

# **BCST-54**

**Bluetooth® 2D Barcode Scanner**

# **Instruction Manual**

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# 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

Model	BCST-54
Material	PC+TPU
Battery Capacity	2600mAh
Voltage	DC 5V
Memory	4 Mb
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, GS1 128, GS1 DataBar, GS1 DataBar Expanded, GS1 DataBar Limited, QRCode, PDF-417, AztecCode, Maxi Code, Data Matrix, Han Xin Code
Decode Speed	200 times/s
Print Contrast	25%
Decode Angles	Roll 360°, Pitch $\pm 55^\circ$ , Yaw $\pm 55^\circ$
Bluetooth Radio Frequency (Bluetooth Mode)	2.402GHz - 2.480GHz
Bluetooth transmission rate (Bluetooth Mode)	1Mbps
Wireless Radio Frequency (Wireless Adapter Mode)	2.402GHz~2.480GHz
Wireless transmission range (Wireless Adapter Mode)	35m

## LED Indicator

Indicator Status	Explanations
Green LED flashes	Bluetooth reconnection
Green LED flashes once	Successful scanning and data is uploaded
Blue LED flashes	Bluetooth pairing
Blue LED flashes once	Scan is successful and data is stored in buffer
Blue LED is on	Under setup mode
Yellow LED flashes	Battery is running short
Red LED is on	Under charging (Red LED goes off once the barcode scanner is fully charged)

## Buzzer

Sounds	Explanations
One short high-note sound (100ms)	Successful scanning
One short high-note sound (20ms)	Data has been uploaded from buffer to computer/phone
One long high-note sound (400ms)	Wrong settings (under setup mode, blue LED lit) Failed Bluetooth pairing (ring only during pairing) The buffer is full, barcode is not stored, and the scan is invalid
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)
Three-note chord (volume from high to low)	Remind of Bluetooth connection
Two short sounds (same volume)	The Bluetooth connection has stopped
Two short sounds (volume from low to high)	Indicate correct settings
Two short sounds (volume from high to low)	The BCST-54 has disconnected from a computer/phone
Two long sounds (volume from high to medium)	The scanner has been powered on under wireless mode (with USB disconnected)
Two long sounds (volume from medium to high)	The scanner has been powered off under wireless mode (with USB disconnected)



## Barcodes Supported





The barcode types supported by the BCST-54 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	IATA 2 of 5	Disabled
	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 ataBar Limited		Enabled

## How to Set up the Scanner

You may change the settings of BCST-54 barcode scanner by reading the setting barcode in this manual. The examples of settings for the BCST-54 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	Toggle the switch to "ON" and short press the scan button to power on the scanner.	
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-54 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-54 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



Italian Keyboard



UK Keyboard



Exit and Save



Enter Setup



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-54.

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

## Reveal Battery Status

If you want to know the remaining battery volume of the BCST-54, you may scan the barcode "Reveal Battery Status" without scanning the "Enter Setup" barcode. And the remaining battery amount will be output to the device connected with the BCST-54.



Reveal Battery Status

## 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 (like the Excel on Android phones), 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

## Auto Sleep

To save battery, you may set the interval for the scanner to enter auto sleep mode. The preset interval is 10 minutes.



(\*) Enable Auto Sleep



Disable Auto Sleep



Set Auto Sleep Interval as 1min



Set Auto Sleep Interval as 3min



Set Auto Sleep Interval as 5min



(\*)Set Auto Sleep Interval as 10min



Set Auto Sleep Interval as 30min



Set Auto Sleep Interval as 60min



Exit and Save



Enter Setup

## Buffer Settings

When the scanner is out of the transmission range, the barcodes scanned will be kept in the built-in memory/buffer/cache temporarily.

If you want to upload the data stored in the built-in memory/buffer/cache to your computer or phone, please double-click the scan button when the barcode scanner is in the transmission range.

You may choose whether to erase the barcodes stored in the buffer every time you power on the scanner.



Enable Auto Buffer Storage Clearance



(\*) Disable Auto Buffer Storage Clearance

If you want to auto-upload the barcodes that exist in the buffer when the barcode scanner reconnects to the device, you may set the "Auto Upload Barcodes in Buffer" function as enabled.



Enable Auto Upload Barcodes in Buffer



(\*) Disable Auto Upload Barcodes in Buffer



Exit and Save





Enter Setup

## Inventory Function

When under inventory mode, barcodes will be saved in the buffer of the barcode scanner and can be uploaded for many times as per your need. You can also erase the barcodes in the buffer after uploading them to your device.

Note: You do not need to scan "Enter Setup" or "Exit with Save" when reading the barcodes below. The functions can be achieved simply by scanning the corresponding function setting barcodes.



Enter Inventory Mode



(\*) Return to Common Mode

If you want to erase the data in buffer, scan the "Erase Buffer" barcode  
(for inventory mode only)



Erase Buffer (for inventory mode only)

Scan the "Upload Data" barcode to upload the data in buffer storage  
(for inventory mode only)



Upload Data (for inventory mode only)

Scan the "Upload Number Collected" barcode to upload the number of barcodes collected  
(for inventory mode only)



Upload Number Collected (for inventory mode only)



Exit and Save



Enter Setup

When under inventory mode, if you do not want to scan the same barcode twice, you may set the scanner as "Enable Duplicate Scan Check". After the setting, the scanner will let out a strange "beep" sound when it reads a duplicate barcode, and the duplicate barcode scanned will not be stored in the buffer. The scanner defaults "Disable Duplicate Scan Check". You may enable "duplicate scan check" as per your needs.



Enable Duplicate Scan Check



(\*) Disable Duplicate Scan Check

## Illuminative Light Control



(\*) Light up When Scanning



Stay on



Stay off



Exit and Save







Enter Setup

## Navigation Light Control

 (*) Light up when Scanning	
 Stay on	 Stay off
Navigation Light Flashes	
 (*) Navigation Light Flashes	 Navigation Light Does Not Flash

## Volume Control

 Silent	 Low Volume
 (*) Medium Volume	 High Volume






Exit and Save



Enter Setup

## Vibration Alert





	
Disable Vibration Alert	(*) Enable Slight Vibration Alert
	
Enable Strong Vibration Alert	

## 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.

1. Scan the "Enter Setup" barcode.
2. Scan the "Auto Red Light Shut off Mode" barcode.
3. Scan the "Auto Red Light Shut off Time Setting" barcode.
4. Scan the "1s" barcode.
5. Scan the "Exit and Save" barcode.



	
(*) Auto Red Light Shut off Mode	Auto Red Light Shut off Time Setting
	
1s	(*) 2s



Exit and Save



Enter Setup

 5s	 50s
---	--







## 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
 400ms	 800ms
 1s	 (*) 2s



Exit and Save



Enter Setup

 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

### 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

### Wireless Adapter Mode

Wireless Adapter Mode is the default connection mode. To use this mode please refer to the details below.



1. Power on Inateck BCST-54 by toggling switch from OFF to ON
2. Plug the USB adapter into a computer. If the indicator light flashes once, it means the connection is successfully built. Short press the trigger on the barcode scanner and it will emit red light beam, and then the barcode scanner can work under Wireless Adapter Mode.
3. Open a file on the computer and move cursor to the place where scanning result should be displayed and saved.

#### Note:

1) Wireless Adapter Mode is the default connection mode of BCST-54 barcode scanner. If you are using Bluetooth connection mode and want to switch it back to the Wireless Adapter Mode, please scan the setting barcodes in sequence "Enter Setup" - "Wireless Adapter Mode" - "Exit with Save".



(\*)Wireless Adapter Mode



Exit and Save



Enter Setup

2) Pair one or more scanners with one USB adapter



a) Plug the adapter into your computer

b) Scan "Enter Setup" barcode

c) Scan the barcode " Pair one or more scanners with one USB adapter", and get the Inateck BCST-54 as close as possible to the USB adapter (within 2 meters).



Pair one or more scanners with one USB adapter

d) A three-chord sound (from low to high) indicates a successful pairing. Once there is a long high tone, it means the pairing fails and a repeated operation is needed. To pair more scanners with the adapter, please operate as the steps mentioned above.



Exit and Save





Enter Setup

### 3) How to Disconnect a Receiver

If you have paired the scanner with two different receivers, these two receivers can both connect the scanner. If you want to disconnect one of them, please follow the steps below: make sure the scanner is connected with the receiver that should be disconnected, and then scan the barcodes in turn "Enter Settings" - "Disconnect Receiver" - "Save and Exit". The scanner will disconnect from the receiver.



Disconnect Receiver

## Wireless Bluetooth Mode

### Bluetooth SPP Mode

Bluetooth SPP mode is not the default mode. To enter this mode, please read the barcode "Enter setup", "Bluetooth SPP Mode" and "Exit with save".



Bluetooth SPP Mode

When switched to Bluetooth SPP mode, the BCST-54 will enter into Bluetooth broadcasting mode and the blue LED indicator flashes. Then you can search the Bluetooth of BCST-54 and get it paired on your phone/computer. After successful pairing, you need to run serial debugging tool on your computer, and select Open Bluetooth COM Port. You will then hear three chord sounds (from high to low) to indicate the successful Bluetooth connection.

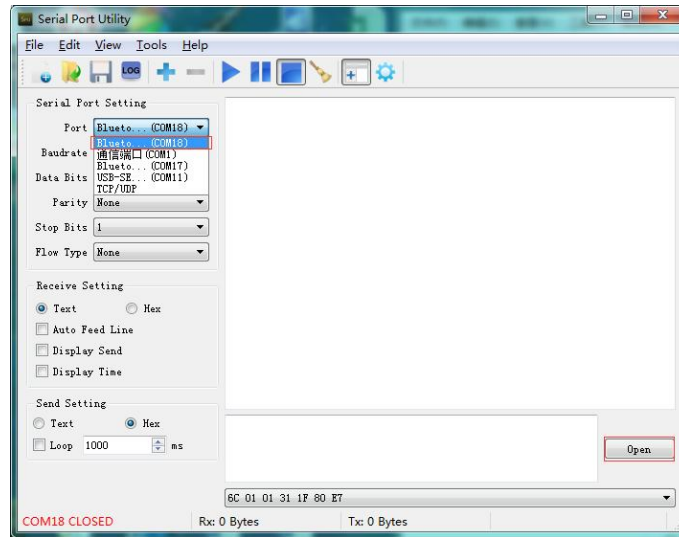
Note: There might be two Bluetooth COM ports on the list. If the connection fails, please try the other COM port.



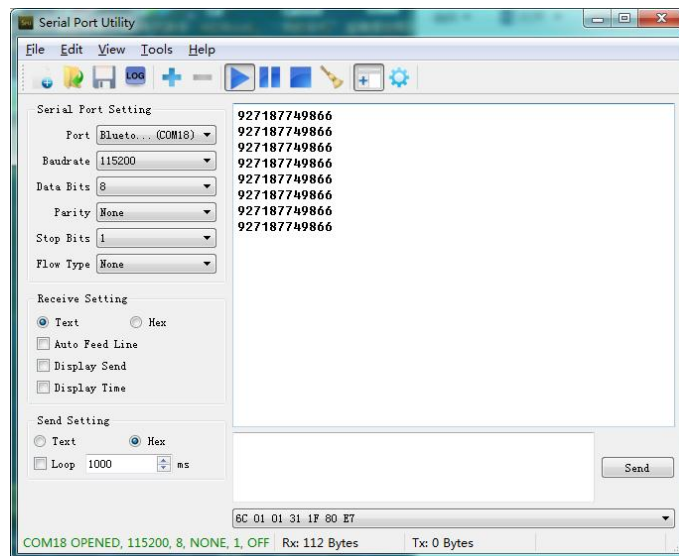
Exit and Save



Enter Setup



After the successful connection, you can scan the barcodes which will be displayed on the serial debugging tool as follows:



To disconnect the Bluetooth, just close the serial debugging tool.

To use the Bluetooth SPP mode of BCST-54 on another computer, there is no more operation needed for BCST-54, just disconnect the BCST-54 on the previous connected computer, and then the BCST-54 will enter Bluetooth broadcasting mode. Search BCST-54 and pair it on another computer. After successful pairing, you need to run serial debugging tool on the new computer and follow the steps to open Bluetooth COM Port as mentioned above.



Exit and Save



Enter Setup

## Bluetooth HID Mode

The Bluetooth mode (HID) is not a default mode. To switch to this mode, please scan the setting barcodes in sequence " Enter to setup" - " Bluetooth mode (HID)" - " Exit with Save"

Note: Normally BCST-54 can re-connect to previously connected device automatically. If it fails, please remove the pairing history of BCST-54 in the list of host device. Afterwards, pair them again.



Bluetooth mode (HID)



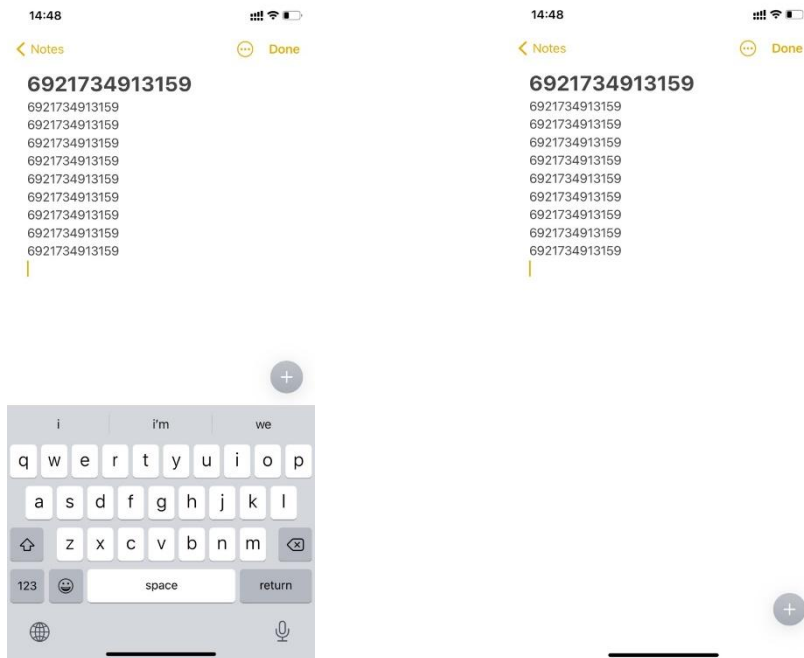
Exit and Save



Enter Setup

When under the Bluetooth HID mode, the phone will hide the virtual keyboard automatically after connected with the BCST-54.

If you are on an iOS device and want to pop out the virtual keyboard when scanning, you may long press the scan button for 3s and for another 3s to hide the virtual keyboard, which is illustrated in the picture below.



If you are on an Android device and want to reactivate the virtual keyboard, please follow the steps below:

1. Open the "Settings" app on your Android device.
2. Select language and input method, and conduct the steps below according to your Android system version:  
Android 7.0 and above: Select "Physical Keyboard"-"Show Virtual Keyboard" in turn.  
Android 6.0 and lower: Select "Current Keyboard" - "Hardware (Show Input Method)" in turn.



Exit and Save



Enter Setup

## Bluetooth GATT Mode

Bluetooth GATT Mode is not the default mode. To enter this mode, please scan "Enter Setup" —— "Bluetooth GATT Mode" —— "Save and Exit".



Bluetooth GATT Mode

Bluetooth GATT mode provides a communication interface for developing Bluetooth APP programs. In Bluetooth GATT mode, scanners can be seamlessly connected to the Bluetooth APP developed by users. While developing Bluetooth APPs, users can use the software named "nRF Connect" for debugging, which can be downloaded from mobile app stores.

## Set Bluetooth Name

The BCST-54 features Bluetooth name setting with length limited to 32 characters. To change the Bluetooth name, please first make sure the BCST-54 is under Bluetooth HID or GATT mode and then scan the "Enter Setup" - "Set Bluetooth Name" - "Bluetooth Name" (Scan the corresponding character barcodes in the appendix) - "Exit and Save" barcodes. Note: Please cut the scanner from wireless Bluetooth connection with your phone or computer and delete the pairing history on your phone and computer after modifying the Bluetooth name. Reconnect the scanner with your phone or computer via wireless Bluetooth connection again to reveal the new Bluetooth name.

For example, to change the Bluetooth name to "Tom", you may follow the steps below:

1. Scan the "Enter Setup" barcode.
2. Scan the "Set Bluetooth Name" barcode.
3. Scan the "T" character barcode in the Appendix I.
4. Scan the "o" character barcode in the Appendix I.
5. Scan the "m" character barcode in the Appendix I.
6. Scan the "Exit and Save" barcode.



Set Bluetooth Name



Exit and Save



Enter Setup

## Wired USB Mode

If you have connected the BCST-54 with your computer via the USB cable, the BCST-54 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	
 Enable Code 11	 (*) 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



Do not Transmit Code 11 Checksum





Exit and Save







Enter Setup



## 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

## Code 39








Enable/Disable Code 39	
 (*) Enable Code 39	 Disable Code 39



Exit and Save



Enter Setup

<b>Transmit START/STOP Character</b>	
 <p>Enable Code 39 START/STOP Character</p>	 <p>(*) Disable Code 39 START/STOP Character</p>
<b>Checksum Code</b>	
<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>	
 <p>(*) Code 39 without Checksum</p>	
 <p>Enable and Transmit Code 39 Checksum</p>	 <p>Enable but Do not Transmit Code 39 Checksum</p>
<b>ASCII Code Recognition Range Setting</b>	
 <p>Enable All Code 39 ASCII Character</p>	 <p>Disable All Code 39 ASCII character</p>



Exit and Save



Enter Setup

## VIN (Vehicle Identification Number)

### Enable/Disable Code 39 VIN (Vehicle Identification Number)



Enable VIN



(\*) Disable VIN

## Code 32

### Enable/Disable Code 32

Code 32 is a special form of Code 39 that's applied to Italian medical products. The BCST-54 defaults disabling Code 32.



Enable Code 32



(\*) Disable Code 32

The fixed initial character of a Code 32 is "A". The BCST-54 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







Exit and Save







Enter Setup

## EAN-8

Enable/Disable EAN-8	
 (*) Enable EAN-8	 Disable EAN-8
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



Exit and Save



Enter Setup

## 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

### 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



Do not Transmit MSI Checksum











Exit and Save



Enter Setup

## 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
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













Exit and Save



Enter Setup

## UPC-E

Enable/Disable UPC-E	
 (*) Enable UPC-E	 Disable UPC-E
Enable/Disable UPC-E1	
<p>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.</p>	
 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	
 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





Exit and Save







Enter Setup



## 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

## 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







Exit and Save



Enter Setup

## 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	
 <p>(*) Enable GS1 DataBar</p>	 <p>Disable GS1 DataBar</p>
Enable/Disable GS1 DataBar Composite	
 <p>(*) Enable GS1 DataBar Composite</p>	 <p>Disable GS1 DataBar Composite</p>

## QR Code

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

Enable/Disable QR Code	
 <p>(*) Enable QR Code</p>	 <p>Disable QR Code</p>
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>	
 <p>(*) Read Normal QR Code Only</p>	 <p>Read Normal and Inverted QR Code</p>








Exit and Save



Enter Setup

## Data Matrix

Enable/Disable Data Matrix	
 (*) Enable Data Matrix	 Disable Data Matrix
Normal/Inverted Data Matrix Recognition	
<p>"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.</p>	
 (*) Read Normal Data Matrix Only	 Read Inverted Data Matrix Only
 Read Normal and Inverted Data Matrix	





Exit and Save





Enter Setup

## PDF 417



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

Enable/Disable PDF 417	
 (*) Enable PDF 417	 Disable PDF 417



## 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 Han Xin Code	 (*) Disable 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
ISBN	p
ISSN	q
QRCode	A
PDF-417	B



Exit and Save



Enter Setup

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-54 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-54 will by default output scanning result with prefix and suffix.

 Set prefix	 (*)Show prefix
 (*)Show suffix	 Set suffix
 Hide prefix	 Hide suffix



Exit and Save













Enter Setup

## Delete Characters on Output Result

When outputting scanning result, the BCST-54 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
	
4 Digits	5 Digits
	
6 Digits	7 Digits



Exit and Save





Enter Setup



8 Digits



9 Digits

## Upper/Lower Case Setting

The BCST-54 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

## 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-54 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-54 defaults disabling the recognition of 2-digit additional code.



Enable 2-Digit Additional Code



(\*) Disable 2-Digit Additional Code



Exit and Save



Enter Setup

### 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

### 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



Exit and Save



Enter Setup

## Caps Lock Control

When using the BCST-54 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

## 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-54 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-54 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

## 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-54 will output corresponding characters. When you scan the shortcut barcodes of function type, BCST-54 will simulate the effect on a keyboard, like a standalone function key or combination ones.



Enable Shortcut Barcodes



(\*) Disable Shortcut Barcodes



Exit and Save



Enter Setup

## 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



Unicode Data Coding Format



(\*) Disable Original and GBK Chinese  
Character Recognition



Enable Original and GBK Chinese Character Recognition



Exit and Save



Enter Setup

## Replace GS (^J) with Specific Character

The BCST-54 supports replacing the GS separation character (^J) 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-54 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.



Set the Replacement Character



Enable Replacing GS with Other Characters



(\*) 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
 I	 J



Exit and Save



Enter Setup















 K	 L
 M	 N
 O	 P
 Q	 R
 S	 T
 U	 V
 W	 X



Exit and Save



Enter Setup















 Y	 Z
 [	 \"
 ]	 ^
 _	 `
 a	 b
 c	 d
 e	 f



Exit and Save



Enter Setup

 g	 h
 i	 j
 k	 l
 m	 n
 o	 p
 q	 r
 s	 t



Exit and Save



Enter Setup

 u	 v
 w	 x
 y	 z
 {	 
 }	 ~

















Exit and Save



Enter Setup

## Appendix II : Independent Function Key















 Enter Key	 Space Key
 F1	 F2
 F3	 F4
 F5	 F6
 F7	 F8
 F9	 F10
 F11	 F12



Exit and Save



Enter Setup

 Tab	 Backspace
 Delete	 Move Cursor Upward
 Move Cursor Downward	 Move Cursor Leftward
 Move Cursor Rightward	 Ctrl
 Esc	 Insert
 Home	 End
 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)
 FF(Ctrl+L)	 CR(Ctrl+M)



Exit and Save



Enter Setup





 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)
 SUB( Ctrl+Z)	 ESC( Ctrl+[)



Exit and Save



Enter Setup

 FS(Ctrl+\\)	 GS(Ctrl+])
 RS(Ctrl+^)	 US(Ctrl+-)



Exit and Save