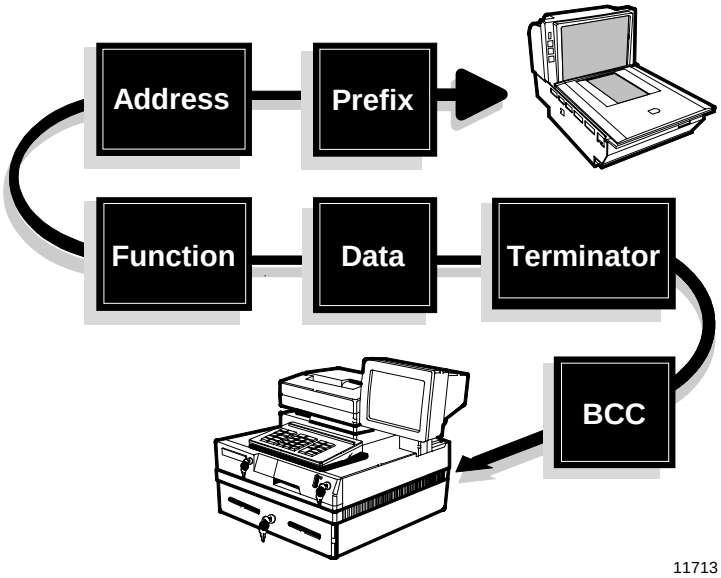
Scanner/Scale Interface



Programmer's Guide

D2-1074-A

Contents

Chapter 1
Introduction

Equipment 1-1
Slot Scanners 1-1
Presentation Scanners 1-1

Communication Protocols 1-3
RS-232 1-3
OCIA 1-3
OCIA NCR Long Format 1-4
OCIA NCR Single Cable Format 1-4

Chapter 2
RS-232 Options

Terminal/Scanner Setup 2-1
RS-232 Options 2-1
Baud Rate 2-2
Parity 2-2
Character Length 2-2
Stop Bits 2-2
RTS/CTS Handshake 2-3
BCC Options 2-3
Interface Control 2-4

Understanding Your Options 2-5
Model Differences 2-5
VLI and Bit 6 EOM 2-5

Chapter 3
RS-232 Message Structures

Command Message Format 3-1
Scanner-Only Format 3-1
Prefix Byte 3-2
Function Code 3-2
Data 3-2
Terminator Byte 3-3
BCC Byte 3-3
Scanner / Scale Format 3-3
Prefix Byte 3-3
Address Byte 3-4
Function Code 3-4
Data 3-4
Terminator Byte 3-4
BCC Byte 3-5

Tag Message Format 3-6
Scanner-Only Format 3-6
Prefix Byte 3-6
Label Identifier 3-7
Tag Data 3-7
PPD 3-7
Terminator Byte 3-8
BCC Byte 3-8
Scanner / Scale Format 3-8
Prefix Byte 3-8
Label Identifier 3-9

Tag Data 3-9
PPD 3-9
Terminator Byte 3-10
BCC Byte 3-10

Using Label Identifiers 3-11
Default Label Identifiers 3-11
Programmable Common Bytes 3-13
Unique Prefix Identifiers 3-14
Using Tag Check Digits 3-16

Chapter 4
RS-232 Commands

Using RS-232 Commands 4-1

Scanner-Only Commands 4-2
Soft Reset 4-3
Hard Reset 4-3
Disable Scanner, Red light flashes 4-3
Disable Scanner with no indication 4-4
Enable Tone 4-4
Enable Scanner 4-4
Disable Good Tone 4-4
Beep Good Tone 4-4
Configuration Request 4-4
Device Configuration Request 4-5
Send Status to host 4-5
Start Scanner (7890 only) 4-5
Program (7890 only) 4-5
Disable Tone 4-6
Read ROM version number 4-6

Not-On-File 4-6

Using the Program Command 4-7

PACESETTER Plus Commands 4-9
Read PACESETTER Tally 4-10
Reset PACESETTER Tallies 4-10
Enable PACESETTER Plus Mode 3 Trailer 4-11
Disable PACESETTER Plus Mode 3 Trailer 4-11

Scanner / Scale Commands 4-12
Including the Address byte with Commands 4-12
Scanner / Scale Common Commands 4-13
Hard Reset 4-13
Send Status to host 4-13
Scanner / Scale Scanner Commands 4-13
Enable Scanner 4-14
Disable Scanner with no indication 4-14
Send Status to host 4-14
Not-On-File 4-14
Disable Scanner, Red light flashes 4-14
Scanner / Scale Scale Commands 4-15
Weigh 4-16
Cancel 4-17
Send Status to host 4-17
Scale Not Ready Status 4-19
Monitor 4-19
Scanner / Scale Display Commands 4-20
Display LCD data 4-21
Send Status to host 4-21
Scanner / Scale Special Function Commands 4-21

Model Differences 4-23

7870, 7875, and 7880 4-23
7890 4-24

Chapter 5
OCIA with NCR Scanners

Using OCIA 5-1

OCIA Message Structures 5-2
Messages in OCIA Long Format 5-2
Command Message Format 5-3
Tag Message Format 5-4
Messages in OCIA Single Cable Long Format 5-6
Command Message Format 5-6
Tag Message Format 5-7
OCIA Single Cable Long Response Format 5-10
PACESETTER PLUS Differences 5-11

Using Label Identifiers with OCIA 5-12

Interface Requirements and Recommendations 5-15
Scanner Input Signals 5-17
Scanner Output Signals 5-18

Chapter 6
OCIA Commands

Using OCIA Commands 6-1

Scanner-Only Commands 6-2
- Soft Reset 6-3
- Hard Reset 6-3
- Disable Scanner, Red light flashes 6-3
- Disable Scanner with no indication 6-4
- Enable Tone 6-4
- Enable Scanner 6-4
- Disable Good Tone 6-4
- Beep Good Tone 6-4
- Configuration Request 6-5
- Device Configuration Request 6-5
- Send Status to host 6-5
- Start Scanner 6-5
- Program 6-6
- Disable Tone 6-6
- Read ROM version number 6-6
- Not-On-File 6-6

Using the Program Command 6-7

Scanner / Scale Commands 6-9
- Including the Address byte with Commands 6-9
- Scanner / Scale Common Commands 6-10
  - Hard Reset 6-10
  - Send Status to host 6-10
- Scanner / Scale Scanner Commands 6-11
  - Enable Scanner 6-11
  - Disable Scanner with no indication 6-11

Send Status to host 6-12
Not-On-File 6-12
Disable Scanner, Red light flashes 6-13
Scanner / Scale Scale Commands 6-13
Weigh 6-13
Cancel 6-14
Send Status to host 6-15
Scale Not Ready status 6-16
Monitor 6-16
Scanner / Scale Display Commands 6-17
Display LCD data 6-17
Send Status to host 6-17
Scanner / Scale Special Function Commands 6-17

PACESETTER Plus Commands 6-20
Read PACESETTER Tally 6-21
Reset PACESETTER Tallies 6-22
Enable PACESETTER Plus Mode 3 Trailer 6-22
Disable PACESETTER Plus Mode 3 Trailer 6-22

Model Differences 6-23
7870, 7875, and 7880 6-23
7890 6-24
Switch Read 6-24

Chapter 7
RS-232 Examples

Constructing RS-232 Messages 7-1

Assembling No Response Commands 7-2

Creating Commands in a scanner-only format 7-2
Disabling the scanner with no indication 7-2
Enabling PACESETTER Plus Mode 3 Trailer Data 7-3
Creating commands for a scanner / scale 7-4
Constructing a Hard Reset message 7-4

Assembling Response Commands 7-6
Creating commands in a scanner-only format 7-6
Sending scanner status to the host terminal 7-6
Reading a PACESETTER Tally 7-7
Creating commands for a Scanner / Scale 7-8
Requesting Scanner Status 7-8
Getting Weight from the Scale 7-10
Displaying Data on the Screen 7-11
Processing Tag Messages 7-12

Chapter 8
OCIA Examples

Constructing OCIA Messages 8-1

Assembling No Response Commands 8-2
Creating commands in OCIA Long Format 8-2
Sending a Not-On-File to the scanner 8-2
Creating commands in OCIA Single Cable Long Format 8-3

Disabling the scanner with no indication 8-3

Assembling Response Commands 8-4
Creating commands in OCIA Long Format 8-4
Sending scanner status to the host terminal 8-4
Creating commands in OCIA Single Cable Long Format 8-5
Sending scale status to the host terminal 8-5

Appendix A
Commands and Message Structures

Scanner-Only Commands A-1

Message Structures A-3

Response Formats for 7890 Configuration Request and Device Configuration Commands A-5

Appendix B
PACESETTER Plus Data

PACESETTER Plus Commands B-1

PACESETTER Plus Data in Tag Messages B-3
Decoding Codes(Y and Z) B-4

Index I-1

This is a “Table of Contents preview” for quality assurance

The full manual can be purchased from our store:
https://the-checkout-tech.com/manuals/NCR/Scanner to Scale programmers manual.htm

And our free Online Keysheet maker:
https://the-checkout-tech.com/Cash-Register-Keysheet-Creator/

HTTPS://THE-CHECKOUT-TECH.COM