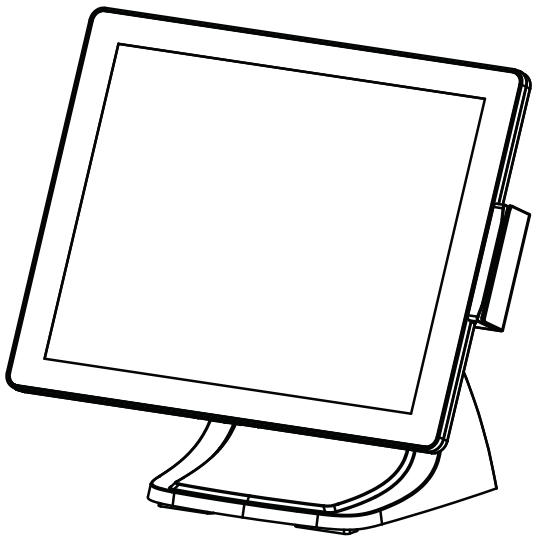
USER MANUAL

VERSION 1.0 May 2019

PT51
Hardware System



Manual Version 1.0

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Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

CE MARK

This device complies with the requirements of the EEC directive 2014/30/EU with regard to “Electromagnetic compatibility” and 2014/35/EU “Low Voltage Directive”.

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer’s instructions.

Battery Caution

Risk of explosion if battery is replaced by an incorrectly type. Dispose of used battery according to the local disposal instructions.

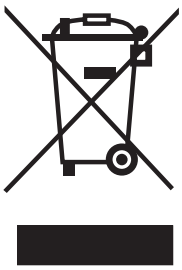
Safety Caution

Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 “Materials for fire enclosure” compliant.

4.7.3.2 Materials for fire enclosures
For MOVABLE EQUIPMENT having a total mass not exceeding 18kg.the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of V-1 CLASS MATERIAL or shall pass the test of Clause A.2.
For MOVABLE EQUIPMENT having a total mass exceeding 18kg and for all STATIONARY EQUIPMENT, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of 5VB CLASS MATERIAL or shall pass the test of Clause A.1

LEGISLATION AND WEEE SYMBOL

2012/19/EU Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.



The crossed dust bin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.
To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

Revision History

Changes to the original user manual are listed below:

Revision	Description	Date
1.0	• Initial release	May 2019

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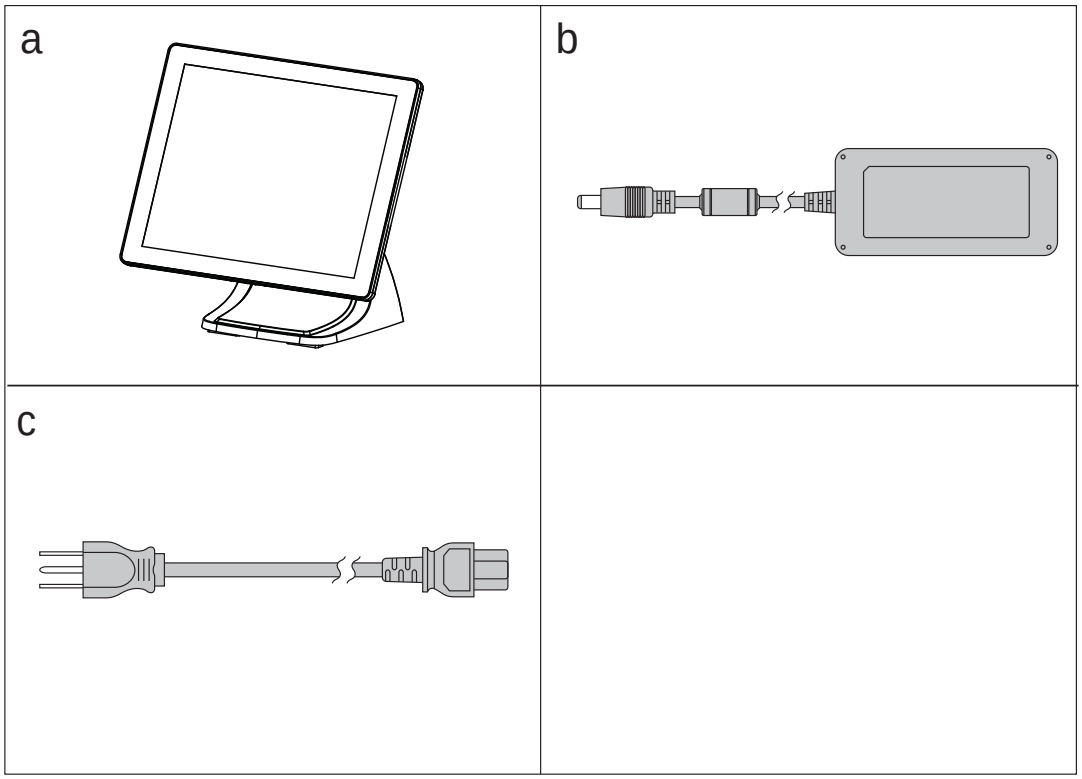
1. Packing List

1-1. Standard Accessories

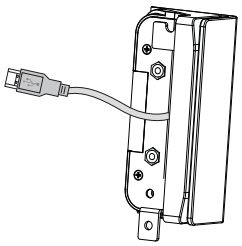


a. System
b. Power adapter
c. Power cord

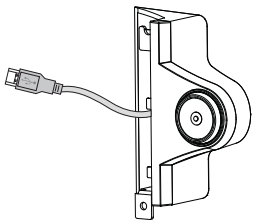
Note: Power cord will be supplied differently according to various region or country.

1-2. Optional Accessories

a



b



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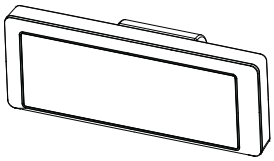
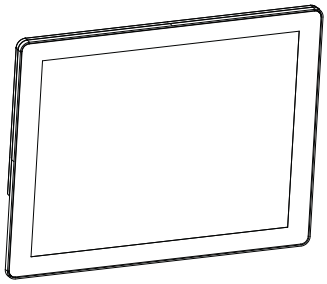
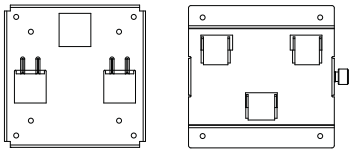


d



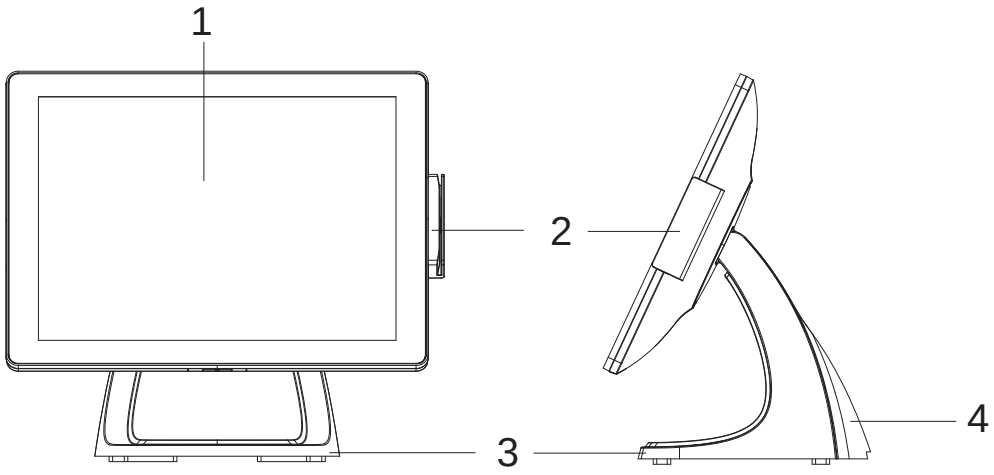
e



a. MSR module
b. iButton module
c. Customer display
d. 2nd display
e. Wall mount kit

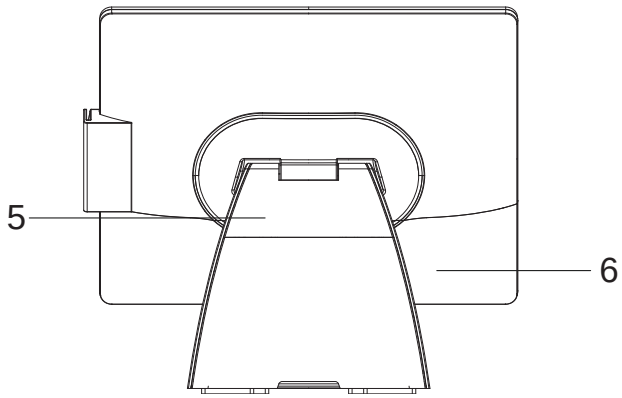
2. System View

2-1. Front & Side View



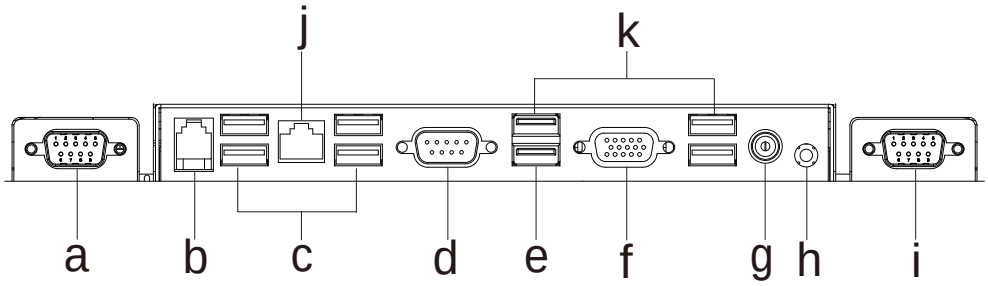
No.	Description
1	Touch screen
2	MSR /iButton (option)
3	Stand
4	Stand back cover (bottom)

2-2. Rear View



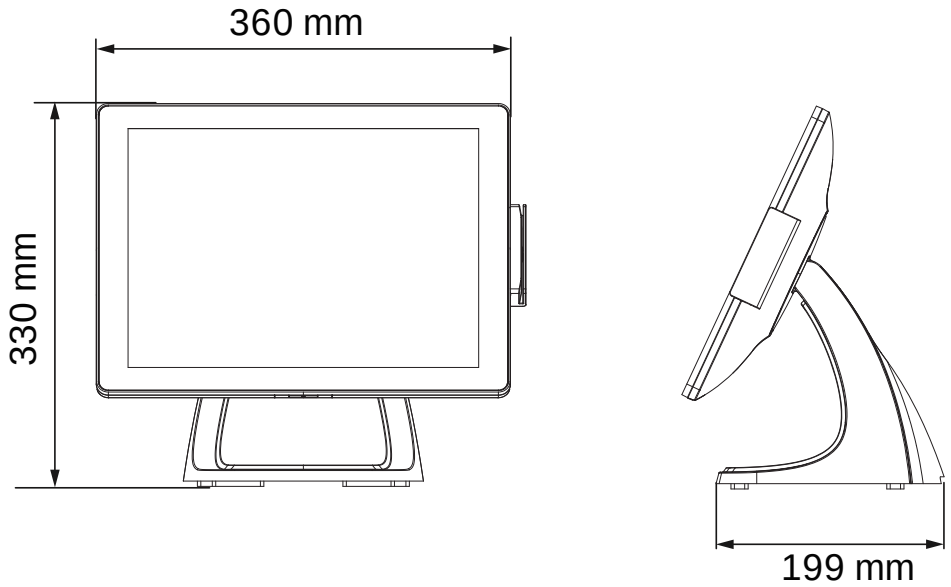
No.	Description
5	Stand back cover (top)
6	Cable cover

2-3. IO Ports View



No.	Description
a	COM2 (optional)
b	Cash drawer
c	USB 2.0 x 4
d	COM1
e	USB 3.0 x 1
f	VGA
g	DC jack
h	Power button
i	COM3 (optional)
j	LAN
k	USB 2.0 x 3

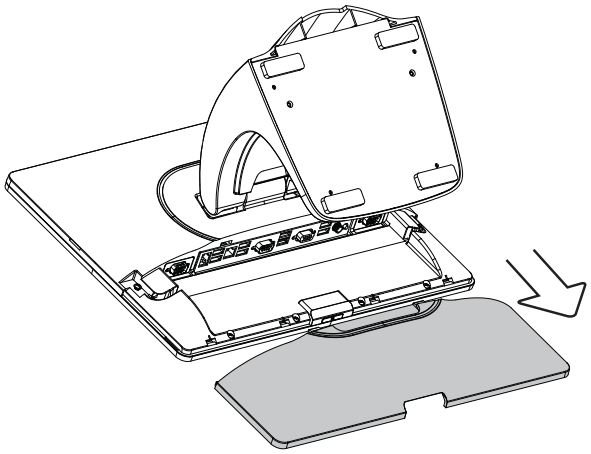
2-4. System Dimensions



3. System Assembly & Disassembly

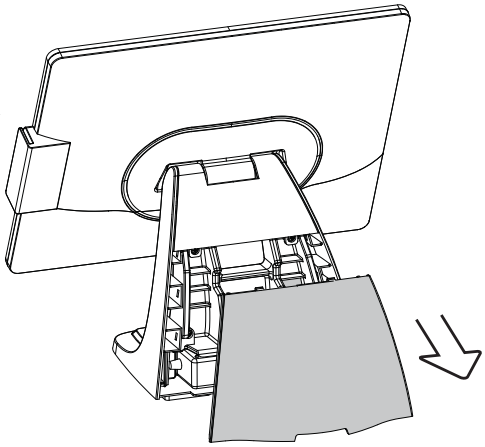
3-1. Remove the Cable Cover

1. Place the system face down, make sure not to scratch the touch screen.
2. Pull the cable cover upwards to release it from the system.

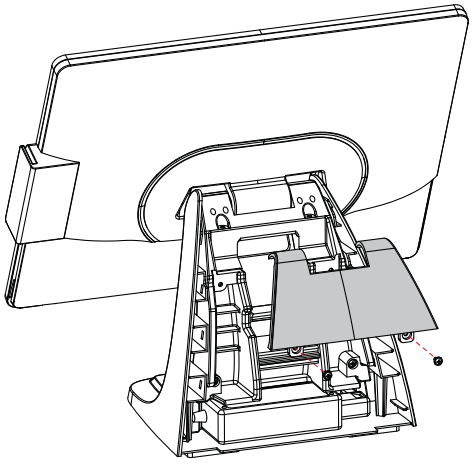


3-2. Remove the Stand Back Cover

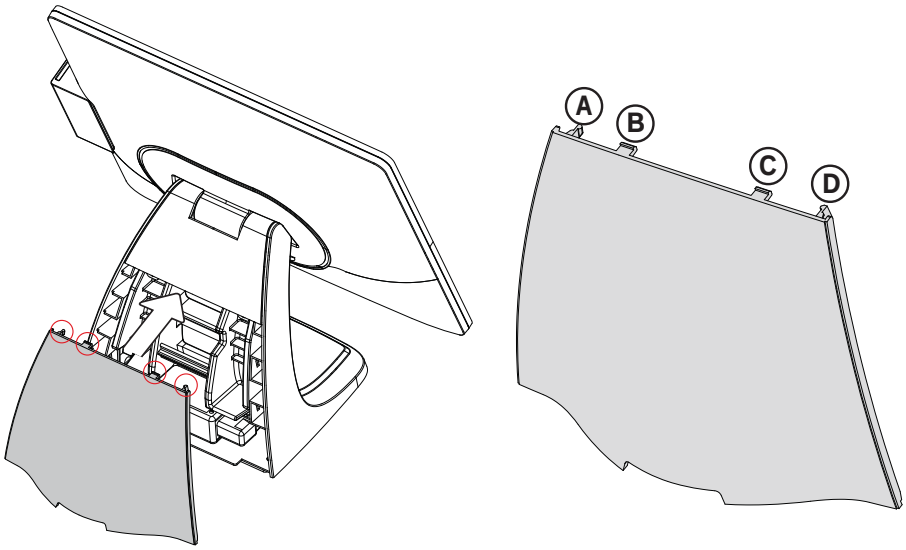
1. Pull the bottom part of the stand back cover upwards to release it from the system.



2. The top part of the stand back cover is secured with screws(x2). Loosen the screws to remove the cover.



3-3. Install the Stand Back Cover

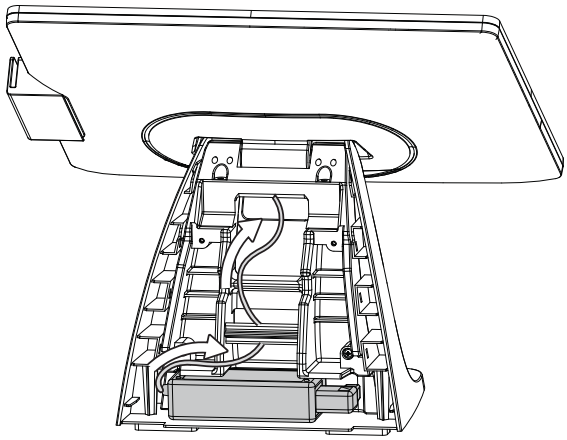


1. Align and attach the cover on the four grooves on system side.
2. When attaching the cover, please take care that the cover is installed in the correct order(A to D) and then press it into place.

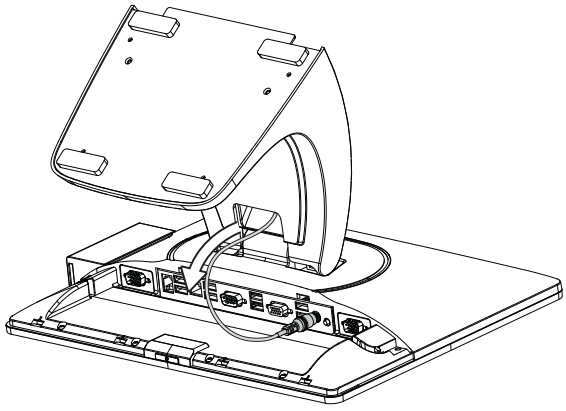
3-4. Install the Power Adapter

The system is equipped with a 36W or 60W power adapter. Please follow the steps to install the power adapter.

1. Follow steps in Chapter 3-2 to remove the stand back cover first.
2. Route the power cable through the gap of the stand as picture shown.



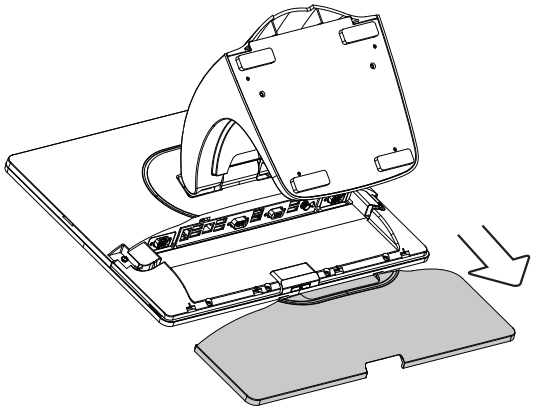
3. Place the system face down and connect to the power adapter to the 12V DC in port on the system IO panel.



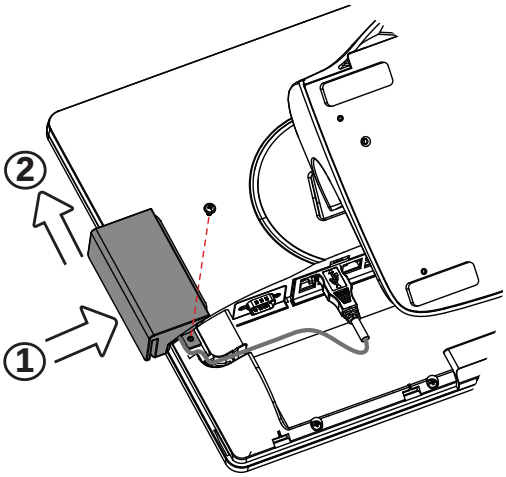
4. Peripheral Installation

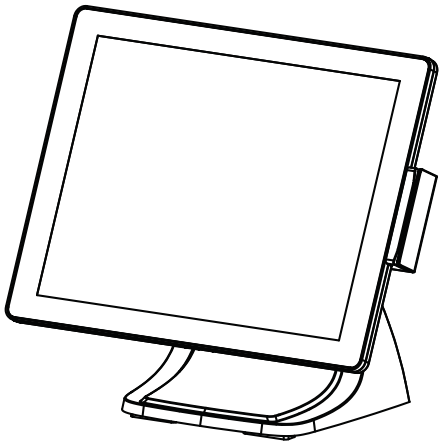
4-1. Install the MSR Module

1. Place the system face down, make sure not to scratch the touch screen.
2. Pull the cable cover upwards to release it from the system.



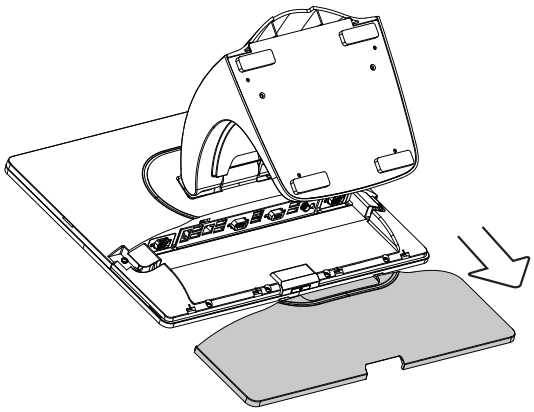
3. Insert the MSR module in place and fasten the screw (x1) to secure it to the system.
4. Route the MSR cable as shown in the picture and then connect to the USB port on the system IO panel.
5. Replace the cable cover.



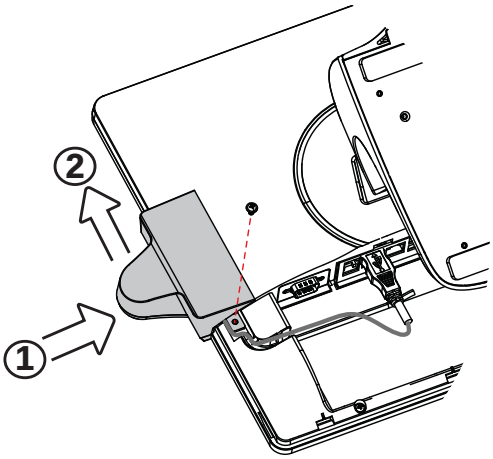


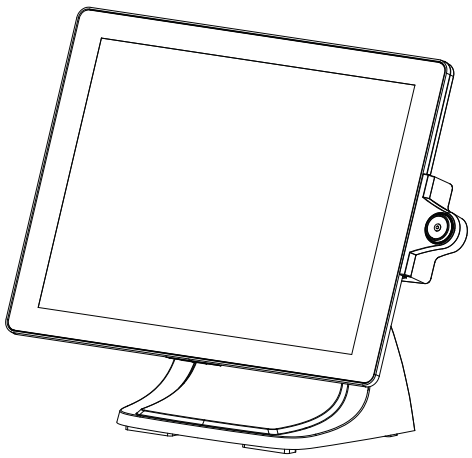
4-2. Install the iButton Module

1. Place the system face down, make sure not to scratch the touch screen.
2. Pull the cable cover upwards to release it from the system.



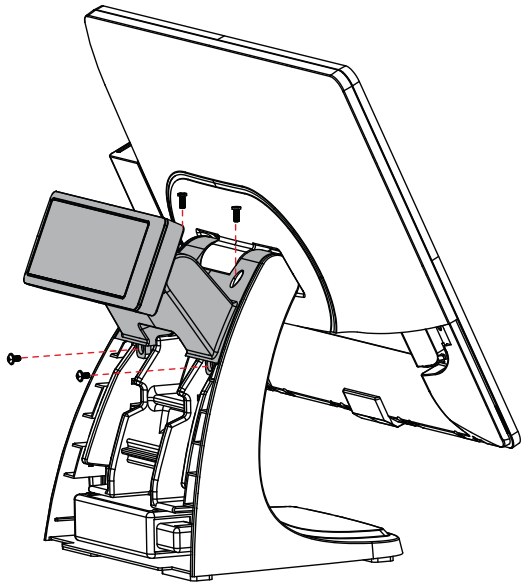
3. Insert the iButton module in place and fasten the screw (x1) to secure it to the system.
4. Route the iButton cable as shown in the picture and then connect to the USB port on the system IO panel.
5. Replace the cable cover.



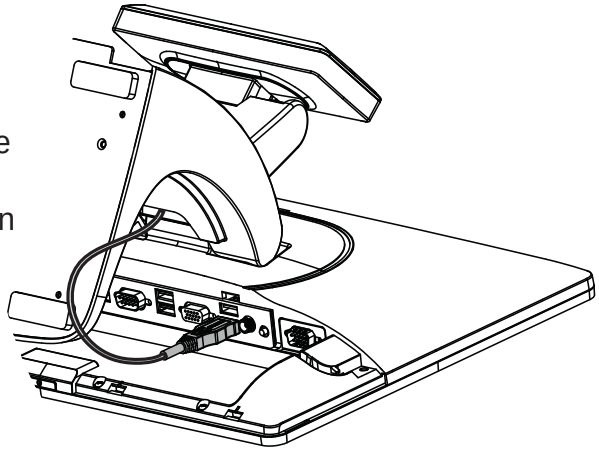


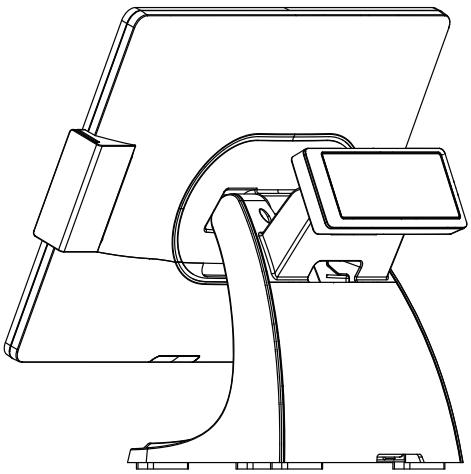
4-3. Install the Customer Display

1. Follow the steps in Chapter 3-2 to remove the stand back cover first.
2. Attach the LCM module to system by fastening the screws (x4)



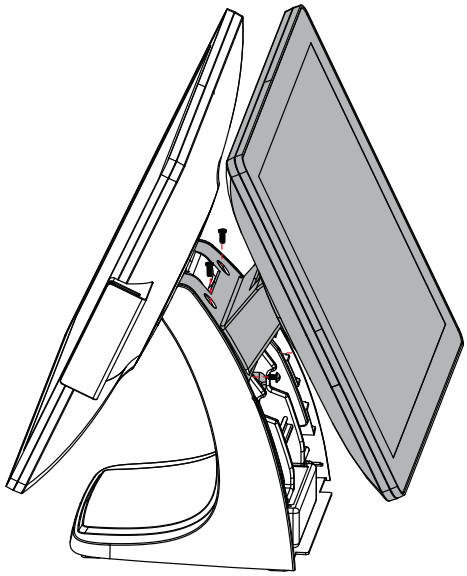
3. Remove the cable cover. (refer to Chapter 3-1)
4. Route the LCM cable through the hole of the stand as picture shown and then connect the cable to USB port on the system IO panel. Make sure the system is powered off.



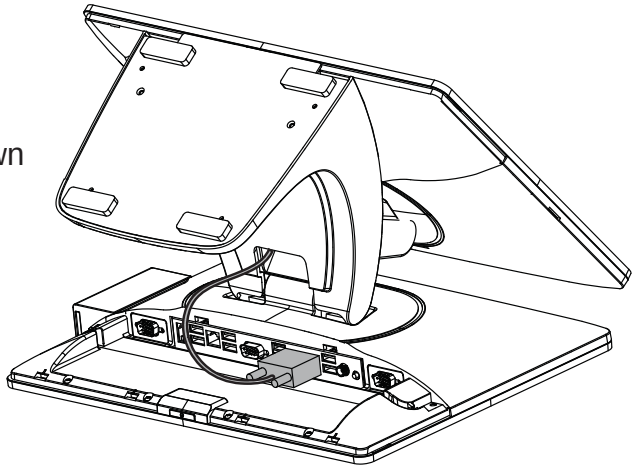


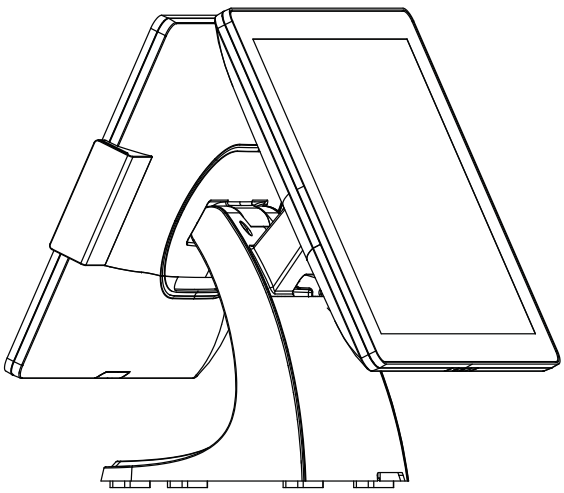
4-4. Install the Second Display

1. Follow the steps in Chapter 3-2 to remove the stand back cover first.
2. Attach the 2nd display module to system by fastening the screws (x4)



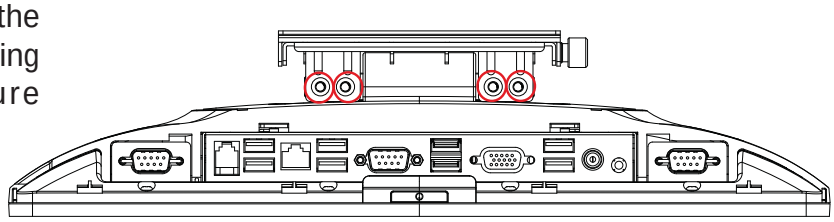
3. Remove the cable cover. (refer to Chapter 3-1)
4. Route the 2nd display cable through the hole of the stand as picture shown and then connect the cable to VGA port on the system IO panel. Make sure the system is powered off.



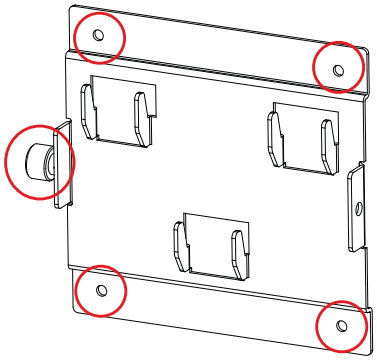


4-5. Install the Wall Mount Kit

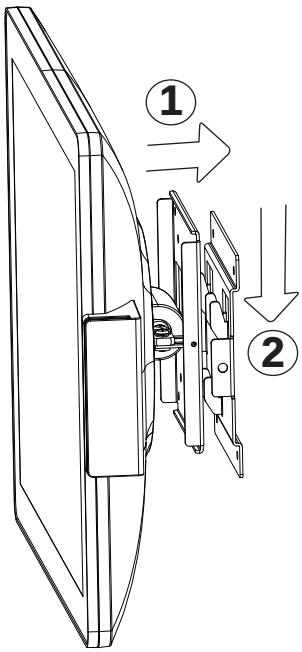
1. Attach the metal bracket to the back of the system by fastening the screws (x4) as picture shown.



2. Secure the wall plate to the wall by fastening screws (x4)



3. Align and slide the metal bracket to the wall plate. Finally fasten the thumb screw (x1) to secure the wall mount kit.



5. Specification

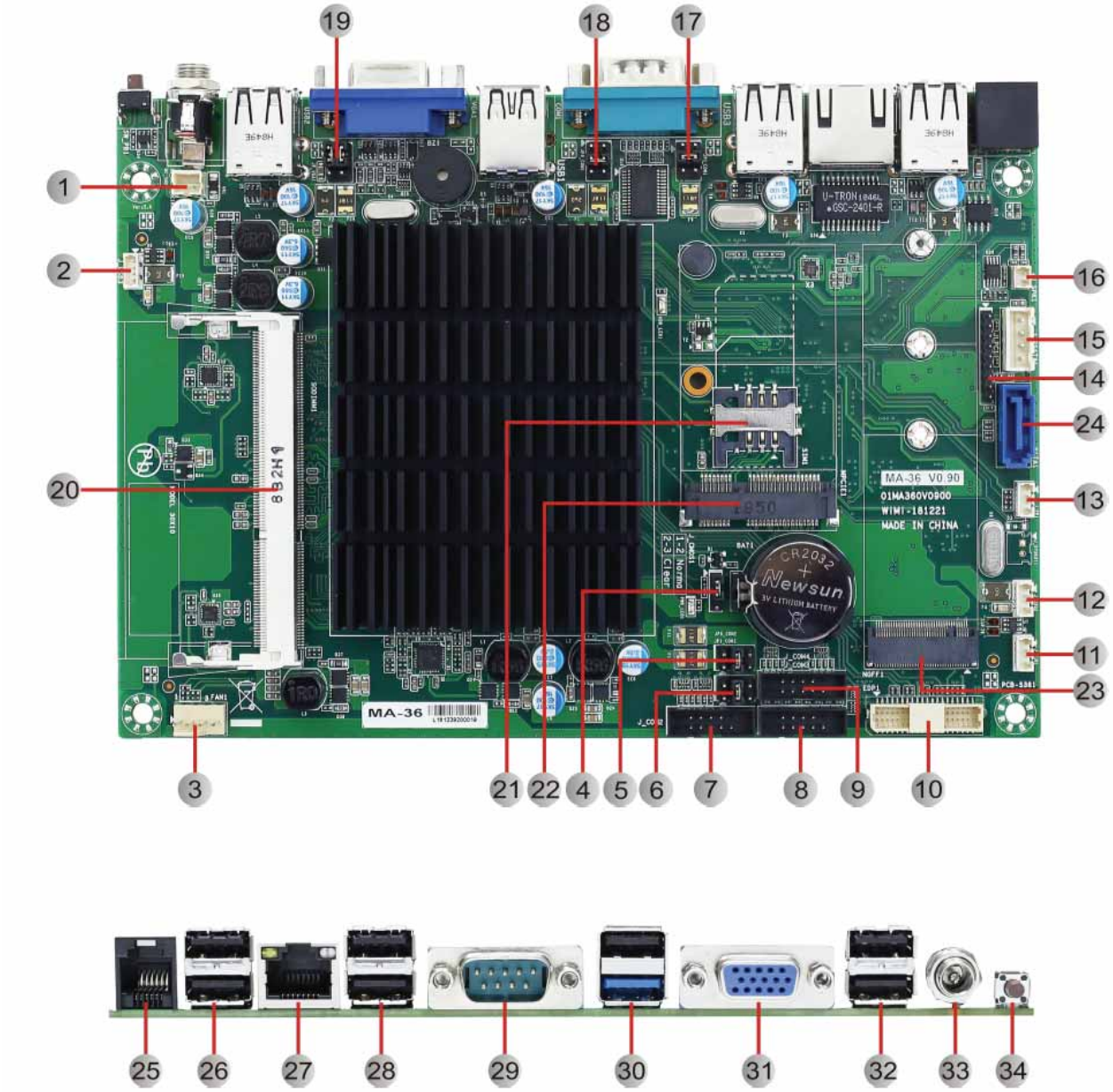
Model Name	PT51
Mainboard	**MB36**
Processor	Intel Bay Trail CPU Celeron J1900, up to 2.4GHz
Chipset	CPU Integrated
System memory	1 x DDR3L SO-DIMM up to 8GB
Storage device	1 x 64 SSD (M.2.B)
Graphic engine	Intel HD Graphic DX11 and OCL1.1
LCD Touch Panel	
LCD size	15” TFT LCD
Brightness (cd/m²)	300 nits
Resolution	1024 x 768
Touch screen	True-Flat PCAP Touch
Expansion	
Mini PCI-E slot	1
m.2 b slot	1
External I/O Ports	
USB	1 x USB3.0, 7 x USB 2.0
Serial port	1 x DB-9 (COM1)
LAN	1 x RJ-45 (10/100/1000 baseT)
VGA	1 x DB-15
Cash drawer	1 x RJ-11 (2 In / 2 Out)
DC jack	1 x 2-pin
Power switch	1
Optional I/O	
Serial port	2 x DB-9 (COM2 / COM3)
Audio	
Internal Speaker	1x 2W (Option)
Indicator	
LED indicator	1
Power	
Power supply	60W / 12V
Peripherals (optional)	
MSR	3-Track MSR
iButton	iButton (USB)
Second display	15.1" / 300 nits / 1024 x 768
Customer display	LCM display 2 x 20 characters
Certificate	
EMC & Safety	BSMI/CCC/CE/FCC Class A / ESD: Air 8kV ; Con 4kV/ LVD

Model Name	**PT51**
Mainboard	**MB36**
Environment	
Operating temperature	0°C ~ 35°C (32°F ~ 95°F)
Storage temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Humidity	20% ~ 80% RH non-condensing
Dimension (W x D x H)	360 x 199 x 330 mm (14.2” x 7.8” x 13.0”)
Weight	5.3kg
VESA Mounting	*V*ESA Mount Bracket (100 x 100 / 75 x 75)
OS supported	Windows 7, POSReady 7, Windows Embedded 8.1 Industry, Windows 10 IoT

*** This specification is subject to change without prior notice.**

6. Configuration

6-1. MB-36 Motherboard Layout



6-2. Connectors & Functions

Connector		Function
1	J_DCIN1	DC12V Power Input Pin Header
2	J_USB3	Front USB Pin Header3
3	FAN1	Smart Fan Connector
4	J_CMOS1	CMOS Clear Jumper
5	JP9_COM2	COM2 Pin9 Select Jumper
6	JP1_COM2	COM2 Pin1 Select Jumper
7	J_COM2	COM2 Pin Header
8	J_COM3	COM3 Pin Header
9	J_COM4	COM4 Pin Header
10	EDP	EDP Signal Header
11	J_USB1	Front USB Pin Header1
12	J_USB2	Front USB Pin Header2
13	J_FP1	Front Panel Pin Header
14	JLPC1	LPC Pin Header
15	J_PSATA1	SATA Power Pin Header
16	J_SPK1	Amplifier Pin Header
17	JP1_COM1	COM1 Pin1 Select Jumper
18	JP9_COM1	COM1 Pin9 Select Jumper
19	JP_VGA1	VGA Power Select Jumper
20	SODIMM1	DDR3L SO-DIMM Slot
21	SIM1	SIM Card Slot
22	MPCIE1	Mini PCI-E1 Slot (WIFI+3G)
23	NGFF1	M.2 Key-B Slot (SSD, 2242)
24	SATA1	SATA 2.0 Connector
25	RJ11_CD1	Cash Draw RJ11 Connector
26	USB4	USB2.0 Dual TYPE-A Connector
27	LAN1	LAN RJ45 Connector
28	USB3	USB2.0 Dual TYPE-A Connector
29	COM1	COM1 DB9/M Connector
30	USB1	USB3.0+USB2.0 TYPE-A Connector
31	VGA1	VGA DB15/F Connector
32	USB2	USB2.0 Dual TYPE-A Connector
33	DC_IN1	DC 12V Power Input 2.5mm Jack
34	SW_PB1	Power Button

6-3. Jumper Setting

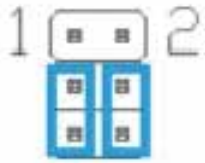
JP9_COM1 (COM1 Pin9 Select Jumper 3*2 Pin 2.54mm)

Graphic	Function	Setting
	+5V	1-2
	▲ COM1_RI#	3-4(Default)
	+12V	5-6

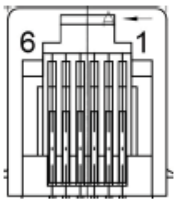
JP9_COM2 (COM2 Pin9 Select Jumper 3*2 Pin 2.54mm)

Graphic	Function	Setting
	+5V	1-2
	▲ COM2_RI#	3-4(Default)
	+12V	5-6

JP_VGA1 (VGA Power Select Jumper 3*2 Pin 2.54mm)

Graphic	Function	Setting
	N/C	1-3, 2-4
	▲+ 12V	3-5, 4-6 (Default)

RJ11_CD1 (Cash Drawer RJ11 Connector 6 Pin)

Graphic	Pin	Definition	Pin	Definition
	1	Cash Drawer2 Detect (SIO_GP83: 0XA07 Bit3)	2	Cash Drawer1 Control (SIO_GP80: 0XA07 Bit0)
	3	Cash Drawer1 Detect (SIO_GP81: 0XA07 Bit1)	4	+ 12V
	5	Cash Drawer2 Control (SIO_GP82: 0XA07 Bit2)	6	GND

▲ = Manufacturer Default Setting

COM1 (COM1 DB9/M Connector)

Graphic	Pin	Definition	Pin	Definition
	1	COM1_PIN1 [1]	2	COM1_RXD
	3	COM1_TXD	4	COM1_DTR#
	5	GND	6	COM1_DSR#
	7	COM1_RTS#	8	COM1_CTS#
	9	COM1_PIN9 [2]		

[1]: Pin1 of COM1 support DCD# signal by default, it also can support 5V/12V if specified.

[2]: Pin9 of COM1 support RI# signal by default, it also can support 5V/12V if specified.