

PS1000 User Manual Version 1.0



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SAFETY INSTRUCTIONS

- 1. Read these instructions carefully. Keep these instructions for future reference.
- 2. Please disconnect this device from AC outlet before cleaning. Do not use liquid or spray detergent for cleaning. Use moisture sheet or cloth for cleaning.
- 3. Please keep your device safe from high levels of humidity.
- 4. Install the device and its driver on a surface plate. Any tilt plate might cause damage.
- 5. Do not place anything over the power cord. And avoid people from stepping on it
- 6. Please be aware cautious note or warnings on the device.
- 7. If the device will not be used for a long time, please unplug the power cord to avoid damages by transient overvoltage.
- 8. Never pour any liquid into the device; this could cause fire or electrical shock.
- 9. If one of the following situations happens, get the device checked by a service personnel: a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the device.
 - c. The device has been exposed to moisture.
 - d. The device does not work well or you cannot get it work according to user manual.
 - e. The device has dropped and damaged.
- 10. Do not leave this device in an environment unconditioned, storage temperature below -20°C or above 60°C, it may damage the device.
- 11. Unplug the power cord when doing any service or adding optional kits.

Lithium Battery Caution:

- 1. 1. Danger of explosion can happen if the battery is incorrectly replaced. Replace only the original or equivalent type recommended by the manufacture. Dispose used batteries according to the manufacture's instructions.
- 2. Do not remove the cover, and ensure no user serviceable components are inside. Take the unit to the service center for service and repair.

CE Notice

This device complies with the requirements of the CE directive.

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1-1 Standard Accessories



1-2 Optional Accessories



VFD 8" or 10.4" 2nd Display MSR i-button Barcode Scanner 1D / 2D

2-1 Front View



2-2 Rear View



Please make sure the 19V DC is plugged in the right direction before plugging in DC jack.

2-3 Back View



2-4 Specification

Display Size			15" TFT LCD	
Display	Resolution		1024 X 768	
Display	Brightness / Color		300 cd/m ² , 16.7M colors	
	Backlight		LED	
Touch Panel	Туре		Projected Capacitive touch	
Processor	CPU/ Chipset		Intel® Celeron J1900 Quad-Core 2.0Ghz	
Memory			X 1 DDR3L SO-DIMM, up to 8GB	
Storage			X 1 (2.5" SATAII HDD or SSD)	
	USB 2.0		X 4 (Rear X 3, Side X 1)	
	USB 3.0		X 1 (Rear)	
	Powered CON	/I (RS232)	X 2 (DB9 powered COM 5V/ 12V selected by jumper)	
	Cash Drawer	Port	X 1 (24V RJ11 Cash Drawer port)	
I/O Connectors	Audio Port	Line-out	X 1	
	LAN		x 1 (RJ45 10/100/1000 Base-T)	
	VGA		X 1 (DB15)	
	DC out		24V 4-pin Connector for Printer	
	DC In		Lockable 3-pin DC input	
OS Support			Win 10 IoT Enterprise	
Built-in 80mm Prin	ter		X 1	
Optional Periphera	als		VFD / 8"/10.4" 2nd Display / MSR / i-Button /1D, 2D Scanner	
Power Supply			150W 19V lockable 3-pin Power Adaptor	
	T	Operation	32° to 95° F (0° to 40° C)	
Environment	Temperature	Storage	-4° to 140° F (-20° to 60° C)	
	Relative Humidity		20% to 80% non-condensing	
Dimension (W x H x D) mm			364 x 410 x 257	
Certifications			CE / FCC / LVD	
Protection			IP64 on front bezel	

2-5 Thermal printer Specification (PRT650)

Item		Parameter	
	Printing Method	Direct thermal line printing	
	Resolution	203dpi, 8dots/mm	
Printing	Printing Width	72mm	
Parameter	Print Speed	260mm/s	
Interface		USB, Serial, Ethernet, Cash drawer	
	Print density	Adjustable from level 1 to level 4	
Page Mode		Support	
Momory	RAM	4Mbyte	
wiemory	Flash	4Mbyte	
	Chinese	GBK 24×24	
	Alphanumeric	ASCII9×17,12×24.	
	User-defined	Support	
Fonts	Code page	Optional international character sets: PC437(std.Euro- pe), Katakana, PC850(Multilingual), PC860(Portugue- se), PC863(Canadian), PC865(Nordic), PC857(Turkish), PC737(Greek), ISO08859-7(Greek), WPC1252, PC866(Cyrillic #2), PC852(Latin 2), PC858(Euro), KU42(Thai), TIS11(Thai), TIS18(Thai), PC720(Arabic), WPC775(Baltic Rim), PC855(Cy- rillic), PC862(Hebrew), PC864(Arabic), ISO8859-2(Latin2), ISO8859-15(Latin9), WPC1250(Latin 2), WPC1251(Cyrillic), WPC1253(Greek), WPC1254(Turkish), WPC1255(Hebrew), WPC1256(Arabic), WPC1257(Baltic Rim), WPC1258(Viet- namese), MIK(Cyrillic), PC755(Latin 2), Iran, Iran II, Latvian, ISO-8859-1(WestEur), ISO-8859-3(Latin 3), ISO-8859-4(Bal- tic), ISO-8859-5(Cyrillic), ISO-8859-6(Arabic), ISO-8859- 8(Hebrew), ISO-8859-9(Turkish), PC856, PC3848(ABICOMP), MONGOLIAN, VISCII	
D I.	1D	UPC-A, UPC-E, EAN8, EAN13, CODE39, ITF, CODEBAR, CODE128	
Barcode	2D	PDF417, QR code, (DataMatrix, Maxicode and Aztec) for optional	
Graphics		Support varied density bitmap as and download bitmap prin- ting Max size of each bitmap is 40K, the total size of bitmap is 256k.	
Detection	Sensors	Paper out detection, Cover open detection	
	Power LED	Blue LED	
Indicator	Error LED	Red LED	
	Paper LED	Orange LED	

	Item	Parameter
Power Supply	rer Supply Input 24V	
	Paper type	Specified Thermal Paper
	Paper width	58+-0 mm/ 80+-0 mm
	Paper thickness	0.056~0.13mm
Paper	Roll paper diameter	Max. OD ф83mm
	Paper load	Easy-loading structure of forward open cover or upward open cover
	Paper cut	Partial cut or full cut
	Operating condition	0°C~50°C, 20%~85%RH
Physical	Storage condition	-20°C~70°C, 5%~95%RH
Spec.	Dimensions	137.3(L)*132(W)*130.5(H)mm
	Weight	1.33kg
Command		ESC/POS
Software	Driver	Win 10 IoT Enterprise

2-6 Internal Layout

M/B PCBA





PIN DEFINITION

1. LVDS connector

No.	Definition	No.	Definition
1	6-bit/8-bit selection	2	GND
3	DATA3+	4	DATA3-
5	GND	6	CLK+
7	CLK-	8	GND
9	DATA2+	10	DATA2-
11	GND	12	DATA1+
13	DATA1-	14	GND
15	DATA0+	16	DATA0-
17	GND	18	GND
19	+3.3V	20	+3.3V

2. SATA

No.	Definition	No.	Definition
S1	GND	P1	N/C
S2	SATA_TX0_P	P2	N/C
S3	SATA_TX0_N	P3	N/C
S4	GND	P4	GND
S5	SATA_RX0_N	P5	GND
S6	SATA_RX0_P	P6	GND
S7	GND	P7	+5V
		P8	+5V
		P9	+5V
		P10	GND
		P11	GND
		P12	GND
		P13	N/C
		P14	N/C
		P15	N/C

3. Power On/Off connector

No.	Definition
1	+5V Standby
2	+5V Status
3	Power On#
4	GND

4. Projected capacitive touch connector

No.	Definition
1	+5V
2	USB D-
3	USB D+
4	GND

5. Resistive touch connector

No.	Definition
1	+5V
2	RxD
3	TxD
4	GND

6. Sideward MSR connector Pin Definition

No.	Definition
1	+5V
2	USB D-
3	USB D+
4	GND



7. VFD connector

No.	Definition
1	RTS#
2	DSR#
3	TxD
4	RxD
5	CTS#
6	DTR#
7	+5V
8	USB D-
9	USB D+
10	GND

8. CN1: MB to small card connector

No.	Definition
1	+19V
2	+19V
3	GND
4	GND

REAR I/O INTERFACE

System

1. DC Jack Pin Definition

No.	Definition
1	+19V
2	Ground
3	+19V

2. 2-Layer USB2.0 connector Pin Definition

No.	Definition	No.	Definition
1	+5V	5	+5v
2	D-	6	D-
3	D+	7	D+
4	GND	8	GND

3. 2-Layer USB3.0+2.0 connector Pin Definition

No.	Definition	No.	Definition
1	+5V	8	TX-
2	D-	9	TX+
3	D+	10	+5V
4	GND	11	D-
5	RX-	12	D+
6	RX+	13	GND
7	GND		



4. LAN: RJ45 Pin Definition

No.	Wire color(T568B)	Definition
1	White / Orange	Transmit
2	Orange	Transmit
3	White / Green	Receive
4	Blue	1000Base-T
5	White / Blue	1000Base-T
6	Green	Receive
7	White / Brown	1000Base-T
8	Brown	1000Base-T

5. COM connector Pin Definition

No.	Definition
1	DCD#
2	RxD
3	TxD
4	DTR#
5	GND
6	DSR#
7	RTS#
8	CTS#
9	+5V/+12V/Ring

a a		
	COM1	J2
SU 12	+V5	1-3
S	Ring/Default	3-5
C206	+12V	7-9

COM2	J2
+V5	2-4
Ring/Default	4-6
+12V	8-10

You can change the com port voltage by jumper

6. RJ11 (Cash Drawer) connector Pin Definition

No.	Definition
1	GND
2	C/D_OPEN#
3	C/D Status
4	+24V
5	N/C
6	GND

7. Line-out Jack Pin Definition

No.	Definition
1	GND
2	GND
3	LINE_OUT
4	LINE_OUT
5	Detect

8. JS1: Small card to printer connector Pin Definition

No.	Definition
1	+24V
2	+24V
3	GND
4	GND



Thermal receipt printer

1. USB

No.	Definition
1	VBUS
2	D-
3	D+
4	GND

2. RS232

No.	Definition
1	NC
2	TXD
3	RXD
4	NC
5	GND
6	RTS
7	CTS
8	RTS
9	NC

3. Ethernet

r	
No.	Definition
1	TX+
2	TX-
3	RX+
4	NC
5	NC
6	RX-
7	NC
8	NC

4. Cash Drawer

No.	Definition
1	FC
2	Drawer 1
3	DRSW
4	VDR
5	Drawer 2
6	GND

Electrical characteristics

· Driving voltage : DC 24V

· Driving current : Maximum 0.8A (In 510 ms)

Drawer check signal : "L"=0~0.5V "H"=3~5V

5. Power supply

No.	Definition
1	FC
2	Drawer 1
3	DRSW
4	VDR



5-1. HDD





- 1. Dis-fasten 2 screws.
- 2. Pull out the hard drive case in an outward direction to remove it from the system.
- 3. Install the hard drive in the hard drive case and fasten 4 hard drive case screws.

5-2. Memory



- 1. Dis-fasten 11 screws and remove the back cover.
- 2. Insert the RAM into the RAM slot.

5-3. MSR / i-Button / RFID







- 1. The MSR/i-Button easily install on the side of the LCD Touch Screen's USB 2.0 connector.
- 2. Insert the USB connector on the MSR/i-Button into the side USB port
- 3. Secure the module with the two screws onto the system.

5-4 VFD / 8" or 10" 2nd Display



- 1. Remove top cover.
- 2. Either plug the VFD cable into the VFD connector or plug the 8" or 10" 2nd display cable into the

2nd display's connector (note: display connector can only be connected to one device at a time).

3. Install VFD with 2 screws / Install 8"or 10" 2nd display with 2 screws.

5-5. 1D/2D Barcode Scanner



- 1. Install the barcode scanner with bracket attached by tightening the 2 screws
- 2. Plug the barcode scanner Type-A Male USB cable into a USB port

5-6. Thermal printer

5-6-1 Thermal printer module replacement



1. Press outward on the two triangle mark on each side of the printer stand's back cover to remover

the cover







- 2. Disconnect the 4-pin end of power cable from the 24V DC out port on the system
- 3. Disconnect the 3-pin end of power cable from the 24V DC in port on the printer
- 4. Disconnect the Type-A Male USB cable from the USB port on the system
- 5. Disconnect the Type-B Male USB cable from the printer



- 6. Remove the 2 screws from the base tray at the bottom of the printer module
- 7. Slide the printer module in an outward direction to remove it from the stand



- 8. Remove the 2 bracket screws that hold the printer module
- 9. Remove the printer module

5-6-2 Paper Installation



1) Pull the cover open button in an outward direction to open the printer cover



- 2) In the correct direction of the roll paper, insert the paper
- 3) Pull out some roll paper, and close the printer cover



4) Tear the extra paper in the direction of printer



- According to the paper size to adjust the paper guide;
 - When using 58mm(width) roll paper, insert the paper guide to each side.



• Make sure the paper inside is at tight status, or it will issue paper or other obstacle.

6-1 MagSwipe Card Reader / i-Button reader Configuration utility

The MagSwipe Configuration utility is used to set up the output format of MagSwipeCIDTestAp V07.01 Operation Manual

- 1. Device Connection
- 2. Utility Features
- 3. Configuration Setup

Version: V01.00.

1. Device Connection

1. USB(HID) Interface

Select the USB HID device which has been plug into the PC USB port, enter the correct Vendor ID = 0E6A and Device ID then press 'OK", different device has its own Device ID., e.g. DID=0x030F for keyboard and HID USB, DID=0x5082 for keyboard, HID and VCP USB.

Connect to		
Interface:		
COM PS2 USB (CCID) USB (HID)		
Vendor ID: 0E6A		
Device ID: 030E		

2. Utility Features

After success device connection each supported command will get its response, e.g. Get Version command should response with the device HW/FW version, for all command set supported please reference its programming guide. There are two command/response windows can be used (see block1 & 2). For second level device the Indirect command signal should be selected (see block3 & 4). Press the button "Configure Word" to enter the parameter setting function (see Block 5). The two response windows show up the data from the device connected.

View Device He	p					
	Issue Commands		1	Barransa		
Connect	Command: Options:	GET VERSION +	Send	[Get version information] Hardware version: 04.00 Application code: 02.01		
Disconnect	Arguments:		^			
5	Indirect					
Configure Word			-	Hex Display 🔻	Place new response on top	Clear
ormation	Command Script:	Command Script HID.CID	2			
atus:	Command:	GET_VERSION	•			
onnected	Sub Command:		*	Send	Data Monitor Console	Clear SW1/SW2
s/cts	St Data:	[CMD_BYTE:] 01	//Define	CMD_BYTE value	GET_VERSION: 12:31:40.8 2	->
Reset Device	Indirect	//Command format: <stx> <cmd_< td=""><td>BYTE> <apdu_le< td=""><td>EN> <lrc></lrc></td><td>12:31:41.422 < 02 00 04 04 00 02 01 01</td><td></td></apdu_le<></td></cmd_<></stx>	BYTE> <apdu_le< td=""><td>EN> <lrc></lrc></td><td>12:31:41.422 < 02 00 04 04 00 02 01 01</td><td></td></apdu_le<>	EN> <lrc></lrc>	12:31:41.422 < 02 00 04 04 00 02 01 01	
CTS Check	Parse TLV	[Send:] STX CMD_BYTE APDU_LE	N			
evice Status: Bady	-	Intzen, olin, uon, uon, usn Intersponse format: <stx> <apdu_len> <hh, hh,="" ss="" ss,=""> <lrc> If HH, HH: (two bytes) bhardware version HH HH If SS, SS: (two bytes) software version HS, SS S</lrc></hh,></apdu_len></stx>				
Device Status: Ready	-	//Response format: ~STX> <apdu, // HH,HH: (two bytes) hardware ver // SS,SS: (two bytes) software versi //===================================</apdu, 	_LEN> <hh,hh,s: ision HH,HH ion SS.SS</hh,hh,s: 	8.8\$> ≪RC>		

2. Configuration Setup

Device functions(e.g. MSR, i-Button, RFID, Chip card) behavior can be defined and stored by this tool.

Four operation buttons define as below:

"Load From File": Load the previous setting configuration file from storage.

"Save To File": Save the current screen setting to file in storage.

"Get Configuration Word": Get current setting in the device connected.

"Set Configuration Word": Set current setting on the screen to the device connected.



nfigure Word	
Load From File	
Save To File rack 1 (JIS II) Enable	WDpper Case MSR : Response Port : PS2 PS2 COM Head/Tail Message(max 10 bytes each) Track 1 (JIS II) Head Track 1 (JIS III) Tail
t Configure Word	ible Image: Replaceable Image: Track 2 Head Image: Track 2 Head Image: Track 2 Head Image: Track 2 Tail Image: Track 3 Tail I

16 parameter areas(see below) are used for four functions, each function related area should be setup correctly and press Set Configure Word button before operation.

MSR function areas: 1,2,5,6,9,11,12,13

i-Button function areas: 2,3,5,7,10,11,14

RFID function areas: 2,4,5,8,11,15

Chip card function areas: 16

onfigure Word		
	Configure Word	MSR : Response Port :
Set Configure Word	Track 2 Enable Track 3 Enable Tracks Spearator/Terminator Enable Tracks Error Report Enable	 PS2 COM VCOM USB (HID) Head/Tail Message(max 10 bytes each) Track 1 (JIS II) Head Track 1 (JIS II) Head Track 2 Head Track 2 Tail
Set Configure Word	 Tracks Sentinel Enable Replaceable Tracks Sentinel Enable Head/Tail Enable Button Enable RFID Auto Enable Veep Enable 	Track 3 Head Track 3 Tail Invisible Code
formation AP Ver.	6 Track1 (JIS II) Request Track2 Request Track3 Request	IButton : 14 Response Port : ○ PS2 ○ COM ○ VCOM ● USB (HID)
Lib Ver.	7 Off Button ID Request 8 Off RFID ID Request Tracks Sequence Request:	Head/Tail Message(max 10 bytes each) On IButton Head On IButton Tail Off IButton Head Off IButton Tail
S232 Conf: Baud Rate: 1 9600	9 Track1,2,3 • 16 • • 0 From 1 • •	
larity: Even - 11	12 Track 1 (JIS II) Start Sentinel:	RFID 15 Response Port :
anguage Option : US 🗸	Track 2 Start Sentinel:	Head/Iall Message(max 10 bytes each) On RFID Head On RFID Tail Off RFID Head Off RFID Tail Invisible Code
	Tracks End Sentinel:	
Close	Tracks Separator: None Tracks Terminator: None	
		CC Response Port : 16 CC COM VCOM OUSB (HID)



Configure word detail

Area 1

Track 1 (JIS II) Enable:	If enabled, the track 1 data will response.	
Track 2 Enable:	If enabled, the track 2 data will response.	
Track 3 Enable:	If enabled, the track 3 data will response.	
Upper Case:	If selected, the track1 data read will transfer to upper case	
	before response.	
Track Separator	If enabled, the reader will send Track	
/Terminator Enable:	Separator and Track Terminator code defined in this configure	
	word between	
	tracks data or after the last track data.	
Track Error Report Enable:	If enabled, the character "F" will response when track data read	
	fail.	
Track Sentinel Enable &	If enabled, the reader will send start and	
Replaceable:	end sentinel at begin and last position of	
	each track data.	
	If replaceable, these sentinels will be	
	replaced by the sentinel defined in this	
	configure word.	

Area 2

It enabled, all of the Head/Tail message
defined in this configure word will prefix
and suffix to each data returned.

Area 3

i-Button Enable:	If enabled, i-Button key ID may response when key attached or
	removed.

Area 5

Beep Enable:	If enabled, the beeper will activate to
	indicate the operation result.

Area 6

Track 1 (JIS II) Request:	If selected, the reader will response track
	data only if track1 read correctly.
Track 2 Request:	If selected, the reader will response track

	data only if track2 read correctly.
Track 3 Request:	If selected, the reader will response track
	data only if track3 read correctly.

Area 7

Off i-Button ID Request:	If selected, key ID will response while key
	removed.

Area 8

Off RFID ID Request:	If selected, RFID ID will response while
	RFID card removed.

Area 9

Tracks Sequence Request:	Select the order of three tracks data
	returned.

Area 10

i-Button ID Range Request: Define the i-Button data range returned.	i-Button ID Range Request:	Define the i-Button data range returned.
---	----------------------------	--

Area 11

Language Option:	Select one of supported keyboard language
	for PS2 or keyboard USB interface.

Area 12

Track 1 (JIS II) Start	Define Track 1 Start sentinel byte, default is "%".
Sentinel:	
Track 2 Start Sentinel:	Define Track 2 Start sentinel byte, default is ";".
Track 3 Start Sentinel:	Define Track 3 Start sentinel byte, default is "+".
Tracks End Sentinel:	Define all Tracks End sentinel byte, default is "?".
Tracks Separator:	Define the insertion byte between each track data returned.
Tracks Terminator:	Define the appending byte after the last track data returned.

Area 13

MSR Response Port:	Select MSR data response port right after swiped.
Head/Tail Message:	Message prefix and suffix to each track data returned.

Each Head/Tail accepts10	Enter keyboard control code.
bytes max. long. Invisible code:	

Area 14

I-Button Response Port:	Select i-Button key ID response port right after key attached or
	removed.
Head/Tail Message:	Message prefix and suffix to key data returned. Each Head/Tail
	accepts10 bytes max. long.
Invisible code:	Enter keyboard control code.

Area 15

RFID Response Port:	Select RFID ID response port right after tag attached or
	removed.
Head/Tail Message:	Message prefix and suffix to tag data returned.
	Each Head/Tail accepts10 bytes max. long.
Invisible code:	Enter keyboard control code.

Area 16

ICC Response Port:	Select chip card auto. ATR response port,

6-2. Install framework 4.0

1. Double-click to install.

Organize · Include i	n library • Share with •	New folder			BE + 178
Forwirks Decision Decision Recent Flaces Decoments Decoments Music Produces Computer Computer Local Dick (Co) Local Dick (Co)	Narre		Cete mad?ied 3/13/2019 944 AM	Type Aggification	Size 43.200 KB
) i tem					
xtracting files					×
Preparing: C:\6	a3dbf8bcefbf427a7cc	:40\netfx_(Core.mzz		Cancel

2. Select "I have read and accept the license terms. And click Install..

tup	
is to continue.	NET
OFTWARE	-
Econse torms.	3
0 MB	
Dial-Up: 0 minutas	
Broadband: 0 minutes	
	tup es to centimue. DFTWARE [fognaci tomps] 0 MB Dial-Up: 0 minutes Broadband: 0 minutes



3. Click Finish.



6-3. VFD

1. Power on VFD and waiting test page of EEPROM test, Baud rate and Command page. Set up the customer display by "VFDset.exe"

2. Setup VFDset.exe software.

🔊 VFDsct15 - InstallShield Wi	ieard 🗾	BVFDset15 - InstallShield Wizard	
2	Welcome to the InstallShield Wizard for VFDset15	Customer Information Please order your information.	さ
	The InstaliShield(R) Waard will instal VTDset IS on your computer. To continue, dick Next.	Liner Nerse:	_
2	WVRMING: This program is protected by copyright law and nemetonal busines.	2:pentection:	
	< Red Next > Gancel	Trustalištads	Next > Cancel
👸 VFDset15 - InstallShield Wa	zord 📃	B VFDset15 - InstallShield Wizard	
Destination Folder Click Next to install to the folde	er, or dick Change to install to a different folder.	Ready to Install the Program The wizard is ready to begin installation.	E
Enstall VFDset15 to: C:\Program Files (v8	(WTDset) Change	If you want to review or change any of your installation settin exit the wizard. Current Settings:	ngs, click Back. Click Cancel to
		Setup Type:	
		Typical	
		C:\Program Files (x86)\VFDset\	
		User Information:	
		Name: user Company:	
Loss-Related		InstallShield	
10000000	Kanto Cancel	< Back	Instal



VFDSet1.5	Cam1 • 9600,n,0,1 •	Load Save	Set All Default
3 Command Setting Ltd.	Open COM	Get Setting From VFD	Download Setting To VFD
	adunie wag i Gaer Den		
	Character Type Command Mode	USA/EURPOPE(Default) •	
	BaudRate Select Passthru Mode	9600,n,8,1 (Default)	

3. To execute "VFDset.exe" for setting up communication between software and VFD module.

Please then follow the steps as shown in the above figure, the baud rate will show on states page of VFD module (Note: You may check it when power on VFD module), then click "Open COM" button.

4. "Get Setting from VFD" button to get all the settings from the VFD and it'll refresh the "VFDset.exe" software.

5. Select "Character Type"/ "Command Mode"/ "Baud Rate Select"/ "pass thru Mode".

Character Type	USA/EURPOPE(Default)
	USA/EURPOPE(Default)
Command Mode	France
	Germany
BaudDate Select	U.K Depmark I
	Sweden
	Sweden
Command Mode	EPSON(Default)
	EPSON(Default)
BaudRate Select	UTC/S
	UTC/P
	AEDEX
BaudRate Select	9600,n,8,1 (Default)
	9600, n, 8, 1 (Default)
Passthru Mode	19200,n,8,1
BaudRate Select Passthru Mode	AEDEX 9600, n, 8, 1 (Default) 9600, n, 8, 1 (Default) 19200, n, 8, 1

6. Click "Set All Default" button to show default setting, the Default table is

Character Type	: USA	
Command Type	: EPSON/EURPOPE	
Baud Rate Setting	: 9600/n/8/1	
Pass-through Mode	e : None	
Welcome msg line?	1 : *** VFD DISPLAY ***	
Welcome msg line2	2 : **HAVE A NICE DAY AND THANK YOU	**

7. Welcome Message

Welcome Message line1 maximum 20 characters, line 2 maximum 20 characters, total of 40 characters.

a. ASCII mode

Welcome Me	ssage1					
C ASCII	0	5	10	15	20	
@ Hex	2A 2A	2A 20 56 46 44	20 44 49 53 50	4C 41 59 20 20	2A 2A 2A	Clear
Welcome Me	ssage2					
	0	5	10	15	20	
C ASCII	2A 2A	48 41 56 45 20	41 20 4E 49 43	45 20 44 41 59	20 41 4E	
	21	25	20	25	40	

You can type the character by keyboard ($0x20h \sim 0x7Fh$), if you press clear icon, it will clear the all Message characters on AP.

b. Hex mode

Hex mode can define the character from $0x20h to 0xFFh \cdot$ the range $0x80 \sim 0XFF$ which depends on the code page table.

	Command Setting We	icome Msg	User Defined C	haracter		
	Welcome Mes	isage1				
	Addi	0	5	10	15	2
	· Hex	2A 2A	2A 20 56 46 44	20 44 49 53 50	40 41 59 20 20	2A 2A 2
	Welcome Mes	sage2				
Download O.K ! Please restart !		0	5	10	15	2
	C ASCII	2A 2A	48 41 56 45 20	41 20 4E 49 43	45 20 44 41 59	20 41 4
储定		21	25	30	35	4
HEAL	• Hex	44 20	54 48 41 4E 4E	20 59 4F 55 2A	2A 20 20 20 20	20 20 2

Like the first character (0x80) in default code page will show on VFD module.

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8. Click "Download setting to VFD" button

This button is to download the setting from VFDset.exe to VFD module. After success dialog "Download O.K! Please restart!" message popped up. Please restart display for enable new setting

9. Click "Save" button

To save user's setting in file; for example, below picture to save file name as "GOODLUCK" file set for Welcome Message.



10. Click "Load" button

After saving, you must restart the utility here. Then load your setting rename-GOODLUCK.vfd.

9600,n,8,1 <u>+</u>		-	
se COM	Get Setting F	rom VFD	Download S
me Msg User Defi	ned Character		
ne1			
- Jerri - Jerr			
pen 🖌			
pen Look in: 🔁 vfd	19194	• •	5 ď 🖬 ·
Look in: 🔁 vid	0.vfd ne-GOOD LUCK.vfd	x + 1	s d' II.
Look in: Documents	3.vřd nes6000 LUCK.vřd	→ ←	<u>ت</u> ۴ ۵۰
Look in: Double vid	0.vfd me-GOOD LUICK.vfd	¥ ← I	۵ d' 🖬 •
Look in: Over vid Look in: Over vid My Recent Documents Desktop	0.vfd me-GOOD LUCK vfd	→ ← 1	<u>ت</u> ۳ ۵۰
Look in: Double Vid	0.vfd me-GOOD LUICK.vfd		<u>ت</u> بر ا
Look in: in: in: vid Look in: in: in: vid My Recent Documents Desktop My Documents	0.vfd me-6000 LUCK.vfd	→ ← 1	<u>ت</u> ۳
I Look in: Double Vid	0.vfd ne-6000 LUCK.vfd	→ →	ا ا ا



1. Press key to enter SETUP CMOS UTILITY when system boot up.



2. Press <ENTER >over SCU button to enter the utility.

		InsydeH20 Setup Utility	Rev. 5.0
Hain Advanced Securi	ty Power Boot	Exit	
Processor Type Systen Bus Speed Systen Menory Speed Cache RAM Total Menory Channel A - SODIMH O		Intel(R) Celeran(R) CPU J1900 @ 1.99GHz 83 MHz 1333 MHz 2048 KB 8192 MB 8192 MB	This is the help for the hour, minute, second field. Valid range is from 0 to 23, 0 to 59, 0 to 59. INCREASE/REDUCE : + /
Platform firmware Infor VLV SOC HRC Version PUNIT FW PTC FW Patch TXE FW Version IGD VBIOS Version Hicrocode Revision CPU Flavor Board ID Fab ID	nation	OE (CO Stepping) 1.00 0x27 0x4_45 1.1.0.1113 1018 836 VLV Desktop (2) BALEY BAY (20) FAB3 (03)	
System Time System Date		109:38:481 [03/26/2018]	
F1 Help Esc Exit	↑↓ Select Iter ⇔ Select Henu	i F5/F6 Change Values Enter Select ► Sublienu	F4 Setup Defaults F10 Save and Exit

Tain Advanced Security Po	wer Boot Exit	InsydeH20 Setup Utility		Rev. 5.0
Processor Type System Bus Speed System Hemory Speed Cache RAM Total Hemory Channel A - S001MM 0	Intel(R) 83 HHz 1333 HHz 2048 KB 4096 HB 4096 HB	Geleron(R) CPU J1900 @ 1.996Hz	This is the help for the second field. Valid ran 23, 0 to 59, 0 to 59. If 7	e hour, minute, ge is from O to NCREASE/REDUCE : +
Platforn firmware Information VLV SOC HRC Version PUNIT FW PMC FW Patch	Hanufacturer Name : Product Name : Serial Number :	System Information Colormetrics PS1000 123456789		
TXE FW Version IGD VBIOS Version Microcode Revision CPU Flavor Board ID Fab ID	UUID : MAC LAN Address : CPU Name : Cpu Clock : System Bus Speed : BIOS Version : Memory Total Size :	90 38 E0 28 E8 60 F0 50-C8 40 A 00-E0-C5-2D-1C-54 Intel(R) Celeron(R) CPU J1900 @ 1.99GHz 83 HHz PST650 V:3.0.00-06122018 4096 HP	0 E8 54 48 49 4E 1.99GHz	
System Time System Date				
		Press [ESC] Exit		
F1 Help 1 S	elect Iten	F5/F6 Change Values	F4 Setup Defau	ilts

Date and Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

WARNING!

Setting the wrong values in the sections below may cause the system to malfunction. Make sure that the settings made are compatible with the hardware.



7-1. Advanced

Use the Advanced menu to configure the system for basic operation through the following sub-menus:



Use the Boot Configuration menu to select power-on state for Numlock.

Advanced		InsydeH20 Setup Utility	Rev. 5.0
Root Configuration			Selects Power-on state for Numlock
Numberk	<0e>		
HOILTOCK			
1 Help ScExit	↑↓ Select Iten ⇔ Select Henu	F5/F6 Change Values Enter Select ► SubHenu	F4 Setup Defaults F10 Save and Exit

7-1-2. Audio Configuration

Use the Audio Configuration menu to read Audio configuration information and configure the Audio settings

	InsydeH2	0 Setup Utility	Rev. 5.0
advanced			
Audio Configuration		(Control Detection of the Azalia device.
Audio Controller	<enab led=""></enab>	C C	Disabled = Audio will be unconditionally disabled
		E E	enabled = Audio will be unconditionally Enabled
1 Help ↑↓ EscExit	Select Iten F5/F6 Select Henu Enter	Change Values Select ► SubMenu	F4 Setup Defaults F10 Save and Exit

Use the Video Configuration menu to read Video configuration information and configure the Video settings

Advanced		InsydeH20 Setup Utility	Rev. 5.0
Video Configuration			Select DVHT5.0 Pre-Allocated(Fixed) Graphics Managers size used by the Internal
IGD - DVMT Pre-Allocate	d <128M>		Graphics Device.
Fl Help Esc Exit	↑↓ Select Iten ↔ Select Henu	F5/F6 Change Values Enter Select ► SubMenu	F4 Setup Defaults F10 Save and Exit



7-1-4. SATA Configuration

Use the SATA Configuration menu to read SATA configuration information and configure the SATA settings

		InsydeH20 Setup Utility	Rev. 5.0
Advanced			
SATA Controller		<enabled></enabled>	DISABLED: Disables SATA Controller. ENABLED: Enables SATA Controller
ÞSerial ATA Port O ÞSerial ATA Port 1	[Not Installed] [Not Installed]		ENABLED: Enables SATA Controller.
1			
isc Exit	\leftrightarrow Select Henu	Enter Select > SubHenu	F10 Save and Exit

Hain Advanced Sec	urity Power Boot Exit	InsydeH20 Setup Utility	Rev. 5.0
Hain Advanced Sec Supervisor Password Set Supervisor Passw	urity <u>Power Boot Exit</u> Not I ard	Installed	Install or Change the password and the length of password must be greater than one character.
1 Help	↑↓ Select Iten	F5/F6 Change Values	F4 Setup Defaults

Use the Security menu to install or change the password



7-3. Power

	Ins	ydeH20 Setup Utility	Rev. 5.0
Main Advanced Security	ower Boot Exit		
Restore AC Power Loss Wake on LAN Enable	<power off=""> <enabled></enabled></power>		Specify what state to go to when power is re-applied after a power failure (G3 state).
LVDS Firmware Update	<disab1ed></disab1ed>		
F1 Help	Select Iten F Select Henu F	5/F6 Change Values nter Select ► SubMenu	F4 Setup Defaults F10 Save and Exit

Use the power menu to install or change the power settings.

AC Loss Auto Restart

Enable or disable system power on automatically after AC power restored

Wake on LAN

Enable or disable system wake by onboard LAN chip

LVDS Firmware update

This item allows you to enable or disable LVDS Firmware update

Use the Boot menu to select type to Dual type, Legacy type or UEFI type.

	InsydeH20 Setup Util	ity Rev. 5.0
Main Advanced Security Power	Boot Exit	
Hain Advanced Security Power Boot Type Network Stack PXE Boot capability EF1/Legacy Device Order ►EF1 ►Legacy	 2 Boot Exit - Qual Boot Type> - Qisabled> - Qisab	Select boot type to Dual type, Legacy type or UEF1 type
F1 Help ↑↓ Sela	ect iten F5/F6 Change Value	es F4 Setup Defaults



7-5. Exit

Use the Save & Exit menu to load default BIOS values, optimal failsafe values or to save configuration changes.



TROUBLESHOOTING OF PRINTER

Your printer is very reliable, but occasionally problems may occur. This chapter provides information on some common problems you may encounter and how to solve them. If you encounter problems that you can not resolve, contact your dealer for assistance.

8.1 Printer Not Working

Problem Description	Probable Reason	Solution
LED indicator off, printer not working	Printer without power	Connecting the power supply
	Printer switched off	Turn on the printer
	Circuit board broken	Contact with the dealer

8.2 LED Indicator and Beeper

Problem Description	Probable Reason	Solution
	Departed have to the and	The roll paper is near to the end, the
Paper LED always on	raper foil flear to the end	printer can work normally
Error LED always on and	Drintor Cours anon	Class the printer sever
beeper alarms	Printer Cover open	Close the printer cover
Paper LED and Error LED	Dapar out	Reload the roll paper
always on and beeper alarms	Paper out	
	Thormal print head overheated	Turn the printer off and resume when it
Error LED blinks and beeper	mermai print nead overneated	cools
alarms	Overvoltage	Print with specified voltage
	Low-voltage	Print with specified voltage



8.3 Troubles Occur During Printing

Problem Description	Probable Reason	Solution
Coloured stripe in the paper	Paper near end	Reinstall the roll paper
Blurred printing or spot	Incorrect roll paper installation	Check if the roll paper is installed
	Unqualified roll paper	Use recommended thermal roll paper
	Dirty thermal head or print roller	Clean the thermal head or print roller
	Low print density	Increase the print density level
Paper Jam	Paper strike	Open the printer cover, check the paper path and remove jammed paper
Vertical print words missing	Dirty thermal head or print roller	Clean the thermal head or print roller
	Thermal head damaged	Contact your dealer for assistance

NOTE: The density of setting, please refer to "Utility Tool Manual"

8.4 Problems Emerge During The Paper Cutting

Problem Description	Probable Reason	Resolution	
	Cutter abrasion, insufficient cutting	Replace the cutter	
	Worm gear and worm wheel	Poplace the worm goar and worm wheel	
Cutter jam, the movable	abrasion	Replace the worm gear and worm wheel	
cutter cannot back	Motor burnt	Replace the motor	
	D	Clean the paper scraps on the	
	raper scraps	transmission system	
Insufficient cutting	Cutter edge abrasion, paper too	Replace the cutter	
	thick		
	Thermal printer head over heat	Reduce the density of printing	
	Driving too fast	Reduce the printer speed to the limit of	
Danariam		thermal printer head	
rapei jaili		Put the paper parallel with the paper	
	Wrong paper feeding position	mount and insert into the space between	
		platen roller and the thermal printer head.	

NOTE: The density of setting, please refer to "Utility Tool Manual"

8.5 Removing Jammed Paper

Warning: Do not touch the thermal print head because it becomes very hot after printing.

If the printer cover can be opened, operate it according to the next steps.

- 1) Turn off the printer and pull open cover button.
- 2) Remove jammed paper, reinstall the roll, and close the printer cover.



Print quality might be degraded by dust, foreign substance, adhesive substance, or other pollution materials stuck in the printer head or inside the printer.

When dirty, clean the print head as follows:

※ CAUTION

- Make sure to turn off the printer prior to cleaning.
- As the print head gets hot during printing, intending to clean the print head, turn the printer off and wait approximately 2~3 minute before commencement.
- When cleaning the print head, take care not to touch the heated portion of the print head. Print Head is susceptible to damage from static electricity, etc.
- Take care not to allow the print head become scratched and/or damaged in any way.

9.1 Cleaning Head

- 1) Open the Printer Cover and then use the cleaning pen to clean the head in the direction from the center of the head to the edges.
- After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min) and the printer has completely dried.

9.2 Cleaning Sensors, Roller and/or Paper Path

- 1) Open the printer cover and then remove the paper.
- 2) Remove any dust or foreign substance using dry cloth or cotton swab.
- 3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.
- 4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (1~2 min) and the printer has completely dried.
- X Clean the parts whenever print quality or paper detection degraded.

LCD SURFACE CLEANING

1. How to clean the LCD surface properly?

- ☆ Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.
- Always apply the solution to your cloth first, not directly to the parts you are cleaning.
 You want to avoid dripping the solution directly into your computer or laptop.
- Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. What are some of the basic supplies needed to clean an LCD screen?

- A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.
- Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.
- Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. What types of cleaners are acceptable?

- ☆ Water
- ☆ Vinegar (mixed with water)
- 🕸 Isopropyl Alcohol

NOTICE: The following cleaners are unacceptable:

- ☆ Acetone
- ☆ Ethyl alcohol
- ☆ Ethyl acid
- 🕸 Ammonia
- ☆ Methyl chloride

