

# BCST-53

BCST-53 2D Barcode Scanner

## Instruction Manual

# Content

<i>Notes</i> .....	1
<i>Product Overview</i> .....	2
<i>Product Specification</i> .....	2
<i>How to Set up the Scanner</i> .....	5
<i>Basic Settings</i> .....	6
<i>System Setting</i> .....	6
<i>Keyboard Setting</i> .....	6
<i>Write to Custom Defaults</i> .....	7
<i>Restore Factory Setting</i> .....	8
<i>Reveal Software Version Number</i> .....	8
<i>Data Transmission Speed</i> .....	9
<i>Illuminative Light Control</i> .....	10
<i>Navigation Light Control</i> .....	10
<i>Navigation Light Flashes</i> .....	10
<i>Volume Control</i> .....	11
<i>Scanning Mode</i> .....	11
Auto Red Light Shut off Mode .....	11
Consecutive Scanning Mode .....	12
Manual Scanning Mode .....	13
Hands-free Scanning Mode.....	14
<i>Connection</i> .....	15
<i>Wired USB Mode</i> .....	15
<i>Barcode Settings</i> .....	16
<i>Codabar</i> .....	16

Enable/Disable Codabar .....	16
Transmit START/STOP Characters.....	16
<b>Code 11 .....</b>	<b>16</b>
Enable/Disable Code 11.....	16
Checksum Code.....	17
<b>Code 128 .....</b>	<b>18</b>
Enable/Disable Code 128.....	18
<b>GS1-128 (UCC-128/EAN-128 ) .....</b>	<b>18</b>
Enable/Disable GS1-128 (UCC-128/EAN-128 ) .....	18
<b>USPS and FedEx Barcode .....</b>	<b>18</b>
Enable/Disable USPS and FedEx Barcode.....	18
<b>Code 39 .....</b>	<b>19</b>
Enable/Disable Code 39.....	19
Transmit START/STOP Character.....	19
Checksum Code.....	19
ASCII Code Recognition Range Setting.....	20
<b>VIN (Vehicle Identification Number).....</b>	<b>20</b>
Enable/Disable Code 39 VIN (Vehicle Identification Number) .....	20
<b>Code 32 .....</b>	<b>21</b>
Enable/Disable Code 32.....	21
<b>Code 93 .....</b>	<b>21</b>
Enable/Disable Code 93.....	21
<b>EAN-8 .....</b>	<b>21</b>
Enable/Disable EAN-8.....	21
Checksum Code.....	22
<b>EAN-13 .....</b>	<b>22</b>
Enable/Disable EAN-13.....	22
Checksum Code.....	22
<b>ISBN.....</b>	<b>22</b>

Convert EAN-13 into ISBN .....	22
Convert EAN-13 into ISSN .....	23
<b>MSI .....</b>	<b>23</b>
Enable/Disable MSI .....	23
Checksum Code .....	24
<b>UPC-A .....</b>	<b>25</b>
Enable/Disable UPC-A .....	25
UPC-A Outputs 0 .....	25
Checksum Code .....	25
UPC-A Number System Digit .....	26
<b>UPC-E .....</b>	<b>26</b>
Enable/Disable UPC-E .....	26
Enable/Disable UPC-E1 .....	26
Enable/Disable Initial Digit of UPC-E .....	26
Convert UPC-E to UPC-A .....	26
Checksum Code .....	27
<b>IATA 2 of 5 .....</b>	<b>27</b>
Enable/Disable IATA 2 of 5 .....	27
<b>Interleaved 2 of 5 .....</b>	<b>27</b>
Enable/Disable Interleaved 2 of 5 .....	27
<b>Matrix 2 of 5 .....</b>	<b>28</b>
Enable/Disable Matrix 2 of 5 .....	28
<b>Standard 2 of 5 / Industrial 2 of 5 .....</b>	<b>28</b>
Enable/Disable Standard 2 of 5 / Industrial 2 of 5 .....	28
<b>GS1 DataBar .....</b>	<b>28</b>
Enable/Disable GS1 DataBar .....	28
Enable/Disable GS1 DataBar Composite .....	28
<b>QR Code .....</b>	<b>29</b>
Enable/Disable QR Code .....	29

Normal/Inverted QR Code Recognition .....	29
<b>Data Matrix .....</b>	<b>29</b>
Enable/Disable Data Matrix .....	29
Normal/Inverted Data Matrix Recognition.....	30
<b>PDF 417 .....</b>	<b>30</b>
Enable/Disable PDF 417.....	30
<b>Aztec code .....</b>	<b>31</b>
Enable/Disable Aztec Code .....	31
<b>Maxi code.....</b>	<b>31</b>
Enable/Disable Maxi Code .....	31
<b>Han Xin Code.....</b>	<b>31</b>
Enable/Disable Han Xin Code.....	31
Normal/Inverted Han Xin Code Recognition .....	31
<b>To Edit Data Format .....</b>	<b>32</b>
<b>Code ID .....</b>	<b>32</b>
Code ID List .....	32
<b>Code End Character Setting .....</b>	<b>33</b>
<b>Custom Code Prefix/Suffix Setting.....</b>	<b>34</b>
<b>Delete Characters on Output Result .....</b>	<b>35</b>
<b>Upper/Lower Case Setting.....</b>	<b>36</b>
<b>Additional Code.....</b>	<b>37</b>
<b>Caps Lock Control .....</b>	<b>38</b>
<b>Read Code with Specific Initial Characters Only.....</b>	<b>39</b>
<b>Read 1D Inverted Barcode .....</b>	<b>40</b>
<b>Hide Special Initial Character.....</b>	<b>40</b>
<b>Time Stamp Function.....</b>	<b>41</b>

Use of Shortcut Barcodes .....	44
Settings of Data Coding Format .....	44
Replace GS (^]) with Specific Character .....	45
Appendix I : Characters.....	47
Appendix II : Independent Function Key.....	54
Appendix III: Function Key Combinations .....	57

# Notes

## Safety Notes

Please do not dismantle the barcode scanner or place any foreign parts in it to prevent short circuit or circuit damage.

Please do not leave the barcode scanner or battery near fire.

## Maintenance Notes

Use a clean wet mop to wipe the outer shell of the barcode scanner.

Store the barcode scanner at the place that is dustless, dry, away from light and strong magnetic area.

If any malfunctions happen, please record the situation, and contact our customer service.

# Product Overview

## Product Specification

Physical Parameters	
Model	BCST-53
Material	PC+TPU
Prompt Type	Buzzer, LED Indicator
Data Port	USB
Voltage	DC 5V

Performance Parameter	
Applicable Barcodes	Code 128, EAN-13, EAN-8, UPC-A, UPC-E, Code 39, Code 93, Codabar, Interleaved 2 of 5, Standard 2 of 5, Industrial 2 of 5, Matrix 2 of 5, IATA 2 of 5, MSI, Code 11, ISBN, ISSN, QRCodePDF-417, Aztec Code, Data Matrix, GS1 128, GS1 DataBar, GS1 DataBar Expanded, GS1 DataBar Limited, GS1 DataBar Composite
Resolution	≥5mil
Decode Speed	220 times/s
Scan Modes	Manual Scan, Continuous Scan, Auto-sensing Scan
Scanning Distance	4~40cm
Scanning Width	300mm @ 400mm
Decode Angles	Roll 360°, Pitch ± 55°, Yaw ± 55°

## LED Indicator

Indicator Status	Explanations
Green LED flashes once	Successful scanning and data is uploaded
Blue LED is on	Under setup mode

## Buzzer

Sounds	Explanations
One short high-note sound (100ms)	Successful scanning
Two or more long high-note sound (800ms)	The USB is under configuration
Three-note chord (volume from low to high)	Enter setup mode (blue LED lit) Exit setup mode (blue LED off)
Two short sounds (volume from low to high)	Indicate correct settings

## Barcodes Supported

The barcode types supported by the BCST-53 can be found in the chart below. For more details, please refer to the barcode type setting in Barcode Type Setting.

Barcodes Supported	Preset
Codabar	Enabled
Code 11	Disabled
Code 128	Enabled
GS1-128 (UCC/EAN-128)	Disabled
USPS	Enabled
FedEx	Enabled
Code 39	Enabled
Code 32	Disabled
Code 93	Enabled
EAN-8	Enabled
EAN-13	Enabled
ISBN	Disabled
ISSN	Disabled
MSI	Disabled
UPC- A	Enabled
UPC- E	Enabled
2 of 5 barcodes	Disabled
IATA 2 of 5	

	Interleaved 2 of 5	Enabled
	Matrix 2 of 5	Disabled
	Standard 2 of 5 / Industrial 2 of 5	Disabled
QR Code		Enabled
PDF-417		Enabled
Aztec Code		Disabled
Maxi Code		Disabled
Data Matrix		Enabled
Han Xin Code		Disabled
GS1 DataBar、GS1 DataBar Expanded、GS1 DataBar Limited		Enabled

# How to Set up the Scanner

You may change the settings of BCST-53 barcode scanner by reading the setting barcode in this manual. The examples of settings for the BCST-53 scanner are as below.

Note: If there is a (\*) before a certain setting barcode in this manual, it indicates the factory preset.

Steps	Operation	
1	Connect the barcode scanner to computer or a POS device by using the USB cable.	
2	Scan the barcode to enter setup mode   Enter Setup	
3	Read the setting barcode, such as:   Enable Codabar	
4	Read the barcode to exit setup mode   Exit and Save	To clear a wrongly scanned setting barcode, read the barcode below.   Exit without Save



Enter Setup

# Basic Settings

## System Setting

The BCST-53 is compatible with Windows, Android, Mac OS, and iOS operating systems. The default compatible systems are Windows and Android. You may scan the barcodes below to set the operating system you want to work with.

Note: If you want to use the BCST-53 with an Android device, please use the Gboard input method, and set the scanner as "Windows/Android Mode" and the input keyboard as "American Keyboard". The barcode scanner supports Gboard input method and will not be affected by the language setting of the Gboard input method.



(\*)Windows/Android Mode



Mac OS/iOS Mode

## Keyboard Setting



(\*) US Keyboard



German Keyboard



French Keyboard



Spanish Keyboard



Exit and Save



Enter Setup

Italian Keyboard	UK Keyboard
Japanese Keyboard(Roman Character)	Canadian Keyboard
Serbian Keyboard	

#### Write to Custom Defaults

You may change factory defaults and customize some functions suitable for your own

applications when using your scanner. You need to scan "Enter Setup" → "Function setup barcode you want to customize (e.g.: Output Code ID)" → "Write to Custom Defaults" in turn.

If you have reconfigured the scanner and want to restore to its custom setting mode, you may scan the "Enter Setup" - "Restore to Custom Defaults" barcodes as below. The barcode scanner will exit the setup mode after restoring to custom defaults.

Write to Custom Defaults	Restore to Custom Defaults



Exit and Save



Enter Setup

### Restore Factory Setting

You may use the "Restore Factory Setting" under the circumstances below:

1. Wrong configuration on the barcode scanner or failure to read barcodes.
  2. Previous settings are forgotten while users do not want them to affect future barcode scanning.
  3. To restore to initial setting after the use of some rarely used configuration.
- Scan the "Enter Setup" - "Restore Factory Setting" barcodes in turn. There is no need to read the "Exit and Save" barcode.
- Note: If you have restored factory settings for the barcode scanner, the data stored under inventory mode will be cleared.



Restore Factory Setting

### Reveal Software Version Number

Scan the barcode "Enter Setup" - "Reveal Software Version Number". The software version number will be output to the device connected with the BCST-53.

The "Reveal Software Version Number" function is a kind of setting, so you need to scan the "Exit and Save" barcode after getting the software version number revealed.



Reveal Software Version Number



Exit and Save



Enter Setup

### Data Transmission Speed

The product defaults working under high-speed transmission mode. By default, the data transmission interval is 0ms, which can improve your working efficiency.

If you want to use the product with some low-speed software, please adjust the data transmission interval accordingly, as the issue of data loss or garbled characters can happen if the interval is too short.



(\*) Set Data Transmission Interval as 0ms



Set Data Transmission Interval as 16ms



Set Data Transmission Interval as 32ms



Set Data Transmission Interval as 64ms



Set Data Transmission Interval as 96ms



Set Data Transmission Interval as 128ms



Set Data Transmission Interval as 256ms



Exit and Save



Enter Setup

Illuminative Light Control	
(*) Light up When Scanning	
Navigation Light Control	
Stay on	
Stay off	
Navigation Light Flashes	
(*) Navigation Light Flashes	
	Navigation Light Does Not Flash



Exit and Save



Enter Setup

Volume Control			
	Silent		Low Volume
	(*) Medium Volume		High Volume

## Scanning Mode

### Auto Red Light Shut off Mode

Auto red light shut off mode is the default mode. When under this mode, the red light will not become lit unless you press the scan button. If no barcode is scanned, the red light will stay on for some time which can be set as 1s, 2s, 3s, 5s or 50s (2s is the default setting), and then go off. If the barcode is successfully scanned, the red light will go off immediately.

For example: to set the scan mode as "Auto Red Light Shut off" and the shut off time as 1s.

Scan the "Enter Setup" barcode.

Scan the "Auto Red Light Shut off Mode" barcode.

Scan the "Auto Red Light Shut off Time Setting" barcode.

Scan the "1s" barcode.

Scan the "Exit and Save" barcode.



(\*) Auto Red Light Shut off Mode



Auto Red Light Shut off Time Setting



Exit and Save



Enter Setup

1s	(*)2s

### Consecutive Scanning Mode

You don't need to push the button to trigger scanning under this mode. The red LED is on automatically and ready to scan a barcode. If no barcodes are scanned, the red LED will stay on. After a successful scanning, the red LED goes off first and becomes lit again automatically.

To adjust the scanning intervals, please follow the steps below:

For example: to set the scanning mode as "Consecutive Scanning Mode" and set the "Consecutive Scanning Interval" as 1s.

1. Read the "Enter Setup" barcode.
2. Read the "Consecutive Scanning Mode" barcode.
3. Read the "Consecutive Scanning Interval Setting" barcode.
4. Read the "1s" barcode.
5. Read the "Exit and Save" barcode.



Consecutive Scanning Mode



Consecutive Scanning Interval Setting



Exit and Save



Enter Setup

400ms	800ms
1s	(*) 2s
3s	5s
10s	15s

#### Manual Scanning Mode

When under the manual scanning mode, a red-light beam will appear when you press the scan button which indicates the scanner is ready to scan barcodes. The red light will not go off until one of the situations below occurs.

1. Read a barcode successfully
2. Release the scan button



Manual Reading Mode



Exit and Save



Enter Setup

### Hands-free Scanning Mode

When under the hands-free scanning mode, the red light won't go off when the scanner reads a barcode successfully. Each barcode will be read only once no matter how long it exposes under the red light.



Hands-free Mode



Exit and Save



Enter Setup

# Connection

## Wired USB Mode

If you have connected the BCST-53 with your computer via the USB cable, the BCST-53 will prioritize using the USB data transmission mode.



Exit and Save



Enter Setup

## Barcode Settings

### Codabar

Enable/Disable Codabar	
(*) Enable Codabar	Disable Codabar
Transmit START/STOP Characters	
(*) Enable Codabar START/STOP Characters	Disable Codabar START/STOP Characters

### Code 11

Enable/Disable Code 11	



Exit and Save



Enter Setup

### Checksum Code

Data in a Code 11 barcode may not include the checksum code. If there is, the checksum code is the last one or two digit(s) of the data output. The checksum code is the value added from all data collected, to check if the data is correct. After you set the "Code 11 without Checksum" function, the scanner can recognize all Code 11 barcodes normally. The scanner defaults the "Code 11 without Checksum" setting.

After you set the "Code 11 with 1-digit Checksum" function, the scanner will take the last one digit of the data as checksum and won't be able to read Code 11 without checksum or Code 11 with 2-digit checksum.

After you set the "Code 11 with 2-digit Checksum" function, the scanner will take the last two digits of the data as checksum and won't be able to read Code 11 without checksum or Code 11 with 1-digit checksum.

After you set the "Transmit Code 11 Checksum" function, the scanner will take the last 1 or 2 digit(s) of the regular data as the checksum to transmit. The scanner defaults the "Code 11 Transmit Checksum" setting.

Scan the "Do not Transmit Code 11 Checksum" barcode and the scanner won't transmit the checksum.



(\*) Code 11 without Checksum



Code 11 with 1-digit Checksum



Code 11 with 2-digit Checksum



(\*) Transmit Code 11 Checksum



Exit and Save



Enter Setup



Do not Transmit Code 11 Checksum

### Code 128

Enable/Disable Code 128



(\*) Enable Code 128



Disable Code 128

### GS1-128 (UCC-128/EAN-128 )

Enable/Disable GS1-128 (UCC-128/EAN-128 )



Enable GS1-128



(\*) Disable GS1-128

### USPS and FedEx Barcode

Enable/Disable USPS and FedEx Barcode



(\*) Enable USPS and FedEx Barcode



Disable USPS and FedEx Barcode



Exit and Save



Enter Setup

## Code 39

Enable/Disable Code 39	
Transmit START/STOP Character	
Checksum Code	
<p>The data in a Code 39 may not contain the checksum code. If there is, the checksum code is the last character of the data. The checksum code is the value added from all data collected, to check if the data is correct.</p> <p>After you set the "Code 39 without Checksum" function, the scanner will recognize all Code 39 normally. The scanner defaults enabling "Code 39 without Checksum".</p> <p>After you set the "Enable and Transmit Code 39 Checksum", the scanner will take the last digit of the Code 39 data output as checksum and transmit it as normal data collected but won't be able to recognize Code 39 without checksum.</p> <p>After you set the "Enable but Do not Transmit Code 39 Checksum" function, the scanner will take the last digit of the Code 39 output as checksum but won't transmit it. And it won't be able to read Code 39 without checksum.</p>	



Exit and Save



Enter Setup



Enable and Transmit Code 39 Checksum



Enable but Do not Transmit Code 39  
Checksum



ASCII Code Recognition Range Setting



Enable All Code 39 ACSII Character

Disable All Code 39 ASCII character

#### VIN (Vehicle Identification Number)

Enable/Disable Code 39 VIN (Vehicle Identification Number)



Enable VIN



(\*) Disable VIN



Exit and Save



Enter Setup

## Code 32

### Enable/Disable Code 32

Code 32 is a special form of Code 39 that's applied to Italian medical products. The BCST-53 defaults disabling Code 32.



Enable Code 32



(\*) Disable Code 32

The fixed initial character of a Code 32 is "A". The BCST-53 supports the function of enabling or disabling the initial character, and defaults disabling it.



Enable Initial Character Output "A"



(\*) Disable Initial Character Output "A"

## Code 93

### Enable/Disable Code 93



(\*) Enable Code 93



Disable Code 93

## EAN-8

### Enable/Disable EAN-8



(\*) Enable EAN-8



Disable EAN-8



Exit and Save



Enter Setup

#### Checksum Code



(\*) Transmit EAN-8 Checksum Code



Do not Transmit EAN-8 Checksum Code

#### EAN-13

##### Enable/Disable EAN-13



(\*) Enable EAN-13



Disable EAN-13

#### Checksum Code



(\*) Transmit EAN-13 Checksum



Do not Transmit EAN-13 Checksum

#### ISBN

##### Convert EAN-13 into ISBN

You may decide whether to convert EAN-13 into ISBN. The scanner won't convert EAN-13 into ISBN by default.



Convert EAN-13 into ISBN



(\*) Do not Convert EAN-13 into ISBN



Exit and Save



Enter Setup

### Convert EAN-13 into ISSN

You may decide whether to convert EAN-13 into ISSN. The scanner disables the conversion by default.



Convert EAN-13 into ISSN



(\*) Do not Convert EAN-13 into ISSN

### MSI

#### Enable/Disable MSI



Enable MSI



(\*) Disable MSI



Exit and Save



Enter Setup

## Checksum Code

The MSI barcode contains 1-digit compulsory checksum code. If there is a checksum code, it will be the last 1 or 2 digit(s). The checksum is the value added from all data collected to check if the data input is correct.

After you set the "MSI without Checksum" function, the scanner can recognize all regular MSI barcodes. The default setting is "MSI without checksum".

After you set the "MSI with One-digit Checksum" function, the scanner will take the last digit of the data as the checksum and won't be able to recognize MSI without checksum or with 2-digit checksum. The default setting is "MSI with One-digit Checksum".

After you set the "MSI with Two-digit Checksum" function, the scanner will take the last two digits of the data as the checksum and won't be able to recognize MSI without checksum or with only 1 digit checksum.

After you set the "Transmit MSI Checksum" function, the scanner will take the last one or two digit(s) of the regular data as the checksum. The default setting is "Transmit MSI Checksum".

After you set the "Do not Transmit MSI Checksum" function, the scanner will no longer transmit MSI checksum.



(\*) MSI without Checksum



MSI with One-digit Checksum



MSI with Two-digit Checksum



(\*) Transmit MSI Checksum



Exit and Save



Enter Setup



Do not Transmit MSI Checksum

## UPC-A

### Enable/Disable UPC-A



(\*) Enable UPC-A



Disable UPC-A

### UPC-A Outputs 0

You may decide whether to add a character "0" to the output of UPC-A. The scanner defaults disabling the 0 output.



UPC-A Outputs 0



(\*) UPC-A Do not Output 0

### Checksum Code

You may decide whether to transmit checksum code. The scanner defaults disabling checksum code transmission.



Transmit UPC-A Checksum



(\*)Do not Transmit UPC-A Checksum



Exit and Save



Enter Setup

### UPC-A Number System Digit

The first digit of a UPC-A barcode is the number system digit. The scanner default enabling the output of number system digit. You may disable it as per your needs.



(\*) UPC-A Outputs Number System  
Digit



UPC-A Do not Output Number System  
Digit

### UPC-E

#### Enable/Disable UPC-E



(\*) Enable UPC-E



Disable UPC-E

#### Enable/Disable UPC-E1

The initial digit of most UPC-E is "0". If you want to read UPC-E barcodes with initial digit "1", please first enable the UPC-E and then set the "Enable UPC-E1" barcode.

The scanner defaults disabling the UPC-E1.



Enable UPC-E1



(\*) Disable UPC-E1

#### Enable/Disable Initial Digit of UPC-E



(\*) Enable Initial Digit of UPC-E



Disable Initial Digit of UPC-E

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



Exit and Save



Enter Setup

Convert UPC-E to UPC-A	(*) Do not Convert UPC-E to UPC-A

#### Checksum Code

(*) Transmit UPC-E Checksum	Do not Transmit UPC-E Checksum

#### IATA 2 of 5

Enable/Disable IATA 2 of 5	
Enable IATA 2 of 5	(*) Disable IATA 2 of 5

#### Interleaved 2 of 5

Enable/Disable Interleaved 2 of 5	
(*) Enable Interleaved 2 of 5	Disable Interleaved 2 of 5



Exit and Save



Enter Setup

## Matrix 2 of 5

Enable/Disable Matrix 2 of 5



Enable Matrix 2 of 5



(\*) Disable Matrix 2 of 5

## Standard 2 of 5 / Industrial 2 of 5

Enable/Disable Standard 2 of 5 / Industrial 2 of 5



Enable Standard 2 of 5 / Industrial 2 of 5



(\*) Disable Standard 2 of 5 / Industrial 2  
of 5

## GS1 DataBar

GS1 DataBar Limited, GS1 DataBar Expanded, GS1 DataBar Stacked etc. share the same setting barcodes below with GS1 DataBar.

Enable/Disable GS1 DataBar



(\*) Enable GS1 DataBar



Disable GS1 DataBar

Enable/Disable GS1 DataBar Composite



(\*) Enable GS1 DataBar Composite



Disable GS1 DataBar Composite



Exit and Save



Enter Setup

## QR Code

Micro QR Code share the same setting barcodes below with QR Code.

Enable/Disable QR Code	
(*) Enable QR Code	Disable QR Code
Normal/Inverted QR Code Recognition	
<p>"Read Normal QR Code Only" means the scanner will only read the QR codes with white background and black lines. "Read Normal and Inverted QR Code" means those with black background and white lines can also be read like the normal ones. The scanner defaults reading normal QR codes with white background and black lines only. You can set it as "Read Normal and Inverted QR Code" as per your needs.</p>	
(*) Read Normal QR Code Only	Read Normal and Inverted QR Code

## Data Matrix

Enable/Disable Data Matrix	
(*) Enable Data Matrix	Disable Data Matrix



Exit and Save



Enter Setup

### Normal/Inverted Data Matrix Recognition

"Read Normal Data Matrix Only" means the scanner will only be capable of reading Data Matrix barcodes with white background and black lines. "Read Inverted Data Matrix Only" means the scanner will only be capable of reading the Data Matrix with black background and white lines. "Read Normal and Inverted Data Matrix" means the scanner can read both types of Data Matrix barcodes. The scanner defaults reading normal Data Matrix barcode. You can set it as "Read Inverted Data Matrix Only" or "Read Normal and Inverted Data Matrix" as per your needs.



(\*) Read Normal Data Matrix Only



Read Inverted Data Matrix Only



Read Normal and Inverted Data Matrix

### PDF 417

Micro PDF 417 share the same setting barcodes below with PDF 417.

### Enable/Disable PDF 417



(\*) Enable PDF 417



Disable PDF 417



Exit and Save



Enter Setup

### Aztec code

#### Enable/Disable Aztec Code



Enable Aztec Code



(\*) Disable Aztec Code

### Maxi code

#### Enable/Disable Maxi Code



Enable Maxi Code



(\*) Disable Maxi Code

### Han Xin Code

#### Enable/Disable Han Xin Code



Enable Maxi Code



(\*) Disable Han Xin Code

#### Normal/Inverted Han Xin Code Recognition



(\*) Read Normal Han Xin Code Only



Read Inverted Han Xin Code Only



Read Normal and Inverted Han Xin Code



Exit and Save



Enter Setup

## To Edit Data Format

### Code ID

A Code ID character identifies the code type of a scanned barcode. This is useful when decoding more than one code type.

You may decide whether to add code ID in front of a barcode output. The scanner defaults disabling Code ID.



Output Code ID



(\*) Do not Output Code ID

### Code ID List

Code Type	Code ID
Code 128	a
EAN-13	b
EAN-8	c
UPC-A	d
UPC-E	e
Code 39	f
Code 93	g
Codabar	h
Interleaved 2 of 5	i
Standard 2 of 5、Industrial 2 of 5	j
Matrix 2 of 5	k
IATA 2 of 5	l
MSI	m
Code 11	n



Exit and Save



Enter Setup

ISBN	P
ISSN	q
QRCode	A
PDF-417	B
Aztec Code	C
Maxi Code	D
Data Matrix	E
Han Xin Code	F
GS1 128	G
GS1 DataBar、GS1 DataBar Expanded、GS1 DataBar Limited	H

### Code End Character Setting

You may decide whether to add a "Enter" after a barcode output. The scanner defaults adding an "Enter" after a barcode.



(\*) Add "Enter" after Barcode



Do not Add "Enter" after Barcode



Exit and Save



Enter Setup

### Custom Code Prefix/Suffix Setting

The BCST-53 supports customizing 1-32 digit(s) of barcode prefix, and 1-32 digit(s) of barcode suffix. The prefix and suffix can be either shown or hidden. The scanner defaults showing the prefix and suffix. Please refer to the Appendix for the supported prefix/suffix characters.

Steps to set the prefix as "#" and the suffix as "D" are as below:

1. Read the "Enter Setup" barcode.
2. Read the "Set Prefix" barcode.
3. Read the "#" barcode in Appendix I.
4. Read the "Set Suffix" barcode.
5. Read the "D" barcode in Appendix I.
6. Read the "Exit and Save" barcode.

Note: After you successfully set prefix and suffix, the BCST-53 will by default output scanning result with prefix and suffix.




Exit and Save



Enter Setup

## Delete Characters on Output Result

When outputting scanning result, the BCST-53 supports deleting 0 – 99 digit(s) front characters and 0 – 99 digit(s) end characters from a barcode.

Steps to set deleting front 12-digit characters and end 4-digit characters are as below:

1. Read the "Enter Setup" barcode.
2. Read the "Set the Number of Front Digit(s) to be Deleted" barcode.
3. Scan the "1 Digit" barcode.
4. Scan the "2 Digits" barcode.
5. Scan the "Set the Number of End Digit(s) to be Deleted".
6. Scan the "4 Digits" barcode.
7. Scan the "Exit and Save" barcode.



Set Number of Front Digit(s) to be  
Deleted



Set Number of End Digit(s) to be  
Deleted



(\*) 0 Digit



1 Digit



2 Digits



3 Digits



Exit and Save



Enter Setup

4 Digits	5 Digits
6 Digits	7 Digits
8 Digits	9 Digits

### Upper/Lower Case Setting

The BCST-53 can convert all letters in a barcode into upper case form, or all into lower case form. The case of letters remains unchanged by default. You may change the setting of the upper and lower case by reading the barcodes below.

Convert All Letters to Upper Case	Convert All Letters to Lower Case
(*) Do Not Convert Letter Case	



Exit and Save



Enter Setup

## Additional Code

Barcodes like EAN-8, EAN-13, ISBN, ISSN, UPC-A and UPC-E can have additional codes. These additional codes appear on the right of the main code and are shorter than the main code, which can be 2-5 digits. The BCST-53 will only read the main code after you disable the additional code.

### 2-digit Additional Code

You may decide whether to recognize the 2-digit additional code by set this function that is applicable to EAN-8, EAN-13, ISBN, ISSN, UPC-A, and UPC-E. The BCST-53 defaults disabling the recognition of 2-digit additional code.



Enable 2-Digit Additional Code



(\*) Disable 2-Digit Additional Code

### 5-digit Additional Code

You may decide whether to recognize the 5-digit additional code by setting this function which is applicable to EAN-8, EAN-13, ISBN, ISSN, UPC-A and UPC-E. The scanner defaults disabling the recognition of 5-digit additional code.



Enable 5-digit Additional Code



(\*) Disable 5-digit Additional Code



Exit and Save



Enter Setup

### Mode of Recognition Only for Barcodes with Additional Code

The scanner can only recognize the barcodes with additional code if you set the mode as "Recognition Only for Barcodes with Additional Code".

The scanner can recognize the barcodes without additional code if you set the mode as "Recognition Not Only for Barcodes with Additional Code".



Recognition Only for Barcodes with  
Additional Code



(\*) Recognition Not Only for Barcodes  
with Additional Code

### Separation Character

You may decide whether to add a separation character "-" between the main code and additional code. This function is applicable to the barcodes with additional code, e.g., ISBN code, and ISSN code.



Add Separation Character



(\*) Do not Add Separation Character

### Caps Lock Control

When using the BCST-53 on a Windows system, the content of a barcode may change with the status of the caps lock key. To avoid errors caused by such change, you may enable the "Rid Barcode of Caps Lock Control".



(\*) Caps Lock Control Barcode



Rid Barcode of Caps Lock Control



Exit and Save



Enter Setup

### Read Code with Specific Initial Characters Only

Under this mode you may set 1-6 digits as initial characters, and the scanner will only recognize the barcodes with these initial characters. Please refer to the Appendix I for the supported characters.

Steps to enable reading barcodes with initial characters "A" and "6" are as below:

1. Read the "Enter Setup" barcode.
2. Read the "Set the Special Initial Character" barcode.
3. Read the "A" barcode in Appendix I;
4. Read the "6" barcode in Appendix I;
5. Read the "Exit and Save" barcode.

Note: After you set the initial characters by steps above, the BCST-53 will only recognize the barcodes with specific initial characters. If you want to disable the function, please read the "Enter Setup" - "Remove the Restriction on Initial Characters" - "Exit and Save".



Set Initial Characters



Only Read the Barcodes  
with Specific Initial Characters



(\*) Remove the Restriction on Initial  
Characters



Exit and Save



Enter Setup

### Read 1D Inverted Barcode

The inverted barcode refers to the 1D barcode with white lines on black ground  
(The recognition of different inverted 2D barcodes is set separately.)



Recognize Inverted Barcode



(\*) Do not Recognize Inverted Barcode

### Hide Special Initial Character

Code 128 and Code 39 may contain some special initial characters to indicate some sort of parameter of a product. For example, the character "p" as initial character can indicate "Part Number", and character "Q" can indicate quantity. The BCST-53 can hide such initial characters. If the initial characters are set to be hidden, the initial characters for code 128 and code 39 including D, K, P, Q, S, V, 1P, 1T, 10D, 17V, 2P or 4L will be hidden and won't output. "Hide Special Initial Character" function is disabled by default.



Hide Special Initial Character



(\*) Show Special Initial Character



Exit and Save



Enter Setup

## Time Stamp Function

The time stamp includes time (hour/minute/second) and date (day/month/year). The BCST-53 disables time stamp function by default. You may decide whether to output it. You can enable either the time or date, or both time and date output. After you set the time output function, the time stamp will be added to the output of each barcode in the format of 24-hour time system.



Output Time



(\*) Do not Output Time



Output Date



(\*) Do not Output Date

Due to the time zone difference or the shortage of battery, you may encounter problems such as the time stamp does not synchronize with the local time. You can scan the barcodes below to set the time stamp.



Set the Year of Time Stamp



Set the Month of Time Stamp



Set the Day of Time Stamp



Set the Hour of Time Stamp



Exit and Save



Enter Setup

	
Set the Minute of Time Stamp	Set the Second of Time Stamp
	
Number 0	Number 1
	
Number 2	Number 3
	
Number 4	Number 5
	
Number 6	Number 7
	
Number 8	Number 9



Exit and Save



Enter Setup

For example, if you want to set the time stamp as "09:34:07 2019/04/18", you may follow the steps as indicated below:

1. Read the "Enter Setup" barcode.
2. Read the "Set the Year of Time Stamp" barcode.
3. Read the "Number 1" barcode.
4. Read the "Number 9" barcode.
5. Read the "Set the Month of Time Stamp" barcode.
6. Read the "Number 4" barcode.
7. Read the "Set the Day of Time Stamp" barcode.
8. Read the "Number 1" barcode.
9. Read the "Number 8" barcode.
10. Read the "Set the Hour of Time Stamp" barcode.
11. Read the "Number 9" barcode.
12. Read the "Set the Minute of Time Stamp" barcode.
13. Read the "Number 3" barcode.
14. Read the "Number 4" barcode.
15. Read the "Set the Second of Time Stamp" barcode.
16. Read the "Number 7" barcode.
17. Read the "Exit and Save" barcode.

Note: The year of the time stamp can only be set between 2000 and 2099.



Exit and Save



Enter Setup

## Use of Shortcut Barcodes

There are two types of shortcut barcodes.

Input Type: With these shortcut barcodes you can quickly input some characters.

Please refer to Appendix I.

Function Type: These shortcut barcodes work either alone or in combination way.

Please refer to the Appendix II and Appendix III.

If the shortcut barcode is enabled and you scan some shortcut barcodes of input type, BCST-53 will output corresponding characters. When you scan the shortcut barcodes of function type, BCST-53 will simulate the effect on a keyboard, like a standalone function key or combination ones.



Enable Shortcut Barcodes



(\*) Disable Shortcut Barcodes

## Settings of Data Coding Format

To let the host print Chinese data in given code format, you may complete the setting by reading the "Data Coding Format" barcode. The scanner defaults outputting data in GBK coding format.

1. Original Data Format, the data coding output format is closely connected with the code generation environment. The output format can be GBK or UNICODE.
2. The GBK (GB2312) is applicable to software like Notepad, Excel, etc.
3. The UNICODE is applicable to software like WORD etc.



(\*) Original Data Coding Format



GBK Data Coding Format



Exit and Save



Enter Setup

	(*) Disable Original and GBK Chinese Character Recognition
	Enable Original and GBK Chinese Character Recognition

### Replace GS (^]) with Specific Character

The BCST-53 supports replacing the GS separation character (^]) with specific characters. The scanner defaults disabling the function.

Steps to set replacing GS separation character with character "A" are as below:

1. Read the "Enter Setup" barcode.
2. Read the "Set the GS Replacement Character" barcode.
3. Read the "A" barcode in Appendix I.
4. Read the "Exit and Save" barcode.

Note: After you complete setting the replacement character by following steps above, the BCST-53 will automatically enable the replacing GS with other characters function. If you want to disable the function, please read the "Enter Setup" - "Disable Replacing GS with Other Character" - "Exit and Save" barcodes in turn.

	Enable Replacing GS with Other Characters
Set the Replacement Character	



Exit and Save



Enter Setup



(\*) Disable Replacing GS with Other  
Characters



Exit and Save



Enter Setup

## Appendix I : Characters




Exit and Save



Enter Setup

/	0
1	2
3	4
5	6
7	8
9	:



Exit and Save



Enter Setup

< =	< >
?	@
A	B
C	D
E	F
G	H



Exit and Save



Enter Setup




Exit and Save



Enter Setup




Exit and Save



Enter Setup




Exit and Save



Enter Setup




Exit and Save



Enter Setup

## Appendix II : Independent Function Key




Exit and Save



Enter Setup

F11	F12
Tab	Backspace
Delete	Move Cursor Upward
Move Cursor Downward	Move Cursor Leftward
Move Cursor Rightward	Ctrl
Esc	Insert
Home	End



Exit and Save



Enter Setup



Page Up



Page Down



Exit and Save



Enter Setup

## Appendix III: Function Key Combinations

NUL(Ctrl+@)	SOH(Ctrl+A)
STX(Ctrl+B)	ETX(Ctrl+C)
EOT(Ctrl+D)	ENQ(Ctrl+E)
ACK(Ctrl+F)	BEL(Ctrl+G)
BS(Ctrl+H)	HT(Ctrl+I)
LF(Ctrl+J)	VT(Ctrl+K)



Exit and Save



Enter Setup

FF(Ctrl+L)	CR(Ctrl+M)
SO(Ctrl+N)	SI(Ctrl+O)
DLE(Ctrl+P)	DC1(Ctrl+Q)
DC2(Ctrl+R)	DC3(Ctrl+S)
DC4(Ctrl+T)	NAK(Ctrl+U)
SYN(Ctrl+V)	ETB(Ctrl+W)
CAN(Ctrl+X)	EM(Ctrl+Y)



Exit and Save



Enter Setup

SUB(Ctrl+Z)	ESC(Ctrl+])
FS(Ctrl+W)	GS(Ctrl+])
RS(Ctrl+^)	US(Ctrl+-)



Exit and Save