

T-2002Pro 2D Barcode Scanner Manual

CATALOG

2、Barcode Menu	6
2.1 Mark Setting	6
2.2 Setting barcodes	6
2.2.1 Turn on/Turn off configuration code	6
2.2.2 Restore Factory Defaults	6
2.2.3 Read product batch version	7
2.2.4 Read user defaults	7
2.2.5 Interface Setting	7
2.2.6 Baud rate setting	8
2.2.7 Automatic Recognition Mode	8
2.2.8 Screen Read Mode	8
2.2.9 center mode	9
2.2.10 Illumination	9
2.2.11 Aiming light control	9
2.2.12 character escape	10
2.2.13 start character Setting	10
2.2.14 ending character Setting	10
2.2.15 Chinese output mode	10
2.2.16 invoice (For China)	11
2.2.17 invoice type (for China)	11

2.2.18 inverse code option	11
2.3 Buzzer and LED setting	12
2.3.1 Beeper Volume setting	12
2.3.2 startup beep	12
2.3.3 good read beep	12
2.3.4 Beep pitch-good read	12
2.3.5 beep duration-good read	12
2.3.6 error sound	13
2.3.7 good-read LED	13
2.4 Timeout between decodes (Same barcodes)	13
2.5 USB keyboard update speed setting	14
2.6 CRLF setting (USB keyboard)	14
2.7 invoice function setting	15
2.8 Keyboard layout setting	15
2.9 symbologies	17
2.9.1 enable/disable all symbologies	17
2.9.2 Codabar	17
2.9.3 Codabar start/ending character setting	17
2.9.4 Codabar limitation of length	17
2.9.5 Code 39	18
2.9.6 Code 39 check bit	18
2.9.7 Code 39 Full ASCII	18

2.9.8 Code 39 limitation of length	18
2.9.9 Code 32 (Code 39 needs to be enabled)	19
2.9.10 Interleaved 2 of 5 (ITF5)	19
2.9.11 Interleaved 2 of 5 (ITF5) check bit	19
2.9.12 Interleaved 2 of 5 (ITF5) length setting	19
2.9.13 Industrial 2 of 5 Limitation of length	20
2.9.14 Industrial 2 of 5 (4-24 digits)	21
2.9.15 Industrial 2 of 5 Limitation of length	21
2.9.16 Matrix 2 of 5 (4-24)	21
2.9.17 Matrix 2 of 5 Limitation of length	21
2.9.18 Code 93	22
2.9.19 Code 93 Limitation of length	22
2.9.20 Code 11	22
2.9.21 Code 11 check bit output	22
2.9.22 Code 11 check bit option	23
2.9.23 Code 11 Limitation of length	23
2.9.24 Code 128	23
2.9.25 Code 128 Limitation of length	23
2.9.26 ISBT-128	24
2.9.27 GS1-128	24
2.9.28 UPC-A	24
2.9.29 UPC-A check bit	24

2.9.30 UPC-A to EAN-13	24
2.9.31 UPC-E	24
2.9.32 UPC-E check bit	25
2.9.33 UPC-E to UPC-A	25
2.9.34 EAN/JAN-8	25
2.9.35 EAN/JAN-13	25
2.9.36 UPC/EAN/JAN extra-code	25
2.9.37 EAN13 to ISBN	26
2.9.38 EAN13 to ISSN	26
2.9.39 GS1 DataBar (RSS14)	26
2.9.40 GS1 DataBar Limited	26
2.9.41 GS1 DataBar Expanded	27
2.9.42 PDF417	27
2.9.43 Micro PDF417	27
2.9.44 QR Code	27
2.9.45 Micro QR	27
2.9.46 Data Matrix	28
2.9.47 Aztec Code	28
2.10 User-defined prefix setting	28
2.11 User-defined suffix setting	28
2.12 Code ID	29
APPENDIX	31

Appendix 1 data and editing code	31
Appendix 2 code type ID table	33
Appendix 3 eyeball character ASCII table	34
Appendix 4 operational character (USB keyboard)	35
Appendix 5 operational character (serial port and USB-VCOM)	36
configuration instruction and example.....	37



2、Barcode Menu

This model of laser desktop barcode scanner is designed to change settings by reading some special barcode, which we will give you a detailed introduction and show you all the barcodes for the corresponding setting in this section.

The greatest advantage of this setting method is direct, intelligible and user friendly.

2.1 Mark Setting



Configuration Code Turn
on (default)

Barcode
Setting of Function

2.2 Setting barcodes

2.2.1 Turn on/Turn off configuration code

When the configuration code is turn on, All configuration codes available;
When the configuration code is turn off, you need setting it.



Configuration Code Turn on (Default)



Configuration Code Turn on



Configuration Code Turn off

2.2.2 Restore Factory Defaults



Restore Factory Defaults

2.2.3 Read product batch version



product batch version

2.2.4 Read user defaults

Save the current menu settings as user-defined menu settings.



Write user defaults

You can restore the menu settings for the user-defined menu settings.



Restore user defaults

2.2.5 Interface Setting

This desktop scanner support USBKB、USB to serial port、serial port interface。



Configuration Code Turn on

You can set USB PC KB、USB MAC KB interface by scanning below barcode。



USB KB (default)



USB MAC KB

You can set serial port interface by scanning below barcode。



Serial port

You can set USB to serial port interface by scanning below barcode. (Need drive, please contact the sales)



USB to serial port

2.2.6 Baud rate setting



Baud Rate 4800



Baud Rate 9600 (default)



Baud Rate 38400



Baud Rate 19200



Configuration Code Turn on



Baud Rate 57600



Baud Rate 115200

2.2.7 Automatic Recognition Mode



Enable manual Recognition Mode
(Default)



Enable Automatic Recognition Mode

2.2.8 Screen Read Mode

When you turn on this mode, Scanners can be decoding the codes on phone or computer. However, turn on this code will be cause lower speed when scanning printing codes. The default is turn off.



Disable Screen Read Mode (Default)



Enable Screen Read Mode

2.2.9 center mode

When enable center mode, the scanner only read the barcode at the center of the scanning light.

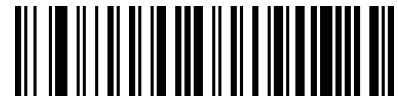
Default to disable



Disable center mode (default)



Configuration Code Turn on



Enable enter mode

2.2.10 Illumination



Normal mode



LED always off



LED always on

2.2.11 Aiming light control



Normal mode



Aiming light always off



Aiming light always on

2.2.12 character escape



Enable character escape



Configuration Code Turn on



Disable character escape (default)

2.2.13 start character Setting



Cancel start character



Add STX as start character

2.2.14 ending character Setting



Cancel ending character



Add Enter



Add Tab



Add Enter+Tab



Configuration Code Turn on



Add ETX

2.2.15 Chinese output mode



English output (default)



Chinese output (TXT/excel)

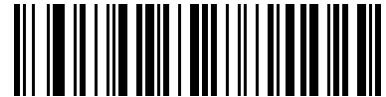


Chinese output (Word)

2.2.16 invoice (For China)



Disable invoice
code (default)



Enable invoice code

In order to make sure the invoice output correctly, when you use invoice function please set Chinese output to “Chinese output(TXT/excel)”。

2.2.17 invoice type (for China)



Special invoice (default)



plain invoice

2.2.18 inverse code option

(Only 1D/DataMatrix/Aztec)



Configuration Code Turn on



Only decode normal code (default)



Only decode inverse code



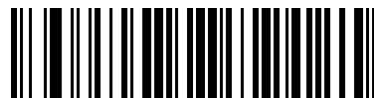
Decode both normal code and inverse code

2.3 Buzzer and LED setting

2.3.1 Beeper Volume setting



Volume low



Volume high (default)

2.3.2 startup beep



Shut down startup beep



Open startup beep (default)

2.3.3 good read beep



Configuration Code Turn on



good read beep on



good read beep off (default)

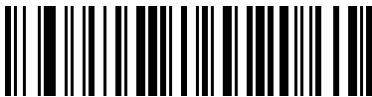
2.3.4 Beep pitch-good read



Low pitch



Middle pitch (default)



High pitch

2.3.5 beep duration-good read



Tone long (default)



Tone pip

2.3.6 error sound



Configuration Code Turn on

You will hear 4 continue alarm sounds when data upload failure, one single alarm sound means scan indistinguishableness barcode.



error sound low pitch (default)



error sound middle pitch



error sound high pitch

2.3.7 good-read LED



Good-read LED off



Good-read LED on (default)

2.4 Timeout between decodes (Same barcodes)

By default, the interval time between first scanning and second scanning for same barcode is 200ms. To avoid being repeatedly with a barcode, you can set the scan interval.



300ms



Configuration Code Turn on



500ms



750ms (default)



1s



2s

2.5 USB keyboard update speed setting

There barcode is used to set the update speed when scanner is in USB keyboard pattern. If the performance of your PC is lower, we suggest you choose slow update speed to make sure the scanner update the right data.



Slow update speed (default)



Middle update speed



Fast update speed

2.6 CRLF setting (USB keyboard)



Configuration Code Turn on



Only 0A(LF)line feed



Only 0D(CR)line feed (default)



Both 0A(LR) and 0D(CR) line feed

2.7 invoice function setting



Shut down invoice function



Open invoice function (default)

2.8 Keyboard layout setting



English (United States)



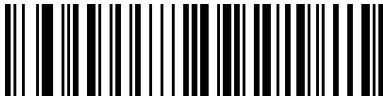
French (France)



Configuration Code Turn on



Italian (Italy)



Italian 142 (Italy)



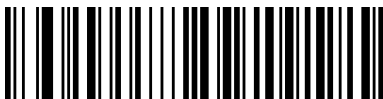
German (Germany)



Spanish (Spain)



Finnish



Japanese



Russian (MS)



Russian (typewriter)



Arabic (101)



Irish



Configuration Code Turn on



Polish (214)



Polish (Programmers)



Dutch (Netherlands)



Czech (QWERTZ)



Portuguese (Portugal)



Portuguese (Brazil)



Swedish (Sweden)



Turkish Q



Turkish F



Configuration Code Turn on



Greek (MS)

2.9 symbologies

2.9.1 enable/disable all symbologies

Enable all barcode might slow down scanner decode speed. We suggest enable the barcode you need based on your scene. Enable all barcode is default



Enable all symbologies



Disable all symbologies

2.9.2 Codabar



Enable Codabar



Disable Codabar

2.9.3 Codabar start/ending character setting



Don't send Codabar start/ending character (default)



Configuration Code Turn on



Send Codabar start/ending character

2.9.4 Codabar limitation of length



Codabar min length (0~50 bits)



Codabar max (0~50 bits)

2.9.5 Code 39



Enable Code 39



Disable Code 39

2.9.6 Code 39 check bit



Disable Code 39 check (default)



Enable Code 39 check don't send check bit



Enable Code 39 check send check bit



2.9.7 Code 39 Full ASCII



Enable Full ASCII



Disable Full ASCII (default)

2.9.8 Code 39 limitation of length



Code 39 min length (0~50 bits)



Code 39 max length (0~50 bits)

2.9.9 Code 32 (Code 39 needs to be enabled)



Enable Code 32



Disable Code 32

2.9.10 Interleaved 2 of 5 (ITF5)





Configuration Code Turn on

Enable ITF25



Disable ITF25

2.9.11 Interleaved 2 of 5 (ITF5) check bit



Disable ITF25 check (default)



Enable ITF25 check don't send check bit



Enable ITF25 check send check bit

2.9.12 Interleaved 2 of 5 (ITF5) length setting



ITF25 No Fixed Length (4-24) (default)



ITF25 Fixed Length of 6 digits



ITF25 Fixed Length of 8 digits



ITF25 Fixed Length of 10 Digits



Configuration Code Turn on



ITF25 Fixed Length of 12 Digits



ITF25 Fixed Length of 14 Digits



ITF25 Fixed Length of 16 Digits



ITF25 Fixed Length of 18 Digits



ITF25 Fixed Length of 20 Digits



ITF25 Fixed Length of 22 Digits



ITF25 Fixed Length of 24 Digits

2.9.13 Industrial 2 of 5 Limitation of length





Configuration Code Turn on

Interleaved 2 of 5 min length (0~50 bits)



Interleaved 2 of 5 max length (0~50 bits)

2.9.14 Industrial 2 of 5 (4-24 digits)



Enable Industrial 2 of 5



Disable Industrial 2 of 5

2.9.15 Industrial 2 of 5 Limitation of length



Interleaved 2 of 5 min length (0~50 bits)



Interleaved 2 of 5 max length (0~50 bits)

2.9.16 Matrix 2 of 5 (4-24)



Configuration Code Turn on



Enable Matrix 2 of 5



Disable Matrix 2 of 5

2.9.17 Matrix 2 of 5 Limitation of length



Matrix 2 of 5 min length (0~50 bits)



Matrix 2 of 5 max length (0~50 bits)

2.9.18 Code 93



Enable Code 93



Disable Code 93

2.9.19 Code 93 Limitation of length



Code 93 min length (0~50 bits)



Configuration Code Turn on



Code 93 max length (0~50 bits)

2.9.20 Code 11



Enable Code 11



Disable Code 11 (default)

2.9.21 Code 11 check bit output



Enable Code 11 check bit output



Disable Code 11 check bit output (default)

2.9.22 Code 11 check bit option





Disable Code 11 (default)



Code 11 one check bit



Code 11 two check bits

2.9.23 Code 11 Limitation of length



Code 11 min length (0~50 bits)



Code 11 max length (0~50 bits)

2.9.24 Code 128



Enable Code 128



Disable Code 128

2.9.25 Code 128 Limitation of length





Code 128 length (0~50 bits)



Code 128 max length (0~50 bits)

2.9.26 ISBT-128



Disable ISBT 128



Enable ISBT 128

2.9.27 GS1-128



Enable GS1-128



Disable GS1-128

2.9.28 UPC-A



Enable UPC-A



Disable UPC-A



2.9.29 UPC-A check bit



Send UPC-A check bit (default)



Don't send UPC-A check bit

2.9.30 UPC-A to EAN-13



Enable UPC-A to EAN-13



Disable UPC-A to EAN-13 (default)

2.9.31 UPC-E



Enable UPC-E



Disable UPC-E

2.9.32 UPC-E check bit



Send UPC-E check bit (default)



Configuration Code Turn on



Don't send UPC-E check bit

2.9.33 UPC-E to UPC-A



Enable UPC-E to UPC-A



Disable UPC-E to UPC-A (default)

2.9.34 EAN/JAN-8



Enable EAN/JAN-8



Disable EAN/JAN-8

2.9.35 EAN/JAN-13



Enable EAN/JAN-13



Disable EAN/JAN-13

2.9.36 UPC/EAN/JAN extra-code



Configuration Code Turn on



Ignore UPC/EAN/JAN extra-code (default)



Decode UPC/EAN/JAN extra-code



Adapt UPC/EAN/JAN extra-code

2.9.37 EAN13 to ISBN



Enable EAN13 to ISBN



Disable EAN13 to ISBN (default)

2.9.38 EAN13 to ISSN



Enable EAN13 to ISSN



Disable EAN13 to ISSN (default)

2.9.39 GS1 DataBar (RSS14)





Configuration Code Turn on

Enable GS1 DataBar



Disable GS1 DataBar

2.9.40 GS1 DataBar Limited



Enable GS1 DataBar Limited



Disable GS1 DataBar Limited

2.9.41 GS1 DataBar Expanded



Enable GS1 DataBar Expanded



Disable GS1 DataBar Expanded

2.9.42 PDF417



Enable PDF417



Disable PDF417

2.9.43 Micro PDF417



Configuration Code Turn on



Enable Micro PDF417



Disable Micro PDF417

2.9.44 QR Code



Enable QR



Disable QR

2.9.45 Micro QR



Enable Micro QR



Disable Micro QR

2.9.46 Data Matrix



Enable Data Matrix



Disable Data Matrix



2.9.47 Aztec Code



Enable Aztec



Disable Aztec

2.10 User-defined prefix setting

output



Enable user-defined prefix output



Disable user-defined prefix output (default)

edit



clear all user-defined prefix



user-defined prefix

(After scan this code you can set the prefix you want based on the data and barcode in table ID)

2.11 User-defined suffix setting



Configuration Code Turn on

output



Enable user-defined suffix output



Disable user-defined suffix

output (default)

edit



clear all user-defined suffix



User-defined suffix

(After scan this code you can set the prefix you want based on the data and barcode in table ID)

2.12 Code ID

output



Disable CODE ID (default)



Enable CODE ID before barcode



Enable CODE ID after barcode

edit



Configuration Code Turn on



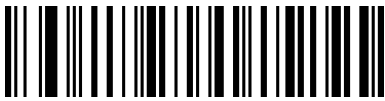
User-defined CODE ID

(After scan this code you can set the prefix you want based on the data and barcode in table ID)



clear all user-defined CODE ID

2.13 AIM ID setting



Disable AIM ID (default)



Enable AIM ID before barcode



Enable AIM ID after barcode



APPENDIX

Appendix 1 data and editing code



1



0



3



2



5



4



6



7



8



9



A



B



C



D



E



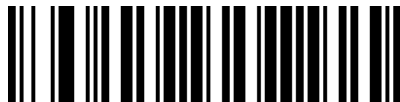
F



Save



Cancel all data read before



Cancel current
setting



cancel the data read last
time



Configuration Code Turn on



Appendix 2 code type ID table



Code type	HEX	CODE ID(default)
All codes	99	
Codabar	61	a
Code128	6A	j
Code32	3C	<
Code93	69	i
Code39	62	b
Code11	68	h
EAN		
EAN-13	64	d
EAN-8	44	D
GS1		
GS1 DataBar	79	y
GS1 DataBar Limited	7B	{
GS1 DataBar Expanded	7D	}
GS1-128 (EAN-128)	49	l
2 of 5		
Interleaved 2 of 5	65	e
Matrix 2 of 5	6D	m
Industry 2 of 5	66	f
UPC		
UPC-A	63	c
UPC-E	45	E
Aztec Code	7A	z
DataMatrix	77	w
PDF417	72	r
Micro PDF417	52	R
QR Code	73	s
Micro QR Code	73	s

Appendix 3 eyeball character ASCII table



decimal	hexadecimal	character	decimal	hexadecimal	character	decimal	hexadecimal	character
32	20	<SPACE>	64	40	@	96	60	`
33	21	!	65	41	A	97	61	a
34	22	"	66	42	B	98	62	b
35	23	#	67	43	C	99	63	c
36	24	\$	68	44	D	100	64	d
37	25	%	69	45	E	101	65	e
38	26	&	70	46	F	102	66	f
39	27	'	71	47	G	103	67	g
40	28	(	72	48	H	104	68	h
41	29	)	73	49	I	105	69	i
42	2A	*	74	4A	J	106	6A	j
43	2B	+	75	4B	K	107	6B	k
44	2C	,	76	4C	L	108	6C	l
45	2D	-	77	4D	M	109	6D	m
46	2E	.	78	4E	N	110	6E	n
47	2F	/	79	4F	O	111	6F	o
48	30	0	80	50	P	112	70	p
49	31	1	81	51	Q	113	71	q
50	32	2	82	52	R	114	72	r
51	33	3	83	53	S	115	73	s
52	34	4	84	54	T	116	74	s
53	35	5	85	55	U	117	75	u
54	36	6	86	56	V	118	76	v
55	37	7	87	57	W	119	77	w
56	38	8	88	58	X	120	78	x
57	39	9	89	59	Y	121	79	y
58	3A	:	90	5A	Z	122	7A	z
59	3B	;	91	5B	[	123	7B	{
60	3C	<	92	5C	\	124	7C	|
61	3D	=	93	5D	]	125	7D	}
62	3E	>	94	5E	^	126	7E	~
63	3F	?	95	5F	_			



Appendix 4 operational character (USB keyboard)

<i>decimal</i>	<i>hexadecimal</i>	<i>Corresponding key value (disable CODE ID)</i>	<i>Corresponding key value (enable CODE ID)</i>
0	00	retain	Ctrl+@
1	01	Insert	Ctrl+A
2	02	Home	Ctrl+B
3	03	End	Ctrl+C
4	04	Delete	Ctrl+D
5	05	PageUp	Ctrl+E
6	06	PageDown	Ctrl+F
7	07	ESC	Ctrl+G
8	08	Backspace	Backspace
9	09	Tab	Tab
10	0A	Enter (The configuration of CRLF processing decide how it express)	Ctrl+J
11	0B	Caps Lock	Ctrl+K
12	0C	Print Screen	Ctrl+L
13	0D	Enter (The configuration of CRLF processing decide how it express)	Enter
14	0E	Scroll Lock	Ctrl+N
15	0F	Pause/Break	Ctrl+O
16	10	F11	Ctrl+P
17	11	Direction key ↑	Ctrl+Q
18	12	Direction key ↓	Ctrl+R
19	13	Direction key ←	Ctrl+S
20	14	Direction key →	Ctrl+T
21	15	F12	Ctrl+U
22	16	F1	Ctrl+V
23	17	F2	Ctrl+W
24	18	F3	Ctrl+X
25	19	F4	Ctrl+Y
26	1A	F5	Ctrl+Z
27	1B	F6	ESC
28	1C	F7	Ctrl+\
29	1D	F8	Ctrl+]
30	1E	F9	Ctrl+^
31	1F	F10	Ctrl+_



Appendix 5 operational character (serial port and USB-VCOM)

decimal	hexadecimal	character
0	00	NUL
1	01	SOH
2	02	STX
3	03	ETX
4	04	EOT
5	05	ENQ
6	06	ACK
7	07	BEL
8	08	BS
9	09	HT
10	0A	LF
11	0B	VT
12	0C	FF
13	0D	CR
14	0E	SO
15	0F	SI
16	10	DLE
17	11	DC1
18	12	DC2
19	13	DC3
20	14	DC4
21	15	NAK
22	16	SYN
23	17	ETB
24	18	CAN
25	19	EM
26	1A	SUB
27	1B	ESC
28	1C	FS
29	1D	GS
30	1E	RS
31	1F	US

configuration instruction and example

Example for user-defined prefix and suffix:

You can edit 10 characters as prefix or suffix. (In order to make sure the prefix and suffix can output normally, please enable user-defined prefix or suffix first)

**Example 1.1:** Add XYZ to all type of barcode as prefix.

Look up appendix 2, you can find that the HEX value for all codes is "99". Look up appendix 3, the HEX value for XYZ is "58,59,5A". First scan "user-defined prefix" in 2.2.11 edit, then the scanner will have two sounds like "D...D...", then scan 9, 9, 5, 8, 5, 9, 5, A, and save, the setting accomplished.

If you want to change the prefix or suffix you set before you save the setting, you can scan "cancel the data read last time" or "Cancel all data read before" to reset. If you want to give up setting scan "Cancel current setting".

Example 1.2: Add Q to QR code as prefix.

Look up appendix 2, you can find that the HEX value for QR code is "73". Look up appendix 3, the HEX value for Q is "51". First scan "user-defined prefix" in 2.2.11 edit, then the scanner will have two sounds like "D...D...", then scan 7, 3, 5, 1, and save, the setting accomplished.

Example 1.3: Cancel user-defined prefix in QR code

When you edit user-defined prefix and suffix, it will cancel the prefix and suffix you set if you scan "user-defined prefix" or "user-defined suffix" and add no character and save.

For example, cancel user-defined prefix in QR code, first scan "user-defined prefix", then scan 7,3, and save. The prefix in QR code has been canceled.

Note: If there is a prefix for all type of barcode, after you done the operation above, the QR code will have the prefix you set for all type barcode.

If you need to cancel all prefix or suffix for all type of barcode, please scan "clear all user-defined prefix" and "clear all user-defined suffix"

USB update speed setting example

If the PC is weak properties, it is easy to have error of transmission and you need to set USB keyboard update speed to low speed, like 50ms (user-defined speed)

First, scan "User-defined update speed" then scan 5,0 in appendix 1 and save