



**Model No.: D5100**

Wireless 2D Barcode Scanner

**User Manual**

Ver.02.1.05

## About This Manual

An asterisk (\*) next to an option indicates the default setting.

Scanners are factory programmed for the most common terminal and communication settings.

If settings need to be changed, you can reprogram by scanning the barcodes in this manual.

Note:

If there are no further commands within 20 seconds, the scanner will automatically exit the setting mode.

For the correct use of the product, please read this manual carefully and do not scan setting barcodes at random. Otherwise, some settings will be temporarily unavailable.

The scanner's keyboard layout default is a US keyboard.

**Please do not hesitate to contact us if you have any questions.**

**Important Notice:**

Please include your Order Number and Product Model Number in the email.

**Official Customer Service**

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**Whatsapp:** +1 (626)438-1404

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User manuals are available in Spanish, French, Italian and German, and can be downloaded from our website. You may visit our official website via the link below or by scanning the given QR code:  
<https://www.tera-digital.com>



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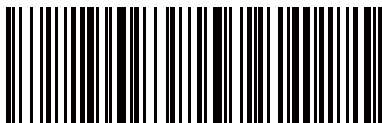
## Factory Default

If you aren't sure what programming options are in your scanner, or you have changed some options and want to restore the scanner to factory default settings, scan the barcode below.



Factory Default

## Firmware Version



Show Firmware Version

## Receiver Pairing

A: Pull the trigger to power up the scanner.

B: Scan the “Pairing” barcode below to get the scanner ready for pairing, with the LED indicator flashing blue.



Pairing

C: Plug in the dongle, and wait till the scanner beeps and the LED turns solid blue, indicating that the pairing has succeeded.

## Operation Modes

### Real Time Mode

In real time mode, the scanned data will be transmitted to the host device without delay.

If transmission fails, the scanner will emit 3 low-frequency beeps and the larger LED light will flash blue 3 times.



Real Time Mode\*

### Storage Mode

When the scanner operates out of range of wireless connection, it is advised to use storage mode, in which the scanned data is stored in memory. In this mode, the scanner will emit a short beep, low pitch to high pitch, and the larger LED light will flash blue once after every scan. If there is no memory available, the scanner will emit 3 low-frequency beeps and the larger LED light will flash blue 3 times.



Storage Mode



Total Records

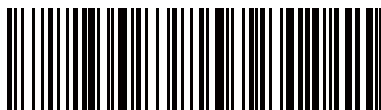


Upload All Codes



Clear All Codes

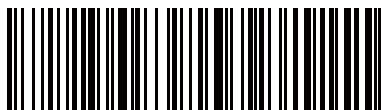
## Battery Level



Battery Level

## Communications

### 2.4 G Wireless Connection



2.4G Wireless

## Virtual COM Connection

(Note: The scanner can function as serial port with both USB Cable and 2.4G Receiver connection.)



USB-COM

## Vibration



On



Off

## Keyboard Country Layout



United States\*



France



Germany



Spain



Japan



Italy



Belgium (French)



Slovakia



United Kingdom



Portugal



Brazil (Portuguese)



Germany (iOS)



Czech



Russia



Turkey Q



Italy 142



Sweden/Finland



Turkey F



Denmark



Mexico (Spanish)



Croatia



Norway



Switzerland (French)



Switzerland (German)



Hungary



Dutch (Netherlands)



Canada (French)



Poland



Latin America



International

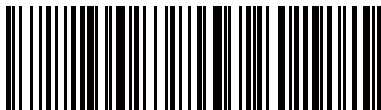
## Beeper Volume



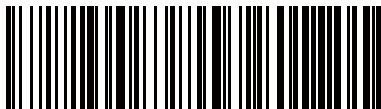
Off



Low

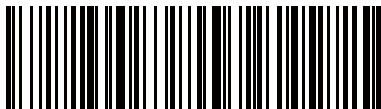


Medium



High\*

## Sleep Timer



30s\*



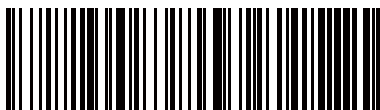
1 min



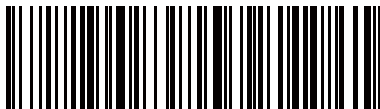
2 mins



5 mins



10 mins



30 mins



Immediately



Never

## Keyboard Conversion



Conversion Off\*



Invert Case of All Characters

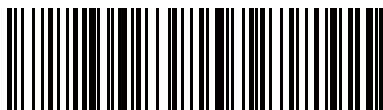


Convert All Characters to Upper Case



Convert All Characters to Lower Case

## GS Replacement



On



Off

## Symbologies

### Code ID



On



Off\*

## **Symbologies - Overview**

All 1D symbology off will result in barcodes unreadability.



All Symbologies On



All Symbologies Off



All 1D Symbologies On



All 1D Symbologies Off



All 2D Symbologies On



All 2D Symbolologies Off

## QR Code - Mirror



On



Off\*

## Data Matrix - Mirror



On



Off\*

**All Symbologies - Mirror**



On



Off\*

**Video Reverse**



Regular Only

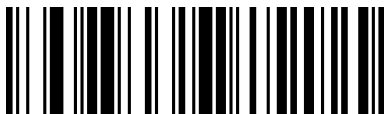


Both Regular and Inverse

**Airline 2 of 5**



On



Off\*

## Aztec Code



On

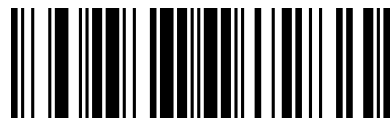


Off\*

## Codabar



On\*



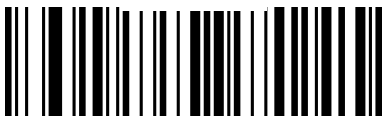
Off



No Check Character\*



Validate and Transmit Check Digit



Transmit Start/Stop Characters



Don't Transmit Start/Stop Characters\*

## Code 128



On\*



Off

## Code 11



On



Off\*



1 Check Digit\*



2 Check Digits



Transmit Check Digit



Don't Transmit Check Digit\*

## Code 39



On\*



Off



Validate, but Don't Transmit\*



No Check Character\*



Validate and Transmit

## Full ASCII Code39

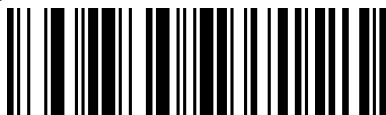


On

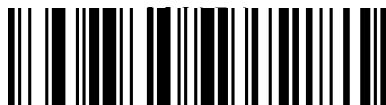


Off\*

### Code 32



On



Off\*

### Code 93



On



Off\*

### Composite



On

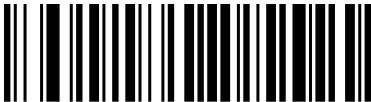


Off\*

**Data Matrix**



On\*



Off

**EAN/UPC**



On\*

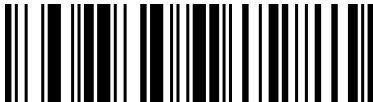


Off

**EAN-8**



On\*



Off



Transmit Check Digit\*



Don't Transmit Check Digit



EAN-8 Converted to EAN-13 On



EAN-8 Converted to EAN-13 Off\*

## EAN-13



On\*



Off



Transmit Check Digit\*



Don't Transmit Check Digit

### **GS1 DataBar Expanded**



On



Off\*

### **GS1 DataBar Limited**



On



Off\*

## GS1 DataBar Omnidirectional



On



Off\*

## Han Xin Code



On



Off\*

## Hong Kong 2 of 5 (China Post)



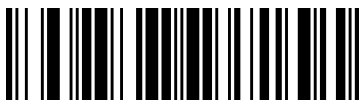
On



Off\*

Note: When reading China Post code, all other postal codes decoding should be disabled.

### Interleaved 2 of 5



On



Off

### Matrix 2 of 5



On



Off\*

### MaxiCode



On



Off\*

## Micro PDF417



On



Off\*

## Micro QR Code



On



Off\*

## MSI



On



Off\*

## PDF417



On\*



Off

## Pharmacode



On



Off\*

## QR Code



On\*



Off



Web Address On\*



Web Address Off

## RSS-14



On



Off\*

### **RSS-Limited**



On



Off\*

### **RSS-Expanded**



On



Off\*

### **Straight 2 of 5 Industrial**



On



Off\*

## Telepen



On



Off\*



Numeric Telepen On\*



Numeric Telepen Off

## UPC-A



On\*



Off



Transmit Check Digit\*



Don't Transmit Check Digit



Transmit System Digit\*



Don't Transmit System Digit

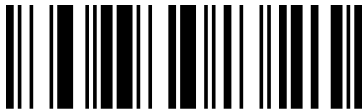


UPC-A Converted to EAN-13 On

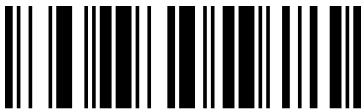


UPC-A Converted to EAN-13 Off\*

UPC-E



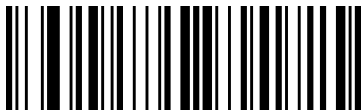
On\*



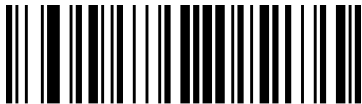
Off



Don't Transmit Check Digit\*



Transmit Check Digit



Don't Transmit System Digit\*



Transmit System Digit

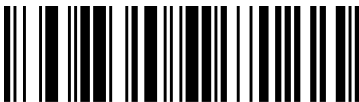


UPC-E Converted to UPC-A On

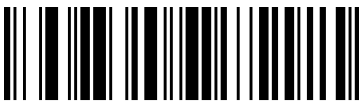


UPC-E Converted to UPC-A Off\*

## UPC/EAN Addenda



2-digit Addenda On



2-digit Addenda Off\*



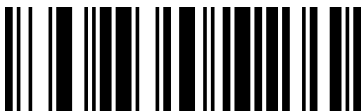
5-digit Addenda On



5-digit Addenda Off\*



Addenda Required



Addenda Not Required\*



Addenda Separator Off\*



Addenda Separator On

## Code ID Chart

| Symbology          | Code ID |
|--------------------|---------|
| UPC-E              | E       |
| EAN-8              | D       |
| UPC-A              | c       |
| EAN-13             | d       |
| Code 39            | b       |
| Codabar            | a       |
| Interleaved 2 of 5 | e       |
| Hong Kong 2 of 5   | Q       |
| Code 128           | j       |
| Code 93            | i       |
| MSI Plessey        | g       |
| Code 11            | h       |
| AIR2OF5-15         | f       |
| Matrix 2 of 5      | m       |
| Telepen            | t       |

|                 |   |
|-----------------|---|
| UK Plessey      | n |
| AIR2OF5-13      | f |
| Standard 2 of 5 | F |
| TRIOPTIC        | = |
| RSS-14          | y |
| RSS-Limited     | { |
| RSS-Expanded    | } |
| PDF417          | r |
| Micro PDF417    | R |
| Data Matrix     | w |
| Aztec Code      | z |
| QR Code         | s |
| Micro QR Code   | - |
| MaxiCode        | x |
| GM              | X |
|                 |   |

## Terminators



Line Feed(LF)



Carriage Return(CR)



TAB(HT)



LF & CR\*



None

## Add Prefix/Suffix

Steps to add a prefix or a suffix:

Step 1: Scan “Add Prefix” or “Add Suffix,”

Step 2: Determine the appropriate value from the Appendix 1 and scan the barcodes that represent the value accordingly in sequence. Note: The maximum size of a prefix or suffix configuration is 32 characters.

Note: To clear prefix/suffix configuration, scan “Add Prefix” or “Add Suffix” then scan normal barcodes without scanning codes from Appendix 1.



Add Prefix



Add Suffix

## Escape Character Sets

The chart for configuring prefixes and suffixes is divided into two parts: Control Character Chart and Printable Character Chart. The Printable Character Chart contains characters whose entries are above 31, which can be output by HID keyboard without escape.

The Control Character Chart consists of the first 31 characters of ASCII, most of which can't be output by HID keyboard directly. With escape character set, the scanner is able to output them. There are 5 escape methods available and they are activated by scanning Escape Character Set symbols. Select the appropriate character set depending on your needs.



Escape Character Set 0



Escape Character Set 1



Escape Character Set 2



Escape Character Set 3



Escape Character Set 4

## Hide the First/Last Characters

Steps to hide the first/last characters: First, scan “Hide the First Characters” or “Hide the Last Characters”, then scan “Digits to be hidden”. Note: The maximum size of the configuration is 16 characters.

Steps to clear the settings: First, scan “Hide the First Characters” or “Hide the Last Characters” respectively, then scan normal barcodes directly without selecting any digits to be hidden.



Hide the First Characters



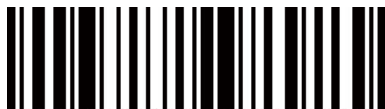
Hide the Last Characters



1 digit



2 digits



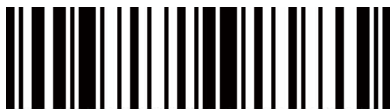
3 digits



4 digits



5 digits



6 digits



7 digit



8 digits



9 digits



10 digits



11 digits



12 digits



13 digit



14 digits



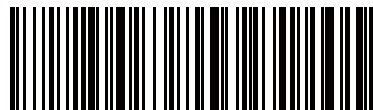
15 digits



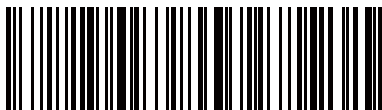
16 digits

## Timestamp

Please contact Tera customer service if you need time update tool.



Show Current Time



Off



Time Prefix



Time Suffix

## Appendix

### Appendix 1 - Printable Characters (for prefix/-suffix configuration)

| Num | Printable | Symbol |
|-----|-----------|--------|
| 32  | Space     |        |
| 33  | !         |        |
| 34  | "         |        |
| 35  | #         |        |

|    |    |                                                                                     |
|----|----|-------------------------------------------------------------------------------------|
| 36 | \$ |    |
| 37 | %  |    |
| 38 | &  |    |
| 39 | '  |    |
| 40 | (  |    |
| 41 | )  |    |
| 42 | *  |    |
| 43 | +  |    |
| 44 | ,  |   |
| 45 | -  |  |
| 46 | .  |  |
| 47 | /  |  |
| 48 | 0  |  |

|    |   |                                                                                     |
|----|---|-------------------------------------------------------------------------------------|
| 49 | 1 |    |
| 50 | 2 |    |
| 51 | 3 |    |
| 52 | 4 |    |
| 53 | 5 |    |
| 54 | 6 |    |
| 55 | 7 |    |
| 56 | 8 |    |
| 57 | 9 |   |
| 58 | : |  |
| 59 | ; |  |
| 60 | < |  |
| 61 | = |  |

|    |   |                                                                                     |
|----|---|-------------------------------------------------------------------------------------|
| 62 | > |    |
| 63 | ? |    |
| 64 | @ |    |
| 65 | A |    |
| 66 | B |    |
| 67 | C |    |
| 68 | D |    |
| 69 | E |   |
| 70 | F |  |
| 71 | G |  |
| 72 | H |  |
| 73 | I |  |
| 74 | J |  |

|    |   |                                                                                     |
|----|---|-------------------------------------------------------------------------------------|
| 75 | K |    |
| 76 | L |    |
| 77 | M |    |
| 78 | N |    |
| 79 | O |    |
| 80 | P |    |
| 81 | Q |    |
| 82 | R |    |
| 83 | S |   |
| 84 | T |  |
| 85 | U |  |
| 86 | V |  |
| 87 | W |  |

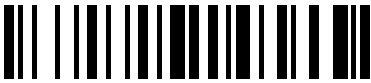
|     |   |                                                                                     |
|-----|---|-------------------------------------------------------------------------------------|
| 88  | X |    |
| 89  | Y |    |
| 90  | Z |    |
| 91  | [ |    |
| 92  | \ |    |
| 93  | ] |    |
| 94  | ^ |    |
| 95  | _ |    |
| 96  | ` |   |
| 97  | a |  |
| 98  | b |  |
| 99  | c |  |
| 100 | d |  |

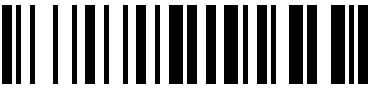
|     |   |                                                                                     |
|-----|---|-------------------------------------------------------------------------------------|
| 101 | e |    |
| 102 | f |    |
| 103 | g |    |
| 104 | h |    |
| 105 | i |    |
| 106 | j |    |
| 107 | k |    |
| 108 | l |    |
| 109 | m |   |
| 110 | n |  |
| 111 | o |  |
| 112 | p |  |
| 113 | q |  |

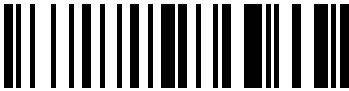
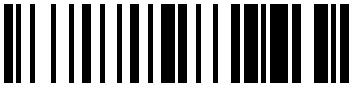
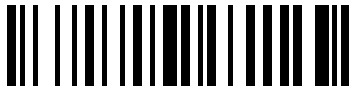
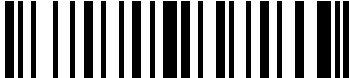
|     |   |                                                                                     |
|-----|---|-------------------------------------------------------------------------------------|
| 114 | r |    |
| 115 | s |    |
| 116 | t |    |
| 117 | u |    |
| 118 | v |    |
| 119 | w |    |
| 120 | x |    |
| 121 | y |    |
| 122 | z |   |
| 123 | { |  |
| 124 |   |  |
| 125 | } |  |
| 126 | ~ |  |

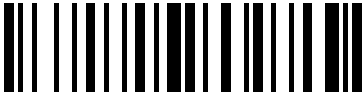
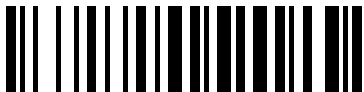
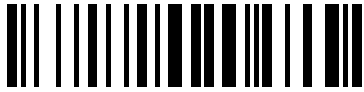
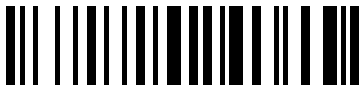
|     |     |                                                                                   |
|-----|-----|-----------------------------------------------------------------------------------|
| 127 | DEL |  |
|-----|-----|-----------------------------------------------------------------------------------|

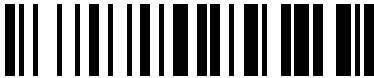
## Appendix 2 – Control Characters

| DEC                                                                                                | ASCII | Set 0         | Set 1      | Set 2  | Set 3   |
|----------------------------------------------------------------------------------------------------|-------|---------------|------------|--------|---------|
| 1                                                                                                  | SOH   | NULL          | Home       | Ctrl+A | Alt+001 |
| Keypad Enter<br>  |       |               |            |        |         |
| 2                                                                                                  | STX   | Ctrl+B        | End        | Ctrl+B | Alt+002 |
| Cap Lock<br>      |       |               |            |        |         |
| 3                                                                                                  | ETX   | Ctrl+C        | Up Arrow   | Ctrl+C | Alt+003 |
| Right Arrow<br> |       |               |            |        |         |
| 4                                                                                                  | EOT   | *Custom Key 1 | Down Arrow | Ctrl+D | Alt+004 |
| Up Arrow<br>    |       |               |            |        |         |

|                                                                                                   |     |               |             |            |         |
|---------------------------------------------------------------------------------------------------|-----|---------------|-------------|------------|---------|
| 5                                                                                                 | ENQ | *Custom Key2  | Left Arrow  | Ctrl+E     | Alt+005 |
| NULL<br>         |     |               |             |            |         |
| 6                                                                                                 | ACK | *Custom Key 3 | Right Arrow | Ctrl+F     | Alt+006 |
| NULL<br>         |     |               |             |            |         |
| 7                                                                                                 | BEL | *Custom Key 4 | Shift+Tab   | Ctrl+G     | Alt+007 |
| Enter<br>        |     |               |             |            |         |
| 8                                                                                                 | BS  | Back Space    | Back Space  | Back Space | Alt+008 |
| Left Arrow<br> |     |               |             |            |         |
| 9                                                                                                 | HT  | Tab           | Tab         | Tab        | Alt+009 |
| Tab<br>        |     |               |             |            |         |

|                                                                                     |    |       |         |        |         |
|-------------------------------------------------------------------------------------|----|-------|---------|--------|---------|
| 10                                                                                  | LF | Enter | Enter   | Ctrl+P | Alt+010 |
| Down Arrow                                                                          |    |       |         |        |         |
|    |    |       |         |        |         |
| 11                                                                                  | VT | NULL  | NULL    | Ctrl+Q | Alt+011 |
| Tab                                                                                 |    |       |         |        |         |
|    |    |       |         |        |         |
| 12                                                                                  | FF | NULL  | NULL    | Ctrl+R | Alt+012 |
| delete                                                                              |    |       |         |        |         |
|    |    |       |         |        |         |
| 13                                                                                  | CR | Enter | Enter   | Enter  | Alt+013 |
| Enter                                                                               |    |       |         |        |         |
|  |    |       |         |        |         |
| 14                                                                                  | S0 | F1    | Page Up | Ctrl+N | Alt+014 |
| Insert                                                                              |    |       |         |        |         |
|  |    |       |         |        |         |

|                                                                                     |     |    |              |        |         |
|-------------------------------------------------------------------------------------|-----|----|--------------|--------|---------|
| 15                                                                                  | S1  | F2 | Page<br>Down | Ctrl+O | Alt+015 |
| Esc                                                                                 |     |    |              |        |         |
|    |     |    |              |        |         |
| 16                                                                                  | DLE | F3 | F11          | Ctrl+P | Alt+016 |
| F11                                                                                 |     |    |              |        |         |
|    |     |    |              |        |         |
| 17                                                                                  | DC1 | F4 | NULL         | Ctrl+Q | Alt+017 |
| Home                                                                                |     |    |              |        |         |
|    |     |    |              |        |         |
| 18                                                                                  | DC2 | F5 | NULL         | Ctrl+R | Alt+018 |
| Print Screen                                                                        |     |    |              |        |         |
|  |     |    |              |        |         |
| 19                                                                                  | DC3 | F6 | NULL         | Ctrl+S | Alt+019 |
| Back Space                                                                          |     |    |              |        |         |
|  |     |    |              |        |         |

|                                                                                                |     |     |      |        |         |
|------------------------------------------------------------------------------------------------|-----|-----|------|--------|---------|
| 20                                                                                             | DC4 | F7  | NULL | Ctrl+T | Alt+020 |
| Shift tab<br> |     |     |      |        |         |
| 21                                                                                             | NAK | F8  | F12  | Ctrl+U | Alt+021 |
| F12<br>       |     |     |      |        |         |
| 22                                                                                             | SYN | F9  | F1   | Ctrl+V | Alt+022 |
| F1<br>        |     |     |      |        |         |
| 23                                                                                             | TB  | F10 | F2   | Ctrl+W | Alt+023 |
| F2<br>       |     |     |      |        |         |
| 24                                                                                             | CAN | F11 | F3   | Ctrl+X | Alt+024 |
| F3<br>      |     |     |      |        |         |
| 25                                                                                             | EM  | F12 | F4   | Ctrl+Y | Alt+025 |
| F4<br>      |     |     |      |        |         |

|                                                                                            |     |         |     |        |         |
|--------------------------------------------------------------------------------------------|-----|---------|-----|--------|---------|
| 26                                                                                         | SUB | NULL    | F5  | Ctrl+Z | Alt+026 |
| F5<br>    |     |         |     |        |         |
| 27                                                                                         | Esc | Esc     | F6  | Ctrl+[ | Alt+027 |
| F6<br>    |     |         |     |        |         |
| 28                                                                                         | FS  | ALT+028 | F7  | Ctrl+\ | Alt+028 |
| F7<br>    |     |         |     |        |         |
| 29                                                                                         | GS  | ALT+029 | F8  | Ctrl+] | Alt+029 |
| F8<br>   |     |         |     |        |         |
| 30                                                                                         | RS  | NULL    | F9  | Ctrl+^ | Alt+030 |
| F9<br>  |     |         |     |        |         |
| 31                                                                                         | US  | NULL    | F10 | Ctrl+_ | Alt+031 |
| F10<br> |     |         |     |        |         |

## Scan Modes



Sensor-activated Mode



Manual Trigger Mode

## Sensitivity – Sensor-activated Mode



Ultra-high



High



Medium



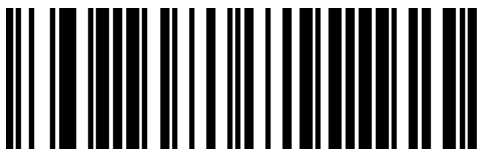
Low

## **Reread Delay – Sensor-activated Mode Only**

(The reread delay sets the time period before a scanner can read the same bar code a second time.)



200ms



350ms



500ms



1000ms



2000ms



3000ms

## Illumination Lights



Lights On\*



Lights Off