INF7020

Hardware Guide

Regulatory model: PN-L702B
p/n: 009-1429-00

InFocus
Bright Ideas Made Brilliant

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Declaration of Conformity

Trademarks

Sharp is a registered trademark of Sharp Corporation. HDMI logo and “High Definition Multimedia Interface” are registered trademarks of HDMI Licensing LLC. InFocus, In Focus, and INFOCUS (stylized) are either registered trademarks or trademarks of InFocus Corporation in the United States and other countries. All other trademarks are the property of their respective owners. Any other trademarks, service marks, personal names or product names are assumed to be the property of their respective owners and are used only for reference. There is no implied sponsorship, affiliation, certification, approval or endorsement if we use one of these terms.

FCC Warning

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 the 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. Changes or modifications not expressly approved by InFocus Corporation may void authority to operate the equipment.

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.

CANADA

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

AGENCY APPROVALS

UL, cUL

Other specific Country Approvals may apply. Please see product certification label.

This document applies to regulatory model PN-L702B

InFocus reserves the right to alter product offerings and specifications at any time without notice.

Safety Precautions

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD product, please read the following precautions carefully before using the product.

1) Read instructions — All operating instructions must be read and understood before the product is operated.
2) Keep this manual in a safe place — These safety and operating instructions must be kept in a safe place for future reference.
3) Observe warnings — All warnings on the product and in the instructions must be observed closely.
4) Follow instructions — All operating instructions must be followed.
5) Cleaning — Unplug the power cord from the AC outlet before cleaning the product. Use a dry cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
6) Attachments — Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
7) Water and moisture — Do not use the product near water. Do not install the product in a place where water may splash onto it. Be careful of equipment which drains water such as an air-conditioner.
8) Ventilation — The vents and other openings in the cabinet are designed for ventilation.
9) Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a sofa, rug or other similar surface, since they can block ventilation openings.
10) Do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
11) Power cord protection — The power cords must be routed properly to prevent people from stepping on them or objects from resting on them.
12) The screen used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the screen breaks.
13) Overloading — Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
14) Entering of objects and liquids — Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
15) Servicing — Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
16) Repair — If any of the following conditions occurs, unplug the power cord from the AC outlet, and contact InFocus Technical Support to arrange for a repair.
    - When the power cord or plug is damaged.
    - When a liquid was spilled on the product or when objects have fallen into the product.
    - When the product has been exposed to rain or water.
    - When the product does not operate properly as described in the operating instructions.
    - Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
    - When the product has been dropped or damaged.
    - When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
17) Replacement parts — In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
18) Safety checks — Upon completion of service or repair work, request the service technician to perform safety checks to ensure

that the product is in proper operating condition.

19) Wall mounting — When mounting the product on a wall, be sure to install the product according to the method recommended by the manufacturer.

20) Heat sources — Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).

21) Batteries — Incorrect use of batteries may cause the batteries to burst or ignite. A leaky battery may corrode the equipment, dirty your hands or spoil your clothing. In order to avoid these problems, make sure to observe the precautions below:
    - Use the specified batteries only.
    - Install the batteries with due attention to the plus (+) and minus (-) sides of the batteries according to the instructions in the
    - compartment.
    - Do not mix old and new batteries.
    - Do not mix batteries of different types. Voltage specifications of batteries of the same shape may vary.
    - Replace an exhausted battery with a new one promptly.
    - If you will not use the remote control for a long time, remove the batteries.
    - If leaked battery fluid gets on your skin or clothing, rinse immediately and thoroughly. If it gets into your eye, bathe your eye well rather than rubbing and seek medical treatment immediately. Leaked battery fluid that gets into your eye or your clothing may cause a skin irritation or damage your eye.

22) Usage of the monitor must not be accompanied by fatal risks or dangers that, could lead directly to death, personal injury, severe physical damage or other loss, including nuclear reaction control in nuclear facility, medical life support system, and missile launch control in a weapon system.

23) Do not stay in contact with the parts of the product that become hot for long periods of time. Doing so may result in low-temperature burns.

24) To maintain compliance with EMC regulations, use shielded cables to connect to the following terminals: PC/AV HDMI input terminal, PC D-SUB input terminal, and RS232C input/output terminals.

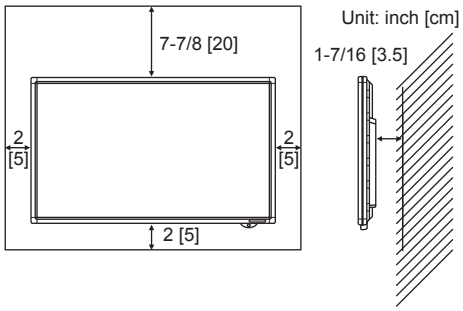
25) If a monitor is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:
    - Using fixing devices like wall mount brackets recommended by the manufacturer.
    - Only using furniture that can safely support the monitor.
    - Ensuring the monitor is not overhanging the edge of the supporting furniture.
    - Not placing the monitor on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the
    - monitor to a suitable support.
    - Not standing the monitors on cloth or other materials placed between the monitor and supporting furniture.
    - Educating children about the dangers of climbing on furniture to reach the monitor or its controls.

26) To ensure child safety:
    - Don’t allow children to climb on or play with the monitor.
    - Don’t place the monitor on furniture that can easily be used as steps, such as a chest of drawers.
    - Remember that children can become excited while watching a program, especially on a “larger than life” monitor.
    - Care should be taken to place or install the monitor where it cannot be pushed, pulled over, or knocked down.
    - Care should be taken to route all cords and cables connected to the monitor so that they cannot be pulled or grabbed by curious children.

Safety Instructions

- The TFT color LCD panel used in this monitor is made with the application of high precision technology. However, there may be minute points on the screen where pixels never light or are permanently lit. Also, if the screen is viewed from an acute angle there may be uneven colors or brightness. Please note that these are not malfunctions but common phenomena of LCDs and will not affect the performance of the monitor.
- Do not display a still picture for a long period, as this could cause a residual image.
- Never rub or tap the monitor with hard objects.
- Please understand that InFocus Corporation bears no responsibility for errors made during use by the customer or a third party, nor for any other malfunctions or damage to this product arising during use, except where indemnity liability is recognized under law.
- This monitor and its accessories may be upgraded without advance notice.
- Do not use the monitor where there is a lot of dust, where humidity is high, or where the monitor may come into contact with oil or steam, as this could lead to fire.
- Ensure that the monitor does not come into contact with water or other fluids. Ensure that no objects such as paper clips or pins enter the monitor as this could lead to fire or electric shock.
- Do not place the monitor on top of unstable objects or in unsafe places. Do not allow the monitor to receive strong shocks or to strongly vibrate. Causing the monitor to fall or topple over may damage it.
- Do not use the monitor near heating equipment or in places where there is likelihood of high temperature, as this may lead to generation of excessive heat and outbreak of fire.
- Do not use the monitor in places where it may be exposed to direct sunlight.
- The AC outlet shall be installed near the equipment and shall be easily accessible.
- Do not touch the screen while the PC is starting up, since it will be detected as a failure of the infrared transmitter/ receiver elements and will lead to a malfunction. When this occurs, restart the PC.
- Do not operate the screen with a hard or pointed object such as a fingernail, pen, or pencil.
- Two touch panels cannot be used when two displays are connected to the computer.
- Only the touch panel on the display that is set as the primary monitor will be operable.
- If another USB device is connected to the computer to which the touch panel is connected, do not operate the USB device
- during touch panel input. Input may not take place correctly.
- If two touch panels are used in close proximity to each other, use handwriting mode. The styluss will interfere with each other and will not operate correctly.
- If the infrared transmitter/receiver becomes dirty, malfunctioning may result. Use a soft cloth to gently wipe dirt off the infrared transmitter/receiver.
- If dust accumulates inside the infrared transmitter/receiver, the product cannot transmit or receive infrared rays properly, resulting in a malfunction. To clean the dust accumulated inside, contact an authorized InFocus servicing dealer or service center (extra charge required).
- Use only the power cord supplied with the monitor.
- Do not damage the power cord nor place heavy objects on it, stretch it or over bend it. Also, do not add extension cords. Damage to the cord may result in fire or electric shock.
- Do not use the power cord with a power tap. Adding an extension cord may lead to fire as a result of overheating.
- Do not remove or insert the power plug with wet hands. Doing so could result in electric shock.
- Unplug the power cord if it is not used for a long time.
- Do not attempt to repair the power cord if it is broken or malfunctioning. Refer the servicing to the service representative.
- This product is for use indoors.
- A mounting bracket compliant with VESA specifications is required.
- Since the monitor is heavy, consult your dealer before installing, removing or moving the monitor.
- Mounting the monitor on the wall requires special expertise and the work must be performed by an authorized InFocus dealer. You should never attempt to perform any of this work yourself. Our company will bear no responsibility for accidents or injuries caused by improper mounting or mishandling.

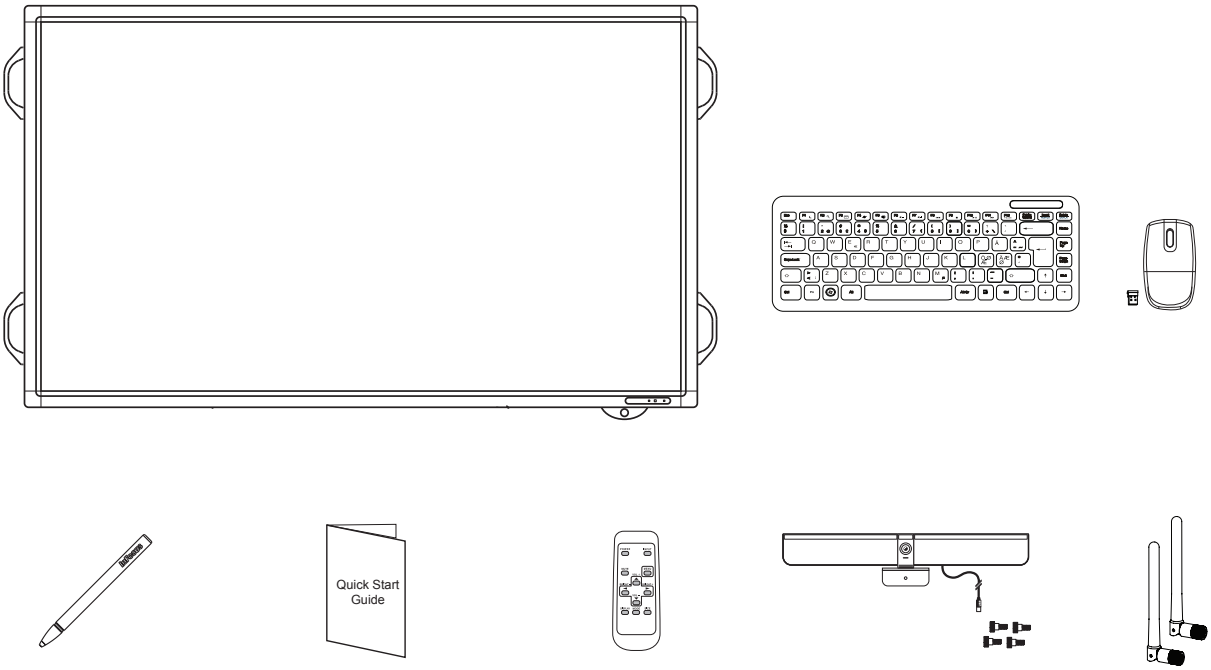
- This monitor cannot be used in vertical orientation.
- Use the monitor with the surface perpendicular to a level surface. If necessary, the monitor may be tilted up to 20 degrees upward.
- When moving the monitor, be sure to hold it with either both handles or the 4 corners on the bottom of the unit. Do not place your hand on the screen. This may cause product damage, failure, or injury.
- This monitor should be used at an ambient temperature between 41°F (5°C) and 95°F (35°C). Provide enough space around the monitor to prevent heat from accumulating inside.



- If it is difficult to provide sufficient space for any reason such as the installation of the monitor inside a housing, or if the ambient temperature may be outside of the range of 41°F (5°C) to 95°F (35°C), install a fan or take other measures to keep the ambient temperature within the required range.
- Temperature conditions may change when using the monitor together with the optional equipments recommended by InFocus. In such cases, please check the temperature condition specified by the optional equipment.
- Do not block any ventilation openings. If the temperature inside the monitor rises, this could lead to a malfunction.
- Do not place the monitor on a device which generates heat.
- Do not use the product in locations where the unit is exposed to direct sunlight or other strong light. Since this product operates with infrared rays, such light may cause a malfunction.

- **LITHIUM BATTERY (IN PC BOX) CAUTION: THERE IS A RISK OF EXPLOSION IF THE BATTERY IS REPLACED BY AN INCORRECT TYPE. THE BATTERY SHOULD ONLY BE REPLACED WITH AN IDENTICAL OR EQUIVALENT TYPE OF BATTERY AS RECOMMENDED BY THE MANUFACTURER. DISPOSE OF USED BATTERIES IN ACCORDANCE WITH LOCAL DISPOSAL LAWS.**

What's Included



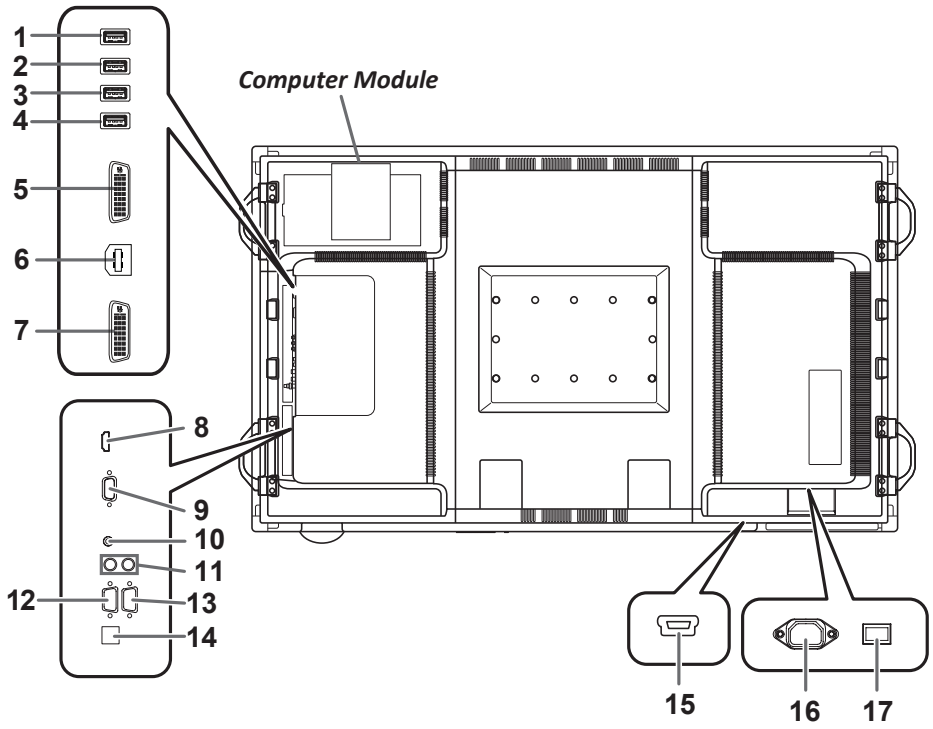
- Monitor
- Wireless keyboard and mouse*
- Stylus
- Quick Start guide
- Remote
- Camera
- Antenna (2)
- Sound bar *(not shown)*
- Sound bar remote *(not shown)*
- Sound bar bracket *(not shown)*

*Keyboard and mouse not included in all countries. For setup purposes, a keyboard and mouse are recommended. Any standard wired or wireless mouse or keyboard, connected through the computer module USB ports is supported.

IMPORTANT: A stand or cart is recommended for use with this monitor.

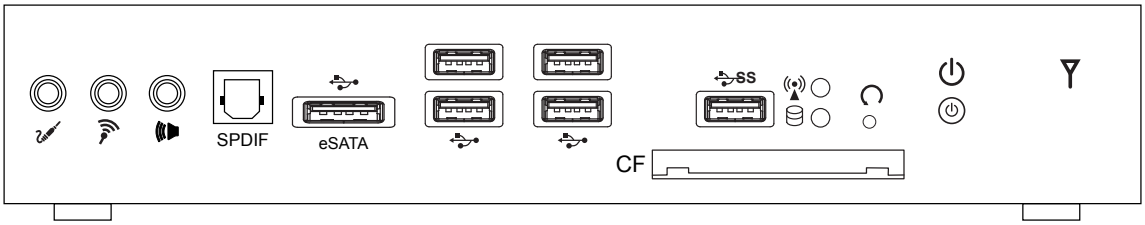
Connector Panel Identification

Monitor Panel



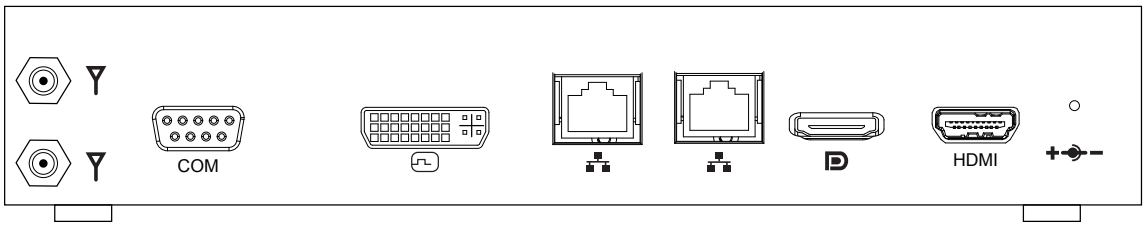
Connector	Type	Description
1	USB A input	Available. For use with USB thumb drives and other USB A inputs.
2	USB A input	Available. For use with USB thumb drives and other USB A inputs.
3	USB A input	Available. For use with USB thumb drives and other USB A inputs.
4	USB A input	Available. For use with USB thumb drives and other USB A inputs.
5	DVI-I Out	*Connected to the computer module.*
6	USB B input	*Connected to the computer module.*
7	DVI-I In	*Connected to the computer module.*
8	PC/AV HDMI input	Available. For use with PC and AV HDMI source inputs.
9	VGA input	Available. For use with VGA source inputs.
10	Audio input	*Connected to the computer module.*
11	Audio output	*Connected to the sound bar.*
12	RS-232C input	*Connected to the computer module.*
13	RS-232C output	*Not supported.*
14	Expansion slot	*Not supported.*
15	USB Mini B input	*Connected to the computer module.*
16	AC Input	*Connected to power strip.*
17	Monitor power switch	Toggle to turn the monitor power on and off.

Computer Module Front Panel



Connector	Type	Description
	Audio input	Available. For use with audio inputs.
	Microphone input	Available. For use with microphone inputs.
	Audio output	Available. For use with external speakers and other audio devices.
SPDIF	SPDIF Optical input	Available. For use with SPDIF Optical inputs.
eSATA	eSATA/USB input	Available. For use with eSATA/USB source inputs.
	USB 2.0 inputs (4)	Three of the USB 2.0 inputs are used for the computer module and camera. One USB 2.0 input is available for use with a USB 2.0 input, such as a USB thumb drive.
SS	SuperSpeed USB 3.0 input	Available. For use with a SuperSpeed USB 3.0 input.
	Wi-Fi LED	Displays solid green when Wi-Fi is on (Note: Does not signify that Wi-Fi is connected).
	Hard drive LED	Blinks red when the hard drive is accessed.
	Factory CMOS Reset button	Use the tip of a pen and press the recessed reset button (do not exceed 3 seconds).
CF	Multi Card CF slot	Available. For use with CF source inputs.
	Power button	Press to turn the computer module power on and off.
	n/a	*Not supported.*

Computer Module Rear Panel



Connector	Type	Description
	Wi-Fi External Antennas	Wi-Fi External Antenna connectors. Attach both antennas to these connectors.
COM	RS232C	*Connected to the computer module.*
	DVI-I input	*Connected to the computer module.*
	RJ45 input (2)	Available. Connect your network to one of these connectors.
	DisplayPort input	*Not supported.*
HDMI	HDMI input	*Connected to the computer module.*
	Power adapter	*Connected to the power strip.*

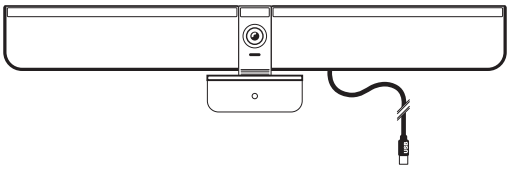
Setup

IMPORTANT: Before following these instructions, your monitor must be wall mounted or attached to a stand or cart which meets or exceeds the safety requirements for this monitor and follows all manufacturer safety precautions and instructions.

Removing Orange Tape

After mounting the INF7020 monitor, carefully remove all orange tape.

Attaching the HD Video Conferencing Camera



1) Center the camera along the top edge of the monitor, aligning the camera bracket with the screw hole on the back of the monitor.
2) Securely attach the camera bracket to the monitor using the provided screw.
3) Plug the USB cable into an available USB slot on the computer module. **NOTE:** It is not necessary to unwrap the cable. It has been pre-measured.
4) Remove the plastic film from the camera lens.
5) Manually tilt and pan the camera (+/40°) as desired.

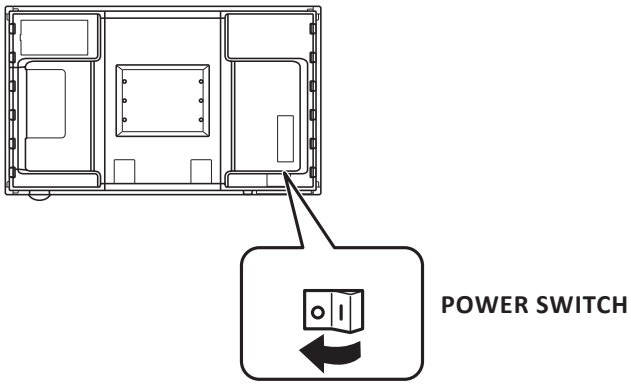
Attaching the Antennas

1) Attach the two antennas into the computer module on the back of the monitor by turning the antennas clockwise until secure.
2) Adjust the angle of the antennas as needed to maximize wireless signal strength.

Attaching the Sound Bar

Refer to the Sound Bar user documentation.

Cable Connection



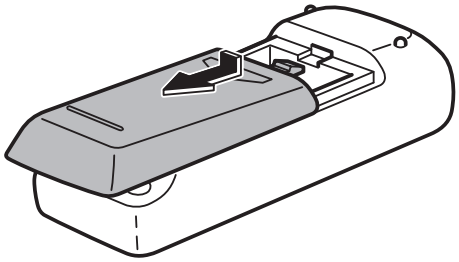
1) Cut the zip tie holding the power cord to the back of the monitor.
2) Connect the power cord to an AC outlet.
3) Press the monitor power switch to the ON position.

WARNINGS:

- The main power must be turned on and off with the monitor power switch. Do not connect or disconnect the power cord or turn the breaker on and off while the monitor power switch is on.
- When switching the monitor power switch or the POWER button off and and back on, always wait for at least 5 seconds. For complete electrical disconnection, pull out the main plug.

Remote Control

Installing the Batteries



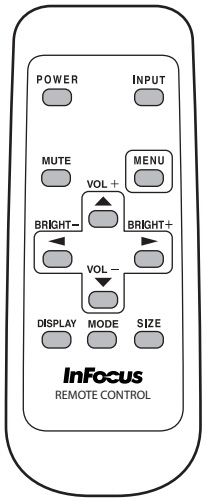
1) Turn the mouse over and remove the battery cover.
2) Insert two (2) AA batteries into the mouse by aligning the batteries' polarity and sliding them in place.
3) Replace the cover.

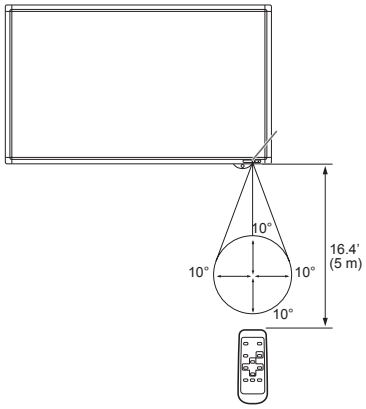
CAUTION:

- When disposing of batteries, be sure to do so in an environmentally proper manner.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- Ensure the batteries’ polarity (+/-) is aligned correctly.
- Do not mix new and old batteries together, or different types of batteries together.
- Replace the batteries as soon as they run out.
- Remove the batteries from the remote control when storing or when the remote will not be used for a prolonged period.

Operating the Remote

To operate, point the remote at the monitor (not at the computer module). The range of optimum operation is about 16.4’ (5m) at an angle of approximately 10 degrees from the sensor.





- Press the remote’s Power On and Off buttons to turn the projector on and off.
- Press the remote’s MENU button to open the projector’s menu system.
- Use the arrow buttons to navigate, and the Enter button to select functions and adjust values in the menus.
- See "INF7020 Menu System" on page 18 for more information.

The remote also has the following functions:

MUTE: Turns the sound on/off.

VOLUME +/-: Adjusts the volume up and down. Also acts as up and down arrows when the menu is active.

BRIGHT +/-: Adjusts the brightness up and down. Also acts as left and right arrows when the menu is active.

SIZE: Toggles between different screen sizes. Options include Wide, Zoom 1, Zoom 2, Normal, and Dot by Dot.

WIDE - stretches the PC or 4:3 video image to completely fill the screen.

ZOOM 1 - enlarges a 4:3 video input to fill the entire screen. This is done without adjusting the aspect ratio, so image edges (such as closed captioning/subtitles) may be cut off.

ZOOM 2 - can be used if Zoom 1 cuts off closed captioning subtitles.

NORMAL - displays the entire PC or video input image on the screen without changing the aspect ratio.

DOT BY DOT - displays the image in its native format, matching pixel for pixel.

DISPLAY: Displays monitor information. Options include Information1 and Information2.

MODE: Select a color mode. Options include STD (standard), Vivid, sRGB (for PC input only).

Wireless Mouse and Keyboard

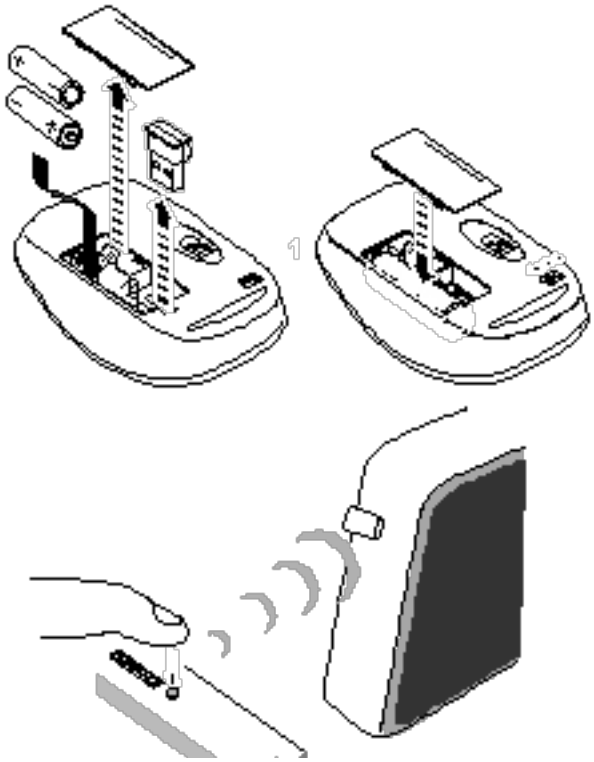
NOTE: The wireless mouse and keyboard is not included as a standard accessory for some countries. For initial setup and/or configuration, it may be easier to use a mouse and keyboard. Any standard wired or wireless mouse or keyboard, connected through the Mondopad USB ports, is supported by Mondopad.

Setting up the Wireless Mouse

1) Turn the mouse over and remove the battery cover.
2) Remove the USB dongle from its holder in the battery compartment of the mouse.
3) Plug it into a free USB-A port on the Bezel Connector Panel of the tablet. You may be asked to go online to find the necessary drivers. If you are warned that the drivers have not been tested for compatibility, tap Continue installation to finish.
4) Insert two (2) AAA batteries (not included) into the mouse by aligning the + and – end of the batteries as indicated and sliding them in place.
5) Replace the cover and switch the mouse ON using the slide switch next to the battery bay.

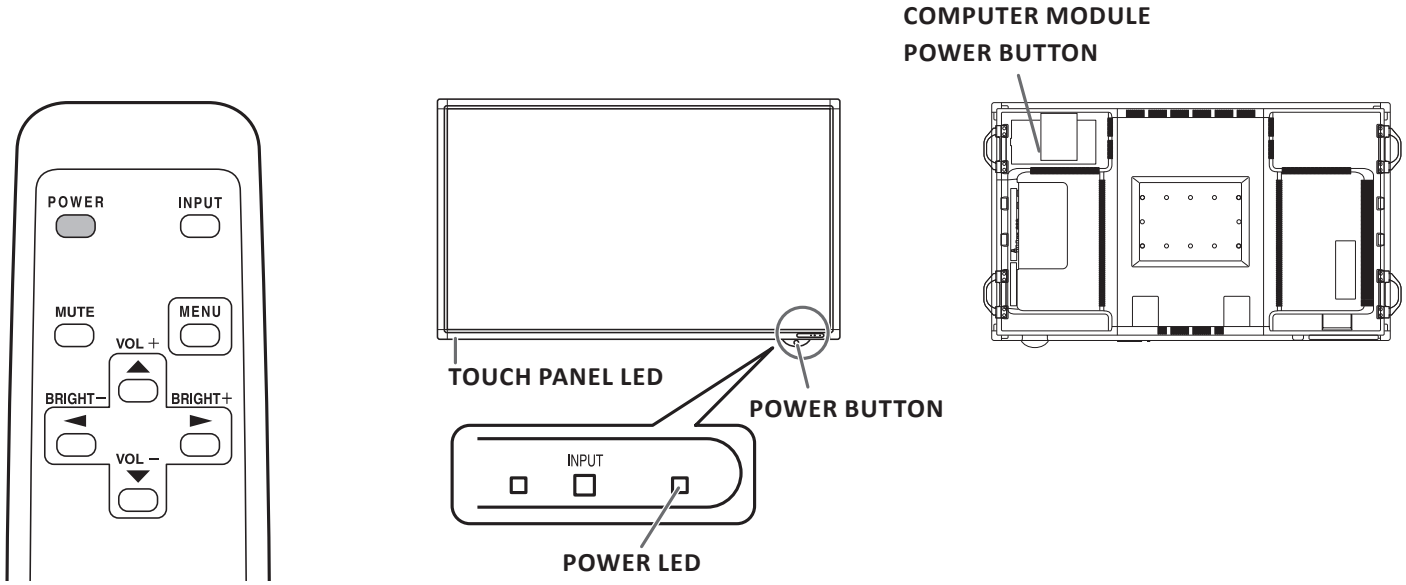
Setting up the Wireless Keyboard

1) Turn the keyboard over and open the battery cover.
2) Insert two (2) AAA batteries (not included) into the keyboard, by aligning the + and – ends of the batteries and sliding them in place.
3) Replace the cover.
4) Press the CONNECT button and hold it for one second to allow the keyboard to bind with the dongle.



Turning the INF7020 On/Off

The computer module, sound bar and monitor function independently. Each component must be controlled separately.



TO TURN THE INF7020 ON

1) Press the computer module POWER button located on the back of the monitor.
2) Press the POWER button located on the front of the monitor (or use the monitor's remote).
3) If installed, press the sound bar POWER button on. The computer module, monitor and sound bar turn on.

NOTE: If the power is not turning on, check the power switch on the back of the monitor and verify that all power cords and power supplies are properly connected and connected to AC.

TO PUT THE INF7020 MONITOR INTO STANDBY

1) Press the POWER button on the front of the INF7020 (or use the monitor's remote).
2) If you want to put the computer module into standby mode, press the POWER button located on the back of the monitor.

TO COMPLETELY POWER DOWN THE INF7020

1) Press the POWER button on the front of the INF7020 (or use the monitor's remote).
2) Press the computer module POWER button located on the back of the monitor.
3) Turn off the power switch on the back of the monitor and unplug the power cord from the power outlet.

NOTE: When toggling the power switch or the POWER button off and on, wait at least 5 seconds.

Operating the Mondopad Software

For information about the Mondopad Software, refer to the Mondopad Software Guide on the web at www.infocus.com/Mondodocs.

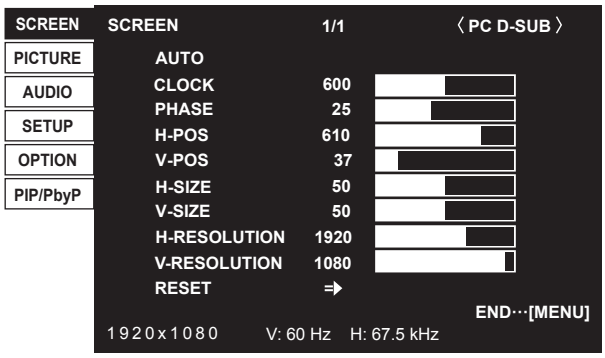
INF7020 Menu System

To operate the menu, press the MENU button. Use the arrow buttons to select a menu option, enter submenus and make adjustments. Press the MENU button twice to close the menu.

NOTES:

- Menus differ depending on the input mode.
- After 15 seconds of inactivity, the menu screen will close automatically. The exceptions are the Date/Time Setting and Schedule menus, which close after approximately 4 minutes of inactivity.
- Items that cannot be selected are grayed-out.
- You can move the menu screen position by pressing the Display button.

Screen Menu



AUTO: Automatically adjusts the clock, phase, horizontal and vertical positioning of the PC source signals. Press the right arrow button to activate this function.

CLOCK: Adjusts the frequency of the sampling clock of PC source signals. Adjust the clock when flickering is noticeable in the form of vertical stripes. When adjusting the clock settings, adjust until no vertical stripes are noticeable.

PHASE: Adjusts the sampling clock phase of PC source signals. Useful when small characters appear with low contrast and /or flickering is noticeable at the corners of the image. When adjusting the phase settings, adjust the phase until no horizontal stripes are noticeable. **NOTE:** Adjust Clock settings before adjusting the Phase settings.

H-POS: Adjusts the horizontal position of the image.

V-POS: Adjusts the vertical position of the image.

H-SIZE: Adjusts the horizontal size of the image.

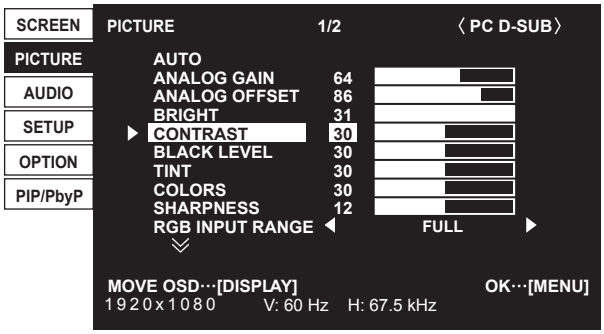
V-SIZE: Adjusts the vertical size of the image.

H-RESOLUTION: Sets the horizontal resolution when the resolution of the PC source signals is not recognized properly.

V-RESOLUTION: Sets the vertical resolution when the resolution of the PC source signals is not recognized properly.

RESET: Resets the Screen menu items back to factory default settings. Select ON and press the menu button to reset.

Picture Menu



AUTO: Automatically adjusts the analog gain and analog offset settings. Press the right arrow button to activate this function.

ANALOG GAIN: Adjusts the bright portions of the PC source signal.

ANALOG OFFSET: Adjusts the dark portions of the PC source signal.

BRIGHT: Adjusts the backlight brightness. (In PIP mode, the main PIP source is affected.)

CONTRAST: Adjusts the difference between the bright and dark portions of the image.

BLACK LEVEL: Adjusts the entire brightness of the video signals.

TINT: Adjusts the green and magenta hues of the image. Selecting + changes the color towards green. Selecting changes the color towards magenta.

COLORS: Adjusts the color intensity.

SHARPNESS: Adjusts the sharpness of the image.

RGB INPUT RANGE: Sets the RGB input signal range. When this function is set to Auto and HDMI is being used, the RGB input signal is detected automatically. AUTO is the recommended setting. If AUTO is not working properly for your source (images appear with washed out blacks and compressed gradients), manually set the the range.

ADVANCED:

FLESH TONE - Adjusts the hue control. **NOTE:** When this function is set to Low or High, the C.M.S.-Hue, -Saturation and -Value cannot be adjusted.

3D-NR - Reduces the noise of playback images on video. Setting a higher level reduces more noise, but may cause blurring on the image.

MPEG-NR - Reduces noise caused by digital compression.

3D-Y/C - Specify whether to perform 3-dimensional Y/C separation. If dot interference or cross-color is occuring in fast-motion scenes, selecting OFF may improve the image quality.

C.M.S.-HUE - Adjusts the tone of the red (R), yellow (Y), green (G), cyan (C), blue (B) and magenta (M) colors.

C.M.S.-SATURATION - Adjusts the vividness of the red (R), yellow (Y), green (G), cyan (C), blue (B) and magenta (M) colors.

C.M.S.-VALUE - Adjusts the brightness of the red (R), yellow (Y), green (G), cyan (C), blue (B) and magenta (M) colors.

COLOR MODE: Changes the color mode on the screen. (In PIP mode, the main PIP image is affected.) When sRGB is selected, WHITE BALANCE, PRESET, USER, COPY TO USER, and GAMMA cannot be adjusted. When VIVID is selected, GAMMA cannot be adjusted.

WHITE BALANCE: Changes the white balance of the image. (In PIP mode, the main PIP image is affected.) When THRU is selected, BLACK LEVEL, CONTRAST, TINT, COLORS, RGB INPUT RANGE, GAMMA, and COPY TO USER cannot be set.

THRU - Displays the input signal level as is (for PC HDMI only).

PRESET - Selects the color temperature using PRESET.

USER - Used for adjusting R-/G-/B-CONTRAST and R-/G-/B-OFFSET respectively.

PRESET: Selects the color temperature when the WHITE BALANCE is set to PRESET.

The setting values are shown for reference. The color temperature of the screen varies over time. This function is not intended to keep the color temperature constant.

USER: Adjusts each item when the WHITE BALANCE is set to USER.

R-CONTRAST - Adjusts bright-toned red component.
G-CONTRAST - Adjusts bright-toned green component.
B-CONTRAST - Adjusts bright-toned blue component.
R-OFFSET - Adjusts dark-toned red component.
G-OFFSET - Adjusts dark-toned green component.
B-OFFSET - Adjusts dark-toned blue component.

COPY TO USER: Copies the value of white set for PRESET to the USER setting. Select ON and then press MENU button. (In the case other than white, color tone may differ from the PRESET.)

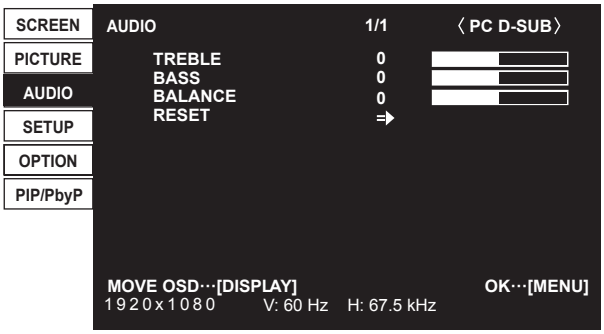
GAMMA: Selects the gamma. USER sets the gamma to the sent value. (In PIP mode, the main PIP image is affected.)

DISPLAY COLOR PATTERN: Displays a color pattern. Can be displayed while the menu screen is displayed, so you can refer to the pattern while adjusting the image.

OFF - No pattern display.
WHITE - White single color pattern display.
RED - Red single color pattern display.
GREEN - Green single color pattern display.
BLUE - Blue single color pattern display.
USER - Allows the user to customize the red/green/blue mixed color pattern display.

RESET: Resets the Picture menu items back to factory default settings. Select ON and press the menu button to reset.

Audio Menu



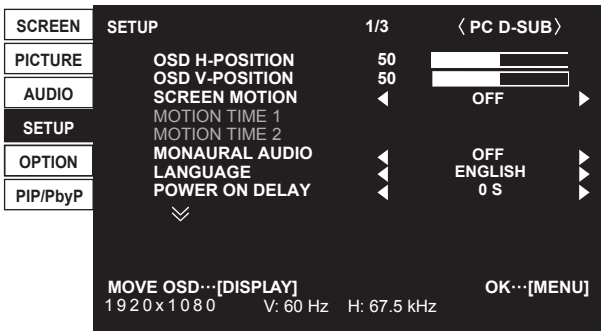
TREBLE: Adjusts the volume of the treble-level sound.

BASS: Adjusts the volume of bass-level sound.

BALANCE: Adjusts the balance of the audio sound between right and left.

RESET: Resets the Audio menu items back to factory default settings. Select ON and press the menu button to reset.

Setup Menu



OSD H-POSITION: Adjusts the horizontal display position of the menu screen.

OSD V-POSITION: Adjusts the vertical display position of the menu screen.

SCREEN MOTION: Reduces residual images by moving the screen.

PATTERN1 - The whole screen moves vertically and horizontally.

PATTERN2 - A black screen spreads from the bottom of the screen and then shrinks to the bottom of the screen.

PATTERN3 - A black bar moves from the left end to the right end of the screen.

PATTERN4 - Black screens appear from both the top and bottom of the screen, and the displayed image.

MOTION TIME 1: Used to specify when Screen Motion starts.

MOTION TIME 2: Used to specify the length of time Screen Motion operates.

MONAURAL AUDIO: Outputs all audio signals as monaural audio.

LANGUAGE: Sets the display language for the menu screen.

POWER ON DELAY: Delays the image from displaying on the monitor for 1-60 seconds (1-second increments). When this function is active, the Power LED flashes orange. This function is disabled when 0 is seclected.

STANDBY MODE: When STANDARD is selected, the startup time from standby mode is reduced, however power consumption during Standby will increase. When LOW POWER is selected, power consumption is reduced during standby mode, however the startup time will increase. Certain RS232C commands will not be available either. STANDBY MODE cannot be set to LOW POWER when SCHEDULE is ON or when the LED function in the FUNCTION menu is OFF.

OFF IF NO OPERATION: Determines whether or not the monitor goes into standby mode after 4 hours of inactivity.

HOT PLUG CONTROL: Allows hot plug control of an HDMI source.

ID NO. SET: *Not applicable.*

AUTO ASSIGN ID NO.: *Not applicable.*

BAUD RATE: Selects the communication speed used for RS232C communication.

AUTO ASSIGN FIXED IP ADDR.: Set DHCP CLIENT to OFF for the monitor connected to the RS232C output terminal. A fixed IP address is automatically allocated. If the IP address is a duplicate with a network device other than the monitor, individually change the IP address.

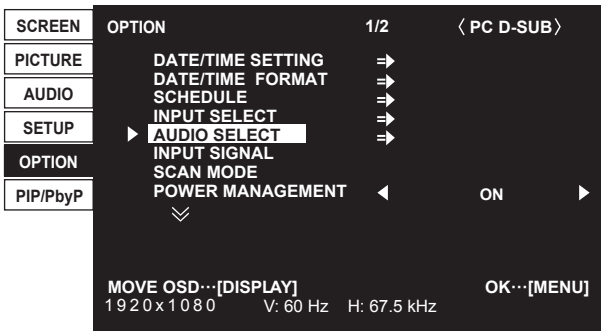
SPEAKER SELECT: Selects the speaker (internal or external) to be used.

HDMI AUTO VIEW: When ON is selected, the screen size is adjusted automatically according to the screen size control signal included in the video signal input from the HDMI input.

COPY SETTING VALUE: *Not applicable.*

LOGO SCREEN: Displays and turns off the logo screen.

Option Menu



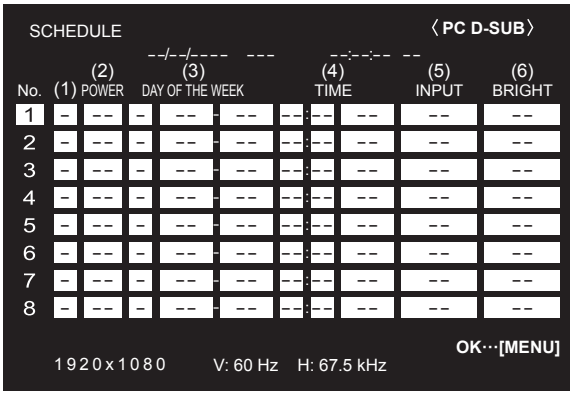
DATE/TIME SETTING: Set the date and time. Press the left and right arrow buttons to select the date and time parameters and then press the up and down arrow buttons to change the values. Set the date in the following order: month, day and year. Set the time on a 12-hour basis (factory default).

DATE/TIME FORMAT: Sets the date and time display format.

Date options include: MM/DD/YYY, DD/MM/YYYY, and YYYY/MM/DD.

Time options include: 12 and 24-hour time.

SCHEDULE: Turns the power on and off, and changes the screen brightness at specified times.



(1) - "●" means the schedule if active. "o" means the schedule is not active.

(2) POWER - ON turns the monitor on at the specified time. OFF turns the monitor off at the specified time.

(3) DAY OF THE WEEK - Specifies the day of the week to execute the SCHEDULE. Options include: 0: ONLY ONCE; 1: EVERY WEEK, and 2: EVERY DAY.

(4) TIME - Specifies the time to execute the SCHEDULE.

(5) INPUT - Specifies the default source input at power up. When INPUT is not specified, the monitor defaults to the last used source input.

(6) BRIGHT - Sets the brightness when changing the screen brightness at a specified time.

CAUTION:

- Do not switch off the main power after setting the SCHEDULE.
- Specify the correct date and time. SCHEDULE does not function unless the date and time are specified.
- Check regularly that the set date and time are correct.
- When STANDBY MODE is LOW POWER, SCHEDULE cannot be set.
- When a temperature abnormality occurs and the backlight brightness is reduced, the brightness is not changed even if a schedule set to BRIGHT is executed.

NOTES:

• Up to 8 SCHEDULE items can be registered.

• Setting the SCHEDULE flashes the power LED alternately in red and orange in standby mode.

• A SCHEDULE that has a large number has precedence over that of a small number when schedules overlap.

• If D-SUB of INPUT SELECT on the OPTION menu is set to AV VIDEO, the input mode will switch to AV VIDEO (D-SUB) regardless if set to D-SUB or VIDEO.

INPUT SELECT: Selects the input mode for the source types.

AUDIO SELECT: Selects the terminal used to input audio signals in each input mode.

INPUT SIGNAL: Select from the following options when using a computer input.

480 LINES - Auto, 640 x 480 or 848 x 480.

768 LINES - Auto, 1024 x 768, 1280 x 768 or 1360 x 768.

1050 LINES - 1400 x 1050 or 1680 x 1050.

ZOOM2 SPECIAL SETTING - Used when black bands appear around the screen when using a laptop computer source with one of the following resolutions: 1280 x 1024, 1280x960, 1400x1050, 1280x720 and 1024x768. Set Zoom 2 Special Setting to ON and select ZOOM2 in SIZE SETTING. Use automatic screen adjustment for 1400x1050 resolutions.

SCAN MODE: Sets the scan mode for the AV source signal.

MODE1 - Overscan display. Note: If the screen size is DOT BY DOT and MODE1 is selected, underscan is used for 1080i/p signals.

MODE2 - Underscan display.

MODE3 - Underscan display when the input signal is 1080i/p. Otherwise overscan the display.

POWER MANAGEMENT: Determines whether or not to switch modes from no signal ot the input signal standby mode.

COLOR SYSTEM: Select the color system of the AV equipment. Options include: Auto, PAL, PAL-60, SECAM, NTSC3.58 and NTSC4.43. When AUTO is selected, the color system is automatically set according to the input signal.

AUDIO OUTPUT: Sets the volume of sound output from the audio output terminals. When Variable 2 is chosen, sound will not be output from the built-in speaker or the external speaker terminal.

VARIABLE1 - sound can be adjusted using the remote Volume buttons.

VARIABLE2 - sound can be adjusted using the remote Volume buttons.

FIXED - locks the sound level, so that it cannot be adjusted using the remote Volume buttons.

AUDIO LEVEL: Selects the maximum audio input level of the audio input terminal.

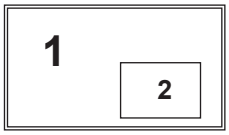
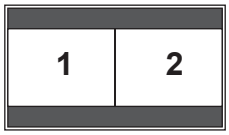
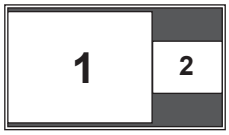
SELF ADJUST: When ON, this function automatically syncronizes the PC source signal. ADJUSTING appears on the screen during the adjustment. Adjustment is not possible in all cases, such as images with black edges. In this case, select OFF and manually adust the image.

AUTO INPUT CHANGE: Specify whether to change inputs automatically. When ON is selected and no signal is present in the selected input mode, AUTO INPUT CHANGE automatically changes the selected mode to another mode where a video signal is present. When video signals exist in multiple input modes, the switching priority is PC D-SUB, PC HDMI, and AV HDMI.

TOUCH PANEL MODE: When the resolution is 1920 x 1080, setting this to ON improves touch panel tracking. When two screens are displayed, or when V-POS or V-SIZE is adjusted on the SCREEN menu, the screen may become distorted. In this case, set to OFF.

PIP/PbyP Menu

PIP MODES: Sets the display method of the PC and AV input signals.

PIP		A secondary image is displayed inside the main image.
PBYP		The main image and the secondary image are displayed side by side.
PBYP2		The main image uses 1280 pixels across the screen and the secondary image is displayed next to the main image.

PIP SIZE: Sets the size of the secondary PIP image.

PIP H-POS: Adjusts the horizontal position of the secondary PIP image.

PIP V-POS: Adjusts the vertical position of the secondary PIP image.

PIP BLEND: In PIP mode, use this menu item to display the secondary PIP image transparently.

SOUND CHANGE: Sets the sound which is output in PIP, PbyP, or PbyP2 mode. If the main PIP image is displayed as a full screen using the AUTO OFF function, the sound for the main PIP image is output even when the sound for the secondary PIP image is specified.

MAIN POS: Sets the position of the main PIP image in PbyP or PbyP2 mode.

PBYP2 POS: Sets the position of the secondary PIP image in PbyP2 mode.

AUTO OFF: Sets the display method when no signals for the secondary PIP image are input in PIP, PbyP or PbyP2 mode.

MANUAL - Displays a main PIP image and a black secondary PIP image.

AUTO - Display the main PIP image as a full screen.

NOTES:

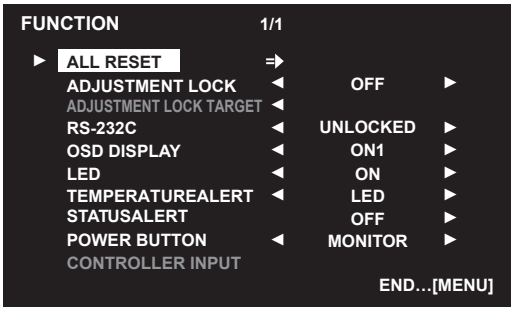
- The currently selected input signal is displayed in the main PIP area.
- You cannot display two of the same type signals simultaneously such as two types of PC input signals or two types of AV input signals.
- The screen size for dual-screen display is the same as the screen size for single-screen display. The Dot by Dot screen is displayed in NORMAL size except when it is set as the PIP main screen.
- When a PIP mode is active, SCREEN MOTION and AUTO INPUT CHANGE are disabled and INPUT SELECT options cannot be seleted.
- When an interlaced signal (1080i, 480i, video, S-Video) is input to the sub screen, horizontal lines may flicker. If this happens, display the image on the main screen.

Function Menu

You can return the settings to their factory-preset values and restrict operations from the hidden Function menu.

To access the Function menu:

1) Hold the SIZE button down until “F” appears in the upper left corner of the screen.
2) While “F” appears, press up, right, down, and left arrow buttons in that order.
3) The Function menu appears.



ALL RESET: Resets the settings to the factory default settings. Press the right arrow button, select ALL RESET, and then press the MENU button. After initialization, turn the monitor power switch off and then back on.

ALL RESET1 - Resets all the settings to the factory default settings.

ALL RESET2 - Returns all settings to the factory default settings except for the following items: LAN SETUP, RS232C/LAN SELECT, BAUD RATE, NETWORK, MAIL, SERVICE & SUPPORT, and SNMP.

ADJUSTMENT LOCK: Defines which buttons on the remote control or monitor can be used.

OFF - Enables operation.

ON 1 - Disables all operations other than turning power on/off and FUNCTION.

ON 2 - Only the FUNCTION operation is enabled. Disables all operations other than FUNCTION (not even power on/off).

ADJUSTMENT LOCK TARGET: Defines whether the remote control or monitor can be used.

REMOTE CONTROL - Prohibits remote control operation.

MONITOR BUTTONS - Prohibits monitor button operation.

BOTH - Prohibits remote control and monitor button operation.

RS232C: Specifies whether to allow RS232C control.

OSD DISPLAY: Defines which menus, modes, and messages are displayed. Note: The FUNCTION screen cannot be hidden.

ON 1 - Shows all menus, modes, and messages.

ON 2 - Hides messages automatically displayed by the display. Shows messages during operation.

OFF - Hides all menus, modes, and messages.

LED: Specifies whether to light the power LED. OFF cannot be selected when STANDBY MODE is LOW POWER.

TEMPERATURE ALERT: Selects the notification method for an abnormal temperature.

OFF - Do not notify about an abnormal temperature.

OSD & LED - When an abnormal temperature is detected, the power LED flashes red and green alternately and the screen displays a message: TEMPERATURE.

LED - When an abnormal temperature is detected, the power LED flashes red and green alternately.

STATUS ALERT: Selects the notification method for a hardware error.

OFF - Do not notify about the error.

OSD & LED - When a hardware error is detected, the power LED flashes red and the screen displays a message: STATUS [xxxx].

LED - When a hardware error is detected, the power LED flashes red.

POWER BUTTON: Normally, leave this setting as MONITOR. If instructions appear, change the setting accordingly.

CONTROLLER INPUT: Normally, you do not need to change this setting. If instructions appear, change the setting accordingly.

NOTES:

- When both abnormal temperature and hardware error are detected, the hardware error notification overrides the abnormal temperature notification.
- If TEMPERATURE ALERT or STATUS ALERT is set to OSD&LED, messages will appear even if the OSD DISPLAY is set to ON 2 or OFF.

Maintenance

1) Unplug the INF7020 from power.
2) Moisten a soft, dry cloth with water.
3) Lightly wipe the cleaning cloth over the module.
4) Wipe dry with a soft, dry cloth.

WARNING: Do not allow liquids to enter the INF7020. Spilled liquid may damage your INF7020.
WARNING: Do not attempt to service this product yourself as opening and removing covers may expose you to dangerous voltage and other hazards. Refer all servicing to qualified service personnel.

Troubleshooting

Symptom	Troubleshooting Tips
There is no picture or sound.	• Is the power cord disconnected? • Is the monitor power switch off? • Is the monitor in standby mode (the power LED illuminating in orange)? • Make sure correct input mode is selected. • If any external equipment is connected, make sure the equipment is operating (playing back).
Remote control does not work	• Are the batteries inserted with polarity (+,-) aligned? • Are the batteries exhausted? • Point the remote toward the monitor's remote control sensor. • Is the menu display hidden or is operation disabled?
Sound from left and right speakers is reversed. Sound is heard from only one side.	• Are audio cables connected properly? • Make sure audio cables for external speakers are connected properly: left and right cables may be reversed or one of the two cables may not be connected. • Check the setting of BALANCE for AUDIO menu.
There is a picture but no sound	• Is the sound muted? • Make sure the volume is not set to minimum. • Are audio cables connected properly? • Is the setting of AUDIO SELECT on the OPTION menu correct? • Is the setting of SPEAKER SELECT on the SETUP menu correct?
Unstable video	• The signal may be incompatible. • Try the automatic screen adjustment when the PC D-sub input terminal or PC RGB input terminals are used. • If the top and bottom of the image are not horizontally aligned, set TOUCH PANEL MODE on the OPTION menu to OFF.

The video from the PC/AV HDMI input terminal does not appear properly	• Is the setting for HDMI of INPUT SELECT on the OPTION menu correct? • Is the HDMI cable HDMI standard compliant? The monitor will not work with cables that are not standard compliant. • Is the input signal compatible with this monitor?
The video from PC D-SUB does not appear correctly	• Is the INPUT SELECT setting on the OPTION menu correct? • Is the input signal compatible with this monitor?
Control buttons do not work. There is no picture.	• Load noises from outside may be interfering with normal operation. Turn off the power and turn it on after waiting at least 5 seconds, and then check the operation.
The input mode changes automatically.	• When the AUTO INPUT CHANGE is ON and no signal is present in a selected input mode, the AUTO INPUT CHANGE automatically changes the selected mode to a mode where a video signal is present. • The input mode may change in the following cases: When a computer is in standby mode. When video play is stopped with a playback device.
The response of the touch screen is slow. Some parts of the screen do not respond.	• Is the screen exposed to direct sunlight or other strong light? The touch panel uses infrared rays and thus may not operate correctly. • Is there an obstacle between the infrared transmitter/receiver and the stylus or your finger? An obstacle will prevent correct operation. If your fingers or a sleeve are too close to the screen, correct operation will not be possible. • Is the infrared transmitter/receiver dirty? Gently wipe off any dirt with a soft cloth. • If the touch panel is touched with a small tip less than about 3/16 inch (4 mm) x 3/16 inch (4 mm), the touch may not be detected by infrared and correct operation will not take place. • When starting your computer or connecting the USB cable, do not touch the touch panel. If you touch the touch panel, this may be detected as an element failure in the infrared transmitter/receiver and incorrect operation will result.
Power LED flashes RED “STATUS [xxxx]” appears in the corner of the screen.	• There is a problem with the monitor. Turn off the monitor and contact InFocus Technical Support.
"AUTO DIMMING" is displayed	• When the internal temperature of the monitor rises excessively, the brightness of the backlight automatically decreases in order to prevent a further temperature rise. If you attempt to use to adjust the brightness while the monitor is in this state, “AUTO DIMMING” is displayed and you cannot change the brightness. • Remove the cause of the excessive temperature rise.
The monitor makes a cracking sound.	• You may occasionally hear a cracking sound from the monitor. This happens when the cabinet slightly expands and contracts according to change in temperature. This does not affect the monitor’s performance.

The Power LED is flashing red and green alternately. Temperature is displayed in the corner of the screen.	• When the internal temperature of the monitor rises excessively, the brightness of the backlight decreases automatically in order to prevent high-temperature related problems. When this occurs, “TEMPERATURE” is displayed on the screen and the Power LED flashes red and green alternately. (When TEMPERATURE ALERT is set to OSD & LED. This varies depending on the setting.) • If the internal temperature rises further, the monitor automatically enters standby mode. (The Power LED continues flashing red and green alternately.) • Remove the cause of the excessive temperature rise. • If the monitor enters standby mode due to a rise in temperature, to return to normal display, turn the power switch off and then back on again. The monitor, however, will enter standby mode again if the cause of the temperature rise is not eliminated. Check whether the monitor is placed at a location where a quick rise in temperature is likely. Internal temperature rises quickly if the vents on the monitor are blocked. Internal temperature rises quickly if dust accumulates inside the monitor or around the vents. Remove dust if possible.
The internal clock is not working.	• The clock is maintained by the internal battery. The battery may be exhausted. Contact InFocus Technical Support for assistance. Note: The estimated service life of the internal battery is 5 years.

LED Status

Monitor Touch Panel LED Status	Monitor Power LED Status	Computer Module Power button	Description
	Solid Green	Solid Blue	The monitor and computer module are powered on.
	Solid Orange	Flashing Red	The monitor and computer module are in standby mode. Press the POWER button on the remote or monitor to turn it on.
	Solie Green	Solid Red	The monitor is on, but the computer module is not. Press the computer module Power button.
	Flashing Green		The monitor is powered on and is waiting for an active source.
	Flashing Red		There is a problem with the monitor. Contact Technical Support.
	Flashing Orange		The POWER ON DELAY function is active. The image will appear after a pre-determined number of seconds.
	Flashing Red and Green		The monitor is overheating. See the Troubleshooting Tip above.
	Flashing Red and Orange		The monitor is in standby mode and is operating per the SCHEDULE parameters.
Solid Green			Normal Operation
Flashing Orange			Initializing
Flashing Orange and Green			Initializing
Off	Off	Off	The monitor and computer module are powered off. No power is supplied.

For additional troubleshooting support, please contact:
InFocus Corporation Technical Support
6am-5pm PST
877-388-8385
www.infocus.com/support

Appendix

Specifications

MONITOR

LCD component	70" Class TFT LCD, (69.5"/176.6cm diagonal)
Maximum resolution	1920 x 1080 pixels
Maximum colors	Approximately 1.06 billion colors
Pixel pitch	0.802mm Horizontal x 0.802mm Vertical
Viewing angle	160˚ all directions (contrast ratio ≥10)
Active screen area	60.56" x 34.06" (1538.9mm x 865.6mm)
Computer input signal	Digital (DVI 1.0 standard-compliant), Analog RGB (0.7 Vp-p) [75 Ω]
Sync signal	Horizontal/vertical separate (TTL: positive/negative), Sync-on-green, Composite sync (TTL: positive/negative)
Video color system	NTSC (3.58MHz)/NTSC (4.43MHz)/PAL/PAL-60/SECAM
Plug and play	VESA DDC2B
Power management	VESA DPMS, DVI DMPM
Inputs	PC/AV HDMI (1), PC D-SUB (1), Audio In (3.5mm x 1), RS232C In (1)
Outputs	Audio Out (RCA x 1); RS232C Out (1)
Speaker output (without sound bar attached)	7W x 2 (14W total)
Power requirement	AC 100V 240V, 2.8A, 50/60Hz
Operating temperature	41˚F to 95˚F (5˚C to 35˚C)
Operating humidity	20% to 80% (no condensation)
Power consumption	235W (maximum)/ 1W (input signal waiting mode)/ 1W (standby mode)
Dimensions (excluding protrusions)	Approximately 64.88” W x 4.56” D x 38.69" H (1,648mm x 116mm x 982mm)
Weight	Approximately 154.3 lbs (70kg)

COMPUTER MODULE

Processor	Intel® Core i5-2520, QM67 chipset
Memory	2x 2GB (4GB total) DDR3 PC1066/1333 SODIMM
Hard Drive	SSD Intel series 520 – 120GB
LAN	802.3 10/100/1000 Base-T with Wake on LAN
Wi-Fi	Dual band 802.11 a/b/g/n PCIe half mini card, 2.4 GHz with Intel AMT support
Construction	Metal Housing
System Board	Intel® Huron River Platform, 2nd Generation Intel® Core™ i3/i5/i7 Processors, Intel QM67
BIOS	AMI UEFI BIOS/iAMT 7.0 supported
WLAN	IEEE 802.11b/n/g
Power Supply	Input: 100-240 VAC 1.5A, 50/60Hz Output: +19VDC, 3.95A, 75W
Cooling	System Fan with smart fan function
OS Support	Windows 7

Temperature/Humidity	Operating: 32˚ to 104˚F (0˚C to 40˚C), 0%-90%, non-condensing Storage: -4˚ to 176˚F (-20˚C to 80˚C), 0%-90%, non-condensing
Dimensions (WxHxD)	7.87" x 1.38" x 6.0" (200 x 35 x 153.3 mm)
Weight	2.64 lbs (1.2kg)
Mounting	VESA Mount 100mm x 100mm

CAMERA

Resolution	1280 x 720 pixels
Frame rate	720p/30 fps HD MJPEG
Lens and Field of View	F/2.0, 3P Lens, FOV(D) 56.8° in HD mode, FOV(D) 50° in VGA mode 1.0x zoom, FOV(D) 30° in VGA mode 1.6x zoom
Audio support	4 built-in Unidirectional microphones
Interface	USB 2.0 High Speed
Focus	Auto focus
Tilt	Up/down ±40˚, left/right 40˚
Power	Via USB

KEYBOARD

Dimension	321 x 142 x 25.4mm
Weight	~350g excluding batteries
Batteries	Two (2) AAA alkaline (not included)
Operating Voltage	2.0V~3.2VDC
Power Consumption	Operation Mode: 10mA; Sleep Mode: <60uA
Battery Life	800 working hours continuous operation
Operating Distance	10M without signal disturbance and no direction limit

MOUSE

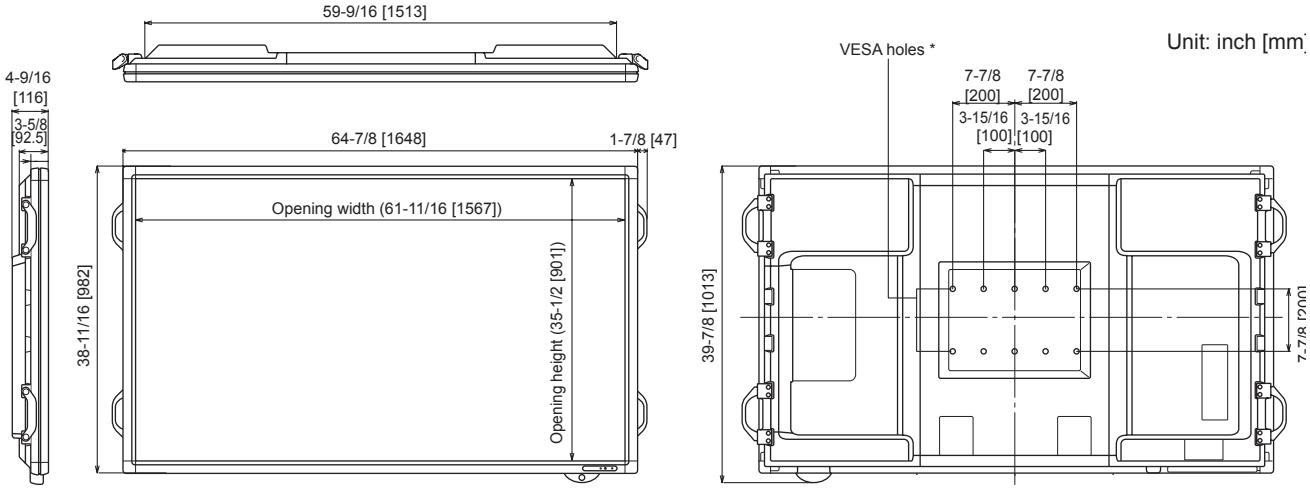
Dimension	59.2 x 103.6 x 34.8mm
Weight	~68g excluding batteries
Batteries	Two (2) AAA alkaline (not included)
Operating Voltage	2.0V~3.2VDC
Power Consumption	<8.5mA @3V
Battery Life	150 working hours continuous operation
Operating Distance	10M without signal disturbance and no direction limit

SOUND BAR

See the Sound Bar user documentation for details.

Dimensional Drawings

NOTE: All the values shown are approximate values.



When mounting the monitor, be sure to us e a wall-mount bracket that complies with the VESA-compatible mounting method. The screw hole depth of the monitor is 3/8" (10mm). M6 screws are recommended. Loose mounting may cause the product to fall, resulting in serious personal injuries as well as damage to the product. The screw and hole should come toghether with over 5/16" (8mm) length of thread. Use a bracket which has been approved for UL1678 standard, and which can endure at least 4 times or more the weight of the monitor.

Power Management

This monitor conforms to VESA DPMS and DVI DMPM. Both your video card and computer must support the same standard in order for the monitor's power management function to work.

DPMS: DISPLAY POWER MANAGEMENT SIGNALING

DPMS	Screen	Power Consumption	Hsync	Vsync
On State	Display	235 W	Yes	Yes
Standby	No Display	1.0W*	No	Yes
Suspend			Yes	No
Off State			No	No

DMPM: DIGITAL MONITOR POWER MANAGEMENT

DMPM	Screen	Power Consumption
Monitor On	Display	235W
Active Off	No display	1.0W*

*When Auto Input Change is set to Off.

DDC (Plug and Play)

The monitor supports the VESA DDC (Display Data Channel) standard. DDC is a signal standard for plug and play between monitors and computers. Information about resolution and other parameters is exchanged between the two. This function can be used if the computer supports DDC and it has been configured to detect plug-and-play monitors. There are several types of DDC, depending on the communication method used. This monitor supports DDC2B.

RS232C Command and Control

The RS232C connection is pre-installed.

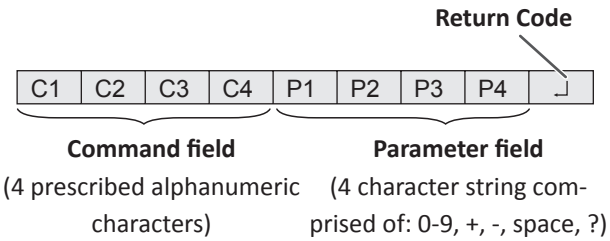
Communication Conditions

Set the RS232C communication settings on the PC to match the monitor's communication settings as follows:

BAUD RATE: Set to the same baud rate as the BAUD RATE setting of SETUP menu (Initial setting: 38400 bps).
DATA LENGTH: 8 bits
PARITY BIT: None
STOP BIT: 1 bit
FLOW CONTROL: None

Communication Procedures

COMMAND FORMAT
When a command is sent from the PC to the monitor, the monitor operates according to the received command and sends a response message to the PC.



Example: VOLM0030
VOLM ␣␣30

Be sure to input 4 characters for the parameter. Pad with spaces ("␣") if necessary. ("⌟" is a return code (0DH, 0AH or 0DH))

Wrong : VOLM30 ⌟

Right : VOLM ␣␣30 ⌟

When inputting a negative value, specify a numerical value in three digits.
Example: AUTR-005

Do not use spaces for MPOS, DATE, and SC01 through SC08. Specify parameters using a specified number of characters.
Example: MPOS010097

If the Command DIRECTION is "R" in the RS232C Command Table, the current value can be returned by using "?" as the parameter.

Example:

VOLM ? ? ? ? ← From PC to monitor (How much is current volume setting?).
30 ← From monitor to PC (Current volume setting: 30).

RESPONSE CODE FORMAT

When a command has been executed correctly

O	K	↵

Return code
(0DH, 0AH)

A response is returned after a command is executed.

When a command has not been executed

E	R	R	↵

Return code
(0DH, 0AH)

NOTES:

- ERR is returned when there is no relevant command or when the command cannot be used in the current state of the monitor.
- If communication has not been established for reasons such as a bad connection between the PC and monitor, nothing is returned (not even ERR).
- ERR may be returned when a command cannot be received correctly due to interference from the surrounding environment. Please ensure that the system or software retries the command if this occurs.

If execution of the command is taking some time

W	A	I	T	↵

Return code
(0DH, 0AH)

When the following commands are used, WAIT is returned.
In this case, a value will be returned if you wait a while. Do not send any command during this period.

Commands which return WAIT:

- When repeater control is used
- When one of the following commands is used: RSET, INPS, ASNC, WIDE, PXSL, POWR, AGIN, MWIN, MWIP, MWPP

When control via RS232C is locked (to prevent use) using the operation lock function

L	O	C	K	E	D	↵

Return code
(0DH, 0AH)

COMMUNICATION INTERVAL

- After OK or ERR is returned, you must send the following commands. To set a timeout for the command response, specify 10 seconds or longer.

VOLM0020
OK

↓ Interval of 100 ms or more

INPS0001
WAIT
OK

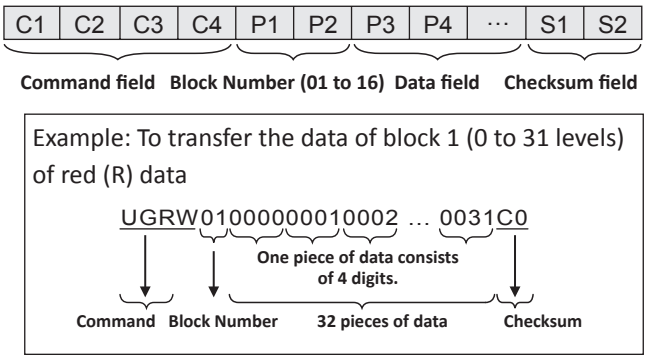
NOTES:

- When executing ALL RESET, set the timeout period to 30 seconds or longer.
- When turning the power on while the POWER ON DELAY function is in use, set the timeout period to the POWER ON DELAY period + 10 seconds or longer.

Gamma User Data

TO TRANSFER THE GAMMA USER DATA

Use the user data transfer commands (UGRW, UGGW andUGBW). For each of the R, G and B colors, divide the total 512 pieces of user data into 16 blocks, and transfer 32 pieces of data with each command.



- If data is less than 4 digits, add a “0” (zero) to make it 4 digits.
- The checksum field is the character string (ASCII) data of lower-order one byte which indicates the sum of the block number and 32 pieces of data in hexadecimal (0 to F).

SAVING THE GAMMA USER DATA

Use the user data save command (UGSV) to save the transferred user data in the monitor.
If the data is not saved, it will be cleared when:

- The monitor power switch is off.
- STANDBY MODE is LOW POWER and the monitor enters standby mode.

ACTIVATING THE GAMMA USER DATA

To activate the transferred user data, select USER for GAMMA of the PICTURE menu, or send the corresponding RS-232C command.

CHECKING THE GAMMA USER DATA

Use the user data read commands (UGRR, UGGR and UGBR) to return 512 pieces of user data for each of the R, G and B colors. Divide the data into 16 blocks and return 32 pieces of data with each command. The value to be returned is not the value stored in the monitor, but the value in the temporary memory for display. (These values are the same when the user data save command (UGSV) above has been sent.)

NOTES:

• The user data is not initialized by RESET of the PICTURE menu. To initialize the user data, use ALL RESET of the FUNCTION menu. The GAMMA user data initialize command (UGRS) allows the initialization of the user data only.

RS232C Command Table

COMMAND: Command field.

DIRECTION:

- **"W"** is used when the “Parameter” is set in the parameter field. The command functions are described under “Control/Response Contents”.
- **"R"** is the returned value indicated under “Reply” which can be obtained by setting “????”, “␣␣␣?” or “???+” (repeater control) in the parameter field.

PARAMETER: Parameter field.

REPLY: Response (Returned value)

Column 1:

“●” indicates a command which can be used in standby mode regardless of the STANDBY MODE setting.

“○” indicates a command which cannot be used in standby mode when STANDBY MODE is set to LOW POWER.

“–” indicates a command which cannot be used in standby mode regardless of the STANDBY MODE setting.

POWER CONTROL/INPUT MODE SELECTION

Function	Command	Direction	Parameter	Reply	Control/Response contents	*1
Power Control	POWR	W	0		Switches to standby mode	●
			1		Returns from standby mode	
		R		0	Standby mode	
				1	Normal mode	
				2	Input signal waiting mode	
Input Mode Selection	INPS	W	0		Toggle change for input mode. Terminals not selected in Input Selection mode cannot be selected.	●
			1		PC DVI-D “ERR” when AV DVI-D is selected for DVI of INPUT SELECT.	
			2		PC D-SUB “ERR” when other than PC D-SUB is selected for D-SUB of INPUT SELECT.	
			3		AV COMPONENT (BNC) / AV COMPONENT (D-SUB) “ERR” when other than PC RGB is selected for BNC of INPUT SELECT, and when other than AV COMPONENT is selected for D-SUB of INPUT SELECT.	
			4		AV VIDEO (BNC) / AV VIDEO (D-SUB)	
			6		PC RGB “ERR” when AV COMPONENT is selected for BNC of INPUT SELECT.	
			7		AV DVI-D “ERR” when PC DVI-D is selected for DVI of INPUT SELECT.	
			8		AV S-video	
			9		AV HDMI “ERR” when PC HDMI is selected for HDMI of INPUT SELECT.	
			10		PC HDMI “ERR” when AV HDMI is selected for HDMI of INPUT SELECT.	
		R		1	PC DVI-D	
				2	PC D-SUB	
				3	AV Component	
				4	AV Video	
				6	PC RGB	
				7	AV DVI-D	
				8	AV S-Video	
				9	AV HDMI	
				10	PC HDMI	

SCREEN MENU

Function		Command	Direction	Parameter	Reply	Control/Response contents	*1
Auto		ASNC	W	1		When the input mode is PC D-SUB, PC RGB.	-
Clock		CLCK	WR	0-1200	0-1200	When the input mode is PC D-SUB, PC RGB. Varies depending on the signal.	
Phase		PHSE	WR	0-63	0-63	When the input mode is PC D-SUB, PC RGB.	
Positioning	Position of the longest direction	HPOS	WR	0-100	0-100	0-800 on PC D-SUB, PC RGB. Varies depending on the signal.	
	Position of the shortest direction	VPOS	WR	0-100	0-100	0-200 on PC D-SUB, PC RGB. Varies depending on the signal.	
Size	Position of the longest direction	HSIZ	WR	0-100	0-100		
	Position of the shortest direction	VSIZ	WR	0-100	0-100		
Resolution	Position of the longest direction	HRES	WR	300-1920	300-1920		
	Position of the shortest direction	VRES	WR	200-1200	200-1200	When the input mode is PC D-SUB, PC RGB. Only even numbers are valid for parameters. Varies depending on the signal.	
Reset		ARST	W	1			

PICTURE MENU

Function	Command	Direction	Parameter	Reply	Control/Response contents	*1
Auto	AGIN	W	1		When the input mode is PC D-SUB, PC RGB.	○
Analog Gain	ANGA	WR	0-127	0-127	When the input mode is PC D-SUB, PC RGB.	
Analog Offset	ANOF	WR	0-127	0-127	When the input mode is PC D-SUB, PC RGB.	
Contrast	CONT	WR	0-60	0-60		
Black Level	BLVL	WR	0-60	0-60		
Tint	TINT	WR	0-60	0-60		
Colors	COLR	WR	0-60	0-60		
Sharpness	SHRP	WR	0-24	0-24		
RGB Input Range (AV HDMI)	AHDR	WR	0-2	0-2	0: AUTO, 1: FULL, 2: LIMITED	
RGB Input Range (PC HDMI)	PHDR	WR	0-2	0-2	0: AUTO, 1: FULL, 2: LIMITED	
RGB Input Range (AV DVI)	ADVR	WR	1-2	1-2	1: FULL, 2: LIMITED	
RGB Input Range (PC DVI)	PDVR	WR	1-2	1-2	1: FULL, 2: LIMITED	
RGB Input Range (D-SUB)	PDSR	WR	1-2	1-2	1: FULL, 2: LIMITED	
RGB Input Range (PC BNC)	PBRR	WR	1-2	1-2	1: FULL, 2: LIMITED	

Advanced (When the input mode is AV)	Flesh Tone	FLES	WR	0-2	0-2	0: OFF, 1: LOW, 2: HIGH	○
	3D-NR	TDNR	WR	0-2	0-2	0: OFF, 1: LOW, 2: HIGH	
	MPEG-NR	MPNR	WR	0-1	0-1	0: OFF, 1: ON	
	3D-Y/C	YCSP	WR	0-1	0-1	0: OFF, 1: ON (When input mode is AV VIDEO)	
	C.M.S.-Hue	CMHR	WR	-10-10	-10-10	R	
		CMHY				Y	
		CMHG				G	
		CMHC				C	
		CMHB				B	
		CMHM				M	
		CRST	W	1		Resets the hue.	
	C.M.S.-Saturation	CMSR	WR	-10-10	-10-10	R	
		CMSY				Y	
		CMSG				G	
		CMSC				C	
		CMSB				B	
		CMSM				M	
		CRST	W	2		Resets the saturation.	
	C.M.S.-Value	CMVR	WR	-10-10	-10-10	R	
		CMVY				Y	
		CMVG				G	
		CMVC				C	
		CMVB				B	
		CMVM				M	
		CRST	W	3		Resets the brightness.	
Color Mode		BMOD	WR	0	0	STD	○
				2	2	VIVID	
				3	3	sRGB (When the input mode is PC)	
White Balance	Thru	CTMP	WR	0	0	When the input mode is PC DVI-D/PC HDMI.	○
	Preset			1-18	1-18	From 1: approximately 3,000K to 15: approximately 10,000K (500K steps) 16: approximately 5,600K, 17: approximately 9,300K, 18: approximately 3,200K	
	User			99	99		
	R-Contrast	CRTR	WR	0-256	0-256	ERR when CTMP is not set to 99.	
	G-Contrast	CRTG	WR	0-256	0-256		
	B-Contrast	CRTB	WR	0-256	0-256		
	R-Offset	OFSR	WR	-127-127	-127-127		
	G-Offset	OFSG	WR	-127-127	-127-127		
	B-Offset	OFSB	WR	-127-127	-127-127		
Copy to User		CPTU	W	0		Copies a preset value to the user setting.	-

Gamma	GAMM	WR	0-2	0-2	0: 1.8, 1: 2.2, 2: 2.4 (during PC input) 0: LIGHT 2, 2: DARK (during AV input)	○
			4-6	4-6	4: User , 5: 2.0, 6: STD (during PC input) 4: USER, 5: LIGHT 1, 6: STD (during AV input)	
Display Color Pattern	PTDF	WR	0	0	No pattern display.	
			1	1	White single color pattern display.	
			2	2	Red single color pattern display.	
			3	3	Green single color pattern display.	
			4	4	Blue single color pattern display.	
			99	99	Red/green/blue mixed color pattern display. Set each color's level with RED, GREEN, BLUE.	
Red	PTDR	WR	0-15	0-15	ERR when PTDF is not set to 99.	
Green	PTDG	WR	0-15	0-15		
Blue	PTDB	WR	0-15	0-15		
Reset	ARST	W	2			-

AUDIO MENU

Function	Command	Direction	Parameter	Reply	Control/Response contents	*1
Treble	AUTR	WR	-5-5	-5-5		○
Bass	AUBS	WR	-5-5	-5-5		
Balance	AUBL	WR	-10-10	-10-10		
Reset	ARST	W	3			-

SETUP MENU

Function		Command	Direction	Parameter	Reply	Control/Response contents	*1
OSD H-Position		OSDH	WR	0-100	0-100		○
OSD V-Position		OSDV	WR	0-100	0-100		○
Screen Motion		SCSV	WR	0-4	0-4	0: OFF, 1-4: PATTERN1-4	○
Motion Time 1		MTIM	WR	0-20	0-20		○
Motion Time 2	Pattern 1	MINT	WR	10-990	10-990	Per 10 seconds	○
	Pattern 2-4	MINT	WR	5-20	5-20	Per second	○
Monaural Audio		MONO	WR	0-1	0-1	0: OFF, 1: ON	○
Language		LANG	WR	14	14	English	○
				1	1	German	
				2	2	French	
				3	3	Italian	
				4	4	Spanish	
				5	5	Russian	
				6	6	Japanese	
Power On Delay		PWOD	WR	0	0	Off	○
				1-60	1-60	On	
Standby Mode		STBM	WR	0-1	0-1	0: STANDARD, 1: LOW POWER (“ERR" when SCHEDULE is effective or OFF is selected for LED.)	○
Off If No Operation		ATOF	WR	0-1	0-1	0: OFF, 1: ON	○
Hot Plug Control (DVI)		HPCT	WR	0-1	0-1	0: OFF, 1: ON	○

Hot Plug Control (HDMI)	HPCH	WR	0-1	0-1	0: OFF, 1: ON	○
RS232C/LAN Select	CTLS	WR	0-1	0-1	0 : RS232C 1 : LAN	○
Baud Rate	BAUD	WR	0-2	0-2	0: 9600bps, 1: 19200bps, 2: 38400bps	○
Speaker Select	SPSL	WR	0-1	0-1	0: Internal speaker, 1: External speaker	○
HDMI Auto View	HDAW	WR	0-1	0-1	0: OFF, 1: ON	○
Logo Screen	BTSC	WR	0-1	0-1	0: OFF, 1: ON	

OPTION MENU

Function		Command	Direction	Parameter	Reply	Control/Response contents		*1
Date/Time Setting		DATE	WR	AABBCCDDEE	AABBCCDDEE	AA: Year, BB: Month, CC: Day, DD: Time, EE: Minute		○
Date Display Format		DTFT	WR	0-2	0-2	0: YYYY/MM/DD, 1: MM/DD/YYYY, 2: DD/MM/YYYY YYYY: Year, MM: Month, DD: Day		
Time Display Format		TMFT	WR	0-1	0-1	0: 24-HOUR TIME, 1: 12-HOUR TIME		
Schedule		SC01-SC08	WR	ABCDEFFGGH	ABCDEFFGGH	Schedule of a specified number		○
						A: Schedule	0= Not effective, 1 = Effective	
						B: Power	0 = OFF, 1 = ON	
						C: Day of the week 1	0 = Only once, 1 = Every week, 2 = Every day	
						D: Day of the week 2	0 = Sunday, 1 = Monday through 6 = Saturday, 9 = Not exist	
						E: Day of the week 3	0 = Sunday, 1 = Monday through 6 = Saturday, 9 = Not exist	
						F: Time	00-23	
						G: Minute	00-59	
						H: Input	0 = Not specified, 1 = PC DVI-D/AV DVI-D, 2 = PC D-SUB, 3 = PC RGB/AV COMPONENT, 4 = AV VIDEO, 5 = AV S-VIDEO, 6 = PC HDMI/AV HDMI, "ERR" when LOW POWER is selected for STANDBY MODE.	
Schedule Brightness		SB01-SB08	WR	0-31	0-31	Screen brightness to change		
				99	99	Disable brightness setting		
Input Select	DVI	DVSL	WR	0-1	0-1	0: PC DVI-D, 1: AV DVI-D		○
	BNC	BNSL	WR	0-1	0-1	0: PC RGB, 1: AV COMPONENT		○
	D-SUB	SLDS	WR	0-2	0-2	0: PC D-SUB, 1: AV COMPONENT, 2: AV VIDEO		○
	HDMI	HDSL	WR	0-1	0-1	0: PC HDMI, 1: AV HDMI		○

Audio Select	PC DVI-D	ASDP	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	O
	PC HDMI	ASHP	WR	0-1	0-1	0: HDMI, 1: AUDIO(STEREO MINI)	
				2-3	2-3	2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	PC D-SUB	ASAP	WR	1-3	1-3	1: AUDIO(STEREO MINI) 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	PC RGB	ASCP	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV DVI-D	ASDA	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV HDMI	ASHA	WR	0-1	0-1	0: HDMI, 1: AUDIO(STEREO MINI)	
				2-3	2-3	2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV Component (BNC)	ASCA	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV Component (D-SUB)	ASC2	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV S-video	ASSA	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV Video (BNC)	ASVA	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
	AV Video (D-SUB)	ASV2	WR	1-3	1-3	1: AUDIO(STEREO MINI), 2: AUDIO1(RCA), 3: AUDIO2(RCA)	
Input Resolution (PC)	Resolution Check	PXCK	R		-	Returns current resolution in the form of hhh, vvv.	-
	Pixel Setting (PD D-SUB, PC RGB)	PXSL	WR	1	1	768) 1360 x 768	
				2	2	768) 1280 x 768	
				3	3	768) 1024 x 768	
				5	5	480) 848 x 480	
				6	6	480) 640 x 480	
				7	7	1050) 1680 x 1050	
				8	8	1050) 1400 x 1050	
				9	9	768) AUTO	
				10	10	480) AUTO	
Input Resolution (AV)	Resolution Check	RESO	R		-	480i, 480p, 1080i, 720p, 1080p, VGA , etc.	-
Zoom2 Special Setting (PC D-SUB, PC RGB)		Z2SP	WR	0-1	0-1	0: OFF, 1: ON	O
Scan Mode		SCAN	WR	0-2	0-2	0: MODE1, 1: MODE2, 2: MODE3 (When the input mode is AV)	O
Power Management (PC)		PMNG	WR	0-1	0-1	0: OFF, 1: ON	O
Power Management (AV)		PMAV	WR	0-1	0-1	0: OFF, 1: ON	O
Color System		CSYS	WR	0-5	0-5	0: AUTO, 1: PAL, 2: PAL-60, 3: SECAM, 4: NTSC3.58, 5: NTSC4.43	O
Audio Output (RCA)		AOUT	WR	0-2	0-2	0: VARIABLE1, 1: FIXED, 2: VARIABLE2	O
Audio Level (Stereo Mini)		AIVP	WR	0-1	0-1	0: 1.0Vrms, 1: 0.5Vrms	O
Self Adjust		AADJ	WR	0-1	0-1	0: OFF, 1: ON	O
Auto Input Change		AINC	WR	0-1	0-1	0: OFF, 1: ON	O

Touch Panel Mode	GMDP	WR	0-1	0-1	0: OFF, 1: ON (When the input mode is PC)	○

PIP/PBYP MENU

Function		Command	Direction	Parameter	Reply	Control/Response contents	*1
PIP Modes		MWIN	WR	0-3	0-3	0: OFF, 1: PIP, 2: PbyP, 3: PbyP2	○
PIP Size		MPSZ	WR	1-64	1-64		○
PIP POS	The Longest Direction	MHPS	W	0-100			○
	The Shortest Direction	MVPS	R		0-100		○
PIP POS LD+SD Batch		MPOS	W	0-100, 0-100		Specify the position in MPOSxxxyyy format. (xxx: Longer side, yyy: Shorter side position)	○
			R		0-100, 0-100	Returns a response in (xxx,yyy) format. (xxx: Longer side, yyy: Shorter side position)	○
PIP Blend		MWBL	WR	0-15	0-15		○
PIP Source		MWIP	WR	1	1	PC DVI-D	○
				2	2	PC D-SUB	
				3	3	AV COMPONENT (BNC) / AV COMPONENT (D-SUB)	
				4	4	AV VIDEO (BNC) / AV VIDEO (D-SUB)	
				6	6	PC RGB	
				7	7	AV DVI-D	
				8	8	AV S-VIDEO	
				9	9	AV HDMI	
				10	10	PC HDMI	
Sound Change		MWAD	WR	1-2	1-2	1: MAIN, 2: SUB	○
Main POS (Main screen)		MWPP	WR	0-1	0-1	0: POS1, 1: POS2	○
PbyP2 POS (Sub screen)		MW2P	WR	0-2	0-2	0: POS1, 1: POS2, 2: POS3	○
Auto Off		MOFF	WR	0-1	0-1	0: MANUAL, 1: AUTO	○

INITIALIZATION/FUNCTIONAL RESTRICTION SETING (FUNCTION) MENU

Function	Command	Direction	Parameter	Reply	Control/Response contents	*1
All Reset	RSET	W	0		0: ALL RESET	-
			0-1		0: ALL RESET 1, 1: ALL RESET 2	-
Adjustment Lock	ALCK	WR	0-2	0-2	0: OFF, 1:ON1, 2:ON2	○
Adjustment Lock Target	ALTG	WR	0-2	0-2	0: REMOTE CONTROL, 1: MONITOR BUTTONS, 2: BOTH	○
OSD Display	LOSD	WR	0-2	0-2	0: ON1, 1: OFF, 2: ON2	○
LED	OFLD	WR	0-1	0-1	0: ON, 1: OFF “ERR” when LOW POWER is selected for STANDBY MODE.	○
Temperature Alert	TALT	WR	0-2	0-2	0: OFF, 1: OSD & LED, 2: LED	○
Status Alert	SALT	WR	0-2	0-2	0: OFF, 1: OSD & LED, 2: LED	○
Power Button	PBTN	WR	0-1	0-1	0: MONITOR, 1: CONTROLLER	○
Controller Input	PCIP	WR	0-2	0-2	0: D-SUB, 1: HDMI (“ERR” when MONITOR is selected for POWER BUTTON.)	○
					2: DVI-D (“ERR” when MONITOR is selected for POWER BUTTON.)	○

OTHER MENU

Function		Command	Direction	Parameter	Reply	Control/Response contents	*1
Screen Size (PC)		WIDE	WR	1-5	1-5	1: WIDE, 2: NORMAL, 3: Dot by Dot, 4: ZOOM1, 5: ZOOM2	○
Screen Size (AV)		WIDE	WR	1-5	1-5	1: WIDE, 2: ZOOM1, 3: ZOOM2, 4: NORMAL, 5: Dot by Dot	○
Volume		VOLM	WR	0-31	0-31		○
Mute		MUTE	WR	0-1	0-1	0: OFF, 1: ON	-
Information	Model	INF1	R		Value		●
	Serial No.	SRNO	R		Value		
Bright		VLMP	WR	0-31	0-31		○
Temperature Sensor		DSTA	R		0	Internal temperature normal	●
					1	Internal temperature abnormal (Standby mode)	
					2	Internal temperature abnormal (Temperature is normal now, but it was abnormal during operation.)	
					3	Internal temperature abnormal (Brightness of the backlight decreases.)	
					4	Temperature sensor abnormal	
Temperature Aquisition		ERRT	R		Value	Temperature at temperature sensors 1 through 3 are returned in the following forms: [Sensor 1], [Sensor 2], [Sensor 3] Indicates a temperature sensor abnormality when “126” is returned.	○
Cause of Last Standby Mode		STCA	W	0		Initialization	●
			R		0	No detectable error has occurred	
					1	Standby mode by POWER button	
					2	Main power off by the monitor power switch	
					3	Standby mode by RS232C or LAN	
					4	Waiting mode by No Signal	
					6	Standby mode by abnormal temperature	
					8	Standby mode by SCHEDULE setting	
					20	Standby mode by OFF IF NO OPERATION setting	

COMMANDS FOR SETTING THE GAMMA USER DATA

Function	Command	Direction	Parameter	Reply	Control/Response contents	*1
Red Gamma Data Transfer	UGRW	W	aaxxxx ··· xxxxcc (xxxx: 32 pieces) aa: 01-16 xxxx: 0000-1023 cc: 00-FF		aa: Block number xxxx: 32 pieces of user data cc: Checksum (ASCII data) of the block number and user data	○
Green Gamma Data Transfer	UGGW	W				
Blue Gamma Data Transfer	UGBW	W				
Red Gamma Data Read	UGRR	W	1-16	xxxx ··· xxxx (xxxx: 32 pieces) xxxx: 0000-1023	xxxx: User data of 32 pieces	
Green Gamma Data Read	UGGR	W	1-16			
Blue Gamma Data Read	UGBR	W	1-16			
User Data Intialize	UGRS	W	0		Initialize the user data.	
User Data Save	UGSV	W	0		Save the user data in the monitor.	