



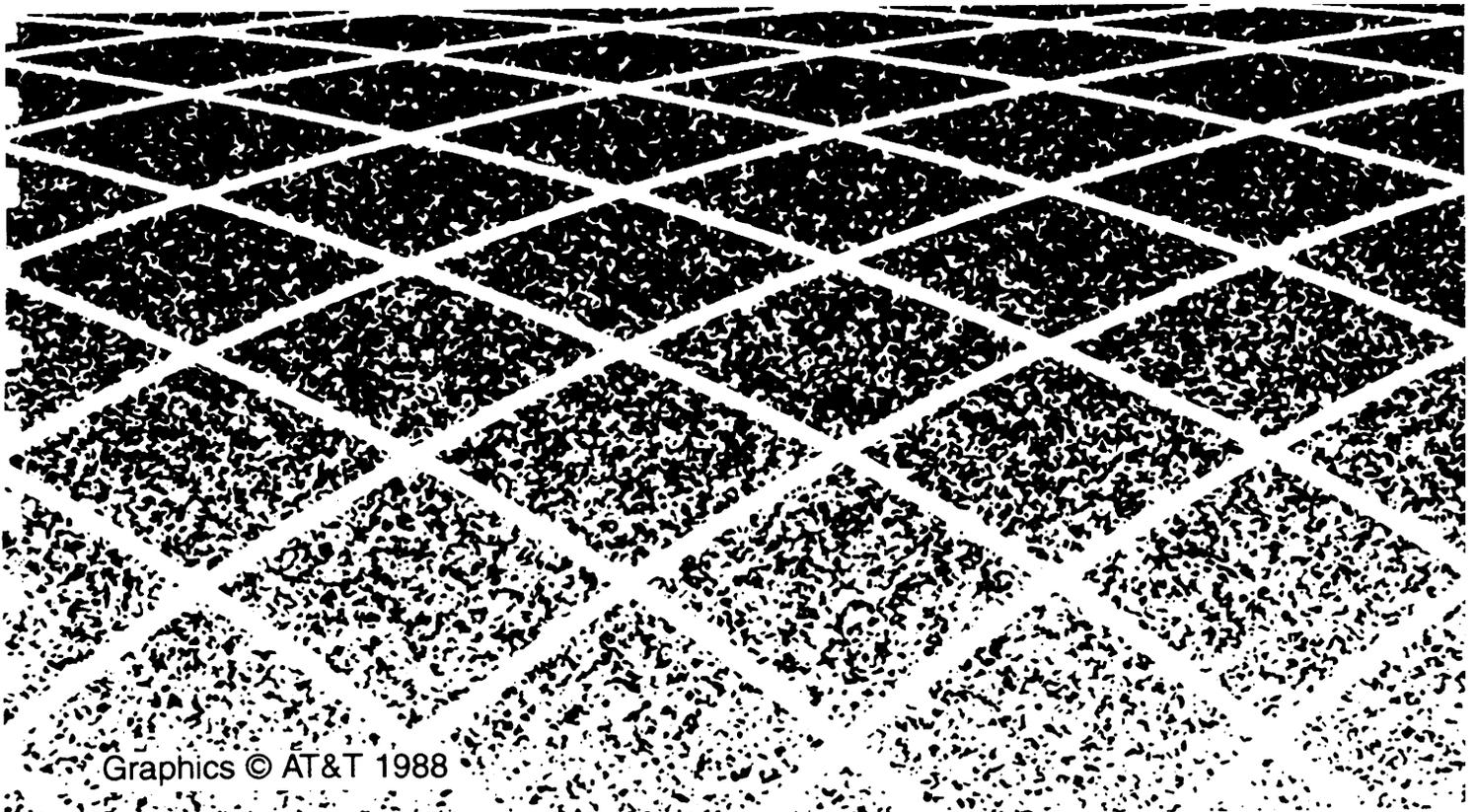
AT&T 555-230-876

Issue 1

June 1996

# **715GBCS-2 Terminal**

## User's Guide and Service Manual



Copyright © 1996, AT&T

All Rights Reserved

Printed in U.S.A.

#### Notice

Every effort was made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change.

#### Your Responsibility for Your System's Security

Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

You and your system manager are responsible for the security of your system, such as programming and configuring your equipment to prevent unauthorized use. The system manager is also responsible for reading all installation, instruction, and system administration documents provided with this product in order to fully understand the features that can introduce risk of toll fraud and the steps that can be taken to reduce that risk. AT&T does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. AT&T will not be responsible for any charges that result from such unauthorized use.

#### Federal Communications Commission Statement

**Part 15: Class A Statement.** This equipment has been tested and found to comply with the limits for a Class A digital device, 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 communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

#### Canadian Department of Communications (DOC) Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications.

Le Présent Appareil Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

#### Trademarks

See the About This Document section.

#### Ordering Information

**Call:** AT&T GBCS Publications Fulfillment Center  
Voice 1 800 457-1235 International Voice  
317 361-5353  
Fax 1 800 457-1764 International Fax 317  
361-5355

**Write:** AT&T GBCS Publications Fulfillment Center  
P.O. Box 4100  
Crawfordsville, IN 47933

**Order:** Document No. AT&T 555-230-876  
Issue 5, January 1996

For more information about AT&T documents, refer to the section entitled, "Related Documents" in "About This Book."

#### AT&T Corporate Security

Whether or not immediate support is required, *all* toll fraud incidents involving AT&T products or services *should be reported* to AT&T Corporate Security at 1 800 821-8235. In addition to recording the incident, AT&T Corporate Security is available for consultation on security issues, investigation support, referral to law enforcement agencies, and educational programs.

#### AT&T Fraud Intervention

If you *suspect that you are being victimized* by toll fraud and you need technical support or assistance, call GBCS Technical Service Center Toll Fraud Intervention Hotline at 1 800 643-2353.

#### European Union Declaration of Conformity

AT&T Global Business Communications Systems declares that MAP/5, MAP/40, and MAP/100 equipment specified in this document conforms to the referenced European Union (EU) Directives and Harmonized Standards listed below:

EMC Directive 89/336/EEC  
Low Voltage Directive 73/23/EEC

The "CE" mark affixed to the equipment means that it conforms to the above Directives.



---

# Contents

---

<b>About this Guide</b>	ix
■ Purpose and Audience	ix
■ Prerequisite Skills and Knowledge	ix
■ Introducing the 715GBCS-2	ix
How to Use this Guide	xii
Conventions Used in this Document	xiii
Important Reminders	xiv
Cleaning	xiv
Accidental Spills	xv

---

<b>1</b>	<b>Installing the Terminal</b>	1-1
■	Safety and Handling Instructions	1-2
■	Unpacking Instructions	1-2
■	Power Requirements	1-2
■	Terminal Controls and Indicators	1-3
■	Initial Setup and Power-On	1-4
	Removing the Back Panel Cover	1-4
■	Cabling the Terminal	1-5
■	Powering On the Terminal	1-6
■	Replacement Parts	1-7

---

# Contents

---

<b>2</b>	<b>Configuring the Terminal</b>	2-1
■	How to Invoke the Configuration Mode	2-1
■	How to Use the Configuration Menus	2-3
	Opening Folders	2-3
	Setting Parameters and Options	2-3
	Saving Your Configuration	2-5
	Restoring Last Saved Set of Parameters	2-5
	Restoring the Factory Default Configuration	2-5
	Returning to Operation	2-5
■	Configuration Folders	2-6
	The User Folder	2-6
	The Emulation Folder	2-10
	The Display Folder	2-14
	The Keyboard Folder	2-19
	The Comms Folder	2-23
	The Printer Folder	2-32
	The Function Folder	2-36

---

# Contents

---

<b>3</b>	<b>Operating the Terminal</b>	3-1
	■ Local Keyboard Commands	3-1
	■ Keyboard Language	3-3
	■ Keyclick and Warning Bell	3-5
	■ Key Programming	3-5
	Key Definition Limit	3-5
	Key Programming Procedure	3-5
	■ Function Key Programming	3-8
	Function Key Programming Procedure	3-9
	■ Display Features	3-10
	Display Screen Format	3-11
	The Data Area	3-13
	The Indicator/Label Rows	3-13
	■ Screen Saver	3-13
	■ Tabs	3-13
	■ Monitor Mode	3-15
	■ Auto-Answerback	3-15
	Answerback Message	3-16
	■ Copy and Paste	3-16
	■ Print Control Features	3-17
	Print Commands	3-17
	■ National Replacement Characters	3-19

---

# Contents

---

<b>A</b>	<b>Keyboard Layout</b>	A-1
----------	------------------------	-----

---

<b>B</b>	<b>Character Sets</b>	B-1
----------	-----------------------	-----

---

<b>C</b>	<b>Troubleshooting and Error Codes</b>	C-1
	▪ Troubleshooting Quick Reference Guide	C-1
	▪ Error Codes	C-2

---

<b>D</b>	<b>Connector Specifications</b>	D-1
----------	---------------------------------	-----

---

<b>IN</b>	<b>INDEX</b>	IN-1
-----------	--------------	------

---

# List of Figures

---

## **1 Installing the Terminal**

- Figure 1-1 715GBCS-2 Terminal and Keyboard 1-1
- Figure 1-2 Terminal Controls 1-3
- Figure 1-3 Back Panel after Cover Removal 1-4
- Figure 1-4 Back Panel Connectors 1-5

---

## **2 Configuring the Terminal**

- Figure 2-1 The User Folder 2-2
- Figure 2-2 Example of a Separate Menu Used to Enter Text 2-4
- Figure 2-3 The User Folder 2-7
- Figure 2-4 Emulation Folder Parameters 2-11
- Figure 2-5 The Display Folder 2-14
- Figure 2-6 The Keyboard Folder 2-19
- Figure 2-7 The Comms Folder 2-23
- Figure 2-8 Full Duplex, Half Duplex, and Block or Half Duplex Block Modes 2-31
- Figure 2-9 The Printer Folder 2-32
- Figure 2-10 The Print Modes 2-35
- Figure 2-11 The Function Folder 2-36

---

## **3 Operating the Terminal**

- Figure 3-1 Key Programming Menu 3-6
- Figure 3-2 Function Key Programming Menu 3-9

---

## List of Figures

- Figure 3-3 Default Operating Screen Configuration 3-12
- Figure 3-4 Tab Setting Screen 3-14
- Figure 3-5 Auto-Answerback Screen 3-16
- Figure 3-6 Local Print Screen Labels 3-18
- Figure 3-7 ASCII National Replacement Characters 3-20
- Figure 3-8 ANSI National Replacement Characters 3-21

---

### **Appendix A Keyboard Layout** **A-1**

- Figure A-1 715GBCS-2 Terminal Keyboard Layout A-1

---

### **Appendix B Character Sets** **B-1**

- Figure B-1 DEC Multinational Character Map B-2
- Figure B-2 ISO 8859-1 Character Map B-3
- Figure B-3 ISO 8859-2 Character Map B-4

---

# List of Tables

---

## 1 Installing the Terminal

- Table 1-1 Terminal Connector Functions 1-6
  - Table 1-2 Replacement Parts 1-7
- 

## 2 Configuring the Terminal

- Table 2-1 User Parameters and Options 2-8
  - Table 2-2 Emulation Folder Parameters and Options 2-12
  - Table 2-3 Display Folder Parameters and Options 2-15
  - Table 2-4 Keyboard Folder Parameter and Options 2-20
  - Table 2-5 Comms Folder Parameters and Options 2-24
  - Table 2-6 Printer Folder Parameter and Options 2-33
  - Table 2-7 Function Folder Parameter and Options 2-37
- 

## 3 Operating the Terminal

- Table 3-1 Local Keyboard Commands 3-1
  - Table 3-2 Special Key Sequences for Using [ CTRL ] Keys in Programmed Strings 3-7
- 

## Appendix C

- Table C-1 Troubleshooting Quick Reference C-2
- Table C-2 Terminal Error Codes C-3

---

# List of Tables

---

# About This Guide

---

## **Purpose and Audience**

The purpose of this guide is to provide the basic information needed to install, configure, and operate the terminal.

The audience for this guide is experienced terminal users and supervisors.

## **Prerequisite Skills and Knowledge**

To use this guide effectively, you do not need a working knowledge of the 715GBCS-2 Terminal, or the system in which it is going to operate. Users of this guide should be familiar with basic computer terminology.

## **Introducing the 715GBCS-2**

The 715GBCS-2 Terminal is a monochrome video display terminal designed to communicate with host systems via an RS-232C interface. Its specifications and features follow.

- Dimensions
  - Height: 13.2 inches (335 mm)
  - Width: 12.5 inches (318 mm)
  - Depth: 13.75 inches (337 mm)
- Shipping Weight: Approximately 25 pounds (11.36 Kg)
- Power
  - EPA Energy Star compliant
  - Input Voltage: 90-270 VAC @ 47-63 Hz
  - Power Consumption: 45 Watts Max
- Environmental Limits
  - Temperature: 32°-104° Fahrenheit (0°-40° Celsius)
  - Operating Humidity: 95% (maximum relative humidity non-condensing)
- Ergonomics
  - Amber or paper white 14-inch flat face, reduced glare, high resolution screen
  - Default refresh rate is 60 Hz, and for reduced image flicker, an optional refresh rate of 76 Hz is available
  - Swivel Base rotates from 135° left to 135° right, and tilts from 15° to 12° down
  - Front-mounted, clearly visible operating controls
- Operating Controls
  - Power On/Off push-button switch
  - Brightness and Contrast thumbwheels

- Display
  - Dual host sessions
  - Meets ISO 9241 minimum suggested character cell size
  - Host downloadable setup parameters
  - Screen saver with user-selectable duration
  - Two built-in national character replacement sets
- Communications
  - Full/half duplex, local, block, and monitor modes of operation
  - Serial host port, serial auxiliary port, and parallel printer port
- Dual Host Support
  - Simultaneous connection with two hosts
  - Hot key to alternate between hosts
  - Printer port support for both hosts
- Memory
  - User-selectable options and programmable function keys stored in non-volatile memory
  - Four pages of screen memory
- Keyboard
  - Keyboard remapping capability
  - Eight Programmable function keys
  - User-settable tab stops

- Printer drivers available:
  - BCS
  - 475
  - 572/573
  - FX-86
  - Proprinter
  - Line drawing
  - All character

## **How to Use this Guide**

---

This guide is organized as follows:

- Chapter 1, "Installing the Terminal," provides information needed to unpack, assemble, connect, and power up the terminal. It points out the locations and functions of the terminal's controls and indicators, and identifies cable connector locations.
- Chapter 2, "Configuring the Terminal," explains how to configure the terminal's operating parameters, save settings, and restore factory defaults.
- Chapter 3, "Operating the Terminal," provides information about operating the terminal.
- Appendix A, "Keyboard Layout," identifies the keyboard used with the terminal.
- Appendix B, "Character Sets," provides the character sets used with the terminal.
- Appendix C, "Troubleshooting and Error Codes," provides a list of error codes and related troubleshooting.
- Appendix D, "Connector Specifications," provides detailed illustrations and pin assignments for the terminal's connectors.

## Conventions Used in this Document

The following formatting conventions are used throughout this guide:

- Keynames that appear on the keyboard are enclosed in rounded boxes.

Press [ `ENTER` ].

- When two keys must be pressed simultaneously, they are referred to as a key combination and are displayed with a plus sign (+) between them.

Most configuration folder parameters can be printed by pressing  
[ `CTRL` ] + [ `P` ].

- In the tables, default options are in oblique (italic) typeface, and non-default options are in plain typeface.

## **Important Reminders**

---

Proper care and maintenance is important to the performance of your terminal. Follow these tips to ensure that it performs as expected.

Read this manual before using your terminal.

**▲ CAUTION:**  
*Keep all liquids away from the terminal. Protect the terminal from exposure to heat, cold, vibration, grime, and static electricity. Also, be careful to keep paper clips, pins, and eraser shavings away from the keyboard.*

When you install the terminal, make sure that other electrical apparatus such as printers are at least one meter (3.3 feet) away from the terminal.

**▲ CAUTION:**  
*NEVER unplug the terminal or remove power from it until you have turned it off.*

After turning the terminal off, allow a few seconds to pass before turning it back on.

## **Cleaning**

Keep the terminal clean by using a clean, damp, lint-free cloth. Clean the display screen with a lint-free cloth dampened with rubbing alcohol. Never use wax cleaners on the display.

**▲ CAUTION:**  
*Exposure to chemicals, cosmetics, high heat, glues, or adhesive-backed tapes and labels may damage the terminal.*

## **Accidental Spills**

If a spill occurs, turn the terminal off immediately. Leave the keyboard tilted on its side until it is completely dry. If the keyboard self-test fails after it is dry and reconnected, the keyboard may have to be replaced.

### **Trademarks**

- UNIX is a registered trademark of Novell, Inc., in the United States and other countries, licensed exclusively through X/Open Company Ltd.
- DEC is a registered trademark of Digital Equipment Corporation.
- IBM is a registered trademark of International Business Machines Corporation.
- AT&T is a registered trademark of American Telephone and Telegraph Corp.



---

# Installing the Terminal

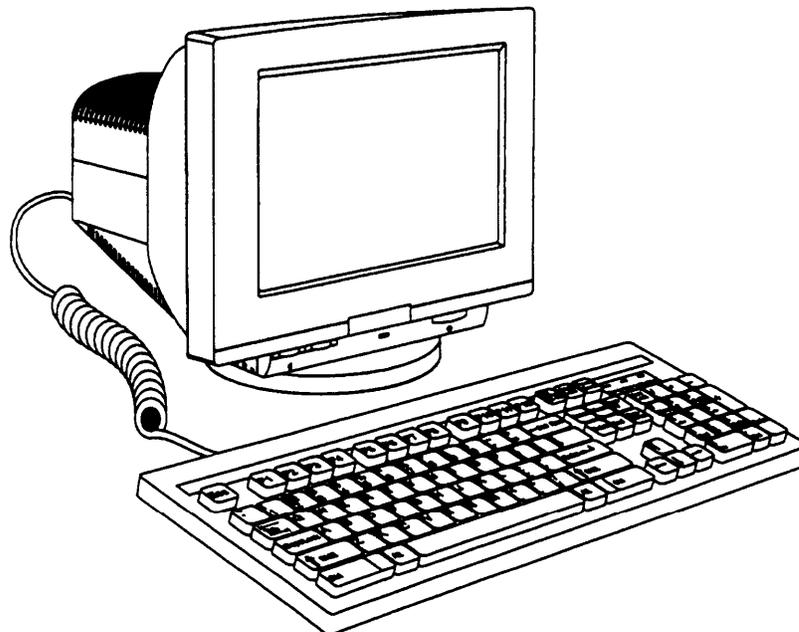
# 1

---

This terminal is a high-performance, general purpose input and display terminal for use with host computer systems.

You should be able to assemble the terminal in about ten minutes once you have unpacked it and cleared the workspace where it will be set up.

---



---

**Figure 1-1. 715GBCS-2 Terminal and Keyboard**

## **Safety and Handling Instructions**

---



### **CAUTION:**

*During installation, the system faces the risk of damage through electrostatic discharge (ESD). ESD often results from static charges generated by movement during periods of low humidity. The best precaution is to avoid contact with any exposed connector surface, and to treat every electronic assembly as though it contains static-sensitive components. To minimize the risk of ESD, avoid touching electronic components or modules by their leads, connectors, or contact pins.*

## **Unpacking Instructions**

---

Unpack the terminal in a spacious area with a flat workspace. Save all packing materials for future use in case you have to move or ship the equipment.

## **Power Requirements**

---

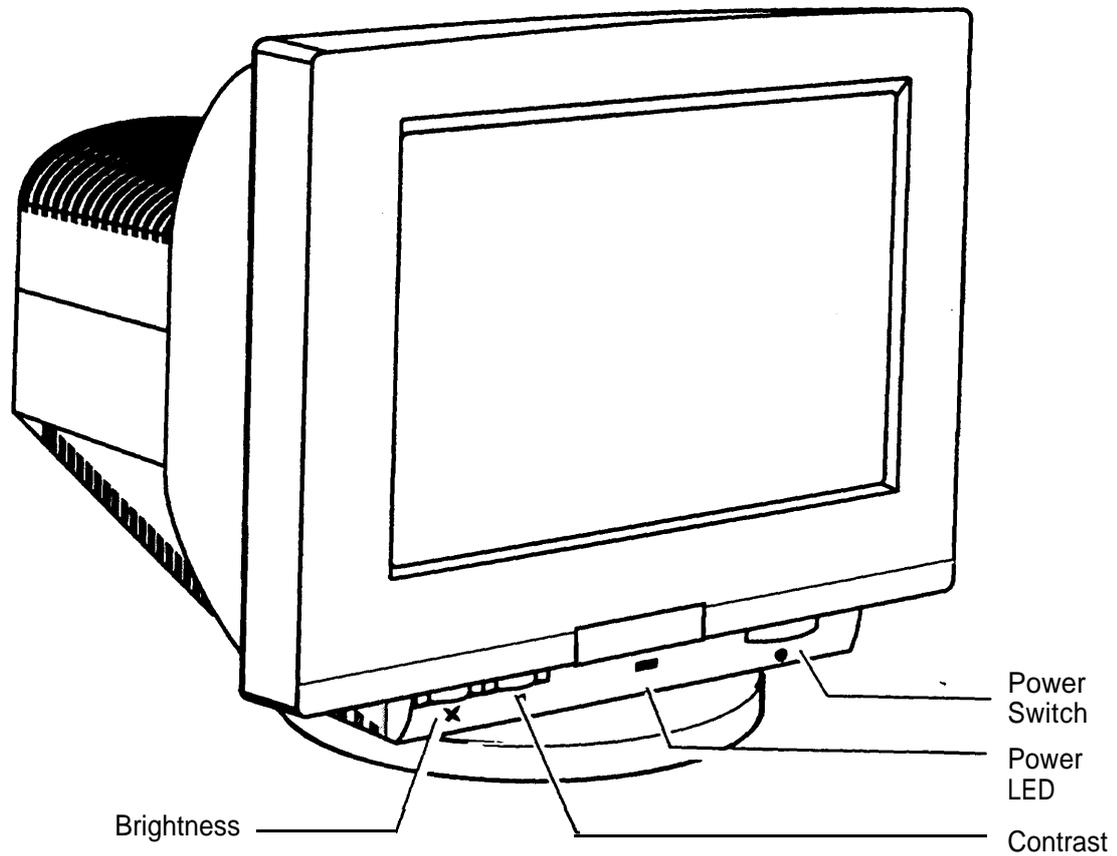
No adjustments are required to set the terminal for the correct voltage. Internal auto-power detection circuitry automatically adjusts the terminal to the power source.

## Terminal Controls and Indicators

---

The following figure shows the location of the terminal's Contrast and Brightness controls, Power Switch, and Power LED.

---



---

**Figure 1-2. Terminal Controls**

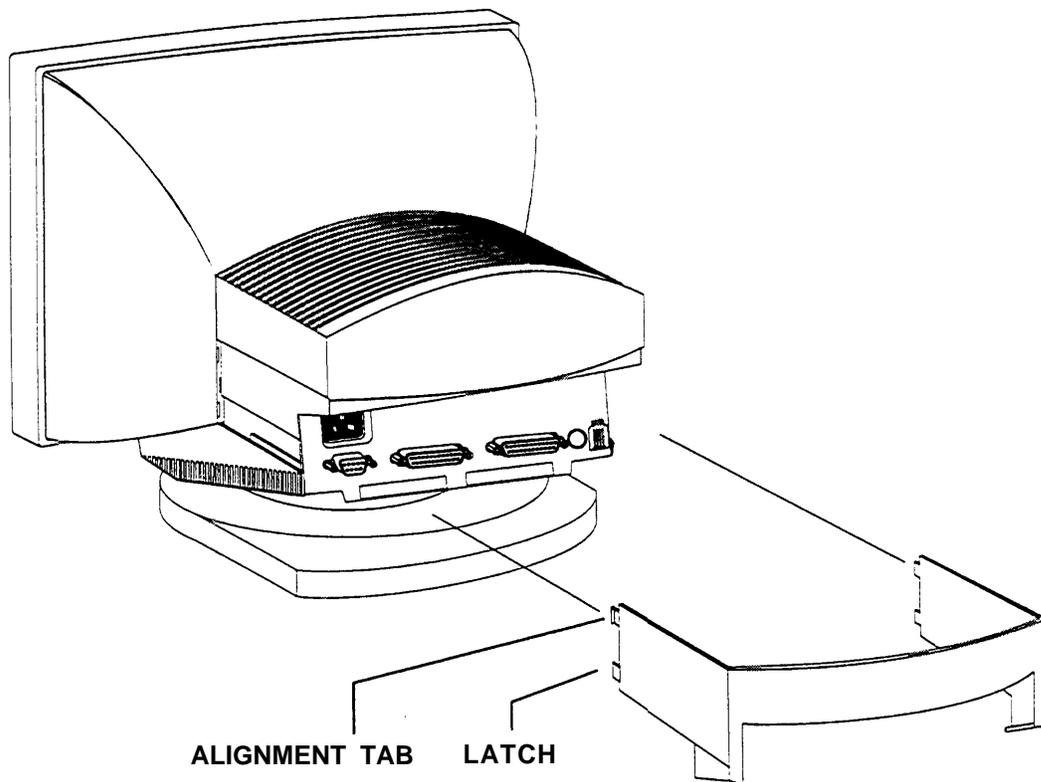
## **Initial Setup and Power-On**

---

### **Removing the Back Panel Cover**

---

1. Remove the rear cover (see the following figure).
  2. The cover is secured by plastic latches and tabs concealed inside the terminal housing. Remove the rear cover by pressing firmly on the left and right sides to release the tabs, while pulling the cover backward until it slides free.
- 



---

**Figure 1-3. Back Panel after Cover Removal**

Once the rear cover is removed, the Power, Parallel, Serial, and Keyboard connections will be exposed.

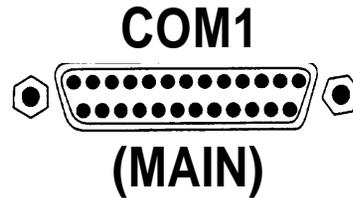
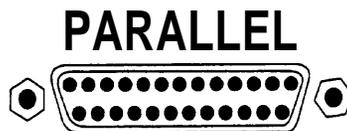
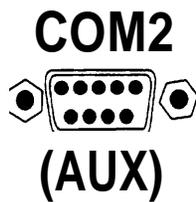
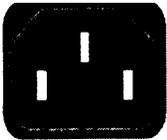
## **Cabling the Terminal**

---

The following figure shows the connectors on the back panel.

---

### **POWER**



### **KYBD**



---

**Figure 1-4. Back Panel Connectors**



**CAUTION:**

*Make sure that your communications cables conform to the pin assignments shown in Appendix D. Connecting an improperly wired cable can damage your terminal.*

The following table describes the functions of the Back Panel Connectors.

**Table 1-1. Terminal Connector Functions**

<b>Connector</b>	<b>Installation</b>
POWER	The power cable is connected to this connector.
COM1 MAIN (DTE)	Used for host connections. This port supports a 115.2K bps, RS-232/RS-422 communications interface. A shielded interface cable is recommended for use with RS-232 communications.
COM2 AUX (DTE to DCE by adapter cable)	Used to connect a serial device, such as a UNIX, DEC, or IBM host, printer, or input device. A shielded adapter cable (shown in Appendix D) is provided to convert this port to DCE configuration. Mate the adapter cable with a shielded 25-pin male RS-232 cable to connect Data Terminal Equipment.
PARALLEL	Used to connect a parallel printer to the terminal or for pass-through printer from the host. The recommended maximum length of the cable used to connect a printer to the parallel port is 15 feet.
KYBD	Connect a 4-wire keyboard cable to the RJ-11 connector.

## **Powering On the Terminal**

---

After all of the communications cables are connected to the terminal, connect the power cord. Press the power switch to turn the terminal on. The terminal will beep once and display the default screen. Turn to Chapter 2, "Configuring the Terminal," for setup instructions pertaining to communications parameters and display attributes.

## **Replacement Parts**

---

The parts listed in Table 1-2 can be ordered separately as spares or maintenance/replacement items.

**Table 1-2. 715GBCS-2 Terminal Replacement Parts**

<b>Item</b>	<b>Link Part No.</b>	<b>Comcode</b>
Monitor, Amber for 715GBCS-2	901812-02	407510387
Monitor, White for 715GBCS-2	901812-03	407510353
Keyboard for Monitors 901812-03	901820-01	407510395
Manual for 715GBCS-2	883345-02	407536549
Adapter Cable for 715GBCS-2	565764-01	407536531



---

# Configuring the Terminal

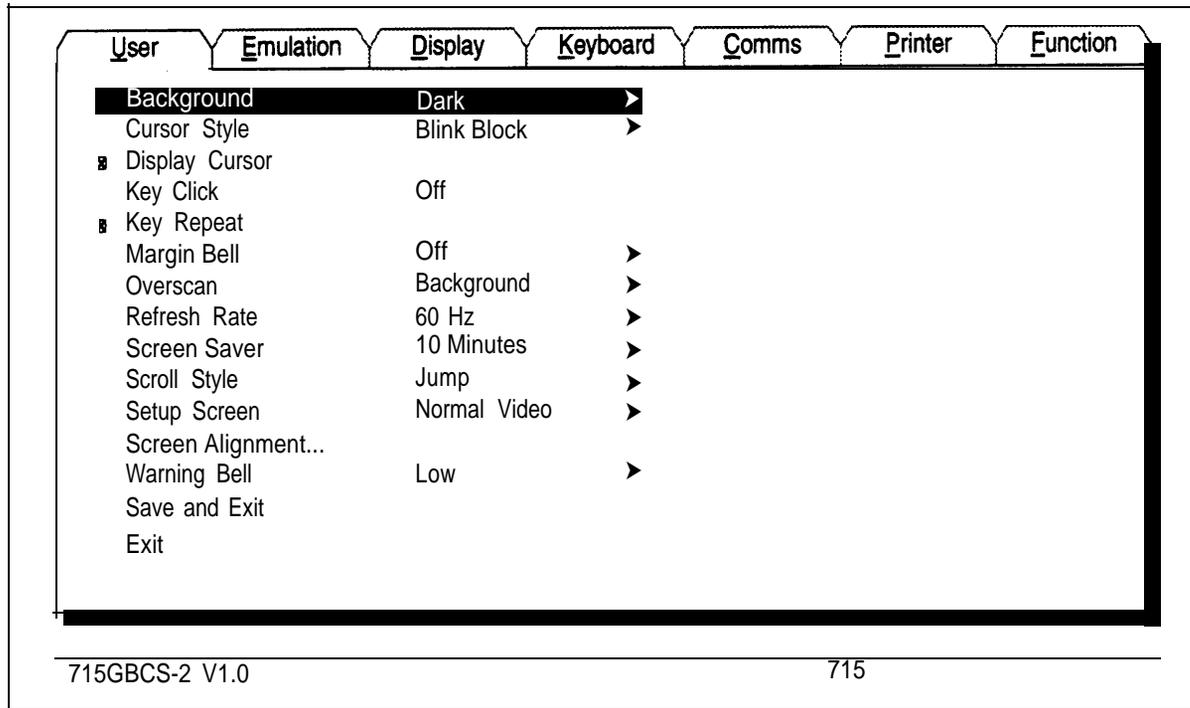
# 2

---

This chapter explains how to make and save changes to the terminal's configuration. Each configuration folder is illustrated, and its parameters and options are described in tables.

## **How to Invoke the Configuration Mode**

To invoke the configuration mode, simultaneously press [CTRL] + [F1]. The first of a set of seven folders, the User Folder, is displayed. See the following figure.



**Figure 2-1. The User Folder**

These folders, or menus, allow access to the configuration parameters and options. The folders are:

- User
- Emulation
- Display
- Keyboard
- Comms
- Printer
- Function

## **How to Use the Configuration Menus**

---

This section describes how to open folders, set parameters and options, and save changes.

### **Opening Folders**

---

To open a folder, press the keyboard letter that corresponds to the first letter of the folder name. For example, pressing [ E ] opens the Emulation folder. You can use either capitals or lower case.

### **Setting Parameters and Options**

---



#### **CAUTION:**

*It is recommended that you record or print a copy of the terminal's current configuration before making any changes.*

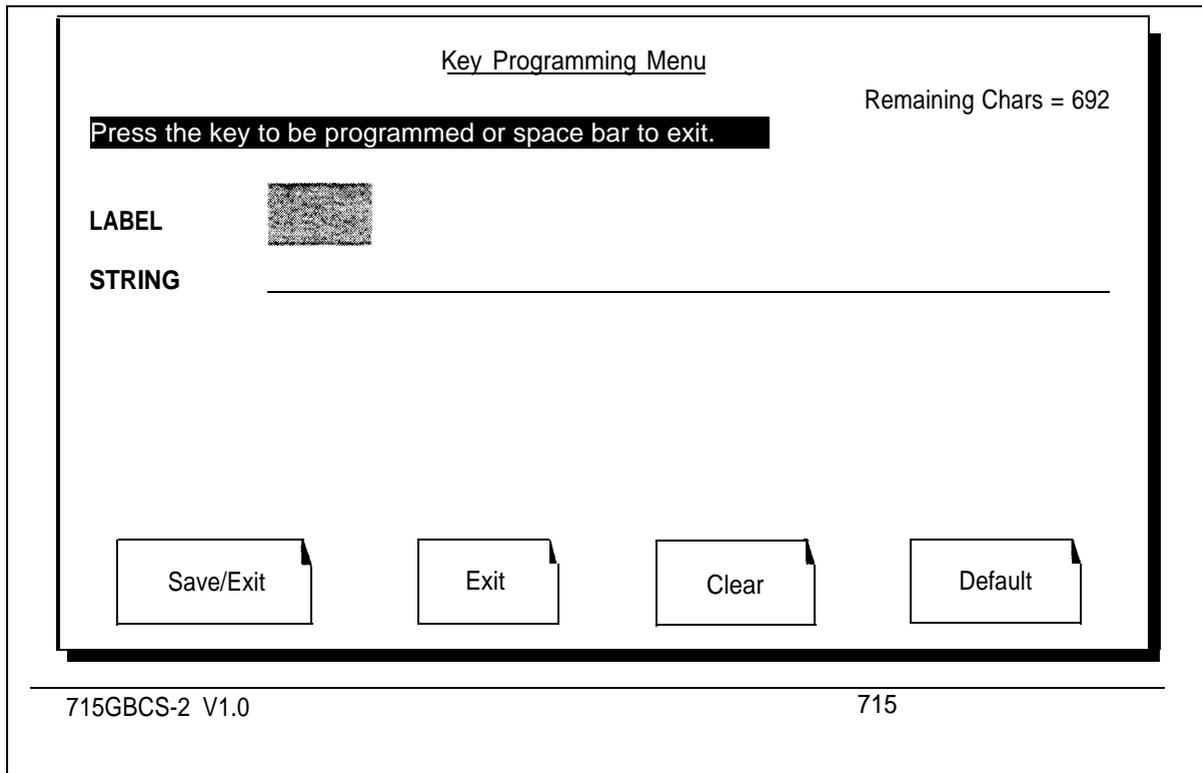
*Use [ CONTROL ] + [ P ] to print the current contents of the configuration folders. Saving a configuration deletes the previously saved configuration. Be sure that the parameter options you selected satisfy your requirements before saving them.*

To select a parameter, use the up or down arrow keys [ ▲ ] [ ▼ ] to move the cursor over (highlight) the desired parameter.

Parameters that toggle on/off are denoted by a small box to the left and are set by pressing [ ENTER ]. A checked box [  ] indicates the parameter is on, and an empty box indicates it is off.

Parameters that have selectable options are denoted by an arrow to the right. To display a list of options, select the parameter and press [ ENTER ], or [ ► ]. The currently selected option has a check next to it. To select a different option, use [ ▲ ] or [ ▼ ] to highlight it and press [ ENTER ]. To move to the previous level, press [ ◀ ]. The newly selected option will be noted next to the parameter.

A few parameters have a separate menu for you to enter text; they are denoted by an ellipsis (...) after the parameter. To display this menu, select the parameter and press [ ENTER ] or [ SPACE ]. The figure below shows the function key programming menu, which is an example of this type. These low-level menus use various means of returning to the previous menu level.



**Figure 2-2. Example of a Separate Menu Used to Enter Text**

Type the desired text, then use the arrow keys to select the command boxes at the bottom as needed. To exit and save your text, select the [ SAVE/EXIT ] box at the bottom and press [ ENTER ]. The new text will be applied.

## **Saving Your Configuration**

To save the configuration to permanent memory, open the Function folder, select Save All or Save Modes and press [ ENTER ]. A small menu appears; select [ OK ] to save or [ CANCEL ] to return to the menu without saving. A saved configuration will continue in effect the next time the terminal is powered on.

## **Restoring Last Saved Set of Parameters**

Alternatively, If you do not want to save the configuration, you can restore the terminal to the last saved set of parameter options. Open the Function folder and select Restore All; select [ OK ] to save or [ CANCEL ] to return to the menu without saving. The last saved set of parameter options is immediately restored to the terminal.

## **Restoring the Factory Default Configuration**

There may be instances where you want to use the terminal's default configuration. You can restore the terminal's default configuration at any time by opening the Function folder, selecting Factory Default, and selecting [ OK ].

## **Returning to Operation**

When you have selected and saved your configuration, exit and return to the operating screen by opening either the Function folder or the User folder and selecting Exit.

### **NOTE:**

Pressing [ CONTROL ] + [ F1 ] at any time will toggle the terminal from configuration mode to operating mode, or vice-versa. Toggling into configuration mode in the middle of an active session may result in loss of data.

---

## Configuration Folders

---

This section details the configuration folders. Each folder is illustrated, and a table describing the parameters and options follows. In the tables, default options are in oblique (italic) typeface and non-default options are in plain typeface.



### **CAUTION:**

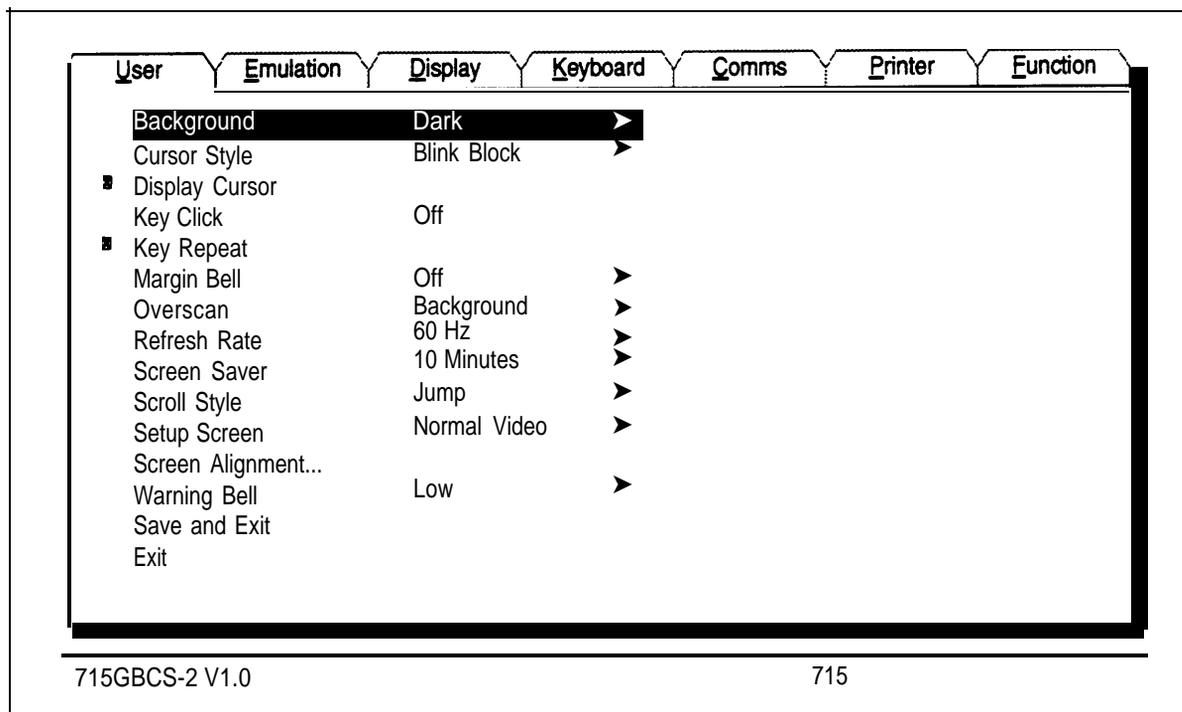
*It is recommended that you record or print a copy of the terminal's current configuration before making any changes. Saving a configuration deletes the previously saved configuration. Be sure that the parameter options you selected satisfy your requirements before saving them.*

### **The User Folder**

---

The parameters found in this folder include such features as cursor style, refresh rate, and the screen's background.

See the following figure and table.



**Figure 2-3. The User Folder**

---

**Table 2-1. User Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Background	Selects the type of background displayed on the screen. Choose:  <i>Dark or Light.</i>
Cursor Style	Selects the type of cursor displayed on the operations screen. Choose:  <i>Blink Block, Steady Block, Blink Line, or Steady Line.</i>
Display Cursor	Determines whether the cursor will be displayed on the screen.  Highlight the option and press [ <u>ENTER</u> ] to enable or disable. A checked box indicates it is enabled.
Keyclick	Sets the loudness of the keyboard's keyclick sound.  <i>Off, Low, Medium, or High</i>
Key Repeat	Enables/disables a key's ability to repeat entry of a character when the key is pressed and held.  Highlight the option and press [ <u>ENTER</u> ] to enable or disable. A checked box indicates it is enabled.
Margin Bell	Sets the loudness of the margin bell's sound. The bell rings when the cursor reaches the column where the bell is set. The default is column 72 in an 80-column display format, and column 124 in a 132-column format.  <i>Off, Low, Medium, or High</i>

---

*Continued on next page*

**Table 2-1. User Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Overscan	Sets the overscan area's intensity. Choose:  Dark, Dim, Normal, Bold, or <i>Background</i> .
Refresh Rate	Selects the display's refresh rate. Choose:  <i>60 Hz</i> or <i>76 Hz</i> .  <i>Note:</i> In areas where machinery and fluorescent lighting cause heavy electromagnetic interference, choose <i>60 Hz</i> .
Screen Saver <sup>1</sup>	Enables/Disables the terminal's screen saver feature. The keyboard LEDs blink when the screen saver is active. Choose:  <i>Off</i> , <i>5 Minutes</i> , <i>10 Minutes</i> , <i>20 Minutes</i> , <i>30 Minutes</i> , or <i>60 Minutes</i> .
Scroll Style	Determines the rate that data scrolls on the screen. Choose:  <i>Jump</i> (determined by the host application), <i>Smooth-1</i> (one line/second) <i>Smooth-2</i> (two lines/second) <i>Smooth-4</i> (four lines/second) <i>Smooth-8</i> (eight lines/second).

<sup>1</sup> When the screen saver has been active for 30 minutes, the terminal enters its power saving mode. This mode cuts power to the CRT, which causes a longer delay in restoring the display.

*Continued on next page*

---

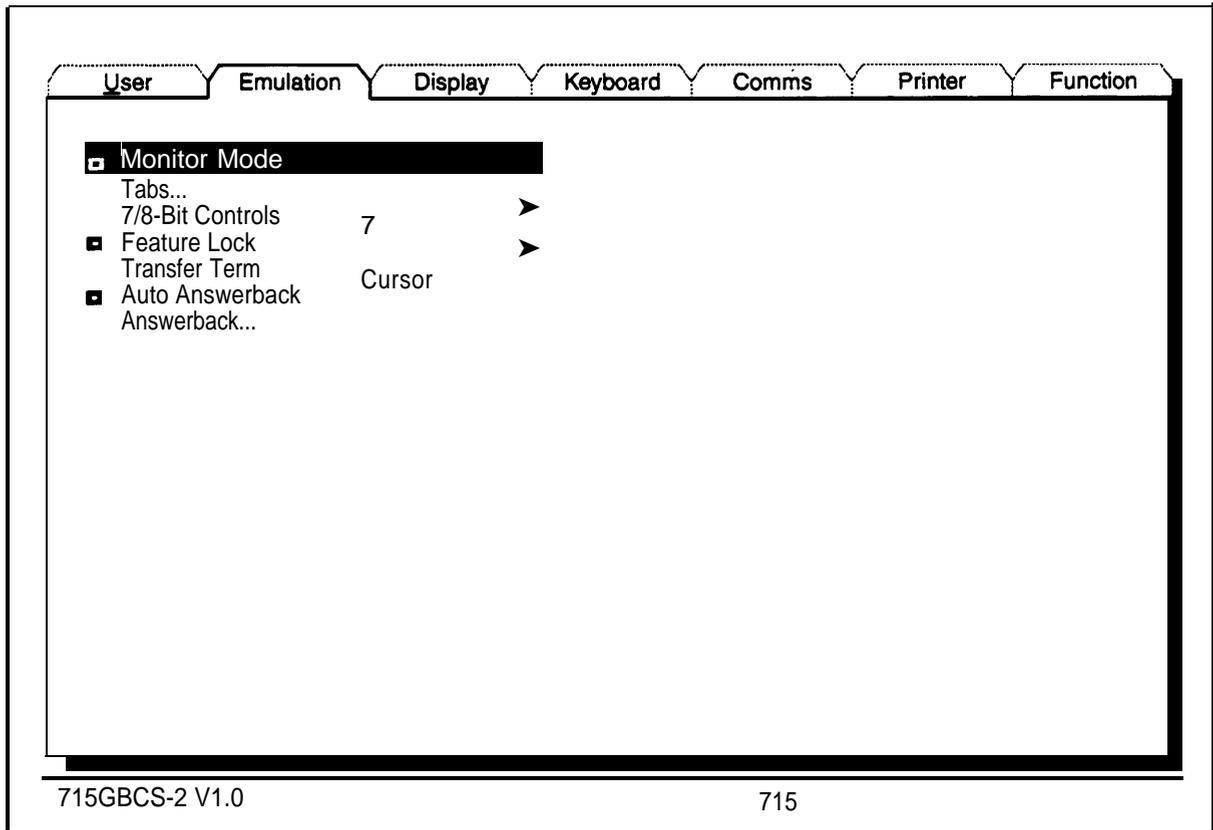
**Table 2-1. User Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Setup Screen	Determines the configuration screen's display attribute. Choose:  <i>Normal Video</i> or <i>Reverse Video</i> .
Screen Alignment...	Allows adjustment of the display screen. Highlight Screen Alignment, press [ <u>ENTER</u> ], and use [ <u>▲</u> ] or [ <u>▼</u> ] to center the screen; press [ <u>ENTER</u> ] to return to the setup menu.
Warning Bell	Sets the pitch of the warning bell's sound. When enabled, a beep is emitted when an inactive communications port receives the ASCII bell character from the host.  <i>Off, Low, Medium</i> or <i>High</i> .
Save and Exit...	Saves the current configuration to memory, and returns to the operations screen.
Exit...	Allows the terminal to use the current settings but does <i>not</i> save them to memory.

## **The Emulation Folder**

Operating parameters found in the *Emulation* folder allow you to configure the terminal's emulation.

See the following figure and table.



**Figure 2-4. Emulation Folder Parameters**

---

**Table 2-2. Emulation Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Monitor Mode	Enables/Disables the terminal's monitor mode feature, which allows the monitoring of data sent to and from the host.  Highlight the option and press [ <u>ENTER</u> ] to enable or disable. A checked box indicates it is enabled.
Tabs...	Sets the terminal's tab settings. Press [ <u>ENTER</u> ], and the Tabs window appears on the screen. Move the cursor to the column where a tab stop is desired and press [ <u>ENTER</u> ]. A "T" appears marking the tab stop. To clear all tabs, highlight [ <u>CLEAR TABS</u> ] and press [ <u>ENTER</u> ]. To select default tabs, highlight [ <u>DEFAULT TABS</u> ] and press [ <u>ENTER</u> ]. To save changes and exit, highlight [ <u>EXIT</u> ] and press [ <u>ENTER</u> ].
7/8 Bit Controls	Selects either 7 - or 8-bit control codes. Choose:  7-bit (recognizes C0 command sequences.)  8-bit (recognizes both C0 and C1 command sequences.)
Feature Lock	Enables/disables the terminal's user features.  Highlight the option and press [ <u>ENTER</u> ] to enable or disable this feature.

*Continued on next page*

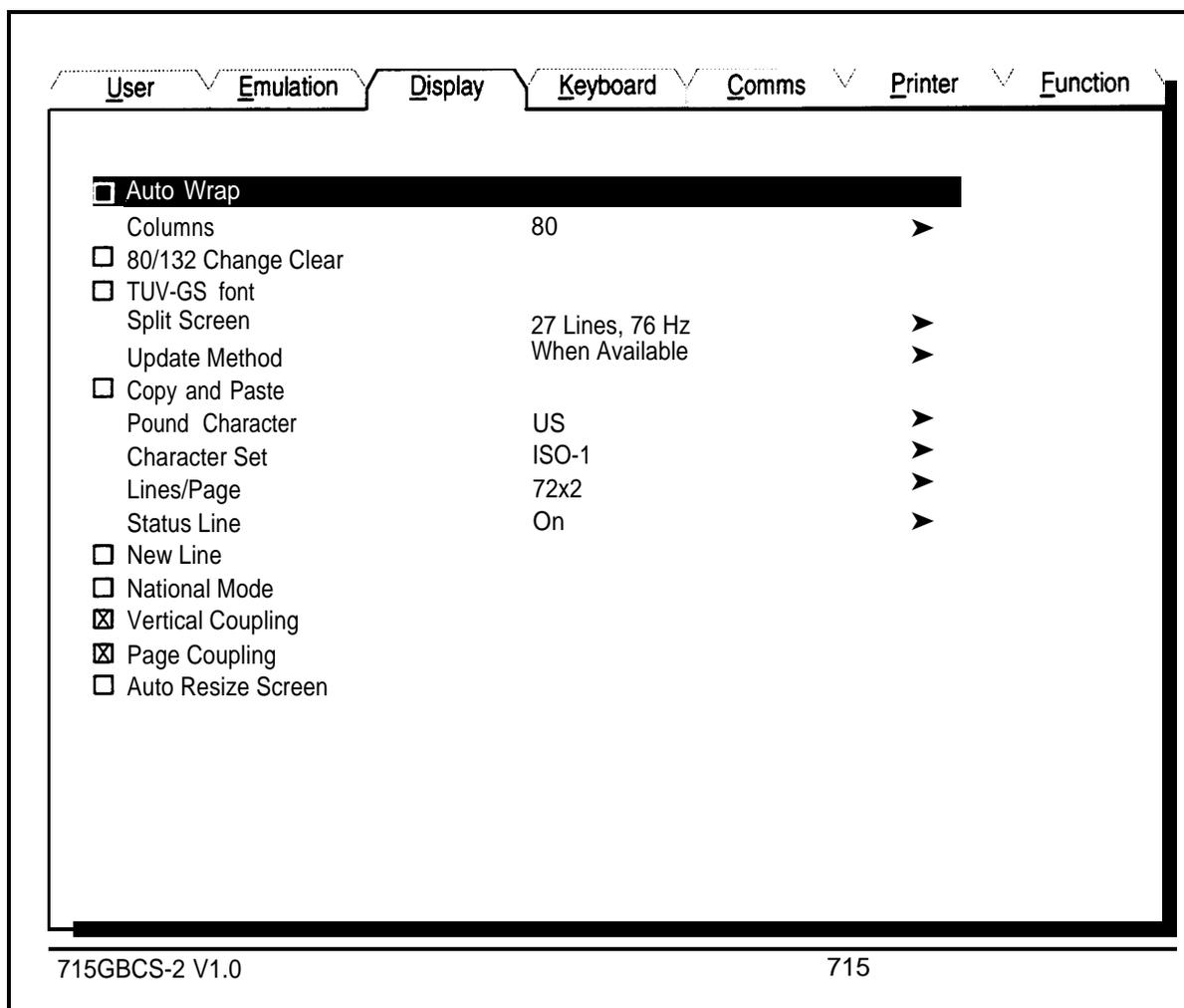
**Table 2-2. Emulation Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Transfer Term	Determines when the terminal transmits data blocks to the host. Choose:  <i>Cursor</i> to transmit at the end of the cursor's position. EOS to transmit at the end of the page or line.
Auto Answerback	Determines whether the answerback message (defined below) is sent to the host once a session has been opened.  Highlight the option and press [ <u>ENTER</u> ] to enable or disable this feature.
Answerback...	Allows you to enter the answerback message. Up to 30 characters may be entered. See Chapter 3, "Operating the Terminal," for more information.

## The Display Folder

The Display folder contains parameter options that affect the terminal's display characteristics, including the number of columns and lines per page, cursor styles, and character attributes.

See the following figure and table.



**Figure 2-5. The Display Folder**

**Table 2-3. Display Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Auto Wrap	<p>Determines the position of characters as they are entered at the end of a line.</p> <p>Highlight Auto Wrap and press [ <u>ENTER</u> ] to enable or disable. When enabled, the cursor moves to the start of the next line. When disabled, the characters are overwritten at the cursor's current position.</p>
Columns	<p>Determines the number of columns displayed on the screen. Choose:</p> <p>80 for an 80-column format. 132 for a 132-column format.</p>
80/132 Change Clear	<p>Clears the screen when the column format is changed.</p> <p>Highlight 80/132 Change Clear and press [ <u>ENTER</u> ] to enable or disable.</p>
TUV-GS font	<p>Enables/disables the TUV-GS font. This font conforms to TUV-GS requirements. When enabled, the screen will be set to 27 lines/76 Hz.</p> <p>Highlight TUV-GS font and press [ <u>ENTER</u> ] to enable or disable.</p>

---

*Continued on next page*

**Table 2-3. Display Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Copy & Paste	Enables/disables the terminal's Copy and Paste feature. See Chapter 3, "Operating the Terminal," for copy and paste instructions.  Highlight Copy & Paste and press [ <u>ENTER</u> ] to enable or disable.
Pound Char	Selects either the United States pound (#) or United Kingdom pound character (£). Choose:  <i>US</i> or <i>UK</i> .
Character Set	Sets the type of character set used by the terminal. Choose:  DEC Multinational, <i>ISO-1</i> , or <i>ISO-2</i>
Lines/Pages	Determines the memory page length. Choose:  24x6 25x6 36x4 48x3 72x2 144x1  The display screen is always 24 lines regardless of what the Lines/Page selection is.

---

*Continued on next page*

**Table 2-3. Display Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Status Line	<p>Enables/disables the operations screen's status line. Choose:</p> <p><i>On</i> to enable a status line with cursor line and column indicators. <i>Host Writable</i> to enable a status line that displays current editing information. <i>Off</i> to disable the status line.</p>
New Line	<p>Determines how the [ <u>ENTER</u> ] key works.</p> <p>When disabled, pressing [ <u>ENTER</u> ] sends only a carriage return character (CR); the cursor does not automatically move to a new line.</p> <p>When enabled, pressing [ <u>ENTER</u> ] sends a carriage return (CR) <i>and</i> a line feed (LF); the cursor automatically moves to a new line.</p>
National Mode	<p>Enables/disables the terminal's national character mode capabilities.</p> <p>Highlight National Mode and press [ <u>ENTER</u> ] to enable or disable.</p>

---

*Continued on next page*

**Table 2-3. Display Folder Parameters and Options**

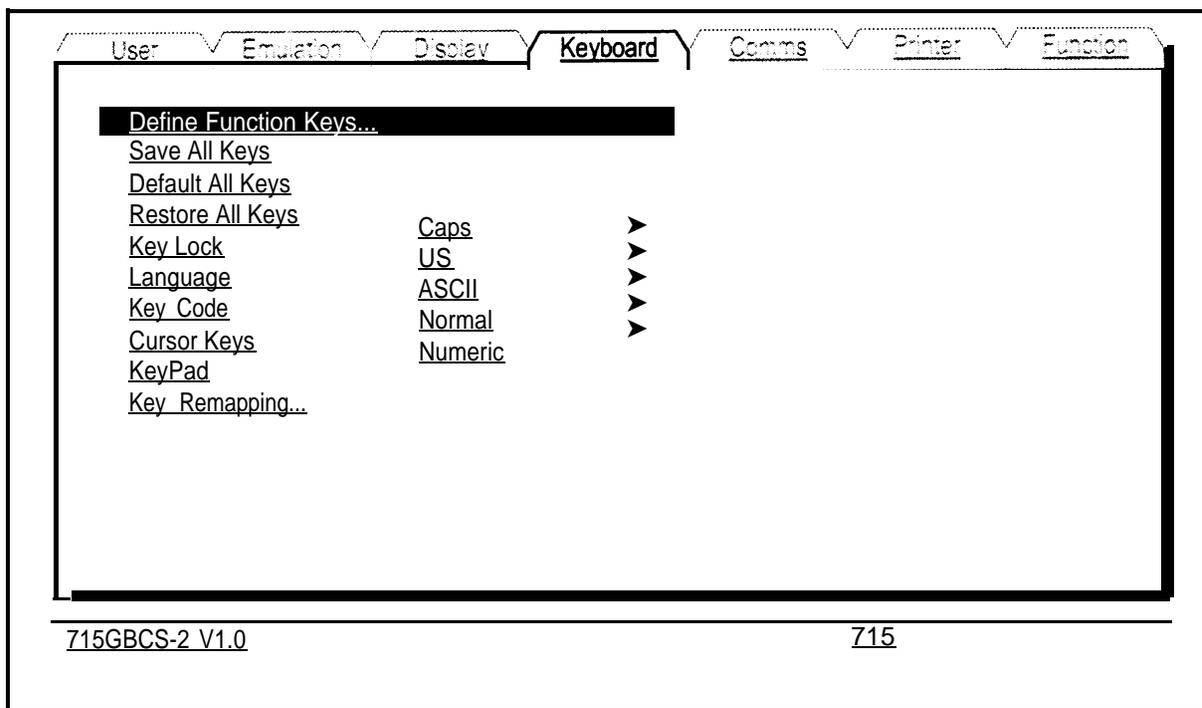
<b>Parameter</b>	<b>Description</b>
Vertical Coupling	Determines the cursor's position when it moves beyond the top or bottom boundaries of a window.  Highlight the option and press [ <u>ENTER</u> ] to enable or disable auto-panning.
Page Coupling	Determines how the cursor is displayed when it moves to a new page.  Highlight the option and press [ <u>ENTER</u> ] to enable (displays the cursor on the new page) or disable (does not display cursor or new page).
Auto Resize Screen	Determines whether the lines per screen format remain fixed or adjust automatically.  Highlight the option and press [ <u>ENTER</u> ] to enable (Lines/Screen parameter automatically adjusts from the Lines/Page parameter selection) or disable (fixes screen format according to Lines/Screen setting).

## The Keyboard Folder

---

The Keyboard folder allows you to configure your keyboard, including parameters such as keyboard languages and key remapping.

See the following figure and table.



**Figure 2-6. The Keyboard Folder**

**Table 2-4. Keyboard Folder Parameter and Options**

<b>Parameter</b>	<b>Description</b>
Define Function Keys...	Displays the key definition window. It is used to reprogram various keys and key sequences. Chapter 3, "Operating the Terminal," for more information.
Save All Keys	Saves the most recent configuration of keys.
Default All Keys	Reverts to the factory default definition for keys.
Restore All Keys	Restores the last saved definition of keys.
Key Lock	Determines how the <i>Caps Lock</i> key functions. Choose:  <i>Caps</i> ; when selected, only alphabet keys generate uppercase characters. Numeric and symbol keys are unaffected.  <i>Reverse</i> ; when selected, the Shift key's function is reversed: shifted alphabet keys generate lowercase characters, and unshifted alphabet keys generate uppercase characters. Numeric and symbol keys are unaffected.  <i>Shift</i> ; when selected, all keys generate shifted characters only.

---

*Continued on next page*

**Table 2-4. Keyboard Folder Parameter and Options**

---

<b>Parameter</b>	<b>Description</b>
Language	Determines the keyboard language so that it matches the keycap set. Choose:  Belgian Czech Danish Dutch Finnish Flemish French French/Belgian French Belgian French Canadian German Hungarian Italian Latin American Norwegian Polish Portuguese Slovak Spanish Swedish Swedish/Finnish Swiss (French) Swiss (German) Swiss (FR/GER) UK US

---

*Continued on next page*

**Table 2-4. Keyboard Folder Parameter and Options**

<b>Parameter</b>	<b>Description</b>
Key Code	When keys are pressed, the terminal sends:  <i>ASCII</i> to use the standard ASCII key codes. <i>Scan</i> to use the PC scan codes (up/down).
Cursor Keys	Determines whether the arrow keys send ANSI cursor control sequences or application-specific control functions. Choose:  <i>Normal</i> so that the arrow keys send their standard ANSI control sequences.  <i>Application</i> so that the arrow keys send application-specific control functions.  <i>Note:</i> The parameter options listed above are <i>not</i> saved to permanent memory.
KeyPad	Determines the type of characters sent from the numeric keypad. Choose:  <i>Numeric</i> to send the characters shown on the numeric keypad.  <i>Application</i> to send control sequences used by the host application.
Key Remapping	Used to remap keys; see Chapter 3, "Operating the Terminal," for more information.

## The Comms Folder

The Comms folder contains the terminal's communications parameters. They include options for transmission limits, break signals, and session port assignments.

See the following figure and table and see Figure 2-8, Full Duplex, Half Duplex, and Block or Half Duplex Block Modes.

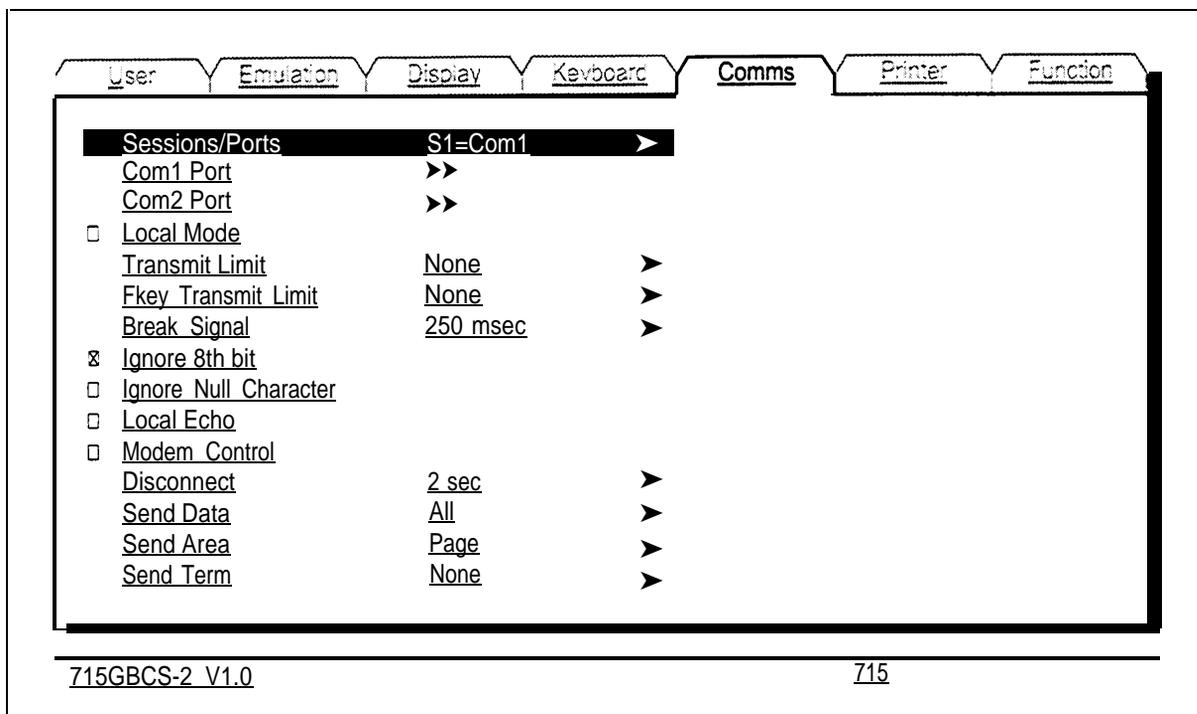


Figure 2-7. The Comms Folder

**Table 2-5. Comms Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Sessions/Ports	<p>Selects the host session and port configurations. For example: selecting S1=Com1 means that Host Session 1 will receive data on COM1. Choose:</p> <p>S1=Com1                      S1=Com2                      S1=Com1, S2=Com2                      S1=Com2, S2=Com1</p>
Com1 Port	<p>Selects the COM1 settings that are appropriate to your needs:</p>
Baud Rate	<p>Determines the COM1's and/or COM2's baud rate. Choose:</p> <p>115200 for a baud rate of 115,200 bps                      76800 for a baud rate of 76,800 bps                      57600 for a baud rate of 57,600 bps                      38400 for a baud rate of 38,400 bps                      19200 for a baud rate of 19,200 bps                      9600 for a baud rate of 9600 bps                      4800 for a baud rate of 4800 bps                      2400 for a baud rate of 2400 bps                      1200 for a baud rate of 1200 bps                      600 for a baud rate of 600 bps                      300 for a baud rate of 300 bps</p>
Data Bit	<p>Determines COM1's and/or COM2's data bit. Choose:</p> <p>8 data bits                      7 data bits</p>

*Continued on next page*

**Table 2-5. Comms Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Parity	<p>Determines COM1's and/or COM2's data parity. Choose:</p> <p>None for no parity            Space for space parity            Odd for odd parity            Even for even parity            Mark for mark parity</p>
Stop Bit	<p>Determines how the terminal sends and receives characters over COM1 or COM2. Choose:</p> <p>1 for one stop bit            2 for two stop bits</p>
Receive Hdshake	<p>Determines COM1's and/or COM2's receive handshake protocol. Choose:</p> <p>None to disable the handshaking protocol.            XON-XOFF/XPC to enable XON-XOFF or XPC software handshaking.            DTR to enable DTR hardware handshaking (raising and lowering the voltage on the communication port's DTR line).            Both to enable both XON-XOFF/XPC and DTR handshaking.</p>

---

*Continued on next page*

**Table 2-5. Comms Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Transmit Hdshake	<p>Determines which handshaking protocol COM1 and/or COM2 uses when transmitting data to the host or a device. Choose:</p> <p><i>None</i> to ignore incoming software handshaking codes. XON/XOFF to respond to XON/XOFF software handshaking. DSR to respond to DSR handshaking. Both to enable both XON-XOFF/XPC and DSR handshaking.</p>
Receive Level	<p>Determines the level of the comm port's receive buffer when the Receive Hdshake parameter is enabled. Choose:</p> <p>25%; when selected, the terminal handshakes when the buffer is 25% full. 50%; when selected, the terminal handshakes when the buffer is 50% full. 75%; when selected, the terminal handshakes when the buffer is 75% full.</p>
Parity Check	<p>Determines whether the terminal performs parity checks when sending and receiving data on COM1 and/or COM2.</p> <p>Highlight this option, and press [ <u>ENTER</u> ] to enable or disable parity checks.</p>

---

*Continued on next page*

**Table 2-5. Comms Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Interface	<p>You must select RS-232C.</p> <p><i>Note:</i> If RS-422A is selected, the terminal will not work; RS-422A is not available.</p>
Local Mode	<p>Determines whether characters entered from the keyboard are displayed on the screen. Choose:</p> <p>Highlight this option, and press [ <u>ENTER</u> ] to enable (characters are immediately displayed on the screen) or disable (characters are sent only to the host).</p>
Transmit Limit	<p>Determines the rate at which the terminal sends data via the host port (COM1 or COM2). Choose:</p> <p><i>None</i> to send data as fast as the terminal's baud rate allows.            30 cps to send data at 30 characters per second.            60 cps to send data at 60 characters per second.            150 cps to send data at 150 characters per second.</p>
FKey Transmit Limit	<p>Determines the rate at which function key definitions are sent. Choose:</p> <p><i>None</i> to send the a definition as fast as the terminal's baud rate allows.            30 cps to send a definition at 60 characters per second.            60 cps to send a definition at 60 characters per second.            150 cps to send a definition at 150 characters per second.</p>

---

*Continued on next page*

**Table 2-5. Comms Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Break Signal	Determines how the terminal responds to a break signal sent from the keyboard. Choose:  170 msec to send a 170 millisecond break signal. 250 msec to send a 250 millisecond break signal. 500 msec to send a 500 millisecond break signal. Off to disable.
Ignore 8th Bit	Determines the number of bits the terminal receives. Choose:  Highlight this option and press [ <u>ENTER</u> ] to enable (receives bits 0 through 6) or disable (receives bits 0 through 7).
Ignore Null Character	Null characters coming from the host are discarded.
Local Echo	Determines whether characters entered from the keyboard are displayed on the screen.  Highlight this option and press [ <u>ENTER</u> ] to enable (characters are immediately displayed on the screen) or disable (characters are sent to the host without displaying them unless they are echoed from the host).

---

*Continued on next page*

**Table 2-5. Comms Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Modem Control	<p>Configures the terminal so that it operates with a variety of modem features.</p> <p>Highlight this option and press [ <u>ENTER</u> ] to enable or disable. Choose enable for modem features requiring other signals in addition to the data leads. Choose disable to ignore modem controls (with the exception of data leads).</p>
Disconnect	<p>Determines how long the terminal waits before disconnecting communications when a signal is no longer detected for the specified time period. Choose:</p> <p>2 sec to select a two-second delay before disconnecting. 60 msec to select a 60-millisecond delay.</p>
Send Data	<p>Determines how data is sent to the host during a block transmission. Choose:</p> <p><i>All</i> to send erasable and nonerasable data. <i>Erasable</i> to send only erasable data.</p>

---

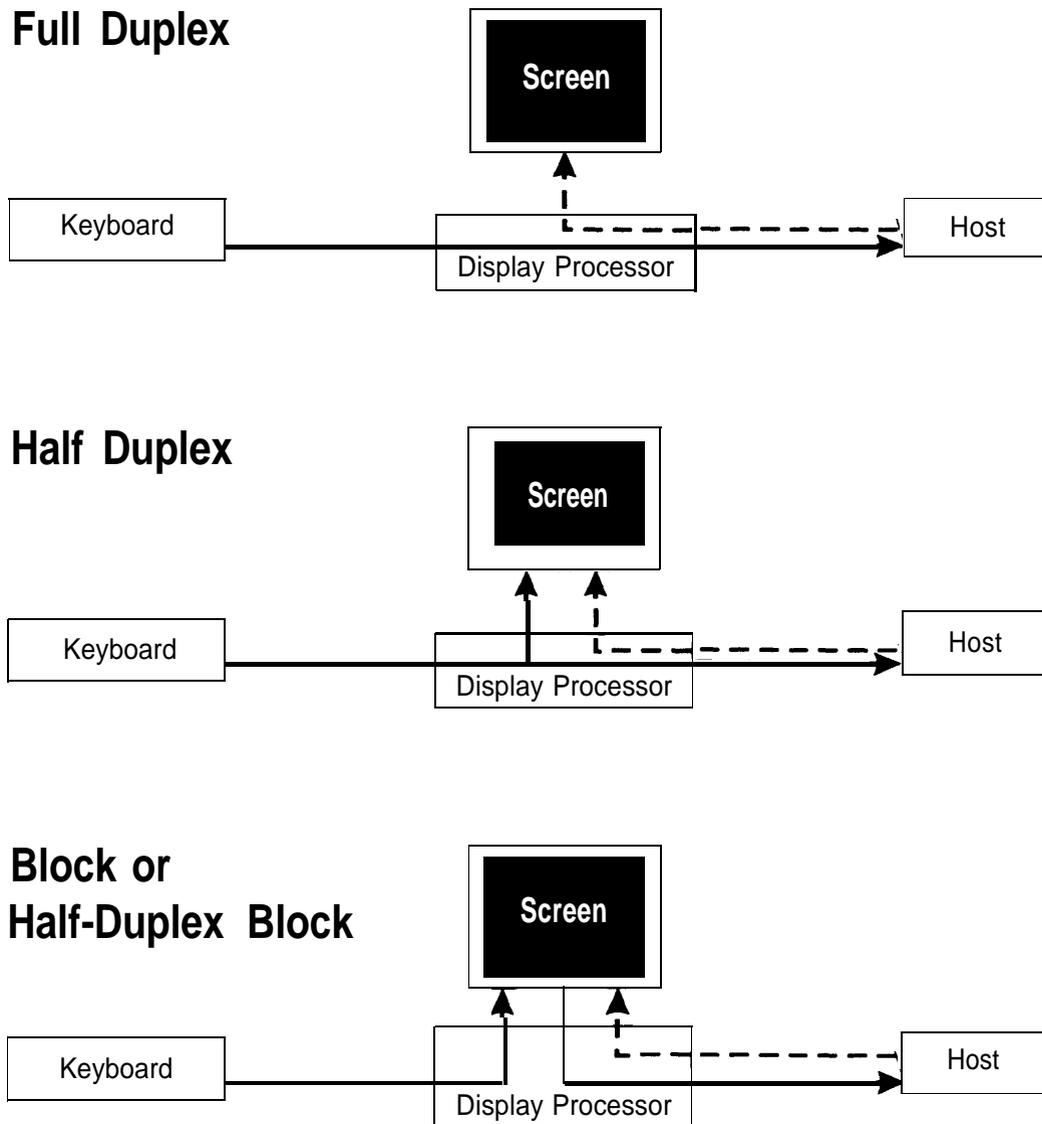
*Continued on next page*

**Table 2-5. Comms Folder Parameters and Options**

---

<b>Parameter</b>	<b>Description</b>
Send Area	Determines how data is sent to the host during a send page operation. Choose:  <i>Page</i> to send an entire page of data. <i>Scroll Region</i> to send data from a defined scrolling region.
Send Term	Determines whether a terminator or form feed (FF) character is sent at the end of a page. Choose:  <i>None</i> so that no character is sent. <i>Form Feed</i> to send a form feed character.

---



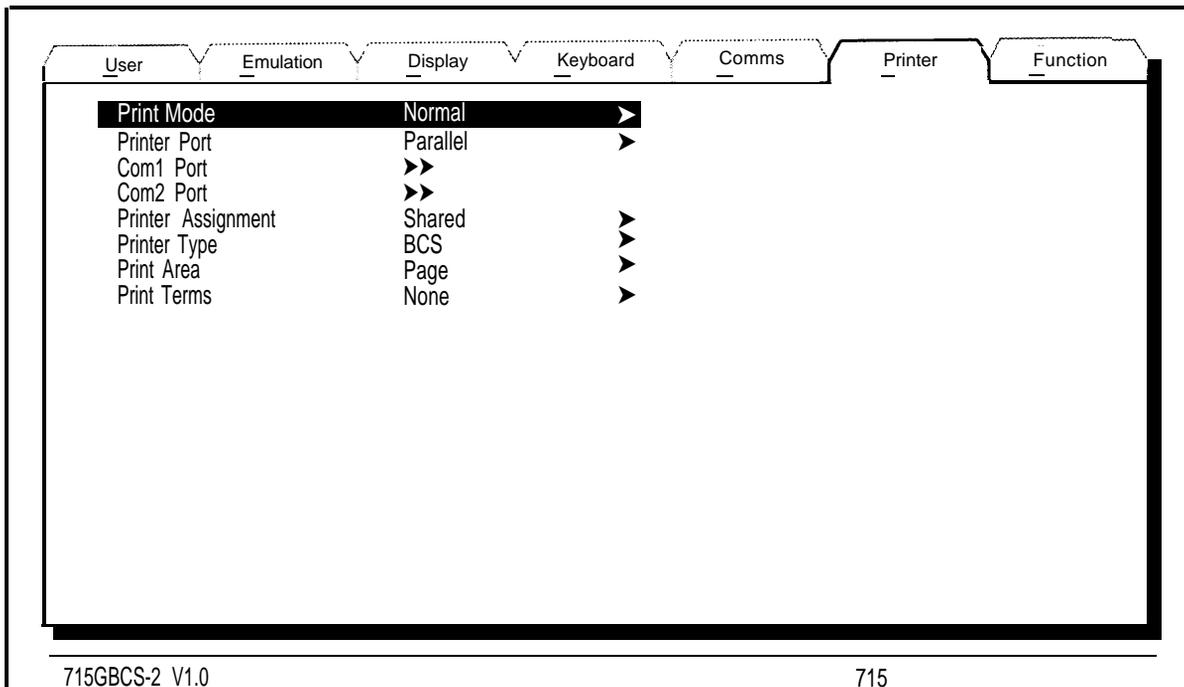
---

**Figure 2-8. Full Duplex, Half Duplex, and Block or Half Duplex Block Modes**

## The Printer Folder

The *Printer* folder contains parameter options for the terminal's print capability.

See the following figure and table and Figure 2-10, The Print Modes.



**Figure 2-9. The Printer Folder**

**Table 2-6. Printer Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Print Mode	<p>Determines how data is sent to the terminal's printer port. Choose:</p> <p><i>Normal</i> to send data in response to a print page or print line command from the keyboard or the host.</p> <p><i>Auto</i> to display data as it is received from the host (sometimes referred to as copy print).</p> <p><i>Control</i> to receive data from the host without displaying it on the screen (sometimes referred to as transparent print).</p> <p><i>Ctrl</i> is an autoprint function, allowing data from the printer port to be by-passed from the terminal to the host.</p> <p><i>Bidir</i> data when data comes into host and returns to terminal.</p> <p><i>Sec-Rcv</i> when data comes in from the Aux port and bypasses to the host (transparent).</p>
Printer Port	<p>Selects the communications port where the printer is connected. Choose:</p> <p><i>Parallel</i> if the printer is connected to the terminal's PARALLEL port.</p> <p><i>Serial</i> if the printer is connected to either COM1 or COM2.</p>

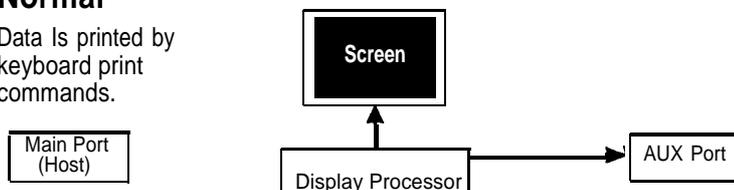
*Continued on next page*

**Table 2-6. Printer Folder Parameters and Options**

<b>Parameter</b>	<b>Description</b>
Printer Type	Determines how data is printed during a block transmission. Choose:  <i>BCS</i> to select the BCS printer type/driver. National to print the selected national character set. <i>475</i> to select the 475 printer type/driver. <i>572/573</i> to send character set mapping escape sequences to the printer while printing. ProPrinter; set to ProPrinter if the printer is, or can emulate an IBM ProPrinter. FX-86; set to FX-86 if the printer is, or can emulate an FX-86. Line Drawing to print line drawing characters. All Char; for printers that recognize the ASCII, DEC Multinational, ISO Latin and Line Drawing Character sets, set to All Char.
Print Area	Determines how the terminal sends data to the printer port. Choose:  <i>Page</i> to send a page of data. Scroll Region to send a defined scrolling region.
Print Term	Determines the type of terminator character to be placed at the end of the page during printing. Choose:  <i>None</i> to send no terminator. Form Feed to send a form feed character.

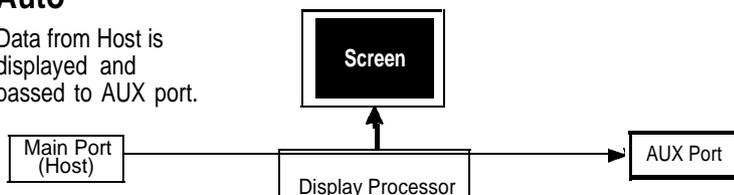
## Normal

Data is printed by keyboard print commands.



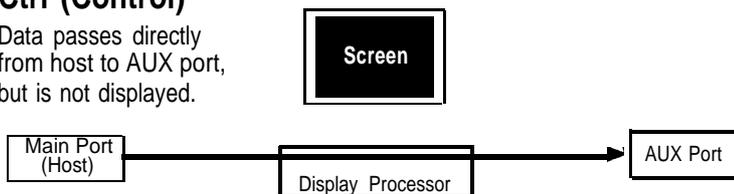
## Auto

Data from Host is displayed and passed to AUX port.



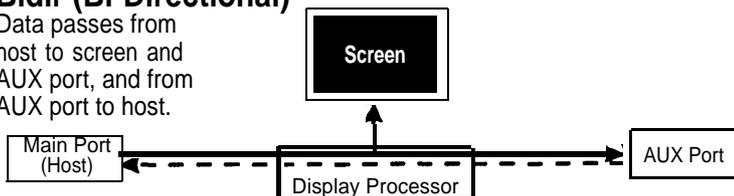
## Ctrl (Control)

Data passes directly from host to AUX port, but is not displayed.



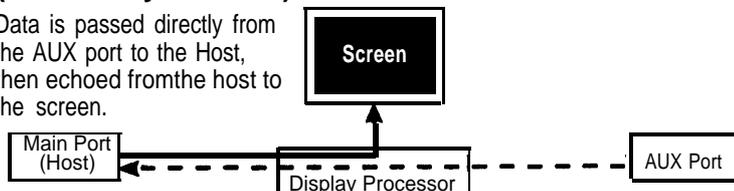
## Bidir (Bi-Directional)

Data passes from host to screen and AUX port, and from AUX port, and from AUX port to host.



## Sec-Rcv (Secondary Receive)

Data is passed directly from the AUX port to the Host, then echoed from the host to the screen.



---

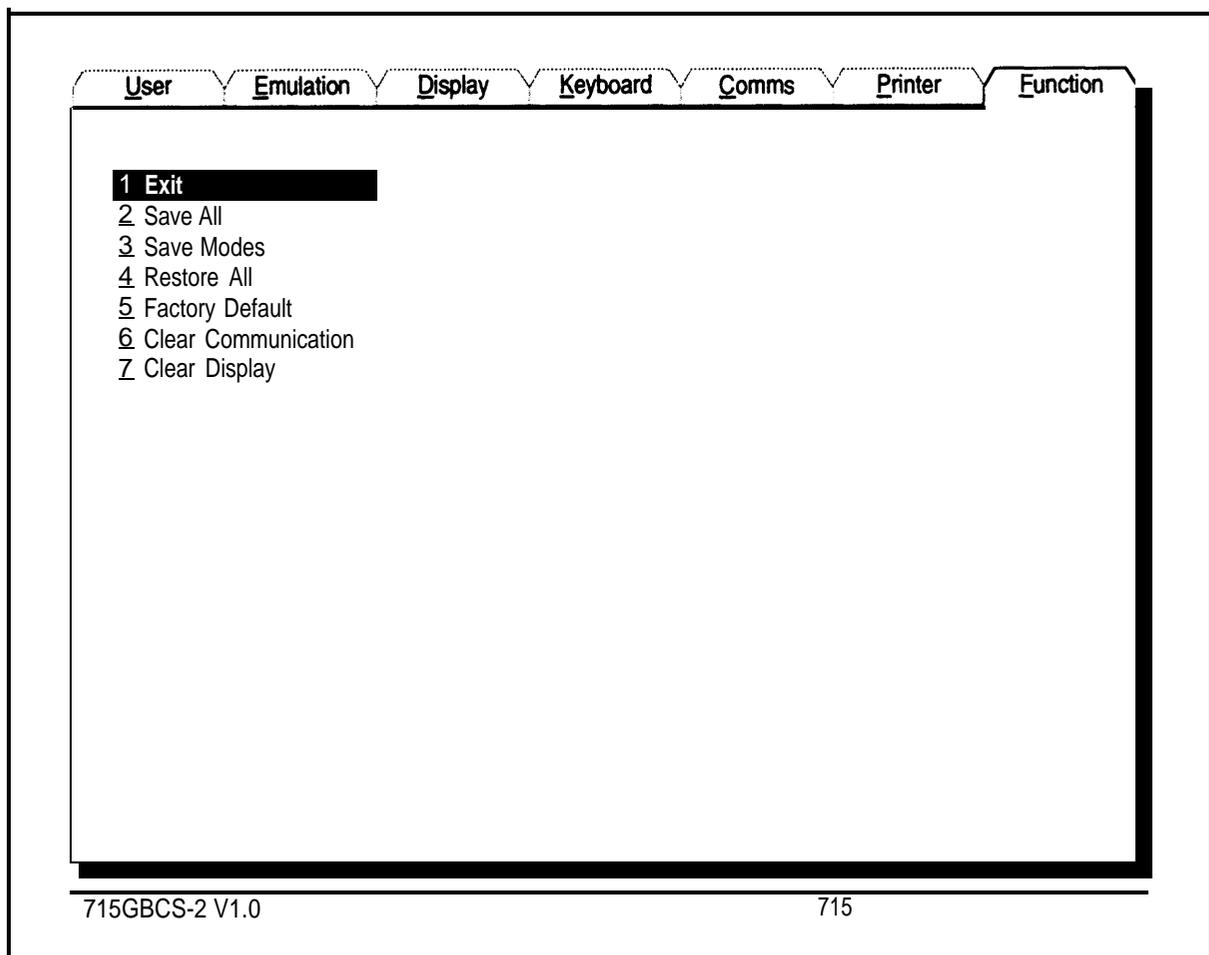
**Figure 2-10. The Print Modes**

## The Function Folder

---

The *Function* folder contains functions necessary for saving and restoring the terminal's configuration, and clearing the communications and display buffers.

See Figure 2-11, The Function Folder, and Table 2-7, Function Folder Parameter and Options.



**Figure 2-11. The Function Folder**

**Table 2-7. Function Folder Parameter and Options**

<b>Parameter</b>	<b>Description</b>
Exit	Exits the configuration folders and returns to the operations screen.
Save All	Saves the current configuration, including function key definitions, tabs, and answerback message.
Save Modes	Saves the current parameter selections, excluding function key definitions, tabs, and answerback message.
Restore All	Reverts to the previously saved terminal configuration parameter selections. You can select this item if you are not satisfied with the current parameter selections.
Factory Default	Select this item to default the terminal to the original factory configuration.

*Continued on next page*

**Table 2-7. Function Folder Parameter and Options**

<b>Parameter</b>	<b>Description</b>
Clear Communcation	<p>Clears the terminal's communications buffers when exiting the configuration folders. Clear Communication does <i>not</i> affect on-line and local operations. However, the following actions occur:</p> <ol style="list-style-type: none"><li>1. Printing operations stop.</li><li>2. Escape and control sequences, as well as control and character strings cease being processed.</li><li>3. The keyboard, receive, and transmit buffers clear.</li><li>4. The terminal sends an XON to the host.</li><li>5. The terminal sends an XON to the printer (when XOFF is enabled).</li><li>6. XOFF flags reset on both ports.</li></ol>
Clear Display	<p>Clears the screen when the configuration folders are exited.</p>

This chapter provides information covering the terminal's operation features and keyboard commands. Operation features include dual session communications, key programming, and printing.

## Local Keyboard Commands

Local keyboard commands are keystroke combinations used to invoke basic functions built into the terminal. In most circumstances, the terminal responds to these commands regardless of its current connections or communications status. The table below lists the local keyboard commands with the keystrokes used to invoke them.

**Table 3-1. Local Keyboard Commands**

<b>Function</b>	<b>Keystrokes</b>
<i>Cursor Control</i>	
Scrolls up the current page	[ CTRL ] + [ ▲ ]
Scrolls down the current page	[ CTRL ] + [ ▼ ]

*Continued on next page*

**Table 3-1. Local Keyboard Commands**

<b>Function</b>	<b>Keystrokes</b>
Scrolls the cursor up the page at an accelerated rate	[ <u>SHIFT</u> ] + [ <u>CTRL</u> ] + [ <u>▲</u> ]
Scrolls the cursor down the page at an accelerated rate	[ <u>SHIFT</u> ] + [ <u>CTRL</u> ] + [ <u>▼</u> ]
Moves the cursor left to the previous tab	[ <u>SHIFT</u> ] + [ <u>TAB</u> ]
Moves the cursor to the top left corner of the screen	[ <u>HOME</u> ]
<i>Miscellaneous Commands</i>	
Selects Print menu on PF keys	[ <u>CTRL</u> ] + [ <u>F4</u> ]
Clears data from current page	[ <u>CTRL</u> ] + [ <u>HOME</u> ]
Resets the terminal	[ <u>CTRL</u> ] + [ <u>ALT</u> ] + [ <u>DEL</u> ] (numeric keypad) or [ <u>CTRL</u> ] + [ <u>NEXT PAGE</u> ]
Change hosts hot keys	[ <u>CTRL</u> ] + [ <u>ENTER</u> ]
Change to user-defined function keys	[ <u>CTRL</u> ] + [ <u>F7</u> ]
Change to system-defined function keys	[ <u>CTRL</u> ] + [ <u>F8</u> ]
Enters or exits setup mode	[ <u>CTRL</u> ] + [ <u>F1</u> ]

*Continued on next page*

**Table 3-1. Local Keyboard Commands**

<b>Function</b>	<b>Keystrokes</b>
Change hosts hot key	[ <u>CTRL</u> ] + [ <u>ENTER</u> ]
Change to user-defined function keys	[ <u>CTRL</u> ] + [ <u>F7</u> ]
Change to system defined function keys	[ <u>CTRL</u> ] + [ <u>F8</u> ]

## Keyboard Language

---

The terminal's keyboard language is selected from the Language parameter in the Keyboard folder. (See Chapter 3, "Configuring the Terminal.") For example, if you want to use the French national character set and keyboard layout, select French from the Language parameter. Your selection takes effect upon exiting setup mode.



**CAUTION:**

*Do not redefine function keys until you have exited and re-entered the configuration mode after setting the Language parameter.*

The terminal supports the following keyboard languages:

- Belgian
- Czech
- Danish
- Dutch
- Finnish
- Flemish
- French
- French/Belgian
- French Belgian
- French Canadian
- German
- Hungarian
- Italian
- Latin American
- Norwegian
- Polish
- Portuguese
- Slovak
- Spanish
- Swedish
- Swedish/Finnish
- Swiss(French)
- Swiss (German)
- Swiss (FR/GER)
- UK (United Kingdom)
- US (United States)

## Keyclick and Warning Bell

---

The keyboard's keyclick and bell features are optional indicators that can be enabled or disabled. The settings for these features are accessed from the *User* configuration folder.

When the Keyclick parameter is set to *Low*, *Medium*, or *High*, the keys make a muted beeping sound as they are pressed. Select *Off* to disable this feature. The *Keyclick* parameter can also be enabled or disabled from the User Setup menu.

The warning bell alerts you to system messages and errors. The margin bell functions as a typewriter bell, alerting you to text entries that are getting close to the right margin. The bell's pitch can be adjusted from the *Margin Bell* parameter in the *User* folder.

## Key Programming

---

The [ ENTER ], [ RETURN ], and [ BACK SPACE ] keys can be programmed to send specific character strings or escape sequences to the host and the screen.

### Key Definition Limit

---

Up to 256 characters may be programmed for a single key definition.

### Key Programming Procedure

---



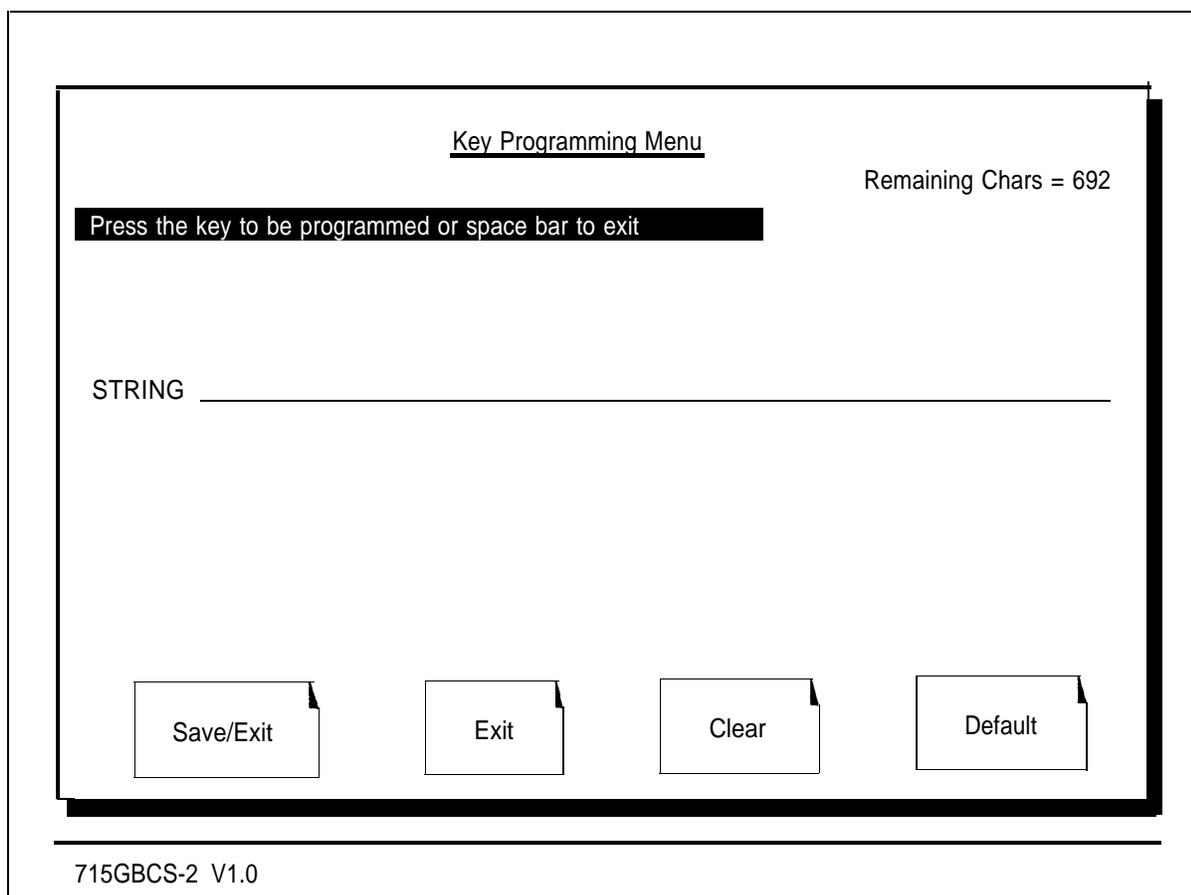
**CAUTION:**

*Applications that have functions defined for certain keys may not run properly if the keys are programmed to perform other functions.*

*If a problem is encountered, restore the factory default values by opening the Function configuration folder and selecting Restore All.*

Your customized key definitions are sent in place of their default characters. The key programming procedure can be used to erase programmed key definitions, thus restoring them to their default values. To program keys, perform the following:

1. Press [CTRL] + [F1] to enter the configuration mode.
2. Select the *Key Remapping...* parameter from the *Keyboard* configuration folder. Press [ENTER]. The menu shown in the figure below is displayed.



**Figure 3-1. Key Programming Menu**

3. Press the key to be programmed. The name of the key is indicated in the field above the *STRING* label, and the cursor moves to the Key String entry field just to the right of the string currently defined for the key.
4. Type the escape sequence and/or text string to be assigned to the key.

**NOTE:**

The [ BACK SPACE ] and [ DEL ] keys can be used to erase keying errors. Pressing [ CTRL ] + [ BACK SPACE ] deletes the entire contents of the string field.

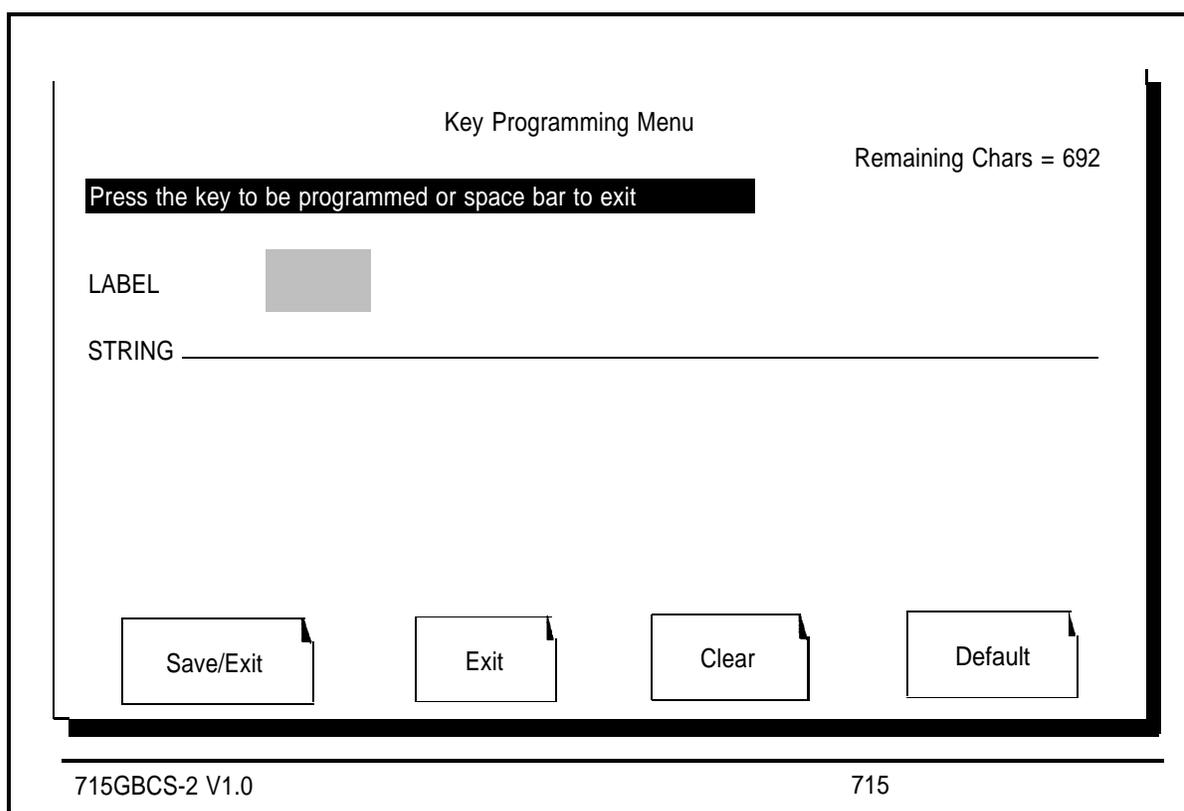
**Table 3-2. Special Key Sequences for Using [ CTRL ] Keys in Programmed Strings**

<b>Function</b>	<b>Keystrokes</b>
The BACKSPACE key	[ <u>C</u> TRL ] + [ <u>h</u> ]
The TAB key	[ <u>C</u> TRL ] + [ <u>i</u> ]
The NEW LINE key	[ <u>C</u> TRL ] + [ <u>j</u> ]
The VERTICAL TAB key	[ <u>C</u> TRL ] + [ <u>k</u> ]
The FORM FEED key	[ <u>C</u> TRL ] + [ <u>l</u> ]
The CARRIAGE RETURN key	[ <u>C</u> TRL ] + [ <u>m</u> ]

5. Press [▼] to move the highlight to the icon row. The four icons execute the following functions:
  - a. *Save/Exit* — Saves the data in the string field and exits to the *Keyboard* configuration menu.
  - b. *Exit* — Exits to the *Keyboard* configuration menu without changing the key definition.
  - c. *Clear* — Erases the contents of the definition field.
  - d. *Default* — Restores the factory default key definitions.
6. Repeat steps 1 through 5 for each key to be programmed.

## Function Key Programming

Function keys [F1] through [F8] can be programmed to send user-defined character strings and/or escape codes when pressed. The Function Key programming menu shown in the following figure also allows the on-screen key labels to be changed. Use the same control keys as used in key remapping to insert special characters into programmed strings.



**Figure 3-2. Function Key Programming Menu**

### Function Key Programming Procedure

1. Press [ CTRL ] + [ F1 ] to enter the configuration mode.
2. Select the *Define Function Keys...* parameter from the *Keyboard* configuration folder. Press the [ ENTER ] key, and the menu shown in Figure 4-2 appears.
3. Select and press the key to be programmed. The name of the key is indicated in the field above the *STRING* label, and the cursor moves to the key label entry field just to the right of the key indicator field.
4. Type the label to be displayed on the screen for the function key.

5. Press [ **▼** ] to move the highlight to the *STRING* field.
6. Enter the escape sequence and/or text string to be assigned to the key.

**⇒ NOTE:**

The [ BACK SPACE ] and [ DEL ] keys can be used to erase keying errors. Pressing [ CTRL ] + [ BACK SPACE ] deletes the entire contents of the string field. (See Table 3-2 for control key sequences.)

7. Press [ **▼** ] to move the highlight to the action field row. The four functions supported by this row are:
  - a. *Save/Exit* — Saves the data in the string field and exits to the *Keyboard* configuration menu.
  - b. *Exit* — Exits to the *Keyboard* configuration menu without changing the key definition.
  - c. *Clear* — Erases the contents of the definition field.
  - d. *Default* — Restores the factory default key definitions.
8. Repeat steps 1 through 7 for each function key to be programmed.

## **Display Features**

---

The terminal displays a total of 24 data rows down the screen, and 80 or 132 columns across the screen. The table below gives user accessible display sizes and refresh rates for each display mode.

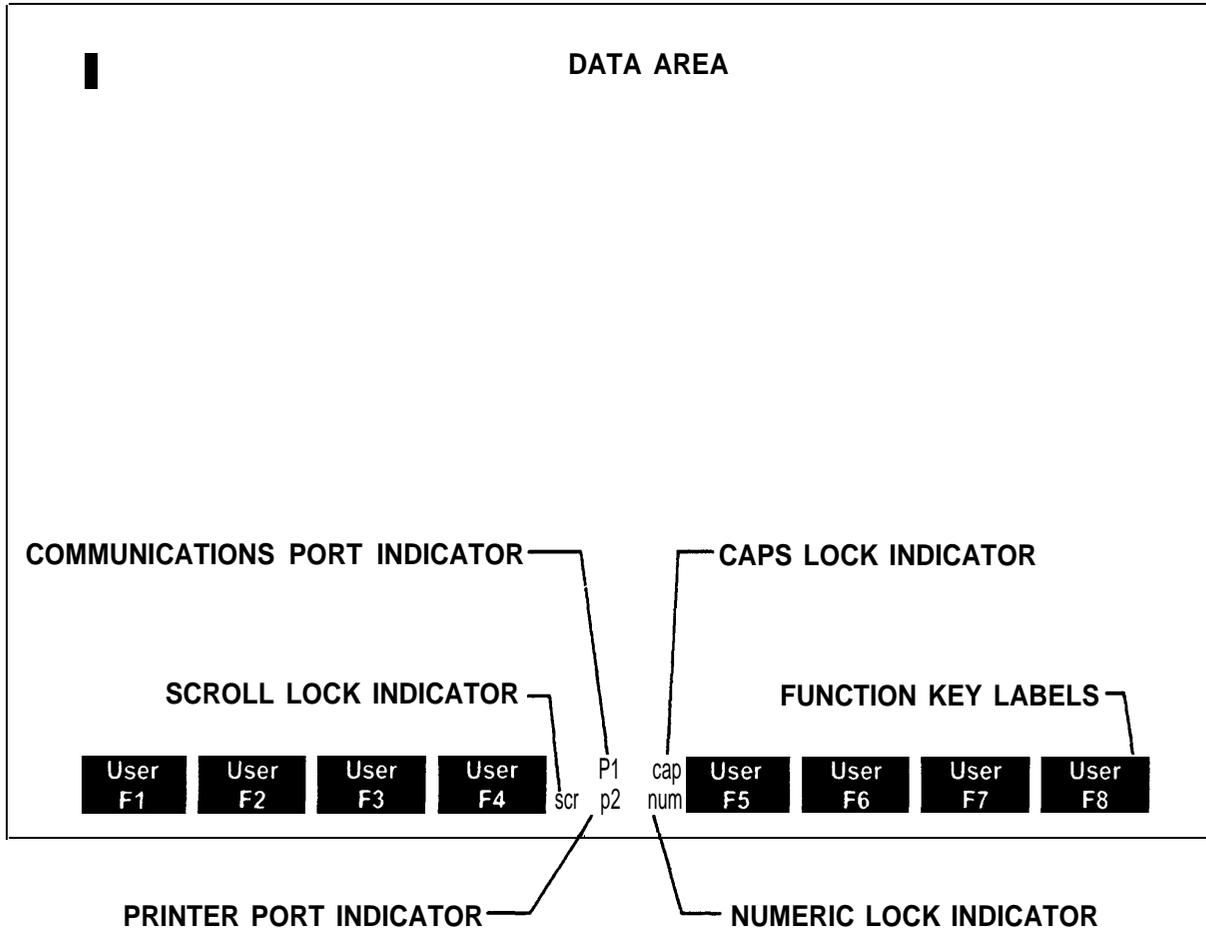
**Table 3-3. Display Size and Refresh Rate**

<b>Display Size</b>	<b>Refresh Rate</b>	
	<b>60 Hz or 76 Hz</b>	<b>76 Hz only</b>
24 Lines	10x16 p/c (pixels/character)	10x13 TUV-GS

### **Display Screen Format**

---

The default screen configuration shown in the figure below is an 80-column display consisting of 24 lines of data, and 2 lines at the bottom of the screen used to display function key names and terminal status indicators.



**Figure 3-3. Default Operating Screen Configuration**

### **The Data Area**

---

The data area is the area of the screen available for displaying data from the keyboard or an application program. The default data area displays 24 lines and 80 columns. The *Display* configuration folder lets you adjust the data area's capacity:

- The *Columns* parameter lets you change the number of columns to 132.
- The *Lines/Page* parameter lets you change the number of lines per display page to 24, 25, 36, 48, 72, or 144. The total number of display lines is 144, so up to six pages can be displayed when this parameter is set to 24x6.

### **The Indicator/Label Rows**

---

The eight rectangles shown at the bottom of the screen represent the eight programmable function keys, [ F1 ] through [ F8 ]. The space at the center of the rectangles is used to display status indicators as illustrated in Figure 4-3. When the terminal is powered on, most of these indicators are blank.

### **Screen Saver**

---

The terminal's screen saver feature prolongs the life of the screen's phosphor by powering off the display when data is not received from the host or keyboard for a specified time period. The display reappears when data is received, or when a key is pressed. (Press [ SHIFT ] to avoid entering data.) When the screen saver has been active for 30 minutes, the terminal enters its power saving mode. This mode cuts power to the CRT, which causes a longer delay in restoring the display.

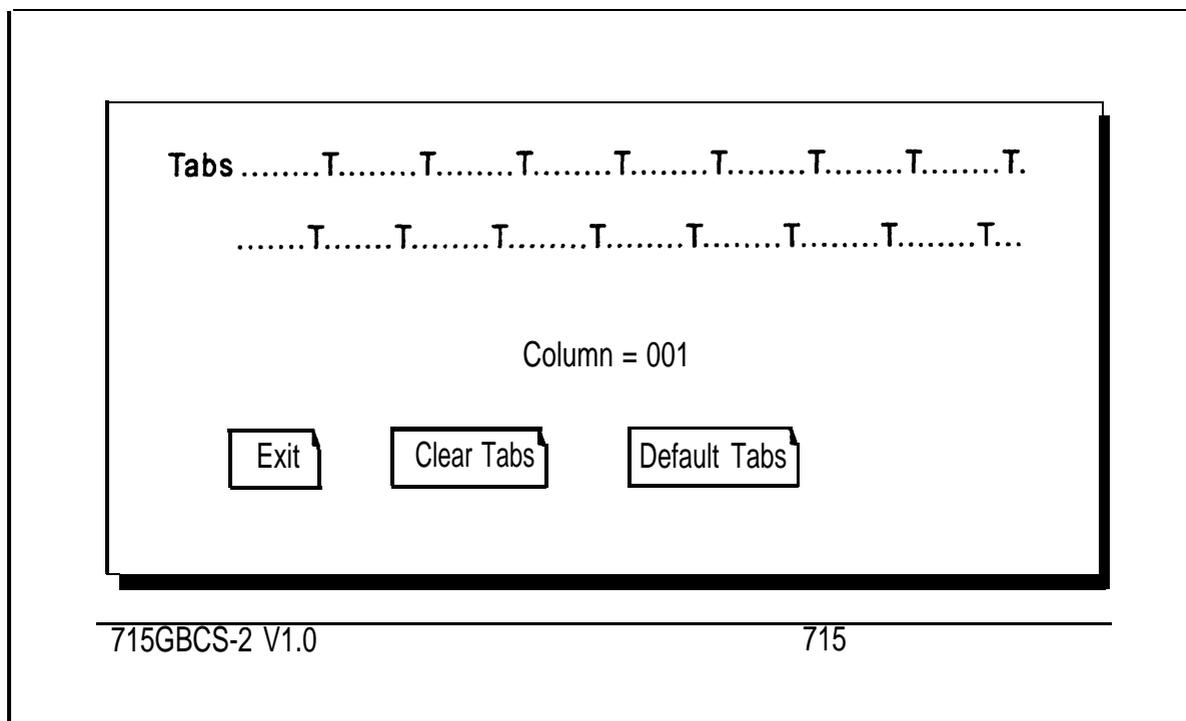
## Tabs

---

The tab setting screen (Figure 4-4) provides the means to set custom tabs, clear tabs, or to default the tab settings to one tab every eight columns.

To set tabs:

1. Enter configuration mode, select the Emulation folder and the Tabs... parameter. The Tab Setting screen shown below appears, displaying the current tab settings. Tabs are indicated by T's in the display. The column counter indicates the cursor's current column position.



**Figure 3-4. Tab Setting Screen**

2. Use the [ ▲ ] [ ▼ ] [ ◀ ] [ ▶ ] keys to move the cursor to the desired column where a tab will be set.
3. Press the spacebar or [ ENTER ], to enable or disable the tabs.

4. Once all your tabs are set or cleared, use the [ ▲ ][ ▼ ][ ◀ ] [ ▶ ] keys to move the cursor to [ EXIT ].
5. Press [ ENTER ] to exit the screen and save the tab settings.

To restore the default tab settings of one tab every eight columns, highlight the Default Tabs icon, and press [ ENTER ]. Perform Steps 4 and 5 above to exit and save the settings.

To clear all tabs, highlight the *Clear Tabs* icon, and press [ ENTER ]. Save this setting by highlighting [ EXIT ] and pressing [ ENTER ].

## Monitor Mode

---

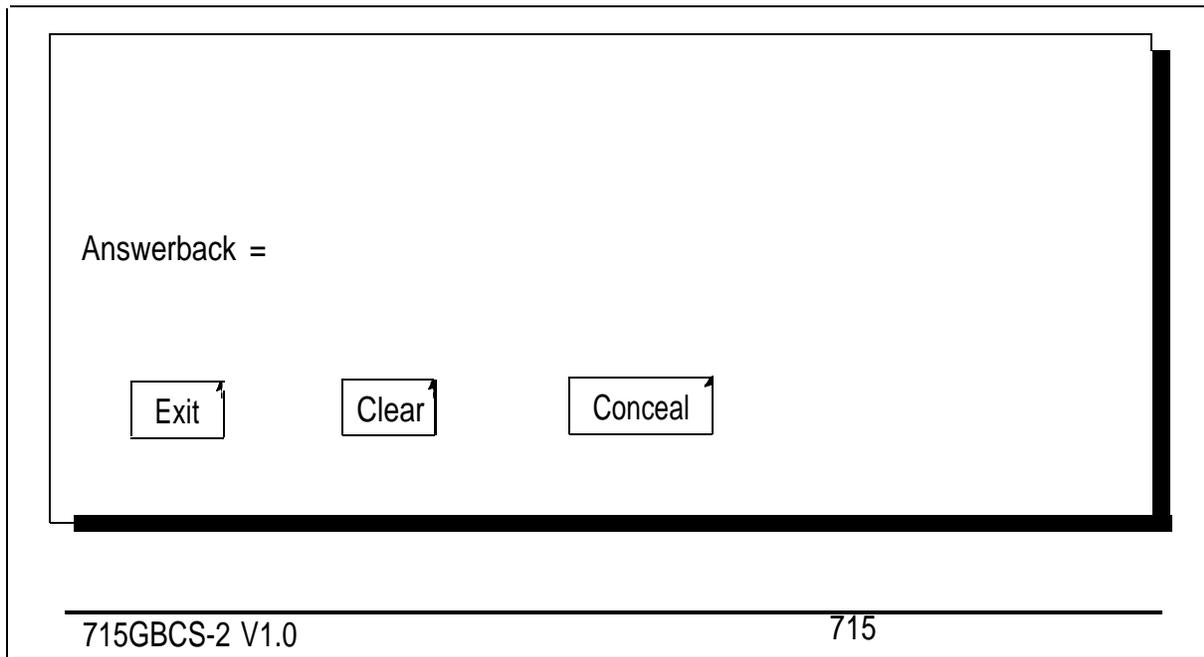
The terminal's *Monitor Mode* feature can be enabled from the *Emulation* configuration folder. This feature allows you to observe the different character and command codes that are being sent to and received from the host computer, as they are displayed on the screen.

## Auto-Answerback

---

The terminal can be configured to automatically send an identification string in reply to a host query. To define the identification string, also known as an Answerback message, perform the following.

1. Enter the configuration mode, and select the *Emulation* folder.
2. Select the *Answerback...* parameter. A screen similar to the one shown in the following figure is displayed. The current Answerback message, if any, is displayed in the *Answerback =* field. To delete the message, highlight [ CLEAR ] at the bottom of the screen, and press [ ENTER ].
3. Type the desired Answerback message in the *Answerback =* field. Up to 30 characters can be used.
4. Use the [ ▲ ][ ▼ ][ ◀ ] [ ▶ ] keys to highlight [ EXIT ] at the bottom of the screen.
5. To save the Answerback message, press [ ENTER ].



**Figure 3-5. Auto-Answerback Screen**

## **Answerback Message**

The Answerback message is displayed on the screen soon after the terminal is powered on. The message can be sent from the keyboard by pressing [ SHIFT ] + [ PAUSE ].

## **Copy and Paste**

The Copy and Paste feature allows you to copy up to one full display page of data (up to 25 lines of 132 characters) and paste it anywhere on the display screen. To copy and paste:

1. Press and hold [ SCROLL LOCK ], then press [ CLEAR/HOME ] to mark the beginning of the block of data to be copied.

2. *While holding down* [ SCROLL LOCK ], use the arrow keys ([ ▲ ] [ ▼ ] [ ◀ ] [ ▶ ] ) to select the block of data or text to be copied. The selected area will be underlined.
3. *While holding down* [ SCROLL LOCK ], press [ END ] to mark the end of the data to be copied.
4. Use the arrow keys ([ ▲ ] [ ▼ ] [ ◀ ] [ ▶ ]) to position the cursor where the copied data will be pasted. The cursor can be positioned anywhere on the screen.
5. Press and hold [ SCROLL LOCK ] then press [ END ] to paste the data at the current cursor position. The data copied will appear on the screen.

## Print Control Features

---

The terminal can be configured to communicate with a serial or parallel printer. For information about printer configurations, see The Printer Folder in Chapter 3, "Configuring the Terminal," and your printer's documentation.

## Print Commands

---

ASCII escape sequences are used to send data from the terminal or host to the printer. Use the remote print command to request that data be sent from the host to the printer.

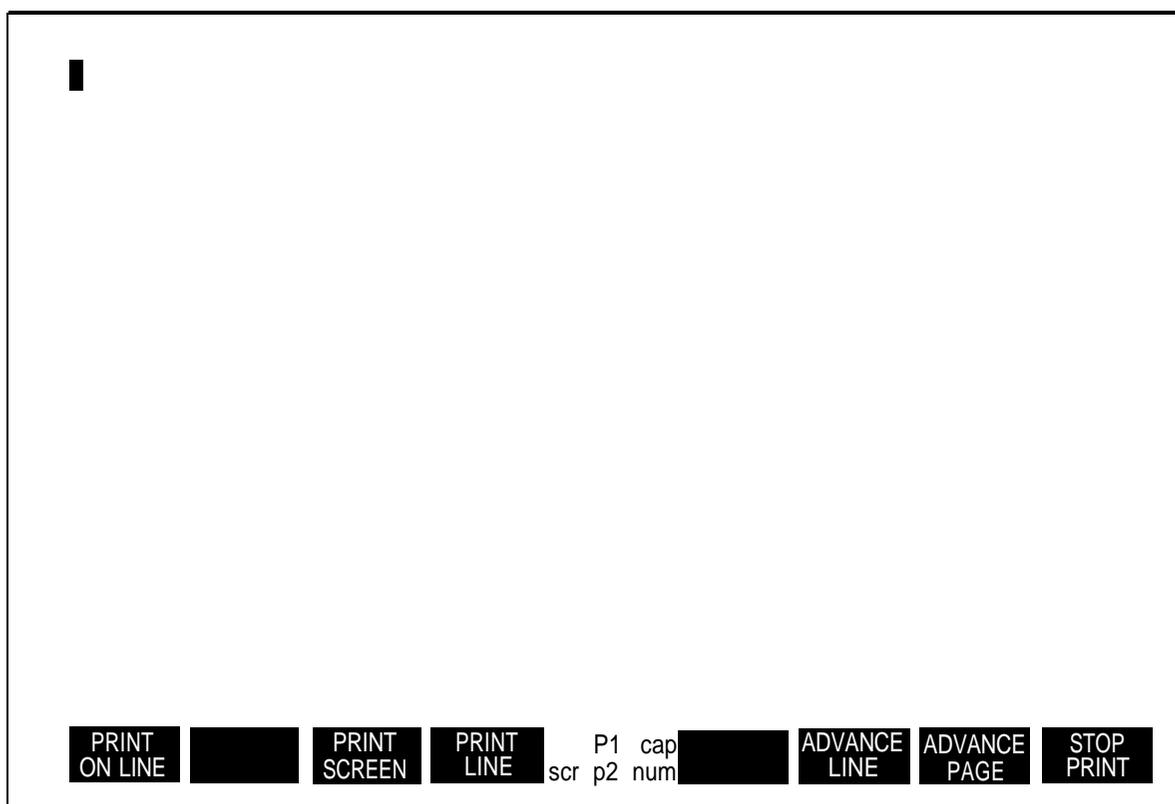
Several local printing commands are supported in local print mode. To enter local print mode, press [ CTRL ] + [ F4 ]. The function key labels across the bottom of the screen change to those shown in the following figure.

The local print commands supported are:

- *Print on-Line*— ([ F1 ]) Print(er) On-Line enables the printer port interface. All data sent to the terminal from the host will be printed.
- *Print Screen*— ([ F3 ]) Sends the data on the screen to the printer.
- *Print Line*— ([ F4 ]) Sends the current line (where the cursor is) of displayed data to the printer.

- Advance Line — ([ E6 ]) Sends a line feed command to the printer.
- Advance Page — ([ E7 ]) Sends a form feed command to the printer.
- Stop Print— ([ E8 ]) disable the printer port interface.

Most configuration folder parameters can be printed by pressing [ CTRL ] + [ P ]. The exception is text input screens, such as Key Definitions and Answerback Messages. The configuration mode must be invoked before printing a configuration folder's contents.



**Figure 3-6. Local Print Screen Labels**

## **National Replacement Characters**

---

Characters displayed on the screen are stored in the terminal's memory as predefined sets. These characters are displayed in response to codes received from the keyboard or from an application program. The keyboard language must be set to the desired character set's language.

The default character set for the US keyboard language is based on the American National Standards Institute (ANSI).

Figures 3-7 and 3-8 provide national replacement character sets for each language supported by the terminal. To use these characters, perform the following:

1. Open the Keyboard folder and select the appropriate keyboard language. (Default is U.S.)
2. Exit the configuration mode.
3. Cross-reference the desired keyboard language character to the appropriate keyboard character from Figure 4-7 or 4-8.

When the keyboard character is entered, the keyboard language character will be displayed.

Only U.S. and U.K. national keyboard languages are supported in the Version 1.0 release (V1.0) of the terminal's firmware. The firmware version is displayed at the bottom of all configuration screens after the terminal model designation.

Keyboard Character Keyboard Language	#	\$	<	>	@	[	\	]	^	'	{		}	~
	23H	24H	3CH	3EH	40H	5BH	5CH	5DH	5EH	60H	7BH	7CH	7DH	7EH
Czech	ú				ě	š	č	ř	ž	ý	á	í	é	ú
Danish					Æ	Ø	Å			æ	ø	å		
Dutch	£				¼	ÿ	½				..	f	¼	'
Finnish					Ä	Ö	Å	Ü	é	ä	ö	å	ü	
French/Belgian	£				à	°	ç	§		é	ù	è	..	
French Canadian					à	â	ç	ê	î	ô	é	ù	è	û
German					§	Ä	Ö	Ü		ä	ö	ü	ß	
Hungarian		¤			Á	É	Ö	Ü		á	é	ö	ü	"
Italian	£				§	°	ç	é		ù	à	ò	è	ì
Latin American						í	Ñ	¿	á	é	í	ñ	ú	ü
Norwegian					Æ	Ø	Å			æ	ø	å	í	
Polish					ę	ź	ł	ń	ś	ą	ó	ł	ż	ć
Portuguese					Ã	Ç	Õ			ã	ç	õ		
Slovak	ä				ĭ	š	č	ř	ž	ý	á	í	é	ú
Spanish					ª	í	Ñ	¿		º	ñ	ç	l.	
Swedish					É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
Swiss (Fr/Ger)	£		[	]	ç	à	é	è			ä	ö	ü	..
United Kingdom	£													

Figure 3-7. ASCII National Replacement Characters

ANSI Keyboard Character Keyboard Language	#	@	[	\	]	^	_	`	{		}	~
	23H	40H	5BH	5CH	5DH	5EH	5FH	60H	7BH	7CH	7DH	7EH
Danish			Æ	Ø	Å				æ	ø	å	
Dutch	£	¼	ij	½	ı				"	f	¼	'
Finnish			Ä	Ö	Å	Ü		é	ä	ö	å	ü
Flemish	£	à	°	ç	§				é	ù	è	"
French/Belgian	£	à	°	ç	§				é	ù	è	"
French Canadian		à	â	ç	ê	î		ô	é	ù	è	û
German		§	Ä	Ö	Ü				ä	ö	ü	ß
Italian	£	§	°	ç	é			ù	à	ò	è	ì
Latin American			ı	Ñ	ı	á		é	í	ñ	ú	ü
Norwegian			Æ	Ø	Å				æ	ø	å	
Portuguese			Ã	Ç	Õ				ã	ç	õ	
Spanish	£	§	ı	Ñ	ı				°	ñ	ç	
Swedish		É	Ä	Ö	Å	Ü		é	ä	ö	å	ü
Swiss Fr/Gr	ù	à	é	ç	ê	î	è	ô	ä	ö	ü	û
United Kingdom	£											

Figure 3-8. ANSI National Replacement Characters



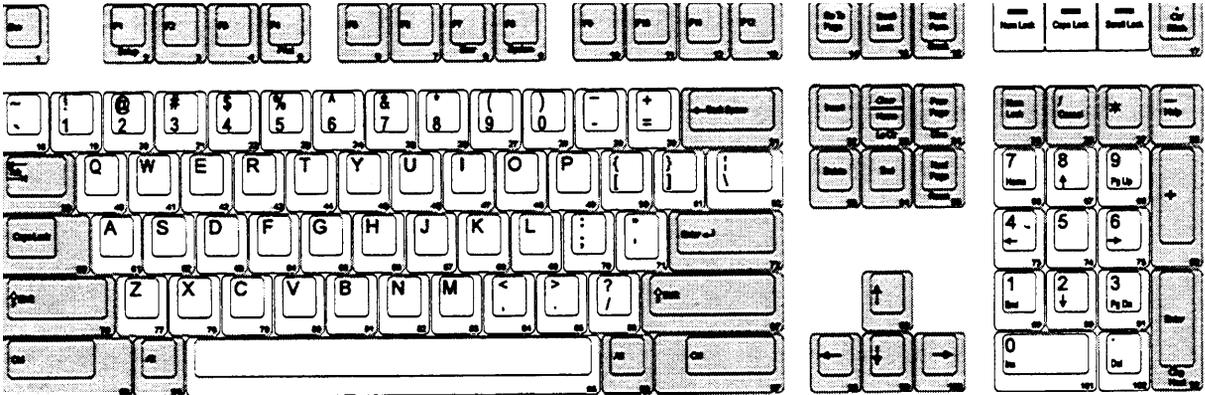
---

# Keyboard Layout



---

The 715GBCS-2 terminal employs a modified Enhanced Personal Computer (EPC) keyboard layout. The following figure shows the details of the key arrangement.



**Figure A-1. 715GBCS-2 Terminal Keyboard Layout**



---

## Character Sets

# B

---

The 715GBCS-2 terminal can print and display characters from three standard sets:

- DEC Multinational
- ISO 8859-1
- ISO 8859-2

The following character maps list the contents of these sets in their assigned ASCII order.

Hex Code 0 → 1 ↓	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	NUL	DLE	SP	0	@	P	`	p		DCS		°	×		÷	
1	SOH	DC1	!	1	A	Q	a	q		PU1	ı	±	Á	Î	á	î
2	STX	DC2	"	2	B	R	b	r		PU2	¢	²	Â	Ò	â	ò
3	ETX	DC3	#	3	C	S	c	s		STS	£	³	Ã	Ó	ã	ó
4	EOT	DC4	\$	4	D	T	d	t	IND	CCH			Ä	Ô	ä	ô
5	ENQ	NAK	%	5	E	U	e	u	NEL	MW	¥	®	Å	Õ	å	õ
6	ACK	SYN	&	6	F	V	f	v	SSA	SPA		¶	Æ	Ö	œ	ö
7	BEL	ETB	'	7	G	W	g	w	ESA	EPA	=	·	Ç	©	ç	°
8	BS	CAN	(	8	H	X	h	x	HTS		□		È	Ø	è	ø
9	HT	EM	)	9	I	Y	i	y	HTJ		©	ı	É	Ù	é	ù
A	LF	SUB	*	:	J	Z	j	z	VTS		Ⓐ	Ⓑ	Ê	Ú	ê	ú
B	VT	ESC	+	;	K	[	k	{	PLD	CSI	«	»	Ë	Û	ë	û
C	FF	FS	'	<	L	\	l		PLU	ST		¼	Ì	Ü	ì	ü
D	CR	GS	-	=	M	]	m	}	RI	OSC		½	Í	ÿ	í	ÿ
E	SO	RS	.	>	N	^	n	~	SS2	PM			Î		î	
F	SI	US	/	?	O	_	o		SS3	APC			Ï		ï	

Figure B-1. DEC Multinational Character Map

Hex Code 0 → 1 ↓	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	NUL	DLE	SP	0	@	P	`	p		DCS	NBSP	°	×	Đ	÷	đ
1	SOH	DC1	!	1	-A	Q	a	q		PU1	ć	±	Á	Î	á	î
2	STX	DC2	"	2	B	R	b	r		PU2	ç	²	Â	Ò	â	ò
3	ETX	DC3	#	3	C	S	c	s		STS	£	³	Ã	Ó	ã	ó
4	EOT	DC4	\$	4	D	T	d	t	IND	CCH	¤	'	Ä	Ô	ä	¹
5	ENQ	NAK	%	5	E	U	e	u	NEL	MW	¥	μ	Å	Ö	å	ö
6	ACK	SYN	&	6	F	V	f	v	SSA	SPA		¶	Æ	Ö	œ	ö
7	BEL	ETB	'	7	G	W	g	w	ESA	EPA	=	•	Ç	×	ç	÷
8	BS	CAN	(	8	H	X	h	x	HTS		¨	,	È	Ø	è	ø
9	HT	EM	)	9	I	Y	i	y	HTJ		©	¹	É	Ù	é	ù
A	LF	SUB	*	:	J	Z	j	z	VTS		ª	º	Ê	Ú	ê	ú
B	VT	ESC	+	;	K	[	k	{	PLD	CSI	«	»	Ë	Û	ë	Û
C	FF	FS	'	<	L	\	l		PLU	ST	¬	¼	Ì	Ü	ì	Ü
D	CR	GS	-	=	M	]	m	}	RI	OSC	SHY	½	Í	Ý	í	Ý
E	SO	RS	.	>	N	^	n	~	SS2	PM	®	¾	Î	Ë	î	ë
F	SI	US	/	?	O	_	o		SS3	APC	—	¯	Ï	·	ï	ÿ

Figure B-2. ISO 8859-1 Character Map

Hex Code	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0 → 1 ↓	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
	NUL	DLE	SP	0	@	P	`	p		DCS	NBSP	°	Ř	Đ	í	ı
	SOH	DC1	!	1	A	Q	a	q		PU1	þ	à	Á	«	á	½
	STX	DC2	"	2	B	R	b	r		PU2	~	,	Â	Î	â	î
	ETX	DC3	#	3	C	S	c	s		STS	a	,	Ã	Ó	ã	ó
	EOT	DC4	\$	4	D	T	d	t	IND	CCH	æ	'	Ä	Ô	ä	ô
	ENQ	NAK	%	5	E	U	e	u	NEL	MW	Ł	Ĩ	Ł	˝	ı	ı
	ACK	SYN	&	6	F	V	f	v	SSA	SPA	°	»	Ć	Ö	ć	ö
	BEL	ETB	'	7	G	W	g	w	ESA	EPA	=	v	Ç	X	ç	÷
	BS	CAN	(	8	H	X	h	x	HTS		˝	,	æ	Ř	'	ř
	HT	EM	)	9	I	Y	i	y	HTJ		þ	ŋ	É	Û	é	ü
	LF	SUB	*	:	J	Z	j	z	VTS		ø	§	ß	Ú	-	ú
	VT	ESC	+	;	K	[	k	{	PLD	CSI	ř	ř	Ë	Ù	ë	ù
	FF	FS	'	<	L	\	l		PLU	ST	£	³	Ò	ü	ò	Ü
	CR	GS	-	=	M	]	m	}	RI	OSC	SHY	"	Í	ý	í	Ý
	SO	RS	.	>	N	^	n	~	SS2	PM	Ú	ú	Î	ı	î	ı
	SI	US	/	?	O	_	o		SS3	APC	À	²	Đ	.	đ	.

Figure B-3. ISO 8859-2 Character Map

---

# Troubleshooting and Error Codes

# C

---

## Troubleshooting Quick Reference Guide

---

The following table lists the most frequently reported problems, and procedures that can be used to resolve them in most cases.

**⇒ NOTE:**

Before attempting any remedial action, enter setup mode as directed in Chapter 3, and write down all current operating parameter settings. This information is essential for diagnosing operating problems. Do not default the settings until the current parameter settings are recorded.

**Table C-1. Troubleshooting Quick Reference**

<b>Problem</b>	<b>Remedy</b>
Garbage on the screen	<ol style="list-style-type: none"><li>1 . Check the configuration parameters in Chapter 2.</li><li>2 . Check the terminal out on a good communications line.</li><li>3 . Default the configuration and reconfigure the parameters.</li></ol>
Terminal does not print	<ol style="list-style-type: none"><li>1 . Ensure that the printer (parallel or serial) is properly configured in Chapter 3.</li><li>2 . If a serial printer is being used, verify the cable's pin assignments between the printer and terminal.</li><li>3 . Default the configuration and reconfigure the parameters.</li></ol>

---

## **Error Codes**

When certain internal errors are detected, the error codes listed in the following table appear at the lower right hand corner of the screen.

**Table C-2. Terminal Error Codes**

<b>Displayed Code</b>	<b>Error Type Indicated</b>
P:ROM	Flash Ram Checksum
0:Char Ram	Character RAM
1:Attr Ram	Attribute RAM
2:Font Ram	Font RAM
K:NVR Ram	NVM RAM
A:RTS-CTS(1)	COM1 RTS to CTS
B:DTR-DSR(1)	COM1 DTR to DSR
C:DTR-DCD(1)	COM1 DTR to DCD
X:TX-RX(1,232)	COM1 (RS-232) Transmit Data to Receive Data
x:TX-RX(1,422)	COM1 (RS-422) Transmit Data to Receive Data
D:RTS-CTS(2)	COM2 RTS to CTS
E:DTR-DSR(2)	COM2 DTR to DSR
F:DTR-DCD(2)	COM2 DTR to DCD
Y:TX-RX(2)	COM2 Transmit Data to Receive Data
a:PP-ACK	PARALLEL port ACK line error
b:PP-Busy	PARALLEL port busy line error
c:PP-PE	PARALLEL port paper out
d:PP-ERR	PARALLEL port printer error



---

## Connector Specifications

# D

---

This appendix provides the pin assignments for the terminal's communications ports. COM1 and PARALLEL are female, 25-pin connectors. COM2 is a male, 9-pin connector.

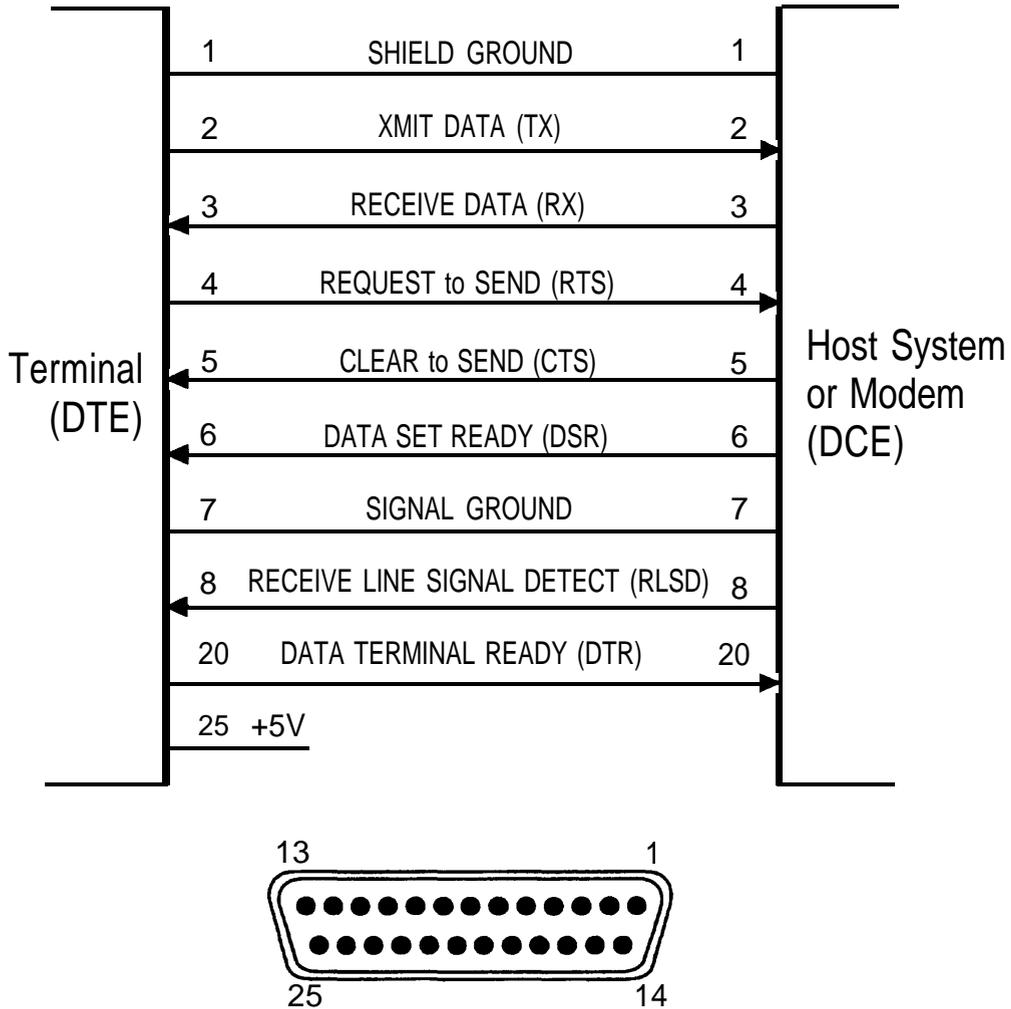
An adapter cable fabricated with the connector styles and pin-outs shown in Figure D-4 is provided with each terminal.

 **NOTE:**

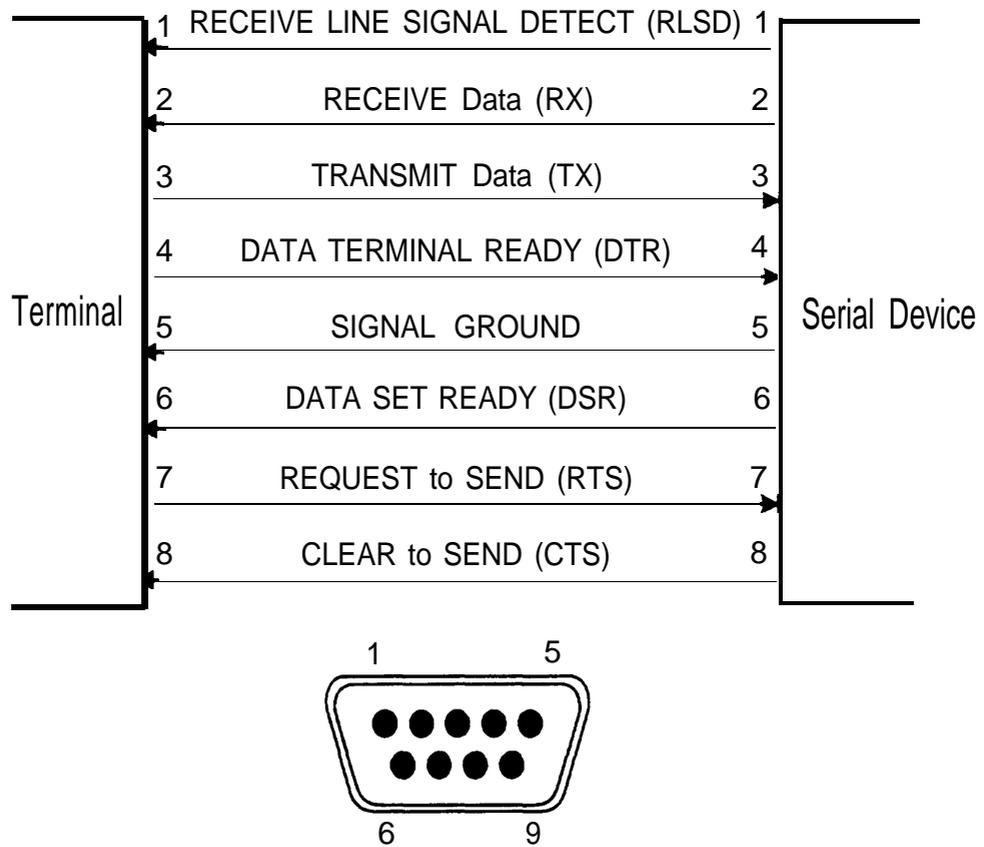
All RS-232 communications require a shielded interface cable.

 **CAUTION:**

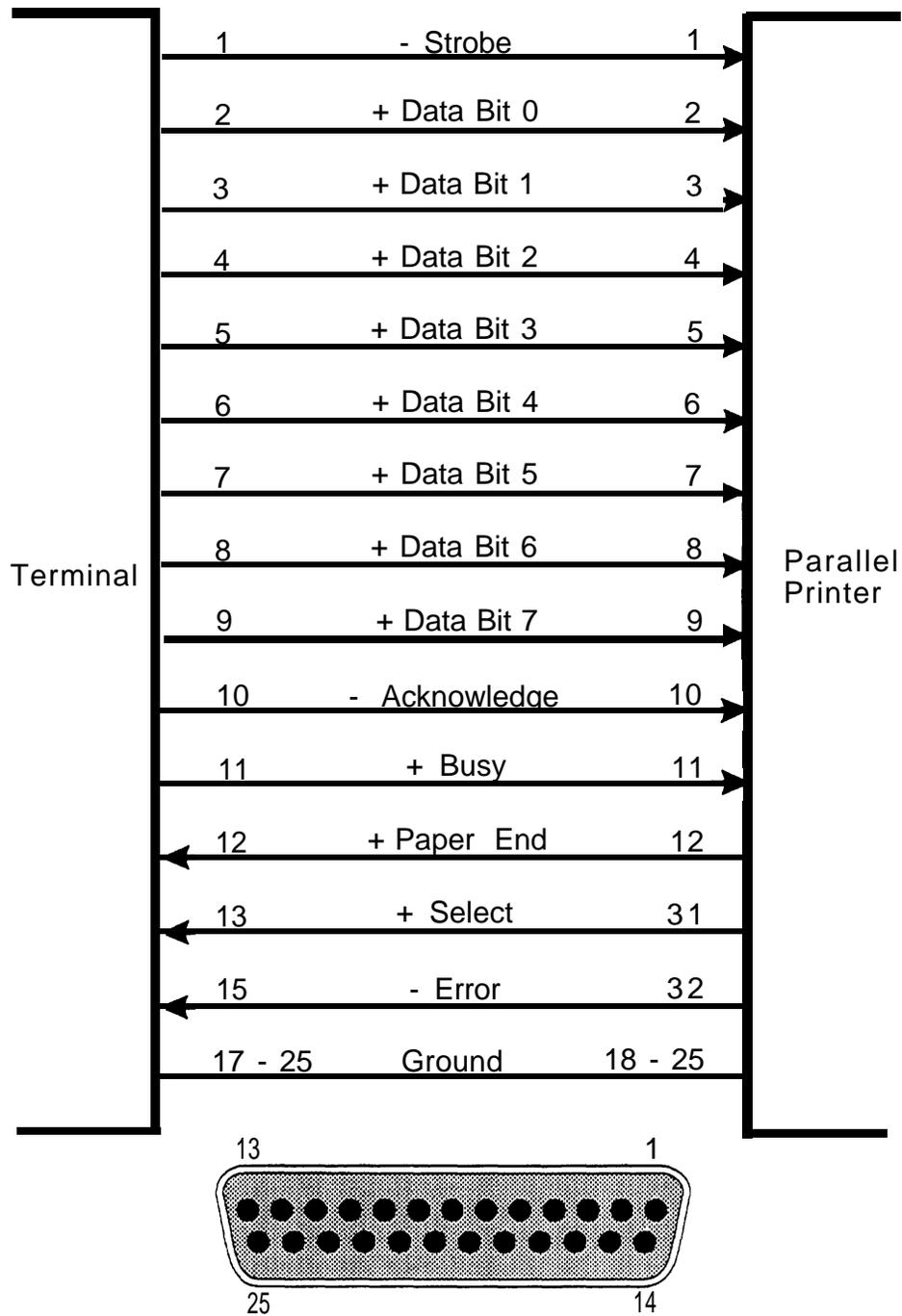
*Make sure that your communications cables conform to the pin assignments shown in Appendix D. Connecting an improperly wired cable can damage your terminal.*



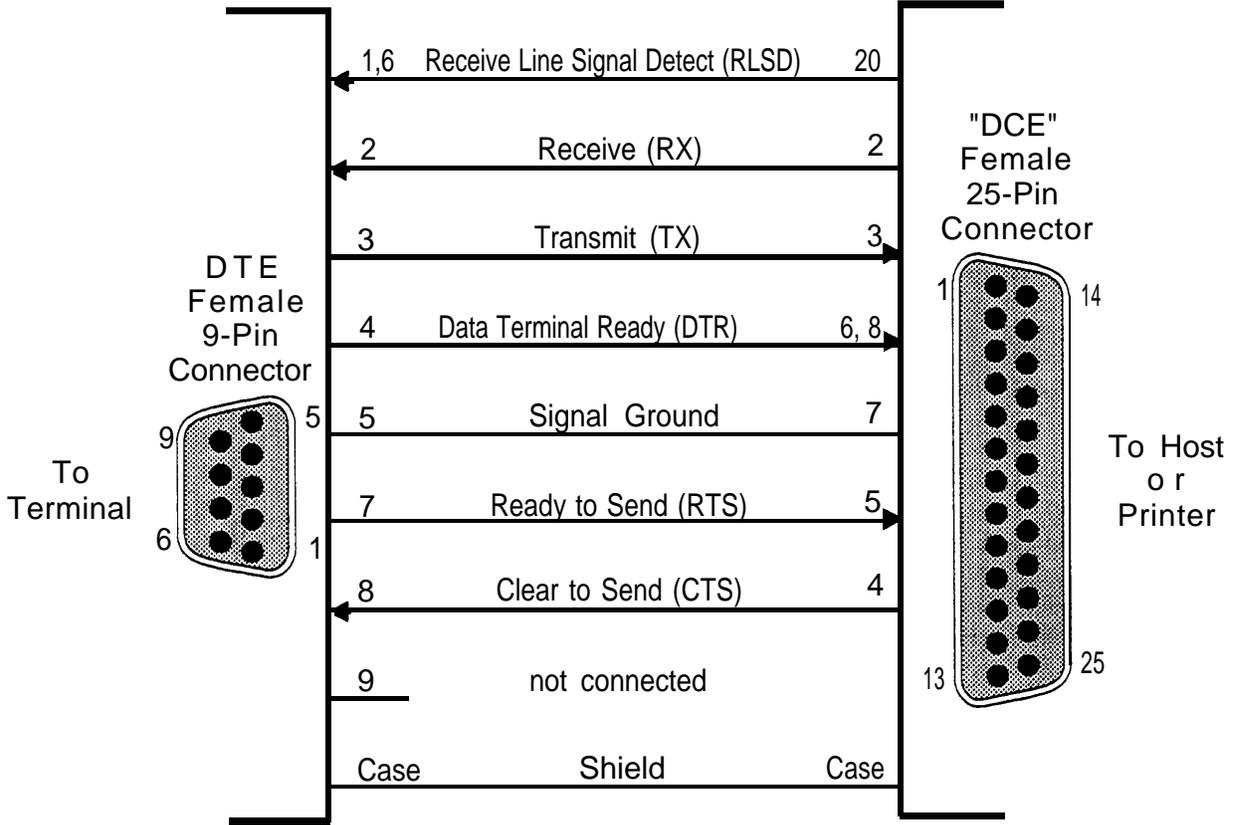
**Figure D-1. COM1 (25-pin, RS-232/RS-422 Serial Port)**



**Figure D-2. COM2 (9-pin, RS-232 Serial Port)**



**Figure D-3. PARALLEL (25-pin Printer Port)**



**Figure D-4. COM 2 AUX) Port DTE-to-DCE Adapter Cable**



---

# Index

---

## Numerics

715GBCS-2  
character sets, B-1  
terminal introduction, ix  
terminal keyboard layout, A-1

---

## A

about this guide, ix  
accidental spills, xv  
ANSI character sets, 3-19  
ANSI national replacement  
characters, 3-21  
answerback message, 3-15, 3-16  
ASCII national replacement  
characters, 3-20  
assembly time, terminal, 1-1  
audience, ix  
auto-answerback, 3-15  
auto-answerback screen, 3-16

---

## B

back panel connectors, 1-5, 1-6  
bell, warning, 3-5  
bi-directional print mode, 2-35  
block modes, 2-31  
block or half duplex block mode, 2-31  
brightness control, 1-3

---

## C

cabling the terminal, 1-5  
character map

DEC multinational, B-2  
ISO 8859-1, B-3  
ISO 8859-2, B-4  
character sets  
715GBCS-2, B-1  
ANSI, 3-19  
DEC multinational, B-2  
ISO 8859-1, B-3  
ISO 8859-2, B-4  
U.S. default, 3-19  
characters, national replacement, 3-19  
cleaning, xiv  
clear tabs, 3-15  
codes, error, C-1, C-2, C-3  
commands  
local keyboard, 3-1  
print, 3-17  
supported local print, 3-17  
comms folder, 2-23  
comms folder, parameters and  
options, 2-24  
communications, xi  
configuration  
default operating screen, 3-12  
folders, 2-2, 2-6  
how to use menus, 2-3  
mode, how to invoke, 2-1  
restoring factory default, 2-5  
saving, 2-5  
configuration menus  
opening folders, 2-3  
setting parameters, 2-3  
configuring the terminal, 2-1  
connector specifications, D-1  
COM1, D-2  
COM2, D-3, D-5  
PARALLEL, D-4  
connectors  
back panel, 1-5, 1-6  
COM1, 1-5, 1-6, D-2  
COM2, 1-5, 1-6, D-3  
functions, 1-6  
keyboard, 1-5, 1-6  
PARALLEL, 1-5, 1-6, D-4  
power, 1-5, 1-6

contrast control, 1-3  
control print mode, 2-35  
controls and indicators, 1-3  
conventions used in this document, xiii  
copy and paste, 3-16

---

## D

data area of display screen, 3-13  
DEC multinational character map, B-2  
default operating screen  
    configuration, 3-12  
define answerback message, 3-15  
definition limit, key, 3-5  
dimensions, x  
display, xi  
    features, 3-10  
    size and refresh rate, 3-11  
display folder, 2-14  
    adjustment of data area capacity, 3-13  
    parameters, 2-14  
    parameters and options, 2-15  
display screen  
    data area, 3-13  
    format, 3-11  
drivers available, printer, xii  
dual host support, xi  
duplex block modes, 2-31

---

## E

emulation folder, 2-10  
    parameters, 2-11  
    parameters and options, 2-12  
environmental limits, x  
ergonomics, x  
error codes, C-1, C-2, C-3  
ESD precautions, 1-2

---

## F

factory default configuration, restoring, 2-5  
features, display, 3-10  
folders  
    comms, 2-23  
    configuration, 2-6  
    display, 2-14  
    emulation, 2-10  
    keyboard, 2-19  
    opening, 2-3  
    printer, 2-32  
    the seven configuration, 2-2  
    user, 2-2, 2-6  
full duplex block mode, 2-31  
function folder  
    parameters, 2-36  
    parameters and options, 2-37  
function key programming  
    menu, 3-9  
    procedure, 3-9  
    user-defined character string, 3-8

---

## H

half duplex block mode, 2-31  
how to use this guide, xii

---

## I

important reminders, xiv  
indicator/label rows, 3-13  
initial setup, 1-4  
initial setup and power-on, 1-4  
installing the terminal, 1-1  
introducing the 715GBCS terminal, ix  
invoking configuration mode, 2-1  
ISO 8859-1 character map, B-3  
ISO 8859-2 character map, B-4

---

## K

key definition limit, 3-5  
key programming  
    character strings or escape  
        sequences, 3-5  
    menu, 2-4, 3-6  
    procedure, 3-5  
key values, restore factory default, 3-5  
keyboard, xi  
    715GBCS-2 terminal, A-1  
    commands, 3-1  
    language, 3-3  
keyboard folder, 2-19  
    parameters, 2-19  
    parameters and option, 2-20  
keyclick and warning bell, 3-5

---

## L

language, keyboard, 3-3  
local keyboard commands, 3-1  
local print commands supported, 3-17  
local print mode, 3-17

---

## M

margin bell, 3-5  
memory, xi  
menu  
    function key programming, 3-9  
    key programming, 3-6  
    text entry, 2-4  
menus, configuration, 2-3  
mode  
    local print, 3-17  
    monitor, 3-15  
monitor mode, 3-15

---

## N

national replacement characters, 3-19  
national replacement characters,  
    ANSI, 3-21  
national replacement characters,  
    ASCII, 3-20  
normal print mode, 2-35

---

## O

opening folders, 2-3  
operating controls, x  
operation, returning to, 2-5  
options  
    comms folder, 2-24  
    display folder, 2-15  
    emulation folder, 2-12  
    function folder, 2-37  
    keyboard folder, 2-20  
    printer folder, 2-33  
    setting, 2-3  
    user folder, 2-8

---

## P

parameter options, 2-3  
parameters  
    comms folder, 2-24  
    display folder, 2-14, 2-15  
    emulation folder, 2-11, 2-12  
    function folder, 2-36, 2-37  
    keyboard folder, 2-19, 2-20  
    printer folder, 2-32, 2-33  
    restoring last saved set, 2-5  
    setting, 2-3  
    user folder, 2-7, 2-8  
parts, replacement, 1-7  
paste, 3-16  
power requirements, x, 1-2  
power switch, 1-3

powering on the terminal, 1-6  
power-on, 1-4  
precautions, ESD, 1-2  
prerequisite skills, ix

### print

commands, 3-17  
control features, 3-17  
modes, 2-35

printer drivers, xii

printer drivers available, xii

printer folder, 2-32

parameters, 2-32  
parameters and options, 2-33

### programming

function key, 3-8  
key, 3-5  
menu, key, 2-4

programming procedure, key, 3-5

purpose, ix

---

## Q

quick reference, troubleshooting, C-1

---

## R

removing the back panel cover, 1-4  
replacement characters, national, 3-19  
replacement parts, 1-7  
restore default tab settings, 3-15  
restore factory default key values, 3-5  
restoring  
defaults, 2-5  
factory default configuration, 2-5  
last saved set of parameters, 2-5  
parameters, 2-5  
returning to operation, 2-5

---

## S

safety and handling instructions, 1-2

saver, screen, 3-13

saving your configuration, 2-5

### screen

auto-answerback, 3-16  
default operation configuration, 3-12  
format display, 3-11  
saver, 3-13  
tab setting, 3-14

secondary receive print mode, 2-35

setting parameters and options, 2-3

setting tabs, 3-14

shipping weight, x

specifications of 715GBCS-2 terminal, x

specifications, connector, D-1

---

## T

tab setting screen, 3-14

tab setting, restore default, 3-15

tabs, 3-14

clear, 3-15

setting, 3-14

### terminal

715GBCS-2 keyboard layout, A-1

assembly time, 1-1

cabling, 1-5

cleaning, xiv

configuring, 2-1

connector functions, 1-6

controls and indicators, 1-3

error codes, C-1, C-2, C-3

installing, 1-1

introducing the 715GBCS-2 terminal, ix

powering on, 1-6

specifications, x

terminal connector functions, 1-6

text entry menu, 2-4

troubleshooting, quick reference, C-1

---

**U**

U.K. national keyboard language, 3-19  
U.S. default character set, 3-19  
U.S. national keyboard language, 3-19  
unpacking instructions, 1-2  
user folder, 2-2, 2-6  
    parameters, 2-7  
    parameters and options, 2-8

---

**W**

warning bell, 3-5

