TruVision TVM-2002 / 2202 / 2212 2402 / 2702 / 3202 / 4002 Monitors User Manual

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Certification

FCC compliance

Class A: 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 radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC conditions

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.

(2) This Device must accept any interference received, including interference that may cause undesired operation.

ACMA compliance

Notice! This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Canada

This Class A digital apparatus complies with CAN ICES-003 (A)/NMB-3 (A).

Cet appareil numérique de la classe A est conforme à la norme CAN ICES-003 (A)/NMB-3 (A).

European Union directives

This product complies with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.

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Important safeguards

1. **Installation cautions**:
   - Do not block any ventilation openings.
   - Always ensure that the monitor is located in a well-ventilated area to prevent the unit from overheating.
   - Only use accessories specified by the manufacturer or those sold with the product.
   - Avoid operating or placing the monitor in the following environments: extremes of temperatures, both hot and cold; high humidity; direct sunlight; excessively dusty surroundings; avoid close proximity to other equipment that generates a strong magnetic field
2. **Water and moisture**: Do not use this appliance near water. To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.
3. **Power cord and power cord protection**: Power cords should be routed so that they not likely to be walked on or pinched. Pay particular attention to the location of cords and plugs, convenience receptacles, and the point of exit from the appliance.
4. **Product care**: Do not touch the screen directly with fingers. The oils from your skin may leave marks on the surface of the screen, which are difficult to be removed and may damage the screen permanently. Do not apply pressure to the screen.
5. **Cleaning**: Clean only with a dry cloth.
6. **Servicing**: Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

7. **Lightning**: For added protection during a lighting storm or when this unit is left unattended and unused for long periods of time, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

8. **Mains plug (2 pin/3 pin):**

    - Do not remove the grounding or earth connection from the power supply / mains plug.
    - Always remember to unplug the monitor from the power supply under the following circumstances if the monitor will not be used for a long period of time, if the power supply cable or plug/connector is damaged or if the monitor housing is damaged or broken.

CAUTION: Do not attempt to dismantle this product. Any attempt to dismantle or remove the covers from this product will invalidate the warranty and may also result in serious injury.

Introduction

This manual explains how to correctly install, operate and get the best performance from your monitor. Please read this user manual carefully before installing your monitor then keep it near your monitor for quick reference.

First, please check that the contents of the box correspond with the following checklist:

- LED monitor
- Power cord
- VGA cable
- User manual
- Remote control (TVM-2702/3202/4002)
- Base screw (TVM-2402/2702/3202/4002)

If any item is missing or damaged, please contact your dealer. Keep the box and packing materials so that the monitor can be properly stored or transported.

Features

- The monitor is designed for use in a small work area or for those who need more work space on the desk.
- The convenient and user-friendly on-screen display (OSD) allows for easy and accurate adjustments of screen size, position, and screen color.
- The monitor complies with the VESA Display Data Channel (DDC) specification for Plug and Play compatibility. Advanced microcircuitry makes setup and configuration fast and effortless.
- The monitor features advanced color controls for fine-tuning to meet personal tastes or application requirements. Use the on-screen controls to adjust the color temperature,
- RGB gain value for the best possible screen color and intensity.
- Activate the higher refresh rates of the monitor to stabilize the screen and eliminate the annoying flicker that contributes to eye-strain and headaches.
- The monitor supports high resolution display performance with 1920x1080 @ 60 Hz full HD.
- The monitor can be connected to various types of video devices with compatible VGA, HDMI, or BNC (depending on model) video output signals.
- The monitor supports PAL & NTSC via the Auto Detect feature.
- The internal stereo speakers produce a good quality audio sound.

Assembling the monitor

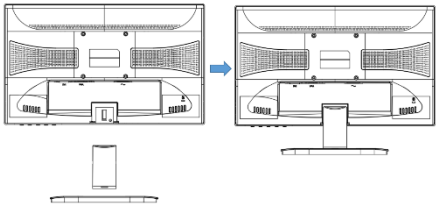
The monitors are designed for use on a desktop.

The arm of the monitor stand is shipped pre-installed on the monitor.

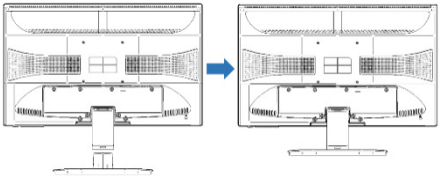
To assemble the monitor:

1. Put a smooth pad or cloth on a level surface. Place the monitor on the surface facing downwards.
2. *TVM-2002 only:* Insert the arm of the monitor stand into the slot on the back of the monitor as shown below.
3. Insert the arm of the monitor stand into the pedestal foot provided as shown below.
4. *TVM-2402/2702/3202/4002 only*: Secure the base to the stand using the supplied screw.

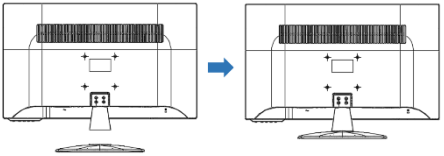
TVM-2002 model



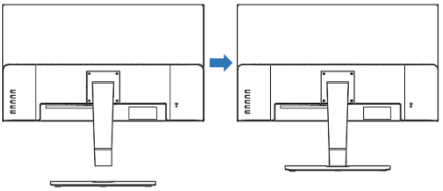
TVM-2202/2212 models



TVM-2402/2702 models



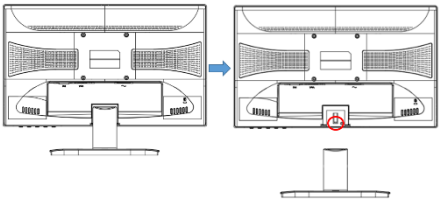
TVM-3202/4002 models



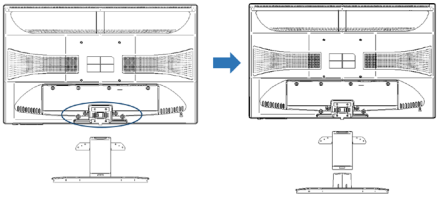
Disassembling the monitor

1. Turn off the monitor and unplug the power cable.
2. Place a cushion or a soft cloth on the floor and place the monitor on top of it with the monitor screen facing the floor.
3. *TVM-2002 only:* Using a screwdriver or a similar object with a sharp end, carefully detach the supporting arm by pressing the groove on the back of the supporting arm (note that the fixation point can be broken if too much force is applied).
4. Remove the four screws connecting the stand and monitor body as shown in the following illustrations.
5. Remove the base by squeezing the tabs underneath the base and carefully pulling it off of the stand (TVM-2002/2202/2212), or by removing the screw underneath the base and carefully pulling it off of the stand (TVM-2402/2702/3202/4002).

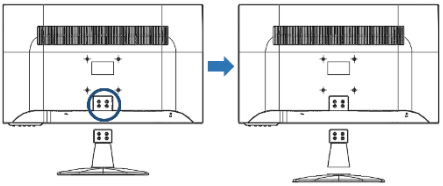
TVM-2002 model



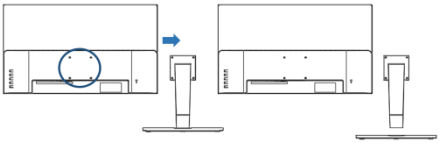
TVM-2202/2212 models



TVM-2402/2702 models

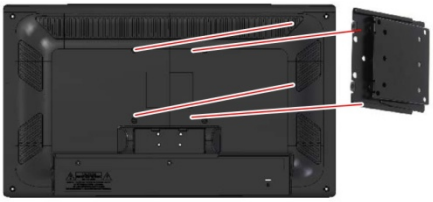


TVM-3202/4002 models



Attaching the monitor mount

Tighten the screws at the locations indicated by the arrows shown in the following illustration.

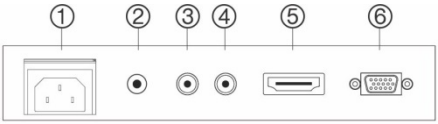


The monitor's installation surface is compatible with other types of VESA standard stands.

Hole spacing: 100 x 100 mm

Screw length: 8 to12 mm

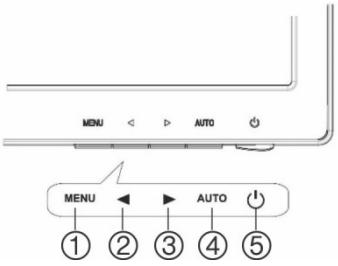
Connections



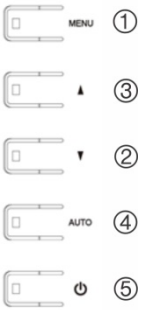
1. AC Input
2. AUDIO IN
   Audio signal input.
3. CAM IN (not available on TVM-2212)
   Composite signal input.
4. CAM OUT (not available on TVM-2212)
   Composite signal output.
5. HDMI
   HDMI signal input.
6. VGA
   RGB signal input.

Control panel

TVM-2002/2202/2212/2402/2702



TVM-3202/4002



1. **MENU**

   Turns the OSD window on.

   Turns the OSD window off and moves from submenu to top menu in the OSD window.

   Press the **MENU** button for five seconds to unlock the keypad lock.

2. **◀ Left Arrow or ▼ Down Arrow**

   Primary Function: Used to adjust the volume.

   Secondary Function: Moves the cursor to the left in the OSD window and decreases the value of any selected menu item.

3. **▶ Right Arrow or ▲ Up Arrow**

   Primary Function: Used to select the input signal.

   Secondary Function: Moves the cursor to the right in the OSD window and increases the value of any selected menu item.

4. **AUTO**

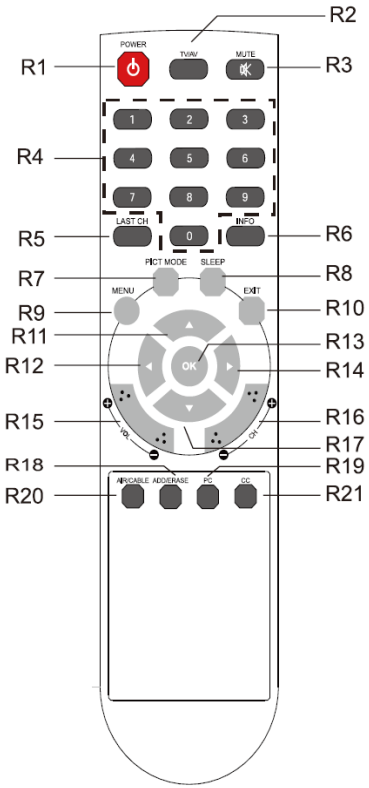
   Primary Function: Automatically adjusts the display to the most optimal setting possible. (VGA mode only)

   Secondary Function: Selects the submenu.

5. **POWER**

   Switches the monitor on and off.

Remote control (TVM-2702 / 3202 / 4002)



R1 POWER
Turns the monitor on from stand-by or off to stand-by mode.

R2 TV/AV (input source)
Selects the signal source from multiple input sources.

R3 MUTE
Turns the sound on and off.

R4 NUMBER Buttons
Press the number buttons in order of 7,8,9,0 to unlock the keypad lock.

R5 LAST CH
Not used.

R6 INFO
Information display.

R7 PICT MODE
Selects preferred picture settings.

R8 SLEEP
Set the sleep timer.

R9 MENU
Display a main menu.

R10 EXIT
Turns the OSD window off and moves from submenu to top menu in the OSD window.

R11/R17 UP/DOWN ▲/▼ Buttons
Press UP/DOWN buttons to enter the Function menu.

R12 / R14 LEFT/RIGHT ◀/▶ Buttons
Press LEFT/RIGHT button to adjust the Function menu.

R13 OK
Selects menu items.

R15 VOL +/-
Adjust the sound level.

R16 PR +/-
Not used.

R18 ADD/ERASE
Not used.

R19 PC
Directly select VGA mode.

R20 AIR/CABLE
Not used.

R21 CC
Not used.

Inserting batteries into the remote control

Open the battery compartment of the remote control. Insert the batteries (two 1.5 V type R03 or AAA). Make sure that the polarity matches with the (+) and (-) marks inside of the battery compartment.

Note: To avoid damage from possible battery leakage, remove the batteries when not using the remote control handset for an extended period of time.

Changing a monitor parameter

TVM-2002/2202/2402/2702/3202/4002:

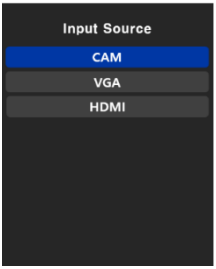
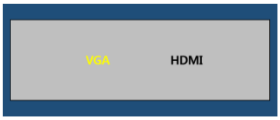
1. Press the **MENU** button on the front panel to obtain the OSD menu screen.
2. Use the ◀/▶ or ▲/▼buttons to select the menu.
3. Use the **AUTO** button to select the submenus.
4. Use the ◀/▶ or ▲/▼ buttons to select a submenu function.
5. Press the **AUTO** button, then make adjustments as necessary using the ◀/▶ or ▲/▼ buttons.
6. To exit, press **MENU**.

TVM-2212:

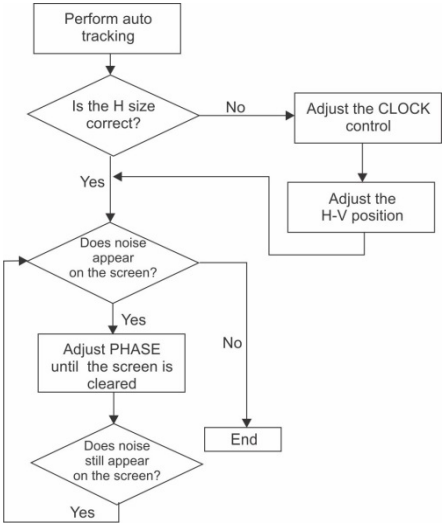
1. Press the **MENU** button on the front panel to obtain the OSD menu screen.
2. Use the ◀/▶ buttons to select the menu.

3. With a menu selected use the **MENU** button to select the submenus.
4. Use the ◀/▶ buttons to select a submenu function.
5. Press the **MENU** button, then make adjustments as necessary using the ◀/▶ buttons.
6. To exit, press **AUTO**.

Hot keys

▶/▲	When the OSD does not appear on-screen, press the ▶or ▲ button to: Select the signal input in order (CAM - VGA – HDMI).  *TMV-2212 only:* Select and adjust brightness using the ◀/▶ buttons.
◀/▼	When the OSD does not appear on-screen, press the ◀ or ▼ button to: Adjust the volume directly. *TMV-2212 only:* Select input mode (VGA or HDMI) using the ◀/▶ buttons. 
AUTO	When the OSD does not appear on-screen, press the **AUTO** button to select the best display performance for the current mode

Adjustment procedure



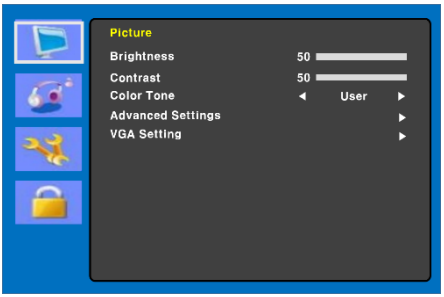
OSD functionality

Configure the monitor using the on-screen display (OSD) menus and submenus. Different menus appear depending on if a device is connected to the monitor's VGA HDMI, or BNC input. Changes are immediately saved and implemented.

Note: The VGA and CAM menus are not available for TVM-2212.

VGA menu

Picture



1. **Brightness**

   Adjust the brightness of the image.

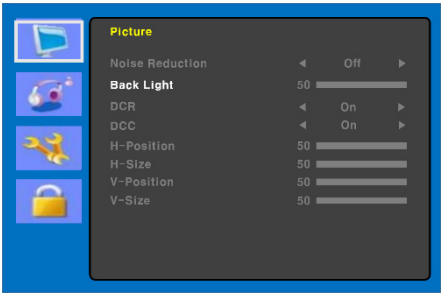
2. **Contrast**

   Adjust the contrast of the image (the difference between light and dark areas on the screen).

3. **Color Tone**

   Choose a different preset color temperature or set customized color parameters (Normal/Warm/Cool/User).

(Advanced Setting)



4. **Advanced Setting**

   4-1 Noise Reduction

   Not used.

   4-2 Back Light

   Adjust the back light to be brighter or darker.

   4-3 DCR

   Not used.

   4-4 DCC

   Not used.

   4-5 H-Position

   Not used.

   4-6 H-Size

   Not used.

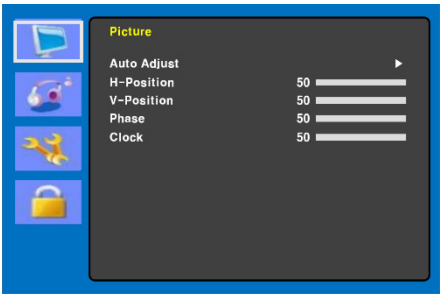
   4-7 V-Position

   Not used.

   4-6 V-Size

   Not used.

(VGA Setting)



5. **VGA Setting**

   5-1 Auto Adjust

   Automatically choose the correct horizontal position and vertical position and size of the screen image.

   5-2 H-Position

   Adjust the position of the display horizontally (left or right).

   5-3 V-Position

   Adjust the position of the display vertically (up or down).

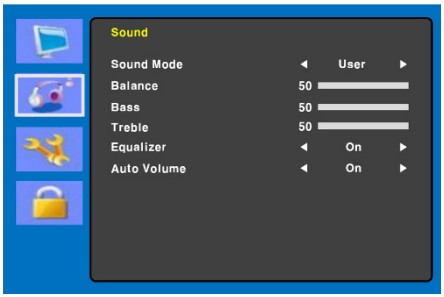
   5-4 Phase

   Remove any horizontal noise and clear or sharpen the image of the characters.

5-5 Clock

Adjust the width (horizontal size) of the screen image to fine tune the display.

Sound



1. **Sound Mode**

   Choose a different preset sound mode or a customized sound (Standard/Speech/ Music/User).

2. **Balance**

   Adjust the sound balance of the left and right speakers.

3. **Bass**

   Adjust the bass sound (**User** must be selected in Sound mode).

4. **Treble**

   Adjust the treble sound (**User** must be selected in Sound mode).

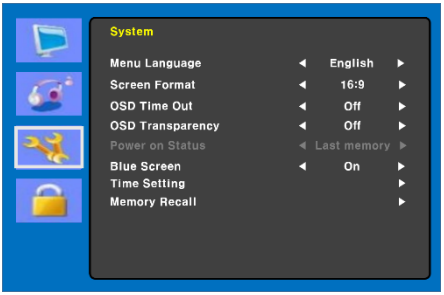
5. **Equalizer**

   Provides an enhanced listening experience.

6. **Auto Volume**

   Automatically remains at the same volume level if the program is changed.

System



1. **Menu Language**

   Select the OSD language.

2. **Screen Format**

   Select the aspect ratio. (16:9/4:3/ZOOM1/ZOOM2)

3. **OSD Time out**

   Adjust the display of the OSD menu (10 to 60 seconds).

4. **OSD Transparency**

   Adjust the OSD transparency (Off/Low/Middle/High).

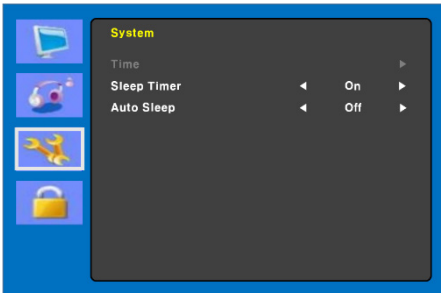
5. **Power on Status**

   Not used.

6. **Blue Screen**

   Selects the background color.

(Time Setting)



7. **Time Setting**

   7-1 Time

   Not used.

   7-2 Sleep Timer

   Set the sleep timer.

   7-3 Auto Sleep

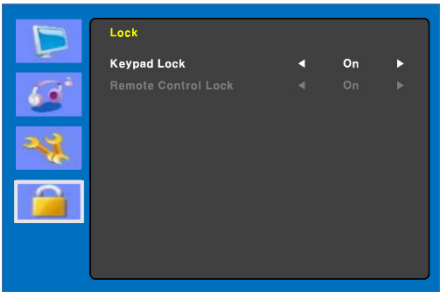
   The monitor turns off when it does not receive any signal from the remote control or any button within the time set up (Off/1 Hour/2 Hours/5 Hours).

   (An on-screen warning appears before the configured automatic shutdown time).

8. **Memory Recall**

   Reset the screen to the factory preset display settings.

Lock



1. **Keypad Lock**

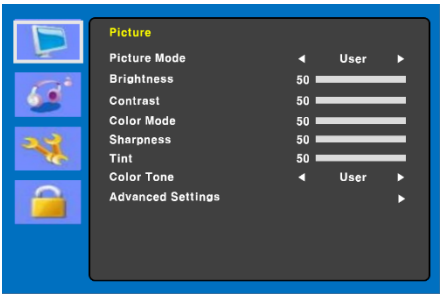
   Turns the keypad lock on or off. Press the MENU button for five seconds to unlock the keypad lock.

2. **Remote Control Lock (TVM-2702 / 3202 / 4002 only)**

   Turns the remote control lock on or off.

CAM menu (HDMI/BNC)

Picture



1. **Picture Mode**

   Selects the picture mode (Standard/Movie/Dynamic/User/Eco).

2. **Brightness**

   Adjust the brightness of the image.

3. **Contrast**

   Adjust the contrast of the image (the difference between light and dark areas on the screen).

4. **Color Mode**

   Adjust the color of the image.

5. **Sharpness**

   Adjust the image quality of the display.

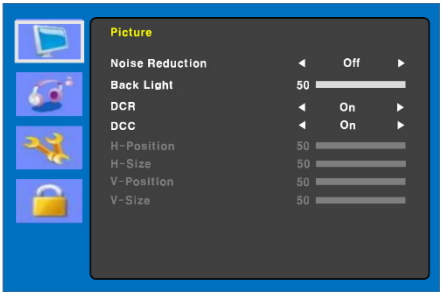
6. **Tint (CAM mode only)**

   Adjust the tint of the image.

7. **Color Tone**

   Choose a different preset color temperature or set customized color parameters (Normal/Warm/Cool/User).

(Advanced Setting)



8. Advanced Setting

8-1 Noise Reduction

Reduce the noise in the picture due to poor reception or poor picture quality. (Off/Low/Middle/High).

8-2 Back Light

Adjust the back light to be brighter or darker.

8-3 DCR

The dynamic contrast ratio (DCR) automatically adjusts the screen brightness.

Turns DCR on or off.

8-4 DCC

The dynamic contrast control (DCC) automatically adjusts the screen contrast.

Turns DCC on or off.

8-5 H-Position

Not used.

8-6 H-Size

Not used.

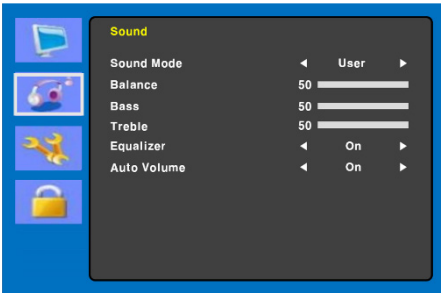
8-7 V-Position

Not used.

8-7 V-Size

Not used.

Sound



1. Sound Mode

Choose a different preset sound mode or a customized sound. (Standard/Movie/Music/User)

2. Balance

Adjust the sound balance of the left and right speakers.

3. Bass

Adjust the bass sound (**User** must be selected in Sound mode).

4. Treble

Adjust the treble sound (**User** must be selected in Sound mode).

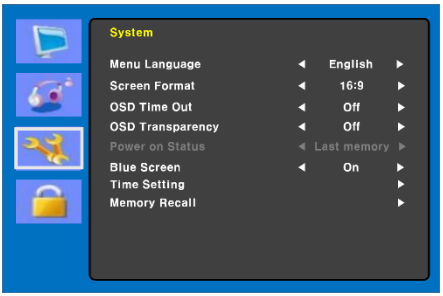
5. Equalizer

Provides an enhanced listening experience.

6. Auto Volume

Automatically remains at the same volume level if the program is changed.

System



1. **Menu Language**

   Selects the OSD language.

2. **Screen Format**

   Selects the aspect ratio (16:9/4:3/ZOOM1/ZOOM2/FULL(CAM mode only)).

3. **OSD Time out**

   Adjust the display time of the OSD menu (10 to 60 seconds).

4. **OSD Transparency**

   Adjust the OSD transparency.

5. **Power on Status**

   Not used.

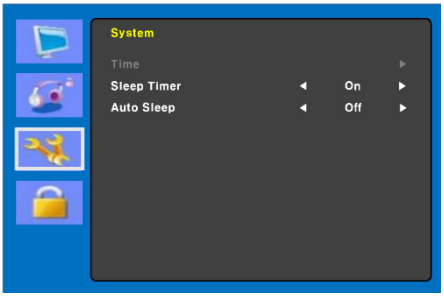
6. **Blue Screen**

   Selects the background color.

7. **Video Standard (CAM mode only)**

   Selects the picture mode

(Time Setting)



8. **Time Setting**

   8-1 Time

   Not used.

   8-2 Sleep Timer

   Set sleep timer.

   8-3 Auto Sleep

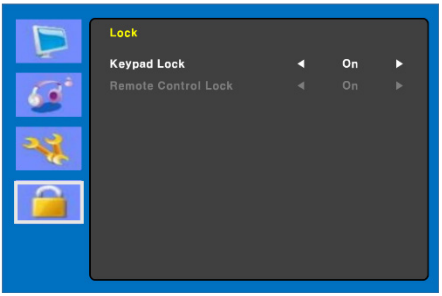
   The monitor turns off when it does not receive any signal from the remote control or any button within the time set up (Off/1 Hour/2 Hours/5 Hours).

   (An on-screen warning appears before the configured automatic shutdown time).

9. **Memory Recall**

   Reset the screen to the factory preset display settings.

Lock



1. **Keypad Lock**

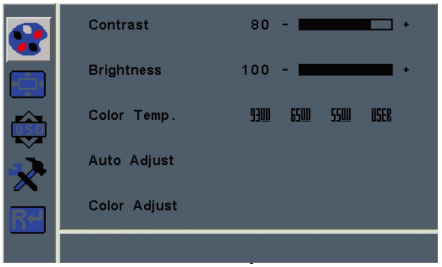
   Turns the keypad lock on or off. Press the MENU button for five seconds to unlock the keypad lock.

2. **Remote Control Lock (TVM-2702 / 3202 / 4002 only)**

   Turns the remote control lock on or off.

HDMI/VGA menu

Color



1. **Contrast**

   Adjust the contrast of the image (the difference between light and dark areas on the screen).

2. **Brightness**

   Adjust the brightness of the image.

3. **Color Temp.**

   Adjust the color temperature (Red/Green/Blue). Options are 9300K, 6500K, 5500K, and USER defined.

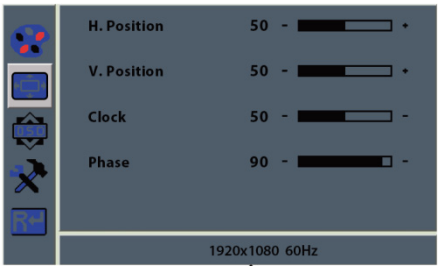
4. **Auto Adjust**

   Adjust the clock, phase, and position automatically (VGA mode only).

5. **Color Adjust**

   Adjust the color of the image (VGA mode only).

Picture



1. **H. Position**

   Adjust the position of the display horizontally (left or right).

2. **V. Position**

   Adjust the position of the display vertically (up or down).

3. **Clock**

   Adjust the clock pulse of the image.

4. **Phase**

   Adjust the focus of the image.

OSD menu

1. **Language**

   Selects the OSD language.

2. **OSD H. Pos**

   Adjust the position of the OSD menu horizontally (left or right).

3. **OSD V. Pos**

   Adjust the position of the OSD menu vertically (up or down).

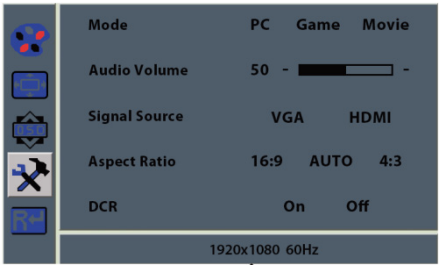
4. **OSD Timer**

   Adjust the OSD menu display time setting.

5. **Transparency**

   Adjust the transparency of the OSD menu.

System



1. **Mode**

   Selects the preferred display mode (PC, Gane, or Movie).

2. **Audio Volume**

   Adjust the volume level.

3. **Signal Source**

   Selects VGA or HDMI signals.

4. **Aspect Ratio**

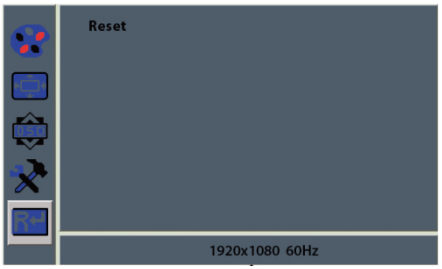
   Selects the aspect ratio (16:9/AUTO/4:3).

5. **DCR**

   The dynamic contrast ratio (DCR) automatically adjusts the screen brightness.

   Turns DCC on or off.

Reset



Restore to factory settings.

Self-diagnosis

If there is no image, the Self-Diagnosis screen appears. The self-diagnosis function checks if the status of the monitor screen is No Signal, Out of Range, or None Supported.

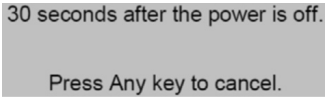
The **No Signal** screen appears when the D-Sub signal connector is connected but the status of the monitor is on DPMS mode.

The **Out of Range** screen appears when the applied frequency is under or over normal range.

Normal range (non-interlaced mode only):

H: 30 to 80 kHz

V: 56 to 77 Hz



Press any key to cancel.

The monitor is turned off when it does not receive any signal from the remote control or any button within the time selected under Time Setting.

Troubleshooting

Issue	Solution
Picture is jittery	Adjust **Clock** to set the screen position and adjust the Clock value carefully until there is no noise displayed.
No picture	Check if the power switch and computer power switch are in the On position. Check if the signal cable is correctly connected to the video card. Check if the pins of D sub-connector are not bent. Check if the computer is in the power- saving mode.
POWER LED is not lit	Check if the power switch is in the On position. Check if the power cord is correctly connected.

Issue	Solution
Image is unstable	Check if the signal cable is suitable to the video card.
Image is not centered, too small, or too large	Adjust **Clock** or **H&V Center** to get the proper image.
Picture bounces or a wave pattern is present in the picture	Keep the devices that may cause electrical interference away from the monitor. See the FCC information in the front of the manual.
Picture is blurred	Adjust **Contrast** and **Brightness.**
No sound	Check the audio cables are correctly connected to the computer. Adjust the volume after checking the sound is muted. Check the audio system in the computer.
Low sound	Adjust the volume on the OSD menu. Adjust the volume of the sound card in the computer.
VIDEO screen cannot be seen	Check if PICTURE mode has been set. Check if the video terminal is properly connected.
Poor color in the video	Adjust the **Color** or **Tint** values on the OSD Picture menu.
Grainy picture in the video	Adjust the **Sharpness** on the OSD Picture menu.

Specifications

TVM-2002/2202/2212/2402 models

	TVM-2002	TVM-2202	TVM-2212	TVM-2402
Panel (size and type)	19.53” LED backlit	21.5” LED backlit	21.5” LED backlit	23.6” LED backlit
Pixel Pitch (mm)	0.2265(H) x0.221(V)	0.24825(H) x 0.24825(V)	0.24825(H) x 0.24825(V)	0.2715(H) x 0.2715(V)
Aspect Ratio	16:9	16:9	16:9	16:9
Viewing Angle (H/V)	178°/178°	170°/160°	170°/160°	170°/160°
Contrast Ratio	3000:1	1000:1	1000:1	1000:1
Response Time	20 ms	5 ms	5 ms	5 ms
Brightness	250 cd/㎡	250 cd/㎡	250 cd/㎡	250 cd/㎡
Recommended Resolution	1920 × 1080 @ 60 Hz	1920 × 1080 @ 60 Hz	1920 × 1080 @ 60 Hz	1920 × 1080 @ 60 Hz
Supported Input Resolution	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080
Refresh Rate (vertical frequency)	60, 70, 75 Hz depending on resolution	60, 70, 75 Hz depending on resolution	60, 70, 75 Hz depending on resolution	60, 70, 75 Hz depending on resolution
Color Depth	24 bits; 16.7 million colors	24 bits; 16.7 million colors	24 bits; 16.7 million colors	24 bits; 16.7 million colors
Video Compatibility	NTSC / PAL Auto Detect	NTSC / PAL Auto Detect	Not Available	NTSC / PAL Auto Detect
Audio Speaker Power	1.5 W x 2	1.5 W x 2	2 W x 2	2 W x 2

	TVM-2002	TVM-2202	TVM-2212	TVM-2402
Video In/Out (BNC)	1/1	1/1	-	1/1
VGA In (15 Pin D-Sub)	1	1	1	1
HDMI	1	1	1	1
Stereo Audio In (3.5 mm jack)	1	1	1	1
Operations Control	Power, Left, Right, Auto, Menu	Power, Left, Right, Auto, Menu	Power, Left, Right, Auto, Menu	Power, Left, Right, Auto, Menu
OSD Language	English, French, Spanish, German, Italian Netherlands, Polish, Portuguese, Russian, Turkish	English, French, Spanish, German, Italian	English, French, Spanish, German, Italian, Portuguese, Russian, S.-Chinese, T-Chinese, Japanese, Korean	English, French, Spanish, German, Italian
Remote control	No	No	No	No
Power Consumption	< 30 W	< 30 W	< 30 W	< 30 W
Input Voltage	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC
Filter Type	3D Comb filter, De-interlace	3D Comb filter, De-interlace	Not Available	3D Comb filter, De-interlace
Dimension W x H x D (without stand)	473 × 285 × 50 mm (19 × 11 × 2 inch)	511 × 334 × 99 mm (20 × 13 × 4 inch)	511 × 334 × 99 mm (20 × 13 × 4 inch)	561 × 338 × 45 mm (22 × 13 × 2 inch)
Dimension W x H x D (with stand)	473 × 342 × 170 mm (19 × 13 × 7 inch)	511 × 392 × 203 mm (20 × 15 × 8 inch)	511 × 392 × 203 mm (20 × 15 × 8 inch)	561 × 399 × 218 mm (22 × 16 × 9 inch)

	TVM-2002	TVM-2202	TVM-2212	TVM-2402
Dimension W x H x D (box)	517 × 127 × 343 mm (20 × 5 × 14 inch)	564 × 436 × 144 mm (22 × 17 × 6 inch)	564 × 436 × 144 mm (22 × 17 × 6 inch)	614 × 445 × 109 mm (24 × 18 × 4 inch)
Weight (without stand)	2.4 kg (5 lb.)	3.3 kg (7 lb.)	3.3 kg (7 lb.)	3.5 kg (8 lb.)
Weight (with stand)	2.8 kg (6 lb.)	3.9 kg (9 lb.)	3.9 kg (9 lb.)	3.9 kg (9 lb.)
Weight (Gross with box)	3.6 kg (8 lb.)	5.3 kg (12 lb.)	5.3 kg (12 lb.)	5.4 kg (12 lb.)
Indicators	Power (Green/Orange)	Power (Green /Orange)	Power (Green /Orange)	Power (Green /Orange)
Operating Condition	0 to 40°C (32°F to 104°F) Humidity 10-85% (non-condensing)			
Storage Condition	-20 to 60°C (-4°F to 140°F) Humidity 10-85% (non-condensing)			
Housing	Plastic	Plastic	Plastic	Plastic
VESA Mount	100 x 100 mm; location centered on monitor body	100 x 100 mm; location centered on monitor body	100 x 100 mm; location centered on monitor body	100 x 100 mm; location centered on monitor body
Included power supply	Built-in power supply	Built-in power supply	Built-in power supply	Built-in power supply

The specifications can change without any notice.

The panel may have some defective pixels (pixels that are slightly lighter or darker, for example) due to a characteristic of the panel, but there is no defect in the product itself.

TVM-2702/3202/4002 models

	TVM-2702	TVM-3202	TVM-4002
Panel (size and type)	27” LED backlit	31.5” LED backlit	39.5” LED backlit
Pixel Pitch (mm)	0.3114(H) × 0.3114(V)	0.12125(H) × 0.36375(V)	0.15245(H) × 0.4494(V)
Aspect Ratio	16:9	16:9	16:9

	TVM-2702	TVM-3202	TVM-4002
Viewing Angle (H/V)	170°/160°	178°/178°	178°/178°
Contrast Ratio	1000:1	1000:1	5000:1
Response Time	5 ms	8 ms	9.5 ms
Brightness	300 cd/㎡	300 cd/㎡	360 cd/㎡
Recommended Resolution	1920 × 1080 @ 60 Hz	1920 × 1080 @ 60 Hz	1920 × 1080 @ 60 Hz
Supported Input Resolution	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080	720×400; 640×480; 800×600; 1024×768; 1152×864; 1280×1024; 1440×900; 1680×1050; 1360×768; 1920×1080
Refresh Rate (vertical frequency)	60, 70, 75 Hz depending on resolution	60, 70, 75 Hz depending on resolution	60, 70, 75 Hz depending on resolution
Color Depth	24 bits; 16.7 Million colors	24 bits; 16.7 Million colors	24 bits; 16.7 Million colors
Video Compatibility	NTSC / PAL Auto Detect	NTSC / PAL Auto Detect	NTSC / PAL Auto Detect
Audio Speaker Power	2 W x 2	2 W x 2	2 W x 2
Video In/Out (BNC)	1/1	1/1	1 / 1
VGA In (15 Pin D-Sub)	1	1	1
HDMI	1	1	1
Stereo Audio In (3.5mm jack)	1	1	1
Operations Control	Power, Left, Right, Auto, Menu	Power, Left, Right, Auto, Menu	Power, Left, Right, Auto, Menu

	TVM-2702	TVM-3202	TVM-4002
OSD Language	English, French, Spanish, German, Italian	English, French, Spanish, German, Italian	English, French, Spanish, German, Italian
Remote control	Yes	Yes	Yes
Power Consumption	< 40 W	< 45 W	< 60 W
Input Voltage	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC
Filter Type	3D Comb filter, De-interlace	3D Comb filter, De-interlace	3D Comb filter, De-interlace
Dimension W x H x D (without stand)	647 × 392 × 49 mm (25 × 15 × 2 inch)	728 × 433 × 51 mm (29 × 17 × 2 inch)	907 × 522 × 48 mm (36 × 21 × 2 inch)
Dimension W x H x D (with stand)	647 × 447 × 249 mm (25 × 18 × 10 inch)	729 × 541 × 237 mm (29 × 21.3 × 9.4 inch)	907 × 581 × 237 mm (36 × 22.9 × 9.4 inch)
Dimension W x H x D (box)	703 × 502 × 110 mm (28 × 20 × 4 inch)	793 x 500 x 197 mm (31 x 20 x 8 inch)	987 x 597 x 192 mm (39 x 24 x 8 inch)
Weight (without stand)	5.5 kg (12 lb.)	5.8 kg (13 lb.)	8.5 kg (19 lb.)
Weight (with stand)	5.9 kg (13 lb.)	8.2 kg (18 lb.)	11 kg (24 lb.)
Weight (Gross with box)	7.0 kg (15 lb.)	10.5 kg (23 lb.)	13.8 kg (30 lb.)
Indicators	Power (Green/Orange)	Power (Green/Orange)	Power (Green/Orange)
Operating Condition	0 to 40°C (32 to 104°F) Humidity 10-85% (non-condensing)		
Storage Condition	-20 to 60°C (-4 to 140°F) Humidity 10-85% (non-condensing)		
Housing	Plastic	Plastic	Plastic
VESA Mount	100 x 100 mm; location centered on monitor body	100 x 100 mm; location centered on monitor body	100 x 100 mm; location centered on monitor body
Included power supply	Built-in power supply	Built-in power supply	Built-in power supply

The specifications can change without notice.

The panel may have some defective pixels (pixels that are slightly lighter or darker, for example) due to a characteristic of the panel. But there is no defect in the product itself.

Factory preset timings

Pixel Format	Horizontal Freq. (KHz)	Vertical Freq. (Hz)
720 x 400	31.469	70.087
640 x 480	31.469	59.940
640 x 480	37.861	72.809
640 x 480	37.500	75.000
800 x 600	37.870	60.317
800 x 600	48.077	72.188
800 x 600	46.875	75.000
1024 x 768	48.360	60.000
1024 x 768	56.476	70.069
1024 x 768	60.020	75.030
1152 x 864	59.986	59.985
1152 x 864	67.500	75.000
1280 x 1024	63.981	60.020
1280 x 1024	79.974	75.024
1360 x 768	47.712	59.790
1440 x 900	55.935	59.887
1680 x 1050	65.290	59.954
1920 x 1080	67.500	60.000

The LED monitor has only non-interlaced modes without flicker.