

**SCANNER SETUP GUIDE****Connection Mode****Working via USB cable**

**Get Started:** Connect scanner with your device via USB cable. If you use US keyboard, it's a plug and play model. If you use other type of keyboard, please refer to below "keyboard language type" to set the keyboard language before use it.

**Barcode Programming**

Netum barcode 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 bar codes in this guide. An asterisk (\*) next to an option indicates the default setting.

**Restore factory default**

Scanning the following barcodes one by one to restore the scanner to factory defaults. (Four steps included)

**1. Factory Restore****Communication Interfaces****USB HID-KBW**

When you connect the engine to the Host via a USB connection, you can enable the **USB HID-KBW** feature by scanning the barcode below. Then engine's transmission will be simulated as USB keyboard input. The Host receives keystrokes on the virtual keyboard. It works on a Plug and Play basis and no driver is required.



### USB COM Port Emulation

If you connect the scanner to the Host via a USB connection, the USB COM Port Emulation feature allows the host to receive data in the way as a serial port does. A driver is required for this feature.



### Keyboard Language

In order to let scanner upload the codes in a correct way, you have to set the keyboard language before you use it.

For example

If you use French Keyboard, just scan barcode of "French Keyboard", after that scanner will upload barcodes according to French keyboard layout. American Keyboard is set by default, if you use a US keyboard you can just skip this part.





Italy Keyboard



Turkey F Keyboard



British Keyboard



Japan Keyboard

### **Scan Mode**

#### **Trigger Mode (Default)**

Scanning this bar code will enable the scanner to enter manual trigger mode.



#### **Continuous Mode**

This mode enables the engine to scan/capture, decode and transmit over and over again.



#### **Auto Sense Mode**

Scanning this bar code will enable the scanner to enter auto sense mode.



### Terminator

The scanner provides a shortcut for setting the terminating character suffix to CR or CRLF and enabling it by scanning the appropriate barcode below.



None



CR&LF \*



CR



TAB

### Beeper

To enable or disable beep for successful scan, please scan the appropriate bar code below.



\* Enable Successful Scan



Disable Successful Scan

### Beep Volume

Beep volume can be adjusted by scanning below command barcode accordingly.



Low Volume



Medium



High Volume

### Convert Case

Scan the appropriate barcode below to convert barcode data to your desired case.



\* No Case Conversion



Invert Upper and Lower Case Characters



Convert All to Upper Case



Convert All to Lower Case

### Ctrl Combine-Key Set



Combine-Key ON



\* Combine-Key Off

### Enable/Disable All Symbolologies

If the **Disable All Symbologies** feature is enabled, the engine will not be able to read any non-programming barcodes except the programming barcodes.



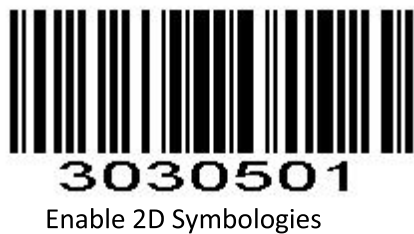
**Enable/Disable 1D Symbologies**

If the **Disable 1D Symbologies** feature is enabled, the engine will not be able to read any 1D barcodes.



**Enable/Disable 2D Symbologies**

If the **Disable 2D Symbologies** feature is enabled, the engine will not be able to read any 2D barcodes.



**Transmit Code ID Character**

A code ID character identifies the code type of a scanned bar code. This can be useful when decoding more than one code type. The code ID character is inserted between the prefix character (if selected) and the decoded symbol.



Symbol Code ID Character Code ID



Aim Code ID Character AIM ID



\*None

### Symbol Code ID Identifiers

A=	UPC-A, UPC-E, EAN-8, EAN-13	J=	MSI, MSI/Plessey
B=	Code 39, Code 32	K=	GS1-DataBar, /UCC/EAN-128
C=	Codabar	L=	Bookland EAN, Bookland EAN/ISBN
D=	Code 128, ISBT 128	M=	Trioptic Code 39
E=	Code 93	N=	Coupon Code
F=	Interleaved 2 of 5	R=	GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded, RSS
G=	Discrete 2 of 5	S=	SETUP128
H=	CODE11		

r=	PDF417	x=	Maxi Code
u=	DataMatrix(DM)	v=	Veri Code
q=	QR	c=	HanXin
a=	Aztec Code		

### AIM Code Identifiers

Each AIM Code Identifier contains the three-character string **]cm** where:

] = Flag Character

c =Code Character (see *Table 4-4*)

m= Modifier Character

**Table 4-4**

A	Code 39, Code 39 Full ASCII, Code 32	S	Discrete 2 of 5, IATA 2 of 5
C	Code 128, ISBT 128, GS1-128, Coupon (Code 128 portion), Setup128	X	Code 39 Trioptic, Bookland EAN, Han Xin
E	UPC/EAN, Coupon (UPC portion)	e	GS1 DataBar
F	Codabar	L	PDF417
G	Code 93	d	Data Matrix(DM)
H	Code 11	Q	QR
I	Interleaved 2 of 5	z	Aztec Code

**Read 1D Normal barcode/ Reversal barcode**



\* Disable to read 1D reversal barcode



Enabled to read 1D reversal barcode

#### **UPC/EAN**

##### **Enable/Disable UPC-A**

To enable or disable UPC-A, scan the appropriate bar code below.



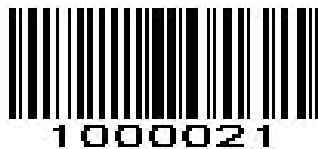
\*Enable UPC-A



Disable UPC-A

##### **Enable/Disable UPC-E**

To enable or disable UPC-E, scan the appropriate bar code below.



\*Enable UPC-E



Disable UPC-E



### **Enable/Disable EAN-8**

To enable or disable EAN-8, scan the appropriate bar code below.



\*Enable EAN-8



Disable EAN-8

### **Enable/Disable EAN-13**

To enable or disable EAN-13, scan the appropriate bar code below.



\*Enable EAN-13



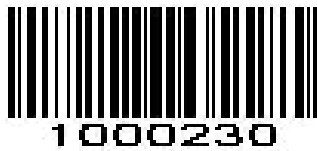
Disable EAN-13

### **Enable/Disable Bookland EAN(ISBN)**

To enable or disable EAN Bookland, scan the appropriate bar code below.



Enable Bookland EAN



\*Disable Bookland EAN

### Decode UPC/EAN Supplementals UPC/EAN

Supplementals are bar codes appended according to specific format conventions (e.g. UPC A+2, UPC E+2, EAN 13+2, EAN 13+5). The following options are available:



\*Ignore UPC/EAN with Supplementals



Decode UPC/EAN with Supplementals



Auto discriminate UPC/EAN Supplementals

### Transmit UPC-A Check Digit

Scan the appropriate bar code below to transmit the symbol with or without the UPC-A check digit.



\*Transmit UPC-A Check Digit



Do Not Transmit UPC-A Check Digit

## Transmit UPC-E Check Digit

Scan the appropriate bar code below to transmit the symbol with or without the UPC-E check digit.



\*Transmit UPC-E Check Digit



Do Not Transmit UPC-E Check Digit

## Convert UPC-E to UPC-A

Enable this parameter to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections



Convert UPC-E to UPC-A



\*Do Not Convert UPC-E to UPC-A

## EAN-8 Zero Extend

When enabled, this parameter adds five leading zeros to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols.



Enable EAN-8 Zero Extend



\*Disable EAN-8 Zero Extend

## Code 128

### Enable/Disable Code 128

To enable or disable Code 128, scan the appropriate bar code below.



\*Enable Code 128



Disable Code 128

### Enable/Disable GS1-128

To enable or disable GS1-128, scan the appropriate bar code below.



\*Enable GS1-128



Disable GS1-128

### Enable/Disable ISBT 128

To enable or disable ISBT 128, scan the appropriate bar code below.



\*Enable ISBT 128

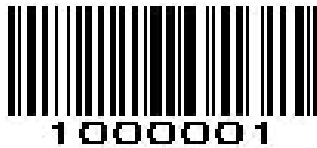


Disable ISBT 128

## Code39

### Enable/Disable Code 39

To enable or disable Code 39, scan the appropriate bar code below.



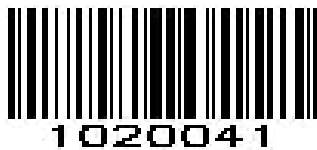
\*Enable Code 39



Disable Code 39

### Code 39 Check Digit Verification

When this feature is enabled, the scan engine checks the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only those Code 39 symbols which include a modulo 43 check digit are decoded. Only enable this feature if your Code 39 symbols contain a module 43 check digit.



Verify Code 39 Check Digit



\*Do Not Verify Code 39 Check Digit

### Transmit Code 39 Check Digit

Scan this symbol to transmit the check digit with the data.



Transmit Code 39 Check Digit (Enable)

Scan this symbol to transmit data without the check digit.

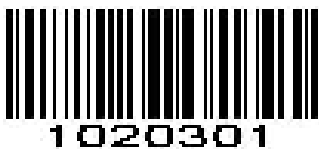


\*Do Not Transmit Code 39 Check Digit

### Convert Code 39 to Code 32



\*Disable Convert Code39 to Code32



Enable Convert Code39 to Code32

### Code32 Prefix

Enable this parameter will add prefix "A" to all Code 32. Before enabling this parameter, you must first convert Code 39 to Code 32 (Italian pharmaceutical code)



\*Disable Code32 Prefix



## Enable/Disable Code 39 Full ASCII

Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set.



Enable Code 39 Full ASCII



\*Disable Code 39 Full ASCII

**NOTE** Trioptic Code 39 and Code 39 Full ASCII cannot be enabled simultaneously. If you get an error beep when enabling Code 39 Full ASCII, disable Trioptic Code 39 and try again.

## Code 93

To enable or disable Code 93, scan the appropriate bar code below.



Enable Code 93



\*Disable Code 93

## Set Lengths for Code 93

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 93 may be set for any length, one or two discrete lengths, or lengths within a specific range.

**Any Length** - Scan this option to decode Code 93 symbols containing any number of characters



Code 93 - Any Length

## Code 11

### Enable/Disable Code 11

To enable or disable Code 11, scan the appropriate bar code below.



Enable Code 11



\*Disable Code 11

### Set Lengths for Code 11

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Set lengths for Code 11 to any length, one or two discrete lengths, or lengths within a specific range.

**Any Length** - Scan this option to decode Code 11 symbols containing any number of characters within the scan engine capability.

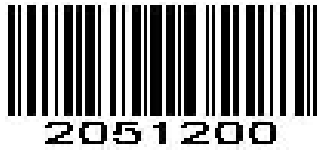


Code 11 - Any Length

### Code 11 Check Digit Verification

This feature allows the scan engine to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are to check for one check digit, check for two check digits, or disable the feature.





\* Disable



One Check



Two Check Digit

#### **Transmit Code 11 Check Digits**



Transmit Code 11 Check Digit(s) (Enable)



\*Do Not Transmit Code 11 Check Digit(s) (Disable)

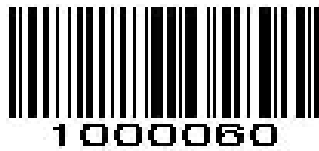
#### **Interleaved 2 of 5/ITF**

##### **Enable/Disable Interleaved 2 of 5**

To enable or disable Interleaved 2 of 5, scan the appropriate bar code below.



\*Enable Interleaved 2 of 5



Disable Interleaved 2 of 5

### Set Lengths for Interleaved 2 of 5 Interleaved 2 of 5

**Any Length** - Scan this option to decode I 2 of 5 symbols containing any number of characters



I 2 of 5 - Any Length

### Convert I 2 of 5 to EAN-13

This parameter converts a 14 character I 2 of 5 code into EAN-13, and transmits to the host as EAN-13. To accomplish this, I 2 of 5 must be enabled, one length must be set to 14, and the code must have a leading zero and a valid EAN-13 check digit.



Convert I 2 of 5 to EAN-13



\*Do Not Convert I 2 of 5 to EAN-13

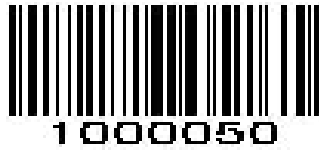
### Discrete 2 of 5/Industrial 2 of 5/IND25

#### Enable/Disable Discrete 2 of 5

To enable or disable Discrete 2 of 5, scan the appropriate bar code below.



Enable Discrete 2 of 5



\*Disable Discrete 2 of 5

## Matrix 25

### Enable/Disable Matrix 25

To enable or disable Matrix 25, scan the appropriate bar code below.



Enable Matrix 25



\*Disable Matrix 25

## Standard 25/IATA 25

### Enable/Disable Standard 25

To enable or disable Standard 25, scan the appropriate bar code below.



\*Disable Standard 25



Enable Standard 25

### Standard 25 Check Digit Verification



Disable Standard 25 Check Digit Verification



Enable Standard 25 Check Digit Verification

**Transmit Check Character**



Disable Standard 25 Transmit Check Character

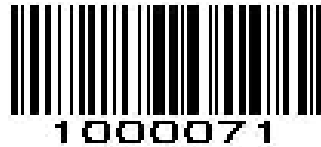


Enable Standard 25 Transmit Check Character

## **Codabar**

### **Enable/Disable Codabar**

To enable or disable Codabar, scan the appropriate bar code below.



Enable Codabar



\*Disable Codabar

## **MSI/MSI PLESSEY**

### **Enable/Disable MSI**

To enable or disable MSI, scan the appropriate bar code below.



Enable MSI

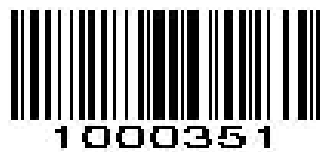


\*Disable MSI

## **GS1 DataBar/RSS**

### **Enable/Disable GS1 DataBar-14**

To enable or disable GS1 DataBar-14, scan the appropriate bar code below.



Enable GS1 DataBar-14



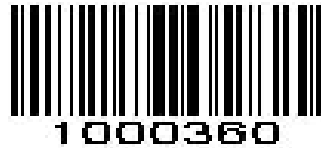
\*Disable GS1 DataBar-14

### **Enable/Disable GS1 DataBar Limited**

To enable or disable GS1 DataBar Limited, scan the appropriate bar code below.



Enable GS1 DataBar Limited



\*Disable GS1 DataBar Limited

### **Enable/Disable GS1 DataBar Expanded**

To enable or disable GS1 DataBar Expanded, scan the appropriate bar code below.



Enable GS1 DataBar Expanded



\*Disable GS1 DataBar Expanded

### **PDF417**

Scan normal or mirror image picture.

#### **Enable/Disable PDF417**

To enable or disable PDF417, scan the appropriate bar code below.



Disable PDF417



\*Enable PDF417

**Read Normal Phase/ Phase Reversal**



\*Read Normal Phase



Read Phase Reversal



Read Normal Phase/ Phase Reversal

## QR

Read normal phase/ phase reversal/ mirror image picture

### Enable/Disable QR

To enable or disable QR, scan the appropriate bar code below.



Disable QRCode



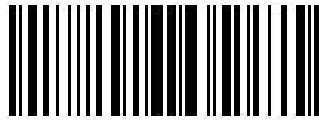
\*Enable QRCode

## Data Matrix(DM)

Scan normal or mirror image picture.

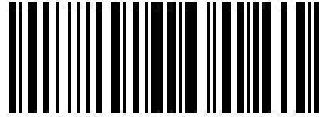
### Enable/Disable Data Matrix(DM)

To enable or disable Data Matrix(DM), scan the appropriate bar code below.



1003240

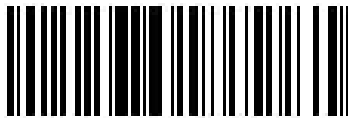
Disable Data Matrix



1003241

\*Enable Data Matrix

### Read Normal Phase/ Phase Reversal



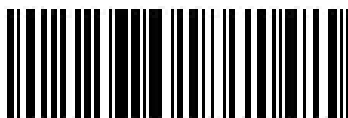
30306B0

\*Read Normal Phase



30306B1

Read Phase Reversal



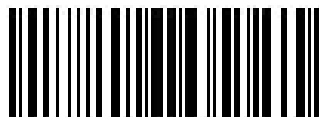
30306B2

Read Normal Phase/ Phase Reversal

### Maxi Code

#### Enable/Disable Maxi Code

To enable or disable Maxi Code, scan the appropriate bar code below.



1003260



\*Disable MaxiCode



Enable MaxiCode

## Aztec Code

### Enable/Disable Aztec Code

To enable or disable Aztec Code, scan the appropriate bar code below.



\*Disable Aztec Code



Enable Aztec Code

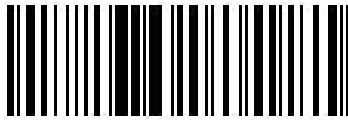
## Han Xin Code

### Enable/Disable Han Xin Code

To enable or disable Han Xin Code, scan the appropriate bar code below.



\*Disable Han Xin Code



10032F1

Enable Han Xin Code

#### Read Normal Phase/ Phase Reversal



3030710

\*Read Normal Phase



3030711

Read Phase Reversal



3030712

Read Normal Phase/ Phase Reversal

#### Prefix/Suffix Values 前缀/后缀值

A prefix and/or one or two suffixes can be appended to scan data for use in data editing. To set these values, scan a four-digit number (i.e. four bar codes) that corresponds to ASCII values. See the [Table 4-3](#) and [Numeric Bar Codes](#) in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix. To set the Prefix/Suffix values via serial commands, see [Setting Prefixes and Suffixes Via Serial Commands](#).



50C0107

Scan Prefix



**50C0006**

Scan Suffix 1



**50C0208**

Scan Suffix 2



**6Q**

Data Format Cancel

## Scan Data Transmission Format

To change the Scan Data Transmission Format, scan one of the eight bar codes corresponding to the desired format.



**20C1000**

\*Data As Is



**20C1001**

<DATA><SUFFIX 1>



**20C1002**

<DATA><SUFFIX2>



**20C1003**

<DATA> <SUFFIX 1><SUFFIX 2>



20C1004

<PREFIX> <DATA>



20C1005

<PREFIX> <DATA> <SUFFIX 1>



20C1006

<PREFIX> <DATA> <SUFFIX 2>



20C1007

<PREFIX> <DATA> <SUFFIX 1> <SUFFIX 2>

## Appendix 1

**Numeric Bar Codes** For parameters requiring specific numeric values, scan the appropriately numbered bar code(s).



0



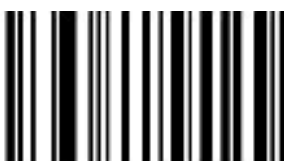
1



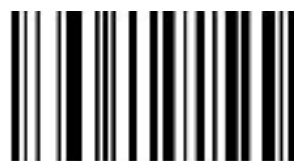
2



3



4



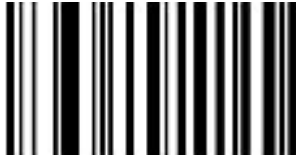
5



6



7



8



9

## Cancel

To change the selection or cancel an incorrect entry, scan the bar code below.



Cancel

Scan Value	ASCII Value (HEX)	No Function Key Mapping	Function Key Mapping
1000	00h	Null	CTRL 2
1001	01h	Keypad Enter	CTRL A
1002	02h	Caps Lock	CTRL B
1003	03h	Right Arrow	CTRL C
1004	04h	Up Arrow	CTRL D
1005	05h	Null	CTRL E
1006	06h	Null	CTRL F
1007	07h	Enter	CTRL G
1008	08h	Left Arrow	CTRL H
1009	09h	Horizontal Tab	CTRL I
1010	0Ah	Down Arrow	CTRL J
1011	0Bh	Vertical Tab	CTRL K
1012	0Ch	Backspace	CTRL L
1013	0Dh	Enter	CTRL M
1014	0Eh	Insert	CTRL N
1015	0Fh	Esc	CTRL O
1016	10h	F11	CTRL P

1017	11h	Home	CTRL Q
1018	12h	Print Screen	CTRL R
1019	13h	Delete	CTRL S
1020	14h	Tab+shift	CTRL T
1021	15h	F12	CTRL U
1022	16h	F1	CTRL V
1023	17h	F2	CTRL W
1024	18h	F3	CTRL X
1025	19h	F4	CTRL Y
1026	1Ah	F5	CTRL Z
1027	1Bh	F6	CTRL [
1028	1Ch	F7	CTRL \
1029	1Dh	F8	CTRL ]
1030	1Eh	F9	CTRL 6
1031	1Fh	F10	CTRL -
1032	20h	Space	Space
1033	21h	/A	!
1034	22h	/B	'
1035	23h	/C	#
1036	24h	/D	\$
1037	25h	/E	%
1038	26h	/F	&
1039	27h	/G	'
1040	28h	/H	(
1041	29h	/I	)
1042	2Ah	/J	*
1043	2Bh	/K	+
1044	2Ch	/L	,
1045	2Dh	-	-
1046	2Eh	.	.
1047	2Fh	/	/
1048	30h	0	0
1049	31h	1	1
1050	32h	2	2
1051	33h	3	3
1052	34h	4	4
1053	35h	5	5
1054	36h	6	6
1055	37h	7	7
1056	38h	8	8
1057	39h	9	9
1058	3Ah	/Z	:

1059	3Bh	%F	;
1060	3Ch	%G	<
1061	3Dh	%H	=
1062	3Eh	%I	>
1063	3Fh	%J	?
1064	40h	%V	@
1065	41h	A	A
1066	42h	B	B
1067	43h	C	C
1068	44h	D	D
1069	45h	E	E
1070	46h	F	F
1071	47h	G	G
1072	48h	H	H
1073	49h	I	I
1074	4Ah	J	J
1075	4Bh	K	K
1076	4Ch	L	L
1077	4Dh	M	M
1078	4Eh	N	N
1079	4Fh	O	O
1080	50h	P	P
1081	51h	Q	Q
1082	52h	R	R
1083	53h	S	S
1084	54h	T	T
1085	55h	U	U
1086	56h	V	V
1087	57h	W	W
1088	58h	X	X
1089	59h	Y	Y
1090	5Ah	Z	Z
1091	5Bh	%K	[
1092	5Ch	%L	\
1093	5Dh	%M	]
1095	5Fh	%O	—
1096	60h	%W	”
1097	61h	+A	a
1098	62h	+B	b
1099	63h	+C	c
1100	64h	+D	d
1101	65h	+E	e

1102	66h	+F	f
1103	67h	+G	g
1104	68h	+H	h
1105	69h	+I	i
1106	6Ah	+J	j
1107	6Bh	+K	k
1108	6Ch	+L	l
1109	6Dh	+M	m
1110	6Eh	+N	n
1111	6Fh	+O	o
1112	70h	+P	p
1113	71h	+Q	q
1114	72h	+R	r
1115	73h	+S	s
1116	74h	+T	t
1117	75h	+U	u
1118	76h	+V	v
1119	77h	+W	w
1120	78h	+X	x
1121	79h	+Y	y
1122	7Ah	+Z	z
1123	7Bh	%P	{
1124	7Ch	%Q	
1125	7Dh	%R	}
1126	7Eh	%S	~
1127	7Fh		Undefined

## Support

For any inquiries concerning our products, please send an email to [service@netumscan.com](mailto:service@netumscan.com), and we will respond to you as soon as possible.

## Contact Information

Addr.:Room 301, 6th Floor and full 3rd Floor, Building 1, No. 51 Xiangshan Avenue.



