EXOR

EXOR International

Industrial Computing Solutions

eTOP-MON
eTOP-MON 1200T/1205T/1500T/1700T/1900T

User Manual

www.exorint.net

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PREFACE

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Acknowledgements

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Regulatory Compliance Statements

This section describes how to keep the system CE compliant.

Declaration of Conformity

CE

The product(s) described in this manual complies with all applicable European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques.

RoHS Compliance

EXOR RoHS Environmental Policy and Status Update

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RoHS restricts the use of Lead (Pb) < 0.1% or 1,000ppm, Mercury (Hg) < 0.1% or 1,000ppm, Cadmium (Cd) < 0.01% or 100ppm, Hexavalent Chromium (Cr6+) < 0.1% or 1,000ppm, Polybrominated biphenyls (PBB) < 0.1% or 1,000ppm, and Polybrominated diphenyl Ethers (PBDE) < 0.1% or 1,000ppm.

In order to meet the RoHS compliant directives, EXOR has established an engineering and manufacturing task force to implement the introduction of green products. The task force will ensure that we follow the standard EXOR development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which EXOR are renowned.

The model selection criteria will be based on market demand. Vendors and suppliers will ensure that all designed components will be RoHS compliant.

All new product models launched after January 2006 will be RoHS compliant. They will use the usual EXOR naming convention.

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Warranty and RMA

EXOR Warranty Period

EXOR manufactures products that are new or equivalent to new in accordance with industry standard. EXOR warrants that products will be free from defect in material and workmanship for 2 years, beginning on the date of invoice by EXOR. HCP series products (Blade Server) which are manufactured by EXOR are covered by a three year warranty period.

NEXCOM Return Merchandise Authorization (RMA)

▪ Customers shall enclose the "EXOR RMA Service Form" with the returned packages.

▪ Customers must collect all the information about the problems encountered and note anything abnormal or, print out any on-screen messages, and describe the problems on the "EXOR RMA Service Form" for the RMA number apply process.

▪ Customers can send back the faulty products with or without accessories (manuals, cable, etc.) and any components from the card, such as CPU and RAM. If the components were suspected as part of the problems, please note clearly which components are included. Otherwise, EXOR is not responsible for the devices/parts.

▪ Customers are responsible for the safe packaging of defective products, making sure it is durable enough to be resistant against further damage and deterioration during transportation. In case of damages occurred during transportation, the repair is treated as "Out of Warranty."

▪ Any products returned by EXOR to other locations besides the customers' site will bear an extra charge and will be billed to the customer.

Repair Service Charges for Out-of-Warranty Products

EXOR will charge for out-of-warranty products in two categories, one is basic diagnostic fee and another is component (product) fee.

Repair Service Charges for Out-of-Warranty Products

EXOR will charge for out-of-warranty products in two categories, one is basic diagnostic fee and another is component (product) fee.

System Level

▪ Component fee: EXOR will only charge for main components such as SMD chip, BGA chip, etc. Passive components will be repaired for free, ex: resistor, capacitor.

▪ Items will be replaced with EXOR products if the original one cannot be repaired. Ex: motherboard, power supply, etc.

▪ Replace with 3rd party products if needed.

▪ If RMA goods can not be repaired, EXOR will return it to the customer without any charge.

Board Level

▪ Component fee: EXOR will only charge for main components, such as SMD chip, BGA chip, etc. Passive components will be repaired for free, ex: resistors, capacitors.

▪ If RMA goods can not be repaired, EXOR will return it to the customer without any charge.

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Warnings

Read and adhere to all warnings, cautions, and notices in this guide and the documentation supplied with the chassis, power supply, and accessory modules. If the instructions for the chassis and power supply are inconsistent with these instructions or the instructions for accessory modules, contact the supplier to find out how you can ensure that your computer meets safety and regulatory requirements.

Cautions

Electrostatic discharge (ESD) can damage system components. Do the described procedures only at an ESD workstation. If no such station is available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the computer chassis.

Safety Information

Before installing and using the device, note the following precautions:

▪ Read all instructions carefully.

▪ Do not place the unit on an unstable surface, cart, or stand.

▪ Follow all warnings and cautions in this manual.

▪ When replacing parts, ensure that your service technician uses parts specified by the manufacturer.

▪ Avoid using the system near water, in direct sunlight, or near a heating device.

▪ The load of the system unit does not solely rely for support from the rackmounts located on the sides. Firm support from the bottom is highly necessary in order to provide balance stability.

Installation Recommendations

Ensure you have a stable, clean working environment. Dust and dirt can get into components and cause a malfunction. Use containers to keep small components separated.

Adequate lighting and proper tools can prevent you from accidentally damaging the internal components. Most of the procedures that follow require only a few simple tools, including the following:

▪ A Philips screwdriver

▪ A flat-tipped screwdriver

▪ A grounding strap

▪ An anti-static pad

Using your fingers can disconnect most of the connections. It is recommended that you do not use needle-nose pliers to disconnect connections as these can damage the soft metal or plastic parts of the connectors.

Safety Precautions

1. Read these safety instructions carefully.

2. Keep this User Manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.

4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.

5. Keep this equipment away from humidity.

6. Put this equipment on a stable surface during installation. Dropping it or letting it fall may cause damage.

7. The openings on the enclosure are for air convection to protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.

9. Place the power cord in a way so that people will not step on it. Do not place anything on top of the power cord. Use a power cord that has been approved for use with the product and that it matches the voltage and current marked on the product's electrical range label. The voltage and current rating of the cord must be greater than the voltage and current rating marked on the product.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.

12. Never pour any liquid into an opening. This may cause fire or electrical shock.

13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.

14. If one of the following situations arises, get the equipment checked by 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 the user's manual.
    e. The equipment has been dropped and damaged.
    f. The equipment has obvious signs of breakage.

15. Do not place heavy objects on the equipment.

16. The unit uses a three-wire ground cable which is equipped with a third pin to ground the unit and prevent electric shock. Do not defeat the purpose of this pin. If your outlet does not support this kind of plug, contact your electrician to replace your obsolete outlet.

17. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Technical Support and Assistance

1. For the most updated information of EXOR products, visit EXOR's website at www.exorint.it.

2. For technical issues that require contacting our technical support team or sales representative, please have the following information ready before calling:
   – Product name and serial number
   – Detailed information of the peripheral devices
   – Detailed information of the installed software (operating system, version, application software, etc.)
   – A complete description of the problem
   – The exact wordings of the error messages

Warning!

1. Handling the unit: carry the unit with both hands and handle it with care.

2. Maintenance: to keep the unit clean, use only approved cleaning products or clean with a dry cloth.

3. CompactFlash: Turn off the unit's power before inserting or removing a CompactFlash storage card.

Conventions Used in this Manual

Warning:
Information about certain situations, which if not observed, can cause personal injury. This will prevent injury to yourself when performing a task.

Caution:
Information to avoid damaging components or losing data.

Note:
Provides additional information to complete a task easily.

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Package Contents

Before continuing, verify that the package you received is complete. The eTOP-MON series package, eTOP-MON 1200T/1205T/1500T/1700T/1900T, should have all the items listed in the table.

eTOP-MON 1200T/1205T/1500T/1700T

Item	Description	Qty
1	Panel Mount Kit	12
2	Touch Pen	1
3	VGA Cable (1.8m)	1
4	USB Cable (1.8m)	1
5	Serial Cable (1.8m)	1
6	Terminal blocks 3-pin Phoenix Contact Plug	1
7	Panel Mount Hole Block	12

Terminal blocks 3-pin Phoenix Contact Plug

VGA Cable

USB Cable

Panel Mount Kit

Touch Pen

Serial Cable

Panel Mount Hole Block

Note: Package contents may vary depending on your country region, some items may be optional. Please contact your local distributor for more information.

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eTOP-MON 1900T

Item	Description	Qty
1	Panel Mount Kit	14
2	Touch Pen	1
3	VGA Cable (1.8m)	1
4	USB Cable (1.8m)	1
5	Serial Cable (1.8m)	1
6	Terminal blocks 3-pin Phoenix Contact Plug	1
7	Panel Mount Hole Block	14

Terminal blocks
3-pin Phoenix
Contact Plug

VGA Cable

USB Cable

Panel Mount Kit

Touch Pen

Serial Cable

Panel Mount Hole Block

Note: Package contents may vary depending on your country region, some items may be optional. Please contact your local distributor for more information.

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Ordering Information

The following provides ordering information for the Applied Panel Display series.

- **Barebone**

eTOP-MON 1200T

12.1" SVGA industrial 4:3 LED Backlight flush touch monitor with VGA, and DVI-D input, 12~24VDC input, RS-232 and USB touch screen interfaces

eTOP-MON 1205T

12.1" XGA industrial 4:3 LED Backlight flush touch monitor with VGA, and DVI-D input, 12~24VDC input, RS-232 and USB touch screen interfaces

eTOP-MON 1500T

15" XGA industrial 4:3 LED Backlight flush touch monitor with VGA, and DVI-D input, 12~24VDC input, RS-232 and USB touch screen interfaces

eTOP-MON 1700T

17" SXGA industrial 4:3 LCD flush touch monitor with VGA and DVI-D input, 12~24VDC input, RS-232 and USB touch screen interfaces

eTOP-MON 1900T

19" SXGA industrial 4:3 LED Backlight flush touch monitor with VGA, and DVI-D input, 12~24V DC input, RS-232 and USB touch screen interfaces

- **Optional**
12V, 60W AC/DC power adapter w/o power cord

US Power Cord	UK Power Cord	EU Power Cord	1.8m DVI-D Cable

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eTOP-MON 1200T/1205T/1500T/1700T/1900T User Manual

CHAPTER 1: PRODUCT INTRODUCTION

Overview - eTOP-MON 1200T/1205T

Key Features

▪ IP65 compliant plastic front bezel with flush panel by 5-wire touch screen

▪ Dual display input interface: analog VGA and DVI-D

▪ Shares identical appearance with APPC series

▪ Dual touch screen interface: RS232 and USB

▪ Ultra slim in depth

▪ OSD Multilanguage function

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Overview - eTOP-MON 1500T

Key Features

- IP65 compliant plastic front bezel with flush panel by 5-wire touch screen

- Dual display input interface: analog VGA and DVI-D

- Shares identical appearance with APPC series

- Dual touch screen interface: RS232 and USB

- Ultra slim in depth

- OSD Multilanguage function

EXOR

Overview - eTOP-MON 1700T

Key Features

- ▪ IP65 compliant plastic front bezel with flush panel by 5-wire touch screen

- ▪ Dual display input interface: analog VGA and DVI-D

- ▪ Shares identical appearance with APPC series

- ▪ Dual touch screen interface: RS232 and USB

- ▪ Ultra slim in depth

- ▪ OSD Multilanguage function

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Overview - eTOP-MON 1900T

Key Features

- IP65 compliant plastic front bezel with flush panel by 5-wire touch screen

- Dual display input interface: analog VGA and DVI-D

- Shares identical appearance with APPC series

- Dual touch screen interface: RS232 and USB

- Ultra slim in depth

- OSD Multilanguage function

Specifications

eTOP-MON 1200T

Panel

- LED Size: 12.1", 4:3
- Resolution: SVGA 800x600
- Luminance: 450cd/m^2
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing Angle: 65(U), 75(D), 80(L), 80(R)
- Backlight: LED

Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB and RS232

Rear I/O

- Touch screen interface port: RS-232 (1x DB9) / USB Type A
- Video port: VGA (1x DB15) / DVI-D (1x DVI-I connector)
- DC power input connector: 3-Pin Phoenix terminal Blocks

OSD Function

- OSD keypad
- Multilanguage OSD

Mechanical & Environment

- Color: pantone black
- IP protection: IP65 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  IEC 68 2-64
  2Grms @ sine, 5~500Hz, 1hr/axis (Operating)
  2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock:
  IEC 68 2-27
  20G@wall mount, half sine, 11ms
  Operating temperature: -5°C to 60°C
  Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 317 x 243 x 53.5mm
- Weight: 2.9Kg

Certifications

- CE approval

Specifications

eTOP-MON 1205T

Panel

- LED Size: 12.1", 4:3
- Resolution: XGA 1024x768
- Luminance: 500cd/m^2
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing Angle: 80(U), 80(D), 80(L), 80(R)
- Backlight: LED

Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB and RS232

Rear I/O

- Touch screen interface port: RS-232 (1x DB9) / USB Type A
- Video port: VGA (1x DB15) / DVI-D (1x DVI-I connector)
- DC power input connector: 3-Pin Phoenix terminal Blocks

OSD Function

- OSD keypad
- Multilanguage OSD

Mechanical & Environment

- Color: pantone black
- IP protection: IP65 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  IEC 68 2-64
  2Grms @ sine, 5~500Hz, 1hr/axis (Operating)
  2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock:
  IEC 68 2-27
  20G@wall mount, half sine, 11ms
  Operating temperature: -5°C to 60°C
  Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 317 x 243 x 53.5mm
- Weight: 2.9Kg

Certifications

- CE approval

Specifications

eTOP-MON 1500T

Panel

- LED Size: 15", 4:3
- Resolution: XGA 1024x768
- Luminance: 400cd/m^2
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing Angle: 60(U), 80(D), 80(L), 80(R)
- Backlight: LED

Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB and RS232

Rear I/O

- Touch screen interface port: RS-232 (1x DB9) / USB Type A
- Video port: VGA (1x DB15) / DVI-D (1x DVI-I connector)
- DC power input connector: 3-Pin Phoenix terminal Blocks

OSD Function

- OSD keypad
- Multilanguage OSD

Mechanical & Environment

- Color: pantone black
- IP protection: IP65 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  IEC 68 2-64
  2Grms @ sine, 5~500Hz, 1hr/axis (Operating)
  2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock:
  IEC 68 2-27
  20G@wall mount, half sine, 11ms
  Operating temperature: -5°C to 60°C
  Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 384.37 x 310 x 51.2 mm
- Weight: 3.98Kg

Certifications

- CE approval

Specifications

eTOP-MON 1700T

Panel

- LED Size: 17", 4:3
- Resolution: SXGA 1280x1024
- Luminance: 380cd/m²
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing Angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: CCFL

Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

Rear I/O

- Touch screen interface port: RS-232 (1x DB9) / USB Type A
- Video port: VGA (1x DB15) / DVI-D (1x DVI-I connector)
- DC power input connector: 3-Pin Phoenix terminal Blocks

OSD Function

- OSD keypad
- Multilanguage OSD

Mechanical & Environment

- Color: pantone black
- IP protection: IP65 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  IEC 68 2-64
  2Grms @ sine, 5~500Hz, 1hr/axis (Operating)
  2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock:
  IEC 68 2-27
  20G@wall mount, half sine, 11ms
  Operating temperature: -5°C to 50°C
  Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 410.4 x 340.4 x 43.7 mm
- Weight: 5.3 Kg

Certifications

- CE approval

Specifications

eTOP-MON 1900T

Panel

- LED Size: 19", 4:3
- Resolution: SXGA 1280x1024
- Luminance: 350cd/m^2
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing Angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

Rear I/O

- Touch screen interface port: RS-232 (1x DB9) / USB Type A
- Video port: VGA (1x DB15) / DVI-D (1x DVI-I connector)
- DC power input connector: 3-Pin Phoenix terminal Blocks

OSD Function

- OSD keypad
- Multilanguage OSD

Mechanical & Environment

- Color: pantone black
- IP protection: IP65 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  IEC 68 2-64
  2Grms @ sine, 5~500Hz, 1hr/axis (Operating)
  2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock:
  IEC 68 2-27
  20G@wall mount, half sine, 11ms
  Operating temperature: -5°C to 50°C
  Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 457.64 x 379.24 x 49.25 mm
- Weight: 5.4 Kg

Certifications

- CE approval

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Knowing Your eTOP-MON Series

Front Top View of eTOP-MON 1200T/1205T

Power & OSD
Menu Buttons

Front Top View of eTOP-MON 1700T

Power & OSD
Menu Buttons
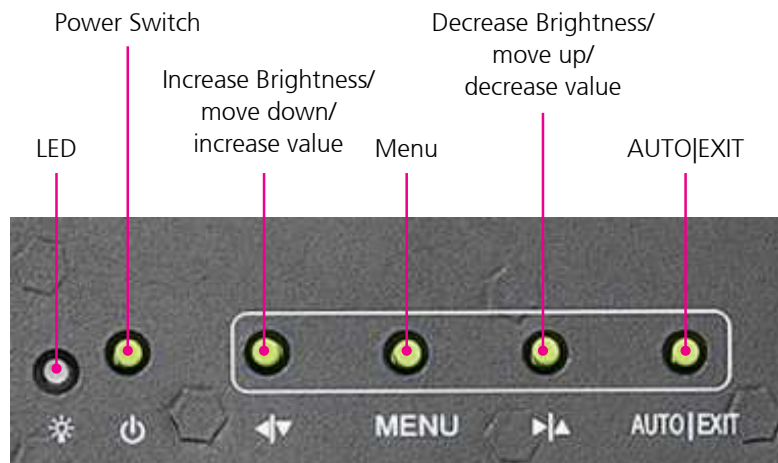
Front Top View of eTOP-MON 1500T

Power & OSD
Menu Buttons

Front Top View of eTOP-MON 1900T

Power & OSD
Menu Buttons

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Front Top View in Detail

Power Switch

Decrease Brightness/
move up/
decrease value

Increase Brightness/
move down/
increase value

LED

Menu

AUTO|EXIT

LED

Displays the power status of the display. Green LED indicates the display is switched on, if the display is not connected to a computer, the LED will flash red.

Power Switch

Press to power-on or power-off the display.

◄|▼

No OSD menu: Press to increase the brightness of the screen.
Inside OSD menu: Press to move the selection down in OSD menu.
Configuring options: Press to increase the value.

►|▲

No OSD menu: Press to decrease the brightness of the screen.
Inside OSD menu: Press to move the selection up in OSD menu.
Configuring options: Press to decrease the value

OSD Menu

No OSD Menu: Press to load the OSD menu.
Inside OSD Menu: Press to select the highlighted option in OSD menu.

AUTO|EXIT

Press to exit the OSD menu, or return to main menu.

The OSD will exit automatically if there is no activity in 5 seconds. This timer can be adjusted in OSD menu (Default: On, 5 seconds).

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Rear Bottom View of eTOP-MON 1200T/1205T

Rear Bottom View of eTOP-MON 1700T

Rear Bottom View of eTOP-MON 1500T

Rear Bottom View of eTOP-MON 1900T

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Rear Bottom View in Detail

USB   COM   DVI-D   VGA   DC Input
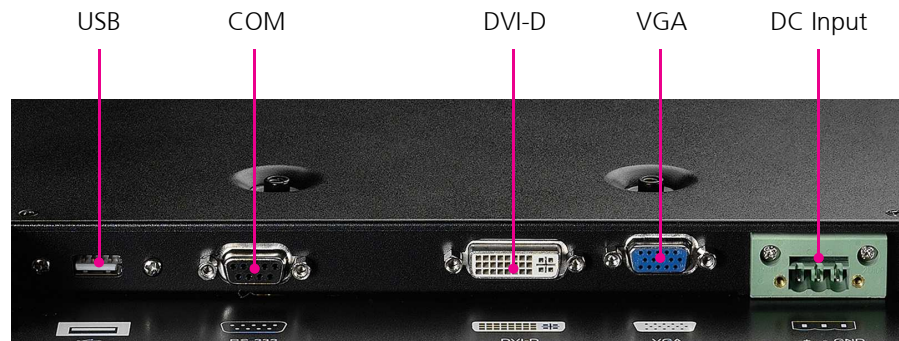
Touchscreen Connector (USB) (Optional)

This USB connector must be attached to the USB port of the PC. The touchscreen cable is included in accessory box.

Touchscreen Connector (DB-9) (Optional)

This RS-232 connector must be connected to the RS-232 port of the PC.

RS-232 & USB touchscreen interface does not allow connection into the system at the same time.

DVI Port (DVI-D)

Connected with a standard DVI connector through I/O port of this unit. Only supports digital signals.

VGA Port (DB-15)

This DB-15 connector can be connected to the system.

12 – 24V DC Input

Terminal block socket used to plug a DC power cord.

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Rear View of eTOP-MON 1200T/1205T

VESA Mounting Hole — ⊙ — VESA Mounting Hole

VESA Mounting Hole — ⊙ — VESA Mounting Hole

⚡ ⏻ ◁▽ MENU ▷△ AUTO|EXIT

⌁ RS-232 DVI-D VGA + - GND
DCIN 12-24V

VESA Mounting Holes

These are mounting holes for VESA mount (100x100mm)

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Rear View of eTOP-MON 1500T

VESA Mounting Hole

VESA Mounting Hole

VESA Mounting Hole
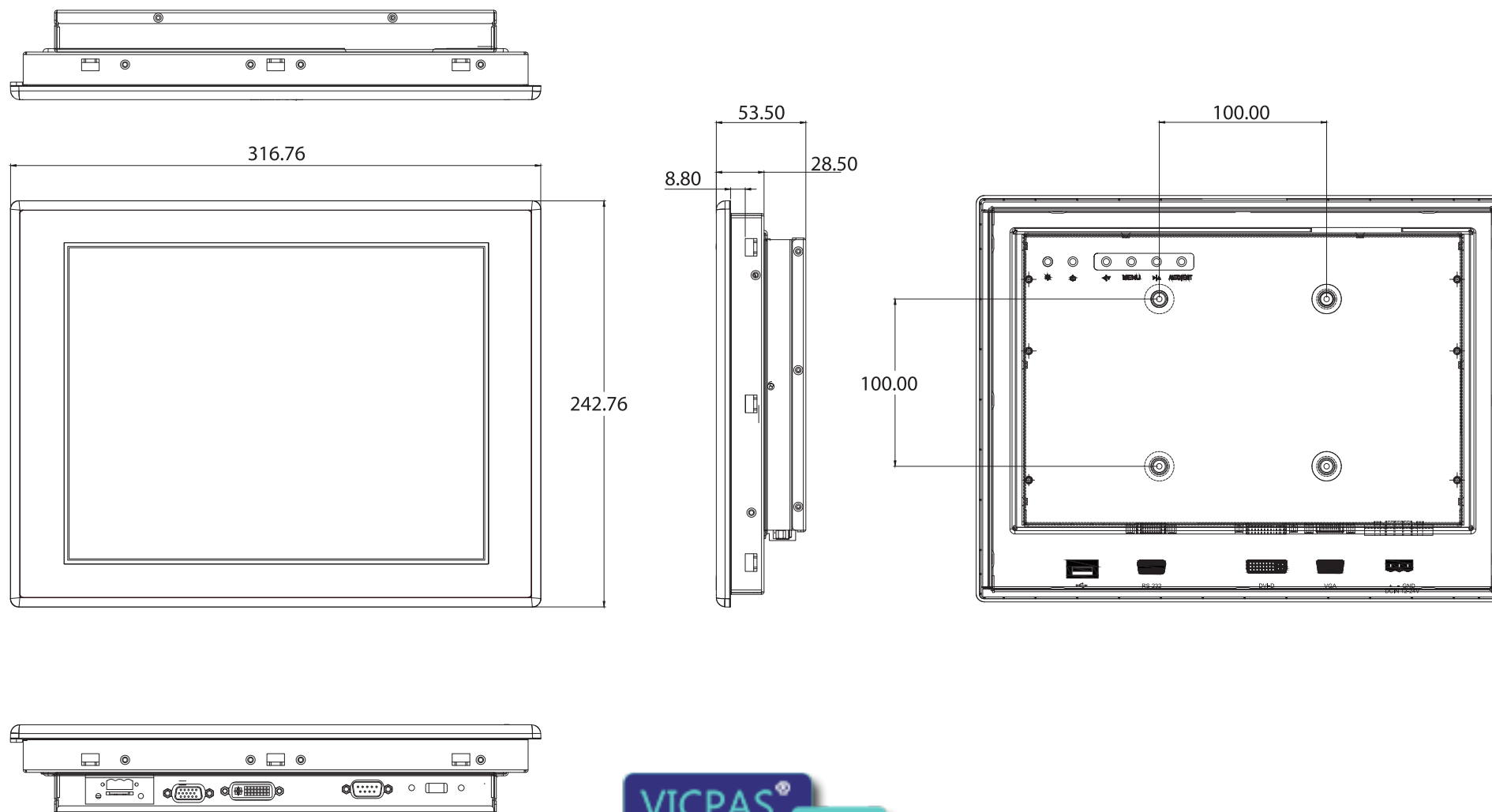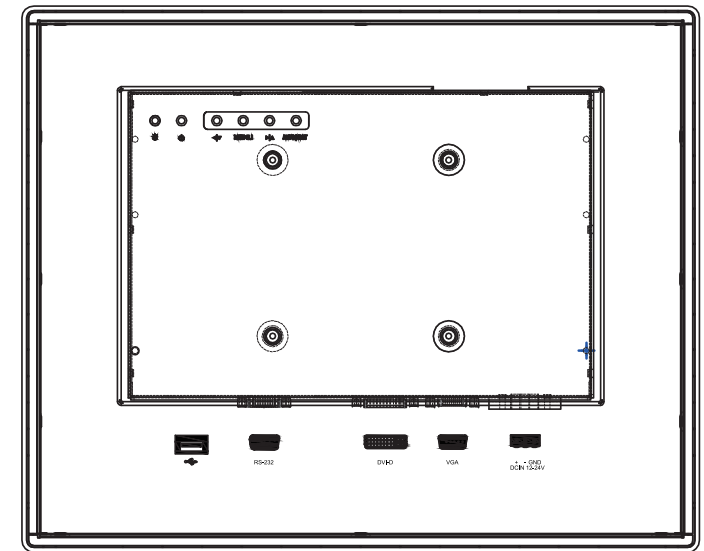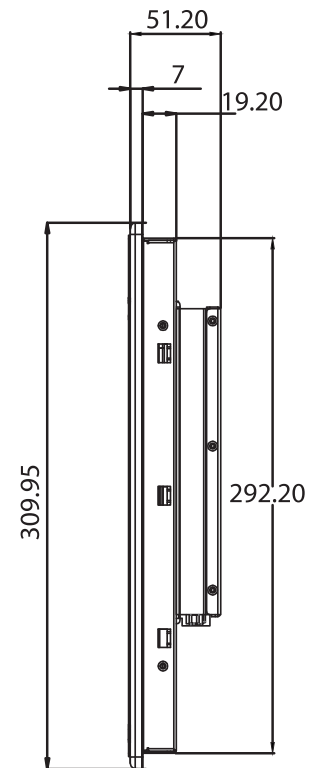
VESA Mounting Hole

RS-232   DVI-D   VGA   + - GND
DCIN 12-24V

VESA Mounting Holes

These are mounting holes for VESA mount (100x100mm)

Rear View of eTOP-MON 1700T

VESA Mounting Hole

VESA Mounting Hole

VESA Mounting Hole

VESA Mounting Hole

RS-232 DVI-D VGA + - GND
DCIN 12-24V

VESA Mounting Holes

These are mounting holes for V...00mm)

Rear View of eTOP-MON 1900T

VESA Mounting Hole

VESA Mounting Hole

VESA Mounting Hole

VESA Mounting Hole

VESA Mounting Holes

These are mounting holes for V   00mm)

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Mechanical Dimensions

eTOP-MON 1200T/1205T

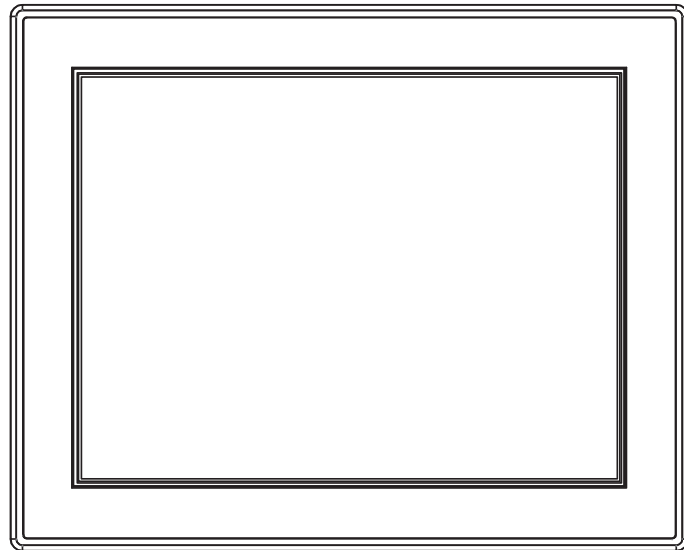316.76

242.76

53.50

8.80

28.50

100.00

100.00

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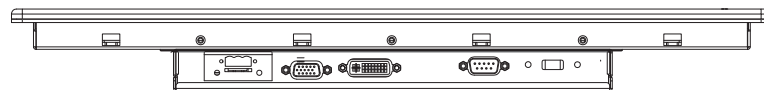Everything for your HMI running
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eTOP-MON 1500T

8.80

384.37

51.20

7

19.20

309.95

292.20

eTOP-MON 1700T

eTOP-MON 1900T

457.64

49.25

24.25

25.00

270.50

379.24

175.22
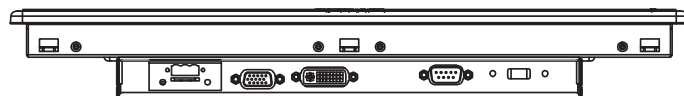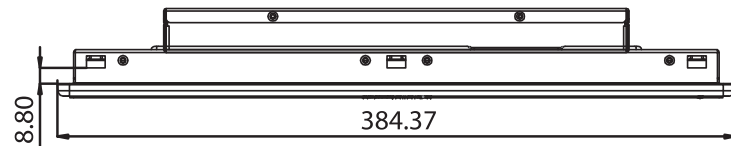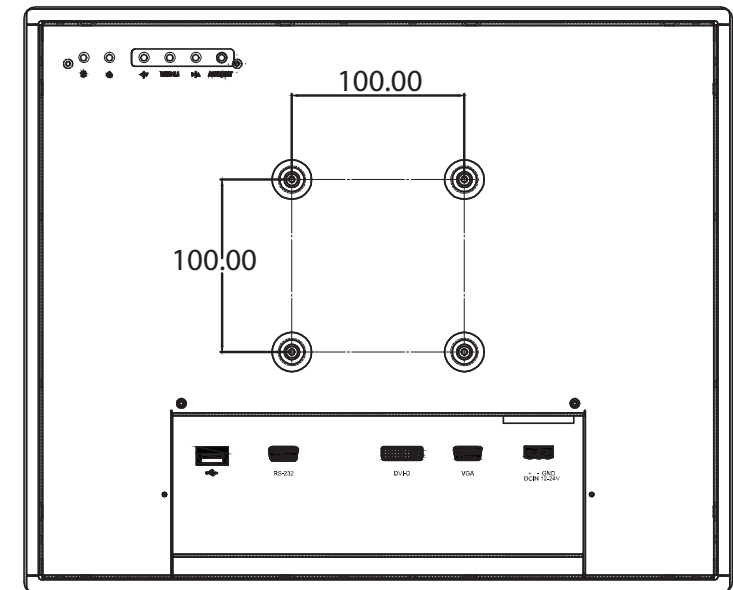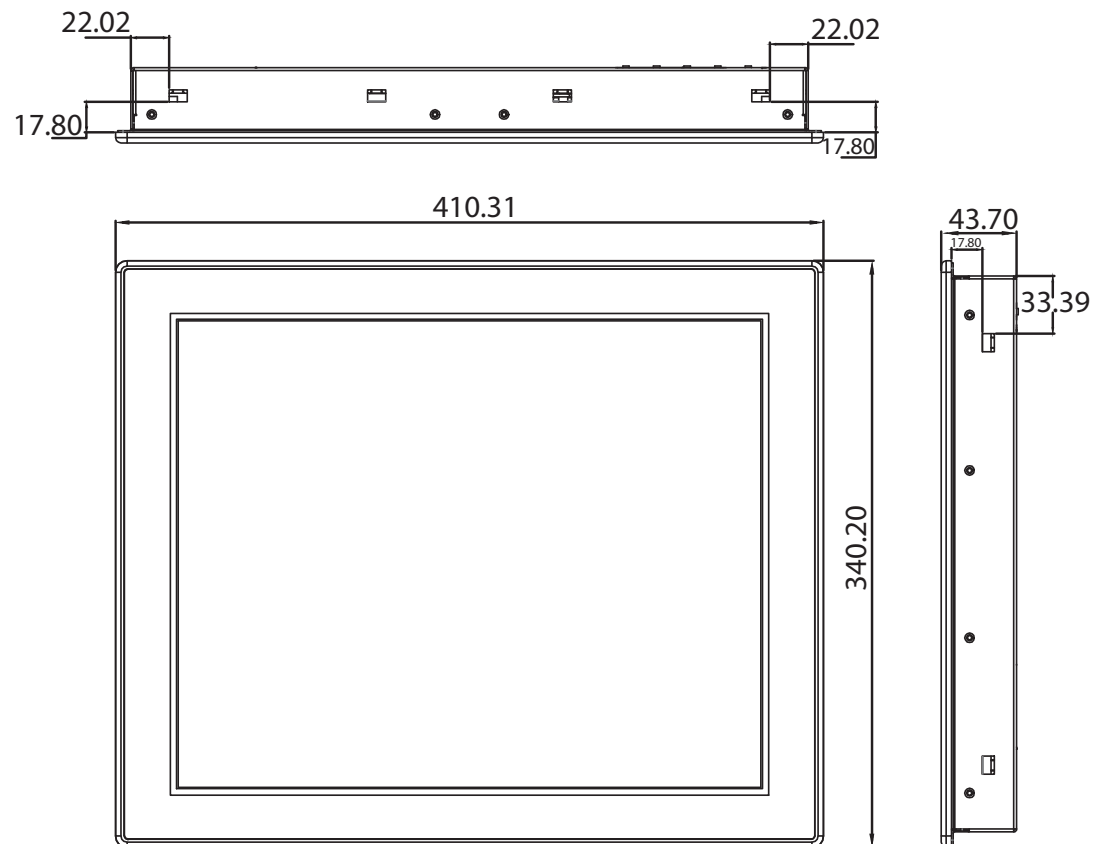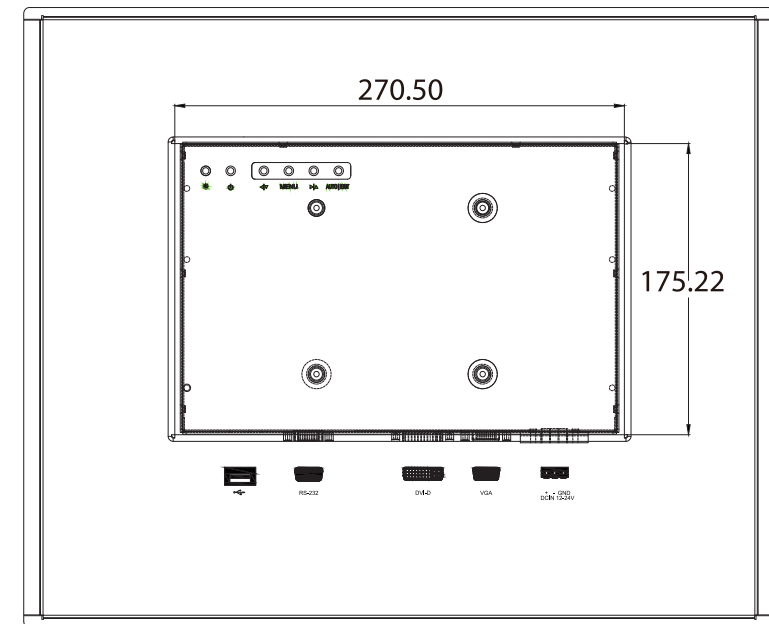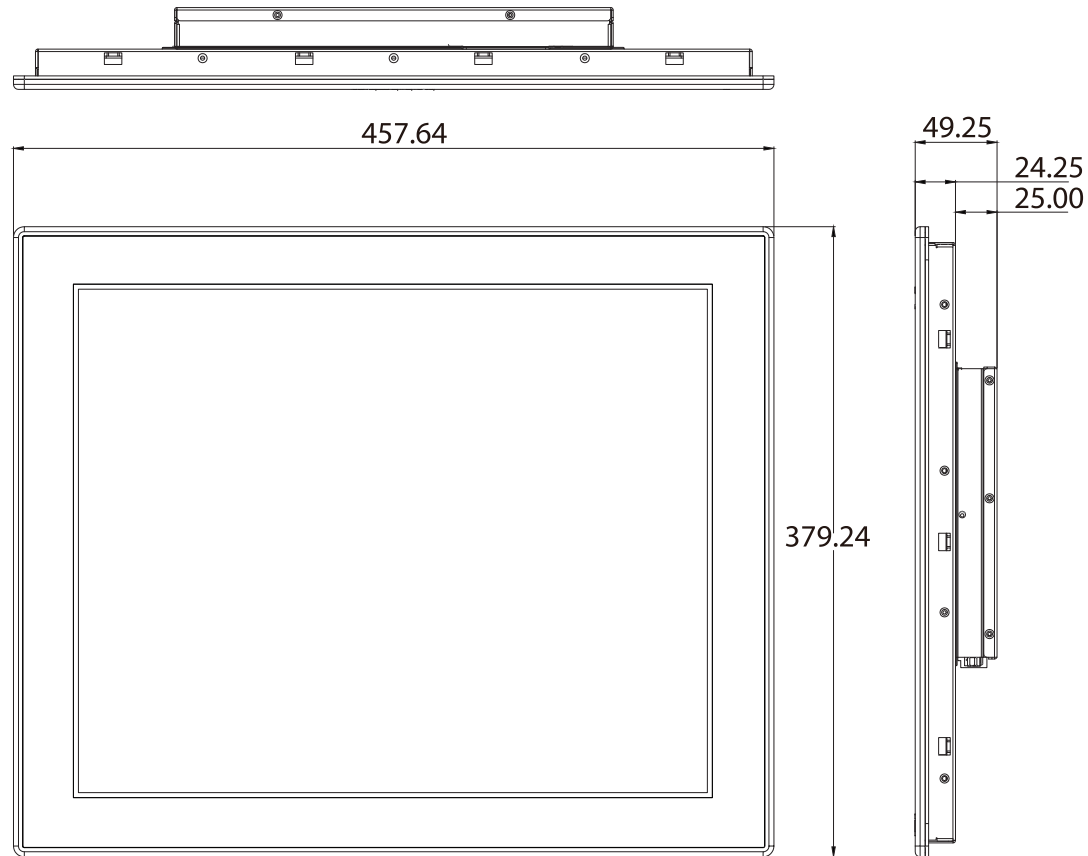
CHAPTER 2: CONNECTOR PIN DEFINITIONS

External I/O Interfaces

USB Port

Connector type: USB port
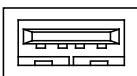
Pin	Definition
1	VCC5
2	DATA_N
3	DATA_P
4	GND

COM Port

Connector type: DB-9 port
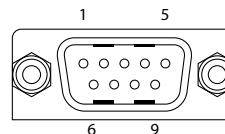
Pin	Definition	Pin	Definition
1	NC	2	RXD#: Receive Data
3	TXD: Transmit Data	4	NC
5	GND	6	NC
7	NC	8	NC
9	NC		

DVI Port (DVI-D)

Connector type: 24-pin D-Sub, 2.0mm-M-180 (DVI)

VGA Port

Connector type: DB-9 port, 9-pin D-Sub (COM1)
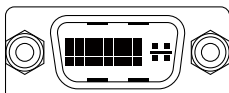
Pin	Definition	Pin	Definition
1	TMDS Data 2-	2	TMDS Data 2+
3	Shield	4	NC
5	NC	6	DDC clock
7	DDC data	8	Reserved
9	TMDS Data 1-	10	TMDS Data 1+
11	Shield	12	NC
13	NC	14	+5V
15	GND	16	Hot plug detect
17	TMDS data 0-	18	TMDS data 0+
19	Shield	20	NC
21	NC	22	Shield
23	TMDS clock+	24	TMDS clock-
C1	NC	C2	NC
C3	NC	C4	NC
C5	NC		
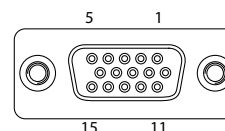
Pin	Definition	Pin	Definition
1	RED	2	GREEN
3	BLUE	4	ID2
5	GND	6	RGND
7	GGND	8	BGND
9	KEY	10	SGND
11	ID0	12	SDA
13	HSYNC or CSYNC	14	VSYNC
15	SCL		

12 – 24V DC Input

Connector type: 3-pin Terminal Block

Pin	Definition
1	+
2	-
3	GND

CHAPTER 3: SYSTEM SETUP

Panel Mounting

1. Select a place on the panel where you will mount the Industrial Touch Monitor.

2. Cut out a shape on the panel that corresponds to the Industrial Touch Monitor's rear dimensions.

   The thickness of the panel (e.g. steel board, plank, acrylic board, wall, etc.) where you will mount the Industrial Touch Monitor must not exceed 3mm for eTOP-MON 1500T/1900T and 4mm for eTOP-MON 1200T/1205T/1700T. If the distance between the front bezel and panel mount hole is too wide, it will not fit the panel mount kit.

eTOP-MON 1200T/1205T

eTOP-MON 1500T

798.00

4.00mm

658.00

eTOP-MON 1700T

436.00

3.00mm

366.00

eTOP-MON 1900T
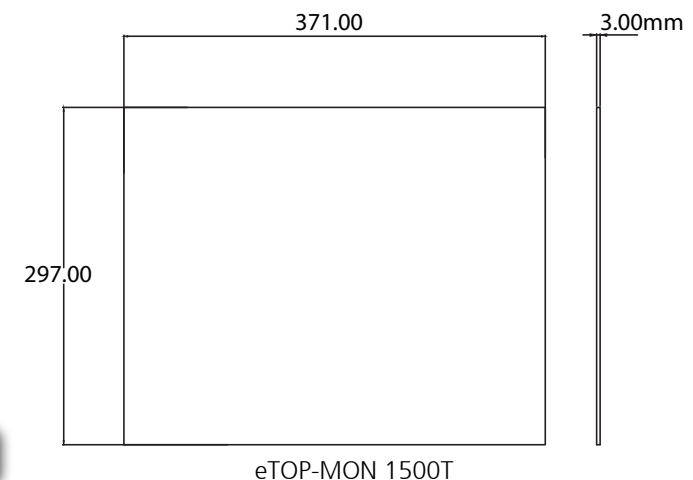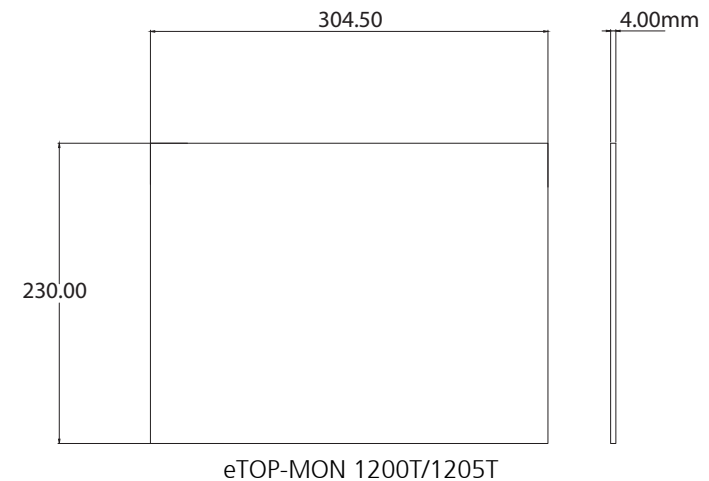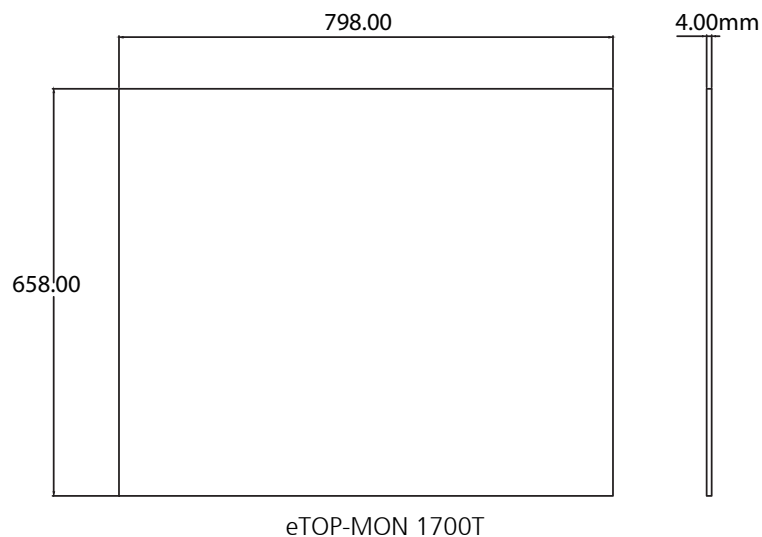
3. Slide the Industrial Touch Monitor through the hole until it is properly fitted against the panel.

4. Position the mounting clamps along the rear edges of the Industrial Touch Monitor. The first and second clamps must be positioned and secured diagonally prior to mounting the rest of the clamps. Tighten the clamp's screw until it touches the panel.

CAUTION! Do not overtighten the screws to prevent damaging the Panel PC.

Clamp

Panel

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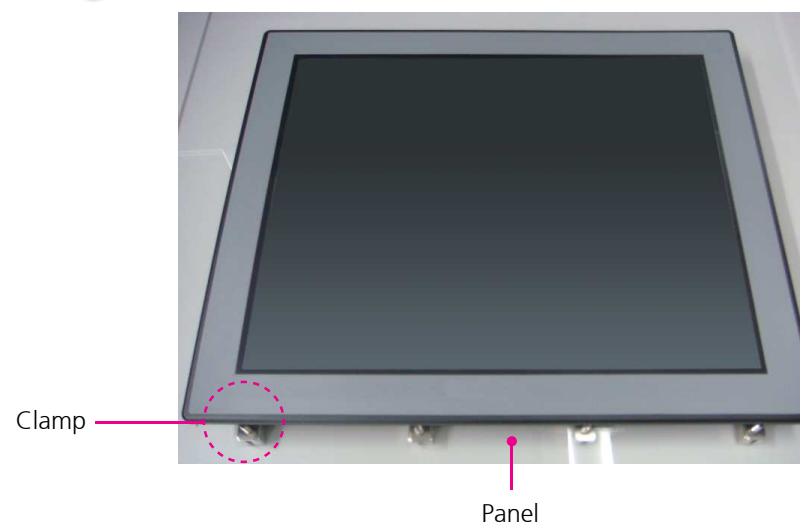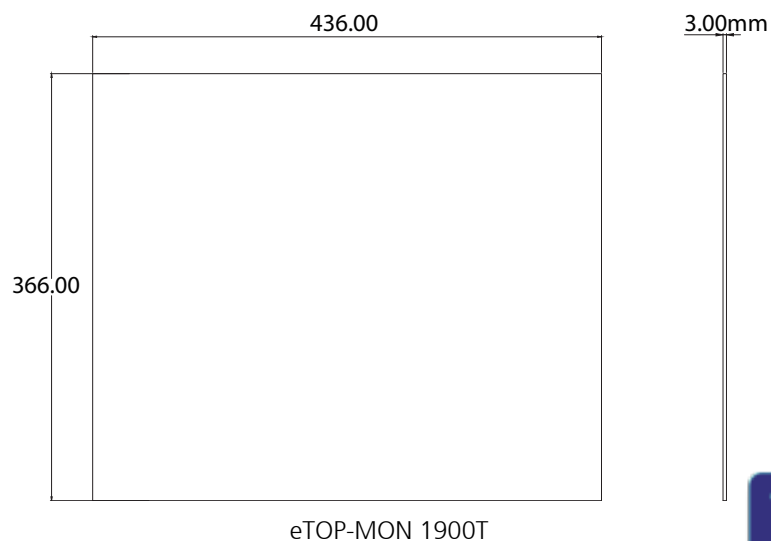
5. The illustration below shows all clamps properly mounted.

Installing the Power Adapter Bracket

(Optional accessory for eTOP-MON 1900T only)

1. Locate the mounting screws for the bracket on the back side of the chassis.

2. Remove the mounting screws and store them in a safe place for later use.

EXOR

3. Wire the power adapter cabling into the cable opening on the bracket, then place the adapter inside the bracket.

Cable opening   Power adapter cable

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4. Turn the bracket over to the back side, and place the cable tie into the two tie mounts.
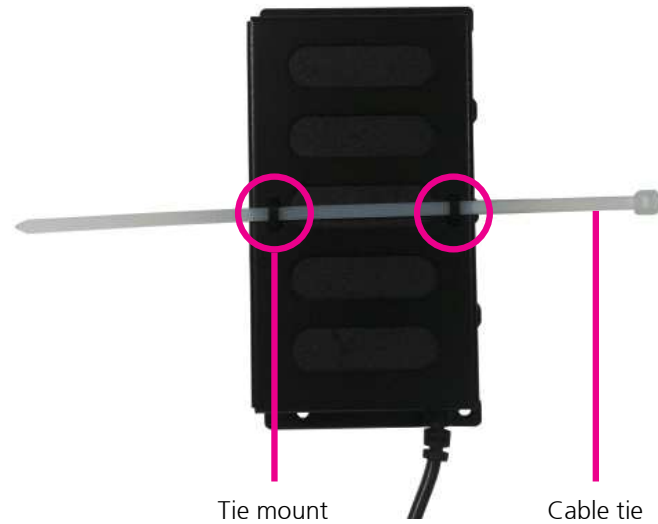
Tie mount   Cable tie

5. Wrap the power adapter cable, then secure the cable firmly by tying the cable tie.

EXOR

6. With the bracket still facing backwards, align the mounting holes on the bracket to the mounting holes on the back of the chassis, then tighten screws to secure it.
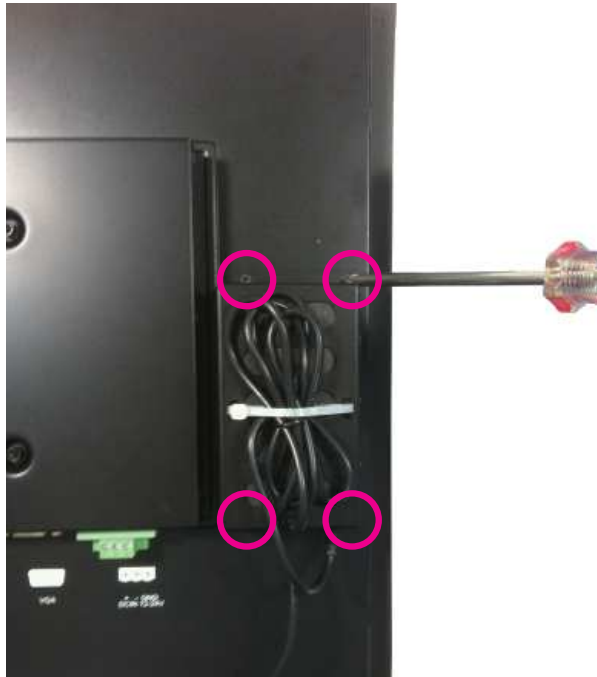
7. Plug the 3-pin terminal block connector into the DC input.

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8. Plug the positive, negative and GND wires of the DC power cable into the corresponding pins on the DC input, then tighten the screws on the terminal blocks to secure the wires.

9. Plug the AC power cord into the power adapter.

AC power cord
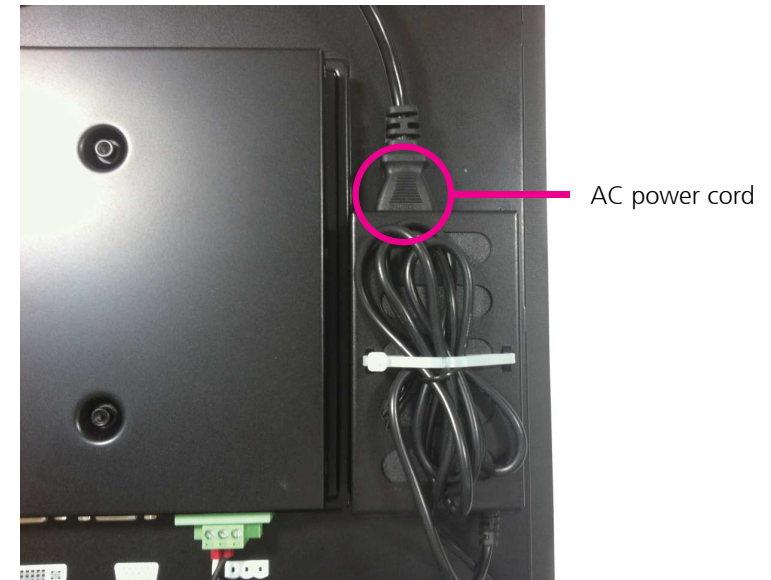
CAUTION! Before plugging the DC power cable wires into the DC input, use a multimeter or voltmeter to measure which wire is positive "+", negative "-" and GND, and ensure that they are connected to the correct pins.

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EXOR

CHAPTER 4: ADJUSTING THE DISPLAY

OSD Menu Functions

The On Screen Display (OSD) menu provides options to adjust the display. Press the MENU button on the back of the display panel to open the OSD menu. Refer to the images below for each OSD menu options.

1. Colour

	1024x768 59 . 9 Hz
Colour	Contrast 50 - [========----] +
Picture	Brightness 100 - [==============] +
Function	Colour Temp 9300K 6500K User
OSD Menu	Colour Adjust
Misc	Exit
Exit	

Contrast

MENU → colour → MENU → contrast → MENU → MENU to increase the contrast.

MENU → colour → MENU → contrast → MENU → MENU to decrease the

	1024x768 59 . 9 Hz
Colour	Contrast 58 - [=========---] +
Picture	Brightness 100 - [==============] +
Function	Colour Temp 9300K 6500K User
OSD Menu	Colour Adjust
Misc	Exit
Exit	

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EXOR

Brightness

[MENU] → colour → [MENU] → Brightness → [MENU] → [◄▼] to increase the brightness.

[MENU] → colour → [MENU] → Brightness → [MENU] → [►|▲] to decrease the brightness.

	1024x768 59 . 9 Hz
Colour	Contrast 50 - ▬▬▬▬ +
Picture	**Brightness** 100 - ▬▬▬▬▬ +
Function	Colour Temp 9300K 6500K User
OSD Menu	Colour Adjust
Misc	Exit
Exit	

Colour Temp

[MENU] → colour → [MENU] → contrast → [MENU] →colour temp → [MENU] → [◄▼] to move it towards left.

[MENU] → colour → [MENU] → contrast → [MENU] →colour temp → [MENU] → [►|▲] to move it towards right.

	1024x768 59 . 9 Hz
Colour	Contrast 0 - ▬▬▬ +
Picture	Brightness 100 - ▬▬▬▬▬ +
Function	**Colour Temp** 9300K 6500K User
OSD Menu	Colour Adjust
Misc	Exit
Exit	

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Colour Adjust

MENU → **colour** → MENU → **red** → MENU → [▼] increase the value.

MENU → **colour** → MENU → **red** → MENU → [▶] decrease the value.

	1024x768 75 . 4 Hz
Colour	
Picture	Red 100 - ▬▬▬▬▬ +
Function	Green 100 - ▬▬▬▬▬ +
OSD Menu	Blue 100 - ▬▬▬▬▬
Misc	Exit
Exit	

Exit

Exits the Colour Adjust sub-menu or press the [AUTO|EXIT] button to exit.

	1024x768 75 . 4 Hz
Colour	Red 100 - ▬▬▬▬▬ +
Picture	Green 100 - ▬▬▬▬▬ +
Function	Blue 100 - ▬▬▬▬▬
OSD Menu	Exit
Misc	
Exit	

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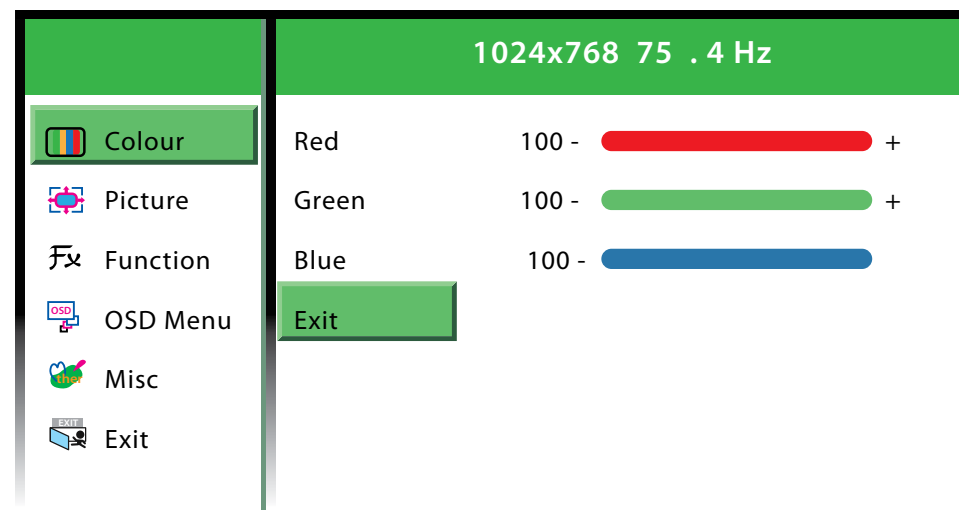
Exit

Exits the Colour sub-menu and return to main menu, or press the button continuously till exit.

	1024x768 59 . 9 Hz
▮▮ Colour	Contrast
Picture	Brightness
Function	Colour Temp
OSD Menu	Colour Adjust
Misc	Exit
Exit	

eTOP-MON 1200T/1205T/1500T/1700T/1900T User Manual
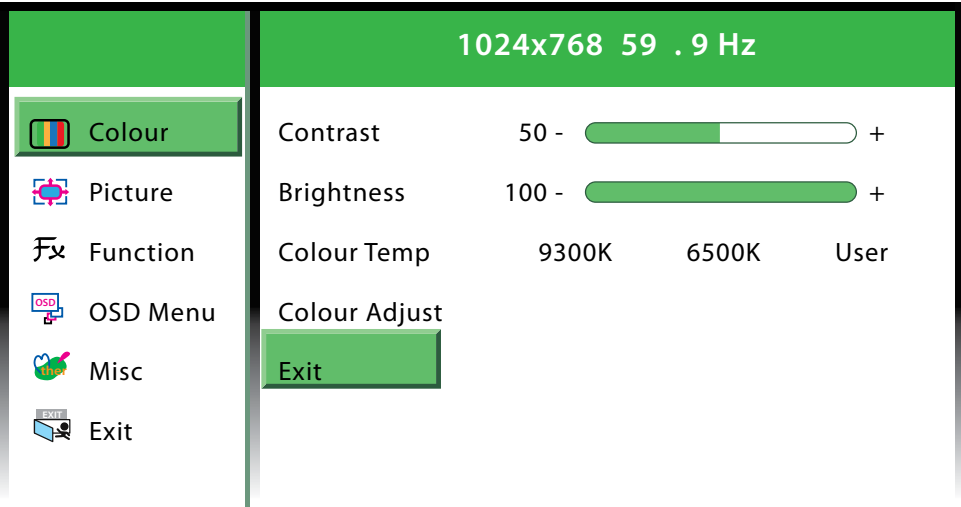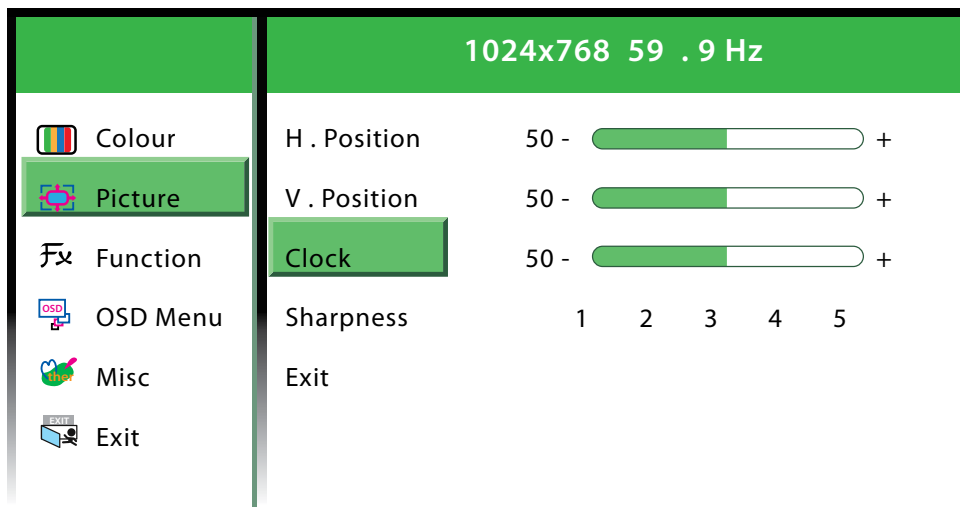
2. Picture

1024x768 59 . 9 Hz		
Colour		
Picture	H . Position	50 - ▬▬▬▬ +
Function	V . Position	50 - ▬▬▬▬ +
OSD Menu	**Clock**	50 - ▬▬▬▬ +
Misc	Sharpness	1 2 3 4 5
Exit	Exit	

H. Position

[MENU] → colour → [◁▷] → picture → [MENU] → H.position → [MENU] → [◁▷] to move
the screen towards right.

[MENU] → colour → [◁▷] → picture → [MENU] → H.position → [MENU] → [▷◁] to move
the screen towards left.

1024x768 59 . 9 Hz		
Colour	**H . Position**	50 - ▬▬▬▬ +
Picture	V . Position	50 - ▬▬▬▬ +
Function	Clock	50 - ▬▬▬▬ +
OSD Menu	Sharpness	1 2 3 4 5
Misc	Exit	
Exit		

EXOR
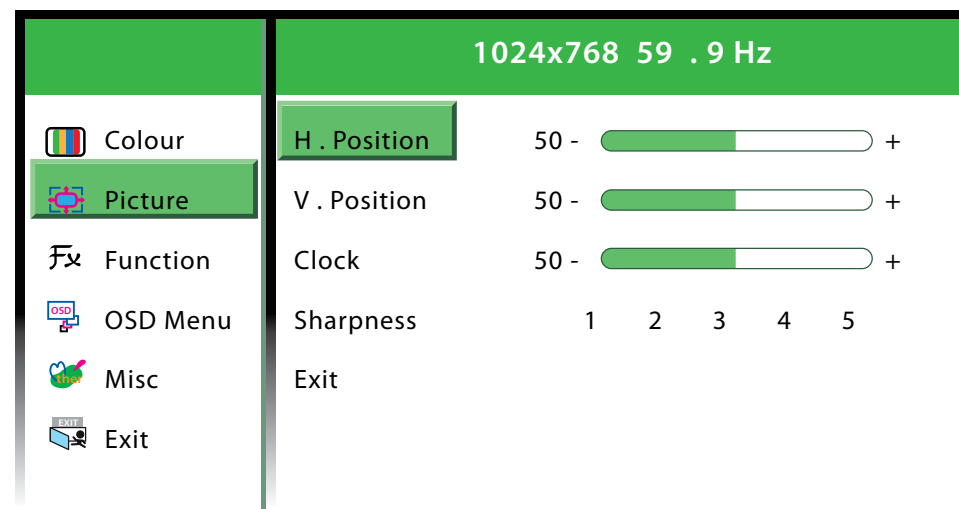
V. Position

[MENU] → colour → [⬤] → picture → [MENU] →V.position → [MENU] → [▶|▲] to move the screen down.

[MENU] → colour → [⬤] → picture → [MENU] →V.position → [MENU] → [◀|▼] to move the screen up.

	1024x768 59 . 9 Hz		
🎨 Colour	H . Position	50 -	+
🔲 **Picture**	**V . Position**	50 -	+
ƒx Function	Clock	50 -	+
OSD Menu	Sharpness	1 2 3 4 5	
Misc	Exit		
Exit			

Clock

[MENU] → colour → [⬤] → picture → [MENU] →Clock → [MENU] → [⬤] stretch the screen towards right.

[MENU] → colour → [⬤] → picture → [MENU] →Clock → [MENU] → [▶|▲] stretch the screen towards right.

	1024x768 59 . 9 Hz		
🎨 Colour	H . Position	50 -	+
🔲 **Picture**	V . Position	50 -	+
ƒx Function	**Clock**	50 -	+
OSD Menu	Sharpness	1 2 3 4 5	
Misc	Exit		
Exit			

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Sharpness

⊙ → colour → ⊙ → picture → ⊙ → ⊙ →sharpness → ⊙ → ⊙

to decrease it.

⊙ → colour → ⊙ → picture → ⊙ → ⊙ →sharpness → ⊙ → ⊙

to decrease it.

	1024x768 59 . 9 Hz		
Colour	H . Position	50 - ▬▬▬ +	
Picture	V . Position	50 - ▬▬ +	
Function	Clock	50 - ▬▬▬ +	
OSD Menu	**Sharpness**	1 2 3 4 5	
Misc	Exit		
Exit			

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3. Function

1024x768 59 . 9 Hz	
▮▮▮ Colour	Auto Adjust YES NO
🔲 Picture	Exit
Fx Function	
🔲 OSD Menu	
🔲 Misc	
🖥 Exit	

Auto Adjust

[MENU] → colour → [⏮⏭] → function → [MENU] →auto adjust → [MENU] → YES to automatically adjust the screen size, or NO to abort it.

1024x768 59 . 9 Hz	
▮▮▮ Colour	**Auto Adjust** YES NO
🔲 Picture	Exit
Fx Function	
🔲 OSD Menu	
🔲 Misc	
🖥 Exit	
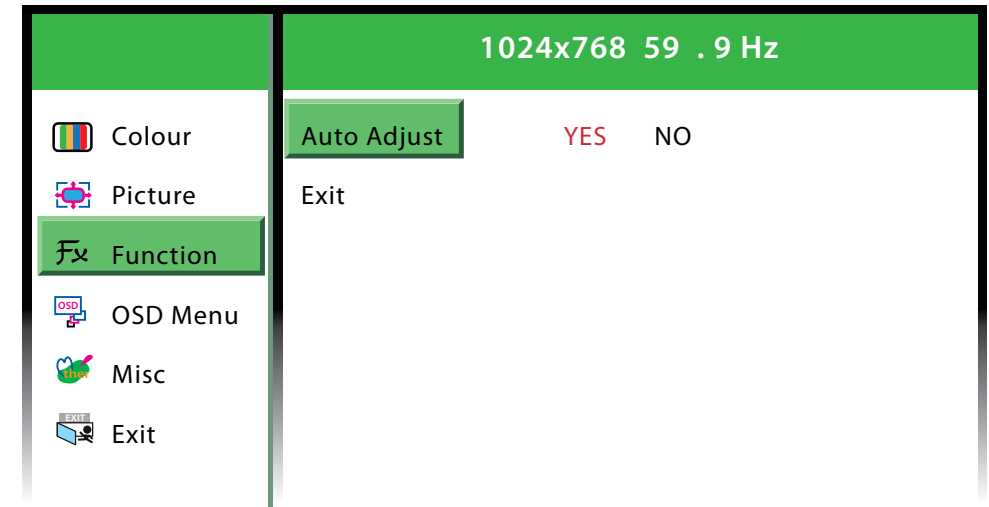
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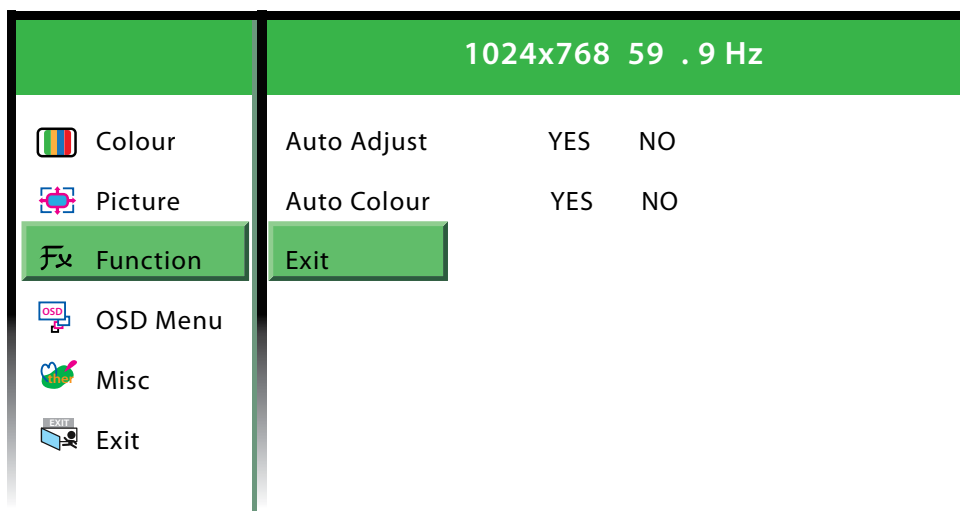Everything for your HMI running
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Exit

Exits the Function Adjust sub-menu or press the [AUTO|EXIT] button to exit.

[MENU] →colour→ [◄▼] →function→ [MENU] →exit.

	1024x768 59 . 9 Hz
▦ Colour	Auto Adjust YES NO
▣ Picture	Auto Colour YES NO
ƒx Function	Exit
OSD Menu	
Misc	
Exit	

4. OSD Menu

1024x768 59 . 9 Hz	
▦ Colour	Language
⊡ Picture	OSD H.Pos 0 - ▰▰▱ +
ℱ✗ Function	OSD V.Pos 50 - ▰▰▰ +
OSD Menu	OSD Timer ON OFF
⚘ Misc	Exit
Exit	

Language

Press the [MENU] button to enter the Language sub-menu.

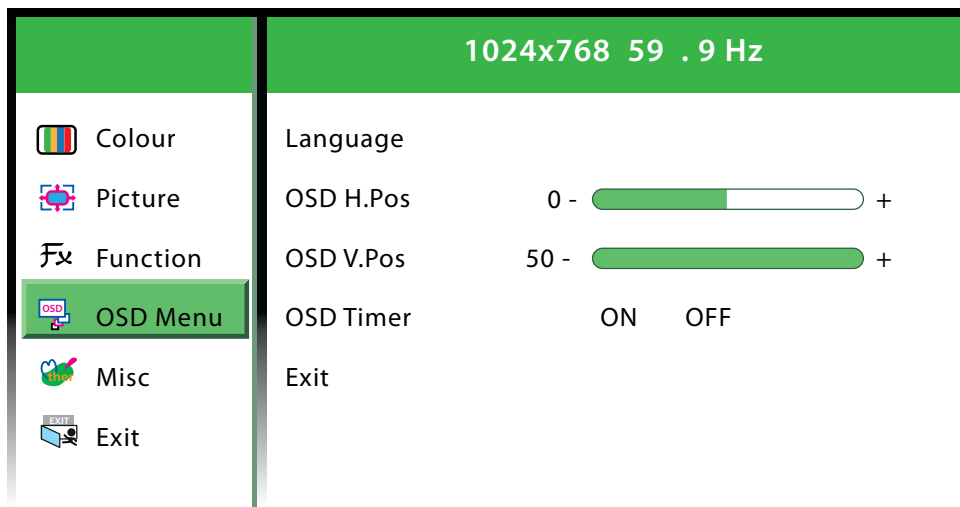| 1024x768 59 . 9 Hz	
▦ Colour	Language
⊡ Picture	OSD H.Pos 50 - ▰▰▱ +
ℱ✗ Function	OSD V.Pos 50 - ▰▰▱ +
OSD Menu	OSD Timer ON OFF
⚘ Misc	Exit
Exit	

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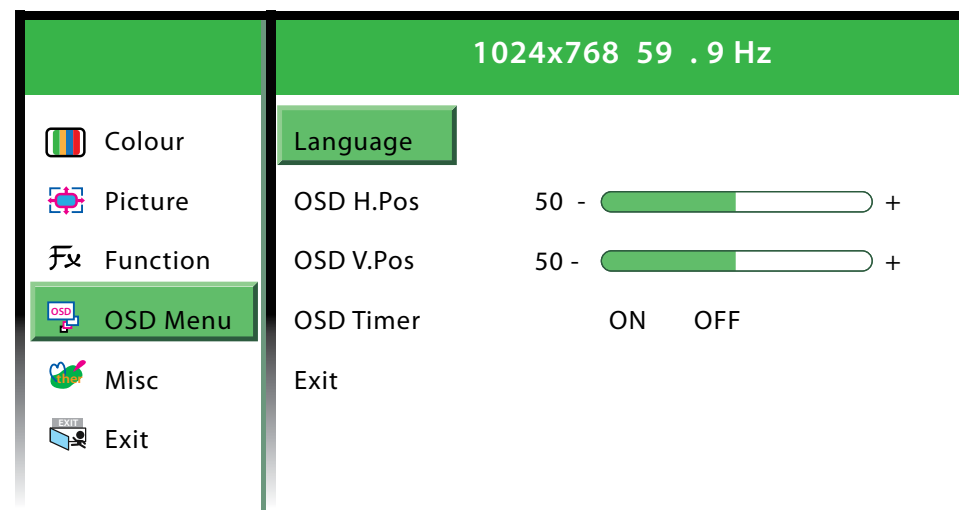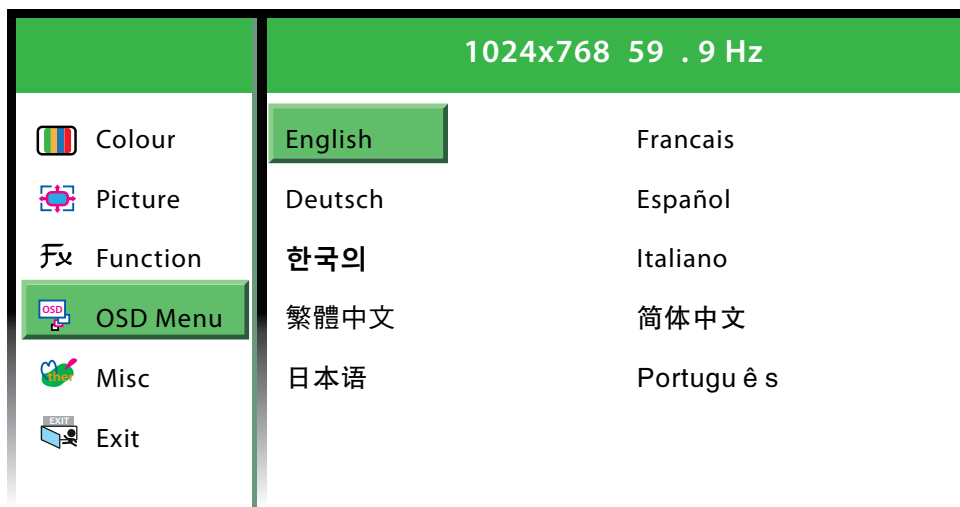
Select the desired language for the OSD menu and press the ![MENU] button to apply the language.

	1024x768 59 . 9 Hz
Colour	**English** Francais
Picture	Deutsch Español
Function	**한국의** Italiano
OSD Menu	繁體中文 简体中文
Misc	日本语 Portugu ê s
Exit	

OSD H. Pos

![MENU] → colour → ![▼] → osd menu → ![MENU] → ![▼] →osd H.pos → ![MENU] →

![►|▲] →move it towards left.

![MENU] → colour → ![▼] → osd menu → ![MENU] → ![▼] →osd H.pos → ![MENU] →

![▼] →move it towards right.

	1024x768 59 . 9 Hz		
Colour	Language		
Picture	OSD H.Pos	50 - ▬▬▬▭	+
Function	OSD V.Pos	50 - ▬▬▬▭	+
OSD Menu	OSD Timer	ON	OFF
Misc	Exit		
Exit			
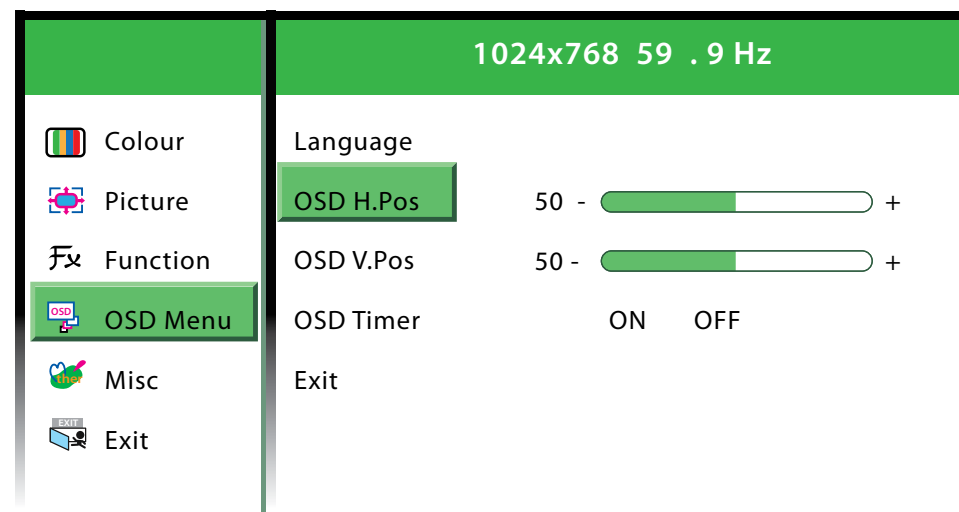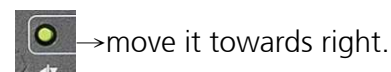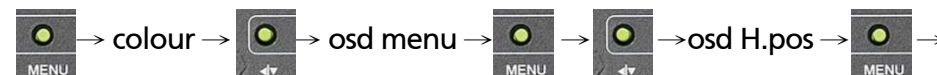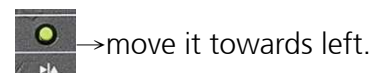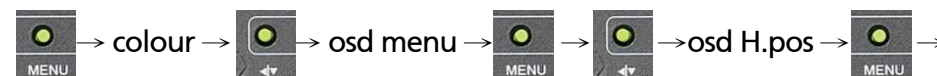
OSD V. Pos

Press ◄|▼ on the back of the display panel to move the OSD menu up, or ►|▲ to move it down.

⬛MENU→ colour → ⬛◄▼→ osd menu → ⬛MENU → ⬛◄▼→osd V.pos → ⬛MENU →

⬛►▲→move it down.

⬛MENU→ colour → ⬛◄▼→ osd menu → ⬛MENU → ⬛◄▼→osd V.pos → ⬛MENU →

⬛◄▼→move it up.

	1024x768 59 . 9 Hz
▦ Colour	Language
⬒ Picture	OSD H.Pos 50 - ▬▬▬▬ +
ℱx Function	OSD V.Pos 50 - ▬▬▬▬ +
OSD OSD Menu	OSD Timer ON OFF
⬛ Misc	Exit
⬛ Exit	
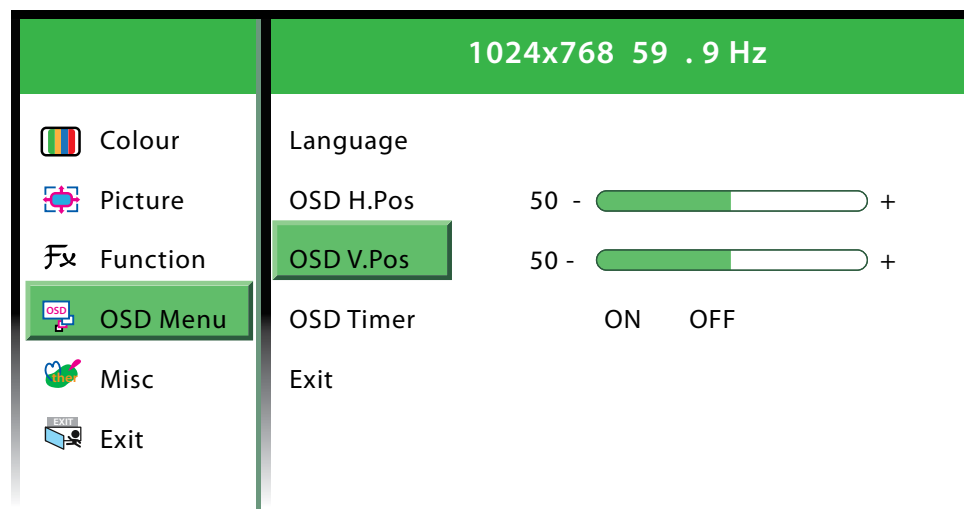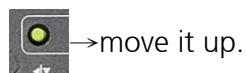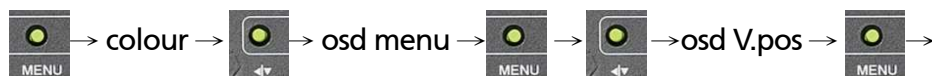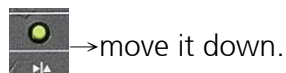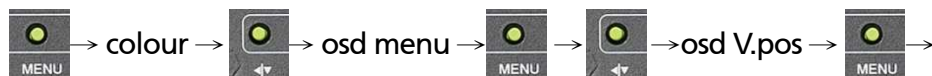
OSD Timer

Select ON to specify the timeout period of the OSD menu, or OFF to disable it. Press ⬛◄▼ on the back of the display panel to increment the timer by 1 second, or ⬛►▲ to decrement the timer by 1 second.

	1024x768 59 . 9 Hz
▦ Colour	Language
⬒ Picture	OSD H.Pos 50 - ▬▬▬▬ +
ℱx Function	OSD V.Pos 50 - ▬▬▬▬ +
OSD OSD Menu	OSD Timer ON OFF
⬛ Misc	Exit
⬛ Exit	
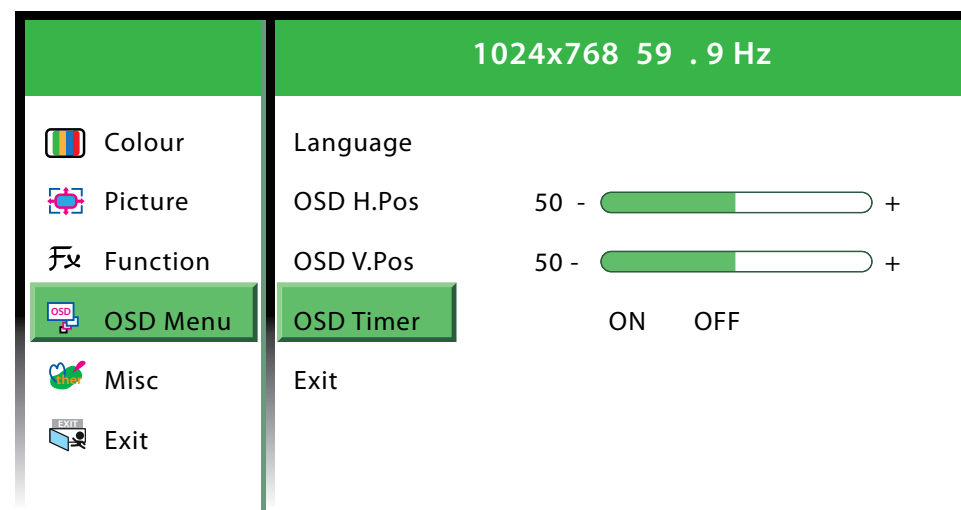
Exit

Exits the OSD Menu sub-menu or press the button to exit.

	1024x768 59 . 9 Hz
Colour	Language
Picture	OSD H.Pos 50 - ⊞ +
Function	OSD V.Pos 50 - ⊞ +
OSD Menu	OSD Timer ON OFF
Misc	**Exit**
Exit	

EXOR
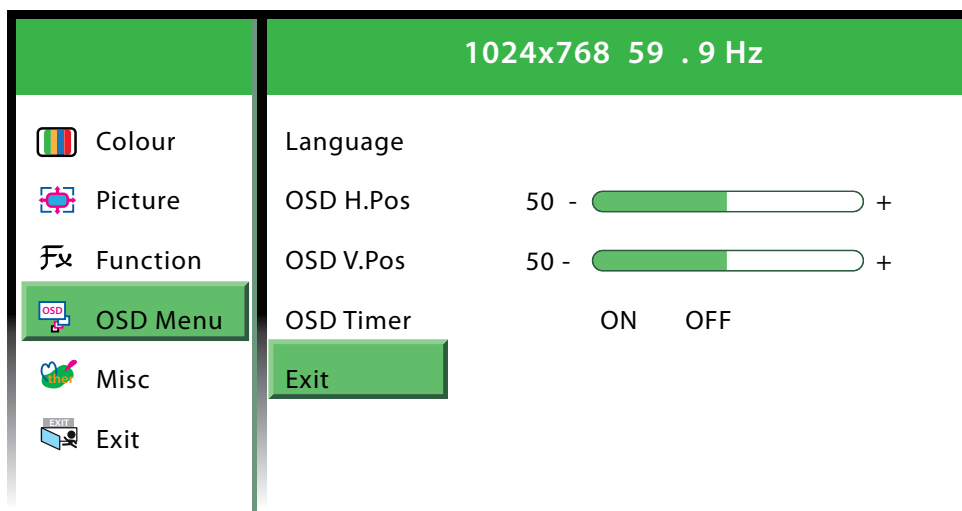
5. Misc

1024x768 59 . 9 Hz		
Colour		
Picture		
Function		
OSD Menu		
Misc		
Exit		

Reset	YES	NO
Volume		
Input	VGA	DVI
Exit		

Reset

⊙ → colour → ⊙ → Misc → ⊙ →reset → ⊙ → YES to restore
MENU   ◁▽   MENU   MENU

factory default settings, or NOT to abort it.

1024x768 59 . 9 Hz		
Colour		
Picture		
Function		
OSD Menu		
Misc		
Exit		

Reset	YES	NO
Volume		
Input	VGA	DVI
Exit		

Input

 → colour → → Misc → → →Input → → Select

VGA or DVI as the video input.

	1024x768 59 .9 Hz		
▦ Colour	Reset	YES	NO
⊕ Picture	Volume		
Fx Function	Input	VGA	DVI
OSD Menu	Exit		
Misc			
Exit			
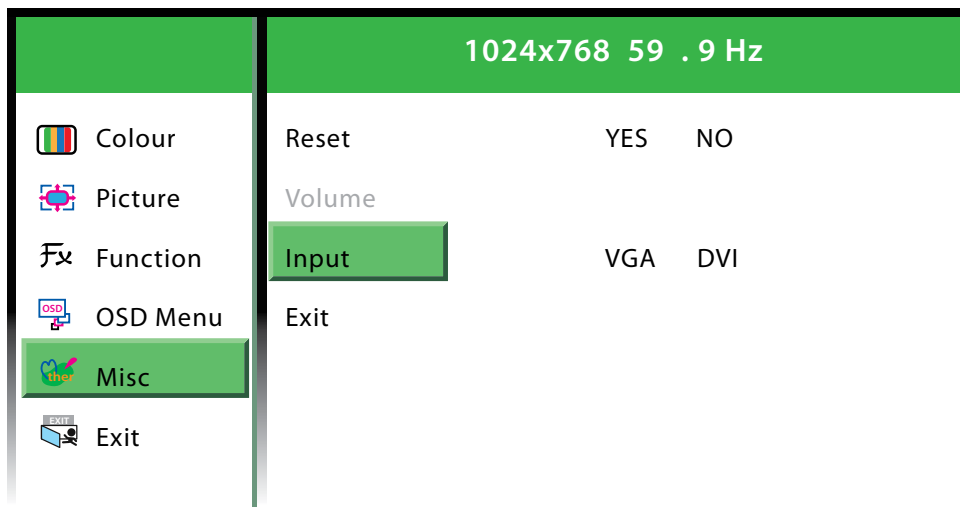
Exit

Exits the Misc sub-menu or press the button to exit.

	1024x768 59 .9 Hz		
▦ Colour	Reset	YES	NO
⊕ Picture	Volume		
Fx Function	Input	VGA	DVI
OSD Menu	Exit		
Misc			
Exit			

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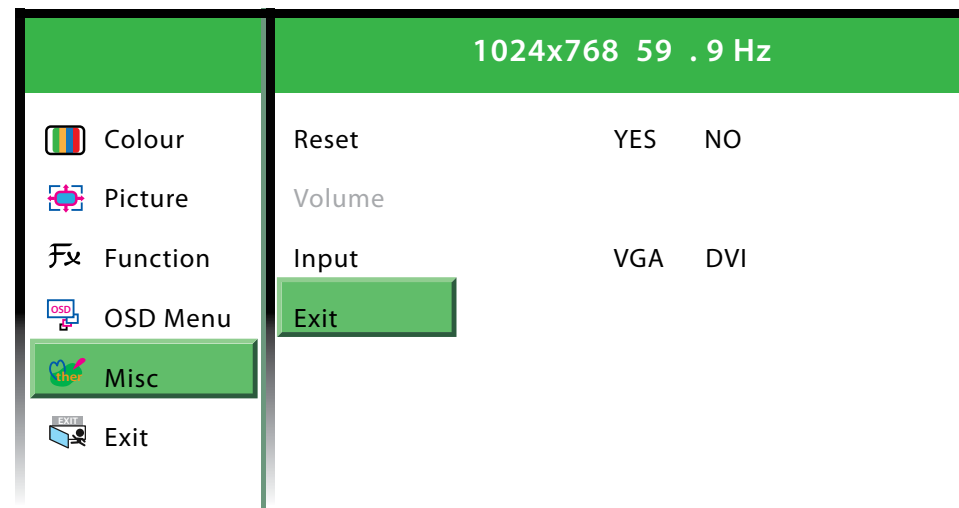
6. Exit

Exits the OSD main menu or press the [AUTO|EXIT] button to exit.
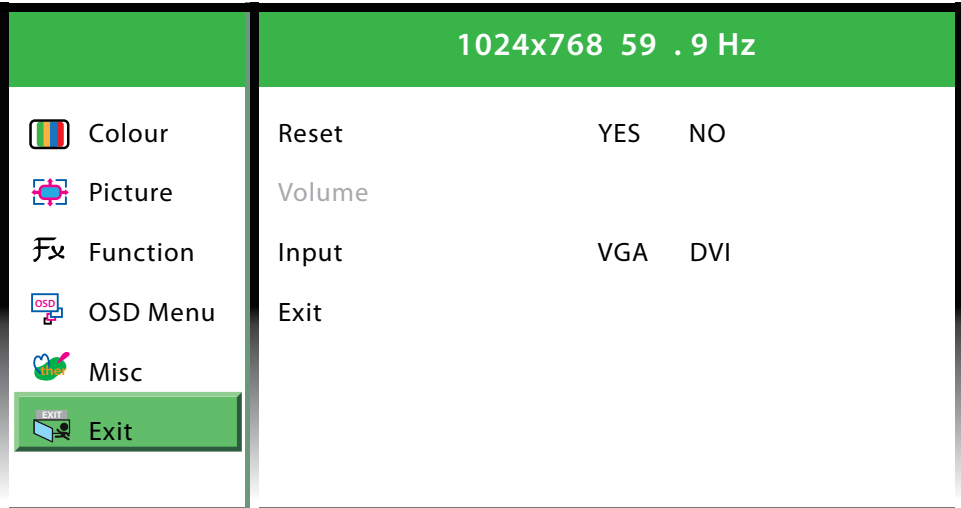
1024x768 59 . 9 Hz			
Colour			
Picture	Reset	YES	NO
Function	Volume		
OSD Menu	Input	VGA	DVI
Misc	Exit		
Exit			

CHAPTER 5: TOUCH DRIVER SETTINGS

Before installing the touch drivers, please adjust the Install.ini file. The Install.ini file is located under the following folder:

\PenMount Windows Universal Driver V2.2.0.283(Win7_32_64bit_WHQL)\ Driver

1. Open the Install.ini file.
2. Confirm if the Install.ini file has the following settings, if not, please change it.

[Install]
USB = 1   Must set this to "1"
COM = 1   Must set this to "1"
MMonitor = 1
ENUM = 1

[Option]
TouchReport = 2   USB/COM
EdgeOffset = 5
Smoothing = 1

[ENUM]
Total = 4
COM1 = 1   Set "1" to the COM port you intend to use
COM2 = 0

COM3 = 0
COM4 = 0

[COM1]
AlwaysExist

3. Install the touch drivers.

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APPENDIX A: POWER CONSUMPTION

Purpose

The purpose of the power consumption test is verified the power dissipation of the system and the load of the power supply.

Test Equipment

PROVA CM-07 AC/DC CLAMP METER
Desktop PC

Device Under Test

DUT: Sys #1

Test Procedure

1. Power up the DUT and then switch on the desktop PC connecting to it.
2. Measure the power consumption and record it.
3. Enter the standby mode (Turn off display).
4. Measure the power consumption and record it.

eTOP-MON 1200T

	+12V	+24V
Full-Loading Mode	0.73A	0.39A
Total	8.76W	9.36W
Standby Mode	0.05A	0.06A
Total	0.6W	1.44W

eTOP-MON 1205T

	+12V	+24V
Full-Loading Mode	0.75A	0.39A
Total	9W	9.36W
Standby Mode	0.05A	0.05A
Total	0.6W	1.2W

eTOP-MON 1500T

	+12V	+24V
Full-Loading Mode	0.97A	0.5A
Total	11.64W	12W
Standby Mode	0.04A	0.05A
Total	0.48W	1.2W

eTOP-MON 1700T

	+12V	+24V
Full-Loading Mode	2.6A	1.21A
Total	31.2W	29.04W
Standby Mode	0.05A	0.05A
Total	0.6W	1.2W

eTOP-MON 1900T

	+12V	+24V
Full-Loading Mode	1.54A	0.77A
Total	18.48W	18.48W
Standby Mode	0.05A	0.05A
Total	0.6W	1.2W

APPENDIX B: EXTENDED DISPLAY IDENTIFICATION DATA TIMING SUPPORT

eTOP-MON 1200T

Resolution	Vertical Frequencies			
	60Hz	70Hz	72Hz	75Hz
640x480	✓		✓	✓
720x400		✓		
800x600	✓		✓	✓

eTOP-MON 1205T

Resolution	Vertical Frequencies			
	60Hz	70Hz	72Hz	75Hz
640x480	✓		✓	✓
720x400		✓		
800x600	✓		✓	✓
1024x768	✓	✓		✓

eTOP-MON 1500T

Resolution	Vertical Frequencies			
	60Hz	70Hz	72Hz	75Hz
640x480	✓		✓	✓
720x400		✓		
800x600	✓		✓	✓
1024x768	✓			✓

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eTOP-MON 1700T

Resolution	Vertical Frequencies			
	60Hz	70Hz	72Hz	75Hz
640x480	✓		✓	✓
720x400		✓		
800x600	✓		✓	✓
1024x768	✓	✓		✓
1280x1024	✓			✓

eTOP-MON 1900T

Resolution	Vertical Frequencies			
	60Hz	70Hz	72Hz	75Hz
640x480	✓		✓	✓
720x400		✓		
800x600	✓		✓	✓
1024x768	✓	✓		✓
1280x1024	✓			✓