

Contents

1.	Factory default info.....	1
1.1	Factory default setting.....	1
1.2	Setting code on/off.....	1
1.3	Product info.....	2
2	Interface.....	2
2.1	RS 232.....	2
(2.1.1)	Baud rate.....	2
(2.1.2)	Parity check.....	4
(2.1.3)	Stop bit.....	5
2.2	USB KBW.....	5
2.3	USB COM Keyboard.....	5
3.	Reading mode.....	6
3.1	Manual mode.....	6
3.2	Continuous mode.....	7
(3.2.1)	Reading interval.....	7
3.3	Self conduction mode.....	8

(3.3.1)	Stable self conduction mode.....	8
(3.3.2)	Volume mode.....	9
3.4	Host only.....	10
3.5	Single scan time.....	10
3.6	Same reading time.....	10
4.	Lighting & Aiming.....	11
4.1	Lighting.....	11
5.	Output indication.....	13
5.1	Keyboard language.....	13
5.2	Beeper.....	17
(5.2.1)	Silent mode.....	17
(5.2.2)	Beeper volume level.....	17
(5.2.3)	Decoding success tone.....	17
(5.2.4)	Boot tone.....	19
(5.2.5)	Setting code indication tone.....	19
5.3	Decode status indication.....	19
5.4	Lower case and upper case conversion.....	20
5.5	Data encoding format.....	21

6.	Data editing.....	22
6.1	Barcode ID.....	22
6.2	End bit.....	22
6.3	Prefix and suffix adding.....	24
7.	Barcode type Enable/Disable setting.....	26
7.1	1D code enable on/off.....	26
7.2	2D code enable on/off.....	26
7.3	1D code forward and reverse reading.....	26
7.4	UPC-A.....	27
7.5	UPC-A additional code.....	27
7.6	PCE-E.....	29
7.7	UPC-E additional code.....	29
7.8	EAN-8.....	31
7.9	EAN-8 additional code.....	31
7.10	EAN 13.....	33
7.11	EAN-13 additional code.....	33
7.12	Code 128.....	35
7.13	GS1-128.....	35

7.14	ISBT 128.....	35
7.15	Interleaved 2 of 5.....	36
7.16	Matrix 2 of 5.....	38
7.17	Industrial 2 of 5.....	40
7.18	Standard 2 of 5.....	42
7.19	Code 39.....	44
7.20	Code 39 full ASCII.....	45
7.21	Code 32.....	46
7.22	Code 93.....	47
7.23	Code 11.....	47
7.24	Codabar.....	48
7.25	Plessey.....	48
7.26	MSI.....	49
7.27	GS1 Databar.....	50
7.28	ITF 14.....	50
7.29	QR code.....	51
7.30	Data matrix.....	53
7.31	PDF 417.....	55

7.31	Aztec code.....	57
7.32	Maxi code.....	57
7.34	Hanxin code.....	58
	Appendix 1 : Data setting.....	
	Appendix 2 : Cancel barcode.....	
	Appendix 3 : Code ID.....	
	Appendix 4 : Character.....	

User Manual

BS-i201S BT

Factory default info

(1.1) Factory default setting

Communication mode : USB KBW

Trigger mode : trigger

End bit : enter (Wr)。



Factory default setting

(1.2) setting code on/off



***turn on setting code**



Turn off setting code

(1.3) products info



1. Interface

(2.1) RS232

RS232 is the normal way to connect the reading engine and host device (like PC, POS), When the engine is connected with the RS232 cable , the system is in RS232 mode. When under RS232 mode, engine and host parameter must be exactly same, the data should be correct , the baud rate accordingly is 9600 baud rate ,8 bit ,no check bit , 1 stop bit



TTL 232interface

(2.1.1) Baud rate

When engine and host is connected by RS232 interface, must set the same parameter to keep the normal transmit rate, include transmit speed, check, etc. transmit speed is the baud rate, the default rate is 9600



1200bps



2400bps



4800bps



* 9600bps



19200bps



38400bps



57600bps



115200bps

(2.1.2) Parity check



odd



even



no check

(2.1.3) stop bit



1 stop bit



2 stop bit

2.2 USB KBW



USB KBW keyboard

2.3 USB COM keyboard



USB COM

3. Reading mode

3.1 Manual mode

(1) Manual mode



***manual**

(2) Trigger mode

To set as trigger mode, press the trigger & scanner starts to read. The scanner does not stop reading without trigger



***manual mode-trigger mode**

3.2 Continuous Mode

Setting as continuous mode, no need to press the trigger, engine starts reading.



Continuous mode

(3.2.1) Reading interval time

The interval time under Continuous mode, no matter last reading is ok or failed, the scanner enters into next reading within the given time

Default : 500ms , unit : 100ms , range : 0-9900ms

Scan the barcode to set the interval time, for example: Considering 0.5ms- first scan the below code, then scan **number setting**“0” and “5” code



Reading interval time

3.3 Self -conduction mode

Under this mode, reading engine will check the ambient light, when the light changes, then press the trigger to read

The interval time under Continuous mode- no matter last reading is ok or failed , the scanner will check for the ambient light again



Self -conduction mode

(3.3.1) stable self- conduction time

Stable time of enter checking surroundings, default : 500m , units :

100ms , range : 0-9900ms

Scan barcode to set the stable time for example: Setting 200ms, first scan the below code. Then scan “[number setting](#)” 0’ and “2

Setting 1500ms , first scan the below code , then scan [number setting](#)” 1’ and “5”



stable self- conduction time

(3.3.2) Volume grade

There is 3 grades of option, default is high sensibility



*** High sensibility**



Middle sensibility



Low sensibility

3.4 Host only



Host mode

3.5 Single scan time

This is the single scan time ,the range is 0.5-25.5 s, step length is 0.1s, default time is 3s.To set different time : scan the code given below ,then scan the appendix 3 [number setting](#) to get the time,



Single scan time

3.6 Same reading interval time



Same reading interval time

4 Lighting and aiming

4.1 Lighting

The LED light illuminates the bar code to be scanned. To improve the reading performance under the weak light, Users can set any one of the following states

led on (default) : LED is on when reading , other time off

Continuous on ;led is continuous on when start scan

Continuous off : led is off under any situation



* Led on



Continuous on



Continuous off

4.2 Aiming

The aiming light can help user to aim quickly at the code and scan. User can select any one of the following modes

LED on when reading (default) : In reading mode, the aiming light will shoot when taking images of the barcode.

LED on : After reading module charge of power, the aiming light is continuously on

LED off : All the aiming light is off in this mode.



Led on(flashing)



Led on(not flashing)



Led on



Led off

5 Output indication

5.1 Multinational keyboard

When the engine is recognized as a keyboard input device, the input characters in different countries vary and the scanner needs to be set according to the required language. The keyboard default is American English.



* American English



Belgium



Finland



France



Germany



Italy



Sweden



United Kingdom



Denmark



Norway



Spain



Portugal



Turkey F



Turkey Q



Japan



Russia

5.2 Beeper

(5.2.1) Silent mode

Scan the following code to “turn off” or “forbid turn off” of the beeper.



turn off



forbid turn off

(5.2.2) Beeper volume level

Three volume level to choose , default: high tone



High tone



Middle tone



Low tune

5.2.3 Decoding success tone indication



turn on



Turn off

5.2.4 Boot tone



Turn on



Turn off

5.2.5 Setting code indication tone



turn on



turn off

5.3 Decoding status indication

Before the trigger button is released, if the barcode cannot be decoded within the timeout period, a message of "no read" (NR) is allowed to be sent. Any available prefix or suffix can be attached to this message.

When this function is disabled, no message can be sent to the host even if the barcode cannot be decoded.



prohibit to send NR



allow to send NR

5.4 Lower case and upper case conversion :

Keyboard letter conversion: when the barcode is output with letter content, you can configure the output to be all in uppercase or lower case. For example, if the bar code content is: ab123dE and if the "convert to uppercase" bar code is scanned, the output result is: AB123DE. If "convert to lowercase" bar code is scanned, the output result is: abc123de. The default keyboard case is not converted.



No conversion



All uppercase



all lower case



uppercase lower case letter inversion

5.5 Data encoding format

To enable the host to print Chinese data in the specified encoding format, it can set up by reading “data encoding format”.

1. GBK(GB2312), applicable to notepad, excel and other software display.

2: UNICODE, applicable to WORD, QQ and other software display



GBK Data encoding format



Unicode

6 Data editing

6.1 Barcode ID

User can identify different type of barcode via CODE ID. For each barcode type, the CODE ID is marked by one character, see appendix 3 for details.



Not allowed to send ID



Allowed to send ID

6.2 End bit

Ending character is the character format after decoding data:decoding data+ending character



***No ending character**



#

CR LF Return to line CR LF



%CR



Space TAB



CR CR Return Return CR CR



Return to line return to line

6.3 Prefix and suffix add

(1) Scan setting code



Prefix



Suffix I



Suffix II

(2) Define the content of prefix and suffix

A prefix or two suffixes can be appended to the scan data for data editing. Setting these values, Scan a four-digit number (that is, four bar codes) corresponding to an ASCII value.

For example: The letter A corresponds to 1065, scan digital code 1065 in sequence, see appendix 4 for details:

Character control table and appendix 1: digital setting code

(2) Scan setting code below, set up the expected data transfer lattice.



Original data



Prefix+data



1Data+suffix I



Prefix+data+suffix I



Data+suffix I+suffix II



Prefix+Data+Suffix I+Suffix I

7 Barcode type enabled/Disable setting

7.1 1D code enable on/off



Enable



Disable

7.2 2D Overall enable on/off



Enable



Disable

7.3 1D forward and backward reading



Enable



Disable

7.4 UPC-A



Enable



Disable

7.5 UPC-A additional code

(1) UPC-A 2 extra code



Enable



Disable

(2) **UPC-A 5 extra code**



Enable



***Disable**

(3) **UPC-A Must identify extra code**



Enalbe



Disable

7.6 UPC-E



Enable



Disable

7.7 UPC-E Additional code

(1) **UPC-E 2 extra code**



Enable



Disable

(2) **UPC-E 5 extra code**



enable



Disable

(3) **UPC-E must identify extra code**



Enable



Disable

7.8 EAN-8



Enable



Disable

7.9 EAN-8 Additional code

(1) EAN-8 2 extra code



Enable



Disable

(2) EAN-8 5 extra code



Enable



Disable

(3) EAN-8 Must identify extra code



Enable



Disable

7.10. EAN-13



Enable



Disable

7.11. EAN-13 Additional code

(1) EAN-13 2 extra code



Enable



Disable

(2) EAN-13 5 extra code



Enable



*Disable

(3) EAN-13 must indentify extra code



Enable



Disable

7.12 CODE 128



Enable



Disable

7.13 GS1-128



Enable



Disable

7.14 ISBT-128



Enable



Disable

7.15 Interleaved 2 of 5

(1) 12 of 5 enable



*Enable



Disable

(2) Interleaved 2 of 5 identification length

Users can set up the decoding of Interleaved 2 of 5 within a specified length range.

For example: Set up can only decode the Interleaved 2 of 5 in the length range from 4-20 bit .

Scan the code below first, then scan digital setting code 0,4,2,0 in sequence, change choosing or cancel a wrong input setting, scan the Cancel Code in the appendix.



Interleaved 2 of 5 in specific length range



Interleaved 2 of 5 in random length

(3) transfer check bit of Interleaved 2 of 5



Enable



Disable

7.16 Matrix 2 of 5

(1) Matrix 2 of 5 enable/disable



Enable



*Disable

(2) Matrix 2 of 5 Identify length

-Users can set up the decoding of Matrix 2 of 5 within a specified length range.

For example: Set up can only decode the Matrix 2 of 5 in the length range from 4-20 bit .

Scan the code below first, then scan digital setting code 0,4,2,0 in sequence, change choosing or cancel a wrong input setting, scan the Cancel Code in the appendix.



Matrix 2 of 5 in specific length range



5 Matrix 2 of 5 in random length

(3) Matrix 2 of 5 check bit transfer



Enable



Disable

7.17 Industrial 2 of 5

(1) Industrial 2 of 5 Enable/Disable



Enable



Disable

(2) Industrial 2 of 5 identification length

Users can set up the decoding of Industrial 2 of 5 within a specified length range.

For example: Set up can only decode the Industrial 2 of 5 in the length range from 4-20 bit .

Scan the code below first, then scan digital setting code 0,4,2,0 in sequence, change choosing or cancel a wrong input setting, scan the Cancel Code in the appendix.



Industrial 2 of 5 in specific length



Industrial 2 of 5 in random length

7.18 Standard 2 of 5

(1) Standard 2 of 5 Enable/Disable



Enable



Disable

(2) Standard 2 of 5 identification length

Users can set up the decoding of Standard 2 of 5 within a specified length range.

For example: Set up can only decode the Standard 2 of 5 in the length range from 4-20 bit .

Scan the code below first, then scan digital setting code 0,4,2,0 in sequence, change choosing or cancel a wrong input setting, scan the Cancel Code in the appendix.



Standard 2 of 5 in specific length



Standard 2 of 5 in random length

(3) Standard 2 of 5 Check bit transfer



Enable



Disable

7.19 Code 39

(1) code39 Enable/Disable



Enable



Disable

(2) Code39 Length



Code 39 random length

(3) Code39 check bit



Transmit check bit



no transmit check bit

(4) Code 39 transmit start bit and end bit



Enable



Disable

7.20 Code 39 Full ASCII



Enable



Disable

7.21 Code 32

(1) Code 32 Enable/Disable



Enable



Disable

(2) Code 32 Add the prefix A



Enable



Disable

7.22 Code 93



Enable



Disable

7.23 Code 11

(1) **code11** Enable/Disable



Enable



Disable

(2) transmit check bit



Enable



Disable

7.24 Codabar



Enable



Disable

7.25 PLESSEY



Enable



Disable

7.26 MSI

(1) **MSI Enable/Disable**



Enable



Disable

(2) **Set the length**



Read any length

7.27 GS1-Databar



Enable



Disable

7.28 ITF14



Enable



Disable

7.29 QR Code

(1) QR code Enable/Disable



Enable



Disable

(2) QR code multi code reading



only read single code



only read double code



allow to read single/double code

(3) QR code forward /reverse reading



only forward reading



only reverse reading



Both forward /reverse reading

7.30 Data Matrix

(1) Data Matrix Enable/disable



* Enable



disable

(2) Data Matrix multi code reading



only read single code



only double code reading



allow to read single/double code

(4) Data Matrix forward /reverse reading



only forward reading



only reverse reading



Both forward /reverse reading

7.31 PDF 417

(1) PDF417 Enable/disable



Enable



Disable

(2) PDF417 multi code



only read single code



only read double code



allow to read single/double code

(3) PDF417 forward /reverse reading



only forward reading



only /reverse reading



Both forward /reverse reading

7.32 Aztec code



Enable



disable

7.33 Maxi code



Enable



disable

7.34 Hanxin code



Enable



disable

Appendix 1 : number setting code



0



1



2



3



4



5



6



7



8



9

Appendix 2 Cancel barcode

◦ Change the selection or cancel an incorrect input and scan the barcode below



Cancel

Appendix 3 : Code ID

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

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

Appendix 4: Character comparison table

扫描 值	键盘值	扫描 值	键盘 值	扫描 值	键盘 值
1000	Null	1043	+	1086	V
1001	Keypad Enter	1044	,	1087	W
1002	Caps lock	1045	-	1088	X
1003	RightArrow	1046	.	1089	Y
1004	Up Arrow	1047	/	1090	Z
1005	Null	1048	0	1091	[
1006	Null	1049	1	1092	\
1007	Enter	1050	2	1093]
1008	Left Arrow	1051	3	1094	^
1009	Horizontal Tab	1052	4	1095	_
1010	Down Arrow	1053	5	1096	'
1011	Vertical Tab	1054	6	1097	a

1012	Backspace	1055	7	1098	b
1013	Enter	1056	8	1099	c
1014	Insert	1057	9	1100	d
1015	Esc	1058	:	1101	e
1016	F11	1059	;	1102	f
1017	Home	1060	<	1103	g
1018	Print Screen	1061	=	1104	h
1019	Delete	1062	>	1105	i
1020	tab+shift	1063	?	1106	j
1021	F12	1064	@	1107	k
1022	F1	1065	A	1108	l
1023	F2	1066	B	1109	m
1024	F3	1067	C	1110	n
1025	F4	1068	D	1111	o
1026	F5	1069	E	1112	p
1027	F6	1070	F	1113	q
1028	F7	1071	G	1114	r

1029	F8	1072	H	1115	s
1030	F9	1073	I	1116	t
1031	F10	1074	J	1117	u
1032	Space	1075	K	1118	v
1033	!	1076	L	1119	w
1034	"	1077	M	1120	x
1035	#	1078	N	1121	y
1036	\$	1079	O	1122	z
1037	%	1080	P	1123	{
1038	&	1081	Q	1124	
1039	'	1082	R	1125	}
1040	(1083	S	1126	~
1041)	1084	T		
1042	*	1085	U		

TVSE Take-Back & Recycling Program



Overview

The new E-waste (Management) Rules, 2016 have been notified by the Ministry of Environment, Forest and Climate Change, Govt. of India vide notification dt.23.03.2016 and shall come into force with effect from 1st Oct, 2016. According to these Rules, the Producer shall be responsible for channelization of waste electrical and electronic equipment (popularly known as "WEEE"). This will ensure that the e-waste is disposed of in an environmentally friendly manner and will address the leakage to the informal sector.

Phase wise collection targets have been set for Producers to collect e-waste (either in number or weight) and shall be 30% of the quantity of waste generation during first two

2 years of implementation of the Rules, 40% during 3rd & 4th year, 50% during 5th & 6th year and 70% from 7th year onwards.

TVS-E Commitment

TVS-E is committed to environmentally sound management of e-waste taking all steps required to ensure that e- waste are managed in a manner which shall protect health and environment against any adverse effects which may result from hazardous substance contained in such wastes. TVS-E assures that the covered products do not contain lead, mercury, cadmium, hexavalent chromium, poly- brominated biphenyls or poly-brominated di-phenyl ethers above a specified threshold. The threshold for cadmium is 0.01% by weight in homogeneous material, for all other substances, the threshold is 0.1% by weight in homogeneous material.

Introduction

E-waste is any electrical/electronic product or an accessory which is not useable and it is at its end of life for example old defective products like Printers, Keyboards, Mouse, User terminal etc.

E-waste has been defined as “waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded”. Whereas Electrical and electronic equipment has been defined as “equipment which is dependent on electrical currents or electro-magnetic fields to fully functional”. E-waste generally consists of those substances contained in an electronic product which can bring adverse effects to the atmosphere and hence managing it in a proper way is important. Apart from affecting the environment it can also affect the health of the people.

TVS-E has put in place a pan India collection mechanism to assist its customers in depositing their e-waste as per the new E-waste (Management) Rules, 2016 effective from 1st October, 2016.

You can deposit the WEEE at the nearest Collection Point. Details of the location of Collection Points and Collection Centres are also available on this website.

TVS-E assures all its customers that all its e-waste collected under these Rules will be recycled/ disposed of by an authorized e-waste Recycler as per the E-waste Management Rules, 2016.

Do's and Dont's



Do's:

- Always drop your used electronic products, batteries, and packaging materials after the end of their life at the nearest collection point.
- Separate the packaging material according to responsible waste disposal options and sorting for recycling.
- Keep the product in isolated area, after it becomes non-functional/un-repairable so as to prevent its accidental breakage

Dont's:

- The product is not meant for re-sale of any unauthorized agencies/scrap dealers
- Never dump e-waste in garbage bins
- Do not dispose off your product in at municipal waste bins
- Do not throw used batteries into household waste.

FAQs

1. What is e-waste?

E-waste means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.

2. What is end-of-life of product?

End-of-life of the product means the time when the product is intended to be discarded by the user.

3. How can you dispose of your e-waste?

You can deposit your e-waste at any of our Collection Points mentioned on our website.

4. WHAT CAN I RECYCLE?

Under E-Waste Management & Handling Rules 2016, we will accept and recycle all TVS-E products like Printers, Keyboards, Mouse, User terminal, Cartridges are accepted for recycling.

5. What is EPR (Extender Producer Responsibility)?

EPR means responsibility of any producer of electrical and electronic equipment, for channelization of e-waste to ensure environmentally sound management of such waste.

6. Do consumers have to pay for getting their electronics recycled?

Consumers do not have to pay any fee for recycling of TVS-E products

7. Is there any monetary benefit/discount linked to this take-back and recycling program?
As of now there is no monetary benefit/discount linked to this program. The main benefit of this program is cleaner, safer and green environment.

8. What will happen if the product is not properly handled and is given/sold to scrap dealer like any other ordinary scrap?

In case eWaste is sold to unauthorized dealers, they don't have scientific tools to recycle the products and therefore they are not authorized by the Pollution Control Board. In open area they burn the plastic parts, break the seal of parts which carries gases and try to extract metals. Such smoke and gases pollute the environment. Also hazardous residual are thrown in landfills which is dangerous for land, water, air and living beings.

9. How can you participate in the TVS-E Recycling Program?

You can dispose of a used TVS-E product very easily and responsibly. Simply call at 044 6688 8888 and drop it at your nearest Collection point's. All these E-waste will be consolidated and forwarded to Tumkur Collection point for final disposal through Authorized E-waste Recycle

10. What are the negative effects of improper recycling and dismantling of old electrical & electronic items?

If the material is disposed off in open, then it may cause health risks and damage to environment

- Presence of heavy metals such as cadmium, lead etc and other toxic substances may pose risk to health and environment
- Burning of rubber & Plastic in open area causes air pollution.

- Batteries contain hazardous elements which may affect the health & environment, if not disposed off properly.

11. How to safely handle the product while disposing off?

- Old defective product should be kept separately from other products.
- Product should not be dropped in garbage bins containing municipal waste.
- It should be handed over to authorized recycler for safe recycling.
- Product should not be handed over to any recycler who does not have proper recycling facilities

12. What are health hazards and effects on environment if the product is dismantled by the consumer themselves?

All the electronic products are safe to use, but if the consumer dismantles or breaks them, they might be exposed to health hazards due to the chemical substances present in the products, which further can pollute the environment.