



True3Di

SDM-190M
SDM-240
SDM-400

User Guide

True3Di

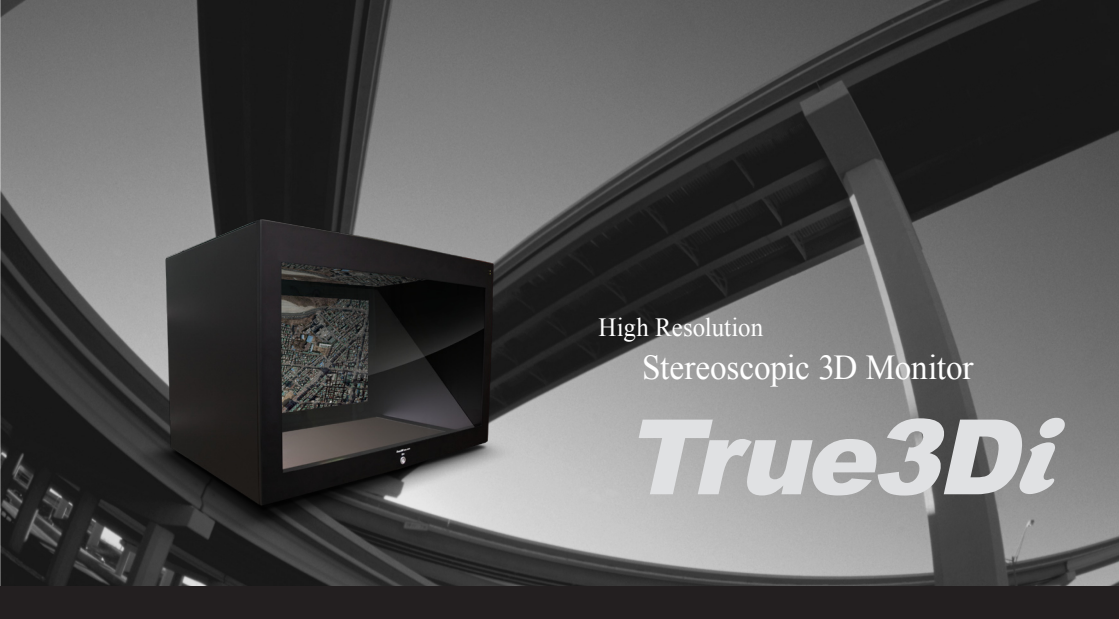
3D0



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High Resolution
Stereoscopic 3D Monitor

True3Di

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True3Di

We appreciate users who decide to use True3Di product.

SYSTEM REQUIREMENTS

CPU : Pentium4- 3G (over)
 M/B-Intel chipset(i845,915P,945...etc.)
 RAM - 1GB DDR or DDR2
 HDD - 160GB (over)
 VGA - NVIDIA G-Force6000Series 7000Series,
 Quadro FX Series
 POWER - 350W (over)



SPECIFICATIONS

Model	SDM-190M	SDM-240	SDM-400
Aspect ratio	SXGA	WUXGA	WUXGA
Resolution	1280 X 1024	1920 x 1200	1920 x 1080
Active Display area (mm, typ)	376,32(H)*301,056(V)	518,4(H)*324,0(V)	885,6(H)*498,15(V)
Pixel Pitch(mm)	0,294(H)*0,294(W)	0,270(H)*0,270(W)	0,46725(H)*0,46125(W)
Brightness (nits)	250cd/m ²	400cd/m ²	500cd/m ²
Contrast Ratio(typ.)	1000 : 1	1000 : 1	3000 : 1
Color number	16,7M	16,7M	16,7M
Response Time(ms)	5ms	5ms	8ms
Viewing angle (vertical)	80/80	80/80	89/89
Viewing angle (horizontal)	80/80	80/80	89/89
Dimensions(WxHxD)mm	452 X 464 X 423	636 X 530 X 502	1042 X 746 X 745
Input Signal	Analog RGB, DVI	AnalogRGB, DVI, S-Video,Composite, Component	AnalogRGB, DVI, S-Video Composite, Component
Power requirement		Main 80W/Sub 80W	
Operating temperature	0~45℃ (32~113℉)	0~45℃ (32~113℉)	0~45℃ (32~113℉)
Power input	DC12V	AC100 - 240V / 50 - 60Hz	AC100 - 240V / 50 - 60Hz
Weight(Kg,lbs)	29,32 Kg, 64,6 lbs	33,5 Kg, 73,9 lbs	80Kg, 176,3 lbs

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Hazardous Parts

※ Caution

- **Graphic card**
 - ▶ Quadro FX series for Open GL Stereo Software
 - ▶ Geforce 6000 and 7000 series for DirectX Stereo Software

- **As using two graphic cards**
 - ▶ Please use the same graphic cards for the Quadro FX series. If different versions of the graphic cards are used, 3D stereo will not work properly.

- **Insertion of second flat LCD Monitor**
 - ▶ Currently, True3Di uses the TN type LCD monitors, so please use of a IPS or S-PVA type monitor for the second flat LCD monitor is recommended. It will be more comfortable to use the monitor without being blocked.

Warnings relating Power

- **Do not dismantle, fix or modify the product.**
 - ▶ It may cause a fire and/or electric shock.

- **Disconnect the power cable from the outlet and contact technical support when the monitor makes unusual noises or smoke.**
 - ▶ It may cause a fire and/or electric shock.

- **Do not install or place the monitor near oily, smoky, humid or wet environments. Do not install or place the monitor inside vehicles.**
 - ▶ It may cause a fire and/or electric shock.

- **Disconnect the power cable from the outlet and Contact technical support when the monitor has been dropped, fallen or damaged.**
 - ▶ It may cause a fire and/or electric shock.

- **Disconnect the power cable from the outlet when lightning or thunder is nearby or occurring.**
 - ▶ It may cause a fire and/or electric shock.

- **Do not drag or move the monitor in any direction holding the power cable or any other cables.**
 - ▶ It may cause damage on cables and cause a fire and/or electric shock.

- **Do not use damaged or loose cables to power the monitor.**
 - ▶ It may cause a fire and/or electric shock.

- **Do not touch cables with wet hands. Do not pull the power cable by holding the cable.**
 - ▶ It may cause a fire and/or electric shock.

- **Connect the cable with a ground plug.**
 - ▶ It may cause an electric shock.

- **Connect the power cable firmly and fully inserted.**
 - ▶ It may cause a fire.

- **Do not bend the cable with force. Do not put heavy articles on top of the cable.**
 - ▶ It may cause a fire and/or electric shock.

- **Do not use more than one extension cord from one outlet.**
 - ▶ It may cause a fire.

Warnings relating installation

- **Do not install or place the monitor at the edge of the shelf. Make sure the monitor is installed or placed fully inside the given space.**
 - ▶ It may drop or fall to cause damage or serious injury.

- **Do not install or place the monitor where the given space is smaller than the monitor or on unstable space.**
 - ▶ It may drop or fall to cause damage or serious injury.

- **Do not install or place the monitor in common areas.**
 - ▶ It may cause distractions, damage or serious injury.

- **Do not install or place the monitor close to any type of fires or flammable/combustible articles.**
 - ▶ It may cause a fire or explosion.

- **Do not install or place the monitor close to any type of high heat generating articles or devices.**
 - ▶ It may cause a fire and/or electric shock.

- **Do not install or place the monitor in a closed space.**
 - ▶ It may cause a fire.

- **Handle the monitor gently with care.**
 - ▶ It may cause damage.

- **Install or place the monitor at least 10 cm (5 inch) from the wall for optimum level of ventilation.**
 - ▶ It may reduce or damage the life of the parts or board.
- **Disconnect the power cable and other connected cables if connected from the outlet and monitor when removing the monitor to different locations.**
 - ▶ It may cause an electric shock.

Warnings relating to usage

- **Do not place any type of articles which contains chemical properties, metal products, or wet articles.**
 - ▶ It may cause a fire and/or electric shock and damage the monitor.
- **Do not insert or put any type of metal articles and any type of flammable articles inside or on any input port of the monitor.**
 - ▶ It may cause a fire, electric shock and serious injury.
- **Afterimages may remain on the screen when identical images are being shown for a long period of time.**
 - ▶ Make sure to apply power saving mode or screen saving mode.

- **Do not watch the monitor for too long at a close distance.**
 - ▶ Make sure to rest at least 5 minutes after each hour.

- **Do not let anyone to climb on top of the monitor.**
 - ▶ It may cause serious injury or death.

- **Do not clean or wipe the front screen glass with any solution or materials other than neutral solution or isopropyl alcohol with a non-abrasive cloth.**
 - ▶ It may change or damage the property of the coating on the glass.

- **Do not cover the ventilation holes at the rear panel.**
 - ▶ It may cause damage or a fire.

- **Do not drop or throw the monitor when moving or lifting.**
 - ▶ It may cause or damage or serious injury.

- **Do not place any toys, food or anything which can be spilled or played.**
 - ▶ It may cause damage, serious injury or death.

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Included Parts

Included Parts



Cleaner
(19inch,24inch,40inch)



DVI cable
(19inch,24inch,40inch)



RGB to Component cable
(24inch,40inch)



AC/DC adapter
(19inch)



Power cable
(19inch,24inch,40inch)



Polarized glasses
19inch,24inch(45°/135° polarized)
40inch(0°/90° polarized)

- ※ Parts included and its manufacturer may vary upon subject.
- ※ It is possible to change the included quantity and manufacturer of parts.

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Button Function description

Function descriptions on each part



Front lower side



2D / 3D switch button

Button which enables a person to switch between 2D and 3D view.

Power button and OSD setting buttons

Menu buttons which enables to change configurations and value.

Rear side



- DVI input port
- RGB input port
- Video input port (24inch,40inch)
- S-Video input port (24inch,40inch)
- adapter port

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Installation guide

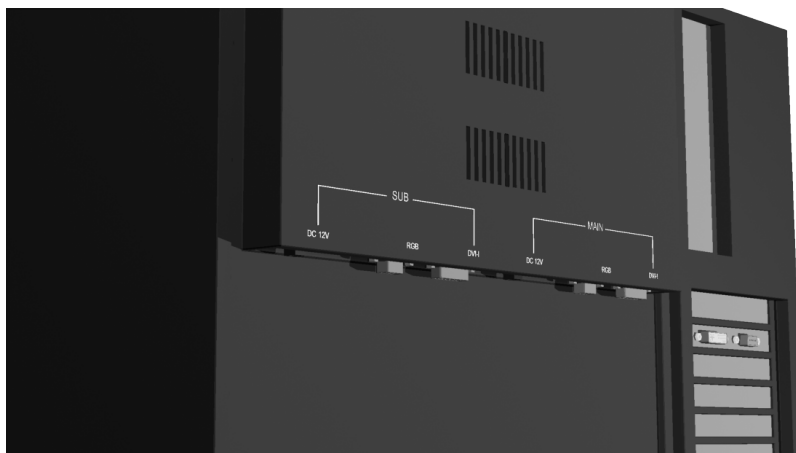
Monitor and computer images which are shown throughout this manual for the installation of the monitor



Front image of a monitor and a computer



Rear image of a monitor and a computer



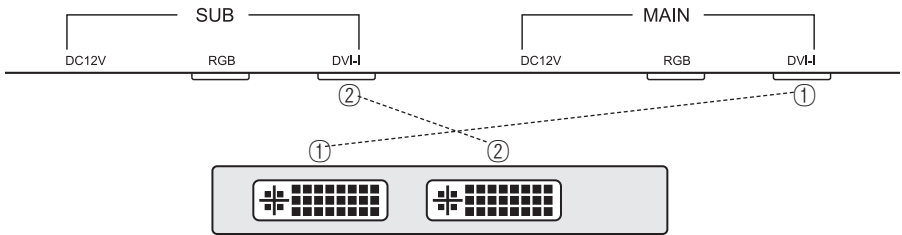
The Above picture shows the Video input ports on the rear side of monitor and the VGA ports for the graphic card installed in computer.

(For the specifications of our monitor, the graphic card must be compatible with "Dual output")

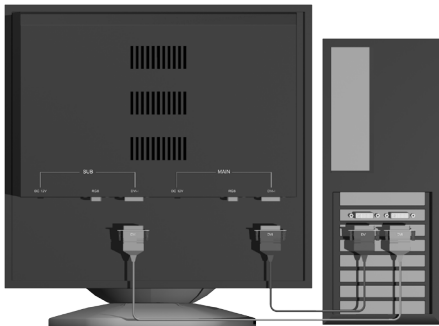
1. For Dual DVI output graphics card

1) When using 2 DVI-DVI cables to connect from the computer to the monitor

Connect left the DVI port① from the computer to the Main DVI-I port① from the monitor using a DVI-I cable. Connect the right DVI port② from the computer to the SUB DVI-I port② from the monitor using a DVI-I cable.



① When looking at the computer's rear side, connect the left DVI port from the computer to the Main DVI-I port (right) from the monitor.



② When looking at the computer's rear side, connect the right DVI port from the computer to the SUB (left) DVI-I port from the monitor.

2) Check 3D switch button



◀ 2D/3D switch button is shown.

(When switching from 2D to 3D, press and hold the button for 3 seconds, then it will light up.)



◀ If it lights up, monitor is now showing in 3D view mode.

(When switching from 3D to 2D, press the button once, then the light will go off.)



Graphics Card Installation guide

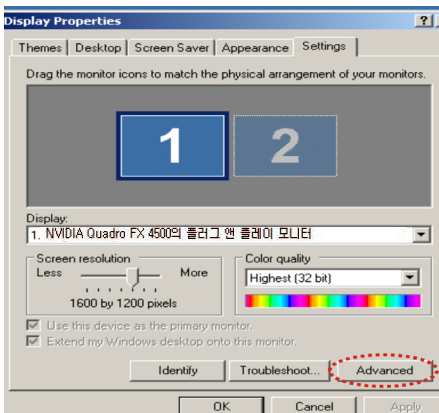
1. Install Quadro graphics card driver

For the Quadro graphics card driver, users can also download from www.nvidia.com,

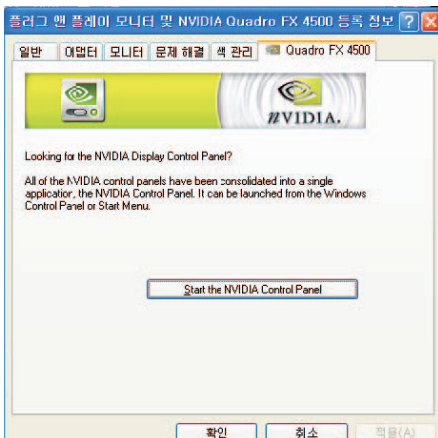
- ※ For photogrammetry applications, it is highly recommended to use Quadro graphics card and the installation driver of Quadro graphics card is only for operating stereo based on Open GL.
- ※ If you use the program based on games or directX, please contact Redrover technical support center, sales@redrover.co.kr

Hover the mouse over “Download Drivers” from the top menu from the website and a submenu will come up. Then click “Download Drivers”

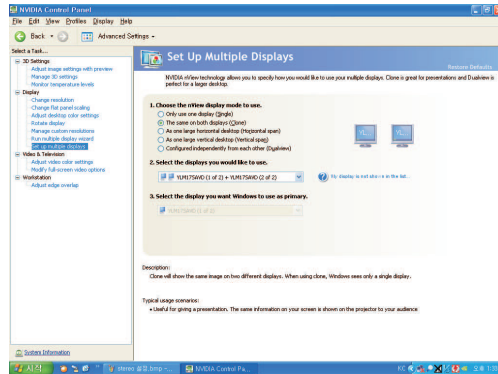
This step shows a step for the 169,39 driver. For others, it is the same.



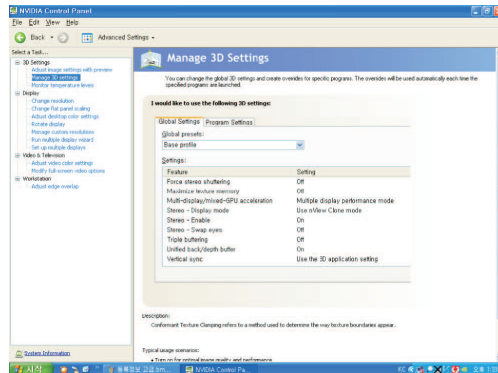
After the installation, Right click desktop then select “Properties”. Then click “Settings” and then click “Advanced” at right bottom



Click the graphics card tab. Then click “Start the NVIDIA Control Panel”



Click “Set up multiple display” from the left list. Then click “The same on both displays (Clone)” from “1. Choose the nView display mode to use” question.



Click “Manage 3D settings”. Then turn on “Stereo - Enable” from the right list. Change “Stereo - Display mode” to “Use nView Clone mode”

※Seeing the image of Stereo-Swap eyes, the image of left and right is reversed. Please select on/off.

Caution

1. When connecting the monitor to the computer, please turn off the monitor’s power.
2. When connecting the True3Di monitor after other brand monitors are already connected, please check the frequency and resolution of the settings. Then connect.

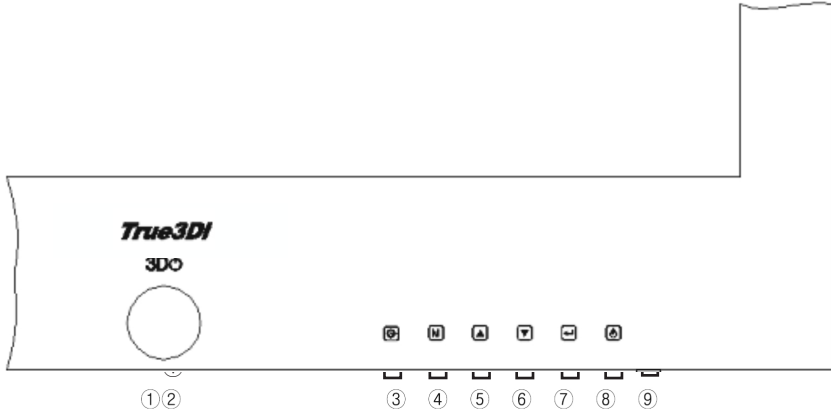
Note - for NuVision or other shutter glass type CRT monitors, frequency used for settings are either 100 Hz or 120 Hz. But for True3Di monitor has to be set at 60 Hz since it has LCD screens.

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OSD Settings
Monitor Menu Settings

1. OSD Buttons(19inch)



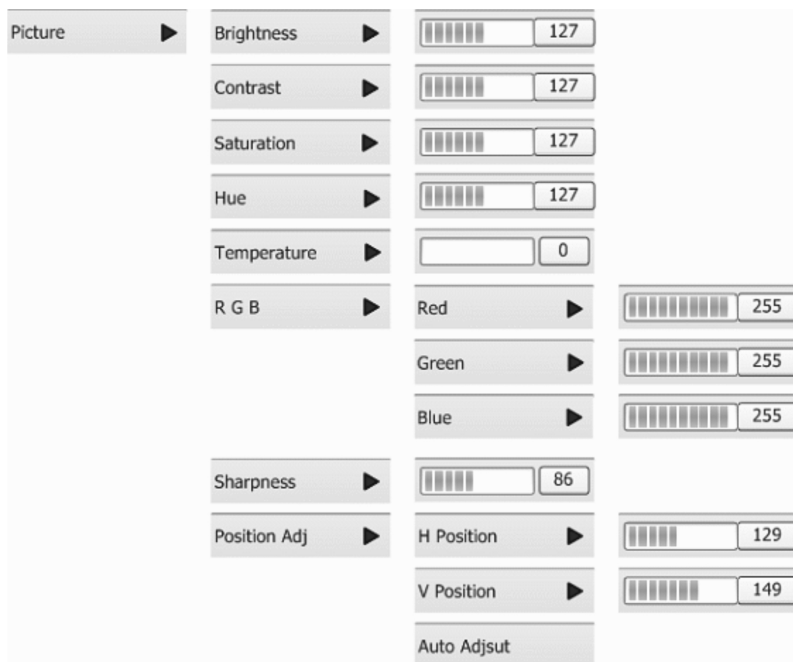
2. Button Description

- ① 3D_Power: Power on/off button for the upper monitor.
- ② LED light for displaying the status of the upper monitor.
- ③ Input: Selection of input signals.
- ④ Menu: Activate OSD Menu & Delete OSD Menu,
- ⑤ UP: Use the up button when moving the Bar up in the Main Menu
Use the up button when increasing the parameter in the Sub Menu.
- ⑥ Down: Use the down button when moving the Bar down in the Main Menu
Use the down button when decreasing the parameter in the Sub Menu.
- ⑦ Enter: Activate the selected menu & selection button.
- ⑧ F_Power: Power on/off button for the front monitor.
- ⑨ LED light for displaying the status of the front monitor.

3. Monitor menu Settings

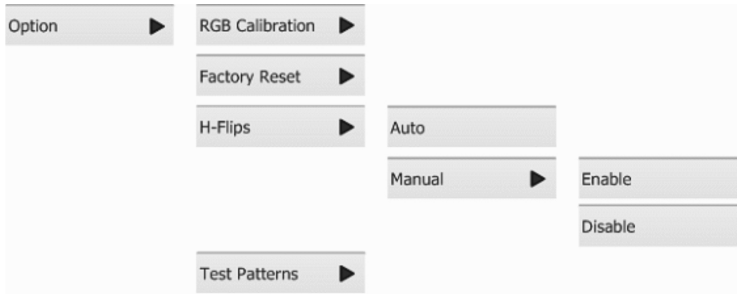
1) Picture Mode

- Press Menu button (④)
- Press Enter (⑦) to select. Then press up (⑤) and down (⑥) buttons to select desired sub-menu.
- Press Enter (⑦) to select desired sub-menu. Then change its value by pressing up (⑤) and down (⑥) buttons.
- After few seconds screen disappear. Or if you want to exit immediately, press Menu button (④).



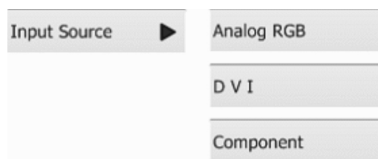
2) Option Mode

- Press Menu button (④). Then “Picture OSD” shows.
- Press up (⑤) and down (⑥) buttons to select “Option Menu”
- Press Enter (⑦) to select “Option Mode” . Then press up (⑤) and down (⑥) buttons to select desired sub-menu.
- RGB Calibration is set from factory. DO NOT USE THIS MENU.
- Select “Factory Reset” only when Input source is selectable from the menu.
- H-Flip is set for Auto as default. When using a Mirror mode, change its value to “Manual” by pressing Enter (⑦) to enable.
- Test pattern may not be selectable.

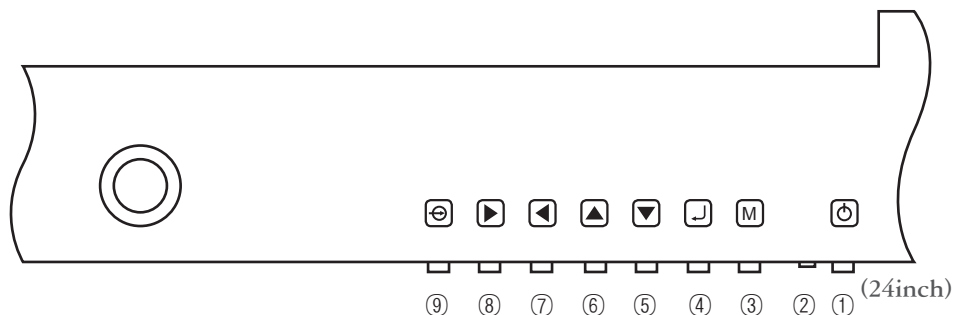


3) Input Source Mode

- Press Input (③) to choose input source. Then press up (⑤) and down (⑥) buttons to select desired input source.
- Component may not be selectable.
- Press “Factory reset” from “Option mode” when “Input Source” is not selectable.

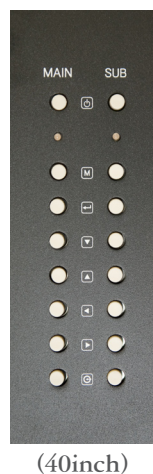


1. OSD setting - Monitor menu setting(24inch,40inch)



2. Button Description

- ① Power : Power on/off switch monitors.
- ② LED Button for displaying the status of the Monitor.
- ③ Menu : Activate OSD Menu & Delete OSD Menu.
- ④ Enter : Activate the selected menu & selection button.
- ⑤ Down : Use the Down button when moving the Bar down in the Main Menu.
- ⑥ Up : Use the Up button when moving the Bar Up in the Main Menu.
- ⑦ Left : Use the left button when left moving the Bar left in the Main Menu or Increasing Parameter in the Sub Menu.
- ⑧ Right : Use the Right button when right moving the Bar right in the Main Menu or Increasing Parameter in the Sub Menu.
- ⑨ Input : Select Input Signal.



The chosen OSD settings will be stored in the memory. The OSD menu can be cleared from the screen from the screen by moving the selection bar to the EXIT MENU icon and pressing the SEL button. Otherwise it will be automatically cleared after a few second of non-use.

OSD MAIN MENU

PICTURE VIDE MODE



PICTURE

- BackLight
- PSM
- Brightness
- Contrast
- Color
- Sharpness
- Tint

Exit : MENU ◀▶▶▼

SET UP



SETUP

- Language
- Transparency
- ARC
- ISM Method
- Set ID On/off
- Set ID
- Flip

Exit : MENU ◀▶▶▼

SCREEN




Screen V1.10

- Auto configure
- H position
- V position
- Clock
- Phase

Exit : MENU ◀▶▶▼

PC MODE

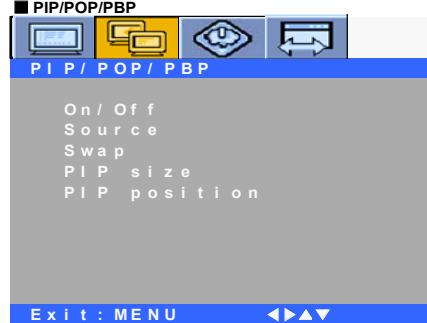


PICTURE

- BackLight
- CSM
- Brightness
- Contrast

Exit : MENU ◀▶▶▼

PIP/POP/PBP



PIP / POP / PBP

- On / Off
- Source
- Swap
- PIP size
- PIP position

Exit : MENU ◀▶▶▼

BackLight

Picture

BackLight		100	
PSM	User		
Brightness		80	
Contrast		80	
Color		50	
Sharpness		70	
Tint		0	

Exit : MENU

PSM (AV)

Picture

BackLight			
PSM	User		
Brightness		80	
Contrast		80	
Color		50	
Sharpness		70	
Tint		0	

Exit : MENU

Dynamic
Standard
Mild
Game
User

CSM (PC)


Picture

BackLight			
CSM	User		
Brightness		80	
Contrast		80	
Red		50	
Green		50	
Blue		50	

Exit : MENU

Cool
Normal
Warm1
Warm2
User

Brightness/Contrast/Color/Sharpness




Picture

PSM	User	
Brightness		80
Contrast		80
Color		50
Sharpness		70
Tint		0

Exit : MENU

Tint



Picture

PSM	User	
Brightness		80
Contrast		80
Color		50
Sharpness		70
Tint		0

Exit : MENU

PIP / POP / PBP

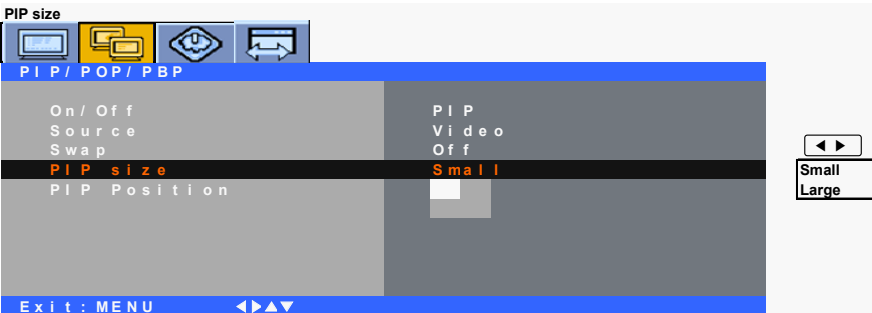


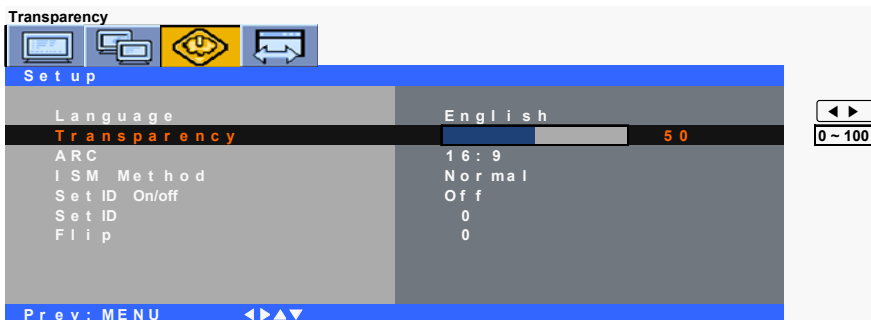
PIP / POP / PBP

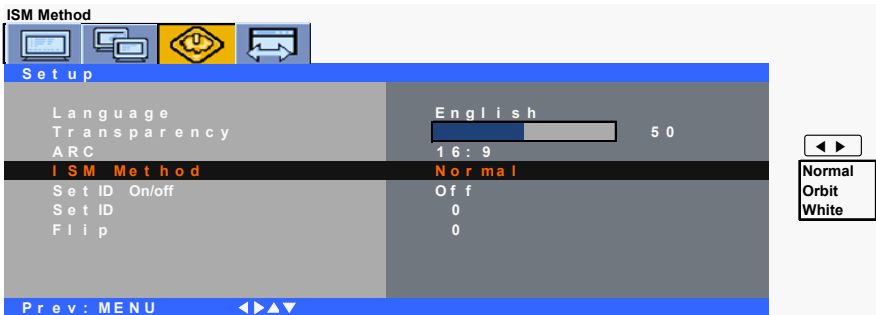
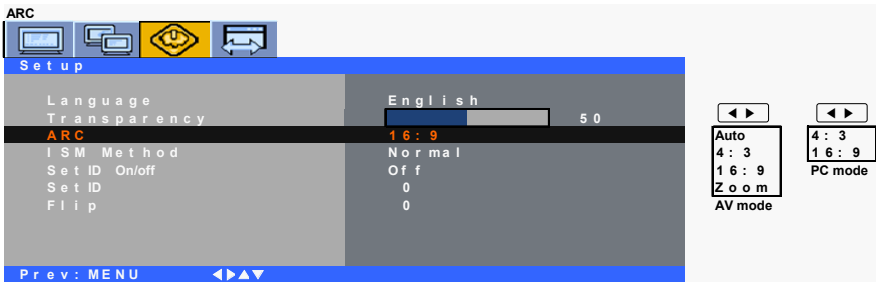
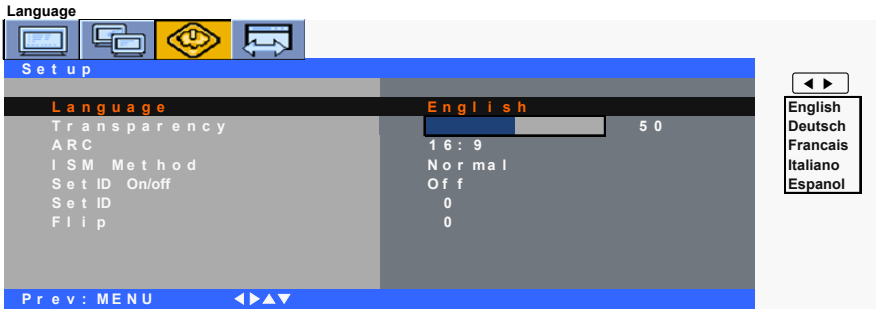
- On / Off
- Source
- Swap
- PIP size
- PIP Position

Exit : MENU









For PDP Application

Orbit : to move left/right/up/down every 5 seconds

White : to recover when an after-image is left on the display

SET ID On/Off

Language	English	50
Transparency	16:9	
ARC	Normal	
ISM Method	Off	
SET ID On/Off	Off	
Set ID	0	
Flip	0	

Prev: MENU

Controls settings for the communication control device between PC.
 Communication method : RS-323C control board
 SET ID S/N support 0~99(Total 100)

SET ID S/N

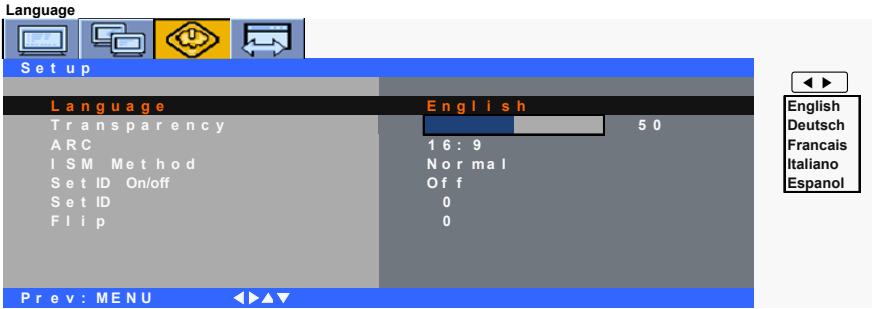
Language	English	50
Transparency	16:9	
ARC	Normal	
ISM Method	Off	
SET ID On/off	0	
Set ID	0	
Flip	0	

Prev: MENU

Flip

Language	English	50
Transparency	16:9	
ARC	Normal	
ISM Method	Off	
Set ID On/off	0	
Set ID	0	
Flip	0	

Prev: MENU



For PDP Application

Orbit : to move left/right/up/down every 5 seconds

White : to recover when after-image left on the display

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Important safety instructions

IMPORTANT SAFETY INSTRUCTIONS:

Important safety instructions shall be provided with each apparatus. These instructions shall be in a separate booklet or sheet, or be located before any operating instructions in an instruction for installation or use and supplied with the apparatus. This information shall be given in a language acceptable to the country where the apparatus is intended to be used.






The important safety instructions shall be entitled “IMPORTANT SAFETY INSTRUCTIONS”. The following safety instructions shall be included where applicable, and, when used, shall be verbatim as follows. Additional safety information is not prohibited from being included by adding statements after the end of the following safety instruction list. At the manufacturer’s option, a picture or drawing that illustrates the intent of a specific safety instruction is not prohibited from being placed immediately adjacent to that safety instruction.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with a dry cloth.
- 7) Do not block any of the ventilation openings. Install in accordance with the manufacturer’s instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use the attachments/accessories specified by the manufacturer.
- 12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) The socket-outlet shall be installed near the equipment and shall be easily accessible.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

  	 <p>The lightning flash with arrow-head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.</p>
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	 <p>The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.</p>

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

WARNING: FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

CAUTION: This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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Trouble Shooting

Trouble Shooting

1. No image is shown on the screen after the computer is turned on.

- 1) When the graphics card is inserted loosely into the card slot on the motherboard, take out the graphics card from the slot to check if it is clean and re-insert it tightly.
- 2) When the memory is inserted loosely into the memory slot on the motherboard, take out the memory from the slot to check if it is clean and re-insert it tightly.
- 3) When the monitor cables are faulty with broken pins or got is disconnected inside, change them to other working ones or new ones.

2. Screen flickers after 3D images are being played.

- 1) When the monitor display mode is set to “Single view mode”, change it to “Clone view mode” .

3. Left and right images on one screen.

- 1) When a media player program is being used, turn off other media player programs.

4. No 3D stereoscopic images after the computer starts normally.

- 1) When the keyboard plug is inserted loosely into the keyboard slot, take out the keyboard plug from the slot to check if it is clean and re-insert it tightly.
- 2) When only one screen or both screens do not show any images, check if the power is turned on.

5. No 3D stereoscopic images without any problem with setting.

- 1) When no 3D stereoscopic images appear without any problems with the options, please reinstall the driver.
Reinstallation process
Restart the computer with safe mode. Uninstall the Nvidia driver. Remove the Nvidia folder (C:\wNVIDIA\wWin2kxp\w). Reinstall the Nvidia driver and stereo driver.

Service

1. Free of service charge

Free repair service is valid until the warranty expires when the monitor has been used with no factory defects or any other initial problems.

2. Service charge

The following reasons would require service charge (labor fee, part fee, service fee)

1) After warranty has expired

2) Before warranty has expired

- Natural disaster or act of God (fire, flood, lightning, earthquake and other natural disasters or electricity cutout)
- When the user tries to modify or fix the monitor
- When damaged, dropped, shocked, or broken by the user
- When damaged, shocked or broken by faulty electricity

* Service charge applies for half mirrors (beam splitters) if broken after delivery.

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