TFT LCD MONITOR

MANUAL

FQ238

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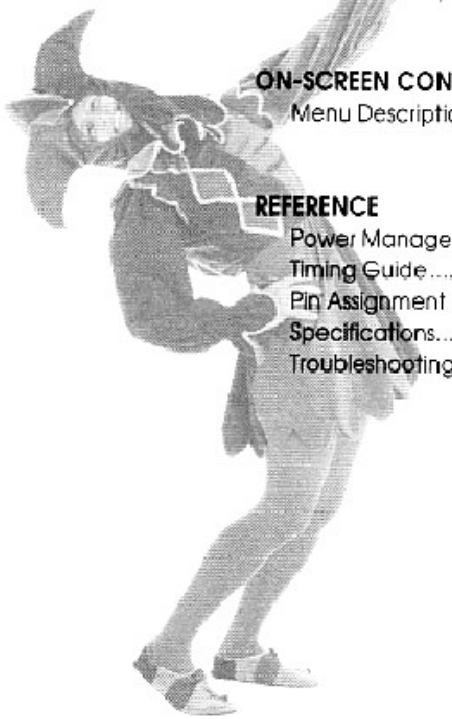

FCC COMPLIANCE STATEMENT

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* *Note :*

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

- *Reorient or relocate the receiving antenna.*
- *Increase the separation between the equipment and receiver.*
- *Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.*

CAUTION :

To comply within the limits for an FCC Class B computing device, always use the shielded signal cord supplied with this unit.

CAUTION TO THE USER :

The Federal Communications Commission warns that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions. The user may find the Federal Communications Commission booklet, How to Identify and Resolve Radio-TV Interference Problems, helpful. This booklet is available from the U.S. Government Printing Office, Washington, D.C., Stock No. 004-000-00345-4.

NOTICE OF COMPLIANCE WITH CANADIAN INTERFERENCE-CAUSING EQUIPMEN REGULATIONS

DDC COMPLIANCE NOTICE :

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

SAFETY INSTRUCTIONS

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Handling

Due to its fragile glass panel, this monitor must be handled with caution and not exposed to impact or shock.
Never touch the display area or rub it with a hard stiff object or tool, as the panel is easily scratched.

Cleaning

The display area is highly prone to scratching. Do not use ketone-type cleaners (i.e. acetone), ethyl alcohol, toluene, ethyl acid or methyl chloride to clean the panel. Doing so may result in permanent damage.

Water, IPA and Hexane are safe cleaners.

Do not allow oil or water to penetrate the display, as droplets cause staining and discoloration with Time.
Keep food particles and fingerprints away from the display area at all times.

Storage

Store the monitor in a dark place away from sunlight and ultraviolet (UV) radiation, as air bubbles May develop within the glass panel with time.

Do not store the display in temperatures higher than 40°C / 104°F or humidity greater than 90%. Avoid condensation.

Caution

1. Do not open any covers on the monitor. No user serviceable parts are inside.
2. In an emergency, disconnect the AC power plug.
3. To avoid electrical shock, disconnect the power cord from the AC adapter before connecting the signal cable to the computer.
4. Keep away from liquids and flame. Do not immerse this monitor in water or any other liquid. Do not use this device in excessively hot conditions.
5. Handle the power cord with care. Do not bend the power cord excessively or place heavy objects on it. Do not use a damaged power cord, as doing so can result in fire or electrical shock hazards. When disconnecting the power cord, always grasp the plug, not the cord.
6. The liquid crystals in the display panel contain several irritants. If the panel is damaged or broken, do not allow the liquid to come in contact with skin, eyes, or mouth. If you come in contact with the liquid, flush the affected area with

SAFETY INSTRUCTIONS

running water for at least 15 minutes, then consult a doctor.

7. Handle this monitor with care when moving it. When lifting the monitor, support it with one hand holding the stand, and one hand holding the stand, and one hand holding the LCD screen.
8. Always disconnect the power cord when moving this monitor.
9. Do not lay this monitor in the horizontal position when operating.
10. Please use the supplied AC- Adapter for safety
11. For safe use, do not tilt the LCD screen from the vertical position to forward and over the angle of 20 degrees from the vertical position to backward

GENERAL INFORMATION

Your new LCD monitor incorporates the latest state-of-art color Liquid Crystal Display (LCD) technology providing a wider viewing angle with higher contrast ratio for IBM compatible PC and Apple Macintosh.

Your new LCD monitor has many advantages : safe from electromagnetic wave, lights, sharps and slims. This makes the monitor extremely suitable in the environment of administration, transportation system research, etc.

Your new LCD monitor is designed for only Analog input support.

Your new LCD monitor does not emit any X-ray radiation and the magnetic emission greatly reduces the eyestrain. Moreover, our On Screen Controls on the side of the panel provide flexibility with simple controls. You can use these controls to adjust the display as you desire.

Your new LCD monitor incorporates an active TFT module. It has a 1280 x1024 pixel resolution, high contrast, wide viewing angle and colors up to 16.7M.

EQUIPMENT CHECKLIST

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Before operating your display, please check to make sure that all of the items listed are present in your package :

- ♦ Color TFT LCD Monitor (With 15-pin D-SUB cable)
- ◆ AC to DC Adapter & Power Cord

- ◆ Manual

Power Requirements

The monitor is equipped with an auto-sensing power supply for voltage ranging from 100-120VAC/200-240VAC, 50/60Hz.

Confirm the line voltage designation then power cable to the power jack.

MONITOR FEATURES

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- Supports Analog IBM compatible PC, Apple Macintosh™(Adapter optional)
- Supports DPMS for monitor power management
- Support DDC2B
- On Screen Control : Auto-Tune, Contrast, Brightness, H/V Position, H-Size, Phase, Auto-Level, Color Control, OSD Position, OSD Time-out, Power Save Delay, Language, Information.
- Built-in color active matrix TFT (Thin Film Transistor) Liquid Crystal Display (LCD) that uses amorphous silicon TFTs as a switching device.
- Resolution : up to 1280 x 1024
- Color : 16.7M Color support.
- Dot pitch : 0.264mm(H) x 0.264mm(W)
- Scanning frequency : 30kHz ~ 80kHz(H), 56Hz ~ 75Hz(V).
- Universal power supply : AC 100-240V allowed.
- Power consumption Normal : 45 Watt Max.

  Off : 3 Watt Max.
- Outside dimension : 414mm(W) x 402mm(H) x 190mm(D)
- Weight (net) : 6.0kg

INSTALLATION

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Follow these steps to install the monitor

1. Before you connect the cables, make sure the monitor and system unit power switches are OFF.

2. Plug one end of the 15-pin signal cable to the rear of your system.
   The adapter may be required for certain Apple Macintosh computers. Tighten the two screws on the cable connector.

3. Connect the power cord to the inlet socket which is located at the AC Adapter. Connect the plug into an AC wall outlet.

4. Connect DC plug of the AC Adapter to the DC Jack which is located at the end of the signal cable.

CONTROL BUTTONS

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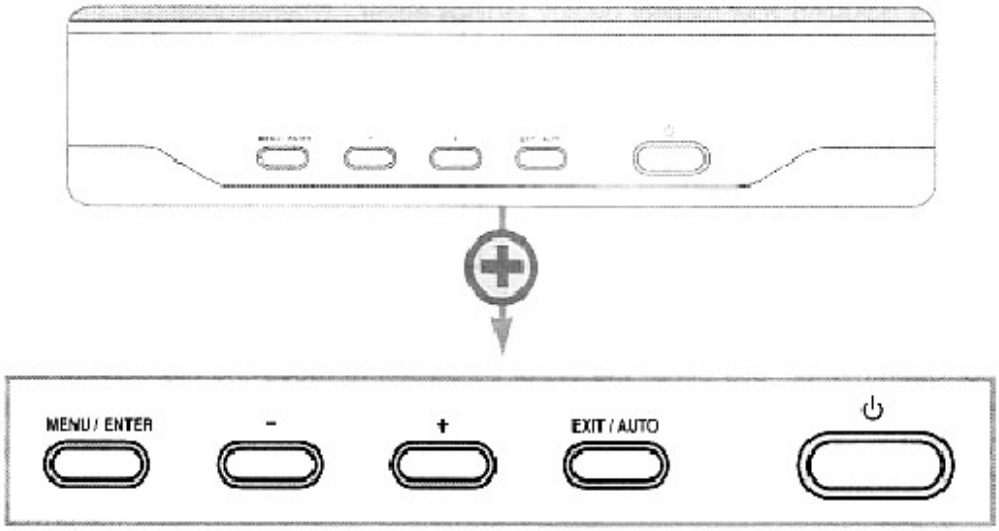
Front Controls



Button Description :

1. MENU/ENTER :

Display On Screen Control menu.
Select Control menu.

2. – :

Move selected icon up to select one of the controls.
Decrease the control value.

3. + :

Move selected icon down to select one of the controls.
Increase the control value.

4.EXIT / AUTO :

Exits the On Screen Control.
Do Auto Tune function. (Press and hold this button for two seconds)

ON-SCREEN DISPLAY

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This LCD monitor features an On-Screen Display OSD menu. These icons are designed to make adjusting your monitor display settings easier. When highlighted, the icons illustrate the control function to assist you in identifying which control needs adjustment.

Before activating the OSD menu, the EXIT/AUTO button can be used to automatically adjust the display to the proper size and horizontal and vertical position. (Press button for 2 seconds.)

The OSD menu activates automatically when you press the MENU/ENTER button on the Bottom of the monitor. The OSD remains centered on the screen while you make your adjustments. Use either the (+) or (-) button to move the highlight to your selection. A submenu or control with a status bar will appear. The status bar indicates in which direction, from the factory preset, which adjustments are being made. Use the (+) or (-) button to adjust the control.

The contrast and brightness menu can also be adjusted by simply pressing either the (+) or (-) buttons.

When you have finished making adjustments, press the EXIT/AUTO button to save setting and exit back to main menu.

MENU DESCRIPTIONS

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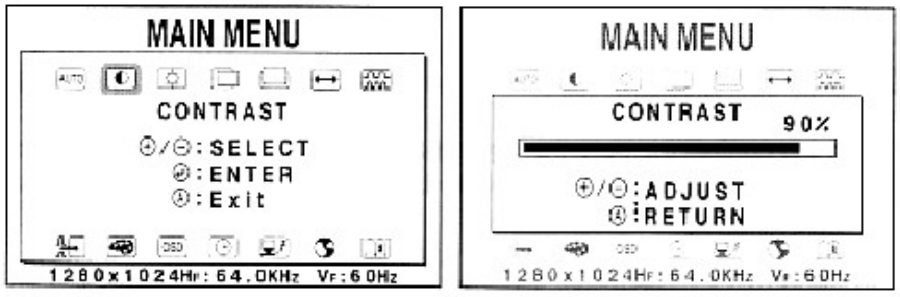

Main Menu

AUTO-TUNE

This control will automatically make adjustments to the horizontal and vertical size, horizontal and Vertical position and phase.

CONTRAST

This control allows you to make adjustments to the contrast of the display screen.

BRIGHTNESS

Selecting this control allows you to make adjustments to the luminosity level of the display screen.

H-POSITION(HORIZONTAL POSITION)

Select this control and then use the (+) and (-) buttons to center the image horizontally on the screen.

V-POSITION(VERTICAL POSITION)

Select this control and then use the (+) and (-) buttons to center the image horizontally on the screen.

H-SIZE(HORIZONTAL SIZE)

Select this control and then use the (+) and (-) buttons to expend or decrease the image width to Horizontally fill the display screen.

PHASE

Select this control and then use the (+) and (-) buttons to adjust the screen image until it looks focused, Crisp and sharp.

AUTO-LEVEL

MENU DESCRIPTIONS

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This control will automatically make adjustment to the input levels of video signal.(ex. 0.714Vp-p,1.0Vp-p)

COLOR CONTROL

Select this control, then use the (+) and (-) buttons to scroll to the desired color temperature. Use the(MENU/ENTER) button to select the 9300K, 6500K, 5500K or USER for custom setting.

R-GAIN(RED)

Select USER then use the (MENU/ENTER) button to scroll up and down the RGB menu to R(Red). Use the (+) and (-) buttons to adjust the red level of the display.

G-GAIN(GREEN)

Select USER then use the (MENU/ENTER) button to scroll up and down the RGB menu to G(Green). Use the (+) and (-) buttons to adjust the red level of the display.

B-GAIN(BLUE)

Select USER then use the (MENU/ENTER) button to scroll up and down the RGB menu to B(Blue). Use the (+) and (-) buttons to adjust the red level of the display.

OSD POSITION

Select this control and then use the (MENU/ENTER) button to select the direction to move the OSD menu. Use the (+) and (-) buttons to move the OSD menu.

OSD TIME-OUT

Select this control and then use the (MENU/ENTER) button to select the duration time for the OSD menu. Use the (+) and (-) buttons to select the time. (5,15,30,60 SEC)

POWER SAVE DELAY

This feature directs the monitor to stay in the on mode even after the computer goes into sleep mode. The user is able to select time of 5 seconds, 1 minute, 60 minutes , or OFF for the display to appear on the monitor screen.

LANGUAGE

Select this control and then use the (+) and (-) buttons to choose from English(ENGLISH), German(DEUTSCH), Spanish(ESPANOL), Italian(ITALIANO), French(FRAINCAIS), Japanese.

INFORMATION

Select this control and it will allows you to confirm information of the display.

** Note:*

You can get the best quality of the image under full-screen image with a running computer.

The function of AUTO-TUNE may not work properly if background color is dark or if the input Image does not fill the screen(ex: DOS text mode)

We strongly recommend that you just run the AUTO-LEVEL & AUTO-TUNE function to get the best image quality when you unpack the monitor or when you install different VGA card or PC.

POWER MANAGEMENT

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LED INDICATOR (POWER MANAGEMENT ACTIVE)

The power management feature of this LCD monitor is comprised of two stages : On or Out of Range(Green), Off (Amber/Green blinking).

In the off mode, all circuitry in the monitor is shut down, except for a low power detection circuit. This circuit allows the monitor to wake up when the mouse is moved or a key on the keyboard is pressed.

Power Mode	H-Sync	V-Sync	Video	LED Color
Normal	Pulse	Pulse	Active	Green
Out Of Range	Pulse	Pulse	Active	Green
Off	Pulse	No Pulse	Blanked	Green / Amber blinked per 1 second
Off	No pulse	Pulse	Blanked	Green / Amber blinked per 1 second
Off	No pulse	No pulse	Blanked	Green / Amber blinked per 1 second

TIMING GUIDE

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The LCD is a multi-frequency display. It operates at horizontal frequencies between 30KHz~80KHz and vertical frequencies between 56Hz~75Hz. Because of its microprocessor-based design, it offers auto-synchronization and auto-sizing capabilities. This monitor offers 10 preprogrammed settings that are listed in the timing table on page 11.

These preset modes cover most of the common video modes supported by popular graphics adapters. However, each adapter's implementation of these video modes may vary slightly. If you find it necessary to make minor display adjustments (for example, horizontal and vertical position), please refer to the On Screen Display section of this manual for instructions.

If you would like to use one of the preset timing modes, please refer to your video card manufacturer's installation guide for instructions on how to make these changes. The video card controls the refresh rate. Most video cards provide a software utility or hardware DIP switches that allows you to change the frequency used for each resolution.

Timing Table

Preset		Resolution		Frequency		Clock [MHz]	Polarity (H/V)
		Horizontal	Vertical	Horizontal	Vertical		
VGA	M 1	720	400	31.5kHz	70Hz	28.322	-/+
VESA	M 2	640	480	31.5kHz	60Hz	25.175	-/-
	M 3	640	480	37.5kHz	75Hz	31.500	-/-
	M 4	800	600	37.9kHz	60Hz	40.000	+/+
	M 5	800	600	46.9kHz	75Hz	49.500	+/+
	M 6	1024	768	48.4kHz	60Hz	65.000	-/-
	M 7	1024	768	60.0kHz	75Hz	78.750	+/+
	M 8	1280	1024	64.0kHz	60Hz	108.000	+/+
	M 9	1280	1024	80.0kHz	75Hz	135.000	+/+
MAC	M 10	832	624	49.7kHz	75Hz	57.284	-/-

* ***Note :***

In case of using Macintosh™, you may need a Mac adapter.

PIN ASSIGNMENT

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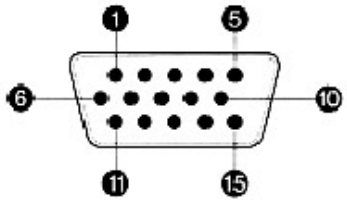
POWER JACK

1	Ground
2	DC + 12V

VGA Connector



Pin 1	Red
Pin 2	Green
Pin 3	Blue
Pin 4	No Connection
Pin 5	Ground
Pin 6	Red Ground
Pin 7	Green Ground
Pin 8	Blue Ground
Pin 9	No Connection
Pin 10	Ground
Pin 11	Ground
Pin 12	DDC SDA
Pin 13	Horizontal Sync.
Pin 14	Vertical Sync.
Pin 15	DDC SCL

** Note :*

When resolutions are shown that are lower than the pixel count of the LCD panel, text may appear choppy or bold. This is normal all current flat panel technologies when displaying non-native resolutions on a full screen (below than 1280×1024 resolution). In flat panel technologies, each dot on the screen is actually one pixel, so to expand resolutions to full screen, an interpolation of the resolution must be down. When the interpolated resolution is not an exact multiple of the native resolution the mathematical interpolation necessary may cause some lines to appear thicker than others.

SPECIFICATIONS

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LCD	Type Color Filter Colors Glass surface	17" diagonal viewable screen TFT (Thin Film Transistor) Active Matrix Panel, 0.264mm pixel pitch R,G,B vertical Stripe 16.7M Anti-glare coating
Viewing Angles (CR≥10)	Left / Right Up / Down	65° / 65° 45° / 65°
Contrast Ratio	Typ.	450 : 1
Luminance of White	Typ.	250cd/m²
Compatibility	PC	IBM XT, AT, 386, 486, Pentium or PS/2 and compatibles (from VGA up to 1280x1024 @ 75Hz NI.)
Refresh Rate	Max.	1280x1024 @ 75Hz NI (60Hz for optimal display)
Connectors	Input Signal Power	15-pin D-SUB Jack type DC+12V in
Power	Input Output Consumption	AC 100-240V 56-60Hz DC 12V 45 watts
Display Area	Max	337.9mm(H) x 270.3mm(V)
Operating	Temperature Humidity Altitude Tilt Angle	32°F to 104°F (0°C to 40°C) 20% RH to 90% RH (no condensation) To 10,000 feet Vertical to 20° (Backward)
Storage Conditions	Temperature Humidity	-14°F to 104°F (-20°C to 40°C) 5% RH to 90% RH (no condensation)
Dimension		413.0mm(W) x 418.0mm(H) x 175.0mm(D)
Weight	Net	(6.5kg)

TROUBLESHOOTING

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No power.

- Flip the power switch ON. The Power LED turns on.
- Make sure AC power cord is securely connected to the power jack and to a power outlet.

Power on but no screen image.

- Make sure the video cable attached with this monitor is tightly secured to the video output port on the back of the computer
- Adjust the brightness and contrast.

Image is unstable, unfocused.

- Use AUTO-TUNE to adjust automatically.
- If the image is still unstable after AUTO-TUNE processing, please adjust PHASE manually to get image focused.
- Check whether the resolution or refresh rate in windows display setting is beyond supported range (please refer to the specification of supported mode.)

Flickering

- Not enough power is being supplied to the F-207/B Monitor.
  Connect the F-207/B Monitor to a different outlet. If a surge protector is being used, there may be too many devices plugged in.
- See Timing Guide in this manual with a list of refresh rates and frequency settings showing the recommended setting for the F-207/B Monitor.

Wrong or abnormal colors.

- If any colors (Red, Green, or Blue) are missing, check the video cable to make sure it is securely connected. Loose pins in the cable connector could cause a bad connection.
- QTL-1800X Monitor to another computer ır.
- Check the graphics card for proper sync scheme (or sync polarities) to match the QTL-1800X Monitor's Specifications.

Double (split) screen image

- Make sure your graphics card is set to Non-Interlaced mode.

Entire screen image rolls (scrolls) vertically.

- Make sure the input signals are within the LCD monitor's specified frequency range. (Maximum : VESA, MAC 1280×1024 @ 75Hz)
- Connect the video cable securely.

Control buttons do not work.

- Press only one button at a time.

ABOUT THE LCD

The LCD contains over 3,932,160 thin-film transistors (TFTs).
A small number of missing, discolored, or lighted dots on the screen is an intrinsic characteristic of TFT LCD technology and is not an LCD defect.
If you display a fixed pattern for more than 10 hours, its image may remain on the screen in overlap mode when you display something else.

TFT LCD MONITOR

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