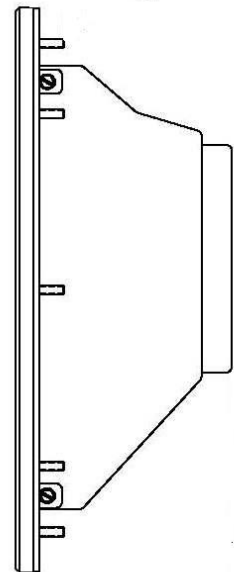
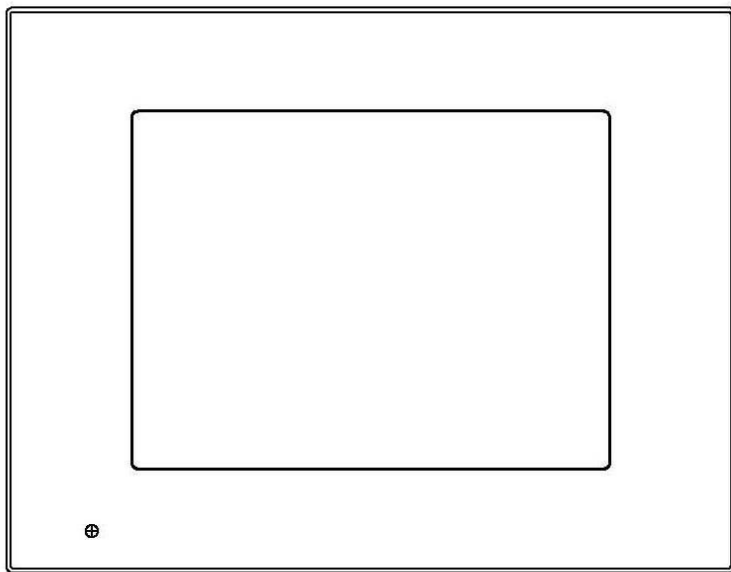




Solutions for Demanding Applications

**VARTECH
SYSTEMS INC.**



12.1" Panel Mount High Bright Monitor

Model VT121PHBL

User's Guide

Read these instructions completely before attempting to operate your new Panel Mount High Bright Monitor

Revision History

| Date | Rev No | Summary | Page |
|----------|--------|-------------|------|
| 11/19/07 | 00 | First Issue | |
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BEFORE MAKING ANY CONNECTIONS OR APPLYING POWER,

FIRST READ THROUGH THE ENTIRE MANUAL

Safety Instructions

- Read the Safety Instructions carefully and keep it for use later.
- The chassis metalwork of the module must be installed properly to the main earthing termination for Class 1 equipment.
- Care must be exercised in the application of the system to prevent overheating. Ensure that the ambient temperature around the system does not exceed 60°C and provide adequate means of ventilation to achieve this.
- When cleaning cut off the electrical supply at all times. Never use liquid or aerosol detergent, use a soft damp cloth instead.
- Never insert anything metallic into the chassis openings. This may create an electric shock hazard or hazard from rotating fan blades.
- To avoid electric shock, never touch the inside of the system. There are no user adjustable components inside, only a qualified technician should open the system's case.
- Openings in the system enclosure are to allow for ventilation. To prevent overheating, these openings should not be blocked or covered.
- Do not expose the LCD to rain or use near water. If the LCD accidentally gets wet, disconnect it from any electrical source immediately.
- If the system does not operate normally – in particular, if there are any unusual sounds or smells coming from it – disconnect it immediately.
- Do not put pressure on the LCD panel screen because it is very fragile.
- Always handle the system with care when moving it.
- Take care that the system is disposed of correctly at the end of its life. If in doubt refer to your local ordinances or regulations for proper disposal.

Cleaning the LCD monitor

To clean the LCD panel:

- Wipe the screen gently with a clean lens brush made of camel hair, or a soft, clean, lint free cloth. This is to remove dust and other particles without scratching the LCD panel.
- If it is still not clean, then wipe with a damp lint free cloth and blow on it to dry.

Do not clean the panel with a keton-type material (e.g. acetone), or ethyl toluene, ethyl acid, methyl or chloride. These may damage the LCD panel.

Do not apply pressure to the LCD panel.

Specifications

| | |
|------------------------|--|
| LCD Panel: | 12.1" SVGA (Sharp LQ121S1DG41) |
| Brightness: | 1500 cd/m ² minimum |
| Contrast: | 300/1 typical |
| Active Display: | Horizontal: 246.0mm Vertical: 184.5mm |
| Video Signal: | Analog RGB (0.7Vp-p positive into 75 Ohm) |
| Sync signal: | Separate TTL sync. |
| Mechanical Dimensions: | 411.1 (W) x 338.9 (H) x 107.8 (D) mm |
| Weight: | 2.3 Kg |
| Power: | +12VDC 4A, +5VDC 2A |
| Temperatures: | Operating temp: from 0 to 50°C @ 95% RH or less Storage temp: from -25 to 60°C @ 95% RH or less |

Diagnostic Port

There is a RJ45 Diagnostic port for service personnel only

Light Dimmer Sensor

There is an automatic light dimmer sensor located in the lower left side of the faceplate. This feature automatically raises or lowers the backlight according to the external ambient light surroundings. The sensor changes the setting approx every 10-15 minutes and is not instantaneous. Make sure this sensor has a non-obstructed path to function correctly.

Display Modes

The monitor will accept the following display modes:

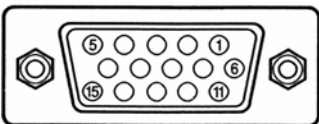
| Resolution | (pixels) | Fh (KHz) | Fv (Hz) | Hsync | Vsync | Format |
|------------|------------|----------|---------|---------|---------|-----------|
| EGA | 640 x 350 | 31.47 | 70 | +ve | -ve | Set Up |
| TEXT | 720 x 400 | 31.47 | 70 | -ve | +ve | Set Up |
| VGA | 640 x 480 | 31.47 | 60 | -ve | -ve | Set Up |
| SVGA | 800 x 600 | 37.88 | 60 | +ve | +ve | Set Up |
| XGA | 1024 x 768 | 48.28 | 60 | -ve | -ve | Set Up |
| VGA+ | 800 x 600 | 35.16 | 56 | +ve/-ve | +ve/-ve | Supported |
| VGA+ | 800 x 600 | 48.08 | 72 | +ve/-ve | +ve/-ve | Supported |
| XGA | 1024 x 768 | 56.48 | 70 | -ve | -ve | Supported |
| XGA | 1024 x 768 | 60.02 | 75 | +ve | +ve | Supported |
| VGA | 640 x 480 | 37.86 | 72 | -ve | -ve | Supported |

The monitor meets the VESA EDID and plug and play (DDC) standards.

Pin Assignments

Signal -Analog: 15 pin HD VGA connector

| Pin | Function | Pin | Function |
|-----|--------------------|-----|------------------|
| 1 | Red video | 9 | +5V supply (DDC) |
| 2 | Green video | 10 | Sync ground |
| 3 | Blue video | 11 | Monitor ID bit 0 |
| 4 | Monitor ID bit 2 | 12 | SDA (DDC data) |
| 5 | Ground | 13 | Horizontal sync. |
| 6 | Red video ground | 14 | Vertical sync. |
| 7 | Green video ground | 15 | SCL (DDC data) |
| 8 | Blue video ground | | |



Power Connector

| PIN | FUNCTION | TOLERANCE | I _{max} |
|-----|----------|-----------|------------------|
| 1 | +5VDC | +/- 5% | < 2A |
| 2 | +12VDC | +/- 5% | < 4A |
| 3 | GND | | |
| 4 | GND | | |



Installation of Your Panel Mount High Bright Monitor

Packaged with each carton will be:

- 1 – VT121PHBL
- 1 - AC Power Cable
- 1 – AC Power Adapter
- 1 - #10-32 Mounting Hardware
- 1 - Users Guide (Printed or on CD)

Panel Mount Procedure

Panel Mounting Procedure:

- 1- Cut and drill the panel (refer to the panel mount drawing, Figure A). Measurements are provided in inches and millimeters.

Panel Mounting Cutout:

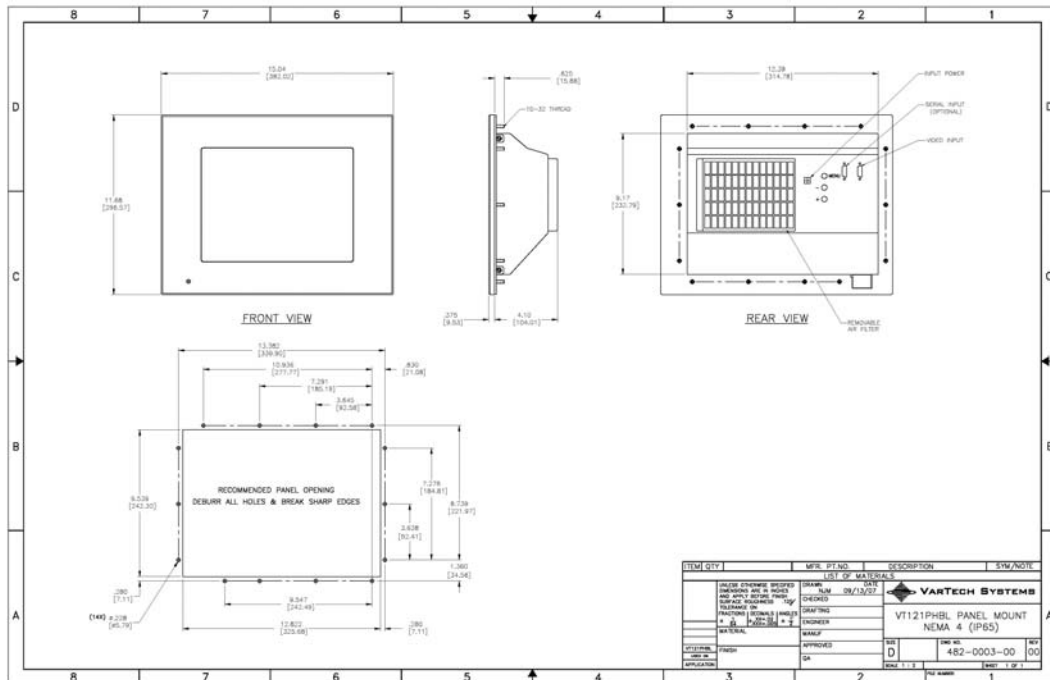
- 1- If access to the bottom of the enclosure is not available following installation, attach the power and all necessary cables to the bottom side of the enclosure at this time.
- 2- Install the enclosure in the prepared cutout.
- 3- Secure the enclosure using the lock nuts and washers, supplied with the unit, behind the holes running along the sides and the top and bottom of the cutout in the panel. Extra lock nuts and washers are provided.

NOTE: Use #10-32 nuts for mounting.

- 4- Tighten all mounting hardware to a torque of 24 inch-pounds.

ATTENTION: Mounting nuts must be tightened to a torque of 24 inch-pounds to provide a proper panel seal and avoid potential damage. Vartech Systems assumes no responsibility for water or chemical damage to the monitor or other equipment within the enclosure due to improper installation.

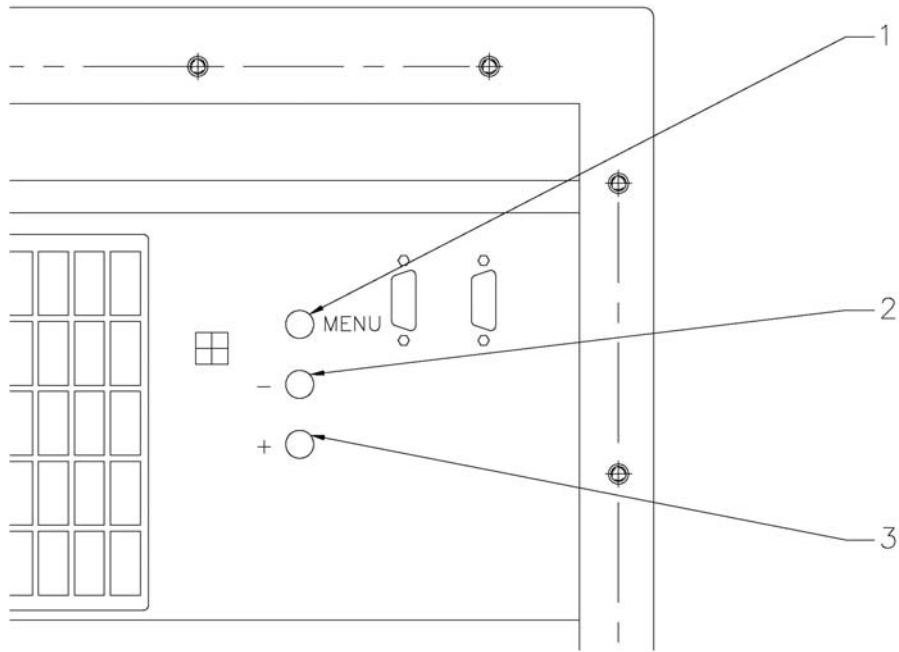
- 5- Attach the power, video and system cables to the enclosure if you have not already done so.



Panel Mount Drawing: Detail -A-

Controls

The controls are three buttons found on the rear of the unit.



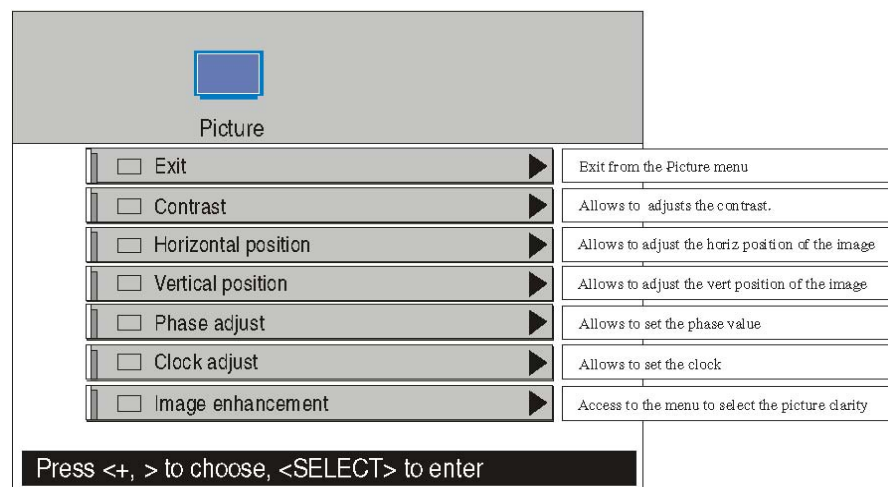
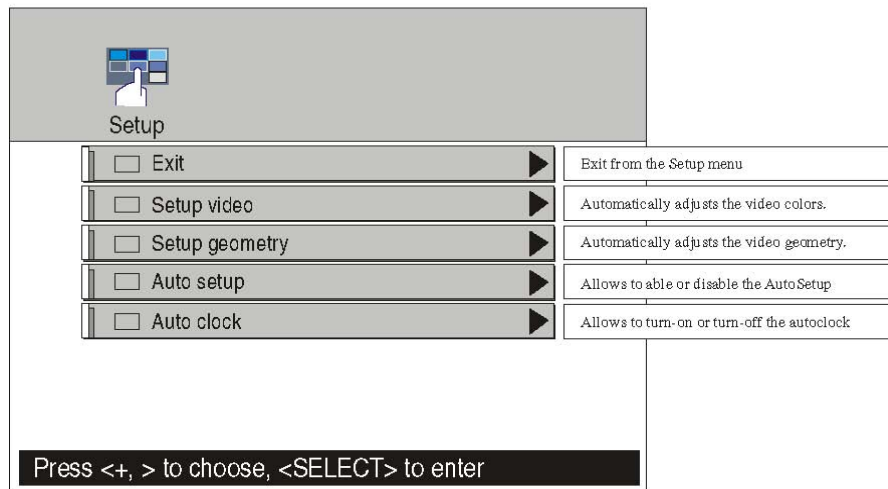
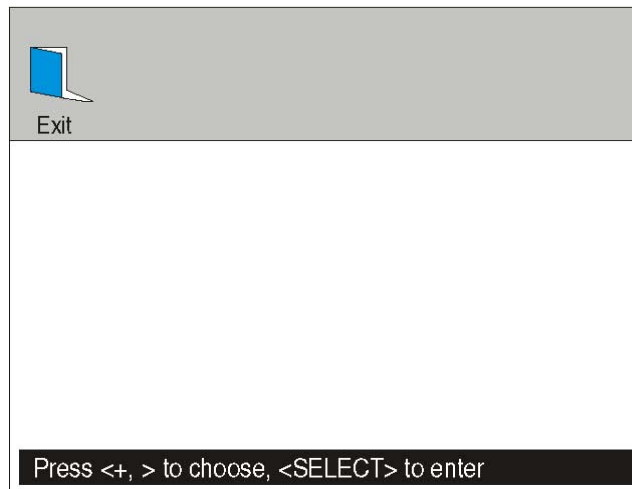
- | | |
|-----------------|---|
| Button 1 (Menu) | Displays the main menu and the other sub-menus. Selects the chosen setting or function, and afterwards saves it. |
| Button 2 (-) | Scrolls down the menu and adjusts the level of the control. |
| Button 3 (+) | Scrolls up the menu and adjusts the level of the control. |


To make picture adjustments, initially pressing the “Menu” button to bring up the OSD Main Menu. Then, pressing the “+” or “-” button scroll through the Main Menu to highlight the various functions, pressing “Menu” again selects the required command/sub menu.

If an adjustment has been made, there is no need to use a store command for this new setting as this will occur automatically.

To exit the menu, select EXIT within the menu structure. If no buttons have been pressed for a short period of time, the menu will automatically disappear from the screen.


On-Screen Display Menu




Color


| | | |
|---|---|--|
| <input type="checkbox"/> Exit | ▶ | Exit from the Color menu |
| <input type="checkbox"/> Colour temperature | ▶ | Allows to set the color temperature value. |
| <input type="checkbox"/> Red gain | ▶ | Allows to set the color gain |
| <input type="checkbox"/> Green gain | ▶ | Allows to set the color gain |
| <input type="checkbox"/> Blue gain | ▶ | Allows to set the color gain |
| <input type="checkbox"/> Red level | ▶ | Allows to set the color level |
| <input type="checkbox"/> Green level | ▶ | Allows to set the color level |
| <input type="checkbox"/> Blue level | ▶ | Allows to set the color level |

Press <+, > to choose, <SELECT> to enter


OSD

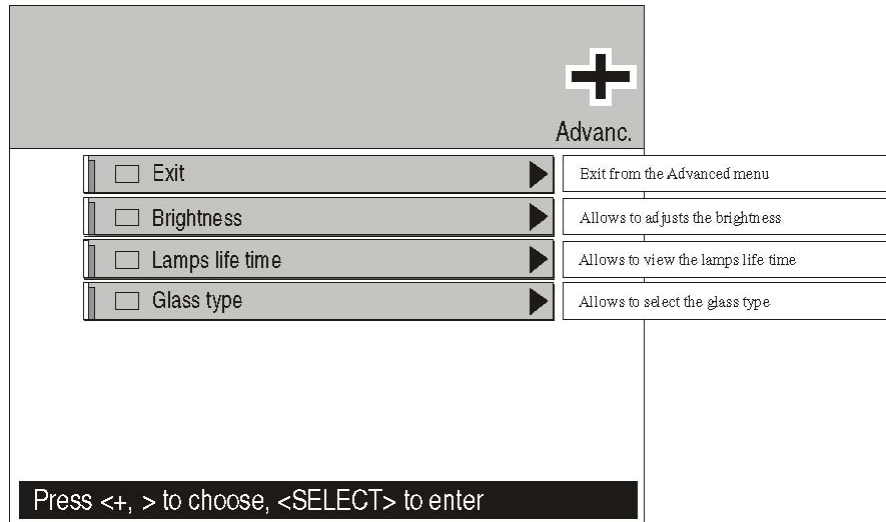
| | | |
|--|---|---|
| <input type="checkbox"/> Exit | ▶ | Exit from the OSD menu |
| <input type="checkbox"/> Horizontal position | ▶ | Adjusts the hor. position of the OSD menu |
| <input type="checkbox"/> Vertical position | ▶ | Adjusts the vert. position of the OSD menu |
| <input type="checkbox"/> Size | ▶ | Allows to adjust the size of the OSD menu |
| <input type="checkbox"/> Transparency | ▶ | Used to adjust the transparency of the OSD menu |
| <input type="checkbox"/> Timeout | ▶ | Sets the duration of the OSD menu |

Press <+, > to choose, <SELECT> to enter


System

| | | |
|--|---|--|
| <input type="checkbox"/> Exit | ▶ | Exit from the System menu |
| <input type="checkbox"/> Signal info | ▶ | Allows to view the signal information |
| <input type="checkbox"/> Firmware Version | ▶ | Allows to view the firmware version |
| <input type="checkbox"/> Test pattern | ▶ | Allows to test the pattern of the monitor |
| <input type="checkbox"/> Restore factory presets | ▶ | Restore the setting made by the manufacturer |

Press <+, > to choose, <SELECT> to enter



After picture adjustments have been optimized, the settings are memorized automatically. The OSD menu will disappear after 10 seconds of inactivity (timeout adjustable through the OSD menu) or the OSD can be exited by selecting EXIT.

- Brightness: regulates the overall level of white light viewable on the screen.
- Contrast: controls the range between black and white of the image on the screen.

LCD Monitor Warm-up Time

All LCD monitors need time to become thermally stable the first time you turn them on. Therefore, to achieve more accurate adjustments for parameters, allow the LCD monitor to warm (be on) for at least 20 minutes before making any screen adjustments.

Maintenance

The Panel Mount High Bright Monitor is designed to provide optimum service and performance with minimal maintenance including the occasional external cleaning. For cleaning the Panel Mount High Bright Monitor enclosure follow the suggested guidelines.

General – NEVER use abrasive cleaners or solvent-based cleaners!! Use a clean soft cloth. The Panel Mount High Bright Monitor should only be opened and serviced by a qualified technician. Keep the area around the Panel Mount PC clear and free of excessive dirt or other contaminants. Do not use water or any liquids on the Panel Mount High Bright Monitor.

For Additional Assistance
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