



Manual

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1. Introduction

Congratulations with the purchase of your monitor. This LCD monitor is a color active matrix thin-film-transistor (TFT) liquid crystal (LCD) to provide superior display performance.

2. Safety

This monitor is only be suitable for use in an interior environment where there are not sealed, not subject to dust, dirt, condensation (Pollution Degree 2) (IP20).

It is not allowed to connect appliances to the monitor which does not comply to SELV or Class II qualification.

Turn off the monitor before cleaning.

The slots located on the backside of the monitor case are for ventilation. Do not block or insert anything inside the ventilation slots.

It is important that your monitor remains dry. Do not pour liquid into or onto the monitor. If the monitor becomes wet do not attempt to repair it yourself.

To unplug the monitor from the power outlet before cleaning. Do not use alcohol (methyl, ethyl or isopropyl) or any strong dissolvent. Do not use thinner or benzene, abrasive cleaners or compressed air. To clean the monitor, use a cloth lightly damped with a mild detergent.

If the liquid crystal materials leaks from the panel, it should be kept away from the eyes or mouth. In case of contact with hands, legs or clothes, it must be washed away thoroughly with soap.

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

3. Model descriptions

Part number	Description
150TFT1910	Monitor 19"
150TFTG1910	Monitor 19" with tempered glass
150TFTS1910M	Monitor 19" with 3M touch screen serial
150TFTS1910MU	Monitor 19" with 3M touch screen USB

Further models to be announced.

4. Monitor connection

- 1. Connect the 12V power supply to the monitor.
- 2. Connect one end of the video cable to the computer and the other to the monitor. Tighten by turning the two thumb screws clockwise to ensure proper grounding.
- 3. Connect one end of either the touch screen cable to the computer and the other end to the monitor.
- 4. Press the power button on the rear panel to turn the monitor power on.





5. Monitor specifications

Panel

Manufactures	Part No.	
LG	LM190E0A-SLA1	

Absolute Maximum Ratings

ltem	Unit	Min	Typical	Max	Remarks
Operating Temperature	°C	0	-	50	
Storage Temperature	°C	-20	-	60	
Operation Humidity	%	10	-	90	
Storage Humidity	%	10	-	90	

Input characteristics

Description	Signal	Unit	Min	Typical	Max	Remarks			
Power in (2,5mm plug)									
	Input	VDC	11.4	12	12,6				
	Consumption	А		1		Mosaic pattern (8 x 6)			
	RGB Input								
	Analog RGB	VPP	0	0.7	-				
	Sync	VDC	0	5	5.5				
	H Frequency	KHz	31	64	80	Depends on Mode			
	V Frequency	Hz	55	75	76	Depends on Mode			
	DVI-D Input								
	DATA/CLK	VPP	450	500	900	Differential +/-			

Display Characteristics

ltem	Unit	Specifications
Screen Diagonal	[inch]	19
Active Area	[mm]	374.8 (H) x 299.8 (V)
Pixels		1280 x 1024
RoHS Compliance		RoHS Compliance

Optical Characteristics

Item	Unit	Conditions	Min.	Тур.	Max	Remarks
Surface Luminance, white	[cd/m2]		200	250	-	-
Contrast Ratio	C/R		700	1000		-
Response Time	[msec]	Gray-to-Gray (BW)	-	8	-	-
	[degree]	Horizontal (Right)	170	178	-	
	[degree]	CR ≥ 10 (Left)	170	178	-	
Viewing Angle	[degree]	Vertical (Upper)	170	178	-	-
	[degree]	CR = 10 (Lower)	170	178	-	
Color Gamut	%		67.5	72	-	

RGB input format

ltem	Description	Resolution
Supported Resolutions	VGA	640x480
	SVGA	800x600
	XGA	1024X768
	SXGA	1280X1024





6. **Operation**

Color LED: This LED shows the state of controller.

Green is the "normal state".

Red is the "Off mode". (Can't find Sync. signals)

Amber is the "DPMS mode" (Display Power Management Signaling).

PC Settings: The PC needs to be set to an appropriate graphics mode that has the same resolution with the LCD panel to have clear screen image. And the vertical refresh rate should be set to one of 56~75Hz, non-interlaced signal.

LCD display System Settings: The OSD (On Screen Display) provides certain functions to have clear image and others. This board supports 5 buttons OSD operation as a standard. The control functions defined on OSD operation are as below.

Pc Graphics Output: Signal quality is very important, if there is noise or instability in the PC graphics output this may result in visible noise on the display. Refer to the graphic modes table in specification section for supported modes. Non-interlaced & interlaced video input is acceptable.

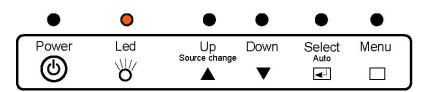
(If installed) USB cable: Plug the USB cable to the connector on the backside of the monitor. VGA cable: Plug the VGA cable to the connector on the backside of the monitor.

DVI-D Cable: Plug the DVI-D Cable (Not included) to the connector on the backside of the monitor. **Power supply:** Plug the 24V power supply (Not included) to the connector on the backside of the monitor (separate power supply 182-0520).

Power on: Switch on the monitor by using the on/off switch on the OSD control buttons.

PC Setting: The controller has been designed to take a very wide range of input signals however to optimize the PC's graphic performance we recommend choosing 60Hz vertical refresh rate this will not cause screen flicker.

OSD Control Board: The OSD (On Screen Display) provides certain functions to have clear image and others. This board supports 4 buttons OSD operation as a standard. The control functions defined on OSD operation are as below.



The chosen OSD settings will be stored in memory. The OSD menu can be cleared from the screen from the screen by moving the selection bar to the EXIT MENU icon pressing the SEL button otherwise it will be automatically cleared after a few second of non-use.

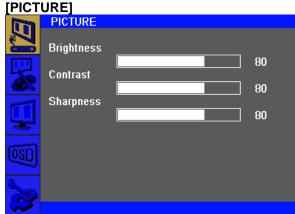




7. OSD MENU

The chosen OSD settings will be stored in memory. The OSD menu can be cleared from the screen by pressing the **MENU** button otherwise it will be automatically cleared after a few seconds of non-use.

OSD Main Menu



COLOR

Color Status Management

NORMAL

Red

Green

Blue

Blue

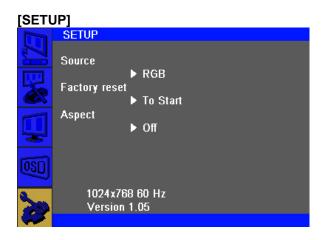
Auto Color

To Start

[SCREEN]

L	
	SCREEN
2	1
	Auto Configure
	To Start
المعيرا	H Position
20	
	80
	V Position
	80
	Clock
	80
[mon]	
ைப	Phase
~~	80
-	
and and	
128	

[OSD	[0	
	OSD	
	Language	
	► English	
2	H Position	30
-1	V Position	
		30
	Transparency	30
OSD	OSD Time	J U
		10
Son		







OSD GUI Control Table

MAIN	SUB MENU	CONTROL	
	Brightness	50(0~100)	
Picture	Contrast	50(0~100)	
	Sharpness	2(0 ~ 4)	
	Color Status Management	User(User, Warm, Normal, Cool)	
	Red	50(0~100)	
Color	Green	50(0~100)	PC ONLY
	Blue	50(0~100)	
	Auto Color	To Start	
	Auto Configure	To Start	
	H Position	50(0~100)	
Screen	V Position	50(0~100)	PC ONLY
	Clock	50(0~100)	
	Phase	30(0~100)	
	Language	English(English, Deutsch, Francais, Italiano, Espanol, Korean)	
	H Position	50(0~100)	
OSD	V Position	50(0~100)	
	Transparency	33 (0~100)	
	OSD Time	10(3~30)	
SETUP	Source	RGB, DVI, AUTO	
	Factory reset	To Start	
	Aspect	Off(On/Off)	





8. Driver software touch screen (optional 150TFTS1910[XX])

3M TouchSystems provides driver software that allows your touchmonitor to work with your computer. Drivers are located on "3M Touch Systems" web site for the following operating systems:

- Windows
- Linux (2.6/3.0 Kernel)
- Mac OSX

The latest versions of drivers and driver information for other operating systems are available on the "3M Touch Systems" web site at:

http://solutions.3m.com/wps/portal/3M/en_US/TouchSystems/TouchScreen/

Your monitor is Plug-and-Play compliant. Information on the video capabilities of your monitor is sent to your video display adapter when Windows starts. If Windows detects your monitor, follow the instructions on the screen to install a generic Plug-and-Play monitor.

Depending upon whether you connected the USB communication cable, you should install only the USB driver.





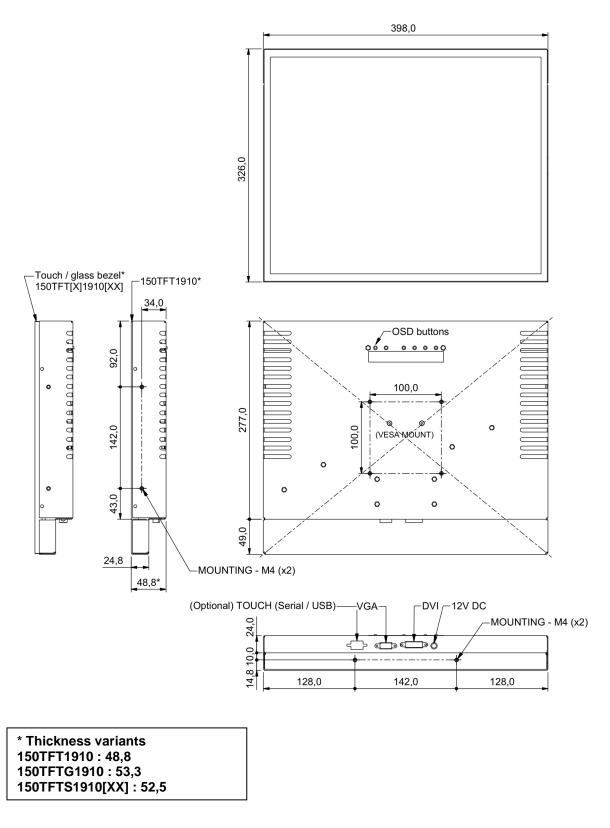
9. Mounting instructions

Monitor Mounting

This monitor can be mounted with eight M4 mount holes. Follow the steps described below:

Place the monitor into the machine.

Place the M4 screws on all sides of the monitor. Tighten the nuts until the monitor is firmly secured to the machine (do not use screws longer then 5mm in the monitor).







10. Accessories

Part number	Description	
150-0049	Power supply input 100/240V output 12V 5A	
22-0012-4	Power cable Euro lead 1.80M	
149-0112-11	VGA cable 1.80m	
149-0147	USB cable type a-b m/m 1.80M	
149-0121	DVI-D Cable 2 mtr 18+1	
98-0003-2661-5	19 " Touch screen (without controller)	

