# **Operating Instructions**



## 7" HD Digital LCD Color Monitor

Please read this manual thoroughly before operating the unit, and keep it for future reference.

## Contents

1. Precautions	1
2. Features	3
3. Technical Specifications	3
4. Accessories	4
5. Parts Identification	5
6. Remote Control Operation	6
7. Basic Operation	8
8. Menu	10
(1) Picture	10
(2) Option	10
(3) System	11
(4) Auto-scan	11
(5) Scale	12
9. Troubleshooting	13

#### 1. Precautions

#### Storage and Keeping

- 1) Do not expose the monitor to excessive heat or cold. The storage temperature of this device is -30~+80°C, and the operating temperature is -20~+70°C. The humidity is Rh90%.
- Never use this device near a bathtub, wash basin, kitchen, damp basement, swimming pool or similar places.
- 3) Never use this device in environments with excessive moisture, dust or smoke.
- 4) Avoid dropping or striking this device.
- Avoid using this device in enclosed spaces, areas with excessive vibration or subject to severe impacts.
- 6) Never puncture, scratch or use abrasive cleaning materials on this device.
- 7) Do not place cables where they may be pinched or stepped on.
- 8) Leave at least a 2" space between the monitor and walls, cabinets or other objects to allow adequate air circulation around the unit.
- 9) The monitor is not designed to be waterproof.

#### Operating Precautions

- 1) The device may be powered by DC power 10V 32V (eg. 12V or 24V ACC).
- 2) Make sure all cables are connected properly. Observe polarity. Improper cable connections may damage the monitor. Remove the power cable connections when you do not intend to use the unit.

## ⚠ Special Notice

Occasionally, a few highlights or dark spots may occur on the LCD screen. This is a very common phenomenon in active matrix display technology, and doesn't necessarily indicate any defects or faults. Never try to repair this device by yourself. In case of any problems, please turn off the display at once and notify our company or authorized dealer. The monitor is a complex device. Any disassembly or modification may lead to damage and void the warrantee.

#### Maintenance

- 1. Remove all the cable connections from the monitor before cleaning the unit.
- Use a mild household detergent and clean the unit with a slightly damp, soft cloth. Never use strong solvents such as thinner or benzine, as they might damage the finish of the device.





This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol is intended to alert the user not to waste electrical and electronic equipment.

#### CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your warrantee and neccessitate expensive repairs.

#### Declaration of conformity



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.



#### 2. Features

- 1) TFT LCD monitor with wide angle view and high resolution display.
- 2) Picture image may be adjusted for Horizontal, Vertical, Mirror and Normal viewing.
- 3) Select from 8 languages for user operation.
- 4) Automatic backlighting for automatic brightness control.
- 5) Full-function remote control.
- 6) Multiple video formats available:1080P30/1080P25/720P30/720P25/PAL/NTSC.
- 7) 4 cameras input,4 reversing trigger wire.
- 8) Operates from DC 10V 32V.
- 9) The scale can be adjusted for up and down.
- 10) On-board speaker.

### 3. Technical Specifications

- 1) Product: 7" Digital TFT-LCD Color monitor.
- 2) Power supply: DC 10V 32V.
- 3) Audio output: 1W.
- 4) Power consumption: about. 10 W.
- 5) Outer dimension: 182mm (W) × 122mm (H) × 28.7mm (T) (without flush mount),  $199mm \, (W) \times 139mm \, (H) \times 31mm \, (T) \, (with flush mount).$
- 6) Dot pitch: 0.1506(H) × 0.1432 (V).
- 7) Resolution: 1024 x 3(RGB) x 600.
- 8) Color depth:24 bit
- 9) Display colors:16.7M dithering.
- 10) Contrast: 700:1.
- 11) Brightness: 600cd/m2.
- 12) Viewing angle: U: 85° / D: 85°, R/L: 85° / 85°.
- 13) Operating temperature: -20~+70°C,RH90%.
- 14) Storage temperature: -30~+80°C,RH90%.

## ⚠ Special Notice

All specifications are subject to change without notice.

### 4. Accessories



## ⚠ Special Notice

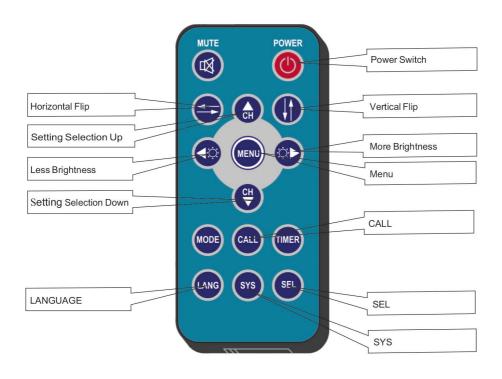
Accessory supply may be different for different application.

### 5. Parts Identification





## 6. Remote Control Operation



## ⚠ Notice

- 1. Please align the remote control with the infrared-receiving window on the monitor to operate.
- 2. Never disassemble the remote control or allow it to drop, or become wet.
- 3. Press the control buttons firmly. Allow 2 seconds for the picture to change.

#### POWER (Power Switch):

Press to turn on/off the monitor.

### 

Press to turn picture horizontally.

### 

Press to turn picture vertically.

#### CH+ (Setting Selection Up):

Press to select the upper setting

#### CH- (Setting Selection Down):

Press to select the lower setting or to display the scale.

### 40

Press to decrease Brightness.

### • O Þ

Press to increase Brightness.

#### MENU:

Press to show menu.

#### CALL:

Show or hide distancing grid

#### SEL:

Press to select CAM channels.

#### SYS:

Press to Change resolution.

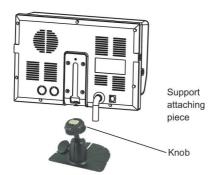
#### LANGUAGE:

Press to Change language.

### 7. Basic Operation

### Installation of Base Support:

- 1 Adjust monitor level by sliding the support to the desired height.
- ② Adjust the angle of the monitor and tighten the knob on the center mounting bracket.



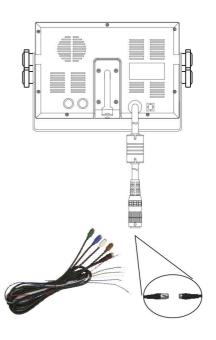
### Installation of U-support bracket:



#### Connection of AV Conversion Cable

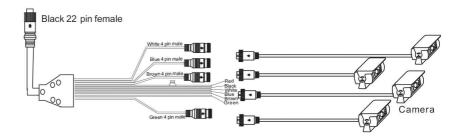
Hold the cable, align the side of jack marked with ⇒ on the female 22-pin connector with the male 22-pin connector marked with < then firmly plug together.

- White 4 pin male for Camera 1.
- ② Blue 4 pin male for Camera 2.
- 3 Brown 4 pin male for Camera 3.4 Green 4 pin male for Camera 4.
- 5 Single red wire to power wire of DC: 10-32V.
- 6 Single black wire to GND.
- (7) Single white wire to positive power wire of the Camera 1.
- Single blue wire to positive power wire of Camera 2.
- Single brown wire to positive power wire of Camera 3.
- 10 Single green wire to positive power wire of Camera 4.





White 4 pin male for Camera 1. Blue 4 pin male for Camera 2. Brown 4 pin male for Camera 3 Green 4 pin male for Camera 4. Single red wire to positive power supply of DC:10-32V. Single black wire to GND. Single white wire to positive power wire of Camera 1. Single blue wire to positive power wire of Camera 2. Single brown wire to positive power wire of Camera 3. Single green wire to positive power wire of Camera 4.



### Removing the Monitor:

Insert the detaching piece as indicated by the white arrow. Press in and lift up, the monitor will be released from the flush mount.

Remove the monitor.

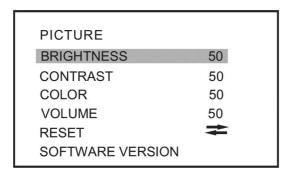


#### 8. Menu

- Press MENU to display the following options and settings:
  - 1.PICTURE
  - 2.OPTION
  - 3.SYSTEM
  - 4.AUTO SCAN
  - 5.SCALE

#### • (1)PICTURE

BRIGHTNESS,CONTRAST,COLOR,VOLUME options will display on the screen as illustrated below: Press CH- to select BRIGHTNESS.



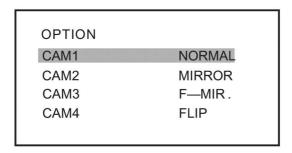
Press **◄** ♥ / ♥ **▶** to adjust the brightness level.

Press CH- to select RESET.

Press **◄**♥/♥ **>** to reset all menu settings.

### (2)OPTION

CAM1, CAM2, CAM3, CAM4 options display on the screen as illustrated below: Press CH- to select CAM1.



Press **◄ Ö**/**Ö >** to select NORMAL/MIRROR/F-MIR./FLIP.

#### (3)SYSTEM

LANGUAGE, RESOLUTION, BLUE BLACK, AUTO DIM functions will display on the screen as illustrated below:

Press CH- to select LANGUAGE.

SYSTEM

LANGUAGE ENGLISH

RESOLUTION AUTO

BACKGROUND BLUE

REAR-TRIGGER-SCALE ON

AUTO-DIM OFF

Press ◀貸/貸▶ to select English, Deutsch, Français, Español, Português, Italiano, Nederlands or Русский options.

Press CH- to select RESOLUTION.

Press **◄ ② / ② ►** to select AUTO/1080P30/1080P25/720P30/720P25/PAL/NTSC options.

Press CH- to select BACKGROUND.

Press **◄⊙** / **⊙ >** to selec BLUE/BLACK.

Press CH- to select REAR-TRIGGER-SCALE.

Press 40 / O > to select ON/OFF.

Press CH- to select AUTO-DIM.

Press **◄**♥ / O ► to select ON/OFF.

When AUTO-DIM is set to ON, the DAY/NIGHT backlight adjustment options will appear.

### (4)AUTO-SCAN

AUTO-SCAN,SCAN-TIME,CAM1,CAM2,CAM3,CAM4 options display on the screen as illustrated below:

Press CH- to select AUTO-SCAN.

AUTO-SCAN	
AUTO-SCAN	OFF
SCAN-TIME	10S
CAM1	OFF
CAM2	OFF
CAM3	OFF
CAM4	OFF

Press**∢**Ö/Ö > to select ON/OFF.

Press CH- to select SCAN-TIME.

Press **◄ Ö**/**Ö ▷** to adjust the scan time.

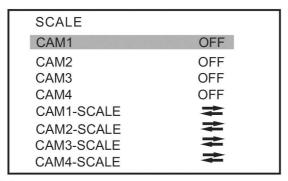
Press CH- to select CAM1.

Press**∢⊙**/O > to select ON/OFF.

#### ● (5)SCALE

CAM1, CAM2, CAM3, CAM4, CAM1-SCALE, CAM2-SCALE, CAM3-SCALE, CAM4-SCALE options display on the screen as illustrated below:

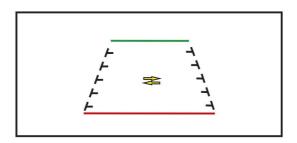
Press CH- to select CAM1.



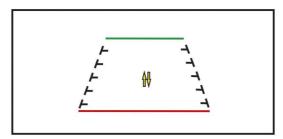
Press**∢**O/O ► to select ON/OFF.

Press CH- to select CAM1-SCALE.

Press**∢**Ö/Ö ▶to adjust the PARK LINE position as below:



Press **\**C; \(\tilde{\omega}\) \(\tilde{\omega}\) \(\tilde{\omega}\) to move the PARK LINE to LEFT or RIGHT. Press CH- to change the PARK LINE as UP DOWN mode.



Press**∢**Ø/Ø ► to move the PARK LINE to UP or DOWN.

Press MENU to exit.

# 9. Troubleshooting

The Symptoms described below do not necessarily mean a failure within the display. Please check the following items before you initiate request for repair.

Symptom	Possible Causes/Solutions			
No picture	Improper connection of automobile adapter. Use of unauthorized power supply. Power switch is on OFF position.			
No picture	Check whether AV cable is properly connected.			
No picture	SYSTEM.RESOLUTION is not the same as camera inputs. Solution is setting SYSTEM.RESOLUTION the same as camera inputs or AUTO.			
Dark picture	Check whether brightness and contrast are adjusted correctly; Check whether the environments temperature is too low.			
No color	Adjust the color settings.			
Upside down or lateral inverted picture	Use the remote control horizontal /vertical selection switch to set proper orientation.			
No reversing function (i.e. Picture)	The black wire of the monitor AV cable to the reversing light may be loose. The red wire from the monitor may be loose.			