

# **Tera**

## **5100**

**Barcode Scanner**

### **User Manual**

**Ver.01.2.01**

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

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

If you need to change these settings, programming is accomplished by scanning the barcodes in this manual.

**Note:** If there is no further setting command within 20 seconds, the scanner will automatically exit the setting mode.

For the correct and effective use of the product, please read this manual carefully and do not scan setting barcodes at random. Some settings would otherwise be temporarily unavailable.

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

## **Get started:**

In manual trigger mode, steps to operate the scanner are as follows:

1. Pull the trigger button, the aimer is activated, and red aiming beam appears.
2. Center the aiming beam over a barcode, move the scanner to adjust the distance between the scanner and the barcode to figure out the best read distance.
3. The scanner beeps and red aiming beam disappears, indicating the scanning succeeds. At the same time, the scanner uploads the decoded data to the host system.

**Note:** When scanning barcodes, you will find that the scanner is more responsive to barcodes of the same batch when the distance between the scanner and the barcode is within certain range. That is the best read distance.

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# General

## Factory Default



Reset to Defaults

## Firmware Version



Show Firmware Version

## Beeper Volume



High\*



Medium



Low



Off

## Battery Level



Show Battery Level

## Power Timeout Timer



30s



2 mins



5 mins\*



30 mins



Never



Immediately

## Character Encoding



GBK (MS Notepad, Excel)\*



Unicode (Word)

## Operation Modes

### Real Time Mode



Real Time Mode\*

## **Storage Mode**



**Storage Mode**



**Upload All Codes**



**Upload All Records**



**Clear All Codes**

## **Communications**

### **USB-COM/Virtual Serial Port**

The scanner supports USB-COM mode with either 2.4G wireless connection or USB cable connection; however, whether you are to use Virtual Serial Port wireless or wired, drivers are needed. Please contact Tera customer service for the driver.



**USB-COM**

### **2.4 Ghz Wireless Mode**



**2.4G Mode**

# **Wireless Pairing**

## **2.4 Ghz Wireless Pairing Instructions (Receiver Pairing)**

**Step 1: Scan the "2.4G Mode" barcode.**

**Note: When in 2.4G wireless mode, the scanner will connect to the previously paired receiver in preference.**



**2.4G Mode**

**Step 2: Scan the "Pairing" barcode below to get the scanner ready for pairing, with the LED indicator flashing blue.**



**Pairing**

**Step 3: Plug in the dongle, and wait till the scanner emits a beep and the LED turns into solid blue, indicating that the pairing has succeeded.**

**Note: When the scanner is in pairing mode, a double press on the trigger or not detecting any pairing request within 1 minute will force the scanner to exit pairing mode.**



# Keyboard Country Layout

If your interface is USB Keyboard, your keyboard layout default is a US keyboard. To change this layout, scan the appropriate Keyboard Coutry barcode below.



United States



Germany



France



Spain



Italy



Japan



Belgium (French)



Portugal



United Kingdom



iOS (German)



Brazil (Portuguese)



Czech



Italy 142



Sweden / Finland



Turkey Q



Turkey F



Mexico (Spanish)



Denmark



Norway



Croatia



Switzerland (German)



Switzerland (French)



Dutch (Netherlands)



Hungary



Poland



Canada (French)



International



Slovakia

## Case Conversion



Conversion Off\*



Convert All Characters to  
Upper Case



Convert All Characters to  
Lower Case



Invert Case of All Characters

# Group Separator Replacement

## Replace Group Separator Characters

Step 1: Scan the barcode below.



Replacement On

Step 2: Locate a desired character from the ASCII Character Chart and scan the configuration code representing the character.

## No GS Replacement



Clear GS Replacements

## Prefixes/Suffixes

The maximum size of a prefix or a suffix configuration is 32 bytes.

### Add a Prefix

Step 1: Scan the “Add Prefix” barcode.



Add Prefix

Step 2: Scan appropriate barcodes from the ASCII Character Chart depending on your needs respectively.

## **Clear Prefixes**

Step 1: Scan the “Add Prefix”barcode.

Step 2: Scan the “Exit” barcode in the Appendix.

Note: Scanning factory defaults will clear all prefixes and suffixes as well.

## **Add a Suffix**

Step 1: Scan the “Add Suffix” barcode.



Add Suffix

Step 2: Scan appropriate barcodes from the ASCII Character Chart depending on your needs respectively.

## **Clear Suffixes**

Step 1: Scan the “Add Suffix”barcode.

Step 2: Scan the “Exit” barcode in the Appendix.

Note: Scanning factory defaults will clear all prefixes and suffixes as well.

## **Hide the first/last Characters**

The maximum size of the configuration is 16 characters.

Step 1: Scan “Hide the first Characters” barcode or “Hide the last Characters” barcode.



Hide the first Characters



Hide the last Characters

Step 2: Determine the digits to be hidden and scan the respective barcode from the ASCII Character Chart.

## Clear Settings

To stop the scanner from dropping characters, follow the instructions below.

Step 1: Scan “Hide the first Characters or “Hide the last Characters” barcode.

Step 2: Scan the “Exit” barcode in the Appendix.

Note: Scanning factory defaults will clear the settings as well.

## Terminators



Carriage Return  
<CR>(0x0D)\*



Line Feed  
<LF>(0x0A)



<CR>&<LF>(0x0D,0x0A)



Horizontal Tab<HT>(0x09)



None

## Escape Character Settings

The character chart for adding prefixes and suffixes is divided into 2 parts: Control Character Chart and Printable Character Chart. Most of the characters in Printable Character Chart can be outputted via USB HID Keyboard without escape.

ASCII values under 32 are normally sent as a control-key sequences and can't be output directly with USB HID Keyboard. This scanner features 4 more escape sets. Select the appropriate escape set depending on your needs. Note: To add control characters as prefix/suffix, you should first select a character set, and then scan the "Add Prefix"/"Add Suffix" barcode, at last, scan the appropriate barcode representing the function.



Escape Character Set 0\*



Escape Character Set 1



Escape Character Set 2



Escape Character Set 3



Escape Character 4

# Scan Modes

## Manual Trigger Mode



Manual Trigger Mode\*

## Continuous Scan Mode



Continuous Scan Mode

## Code ID Prefix

Code ID refers to the type of barcodes. It is generated by the scanner and has nothing to do with the barcode data.



Don't Transmit Code ID\*



Transmit Code ID



## Symbologies

### UPC-A



On\*



Off



Transmit Check Digit\*



Don't Transmit Check Digit



Transmit Numeric  
System Digit\*



Don't Transmit Numeric  
System Digit

### Convert UPC-A to EAN-13



On



Off\*

### UPC-E



On\*



Off



**Transmit Check Digit\***



**Don't Transmit Check Digit**



**Transmit Leading Zero\***



**Don't Transmit Leading Zero**

### **Convert UPC-E to UPC-A**



**On**



**Off\***

### **EAN-8**



**On\***



**Off**



**Transmit Check Digit\***



**Don't Transmit Check Digit**



Transmit Leading  
Character\*



Don't Transmit Leading  
Character

## **EAN-13**



On\*



Off



Transmit Check Digit\*



Don't Transmit Check Digit

## **Convert EAN-13 to ISBN**



On



Off\*

## **Convert EAN-13 to ISSN**



On



Off\*

## UPC/EAN/JAN Addenda

When "Addenda Required" is scanned, the scanner will only read UPC/EAN/JAN bar codes that have addenda. Default = Not Required.



2-digit Addenda On



5-digit Addenda On



2 and 5 digit Addenda On



Off\*



Addenda Required



Addenda Not Required\*

## Code 128



On\*



Off

## Code 39



On\*



Off

## Code 39 Check Character



Transmit



Don't Transmit\*



Mod 43 Check, Validate



No Check Character\*

## Code 39 Start/Stop Characters

Start/Stop characters identify the leading and trailing ends of the bar code. You may either transmit, or not transmit Start/Stop characters. Default = Don't Transmit.



Transmit



Don't Transmit\*

## Full ASCII Code 39

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



On\*



Off

## Code 32

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



On



Off\*

Note: To scan Code 32, the Code 39 should be enabled with No Check Character. With Code 32 on, the scanner's performance of handling Code 39 will degrade and the readings might not be as expected. In this case, turning off Code 32 decoding will help.

## Code 93



On\*



Off

## Code 93 Check Character



Mod 47 Check, Validate\*



No Check Character

## Code 11



On\*



Off

### **Codabar (NW-7)**



On\*



Off



Transmit Start/  
Stop Characters



Don't Transmit Start/  
Stop Characters\*

### **Interleaved 2 of 5**



On\*



Off

### **Matrix 2 of 5**



On\*



Off

### **Industrial 2 of 5**



On\*



Off





## Appendix - Code ID

Number	Symbology	Code ID	Value
1	Code 128	a	01
2	EAN 8	c	03
3	EAN 13	d	04
4	UPC-A	e	05
5	UPC-E	f	06
6	Code 93	i	09
7	GS1 Omnidirectional	j	0A
8	GS1 Limited	k	0B
9	Code 39	m	0D
10	Interleaved 2 of 5	n	0E
11	Industrial 2 of 5	o	0F
12	IATA 2 of 5	p	10
13	Matrix 2 of 5	q	11
14	China Post	r	12
15	MSI	s	13
16	Plessey	t	14
17	Code 11	u	15
18	Codabar	v	16
19	Code 32	1	

## Appendix – Enter/ Exit Programming Mode



Enter Programming Mode



Exit Programming Mode

## Appendix – Control Character Chart







Note: For configuration codes for the control characters, refer to the rightmost row of the first 31 characters of the ASCII Character Chart.








HEX	DEC	ASCII	Char Set 0	Char Set 1	Char Set 2	Char Set 3	Char Set 4
01	01	SOH	NULL	Home	Ctrl+A	Alt+001	Numpad Enter
02	02	STX	Ctrl+B	End	Ctrl+B	Alt+002	Cap Lock
03	03	ETX	Ctrl+C	Up Arrow	Ctrl+C	Alt+003	Right Arrow
04	04	EOT	Null 1**	Down Arrow	Ctrl+D	Alt+004	Up Arrow
05	05	ENQ	Null 2**	Left Arrow	Ctrl+E	Alt+005	NULL
06	06	ACK	Null 3**	Right Arrow	Ctrl+F	Alt+006	NULL
07	07	BEL	Null 4**	Shift+Tab	Ctrl+G	Alt+007	Enter
08	08	BS	Back Space	Back Space	Back Space	Alt+008	Left Arrow
09	09	HT	Tab	Tab	Tab	Alt+009	Tab
0A	10	LF	Enter	Enter	Ctrl+J	Alt+010	Down Arrow
0B	11	VT	NULL	NULL	Ctrl+K	Alt+011	Tab








HEX	DEC	ASCII	Char Set 0	Char Set 1	Char Set 2	Char Set 3	Char Set 4
0C	12	FF	NULL	NULL	Ctrl+L	Alt+012	delete
0D	13	CR	Enter	Enter	Enter	Alt+013	Enter
0E	14	S0	F1	Page Up	Ctrl+N	Alt+014	Insert
0F	15	S1	F2	Page Down	Ctrl+O	Alt+015	Esc
10	16	DLE	F3	F11	Ctrl+P	Alt+016	F11
11	17	DC1	F4	NULL	Ctrl+Q	Alt+017	Home
12	18	DC2	F5	NULL	Ctrl+R	Alt+018	Print Screen
13	19	DC3	F6	NULL	Ctrl+S	Alt+019	Back Space
14	20	DC4	F7	NULL	Ctrl+T	Alt+020	Shift tab
15	21	NAK	F8	F12	Ctrl+U	Alt+021	F12
16	22	SYN	F9	F1	Ctrl+V	Alt+022	F1
17	23	TB	F10	F2	Ctrl+W	Alt+023	F2
18	24	CAN	F11	F3	Ctrl+X	Alt+024	F3
19	25	EM	F12	F4	Ctrl+Y	Alt+025	F4
1A	26	SUB	NULL	F5	Ctrl+Z	Alt+026	F5
1B	27	Esc	Esc	F6	Ctrl+[	Alt+027	F6
1C	28	FS	ALT+028	F7	Ctrl+\	Alt+028	F7
1D	29	GS	ALT+029	F8	Ctrl+]	Alt+029	F8
1E	30	RS	NULL	F9	Ctrl+^	Alt+030	F9
1F	31	US	NULL	F10	Ctrl+_	Alt+031	F10








## Appendix – ASCII Character Chart








The first 31 characters are control characters and the rest are printable characters.

HEX	ASCII (DEC)	Character	Symbol
01	01	SOH	
02	02	STX	
03	03	ETX	
04	04	EOT	
05	05	ENQ	
06	06	ACK	

HEX	ASCII (DEC)	Character	Symbol
07	07	BEL	
08	08	BS	
09	09	HT	
0A	10	LF	
0B	11	VT	
0C	12	FF	
0D	13	CR	








HEX	ASCII (DEC)	Character	Symbol
0E	14	S0	
0F	15	S1	
10	16	DLE	
11	17	DC1	
12	18	DC2	
13	19	DC3	
14	20	DC4	








HEX	ASCII (DEC)	Character	Symbol
15	21	NAK	
16	22	SYN	
17	23	TB	
18	24	CAN	
19	25	EM	
1A	26	SUB	
1B	27	Esc	







HEX	ASCII (DEC)	Character	Symbol
1C	28	FS	
1D	29	GS	
1E	30	RS	
1F	31	US	
20	32	SP	
21	33	!	
22	34	"	










HEX	ASCII (DEC)	Character	Symbol
23	35	#	
24	36	\$	
25	37	%	
26	38	&	
27	39	,	
28	40	(	
29	41	)	








HEX	ASCII (DEC)	Character	Symbol
2A	42	*	
2B	43	+	
2C	44	,	
2D	45	-	
2E	46	.	
2F	47	/	
30	48	0	








HEX	ASCII (DEC)	Character	Symbol
31	49	1	
32	50	2	
33	51	3	
34	52	4	
35	53	5	
36	54	6	
37	55	7	

HEX	ASCII (DEC)	Character	Symbol
38	56	8	
39	57	9	
3A	58	:	
3B	59	;	
3C	60	<	
3D	61	=	
3E	62	>	

HEX	ASCII (DEC)	Character	Symbol
3F	63	?	
40	64	@	
41	65	A	
42	66	B	
43	67	C	
44	68	D	
45	69	E	








HEX	ASCII (DEC)	Character	Symbol
46	70	F	
47	71	G	
48	72	H	
49	73	I	
4A	74	J	
4B	75	K	
4C	76	L	








HEX	ASCII (DEC)	Character	Symbol
4D	77	M	
4E	78	N	
4F	79	O	
50	80	P	
51	81	Q	
52	82	R	
53	83	S	








HEX	ASCII (DEC)	Character	Symbol
54	84	T	
55	85	U	
56	86	V	
57	87	W	
58	88	X	
59	89	Y	
5A	90	Z	














HEX	ASCII (DEC)	Character	Symbol
5B	91	[	
5C	92	\	
5D	93	]	
5E	94	^	
5F	95	_	
60	96	'	
61	97	a	

HEX	ASCII (DEC)	Character	Symbol
62	98	b	
63	99	c	
64	100	d	
65	101	e	
66	102	f	
67	103	g	
68	104	h	

HEX	ASCII (DEC)	Character	Symbol
69	105	i	
6A	106	j	
6B	107	k	
6C	108	l	
6D	109	m	
6E	110	n	
6F	111	o	

HEX	ASCII (DEC)	Character	Symbol
70	112	p	
71	113	q	
72	114	r	
73	115	s	
74	116	t	
75	117	u	
76	118	v	

HEX	ASCII (DEC)	Character	Symbol
77	119	w	
78	120	x	
79	121	y	
7A	122	z	
7B	123	{	
7C	124		
7D	125	}	

HEX	ASCII (DEC)	Character	Symbol
7E	126	~	
7F	127	DEL	
C7	199	Ç	
E7	231	ç	

If you need any product support, please contact our customer service.

**Important Notice:**

Please attach your Amazon Order Number and Product Model Number in the email.

**Official Customer Service**

Email Addresses:

service-us@tera-digital.com

service-eu@tera-digital.com

service-uk@tera-digital.com

Cell/WhatsApp: +8613382526580

If you want to learn more about our brand or need a digital user manual of the latest version, please visit our official website via the links below or by scanning the given QR code:

<https://tera-digital.com/>

<https://tera-digital.com/pages/user-manual>



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.