



THE DISPLAY CHOICE OF PROFESSIONALS

**SC-Series Security LCD Display** 

User Manual

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#### **FCC INFORMATION**

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 and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or 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:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.
 Shielded interface cables and A.C. power cord, if any, must be used in order to comply

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **CE INFORMATION**

with emission limits.

The product must be installed according to the currently valid installation regulations for EMC to guarantee the designed use and to prevent EMC problems.

The device supplied with this manual is according to the EC, EMC Directive, 2004/108/EC & LVD 2006/95/EC

#### SAFETY PRECAUTIONS

- 1. Do not modify the three-prong grounding type monitor power plug in any way.
- 2. Operate this unit only from the type of power source indicated on the label.
- 3. Do not block or cover ventilation openings on the back or bottom of the monitor cabinet.
- 4. Do not place this monitor near a radiator or heating vent.
- Do not push objects of any kind through cabinet openings. This may result in fire or electrical shock.
- 6. Before adding attachments always ask a service technician to perform routine safety tests to determine that equipment is in safe operating condition. Ground potential tests should be part of the routine safety check made by the service technician.
- 7. Do not place monitor on an unstable cart, stand, or shelf where it may fall and injure personnel or damage equipment.

- 8. Route power cords so that they cannot be walked upon or tripped over. Do not allow anything to rest on the power cord.
- 9. Do not install monitor in wet areas, or where it may be exposed to rain or water. Do not spill liquid of any kind on the unit.
- 10. Unplug the power cord from the unit before cleaning the display. Use only a damp cloth. Do not use alcohol, spirits, or ammonia to clean the display. **DO NOT ATTEMPT TO CLEAN THE INTERIOR OF THIS UNIT- THIS ACTION MUST BE PERFORMED BY THE SERVICE TECHNICIAN AS REQUIRED DURING NORMAL MAINTENANCE.**
- 11. Refer all servicing to qualified service personnel. REMOVAL OF BACK COVER BY UNAUTHORIZED PERSONNEL MAY EXPOSE THE USER TO DANGEROUS VOLTAGES OR OTHER HAZARDS.
- 12. Unplug the unit immediately and notify the service technician.
  - A. If liquid has been spilled into the display or the display has been exposed to rain or water.
  - B. If the unit has been dropped or the cabinet damaged.
  - C. If fuses continue to blow.
  - D. If the power cord is damaged or frayed.
  - E. If a distinct change from normal operation is apparent.

When replacement parts are required, be sure that the service technician uses components specified by the manufacturer which have the same characteristics as the original parts. **UNAUTHORIZED SUBSTITUTIONS MAY RESULT IN FIRE, ELECTRICAL SHOCK OR OTHER HAZARDS.** 

Upon completion of any service or repairs, ask the technician to perform safety checks to determine that the equipment is in safe operating condition.

WARNING: SERIOUS SHOCK HAZARDS EXIST WITHIN THE COVERS OF THIS MONITOR. DO NOT OPEN THE COVERS UNDER ANY CIRCUMSTANCES, THERE ARE NO USER SERVICEABLE COMPONENTS INSIDE

## 1. Scope

This specification is used to define the performance of LDA-100 series color TFT LCD monitor. This system also supports both video input and PC input. In video input mode, the system can automatically detect the NTSC signal and PAL signal. In PC mode, this system can support up to 1920 x 1080 VESA standard.

The user friendly OSD menu is also provided to make this system easy to operate.

## **2 Functional Specifications**

#### 2.1 Power Supply

The power supply spec is listed below,

**AC INPUT** 

\* AC power input range: 100 – 240 V, 50-60Hz, 1.8Arms max.

\* Power efficiency: ≥80%

**DC INPUT** 

\* DC JACK power input: 12V +/-10% 3.3A max.

#### 2.2 Video Characteristics

Composite Video (CVBS): 1.0 Vp-p (0.5 – 1.5Vpp), Automatic switching from 75  $\Omega$  unbalanced termination to Hi-Z with loop-through operation.

Y/C (S-video): 1.0 Vp-p (0.5 – 1.5Vpp), Automatic switching from 75  $\Omega$  unbalanced termination to Hi-Z with loop-through operation.

#### 2.3 PC Input

#### VGA Input

Analog RGB: 0.707 Vrms.

Support VESA Standard Timing

### DVI Input

DVI 1.0 Compatible Interface Support VESA Standard Timing

#### 2.4 Audio Input

Signal Level: 1.0 Vrms

#### 2.5 Environmental

#### Temperature

Operating: 0°C to +40°C Storage: -20°C to +60°C

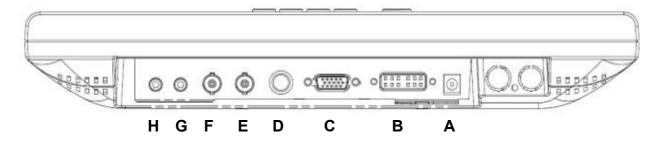
#### Humidity

Operating: 10% to 85% (non-condensing) Storage: 10% to 95% (non-condensing)

#### **2.6 EDID**

This series of displays support EDID, but does not support DDC2B function.

#### 2.7 Connectors



A. DC 12V INPUT: DC JACK, 5.5Ø / 2.5Ø

B. DVI INPUT: 24 pins DVI-D Connector

C. VGA INPUT: D-SUB 15 pins Connector

D. S-VIDEO (Y/C) INPUT: Mini-DIN 4 pins Connector

E. CVBS INPUT: BNC Connector

F. CVBS OUTPUT: BNC Connector

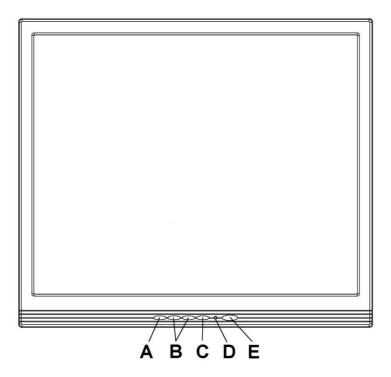
G. AUDIO INPUT: Phone Jack, Stereo

H. AUDIO OUTPUT: Phone Jack, Stereo

#### Set up sequence

- 1. Make sure the power of PC and/or Video source were turned off.
- 2. Plug the power adapter, Video signal and VGA cable to monitor.
- 3. Turns the PC and/or Video source power on.
- 4. Plug the AC power cord onto power adapter. (Use reverse sequence to teardown the monitor)

#### 3. Controls and indicators



#### A. "i" Channel button

• Press the button to select input signal.

#### B. "-" / "+" buttons

- Press the buttons to scrolling the cursor to desired function.
- Press the buttons to adjust the value of selected function in sub OSD menu.

#### C. "M" Menu button

- Press the button to show the OSD main menu.
- As a confirmation key during the OSD operation.

#### **D. POWER LED Indication**

- Green Power on
- Orange Power off (Stand by)
- Flash Orange Sleep mode (PC mode only)

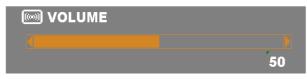
#### E. POWER button

Press the button to turn ON or turn OFF the monitor.

#### 4. OSD Menu

## Hot key:

Quick adjust keys from front panel hot keys:



VOLUME: Press - or + button to select the function and press - / + buttons to adjust the volume, the press MENU button to exit OSD menu.

KEY LOCK: Push CHANNEL + POWER + MENU key for 6 sec to enable this function.



KEY UN-LOCK : Push CHANNEL + POWER + MENU key for 6 sec to disable this function.



RUNNING HOURS: Push POWER + MENU key for 6 sec to display this information.



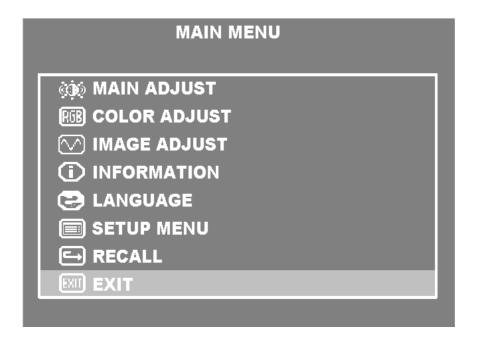
#### PC mode:

#### **OSD Menu structure:**

Use the CHANNEL button to select the VGA, DVI, CVBS, or S-VIDEO, the menu structure within each varies, refer to sections below on how to set-up each option.

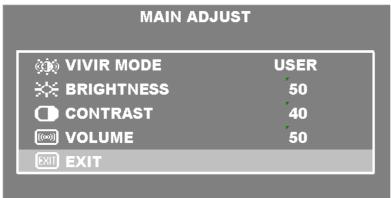
#### VGA and DVI - PC mode:

Press the Menu button to bring up the MAIN MENU Page. The following page will appear Press - /+ buttons to select an icon, then Press MENU button to change the values in the sub menu.





#### **MAIN ADJUST:**



- 1. Press / + buttons to select an icon
- 2. Press MENU button to select item,
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return



VIVID MODE: Select the VIVID MODE (0~2 and USER)

USER, 0: TEXT, 1: PHOTO, 2: MOVIE (DVI ONLY)



BRIGHTNESS: Adjust the brightness value

CONTRAST: Adjust the contrast value

[(00)]

**VOLUME**: Adjust the volume

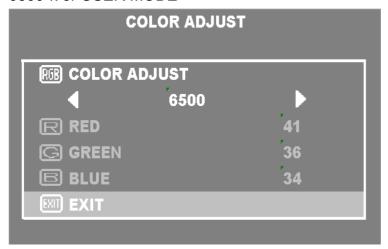
EXII

EXIT: Press MENU button to return to the main menu



#### **COLOR ADJUST:**

Set the color temperature of the LCD monitor for the CIE coordinate 9300°k or 6500°k or USER MODE



- 1. Press / + buttons to select an icon
- 2. Press MENU button to select adjust item,
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return

6500 : Adjust the color temperature.

R

RED: Adjust the RED value for user mode.

G

GREEN : Adjust the GREEN value for user mode.

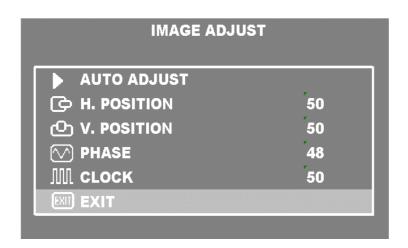
B

BLUE: Adjust the BLUE value for user mode.

EXII

EXIT: Press MENU button to return to the main menu

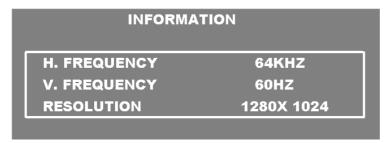
## IMAGE ADJUST (VGA ONLY):



- 1. Press / + buttons to select an icon
- 2. Press MENU button to select adjust item
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return
- AUTO ADJUST: Press MENU buttons to auto adjust the H. Position,
  - V. Position, Phase, Clock
- H. POSITION : Adjust the horizontal position value
- V. POSITION: Adjust the vertical position value
- PHASE: Adjust the phase value
- CLOCK : Adjust the clock value
- EXIT: Press MENU button to return to the main menu

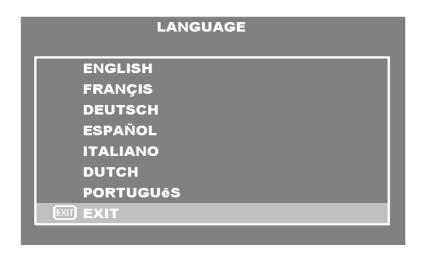
## INFORMATION:

Press MENU button to get the VGA timing information





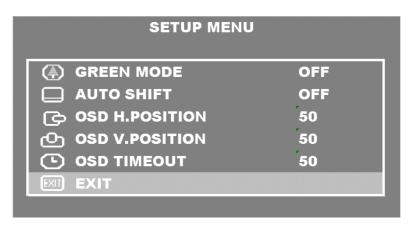
#### LANGUAGE: Press MENU button to enter the sub-menu



- 1. Press / + buttons to select language
- 2. Press MENU button to enter



## **SETUP MENU:**



- 1. Press / + buttons to select an icon
- 2. Press MENU button to select adjust item
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return



GREEN MODE: Off or On (5 min~10 min)

OFF - No function

ON – Screen will reduce back light to 80% within (5Min to 10Min)

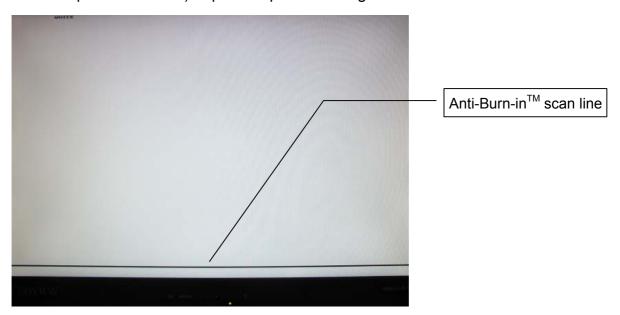
Screen will back to normal when any button is being touched.



AUTO SHIFT: Adjust AUTO SHIFT ON/OFF

OFF – No Function

ON – Every one hour there will one scan line from bottom to top ( Every 3 second up one scan line) to prevent panel sticking.





OSD H. POS. : Adjust the OSD horizontal position value

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OSD V. POS. : Adjust the OSD vertical position value

(E)

OSD TIMEOUT: Adjust the OSD Show time

EXIT

EXIT: Press MENU button to return to the main menu

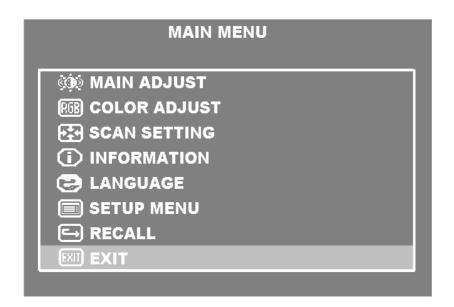


### RECALL:

Brightness, Contrast, Volume, Vivid Mode, OSD Horizontal/Vertical, OSD Timeout, Green Mode, Auto Shift return to default Value.

## Video mode CVBS and S-Video:

Press the Menu button to bring up the MAIN MENU Page. The following page will appear Press - /+ buttons to select an icon, then Press MENU button to change the values in the sub menu.



## (1) MAIN

#### **MAIN ADJUST:**

MAIN AD	JUST	
्रेज़ें् VIVID MODE	USER	
÷⇔ BRIGHTNESS	50	
CONTRAST	40	
IIII SHARPNESS	49	
RB SATURATION	50	
<b>⊕</b> TINT	50	
<b>™ VOLUME</b>	49	
EXII EXIT		

- 1. Press / + buttons to select an icon
- 2. Press MENU button to select item
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return

VIVID MODE: Select the VIVID MODE (0~2 and USER)

USER, 0: TEXT, 1: PHOTO, 2: MOVIE

÷

BRIGHTNESS: Adjust the brightness value.

CONTRAST: Adjust the contrast value.

SHARPNESS: Adjust Image sharp.

Rin:

SATURATION : Adjust Image saturation.

 $(\mathbf{T})$ 

TINT: adjust Image tint.

((00))

VOLUME: Adjust the volume.

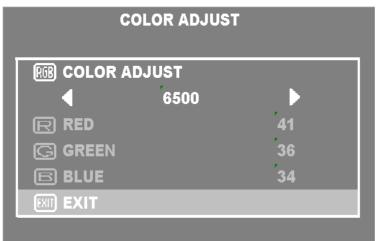
EXIT

EXIT: Press MENU button to return to the main menu.

# RGB

#### **COLOR ADJUST:**

Set the color temperature of the LCD monitor for the CIE coordinate 9300°k or 6500°k or USER MODE



- 1. Press / + buttons to select an icon
- 2. Press MENU button to select adjust item,
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return

6500 : Adjust the color temperature.

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RED: Adjust the RED value for user mode.

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GREEN : Adjust the GREEN value for user mode.

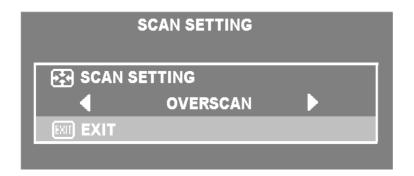
B

BLUE: Adjust the BLUE value for user mode.

EXII

EXIT: Press MENU button to return to the main menu

## SCAN SETTING:



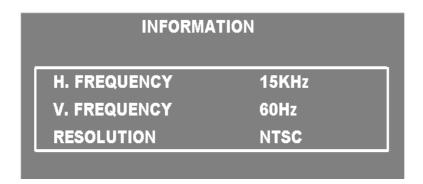
- 1. Press MENU button to select the sub-menu
- 2. Press / + buttons to select Scan Setting state.
- 3. Press MENU button to return

OVERSCAN: Adjust scan mode(Over scan or Under scan)



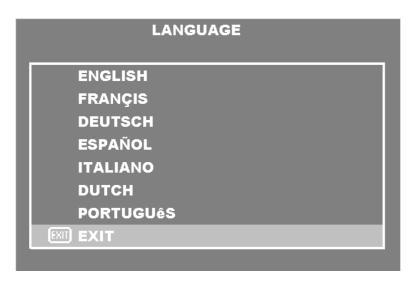
## **INFORMATION:**

Press MENU button to get the VGA timing information





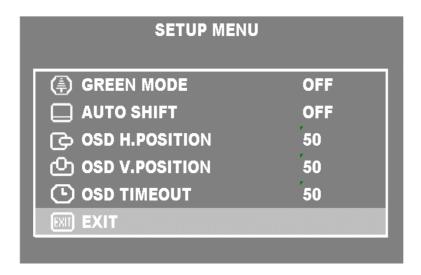
## LANGUAGE: Press MENU button to enter the sub-menu



- 1. Press / + buttons to select language
- 2. Press MENU button to enter



## **SETUP MENU:**



- 1. Press / + buttons to select an icon
- 2. Press MENU button to select adjust item
- 3. Press / + buttons to adjust the value
- 4. Press MENU button to return



GREEN MODE: Off or On (5 min~10 min)

OFF - No function

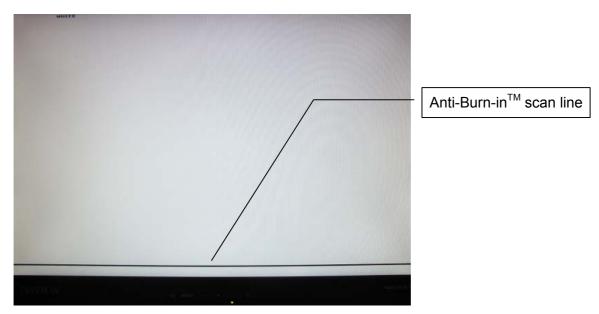
ON – Screen will reduce back light to 80% within (5Min to 10Min) Screen will back to normal when any button is being touched.



AUTO SHIFT: Adjust AUTO SHIFT ON/OFF

OFF - No Function

ON – Every one hour there will one scan line from bottom to top ( Every 3 second up one scan line) to prevent panel sticking.





OSD H. POS. : Adjust the OSD horizontal position value.



OSD V. POS. : Adjust the OSD vertical position value.



OSD TIMEOUT: Adjust the OSD Show time.

EXII

EXIT: Press MENU button to return to the main menu.



#### RECALL:

Brightness, Contrast, Sharpness, Saturation, Tin, Volume, Vivid Mode, OSD Horizontal/Vertical, OSD Timeout, Green Mode, Auto Shift return to default Value.

## 5. Regulatory Agency

## 5.1 Safety Approvals

This series design shall meet the standards of the following domestic and foreign agencies:

CE LVD : EN60950: 2006 + A11 : 2009

## 5.2 EMI/EMS Emission Approvals

This series design shall meet following EMI/EMS specifications:

FCC Compliance: FCC Rules and Regulations, Part 15, subpart B, Class B. CE COMPLIANCE: EN55022:2007 class B, EN55024:2003, EN50130-4:2003

## 6. Mechanical

## 6.1 Cabinet

Material: Plastic Finish: Black

## 6.2 Dimensions

Dimension (Physical) WxHxD mm

SC-17 : 372 x 360 x 164mm SC-19 : 420 x 408 x 164mm