

# C1400 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 equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
- 3. Please keep this equipment from humidity.
- 4. Lay this equipment on a reliable surface when installing. A drop or fall could cause injury.
- 5. Make sure power cord is connected in such a way that people cannot step on it. Do not place anything over the power cord.
- 6. All cautions and warnings on the equipment should be noted.
- 7. If the equipment is not used for a long time, disconnect the equipment from main to avoid being damaged by transient over voltage.
- 8. Never pour any liquid into opening; this could cause fire or electrical shock.
- 9. If one of the following situations arises, get the equipment checked by a service personnel:
  - a. The power cord or plug is damaged.
  - b. Liquid has penetrated into the equipment.
  - c. The equipment has been exposed to moisture.
  - d. The equipment does not work well or you cannot get it to work according to user manual.
  - e. The equipment has been dropped and/or damaged.
- 10. Do not leave this equipment in an unconditioned environment, storage temperature below -20 °C or above 60 °C, as this may damage the equipment.
- 11. Unplug the power cord when doing any service or adding optional kits.

#### Lithium Battery Caution:

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

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#### CE Notice

This device complies with the requirements of the CE directive.

#### **FCC Notice**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **WEEE Notice**

This appliance is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.



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# **1-1 STANDARD ACCESSORIES**

System



90W Power Adaptor



Power Cord



# **1-2 OPTIONAL ACCESSORIES**

Magnetic Stripe Reader iButton





## **2-1 FRONT VIEW**



4.3" 2nd display (option)



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### 2-2 SIDE VIEW



### **2-3 BOTTOM VIEW**



### 2-4 REAR VIEW



W/O 2nd display / VFD

# **2-5 SPECIFICATIONS**

	Display Size		14" TFT LCD	
Diaplay	Resolution		1366 x 768	
Display	Brightness / Color		220 cd/m <sup>2</sup> , 16.7M colors	
	Backlight		LED	
Touch Panel	Туре		Projected Capacitive Touch	
Processor	CPU/ Chipset		Intel® Atom™ X5-E8000 1.04 GHZ Braswell	
Memory			x 1 DDR3L SO-DIMM, up to 8GB	
Storage			x 1 (M.2 SATAIII SSD)	
	USB 3.0		x 4	
	Powered COM (RS232)		x 2 (DB9 powered COM 5V/ 12V selected by jumper)	
I/O Connectors	Cash Drawer Port		x 1 (24V RJ11 port)	
	LAN		x 1 (RJ45 10/100/1000 Base-T)	
	DC In		Lockable 3-pin DC 19V input	
Built-in 58 / 80 mm Printer		x 1		
Optional Peripherals		VFD / 4.3" 2 <sup>nd</sup> Display / MSR / iButton / RFID / WIFI / 4G LTE		
Power Supply		90W 19V Power Adaptor		
OS Support		Win 10 IOT Enterprise		
	Temperature	Operation	32° to 95° F (0 to 40 °C)	
Environment		Storage	-4° to 140° F (-20 to 60 °C)	
	Relative Humidity		20% to 80% non-condensing	
Dimension (W x H x D) n	Dimension (W x H x D) mm		352.8 x 129.8 x 313.2 mm	
Certifications		CE / FCC / LVD		

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

Ensure to connect the power cord to a socket-outlet with earthing connection.

# 2-6 THERMAL PRINTER SPECIFICATIONS

	Print Method	Direct thermal line printing	
Printing	Resolution	203 dpi (8 dots/mm) 180 dpi (7 dots/mm)	
Parameter	Print Width	48 mm / 72 mm	
	Print Speed max.*	200 mm/s	
	Interface	RS-232/USB/Cash Drawer/Power Supply	
	Print Density	Adjustable from level 1 to level 4	
Processor CPU		32-bit RSIC processor	
Memory	RAM	2MB	
Font	Resident font	GB18030 Chinese character	
Graphics		Resident graphic file types are BMP and PCX, other graphic formats are converted by the software download	
Code Page Character Set ASCII, Multilingual		ASCII, Multilingual	
Barcode	1D	UPC-A, UPC-E, EAN(JAN)8, EAN(JAN)13, CODE39, ITF, CODEBAR, CODE128, CODE93	
	2D	PDF417, QR code	
Detection	Sensors	Thermistor, Paper out, Cover open, Cutter home position	
Cash Drawer	Output	24V	
	Paper Width	79.5 ± 0.5 mm	
Paper spec	Paper Thickness	0.055~0.085 mm	
i aper spec.	Paper Roll Diameter	Max. outer diameter 60 mm Min. inner diameter 13 mm	
Emulation		ESC/POS	
Physical Spec.	Operation Condition	-5 °C ~ +50 °C, 30% ~ 85% RH	
	Storage Condition	-20 °C ~ +60 °C, 10% ~ 90% RH	
	Dimensions (L*W*H)	121 mm x 126 mm x 71 mm	
	Weight	340 g	
Software	Driver	Win 10 / OPOS Driver	



### 2-7 INTERNAL LAYOUT

### 2-7-1 Main PCBA



### 2-7-2 Printer control board





# 3-1. MAIN PCAB

### 3-1-1 CN12: eDP connector

No.	Definition	No.	Definition	
1	GND	2	GND	
3	eDP_TX1_DN_C	4	GND	
5	eDP_TX1_DP_C	6	NC	
7	GND	8	GND	
9	eDP_TX0_DN_C	10	LCD_VDD3	
11	eDP_TX0_DP_C 12 LCD_VDD3		LCD_VDD3	
13	GND 14		GND	
15	eDP_AUXP_CC	16	GND	
17	eDP_AUXN_CC	18	BL PWM DIM	
19	GND 20 eDP_HPDE		eDP_HPDET	
21	BL_Enable	22	GND	
23	GND	24	GND	
25	GND	26	GND	
27	+12V	28	+12V	
29	+12V	30	+12V	

### 3-1-2 M\_1: M.2 B key socket (SSD)

No.	Definition	No.	Definition
1	M_2_PRESENCE	2	+VCC3
3	GND	4	+VCC3
5	GND	6	NC
7	NC		M_2_W_D
9	NC	10	M_2_W_LED
11	GND	20	NC
21	M_2_WWAN	22	NC
23	NC	24	NC
25	NC	26	NC
27	GND	28	NC
29	NC	30	NC
31	NC	32	NC
33	GND 34 NC		NC
35	NC	36	NC
37	NC 38 M		M_2_DEVSLP
39	GND	40	NC
41	SATA_RX0_DP	42	NC
43	SATA_RX0_DN	44	NC
45	GND	46	NC
47	SATA_TX0_C_DN	48	NC
49	SATA_TX0_C_DP	50	NC
51	GND 52 NC		NC
53	NC	54	NC
55	NC	56	NC
57	GND	58	NC
59	NC	60	NC
61	NC	62	NC
63	NC	64	NC
65	NC	66	NC
67	NC	68	NC
69	M_2_PEDET_OC	70	+VCC3
71	GND	72	+VCC3
73	GND	74	+VCC3
75	M_2_PEDET_ GND-OTHER		

# **3 - PIN DEFINITION**

### 3-1-3 SW1: Power On/Off connector

No.	Definition
1	Power-ON#
2	GND

### 3-1-4 LED1: Led connector

No.	Definition
1	+VCC5
2	GND

### 3-1-5 CN11: Touch panel connector

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

### 3-1-6 CN4: Printer USB Power connector

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

### 3-1-7 CN7: Printer Cash Drawer connector

No.	Definition
1	GND
2	RJ11_POWER_F
3	Cash draw1
4	Cash Sense_P
5	GND
6	Cash draw 2

### 3-1-8 CN2: RFID connector

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

### 3-1-9 CN3: VFD connector

No.	Definition
1	GND
2	NTXD4
3	NRXD4
4	NDSR4#
5	NDTR4#
6	+VCC5
7	+VCC5
8	NC
9	NC
10	GND

### 3-1-10 CN1: 2<sup>nd</sup> display power connector

No.	Definition
1	+LCM_Power
2	+LCM_Power
3	GND
4	GND

# 3-1-11 HDMI1: 2<sup>nd</sup> display connector

No.	Definition	No.	Definition
1	HMRX0+	2	HMRX2+
3	HMRX0-	4	HMRX2-
5	GND	6	GND
7	HMRX1+	8	DDI2_DDC_CLK2
9	HMRX1-	10	DDI2_DDC_DATA2
11	GND	12	HPD_HMXX
13	HMRXC+	14	GND
15	HMRXC-	16	LCM_BKL_PWM_5V
17	GND	18	+VCC5
19	GND	20	+VCC5



### 3-1-12 COM1, COM2: connector

No.	Definition
1	NDCD#
2	NRxD
3	NTxD
4	NDTR#
5	GND
6	NDSR#
7	NRTS#
8	NCTS#
9	5V/12V/Ring#

### J1: Powered COM 5V / 12V selected by jumper

J1	COM1
1-3	+5V
5-7	Default
7-9	+12V

J1	COM2
2-4	+5V
4-6	Default
8-10	+12V

### 3-1-13 JBAT1 Clear CMOS

	JBAT1
CLR CMOS	(3 - 5)
Default	(5 - 6)

### 3-1-14 MINI PCIE1

No.	Definition	No.	Definition
1	MINIPCIE_WAKE	2	+VCC3
3	NC	4	GND
5	NC	6	+1_5VRUN
7	WIFI_CLKREQ#	8	SIM_VCC
9	GND	10	USIM_P_DATA
11	PCIE_REFCLK3_DN	12	USIM_P_CLK
13	PCIE_REFCLK3_DP	14	USIM_P_RESET
15	GND	16	USIM_P_VPP
17	NC	18	GND
19	NC	20	W_DISABLE#
21	GND	22	MINIPCI-E_RST
23	PCIE_RX3_DN	24	3VSTBY_MINIPCIE
25	PCIE_RX3_DP	26	GND
27	GND	28	+1_5VRUN
29	GND	30	SMBCLK
31	PCIE_TX3_DN	32	SMBDATA
33	PCIE_TX3_DP	34	GND
35	GND	36	USB_PN9_1
37	GND	38	USB_PP9_1
39	+VCC3	40	GND
41	+VCC3	42	NC
43	GND	44	NC
45	NC	46	NC
47	NC	48	+1_5VRUN
49	NC	50	GND
51	NC	52	+VCC3
53	GND	54	GND



### **3-2 PRINTER MODULE**

#### 3-2-1 CN3: Power connector

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

#### 3-2-2 CN1: Cash drawer connector

No.	Definition
1	GND
2	+24V DC
3	Drawer 1
4	Drawer sensor
5	GND
6	Drawer 2

#### 3-2-3 USB1: USB connector

No.	Definition
1	NC
2	Data
3	Data
4	GND

# 4 - REAR I/O INTERFACE

### 4-1 SYSTEM

### 4-1-1 DC Jack Pin

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

#### 4-1-2 2-Layer USB 3.0 connector

No.	Definition	No.	Definition
1	+5V	10	+5V
2	D-	11	D-
3	D+	12	D+
4	GND	13	GND
5	RX-	14	RX-
6	RX+	15	RX+
7	GND	16	GND
8	TX-	17	TX-
9	TX+	18	TX+

#### 4-1-3 LAN: RJ45

No.	Definition
1	MDI0A+
2	MDI0A-
3	MDI1A+
4	MDI1A-
5	MDI2A+
6	MDI2A-
7	MDI0A+
8	MDI0A-
9	MDI3A+
10	MDI3A-

### 4-1-4 RJ11 (Cash Drawer) connector

No.	Definition
1	GND
2	Cash draw1
3	Cash Sense
4	RJ11_POWER_FA
5	Cash draw 2
6	GND

# 5-1 M.2 SSD / MEMORY

1. Loosen 4 screws.



2. Push down the front panel to remove it from the system.



3. Install M.2 SSD/ memory with a mounting screw



## 5-2 MSR / iBUTTON / RFID

1. Fix the MSR/ i-Button module to the system with two screws





2. Plug the USB cable of the MS-R/i-Button into the side USB port





## **5-3 PRINTER MODULE**

#### 5-3-1 Thermal printer module replacement

- 1. Push the lock slider down to unlock the printer cover button
- 2. Press the printer cover button to open it



3. Loosen 2 screws.



4. Pull out the printer module



5. Disconnect the printer cable



### 5-3-2 Paper Installation

1. Push the lock slider down to unlock the printer cover button







2. Press the printer cover button to open it



 Insert the paper in the correct direction of the roll paper



4. Remove excess paper in the direction of the printer.





# Notes:

→ Adjusting the paper guides to the paper size; When using 58 mm (width) roll paper, insert the paper guide into the paper slot.



# Paper quide

 $\rightarrow$  Please note that the hook of the paper guide should be installed in the groove



# 5-4 4.3" 2ND DISPLAY REPLACEMENT

1. Loosen 4 screws.



2. Push down the front panel to remove it from the system.



3. Push the lock slider down to unlock the printer cover button





4. Press the printer cover button to open it



5. Loosen 2 screws.



6. Pull out the printer module









- 8. Loosen 2 screws and disconnect the 2 cables
- 9. Push the back cover down to remove it from the system





10. Loosen 2 screws, remove the bracket cover, disconnect the 3 cables and then take out the 2nd display.







# 5-5 VFD MODULE REPLACEMENT

1. Loosen 4 screws.



2. Push down the front panel to remove it from the system.



3. Push the lock slider down to unlock the printer cover button



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4. Press the printer cover button to open it



5. Loosen 2 screws.



6. Pull out the printer module



7. Disconnect the 3 cables from the printer



8. Loosen 2 screws and disconnect the cable



9. Push the back cover down to remove it from the system



10. Loosen 4 screws, disconnect the cable and then take out the VFD.





## 6-1 MAGSWIPE CARD READER CONFIGURATION UTILITY

The MagSwipe Configuration Utility is used to set up the output format of MagSwipe

### 6-1-1 Installation

The steps below guide you how to install the Utility program

- Download the drivers from https://www.colormetrics.info/colormetrics-c1400.php -> Downloads -> Drivers & Software C1400 -> Drivers & Tools CD
- Unpack the .zip-file
- Run the setup.exe from the Peripherals -> MSR folder
- Follow the wizard to complete the installation.

#### Launching Program

The steps below guide you how to load the **Utility** program.

- From Start/Programs, click MagSwipe folder
- Click to launch the program.



# 6 - DEVICE DRIVER INSTALLATION

#### Configuration



### 6-1-2 Select Reader Interface

The reader to be configured should be connected. Select the corresponding connected reader interface and click the **Continue** button



After the interface selection is made, click the **Continue** button. The utility attempts to communicate with the connected reader. If successful, the Home Menu Page is displayed, as shown above.

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### 6-1-3 Change Basic Reader Setting

After selecting the appropriate interface for the reader, select one of the Home Menu Page buttons to proceed with the Magnetic Stripe Reader (MSR) configuration process. The "Basic Reader Settings" group defines the basic operating parameters and data output format of the reader.

	Change Basic Settings:			
	General Settings PrejPostamble	RS232 Parameters	Track Settings	Keyboard Settings
ELECT READER INTERFACE	O OFF O LOW	• HIGH O	Quick HIGH	O Quick LOW
HOW TO USE	MSR Reading MSR Reading Disabled		MSR Reading Enabled	
	Teminal Type • IBM PC/AT		O IEM PC/AT, External Keyboard	
ADER SETTINGS	NateBook	0	IEM PC/AT, NO	External Keyboard
	Decoding Method		Inte	er-Character Delay
HANGE BASIC	Raw Data		⊙ 2 m	o 🔿 20 mo
ADER SETTINGS	<ul> <li>Decoding In Both Directions</li> </ul>		0.5#	- O 50 ms
	<ul> <li>Decoding forward direction or</li> </ul>	ly .	0.00	
ANGE ADVANCED	<ul> <li>Decoding reverse direction or</li> </ul>	ly .	0 10	ms 🔿 100 ms
ADER SETTINGS	Defa	A Page	Help	

#### **Button Definitions**

#### Send To MSR

When all the setting parameters are selected, use the "Send To MSR..." button to send configuration data to the reader device. When the reader has received the data correctly, the settings take effect immediately.
#### Save To File

The configuration data can be saved as a file and used later to configure other readers. When saving a configuration the "File Save" dialogue is opened as shown below. Input a file name and file location.

Save As			<u>?</u> ×
Save in: 🗀	MagSwipe	• + 🗈 💣 💷•	
			- 1
			- 1
1			
File name:		Save	
Save as type:	MagSwipe Config Files.cfs2	Canor	
File name: Save as type:	MagSwipe Config Files.cfs2	Save	

#### Load From File

The configuration data can be loaded into the configuration utility from a file that has been previously saved. Select this command, start a "File Open" dialog, which allows selection of the file.

Open			<u>?</u> ×
Look in:	MagSwipe	• + 🗈 🖆	* 💷 •
File name:			Open
Files of type:	Minimag Config Files cfs2		Cancel
	Truning could receive		

#### Default All

This button sets the reader with the default configuration parameters (the default factory settings). The settings take effect immediately. The default parameters affect all reader configurations settings.

#### Close

Close this dialogue and return to the Home Menu Page.



## 6-1-4 General Settings

This group of configuration settings defines the basic operating parameters of the reader.

	Change Basic Settings: General Settings: Pre-Productible R5232 Part	aneters Track Settings Keyboard Settings
ELECT READER INTERFACE	DEFF LOW OHIGH	O Quick HIGH O Quick LOW
HOW TO USE	MSR Reading MSR Reading Disabled	MSR Reading Enabled
HECK CURRENT	Terminal Type i IBM PC/AT NoteBook	IBM PC/AT, External Keyboard     IBM PC/AT, NO External Keyboard
CHANGE BASIC	Decoding Method Raw Data Decoding In Both Directions Decoding forward direction only Decoding reverse direction only	Inter-Character Delay <ul> <li>2 ms</li> <li>20 ms</li> <li>5 ms</li> <li>50 ms</li> <li>10 ms</li> <li>100 ms</li> </ul>
ADER SETTINGS	Defe 8 Para	Hate

### **Beep Volume**

The Beep volume can be adjusted to four loudness levels or off. The loudness levels are:

- Quick High
- Quick Low
- High
- Low

The default is High beep.

### **MSR Reading**

This option will turn on or off the MSR. If MSR is disabled no data is sent out to host in any case. The default is MSR Reading Enabled.

### **Terminal Type**

- NoteBook
- IBM-PC/AT
- IBM-PC/AT, External keyboard
- IBM-PC/AT, No External keyboard

The firmware can be programmed to interface as a keyboard wedge to 4 different types of terminals. The default is IBM-PC/AT.

## **Decoding Method Settings**

This option allows for four kinds of decoding methods.

- Raw Data (output in both forward and reverse directions)
- Decoding in Both Directions (forward and reverse reading)
- Decoding in Forward Direction only (card entering slot from LED end)
- Decoding in Reverse Direction only (card entering slot from end opposite LED)

With the bi-directional operation, the user can swipe the card in both swipe directions and the data encoded on the magnetic stripe will be output. In the single swipe direction selections, the card can only be swiped in one specified direction to read the card. The default setting will decoding card data with the card swiped in either the forward or the reverse direction.

"Raw Data" is an output of the decoded magnetic stripe data in hexadecimal format (no ASCII character conversion is performed). In the Raw Data setting, the reader outputs all track-decoded data. The MSR will represent the raw data with two ASCII characters: the first ASCII character is for high bits of the raw data byte and the second is for the low bits. For example, the two ASCII characters "4" and "1" represent raw data byte 41h (01000001).

#### Inter-Character Delay:

2 ms, 5 ms, 10 ms, 20 ms, 50 ms, 100 ms;

This is the time period the reader will delay between sending successive characters. Some terminals or computers (host) require an inter-character delay to simulate the effects of keystroke delays. Choosing a longer inter-character delay causes the characters to be sent at a slower rate. If the host system is not capable of receiving characters as fast as the reader can transmit, setting an appropriate inter-character delay will keep the reader from overrunning the host input buffer. The default is 2 ms.

### **Default Page Button**

After you click the Default Button, the general settings page will change back to the default value. Settings are not sent to MSR until the "Send to MSR" button is clicked.

### Help Button

Click the help button to open the help index for this section.

## 6-1-5 Pre/Postamble

#### Preamble

Characters can be added to the beginning of the reader's output string of data. These can be special characters for identifying a specific reading station, to format a message header expected by the receiving host, or any other character string. Up to nine ASCII characters can be defined for the Premable.

#### Postamble

The Postamble serves the same purpose as the Preamble, except the extra characters are added to the end of a data string. The Postamble can be added only after a terminator character, if specified.

#### Track Prefix and Suffix

For some Host applications, it may be convenient to start or end a string of reader data with a Sentinel or terminator character. The maximum Prefix/Suffix string is six charecters and its default is NULL(no prefix or suffix).

#### **Track Start Sentinels**

Characters can be added to the beginning of each track data string to simulate the start of the track data. These can be special characters for identifying a specific track.

#### **End Sentinel**

The magnetic stripe End Sentinel character can be added to the end of a magnetic stripe data string. This character simulates the end of character for track1, track2 or track3. This default is '?'

## 6-1-6 Track Settings

#### **Track Selection**

There are three tracks of information possible on a magnetic stripe. This option selects the tracks that will be decoded (read). Note that the magnetic stripe reader must have the hardware configuration (read head and circuits) for reading the specified tracks. If a single or dual track reader is used, the heads must be positioned to read the tracks selected by this option. The default is Any Track. (All tracks written on the card will be read).

IDT	<b>ECH</b> <sup>®</sup> MagSwipe Configuration Utility
	Change Basic Settings: General Settings Pre/Postanble RS232 Parameters Track Settings Keyboard Settings
SELECT READER	Track Select  Any Track  Track1 Only  Track2 Only  Track1 And Track2  Track3 Only  Track3 And Track3
HOW TO USE THIS UTILITY	Track2 And Track3 All Three Tracks Track1 Or Track2     Track2 Or Track3
CHECK CURRENT READER SETTINGS	Send Stat/End Sentinel Send LRC in Card Data For Track 2 Only Send Account Number Send Fary Indication
CHANGE BASIC READER SETTINGS	Track Separator: [0] Non-Printable Char.
CHANGE ADVANCED READER SETTINGS	Teminator.  07  Non-Piritable Dhar.
HELP	Default Page Heb
ENIT	Send to MSRi Save to File Load from File Default AI Close

#### Track Separator Selection

This option allows the user to select the character to be used to separate data decoded by a multiple-track reader. The default value is CR.

#### Send Start/End Sentinel

The reader can send the Start/End sentinel for a track, decoded without error.

#### Send LRC in Card Data

The reader can send the track LRC for a properly decoded track.

#### For Track 2 only Send Account Number

The reader can only send account Number if it is true. And if it is false, the reader sends all Track 2 data.

#### **Send Error Indication**

This option let reader to send out [SS]E[ES] if failed to read or missing data on a selected track. The default is off.

- The error output for track 1 is "%E?".
- The error output for track 2 is ";E?".
- The error output for track 3 is "+E?".

## 6-1-7 Keyboard Settings

	Change Basic Settings:		
	General Settings Pre/Postanble	RS232 Parameters	Track Settings Keyboard Settings
INTERFACE	Language Option		
	⊙ US	O Swiss	O Swedish
HOW TO USE THIS UTILITY	<ul> <li>Spanish(Mexico)</li> </ul>	<ul> <li>Norwegian</li> </ul>	Italian
	() Geman	O French	O Japanece
HECK CURRENT	Olik	<ul> <li>Universal</li> </ul>	
	Function Key Output		
HANGE BASIC ADER SETTINGS	On Key Output	OAR	Key Output
ANGE ADVANCED ADER SETTINGS	US8 HID KB Poling	Interval (Input value is	: from 1 to 295) 1
	Defe	d Pass	Halo

## **Keyboard Settings**

There are keyboard settings information on a magnetic stripe. MiniMag II will support following foreign language keyboard and function key output for PS/2 and USB HID Keyboard Interface

#### Language Option

This option allows the user to select the keyboard language of US, Swiss, Swedish, Norwegian, Italian, Spanish (Mexico), German, French, Japanese, UK and Universal. Universal language sends out all the data as a series of ALT keypad sequence.

#### **Function Key Output**

The function key output can be used to support the special key to delay card data output.

#### **USB HID KB Polling Interview**

The user can input the number between 1 to 255 for the delay of output.

#### **Check Current Reader Setting**

After you connect the device, the current reader configuration can be displayed by selecting this button. The configuration data of the connected reader will be displayed like in the example:



## 6-2 iBUTTON READER CONFIGURATION UTILITY

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

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

Version: V01.00

## 6-2-1 Device Connection

#### **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: 030F
OK Cancel

## 6-2-2 Utility Features

After successful device connection, each supported command will get its response, e.g. *Get Version* command should response with the device HW/FW version, for all supported command sets please reference its programming guide.

Two command/response windows can be used (see block 1 & 2). For second level device, the Indirect command signal should be selected (see block 3 & 4). Press the button "Configure Word" to enter the parameter setting function (see block 5).

The two response windows show the data from the connected device.

CID1etAp Version 06:00	CIDE& 05.00					
No View Device Help						
	Issue Commands		1	Augusta and a second se		
Correct	Commands	GET KERSOON	•	[Get version information]		
	Optioner			Application code: 02.01		
	Argumenter					
Decement	Aget					
5	[] Indext					
		·				
Cardgare Ward				Hex Deplay *	Pace new response on top	Cear
					Core on brown stress	
Information	Command Scripts	Command Script HED.CED	2			
Status	Command	GET_HERSDON	•	Servi		(der Bautatunk)
Connected	5.8 Connends				Data Manitar Canada	(real (building unit)
875,075	San Data	CMD_BYTE: 01	/Define C	MD_BYTE value	127 HERSON LIGHT-RULE 1210 M 00 45	->
Reset Device	Dedrect	Command format <stix+cm< td=""><td>D_BYTE&gt; <apou_le< td=""><td>&gt;&lt;.R&gt;</td><td>12120-40-402 C-</td><td></td></apou_le<></td></stix+cm<>	D_BYTE> <apou_le< td=""><td>&gt;&lt;.R&gt;</td><td>12120-40-402 C-</td><td></td></apou_le<>	><.R>	12120-40-402 C-	
Click	Parae TUY	[Send]URC	LEN			
Device Status		100k 31k 50k 00k 03k				
Fealy		(Response format <stic+ vpc<br="">of VPC/VPC (hep bytes) hardware</stic+>	U_LEN+ HHOHOSS Version HHOHH	38+ <lrc+< td=""><td></td><td></td></lrc+<>		
		# 55,55 (two bytes) software ve	raion 55.55			
		1			_	

### **Configuration Setup**

Device functions (e.g. MSR, iButton, RFID, Chip card) behaviour 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.

Configure Word Setup - USB (HID)		x
Configure Word Load From File pure Word Save To File Get Configure Word V Track 2 Enable V Track 3 Enable V Track 3 Enable V Tracks Spearator/Terminator Enable V Tracks Sentinel Enable V Tracks Sentinel Enable V Replaceable V Button Enable RFID Auto Enable V Beep Enable	MSR : Response Port : PS2 COM VCOM US8 (HD) Head/Tail Message(max 10 bytes each) Track 1 (JIS II) Head Track 1 (JIS II) Tail Track 2 Head Track 2 Tail Track 3 Head Track 3 Tail Invisible Code	



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: iButton function areas: RFID function areas: Chip card function areas: 1, 2, 5, 6, 9, 11, 12, 13 2, 3, 5, 7, 10, 11, 14 2, 4, 5, 8, 11, 15 16

Configure Word Set	up - USB (HID)	×
Configure Word		
Get Configure Word	Configure Word	13 ANSR: Response Port:
	Track 3 Enable Tracka Spearaton/Terminator Enable Tracks Error Report Enable	PS2 COM VCOM US8 (HD)      HeadTail Message(max 10 bytes each)      Track 1 (JIS II) Head Track 1 (JIS II) Tail      Track 2 Head Track 2 Tail
Set Configure Word	Tracks Sentinel Enable Replaceable Tracks Sentinel Enable Replaceable Replaceable RFD Auto Enable RFD Auto Enable	Track 3 Head     Track 3 Tail      Invisible Code
Information AP Ver.	5 Beep Enable Track1 (JS I) Request 6 Track2 Request Track3 Request	Button : 14 Response Port :
Lib Ver.	7 Off Button D Request 8 Off RFID D Request Tracks Sequence Request	HeadTai Message(max 10 bytes each)     On Button Head     On Button Head     On Button Tai      Off Button Head     Off Button Tai
RS232 Conf. Baud Rate: 10 9000	Track1,2,3         •           Button ID Range Request :         •           From 1         •         •	TVISCE CODE
Party: Even *	12 Track 1 (JIS II) Start Sentinet	RFID 15 Response Port : O P52 O COM O VCOM @ USB (HD) E
Language Option :	Track 2 Start Sentinet Track 3 Start Sentinet	On RFD Head     On RFD Tail     Off RFD Head     Off RFD Tail     Invisible Code
Close	Tracks End Sentinet Tracks Separator: None • Tracks Terminator: None •	
		CC Response Port : 16 COM VCOM USB (HD)
* (		

## Configure word detail

## Area 1

Track 1 (JIS II) Enable:	If enabled, the track 1 data will respond.
Track 2 Enable:	If enabled, the track 2 data will respond.
Track 3 Enable:	If enabled, the track 3 data will respond.
Upper Case:	If selected, the track1 data read will transfer to upper case before responding.
Track Separator / Terminator Enable:	If enabled, the reader will send Track 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 respond when track data read fail.
Track Sentinel Enable & Replaceable:	If enabled, the reader will send start and 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

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

## Area 3

	iButton Enable:	If enabled, iButton key ID may respond when key attached or removed.
--	-----------------	--

#### Area 5

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



## Area 6

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 bytes max. long. Invisible code:	Enter keyboard control code.

## Area 7

I on induction in request. In selected, key in will respond while key removed.	Off iButton ID Request:	If selected, key ID will respond while key removed.
--	-------------------------	---

## Area 8

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

## Area 9

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

## Area 10

iButton ID Range Request:	Define the iButton 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 Sentinel:	Define Track 1 Start sentinel byte, default is "%".
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 bytes max. long. Invisible code:	Enter keyboard control code.

## Area 14

IButton Response Port:	Select iButton 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,

## 6-3 VFD

## 6-3-1 Utility Setup

Power on VFD and waiting Baud rate and command page of EEPROM test.

Download VFDset.exe software:

- Go to https://www.colormetrics.info/colormetrics-c1400.php
- → Downloads
- → Choose "VFD OPOS Driver"



## 6-3-2 VFD Connection

Execute "VFDset.exe" to connection VFD module.

VEDSet1.5		
Interface Setting Com Part Solect Buad Rate	Com1	Load Save Set All Default
	Open COM	Get Setting From VFD Download Setting To VFD
Command Setting  W	/elcome Msg ] User Defi	and Character
	Character Type	USA/EURPOPE(Detault)
	Command Mode	[[PSON[Default] *
	BaudRate Select	9600.n.8.1[Detaol]
	Passthra Mode	None(Default)

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.

### 6-3-3 VFD Setup

#### Get Setting from VFD

"Get Setting from VFD" button to get all the settings from manufacturer and it is going to refresh the "VFDset.exe" software.

### Character Type

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

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

#### **Setup Default**

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: None
- Welcome msg line1: \*\*\* VFD DISPLAY \*\*\*
- Welcome msg line2: \*\* HAVE A NICE DAY AND THANK YOU \*\*

#### Welcome Message

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

#### a. ASCII mode



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  $0x20h to 0xFFh \rightarrow$  the range  $0x80 \sim 0XFF$  which depends on the code page table.



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

#### Download setting to VFD

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 to enable new setting

1000	福定	10000	
	HR.AL	in some of the	

Dowalcad O.K | Please restart !

#### Save the setting

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



#### Load the setup file

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





## 6-4. RFID

### 6-4-1 Install driver

Check the Windows Device Manager to verify the status of RFID reader. Computer Management  $\rightarrow$  Device Manager  $\rightarrow$  Other devices (The device will show a question mark if the installation is not done properly.)



Click to update driver.



Select "Browse my computer for driver software."



Click Browse to select file called MP30U  $DriverFTDI \times 64$  And click **Next**.



#### Install the driver

- K may the starting the	U.K.)	
Updets Driver Setterare - USB Kon Serial		_
Installing driver software		

Install complete and then click "close".

JSB Serial	Converter Prope	rties	×
General	Advanced Drive	er Details	
T	USB Serial Conv	eter	
	Device type:	Universal Serial Bus controllers	
	Manufacturer:	FTDI	
	Location:	Location 0 (Port_#0008.Hub_#0001)	
			-
		OK Cancel	Help

Restart the computer.

## 6-4-2 Install framework 4.0

Double-click to install.

						*
😳 💮 🔒 = P16500	<ul> <li>HEDU &gt; RovA &gt; Frameway</li> </ul>	nt 43	* *s	Second Conneccent	140	P
Cryante · Include in	Honry * Share with *	New folder			8 · 0	
🙀 Ravantes	Neme		Date modified	Type	Site	
Dealtop Deantsods Excent Recen	🛒 aababat Julyak yaa		2/10/2010 (see and	Application	0.28143	
Constant Decaments Maser Maser Pictures						
Computer						
Network		Extra	cting files			
1 fem		Pre	sparing: C:\6a3o	bf8bcefbf4	27a7cc40'(ne	tfx_

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

Microsoft NET Frames	vork 4 Setup	<b>مد ا</b> للاز مر
JET Framework 4 Se Flease accept the lo	tup erce terms to continue.	NET
MICROSO	FT SOFTWAR	E .
Zownianal size cotion Downland time society	alar: 0 MB alar: Dial Apr. 0 mi Droetbend:	nulara O minutes
		Sretal Cancel
ck Finish.	Messalt All Famers	n 15np
		Installation Is Complete
		Orect for more recent versions on 2010 or 1, 2021

## 6-4-3 Quick Start with Demonstration Software

The demonstration software "MP Studio.exe" is provided in the folder Peripherals -> RFID -> "Demo Software". There is no software setup required; just double-click the "MP Studio.exe". The demonstration software can run either from CD or a copy on hard drive. The interface of the software is shown in the picture below and ready to use.

PROMAG Multi-Protocol Studio	IN THE REPORT OF THE PROPERTY OF	
Interface View Firmware Help Command List • # 1	( Parameters	• ×
General     Set Communication Protocol     Auto Polling     LED     Burzer     Reset     ISOladdaa     Standard     CCCUID     RATS     APDU(Y=CL)     Deselect     Nifare Ultralight C     Nifare Ultralight C     Nifare Desfire EV1     Innovision     Special     ISOladaa	15014443A + Standard + Get UID 🕟 🕤 No Parameter	
・ 15015693 ・ PicoTeg ・ Felice ・ 1507816 ・ ePassport ・ 集高工業専用	Response	+ 4 X
Communication Logs	9	- *×
r Status		*

The following steps, as shown in the following pictures, demonstrate a simple usage in reading UID of ISO14443A card for quick understanding.





## 6-5. P1400 PRINTER

## 6-5-1. Printer Utility

#### **Utility installation**

Click RrinterUtilitySetup.exe to start the Printer Utility Setup.

(You will find the file in the folder Peripherals -> C1400\_Printer\_driver)

Select Se	tup Language
1	Select the language to use during the installation:
	English 🔹
	OK Cancel

Choose the language and click "OK".

Setup - Printer Utility Setup	
	Welcome to the Printer Utility Setup Setup Wizard
	This will install PrinterUtilitySetup V1.0.0.4 on your computer.
	It is recommended that you close all other applications before continuing.
	Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

Click "Next".

Select destination location and click "Next".

😪 Setup - Printer Utility Setup	×
Select Destination Location Where should Printer Utility Setup be installed?	
Setup will install Printer Utility Setup into the following folder.	
To continue, click Next. If you would like to select a different folder, click	Browse.
C:\Program Files (x86)\PrinterUtility	Browse
At least 77.6 MB of free disk space is required.	
< Back Next >	Cancel

Select start menu folder and click "Next".

😪 Setup - Printer Utility Setup	×
Select Start Menu Folder Where should Setup place the program's shortcuts?	
Setup will create the program's shortcuts in the following Start Me	nu folder.
To continue, click Next. If you would like to select a different folder, click B	rowse.
PrinterUtility	Browse
< Back Next >	Cancel

## Ready install and click "Install".

😴 Setup - Printer Utility Setup	
Ready to Install Setup is now ready to begin installing Printer Utility Setup on you	ur computer.
Click Install to continue with the installation, or click Back if you the change any settings.	want to review or
Destination location: C:\Program Files (x86)\PrinterUtility Start Menu folder: PrinterUtility	·
٩	*
< Back	Instal Cancel

Complete the installation and click "Finish".

😴 Setup - Printer Utility Setup	
	Completing the Printer Utility Setup Setup Wizard Setup has finished installing Printer Utility Setup on your computer. The application may be launched by selecting the installed icons. Click Finish to exit Setup.
	Finish

Find the destination location: C:\Program Files (x86)\PrinterUtility, then open the folder, click

to open the Printer Utility.	
Printer Utility Version 1.0.0.4	
Printer List:	
	Add Printer
	Modify Printer
	Delete Printer
	Connection Test
Functions	
Printer Test	Command Test
Manage Images	Download Image In Compatible Mode
Code Page Setting	Download Fonts
Parameter Setting	Advanced Settings
FW Update	Close



## Add Printer

Click "Add Printer".

Printer Utility Version 1004		
Printer List:		
		Add Printer
		Modity Printer
		Delete Printer
		Connection Test
Functions		
Printer Test	Comman	d Test
Manage Images	Download Compatibl	image in e Mode
Code Page Setting	Download	d Fonts
Parameter Setting	Advanced 5	ettings
FW Update		Close

Choose the right printer driver and port type, then click "OK". Addition of the printer is finished.

Add Printer	<b>X</b>
Printer driver:	Printer1400 💌
PortInfo	
Port type:	USB •
Automatic id	entification port:
USB Position	c
Notes:	
	OK Cancel

## **Modify Printer**

Choose the printer which you want to modify in the list. Click "Modify Printer".

Printer Utility Version 10.0.4	
Printer List:	
Printer1400   USB   Printer1400     N	Add Printer
	Modify Printer
	Delete Printer
	Connection Test
Functions	
Printer Test	Command Test
Manage Images	Download Image In Compatible Mode
Code Page Setting	Download Fonts
Parameter Setting	Advanced Settings
FW Update	Close

Choose the new driver and port, then click "OK". Modify Printer is finished.

Select Port		x
Printer driver:	Printer1400	•
Portinfo		
Port type:	USB USB	•
Automatic id	TCP/IP COM LPT	
C36 Foator	6	
		_
Notes:		
	OK Can	cel



## **Connection test**

Click "Connection Test". If the connection is successful, it will appear the following window. If the connection is unsuccessful, please connect the printer with computer.

Printer Utility Version 1.0	.0.4		- • ×
Printer List:			
Printer1400   USB   Printer14	00     N		Add Printer
			Modify Printer
			Delete Printer
			Connection Test
Functions	×	1	
Printer Test	Connect success!	mman	d Test
Manage Image	ОК	nload I ipatible	image In e Mode
Code Page Settin	8	Download	d Fonts
Parameter Settin	¢ Ad	vanced S	ettings
FW Update			Close

#### Note:

- 1. Make sure printer is connected with computer and power on.
- 2. Make sure printer is loaded paper.
- 3. Before using the following function  $\rightarrow$  carry out the "Connection Test" first.

## Functions

The function of Printer Utility For Mobile contains eight items. Click the button and printer will execute the appropriate action.

#### Note:

The following screen may differ depending on the device to which you connect. Please operate it according to the actual interface.

Printer Utility Version 1.0.0.4	
Printer List	
Printer1400   USB   Printer1400     N	Add Printer
	Modify Printer
	Delete Printer
	Connection Test
Functions	
Printer Test	Command Test
Manager	Download Image In
wondge mages	Compatible Mode
Code Page Setting	Download Fonts
Parameter Setting	Advanced Settings
FW Update	Close

## **Printer Test**

Open #2 Cash Drawer
Cutter Test
2D Code Test

It contains the following items:

- 1. Open #1 Cash Drawer and Open #2 Cash Drawer
- 2. Self Test: click it to print out the setting information
- 3. Cutter Test: click it to test the cutter
- 4. Print Text Test: input the test text in the input box as needed and click print

Print Test Text	
Please enter the text you need to print:	(Length < 5000)
Printer Test Test	
	Select Language Language: USA:Standard Europe
	Printer Close

## 2D Code Test

- QRCode: edit the data and click "Print"
- PDF417: edit the data and click "Print"

2D Code Test	2D Code Test
QRCode PDF417	GRCode PDF417
Model: 2	Columns: 0 0
Module size: 3 🛫	Rows: 0.0
Error correction level: L 7%	Width of the module: 3 •
	Row height: 3
	Error correction
	Error correction level: 1
Data: 2020.1.3	Data: 2020.1.3
•	· · ·
Print Close(C)	Print Close (C)

### Printer Status

Printer Status			×
Status			_
Has paper!			^
			÷
	Refresh(R)	Close	e(C)

## **Command Test**

You can load file or input the text in the input box on the left, then click "Send", the printer will print the text out accordingly.

Click "Text":

Printer Test		(×
C 'Usen'HongRui Desktop'/123 tel	Load Fiel(L)	Send Option  Send By Text  Send By Hex  Send Ity Hex  Send Interval 3000 >100ms  Send And Receive Data Recive Data Langth: 256  Clear After Sending
		Send(5)
Receive Data:	Read	Oear(CL)
		Cose(C)

## Click "Hex":

Printer Test			×
C:Uben/HongRu/Dektop/123.bd Do31.0.32.0.30	Losd File().)	Send Option Send By Text Send By Hex Send By Hex Send Interval 3000 Send And Receive Data Recive Data Length: Oear After Sending Send(5)	>100ma
Receive Data:	Read	Gear(CL)	
		Oose(C)	

## Manage Images

Manage your images	
Image List:	
	Print Alignment
	Download(D)
	Print(P)
	Delete Image(E)
	Delete Al Images
	Refresh(R)
Total space:556KB,Free Already loaded :0.	space:55688;
	Cose

Print Alignment: Download image: Left, Center, Right.

Click "Add" to choose the picture you want to print, click "Download mode of G", the printer will print the picture.

## Note:

When "Print image after download is completed" is selected, the image will be printed directly.

Download image		X
Download image		
C:\Users\HongRui\Desidop\PrintWew.png	Pr	rint preview
Note:Use the file or Calcel(C)	K (Image number. (Image further download is completed Print Alignment	e space ( 409608)
		Cose

The downloaded images are in the images list.

00	Print Alignment 💌
	Download(D)
	Print(P)
	Delete Image(E)
	Delete Al Images
	Refresh(R)
mage Ust: 00	Print Alignment
-----------------	-------------------
	Download(D)
	Print(P)
	Delete Image(E)
	Delete All Images
	Refresh(R)

Print: Choose the image "00" in the image list, then click "Print".

#### **Delete Image:**

Choose the image you want to delete, click "Delete Image", the printer will delete the image.

Manage your ima	yes	×
Image List:		
	Print Alignment 💌	
	Download(())	
	Print(P)	
	Delete Image(E)	
	Delete Al Images	
	Refresh(B)	
Total spa Already 1	ce:556KB,Free space:556KB; oaded :0.	
		Close



### Download Image In Compatible Mode

Download image: Click "Add" to choose the picture you want to print, click "Download mode of G", the printer will print the picture.

Select File(F): C:\Usen\HongRu\Desktop\PintView.pr		Add(A) Delete	D)
			Print preview
SeterBase the if Calcel(C) OK	a built-in printer i mage after download is com	nage number. pleted Center	(Image space < 409608)
Success!	_		

#### **Download Fonts**

Download Fonts: Choose the font from existing files and click "Download".

Download File To Pri	nter	2	×
Download File Select File: C:\Users\Hond CancelIC	Download success. Restart Printer Please!	0.0.04lies\Option.ini	
Success!	ОК	Cose	]

### **Parameter Setting**

Click "Parameter Setting", according to the different needs, choose "COM Config", "Language And Charset Config", "Enable Cut Paper", "Cut paper when power on", "Enable Buzzer", "Beeping After Cutting", "Other Config" in "Parameter Setting". Click "Set" to save it.

Print Setting			<b></b>
COM Config		Enable Buzzer	
Baud Rate:	9600 -	Buzzer Volume:	Standard 💌
Data Bts:	8 -	Beeping After Cutting	
Stop Bits:	1 -	Resping times:	0 (1.265)
Party Check:	NONE	Beening time:	0 (1200)
Row Control:	DTR/DSR -	Desping une:	0 (1-64) (100ms)
Language And Charset Conf	ia.	beeping interval:	0 (1-64) (100ms)
Codepage:	Default	Other Config	
International Character:	U.S.A.	Print Density:	2 •
Language Mode:	Multi language -	Paper Width:	80mm(576dot)
Chinese Mode:		Auto Line Feed:	Disable -
Arabic Transform:	Disable	DPI Mode:	203 🔹
Vetnamese Transform:	Enable deformation utf-8 input ·	USB Port Mode:	USB -
THE CARD IN CARDING			USB Vitual Serial Port
Cut paper after the cover i	a closed		
Enable	Disable	<b>~</b>	Chase
Cut paper when power on		~	0.000
Enable	Oisable		

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## **Advanced Settings**

gth Of Print

#### **Reduction Print Setting:**

Reduction Print Setting	×
Reduction Of Excessive Top Margin:	
Reduction Of Excessive Bottom Margin:	Off 🔹
Reduction Vertical Spacing:	None •
Reduction Line Feeds:	None •
Reduction Height Of Barcode:	None •
Setting	Close

Length Of Print: the length of print can be viewed



### FW Update

Click "FW Update".

Printer Utility Version 1.0.0.4	
Printer List:	
Printer1400   USB   Printer1400     N	Add Printer
	Modify Printer
	Delete Printer
	Connection Test
Functions	
Printer Test	Command Test
Manage Images	Download Image In Compatible Mode
Code Page Setting	Download Fonts
Parameter Setting	Advanced Settings
FW Update	Close

Select file and click "Update".

Device Firmware Upgrade	<b></b>
Select File:	
C:\Users\HongRui\Desktop\PSL540_V1.0.11_bate3.dfu	
Device: Printer	Quit(Q)
Erase Phase:64%	

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#### 6-5-2 Windows Driver Installation

## Warning:

Under different operating systems, the screen may look slightly different. Please operate it according to the tips. Take Printer1400 (Windows 7) as example.

- Double click Windows Driver.
- Choose "I accept the agreement".
- Click "Next".

Setup - PRT650 and Printer1400 POS Printer Driver v2.7.1.0
License Agreement Please read the following important information before continuing.
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
CAREFULLY READ THE FOLLOWING LEGAL AGREEMENT. THE SOFTWARE PROVIDED WITH THIS AGREEMENT (THE "SOFTWARE") IS LICENSED AND ITS USE IS SUBJECT TO THE TERMS AND CONDITIONS BELOW. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, PROMPTLY DESTROY THE SOFTWARE AND DOCUMENTATION.
1. LICENSE GRANT
This software is only to be used with the equipment for which it has be made. My company grants to you a non-exclusive, non-transferable right to use the SOFTWARE on the computer(s) that will print to the thermal printer(s). This
I accept the agreement
I do not accept the agreement
Next > Cancel

Click "Next".

Setup - PRT650 and Printer1400 POS Printer Driver v2.7.1.0	- • · · ·
Select operation of install Please select the operation as you need.	
Install printer driver Please connect your printer to the PC and turn it on.	
< Back Next >	Cancel

Choose the matched type and port (USBxxx is for USB port, COMx is for serial port, LPTx is for parallel port). Choose the type and port of driver, such as "COM1" as port. Click "Next".

Setup - PRT650 and Printer1400 POS Printer Driver v2.7.1.0		
Select the port of prin Select the default inst	nter driver tallation port name of printer driver.	
USB003 USB002 USB001 Cloud TCP/IP Port SHRFAX: COM1:	Printer Model: Printer 1400    Pre-install Driver Name: Printer 1400(1)	
COM2: COM3: COM4: FILE: LPT1: LPT2: LPT3: XPSPort:	Baud Rate: 9600 V Parity: NONE V Data Bits: 8 V Stop Bits: 1 V Flow Control: NONE V	
	Add TCP/IP Port  Back Next > Cancel	

NOTE: If printer is already connected with computer by USB port, you only need to click "Install", then it will be installed automatically. Otherwise, proceed to the next step.

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Click "Finish". The printer driver is installed successfully.

After installation, the icon will be found in "Start"  $\rightarrow$  "Devices and Printers".



**NOTE:** If you already installed the driver (no matter what kind of port), when you connect the printer with the computer, it will create a USB port automatically.

#### **Detailed Windows Driver Setting**

#### **Printing Preferences**

Click "Start" → "Devices and Printers". Right click "Printer1400" and choose "Printing preferences".



According to the different needs, adjust "Paper" / "Offset" / "Rotate" / "Effect" / "Copies" in "Page" tab.

Paper		
Paper Name: Cu	stom(72.0mm * 2	97.0mm) 🔹
		Manager
Offset		
Horizontal: 0.0		Vertical: 0.0 👘 mm
Preview	Rotate	Effect
	@ 0°	Mirror Mirror
	© 90°	Inverse [
	© 180° © 270°	Scale: 100 🔺 %
Copies		
Copies: 1	-	Advanced
Reverse Print C	Irder	

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Custom Paper Man	ager	<b>X</b>
Custom Paper Lis	t	
		Delete
Custom Paper Op	tions	
Paper Name:		Save
Paper Width:	10.0 📋 [ 10.0 - 600.0 mm ]	
Paper Length:	10.0 📮 [ 10.0 - 3276.0 mm ]	
	OK	Cancel

Click "Manager" in the "Paper" options, add or delete paper.

Click "Advanced" to set "Save Paper", "Cut Paper", "Feed Paper", "Cash Drawer", "Custom Command", "Logo" and "Buzzer".

Cash Drawer	Custom Command	Logo	Buzze
Save Paper	Cut Paper	Fe	ed Paper
None	Bottom		
💿 Тор	○ Top Bo	ottom	

ge Watermark	Halftone	Printer Setting	Barcode	About
Watermark Path:				
Preview	_	Size		
			Q., ,	
		Density		
		Horizontal	Vertic	el .
		© Left	Top	
		Center	Cen	ter
		Right	Bott	mo

Click "Watermark" tab. Check "Watermark" box to print.

Click "Halftone" tab to set and adjust the halftone.

Printer1400 Printing Preferences	×
Page Watermark Halftone Printer Setting Barcode About	_
Halftone	- 1
○ None	
Disperse	
Ouster	
C Error Diffusion	
Brightness Light 0 Dark	i
0	
OK Cancel Apply	



Click "Printer Setting" tab to set "Display Language for Properties" and "Font Substitution".

Click "Barcode" tab, and you can choose the "Add Barcode" / "Edit Barcode" / "Delete Barcode" button to add / edit / delete barcodes. After completing all the settings, click "OK" to save changes.

ge	Watermark	Halftone	Printer Setting	Barcode	About
Nar	e		Symbology		
-					
1	Add Barcode	E	dit Barcode	Delete	Barcode

#### **Other Settings**

Click "Start" → "Devices and Printers". Right click "Printer1400(1)" and choose "Printer properties".



Choose "General" tab, click "Print Test Page", the current settings will be printed out.

Printer1400	
ocation:	
Comment:	
Model: Printer1400	
Features	Dence available:
Double-sided: No	Paper available:
Staple: No	72mm * 297mm
Speed: Unknown	72mm * 420mm 72mm * 3276mm
	2 dei



Click "Ports" tab to set following items:

g Printer1400 P	Properties			<b></b> X
General Sharin	Ports Advance	d Color Management	Security About	
Reference of the second	inter1400			
Print to the for checked port	ollowing port(s). Doo	cuments will print to	the first free	
Port	Description	Printer		
LPT1:	Printer Port			
LPT2:	Printer Port			
UPT3:	Printer Port			
COMI:	Serial Port	Printer1400		1.00
COM2:	Serial Port			_
COM3:	Serial Port			
COM4:	Serial Port			-
Add P	ort	Delete Port	Configure Port	
Enable bid	irectional support nter pooling			
		ок	Cancel	loply

Click "Advanced" tab to set the printing time.

Printer1400	Properties	x
General Sha	ring Ports Advanced Color Management Security About	_
<ul> <li>Ahways a</li> <li>Available</li> </ul>	e from 00:00	A. T
Priority:	1 *	
Driver:	Printer1400   New Driver	
Print die Hold mi	ectly to the printer smatched documents	-
Print spo	poled documents first	
🖂 Keep pri	nted documents	
📝 Enable a	dvanced printing features	
Printing	Defaults Print Processor Separator Page	
-	OK Cancel Appl	×

### **Uninstall Windows Driver**

- Double click Windows Driver.
- Choose your preferred language and click "OK".

Select Se	tup Language
6	Select the language to use during the installation:
	English •
	OK Cancel

Choose "Uninstall printer driver" and click "Next".

Setup - PRT650 and Printer1400 POS Printer Driver v2.7.1.0
Select operation of install Please select the operation as you need.
<ul> <li>Install printer driver</li> <li>Please connect your printer to the PC and turn it on.</li> </ul>
<ul> <li>Uninstall printer driver</li> <li>Uninstall the printer driver and components which printer selected.</li> </ul>
Next > Cancel



Choose "Delete all printer divers and its components", then click "Next".

Uninstall - PRT650 and Printer1400 POS Printer Driver v2.7.1.0	
Uninstall printer driver Please select the printer driver name needed to uninstall.	
Delete all printer drivers and its components	
Printer 1400	
< Back Next :	Cancel

Choose "Yes", all driver components will be removed from your device.



Press <DEL > key to enter SETUP CMOS UTILITY when system is booting up. (NOTE: This requires an attached and working external keyboard)



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

	Insydel20 Setup Utility	Rev. 5.0
Hair Advanced Security Powe	r Boot Exit	
Processor Type System Box Speed System Hexory Speed Cache RAM Total Hemory Channel & - SODIME 1 Platform firmware Information CAN SOC HSC Version FUNIT FW PMC FW Patch TXE FW Version Microcode Revision Microcode Revision CAU Flaver	intel(2) Atox(20) x5-(2000 (29) 0 1.04082 80 1952 1066 1952 2048 89 2048 89 2048 89 34 (01 \$tepping) 00.34.20.01 0x25 0x0_4 2.0.5.3107 1015 411 Bransel1-C99 (00	This is the help for the hour, aimute, second field. Valid range is from 0 to 23, 0 to 59, 0 to 59. INCREASE/REDUCE : • $I_{-}$
board ID System Time System Date	Brassell Cherry Hill (BD) [02/05/2020]	
Help 11 Selec Soc Exit ++ Selec	t Item FS/HS Change Values t New Enter Select + Salifern	F4 Setup Defaults F10 Save and Exit

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Press <F9> to view the system information.

Realized and the second second		Insydeli20 Setup Utility	Rev. 5.0
Tain Advanced Security Po	wer Boot Exit		
Processor Type System Dus Speed System Hemory Speed Cache SAM Total Remory Charwel & - 500 HM 1	Inite FG0 80 1952 1066 1952 2048 198 2048 198 2048 198 2046 198	A100(18) x5-68000 CPU 0 1.04GHz	This is the help for the hour, winste, second field. Valid range is from 0 to 23, 0 to 59, 0 to 59. INCREASE/REDUCE : • /
Platform firmmare Information		System Information	
CM SOC HIGC Version HIGT FB PEC FB Patch TRE FB Version HIGD VEIOS Version HIGT Code Revision CPU Flavor Board ID System Date	Hanofactoror Name : Product Name : Serial Number : URID : NAC LAW Address : CPU Name : CPU Speed : System Bus Speed : BNOS Version : Bmoory Total Size :	Colonetrics C1400 123456789 00-E0-4C-68-00-1C Inite1(8) Atax(TH) x5-E8000 CPU ( 1.0604z 80 Mtz C1400 Y:3.81.22-01152820 2048 MB	53 54 48 49 40 1.04082
		Press [ESC] Exit	
1 Help 11 Sel Iso Exit ++ Sel	ect ites ect fiers	15/16 Change Values Enter Select + Sublem	F4 Setup Defaults F10 Save and Exit

#### Date and Time

The Date and Time items show the current date and time on the device. 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:



## 7-1-1 Boot Configuration

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

		InsydeH20 Setup Utility	Rev. 5.0
Advanced			
Boot Configuration			Selects Power-on state for Numlock
Nuntack			
1 Help Se Exit	↑↓ Select Item ↔ Select Henu	F5/F6 Change Values Enter Select + Subilenu	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.

		Insydel(20 Setup Utility	Rev. 5.0
Advanced			
Audio Configuration			Control Detection of the Azalia device.
Audio Controller	≪Enabled		Disabled = Audio will be unconditionally disabled
			Enabled = Audio will be unconditionally Enabled
1 Help ScExit	↑↓ Select Item ↔ Select Henu	F5/F6 Change Values Enter Select + Sublienu	F4 Setup Defaults F10 Save and Exit



### 7-1-3 Video Configuration

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

	Insyde	20 Setup Utility	Rev. 5.0
200420200			
Video Configuration			Select DVMT5.0 Pre-Allocated(Fixed) Graphics Memory size used by the Internal
100 - DVMT Pre-Allocated	<1288>		Graphics Device.
Fl Help	ect Item F5/F6 ect Here Enter	Change Values Select E SubBerg	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.

		Insydelf20 Setup Utility	Rev. 5.0
NOV SHOEL			
SATA Controller		bled>	DISABLED: Disables SATA Controller. ENWELED: Enables SATA Controller.
Serial ATA Port 0	[Not Installed]		
PSerial Ala Port I	LMOT INSTALLEDJ		
Help	↑↓ Select Item	F5/F6 Change Values	M Setup Defaults

## 7-2 SECURITY

Use the Security menu to set or change the password

		InsydeH20 Setup Utility	Rev. 5.0
Hain Advanced Securit	Power Boot Exit		
Supervisor Password	Not	Installed	Install or Change the password and the length of password wast be greater than
Set Supervisor Password			une crist al ter.
1 Help 1 se Exit	Select Iten → Select Menu	F5/F6 Change Values Enter Select + Subitionu	F4 Setup Defaults F10 Save and Exit

### **7-3 POWER**

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-up by onboard LAN chip



## 7-4 BOOT

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

		InsydeH20 Setup Utility	Rev. 5.0
Hain Advanced Sec	erity Power Boot Exit		
Boot Type Network Stack PXE Boot capability EFI/Legacy Device Or	<dual <disat <disat der <legar< th=""><th>Boot Type&gt; bled&gt; bled&gt; cy device first&gt;</th><th>Select boot type to Dual type, Legacy type or UEFI type</th></legar<></disat </disat </dual 	Boot Type> bled> bled> cy device first>	Select boot type to Dual type, Legacy type or UEFI type
+EF1 +Legacy			
F1 Help Exe Exit	↑↓ Select Iten ⇔ Select Hens	F5/F6 Change Values Enter Select E Sublema	F4 Setup Defaults F10 Save and Exit

### 7-5 EXIT

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





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
	Printer hat no power	Connecting the power supply
Printer not working	Printer not turned on	Turn on the printer
	Circuit board broken	Contact your dealer

### 8-2 Troubles Occurring During Printing

Problem Description	em Description Probable Reason Solution	
Coloured stripe in the paper	Paper near end	Reinstall the roll paper
	Incorrect roll paper installation	Check if the roll paper is installed
Blurred printing or spots	Unsuitable 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 pa- per path and remove jammed paper
	Dirty thermal head or print roller	Clean the thermal head or print roller
	Thermal head damaged	Contact your dealer for assistance

NOTE: For print density settings, please refer to "Utility Tool Manual"

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

### 8-3 Problems Occurring During Paper Cutting

NOTE: For print density settings, please refer to "Utility Tool Manual"

#### 8-4 Removing Jammed Paper

Warning: Do not touch the thermal print head because it gets very hot during 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 minutes 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 to 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 centre of the head to the edges.
- 2. 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 substances 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.
- $\rightarrow$  Clean the parts whenever print quality or paper detection degraded.

#### 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 device.
- Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

#### 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.

#### 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

