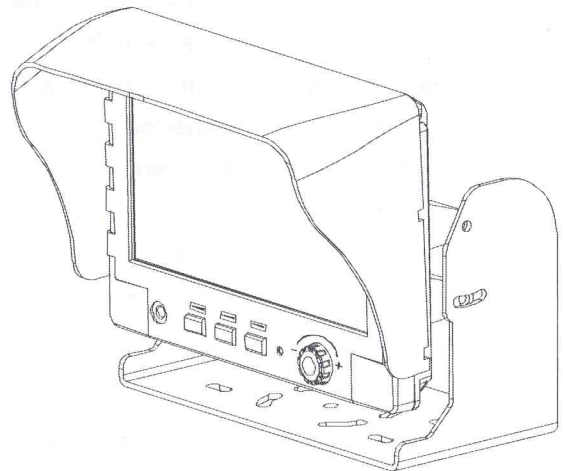


Thank you for purchasing our product.
Please read this User's Manual before
using the product.
Change without Notice

RayView

7" S TFT LCD MONITOR (LED Backlight)
USER MANUAL

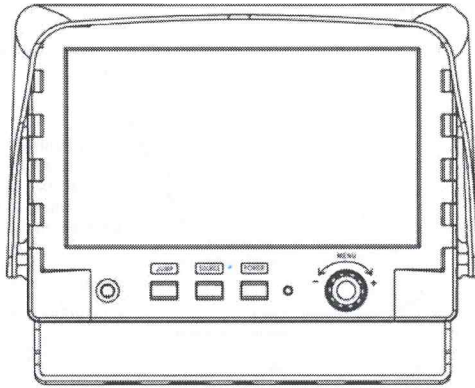


RayView

Holtz Industries, INC.
200 South Terrace Court
Newark Ohio 43055
Tel: 1-800-535-0104

e-4 FC

5. Front Panel Control



POWER Press the power button to activate the monitor or to keep the monitor under stand by mode. Red light for stand by, Green light is turn on.

SOURCE With power on press this button to select image sequence.

CAM A → CAM B → CAM R → CAM A.....

With pull hand break, press this button to select image sequence

AV → CAM A → CAM B → CAM R → AV.....

JUMP Press this button, it can switch CAM A, CAM B, CAM R recurrently.

With pull hand break and check the **Jump AV** option is ON, press this button to select image sequence

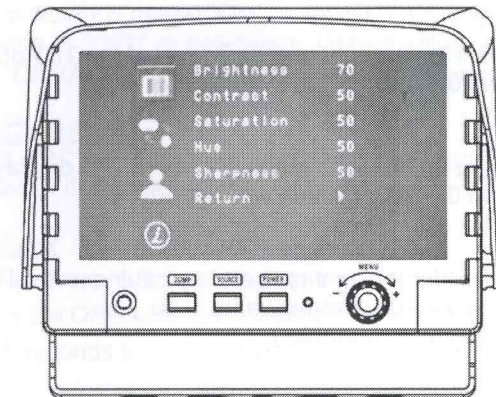
AV → CAM A → CAM B → CAM R → AV.....

MENU When this button is not activate, user can turn left or right to adjust the Volume value.

OSD Menu

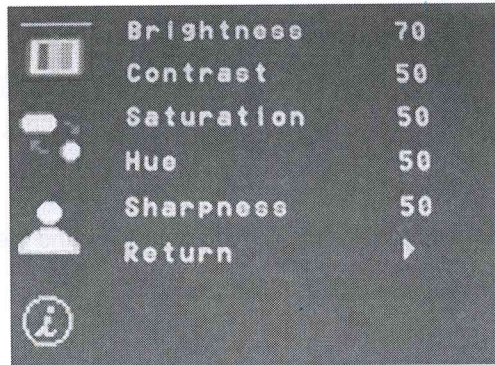
1. Press the MENU button to enter to the OSD Menu
2. Turn the MENU button left or right to select the setting you wish to proceed. The color of the content will turn YELLOW to identify your selection. Turn the MENU button left or right to adjust your setting value.
3. Press the MENU button once back to submenu and then press MENU button again in order to return to OSD menu.

Enter to Main Menu:



Screen Menu

This menu set up contains different setting for the TFT LCD.



Brightness

Provide adjustment for shade and brightness level of TFT display. Setting value from 0 ~ 100. Default value is 70.

Contrast

Provide adjustment for the light and dark level of the TFT display. Setting value from 0 ~ 100. Default value is 50.

Saturation

Provide adjustment for the light intensity level of TFT display. Setting value from 0 ~ 100. Default value is 50.

Hue

Provide adjustment for the lightness and colorfulness level of TFT display. Setting value from 0 ~ 100. Default value is 50. (Only in NTSC system is available.)

Sharpness

Provide adjustment for the edge contrast (acutance) level of TFT display. Setting value from 0 ~ 100. Default value is 50.

Return

Return to OSD menu selection screen.

Display Menu

This menu set up contains the on screen identification and distance gage.



CAM Name

Select "ON" to show the source of video input title on screen or "OFF" to keep it invisible. Default value is ON.

Distance Gauge

Set the distance gauge "ON" to show the distance gauge on screen when reserving or "OFF" to deactivate. Default value is ON. (This "DISTANCE GAUGE" is for user's reference only)

Auto Day&Night

Select "ON" to activate the auto day & night function or "OFF" to deactivate it. Default value is OFF.

OSD Lock

This function provides protection when an unauthorized person tries to access the OSD settings. JUMP and Source key press simultaneously over 5 seconds to unlock. Default value is OFF.

※Users must turn on LCD in order to run unlock process. All function buttons are still working during OSD Menu lock up period.

REVERSE MODE

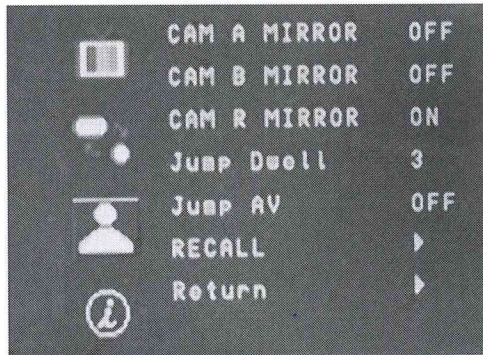
When reversing select LCD profile ratio 4:3 the display show in size 4:3(default), select LCD profile ratio 16:9 the display show in size 16:9

Return

Return to OSD menu selection screen.

Camera Menu

This menu set up contains the on Camera and Jump setting.



CAM A MIRROR

Select "ON" to activate the mirror function for different cameras or "OFF" for a normal image.

Default value is OFF.

CAM B MIRROR

Select "ON" to activate the mirror function for different cameras or "OFF" for a normal image.

Default value is OFF.

CAM R MIRROR

Select "ON" to activate the mirror function for different cameras or "OFF" for a normal image.

Default value is ON

Jump Dwell

Setting Jump dwell value from 2~100.

Default value is "3".

Jump AV

Jump function included AV channel or not. If setting is ON but system does not work, you should check the PARK trigger status. Default value is "ON".

RECALL

Recall factory default.

Return

Return to OSD menu selection screen.

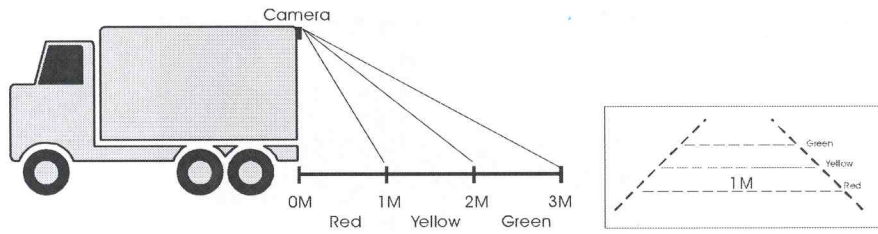
Information Menu

This menu shows firmware version of this model.

VER ZS1.2

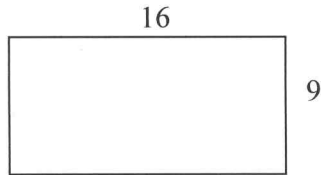
EXIT

6. Vehicle Installation

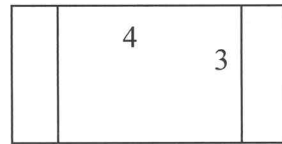


- Install Camera R (for rear view)
- Use a measuring tool to mark out the distance behind the vehicle.
- Adjust the viewing angle of the camera so that the distance gage shown from the TFT match to the distance marks behind the vehicle.
- Switch to Rear view with source button, the screen always display on 16:9. While rear viewing, the screen always display on 4:3 to correct size percentage

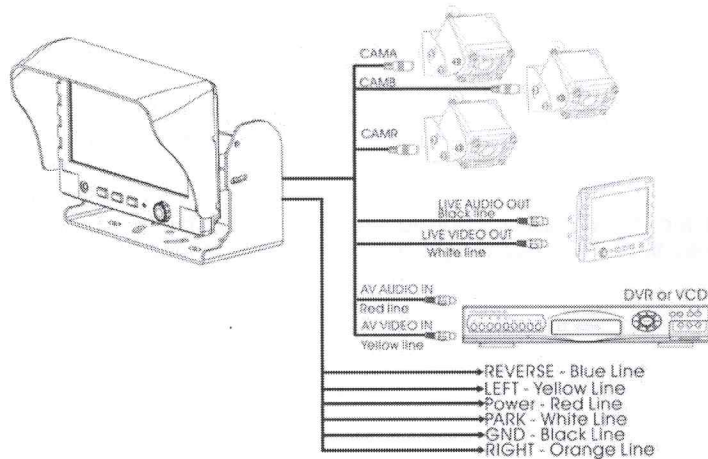
SOURCE button:



Rear viewing:



e.



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7. Specification

Screen size	7 inch (diagonal)
Active area	154.08(W) x 86.58(H)
Pixel configuration	0.107(W) x 0.370(H)
Resolution	1440(W) x 234 (H)
Viewing angle	UP:40° / Down:60° / Left: 60° / Right:60°
Power source:	DC9.6V ~DC32V
Contrast ratio	300:1※
Brightness	450 cd/m ² ※
AV Video In	
Connector	RCA Type
Input Signal	1Vpp
Impedance	75 Ohms
Camera MINI DIN In	
Connector	6 PIN MINI DIN Type (Standard)
Input video signal level	1Vpp
Impedance	75 Ohms
Input audio signal level	1Vpp
Power output for camera	DC12V (350mA Max)
AV Audio In	
Connector	RCA Type
Input video signal level	1Vpp
Impedance	1K Ohms
Live Video Output	
Connector	RCA Type
Output signal level	1Vpp
Impedance	75 Ohms
Live Audio Out	
Connector	RCA Type
Input signal level	1Vpp
Impedance	1K Ohms
Dimension	
W x H x D :	191 x140 x 50.8mm
Weight	N.W./G.W.: 1.95kg / 2.23kg
Environmental:	
Operation temperature	-10°C ~70°C
Storage temperature	-30°C ~80°C
Humidity	20%-80%

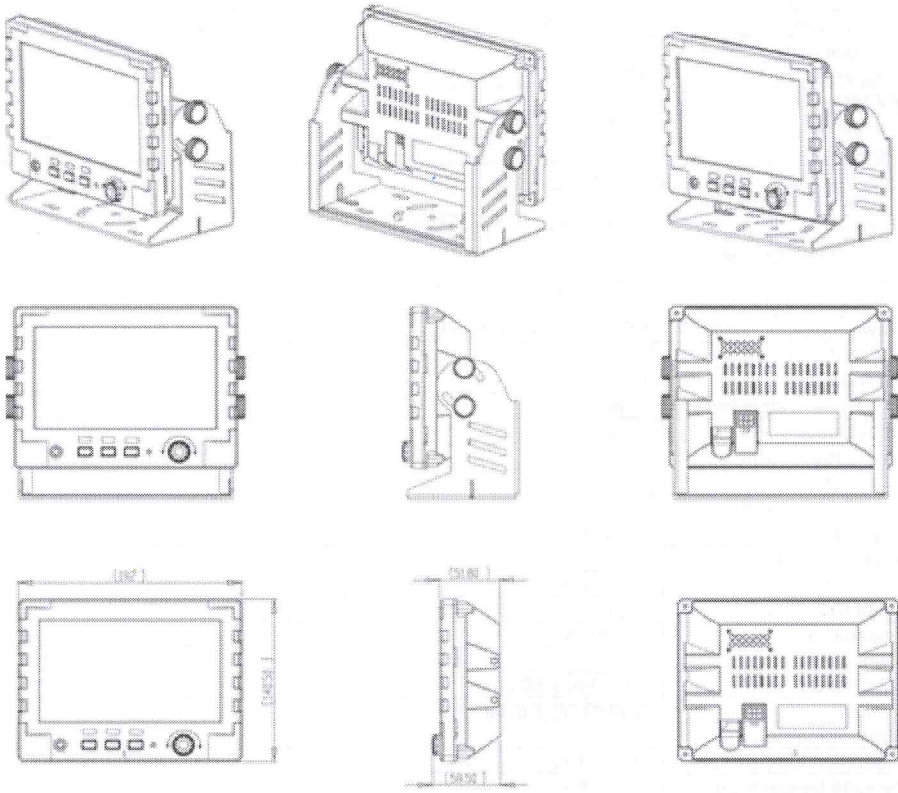
※The brightness and contrast ratio specifications are from panel specification. Design and Specifications are subject to change without notice.

VER 2

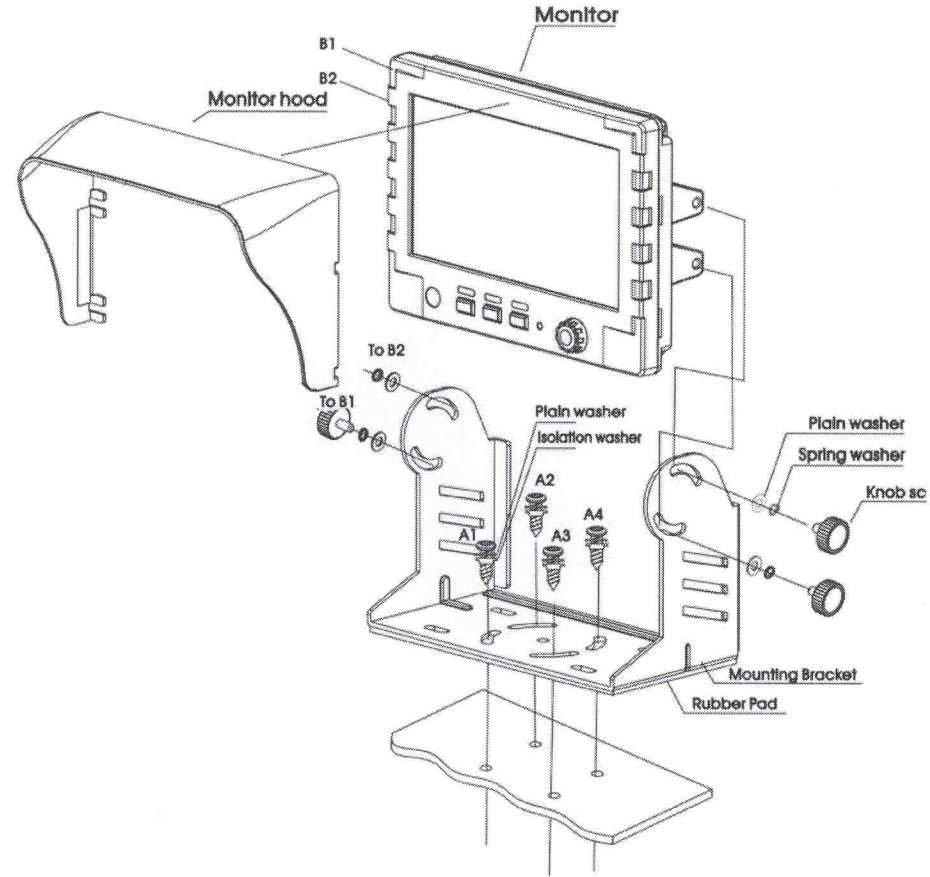
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8. Attachment

Attachment 1: Dimension Chart



Attachment 2: Installation Chart



Safety Precautions

Federal Communications Commission (FCC) Statement

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.
- You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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 and,
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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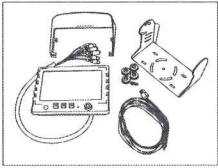
Features

- Support up to 3 CCD Camera Inputs (Mini din Connector)
- Extra RCA Input for Multimedia (VCD, DVD, Game Device)
- Provide 1 Live Video / Audio Signal Output
- Auto Detection for NTSC / PAL System
- Signal Trigger for CAM A / CAM B /CAM R / AV View
- Auto Brightness Adjustment by light sensor
- OSD Control for Individual Normal / Mirror Camera Image
- Switch Timer (2-100 sec) Step Selection via OSD (CAM A / CAM B /CAM R / AV)

1. Package Contents

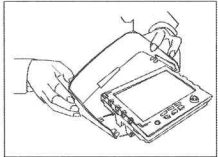
Item	Qty.
1. 7" LCD Monitor	1
2. Sun-hood	1
3. Mounting Bracket	1
4. Accessories	1
5. Control Cable	1
6. User Manual	1

2. TFT Installation



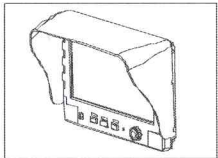
Step 1

Check the package and make sure all parts are included



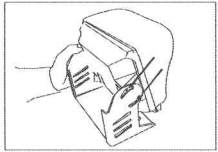
Step 2

Clip the sun-hood on to the monitor



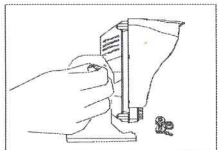
Step 3

Make sure it is installed properly



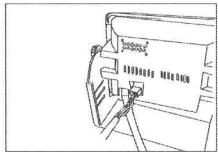
Step 4

Install the monitor on to the bracket



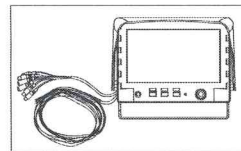
Step 5

Adjust the monitor to an appropriate / comfortable viewing angle before tightening the screws



Step 6

Connect the control cable included to the power socket which located at rear side of monitor

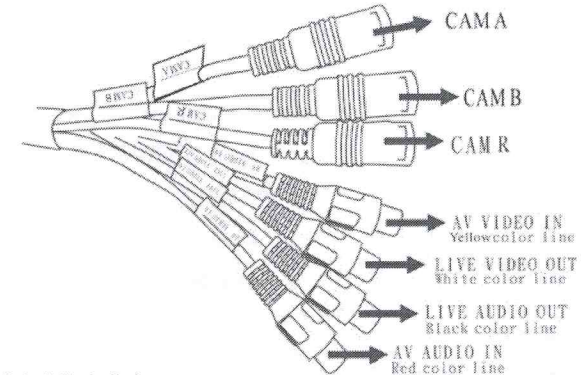


Step 7

Monitor installation is now completed.

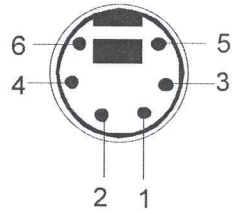
Each control cable wire is attached with a sticker to indicate its signal function. Referred to the identification sticker for further installation.

3. Signal Cable Description



1. CAM A (Mini din)
Fixed for Direction Light (Left Turn Light) vision camera
2. CAM B (Mini din)
Fixed for Direction Light (Right Turn Light) vision camera
3. CAM R (Mini din)
Fixed for rear vision camera
4. LIVE VIDEO OUT (RCA – White Wire)
On screen video loop out (for recording, second monitor or other device)
5. LIVE AUDIO OUT (RCA – Black Wire)
On screen audio loop out (for recording, second monitor or other device)
6. AV VIDEO IN (RCA – Yellow Wire)
Connection for any Video signal (such as DVD, VCD, Game)
7. AV AUDIO IN (RCA – Red Wire)
Connection for any Audio signal (such as DVD, VCD, Game)

● Mini Din Pin Assignment



* Type 1 (Standard):

- 1. ---- 4. GND
- 2. ---- 5. +12V
- 3. Audio 6. Video

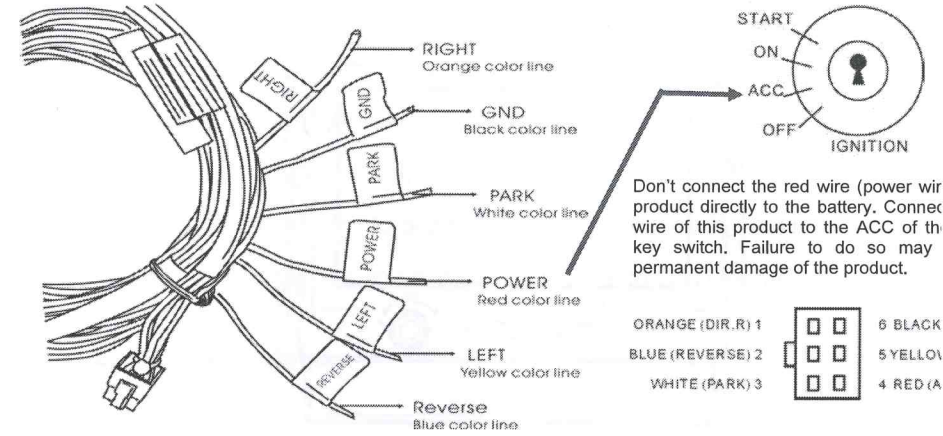
*Type 2 (Optional):

- 1. GND 4. +12V
- 2. ---- 5. ----
- 3. Video 6. Audio

● Function of the Audio

CAM A	Audio from CAM A
CAM B	Audio from CAM B
CAM R	Audio from CAM R

4. Control cable Description



WIRE COLOR	FUNCTION	REMARK	ON SCREEN VIEW
RED	ACC POWER		
BLACK	GND		
WHITE	Parking Control	Active GND	
YELLOW	Left turn Control	Active Power Level Connect to Direction Light(Left Turn Light)	
ORANGE	Right turn	Active Power Level Connect to Direction Light(Right Turn Light)	
BLUE	Reverse Control	Active Power Level Connect to Reverse	