

BA71R

10.4" TFT LCD Monitor

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Please send us a copy of this page if you have any constructive criticism.

We would like to thank you in advance for your comments.

With kind regards,

Your opinion:

BA71R

10.4" TFT LCD Monitor

Operating Manual

Edition February 2015

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Manufacturer's Declaration and Approval

FCC-Class Declaration

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy.

If not installed in accordance with the instructions in this manual, harmful interference to radio communication may occur. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Warning

Use only shielded cables to connect I/O devices to this equipment.

Caution

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Use only RF shielded cable to connect this monitor to a

computer device.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Safety Instructions

- The main plug isolates this equipment from the main supply.
- Unplug this product from the wall outlet before cleaning.
- Never push objects of any kind, or spill liquid of any kind into this product.
- Do not attempt to service this product yourself. As opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
- The power supply cord serves as a power disconnect device for pluggable equipment, the socket outlet should be installed near the equipment and should be easily accessible.

Disclaimer

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Introduction

Before Installing Your Monitor

- Read this manual cover to cover.
- Pay attention to all warnings and cautions.
- Do not use computer components not recommend by the manufacturer.
- Do not attempt to service the monitor yourself. If a problem occurs, contact the manufacturer's authorized service center.

Unpacking

Open the shipping carton and check the contents. If any items are missing or damaged, contact your dealer immediately.

The package should include the following items:

- 10.4" TFT LCD Monitor.
- Power cord. (option)
- Signal cable (option)
- Adapter (option)
- User manual
- Parts parcel
- DVI cable (for DVI mode). (option)

About Your Monitor

This monitor is a microprocessor-controlled, color monitor which uses a 10.4" TFT LCD panel.

Precautions

Handling

- The monitor must be treated with caution and not be exposed to impact and shock.
- If the monitor has a strength glass on screen: Never rub it with a hard, stiff object or tool for the panel is easily scratched. Your monitor is protected by one glass filter.
- Every effort has been made to protect the screen, however the monitor is an extremely fragile product.

Cleaning

- The display area is highly prone to scratching. Do not use ketone type material (ex. Acetone), ethyl alcohol, toluene, ethyl acid or methyl chloride to clean the screen. It might permanently damage the screen. Desirable cleaners are water, IPA (IsoPropyl Alcohol) or Hexane.
- Do not let water or oil penetrate the monitor. Even if drops are spilled and left for a long time, staining and discoloration may occur.
- Keep food particles and fingerprints away from the display area.

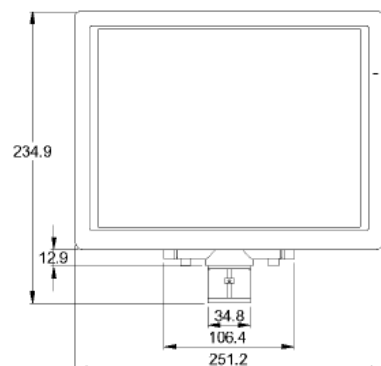
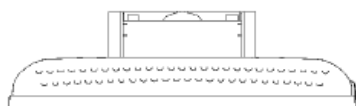
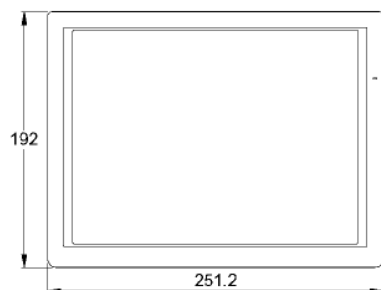
Storage

- Do not store the monitor in temperatures higher than 60 °C (140 °F) or humidity higher than 85%.
- Store in a dark place, keep away from sunlight and ultra violet (UV) radiation.

Technical Specification

Specification

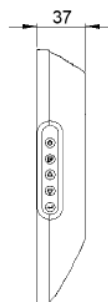
Overall Dimension (H x W x D)



Monitor Only

192 x 251.2 x 37 mm

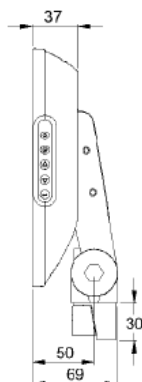
(Shipping weight 1.7 kg)

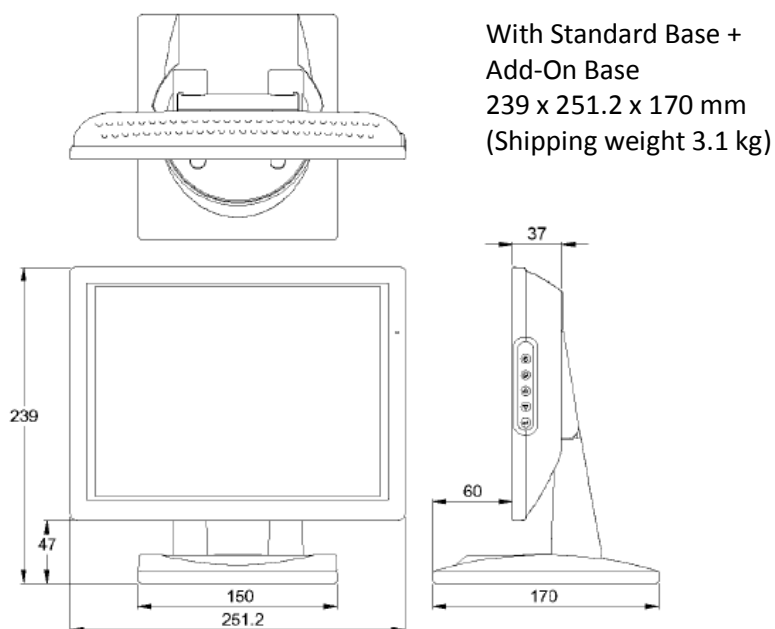
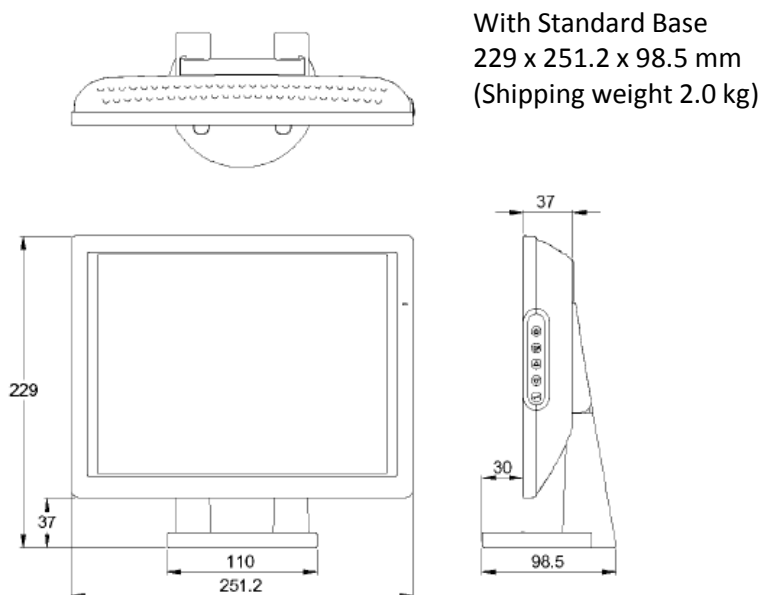


With T-Joint

234.9 x 251.2 x 69 mm

(Shipping weight 2.2 kg)





Scan Frequencies

Horizontal

31 KHz to 60 KHz.

Vertical

56 Hz to 75 Hz.

Panel Specification

Please refer to attached
specification sheet.

Power

Input

DC 12 V / 1.6A

Consumption

7.5 Watts Maximum. (On)
0.5 Watts Maximum (with adapter)
(Power Saving and Power Off)

Video connector

15-Pin D-Sub
24-Pin DVI (Option)

Video Signals

Video

Analogue R.G.B 0.7Vp-p / 75 Ω .

Sync

Separate, Positive or Negative TTL.

Display Data Channel

Compatibility

VESA DDC 1/2B. (Option)

Operations

User Controls

On / Off Power Button, Menu, Up,
Down, Enter.

On Screen Display

Brightness, Contrast, Auto Tuning,
Phase, Clock, H-position, V-position,
Sharpness, Color Temperature, Lan-
guage, OSD Adjust, Input Select,
Reset.

Control Type

Digital.

Environmental Limits

Operating Temp.

0 °C to 40 °C. (32 °F to 104 °F)

Storage Temp.

-20 °C to 60 °C. (-4 °F to 140 °F)

Transport Temp.

-20 °C to 60 °C. (-4 °F to 140 °F)

Operating Humidity

10% to 85% without condensation.

Storage Humidity
Transport Humidity

10% to 85% without condensation.
10% to 85% without condensation.

Agency Approval

EMI
Safety

EMC CCC, BSMI, FCC and CE.
Safety S mark, CB, CCC and BSMI.



The product has been tested and deemed compliant to U.S. and Canadian product safety standards.

Design and specifications are subject to change without notice.

Factory-Preset Modes

The table shows standard settings that have been pre-adjusted at the factory for accurate display. These settings are stored in the monitor's memory.

Mode	Resolution	FH KHz	FV Hz
Mode 1	640*350	31.469	70.087
Mode 2	720*400	31.469	70.087
Mode 3	640*480	31.469	59.940
Mode 4	640*480	37.861	72.809
Mode 5	640*480	37.500	75.000
Mode 6	800*600	35.156	56.250
Mode 7	800*600	37.879	60.317
Mode 8	800*600	48.077	72.188
Mode 9	800*600	46.875	75.000
Mode 10	1024*768	48.363	60.004
Mode 11	1024*768	56.467	70.069
Mode 12	1024*768	60.023	75.029

*** Mode 10~ Mode 12: Non Panel standard timing

Signal Connector Pin Assignments

Power Connector

Input DC 12V



Note:

The power connector has straight and right angle type for option.

R.G.B Signal Connector

Pin 1	Analog Red Input
Pin 2	Analog Green Input
Pin 3	Analog Blue Input
Pin 4	NC
Pin 5	Digital Ground
Pin 6	Analog Red Ground
Pin 7	Analog Green Ground
Pin 8	Analog Blue Ground
Pin 9	NC
Pin 10	Connector Detect
Pin 11	NC
Pin 12	SDA (DDC Data)
Pin 13	H. Sync
Pin 14	V. Sync
Pin 15	SCL (DDC CLK)

Digital Signal Connector

Pin 1	T.M.D.S Data2-
Pin 2	T.M.D.S Data2+
Pin 3	T.M.D.S Data2 Shield
Pin 4	NA
Pin 5	NA
Pin 6	DDC Clock
Pin 7	DDC Data
Pin 8	NA
Pin 9	T.M.D.S Data1-
Pin 10	T.M.D.S Data1+
Pin 11	T.M.D.S Data1 Shield
Pin 12	NA
Pin 13	NA
Pin 14	+5V Power
Pin 15	Ground (return for +5V, Hsync, and Vsync)
Pin 16	Hot Plug Detect
Pin 17	T.M.D.S Data0-
Pin 18	T.M.D.S Data0+
Pin 19	T.M.D.S Data0 Shield
Pin 20	NA
Pin 21	NA
Pin 22	T.M.D.S. Clock Shield
Pin 23	T.M.D.S. Clock+
Pin 24	T.M.D.S. Clock-

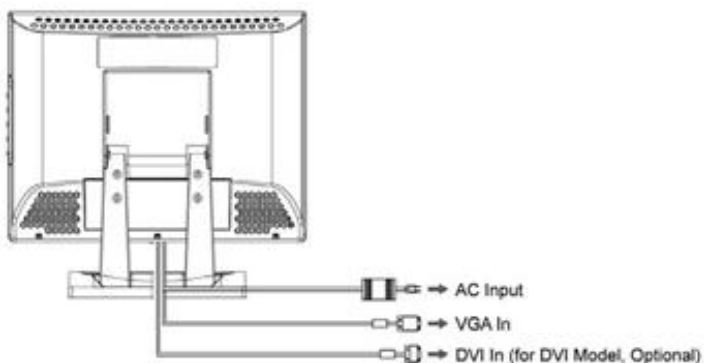
Installation

Installing the Monitor

The monitor is equipped with an auto-sensing power supply for voltage ranges from 100 ~ 240 VAC, 50 / 60 Hz. Confirm the line voltage designation on the rear panel of the monitor.

Follow these steps to install the monitor:

- Before you connect the cables, make sure that the monitor and the systems power switches are OFF.
- Plug one end of the 15-pin/24-pin signal cable to the monitor and the other end to the video signal connector in the back of the system. Tighten the two screws of the cable connector on both ends.
- Connect the power to the monitor through the AC / DC adapter.
- Connect the power cord on the AC outlet.

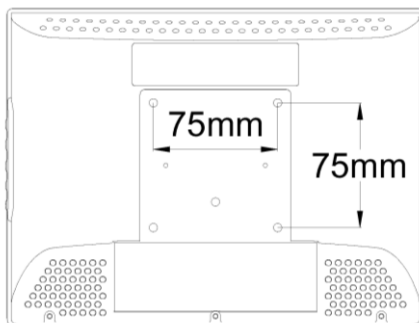


■ Install the VESA stand:

The rear cover is suitable for other stand or arm if they meet VESA standard of 75 x 75 mm VESA holes.

The max. screw length is 8 mm.

The min. screw length is 6 mm.

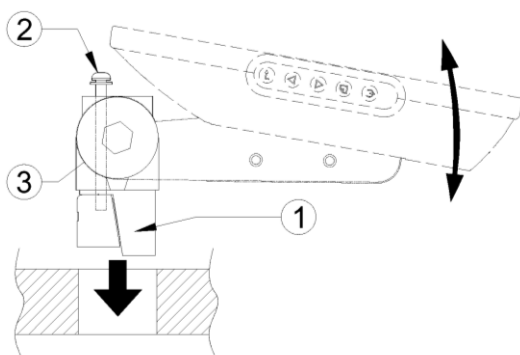


■ Install the T-Joint to platforms:

- Insert the T-joint into the footed stand or the tubular stand of the POS system (1).

- Fasten the screw into place (2).

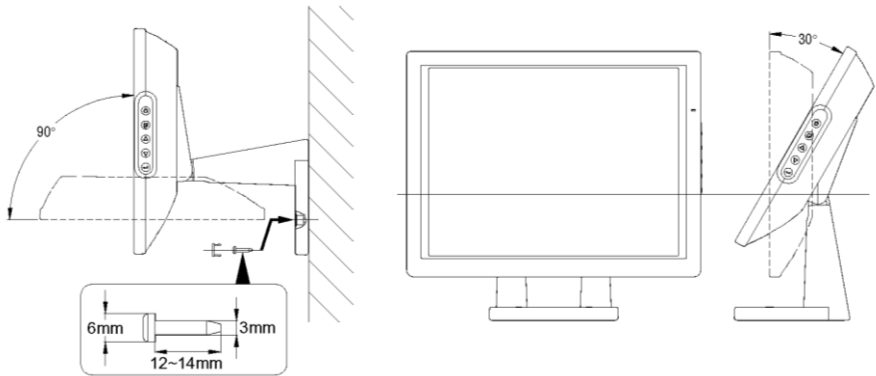
- Use hands to loosen the adjusting nut and adjust the display to a suitable view angle. Then fasten the adjusting nut (3).



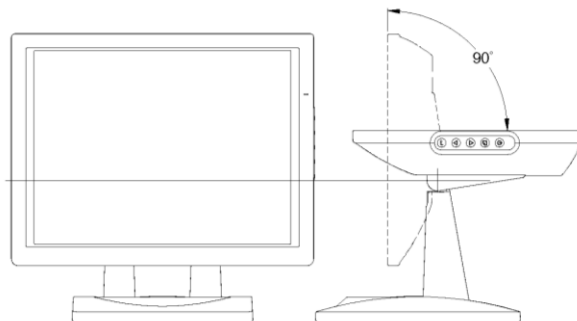
The angle of the screen can be adjusted from a horizontal position to a vertical position without any tools.

■ Install the base to platforms:

- There are two holes on the base for fixing the base on the platform, such as desktop, shelf of POS system, wall etc..
- Users should not apply unspecified screw into this hole for fixing the monitor.
- The elevation angle is up to 90° for wall mount. For stand-up using, the elevation angle is limited to 30° to avoid toppling down from missing center-of-gravity position.



The angle can be up to 90° when the monitor includes Add-On-Base.



Control Functions

The monitor control functions are located on the right side of the screen. They are shown in the figure below and described in the following paragraphs.

■ The Control Key Description :



Power Switch



Activate the **On-Screen-Display** function / Return menu / Exit./Key Lock Key Lock: Press the Menu button more than 15 sec, Menu, UP and Down buttons will be locked; then press Menu button again for more than 15 sec for unlock.



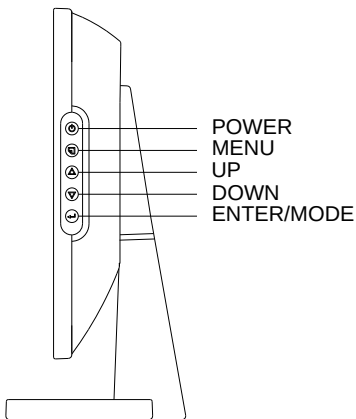
Move / Adjustment up – Select Key



Move / Adjustment down- Select key



Enter / Auto Adjustment



Description:

- **Power Switch.**

Use the power switch to turn the power ON or OFF. We recommend turning your LCD monitor power on first, and then your system.

- **Menu**

Press the Menu key to activate the On Screen Display mode. (It is a toggle key) Press twice to turn off the OSD. After 10 sec idle time, the OSD screen will automatically turn off.

- **Select Key**

The two keys have two sets of functions:

- When OSD mode is activated (when “MENU” key is pressed), the two keys are used to select the adjustment items.
- When adjustment item is selected, the two keys are defined to decrease or increase the values of each selected item.

- **Enter/ Auto Adjustment.**

VGA and DVI mode

- When the light-bars moves to the item, the key can be used to select it, and ready to adjust.

VGA mode

- Press this key can do the auto adjustment function.

Adjustment

Adjusting The Monitor

The LCD monitor is designed to work with a range of compatible adapters on the market. Due to the possible deviations between these adapters, you may need to make some adjustments to fit the monitor to the adapter used.

Adjustment procedure

- Firstly, you must activate the OSD mode through pressing the MENU key, the symbols will be shown in the center of screen (see next page).

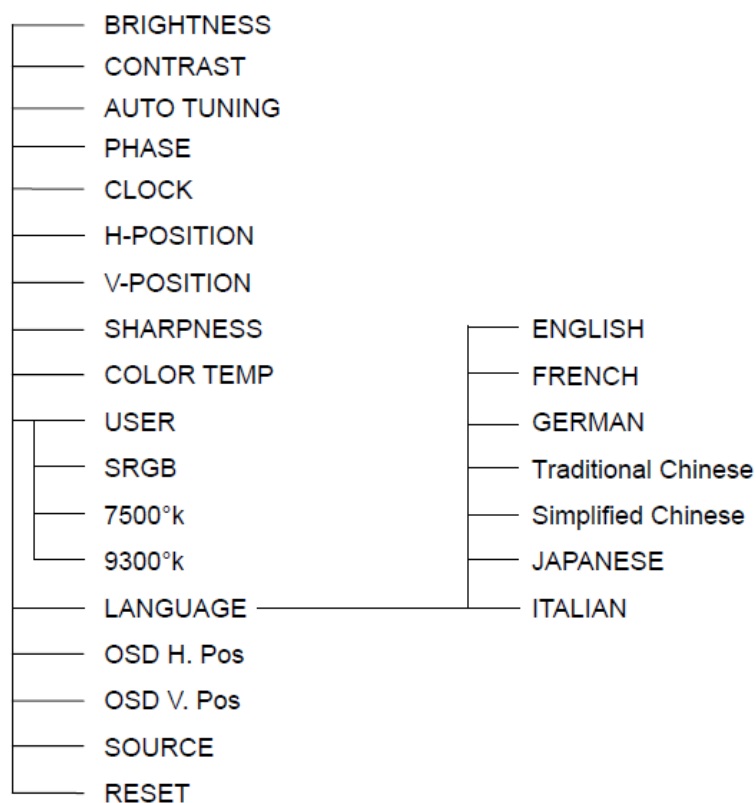
Note: In the last paragraph, we will assume that you had already done this procedure and you only need an explanation on how to change the settings.

- Use the $\triangle$ ∇ key to select the required adjustment item up or down.
- Use Enter / Mode ($\leftarrow$) key to select the item.
- Use the $\triangle$ ∇ key to change the control value for optimum viewing.
- After finishing all the settings, please press the Menu key, to get back to Main Menu. If you press the Menu key again, the setting will be stored in the monitor's memory. If you want to discard the settings, just move to "RESET" and press the Enter key. This will restore the pre-defined values)
- In the Non OSD mode, pressing this key can do the auto-adjustment function.

Auto-Adjustment

- When OSD is displayed, press top and bottom key choice menu "AUTO ADJUST", using Enter key to auto-adjust the display area to optimal display effects.
- Sometimes this function cannot achieve the optimal effect, please follow the "ADJUSTMENT PROCEDURE" mentioned above.

On-Screen-Display Mode



Description

BRIGHTNESS	This field allows you to fine-tune the display brightness level.
CONTRAST	This field allows you to adjust the display contrast level to accommodate the ambient lighting conditions of your working environment.
AUTO TUNING	Press “Enter” and then our device will be adjusted H-phase & H-position & V-position clock automatically
PHASE	This field allows you to fine-tune the sampling phase according to the signal pixel.
CLOCK	This field fine-tunes the sampling frequency, it will stretch or squeeze the display area horizontally.
H-POSITION	This field allows you to adjust the display to the right or left.
V-POSITION	This field allows you to adjust the display up or down on the screen.
SHARPNESS	This field allows you to fine-tune the display sharpness level.
COLOR TEMP	This field allows you to choose four types of color temperature 9300 °K, 7500 °K, USER and sRGB. If you chose the type of user, then you can adjust RGB for your needs.
LANGUAGE	This field allows you to choose six different languages (English, French, German, Spanish, Italian and Portuguese)
OSD H. Pos	Adjust OSD frame horizontal location, press “UP” key to shift frame right, “Down” key to shift frame left, timeout and reset OSD.
OSD V. Pos	Adjust OSD frame vertical location, press “UP” key to shift frame upward, “Down” key to shift frame left, timeout and reset OSD.
SOURCE	VGA or DVI
RESET	Recall the default value.

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