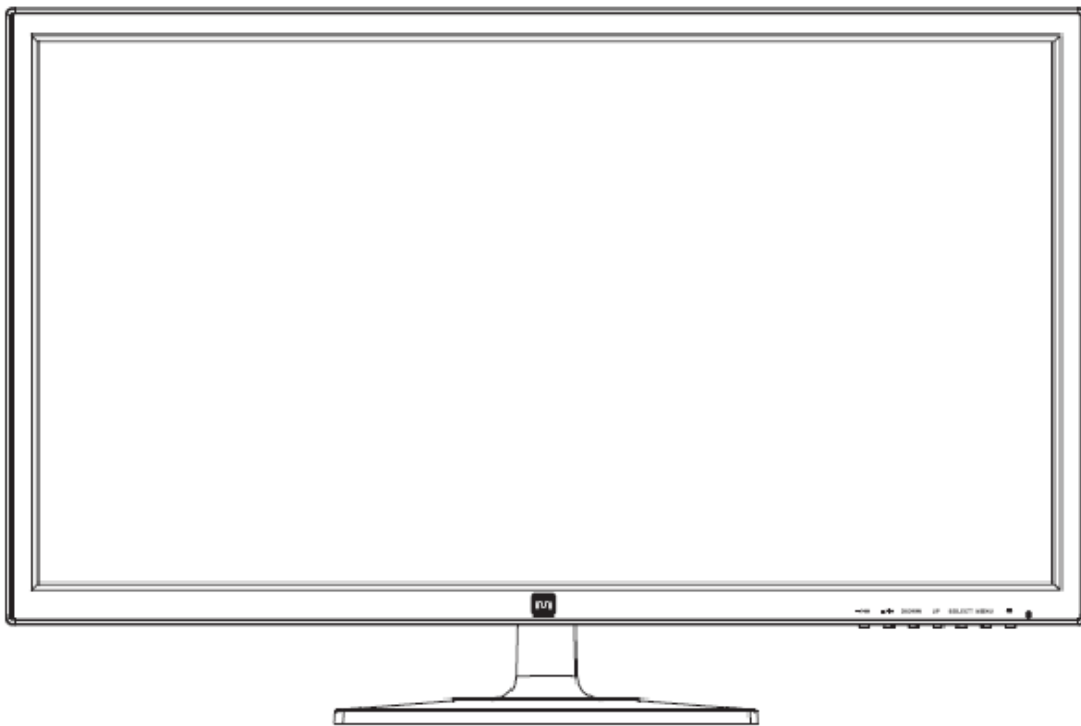




28" UHD CrystalPro 4K 60Hz Monitor



MONOPRICE®

CONTENTS

| | |
|--|----|
| SAFETY WARNINGS AND GUIDELINES..... | 3 |
| FEATURES | 4 |
| PACKAGE CONTENTS..... | 4 |
| CONNECTIONS | 5 |
| CONTROLS..... | 6 |
| SETUP..... | 7 |
| MONITOR STAND | 7 |
| VIEWING ANGLE ADJUSTMENT | 8 |
| ON-SCREEN DISPLAY (OSD) MENU | 9 |
| Basic Menu Operation..... | 9 |
| Input Source Menu..... | 10 |
| Brightness/Contrast Menu..... | 11 |
| Color Setting Menu | 12 |
| Picture Quality Setting Menu..... | 13 |
| Display Menu | 14 |
| Audio Menu..... | 15 |
| Multi-Window Menu..... | 16 |
| Other Menu | 17 |
| TECHNICAL SUPPORT | 18 |
| WARRANTY | 18 |
| TROUBLESHOOTING..... | 18 |
| SPECIFICATIONS..... | 20 |
| REGULATORY COMPLIANCE | 21 |
| Notice for FCC | 21 |
| Notice for Industry Canada | 22 |
| EU Conformity With Applicable Directives | 22 |

SAFETY WARNINGS AND GUIDELINES

- Do not place the monitor on an unstable surface where it could fall and cause either personal injury or damage to the monitor and/or other equipment.
- Do not expose the monitor to water or moisture of any kind. Do not place objects containing moisture, such as a glass or vase, where it could tip over and spill into or onto the monitor.
- If the monitor is exposed to water or moisture, immediately unplug it from its power source and allow it to completely dry out before reapplying power.
- Do not block the ventilation holes in the monitor's casing. Do not place the monitor in a confined space with inadequate ventilation.
- Do not place the monitor near a heat source, such as a fireplace, heating vent, radiator, etc.
- The power supply for this monitor uses a NEMA 5-15 three prong, grounded plug. Do not use a "cheater" plug or otherwise bypass the grounding pin.
- The power supply for this monitor accepts a wide range of input voltages, from 100 to 240 VAC, 50 or 60 Hz. Ensure that your power source is within these limits. If not, consult a professional electrician or your power company for a resolution.
- Unplug the monitor if it will go unused for a long period of time.
- This monitor has no user serviceable parts. Do not open the case or otherwise attempt to modify this monitor.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- Do not leave a single image on the display for a long period of time. Doing so could cause "burn-in" of the image. It is recommended to use a variable desktop background and to use a screen saver to prevent "burn-in". Alternatively, ensure that the monitor is powered off for at least 2 hours out of every 12.

FEATURES

- 28" 4K UHD monitor with LED backlighting and 16:9 aspect ratio
- 3840 x 2160 @ 60Hz 4K UHD maximum resolution using the DisplayPort & HDMI inputs
- Supports Picture-in-Picture (PiP) and Picture-by-Picture (PbP) multiple source display modes
- Virtual 5K Overdrive increases screen real estate
- DisplayPort v1.2, HDMI-MHL, Dual-Link DVI-D, and VGA inputs
- HDMI-MHL input allows a direct connection from Android smartphones and tablets
- Built-in stereo speakers with 2 watts/channel amplifier and 3.5mm line input
- 100 x 100 VESA mounting pattern
- PixelPerfect Guarantee ensures zero dead or stuck pixels

PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

1x 28" 4K UHD LED monitor

1x Stand base

1x AC power adapter

1x AC power cord

1x High Speed HDMI cable

1x Quick installation guide

CONNECTIONS



| | | |
|---|-------------|---------------------------------------|
| 1 | DVI | Dual Link DVI-D video input |
| 2 | HDMI/MHL | HDMI 2.0 video input with MHL support |
| 3 | DisplayPort | DisplayPort 1.2 video input |
| 4 | VGA | VGA video input |
| 5 | Line In | 3.5mm TRS stereo audio input |
| 6 | DC In | DC power input |

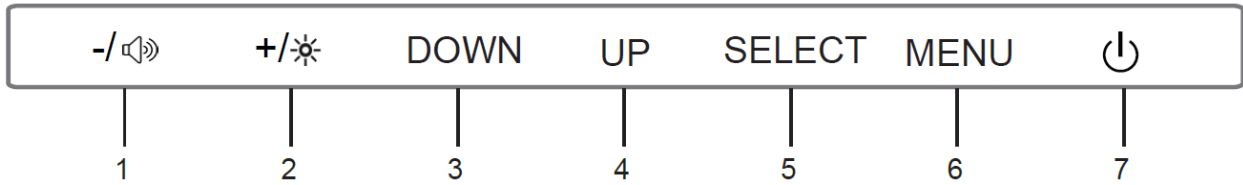
HDMI Note: This monitor is capable of displaying the full 4K resolution (3840x2160@60Hz) using an HDMI connection. However the HDMI source must support the 4K feature, as defined in the HDMI version 2.0 specification, and you must use a High Speed HDMI cable.

DisplayPort Note: This monitor supports the full 4K resolution (3840x2160@60Hz) at the full 60Hz refresh rate. However the DisplayPort source and cable must comply with the DisplayPort version 1.2 specification (cable not included).

DVI Note: This monitor features a Dual Link DVI-D input port. Your DVI source must support Dual Link DVI-D and you must use a Dual Link DVI-D cable (cable not included), which has a pin out that looks like this:



CONTROLS



1. **-/🔊**: If the OSD menu is displayed and an entry has been opened for editing, pressing the -/🔊 button decreases the selected value. If the OSD is not displayed, pressing the -/🔊 button opens the volume adjustment control. With either the brightness or volume adjustment control displayed, pressing the -/🔊 button decreases the brightness or volume.
2. **+/-☀️**: If the OSD menu is displayed and an entry has been opened for editing, pressing the +/-☀️ button increases the selected value. If the OSD is not displayed, pressing the +/-☀️ button opens the brightness adjustment control. With either the brightness or volume adjustment control displayed, pressing the +/-☀️ button increases the brightness or volume.
3. **DOWN**: If the OSD menu is displayed, pressing the DOWN button moves the selection highlight down. If the OSD menu is not displayed, the button has no effect.
4. **UP**: If the OSD menu is displayed, pressing the UP button moves the selection highlight up. If the OSD menu is not displayed, this button has no effect.
5. **SELECT**: If the OSD menu is displayed, pressing the SELECT button either selects the currently highlighted menu option or opens the currently highlighted menu entry for editing. If the OSD is not displayed, pressing the SELECT button auto-adjusts the screen. Note that auto adjustment only works when VGA is one of the active inputs.
6. **MENU**: If the OSD menu is not displayed, pressing the MENU button opens the OSD menu. If the OSD menu is displayed pressing the MENU button will back out of a submenu or close the OSD menu if already at the top menu level.
7. **POWER**: Press the POWER button to toggle the monitor ON or OFF. When the monitor is powered on and a video signal is present, the power indicator will glow blue. When the monitor is powered on but no video signal is present, the power indicator will glow yellow/orange.

SETUP

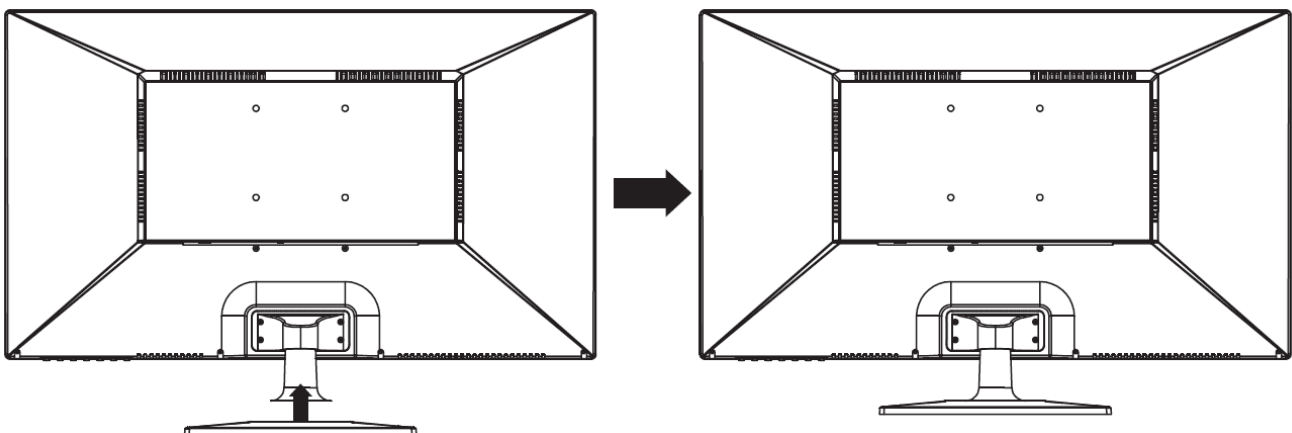
1. Either install the stand base or remove the stand neck to use a desk or wall mount by following the instructions in the MONITOR STAND section below.
2. Connect one or more video cable(s) from your source device(s) to the monitor's input(s). The monitor has four video inputs (VGA, DVI, HDMI-MHL, and DisplayPort) and can simultaneously display up to four video sources.
3. Plug the DC power connector on the AC power adapter into the DC IN port on the back of the monitor.
4. Plug the included AC power cord into the AC power adapter. Plug the other end into a nearby power outlet.

MONITOR STAND

This monitor features a built-in stand, which can be used on a desk, table, or other flat surface. The stand can also be removed to allow for the use of a desk or wall mount. The monitor supports a 100x100 VESA mounting pattern.

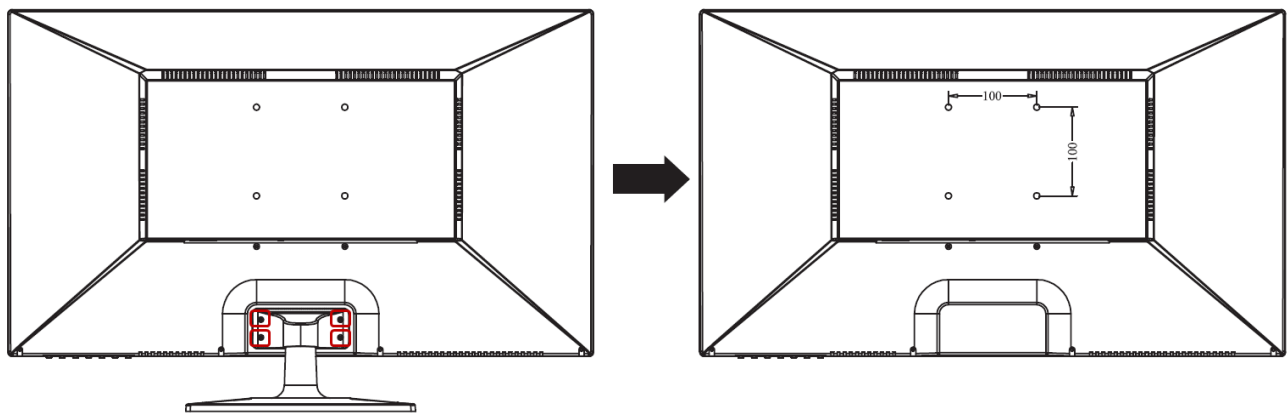
To use the built-in stand, install the stand base plate by performing the following steps:

1. Place a blanket or towel on a flat surface, such as a table or the floor.
2. Place the monitor face down on the blanket or towel.
3. Align the holes on the stand base with the two clips extending out of the bottom of the stand neck, then press the base onto the neck until it clicks into place.



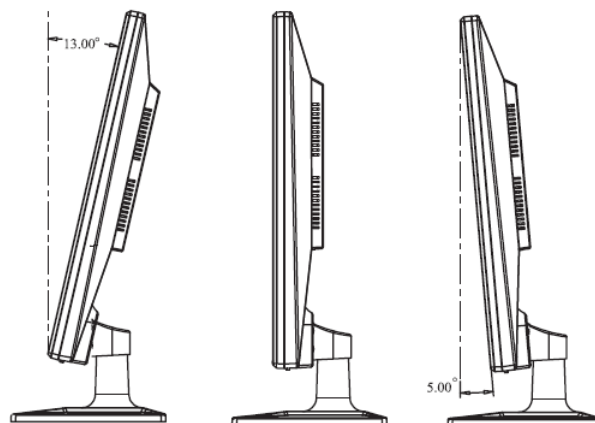
If you want to use the monitor with a desk or wall mount, you can remove both the stand base and stand neck by performing the following steps:

1. Place a blanket or towel on a flat surface, such as a table or the floor.
2. Place the monitor face down on the blanket or towel.
3. Remove the four screws that attach the stand neck to the back of the monitor, as shown in red boxes below.
4. To attach the monitor to a desk or wall mount, follow the instructions that come with the mount.



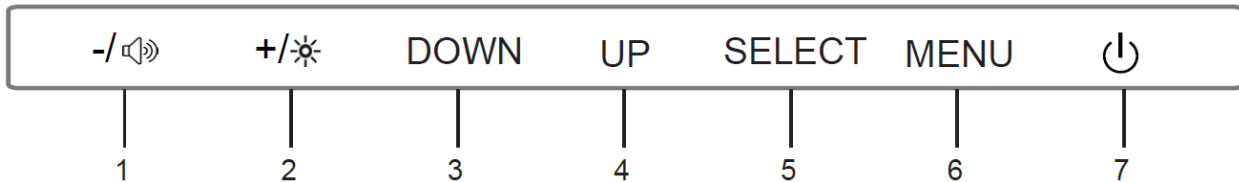
VIEWING ANGLE ADJUSTMENT

The included monitor stand supports tilt adjustment from -5° (down) to $+13^{\circ}$ (up). To adjust the angle, grasp the bezel at both the top and bottom of the monitor and move it as desired. Use soft cloth gloves or a soft, dry cloth to grasp the monitor without touching the screen.



ON-SCREEN DISPLAY (OSD) MENU

Press the MENU button to access the OSD menu.



Basic Menu Operation

-/🔊: When the OSD menu is displayed and an item has been opened for editing, pressing the -/🔊 button decreases the selected value.

+/🔊: When the OSD menu is displayed and an item has been opened for editing, pressing the +/🔊 button increases the selected value.

DOWN: When the OSD menu is displayed, pressing the DOWN button moves the selection highlight down.

UP: When the OSD menu is displayed, pressing the UP button moves the selection highlight up.

SELECT: When the OSD menu is displayed, pressing the SELECT button either selects the currently highlighted menu option or opens the currently highlighted menu entry for editing. When the OSD menu is not displayed, pressing the SELECT button auto-adjusts the screen. Note that auto adjustment only works when VGA is one of the active inputs.

MENU: If the OSD menu is not displayed, pressing the MENU button opens the OSD menu. When the OSD menu is displayed pressing the MENU button will back out of a submenu or close the OSD menu if already at the top menu level.

Input Source Menu



This menu screen allows you to select one of the four video input sources. The input sources are **VGA**, Dual-Link **DVI-D**, **HDMI-MHL (v2.0)**, and DisplayPort (v1.2) (**DP**).

Brightness/Contrast Menu

| VGA | | Resolution: 1920x1080@60Hz |
|----------------------------|---|--|
| Input Source | Brightness | 80 |
| Brightness/Contrast | Contrast | 75 |
| Color Setting | DCR | Off |
| Picture Quality Setting | | |
| Display | | |
| Audio | | |
| Multi-Window | | |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz | Window2: InputSource: Resolution: |
| | Window3: InputSource: Resolution: | Window4: InputSource: Resolution: |

Brightness: Adjusts the image brightness. The adjustment range is **0** to **100**.

Contrast: Adjusts the image contrast. The adjustment range is **0** to **100**.

DCR: DCR stands for Dynamic Contrast Ratio, which is a circuit that increases the effective picture contrast by changing the light intensity of the LED backlighting. DCR tends to cause too much contrast fluctuation when dealing with swiftly moving images and is usually better suited to applications use than for use with games or movies. DCR can be turned **On** or **Off**.

Color Setting Menu

| VGA | | Resolution: 1920x1080@60Hz |
|-------------------------|---|--|
| Input Source | Gamma | 2.2 |
| Brightness/Contrast | Picture Mode | Standard |
| Color Setting | Color Temperature | Normal |
| Picture Quality Setting | USER | |
| Display | Hue/Saturation | |
| Audio | | |
| Multi-Window | | |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz Window3: InputSource: Resolution: | Window2: InputSource: Resolution: Window4: InputSource: Resolution: |

Gamma: You can select one of the five gamma curves. The possible options are **1.8, 2.0, 2.2, 2.4,** and **2.6.**

Picture Mode: You can select one of four picture modes for optimal display of different types of content:

Standard: The best choice for documents, office work, programming, and text editing.

Photo: The best choice for display of photographs and digital images.

Game: The best choice for gaming.

Movie: The best choice for viewing movies and videos.

Color Temperature: Sets the color of the displayed image using one of four preset values. The possible options are **Warm, Normal, Cool,** and **User.**

USER: Allows you to independently adjust the individual red, green, and blue intensity values. The adjustment range is **0** to **100** for each color.

Hue/Saturation: Allows you to independently adjust hue and saturation. The adjustment range is **0** to **100** for each item.

Picture Quality Setting Menu

| VGA | | Resolution: 1920x1080@60Hz |
|--------------------------------|---|--|
| Input Source | Bypass | Off |
| Brightness/Contrast | Sharpness | 50 |
| Color Setting | Response Time | Off |
| Picture Quality Setting | Noise Reduction | Off |
| Display | Uniformity Compensation | Off |
| Audio | Super Resolution | Off |
| Multi-Window | Dynamic Luminous Control | Off |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz Window3: InputSource: Resolution: | Window2: InputSource: Resolution: Window4: InputSource: Resolution: |

Bypass: Allows you to enable or disable the Picture Quality settings on this page, without the need to make individual adjustments. The possible options are **On** and **Off**.

Sharpness: Allows you adjust the picture sharpness. The adjustment range is **0** to **100**.

Response time: Allows you to change the response time. The possible options are **Off**, **High**, **Middle**, and **Low**.

Noise Reduction: Allows you to reduce picture noise. The possible options are **On** and **Off**.

Uniformity Compensation: Allows you to adjust the amount of compensation applied to the image to achieve picture uniformity. The possible options are **Off**, **High**, **Middle**, and **Low**.

Super Resolution: Allows you to adjust the scaling quality. The possible options are **Off**, **High**, **Middle**, and **Low**.

Dynamic Luminous Control: Allows you to enable or disable a stabilized luminance response. The possible options are **On** and **Off**.

Display Menu

| VGA | | Resolution: 1920x1080@60Hz |
|-------------------------|---|--|
| Input Source | Aspect Ratio | Wide Screen |
| Brightness/Contrast | H-Position | 50 |
| Color Setting | V-Position | 50 |
| Picture Quality Setting | Clock | 50 |
| Display | Phase | 100 |
| Audio | Auto Adjust | |
| Multi-Window | DP Version | |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz Window3: InputSource: Resolution: | Window2: InputSource: Resolution: Window4: InputSource: Resolution: |

Aspect Ratio: Allows you to set the aspect ratio to **Wide Screen** (16:9), **4:3**, or **1:1**.

H-Position: Adjusts the horizontal position of the image. The adjustment range is from **0** to **100**.

This option is only available when using a VGA input.

V-Position: Adjusts the vertical position of the image. The adjustment range is from **0** to **100**. This option is only available when using a VGA input.

Clock: Adjusts the clock frequency. The adjustment range is from **0** to **100**. This option is only available when using a VGA input.

Phase: Reduces image noise by adjusting the image phase. The adjustment range is from **0** to **100**.

This option is only available when using a VGA input.

Auto Adjust: Automatically fine tunes the input signal with the correct Horizontal and Vertical position, phase, and clock settings. This option is only available when using a VGA input.

Audio Menu

| VGA | | Resolution: 1920x1080@60Hz |
|-------------------------|---|--|
| Input Source | Mute | Off |
| Brightness/Contrast | Volume | 50 |
| Color Setting | Audio Source | Line-In |
| Picture Quality Setting | | |
| Display | | |
| Audio | | |
| Multi-Window | | |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz | Window2: InputSource: Resolution: |
| | Window3: InputSource: Resolution: | Window4: InputSource: Resolution: |

Mute: Allows you to toggle audio muting **On** or **Off**.

Volume: Sets the volume level. The adjustment range is **0** to **100**.

Audio Source: Selects the audio input source. The possible options are **Line-In** (3.5mm stereo input), **HDMI**, and **DP** (DisplayPort).

Multi-Window Menu

| VGA | | Resolution: 1920x1080@60Hz |
|-------------------------|---|--|
| Input Source | Multi-Window | Off |
| Brightness/Contrast | SubWin2Input | DVI |
| Color Setting | SubWin3Input | HDMI |
| Picture Quality Setting | SubWin4Input | DP |
| Display | PIPSize | Medium |
| Audio | PIPPosition | TopRight |
| Multi-Window | Swap | |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz Window3: InputSource: Resolution: | Window2: InputSource: Resolution: Window4: InputSource: Resolution: |

Multi-Window: Selects the Picture-in-Picture or Picture-by-Picture mode to be used. PiP displays the content from Input 2 in a window laid over the main input image. PbP displays the content of up to four inputs in separate windows. The available options are: **Off**, **PIPMoDe**, **PBP2Win** (2 images), **PBP3Win** (3 images), and **PBP4Win** (4 images).

SubWin2Input: Selects which video input to use as the second image when set to PIPMode or PBP2Win mode. The possible options are **VGA**, **DVI**, **HDMI**, and **DP**.

SubWin3Input: Selects which video input to use as the third image when set to PBP3Win mode. The possible options are **VGA**, **DVI**, **HDMI**, and **DP**.

SubWin4Input: Selects which video input to use as the fourth image when set to PBP4Win mode. The possible options are **VGA**, **DVI**, **HDMI**, and **DP**.

PiP Size: Adjusts the size of the PiP window. The possible options are **Small**, **Medium**, and **Large**.

PiP Position: Adjusts the location of the PiP window. The possible options are **Top-Right**, **Top-Left**, **Bottom-Right**, and **Bottom-Left**.

Swap: When using PiP or PBP2Win modes, selecting the Swap entry switches the display positions of the Main Input and Input 2. The Swap entry is not available in PBP3Win and PBP4Win modes.

Other Menu

| VGA | | Resolution: 1920x1080@60Hz |
|-------------------------|---|--|
| Input Source | Language | English |
| Brightness/Contrast | OSD H-Position | 50 |
| Color Setting | OSD V-Position | 50 |
| Picture Quality Setting | OSD Transparency | 20 |
| Display | OSD Time Out | 20 |
| Audio | OSD Rotation | |
| Multi-Window | Reset | |
| Other | | |
| | Window1: InputSource: VGA Resolution: 1920x1080@60Hz Window3: InputSource: Resolution: | Window2: InputSource: Resolution: Window4: InputSource: Resolution: |

Horizontal: Adjusts the horizontal position of the OSD menu. The adjustment range is **0** to **100**.

Vertical: Adjusts the vertical position of the OSD menu. The adjustment range is **0** to **100**.

Transparency: Adjusts how transparent or opaque the OSD menu will appear on screen. The adjustment range is **0** to **100**.

OSD Time Out: Sets the amount of time in seconds that the OSD menu will display without any input before it automatically closes. The adjustment range is **0** to **100**.

OSD Rotation: Rotates the OSD menu 90 degrees clockwise, allowing you to easily read the OSD when using the monitor in a portrait orientation.

Language: This menu allows you to set the language used in the OSD. The possible options are **English**, **Simplified Chinese**, and **Korean**.

TECHNICAL SUPPORT

Monoprice is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website www.monoprice.com during regular business hours, 7 days a week. You can also get assistance through email by sending a message to tech@monoprice.com

WARRANTY

MONOPRICE will replace defective monitors with a new monitor if the RMA is issued within thirty (30) days of the original date of purchase, as shown on the original invoice. Monitors identified as defective after 30 days, but within the twelve (12) month warranty period, will be replaced with refurbished, reconditioned, or used monitors at MONOPRICE'S discretion. All returned products are the property of MONOPRICE and must be returned to MONOPRICE for a replacement to be issued.

TROUBLESHOOTING

Following are some common problems and possible solutions. If you cannot solve a problem yourself, please contact Monoprice Technical Support for assistance.

Q: The power LED is off.

A: Verify that the power adapter is plugged into the monitor. Verify that the power cord is plugged into both the AC adapter and the power outlet. Verify that the power outlet is live by plugging something else into it, such as a lamp.

Q: The picture is weak, washed out, or over saturated.

A: Adjust the Brightness and/or Contrast.

Q: The image flashes or distorts.

A: Verify that there are no nearby sources of Radio Frequency or Electromagnetic Interference (RFI or EMI).

Q: The power LED is glowing blue, but the display is blank.

A: Press a key on the keyboard to ensure the computer is not asleep or that a screen saver is active. Verify that the proper input is selected. Verify that the display cable is securely attached to both the display and the video source. Replace the cable with another of the same type to verify that it is not faulty.

Q: One of the primary colors (red, green, or blue) is missing.

A: Replace the video cable with another of the same type. Connect to a different video source to verify that there are no problems with the video card or source device.

Q: The colors are not correct.

A: Adjust the color temperature or the individual mix of red, green, and blue picture elements.

Q: No picture using the DVI input.

A: Verify that you are using a Dual Link DVI-D cable. Verify that your video card is capable of delivering a Dual Link DVI-D signal. A Dual Link DVI-D cable will have a pinout that looks like this:



SPECIFICATIONS

| | |
|-----------------------------|---|
| Display Type | TN panel with LED backlight |
| Screen Size | 28" (711mm) |
| Dot Pitch | 0.16 x 0.16 mm |
| Maximum Resolution | 3840 x 2160 @ 60Hz (UHD) |
| Brightness | 300cd/m ² |
| Color Support | 1.07 billion, including Adobe sRGB |
| Response Time (Tr+Tf) | 5ms |
| Contrast Ratio (typical) | 1000:1 |
| Viewing Angles | 170° left/right, 160° up/down |
| Video Inputs | 1x VGA, 1x Dual Link DVI-D 1x DisplayPort (v1.2), 1x HDMI-MHL (v2.0) |
| Audio Inputs | 1x 3.5mm TRS Line In |
| Horizontal Frequency (HFR) | 30~135 kHz |
| Vertical Frequency (VFR) | 60 ~ 75Hz |
| Pixel Clock Frequency | 594 MHz |
| PNP Standard | VESA DDC2BTM |
| Multi-Source Video Modes | Picture-in-Picture (PiP), Picture-by-Picture (PbP) |
| Power Consumption | Operation: < 65W Standby: < 1W |
| Monitor Input Power | 12 VDC, 5.42A |
| AC Adapter Input Power | 100 ~ 240 VAC, 50-60Hz |
| Operating Temperature | +32 ~ +122°F (0 ~ +50°C) |
| Storage Temperature | -4 ~ +140°F (-20 ~ +60°C) |
| Operating Humidity | 10 ~ 85%, non-condensing |
| Stand Tilt Adjustment Range | -5° (down) to +13° (up) |
| VESA Mount Size | 100x100 |
| Dimensions (with stand) | 26.1" x 17.8" x 6.7" (663 x 453 x 170 mm) |
| Weight | 17.0 lbs. (7.7 kg) |
| Certifications | ETL, FCC, CE |

REGULATORY COMPLIANCE

Notice for FCC



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

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

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

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

Notice for Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

EU Conformity With Applicable Directives



This equipment complies with the essential requirements listed below:

- EMC Directive 2004/108/EC
- Low Voltage Directive 2006/95/EC
- Ecodesign/ErP/Energy Efficiency Directive 2009/125/EC
- RoHS2 Directive 2011/65/EU
- WEEE Directive 2012/19/EC
- Packaging & Packaging Waste Directive 94/62/EC