

# lon-Lap Monitor

1302 / 1501 User Manual



**GeChic** 

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#### **Chapter 1 Content Description**

#### Section 1 Notices for using On-Lap Monitor

1. The cable may be damaged if you pull it out by force. Please push forward the protruding part between the video and power cable connector and the back cover of the monitor to get out the connector by finger tip.





Fig.: Push out the connector using the finger tip.

Forbidden: do not unplug by pulling the cord.

- 2. Notice when installing the On-Lap Monitor onto your laptop:
  - When using On-Lap, flip open On-Lap to a horizontal position first, and then open the laptop's monitor. Avoid knocking against objects on the table.
- As shown below, it is recommended to rotate the On-Lap Monitor to an orientation viewable to the user (i.e., angle between 180° -225°)



- 225°
- The laptop's monitor should be positioned in an upright position to prevent it from tippling. If the laptop's monitor tilts, it means the laptop might not be able to sustain the weight.
- Keep the laptop away from the table edge to prevent it from falling off the table if it topples.



- Use the laptop and On-Lap Monitor on a level table. If the table is not level, the laptop and On-Lap Monitor may topple.
- 3. On-Lap only reads DVI digital video signal; it does not support complete HDMI interface and does not have a speaker.

## Section 2 Safety Instructions

Please read this Manual carefully and observe the operation instructions and precautionary notes. Do retain this document for future reference.

#### **Section 3 Safety Precautions**

- 1. The Product may be severely damaged from overturning or falling. Please do not place on a shaky or unstable table, cupboard or trolley. Do not use the On-Lap Monitor on a moving vehicle.
- 2. Do not place the Product on a vibrating surface as continuous vibration may damage the internal components.
- 3. The Product is not waterproof. Do not use the Product at or near a place with water.
- 4. Do not insert any object into the Product's slots or gaps.

#### **Section 4 Product Maintenance**

- 1. Do not attempt to repair the Product yourself. Please send it to our professional maintenance personnel for service.
- 2. Should any of the following conditions occur, please contact our maintenance personnel for service:
  - Unable to operate the Product after following the instructions in the Manual.
  - The Product falls and the outer casing is damaged.
  - Power cable or video cable is damaged, worn or torn.
  - Liquid infiltrated into the Product.

#### Section 5 LCD Pixel Statement

The On-Lap Monitor uses a high quality LCD panel. Nevertheless, there might be instances where defective pixels may occur; however, this will not affect the normal functioning of the Product.

#### Section 6 On-Lap Monitor and Accessories

- 1. Parts Description:
- Fig.: Front parts description of On-Lap Fig.: Back parts description of On-Lap





Fig.: Digital video and USB power cable Fig.: Analog video and USB power cable

- 2. Package Contents :
  - On-Lap Monitor x1
  - Digital video and USB power cable x1
  - Analog video and USB power cable x1
  - Cable clip x1
  - Holder Plate x1
  - Double-sided adhesive tape x6
  - Non-woven bag x1
  - Quick Installation Guide x1
  - User Manual x1
- 3. Optional Accessories

Stand Bricks I

Monitor.

 Connect one end of the Mini Display-Port and USB power cable to the video and power input port of the On-Lap; and connect the other end to USB power output and DisplayPort of the laptop.

Portable stands that can support the

horizontal and vertical display of On-Lap



Fig.: Mini DisplayPort and USB power cable

#### Stand Bricks II

Portable and versatile stands that can support the horizontal, vertical and upward extension display of On-Lap Monitor.





Fig.: Stand Bricks I

Fig.: Stand Bricks II

3

## **Chapter 2 Installation Instructions**

#### Section 1 Horizontal Display

#### Step1. Install the video and USB power cable

If you wish to use the HDMI port on the laptop, please use Digital Video and USB-Powered Cable. If you wish to use the D-sub (VGA) or mini-Display Port on the laptop, please purchase the Analog Video and USB-Powered Cable or mini-Display Port and USB-Powered Cable.

Connect the Image and Power connector to On-Lap video port, (1) Insert the latch into the groove of the video power connector. (2) Slide the video power connector toward the left for a proper connection. [Warning: Not inserting the latch into the groove may result in damage to connector. Please check the video power connector is properly connected and not protruding out. If protrusion occurs, the connection might not be properly connected and monitor will not be able to operate.]

Picture: Insert the latch into the groove of the video power connector.



Fig.: Insert the latch into the groove of the video power connector of the On-Lap Monitor

#### Step2. Install Stand Bricks

As illustrated, buckle the narrow opening [9 mm wide] of Stand Bricks to the left and right sides of On-Lap Monitor. <u>Be careful not to interfere with the cable</u>. Adjust the position of the Stand Bricks along the edge of the On-Lap Monitor to change the angle between the Monitor and the table.



Fig.: Install Stand Bricks to the left and right sides of On-Lap Monitor

## Step3.Connect On-Lap Monitor to the laptop

Connect the USB power connector to the laptop's USB port, and then the digital video connector to the laptop's HDMI video out-

connector to the laptop's HDIVII VIGEO output port (If Analog video and USB power cable is used, connect the analog video connector to the laptop's D-sub port). Tidy the cables with cable clips.



Fig.: Horizontal display of On-Lap Monitor

# Step4. Make the laptop and monitor extension setting

(Refer to Section 2 of Chapter 3 for monitor display setting.) After powering on the laptop, go to Windows' "Control Panel" to make the monitor extension setting. If you are using Windows 7: Select "2.DVI LCD" (digital video) or "2. display device: VGA" (analog video) for **Display.** Select "1366x768" for **Resolution** Select "Landscape" for **Orientation** 



#### of Display 1. Section 2 Vertical Display

#### Step1. Install the video and USB power cable

Select "Extend these displays" for Multiple

monitors, and drag Display 2 to the right side

If you wish to use the HDMI port on the laptop, please use Digital Video and USB-Powered Cable. If you wish to use the D-sub (VGA) or mini-Display Port on the laptop, please purchase the Analog Video and USB-Powered Cable or mini-Display Port and USB-Powered Cable.

Connect the Image and Power connector to On-Lap video port, (1) Insert the latch into the groove of the video power connector. (2) Slide the video power connector toward the left for a proper connection. [Warning: Not inserting the latch into the groove may result in damage to connector. Please check the video power connector is properly connected and not protruding out. If protrusion occurs, the connection might not be properly connected and monitor will not be able to operate.] Picture: Insert the latch into the groove of the video power connector.



Fig.: Insert the video power connector to the video power port of On-Lap Monitor

## Step2. Install Stand Bricks

As illustrated, place the On-Lap Monitor on the table in the vertical position. Buckle the narrow opening [9 mm wide] of Stand Bricks to the left and right sides of On-Lap Monitor. <u>Be careful not to squeeze the cable</u>



Fig.: Install Stand Brick to the left and right sides of the standing On-Lap Monitor

## Step3. Connect On-Lap Monitor to the laptop

It is recommended that you place the vertical standing On-Lap Monitor to the right side of the laptop for a better viewing angle. As illustrated, connect the USB power connector to the laptop's USB port, and then the digital video connector to the laptop's HDMI video output port (If Analog video and USB power cable is used, connect the analog video connector to the laptop's D-sub port). Tidy the redundant cables with cable clips.

Note: Viewing On-Lap Monitor from the left side is better, viewing is poorer from the right side



Fig.: Vertical display of On-Lap Monitor

## Step4.Make the laptop and monitor extension setting

(Refer to Section 2 of Chapter 3 for monitor display setting.)

After switching on the laptop, go to Windows' "Control Panel" to make the monitor extension setting.

If you are using Windows 7:

Select "2.DVI LCD" (digital video) or "2. display device: VGA" (analog video) for **Display** 

Select "1366x768" for **Resolution** Select "Portrait (flipped)" for **Orientation** Select "Extend these displays" for **Multiple displays**, and drag Display 2 to the right side of Display 1.



## Section 3 Upward Extension Display

#### Step1. Install the video and USB power cable

If you wish to use the HDMI port on the laptop, please use Digital Video and USB-Powered Cable. If you wish to use the D-sub (VGA) or mini-Display Port on the laptop, please purchase the Analog Video and USB-Powered Cable or mini-Display Port and USB-Powered Cable.

Connect the Image and Power connector to On-Lap video port, (1) Insert the latch into the groove of the video power connector. (2) Slide the video power connector toward the left for a proper connection. [Warning: Not inserting the latch into the groove may result in damage to connector. Please check the video power connector is properly connected and not protruding out. If protrusion occurs, the connection might not be properly connected and monitor will not be able to operate.] Picture: Insert the latch into the groove of the video power connector.



## Step2. Install Stand Bricks

As illustrated, place the On-Lap Monitor on Stand Bricks II. <u>Note: Center the On-Lap Monitor for close fitting with</u> <u>Stand Bricks II.</u>

Fig.: Place On-Lap Monitor on Stand Bricks II.



## Step3. Connect On-Lap Monitor to the laptop

Place the laptop in front of the On-Lap Monitor and align the upper side of the laptop to the lower display edge of the On-Lap Monitor. Connect the USB power connector to the laptop's USB port, and then connect the digital video connector to the laptop's HDMI video output port (If Analog video and USB power cable is used, connect the analog video connector to the laptop's D-sub port).



## Step4.Make the laptop and monitor extension setting

(Refer to Section 2 of Chapter 3 for monitor display setting.) After switching on the laptop, go to Windows' "Control Panel" to make the monitor extension setting. If you are using Windows 7: Select "2.DVI LCD" (digital video) or "2. display device: VGA" (analog video) for **Display**. Select "1.366x768" for **Resolution** Select "Landscape" for **Orientation** Select "Extend these displays" for **Multiple displays**, and drag Display 2 to the top side



OK Cancel Apply

## Section 4 Dual Monitor Display

of Display 1.

[Note: Ultrabook or laptop of smaller size than On-Lap may not be suitable for this usage.]

#### Step1. Install the Holder Plate to the back cover of the laptop's monitor

Open the shaft's Hinge Plate of the On-Lap Monitor to 180° and place the On-Lap Monitor on the laptop's back cover. Peel off the other double-sided adhesive tape on the Holder Plate and attach the Holder Plate to the laptop, as illustrated. Note:

- 1) Keep the Holder Plate 2mm from the edge of the laptop.
- 2) Align the On-Lap Monitor to the front edge of the laptop's back cover.
- 3) Keep the direction of the Holder Plate the same as that of the shaft's Hinge Plate
- 4) If the Holder Plate cannot securely attach to the laptop because the laptop's back cover has a protruding pattern or is anodized, use more double-sided adhesive tape as required.
- 5) Double-sided adhesive tape should be used on a horizontal surface; gently press on the adhesive tape after the Holder Plate is attached. Leave for 2 hours before installing the On-Lap Monitor.



[Note: Do not reverse the direction of the Holder Plate as this will reverse the direction of the On-Lap Monitor after installation.]

#### Step2 Install the video and USB power cable

If you wish to use the HDMI port on the laptop, please use Digital Video and USB-Powered Cable. If you wish to use the D-sub (VGA) or mini-Display Port on the laptop, please purchase the Analog Video and USB-Powered Cable or mini-Display Port and USB-Powered Cable.

Connect the Image and Power connector to On-Lap video port, (1) Insert the latch into the groove of the video power connector. (2) Slide the video power connector toward the left for a proper connection. [Warning: Not inserting the latch into the groove may result in damage to connector. Please check the video power connector is properly connected and not protruding out. If protrusion occurs, the connection might not be properly connected and monitor will not be able to operate.]

#### Step3 Install On-Lap Monitor to the laptop's monitor

1. As illustrated, align the shaft's Hinge Plate of the On-Lap Monitor with the Holder Plate, and slide the shaft's Hinge Plate into the Holder Plate.



Fig.: Make the positioning clip wedge to the first positioning hole

- 2. Rotate the On-Lap Monitor clockwise so that it is parallel to the laptop, open the laptop monitor and the On-Lap Monitor at the same time, as illustrated.
- 3. Adjust the angle of the On-Lap Monitor. A recommended angle is between 180° and 225°.



Fig.: Rotate the On-Lap Monitor to the right side, then open the laptop monitor and the On-Lap Monitor at the same time.

4. Connect the video and power cable As illustrated, connect the USB power connector to the laptop's USB port, and then the digital video connector to the laptop's HDMI video output port (If analog video and USB power cable is used, connect the analog video connector to the laptop's D-sub port). Tidy the redundant cables with cable clips.



Fig. A recommended angle is between 180° and 225°.



Fig.: Dual monitor display mode

5. As illustrated, move the On-Lap Monitor upward from the laptop's back cover, press down on the positioning clip at the first positioning hole, and move the On-Lap Monitor until the positioning clip pops up from the second positioning hole.



Fig.: Moving the positioning clip from the first positioning hole to the second positioning hole. After On-Lap Monitor moves up, it is no longer fixed to the bottom of the laptop, and the laptop's monitor can be tilted backward.

[Note: If your laptop is smaller than On-Lap Monitor, the cable may get stuck when flipping the Monitor (see upper right figure). Follow the steps above to adjust the monitor height.]

#### Step4.Make the laptop and monitor extension setting

(Refer to Section 2 of Chapter 3 for monitor display setting.)

After switching on the laptop, go to Windows' "Control Panel" to make the monitor extension setting. If you are using Windows 7: Select "2.DVI LCD" (digital video) or "2. display device: VGA" (analog video) for **Display** Select "1366x768" for **Resolution** Select "Landscape" for **Orientation** Select "Extend these displays" for **Multiple displays**, and drag Display 2 to the right side of Display 1.



Change the appearance of your display

OK Cancel Apply

## Step5.Remove On-Lap Monitor from the laptop

1. Remove the On-Lap Monitor from the laptop.

As illustrated, rotate clockwise and open the On-Lap Monitor, press down on the positioning clip, and pull forward the On-Lap Monitor along the Holder Plate to slide out the shaft's Hinge Plate.



Fig.: Press down on the positioning clip to slide out the shaft's Hinge Plate from the Holder Plate.

## Section 5 Remove On-Lap Monitor's Holder Plate

- 1. Remove the On-Lap Monitor first
- 2. Insert a ruler or rigid flat article into the gap at bottom of the Holder Plate, gently and evenly apply force back and forth to make the doublesided adhesive tape lose its viscosity. Do not use metal objects that can easily scratch the surface.



[Note: Do not try to lift up the Holder Plate directly with hands as it may result in deformation of the Holder Plate for reuse.]



# Chapter 3 Power On and Off the On-Lap Monitor

## Section 1 Operating Instructions

- 1. Initial use: when the On-Lap's USB power cable is connected to a 5V DC power source, On-Lap will automatically switch on.
- 2. Switching on the On-Lap Monitor from an off mode: press "Power" to switch on the On-Lap Monitor.
- 3. Follow the steps below to proceed with the monitor display setting.
- 4. When On-Lap is on, you may press the "power" button to switch off On-Lap.

## Section 2 Monitor Display Setting

1. Set resolution – Windows 7 system





Normally Display 1 is the laptop's monitor, Display 2 is the external monitor. Click on <u>Detect</u> if you are unsure.

- At **Display**, select "2.DVI Change the appearance of your display LCD" (digital video) or "2. display device: VGA" (analog video) for 2 1 Display Select "1366x768" for Resolution 2. DVI LCD -Display Select "Landscape" or "Portrait" Resolution 1366 × 768 (recommended) + for Orientation Select "Extend these displays" Orientation: Landscape 🔹 for Multiple display, and drag Multiple displays: Extend these displays 🔹 Duplicate these displays Display 2 to the right side of This is currently yor Show desktop only on 1 Display 1. For Duplicated mode. Make text and other Show desktop only on 2 select "Duplicate these displays".
- Select OK and exit after saving the settings.
- Detect Identify Advanced setting OK Cancel Apply

2. Resolution setting- Windows XP system



🛃 start 🔡	
	Log Off 🚺 Shut Dowr
All <u>P</u> rograms	100 Run
🦉 Paint	🕐 Help and Support
Notepad	Printers and Faxes
Tour Windows AP	Connect <u>T</u> o
Tour Windows VD	Control Panel
Windows Movie Maker	<u> </u>

My Network Places

#### Click on Appearance and Theme



#### Click on Adjust screen resolution

Pick a task Change the computer's theme Change the desktop background Choose a screen saver
Change the computer's theme Change the desktop background Choose a screen saver
Change the desktop background Choose a screen saver
Choose a screen saver
Change the screen resolution
Change the screen resolution

Click on Setting, select Monitor at Display. and set the Screen Resolution as 1366x768: Select "Extend my Windows desktop to this monitor" and then select "OK" and exit.

[Note: "Vertical mode" cannot be directly chosen on Windows XP system: the adjustment needs to be made via the video card. Please refer to the user manual of vour video card.]

#### isplay Properties 20 Themes Desktop Appearance Settings Drag the monitor icons to match the physical arrangement of your monitor Display: 1 Plug and Play Monitor on Intel/(B) Express Chinset Fa Color quality More -0 Highest (32 bit) 1366 x 768 pixels Identify Iroubleshoot... Advanced OK Cancel Apply

#### 3. Setting the MAC system

[Note: Color LCD and DVI LCD must have the same color settings. This way the On-Lap Monitor and MacBook display guality can be closer to each other.

This setting requires the conversion cable from the Digital AV adaptor to HDMI connector to connect with the digital video cable of On-Lap, or use the Mini Display-Port- USB power cable available for purchase from GeChic.]

1	Finder	File	Edit	View
A So A	bout This oftware Up pp Store	Mac odate		
S	/stem Pref	erence	es	
D	ock			•
R	ecent Item	IS		•
Fo	orce Quit I	Finder	10	C#
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Click on System Preferences

000

◄ ► Show All

Resolutions:

1280 × 800

1152 × 720

1024 × 768 1024 × 768 (stretched)

 $1024 \times 640$ 

800 × 600 800 × 600 (stretched) Clial, an Diamlau

CIICK ON	Displays



- The above window appears on • the laptop's monitor
- The above window appears on the On-Lap Monitor. Please adjust the resolution.

0	c	olor LCD			
Show All				Q	
	Display A	rangement	Color		
rearrange the displays, dr	ag them to the desire	position.			
relocate the menu bar, dr	ag it to a different dis	olay.			
		-	_		
		_			
		1			
) Mirror Displays					
⊃ Mirror Displays					
Mirror Displays					



- Select the arrangement mode to adjust the display position of the monitors; this is the dual monitor display mode (laptop's monitor)
- This is the upward extension mode (laptop's monitor)
- 4. Setting Mac Operating System with On-Lap screen for Display Effect

To reduce the color difference between On-Lap and Mac operating system, suggest user can follow the instruction to adjust setting to reach the best result. Setting the LCD screen of MacBook Pro and the color of DVI LCD needs to be the same.



- Select [Display] to set Mac Book Pro
- There are two LCD settings, Mac display (color LCD) and On-Lap display (DVI LCD
- Two LCD settings need to be the same (as shown)
- Go into OSD color adjustment- color temperature (refer to User Manual Page 16 Section 4)
- Adjust R/G/B

```
Red -> increase to 54
```

- Green -> increase to 52
- Blue -> increase to 53

Values above are suggested for reference only, user can base on preference to adjust values.

# Chapter 4 Using with other 3C Products

If user's digital camera, smartphone, or other devices support DVI output, then it can be used with On-Lap

[Note: Actual result depends on product video signal output format and use, not all products can make On-Lap display full screen.]

1. Before using digital camera, please purchase 5V portable battery, and HDMI to mini-HDMI adapter.

Connection Method: On-Lap USB power connector to portable battery, digital connecter to HDMI to mini-HDMI adapter, then connect to mini-HDMI port on digital camera. On-Lap resolution is 1366x768, some digital camera will automatically make resolution to 720x480 or less, resulting in object size displayed on On-Lap different from actual object size. It is suggested that user check the specification of digital camera before deciding to use with On-Lap.

2. Before using smartphone, please purchase USB portable battery, and HDMI adapter for smartphone.

Connection Method: Connect smartphone with HDMI adapter, connect HDMI adapter to On-Lap digital connector, On-Lap USB power connector to portable battery. [Note: Some smartphone or tablet only support HDMI output and does not support DVI output, thus is unable to use with On-Lap.]

3. Before using video player or game console, please purchase USB portable battery Connection Method: Connect On-Lap digital connector to video player or game console HDMI port. Connect the On-Lap USB power connector to portable battery.



# Chapter 5 Hot Keys and OSD Instructions

Note: The hot keys are capacitive sensing buttons which are activated by gentle touching. Do not press too hard or too fast continuously. Repeated pressing of a button will make the button slow down in responding. For continuous adjustment of "Increase/ Up" or "Decrease/Down", press and hold the corresponding button for automatic continuous increase/decrease.

## Section 1 Hot Keys Description

- Power: press power switch to switch off power.
- Exit: when there is no OSD menu; pressing the exit button will activate automatic adjustment function (only pertains to analog video signal VGA).
- Menu/Select: press menu button to launch OSD panel.
- ▲ Increase brightness/move up: press ▲ to increase brightness; if the OSD menu is launched, pressing ▲ will move up the list.

Press and hold for automatic continuous increase.

♥ Decrease brightness/move down: press ♥ to reduce brightness; when the OSD menu is launched, press to move down the list. Press ♥ and hold for automatic continuous decrease

## Section 2 OSD Description

- 1. Basic Buttons operation
  - Press 🗐 button to launch the OSD panel.
  - Press v or v to view the functions. To adjust a certain function, press i to launch it. If the selected function consists of sub-menu, press v or again to view the sub-menu. When the desired function is highlighted, press i to launch it.
  - Press I or I to change the settings. To exit, press I to exit. Repeat the preceding steps to adjust other settings.
- 2. Color setting Contrast
  - Press 🗐 to launch the OSD panel.
  - Press ♥ or ♠ to select ♣, press ) to enter.
  - Press ♥ or ♠ to select <u>Contrast</u> sub-menu and press to enter; press ♥ or ♠ to proceed with the contrast adjustment → adjust the display contrast from 0-100.

	olor		
Contrast	<u> 1</u>	50	
Birghtness	KI I	50	
Color Adjust			B
Color Temp.			2
Down	Menu	Up	Exit

- 3. Color Setting Brightness
  - Press 
     to launch the OSD panel.
  - Press V or V to select , press to enter.
  - Press ŵ or ♥ to select <u>Brightness</u> sub-menu and press ⓐ to enter; press ŵ or ♥ to proceed with brightness adjustment → adjust the backlight from 0-100. Press ŵ and ♥ hold for automatic continuous decrease.
  - Press to 🌣 exit.
- 4. Color Setting Color temperature adjustment
  - Press 🕒 button to launch the OSD panel.
  - Press 🌑 or 🔍 to select 💦, press 🗐 to enter.
  - Press or v to select <u>Color temperature</u> adjustment sub-menu and press (a) to enter.
  - Press 0 or 0 to adjust color saturation for R/G/B.

Red  $\rightarrow$  increase or decrease the "red" saturation of the image Green  $\rightarrow$  increase or decrease the "green" saturation of the image Blue  $\rightarrow$  increase or decrease the "blue" saturation of the image

- Press 🌞 to exit
- 5. Color Setting Color Temperature
  - Press 
     to launch the OSD panel.
  - Press 
     A or 
     V to select 
     A, press
     in enter.
  - Press or to select <u>Color Temperature</u> submenu, press to enter.
  - - Custom  $\rightarrow$  Revert to initial color temperature.
  - Press 🌣 to exit.







Press 🌣 to exit.





- 6. Image Adjustment: applicable only for VGA input signal
  - Press 🗎 to launch the OSD panel.
  - Press 🕼 or 🔍 to select 🛄, press 🗐 to enter.
  - Press (a) or (b) to select the sub-menu, press (c) to enter, press (c) or (c) to adjust

 $\underline{Clock} \rightarrow Adjust$  the horizontal scan rate. If the rate is incorrectly set, the vertical lines on screen and screen width will not be properly displayed.

<u>Phase</u>  $\rightarrow$  Adjust the phase of pixel clock signal. If the position is incorrectly adjusted and when the screen

displays bright image, it will be affected by horizontal interference.

<u>Sharpness</u>  $\rightarrow$  Adjust the sharpness of the image.

<u>**H Position**</u>  $\rightarrow$  Adjust the image's horizontal position.

<u>**V Position**</u>  $\rightarrow$  Adjust the image's vertical position.

- Press 🏠 to exit.
- 7. Menu Adjustment
  - Press 🗐 to launch the OSD panel.
  - Press ♥ or ♥ to select , press to enter.

- Press 🌞 to exit.
- 8. Signal Selection
  - Press (a) to launch the OSD panel.
  - Press 𝔄 or 𝔍 to select 🔊 , press 🗐 to enter.

VGA → select analog signal as source of input DVI → select digital signal as source of input Auto Search → auto search for input signal

Press 🏠 to exit.



Signal Source

Ē

Sharones

## Section 3 Other functions of OSD

Scenario	Monitor State
System is launched without digital or analog input source	Displays GeChic protection screen
System is launched but the video signal input source is incorrectly set in the OSD. The actual connected digital or analog input source differs from the setting.	All black; LED indicator is red
System is launched with digital or analog input source, and the video input source is correctly set in the OSD.	Displaying input source; LED indicator is green
System shuts down	All black

#### 1. Monitor State Explanation

 When there is no analog or digital input source, the screen will display no signal.



- 2. Low voltage protection instruction
  - When a low voltage of 5V DC is connected (through USB power cable), OSD will display insufficient power indicator.
  - You can press v within the time limit to decrease the brightness to reduce the USB load.
  - When the USB load is reduced to within the USB power specification, the insufficient power indicator on the OSD will disappear.
  - If the USB load is not reduced within the time limit, the system will reduce the brightness to 50% in order to reduce the USB load.
  - If the USB load is still not reduced to within the USB power specification, the system will further reduce the brightness to 25% to reduce the USB load.





# Chapter 6 Specification

## Section 1 Plug and Play

The On-Lap Monitor conforms to VESA DDC standard and supports VESA DDC2. DDC2B is a bi-directional data channel based on I<sup>2</sup>C protocol. The host can request EDID information over the DDC2B channel. The On-Lap Monitor is able to inform the host system of its identity, and depending on the level of DDC used, communicate additional information about its display capabilities.

Fig.: Digital video connector

(Connect to PC's HDMI port)

## Section 2 Pin Assignment

1. Digital video connector Pinout



Pin No.	Name	Pin No.	Name
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock –
3	TMDS Data2 –	13	Reserved
4	TMDS Data1+	14	Reserved
5	TMDS Data1 Shield	15	SCL (I <sup>2</sup> C Serial Clock for DDC)
6	TMDS Data1 –	16	SDA (I <sup>2</sup> C Serial Data Line for DDC)
7	TMDS Data0+	17	DDC Ground
8	TMDS Data0 Shield	18	+5 V Power
9	TMDS Data0 –	19	Hot Plug Detect
10	TMDS Clock+		

#### 2. VGA Connector Pinout

Pin	Name	Pin	Name	Pin	Name
No.		No.		No.	
1	RED	6	RGND	11	NC
2	GREEN	7	GGND	12	SDA
3	BLUE	8	BGND	13	HSYNC
4	NC	9	+5V	14	VSYNC
5	GND	10	SGND	15	SCL

3. USB Power Cable Connector Pinout

Pin No.	Name
1	Vcc(+5V)
2	NC
3	NC
4	Ground



Fig.: VGA Connector (Connect to PC's VGA port)

Fig.: USB Power Cable

(Connect to 5V DC Power)



Di	splay Mode	Reso	olution				
1	MAC	640x480	60	Hz			
2	VESA	720x400	60	Hz			
3	SVGA	800x600	56	Hz			
4	SVGA	800x600	60	Hz			
5	XGA	1024x768	60	Hz			
6	WXGA	1366x768	60	Hz			

## Section 4 Troubleshooting

1. With Digital video cable

Problem	Screen Display	Solution
No screen image	Blank screen	Please check if the video and USB power plug is correctly connected to the On-Lap Monitor's video power port.
		Please check if USB power cable is connected to a 5V DC power source.
		Please adjust Brightness and Contrast settings, or reset them to factory default via OSD.
	OSD shows "No Signal" warning	Please check if Digital video cable is correctly con- nected to On-Lap Monitor's video input port and computer's HDMI output port.

#### 2. With VGA cable

Problem	Screen Display	Solution
No screen image	Blank screen	Please check if the video power plug is correctly connected to the On-Lap Monitor's video power port.
		Please check if USB power cable is connected to a 5V DC power source.
		Please adjust Brightness and Contrast settings, or reset them to factory default via OSD.
	OSD displays "No signal" warning	Please check if Digital video cable is correctly connected to On-Lap Monitor's video input port and computer's VGA output port.
Abnormal screen image	Image disappears or image size is too big, too small, or image is not centralized	Please adjust resolution, clock, horizontal position and vertical position via OSD.

3. If your laptop does not have the option of "Duplicate these displays", "Extend these displays" or "portrait", it could be limited by the graphics chip of the laptop, or the graphics chip function is limited by the laptop's power saving mode, or the graphics chip driver needs an update. It is recommended that you seek technical support from your laptop manufacturer or graphics chip maker.