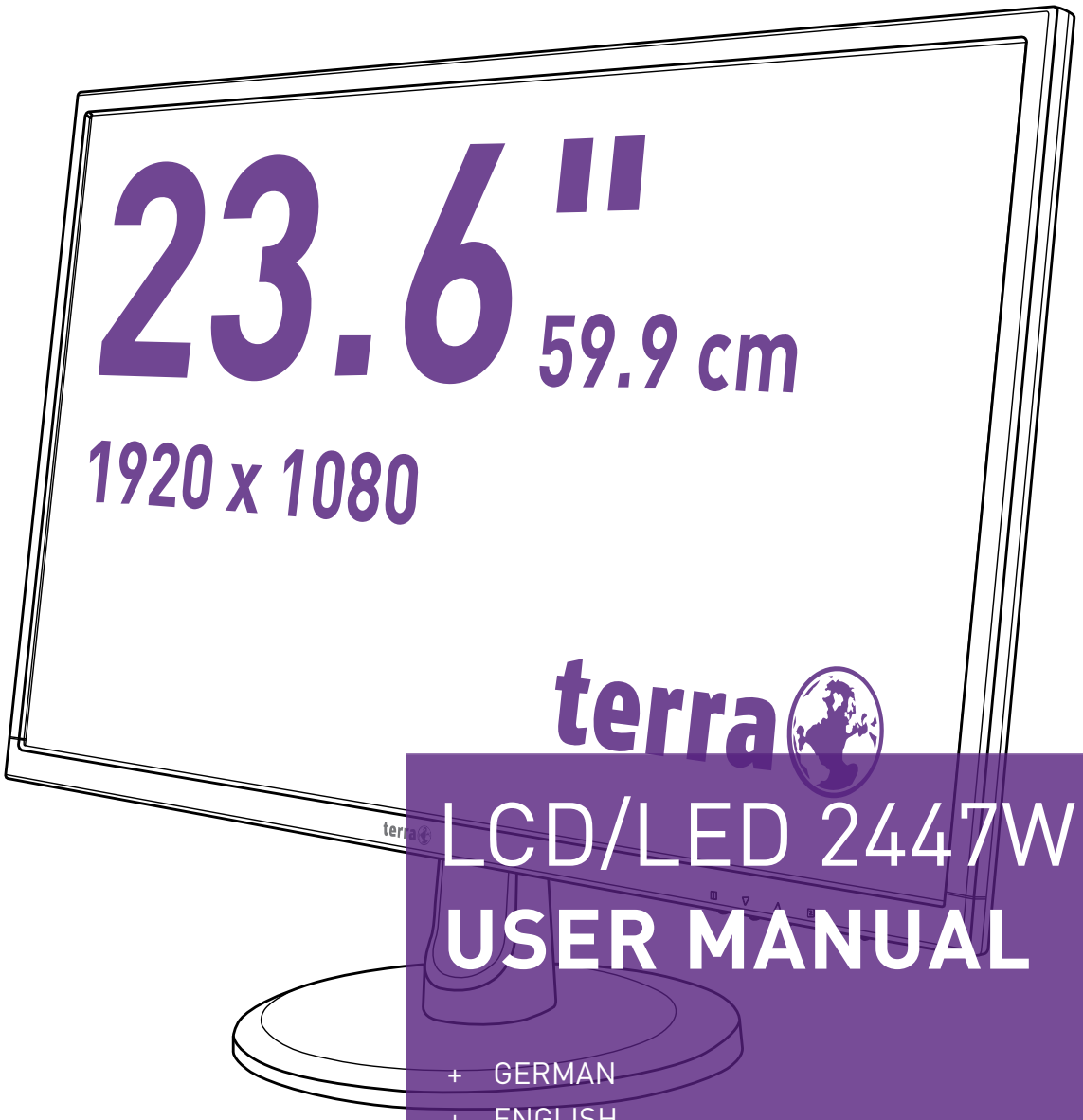
terra




# LCD/LED 2447W
# USER MANUAL

+ GERMAN
+ ENGLISH
+ FRENCH
+ SPANISH
+ ITALIAN
+ RUSSIAN
+ POLISH

**WORTMANN** AG

## Operation Instructions

Thank you for purchasing this monitor, a high-resolution multi-scan color monitor.
Please read this guide thoroughly before installation.

This monitor has been tested and found compliant with the CE mark. These limits are designed to provide proper protection against harmful interference to a residential installation. This monitor generates, uses, and can radiate radio frequency energy. Harmful interference to radio communication may be led as a result if it‘s not properly installed and used. However, there is no guarantee that interference will not occur in a particular installation. If this monitor does cause serious interference to radio or television reception, resetting the monitor may determine it. Moreover, users are encouraged to correct interference by doing one or more of the following:

- Reorient or relocate the receiving antenna.
- Move the monitor and the receiver further away from each other.
- Connect the monitor into an outlet on a circuit different from that to which the receiver is connected.
- Consult your local dealer or an qualified technician.

**Warning:**
To assure a continued compliance, a user must use a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, any unauthorized changes or modifications to this monitor would void the user‘s authority to operate this device.

**Note:** If necessary, shielded interface cables and AC power cord must be used to meet the emission level limits.

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# Safety Precautions

This monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may result danger to the monitor as well as to the user. Carefully go over the following WARNINGS before installation and keep this guide handy.

**WARNINGS:**

- This monitor should be operated only at the correct power sources indicated on the label on the rear end of the monitor. If you're unsure of the power supply in your residence, consult your local dealer or power company.
- Do not try to repair the monitor yourself as it contains no user-serviceable parts. The monitor should only be repaired by a qualified technician.
- Do not remove the monitor cabinet. There are high-voltage parts inside that may cause electric shock to human bodies, even when the power cord is disconnected.
- Ensure that the power cord is connected to a grounded power outlet before turning on the monitor.
- If smoke, abnormal noise or odor came out from your monitor, caution you should remove the power cord immediately and call your service center.
- Put your monitor only in a clean, dry environment. Unplug the monitor immediately if gets wet and consult your service technician.
- Avoid exposing your monitor directly to sunlight or other heat source.
- Always unplug the monitor before cleaning it. Clean the cabinet with a clean, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- Keep the monitor away from magnetic objects, motors, TV sets, and transformer.
- Do not place heavy objects on the cable or power cord.
- For PLUGGABLE EQUIPMENT, the Socket-outlet shall be installed near the equipment and shall be easily accessible.
- Please do not position the monitor on unsafe space, if it falls, it may be damaged and may hurt the user.
- Unplug the monitor if it is not going to be in use for an extended period of time.
- Pay attention to all cables connected to the monitor against stumble hazards.



**According to WEEE regulation, this monitor can't be handled as normal trash in Europe when it is out of usage. Please refer to the recycle information from our website to handle it.**

**www.wortmann.de**

## First Setup

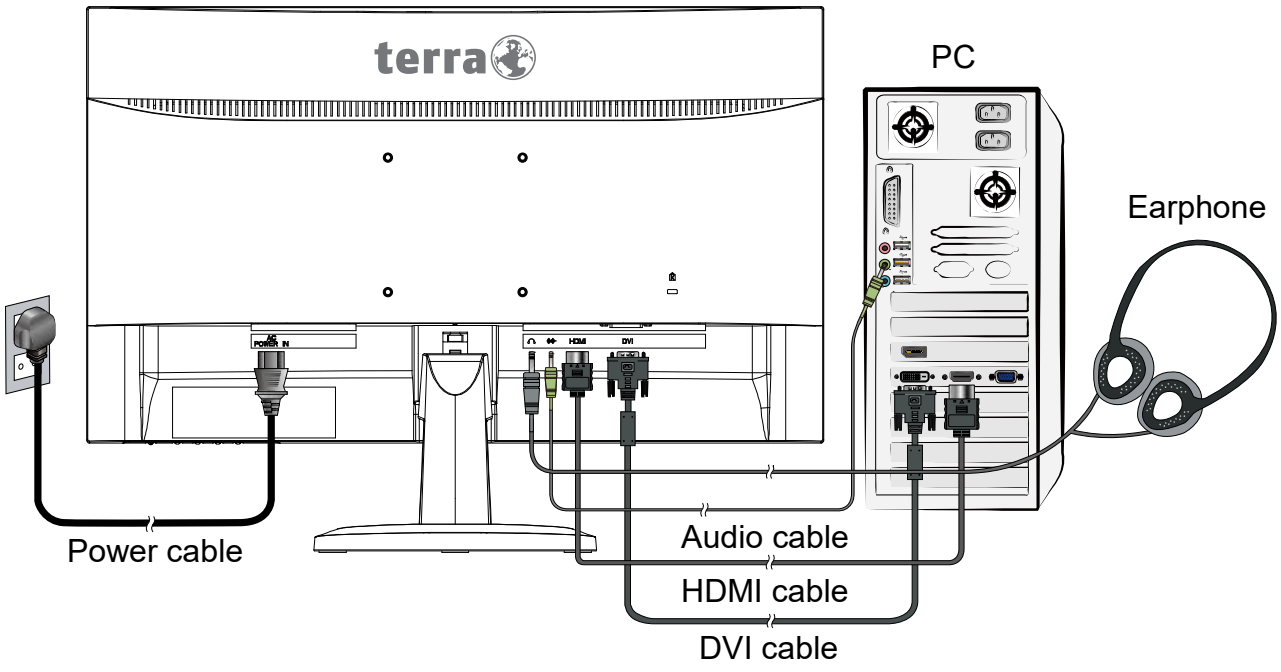
Congratulation for purchasing this monitor of high performance!
This monitor comes with the following accessories:

- AC Power cord (Type C5)
- Audio cable
- Warranty card
- DVI cable
- Quick start guide

## Quick Installation

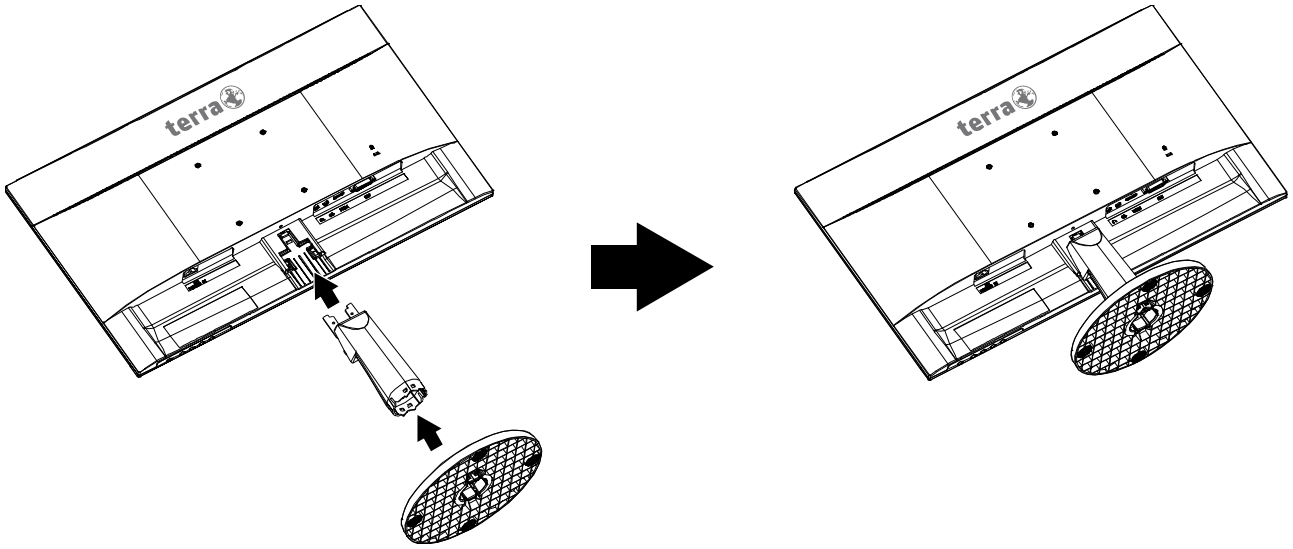
1. **Connect Video cable (DVI cable)**
   Make sure both monitor and computer are powered OFF.
   Connect the DVI cable from DVI output of computer to the DVI input of the monitor.
   **Or connect HDMI cable *Optional**
   Connect the HDMI cable from HDMI output of computer to the HDMI input of the monitor.
2. **Connect Power cord**
   Connect the power cord to a properly grounded AC outlet, then to the monitor.
3. **Connect Audio cable**
   Connect the Audio cable from Audio output of computer to the Audio input of the monitor.
4. **Connect Earphone (not supplied)**
   Connect the earphone to the earphone output terminal of the monitor. (Earphone sold separately).
5. **Power-ON computer and monitor**
   Power-ON the computer, then Power-ON the monitor.
6. **Windows users: Setting the Timing Mode (Resolution and Refresh Rate)**
   *Example: 1920 x 1080 @ 60 Hz*
   Resolution Right-click on the Windows desktop > Display Settings > Advanced Display Settings. Set the resolution.
   Refresh Rate (vertical frequency) See your graphic card's user guide for instructions.

Example:



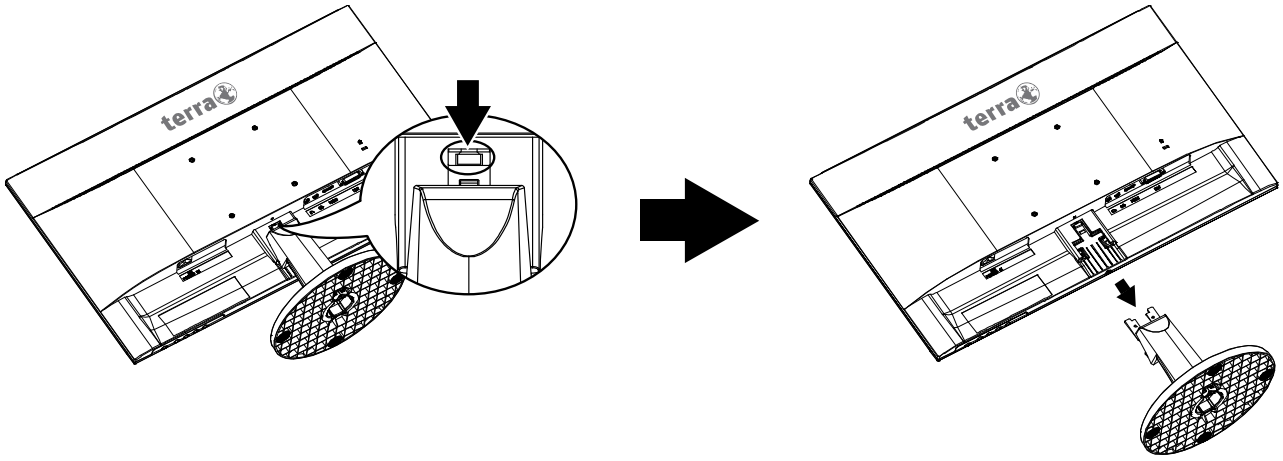
# Installing the LCD Monitor

## Installing the Stand Base



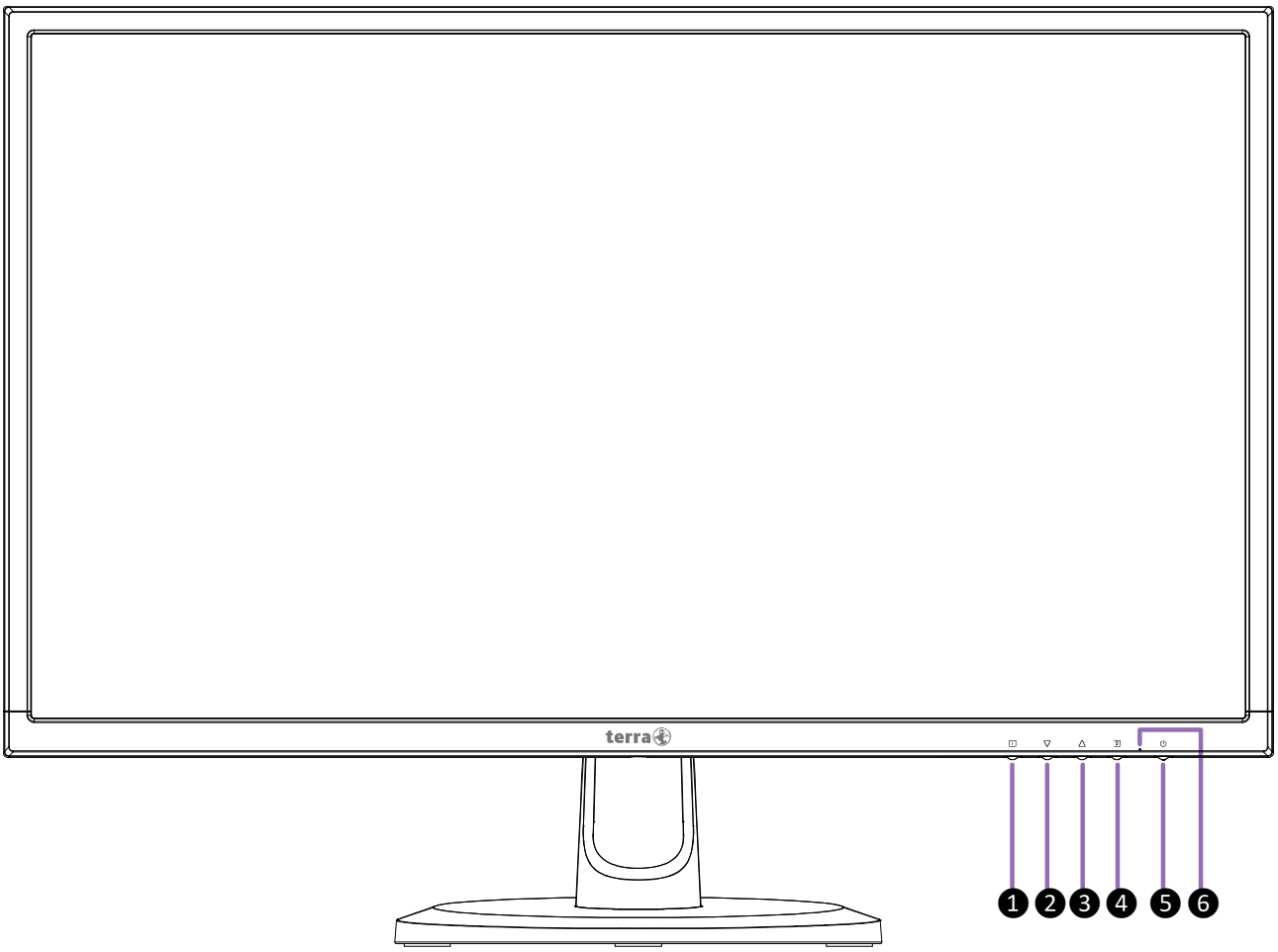
1. Place the monitor face down on a soft cloth or cushion on a table.
2. Install the stand base to the monitor.

## Disconnecting the Stand Base



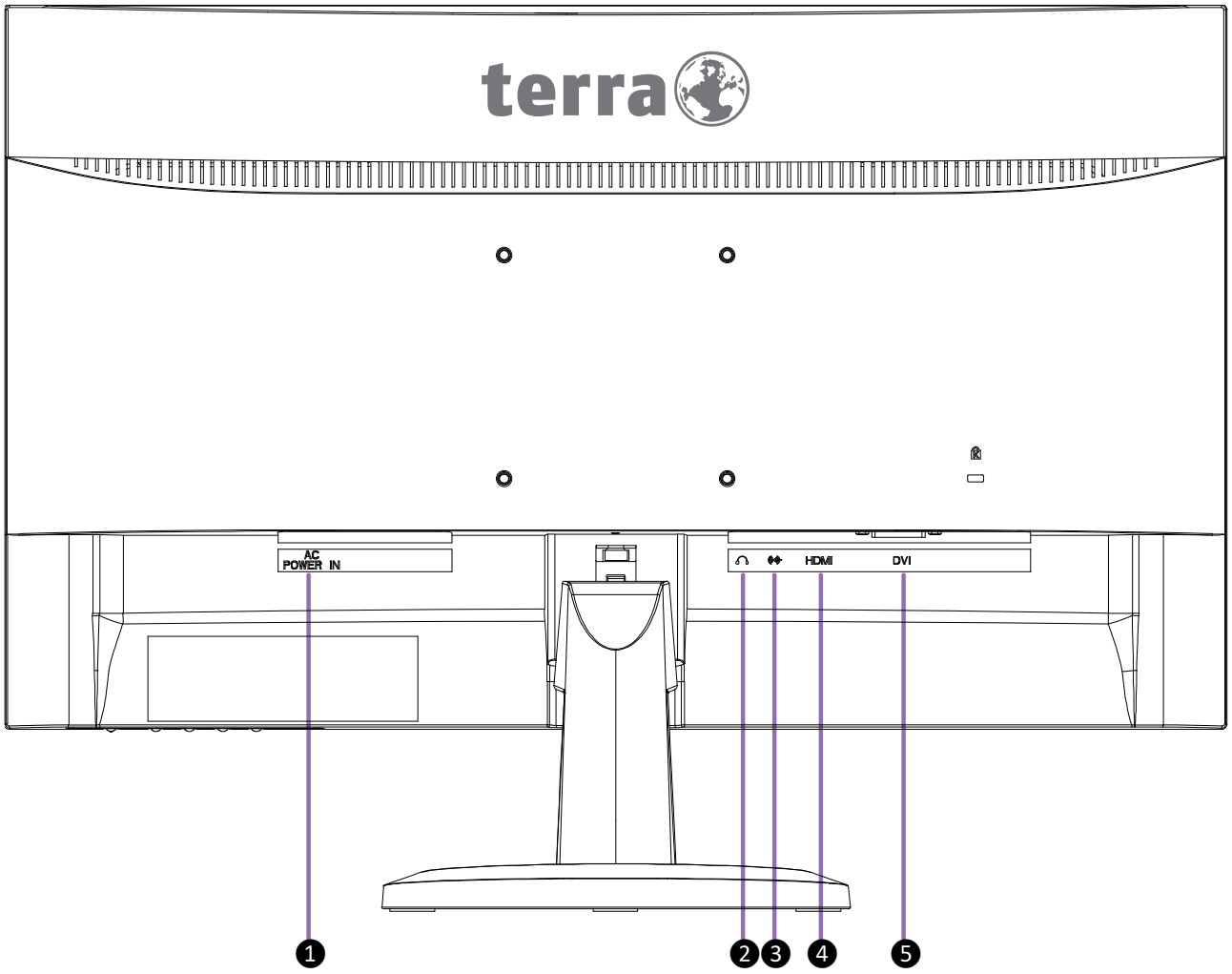
1. Place the monitor face down on a soft cloth or cushion on a table.
2. Press the tenon inwardly and pull the stand base to remove.

# Front View of the Product




| | |
|---|---|
| ❶ | OSD Menu On/Off |
| ❷ | Scroll Down/ Decrease |
| ❸ | Scroll Up/ Increase |
| ❹ | Confirm Select |
| ❺ | Power ON/OFF |
| ❻ | LED Indicator |

## Rear View of the Product

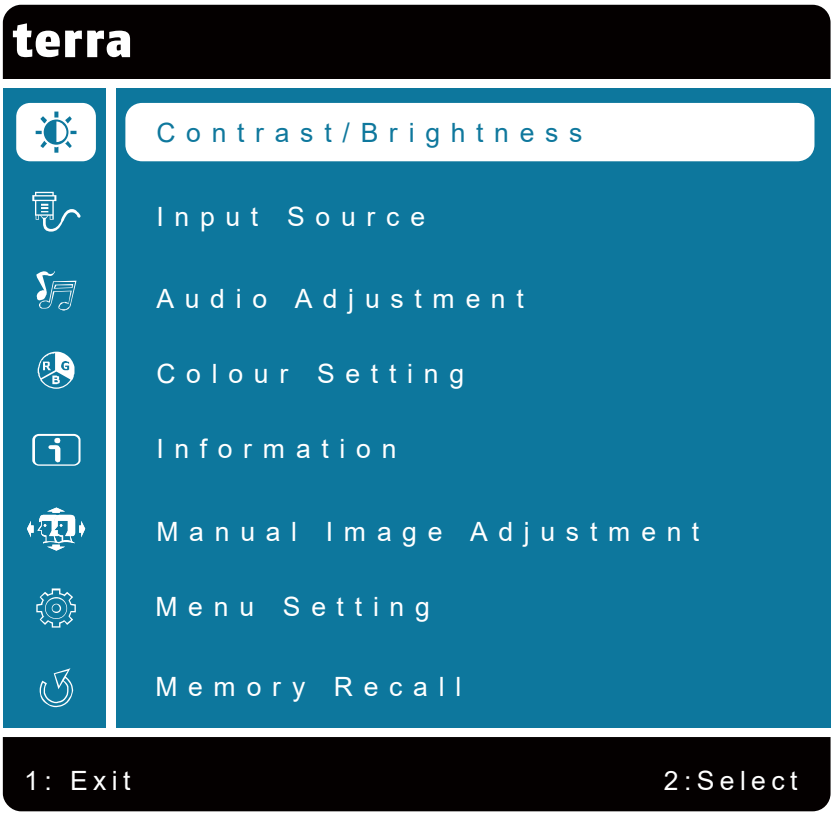



| | |
|---|---|
| ❶ | Power input |
| ❷ | Earphone output<br>**Note:** Adjustment of the volume control to other settings than the center position may increase the ear-/ headphones output voltage and therefore the sound pressure level. |
| ❸ | Audio input |
| ❹ | HDMI input |
| ❺ | DVI input |

## Using On Screen Display (OSD) Functions

| | |
|---|---|
| 1 | Display main menu |
| | Exit from OSD menu |
| 2 | Manual adjust mode select for DVI and HDMI mode |
| | Confirm the Select |
| ▼ | Select the desired item when in OSD menu |
| | When not in OSD menu, directly enters the Contrast/Brightness menu |
| ▲ | Select the desired item when in OSD menu |
| | When not in OSD menu, directly enters the Anti Blue Light menu |
| ▼+▲ | Recall both of Contrast and Brightness (when not in OSD menu) |
| 1+▼ | Power Lock (when not in OSD menu), press and hold for 5 seconds |
| 1+▲ | OSD Lock (when not in OSD menu), press and hold for 5 seconds |

### Main Menu




### Short Cuts Function from the button(s)

**Contrast/Brightness:** To manually adjust the Contrast, Brightness, DCR, ECO and OD of screen image.

- **Contrast:** To adjust the foreground white level of screen image.
  ▲: increase contrast, ▼: decrease contrast.

- **Brightness:** To adjust the luminance of the video.
  ▲: increase brightness, ▼: decrease brightness.
- **DCR:** To detect the distribution of the visual signals inputs, and create an optimized contrast. Brightness and ECO adjustment disabled when DCR is active. Press **2** key to adjust the DCR On or Off.
- **ECO:** Allows the user to turn the ECO On or Off. Brightness and DCR adjustment disabled when ECO is active. Press **2** key to adjust the ECO On or Off.
- **OD (Over Drive):** Allows the user to change the OD strength. Improve the quality of the motion pictures. Press **2** key to adjust the OD On or Off.



**Input Source:** When Input Source is pressed, change Input signal to DVI or HDMI.



**Audio Adjustment:** To adjust the audio functions.

- **Volume:** To adjust the volume of speaker and headphone output.
- **Audio input:** When in HDMI input, select where the audio source comes from Digital or Analog.




**Colour Setting:** To select the color for improving brightness and color saturation between Cool, Normal, Warm, User Colour, Picture Mode and Anti Blue Light.

- **Cool:** Adds blue to screen image for cooler white.
- **Normal:** Adds red to screen image for warmer white and richer red.
- **Warm:** Adds green to screen image for a darker color.
- **User Colour:** Individual adjustments for Red (R), Green (G), Blue (B).
  1. Press button **2** to select the desired color.
  2. Press ▼ or ▲ button to adjust selected color.
- **Picture Mode:** Provides an optimum display environment depending on the contents displayed. It contains 5 user-selectable presets.
  **Standard** is for general windows environment and monitor default setting.
  **Game** optimized for PC game environment.
  **Video** optimized for movie and video environment.
  **Landscape** optimized for displaying outdoor scenery images.
  **Text** optimized for text editing and viewing in a word processing environment.
- **Anti Blue Light:** Decreases the blue light emitted from the display to reduce the risk of blue light exposure to your eyes.



**Information:** To display the information, regarding the current input signal coming from the graphic card in your computer.
**Note:** See your graphic card user guide for more information about changing the resolution and refresh rate.

**Manual Image Adjustment:** To manually adjust the Sharpness and Video Mode Adjustment.

- **Sharpness:** To adjust the clarity of a non-Full HD Resolution (1920x1080) signal with ▼ or ▲ button.
- **Video Mode Adjustment:** To select the video mode from Aspect Ratio 4:3 or Full Screen.
  **Aspect Ratio 4:3:** To select 4:3 image size.
  **Full Screen:** To select full-screen size image.

**Menu Setting:** To set up Language Select, OSD Position, OSD Time Out and OSD Background.

- **Language Select:** To allow users to choose from available languages.
- **OSD Position:** Press ▼ or ▲ button to select between horizontal and vertical OSD Position adjustment.
  **OSD H. Position:** To horizontally adjust the OSD position.
  ▲: move OSD to the right, ▼: move OSD to the left.
  **OSD V. Position:** To vertically adjust the OSD position.
  ▲: move OSD up, ▼: move OSD down.
- **OSD Time Out:** To automatically turn off On Screen Display (OSD) after a preset period of time.
- **OSD Background:** Allows the user to turn the OSD Background On or Off.

**Memory Recall:** To recall factory settings for Video & Audio controls.
Press button **2** to select the Memory Recall menu option.

## Supporting Timing Modes

| | |
|---|---|
| **VGA** | 720 x 400 @ 70Hz |
| **VGA** | 640 x 480 @ 60Hz |
| **MAC** | 640 x 480 @ 67Hz |
| **VESA** | 640 x 480 @ 72Hz |
| **VESA** | 640 x 480 @ 75Hz |
| **VESA** | 800 x 600 @ 56Hz |
| **VESA** | 800 x 600 @ 60Hz |
| **VESA** | 800 x 600 @ 72Hz |
| **VESA** | 800 x 600 @ 75Hz |
| **MAC** | 832 x 624 @ 75Hz |
| **VESA** | 1024 x 768 @ 60Hz |
| **VESA** | 1024 x 768 @ 70Hz |
| **VESA** | 1024 x 768 @ 75Hz |
| **VESA** | 1280 x 960 @ 60Hz |
| **VESA** | 1152 x 864 @ 75Hz |
| **MAC** | 1152 x 870 @ 75Hz |
| **VESA** | 1280 x 1024 @ 60Hz |
| **VESA** | 1280 x 1024 @ 75Hz |
| **VESA** | 1440 x 900 @ 60Hz |
| **VESA** | 1440 x 900 @ 75Hz |
| **CVT** | 1400 x 1050 @ 60Hz |
| **VESA** | 1600 x 1200 @ 60Hz |
| **VESA** | 1680 x 1050 @ 60Hz |
| **VESA** | 1920 x 1080 @ 60Hz |

### * Video Timing Modes

- 480i
- 480p
- 576i
- 576p
- 720p
- 1080i
- 1080p

**Warning:** Do not set the graphic card in your computer to exceed these maximum refresh rates. Doing so may result in permanent damage to your monitor.

# Technical Information

## Technical Specification

| | |
|---|---|
| **LCD Panel** | 59.9 cm (23.6") |
| **Power Management** | VESA DPMS compatible<br>Off Mode, ≤ 0.3 W |
| **Displayable Resolution** | Full HD 1920 x 1080 max.<br>Vertical Frequency 60Hz max. |
| **Pixel Dimension** | 0.2715 x 0.2715 mm |
| **LCD Display Color** | 16.7M |
| **Active Display Area** | 521.28 mm x 293.22 mm |
| **Temperature** | Operating: 0°C ~ + 40°C<br>Storage: -20°C ~ + 60°C |
| **Compliance** | CE, WEEE |
| **Power** | Input Voltage AC100-240 V |
| **Speaker** | 1W x 2 |

## Care and Maintenance

### Care

- Avoid exposing your monitor directly to sunlight or other heat source. Place your monitor away from the sun to reduce glare.
- Put your monitor in a well ventilated area.
- Do not place any heavy things on top of your monitor.
- Make certain your monitor is installed in a clean and moisture-free area.
- Keep your monitor away from magnets, motors, transformers, speakers, and TV sets.

### Note

- Move the monitor out of the package and take off the plastic bag and Polystyrene Foam.
- Adjust the tilt of the screen for an optimum seating and viewing position.

### Safety Tips

- If smoke, abnormal noise or odor came out from your monitor, caution you should remove the power cord immediately and call your service center.
- Never remove the rear cover of your monitor cabinet. The display unit inside contains high-voltage parts and may cause electric shock to human bodies.
- Never try to repair your monitor yourself. Always call your service center or a qualified technician to fix it.

## Troubleshooting

### No power

- Make sure AC power cord is securely connected to the power adapter and the power supply is firmly connected to the monitor.
- Plug another electrical device into the power outlet to verify that the outlet is supplying proper voltage.
- Make sure all signal cables are installed.

### Power on but no screen image

- Make sure the video cable supplied with the monitor is tightly secured to the video output port on back of the computer. If not, tightly secure it.
- Adjust brightness.

### Wrong or abnormal colors

- If any colors (red, green, blue) are missing, check the video cable to make sure it is securely connected. Loose or broken pins in the cable connector could cause an improper connection.
- Connect the monitor to another computer.
- Set all values to the default settings (see “Memory Recall” function).

# WEEE Statement



**Wichtige Recyclinginformation**
Das Gerät darf nach dem Ende der Nutzungszeit nicht mit dem Restmüll entsorgt werden. Bitte führen Sie es zur umweltgerechten Entsorgung den kommunalen Altgeräte-Sammelstellen zu.
Für weitere Informationen wenden Sie sich bitte an die unten stehende Adresse.

**Important Information for Recycling**
This warning sign of trash bin indicates that the objects are not allowed to be disposed as general refuse. Please follow the local act and carry out further disposal with refuse recycling and collecting system in your Country or District.
Please contact the address below for more information on recycling.

**Informations importantes relatives au recyclage**
En fin de vie, cet appareil ne dois pas étre jeté aux ordures ménagères.
Veuillez respecter les réglementations locales et rester en conformité avec le système de collecte et de recyclage des ordures en vigueur dans votre région.

Pour plus d'information sur le recyclage, veuillez contacter votre centre de recyclage agréé.

Votre attitude quand au recyclage améliorera l'avenir de la planète et créera un environnement de vie de qualité pour les générations futures.

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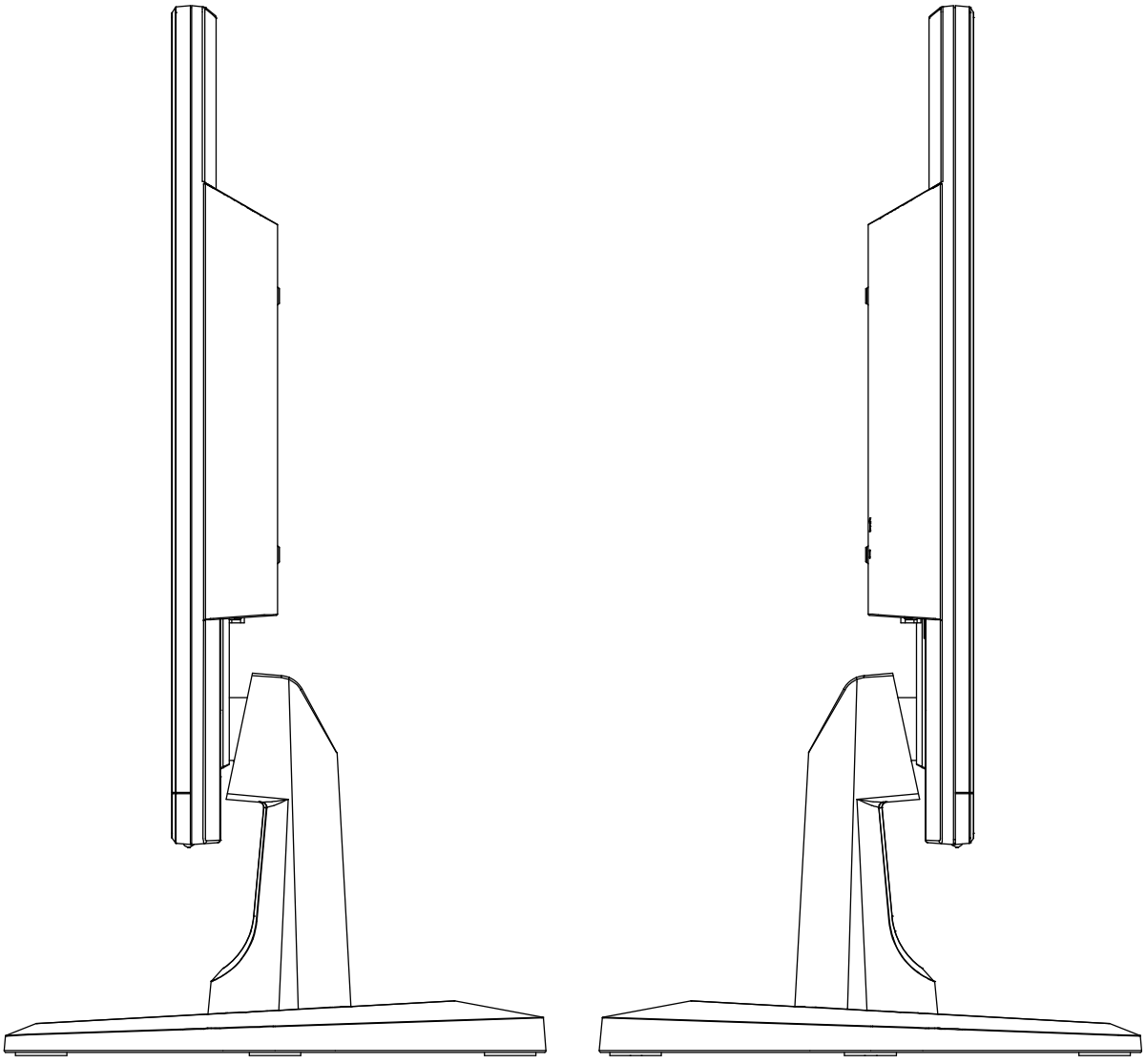
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