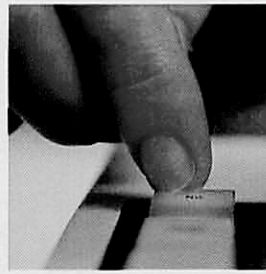


Prime Computer, Inc.

PRIME

**DOC8910-1PA**  
**PRIME/SNA™ Interactive**  
**Terminal User's Guide**  
**Release 1.0**



# PRIME/SNA<sup>TM</sup> Interactive Terminal User's Guide

First Edition

by

**Roberta Beeson**

This guide documents the operation of the PT200 terminal as implemented at Firmware Revision B, and PRIME/SNA Interactive software as implemented at Revision 1.0. Revision 1.0 is based on PRIMOS Master Disk Revision Level 19.4.1 (Rev. 19.4.1).

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# About This Book

The PRIME/SNA™ Interactive Terminal User's Guide provides instructions and guidelines for operating a Prime terminal (PT200™ model) as an emulated IBM 3278 Display Station. This type of operation enables terminal users on a Prime system to communicate with programs running on an IBM system, when both systems are part of an SNA (Systems Network Architecture) network.

IBM 3278 emulation is available on Prime systems containing the following software:

- PRIME/SNA Server Subsystem
- PRIME/SNA Interactive Subsystem, including the SNADSC Terminal Emulation program

## ORGANIZATION OF THE BOOK

This guide is divided into six chapters and three appendixes.

- Chapter 1 introduces the software and procedures involved in using the PT200 as an IBM 3278.
- Chapter 2 describes the screen display features that are affected by 3278 emulation.
- Chapter 3 provides general information on keyboard changes and usage during 3278 emulation, and instructions for using the keyboard overlay.

- Chapter 4 describes the function keys and procedures that are used for controlling the SNADSC Terminal Emulation program.
- Chapter 5 describes how to use the emulated IBM 3278 function keys for working with IBM applications.
- Chapter 6 is a dictionary of key functions. It lists all the IBM 3278 keys that are emulated on the PT200, and describes how each key works. Additional PT200 keys are also described.
- Appendix A is an introduction to standard PT200 operating features. Information in this appendix is adapted from the PT200 Terminal Primer, Chapter 1.
- Appendix B contains error and informational messages from the SNADSC Terminal Emulation program.
- Appendix C contains reference material on PRIME/SNA Terminal Emulation, organized and printed in a condensed format for use as a quick reference card.

#### HOW TO USE THIS GUIDE

This book is written for persons who are already familiar with the operating features of the PT200 terminal, but not necessarily familiar with the features of the IBM 3278 Display Station. If you have no experience with the PT200, or if you need to review its features, begin by reading Appendix A for the required background information.

The book also assumes a basic familiarity with PRIMOS (Prime's operating system), including logging in, entering commands, using the file system, and interpreting prompts and error messages. This information is included in the Prime User's Guide, Chapters 1 and 2.

Chapters 1 through 4 contain material that is appropriate for all readers, regardless of their past experience with Prime or IBM equipment. Each chapter provides both tutorial and reference information. A suggested reading strategy is to read through these chapters in order, at least once. This will give you an overview of their content. Then you can easily refer back to specific instructions, tables, and other information as questions arise when you are working at your terminal.

Chapter 5 will probably be most valuable to those readers who have little or no experience using an IBM 3278 Display Station, since the chapter describes how to perform some of the data entry tasks that are commonly performed on the 3278. Experienced 3278 operators only need to note those key functions that are implemented somewhat differently on the PT200 than on the 3278.

Chapter 6 and Appendixes B and C provide reference material that is suitable for all readers.



## OTHER USEFUL PUBLICATIONS

Users of this guide should have the following Prime documents available for reference:

- PT200 Terminal Primer (DOC8620-2LA)
- Prime User's Guide (DOC4130-4LA)

Information about the IBM 3278 Display Station (which the PT200 emulates under SNADSC) is contained in the IBM 3270 Information Display System 3278 Display Station Operator's Guide, GA27-2890.

Other books in the PRIME/SNA document set include:

- PRIME/SNA Administrator's Guide (DOC8908-1LA)
- PRIME/SNA Operator's Guide (DOC8909-1LA)

## SPECIAL CONVENTIONS FOR THIS BOOK

The following abbreviations are used throughout this book:

3278	IBM 3278 Display Station, Model 2 or 5
PT200	Prime PT200 terminal
SNA	Systems Network Architecture

The following conventions are used for indicating keys and key combinations:

<u>Convention</u>	<u>Explanation</u>	<u>Example</u>
Ctrl/Key	Refers to an alternate key function. Hold down the Ctrl key and press the other key indicated.	Ctrl/F5
Shift/Key	Refers to a shifted key function. Hold down the Shift key and press the other key indicated.	Shift/Set Up
Ctrl/Shift/Key	Refers to an alternate and shifted key function. Hold down both the Ctrl key and the Shift key and press the other key indicated.	Ctrl/Shift/Erase

3278 KEY (PT200 Key) Refers to a 3278 function key that is emulated on the PT200, but labeled differently. The use of all capital letters in a key name indicates a 3278 key; the PT200 key that emulates it is shown in parentheses. RESET (Clear)

### PRIME DOCUMENTATION CONVENTIONS

The following conventions are used in command formats, statement formats, and in examples throughout this document. The examples below illustrate the uses of these commands and statements in typical applications. Terminal input may be entered in either uppercase or lowercase letters.

<u>Convention</u>	<u>Explanation</u>	<u>Example</u>
UPPERCASE	In command formats, words in uppercase indicate the actual names of commands, statements, and keywords. They can be entered in either uppercase or lowercase.	SLIST
lowercase	In command formats, words in lowercase indicate items for which the user must substitute a suitable value.	LOGIN user-id
Abbreviations	If a command or statement has an abbreviation, it is indicated by underlining. In cases where the command or directive itself contains an underscore, the abbreviation is shown below the full name, and the name and abbreviation are placed within braces.	<u>LOGOUT</u>  { SET_QUOTA } SQ
<u>Underlining</u> in examples	In examples, user input is underlined but system prompts and output are not.	OK, <u>RESUME MY_PROG</u> This is the output of MY_PROG.CPL OK,

Brackets  
[ ]

Brackets enclose a set of one or more optional items. Choose none, one, or more of these items.

```
SPOOL [ -LIST  
        -CANCEL ]
```

Braces  
{ }

Braces enclose a list of items. Choose one and only one of these items.

```
CLOSE { filename  
        ALL }
```

Parentheses  
( )

In command or statement formats, parentheses must be entered exactly as shown.

```
DIM array (row,col)
```

Hyphen  
-

Wherever a hyphen appears as the first character of an option, it is a required part of that option.

```
SPOOL -LIST
```

# 1

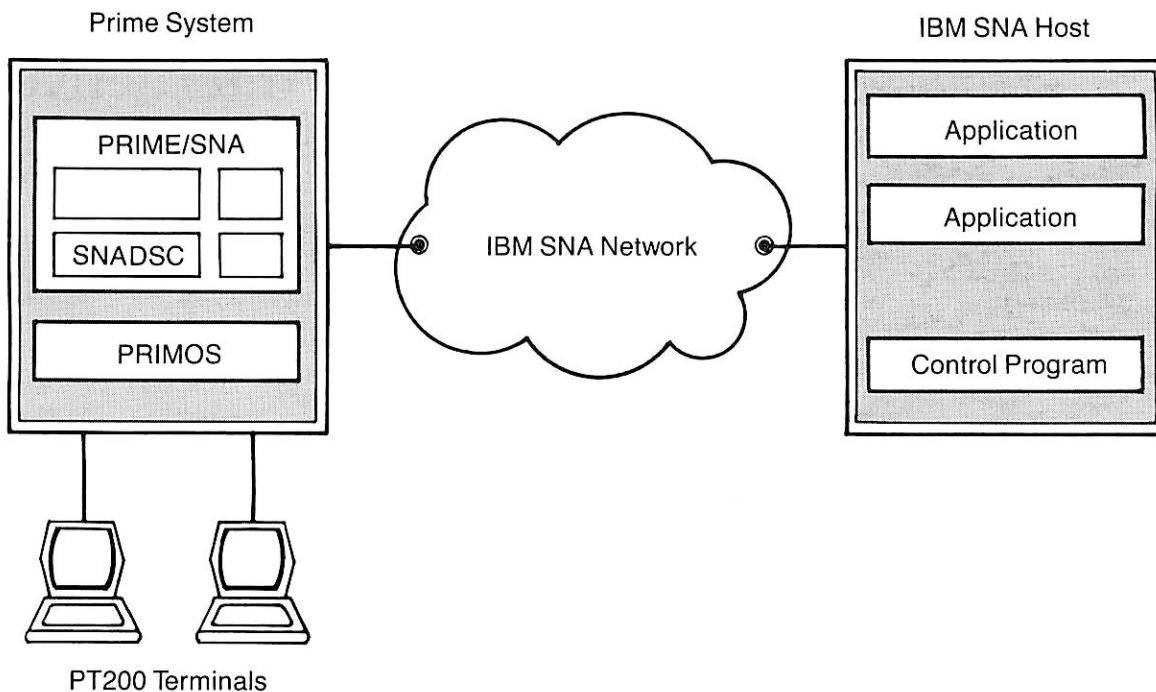
## Introduction to PRIME/SNA Interactive Terminal Emulation

This chapter provides a general description of the software and the procedures you use to operate the PT200 terminal as an emulated IBM 3278 Display Station. For experienced 3278 operators, the chapter also includes a listing of supported and unsupported IBM 3278 features on the PT200. Topics covered in the chapter are as follows:

- PRIME/SNA and the SNADSC Terminal Emulation program
- PRIME/SNA and Prime's PRIMENET™ software
- Using the PT200 with IBM applications
- A comparison of the IBM 3278 and the PT200

PRIME/SNA AND THE SNADSC PROGRAM

PRIME/SNA consists of a collection of Prime software products that support the connection of a Prime system with an IBM SNA network. An SNA network or product is one that conforms to IBM's Systems Network Architecture (SNA) standards. Figure 1-1 shows a Prime system and an IBM system that are both part of an IBM SNA network.



Prime Terminals Interacting With IBM Applications  
Figure 1-1

The SNADSC Program

When PRIME/SNA software is operating, authorized PT200 terminal users on a Prime system can interact with applications on a remote IBM host system by running the Interactive Terminal Emulation program, SNADSC (SNA Data Stream Compatibility). This program makes the PT200 terminal emulate, or perform in the manner of, an IBM 3278 Display Station. SNADSC causes commands and data entered at the PT200 keyboard to appear to the control and application programs on the IBM host as though they were entered at an IBM 3278 keyboard. Likewise, SNADSC makes information sent from an IBM application to the PT200 appear on the display screen as it would appear on an IBM 3278 screen.

### Data Stream Compatibility (DSC) Mode

During 3278 emulation, SNADSC switches the PT200 to an alternate operating mode, called DSC mode. DSC mode changes the functionality of the display screen, the keyboard, and the status line, making operation of the PT200 similar to that of an IBM 3278 Display Station.

### PRIME/SNA AND PRIMENET

PRIMENET is Prime's networking software that supports the interconnection of multiple Prime systems. When PRIME/SNA software is operating on a system that is part of a PRIMENET network, two groups of PT200 terminal users may be authorized to run SNADSC on that system, as follows:

- PT200 users with direct login access to the PRIME/SNA system (as in Figure 1-1).
- PT200 users with remote login access to the PRIME/SNA system from another system in the network.

### USING THE PT200 WITH IBM APPLICATIONS

The PRIME/SNA Administrator for your organization determines which terminal users are authorized to use the PRIME/SNA service. These users are provided with access rights to the software and with commands and other information required to run the SNADSC program, to log on to the IBM host, and to run IBM applications.

This section gives an overview of the procedure used to start and stop the SNADSC program, and describes some of the effects of SNADSC and DSC mode on the PT200 display screen and keyboard.

#### Getting Started

Before starting up SNADSC, you use the terminal's Set Up Menu to select the operating features you want to use while working with your IBM application. Once your terminal begins DSC mode operation, these features cannot be changed, since the Set Up key takes on a different function in DSC mode. Appendix A includes instructions for using the Set Up Menu to adjust the following features: cursor type, brightness, key click, and margin bell. For further information on the Set Up Menu, refer to the PT200 Terminal Primer.

During DSC mode operation, the brightness of your screen is reduced to half the value selected in the Set Up Menu. Also, if you have selected an underline or blinking underline cursor, the cursor will not be visible in nondisplay fields. To compensate for these changes, you can

use the Set Up Menu to increase the brightness setting and to select a block or blinking block cursor, before starting up SNADSC.

Chapter 4 discusses the various methods that may be used to start up SNADSC and connect the PT200 with a particular IBM application. At most organizations, users will probably enter a single command line or abbreviation that includes all the required information.

### The Session Concept

When you start up SNADSC, a logical connection, or session, is established between your terminal and the host system. This session connects your terminal and the IBM control program. When you access an IBM application from this session, another session is established, connecting your terminal and the IBM application program.

Under SNADSC, you can suspend a session with an IBM application, and then recover the session at a later time, resuming work at the point where you left off. (The associated session with the IBM control program is automatically suspended and recovered, as needed.) While the session is suspended, you can start up SNADSC again to work with another IBM application. Or, you can use your terminal as a standard PT200 to work with data and applications on the Prime system.

Chapter 4 provides details on how to suspend and recover sessions.

### Using the Display Screen

During 3278 emulation, the display screen features of the PT200 are modified for use with IBM application programs. These applications request and process data in a screen-by-screen fashion, in contrast to the line-by-line processing on a standard PT200.

With many applications, the screen displays a form with blanks for you to fill in, and labels indicating the type of data to be entered. Some applications allow you to enter data in a "free-form" manner. In either case, when you complete your entries, you press the ENTER key or one of the PF keys (PF1 through PF24) to send the data to the application.

The bottom line of the screen becomes the System Line when you begin 3278 emulation. Instead of the nine-field Status Line that is usually displayed on this line, you will see a three-field line containing graphic symbols, and short text messages and prompts from SNADSC. While you are using SNADSC, the Status Line may temporarily replace the System Line to inform you of errors you have made while entering data on your screen.

Chapter 2 gives further details on the various ways that applications can use the screen, and on System Line and Status Line messages.

## Using the Keyboard

During 3278 emulation you use the typewriter-like part of the keyboard in the usual fashion, for typing letters, numbers, and special symbols. A few of the symbol keys produce symbols that are different from those indicated by their labels. For example, you use the key labeled [ to produce the cent sign (¢).

Other parts of the keyboard behave somewhat differently under SNADSC than they do with other applications. For example, some of the function keys in the set labeled F1 through F10 control the SNADSC program. Other keys in this set emulate IBM 3278 keys that perform special functions, such as CLEAR and Print (□-□).

Some function keys perform functions during 3278 emulation that are entirely different from their usual functions. For example, you use the Scroll Lock key to emulate the IBM 3278 DUP key, and the Set Up key to emulate the CURSR SEL key.

A keyboard overlay is available for the PT200, to aid you in identifying the keys with altered functions during 3278 emulation. The overlay fits on the keyboard, providing labels and illustrations that apply to the emulation-specific keys.

Chapter 3 gives further information on keyboard changes during 3278 emulation, including instructions for using the keyboard overlay. Chapters 4 and 5 give detailed instructions for using various special function keys. Chapter 6 is a dictionary that provides detailed descriptions of how each key works under SNADSC.

## Exiting SNADSC

When you are finished working with your IBM application program, you perform any logoff procedures required by the application and host, and then press the Exit key (Ctrl/F5). Your current session is released, and your terminal again functions as a standard PT200, with the same operating features it had before you started up SNADSC.

### Note

When you suspend a session, your terminal also exits SNADSC and reverts to standard PT200 operating mode. However, the session is not released until you recover it and exit SNADSC by using the Exit key.



A COMPARISON OF THE IBM 3278 AND THE PT200

When the PT200 is operating under SNADSC, it emulates most of the features of the IBM 3278 Display Station. However, there are some differences between the PT200 in 3278 mode and the IBM 3278. This section provides three tables that summarize the similarities and differences between the two terminals, as follows:

- Table 1-1 lists supported IBM 3278 features, and distinguishes those features that differ in location, labeling, and/or operation.
- Table 1-2 lists the IBM 3278 features that are not emulated on the PT200, and describes PT200 features that you can use as substitutes to provide similar functionality.
- Table 1-3 lists and describes additional PT200 features that are not available on the IBM 3278.

Following the tables, Figure 1-2 illustrates the layouts for the IBM 3278 Typewriter keyboard (U.S. version), and the PT200 keyboard (U.S. version) that is used for 3278 emulation.

Table 1-1  
Supported IBM 3278 Features

IBM 3278 Feature	PT200 Implementation
On/Off Switch	On back of display
Alphabetic Keys	Same as 3278
Numeric Keys	Same as 3278
Punctuation and Symbol Keys:	
—	Use caret key (^)
⌈	Use left bracket key ([)
⌋	Use right bracket key (])
	On same key as backslash (\) symbol
!	On same key as number 1
{ and }	On same keys as brackets
All others	Same as 3278

Table 1-1 (continued)  
Supported IBM 3278 Features

IBM 3278 Feature	PT200 Implementation
<b>Function Keys:</b>	
ALT	Use Ctrl key
ATIN	Use Shift/Set Up
Backspace ←	Same as 3278
Back Tab ←	Located next to Tab key
CLEAR	Use Ctrl/F2
CURSR SEL	Use Set Up key
Cursor Movement	Located in right-hand keypad
Delete ⌫	Located in right-hand keypad
DUP	Use Scroll Lock key
ENTER	Located in right-hand keypad
ERASE INPUT	Use Ctrl/Shift/Erase
ERASE EOF	Use Ctrl/Erase
FIELD MARK	Use blank key next to Scroll Lock
Home ⌵	Located in right-hand keypad
IDENT	Use Ctrl/F7
Insert ⌵	Located in right-hand keypad; toggles Insert mode
Lock ⌵	Locks only alphabet keys in uppercase
New Line ↵	Use Return key
PA1 - PA2	Keys in top row
PF1 - PF12	Keys in top row
PF13 - PF24	Use Ctrl/PF1 - PF12
Print ⌵	Use F7
RESET	Use Clear key
Shift ⬆	Same as 3278
Spacebar	Same as 3278
SYS REQ	Use Ctrl/Set Up
Tab →	Same as 3278
<b>Screen Formats:</b>	
1920 characters (24 X 80)	Same as 3278
3564 characters (27 X 132)	Same as 3278

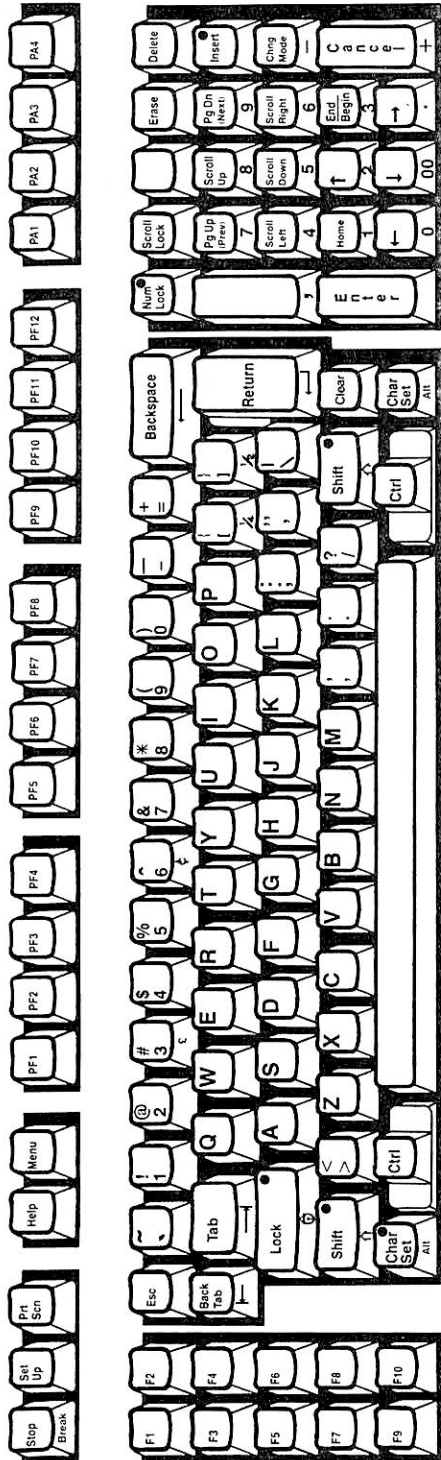
Table 1-2  
Unsupported IBM 3278 Features

Unsupported 3278 Feature	Substitute PT200 Feature
<b>Controls and Switches:</b>	
Contrast	--
Brightness	Set Up Menu selection
Test	Automatic diagnostic self-test at power-up
A, a/A	--
<b>Keys:</b>	
ALT CURSR	Set Up Menu selection
CURSR BLINK	Set Up Menu selection
Double speed cursor movement	--
DEV CNCL	--
Key Click	Set Up Menu selection
TEST	Automatic diagnostic self-test at power-up
<b>Screen Formats:</b>	
480 characters (12 x 40)	--
960 characters (12 x 80)	--
2560 characters (32 x 80)	--
3440 characters (43 x 80)	--
<b>Other Features:</b>	
Security Keylock	--
Selector Light Pen	--
Magnetic Slot Reader	--
Magnetic Hand Scanner	--
APL/Text	--

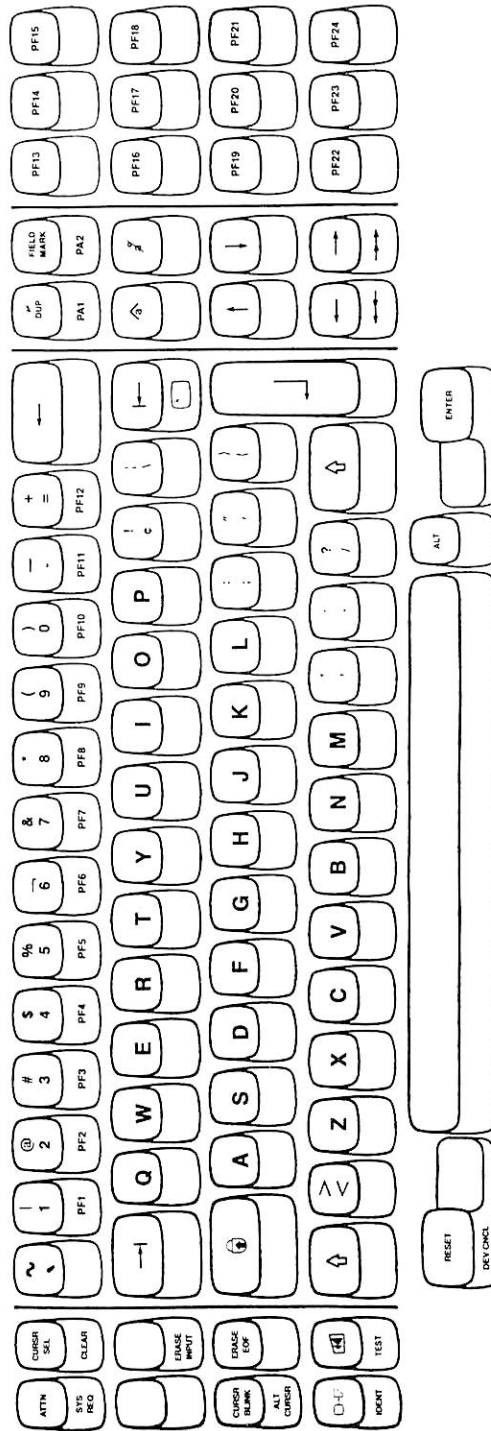
Table 1-3

Additional PT200 Features  
Available During 3278 Emulation

PT200 Feature	Description
<b>Controls:</b>	
Keyboard Repeat Rate	Set Up Menu selection
Key Click Volume	Set Up Menu selection
Margin Bell Volume	Set Up Menu selection
Screen Video Type	Set Up Menu selection
<b>Function Keys:</b>	
F4, F5, F6, F8	SNADSC control keys
Num Lock	Converts a portion of the right-hand keypad to a numeric keypad
Break, Erase, Shift/Erase, Prt Scn, Stop	Provide additional editing and host communication functions
Numeric Keypad	Provides additional set of numeric data entry keys, arranged in standard, 10-key adding machine layout



Prime PT200 Terminal Keyboard



IBM 3278 Display Station Typewriter Keyboard

Keyboard Layouts for IBM 3278 and Prime PT200  
Figure 1-2

# 2

## Display Features

When your PT200 terminal is connected with an IBM application, the PT200 display screen emulates the display screen of an IBM 3278 Display Station. This chapter discusses the four main features of the PT200 display screen that are affected during 3278 emulation:

- Screen formatting
- Fields
- Cursor
- System Line and Status Line

### FORMATTED AND UNFORMATTED SCREENS

To simplify the process of data entry for the operator, many applications present a screen image that looks much like a printed form. Such a screen is called a "formatted" screen. Formatted screens are divided into areas, or "fields," that contain different types of information. Some fields contain labels that tell you what kind of data to enter; other fields contain blanks for typing in data. Figure 2-1 shows a typical formatted screen, in which the operator has partially filled in the blank fields.

Unformatted screens are not divided into fields. A header may be displayed at the top of the screen to indicate the sequence of data to be entered. Usually, no other labels are displayed. (See Figure 2-2.)

The method for entering data onto an unformatted screen depends on the application program you are using. With some programs you can use the FIELD MARK key to insert a special separator character between entries.

The user's guide for your IBM application program describes the type of screen display the application uses, along with detailed instructions for entering data onto the screen.

```
VEHICLE ID #: 3XE88875      PURCHASE PRICE: 1800      DEALER #: 37G890
MAKE: TOYOTA      YEAR: 1977      MODEL #: 3514      STYLE: WGN
OWNER:
DATE OF PURCHASE: 8/7/84
ADDRESS (# AND STREET):
CITY:      STATE:      ZIP:
FEES:
TITLE:
REGISTRATION:
TOTAL:      REGISTRATION #:
```

Example of Formatted Screen  
Figure 2-1

```
ENROLLMENT
STUDENT NAME;COURSE NAME;COURSE #;LOCATION;DATE
```

Example of Unformatted Screen  
Figure 2-2

## FIELDS

This section describes some of the features you may encounter while working with applications that use formatted screens and fields.

### Protected Fields

Protected fields are the areas on the screen where you are not able to enter data. For most applications, fields that contain permanent information, such as labels, headers, and titles, are protected fields. Examples of protected fields are the labels in Figure 2-2 such as VEHICLE ID #:, PURCHASE PRICE:, and so on.

If you attempt to change the data in a protected field, a warning tone sounds, the keyboard is soft-locked, and the SOFT LOCK message blinks on and off in the Status Line at the bottom of your screen. Press the RESET (Clear) key to continue.

### Unprotected (Input) Fields

Unprotected, or input fields are the areas on the screen into which you can enter data. An input field usually follows a protected, label field. The label field tells you what information to enter in the input field.

Some input fields accept any character (alphanumeric fields). Other input fields accept only numeric characters (numeric fields). The following paragraphs provide further information on data types allowed in input fields. See the user's guide for your application for details on which fields in a screen are numeric and which fields are alphanumeric.

Alphanumeric Fields: If a field is designated an alphanumeric field by the application, you can enter any printable character into the field. Examples of alphanumeric fields in Figure 2-1 are the fields following DEALER #: and DATE OF PURCHASE:.

Numeric Fields: If a field is designated a numeric field by the application, the only characters you can enter in the field are the following: the digits 0 through 9; the decimal point (.), comma (,), and minus sign (-); and the DUP character ( $\bar{x}$ ). Note that you can use both the decimal point (.) and the comma (,) in numeric fields on the PT200. On the U.S. version of the 3278, only the decimal point is accepted in numeric fields. The ZIP field in Figure 2-1 is an example of a numeric field.

If you attempt to enter any other character into a numeric field, the NUMERIC ONLY and SOFT LOCK messages are displayed in the Status Line and your keyboard is soft-locked. Press the RESET (Clear) key to unlock the keyboard and resume work.



### High Intensity Fields

In DSC mode, the PT200 can display a field at either high intensity or normal intensity. High intensity fields appear brighter on the screen than normal intensity fields. Many application programs use this feature to make the operator's input stand out from the label fields. Error messages and informational messages may also be highlighted in this manner.

### Nondisplay Fields

A nondisplay field is one which contains information that is not visible on the screen. For example, with many programs, you enter your operator identification or login password in a nondisplay field.

#### Note

When your cursor type is set for block or blinking block, the cursor remains visible when it enters a nondisplay field. However, the PT200 in DSC mode does not display an underline or blinking underline cursor in nondisplay fields. If you are working with an application that uses nondisplay fields, selecting a block (or blinking block) cursor before you start up SNADSC will ensure that the cursor is always visible on the screen.

### CURSOR

The cursor acts as a place marker to show you where the next character you type will be entered on the screen. Your keyboard includes special cursor movement keys that allow you to move the cursor to any position on the screen without disturbing the contents of the screen. The cursor also moves when you are typing at the keyboard. Whenever you enter a character, the cursor moves to the next available character position.

Application programs can also move the cursor. For example, an application may automatically position the cursor at the first input field on the screen whenever a new screen is displayed. When you are working with such an application, and the cursor appears to be moving by itself, the application is repositioning the cursor for you.

### Cursor Types

Two types of cursor can be displayed on the PT200 screen during 3278 emulation: the line cursor and the block cursor. The line cursor appears on the screen as an underline ( \_ ). The block cursor appears as a small rectangle ( ■ ). As noted above, only the block cursor is

visible in all fields on the screen — the line cursor is not visible in nondisplay fields.

Before starting up 3278 emulation, you can select either type of cursor by using the Set Up Menu, as described in Appendix A. Through the Set Up Menu, you can also select the Cursor Blink option, which makes the cursor blink on and off continuously. The default cursor for the PT200 is the nonblinking block.

After the terminal has entered DSC mode, the Set Up Menu is no longer available for changing terminal features.

### Cursor Wrap

The keys you use for controlling the cursor are described in Chapter 5. They include the four keys on the right side of the keyboard with arrows on their keycaps. The horizontal positioning keys (← and →) move the cursor left and right. The vertical positioning keys (↑ and ↓) move the cursor up and down.

If you press the left arrow key (←) when the cursor is located at the beginning of a line, the cursor moves off that line and reappears at the end of the previous line. Conversely, if you press the right arrow key (→) when the cursor is located at the end of a line, the cursor moves off that line and reappears at the beginning of the next line. Since the cursor appears to wrap around behind the screen, this type of movement is called "cursor wrap."

If you use one of the vertical positioning keys (↑ or ↓) to move the cursor off the top or bottom lines on the screen, the cursor reappears on the opposite end of the screen. However, in the case of vertical cursor wrap, the cursor stays in the same vertical position, or column; there is no shift to the left or right.

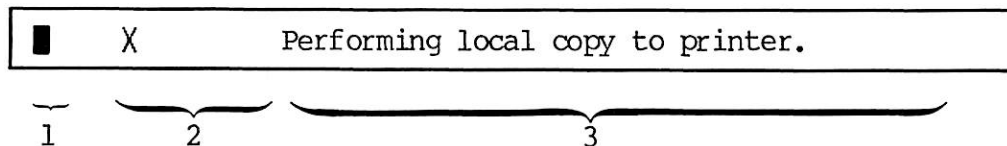
Horizontal cursor wrap always occurs at the first (left) and last (right) character positions in the line; vertical cursor wrap occurs at the top and bottom lines. Thus, if your application uses a format that fills only part of the screen, the cursor will wrap at the edge of the display area for the format, not at the edge of the screen.

SYSTEM LINE AND STATUS LINE

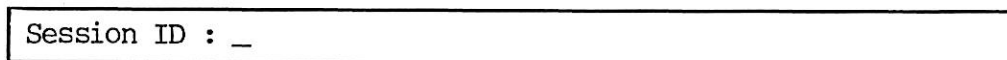
The bottom line of your display screen is used in two ways during 3278 emulation -- as a System Line and as a Status Line. Usually, the line serves as a System Line, displaying messages and prompts from the SNADSC program. The bottom line may also display messages related to data entry errors, in which case the System Line is temporarily replaced by the Status Line.

Figure 2-3 shows samples of the message formats that are used on the System Line and Status Line. The top sample shows the three display fields of the System Line (labeled 1 - 3) that are used to display SNADSC messages. The middle sample shows the System Line as it is used to display SNADSC prompts and to accept user input. The bottom sample shows the nine-field Status Line that replaces the System Line to display messages indicating data entry errors. (Status Line fields are labeled A - I.)

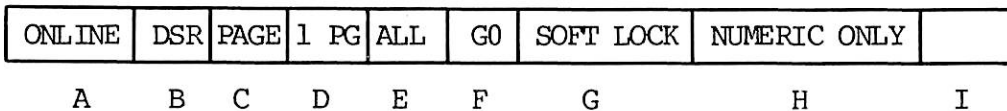
System Line With Display Fields for SNADSC:



System Line With SNADSC Prompt:



Status Line With Error Message:





Message Formats for System Line and Status Line  
Figure 2-3

System Line Messages




As shown in Figure 2-3, messages on the System Line are displayed as graphic symbols and words. There are four categories of messages, which are displayed in the following areas:

System Connection symbols	Field 1
Do Not Enter symbols	Field 2
Text messages	Field 3
Prompts	Entire line

System Connection Symbols -- Field 1: The System Connection symbols indicate your terminal's connection with the IBM host, as follows:

-  Your terminal is connected to your job (application program).
-  Your terminal is connected to the system operator (control program).

Do Not Enter (Input Inhibited) Symbols -- Field 2: An X (Do Not Enter) symbol tells you that your terminal will not accept input from the keyboard. Additional symbols and text may be displayed to the right of the X to describe why the keyboard is locked. The possible combinations of symbols and their meanings are:

<u>Symbol</u>	<u>Name</u>	<u>Meaning and Action</u>
	Time	The host system needs time to perform the operation you requested. Wait.
	Minus Function	The function or operation you requested is not available. Press the RESET (Clear) key to restore the keyboard.
	Operator Not Authorized	Your terminal is not authorized to do the requested function. Press the RESET (Clear) key to restore the keyboard.

Text Messages -- Field 3: The messages in this field report on the status of requested functions and operations. The Do Not Enter (X) symbol usually appears along with a message while an operation is occurring, and the keyboard is locked. If the operation succeeds, the keyboard unlocks and the System Line returns to its original condition. If the operation is unsuccessful, the X remains, another message appears in Field 3, and the keyboard remains locked. Press the RESET (Clear) key to restore the keyboard and clear the message.

Possible text messages for Field 3 of the System Line are:

- Performing local copy to printer.
- Performing local copy to file.
- Session being suspended.
- Unable to complete local copy to printer.
- Unable to complete local copy to file.
- Unable to suspend session at this time.
- Invalid spool options for local copy.
- Invalid pathname for local copy.
- Invalid session ID.
- Maximum number of sessions suspended.
- The key typed could not be determined.
- This key is not used.
- Unable to read data from terminal.

Prompts: When you press a function key that requires operator input, such as IDENT or Path, SNADSC displays a prompt on the System Line that tells you what data to enter. The cursor also moves to the System Line to indicate the next data entry position. If the cursor reaches the end of the System Line before you have completed your input, you can continue typing, and the cursor and data will wrap to the beginning of the line. To terminate your input, press the Return or Enter key. The prompt message begins at the left side of the System Line, replacing whatever symbols or messages were in the line when the function was requested.

See Chapters 4 and 5 for more information on System Line prompts.

Status Line Messages

When you make a data entry error, the keyboard locks and the Status Line replaces the System Line at the bottom of your screen. An error message is displayed in Field H of the Status Line, describing the type of error the terminal has detected. Also, the SOFT LOCK message flashes on and off in Field G. To unlock the keyboard and clear the error, press the RESET (Clear) key.

Table 2-1 lists and explains the most common data entry error messages that are displayed in Field H of the Status Line. For further information on Status Line messages, see the PT200 Terminal Primer.

Table 2-1  
Status Line Messages for Field H

Message	Explanation
ALL GRAPHICS	You have tried to enter nongraphic data in a field reserved for graphic characters.
INVALID CMD	You used a function key or key combination incorrectly.
NT SELECTBLE	You have pressed the CURSR SEL key (Set Up) when the cursor is not positioned in a cursor-selectable field.
NUMERIC ONLY	You have tried to enter non-numeric data in a field reserved for numerics.

# 3

## Keyboard Features

This chapter provides information on the main features of keyboard usage during 3278 emulation. The topics covered in the chapter are:

- Guidelines for keyboard usage during 3278 emulation
- IBM 3278 key equivalence on the PT200 terminal
- PT200 keyboard layout during 3278 emulation
- Additional PT200 keys available during 3278 emulation
- Using the PRIME/SNA keyboard overlay

Chapters 4 through 6 provide detailed information on how to use specific keys while working with SNADSC and IBM applications.

GUIDELINES FOR KEYBOARD USAGE

Follow these guidelines when using the PT200 keyboard under SNADSC:

- Use only those keys and key combinations that are defined in this book when working under SNADSC. Pressing other keys and combinations may interfere with your work by causing the keyboard to lock.
- If you accidentally press an illegal key or key combination that causes the keyboard to lock and the Status Line to display an error message, press the RESET (Clear) key to restore the keyboard and clear the message.
- Always use the Exit key (Ctrl/F5) to leave 3278 emulation. This enables SNADSC to release PRIME/SNA resources and return your terminal to its original condition in the most efficient manner.
- Before using a function key or key combination, be sure you understand its function under SNADSC. Some PT200 keys have the same names as 3278 keys, but they work differently. These keys are: Clear, Insert, Lock, and Num Lock.
- Avoid using the ATTN and SYS REQ keys while SNADSC is reading data from the terminal. Pressing one of these keys causes SNADSC to interpret the data incorrectly and to display an error message.

Caution

Do not press the Ctrl/Shift/Stop key combination while working with SNADSC. This action resets the operating features of your terminal and interrupts the operation of SNADSC.

IBM 3278 KEY EQUIVALENCE ON THE PT200

During 3278 emulation, you can use the PT200 keyboard for performing most of the functions available on the IBM 3278 typewriter keyboard. As with the 3278, some keys are used in typewriter-like fashion, for data entry and editing. Others are used for formatting data or for signaling the host computer. Table 3-1 lists all the IBM 3278 keyboard functions that are used during 3278 emulation, and identifies the PT200 key or key combination that you use for performing each function.



Table 3-1  
IBM 3278 Key Equivalence on the PT200 Terminal

IBM 3278 Key	PT200 Key or Key Combination
Alphabetic (A-Z, a-z) Numeric (0-9)	Alphabetic (A-Z, a-z) Numeric (0-9, in central keyboard. Also 0-9 in numeric keypad, when Num Lock is on.)
Symbols and Punctuation Marks:	
Logical NOT sign (¬) Cent sign ¢ Broken vertical bar ( ) All others	Shift/6 (^) Left bracket ([) Right bracket (]) Symbol and punctuation mark keys, as labeled.
Function keys:	
ALT ATIN Backspace ← Back Tab ←← CLEAR CURSR SEL Delete ⌫ DUP ENTER ERASE EOF ERASE INPUT FIELD MARK Home □ Horizontal Positioning Keys (left arrow and right arrow) ← → IDENT Insert ⌵ Print □-□ Lock ⌂ New Line ↵ PA1 - PA3 PF1 - PF12 PF13 - PF24 RESET Shift ↑ SYS REQ Tab →  Vertical Positioning Keys (up arrow and down arrow) ↑ ↓	Ctrl Shift/Set Up Backspace ← Back Tab ←← Ctrl/F2 Set Up Delete Scroll Lock Enter Ctrl/Erase Ctrl/Shift/Erase Blank next to Scroll Lock Home Left arrow and right arrow ← →  Ctrl/F7 Insert F7 Lock ⌂ Return ↵ PA1 - PA3 PF1 - PF12 Ctrl/PF1 - Ctrl/PF12 Clear Shift ↑ Ctrl/Set Up Tab →  Up arrow and down arrow ↑ ↓

PT200 KEYBOARD LAYOUT FOR IBM 3278 EMULATION

The SNADSC program assigns or "maps" IBM 3278 key functions and special SNADSC functions to PT200 keys during 3278 emulation. Figure 3-1 shows the effect of this mapping process on the PT200 keyboard layout. The shading in the figure illustrates how the various sets of keys are used, as follows:



Not used. Most produce no action. Some activate bell, Status Line error message, or System Line message "This key is not used."



Character keys produce characters shown on label. Function keys perform actions indicated on label. Some functions may be modified to emulate IBM 3278 functionality.



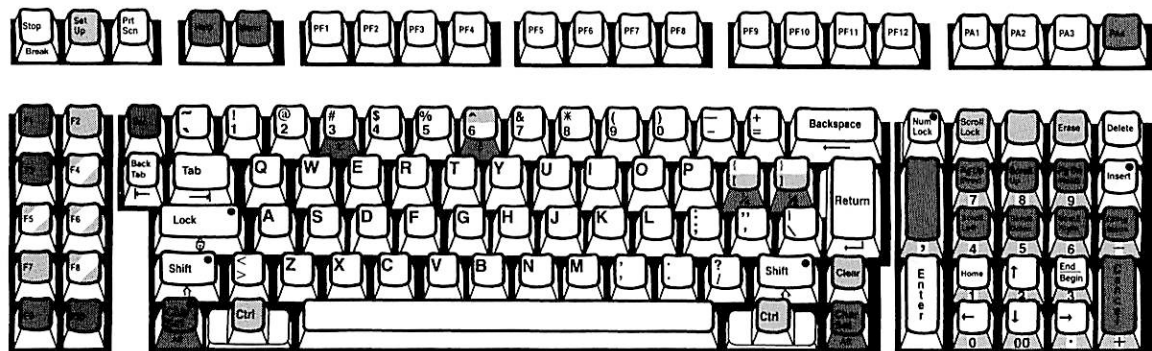
Used only in Numeric Keypad mode.



Character keys produce special IBM 3278 symbols different from symbols shown on label. Function keys perform special IBM 3278 functions, different from functions shown on label.



Perform special SNADSC functions.



PT200 Keyboard Usage During 3278 Emulation  
Figure 3-1

Table 3-2 lists, for each keyboard section, those keys that take on special functions during 3278 emulation — either as emulated IBM 3278 keys or as SNADSC control keys.

Table 3-2  
 PT200 Keys That Change Under SNADSC

PT200 Key Location and Label	Function Under SNADSC
<u>Top Row</u>	
Set Up w/Shift w/Ctrl	CURSR SEL ATTN SYS REQ
<u>Left Keypad</u>	
F2 w/Ctrl	CLEAR
F4 w/Ctrl *	Refresh Screen
F5 w/Ctrl *	Exit
F6 w/Ctrl *	Suspend Session
F7 w/Ctrl	Print IDENT
F8 *	Local Copy to File
w/Ctrl *	Change Local Copy to File Pathname
<u>Central Keyboard</u>	
^	— (NOT character)
[	¢ (Cent sign)
]	(Broken vertical bar)
Ctrl	ALT
Clear	RESET
<u>Right Keypad</u>	
Scroll Lock	DUP
Blank next to Scroll Lock	FIELD MARK
Erase w/Ctrl w/Ctrl/Shift	ERASE EOF ERASE INPUT
* Starred keys control SNADSC functions. All others emulate IBM 3278 keys.	

ADDITIONAL PT200 KEYS

In addition to 3278 functions, you use the PT200 keyboard for controlling SNADSC program functions, such as suspending sessions and exiting. You can also perform certain editing and input functions that are not available on the IBM 3278 keyboard.

SNADSC-Specific Keys

The SNADSC-specific function keys are listed below. Chapter 4 describes these keys and their functions in detail.

<u>Key</u>	<u>Function</u>
Path (Ctrl/F8)	Change Local Copy to File Pathname
File (F8)	Local Copy to File
Exit (Ctrl/F5)	Exit SNADSC
Refresh (Ctrl/F4)	Refresh Screen
Suspend (Ctrl/F6)	Suspend Session

Additional Input and Editing Keys

The following PT200 keys provide functionality that is not available on the IBM 3278. Refer to Chapter 6 for details on these keys.

<u>Key</u>	<u>Function</u>
Erase	Erase Character
Shift/Erase	Erase to End of Line
Num Lock	Switch right keypad to numeric keypad mode
Numeric Keypad	Display numeric data
Prt Scn	Print image of screen through auxiliary port
Stop	Stop transmission from host and display XOFF in Status Line; or (if XOFF is displayed) resume transmission from host
Ctrl/, Shift/, or Char Set/Stop	Interrupt SNADSC and return to PRIMOS

USING THE PRIME/SNA KEYBOARD OVERLAY

PRIME/SNA Terminal Emulation users may be provided with a plastic keyboard overlay that serves as a reference tool for identifying the keys used during 3278 emulation. Figure 3-2 illustrates the PT200 keyboard with the overlay in place.

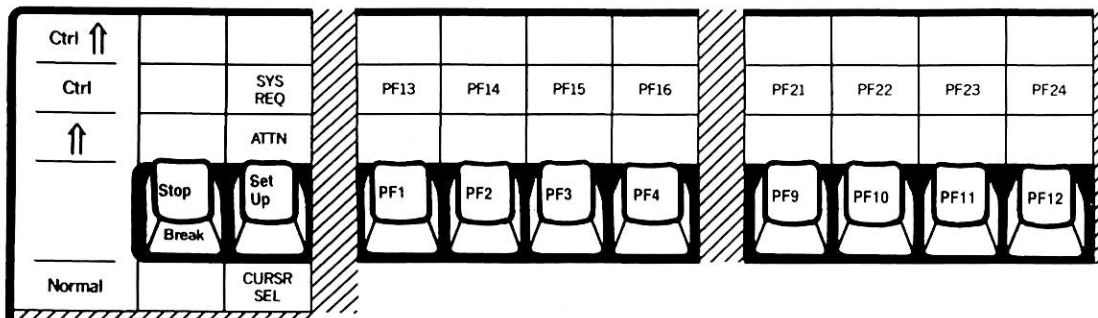
The rest of this section explains the labels and illustrations shown on the overlay, and describes how to use the keys identified on the overlay. If possible, sit at your keyboard with the overlay in place while reading these explanations.



Using Top Row Keys

Labels that apply to the top row of PT200 function keys are shown on the overlay above the affected keys. An additional label for the Set Up key is shown below the key. Figure 3-3 illustrates this section of the overlay. The legend at the top left side of the overlay indicates the keys you combine with the top row key to produce the function indicated by the label. For example:

- For CURSR SEL, press the Set Up key alone.
- For ATTN, use Shift/Set Up.
- For SYS REQ, use Ctrl/Set Up.
- For PF13 through PF24, hold down the Ctrl key and press the appropriate PF key below the overlay label. (For example, for PF15, use Ctrl/PF3.)

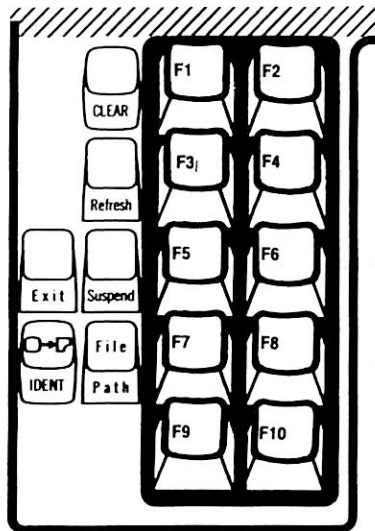


PRIME/SNA Keyboard Overlay — Top Section  
Figure 3-3

Using F Keys

The six keys shown on the far left side of the overlay correspond to the six F keys in the left keypad that are used during 3278 emulation. Figure 3-4 illustrates this portion of the overlay. The overlay uses the following conventions for depicting these keys:

- Keys depicted with angled edges and PT200-style labels are SNADSC control keys (Refresh, Exit, Suspend, and File/Path).
- Keys depicted with rounded edges and IBM 3278-style labels (all capitals or graphic symbols) are emulated IBM 3278 keys (CLEAR, □-□ /IDENT).
- Labels on the tops of keycaps indicate functions that are activated by pressing the F key alone.
- Labels on the fronts of keycaps indicate alternate functions. To perform one of these functions, you hold down the ALT (Ctrl) key while pressing the appropriate F key.

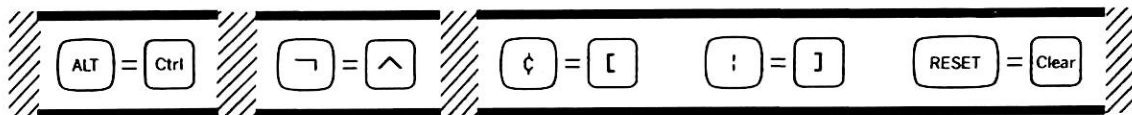


PRIME/SNA Keyboard Overlay — F Key Section  
Figure 3-4

Using Central Keyboard Keys

Five pairs of keys are shown in the central part of the overlay, just above the number keys. In each pair, the key on the left indicates an IBM 3278 key, and the key on the right identifies the PT200 key that emulates the 3278 key. Figure 3-5 illustrates the central part of the overlay. The five emulated keys work as follows:

- For ALT, press either of the Ctrl keys located on both sides of the space bar.
- For the NOT sign (¬), use Shift/6. The NOT sign will be produced instead of the caret symbol (^) shown on the actual keycap. (The cent sign on the front of the keycap does not apply to 3278 emulation.)
- For the cent sign (¢), use the left bracket key ([). The cent sign will be produced instead of the left bracket shown on the actual keycap. (The 1/4 symbol on the front of the keycap does not apply to 3278 emulation.)
- For the broken vertical bar (|), use the right bracket key (]). The bar will be produced instead of the right bracket shown on the actual keycap. (The 1/2 symbol on the front of the keycap does not apply to 3278 emulation.)
- For RESET, press the Clear key located on the right side of the keyboard below the Return key.



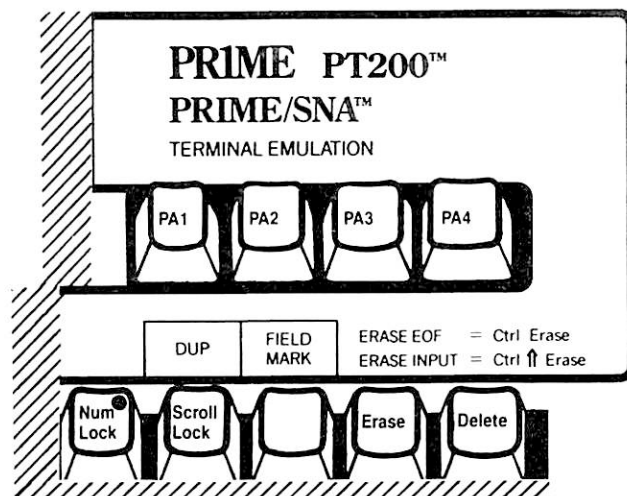
PRIME/SNA Keyboard Overlay — Central Section  
Figure 3-5



Using Right Keypad Keys

The top row of the right keypad includes four emulated IBM 3278 function keys that require special labels. Labels for these keys are shown on the right side of the overlay, just below the PA keys. Figure 3-6 illustrates this section of the overlay. The labels apply to the keys in the row directly below them, as follows:

- For DUP, press the Scroll Lock key. The 3278 DUP function replaces the PT200 Scroll Lock function during 3278 emulation.
- For FIELD MARK, press the blank key below the FIELD MARK label.
- For ERASE EOF (Erase to End of Field), press Ctrl/Erase.
- For ERASE INPUT, press Ctrl/Shift/Erase.



PRIME/SNA Keyboard Overlay -- Right Section  
Figure 3-6

# 4

## Working With SNADSC

The first section of this chapter describes the login procedures you use before running the SNADSC Terminal Emulation program.

The rest of the chapter describes how to perform four procedures that are specific to SNADSC. These procedures are:

- Starting up 3278 emulation
- Suspending and recovering sessions
- Refreshing the display image
- Exiting 3278 emulation

The information given in this chapter includes the use of the SNADSC command and the use of the following special function keys: Suspend (Ctrl/F6); Refresh (Ctrl/F4); and Exit (Ctrl/F5).

### Note

The F8 (File/Dest) key is a SNADSC-specific key that is closely related to the F7 (Print/IDENT) key. Information on the function and usage of the F8 key is included in Chapter 5, along with information on the F7 key and other emulated 3278 keys.

### LOGGING IN

Before you can work with SNADSC, you must be logged in to a system that has PRIME/SNA software installed. This system may be either your local system (where your terminal is physically attached) or a remote Prime system that is networked to your local system by means of the PRIMENET networking system.

To log in to your local system, enter the LOGIN command and your user ID as usual. (Also enter your password and project ID, if required.)

To log in to another Prime system in the network, you can use either the Remote Login facility or the NETLINK facility of PRIMENET. If you are unfamiliar with the use of these facilities, consult your PRIME/SNA Administrator or the PRIMENET Guide.

### STARTING UP 3278 EMULATION

A single PRIMOS command, SNADSC, provides access to the SNADSC Terminal Emulation program. In addition to the command, you provide a station name, which indicates the type of emulated device you want to use. You can also provide IBM logon information for accessing your application.

Several methods are available for entering the information required to start up SNADSC and access an IBM application. Some methods are interactive -- that is, you type data as it is requested by the SNADSC program. Other methods use shortcuts that save typing effort and time. Your supervisor or PRIME/SNA Administrator can provide details on which method you should use for starting up 3278 emulation.

This section describes the format of the SNADSC command and gives examples of several methods that can be used to issue the command and start up 3278 emulation. Information on startup errors and messages is also provided.

### SNADSC Command Line Format

The format for the SNADSC command is:

```
SNADSC [station-name] [options]
```

The station-name argument specifies the device name or device group name for the type of device that SNADSC is to emulate. Ask your PRIME/SNA Administrator what name to use.

The options for the SNADSC command are described below.

<u>Option</u>	<u>Description</u>
-HELP	Displays information about the SNADSC command on your terminal screen. Cannot be used with other options.
-LOGON logon	Sends the data which is entered as the logon argument to the IBM control program. The logon argument specifies an IBM character-coded logon of 80 characters or less. (A logon that is greater than 80 characters must be entered interactively.) If the logon contains embedded spaces, it must be enclosed in single quotation marks. Also, if single quotation marks are required around user data given with the DATA parameter of the logon, then this data must be enclosed in two sets of single quotation marks when given with -LOGON.
{ -TERMINAL_TYPE -TTP } terminal-type	Specifies the type of terminal on which SNADSC is being run. The only valid argument is PT200. If this option is not given, SNADSC assumes a terminal type of PT200.

### SNADSC Startup Methods

This section gives examples that illustrate some of the methods available for starting up 3278 emulation to establish a new session. Consult your supervisor or PRIME/SNA Administrator for information on the specific procedures used at your organization. For information on the method to use for recovering a suspended session, see the section below, SUSPENDING AND RECOVERING SESSIONS.

In the examples that follow, SNATERM1 is the station name and CICS (Customer Information Control System) is the IBM application program. The examples assume that when you start up SNADSC you have not left any previous sessions in the suspended state. Unless it is otherwise noted, you can press either the Enter key or the Return key to terminate an entry.

### Note

If you have any sessions suspended when you issue the SNADSC command, and you give a station name or the -LOGON option on the command line, SNADSC displays a reminder showing the number of suspended sessions. (For example: 2 sessions suspended.) SNADSC then proceeds as though no sessions are suspended.

Example 1 — Using the Brief Format of the SNADSC Command: Enter the SNADSC command by itself, as follows:

OK, SNADSC

The SNADSC program displays a program header and prompts you for the station name, as follows:

[SNADSC Revision 1.0 - 19.4]

Station name : \_

If you decide to leave SNADSC at this point, press the Exit key (Ctrl/F5). The keyboard alarm will sound and the INVALID CMD message will appear on the Status Line as the terminal returns to PRIMOS command level. To clear the message, press the RESET (Clear) key.

If you enter a valid station name, SNADSC connects your terminal with the IBM control program. Then you enter the IBM logon for your application (or the control program may automatically perform the logon). To enter the IBM logon, press the Enter key after typing the logon.

Example 2 — Using a Station Name With the SNADSC Command: Enter the SNADSC command and station name on the command line, as follows:

OK, SNADSC SNATERM1

The SNADSC program connects your terminal with the IBM control program. You then enter the IBM logon to connect your terminal to the application program (or the control program may automatically perform the logon). To enter the IBM logon, press the Enter key after typing the logon.

Example 3 — Using an Option and Station Name With the SNADSC Command: Type the SNADSC command, station name, and one or more options on a single command line. For example:

OK, SNADSC SNATERM1 -LOGON 'LOGON APPLID(CICS) LOGMODE(S3270)'

The SNADSC program performs all the actions required to connect your terminal to the CICS application program, without any further action on your part.

Example 4 — Using an Abbreviation Instead of the SNADSC Command: In this example, the long command line shown in Example 3 is given the abbreviation CI. A user with access to this abbreviation could start up SNADSC and access the CICS application by simply typing CI instead of typing the entire command line.

To add such an abbreviation to your abbreviation file, enter the ABBREV (AB) command and its -AC option, followed by the abbreviation and then the SNADSC command line. For example:

```
AB -AC CI SNADSC SNATERM1 -LOGON 'LOGON APPLID(CICS) LOGMODE(S3270)'
```

For further information on creating and using abbreviations, see the Prime User's Guide.

Example 5 — Using a CPL File to Issue the SNADSC Command: At some organizations, entering your PRIMOS login ID may activate a CPL file containing the SNADSC command and a station name. If your organization uses this method, the SNADSC command is issued automatically when you log in to PRIMOS. Your terminal is immediately connected with the IBM control program. The control program may automatically log on to the application, or you may need to enter the logon for your application.

#### Note

If you are familiar with Prime's CPL or COMINPUT facilities, you may wish to create a command input file that includes the SNADSC command or the SNADSC command and a station name. After the last item of SNADSC startup data in the file, you should include an instruction that returns control to the terminal, as follows:

- In a COMINPUT file, include the COMINPUT -TTY command.
- In a CPL file, include the &TTY directive.

For more information on CPL and COMINPUT files, see the Prime User's Guide.

#### Startup Errors

If an error condition occurs during SNADSC startup, an appropriate error message appears on the screen, the terminal displays your PRIMOS error prompt (for example, ER!), and you are returned to PRIMOS command level. The two main causes of startup errors are:

- Entering incorrect data or using an incorrect command format.
- Unavailability of PRIME/SNA subsystem resources.




The first type of error can usually be corrected by reentering the data in the correct manner. If SNADSC startup fails because part of the PRIME/SNA subsystem is unavailable, the error message usually tells you what to do — for example, try again later.

Appendix B contains a complete listing of SNADSC error messages, including those that commonly occur during the startup procedure.

### Startup Messages

As soon as SNADSC successfully connects your terminal with the IBM control program, the screen clears, the terminal enters DSC mode, and emulation of the IBM 3278 Display Station begins. The IBM control program may display a header or prompt on the screen.

The following messages are displayed on the System Line to provide system connection information during the startup period.

<u>Message</u>	<u>Meaning</u>
	Your terminal is connected with the IBM control program. Enter an IBM logon to access your application.
	Your terminal is connected with the IBM control program and SNADSC is either accessing your application or waiting for data from the IBM control program. The keyboard is locked. Wait for the " X   " symbol to turn off before entering any data.
	Your terminal is connected with your application. You can begin work.

### SUSPENDING AND RECOVERING SESSIONS

The session suspension and recovery feature of SNADSC enables you to temporarily interrupt your work with an IBM application, return to the PRIMOS command environment, and then resume your work on the IBM application at the point where you left off.

You can also use this feature to maintain multiple sessions with the IBM host. For example, after you suspend your first session, you can establish a second session with the IBM host. If you need to interrupt the second session, you can suspend it also, without affecting the first suspended session. SNADSC allows you to have as many as three sessions in the suspended state at any one time.

The following sections describe the procedures to use for suspending and recovering sessions.

Note

To recover a suspended session, you must have the same user ID and user number as when you suspended the session. Under certain conditions, such as remote login, your user number may change if you log out and then log in again. If your user number changes, you will not be able to recover sessions you suspended under the original user number. Consult your PRIME/SNA Administrator for details on how to avoid this problem.

Suspending a Session

Before attempting to suspend a session, make sure the following conditions are met:

- Only the "my job" symbol ( ■ ) is displayed in the System Line.
- You have fewer than three sessions in the suspended state.

If either of these conditions is not met and you attempt to suspend a session, SNADSC displays an appropriate message on the System Line and locks the keyboard. Possible messages are:

- Unable to suspend session at this time.
- Maximum number of sessions suspended.

To clear the message and continue, press the RESET (Clear) key.

If the previous conditions are met, follow these steps to suspend a session with the IBM host:

1. Hold down the Ctrl key and press the F6 (Suspend) key. SNADSC displays the following prompt on the System Line:

Session ID : \_

If you decide not to suspend the session, press the Return or Enter key. Otherwise, go to step 2.

2. Enter a session ID by typing any name consisting of 1 to 32 characters and pressing the Return or Enter key. The session ID enables you to distinguish this session from others that might also be suspended.



If you accidentally enter a session ID that is longer than 32 characters, the keyboard locks and the following error message is displayed on the System Line:

Invalid session ID.

To unlock the keyboard and clear the message, press the RESET (Clear) key.

3. Wait for SNADSC to suspend the session and terminate. While SNADSC is suspending the session, the keyboard locks and the following message is displayed on the System Line:

Session being suspended.

After SNADSC suspends the session, another message is displayed:

Session has been successfully suspended.

When SNADSC terminates, the terminal displays your PRIMOS ready prompt (for example, OK,) and the Status Line. You can then issue other PRIMOS commands, or you can restart SNADSC to either recover a suspended session or establish a new session.

### Recovering a Suspended Session

Follow the steps below to recover a suspended session.

1. Issue the SNADSC command without using a station name or the -LOGON option. SNADSC displays a list of all your suspended sessions and their session IDs, along with instructions for selecting a particular session or establishing a new session. For example, if you had previously suspended two sessions, giving them session ID names of "CICS1" and "TSO1", SNADSC would display the following:

[SNADSC Revision 1.0 - 19.4]

1. CICS1
2. TSO1

Enter number of session to recover or N to establish a new session : \_

If you decide to leave SNADSC at this point, press the Exit key (Ctrl/F5). The keyboard alarm will sound and the INVALID CMD message will appear on the Status Line as the terminal returns to PRIMOS command level. To clear the message, press the RESET (Clear) key.

2. Enter the item number for the session you wish to recover and press the Return key.
3. Wait for the "my job" symbol (■) to appear on the Status Line. This means your terminal is re-connected with the session you requested and you can continue your work where you left off.

#### Note

When you start up SNADSC with the intention of recovering a suspended session, SNADSC may occasionally fail to display the session ID of your previously suspended session. This means the session is no longer available for recovery. Two possible causes are:

- The IBM host released one or more of your sessions.
- Another PRIME/SNA user logged in at your terminal, started up SNADSC, and established a session. When this happens, the PRIME/SNA service releases all your suspended sessions.

#### REFRESHING THE DISPLAY IMAGE

When your terminal is connected with an IBM application program, that program (through the PRIME/SNA service and SNADSC) usually controls what you see on the display screen. However, the SNADSC program or PRIMOS may also occasionally display a message on your screen while you are working with an application. If this happens, the SNADSC or PRIMOS message replaces (overwrites) one or more lines of data that were previously displayed. Interference in transmission lines may also result in stray characters that overwrite data on the screen. Since you can no longer see the data that is overwritten, you may not be able to complete your work on the screen.

To correct this problem, you first use the Refresh key, as described below, to obtain a fresh copy of the screen you were working on when the overwriting occurred. This is called "refreshing" the screen. Then reenter any data that you typed on the screen between the time the screen was last sent by the application and the time the problem occurred.

Using the Refresh Key (Ctrl/F4)

To refresh your screen, press the Refresh key (Ctrl/F4). SNADSC clears the current screen and displays the last screen of data that was sent by the IBM application. This screen will contain only the data that it contained the last time that the application sent the screen.

Example: The following example illustrates the use of the Refresh key. In the example, a single line of formatted data is used to represent a portion of the screen sent by the application. The various steps show how the line of data appears on the screen before and after the screen is overwritten, and after the screen is refreshed.

1. The application sends the following data:

NAME: M.J. KLEN      ID: 786520      PHONE:      DATE:

The user needs to make corrections to the NAME and ID fields and type new data in the PHONE and DATE fields.

2. While the user is typing the ID number, a system message overwrites the screen, as follows:

NAME: MARY JO KLEIN    ID: 7875\*\*\* SYSTEM GOING DOWN AT NOON

3. Since the PHONE and DATE fields can no longer be seen, the user is uncertain of their order, and decides to refresh the screen by using the Refresh key. SNADSC displays the last data sent by the application, as follows:

NAME: M.J. KLEN      ID: 786520      PHONE:      DATE:

EXITING 3278 EMULATION

After completing your work on the IBM host, you leave the SNADSC program and return to PRIMOS command level by pressing the Exit key (Ctrl/F5). SNADSC performs the following actions on exiting:

- Releases any sessions you have established with the IBM host.
- Disconnects your terminal from the PRIME/SNA service.
- Restores the operating features the terminal had before you started up SNADSC.

These actions are also performed whenever SNADSC terminates due to error conditions.

# 5

## Working With Applications

This chapter describes a variety of operations you can perform by using the emulated IBM 3278 keys that are available on the PT200 terminal under SNADSC. Topics covered in the chapter include:

- Moving the cursor
- Entering and editing data
- Using the Cursor Select feature
- Copying your work session
- Using the SYS REQ and ATTN keys

Before working with a particular IBM application, read the user's guide for the application to learn the appropriate operations for that application. The application guide also provides detailed instructions on keyboard and display screen usage.

For further information on any of the key functions described below, refer to Chapter 6.

MOVING THE CURSOR

You use the cursor movement keys to position the cursor at the screen location where you wish to enter or edit characters. All the cursor movement keys are typematic. This means they repeat their actions automatically when held down. The typematic feature is useful for moving the cursor quickly between widely-separated locations on the screen.

Two types of cursor movement keys are available during 3278 emulation, as on an actual IBM 3278. They are:

- Keys that move the cursor to the beginning of an input field (Tab, Back Tab, New Line, and Home).
- Keys that move the cursor one character space (Horizontal and Vertical Positioning keys and Backspace).

The rest of this section illustrates the use of these two groups of keys. For detailed function definitions of these keys, refer to Chapter 6.

Moving the Cursor to the Beginning of an Input Field

Figure 5-1 shows a sample form that is similar to the forms displayed by many IBM applications. Some of the input fields in this form are labeled A through E. The following list of examples shows how you could use the Tab, Back Tab, New Line, and Home keys to move the cursor between the labeled fields.

<u>To Move the Cursor From:</u>	<u>Press:</u>
A to B	Tab
B to A	Back Tab or Home
D2 to D1	Back Tab
A to C	New Line, then Tab
C to D1	New Line
A to E	New Line (three times)
E to A	Home

When you are using an unformatted screen, Tab, Back Tab, and Home move the cursor to the first input position on the screen. New Line moves the cursor to the first position on the next line.

Moving the Cursor One Character Position

The following examples show how to move the cursor to specific locations within fields by using the Horizontal Positioning keys (← and →), the Vertical Positioning keys (↑ and ↓), and the Backspace key. The letters C through E in the examples refer to screen locations shown on the sample form in Figure 5-1.

To Move the Cursor From:

Press:

C to D2  
 D1 to D2  
 D2 to E  
 E to C

↓ once, then ← twice  
 → (15 times)  
 ↓ once, then → (8 times)  
 ↑ twice, then ← or Backspace  
 (6 times)

VEHICLE ID #:	3XE88875	PURCHASE PRICE:	1800	DEALER #:	37G890
	↑ A		↑ B		
MAKE:	TOYOTA	YEAR:	1977	MODEL #:	3514
			↑ C		STYLE: WGN
OWNER:	ROBERT L. BAKER			DATE OF PURCHASE: 8/7/84	
	↑ D1		↑ D2		
	ADDRESS (# AND STREET):				
			↑ E		
CITY:		STATE:		ZIP:	
FEES:					
TITLE:					
REGISTRATION:					
TOTAL:		REGISTRATION #:			

Cursor Movement Key Operations  
 Figure 5-1

ENTERING AND EDITING DATA

When the IBM application displays an unformatted screen, you can enter data anywhere on the screen. The user's guide for the application provides information on how to organize your input. With some applications, you use the FIELD MARK key to insert a special separator character (,) between the entries.

With formatted screens, you can enter data only into input fields. The protected label fields tell you what information to enter. With some applications you can use the DUP key for filling in information that is the same from one document to the next (such as the date).

When you are finished entering data, use the Enter key to send the data to the application. With some applications, you can also use one of the PF keys (PF1 through PF24) or other designated keys for sending data.

Note

SNADSC may occasionally be unable to read the data you send by pressing the Enter key (or another designated key with similar function). If this happens, SNADSC locks the keyboard and displays the following message on the System Line:

Unable to read data from terminal.

To continue, press the RESET (Clear) key and try the send operation again, if desired.

If you make errors while initially entering data, or if you need to change or update information on the screen, you can type over the old data, replacing it with new data. Or, you can use any of the editing keys listed below, as follows:

<u>Key</u>	<u>Usage</u>
Insert	Insert one or more omitted characters
Delete	Delete an unwanted character
ERASE EOF	Erase data from a single input field
ERASE INPUT	Erase data from all input fields on the screen

The rest of this section gives examples illustrating common usages of these keys. Each of the examples uses a single line of formatted data to represent a portion of the screen shown in Figure 5-1.

Example 1 — Using the Insert Key

The following example illustrates how you can use the Insert key to add characters to the middle of a field. The various steps in the example explain the insertion procedure, and show how the data appears on the screen before and after you make the insertion.

1. The name in the OWNER field shown below should be ROBERT LOUIS BAKER. The middle name was mistakenly omitted when the data was initially entered. To insert the omitted characters, first position the cursor at the location where the first character will be entered, as follows:

```
OWNER: ROBERT BAKER                DATE OF PURCHASE: 8/7/84
-
```

Next, press the Insert key. The Insert light comes on to indicate that the terminal is in Insert mode.

2. Type the letter L. The L is inserted between the space and the letter B, and the cursor and remaining data in the field move to the right one position, as follows:

```
OWNER: ROBERT LBAKER                DATE OF PURCHASE: 8/7/84
-
```

3. Type the letters OUIS and press the spacebar once. The rest of the name and a space are inserted as follows:

```
OWNER: ROBERT LOUIS BAKER           DATE OF PURCHASE: 8/7/84
-
```

4. Turn off Insert mode by pressing the Insert key again, or by pressing RESET (Clear).

Example 2 — Using the Delete Key

This example shows how to remove unwanted characters from a field.

1. The number in the MODEL # field shown below should be 314 instead of 3514, as originally entered. To delete the unwanted number, first position the cursor at the location for the deletion, as follows:

```
MAKE: TOYOTA    YEAR: 1977    MODEL #: 3514    STYLE: WGN
-
```



2. Press the Delete key once. The number 5 is erased from the screen, and the remaining numbers in the field move left to fill in the emptied space, as follows:

```
MAKE: TOYOTA   YEAR: 1977   MODEL #: 314   STYLE: WGN
      -
```

Note that the cursor does not move during deletion.

### Example 3 -- Using the ERASE EOF Key

The ERASE EOF or Erase to End of Field key (Ctrl/Erase) deletes all the characters within an input field from the cursor position to the end of the field. To erase an entire field, position the cursor at the beginning of the field. The following example shows how to erase a portion of a field.

1. The data in the MAKE field shown below should be CHEV instead of TOYOTA. To enter the correct letters and remove the incorrect ones, first move the cursor to the beginning of the MAKE field, as follows:

```
MAKE: TOYOTA   YEAR: 1977   MODEL #: 314   STYLE: WGN
      -
```

2. Next, type CHEV in the MAKE field. The letters CHEV replace the letters TOYO, as follows:

```
MAKE: CHEVTA   YEAR: 1977   MODEL #: 314   STYLE: WGN
      -
```

3. Now press the ERASE EOF key (Ctrl/Erase) once. This single step will erase the unwanted characters TA, leaving only CHEV in the MAKE field, as follows:

```
MAKE: CHEV     YEAR: 1977   MODEL #: 314   STYLE: WGN
      -
```

### Example 4 -- Using the ERASE INPUT Key

This example shows how to erase the data from all input fields on the screen by using the ERASE INPUT key (Ctrl/Shift/Erase).

1. All the data you have entered on the screen is incorrect. The screen looks like this:

VEHICLE ID #: 3XE88875    PURCHASE PRICE: 1800    DEALER #: 2  
 -

2. Instead of correcting each field, you decide to to erase all the incorrect data and start over. To do this, press the ERASE INPUT key (Ctrl/Shift/Erase). All input fields are erased, and the cursor moves to the beginning of the first input field, as follows:

VEHICLE ID #:                    PURCHASE PRICE:                    DEALER #:  
 -

### USING THE CURSOR SELECT FEATURE

Under SNADSC, the CURSR SEL or Cursor Select key (Set Up) provides the same function as the IBM 3278 CURSR SEL key and the IBM Selector Light Pen feature. You will usually use the Cursor Select feature to select entries in a list of options or items displayed on your screen. To make your selections, you first "mark" the item you wish to select, by placing the cursor at any character position within the field. Then you press the CURSR SEL key to select the item.

This section describes the general procedures you use when working on screens with selectable fields. Although applications that use the CURSR SEL key are basically similar, specific procedures for working with screens may vary from one application to another. Consult the application user's guide or your supervisor for specific instructions on using CURSR SEL with a particular application.

### Selectable Fields

The screen can include two types of cursor selectable fields: selection fields and attention fields. Selection fields contain data items or options; attention fields contain instructions to the application. You use the CURSR SEL key for choosing items or options in selection fields and for notifying the application of your choices by selecting an attention field.

For example, Figure 5-2 shows a representative screen from a medical records application. The screen contains several lists of descriptive data relating to a patient's medical condition. The data fields that have a question mark (?) or greater-than sign (>) as their first (designator) character are selection fields. The field at the bottom of the screen containing the instruction CONTINUE is an attention field.

### Note

If the cursor is not within a selection field or attention field when you press the CURSR SEL key, the keyboard locks, and the message NT SELECTBLE is displayed in Field H of the Status Line. Press RESET (Clear) to continue.

PATIENT: TURNER, FRANKLIN		NURSING NOTES -- PAGE 3	
HOSP. NO.: 6178909			
DOCTOR	ACTIVITY	OXYGEN	PATIENT DSCHGD
> CHNGD DRSG	> AMB	? CANULA	? AMBULANCE
? CONTACTED	? BEDREST	? CONTINUOUS	? WHEELCHAIR
? CONSULTED	? CHAIR	? MASK	> AMBULATORY
> VISITED	? WALKER		? MEDS GIVEN
	> W/ASSIST		? DIET INSTR
CONTINUE			

Sample Screen from Application Using CURSR SEL Key  
Figure 5-2

### Making Selections

Most of the selection fields on a screen will have question marks as their designator characters when the screen is first displayed. When you select an item, the designator character for its field changes to the greater-than sign (>).

To select an item in a selection field, first use the cursor movement keys to position the cursor anywhere within the field. Then press the CURSR SEL (Set Up) key. The designator character changes from (?) to (>) to indicate that the field has been selected.

With most applications, you can make multiple selections. For example, Figure 5-2 shows a screen with five selected fields, as indicated by the (>) signs.

Changing Selections: If you mistakenly select a wrong item, you can cancel the selection by positioning the cursor on the field again and pressing CURSR SEL a second time. The designator character changes from (>) to (?) to indicate that the field is unselected.

### Notifying the Application

When you are finished choosing items in the selection fields on your screen, you select an attention field to notify the application that your screen is ready for processing.

Attention fields can have any of the following characters as the designator character: ampersand (&), space, or null. (Since only the ampersand is visible on the screen, you may need to consult the application user's guide to determine which fields are attention fields.) In Figure 5-2 the field containing CONTINUE is an attention field with a space as the designator.

To select an attention field, position the cursor within the field and press the CURSR SEL key. This signals the application to act on the data you have selected. For example, selecting the CONTINUE attention field shown in Figure 5-2 might signal the application to save the selected data items for entry into the patient's medical record and to display the next screen of data items.

### COPYING YOUR WORK SESSION

When working with some IBM applications, you may need to make a copy of the data you entered on your screen. Under SNADSC, three keys are available for this purpose, as follows:

- The Print ( - ) key (F7), an emulated IBM 3278 key used for sending data to a system printer.
- The File key (F8), a special SNADSC key used for sending data to a disk file.
- The Print Screen key (Prt Scn), a special PT200 key used for sending data to a printer attached directly to your terminal.

Two additional keys enable you to specify the destination of your copy, as follows:

- The IDENT key (Ctrl/F7) is used for changing the printer characteristics for print operations performed from your terminal. This key is similar, but not identical, to the IBM 3278 IDENT key.
- The Path key (Ctrl/F8) is a special SNADSC key used for changing the file destination for data copied to a file from your terminal.

Before you can perform a copy operation, the PRIME/SNA Administrator must authorize the operation for your terminal. In the case of Print Screen, your terminal must also have a printer attached to its auxiliary port. Consult your supervisor to determine which copy operations, if any, are available from your terminal.

Using the Print ( □-□ ) and IDENT Keys

If the Local Copy to Printer operation is authorized for your terminal, you can use the Print ( □-□ ) key for making a printed copy of the data on your screen. This operation uses Prime's Spooler subsystem and printers. To specify a particular set of SPOOL options for the Local Copy to Printer operation, you can use the IDENT key. Otherwise, your data will be printed according to the SPOOL options assigned by the PRIME/SNA Administrator.

There are two ways of performing the Local Copy to Printer operation: printing with the assigned SPOOL options, and printing with user-specified SPOOL options. Instructions for each method are given below. Ask your supervisor which method to use from your terminal.

Printing With Assigned SPOOL Options: If you use the assigned SPOOL options when performing the Local Copy to Printer operation, a copy of your current screen image is printed using a format and printer previously designated by your PRIME/SNA Administrator.

Follow these steps:

1. Press the F7 key. SNADSC locks the keyboard and displays the following message on the System Line:

Performing local copy to printer.

2. Wait for SNADSC to clear the message and unlock the keyboard. If SNADSC fails to complete the copy operation, the keyboard remains locked and the following message is displayed on the System Line:

Unable to complete local copy to printer.

Press the RESET (Clear) key to continue.

Note

Under certain conditions, SNADSC locks the keyboard and displays an error message on the System Line when you press the F7 key. These messages and their meanings are:

X <sub>1</sub> X <sub>2</sub> X <sub>3</sub>	X	You are not authorized to perform the Local Copy to Printer operation.
X	-f	The function is temporarily unavailable because SNADSC is performing another function.

In either case, press the RESET (Clear) key to continue.

Printing With User-specified SPOOL Options: If you want copies of screen images to be printed using different SPOOL options than the assigned options, you use the IDENT (Ctrl/F7) key to change the SPOOL options before performing the Local Copy to Printer operation. The new set of options applies for the rest of your session, unless you change it again.

Follow these steps:

1. Press the IDENT key (Ctrl/F7) to signal SNADSC that you wish to specify new SPOOL options. SNADSC displays the following prompt on the System Line:

Local copy to printer spool options (D for default) : \_

If you decide not to enter new SPOOL options, press the Return key without entering any data. If you wish to select the system default SPOOL options as your new set of options, type D and press the Return or Enter key. Otherwise, go to step 2.

Note

If the Local Copy to Printer operation is not authorized for your terminal, pressing the IDENT key (Ctrl/F7) causes SNADSC to lock the keyboard and display the X X symbol on the System Line. Press the RESET (Clear) key to continue.

2. Enter the new set of options on the System Line and press the Return or Enter Key. See the description of the IDENT key in Chapter 6 for a list of possible options. Use the same format for your entry as you would use for entering options with the SPOOL command. For example:

-FORM white -COPIES 3 -AT 1

If you reach the end of the line before entering all your options, keep typing and the data will wrap to the beginning of the line.

3. Wait for the System Line and cursor to return to their previous state. This signals that your entry is valid, and that the new set of SPOOL options has replaced the options that were previously defined for your terminal. If your entry is invalid, SNADSC locks the keyboard and displays the following message on the System Line:

Invalid spool options for local copy.

Press the RESET (Clear) key to continue.

4. Use the Print key (F7) to send your data to the printer designated by your newly-specified SPOOL options. Follow the steps above under Printing With Assigned SPOOL Options to perform the Local Copy to Printer operation.

### Using the File and Path Keys

If the Local Copy to File operation is authorized for your terminal, you can use the File key (F8) for storing copies of screen images in a file on the Prime system. Each time you press the File key during a session, data is appended at the end of the file rather than replacing existing data in the file.

The PRIME/SNA Administrator assigns a pathname that specifies the file destination for Local Copy to File operations performed from your terminal. You can change the file destination by using the Path key (Ctrl/F8) to specify a new pathname.

There are two ways of performing the Local Copy to File operation: copying to an assigned file destination and copying to a user-specified file destination. Instructions for each method are given below. Ask your supervisor which method to use from your terminal.

Copying to an Assigned File Destination: If you use the assigned file destination when performing the Local Copy to File operation, a copy of your current screen image is appended to a file whose pathname was previously designated by the PRIME/SNA Administrator.

Follow these steps:

1. Press the F8 key. SNADSC locks the keyboard and displays the following message on the System Line:

Performing local copy to file.

2. Wait for SNADSC to clear the message and unlock the keyboard. If SNADSC fails to complete the copy operation, the keyboard remains locked and the following message is displayed on the System Line:

Unable to complete local copy to file.

Press the RESET (Clear) key to continue.

#### Note

Under certain conditions, SNADSC locks the keyboard and displays an error message on the System Line when you press the F8 key. These messages and their meanings are as follows:

X<sub>3</sub>X<sub>4</sub>X<sub>5</sub> You are not authorized to perform the Local Copy to File operation.

X<sub>1</sub>-f The function is temporarily unavailable because SNADSC is performing another function.

In either case, press the RESET (Clear) key to continue.

Copying to a User-specified File Destination: If you want copies of screen images to be filed in a different location than the assigned file destination, you use the Path (Ctrl/F8) key to specify a new file destination before performing the Local Copy to File operation. The new file destination applies for the rest of your session, unless you change it again.

The new file destination can be specified as either a filename or a pathname. Using a filename enables you to specify a file in your current directory. Using a pathname enables you to specify a file in any directory to which you have access.



Follow these steps:

1. Use the Path key (Ctrl/F8) to signal SNADSC that you wish to specify a new file destination. SNADSC displays the following prompt on the System Line:

Local copy to file pathname : \_

If you decide not to change the file destination, press the Return key without entering any data. Otherwise, go to Step 2.

Note

If the Local Copy to File operation is not authorized for your terminal, pressing the Path key (Ctrl/F8) causes SNADSC to lock the keyboard and display the X X symbol on the System Line. Press the RESET (Clear) key to continue.

2. Type the pathname of the file you wish to use for storing screen images, and press the Return or Enter key. If the file destination is your current directory, you can specify a filename instead of a pathname. If the file destination is a subdirectory under your current directory, you can use a relative pathname (one starting with \*) in responding to the prompt. Otherwise, use a full pathname.

For example, if the pathname of the file you wish to use is <SNAUSR>USER1>FILE.5, and you are currently attached to the USER1 UFD, you could respond to the Path key prompt with the filename, as follows:

Local copy to file pathname : FILE.5

If, instead, you wish to use a file with the pathname <SNAUSR>USER1>DATA>FILE.5, you could respond with the relative pathname, as follows:

Local copy to file pathname : \*>DATA>FILE.5

Finally, if you wish to use a file with the pathname <SNAUSR>FILES>FILE.5, you would respond with the full pathname, as follows:

Local copy to file pathname : <SNAUSR>FILES>FILE.5

Regardless of how you specify the file destination, its full pathname should not be longer than 128 characters, and the pathname should conform to PRIMOS naming standards.

If you reach the end of the line before entering all your data, keep typing and the data will wrap to the beginning of the line.

3. Wait for the System Line and cursor to return to their previous state. This signals that your entry is valid, and that the new file destination has replaced the file destination that was previously assigned for your terminal. If your entry is invalid, SNADSC locks the keyboard and displays the following prompt on the System Line:

Invalid local copy to file pathname.

Press the RESET (Clear) key to continue.

4. Use the File key (F8) to copy your data to the newly-specified file. Follow the steps above under Copying to an Assigned File Destination to perform the Local Copy to File operation.

#### Using the Print Screen Key

The Prt Scn or Print Screen key is a special PT200 key that sends data from the terminal to an attached printer. If your PT200 is directly connected with a printer, you may be able to use the Prt Scn key for printing copies of screen images. Refer to the PT200 Terminal Primer for further information on Prt Scn key functions.

#### USING SYS REQ AND ATIN

The specific effects of using the SYS REQ key or the ATIN key vary from one application to another. Consult your application user's guide for complete information before using one of these keys.

#### Using the SYS REQ Key

The SYS REQ or System Request key is used for switching your terminal between application and control programs.

When the ■ symbol is displayed on the System Line, pressing the SYS REQ key (Ctrl/Set Up) causes your screen to clear and switches the terminal to the control program. Pressing SYS REQ again switches the terminal back to the application.

Note

The SYS REQ key on an actual IBM 3278 has an additional function, Request for Test. This function is not available with the emulated SYS REQ key.

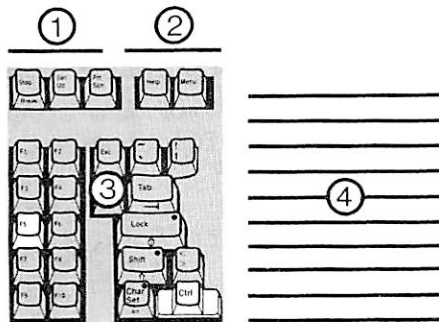
Using the ATTN Key

The ATTN or Attention key provides a means of getting the program's attention. Pressing the ATTN key (Shift/Set Up) causes the terminal to signal the application. While the signal is being sent, the keyboard locks and the X ⏏ message appears on the System Line. Most programs unlock the terminal and erase the message in responding to the signal.

# 6

## Dictionary of Keyboard Functions

This chapter provides an alphabetical listing of all the key functions supported by the SNADSC Terminal Emulation program. Each entry has four parts, as follows:



1. Key name associated with the function. Four conventions are used, as the following examples illustrate:

SYS REQ = Emulated IBM 3278 key  
*Print* □-□ = Emulated IBM 3278 key  
\*File = SNADSC control key  
Erase = Additional PT200 key

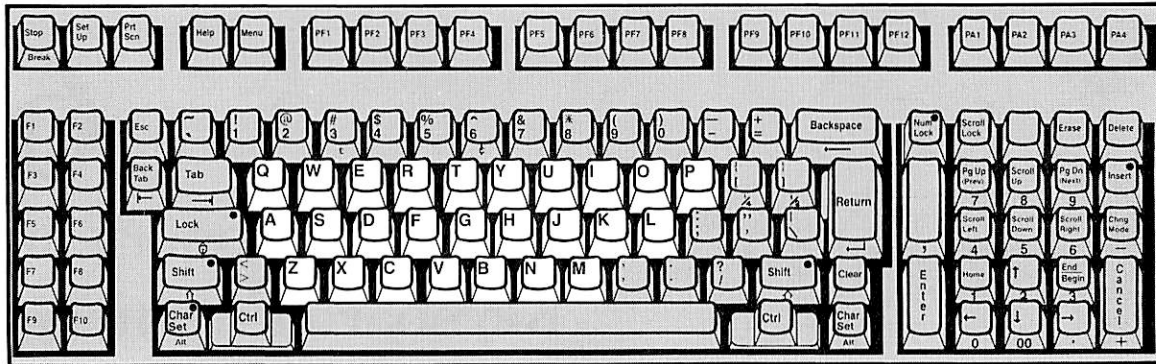
2. PT200 key(s) used to perform the function. Smaller print than 1, as the following example illustrates:

Ctrl/Set Up

3. Illustration of key location(s). Keys you use are highlighted.
4. Function definition. May appear below the illustration.

Alphabet Keys

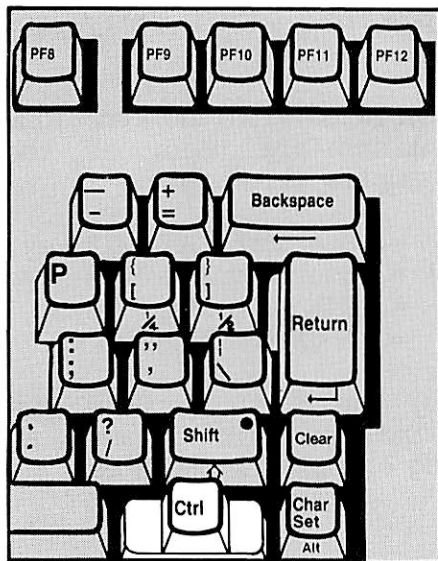
A - Z, a - z



The Alphabet keys are used for typing uppercase and lowercase letters, as on a typewriter. To produce lowercase letters, type on the alphabet keys without using the Shift or Lock keys. Use Shift or Lock with the Alphabet keys to type capital (uppercase) letters.

ALT

Ctrl



The ALT key is used with certain other keys that have more than one function (alternate function keys). Holding down the ALT key while pressing one of these keys selects an alternate function for the key. The Ctrl keys located on either side of the space bar perform the ALT key function.

Alternate function keys during 3278 emulation are: CLEAR (Ctrl/F2), ERASE EOF (Ctrl/Erase), ERASE INPUT (Ctrl/Shift/Erase), Exit (Ctrl/F5), IDENT (Ctrl/F7), Path (Ctrl/F8), PF13 - PF24 (Ctrl/PF1 - Ctrl/PF12), Refresh (Ctrl/F4), Suspend (Ctrl/F6), and SYS REQ (Ctrl/Set Up).

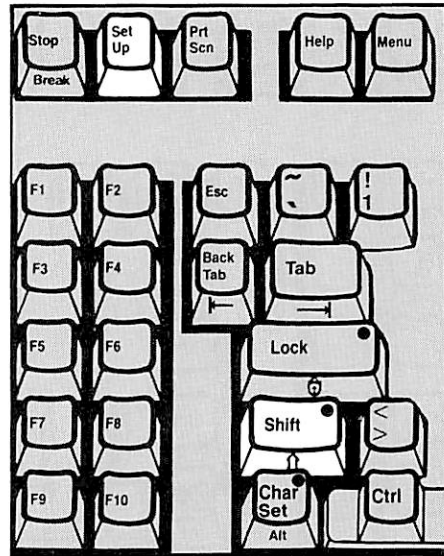
Note

The "Alt" labels on the front of the Char Set keys do not apply to 3278 emulation.

Shift/Set Up

ATTN

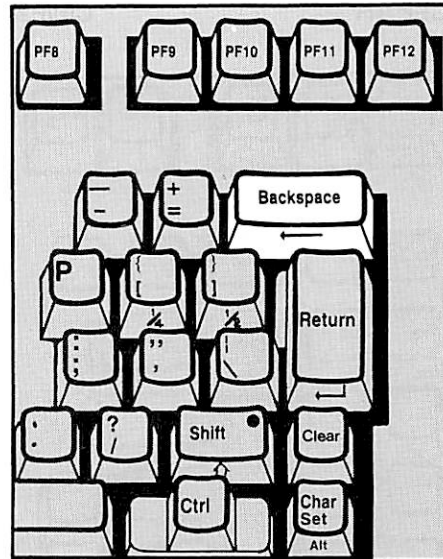
The ATTN or Attention key is used for signaling an application program. Pressing ATTN (Shift/Set Up) sends a special code to the program and locks the keyboard. The action that is performed depends on how the application uses the ATTN key. See the application user's guide for details.



Backspace

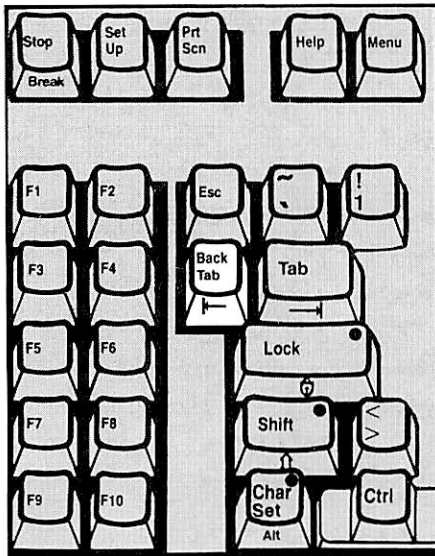
← Backspace

The Backspace key moves the cursor. Each time you press the Backspace key, the cursor moves left by one position. This function is identical to the function of the left Horizontal Positioning key. The Backspace key is typematic, which means that the key automatically repeats its action when pressed and held down.



Back Tab ←

Back Tab



The Back Tab key moves the cursor. The action performed when you press the Back Tab key depends on whether or not your screen is formatted, and on the location of the cursor when you press the key.

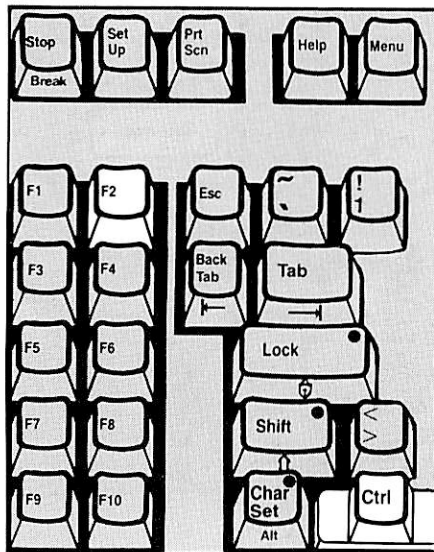
If your screen is formatted and the cursor is beyond the first position of an input field, pressing the Back Tab key returns the cursor to the first position.

If the cursor is in the first position of an input field, pressing the Back Tab key moves the cursor back to the first position of the previous input field.

If your screen is unformatted, or if there are no input fields, pressing the Back Tab key returns the cursor to the home position.

CLEAR

Ctrl/F2



Pressing the CLEAR (Ctrl/F2) key erases all characters from the display screen and moves the cursor to the home position.

Note

The PT200 key labeled "Clear" (on the right side of the keyboard) does not function as the CLEAR key during 3278 emulation. This key is used for the RESET function, described below.

Set Up

CURSR SEL

The CURSR SEL or Cursor Select key is used in some applications for selecting items from a list or table displayed on the screen.

The screen display for an application that uses the CURSR SEL key usually includes two types of fields:

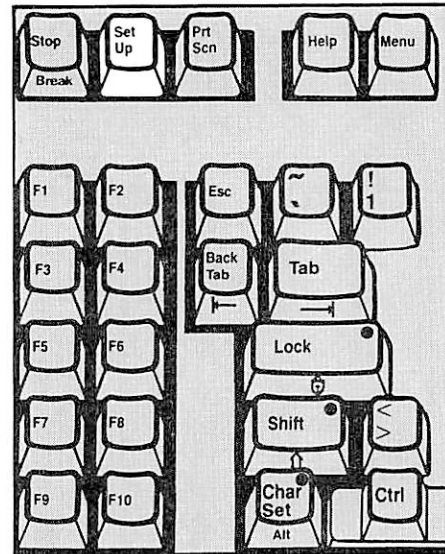
- Selection fields, which contain data items.
- Attention fields, which contain instructions to the program.

These two types of fields are identified by designator characters located in the first position of the field. Selection fields have either a question mark (?) or a greater-than sign (>) in the first position. Attention fields have either a space, null, or ampersand (&) as a designator character.

For each data item you wish to select, position the cursor in the appropriate selection field; then press the CURSR SEL (Set Up) key. Before you first select an item, its designator is a question mark (?). Upon selection, the designator changes to a greater-than sign (>). If you wish to cancel a selection, position the cursor in the field and press CURSR SEL. The designator changes from > to ? and the item is removed from your selections.

When you have finished selecting data items, move the cursor to the appropriate attention field and press CURSR SEL. The program acts on the data you have selected according to the instruction in the attention field.

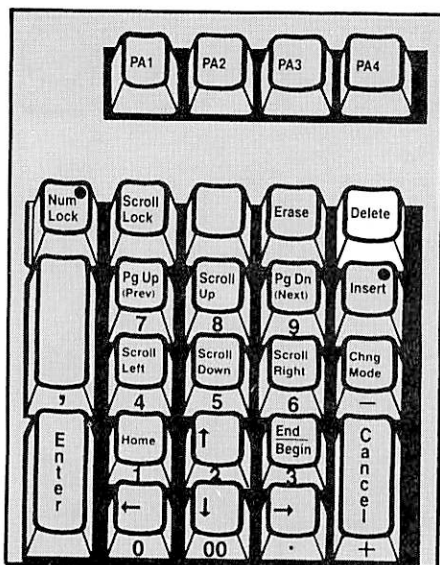
For further details on using the CURSR SEL key with a particular application, refer to the user's guide for the application.





Delete 

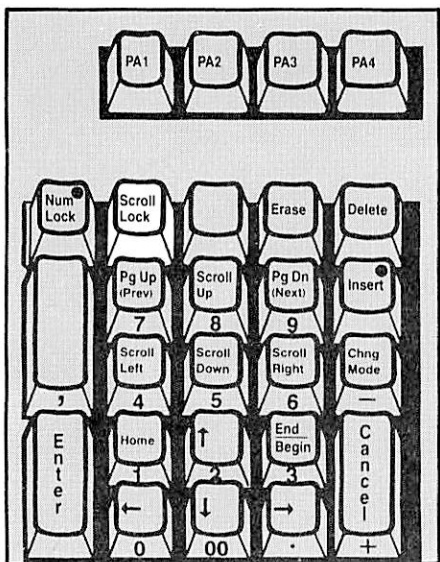
Delete



Pressing the Delete key removes the character at the cursor, when the cursor is located in an input field. Other characters in the field, to the right of the deleted character and on the same line, move to the left by one position. If the field occupies more than one line, only the line containing the cursor is affected. The cursor does not move.

DUP

Scroll Lock



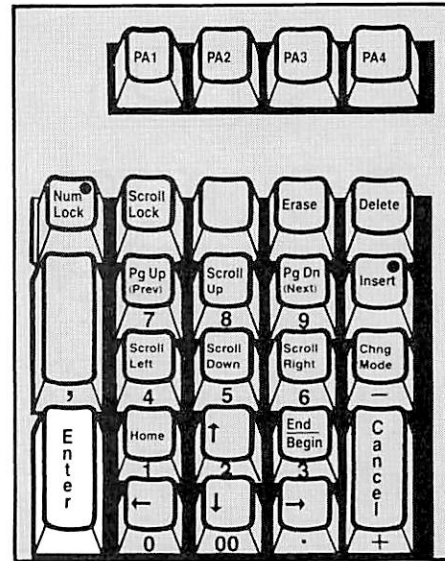
The DUP or Duplicate key provides a fast method for entering the same information on several forms without retyping the information on each form. After entering data in an input field on the first form, you can fill in the same data on subsequent forms by pressing the DUP (Scroll Lock) key when you come to that same field. Pressing the DUP key inserts a special character, the overscored asterisk ( $\bar{*}$ ), at the beginning of the field. (The cursor then moves to the next input field.) When the application program processes the form, the appropriate data is placed in each field marked with the DUP character.

For more detailed instructions on using the DUP key with a particular application, refer to the user's guide for the application.

Pressing the ENTER (Enter) key sends the data on the display screen to the application program. While your terminal is transmitting the data, the X ⏏ message appears on the System Line and your keyboard locks. The application usually unlocks the keyboard and turns off the message after receiving and processing your input. Refer to the user's guide for your application for further details.

Enter

ENTER



The Erase key provides two erasure functions that are not available on an actual 3278 Display Station: Erase Character and Erase to End of Line.

Pressing the Erase key alone erases only the character at the cursor location. The cursor and other characters in the field do not move.

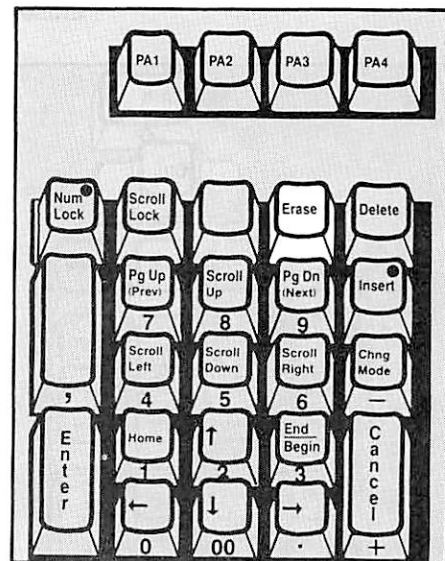
Pressing the Erase key while holding down the Shift key erases all characters from the cursor position to the end of the line.

#### Note

Under certain conditions (for example, when the cursor is in a protected field) the keyboard locks and the INVALID CMD message is displayed on the Status Line when you use one of the Erase functions. Press RESET (Clear) to continue.

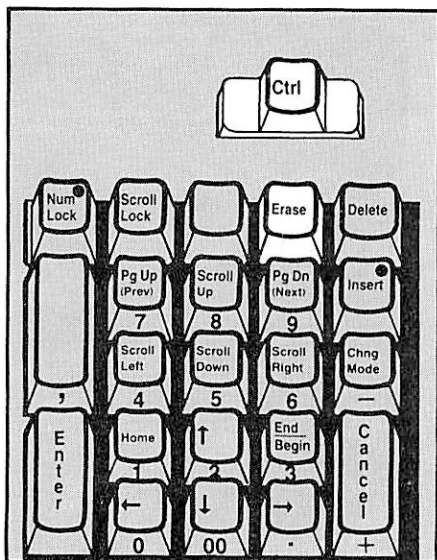
Erase

Erase



## ERASE EOF

Ctrl/Erase

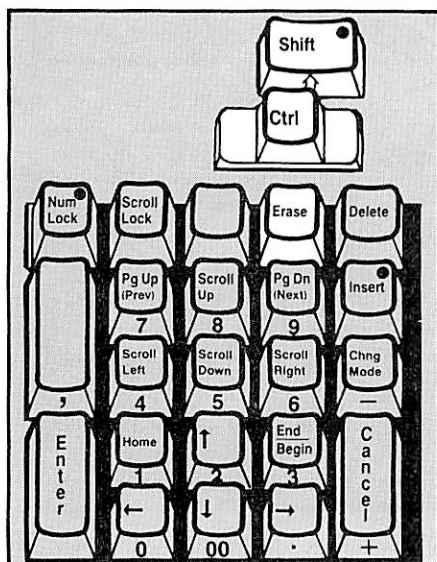


The ERASE EOF or Erase to End of Field key is used for erasing characters within the input field containing the cursor. Pressing the ERASE EOF (Ctrl/Erase) key erases all characters from the cursor to the end of the field. The cursor does not move. On unformatted screens, using the ERASE EOF key erases all characters from the cursor to the end of the screen.

Note

Under certain conditions (for example, when the cursor is in a protected field) the keyboard locks and the INVALID CMD message is displayed on the Status Line when you use ERASE EOF. Press RESET (Clear) to continue.

## ERASE INPUT

Ctrl/Shift/  
Erase

Pressing the ERASE INPUT (Ctrl/Shift/Eraser) key erases all the input fields on your screen and moves the cursor to the first input position on the screen. On unformatted screens, or on screens with no input fields, using the ERASE INPUT key erases all input on the screen and moves the cursor to the home position.

Note

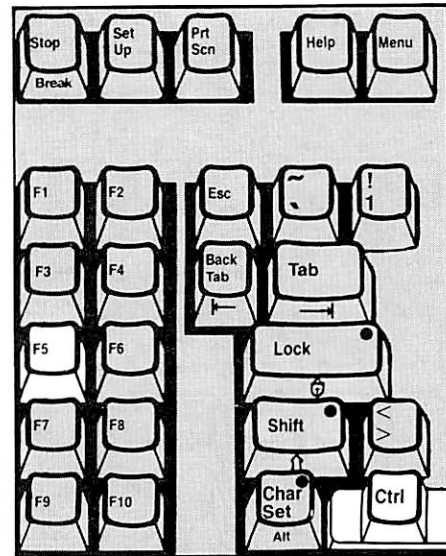
Under certain conditions (for example, when the cursor is in a protected field) the keyboard locks and the INVALID CMD message is displayed on the Status Line when you use ERASE INPUT. Press RESET (Clear) to unlock the keyboard and clear the message.

Ctrl/F5

\*Exit

The Exit key is a special function key for the SNADSC emulation program. SNADSC recognizes the Ctrl/F5 key combination as the Exit key.

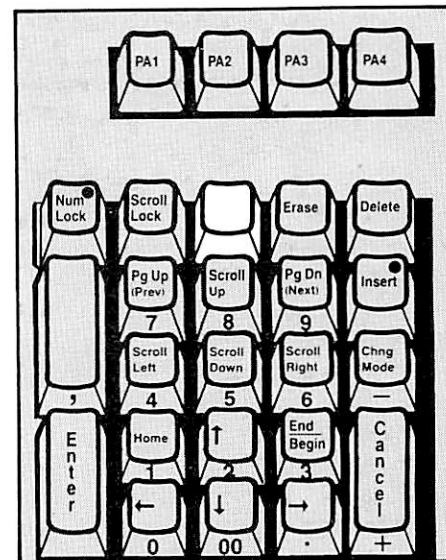
Pressing the Exit key during 3278 emulation stops the operation of SNADSC and returns the terminal to standard PT200 mode.



Blank next to Erase

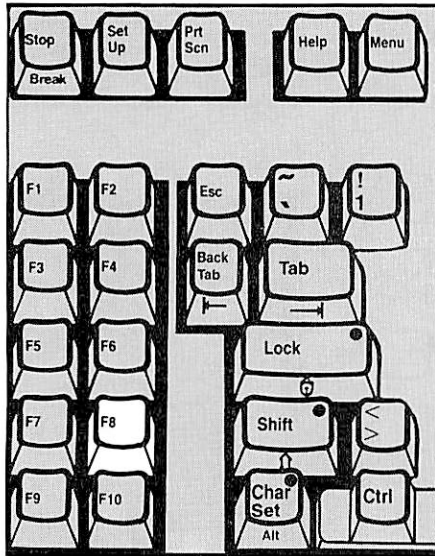
FIELD MARK

The FIELD MARK key is used for inserting a separator character between data items when working with an unformatted display. Pressing the FIELD MARK (blank next to Erase) key displays an overscored semicolon ( $\overline{;}$ ), which denotes the end of a field to the application program.



\*File

F8



The File key is used for copying the contents of your screen into a file. This key function (Local Copy to File) is a special feature of the SNADSC program. SNADSC recognizes the F8 key as the File key.

If the Local Copy to File operation is authorized for your terminal, and the required PRIME/SNA services are available, pressing the File key causes SNADSC to begin copying the information on your screen into the assigned file. While the copy is in process, the keyboard locks, and the following message is displayed on the System Line:

Performing local copy to file.

If the operation is successful, the keyboard unlocks, and the message clears.

If an error occurs during the copy operation, the keyboard remains locked, and the following message is displayed:

Unable to complete local copy to file.

Press RESET (Clear) to continue.


If the Local Copy to File operation is authorized for your terminal, but the terminal is expecting to receive data from the host when you press the File key, the keyboard locks and the X  $\frac{f}{f}$  X message is displayed. Press RESET to continue.

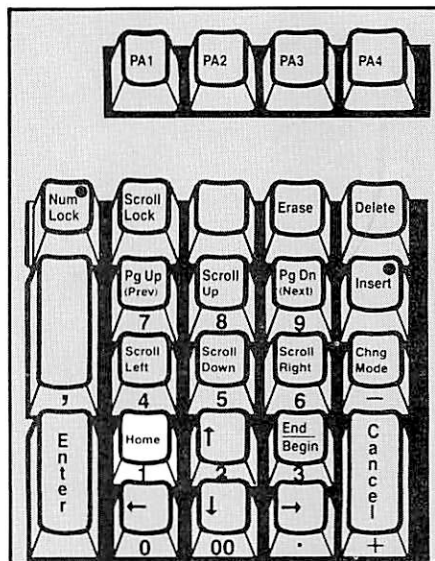
If you press the File key when the Local Copy to File operation is not authorized for your terminal, the keyboard locks and the X  $\frac{f}{f}$  X message appears on the System Line. Press the RESET (Clear) key to continue.

Use the Path key (Ctrl/F8) to change the pathname for a Local Copy to File operation.

Pressing the Home key moves the cursor to the first input position on the screen. If there are no input fields, or if the screen is unformatted, the cursor moves to the top left corner of the screen.

Home

 Home



See entry for Vertical and Horizontal Positioning.

← → Horizontal Positioning

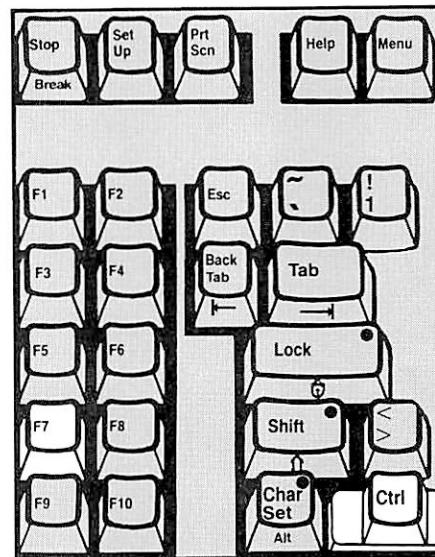
The IDENT key enables you to change the characteristics that apply to the Local Copy to Printer operation for your terminal, by specifying a new set of SPOOL command options. This IDENT key function represents a modification of the IBM 3278 IDENT key function for use with Prime's SPOOL subsystem and printers.

Ctrl/F7

IDENT

If the Local Copy to Printer operation is authorized for your terminal, pressing the IDENT key (Ctrl/F7) causes the following prompt (and the cursor) to appear on the System Line:

Local copy to printer spool options (D for default) : \_



Pressing the Return key without entering any data cancels the effect of pressing the IDENT key. The System Line and cursor return to their previous state, and SPOOL options are unchanged.

## IDENT (cont.)

To specify a new set of SPOOL options, enter one or more of the following options:

-AS alias	-Form [type]
-AT destination	-LNUM
-COPIes number	-NOHead
-DEFer [time]	

If you reach the end of the line before you finish entering data, keep typing and the data will wrap to the beginning of the line. Terminate your entry by pressing the Return key.

To specify the system default SPOOL options as your new set of options, enter D and press the Return key.

If your entry is valid, the new set of SPOOL options replaces the set of options that is currently defined for your terminal. The System Line and cursor return to their previous state, and you can continue work. The new options remain in effect until SNADSC is exited, unless you use the IDENT key again to change them.

If you enter invalid data in response to the IDENT key prompt, the keyboard is soft locked, and the System Line displays the following message:

Invalid spool options for local copy.

Press the RESET (Clear) key to continue.

If the Local Copy to Printer operation is not authorized for your terminal, and you press the IDENT key, the keyboard is soft locked and the X  $\frac{X}{X}$  X (operator unauthorized) symbol is displayed on the System Line. Press the RESET (Clear) key to continue.

Insert

Insert

The Insert key acts as an on/off switch for controlling the Insert mode of operation. An indicator light on the key is on when Insert mode is on.

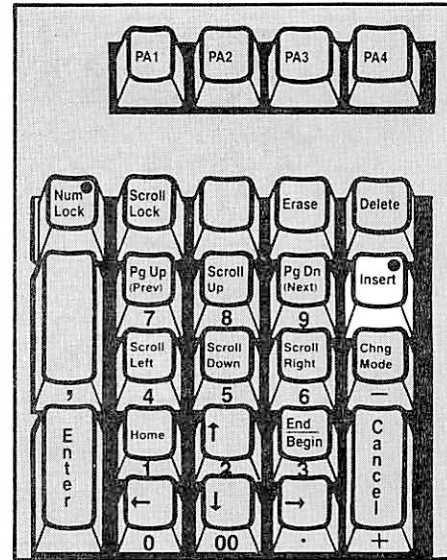
Pressing the Insert key when the light is off places the terminal in Insert mode and turns on the light. Pressing the Insert key when the light is on returns the terminal to its standard mode of operation and turns off the light. (This usage of the Insert key differs from Insert key usage on the IBM 3278. However, once the PT200 is in Insert mode, the terminal performs in the same way as the 3278.)

Insert mode enables you to enter new data into a partially-filled input field without the possibility of overwriting existing data. With Insert mode on, the following actions occur when you enter a new character into a location that already contains a character:

1. All existing characters from the cursor location to the next unfilled location in the field move to the right one position;
2. The cursor moves to the right one position;
3. The new character is displayed in the position previously occupied by the cursor.

When you enter a new character into an unfilled location, actions 2 and 3 occur, but no existing characters are moved. If a field occupies more than one line, insertion may cause characters to wrap the screen.

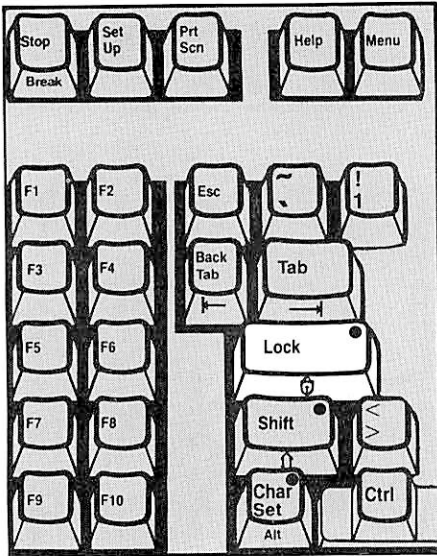
If you try to insert data when a field is full, or if you try to insert data into a protected field, the keyboard locks, and an error message is displayed on the Status Line. Press RESET (Clear) to continue.





Lock 

Lock



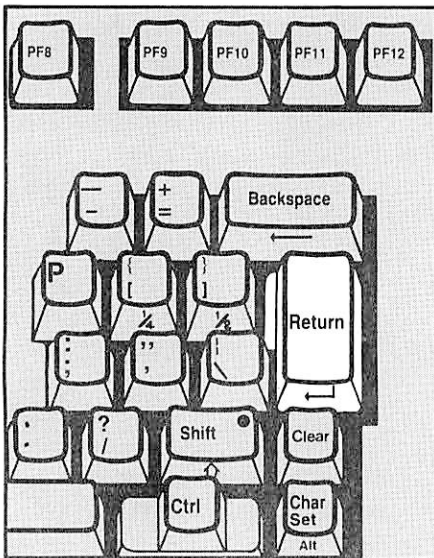
The Lock key is used alone as an on/off switch for the Caps Lock function. Caps Lock is a special PT200 function that is not available on the IBM 3278. Caps Lock enables you to lock only the alphabetic keys in the shifted (uppercase) condition, while leaving the numeric and special symbol keys unshifted (lowercase).

The Lock key is also used together with the Shift key for controlling the Shift Lock function. Shift Lock enables you to lock all the character keys in the shifted condition, as on the IBM 3278. Shift Lock is described below, in the Shift key entry.

An indicator light on the Lock key is on when either the Caps Lock or the Shift Lock function is on. Pressing the Lock key when the light is off turns on Caps Lock and the light, locking the alphabetic keys in uppercase. Pressing the Lock key again returns the alphabetic keys to lowercase and turns off the light.

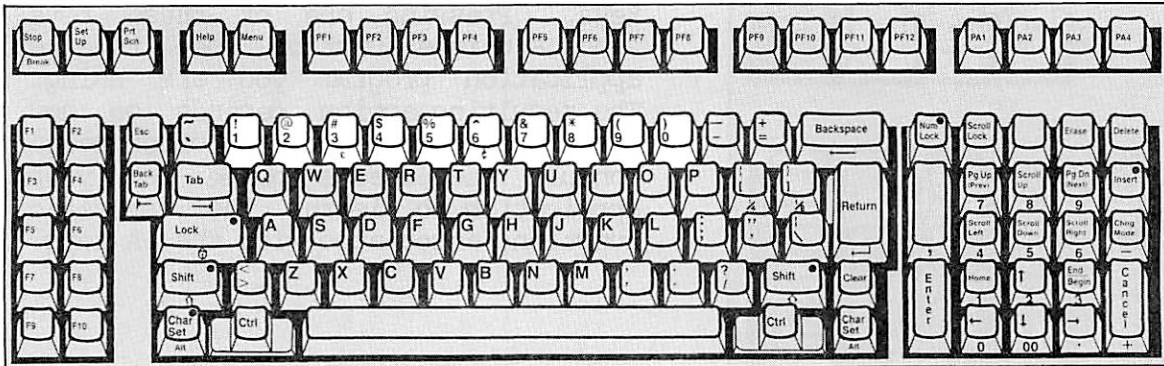
New Line ↵

Return



Pressing the New Line key advances the cursor. The new cursor location depends on the screen format and on the existing data displayed on the screen, as follows: 1. If the screen is unformatted, the cursor moves to the beginning of the next line; 2. If the screen has input fields, the cursor moves to the first input position on the next line that has an input field; 3. If the screen has only protected fields, the cursor moves to the home position.

The Return key acts as the New Line key when the cursor is located above the System Line. When the cursor is in the System Line, pressing Return signals SNADSC that you have finished entering your response to a prompt.



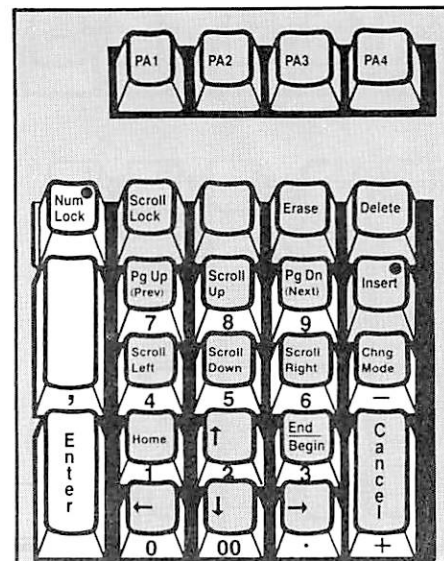
When you press any of the Numeric keys with no shift, the number on the lower half of the key is displayed. When used with the Shift key (or the Shift Lock function), each Numeric key displays the symbol on the upper half of the key.

#### Numeric Keypad and Num Lock

The Num Lock key acts as an on/off switch for controlling the Numeric Keypad mode of operation. An indicator light on the key is on when Numeric Keypad mode is on. This key and keypad are special features of the PT200 terminal that are not available on the IBM 3278.

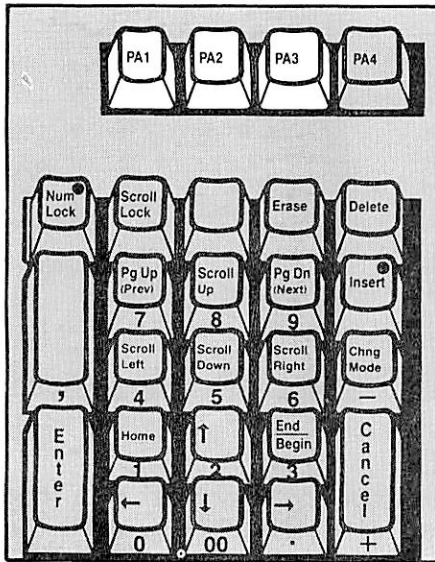
The Numeric Keypad consists of all the keypad keys with numbers or symbols on the front of their caps. The 0 - 9 keys in the keypad are arranged like those of a standard 10-key adding machine.

After pressing the Num Lock key to turn on Numeric Keypad mode, you can use the Numeric Keypad keys for entering numeric data. To switch back to function key operation, turn off Numeric Keypad mode by pressing the Num Lock key again.



PA1 - PA3

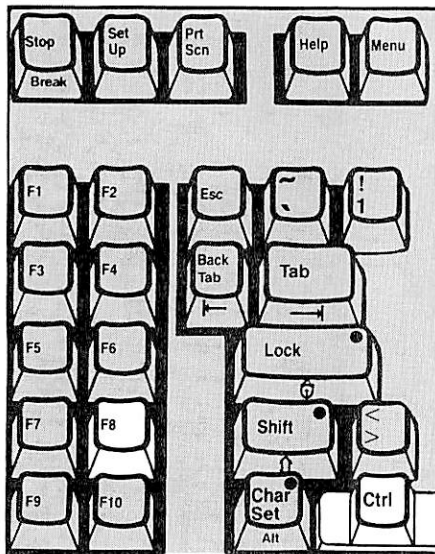
PA1 - PA3



The PA1 - PA3 keys are Program Access keys. Pressing one of these keys sends a unique function code to the application program you are using. The resulting action depends on how the program defines the function code. Consult the user's guide for your application to learn the specific functions associated with the PA keys.

\*Path

Ctrl/F8



The Path key is used to specify the pathname for the Local Copy to File operation. This operation is a special feature of the SNADSC program. SNADSC recognizes Ctrl/F8 as the Path key.

If the Local Copy to File operation is authorized for your terminal, pressing the Path key causes SNADSC to display the following prompt on the System Line:

Local copy to file pathname : \_

Type the pathname of the file you wish to use for the Local Copy to File operation, and press the Return or Enter key. (Press Return without entering any data if you wish to continue without changing the file destination.)

If you enter a valid PRIMOS pathname (absolute or relative), the file you


\*Path (cont.)

specify replaces the current Local Copy to File pathname. With subsequent uses of the File key, output is directed to the new file.

If the pathname you enter is invalid, the keyboard locks and the System Line displays the following message:

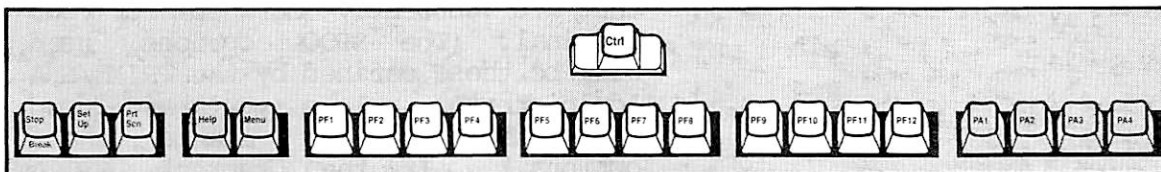
Invalid pathname for local copy.

Press RESET (Clear) to continue.

If you press the Path key when the Local Copy to File operation is not authorized for your terminal, the keyboard locks and the X  X symbol appears on the System Line. Press the RESET (Clear) key to continue.


PF1 - PF12  
Ctrl/PF1 - Ctrl/PF12

PF1 - PF12  
PF13 - PF24

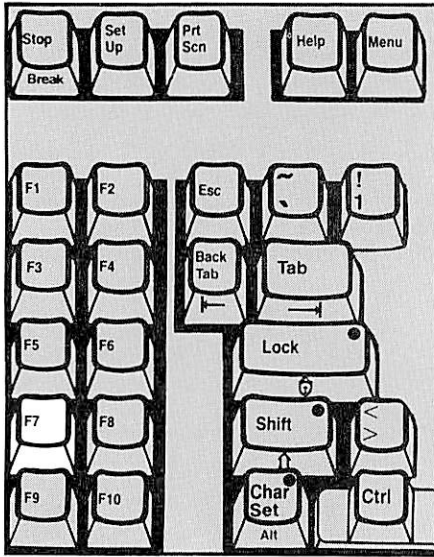


The Program Function keys include the PF1 through PF12 keys in the top row of the keyboard, and their alternate keys, PF13 through PF24. To operate one of the PF1 through PF12 keys, you press the key directly. To operate one of the PF13 through PF24 keys, you hold down the ALT (Ctrl) key while pressing the appropriate PF1 through PF12 key. To determine the correct PF key to use with ALT (Ctrl), subtract 12 from the number of the desired key. For example, for PF18, use Ctrl/PF6.

The Program Function keys are assigned specific functions by application programs. Each program that uses PF keys assigns functions related to the tasks required for the application. This means that the actions performed when you press a particular PF key may change from one application to another. See the application user's guide for details on PF key usage.

Print 

F7



The Print key is used for producing a printed copy of the data displayed on your screen. SNADSC recognizes the F7 key as the Print key. The Print key function (Local Copy to Printer) is available only if the PRIME/SNA Administrator has enabled the function for your terminal.

If your terminal is enabled for Local Copy to Printer, and if the required PRIME/SNA services are available, pressing the Print key causes SNADSC to start the print operation. While your print request is being processed, the keyboard locks, and the System Line displays the X ? symbol, along with the following message:

Performing local copy to printer.

The PRIMOS Spooler subsystem processes your print request according to the Local Copy to Printer SPOOL options that are currently defined for your terminal. (The SPOOL options used will be those defined by the PRIME/SNA Administrator, unless you have used the IDENT key to change these options.) If the current SPOOL options include the -AS option and an alias, the alias appears as the header on the printout. Otherwise, the station name of your terminal is used as the printout header. If the print operation is successful, the keyboard unlocks and the System Line is restored to its prior condition.

If an error occurs during the print operation, the keyboard remains locked, and the following message is displayed:

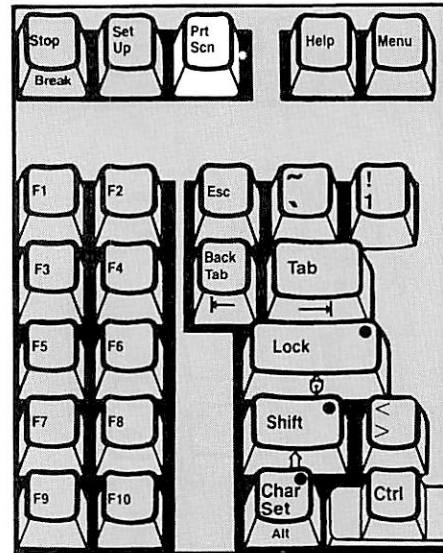
Unable to complete local copy to printer.

Press RESET (Clear) to continue.

The Prt Scn or Print Screen key is a special PT200 function key that is not available on the IBM 3278. If your terminal has an output device (printer or terminal) directly attached to its auxiliary port, pressing the Prt Scn key copies the data on your screen to the device. You can vary the format and content of the data in the copy by using the Prt Scn key with the Shift or Ctrl keys. See the PT200 Terminal Primer for further details.

Prt Scn

Prt Scn

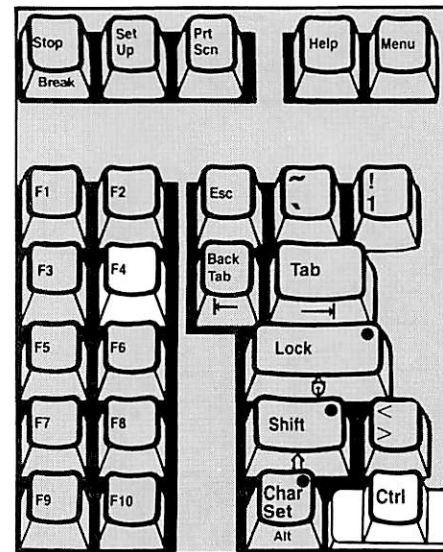


The Refresh key enables you to obtain a fresh copy of the screen you are working on, should the screen acquire unwanted characters, such as a message from the system. This key function is a special feature of the SNADSC program. SNADSC recognizes Ctrl/F4 as the Refresh key.

Pressing the Refresh (Ctrl/F4) key removes all extraneous characters from the screen and redisplay the data and fields as they were last sent by the application program.

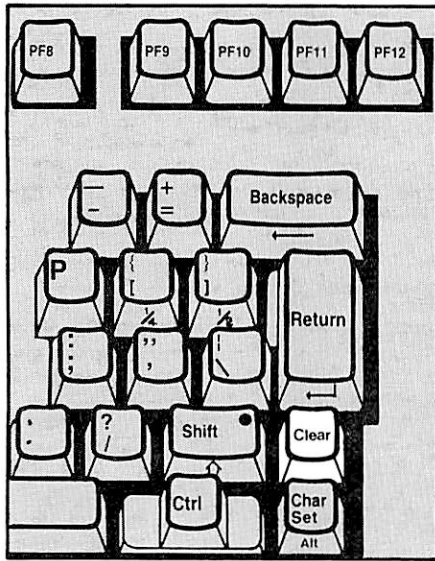
Ctrl/F4

\*Refresh



RESET

Clear



The RESET key is used to restore keyboard function when the keyboard is in the soft lock condition. Pressing the RESET (Clear) key also erases the System Line messages associated with the soft lock condition. If Insert mode is on, pressing the RESET key turns it off.

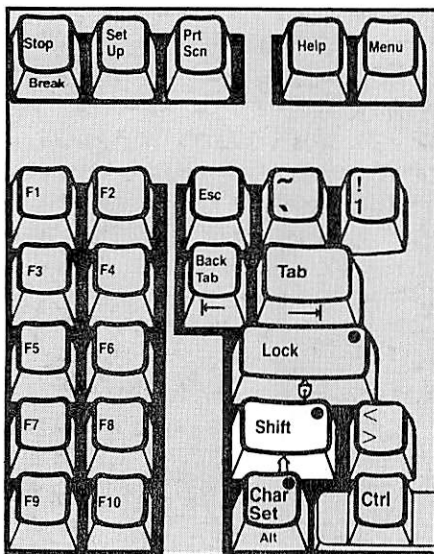
Under SNADSC, the key labeled Clear (below the Return key) acts as the RESET key.

Return

See entry for New Line.

Shift ↑

Shift



The following description applies to either the right or the left Shift key, except as noted. The Shift key can be used as an independent key for shifting the character keys to the uppercase condition, or in conjunction with the Lock key for controlling the Shift Lock function. The left Shift key has an indicator light that is on when the Shift Lock function is on. When the light is off, holding down either Shift key while pressing a character key displays an uppercase letter for an alphabet key, or the top character shown on its label for a numeric or symbol key.

Pressing the Lock key while holding down the Shift key turns on the Shift Lock function and the lights on both keys. When the Shift Lock function is on, all the character keys are locked in the uppercase condition — you do

Shift ↑ (cont.)

not have to hold down the Shift key to type in uppercase characters.

When the Shift Lock function is on, holding down the Shift key while pressing a character key overrides the Shift Lock function, causing the lowercase character for the key to be displayed.

To return the keyboard to the unshifted (lowercase) condition, hold down the Shift key, press and release the Lock key, and then release the Shift key.

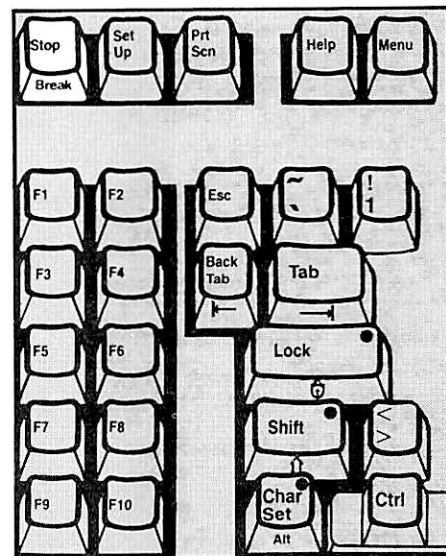
The Stop key is a special PT200 key that is not available on the IBM 3278. Use this key with care under SNADSC, as it causes SNADSC to terminate when used with certain other keys.

Pressing the Stop key alone causes a break in the transmission of data to your terminal and displays the Status Line, with the message XOFF blinking in Field B. Pressing Stop while XOFF is displayed restores transmission to the terminal, clears the XOFF message, and redisplay the System Line.

Pressing the Stop key while holding down the Ctrl, Shift, or Char Set key causes your terminal to exit SNADSC and return to PRIMOS.

Stop

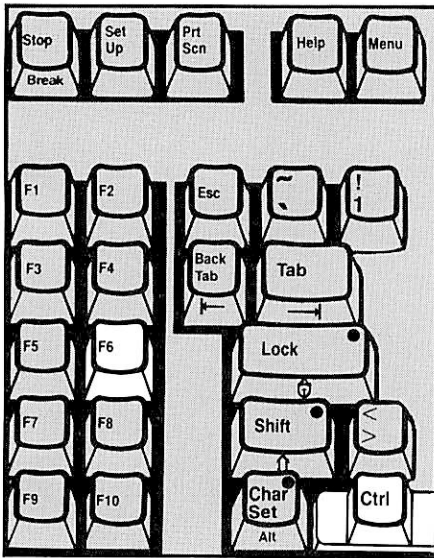
Stop





\*Suspend

Ctrl/F6



The Suspend key enables you to interrupt a session with the IBM host and return to the PRIMOS command environment, while keeping the option of recovering the session at a later time. A terminal can have a maximum of three sessions suspended at any one time. The Suspend key (Ctrl/F6) is a special feature of SNADSC.

The Suspend Session function works only under the following conditions:

1. The terminal is connected with an application program;
2. The terminal is not waiting for a response from the IBM host;
3. Fewer than three sessions are suspended for the terminal.

Pressing the Suspend key when all of these conditions are met causes SNADSC to lock the keyboard and display the following prompt on the System Line:

Session ID : \_

If you respond by pressing the Return key (without entering any data), the effect of pressing the Suspend key is canceled, and your terminal returns to its former state.

To enter a session ID, type any name from 1 - 32 characters long and press the Return (or Enter) key. If you enter a valid ID, the terminal locks, and SNADSC performs the necessary actions to suspend the session and return your terminal to PRIMOS command level. Just before terminating, SNADSC displays this message:

Session has been successfully  
suspended.

If you enter an invalid session ID, the terminal locks and the System Line displays the following message:

Invalid session ID.

Press RESET (Clear) to continue.

\*Suspend (cont.)

If the Suspend Session function fails to work because your terminal is not connected with an application program or because your terminal is waiting for a response from the IBM host, SNADSC locks the keyboard and displays this message in the System Line:

Unable to suspend session at this time.

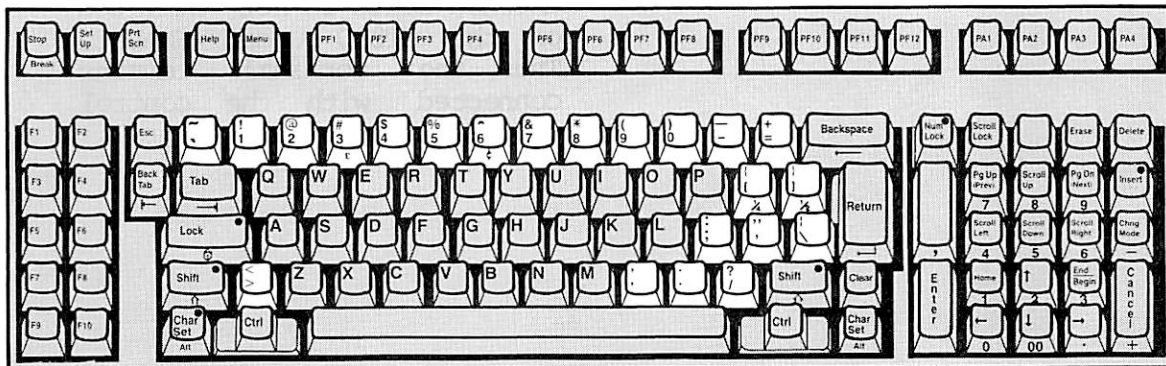
Press RESET (Clear) to continue.

If the Suspend Session function fails because three sessions are already suspended, the keyboard locks and the System Line displays this message:

Maximum number of sessions suspended.

Press RESET (Clear) to continue.

### Symbol and Punctuation Mark Keys

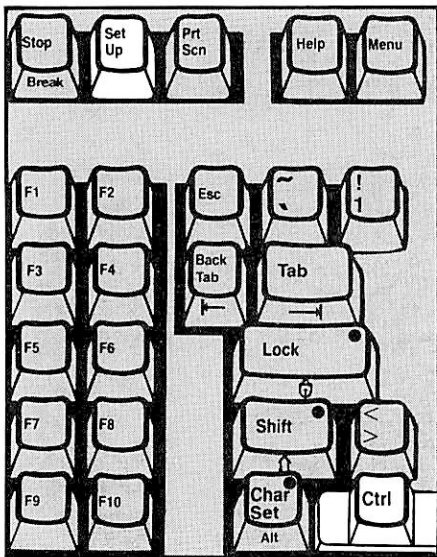


During 3278 emulation, you can enter any symbol or punctuation mark from the PT200 keyboard that you can enter from the IBM 3278 Typewriter keyboard. Under SNADSC, three keys display different symbols from those shown on their labels, as follows: 1. The caret (^) key (Shift/6) displays the logical NOT symbol (¬); 2. The left square bracket key ([) displays the cent sign (¢); 3. The right square bracket key (]) displays the broken vertical bar symbol (|).

All other symbol and punctuation mark keys display the characters shown on their labels. To enter a character shown on the upper half of a key, use the Shift key or Shift Lock function.

## SYS REQ

Ctrl/Set Up



The SYS REQ or System Request key enables you to switch your terminal between application and control programs. Under SNADSC, Ctrl/Set Up acts as the SYS REQ key.

If your terminal is connected with both a control and an application program, pressing SYS REQ clears the display screen and switches the terminal between the two programs. Consult your application user's guide for details on SYS REQ key usage.

Note

On an IBM 3278, if you press SYS REQ when the terminal is connected with a control program, but not with an application, the terminal switches to the "unowned" state (connected with the host, but not with control or application programs). The unowned state is not emulated on the PT200 under SNADSC. Thus, the terminal remains connected with the control program.



# APPENDIXES

# A

## Meet the PT200

This appendix introduces the basic operating features of the PT200 terminal. The first three sections of the appendix cover the following topics:

- Components of the terminal
- Controls and indicators
- Suggestions for care of the terminal

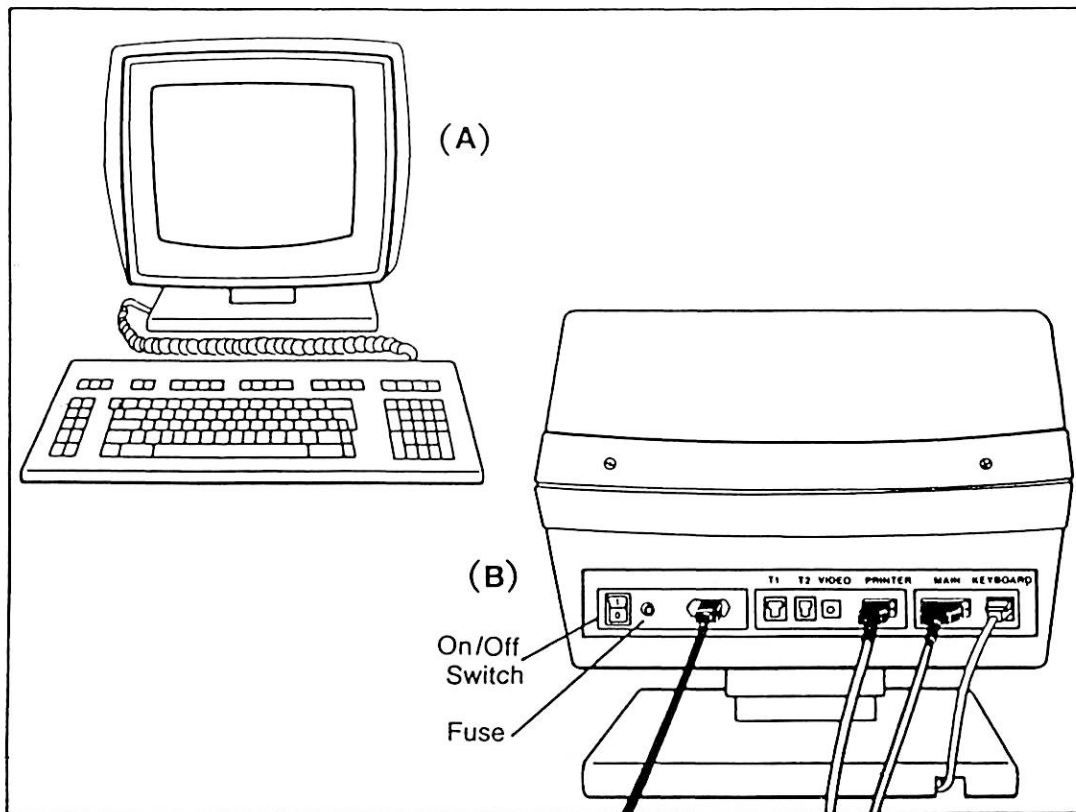
The last section of the appendix provides a series of exercises that allow you to observe some of the terminal features presented in earlier sections.

If possible, sit at a terminal as you read this appendix so that you can try certain features as you read about them.

COMPONENTS

The PT200 terminal consists of two units, the display/logic unit and the keyboard. (See Figure A-1 (A).) An extendible coiled cord connects the two units, so that you can place the keyboard up to six feet away from the display/logic unit. On the back edge of the keyboard, to the left of the cord connection, is a hinged support you can use for raising the back of the keyboard. Swing the support open to put the keyboard in an inclined position. Snap the support in under the keyboard to return it to a flat position. You can tilt the display/logic unit upward or downward on its base to provide a comfortable viewing angle of the display screen.

The back of the display/logic unit has a set of connectors for attaching various cords and cables, a fuse receptacle, and the On/Off switch. (See Figure A-1 (B).)



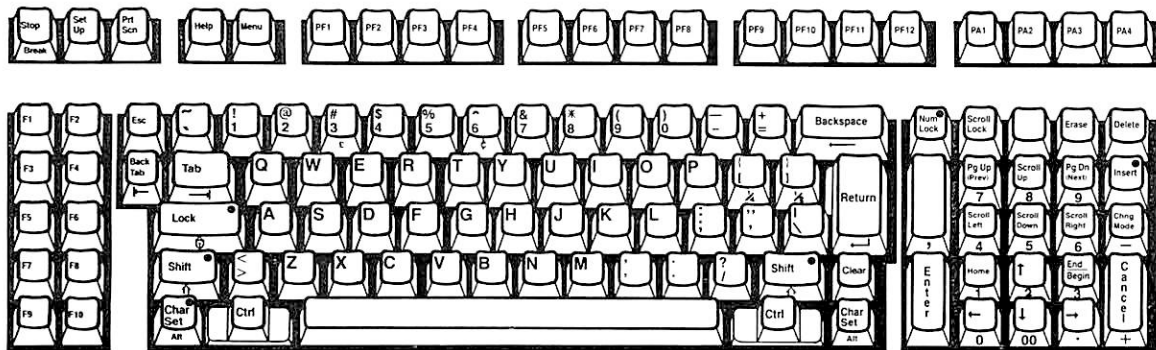
The PT200 Terminal  
Figure A-1

## The Keyboard

Figure A-2 shows the standard keyboard layout. The PT200 keyboard consists of IBM Selectric typewriter-like keys and function keys.

The typewriter-like keys are the light-colored keys in the central section of the keyboard. You use them for typing the characters shown on the keys much as you use typewriter keys.

The function keys include all the darker-colored keys and the light-colored keys in the right-hand keypad. Those function keys that are located next to the character keys are used mainly for typewriter-like functions (for example, Shift, Lock, Tab, Back Tab, Backspace, and Return).



The PT200 Keyboard  
Figure A-2

The other function keys enable you to perform special kinds of processing and terminal control. For example, you use the function keys located in the keypad on the right side of the keyboard mainly for editing text on the terminal screen. You can control the operating features of your terminal screen and keyboard with keys such as Set Up, Prt Scn, Clear, and Num Lock.



Three groups of function keys are programmable:

- The F keys on the left side of the keyboard (F1 through F10)
- The PF keys in the top row (PF1 through PF12)
- The PA keys in the top row (PA1 through PA4)

Different application programs can assign different functions to these programmable keys. To determine how these keys work with a particular application, refer to the user's guide for that application.

The exercises at the end of this appendix demonstrate some of the tasks you can perform using function keys. Detailed function key definitions for SNADSC appear in Chapter 6 of this guide.

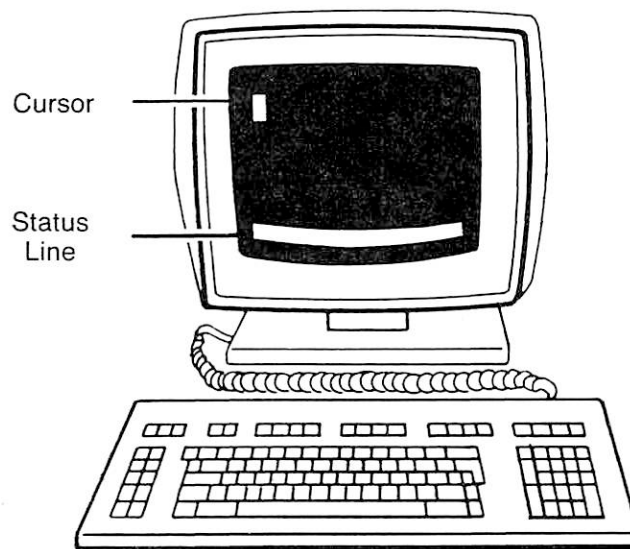
### The Display Screen

The display screen for the PT200 is a cathode ray tube (CRT) screen, similar to a television screen. The screen can display both text and diagrams such as charts, graphs, and line drawings.

You can control some display screen features through the Set Up Menu. For example, you can choose whether the screen image shows light characters on a dark background (normal video) or dark characters on a light background (reverse video). You can also adjust the screen brightness to the level that is most comfortable for you. Exercise 2 at the end of this appendix provides some brief examples. The PT200 Terminal Primer describes in detail all 23 adjustable features in the Set Up Menu.

When the terminal is on without display screen activity for longer than fifteen minutes, the screen automatically dims. The screen returns to normal brightness when you press any key on the keyboard or when data is received from the computer. Automatic dimming prevents possible damage to the screen surface when the terminal is left on steadily.

Cursor: The cursor is a special symbol that moves about on the display screen. (See Figure A-3.) It functions as a place-marker that shows where you will enter the next character. The standard cursor for the PT200 is a reverse video block (█). You can change the cursor type for your terminal to an underline symbol ( \_ ), a blinking underline, or a blinking block. Exercise 2 at the end of this appendix gives instructions for changing the cursor type.



Cursor and Status Line/System Message Line  
Figure A-3

Status Line and System Message Line: The bottom line of your display screen provides two kinds of messages. (See Figure A-3.) Usually, the line serves as a Status Line, displaying messages about the operating status of the terminal and the host computer system.

The bottom line can also serve as a System Message Line, displaying messages from an application program. Some applications allow you to enter program commands or requests in the System Message Line without disturbing the data on your screen. When the bottom line is serving as a Status Line, you cannot enter data in that line.

Exercise 3 at the end of this appendix identifies and interprets some sample Status Line messages. Chapter 2 of this guide describes how you use the bottom line of the screen during 3278 emulation. Refer to the PT200 Terminal Primer for complete descriptions of all the messages that can be displayed in the Status Line.

## CONTROLS AND INDICATORS

The On/Off switch on the back of the display/logic unit is the only external control switch on the PT200. The terminal Set Up Menu provides a means of changing other control function adjustments to the display image and the keyboard. At the end of this appendix, Exercise 2 shows you how to use the Set Up Menu to control four terminal features: cursor type, screen brightness, margin bell volume, and key click volume. Refer to the PT200 Terminal Primer for complete descriptions of the 23 adjustable features listed on the Set Up Menu.

The PT200 is equipped with five audible indicators. Each sound notifies you of a particular condition. Two of these tones signal conditions that require attention. These audible indicators and the conditions they signal are as follows:

- Key click -- a short beep that sounds whenever you press a key.
- Margin bell -- a bell-like tone that sounds when the cursor is eight spaces from the end of the line.
- Bell -- a loud beep that sounds when the terminal receives a Control-G key code. This tone is used by application programs.
- Operating error tone -- a low-pitched, loud beep that sounds when you perform an invalid keyboard operation.
- Self-test error tones -- a repeating series of tones that signal that the terminal failed its self-test at powerup and is not working properly. Turn the terminal off and check with your supervisor if you hear these repeating tones.

Exercise 3 demonstrates the sounds made by the key click, the margin bell, and the operating error tone.

Five function keys on the PT200 have built-in indicator lights. These keys are Lock, Shift, Char Set, Num Lock, and Insert. When you press the key to turn on a feature, the light comes on. When you press the key again to turn off the feature, the light goes off.

ROUTINE CARE OF THE TERMINAL

When installed and used in the proper environment, the PT200 terminal requires very little operator maintenance. In general, an environment that is comfortable for a terminal operator is fine for the terminal. Refer to Appendix A in the PT200 Terminal Primer if you have questions about temperature and relative humidity requirements for the terminal in operating or storage environments.

The following guidelines identify simple maintenance measures that will help avoid problems.

- Do not block the cooling slots located on the top of the terminal.
- Clean the terminal cabinet with a slightly dampened, lint-free cloth. Dust away from the cooling slots.
- Clean the keyboard by gently wiping the keys with a slightly dampened cloth. Do not spray the keyboard with a cleaner. Do not remove the keys to clean them.
- Clean the screen with a soft cloth or paper towel, which may be dampened slightly with water or glass cleaner to remove smudges. Do not spray cleaner directly onto the screen.

## GETTING STARTED

This section includes a series of exercises demonstrating some of the features described in this appendix. Remember that the features used in the exercises might not all be available with a particular application program. Consult the documentation for your application to determine which features are available.

### Caution

Do not log in or run an application program while you are performing the exercises. Also, do not press the Return or Enter key during the exercises.

## Handling Errors

Before you start, here are some procedures to use if you make mistakes while working on the exercises.

To Correct Typing Errors: If you make an error in typing, use the up arrow ( ↑ ), down arrow ( ↓ ), right arrow ( → ), left arrow ( ← ), and Backspace keys to position the cursor on the wrong character. Depending on the kind of error, you can:

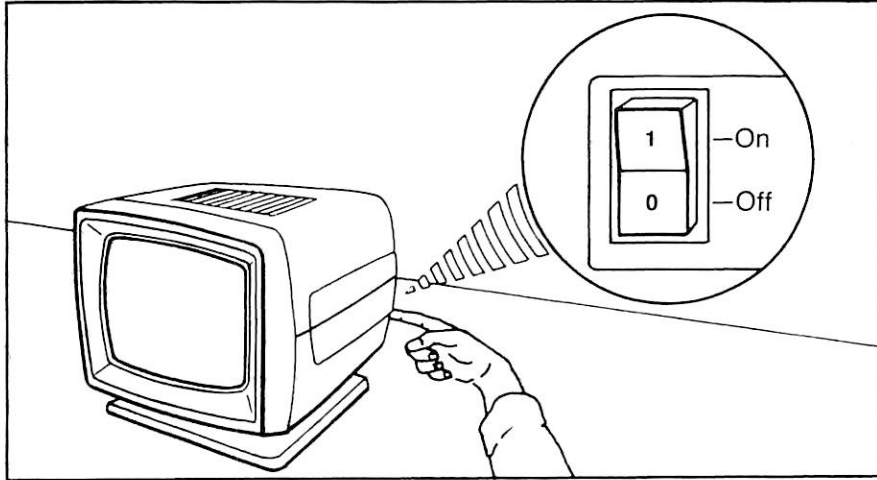
- Type another character to replace the wrong character.
- Press Delete to remove the wrong character and close up the gap.
- Press Erase to remove the wrong character and leave a space in its place.

To Erase the Screen: To clear the screen between exercises, or to start over during an exercise, hold down Ctrl and press Clear. This removes all characters from the screen and returns the cursor to the top left corner of the screen (home position).

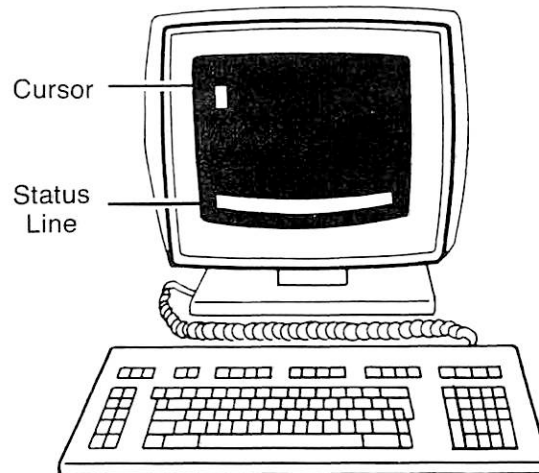
To Reset the Terminal: If you accidentally change the wrong settings while using the Set Up Menu, the terminal may not work as described in the exercises. To restore all the terminal settings to their original states, hold down Ctrl and Shift and press Stop.

Exercise 1 — On/Off Switch

1. Turn the terminal on by pressing the top half of the On/Off switch at the back of the terminal.



2. Wait for about 15 to 30 seconds; then look for a cursor in the upper left corner of the screen, and the Status Line at the bottom of the display screen.



If the screen displays the cursor and Status Line as shown, go to Exercise 2.

If the screen does not display the cursor and Status Line as shown, refer to the PT200 Terminal Primer for problem solving information, or consult your supervisor.

Exercise 2 -- The Set Up Menu

In this exercise, you will use the terminal Set Up Menu to adjust several terminal features. The Set Up Menu lists 23 adjustable features. Do not change any features except those described in the steps below.

1. Press the Set Up key to request the Set Up Menu. The Set Up Menu appears on your screen in reverse video, with the current settings (parameters) of various features highlighted in normal video. A bright selector block highlights the first item in the list of adjustable features: Cursor Type.
2. Press the down arrow key ( ↓ ) to move the selector block down to the next item. Keep pressing the ( ↓ ) key until the selector block is on Key Click Volume.

The range of settings for Key Click Volume is shown in parentheses. The 1 setting is for the softest click and the 15 setting is for the loudest click. The current setting of Key Click Volume appears in the dark box to the right.

3. While watching the dark box, press the ( → ) key enough times to set the Key Click Volume to 15. If you prefer a softer volume, or no Key Click, press the ( ← ) key until the desired value appears in the box.
4. Press the ( ↑ ) key to move the selector block up to Margin Bell Volume. Press the ( → ) key enough times to set the Margin Bell Volume to 15.
5. Press the ( ↑ ) key to move the selector block up to Brightness. Increase and decrease the brightness setting by using the same procedure you used for Key Click Volume. Watch the letters in the dark box to see how the adjustment affects normal video.
6. Press the ( ↑ ) key to move the selector block up to Cursor Type. Use the ( → ) or ( ← ) key to select the Line (underline) cursor.
7. Press the Set Up key to leave the menu. If you wish to readjust any of the features you changed in this exercise, you can return to the menu at any time by pressing the Set Up key.

Exercise 3 -- Status Line Messages and Audible Indicators

1. Locate the messages ONLINE, DSR, and SYSTEM RDY in the Status Line at the bottom of your screen. These messages indicate that your terminal is connected with a host computer and is ready to send and receive data.

ONLINE	DSR					SYSTEM RDY		
--------	-----	--	--	--	--	------------	--	--

2. While watching the box to the right of SYSTEM RDY, press the F6 key. The operating error tone sounds, and INVALID CMD appears on the Status Line. This message means that the requested function is not available. Press the Clear key to clear the error message.
3. If your work involves data entry on formatted forms, the SOFT LOCK condition may occur if you make a mistake while entering data. To see how SOFT LOCK affects the keyboard and Status Line, press the Esc key, then hold down the Shift key and type \$F. The flashing message SOFT LOCK replaces SYSTEM RDY. Also, all keys stop working, except the Clear and Stop keys. Note that if you try to type, error tones sound when you press the keys and no characters appear on the screen. Press the Clear key to unlock the keyboard and to clear the error message.
4. Type the following sentence (on one line):

The margin bell signals that eight spaces remain before the right margin.

The sound you hear while typing the second "margin" is the margin bell.

5. Hold down the Ctrl key and press the Clear key to clear the screen for the next exercise.



Exercise 4 -- Character Keys, Shift, and Lock

1. Press and release the Lock key. The indicator light shows that the Caps Lock feature is on. Now, type the following characters:

ABCD;1234

Note that the Lock key locks only the alphabetic keys in uppercase.

2. With the lock feature on, type the following characters, using the Shift key to produce the parentheses and colon:

(EFGH:IJKL)

Press and release the Lock key to turn off the Caps Lock feature.

3. Hold down the Shift key, press and release the Lock key, then release Shift. The indicator light shows that the Shift Lock feature is on. Now, type the following characters:

(IJKL:MNOP)

Note that all character keys are now locked in uppercase.

4. With Shift Lock on, type the following characters, using the Shift key to produce the lowercase letters, numbers, and semicolon:

(ABcd;2@\$5F)

Hold down the Shift key, then press and release the Lock key to turn off the Shift Lock feature.

5. Hold down the Ctrl key and press the Clear key to clear your screen for the next exercise.

Exercise 5 -- Function Keys for Cursor and Screen Movement

1. Press and release the Esc key. Then hold down the Shift key and type \$Z. The model name, revision number, and a list of part numbers for your terminal should appear on the screen.
2. Use the arrow keys to move the cursor to the last character in the last part number, then back to the first character in the first part number. Each arrow key moves the cursor in the direction of the arrow on the keycap.
3. Press the Home key to return the cursor to the top left corner of the screen (home position).
4. Press the Scroll Up key enough times to move the text off the top of the screen. Then press the Scroll Dn key until the text returns to its original position.
5. Hold down the Ctrl key and press the Clear key to clear your screen for the next exercise.

Exercise 6 -- Function Keys for Editing

1. Press and release the Esc key. Then hold down the Shift key and type \$Z. The model name, revision number, and a list of part numbers for your terminal should appear on the screen.
2. Move the cursor to the letter T in the name PT-200. Press the Insert key and then type the letters rime. Note that the characters following the inserted ones move to the right. Turn off Insert mode by pressing the Insert key again.
3. Move the cursor to the letter r you have just inserted. Press the Delete key enough times to delete the letters rime. Note that as you delete each character, the following characters on the line move one space to the left.
4. Move the cursor to the first character in the first part number. Press the Erase key to erase one character.
5. Hold down the Shift key and press the Erase key to erase all characters from the cursor to the end of the line.
6. Hold down the Ctrl key and press the Erase key to erase all characters from the cursor to the end of the screen.
7. Hold down the Ctrl key and press the Clear key to erase all characters from the screen and move the cursor to home.
8. Hold down the Ctrl and Shift keys and press the Stop key. This will reset your terminal to the state it was in before you started the exercises.

# B

## SNADSC Messages

The first section of this appendix outlines a procedure for reporting error messages. The rest of the appendix lists the error and informational messages displayed by the SNADSC Terminal Emulation program. The messages are divided into two categories -- expected messages and unexpected messages.

- Expected messages are those that may be displayed during the normal operation of SNADSC. They are listed in the second section of this appendix, along with brief descriptions of their possible causes, and suggestions for remedial action.
- Unexpected messages are those that are displayed only when certain unusual error conditions occur -- for example, when incompatible revisions of SNADSC and other PRIME/SNA software are used. Unexpected messages are listed in the third section of this appendix.

Each list of messages is alphabetical according to the first word that is constant. Variable names, articles (a, an, and the), and the words is, has been, and occurred are ignored in alphabetizing.

REPORTING ERROR MESSAGES

All messages in the unexpected category should be reported to the PRIME/SNA Administrator, as they may indicate serious problems or error conditions. You should also report any expected message that SNADSC displays upon terminating abnormally.

If one of these messages is displayed at your terminal, follow the steps listed below:

1. Write down the message, exactly as it appears on your screen.
2. Write down a description of the circumstances surrounding the occurrence of the message, including the type of work you were doing at your terminal when the message was displayed.
3. Report the message to your supervisor immediately.
4. Try the operation again. If the message recurs, consult your supervisor for further instructions.

EXPECTED SNADSC ERROR AND INFORMATION MESSAGES

- The communication link to the host has failed.

A necessary connection (logical or physical) between the Prime system and the IBM host has been broken. Contact the PRIME/SNA Administrator.

- <station\_name> is currently in use.  
Please try another station or try again later.

The station you specified is already being used. Start up SNADSC again and enter a different station name, or wait and try the same station name at a later time.

- <station\_name> has been deactivated by the host.

The IBM host has deactivated its support for the device you are using. (The station name displayed is that of the specific device you are using, even if you used a device group name when starting up SNADSC.) Contact your supervisor.

- Extraneous information on command line : <extra\_object>

SNADSC cannot properly interpret your command line entry. Enter the data again.

- The -Help option cannot be specified with any other option.

You have entered the SNADSC command line incorrectly. If you wish to use the -HELP option, no other options should be specified.

- Invalid local copy to file pathname.

You have entered an invalid pathname while using the Path (Ctrl/F8) key. The pathname must not be longer than 128 characters and must conform to PRIMOS conventions for pathnames.

- Invalid local copy to printer spool options.

You have entered invalid data while using the IDENT (Ctrl/F7) key. The data must consist of SPOOL command options selected from the following: -AS alias, -AT destination, -COPIes number, -DEFer [time], -FOrm [type], -LNUM, -NOHead.

- <response> is an invalid response.

You have responded incorrectly to SNADSC's prompt while starting a session. You must enter an item number to recover a suspended session or N to establish a new session. Or, you can use the Exit key (Ctrl/F5) if you wish to leave SNADSC.

- Invalid session ID.

You have entered incorrect data while using the Suspend (Ctrl/F6) key. For the session ID, you should enter a name that is no longer than 32 characters.

- <station\_name> is an invalid station name.

You have given an incorrect station name on the SNADSC command line. Reenter the command line with the correct station name.

- A LOGON command must be specified with the -LOGON option.

You have given the SNADSC command with the -LOGON option, but have omitted the IBM logon required with the -LOGON option. Reenter the command line, using the complete information.

- <station\_name> is longer than 32 characters.

You have given an incorrect station name on the SNADSC command line. Reenter the command line with the correct station name.

- Maximum number of sessions suspended.

You have attempted to use the Suspend key (Ctrl/F6) when the limit for the number of suspended sessions has already been reached. Before you can suspend another session, you must recover and release at least one of your currently suspended sessions.

- More instances of "<option>" than are supported.

You have specified one of the -LOGON, -HELP, or -TERMINAL\_TYPE options more than once.

- No more sessions available at this time. Please try again later.

The maximum number of sessions which can be active at one time has been reached. You cannot start up SNADSC until at least one session is released. (This condition can also occur when the station you specified has not been activated by the IBM host, but the number of devices already activated equals the maximum number of supported sessions -- even though these devices may not all be in use.)

- <terminal\_type> is not a supported terminal type.

You have specified an unsupported terminal type with the -TERMINAL\_TYPE option on the SNADSC command line. The only supported terminal type is PT200.

- <station\_name> is not a valid display station.  
Please try another station.

The station you specified is that of another device, such as a printer.

- Option "<option>" not recognized by this command.

You have specified an option other than -HELP, -LOGON, or -TERMINAL\_TYPE on the command line.

- Performing local copy to file.

You have pressed the File key (Ctrl/F8) and SNADSC is attempting the Local Copy to File operation.

- Performing local copy to printer.

You have pressed the Print key (Ctrl/F7) and SNADSC is attempting the Local Copy to Printer operation.

- PRIME/SNA Interactive is unavailable.

The PRIME/SNA Interactive Subsystem is not running.

- PRIME/SNA Interactive has become unavailable.

SNADSC displays this message just before terminating, whenever the supporting PRIME/SNA Interactive Subsystem has become inaccessible.

- The PRIME/SNA Interactive support for <station\_name> has been stopped.

The PRIME/SNA operator or Administrator has issued an SNA\_3270 -STOP command for the part of the Interactive Subsystem that supports your terminal. (The station name displayed is that of the specific device you are using, even if you used a device group name when starting up SNADSC.)

- The PRIME/SNA Server support for <station\_name> has been stopped.

The PRIME/SNA operator or Administrator has issued an SNA\_SERVER -STOP command for the part of the Server Subsystem that supports your terminal. (The station name displayed is that of the specific device you are using, even if you used a device group name when starting up SNADSC.)

- QUIT.

You have exited SNADSC by pressing one of the following key combinations: Ctrl/P, Shift/Stop, Ctrl/Stop, or Char Set/Stop. SNADSC has released your sessions and restored the terminal's operating features to their original condition.

- Session being suspended.

You have entered a valid session ID while using the Suspend key (Ctrl/F6). SNADSC is performing the necessary actions to suspend the session and will shortly terminate.

- <number> sessions suspended.

You have given the SNADSC command in a format that establishes a new session, when you have at least one session in the suspended state. If you wish to recover one of the suspended sessions instead of establishing a new session, press the Exit key (Ctrl/F5) to leave SNADSC. Then restart SNADSC without giving a station name or -LOGON option on the command line.

- A station name cannot be greater than 32 characters.

You have entered an incorrect station name in response to SNADSC's prompt.

- A station name cannot be specified when the -Help option is used.

You have entered the SNADSC command line incorrectly. If you wish to start up SNADSC, try again, but omit the -HELP option from the command line.

- The suspended session has become permanently unavailable.

The session you are attempting to recover has been made unavailable by the IBM host.

- A terminal type must be specified with the -Terminal\_Type option.

You have given the SNADSC command with the -TERMINAL\_TYPE option, but have omitted the terminal type argument required with the option. Reenter the command line, using the complete information.

- This key is not used.

You have pressed a key or key combination that is not used by the SNADSC program.

- This terminal is not a <terminal\_type>.

You have given the SNADSC command with a terminal type that does not correspond to the type of terminal you are using. Currently, SNADSC runs only on the PT200 terminal.

- Too many objects specified. <first\_extra\_object>

You have specified two or more arguments on the command line.

- Unable to complete local copy to file.

SNADSC cannot write a copy of the screen image into the specified file due to a PRIMOS error such as a disk or file system error.

- Unable to complete local copy to printer.

SNADSC cannot print a copy of the screen image at the designated printer due to a PRIMOS error such as a Spooler subsystem error.



- Unable to read data from terminal.

You have pressed the Enter key (or another key designated for sending data to the host), but SNADSC cannot read the data you wish to send. The probable cause of this message is a terminal line problem such as a line error or buffer overrun. To continue, press the RESET (Clear) key and try the operation again.

- Unable to suspend session at this time.

SNADSC cannot respond to your use of the Suspend key (Ctrl/F6) for one or both of the following reasons: 1. Your terminal is not connected with an IBM application; 2. Your terminal has not received a response to a previous use of the ATIN key.

- <station\_name> is an unknown station.  
Please try another station.

You have specified a station name that is not a configured station.

- \*\*\*\*\* WARM START \*\*\*\*\*

A PRIMDS warm start is being performed. Press RESET (Clear) to continue. If no response occurs, wait 30 - 60 seconds and then continue.

#### UNEXPECTED SNADSC ERROR MESSAGES

This section lists the messages that SNADSC displays just before terminating when a fatal error occurs (an error condition that prevents SNADSC from operating normally). Notify your PRIME/SNA Administrator if any of these messages is displayed at your terminal.

- Attempted REFRESH\_SCREEN in inconsistent state.
- CHANGE LOCAL COPY FILE key typed in inconsistent state.
- CHANGE LOCAL COPY PRINT key typed in inconsistent state.
- Clear key typed in inconsistent state.
- <condition> occurred.  
Condition frame header version is not current.  
Known version is <known\_version>. Obtained version is <version>.

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- ENTER key typed in inconsistent state.
- Host notification of format modification received in inconsistent state.
- Invalid 3270 data stream length.
- Invalid SPOOL options in configuration.
- LOCAL COPY FILE key typed in inconsistent state.
- LOCAL COPY PRINT key typed in inconsistent state.
- PA, PF, or CURSR SEL key typed in inconsistent state.
- PRIME/SNA Interactive internal resource limit reached.
- Received SNA\$KI\_SUSPEND\_SESSION LECB when not trying to suspend a session.
- Received SNA\$KI\_SESSION\_TEMP\_UNAVAILABLE unsolicited event not on LU-LU session.
- Received SNA\$KI\_SESSION\_NOW\_AVAILABLE unsolicited event not on LU-LU session.
- Received SNA\$KI\_RETURN\_SESSION LECB when no LU-LU sessions existed.
- Received SNA\$KI\_GET\_SESSION LECB when an LU-LU session already existed.
- Unable to input response. Please try again.
- Unable to read data from terminal.
- Unexpected LECB reason code of <n> for SNA\$KI\_RETURN\_DEVICE.
- Unexpected LECB return code for SNA\$KI\_CHECK\_STATUS.

- Unexpected LECB return code for SNA\$KI\_GET\_DEVICE.
- Unexpected LECB return code for SNA\$KI\_RECOVER\_SESSION.
- Unexpected LECB return code for SNA\$KI\_SUSPEND\_SESSION.
- Unexpected LECB return code for SNA\$KI\_WRITE\_DATA.
- Unexpected LECB event type for SNA\$IGD.
- Unexpected LECB event type for SNA\$IRS.
- Unexpected LECB event type for SNA\$IST.
- Unexpected return code.
- Unexpected data format. Not 3270 data stream.
- Unexpected keyboard state.
- Unexpected next state in READ\_DATA LECB.
- Unexpectedly received SNA\$KI\_SEND\_TRANSMIT unsolicited event.
- Unknown event type.
- Unknown CHECK\_LU\_MAN\_INPUT action code.
- Unknown 3270 command.
- Unknown unsolicited event type <event\_type>

# C









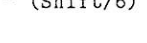

## Quick Reference

This appendix contains a quick reference card that includes information on the following topics:

- IBM 3278 key equivalents on the PT200
- SNADSC control keys
- SNADSC command line format
- Operator information line symbols and messages
- Indicator lights
- When things go wrong

PRIME/SNA TERMINAL EMULATION QUICK REFERENCE

IBM 3278 KEY EQUIVALENTS ON THE PT200

3278 Key	PT200 Key or Combination	Description
ALT	Ctrl	Enables alternate function keys.
ATTN	Shift/Set Up	Signals application.
CLEAR	Ctrl/F2	Erases display. May also signal host.
CURSR SEL	Set Up	Selects fields for processing.
	Delete	Delete key. Deletes character at cursor position in input field.
DUP	Scroll Lock	Displays overscored asterisk ( <sup>~</sup> ) and moves cursor to next input field.
ERASE EOF	Ctrl/Eraser	Erases input field from cursor to end of field. Cursor does not move.
ERASE INPUT	Ctrl/Shift/Eraser	Erases all input fields, moves cursor to first input position on screen.
FIELD MARK	Blank next to Eraser	Displays overscored semicolon ( <sup>~</sup> ; ).
IDENT	Ctrl/F7	Signals SNADSC that you wish to change SPOOL options for print operation.
	Insert	Insert key. Enables character insertion in input field.
	F7	Print key. Sends data to printer specified by SPOOL options.
PA1 - PA3	PA1 - PA3	Program Access keys.
PF1 - PF12	PF1 - PF12	Program Function keys.
PF13 - PF24	Ctrl/PF1 - PF12	Program Function keys.
RESET	Clear	Clears errors and unlocks keyboard.
SYS REQ	Ctrl/Set Up	Clears screen and switches terminal between application and control programs.
	Tab	Moves cursor to: Next input field
	Back Tab	Previous input field or previous tab
	Return	First input position on next line
	Home	First input position on screen
		One position in direction of arrow
	~ (Shift/6)	NOT symbol
¢	[	Cent sign
	]	Broken vertical bar

SNADSC CONTROL KEYS

SNADSC Function	PT200 Key or Combination	Description
Refresh	Ctrl/F4	Redisplays screen image as last sent by application.
Exit	Ctrl/F5	Leaves SNADSC and releases session.
Suspend	Ctrl/F6	Leaves SNADSC and retains session.
File	F8	Sends screen image to file.
Path	Ctrl/F8	Signals SNADSC that you wish to change pathname for local copy operation.

SNADSC COMMAND LINE FORMAT

```
SNADSC [<station-name>] [-LOGON <logon-command>]
or
SNADSC -HELP [-TERMINAL_TYPE <terminal-type>]
```

OPERATOR INFORMATION LINE SYMBOLS AND MESSAGES

*System Connection Symbols:*

- Your terminal is connected with your job (application program).
- Your terminal is connected with the system operator (control program).

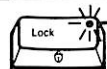
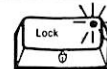




*Do Not Enter (Input Inhibited) Messages:*

- X⏏ The host system needs time to perform the function. Wait.
- X⏏ X You are not authorized to perform the requested function. RESET.
- X -f SNADSC is in a state in which this function is not available. RESET.
- X <message> SNADSC has locked your keyboard for the reason indicated by <message>. Wait or RESET.

*Other Messages:*

SOFT LOCK <MESSAGE> Your keyboard has locked because you used a key incorrectly or made a data entry error. <MESSAGE> describes the error. RESET.

INDICATOR LIGHTS

	Caps Lock on. Alphabetic characters locked in uppercase (all others lowercase).		Shift Lock on. All characters locked in uppercase.
			
	Numeric Keypad mode on. Right keypad set up for numeric data entry.		Insert mode on.

WHEN THINGS GO WRONG

<i>For this problem:</i>	<i>Try this action:</i>
Terminal won't turn on.	Make sure power cord is plugged into wall outlet.
Screen is too dim when working under SNADSC.	Use Set Up Menu to increase brightness before starting up SNADSC.
Error tones sound when keys are pressed.	Is SOFT LOCK message on? RESET (Clear) turns it off and restores the keyboard.

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