TR-UM5100-E

Tera

Model: 5100E

Wireless/Wired 1D Laser Barcode Scanner

User Manual

Ver.05.1.01

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:
For the correct use of the product, please read this manual carefully and do not scan configuration 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

Email Address: info@tera-digital.com
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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

Contents

Specifications

Model	**5100E**
Connection	2.4GHz Wireless Technology and USB Cable
Communication Range	≤30m (indoor), ≤100m (in open areas) (Wireless Connection)
Storage Capacity	5000 UPC codes
Input Voltage	DC 5V
Laser Wavelength	650±20nm LED
Standby Power	45mA(typical)@5V
Operating Power	60mA(typical)@5V
Depth of Field	5mm-630mm
Processor	ARM 32-bit Cortex
Error Rate	1/20million
Symbol Contrast	30% minimum
Decode Speed	300 times/sec

Scan Angle	Roll:±30°, Pitch: ± 45°, Skew: ± 60°
Drop Test	Designed to withstand 10 drops to concrete from 1.5m
Certification	CE, FCC, RoHS
Decode Capability	Code 39, Code 128, UPC-A, UPC-E, EAN 8, EAN 13, Codabar, Interleaved 2 of 5, Industrial 2 of 5, Code 32, Code 11, Code 93, MSI, Matrix 2 of 5, Standard 2 of 5, etc

What is in the box:
Barcode Scanner*1
USB Cable*1
User Manual*1
USB Dongle*1

Points to keep in mind.

1. Only charge the scanner with the original USB cable via a 5V/1A USB port. Do not charge the scanner with a phone charger or computer charger.
2. If the scanner doesn't respond to any trigger pull, please leave the scanner charging for 30 minutes before operating it.
3. If the scanner emits several quick beeps and turns off, it means that the scanner battery is running low and needs to charge.

Chapter 1 General Settings

Factory Defaults

If you are not 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 code below.

Reset to Factory Defaults

Firmware Version

Show Firmware Version

Battery Level

Scan the following code to see how much battery the scanner has left.

Show Battery Level

Beeper Settings

Beeper

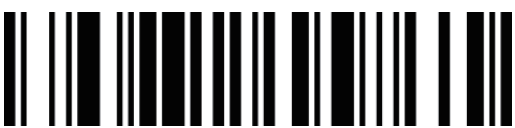
On*

Off

Beeper Volume

Scan the appropriate code to adjust the volume of the beeper.

Low



Medium

High*

Operation Modes

Real Time Mode

In this mode, the scanner transmits scanned data immediately after each scan.

Real Time Mode*

Storage Mode

Storage mode stores barcode data whether or not you are in range of the receiver. To transmit the stored data, scan Upload All Stored Barcodes. Note: If you wish to output the total number of barcodes scanned when in Storage Mode, scan transmit Total Records.

Storage Mode

Upload All Stored Codes

Upload Total Records

Clear All Stored Codes

Power Timeout Timer

When there is no activity within a specified time period, the scanner turns off. Scan the appropriate scanner power timeout barcode to change the timeout duration.

30s

1min

5min*

30min

Immediately

Never

Chapter 2 Communications and Pairing

2.4GHz Wireless Pairing

If the scanner doesn't connect to the USB dongle automatically, please scan the following code to pair the scanner to the dongle.
Be sure to unplug the dongle before scanning the pairing code.

Pairing

2.4GHz Transmission Speed

If the transmitted data gets lost or garbled, try to reduce the transmission speed.

Fast*

Medium

Low

USB HID-keyboard

No driver from the manufacturer is required for USB Keyboard connection.

USB HID Keyboard*

USB-COM/Virtual Serial Port

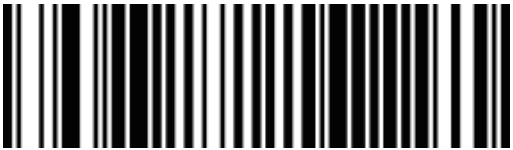
Scan the following code to program the scanner to emulate a regular RS232-based COM Port. No extra configuration is necessary. To exit USB-COM mode, please scan the USB HID Keyboard barcode.

USB-COM Mode

Keyboard Country Layout

The keyboard layout default is a US keyboard. To change this layout, scan the appropriate Keyboard Country bar code below.

United States*

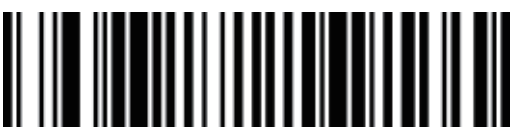


United Kingdom

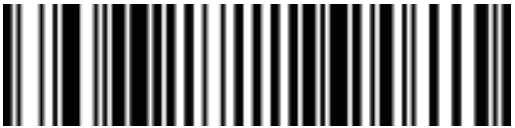
France

Germany

Spain



Italy 142



Japan

Keyboard Conversion

Alphabetic keyboard characters can be forced to be all upper case or all lowercase. So if you have the following barcode: "AZErty", you can make the output "AZERTY" by scanning Convert All Characters to Upper Case, or to "azerty" by Convert All Characters to Lower Case.

Convert All Characters to Upper Case

Convert All Characters to Lower Case

Keyboard Conversion Off*

Chapter 3 Scan Modes

Manual Trigger Mode

Manual Trigger Mode*

Continuous Scan Mode

Reread Alert - Continuous Scan Mode Only

When this option is enabled, the scanner will keep beeping when the laser is aiming at the same bar code.

Reread Alert On

Reread Alert Off*

Chapter 4 Data Editing

Code ID

This selection allows you to turn on transmission of a Code I.D. before the decoded symbology. (See the Code ID Charts for the single character code that identifies each symbology.)

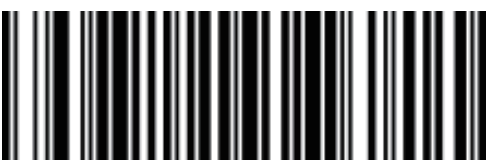
Code ID On

Code ID Off*

Terminators (Termination Suffixes) - Enter, Tab

Termination suffixes are added to all symbologies.

Carriage Return*



Carriage Return and Line Feed

Horizontal Tab

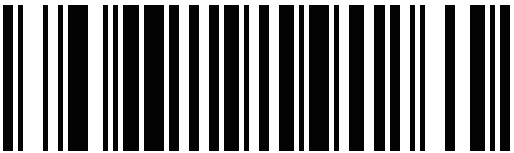
None (Clear Termination Suffixes)

Prefix and Suffix Overview

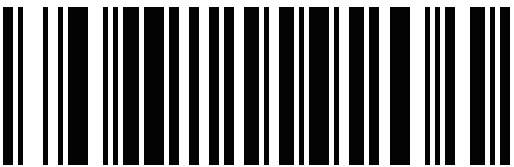
The selections in this section are used to build the user-defined data into the message string. Enter prefixes and suffixes in the order in which you want them to appear on the output.
(Note: The maximum size of a prefix or suffix configuration is 16 characters.)
To add a prefix or suffix:

Step 1. Scan the Add Prefix symbol.

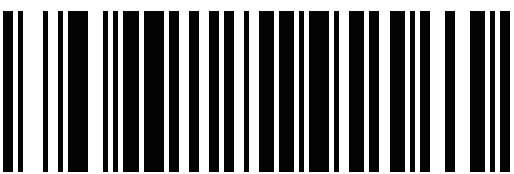
Add Prefix



Add Suffix



Clear Prefixes



Clear Suffixes

Step 2. Scan the characters you wish to enter from the Appendix Chart
Note: If you wish to add more than one character, just repeat Step 2. Be sure to clear the prefix if you wish to add a new prefix without the previous one being retained and follow the procedure.

Timestamp

If you want to add a time stamp to each scan, please scan either Time Prefix or Time Suffix. Please contact Tera customer service for time update tool if the timestamp doesn't match your local time.

Time Prefix

Time Suffix

Clear Time Prefix

Clear Time Suffix

Removal of Characters

If you don't want the scanner to send all the characters a barcode contains, you may remove the unwanted digits.
How to remove characters:
Step 1: Scan "Drop the First Characters" barcode or "Drop the Last Characters" barcode,
Step 2: Scan the appropriate numeric barcode from the Appendix Character Chart.

For example, there is a 17-digit barcode - AB123456789BSCITL, if you want the scanner to send only 4567, you should scan "Drop the First Characters", and "5" from the Character Chart, then scan "Drop the Last Characters", "8" from the Character Chart. If you wan the scanner to send all the digits, scan both "Don't Drop the First Characters" and "Don't Drop the Last Characters"

Drop the First Characters

Drop the Last Characters

Don't Drop the First Characters

Don't Drop the Last Characters

Chapter 5 Symbologies

Inverse Barcodes

This selection allows the scanner to read inverse bar codes. (Inverse bar codes refer to bar codes based on black background.) Scan Regular Only to read only regular bar codes. Scan Both Regular and Inverse to read both types of codes.

Regular Only*

Both Regular and Inverse

Code 128

On*

Off

EAN 8

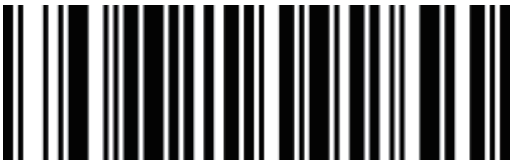
On*

Off

EAN 8 Check Digit

This selection allows you to specify whether or not the check digit should be transmitted at the end of the scanned data.

Transmit*



Don’t Transmit

EAN 13

On*

Off

EAN 13 Check Digit

This selection allows you to specify whether or not the check digit should be transmitted at the end of the scanned data.

Transmit*

Don’t Transmit

UPC-A

On*

Off

UPC-A Number System

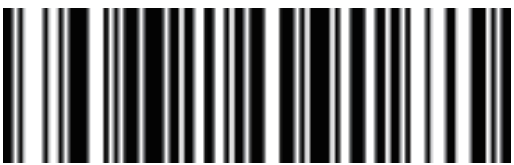
The numeric system digit of a UPC symbol is normally transmitted at the beginning of the scanned data, but can be programmed so it is not transmitted.

Transmit*

Don’t Transmit

UPC-A Check Digit

This selection allows you to specify whether or not the check digit should be transmitted at the end of the scanned data.



Transmit*

Don’t Transmit

Expand UPC-A to EAN 13

When Expand UPC-A to EAN-13 is selected, UPC-A barcodes are converted to 13-digit EAN 13 codes by adding a zero to the front.

On

Off*

UPC-E

On*

Off

UPC-E Leading Zero

This feature allows the transmission of a leading zero at the beginning of scanned data.

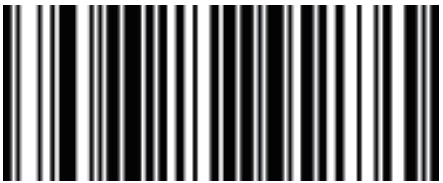
Transmit*

Don’t Transmit

UPC-E Check Digit

Check Digit specifies whether the check digit should be transmitted at the end of the scanned data or not.

Transmit*



Don’t Transmit

Expand UPC-E to UPC-A

When Expand UPC-E to UPC-A is selected, UPC-E barcodes are converted to 12-digit UPC-A codes by adding zeros.

On

Off*

UPC/EAN Addenda

When required is scanned, the scanner will only read UPC/EAN barcodes that have addenda.

Off*

2-digit Addenda On

5-digit Addenda On

2-digit and 5-digit Addenda On

Required

Not Required*

Code 93

On*

Off

GS1 Databar Omnidirectional

On

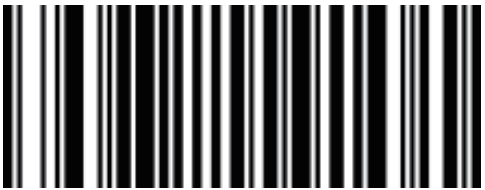
Off*

GS1 Databar Limited

On

Off*

Code 39



On*

Off

Code39 Full ASCII

If Full ASCII Code 39 decoding is enabled, certain character pairs within the barcode symbol will be interpreted as single character.

On*

Off

Code 39 Check Character

No Check Character indicates that the scanner reads and transmits barcode data with or without a check character.

When Check Character is set to Validate, Don't Transmit, the unit only reads Code 39 barcodes with a check character, but will not transmit the check character with the scanned data.

When Check Character is set to Validate, Transmit, the scanner only reads Code 39 barcodes with a check character, and will transmit this character at the end of the scanned data.

Validate

No Check Character*

Transmit*

Don’t Transmit

Code 39 Start and Stop Characters

Start/Stop characters identify the leading and trailing ends of the barcode. You may either transmit, or not transmit Start/Stop characters.

Transmit

Don’t Transmit*

Code 32 Pharmaceutical (RARAF)

Code 32 Pharmaceutical is a form of the Code 39 symbology used by Italian pharmacies.
This symbology is also known as RARAF.

On

Off*

Interleaved 2 of 5

On*

Off

Interleaved 2 of 5 Check Character

No Check Character indicates that the scanner reads and transmits barcode data with or without a check character.

When Check Character is set to Validate, Don't Transmit, the unit only reads Interleaved 2 of 5 barcodes with a check character, but will not transmit the check character with the scanned data.

When Check Character is set to Validate, Transmit, the scanner only reads Interleaved 2 of 5 barcodes with a check character, and will transmit this character at the end of the scanned data.

Validate

No Check Character*

Transmit*

Don’t Transmit

Industrial 2 of 5

On*

Off

Standard 2 of 5 (IATA)

On

Off*

Matrix 2 of 5

On*

Off

MSI

On

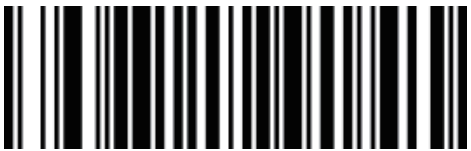
Off*

UK Plessey

On

Off*

Code 11



On

Off

Codabar

On*

Off

Start and Stop Characters

Transmit

Don’t Transmit*

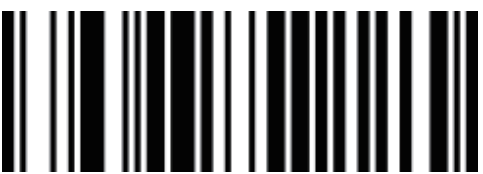
Appendix 1: Code ID Chart

Code ID	Barcode Type
a	Code 128
c	EAN 8
d	EAN 13
e	UPC-A

Code ID	Barcode Type
f	UPC-E
i	Code 93
j	GS1 Databar Omnidirectional
k	GS1 Databar Limited
l	Code 32
m	Code 39
n	Interleaved 2 of 5
o	Industrial 2 of 5
p	Standard 2 of 5
q	Matrix 2 of 5
s	MSI
t	UK Plessey

Code ID	Barcode Type
u	Code 11
v	Codabar

Appendix 2: Character Chart



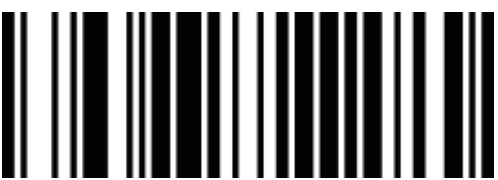
0

1

2

3

4



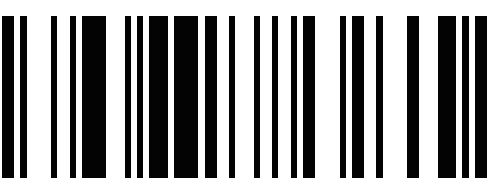
5

6

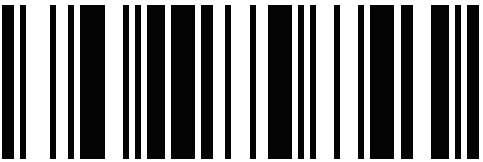
7

8

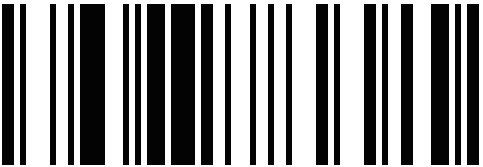
9



A

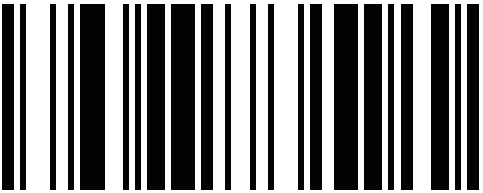


a



B

b



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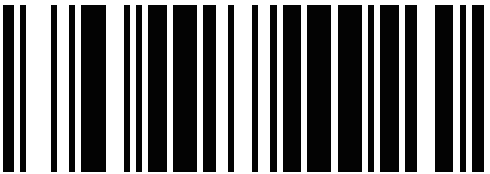

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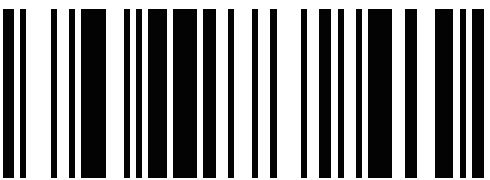

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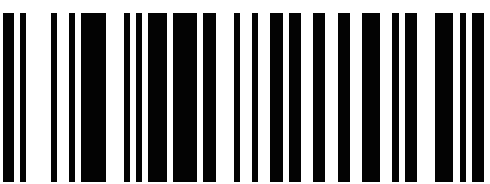

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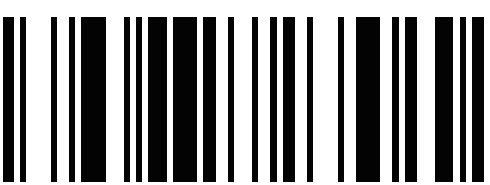

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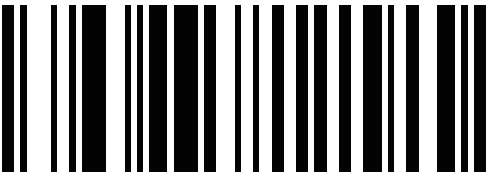
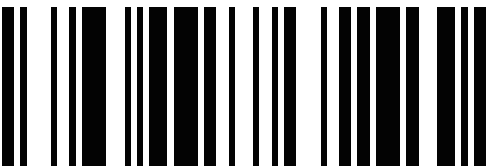
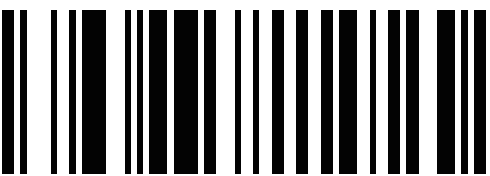


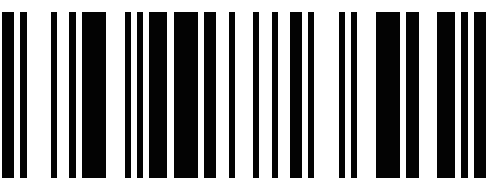
e



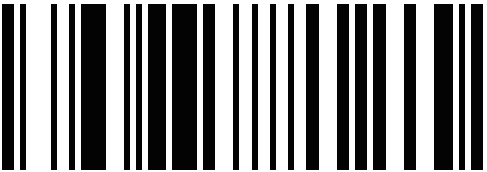
F



f



G



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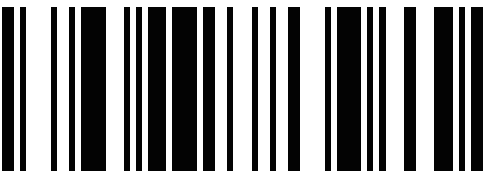
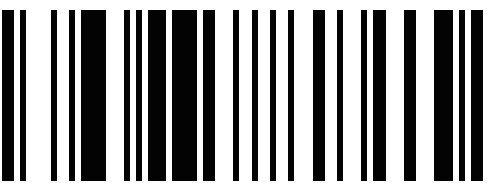
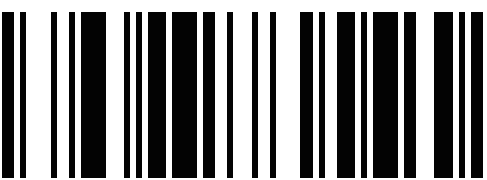


H



h



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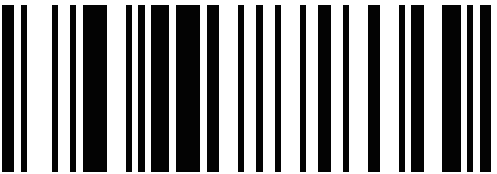

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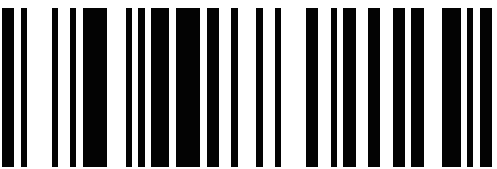

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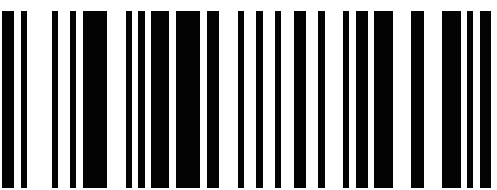
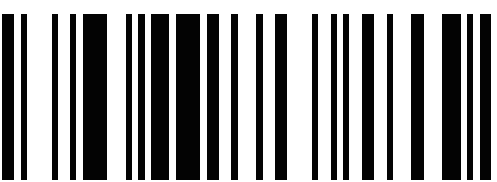
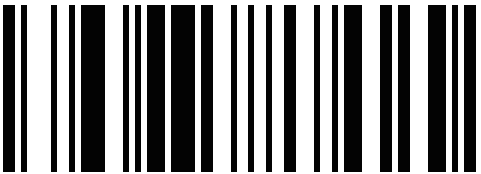


j



K



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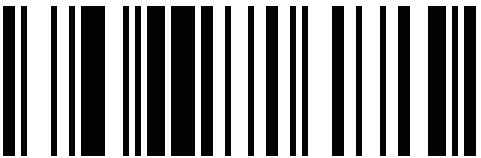

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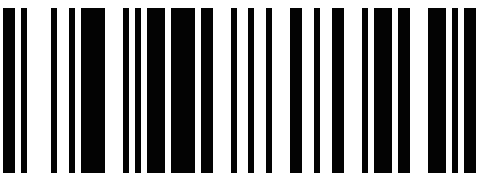

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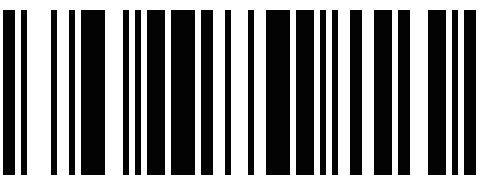

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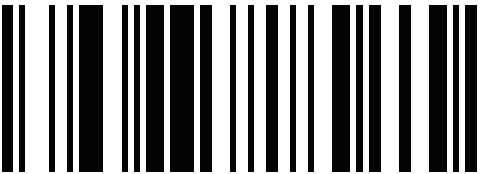

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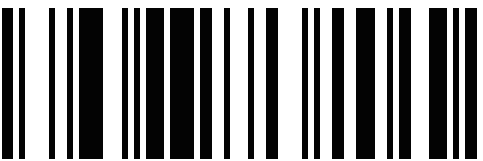

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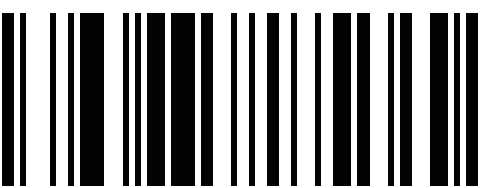

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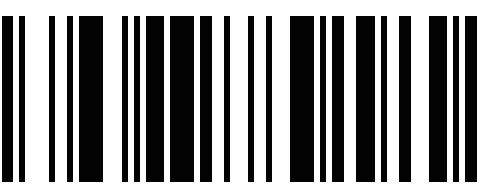

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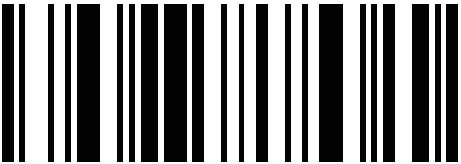

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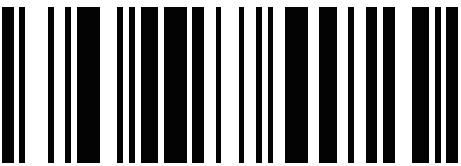

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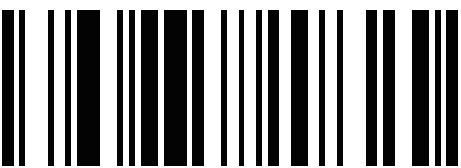

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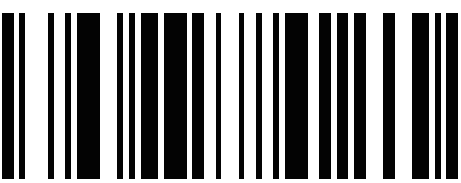

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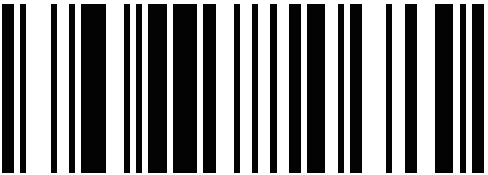

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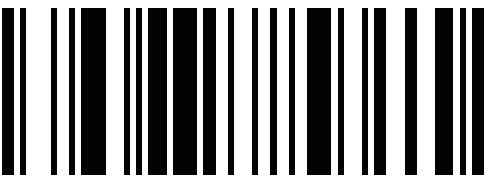

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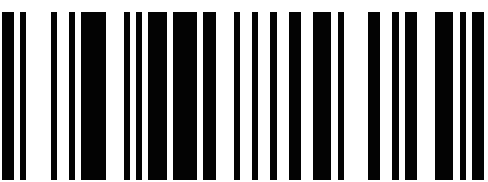

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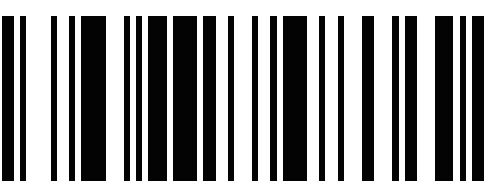

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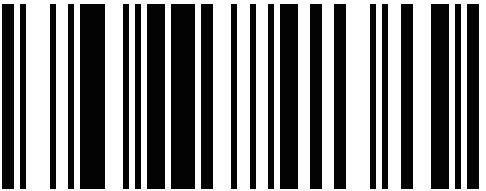

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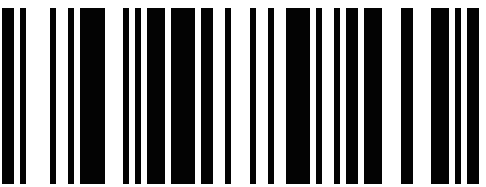

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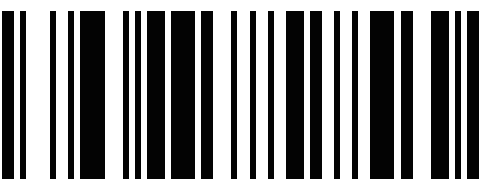

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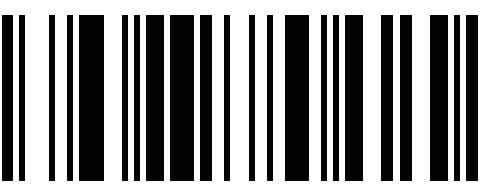

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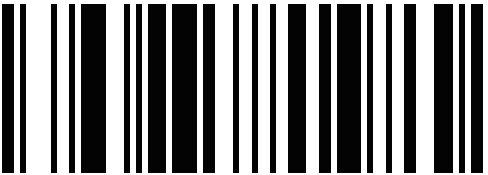

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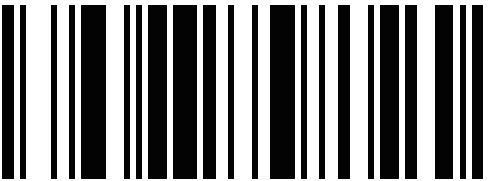

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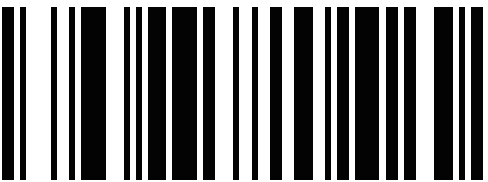

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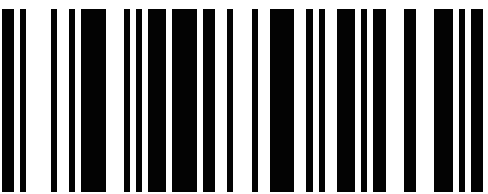

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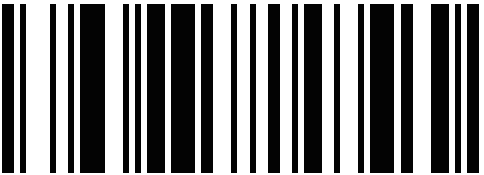

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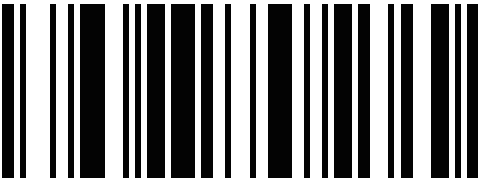

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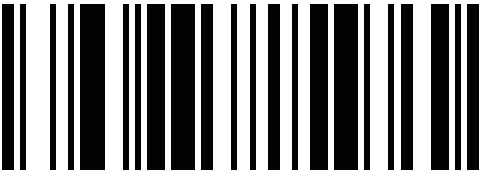

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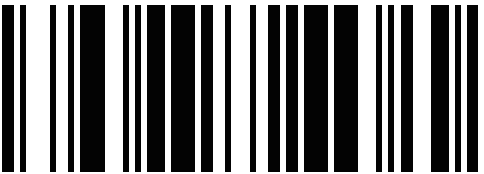

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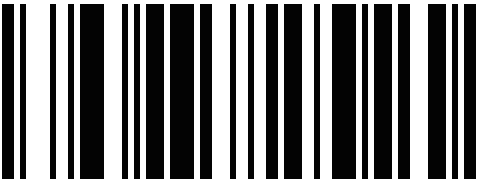

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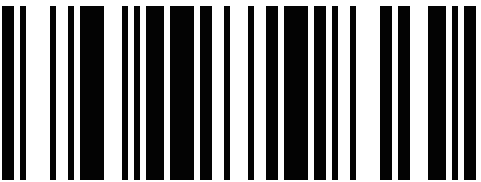

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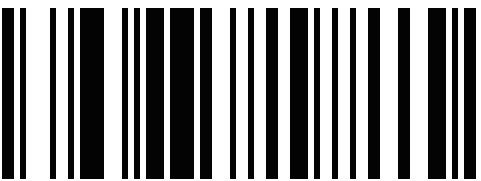

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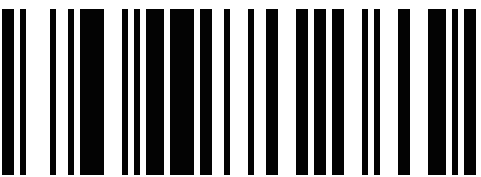

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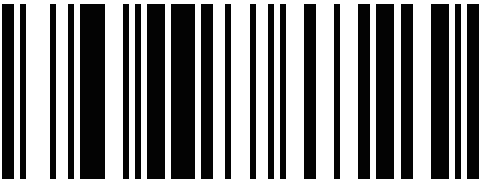

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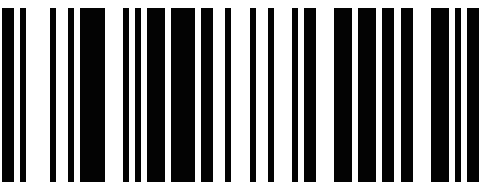

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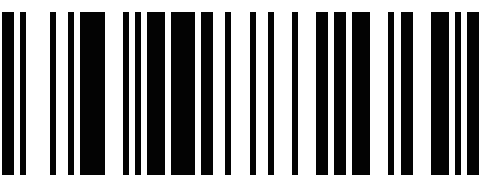

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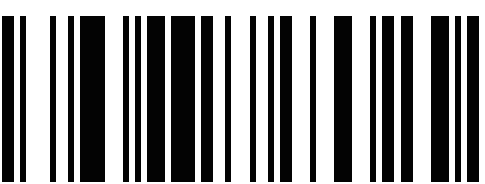

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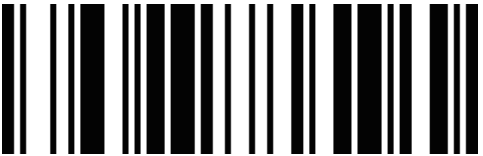

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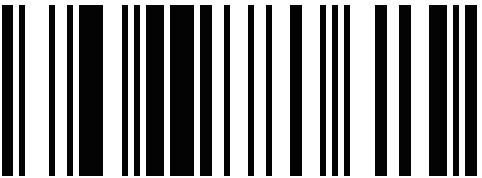

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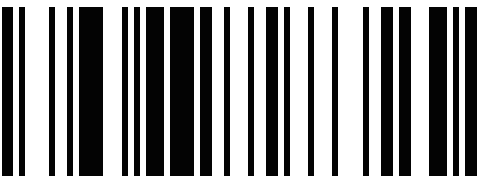

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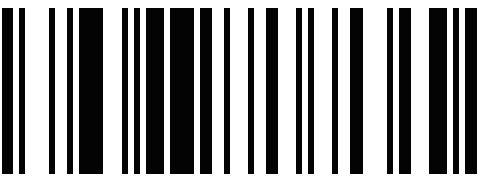

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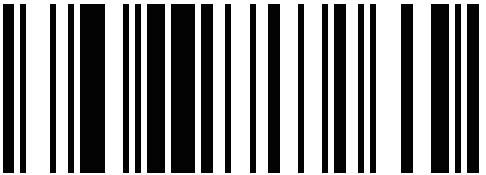

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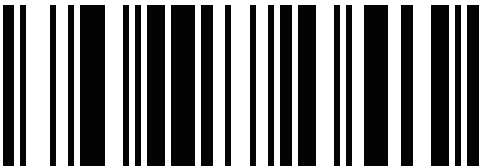

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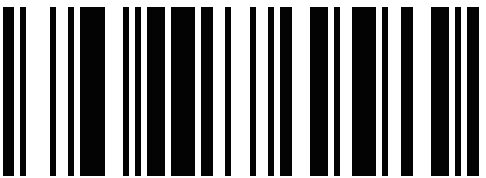

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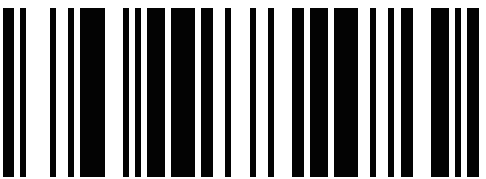

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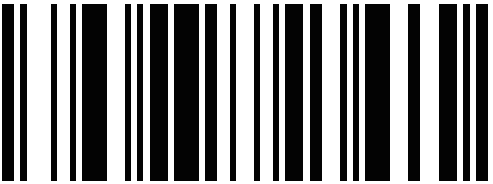

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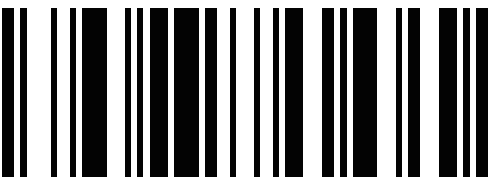

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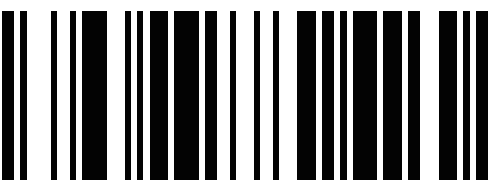

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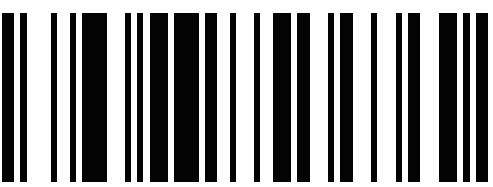

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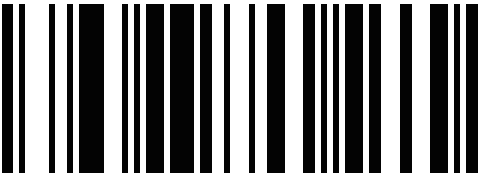

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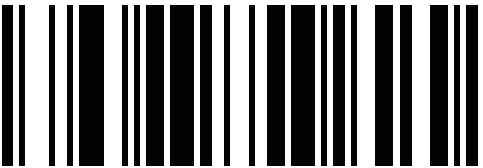

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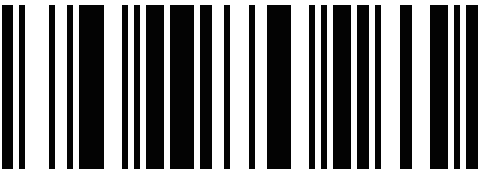

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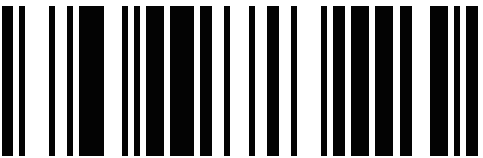

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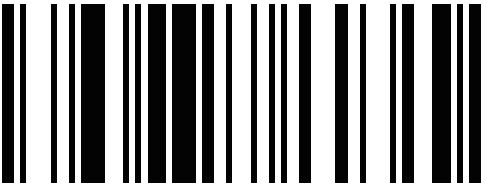

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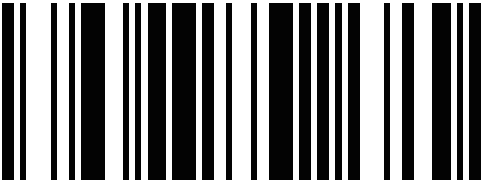

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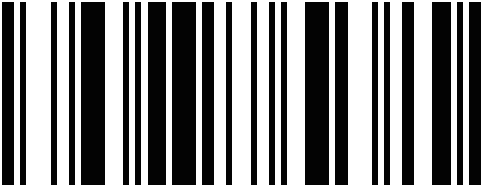

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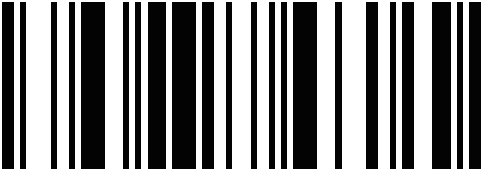

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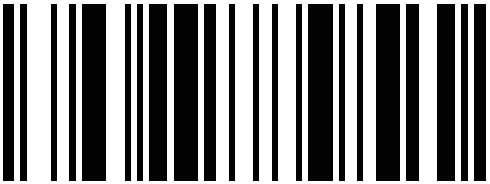

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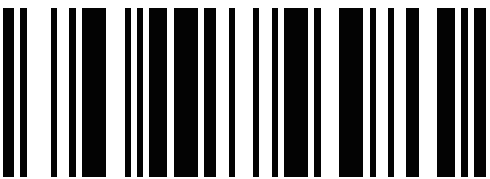

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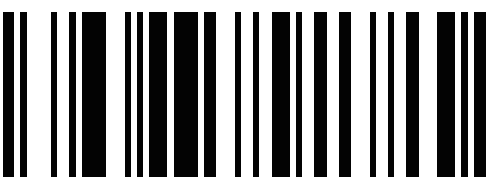

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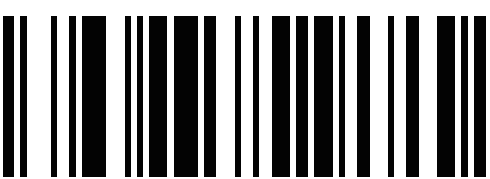

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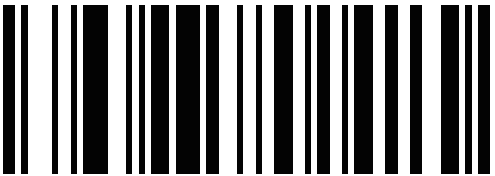

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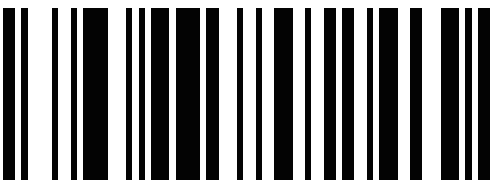

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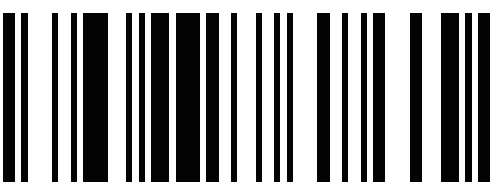

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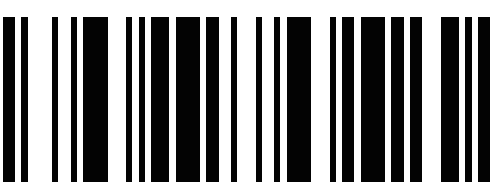

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