhibited indicator is turned on, alarm will sound when most keys are pressed. The alarm indicates that the system is not accepting your keystrokes.
Type Ahead	»	You can continue keying in even if the keyboard becomes locked. This will be supported on AS/400 Release 2 or later.
Extended Graphics	+	Extended keyboard layout has been selected. This will be supported on AS/400 Release 2 or later.
Upper Shift	⇧	The keyboard is in upshift or locked in upshift.
Caps Lock	A	The keyboard is in Caps Locked. The alphabetic characters are entered in uppercase.
Insert Mode	^	Indicates when the Ins (Insert) key is pressed.
Diacritic Mode	đ	Indicates that your display station is in Diacritic Mode. Diacritic Mode is a function of the host system program and not the display station. To find out how to use Diacritic Mode, see your system coordinator or the system program manual.
Dim Indicator	☒	Indicates that “Auto dim” has been selected and there has been no activity for 2, 5, 10, or 20 minutes. (The screen is blank, except for the operating-status line.)
Record Mode	R	Indicates that your display station is in Record mode. While “R” is displayed, the current acceptable number of keystrokes are indicated next to “R”.
Play mode	PLAY	Indicates that your display station is in Play mode.
Available Storage	1520	Indicates number of keystrokes available in record mode.
Record ID Assignment	☐	Indicates record data assignment for the 24 F keys. The solid box indicates that the F key has data recorded. The blank box indicates that the F key has no data recorded.
Cursor Locator	RR/CC	Indicates the row and column where the cursor is currently positioned.

## **3270 status line**

### **System Connection**

<b>Symbol</b>	<b>Meaning</b>
M	Connect with mainframe host.
A	The communication method between host and controller is not SNA
■	The display is connected to an application (Lu – Lu)
⊠	Connected to SSCP. Enter a command or SysReq key to enter Lu-Lu mode
?	No Owner

### **Input Inhibit**

<b>Symbol</b>	<b>Meaning</b>
X-system	System lock. The application program locked the keyboard.
X ⌚	Time(Terminal wait). The host needs more time to response to your request.
X NUM	Numeric data only
X-f	Minus function
X-s	Minus symbol
X >	Too much entered
X ← →	Go elsewhere
X +?	An invalid diacritical-mark key error
XPROG nnn	Program check. The symbol may appear because the data received is not correct. Please refer to 'IBM 3174 Establishment controller customer problem Determination' for the definition of nnn.

### **Shift and mode**

<b>Symbol</b>	<b>Meaning</b>
↑	Shift
A	Caps Lock
Num	Numeric
^	Insert
đ	Diacritic mode

## ASCII status line

### Screen/Status

The initial ASCII screen and status is illustrated below. The “Type” and “Open connect to” address are from the session configuration. Initially, after connection, one is taken to the login request. Use **ALT+X** to disconnect and **ALT+R** to reconnect. After **ALT+R**, one may change the “Open connect to” address; then press Enter to connect. To perform special function mapping press **ALT+K** and see below.

```
Telnet Application Program. (Type=VT220)

Use [ALT+K]  Function Key Command Mapping.
Use [ALT+L]  Local Echo Turn (ON/OFF).!!
Use [ALT+X]  Can Break Connect.!!

Open Connect to: 10.1.2.200

Login:

1(ASCII) 8/28
```

---

## Function Key Command Mapping (ALT+K)

You can provide your own function key mapping by entering the desired codes for the listed function keys (display varies with emulation type).

```
Telnet Application Program. (Type=VT220)

      Function Key Command Mapping
-----
      F1      : ^[OP      F2      : ^[OQ
      F3      : ^[OR      F4      : ^[OS
      F5      : ^[[15~    F6      : ^[[17~
      F7      : ^[[18~    F8      : ^[[19~
      F9      : ^[[20~    F10     : ^[[21~
      F11     : ^[[23~    F12     : ^[[24~
      F13     : ^[[25~    F14     : ^[[26~
      F15     : ^[[28~    F16     : ^[[29~
      F17     : ^[[31~    F18     : ^[[32~
      F19     : ^[[33~    F20     : ^[[34~
      F21     : _____ F22     : _____
      F23     : _____ F24     : _____
      Ins     : ^[[2~     Del     : ^D
      Home    : ^[[1~     End     : ^[[4~
      PgUp    : ^[[5~     PgDn    : ^[[6~
-----
      ^[ =Escape   ^ =Control   [D] =DEL(7F)

      F3=Save and Exit   ESC=Cancel
-----
1(ASCII)                                                    6/22
```

When using a 122-keys keyboard, note the key sequences in parenthesis to generate the character shown: [ (Shift+6), ] (Shift+\), ^ (ϕ), ~ (Shift+~ then Space), ESC (Attn)

## 4.3 Record/Play Mode

The Record/Play functions allow you to store, then retrieve and display data with a single key entry. These functions allow you to simplify repetitive operations. Instead of keying the same data, you can Record a series of key strokes and Play them back by pressing a single key. The recorded data is kept in permanent storage and is not affected by power off/on. Recorded data can be overwritten or deleted.

Recorded keystrokes can be assigned to any of the 24 Function (F) keys. The 'Record ID Assignment' status display shows these 24 keys as three groups of 8 boxes each (2 rows of 4 boxes per group) which correspond to the three groups of function keys on a 122 key keyboard. If a box is solid (filled in) it means that data is recorded for that key; e.g. if the 3rd box in the bottom row of the first group is solid, F3 has recorded data. The maximum number of keystrokes that can be stored is 1520.

### Record Mode

To record a series of keystrokes proceed as follows:

1. Press the **Record** (Recrd) key. The text nnnn appears on the status line. The number nnn is the remaining number of keystrokes that can be recorded.
2. Press any one of the 24 F keys to which you want to assign a word or message. The F key number xx appears on the status line.  
If the alarm sounds and the number increases when the F key is pressed, there is already something recorded for that F key. If you do not want to overwrite the recorded key sequence, press the **Record** key to exit from record mode. To overwrite this sequence, continue keying.

To delete the entire key sequence assigned to a particular F key, press **Record** then that F key, and then press the **Delete** key. Record Mode is exited.

3. Type the key sequences you want to save. As you type, notice that the number following the on the status line decreases. Type carefully, as even mistakes get saved! Besides being saved, the keys you type are live to the system.

Press the **Pause** key to temporarily stop recording. Press the **Pause** key again to continue recording. Anything keyed in between will be handled by the system but not recorded.

4. Press the **Record** key again to stop recording. The recorded key sequence is saved.

### **NOTES:**

*The following keystrokes cannot be recorded: **Play, Setup, Record, Alt+Jump***

*Each make/break key (such as Shift, Alt or Pause) recorded counts as two keystrokes.*

*While in Record Mode, if you record an AID sequence (F, Enter, Clear, Attn, SysRq) that cause an Input Inhibit condition, the keystroke sequences will be recorded. However, when the key sequence is played back, only the keys (including the ID key) just before the first AID key will be played back - an Input Inhibit condition will occur and the remaining keys will be ignored by the host system.*

The following three functional keys are applicable in Record Mode.

\* **Pause** : When you want to manually insert some data in a playback, press this key at the place where insertion is to be done. Then a ☒ Do not turn power off before ending Record Mode (data recorded may be lost).

## **Play Mode**

To play back a recorded key sequence:

1. Position the cursor at the location where keys are to be entered.
2. Press the Play key. A and the F key assignment indicator appear on the status line.
3. Press the F key for the desired recorded sequence. The key sequence recorded will be automatically played back. When complete, disappears from the status line.

**NOTE:** Play mode function keys --

**Pause** : If a recorded Pause is encountered, ☒ appears on the status line. Key anything desired and then press Pause to continue the play operation.

**Quit (Alt+Reset)**: Pressing this key will cancel (stop) the playback sequence.

## **Record/Play Exercise**

Below is a exercise to help you become familiar with Record/Play. Consider an AS/400 sign on where you enter a User ID, Password, Program/Procedure name, Menu, and Library. Say you want to record this sequence to eliminate keying; but always want to enter your password to preserve security. Use F1 to hold this data.

At the sign on screen, press **Record**. The status line (right portion) should look like this:

R1520 ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Press F1 as where you want to record data. The status line now looks like this:

R1520 F1

Start your sign on. Enter a User ID and position to the Password field (Field Exit). Now press **Pause** to temporarily stop recording keystrokes (don't record password). The status display now looks as shown below:

Rxxxx F1 ☒

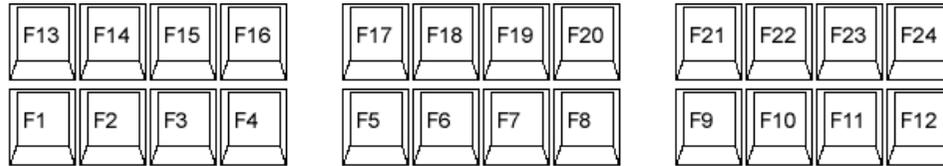
Key in your password then press **Pause** again to restart recording keystrokes. The ☒ symbol on the status line is removed. Position to the next field and continue keying. When done press ENTER then press Record to save the recorded data and exit record mode.



## **Appendix A. Keyboard and Key Functions**

---

Keyboard Layouts

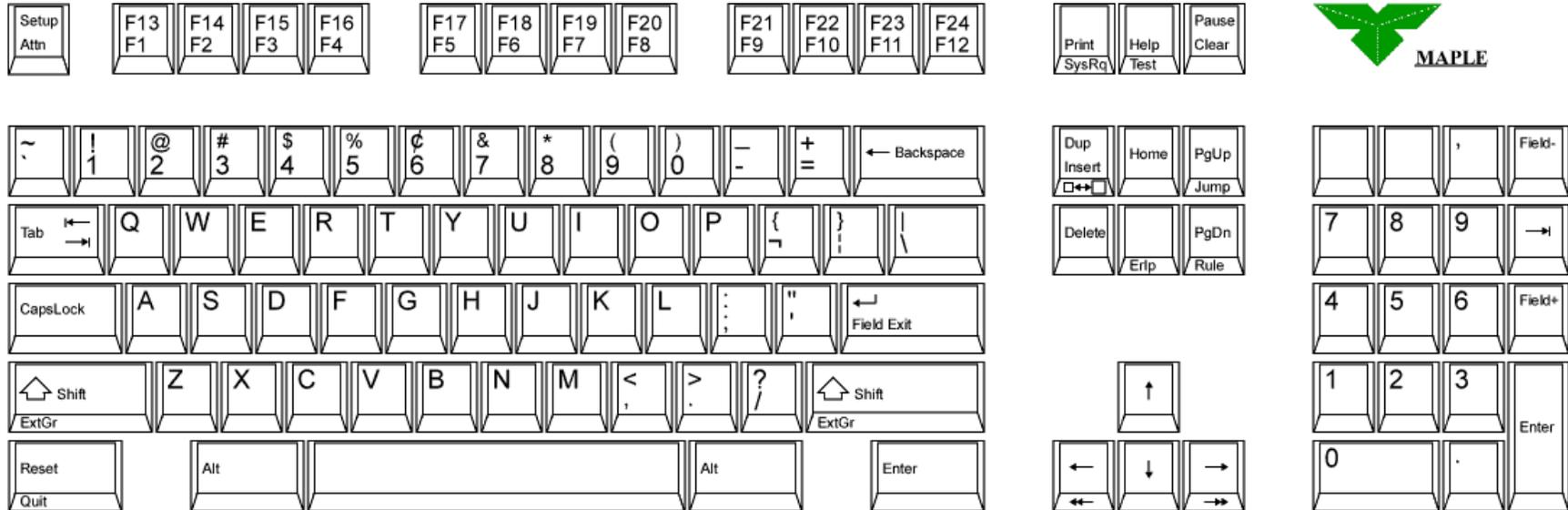


Model	122-Keys Keyboard Layout
Language	U.S./English
Graph Number	KB-122-2-13
Design	Engineer-R/D Dept.1 Markov Chu



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### 122-Key U.S. English Keyboard Layout



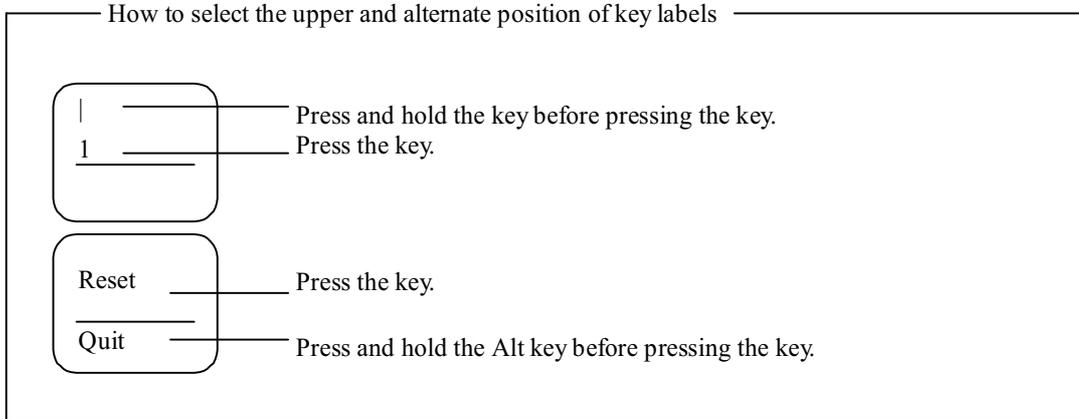
Copyright © 1999-2000 Maple Computer Corporation. All Rights Reserved.

Model	101-Keys Keyboard Layout
Language	U.S./English
Graph Number	KB-101-0-13
Design	Engineer-R/D Dept.1 Markov Chu

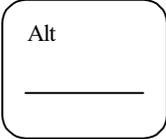
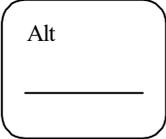
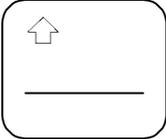
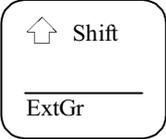
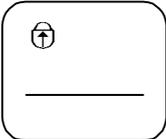
### 101-Key U.S. English Keyboard Layout

## 5250 Keyboard Functions

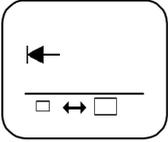
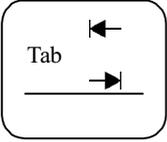
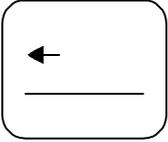
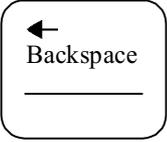
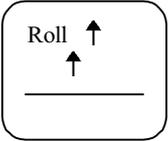
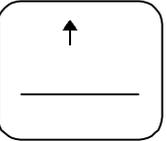
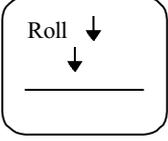
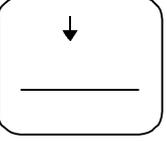
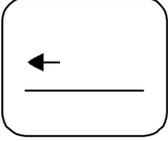
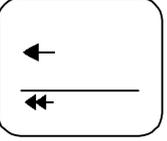
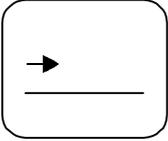
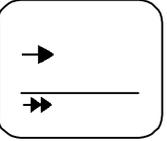
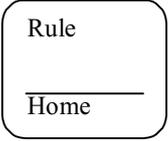
This section describes the key functions and their locations of the keyboards.

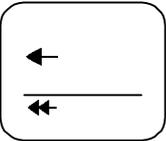
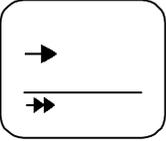
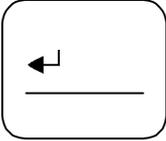
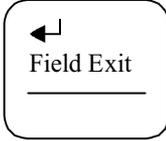
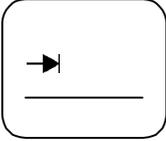
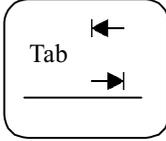
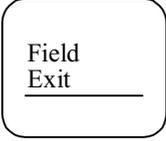


### Keyboard control keys

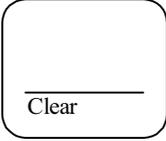
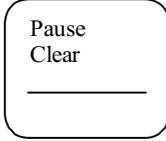
122-Key Keyboard	Enhanced Keyboard	Description
Alternate Shift		Some keys have names printed on the front of the keys. To activate this function, the key must be pressed while pressing and holding the Alt key.
		
Caps Lock		When this key is pressed, the display station enters Caps Lock mode.
		
Upper Shift		When this key is pressed and held down: <ul style="list-style-type: none"> <li>• The alphabetic characters ( A through Z) are entered as uppercase letters.</li> <li>• The symbols on the top of the numeric keys and the punctuation marks on the upper half of the other keys are entered.</li> </ul> The symbol  appears in the operating status line when you press the upper shift (  ) key.
		
Shift Lock		When this key is pressed: <ul style="list-style-type: none"> <li>• The keyboard locks in upper shift.</li> </ul> To return the keyboard to lower shift, press an upper shift (  )key.
		

## Cursor control keys

122-Key Keyboard	Enhanced Keyboard	Description
Field Backspace		The key moves the cursor back to the first position of an input field..
		If the cursor is in an input field, but not at the first position, press the Field Backspace (←) key to move the cursor to the first character position.
Character Backspace		This key moves the cursor back to the previous position in which data can be entered.
		If the cursor is in the first position of an input field, it moves back to the last position of the preceding input field.
Cursor		Moves the cursor in the direction of the arrow without affecting the existing data.
		The cursor up and down keys are used to move the cursor one position at a time in the direction of the arrow. These keys move the cursor vertically on the screen. When either key is held down and the cursor moves off the screen edge, it reappears in the same column, on the opposite side of the screen.
		
		These keys are repeat-action keys.
		
Cursor Home		Press the Cursor Home (↵) key. This causes the cursor to move to the first input position of the screen.
		The cursor moves to row 1, column 1 of the screen if the screen is unformatted or has no input fields.

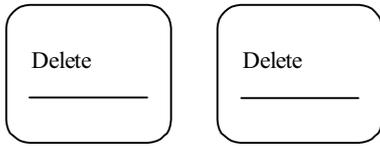
122-Key Keyboard	Enhanced Keyboard	Description
Double-speed Cursor	 	<p>Pressing these keys while holding down the Alt key will move the cursor two position at a time in the direction of the arrow.</p> <p>These keys are repeat-action keys.</p> <p>Note: This function is also supported on the 122-key keyboard by holding down the Shift key and pressing the cursor left or right keys.</p>
New Line	 	<p>This key moves the cursor to the first input position on the next line.</p> <p>This key is a repeat-action key.</p>
Field Advance	 	<p>This key moves the cursor from the current position to the first input position of the next input field.</p> <p>This key is a repeat-action key.</p>
Field Exit	 	<p>The Field Exit function causes the cursor to exit an input field, and null characters are inserted from the current location to the end of the field.</p>

### **Screen control keys**

122-Key Keyboard	Enhanced Keyboard	Description
Clear	 	<p>Press the Clear key. This blanks the current screen except for the cursor, the separator line, and the operating status line.</p>

---

Delete Character

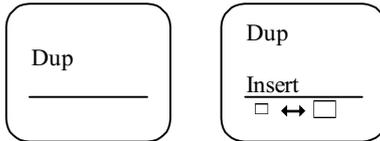


Pressing the Delete Character key deletes data from an input field.

This key is a repeat-action key.

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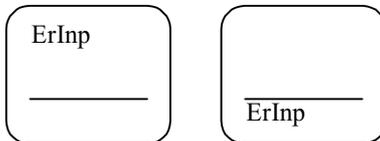
Duplicate



Press the Dup key. In a field programmed to allow duplication, the symbol ☒ is placed at the cursor position. This causes the program to duplicate the data in the same field as in the previous record.

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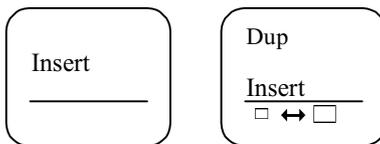
Erase Input



Press the ErInp key. This erases the contents of all input fields on the screen and moves the cursor to the beginning of the first input field.

---

Insert Mode

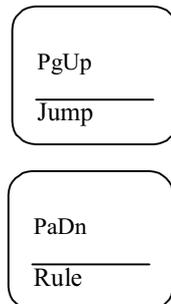


This key places the keyboard in insert mode. The Insert symbol ^ appears in the operating status line.

When a new character is inserted at the cursor location, characters at and to the right of the cursor will shift one position to the right.

---

Page



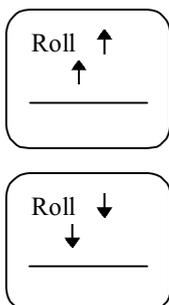
The page up and page down functions are used to move data up or down on the display screen.

Pressing the PgUp key replaces the current data on the screen with the previous page.

Pressing the PgDn key replaces the current data on the screen with the next page.

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Roll

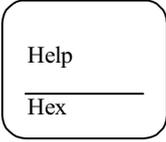
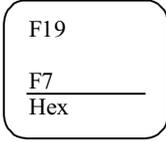
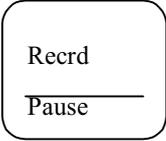
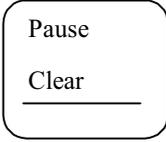
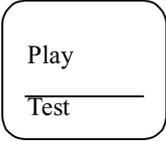
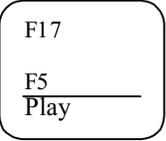
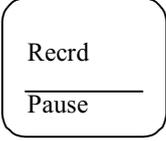
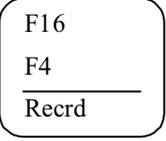
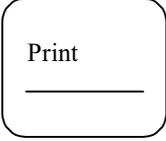
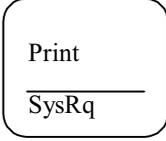


Use the Roll function to move data on the display screen up or down.

Pressing the Roll up key causes the next page to replace the current data.

Pressing the Roll down key causes the previous page to replace the current data.

## **Local Function keys**

<b>122-Key Keyboard</b>	<b>Enhanced Keyboard</b>	<b>Description</b>
Hex 		Use the Hex function to enter the hexadecimal value for a character. The function must be repeated for each hexadecimal value entered.  Note : For valid hexadecimal characters, use 4-9 and A-F for the first character and 0-9, and A-F for the second character. Do not use “FF”.
Pause 		Press the Pause key. This stops the playback operation to insert additional data.  See “ 4.3 Record/Play Mode “
Play 		Press the Play key. To play back recorded data assigned to the Function keys.  See “ 4.3 Record/Play Mode “.
Record 		Press the Recrd key. This records data sequences to be assigned to the Function keys.  See “ 4.3 Record/Play Mode “ .
Print 		Press this key to send a request to the host to print the displayed screen. When the Print key is set to Local (see page 3-5), the screen is outlined with outline functions shown on the bottom line (see3-7). Press Enter to print the outlined section of the screen on you local printer.
Quit 		In Printer Setup mode, press Quit key. This stops the printing operation and cancels the printing of the remainder of the file.  This key is also used to end a recording and playback sequence.

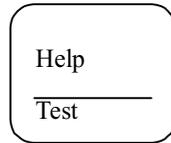
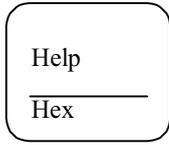
<p>Rule</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             Rule  <hr style="width: 50%; margin: 0 auto;"/>             Home           </div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             PgDn  <hr style="width: 50%; margin: 0 auto;"/>             Rule           </div> </div>	<p>Press the Rule key, makes the rule line ( a cross, horizontal, or vertical straight line ) appear or disappear on the screen.</p> <p>The rule line style can be chosen in online setup mode.</p>
<p>Setup</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             SetUp  <hr style="width: 50%; margin: 0 auto;"/> </div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             SetUp  <hr style="width: 50%; margin: 0 auto;"/>             Attn           </div> </div>	<p>When you press the SetUp key while in communication mode, the display station enters Setup mode. This key is also used for entering printer setup mode, and browsing display information and printer information from online setup mode.</p>
<p>Jump</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> <hr style="width: 50%; margin: 0 auto;"/>             Jump           </div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             PgUp  <hr style="width: 50%; margin: 0 auto;"/>             Jump           </div> </div>	<p>The Jump function allows you to change the active screens. You can move from one split screen to the other (when the screen format is split) in multi-display terminal mode.</p>

## **Host Function keys**

<b>122-Key Keyboard</b>	<b>Enhanced Keyboard</b>	<b>Description</b>
<p>Attention</p> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             SysRq  <hr style="width: 50%; margin: 0 auto;"/>             Attn           </div>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             Setup  <hr style="width: 50%; margin: 0 auto;"/>             Attn           </div>	<p>This key is used to temporarily stop the present display station activity and select a new activity.</p>
<p>Field -</p> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             Field              -  <hr style="width: 50%; margin: 0 auto;"/> </div>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             Field              -  <hr style="width: 50%; margin: 0 auto;"/> </div>	<p>The Field – function can vary depending on the system. On most systems, the Field- function operates the same as the Field+ and Field Exit functions, except that it is allowed only in signed-numeric and numeric-only fields.</p>
<p>Field+</p> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             Field              +  <hr style="width: 50%; margin: 0 auto;"/> </div>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">             Field              +  <hr style="width: 50%; margin: 0 auto;"/> </div>	<p>The Field + function causes the cursor to exit an input field, and null characters are inserted from the current cursor location to the end of the field.</p>

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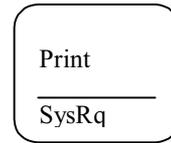
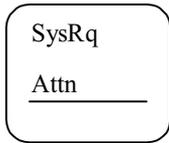
Help



The Help function provides (1) an explanation of current error conditions or (2) help from the system. The system must be programmed to support the Help function.

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System Request



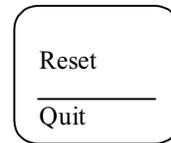
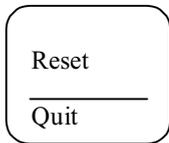
This function can vary depending on the host system.

To use this function, press the SysRq key, then press the Enter key.

To cancel this function, press the Reset key, then press the Enter key.

---

Reset

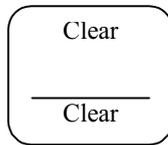


The Reset key :

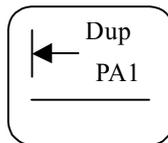
- Causes the display station to leave insert mode and removes the symbol ^ .
  - Ends the help and system request functions.
  - Cancels a hex key.
  - Clears operator errors.
  - Cancels a diacritical-mark key and character key input, leaving a stand-alone accent at the cursor position.
-

## 3270 Keyboard Functions

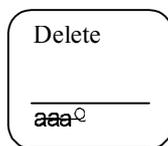
The Blue word keycap is for TN3270 usage.



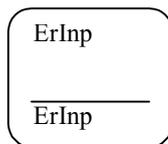
This key blanks the current screen except for the cursor, the separator line, and the operator information area.



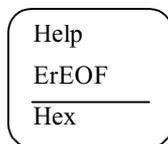
The Dup key places the symbol  $\overline{\text{X}}$  on the screen.  
( If user is in an input field and moves the cursor to the next input field.)



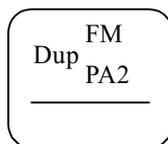
Pressing the Delete word ( $\text{aaa}^{\circ}$ ) deletes the word positioned by the cursor if in an input field.



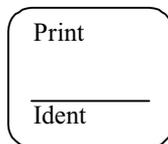
Pressing this key ErInp while pressing and holding the Alt key erases the contents of all input fields on the screen and moves the cursor to the beginning of the first input field. If the screen has no input field. The cursor moves to row 1, column 1 of the screen; no data is erased.



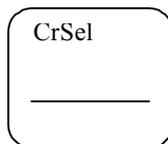
This key ErEOF (Erase End of Field) erases all characters from the cursor position to the end of the field while the cursor is in an input field. The cursor does not move.



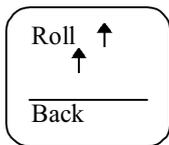
This FM (Field Mark) key places the symbol  $\overline{\text{X}}$  on the screen. The cursor moves to the next input position.



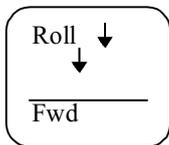
Print is the Local screen copy. Ident is not used any more.



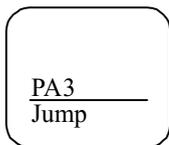
This key is used in place of a selector light pen.



If the screen contents that were sent from the host system are larger than the display screen, pressing this key while pressing and holding the Alt key scrolls down the screen.



If the screen contents that were sent from the host system are larger than the display screen, pressing this key while pressing and holding the Alt key scrolls up the screen.



This is the program access key for communicating with the application program. The application program defines its use.

---

### **101/102 Keyboard Sequence**

<b>101/102 Key Sequence</b>	<b>3270 Function</b>
PageUp	PA1
PageDown	PA2
Shift+PageUp	PA3
Attn (Esc)	ATTN
Clear	CLEAR
F1-F24	F1-F24
Alt+Delete	Delete Word
Alt+F9	CrSel
Shift+End	Delete Field
Alt+End	Erase Input
Shift+Home	FldMk (Field Mark)

## **Appendix B. Keyboard Error Codes**

The keyboard error codes, their meaning, and the recovery procedures are described below. These error codes are displayed in the lower left of the screen display area. They set Input Inhibit on (X) and require that you press **Reset** to continue.

<b>0000</b> <i>Action:</i>	<b>No Help Text Available</b> You pressed the Help key. Either no error code was displayed, or the error was issued by a program that does not support the Help key. Press Reset. Continue entering data, or refer to the meaning of the previously displayed error code and take the action described.
<b>0001</b> <i>Action:</i>	<b>Keying too Fast</b> The host or controller could not keep up with the rate at which you were pressing keys, and the last keys pressed were not recognized. Press Reset and continue keying.
<b>0002</b> <i>Action:</i>	<b>Received Invalid Code</b> The host or controller received an invalid key code. Press Reset and try to continue entering data.
<b>0003</b> <i>Action:</i>	<b>Key Not Valid</b> You pressed an invalid key when holding down the Alt key. Press Reset.
<b>0004</b> <i>Action:</i>	<b>Protected Field</b> You tried to enter data into a field that does not allow keyboard input. Press Reset.
<b>0005</b> <i>Action:</i>	<b>Protected Area</b> The cursor was not in an input field when a data key was pressed. Press Reset and Tab or otherwise move to a valid input field.
<b>0006</b> <i>Action:</i>	<b>Invalid Entry</b> After pressing the SysReq/Attn key, and before pressing ENTER or the Reset key, an invalid key was pressed. Press Reset.
<b>0007</b> <i>Action:</i>	<b>Must Enter Field</b> Data was not entered into a Mandatory Enter field. The cursor goes to the first position of the first mandatory entry field requiring data. Press Reset and enter the required data.
<b>0008</b> <i>Action:</i>	<b>Alphabetic Only Field</b> You tried to enter non-alphabetic data into an alphabetic field. Valid characters are A through Z, blank, comma, period, and hyphen. Press Reset.
<b>0009</b> <i>Action:</i>	<b>Numeric Only Field</b> You tried to enter non-numeric data into a numeric only field. Valid characters are 0 through 9, blank, comma, period, and minus. Press Reset.

<b>0010</b>	<b>Keying too Fast</b> The host or controller could not keep up with the rate at which you were pressing keys, and the last keys pressed were not recognized. <i>Action:</i> Press Reset and continue keying.
<b>0011</b>	<b>Received Invalid Code</b> The host or controller received an invalid key code. <i>Action:</i> Press Reset and try to continue entering data.
<b>0012</b>	<b>Key Not Valid</b> You pressed an invalid key when holding down the Alt key. <i>Action:</i> Press Reset.
<b>0013</b>	<b>Insert Mode On</b> You attempted to leave a field after you pressed the Insert key. <i>Action:</i> Press Reset.
<b>0014</b>	<b>Must Fill Field</b> You pressed a key function that moves the cursor out of this field, However, the requirements of this mandatory-fill field have not been met. (Such fields must be complete or left blank) <i>Action:</i> Press Reset. Enter data to fill the field or move to field start and use the Field+, Field-, or Field Exit key to blank the field.
<b>0015</b>	<b>Does Not Compare</b> You entered data into a self-check field and the number and the check digit do not compare. <i>Action:</i> Press Reset. Check your entry. If entered correctly, check that the entry is valid for this field.
<b>0016</b>	<b>Not Signed Numeric Field</b> You pressed the Field- key to exit a field, but the field was not a signed numeric field or, for some systems, a numeric-only field. <i>Action:</i> Press Reset. Continue to enter data or press Field Exit to blank out the field.
<b>0017</b>	<b>Field Not Full</b> You pressed the Field-, Field+, or Field Exit key. However, the requirements for this mandatory-fill field have not been met. A mandatory-fill field must be filled completely or you must exit from the first position of the field. <i>Action:</i> Press Reset. Enter data to the end of the field, or move the cursor to field start and use Field-, Field+, or Field Exit to blank and exit the field.
<b>0018</b>	<b>Non-Data Key Required</b> You used a data key instead of a non-data key. <i>Action:</i> Press Reset. Use a non-data key such as Field Exit or a cursor key to leave the field.
<b>0019</b>	<b>Dup Key Not Allowed</b> You pressed the Dup key, which is not permitted in this field. <i>Action:</i> Press Reset and continue keying.
<b>0020</b>	<b>Right-Adjusted or Signed-Numeric Field</b> You pressed a key that is not allowed in this right-adjusted or signed-numeric field. You must exit the field before pressing any of the following: Function (F1-F24) keys, Backspace key, Enter key, Roll keys, Help key, Print key, and the Home key (when the cursor is in the home position). <i>Action:</i> Press Reset. The cursor is in the same position as when the invalid key was pressed. Continue by pressing the Field+, Field-, or Field Exit key.

<b>0021</b>	<b>Must Enter Field</b> The cursor is positioned in a mandatory-enter field. Such a field must have data entered in it before you can exit by pressing Field+, Field-, or Filed Exit. <i>Action:</i> Press Reset and enter the required data.
<b>0022</b>	<b>System Error</b> A host error occurred. The status of the present field is not known. This error can occur during an insert or delete operation. <i>Action:</i> Press Reset. Check the display to see if the insert or delete function was done properly. If not, correct the field; otherwise continue.
<b>0023</b>	<b>Non-Hexadecimal Key</b> You pressed the Hex key, but the next key pressed was not an A through F key or a 4 through 9 key; or the following key was not an A through F or 0 through 9 key. This error also occurs when a hexadecimal code is used in a numeric-only, signed numeric, alpha-only, or feature I/O field. <i>Action:</i> Press Reset and continue using correct keys.
<b>0024</b>	<b>Non-Numeric Value</b> You tried to enter a non-numeric value in a numeric-only field. <i>Action:</i> Press Reset and continue.
<b>0026</b>	<b>Not Number Key</b> You pressed the Field- key to exit a numeric only field, but the last position was not a number 0 through 9. <i>Action:</i> Press Reset. Correct the last position of the field, or exit the field using Field+ or Field Exit.
<b>0027</b>	<b>Key Not Assigned</b> You pressed a key that is not used by this display station. <i>Action:</i> Press Reset and continue using valid keys.
<b>0029</b>	<b>No Diacritic Key</b> The second key pressed during a diacritic key function did not give a valid combination. <i>Action:</i> Press Reset. Enter a valid combination.
<b>0040</b>	<b>Data Set Not Ready</b> The 'data set ready' line is inactive and it should be active. <i>Action:</i> Press Reset. Recovery must be made at the Control Unit.
<b>0042</b>	<b>Receive Check Failed</b> The receive clock signal failed during a receive operation. <i>Action:</i> Press Reset. Recovery must be made at the Control Unit.
<b>0043</b>	<b>Data Set Ready</b> The 'data set ready' line is active and should be inactive. <i>Action:</i> Press Reset. Recovery must be made at the Control Unit.
<b>0044</b>	<b>Not Receiving Data</b> The communication time-out has expired with no valid data received. <i>Action:</i> Recovery from this error must be made at the Control Unit.
<b>0050</b>	<b>Clear and Request to Send Not Together</b> Either the 'clear to send' line was inactive while the 'request to send' line was active, or vice versa. <i>Action:</i> Recovery from this error must be made at the Control Unit.

<b>0051</b>	<b>Transmit Clock Failed</b> The transmit clock signal failed during a transmit operation. <i>Action:</i> Recovery from this error must be made at the Control Unit.
<b>0052</b>	<b>Controller Error</b> The controller has detected an internal error. <i>Action:</i> Recovery from this error must be made at the Control Unit.
<b>0054</b>	<b>Controller Received Invalid Command</b> An invalid command was received from the host <i>Action:</i> Recovery from this error must be made at the Control Unit.
<b>0097</b>	<b>Unavailable Verification Tests</b> An attempt was made to run online verification tests not supported by the host program. <i>Action:</i> Press Reset and continue without performing the verification tests.
<b>0099</b>	<b>System Not Available</b> An error occurred before, during, or after sign-on. <i>Action:</i> Press Reset. If error persists contact system coordinator.

## **Appendix C. CMOS Memory Error of Battery Failure**

The message "CMOS MEMORY ERROR OR BATTERY FAILURE" on the screen means that the CMOS memory which holds the setup parameters has been corrupted for some reason:

- \* A electrical transient was received by the terminal.
- \* The battery in the unit is bad or failing and cannot hold the CMOS parameters.

To correct this problem go into Off-line setup: power off, power on with space bar depressed. As described in section 2, check/re-enter all parameters. Use F3 to Save and Exit. When all parameters are correct, press F3 to exit to On-line mode.

When this message appears during normal operation, an electrical transients is the probable cause. For possible cable problems check for loose connections, cable runs next to radios, heaters, or florescent fixtures. For electrical transients check that the power cable is firmly inserted at both ends. Consider plugging the terminal into a different outlet or moving it to another location. If "brownouts" or "blackouts" power hits, lightning strikes have occurred, that could be the cause of the problem.

If this message appears, every time the terminal is powered on and the parameters must be reset, the battery or other electronic circuitry within the Logic Unit may need to be replaced - call technical support.

## Appendix D. AS/400 TFTP Setup

The following instructions will assist you in setting up the AS/400 TFTP server so it can be used for “Flash Update” of the ET2000. You must have CA/400 (or equivalent software) running on a PC and Security Officer authority to complete these steps.

### **Please Note:**

*There are a number of changes which will be made to your current AS/400 TFTP server which may have security consequences and are entirely your responsibility. Please be sure you are familiar with any security risks these changes may create.*

You will obtain three files for flash update from our web site ([www.maple5250.com](http://www.maple5250.com)), diskette or email. The file names are:

<b>ETFLASH.UPD</b>	Version control file
<b>ETROM1.xxx</b>	xxx = version number for TCP/IP firmware
<b>ETROM2.yyy</b>	yyy = version number for Terminal firmware

**CAUTION:** All files are controlled as a group! When you are updating or changing the files in the directory: **/ET2000** in the AS/400 IFS, be certain that all files are replaced as a group.

1. On a terminal or emulated terminal session, create the directory: **/ET2000** in the AS/400 IFS by entering the following command :  
===> CRTDIR DIR( 'et2000' )
2. On a terminal or emulated terminal session, set the TFTP server to allow an alternate path of **/ET2000** by entering the following command:  
===> CHGTFTP ALTSRCDIR( '/et2000' )
3. On a PC running CA/400, copy the Flash Update files (which you obtained from Maple) to the AS/400 directory: **/ET2000**
  - a) Open two copies of Windows Explorer
  - b) Select the directory which contains the new Flash Update files in the first frame
  - c) Select the **ET2000** directory on the AS/400 in the second frame
  - d) Drag each of the Flash Update files to the **ET2000** directory on the AS/400
4. On a terminal or emulated terminal session, set the permissions of the directory and files by entering the following commands:  
===> CHGAUT OBJ( '/ET2000' ) USER(QTFTP) DTAAUT( \*rx ) OBJAUT( \*NONE )  
===> CHGAUT OBJ( '/ET2000/ETFLASH.UPD' ) USER(QTFTP) DTAAUT( \*RX )  
OBJAUT( \*NONE )  
===> CHGAUT OBJ( '/ET2000/ETROM1.xxx' ) USER(QTFTP) DTAAUT( \*RX )  
OBJAUT( \*NONE )  
===> CHGAUT OBJ( '/ET2000/ETROM2.yyy' ) USER(QTFTP) DTAAUT( \*RX )  
OBJAUT( \*NONE )
5. After all of these steps are complete, be sure to start, or restart the AS/400 TFTP server.

TFTP server end/start commands: ENDTCPSPVR \*TFTP / STRTCPSPVR \*TFTP

Please refer to section 2.6 for instructions on how to perform the flash update on the ET2000.

## Appendix E. AS/400 TCP/IP Trace Procedure

*This procedure was written using V4R3; it may differ on other releases.  
Certain ET2000 problems may require a trace to identify the nature of the problem.*

The user must have proper authority to run System Service Tools.

\_\_\_ Enter the command: **STRSST**

SYSTEM SERVICE TOOLS screen:

\_\_\_ **1.** Start a service tool

START A SERVICE TOOL screen:

\_\_\_ **3.** Work with communications trace

WORK WITH COMMUNICATIONS TRACES screen:

\_\_\_ **F6** = START TRACE

START TRACE screen:

(only modify the following fields)

\_\_\_ Configuration Object = **CMN02** (line name of Ethernet line e.g. TRNLINE, CMN02)

\_\_\_ Trace Description = **ET2000 TCP TRACE**

\_\_\_ Buffer Size = **3** (2M)

\_\_\_ **ENTER**

SELECT TRACE OPTIONS screen:

\_\_\_ **1.** All Data (No filtering)

\*\*\*\* DO NOT hit ENTER yet; get the ET to the screen just before the failure point \*\*\*\*

\_\_\_ **ENTER**

\*\*\*\*\* *Perform the action to create the failure on the ET* \*\*\*\*\*

WORK WITH COMMUNICATIONS TRACES screen:

\_\_\_ take option: **2** = STOP TRACE on the configuration object doing the trace on the ET

WORK WITH COMMUNICATIONS TRACES screen:

\_\_\_ take option: **6** = FORMAT AND PRINT TRACE on the configuration object doing the trace on the ET

FORMAT TRACE DATA screen:

Change the following options:

\_\_\_ **FORMAT TCP/IP DATA ONLY = Y**

\_\_\_ **ENTER**

SELECT IP ADDRESSES TO FORMAT screen:

Only enter one IP address; the IP address of the ET:

\_\_\_ **IP ADDRESS = xxx.xxx.xxx.xxx**

\_\_\_ **ENTER**

A message will be at the bottom of the screen: **FORMAT OF TRACE DATA COMPLETE**

\_\_\_ **F3** to exit the screen

\_\_\_ Print the job in compressed print or landscape on a laser and fax to us.