

# Operating Instructions



## 7" HD Digital LCD Color Monitor

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

V1.8

# 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
7.1 Installation of Base Support.....	8
7.2 Installation of U-support bracket.....	8
7.3 Connection of AV Conversion Cable .....	9
8. Menu.....	10
8.1 PICTURE .....	10
8.2 OPTION .....	11
8.3 SYSTEM .....	11
8.4 AUTO-SCAN .....	12
8.5 SCALE .....	13
9. Troubleshooting .....	14

# 1. Precautions

## ● Storage and Keeping

- 1) Do not expose the monitor to excessive heat or cold. The storage temperature of this device is  $-30\sim+80^{\circ}\text{C}$ , and the operating temperature is  $-20\sim+70^{\circ}\text{C}$ . The humidity is Rh90%.
- 2) 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.
- 5) 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 device.



### Warning!

1. High voltage is present within the monitor. The opening of the case should be by professionals.
2. Do not watch the video while driving unless you are monitoring the rear view camera display.



### 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 device.
- 2) Use a mild household detergent and clean the unit with a slightly damp, soft cloth. Never use strong solvents such as thinner or benzene, as they might damage the finish of the device.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute risk of electric shock to persons.



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 warranty and necessitate expensive repairs.

- **Declaration of conformity**

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



la FCC (Comisión Federal de Comunicaciones). El funcionamiento está sujeto a dos condiciones:

- (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 buttons.
- 5) Mirror and Normal switch available.
- 6) Full-function remote control.
- 7) Multiple video formats available: AUTO / PAL / NTSC/1080P30/1080P25/720P30/720P25.
- 8) 4 cameras input,4 reversing trigger wire.
- 9) Operates from DC / 10 - 32V.
- 10) Automatically switches to back-up, left, right or front side camera views.
- 11) On-board speaker.
- 12) With touch buttons.

## 3. Technical Specifications




- 1) Product: 7" Digital TFT- LCD Color monitor.
- 2) Power supply: automobile storage battery (10~32V).
- 3) Audio output: 1W.
- 4) Power consumption: about 10W.
- 5) Outer dimension: 194.6mm (W) x 128mm(H)x39.3mm(T)..
- 6) Dot pitch: 0.1506 (H) x 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/ m<sup>2</sup>.
- 12) Viewing angle: U: 85° / D: 85°,R/L: 85°/ 85°.
- 13) Operating temperature: -20~+70°C, RH90%.
- 14) Storage temperature: -30~+80°C, R90%.




### Special Notice

All specifications are subject to change without notice.

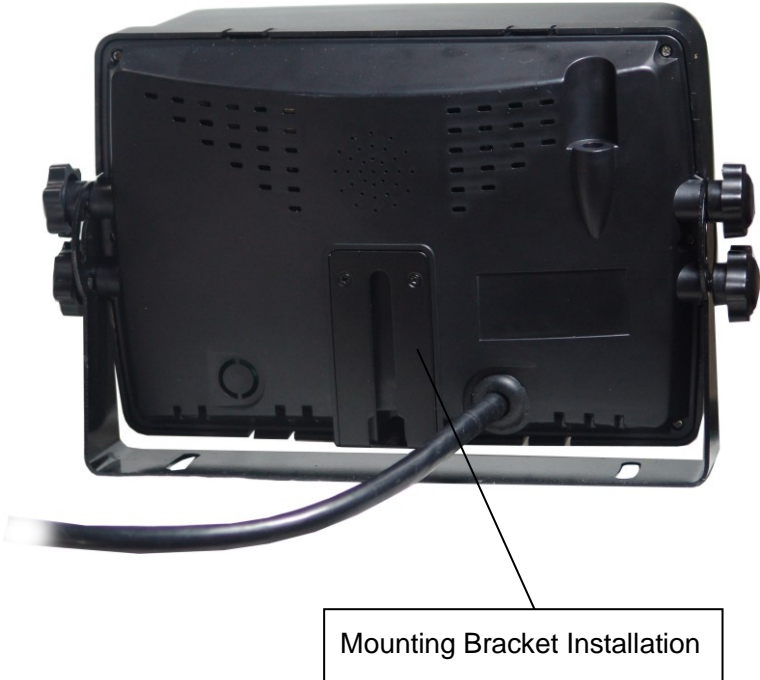
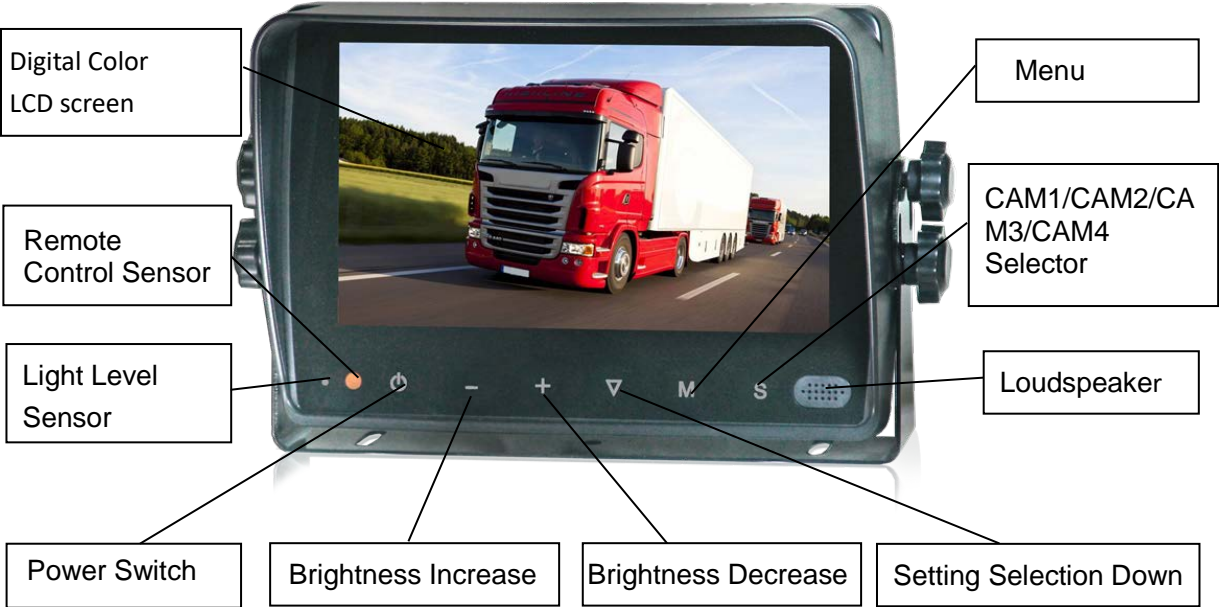
# 4. Accessories

 <p>U-Support Bracket</p>	 <p>Center Mount Bracket</p>
 <p>AV and Power Supply Adapter Cable</p>	 <p>IR Remote Control</p>
 <p>Sun Shield</p>	 <p>Angle Adjustment Screws</p>

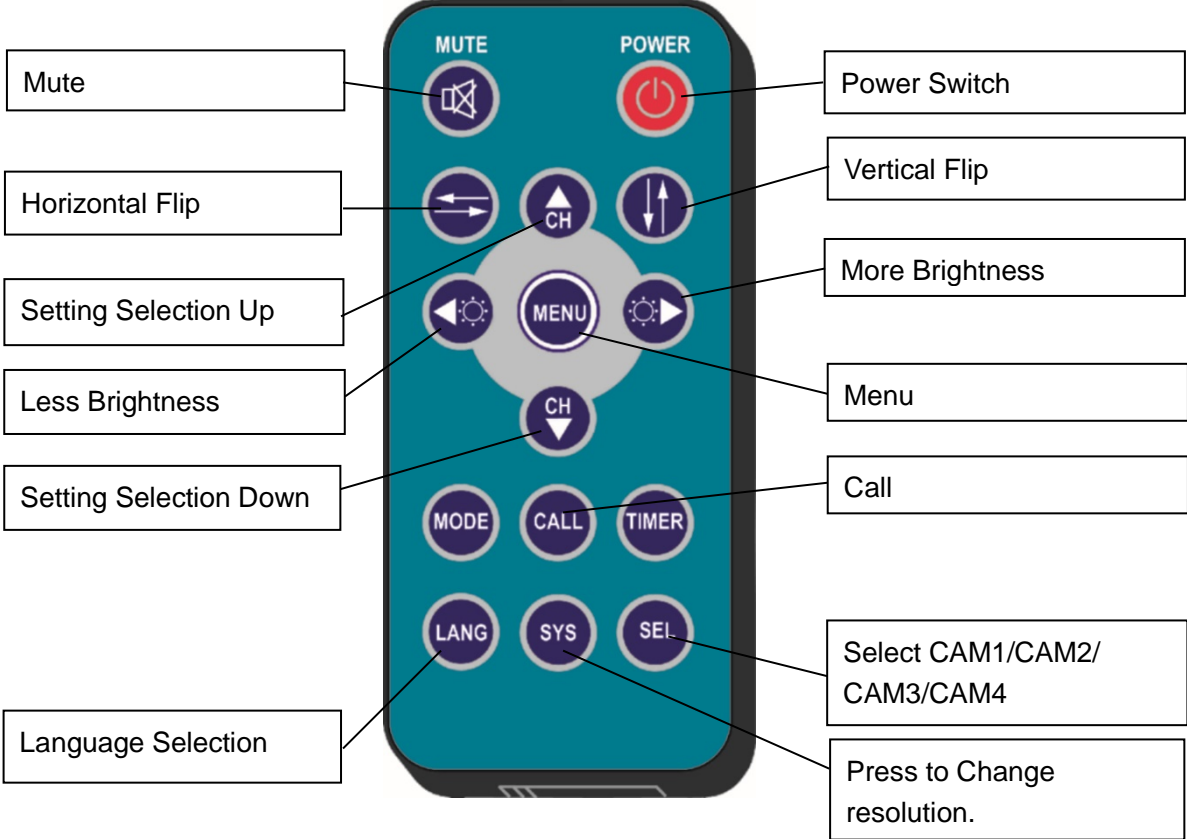
 **Special Notice**


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.

- MUTE (Mute):


Press to select ENABLE/MUTE sound.

- POWER (Power Switch):

Press to turn on/off the monitor.

-  (Horizontal Turning of Picture):

Press to turn picture horizontally.

-  (Vertical Turning of Picture):

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.

-  :

Press to decrease Brightness..

-  :

Press to increase Brightness.

- MENU:

Press to show menu.

- MODE (Picture Mode):

Invalid

- CALL:

Show or hide distancing grid

- LANG(Language Selection):

Press to Change language.

- SYS:

Press to Change resolution.

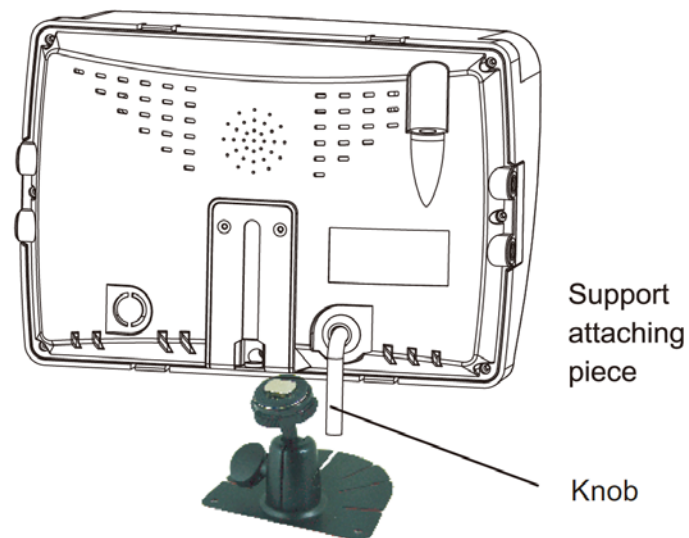
- SEL

Press to select CAM channels.

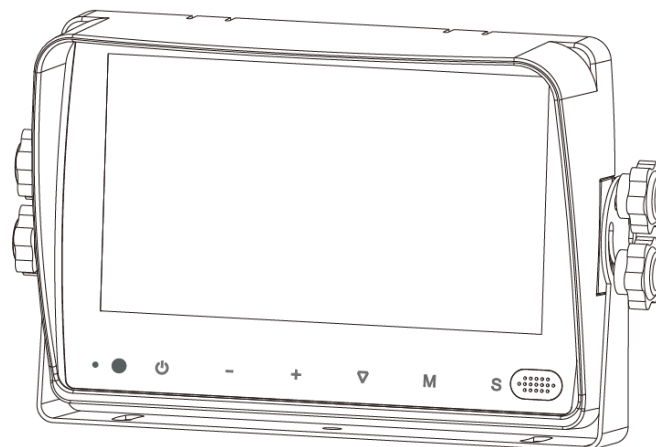
## 7. Basic Operation

### 7.1 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.

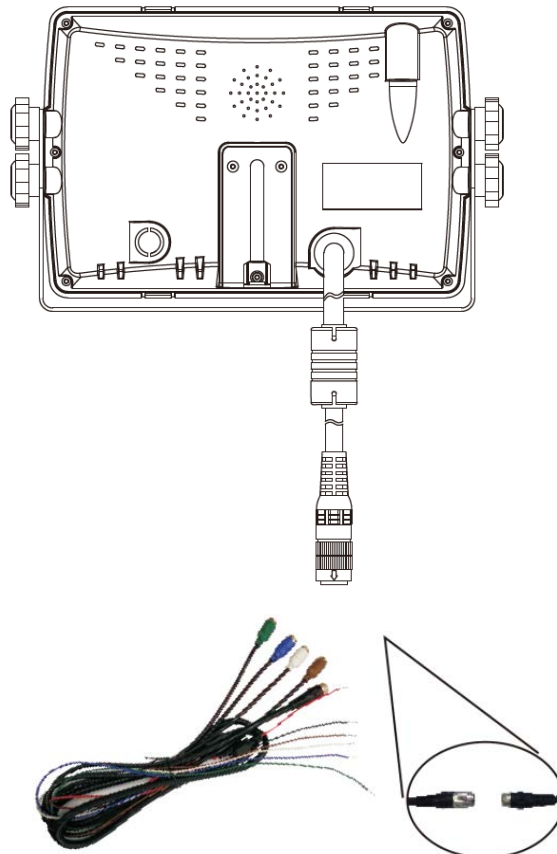


### 7.2 Installation of U-support bracket



## 7.3 Connection of AV Conversion Cable

Hold the cable, align the side of jack marked  with  on the female 22-pin/27-pin connector with the male 22-pin/27-pin connector marked  with  then firmly plug together.



- 1) 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.
- 8) Single blue wire to positive power wire of Camera 2.
- 9) Single brown wire to positive power wire of Camera 3.
- 10) Single green wire to positive power wire of Camera 4.



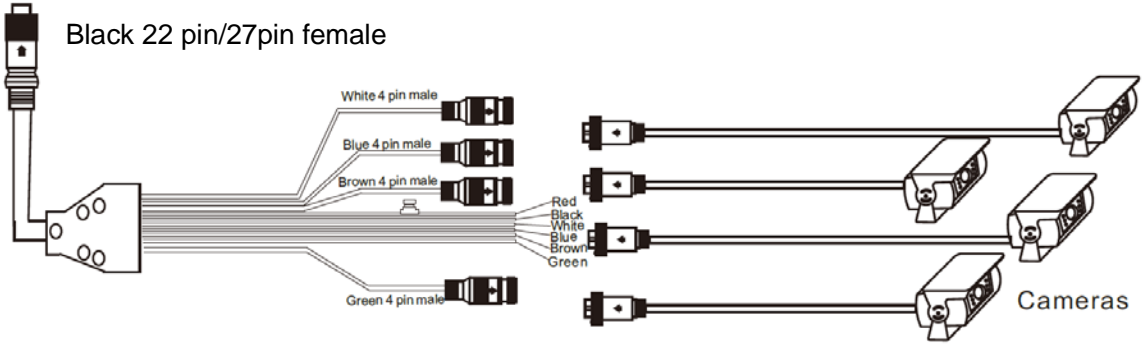
Black 4/5 pin male for Camera 1 / Camera 2 / Camera 3 / Camera 4.

Single red wire to positive power supply of DC/10-32V.

Single black wire to GND.

Single brown wire to positive power wire of back-up light.

Black 22 pin/27pin female



## 8. Menu

Press M to display the following options and settings:

- 1.PICTURE
- 2.OPTION
- 3.SYSTEM
- 4.AUTO SCAN
- 5.SCALE

### 8.1 PICTURE

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

PICTURE	
BRIGHTNESS	50
CONTRAST	50
COLOR	50
VOLUME	50
RESET	⇌
SOFTWARE VERSION	

Press + / - to adjust the brightness level.

Press ▾ to select RESET.

Press + / - to reset all menu settings.

## 8.2 OPTION

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

OPTION	
CAM1	NORMAL
CAM2	MIRROR
CAM3	F—MIR.
CAM4	FLIP

Press + / - to select NORMAL/MIRROR/F-MIR./FLIP.

## 8.3 SYSTEM

LANGUAGE,RESOLUTION,BLUE BLACK,AUTO DIM functions will display on the screen as illustrated below: Press ▾ to select LANGUAGE.

SYSTEM	
LANGUAGE	ENGLISH
RESOLUTION	AUTO
BACKGROUND	BLUE
REAR-TRIGGER-SCALE	ON
AUTO-DIM	OFF

Press +/- to select English, Deutsch, Français, Español, Português, Italiano, Nederlands or Русский options.

Press ▾ to select RESOLUTION.

Press +/- to select AUTO/1080P30/1080P25/720P30/720P25/PAL/NTSC options

Press ▾ to select BACKGROUND.

Press +/- to select BLUE/BLACK.

Press ▾ to select REAR-TRIGGER-SCALE.

Press +/- to select ON/OFF.

Press ▾ to select AUTO-DIM.

Press +/- to select ON/OFF

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

## 8.4 AUTO-SCAN

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

Press ▾ to select AUTO-SCAN.

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

Press +/- to select ON/OFF

Press ▾ to select SCAN-TIME

Press +/- to adjust the scan time.

Press ▾ to select CAM1.

Press +/- to select ON/OFF .

## 8.5 SCALE

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

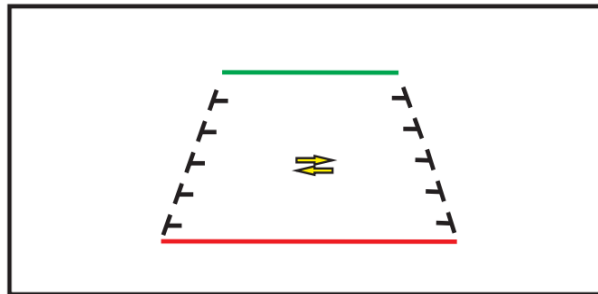
Press ▾ to select CAM1.

SCALE	
CAM1	OFF
CAM2	OFF
CAM3	OFF
CAM4	OFF
CAM1-SCALE	↔
CAM2-SCALE	↔
CAM3-SCALE	↔
CAM4-SCALE	↔

Press +/- to select ON/OFF

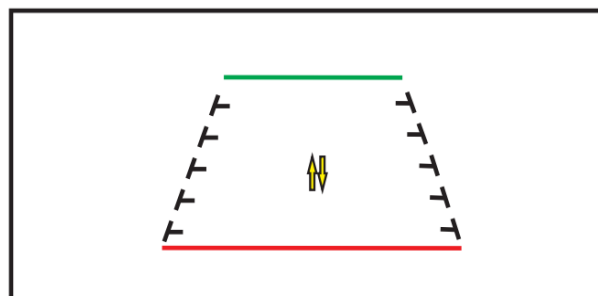
Press ▾ to select CAM1-SCALE.

Press +/-to adjust the PARK LINE position as below:



Press +/- to move the PARK LINE to LEFT or RIGHT.

Press ▾ to change the PARK LINE as UP DOWN mode.



Press +/- to move the PARK LINE to UP or DOWN.

Press M 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, no sound	Improper connection of automobile adapter. Use of un-authorized power supply. Power switch is on OFF position.
No picture	Check whether AV cable is properly connected.
No sound	Check whether audio wire is properly connected or the sound volume is turned off or set too low.
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.