



DLL2020

Software Configuration Manual



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SOFTWARE CONFIGURATION MANUAL





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HOW TO USE THIS MANUAL

The DLL2020 scanners can be setup with the Default parameters through the User's Manual or this Software Configuration Manual. Refer to Appendix C for initial configuration in order to set the default values and to select the interface for your application. These parameters can be changed to meet different application needs.

In this manual, the configuration parameters are divided into logical groups making it easy to find the desired function based on its reference group.

In order to change the scanner settings please follow the sequence below:

- 1) Open the folded page in Appendix C "Editing Commands" so that the Enter/Exit and Save Programming Mode code remains visible.
- 2) Read the Enter/Exit and Save Programming Mode code to Enter programming mode; the scanner responds with a double tone beep (Low High)
- 3) Change desired scanner settings by scanning the codes in one or more sections following the procedures given; the scanner responds with a high tone beep when a valid programming barcode is read or a low tone beep if an unexpected code is read.
- 4) Read the Enter/Exit and Save Programming Mode code to Exit and Save the new configuration.

Example:

To change the baudrate to 4800, the following codes must be scanned successively:

1. "Enter Programming Mode"
2. "Baudrate 4800"
3. "Exit and Save Programming Mode"

At any time (in Programming Mode) you can scan the "Exit Programming Mode without Saving" code to cancel the current configuration or the "Restore Factory Default" code to return to the default settings. Both of these codes Exit programming mode.

To correctly configure the reader using the barcodes provided in this manual, it is important to aim it onto the desired code without reading the adjacent codes. Since each page contains three to four barcodes, and the raster scanning pattern is large, you can use several methods to avoid selecting an adjacent code:

- Use the Freeze Frame Scanning Mode (see page 16)
- Use the Single Line Scanning Mode (for DLL2021 models only - see page 16)
- Cover the adjacent codes with your hand or piece of paper so they cannot be read

In general, it is advisable to move the reader close to the desired barcode by aligning the laser pattern on the lateral margin a few centimeters away before moving it over the desired code.

1 INTRODUCTION

This manual provides a detailed description of the software configuration options available on the DLL2020 scanner. This manual contains three chapters and three appendices.

The first chapter outlines the manual structure.

The second chapter describes all the configuration parameters that can be set by reading the barcode labels in each relative section.

The third chapter describes the same programming parameters that can be set in RS232 by sending the configuration strings to the scanner.

Appendix A provides the list of bar code labels to be read in order to obtain the desired ASCII characters for Headers, Terminators and Code ID characters.

Appendix B, for Keyboard Wedge interface users, shows the complete list of the extended Header and Terminator special keys.

Appendix C includes the barcode labels to be read any time it is necessary to Enter/Exit Programming Mode or to return to default settings.

2 CONFIGURATION PARAMETERS

The DLL2020 scanners can be configured according to the parameters listed in the following groups:

- **INTERFACE SELECTION**
- **RS232**
- **KEYBOARD WEDGE**
- **OPERATING PARAMETERS**
- **CODE SELECTION**
- **CODE LENGTH**
- **DATA FORMATTING**

INTERFACE SELECTION

To select the scanner interface scan the following codes:

1. Read the "Enter/Exit and Save Programming Mode" code in Appendix C;
2. Scan either the "RS232 Default" code or the "Keyboard Wedge Default" code.

RS232 is the factory default interface.

◆ RS232 default



Programming Mode is exited after scanning this code.

Keyboard Wedge default



Programming Mode is exited after scanning this code.

RS232

RS232 PRESETS

Each of the following barcode selections enable a complete preset parameter configuration for correct use with the respective POS Terminal.

However, specific parameters can always be modified by selecting them from their respective group in this manual.

The scanner must first be set with the RS232 interface selection. Read the "RS232 default" scanner interface code.

Wincor Nixdorf Beetle Mode A1



Wincor Nixdorf Beetle Mode A2



Wincor Nixdorf Beetle Mode B1



Wincor Nixdorf Beetle Mode B2



Wincor Nixdorf Beetle Mode B3



ICL Mode



Fortronic (UK) Mode



BAUDRATE

300



1200



2400



4800



◆ 9600



19200



PARITY

◆ None



Even



Odd



DATABITS

7 databits



◆ 8 databits



STOPBITS

1 Stop Bit



◆ 2 Stop Bits



RTS/CTS

On



◆ Off



KEYBOARD WEDGE

PC/TERMINAL TYPE

PC XT



◆ PC AT



PC PS2



IBM 347x terminals



IBM 3179 terminal



KEYBOARD NATIONALITY

◆ International Keyboard (ALT Method)



US



UK



French



German



Spanish



CAPS LOCK

◆ Off



On



INTER CHARACTER DELAY

0 msec



1 msec



◆ 2 msec



5 msec



10 msec



20 msec



50 msec



100 msec



200 msec



500 msec



OPERATING PARAMETERS

SCANNING MODE

Two different scanning mode options are available to help prevent adjacent barcode reading in applications where more than one barcode is present in the DLL2020 laser pattern (i.e. this manual). These options are:

- Freeze Frame Mode
- Single Line Mode (DLL2021 only).

- the Freeze Frame mode is a special trigger mode allowing to aim the laser pattern onto the specific code before reading.

To use this mode:

1. Press and hold the scanner trigger. The laser pattern starts blinking but the scanner does not read the code;
2. Move the scanner towards the barcode (zoom-in);
3. Release the trigger to read the barcode.

- the Single Line mode is a special trigger mode which temporarily switches the full scan pattern to a single scan line which can then be aimed onto the specific code before reading.

To use this mode:

1. Press and hold the DLL2021 trigger to switch from the full scan pattern to a single scan line;
2. Aim the single scan line onto the barcode to be scanned making sure the line completely crosses the barcode;
3. Release the trigger to read the barcode.

Both these scanning modes are in addition to the normal omni-directional scanning pattern which is always available for barcode reading.

CONFIGURATION PROCEDURE

- 1) Read the "Enter/Exit and Save Programming Mode" code in Appendix C;
- 2) Read the Scanning Mode code;
- 3) Read either the Freeze Frame Mode code or the Single Line Mode code;
- 4) Read the "Enter/Exit and Save Programming Mode" code again.

Scanning mode



Freeze Frame Mode

Freeze Frame ON



Single Line Mode (DLL2021 model only)

Single Line ON



BEEPER ON / OFF

The DLL2020 beeper can be enabled or disabled using this code. When DLL2020's beeper is off, it is possible to check correct reading by monitoring the green good read LED on top of the scanner. The default setting is "Beeper ON".

To enable or disable the beeper:

- 1) Read the "Enter/Exit and Save Programming Mode" Code in Appendix C;
- 2) Scan the "Beeper ON/OFF" code to turn the beeper ON or OFF;
- 3) Read "Enter/Exit and Save Programming Mode" code again.

Beeper ON/OFF



BEEPER TONE

DLL2020 provides four different beeper tones. To change from one tone to another follow the procedure:

- 1) Read the "Enter/Exit and Save Programming Mode" code in Appendix C;
- 2) Repeatedly scan the "Beeper Tone" code until the desired tone is heard;
- 3) Read "Enter/Exit and Save Programming Mode" code again.

Beeper Tone



LED/BEEPER MANAGEMENT

After decoding



After transmission



SLEEP MODE

Off



After 10 min



◆ After 30 min



After 60 min



SAME CODE DELAY

This function enables a series of programmable timeouts to prevent same code consecutive reading. The scanner must be completely removed from the code for at least the time specified.

50 msec



100 msec



200 msec



300 msec



400 msec



500 msec



◆ 600 msec



700 msec



800 msec



CODE SAMPLE PERIOD

50 msec



100 msec



150 msec



200 msec



BUFFERSIZE OF SCANNER

Buffersize of scanner > 1



Buffersize of scanner = 1



CODE SELECTION

EAN/UPC

◆ All EAN/UPC (ADD ON not sent)



EAN/UPC with and without ADD ON



All EAN/UPC Off



EAN/UPC/ADD ON only



**NOTE**

When scanning the following code, barcodes starting with 379, 434, 439, 529 or 977 will only be accepted including ADD ON. If no ADD ON has been found, the barcode will not be accepted. Barcodes starting with different characters are accepted with or without ADD ON.

EAN/UPC/ADD ON only for 379/434/439/529/977,
optional for others



EAN/UPC/ADD ON only for 379/434/439/529/977,
not sent for others



ADD ON 5 only (ADD ONs must be selected)



ADD ON 2 and 5 only (ADD ONs must be selected)



Price check digit verify Off (EAN 13)



Price check digit verify, 4 digits price field (EAN 13/UPC A)



Price check digit verify, 5 digits price field (EAN 13/UPC A)



ADD ON with separator



ADD ON without separator



EAN/UPC Conversions

UPC A without conversion



UPC A to EAN 13 conversion



EAN 8 to UPC A conversion



NSC to UPC A conversion



NSC without conversion



UPC E to UPC A conversion



No UPC E conversion



UPC E format with leading zero



UPC E format without leading zero



Check Digit Options

Transmit UPC A Check digit: OFF



Transmit UPC A Check Digit: ON



Transmit UPC E Check Digit: ON



Transmit UPC E Check Digit: OFF



Transmit EAN 13 Check digit: OFF



Transmit EAN 13 Check digit: ON



Transmit EAN 8 Check digit: OFF



Transmit EAN 8 Check digit: ON



CODE 128/EAN 128

On



Off



Code 128 Options

Code 128/EAN 128 send FNC1 as JC1



Code 128/EAN 128 do not send FNC1 as JC1



CODE 39

On



Full ASCII On



Code 32 On



All Code 39 family Off



Code 39 Check Digit Options

Transmit CHECK character CODE39:OFF



Transmit CHECK character CODE39:ON



Verify CHECK character CODE39: OFF



Verify CHECK character CODE39: ON



CODABAR

On



Off



CODABAR Start/Stop and Check Digit Options

Transmit start/stop characters in upper case



Transmit start/stop characters in lower case



No start/stop character transmission



No check digit transmission



Transmit check digit



Verify CHECK character CODABAR: OFF



Verify CHECK character CODABAR: ON



INTERLEAVED 2/5

On



Off



Interleaved 2/5 Check Digit Options

Transmit Check character INT 2/5: OFF



Transmit CHECK character INT 2/5: ON



Verify CHECK character INT 2/5: OFF



Verify CHECK character INT 2/5: ON



CODE LENGTH

SET MINIMUM LENGTH

To define the desired minimum code length proceed as follows:

- 1) If not working in Programming Mode, scan the "Enter/Exit and Save Programming Mode" code in Appendix C;
- 2) Read the "Set Minimum Length" code of the desired barcode type;
- 3) Define the minimum length value by reading the corresponding code in the "Length" section

Code 128, minimum length



Code 39, minimum length



Codabar, minimum length



Interleaved 2/5, minimum length



SET FIXED LENGTH

You can set up to 2 fixed length codes for the following code types. To define the desired code length proceed as follows:

- 1) If not working in Programming Mode, scan the "Enter/Exit and Save Programming Mode" code in Appendix C;
- 2) Read the "Set Fixed Length" code of the desired barcode type;
- 3) Define the fixed length value by reading the corresponding code in the "Length" section.

Code 128, fixed length 1



Code 128, fixed length 2



Code 39, fixed length 1



Code 39, fixed length 2



Codabar, fixed length 1



Codabar, fixed length 2



Interleaved 2/5, fixed length 1



Interleaved 2/5, fixed length 2



LENGTH

Length = 1



Length = 2



Length = 3



Length = 4



Length = 5



Length = 6



Length = 7



Length = 8



Length = 9



Length = 10



Length = 11



Length = 12



Length = 13



Length = 14



Length = 15



Length = 16



Length = 17



Length = 18



Length = 19



Length = 20



Length = 22



Length = 24



Length = 26



Length = 28



Length = 30



Length = 32



DATA FORMATTING

TRANSMIT PRINTABLE CHARACTERS

Transmit printable characters only



Transmit printable and non-printable characters



HEADERS

The scanner can be programmed to output barcode data according to the following format:

[HEADER STRING] [CODE ID] [BARCODE DATA] [TERMINATOR STRING]

The header string is limited to a maximum length of 3 characters.

To program the header string follow the given procedure:

- 1) If not working in Programming Mode, scan the "Enter/Exit and Save Programming Mode" code;
- 2) Scan the "Enter Header Programming" code;
- 3) Select up to 3 header characters; such characters are available in Appendix A (ASCII characters) or for Wedge Interface Users in Appendix B (Extended Wedge Header/Terminator Keys).
- 4) Scan the "Exit and Save Headers" code;
- 5) Scan the "Enter/Exit and Save Programming Mode" code again OR configure other parameters

To disable the headers, follow the above procedure omitting Step 3.

Enter Header Programming



Exit and Save Headers



TERMINATORS

The scanner can be programmed to output barcode data according to the following format:

[HEADER STRING] [CODE ID] [BARCODE DATA] [TERMINATOR STRING]

The terminator string is limited to a maximum length of 3 characters.

To program the terminator string follow the given procedure:

- 1) If not working in Programming Mode, scan the "Enter/Exit and Save Programming Mode" code;
- 2) Scan the "Enter Terminator Programming" code;
- 3) Select up to 3 header characters; such characters are available in Appendix A (ASCII characters) or for Wedge Interface Users in Appendix B (Extended Wedge Header/Terminator Keys).
- 4) Scan the "Exit and Save Terminators " code;
- 5) Scan the "Enter/Exit and Save Programming Mode" code again OR configure other parameters

To disable the terminators, follow the above procedure omitting Step 3.

Enter Terminator Programming



Exit and Save Terminators



PRE-DEFINED TERMINATORS

To program the terminator string follow the given procedure:

- 1) If not working in Programming Mode, scan the "Enter/Exit and Save Programming Mode" code;
- 2) Choose the desired pre-defined terminator from the list below
- 3) Scan the "Enter/Exit and Save Programming Mode" code OR configure other parameters.

Terminator = CR



Terminator = LF



Terminator = CR + LF



CODE IDENTIFIERS

A code identifier is a data string, giving information to the host system concerning the barcode type that has been read.

After scanning the "Enable Default Code Identifiers" code, the scanner is programmed to transmit data according to the following format:

| Code Type | Code Identifier | Barcode Data |
|-----------------|-----------------|--|
| EAN 13 | F | D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 |
| EAN 8 | FF | D1 D2 D3 D4 D5 D6 D7 D8 |
| UPC A | A | D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 |
| UPC E | E | 0 D1 D2 D3 D4 D5 D6 |
| Code 128 | # | D1 Dx |
| EAN 128 | P | ¡C1 D1 Dx |
| Code 39 | * | D1 Dx |
| Code 32 | * | D1 Dx |
| Codabar | % | D1 Dx |
| Interleaved 2/5 | i | D1 Dx |

*Enable Default Code Identifiers



Disable Code Identifiers



* This command cancels Custom Code Identifiers.

Enable Custom Code Identifiers



SET CUSTOM CODE IDENTIFIER

To set a custom code identifier:

- 1) If not working in Programming Mode, scan the "Enter/Exit and Save Programming Mode" code;
- 2) Scan the desired "Set Code ID" code;
- 3) Select up to 3 Code ID characters; such characters are available in Appendix A (ASCII characters).
- 4) Scan the "Exit and Save Custom Code ID" code at the end of this group;
- 5) Scan the " Enter /Exit and Save Programming Mode" code OR configure other parameters.

Set EAN 13 Code ID



Set EAN 8 Code ID



Set UPC A Code ID



Set UPC E Code ID



Set EAN128 Code ID



Set Code 128 Code ID



Set Code 39 Code ID



Set Code 32 Code ID



Set Codabar Code ID



Set Interleaved 2/5 Code ID



Exit and Save Custom Code Identifier



3 LOCAL MODE PROGRAMMING

3.1 ENTER LOCAL MODE

Local Mode Programming allows controlling and configuring the DLL2020 scanners using the RS232 interface. To use this mode:

1. Verify that the serial parameters between the DLL2020 and the PC are aligned. The default parameters on the DLL2020 are: 9600,8,N,2.
2. Enter Local Mode by sending the following character sequence with at least a one-second pause between each character:

Ctrl-E + Ctrl-O + '!

When the reader is in LOCAL MODE the '>' character appears on the PC screen. In this mode the following commands can be sent to the scanner:

| KEYBOARD COMMAND | DESCRIPTION |
|------------------|---|
| progmode | Scanner enters programming mode, scanner responds with "#" prompt |
| Tsleep | Show the sleep timeout value |
| mm 0e04 50 | Disable EAN/UPC overflow; scanner responds : 0E04 54 -- > 50 |

3.2 PROGRAMMING MODE

To enter Programming Mode send the "progmode" command from Local Mode (see par 3.1 above).

When the reader is in PROGRAMMING MODE the '#' character appears on the PC screen. In this mode it is possible to send any programming command to the scanner. A complete list of the Programming Mode commands is given in par. 3.3.

To exit Programming Mode and Save the new configuration send the following commands:

| | |
|---------------|---|
| exit | the scanner returns to Local Mode = ">" |
| save -m=stack | the scanner acknowledges the save command = ">" |
| Ctrl-E | exit Local Mode |

Example::

| COMMAND | Prompt | DESCRIPTION |
|-----------------------|---------------|-------------------------|
| Ctrl+E + Ctrl+O + '!' | > | ENTER LOCAL MODE |
| progmode | # | ENTER PROGRAMMING MODE |
| 10008 | # | Restore factory default |
| 15000 | # | Set Beeper on |
| 14310 | # | (Code128/Ean128 On) |
| exit | > | EXIT PROG. MODE |
| save -m=stack | > | SAVE CONFIGURATION |
| Ctrl+E | > | EXIT LOCAL MODE |

3.3 PROGRAMMING COMMAND STRINGS

| INTERFACE SELECTION | |
|------------------------|--------|
| DESCRIPTION | STRING |
| RS232 default | 10010 |
| Keyboard Wedge default | 10013 |

| RS232 | | |
|---------------|-------------------------------|-------|
| DESCRIPTION | STRING | |
| RS232 Presets | Wincor Nixdorf Beetle Mode A1 | 19010 |
| | Wincor Nixdorf Beetle Mode A2 | 19011 |
| | Wincor Nixdorf Beetle Mode B1 | 19012 |
| | Wincor Nixdorf Beetle Mode B2 | 19013 |
| | Wincor Nixdorf Beetle Mode B3 | 19014 |
| | ICL Mode | 20000 |
| | Fortronic (UK) Mode | 20010 |
| Baud Rate | 300 | 11000 |
| | 1200 | 10017 |
| | 2400 | 11002 |
| | 4800 | 11003 |
| | 9600 | 11004 |
| | 19200 | 11005 |
| Parity | None | 11010 |
| | Even | 11011 |
| | Odd | 11012 |
| Databits | 7 databits | 11030 |
| | 8 databits | 11031 |
| Stopbits | 1 | 11020 |
| | 2 | 11021 |
| RTS/CTS | RTS/CTS ON | 11053 |
| | RTS/CTS OFF | 11052 |

| KEYBOARD WEDGE | | |
|----------------------|-------------------------------------|-------|
| DESCRIPTION | STRING | |
| PC/Terminal Type | PC XT | 40000 |
| | PC AT | 40001 |
| | PC PS2 | 40002 |
| Select | IBM 347 x terminals | 40003 |
| | IBM 3179 terminal | 40004 |
| Keyboard nationality | International Keyboard (ALT Method) | 40020 |
| | US | 40021 |
| | UK | 40022 |
| | French | 40023 |
| | German | 40024 |
| | Spanish | 40025 |

| KEYBOARD WEDGE (continued) | | |
|-----------------------------------|----------|--------------|
| Caps Lock | OFF | 40050 |
| Caps Lock | ON | 40051 |
| Inter Character Delay | 0 msec | 13040 |
| | 1 msec | 13041 |
| | 2 msec | 13042 |
| | 5 msec | 13043 |
| | 10 msec | 13044 |
| | 20 msec | 13045 |
| | 50 msec | 13046 |
| | 100 msec | 13047 |
| | 200 msec | 13048 |
| | 500 msec | 13049 |

| OPERATING PARAMETERS | | |
|-----------------------------|---------------------------|---------------|
| DESCRIPTION | | STRING |
| Select Scanning Mode | Scanning Mode | 15002 |
| Freeze Frame Mode | Freeze Frame ON | 15004 |
| Single Line Mode | Single Line ON | 15005 |
| Beeper | Beeper ON/OFF | 15000 |
| | Beeper Tone | 15001 |
| LED/Beeper Management | After decoding | 15101 |
| | After transmission | 15102 |
| Sleep Mode | Off | 13030 |
| | After 10 min. | 13031 |
| | After 30 min. | 13032 |
| | After 60 min. | 13033 |
| Same Code Delay | 50 msec | 13010 |
| | 100 msec | 13011 |
| | 200 msec | 13012 |
| | 300 msec | 13013 |
| | 400 msec | 13014 |
| | 500 msec | 13015 |
| | 600 msec | 13016 |
| | 700 msec | 13017 |
| 800 msec | 13018 | |
| Code Sample Period | 50 msec | 13000 |
| | 100 msec | 13001 |
| | 150 msec | 13002 |
| | 200 msec | 13003 |
| Buffersize of Scanner | Buffersize of Scanner > 1 | 11058 |
| | Buffersize of Scanner = 1 | 11059 |

| CODE SELECTION | | |
|----------------------------|--|--------------------------|
| EAN/UPC | All EAN/UPC (ADD ON not sent) | 14101 |
| | EAN/UPC with and without ADD ON | 14102 |
| | All EAN/UPC Off | 14100 |
| | EAN/UPC + ADD ON only | 14104 |
| | EAN/UPC + ADD ON only for 379/434/439/529/977, optional for others | 14103 |
| | EAN/UPC + ADD ON only for 379/434/439/529/977, not sent for others | 14107 |
| | ADD ON 5 only (ADD ONs must be selected) | 14105 |
| | ADD ON 2 and 5 only (ADD ONs must be selected) | 14106 |
| | Price check digit verify Off (EAN 13) | 11076 |
| | Price check digit verify, 4 digits price field (EAN 13/UPC A) | 11078 |
| | Price check digit verify, 5 digits price field (EAN 13/UPC A) | 11077 |
| | ADD ON Format with Separator | 11049 |
| | ADD ON Format without Separator | 11048 |
| | EAN/UPC Conversions | UPC A without conversion |
| UPC A to EAN 13 conversion | | 11057 |
| | EAN 8 to UPC A conversion | 11088 |
| | NSC to UPC A conversion | 11091 |
| | NSC without conversion | 11090 |
| | UPC E to UPC A conversion | 11055 |
| | No UPC E conversion | 11054 |
| | UPC E format with leading zero | 11043 |
| | UPC E format without leading zero | 11042 |
| | Transmit UPC A Check digit: OFF | 11087 |
| | Transmit UPC A Check digit: ON | 11086 |
| | Transmit UPC E Check Digit: ON | 11045 |
| | Transmit UPC E Check Digit: OFF | 11044 |
| | Transmit EAN 13 Check digit: OFF | 11085 |
| | Transmit EAN 13 Check digit: ON | 11084 |
| | Transmit EAN 8 Check digit: OFF | 11082 |
| | Transmit EAN 8 Check digit: ON | 11083 |
| CODE 128/ EAN 128 | Code 128/EAN 128 ON | 14310 |
| | Code 128/EAN 128 OFF | 14311 |
| | Code 128/EAN 128 send FNC1 as]C1 | 14312 |
| | Code 128/EAN 128 do not send FNC1 as]C1 | 14313 |
| CODE 39 | ON | 14301 |
| | Full ASCII ON | 14304 |
| | Code 32 ON | 14303 |
| | All Code 39 family OFF | 14305 |
| | Transmit CHECK character CODE39:OFF | 14600 |
| | Transmit CHECK character CODE39:ON | 14601 |
| | Verify CHECK character CODE39: OFF | 14602 |
| | Verify CHECK character CODE39: ON | 14603 |

| CODE SELECTION | | |
|-----------------------|--|-------|
| CODABAR | CODABAR ON | 14302 |
| | CODABAR OFF | 14306 |
| | Transmit start/stop characters in upper case | 14573 |
| | Transmit start/stop characters in lower case | 14574 |
| | No start/stop character transmission | 14572 |
| | No check digit transmission | 14604 |
| | Transmit check digit | 14605 |
| | Verify CHECK character CODABAR: OFF | 14606 |
| Interleaved 2/5 | Verify CHECK character CODABAR: ON | 14607 |
| | Interleaved 2/5 ON | 14202 |
| | Interleaved 2/5 OFF | 14200 |
| | Transmit Check character INT 2/5: OFF | 14608 |
| | Transmit CHECK character INT 2/5: ON | 14609 |
| | Verify CHECK character INT 2/5: OFF | 14610 |
| | Verify CHECK character INT 2/5: ON | 14611 |

| CODE LENGTH | | |
|---------------------|---------------------------------|---------------|
| DESCRIPTION | | STRING |
| Set Minimum Length* | Code 128 | 14413 |
| | Code 39 | 14414 |
| | CODABAR | 14415 |
| | Interleaved 2/5 | 14411 |
| Set Fixed Length* | Code 128, Fixed Length 1 | 14431 |
| | Code 128, Fixed Length 2 | 14435 |
| | Code 39, Fixed Length 1 | 14432 |
| | Code 39, Fixed Length 2 | 14436 |
| | CODABAR, Fixed Length 1 | 14433 |
| | CODABAR, Fixed Length 2 | 14437 |
| | Interleaved 2/5, Fixed Length 1 | 14430 |
| | Interleaved 2/5, Fixed Length 2 | 14434 |
| Length | Length = 1 | 13101 |
| | Length = 2 | 13102 |
| | Length = 3 | 13103 |
| | Length = 4 | 13104 |
| | Length = 5 | 13105 |
| | Length = 6 | 13106 |
| | Length = 7 | 13107 |
| | Length = 8 | 13108 |
| | Length = 9 | 13109 |
| | Length = 10 | 13110 |
| | Length = 11 | 13111 |
| | Length = 12 | 13112 |
| | Length = 13 | 13113 |
| | Length = 14 | 13114 |
| | Length = 15 | 13115 |
| | Length = 16 | 13116 |

| CODE LENGTH (continued) | | |
|--------------------------------|-------------|--------------|
| Length | Length = 17 | 13117 |
| | Length = 18 | 13118 |
| | Length = 19 | 13119 |
| | Length = 20 | 13120 |
| | Length = 22 | 13122 |
| | Length = 24 | 13124 |
| | Length = 26 | 13126 |
| | Length = 28 | 13128 |
| | Length = 30 | 13130 |
| | Length = 32 | 13132 |

* Every single "Set Code Length" string must be followed by a Length value string.

A ASCII CHARACTERS

'NUL'



'SOH'



'STX'



'ETX'



'EOT'



'ENQ'



'ACK'



'BEL'



'BS'



'HT'



'LF'



'VT'



'FF'



'CR'



'SO'



'SI'



'DLE'



'DC1'



'DC2'



'DC3'



'DC4'



'NAK'



'SYN'



'ETB'



'CAN'



'EM'



'SUB'



'ESC'



'FS'



'GS'



'RS'



'US'



SPACE



!



""



#



'\$'



'%'



'&'



'...'



'('



')'



'*'



'+'



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'/



'0'



'1'



'2'



'3'



'4'



'5'



'6'



'7'



'8'



'9'



':'



','



'<'



'='



'>'



'?'



'@'



'A'



'B'



'C'



'D'



'E'



'F'



'G'



'H'



'I'



'J'



'K'



'L'



'M'



'N'



'O'



'P'



'Q'



'R'



'S'



'T'



'U'



'V'



'W'



'X'



'Y'



'Z'



'['



V



J



A'



I



''



'a'



'b'



'c'



'd'



'e'



'f'



'g'



'h'



'i'



'j'



'k'



'l'



'm'



'n'



'o'



'p'



'q'



'r'



's'



't'



'u'



'v'



'w'



'x'



'y'



'z'



'{'



'|'



'}'



'~"



'DEL'



B KEYBOARD WEDGE EXTENDED CHARACTERS

F1



F2



F3



F4



F5



F6



F7



F8



F9



F10



F11



F12



Tab



Enter (alpha)



Enter (numpad)



Backspace



Delete



Esc



Left Arrow



Right Arrow



Up Arrow



Down Arrow



Page Up



Page Down



Home

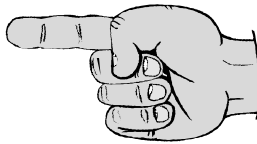


End



C EDITING COMMANDS

**OPEN THIS PAGE TO READ THE DESIRED EDITING
COMMANDS**



RESTORE DEFAULT

Restore Factory Default



◆ RS232 Default



Keyboard Wedge Default



ENTER AND EXIT

Enter/Exit and Save Programming Mode



Exit Programming Mode without Saving



Programming Mode is exited after scanning any of these codes.



90ACC1620