Contents

About This Manual

Notational Conventions i
Related Publications i
Service Information ii
    Symbol Support Center iii

Chapter 1. Introduction

Overview 1-1
Data Input Devices Supported 1-2
Code Types Supported 1-2
Terminal Support 1-2

Chapter 2. Setup

Unpacking 2-1
Ports 2-1
    Reconfiguring the Primary Scanner Port 2-3
    Reconfiguring the Secondary Scanner Port 2-3
Mounting the Controller 2-5
Connecting the Controller 2-5

Chapter 3. Connecting the LL 500

Connecting To a Host Device 3-1
    OCIA and OCR Terminals 3-2
    RS-232C (Single or Dual Port) 3-3
    PC and Terminal Keyboards 3-4
        PC Keyboards 3-4
        Terminal Keyboards 3-4
Connecting Keyboard Wedges 3-5
    IBM 3683/3684 Installation 3-5
        Remove the IBM 3683/84 Top Cover 3-6
        Remove the Keyboard 3-7
        Install the Cable Internally 3-8
        Replace the Keyboard and Top Cover 3-11
    IBM 3653 Installation 3-12
    NCR 280 Installation 3-16
    NCR 2151 Installation 3-18
    NCR 2152 Installation 3-20
    NCR 2154/2155 Installation 3-21

NCR 7052 Installation 3-22
Fujitsu 9000 Installation 3-23
Cables. 3-24
RS-232 Cables 3-28
RS-232 Cable Pin-outs 3-28

Chapter 4. Maintenance & Specifications

Maintenance 4-1
Accessories 4-2
Host Cables 4-2
Optional Accessories 4-2
Technical Specifications 4-3
What If... 4-4

Chapter 5. Programming

Programming 5-1
Scanning Sequence. 5-1
Scanning Sequence Examples 5-1
Errors While Scanning. 5-2
Code Types 5-2
Parameter Selections 5-3
Beeper Indications 5-6
RS-232C Communications Protocols. 5-8
Host Communication 5-8
Hardware Handshaking 5-8
Software Handshaking 5-11
Auxiliary Port Communications 5-14
Hardware Handshaking 5-14
Software Handshaking 5-14
Dual Port RS-232C Only 5-15

Chapter 6. Parameter Menus

Set Default Parameter 6-5
Host Types 6-6
Code Types 6-22
Operational Parameters 6-23
Laser Control 6-23
Primary Trigger Mode. 6-23
Primary Trigger Modifiers 6-26
Primary Laser On Time-out 6-27
Primary Laser Off Time-out 6-27
Secondary Trigger Mode 6-28

Secondary Trigger Modifiers 6-30
Secondary Laser On Time-out 6-31
Secondary Laser Off Time-out 6-31
Host Laser Off Delay 6-32
Beep After Good Decode 6-33
Beeper Volume 6-34
Transmit “No Read” Message 6-35
Security Options 6-36
Simple Redundancy 6-37
Bi-Directional Redundancy 6-39
Linear UPC / EAN Decode 6-40
UPC / EAN Security Level 6-41
UPC / EAN 6-43
Enable / Disable UPC-E / UPC-A 6-43
Enable / Disable EAN-8 / EAN-13 6-44
Decode UPC / EAN Supplementals 6-45
Decode UPC / EAN Supplemental Redundancy 6-46
Transmit UPC-A / UPC-E Check Digit 6-47
UPC-A Preamble 6-48
UPC-E Preamble 6-49
Convert UPC-E to UPC-A 6-50
EAN Zero Extend 6-51
Code 128 6-52
Enable / Disable Code 128 6-52
Lengths for Code 128 6-53
Code 39 6-54
Enable / Disable Code 39 6-54
Set Lengths for Code 39 6-55
Code 39 Check Digit Verification 6-57
Enable / Disable Code 39 Full ASCII 6-58
Code 39 Buffering 6-59
Buffer Data 6-60
Clear Transmission Buffer 6-60
Transmit Buffer 6-61
Overfilling Transmission Buffer 6-61
Attempt to Transmit an Empty Buffer 6-61
Interleaved 2 of 5 6-62
Enable / Disable Interleaved 2 of 5 6-62
Set Lengths for Interleaved 2 of 5 6-63
Codabar 6-65
Enable / Disable Codabar 6-65
Set Lengths for Codabar 6-66
CLSI Editing 6-68
NOTIS Editing 6-69

Data Transmission Formats 6-70
Pause Duration 6-70
Transmit Code ID Character 6-71
Ignore Unknown Characters 6-72
Prefix/Suffix Values 6-73
Scan Data Transmission Format 6-75
Serial Data Transmission Format. 6-77
Magstripe Data Transmission Format 6-79
Data Format Editing 6-83
Single or Dual Port RS-232C. 6-84
Baud Rate (Single or Dual Port). 6-85
Parity (Single or Dual Port) 6-87
Check Receive Errors (Single or Dual Port) 6-89
Hardware Handshaking (Single or Dual Port) 6-90
Software Handshaking (Single or Dual Port) 6-91
Serial Response Time-out (Single or Dual Port) 6-93
Stop Bit Select (Single or Dual Port) 6-94
ASCII Format (Single or Dual Port) 6-95
Beep on <BEL> (Single or Dual Port) 6-96
Intercharacter Delay (Single or Dual Port). 6-97
Transmission Direction (Single or Dual Port) 6-98
RTS Line State (Single or Dual Port) 6-99
Auxiliary Serial Options 6-100
Baud Rate (Aux Serial Option). 6-101
Parity (Aux Serial Option) 6-103
Check Receive Errors (Aux Serial Option). 6-105
Hardware Handshaking (Aux Serial Option) 6-106
Software Handshaking (Aux Serial Option) 6-107
Serial Response Time-out (Aux Serial Option) 6-108
Stop Bit Select (Aux Serial Option) 6-109
ASCII Format (Aux Serial Option) 6-110
RTS Line State (Aux Serial Option). 6-111
Host Specific 6-112
OCIA Transmit Time-out 6-112
OCIA Clock Polarity 6-113
NCR 2152 Fast Transmit 6-114
IBM 4683 Magstripe Communications 6-115
Numeric Bar Codes 6-116
Cancel 6-118

Appendix A. ASCII Values and Keyboard Layouts

Keyboard Identifier Maps. A-7

Appendix B. Special Applications Parameters

Wand Emulation Host B-1
Wand Emulator Bar Output B-2
Variable Leading Margin B-3
Convert All To Code 39 . . . . . B-5
Code 11 . . . . . B-6
    Enable / Disable Code 11 . . . . . B-6
    Set Lengths for Code 11 . . . . . B-7
MSI Plessey B-9
    Enable / Disable MSI Plessey B-9
    Set Lengths for MSI Plessey B-10
    MSI Plessey Check Digit B-12
Discrete 2 of 5 . . . . . B-13
    Enable / Disable Discrete 2 of 5 . . . . . B-13
    Set Lengths for Discrete 2 of 5 . . . . . B-14
Code 93 . . . . . B-16
    Enable / Disable Code 93 . . . . . B-16
    Lengths for Code 93 . . . . . B-17
Numeric Bar Codes B-18
    Cancel B-20

Glossary

Index