

# LM-2010 / 2110 LCD Monitor User's Manual

**POSIFLEX**



Rev. A0

## I. FEATURES

- Light weight and high luminance LCD monitor for industrial and commercial use
- Application covers POS, POIS (Kiosk), factory Automation etc.
- High quality 10.4" TFT LCD panel with scaling up function for full screen display
- Supports display resolution up to 800 x 600 pixels
- Tilt adjustable construction
- Spill proof and easy maintenance structure allowing easy cleaning

### FCC NOTICE

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with limits for a Class A digital device pursuant to subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures to correct the interference.

### WARRANTY LIMITS

Warranty will terminate automatically when the machine is opened by any person other than the authorized technicians. The user should consult his/her dealer for the problem happened. Warranty voids if the user does not follow the instructions in application of this merchandise. The manufacturer is by no means responsible for any damage or hazard caused by improper application.

### ABOUT THIS MANUAL

This manual assists the user to utilize the LCD Monitor LM-2010/2110 series. This series is a 10.4" LCD monitor of long endurance industrial standards. The LM-2010 is a upgrade kit particularly designed for Posiflex hybrid terminal HT series host system.

The manufacturer of the LM-2010/2110 series heartily apologizes to the user for reserving the right to change or to modify this manual without notice due to the rapid and constant progress and improvement on science and technology. The user may always obtain the most up to date information through any of our web sites: <http://www.posiflex.com.tw>, <http://www.posiflex.com>, <http://www.posiflexusa.com>.

© Copyright Posiflex Technologies, Inc. 2007

### TRADE MARKS AND SERVICE MARKS

**CE** POSIFLEX is a registered trademark of Posiflex Technologies, Inc..

Other brand and product names are trademarks and registered trademarks and service marks of their respective owners.

## II. MODEL NUMBERS

LM-2110: 10.4" LCD Monitor w/ stand

LM-2010: 10.4" LCD Monitor w/ support bracket for Posiflex hybrid terminals HT series

## III. CARTON CONTENTS

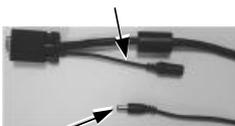
1. LCD Monitor panel unit
2. Base stand (for LM-2110) or support bracket (for LM-2010)
3. Fixing screws (2x for LM-2010, 6x for LM-2110)
4. User's Manual
5. VGA cable: 21867244100 (for LM-2110) or 21863241730 (for LM-2010)
6. Power adaptor: ASP0P042WTB001 & power cord (for LM-2110)

## IV. INSTALLATION

1. Use 2 fixing screws to fit the monitor stand (for LM-2110) or support bracket (for LM-2010) to the back of the LCD panel as arrowed in the right picture. Connect the VGA cable to the connector at back of the LCD panel and screw in its fix screws as circled in the same picture.



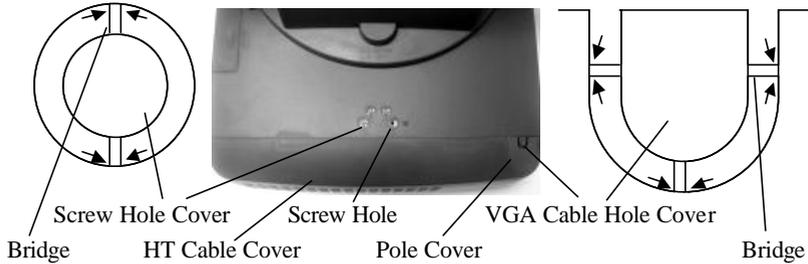
Power Connector in VGA Cable for LM-2110



Power Connector from Power Adaptor

2. For LM-2110, connect the power connector at panel back end of VGA cable to the power connector as in left picture. Connect and screw-fix the other end of VGA cable to the appropriate VGA port of host system. Please check that the city power supply specification from the wall socket is within the operation range of the power adaptor. Insert the power adaptor to the wall socket and the LM-2110 is ready for work.
3. For LM-2010, following actions shall be taken to install it onto HT systems with power for HT systems disconnected and also reference of the manuals of the HT systems.  
On base unit of HT systems, there must be 4 screw hole covers on top side of its plastic top cover and the VGA cable hole cover within the pole cover of its back cable cover as in picture below. There are 2 bridges from each screw hole cover to the HT top cover and 3 bridges from the VGA cable hole cover to the pole cover as enlarged in the

accompanying drawings.



Use proper tool to cut the bridges off with the screw hole cover and VGA cable hole cover from the top cover and pole cover at points indicated by each pair of arrows in the drawings. Sand/Cut smooth the inside of the holes resulted.

In the HT system, please arrange the VGA power to be supplied through the interface cable from the main unit through internal jumper setting change with reference to its technical information by a qualified technician.

Connect and screw the video interface cable to the VGA port. The monitor will always turn ON whenever power is made available from the HT system. Use 4 fixing screws to fit the bottom of LM-2010 supporting bracket to HT system base top as arrowed in the right picture and have the VGA cable pass through the VGA cable hole as circled in the same picture.



Please note that for LM-2010 with a 2-digit system revision number, the screw holes on support bracket base look like the below left picture and the LM-2010 can be fixed to straight backward of the HT or PB system. For LM-2010 with 3-digit system revision number (3<sup>rd</sup> digit



being "a") or later, the bracket base is like the right picture and the LM-2010 can be swiveled to within +/- 30 degrees from the straight backward direction for best installation in application

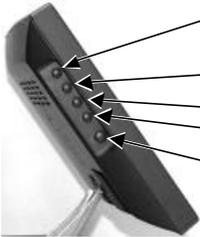


environment before fixing tight the screws.

- Adjust for best viewing tilt angle and engage the on screen display (OSD) adjustment for best display effect whenever necessary. The monitor will sign for “No Signal” status and go into power saving mode in 5 seconds when there is no video signal. The display will come back when the signal does.

## V. OSD

### A. OSD buttons



**“OSD” button:** To enter OSD setup menu, or to perform function selected in OSD operation.

**“NXT” button:** To go to next option function.

**“ + ” button:** To increase setting.

**“ - ” button:** To decrease setting.

**“ ⏻ ” button:** To turn the monitor power ON/OFF. The monitor can be turned OFF only when there is video signal and can be turned ON only when there is video

signal and after the “Turn Off Panel” message vanishes. The default status is set to ON when power is supplied unless manually turned OFF. Since this button controls only the display power but not the display controller, please try disconnect the power cable or the VGA cable once unfortunately the screen display goes into a mess.

### B. OSD functions

Press “OSD” button with a normal display on the screen to activate the OSD functions (On Screen Display adjustment). The OSD window will pop up on the screen. On top part of this window is a Posiflex logo with the OSD firmware version indicated to its lower right. Below this area is a row of icons for main OSD menu. Below the main menu is a group of icons for submenu that corresponds to one icon selected in the main menu. An analysis of the video signal on resolution and refresh rate will be displayed at the bottom. Applicable icons in the main menu and its subsequent menus are explained below.

**“MAIN MENU”:** There are in total 5 icons in this menu: One of the 5 icons will be displayed in inverted color to indicate its  relationship with the submenu below. Pressing “NXT” button will shift the selected icon one by one from left to right and then wrap around to the most left. Press “OSD” button to enter the selected sub menu. If there is no button for OSD setting is pressed within a period of time (about 5 seconds to 1 minute as programmed) the OSD window will disappear with all the adjusted parameters saved. Explanations on items in sub menu are as below.

 **“BRIGHTNESS / CONTRAST ADJUST SUBMENU”**: There are 3 icons in this submenu:    Press “OSD” button to select item or return to main menu. Press “NXT” button to select among brightness, contrast and exit.

 **“BRIGHTNESS ADJUST”**: When this item is selected, there will be only the brightness icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to increase brightness. Press “-” to decrease. Press “OSD” button to save the current setting and return to “Brightness/Contrast submenu”.

 **“CONTRAST ADJUST”**: When this item is selected, there will be only the contrast icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to increase contrast. Press “-” to decrease. Press “OSD” button to save the current setting and return to “Brightness/Contrast submenu”.

 **“EXIT”**: Return to “Main menu”.

 **“COLOR ADJUST SUBMENU”**: There are 4 icons in this submenu:     Press “OSD” button to select item or return to main menu. Press “NXT” button to select among auto color adjust, auto RGB reset, Color balance adjust and exit.

 **“AUTO COLOR ADJUST”**: Upon an “OSD” button press on this icon the monitor will perform an automatic color adjustment and exits the OSD window leaving 2 icons below at center of the screen. Press “NXT” button to switch the selection. Press “OSD” button to make the choice.

 **“ACCEPT”**: Accept the adjustment setting.

 **“REJECT”**: Decline the adjustment setting and return to previous setting.

 **“AUTO RGB RESET”**: Upon an “OSD” button press on this icon the monitor will perform an automatic RGB reset and exits the OSD window leaving 2 icons below at center of the screen. Press “NXT” button to switch the selection. Press “OSD” button to make the choice.

 **“ACCEPT”**: Accept the reset result.

 **“REJECT”**: Decline the reset and return to previous setting.

 **“COLOR BALANCE ADJUST”**: When this item is selected, there will be 7 icons in this item:  between main menu area and the video signal mode. Press “OSD” button to select an item or return to color adjust submenu. Press “NXT” button to select among separate color adjust, 4200K, 5000K, 6500K, 7500K, 9300K and exit.

 **“SEPARATE COLOR ADJUST”**: When this item is selected, there will be 3 adjustment indication bars between the main menu area and the video signal mode. Press “NXT” button to select among the 3 colors Red, Green and Blue respectively. Press “+” button to intensify that color. Press “-” to reduce. Press “OSD” button to save the current setting and return to “Color balance adjust submenu”.

 **“4200K”**: Pressing “OSD” button on this icon will set the color balance to a color temperature of 4200 degrees Kelvin.

 **“5000K”**: Pressing “OSD” button on this icon will set the color balance to a color temperature of 5000 degrees Kelvin.

 **“6500K”**: Pressing “OSD” button on this icon will set the color balance to a color temperature of 6500 degrees Kelvin.

 **“7500K”**: Pressing “OSD” button on this icon will set the color balance to a color temperature of 7500 degrees Kelvin.

 **“9300K”**: Pressing “OSD” button on this icon will set the color balance to a color temperature of 9300 degrees Kelvin.

 **“EXIT”**: Return to “Color adjust submenu”.

 **“EXIT”**: Return to “Main menu”.

 **“GEOMETRY ADJUST SUBMENU”**: There are 6 icons in this submenu:       Press “OSD” button to select item or return to main menu. Press “NXT” button to select among auto geometry adjust, horizontal size, phase, horizontal position, vertical position and exit.

 **“AUTO GEOMETRY ADJUST”**: Upon an “OSD” button press on this icon the monitor will perform an automatic geometry adjustment and exits the OSD window leaving 2 icons below at center of the screen. Press “NXT” button to switch the selection. Press “OSD” button to make the choice.

 **“ACCEPT”**: Accept the adjustment setting.

 **“REJECT”**: Decline the adjustment setting and return to previous setting.

 **“HORIZONTAL SIZE”**: When this item is selected, there will be only the horizontal size icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to increase horizontal size. Press “-” to decrease. Press “OSD” button to save the current setting and return to “Geometry adjust submenu”.

 **“PHASE”**: When this item is selected, there will be only the phase adjust icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” or “-” button to adjust the pixel synchronization phase for best picture display. Press “OSD” button to save the current setting and return to “Geometry

adjust submenu”.

 **“HORIZONTAL POSITION”**: When this item is selected, there will be only the horizontal position icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” or “-” button to shift the screen display to right or left. Press “OSD” button to save the current setting and return to “Geometry adjust submenu”.

 **“VERTICAL POSITION”**: When this item is selected, there will be only the vertical position icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to shift up the screen display. Press “-” to shift down. Press “OSD” button to save the current setting and return to “Geometry adjust submenu”.

 **“EXIT”**: Return to “Main menu”.

 **“TOOLS SUBMENU”**: When this item is selected, there are 5 icons in this submenu:  Press “OSD” button to select item or return to main menu. Press “NXT” button to select among OSD submenu, reset to default, phase, smoothness / sharpness adjust, mode select and exit.

 **“OSD SUBMENU”**: When this item is selected, there are 4 icons in this submenu:  Press “OSD” button to select item or return to main menu. Press “NXT” button to select among OSD time, OSD horizontal position, OSD vertical position and exit.

 **“OSD TIME”**: When this item is selected, there will be only the OSD time icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” or “-” button to adjust the waiting time for OSD operation before OSD termination between 5 to 60 seconds. Default is 30 seconds. Press “OSD” button to save the current setting and return to “OSD submenu”.

 **“OSD HORIZONTAL POSITION”**: When this item is selected, there will be only the vertical position icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to shift OSD window right. Press “-” to shift left. Press “OSD” button to save the current setting and return to “OSD submenu”.

 **“OSD VERTICAL POSITION”**: When this item is selected, there will be only the vertical position icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to move OSD window downward. Press “-” to go upward. Press “OSD” button to save the current setting and return to “OSD submenu”.

 **“EXIT”**: Return to “Tools submenu”.

 **“RESET TO DEFAULT”**: Pressing “OSD” button on this icon will set all parameters back to the status when the monitor left factory.

 **“SMOOTHNESS / SHARPNESS ADJUST”**: When this item is selected, there will be only the smoothness / sharpness adjust icon with an adjustment indication bar under it between the main menu area and the video signal mode. Press “+” button to increase smoothness of display (decrease sharpness). Press “-” to go the other way. Press “OSD” button to save the current setting and return to “OSD submenu”.

 **“MODE SELECT”**: Pressing “OSD” button on this icon will have no effect at all if the display mode is not one of the confusing modes. The confusing modes here mean 640 x 400 or 720 x 400 in display resolution as both mode have refresh rate of 70Hz, horizontal frequency of 37.9KHz and pixel frequency of 31.5MHz making it impossible for automatic select. These modes are not used in normal Windows display.

 **“EXIT”**: Return to “Main menu”.

 **“EXIT”**: Exit OSD setup with all adjustment saved.

## VI. SUPPORTED DISPLAY MODES

For video signals beyond the supported display modes, there will be a message “Out Of Range” on middle of screen. Maximum supported color depth is 18 bits or 262,144 colors. Supported display modes are as in the table:

Display Resolution	Refresh Rate (Hz)	Horizontal Frequency (KHz)
640*400	70	37.9
	60	31.5
640*480	72	37.9
	75	37.5
720*400	70	37.9
800*600	56	35.1
	60	37.9
	72	48.1
	75	46.9



**POBIFLEX**



**警告使用者**

**T31454**

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Part 10