



Instruction Manual

*Wireless Safety Camera System for Forklifts
with 5" Dual Screen Display*

RVS-655155





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NOTE!

Please read all of the installation instructions carefully before installing the product. Improper installation will void manufacturer's warranty.

Congratulations on purchasing a Safety Camera System!

With this manual you will be able to properly install and operate the unit.

This system is intended to be installed as a supplement aid to your standard rear view mirror that already exists in your vehicle. The system should not be used as a substitute for the standard rear view mirror or for any other mirror that exists in your vehicle.

In some jurisdictions, it is unlawful for a person to drive a motor vehicle equipped with a TV viewer or screen located forward of the back of the driver's seat or in any location that is visible, directly or indirectly, to the driver while operating the vehicle.

Please read the entire manual and follow the instructions and warnings carefully. Failure to do so can cause serious damage and/or injury, including loss of life. Be sure to obey all applicable local traffic and motor vehicle regulations as it pertains to this product. Improper installation will void manufacturer's warranty.

USAGE:

- The system is designed to help the driver safely detect people and/or objects helping to avoid damage or injury. However, you the driver, must use it properly. Use of this system is not a substitute for safe, proper or legal driving.
- Never back up while looking at the monitor alone. You should always check behind and around the vehicle when backing up, in the same way as you would if the vehicle did not have the system. If you back up while looking only at the monitor, you may cause damage or injury. Always back up slowly.
- The system is not intended for use during extensive back-up maneuvers or backing into cross traffic or pedestrian walkways.
- Please, always remember, the area displayed by the system is limited. It does not display the entire panorama that is behind you.

INSTALLATION:

- Electric shock or product malfunction may occur if this product is installed incorrectly.
- Use this product within the voltage range specified. Failure to do so can cause electronic shock or product malfunction.
- Take special care when cleaning the monitor.
- Make sure to firmly affix the product before use.
- If smoke or a burning smell is detected, disconnect the system immediately.
- Where the power cable may touch a metal case, cover the cable with friction tape. A short circuit or disconnected wire may cause a fire.
- While installing the Rear View System be careful with the wire positioning in order to avoid wire damage.
- The Rear View System should only be used when the vehicle is in reverse.
- Do not watch movies or operate the monitor while driving; as it may cause an accident.
- Do not install the monitor where it may obstruct drivers view or obstruct an air bag device.
- Dropping the unit may cause possible mechanical failure.

If you have questions about this product, contact:

RVS Systems
1797 Atlantic Avenue
Brooklyn, NY 11233
Tel: 1.800.764.1028

IN NO EVENT SHALL SELLER OR MANUFACTURER BE
LIABLE FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES OF
ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM
ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.



Before drilling please check that no cable or wiring is on the other side of the wall. Please clamp all wires securely to reduce the possibility of them being damaged while vehicle is in use. Keep all cables away from hot/moving parts and electrical noisy components.

We recommend doing a benchmark test before installation to insure that all components are working properly.

Step 1: Choose the monitor and camera locations.

Step 2: Install all cables in vehicle, when necessary a 0.8 (20mm) hole should be drilled for passing camera cable through vehicles walls. Install split grommets where applicable.

Step 3: Once all cables and wiring have been properly routed, perform a system function test by temporarily connecting the system.

Warning!

- 1. This monitor is high voltage. Only professionals should open the monitor's case.*
- 2. Do not watch the video while driving unless you are monitoring the rear view camera display.*

System Features

- Dual screen display - Can view 2 cameras simultaneously
- Normal/Mirror/Flip/Mir-Flip viewing modes
- Split/Auto-scan/Single display modes
- Instant Pair - Pair system without leaving your seat
- Magnetic camera - Simple installation
- Remote control
- 4 video inputs - Connect up to 3 additional cameras
- Multiple video formats: PAL/NTSC
- Wide voltage input: 10 - 32V
- Wireless/Magnetic/Waterproof camera
- Automatic trigger switch

In The Box

1 x 2.4G Digital 5.6" Wireless Color LCD Monitor

1 x Wireless, Magnetic and Waterproof Forklift Camera

1 x Wireless Transmitter

1 x Wireless Antenna

1 x Monitor Mount

1 x Sunshade

1 x U-Bracket Kit

2 x Mounting Pads

1 x Remote

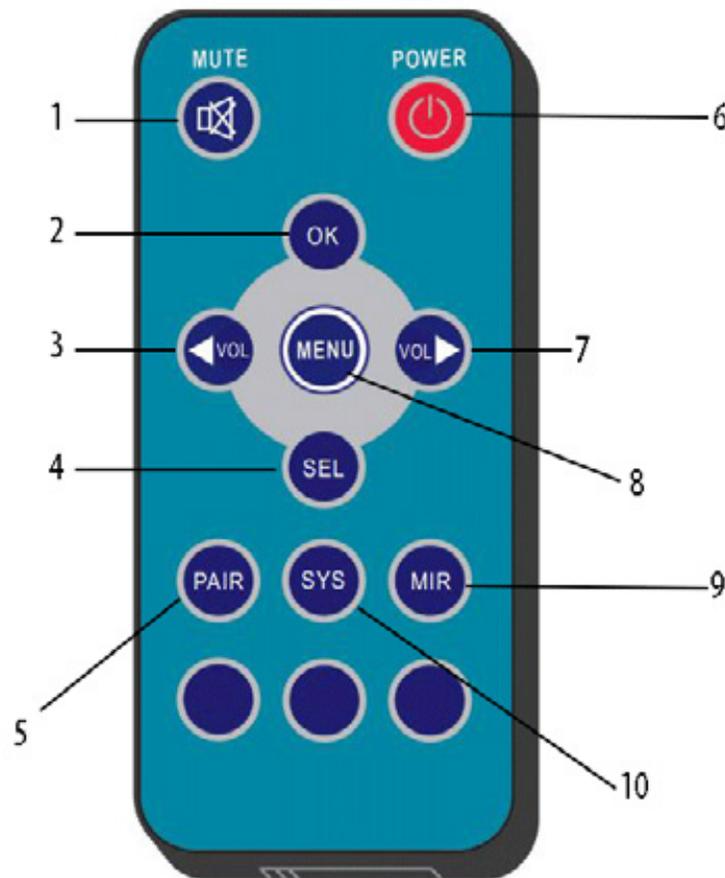
1 x Power Connection Wire



Monitor Introduction

1. Power indicator/On switch
2. Toggle volume up
3. Toggle volume down
4. Enter menu item/save user settings
5. Enter menu
6. Toggle channels
7. Speaker
8. U-Bracket screw position
9. Mounting attachment

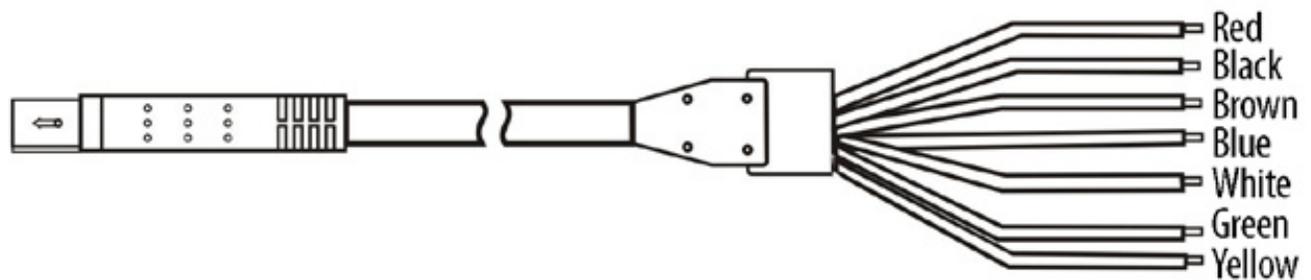
Remote Introduction



Remote Introduction

1. Mute/Unmute
2. Enter menu/save settings
3. Toggle volume down
4. Jump Key - Jump to specified display mode
5. Instant pair
6. Turn monitor on/off
7. Toggle volume up
8. Enter menu
9. Toggle MIR/Flip display modes
10. Toggle PAL/NTSC

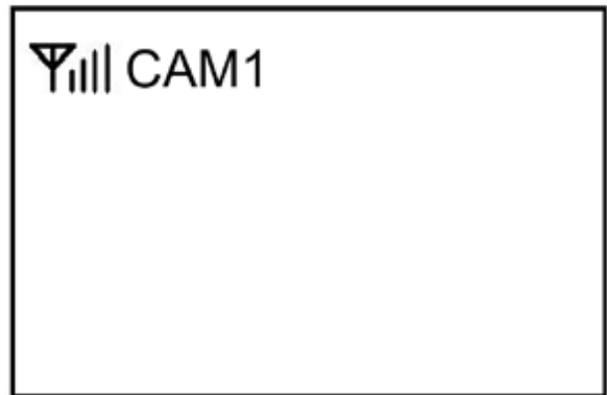
Basic Wiring



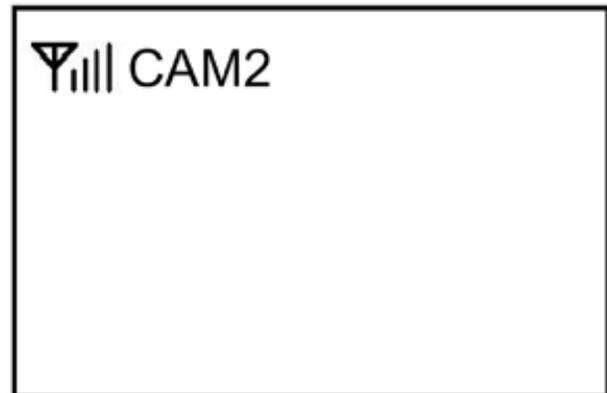
- Red wire to positive DC/10-32V power supply
- Black wire to ground
- Brown wire to reverse power
- White wire to left turn signal
- Blue wire to right turn signal
- Green/yellow wire to other positive power supply

Triggers

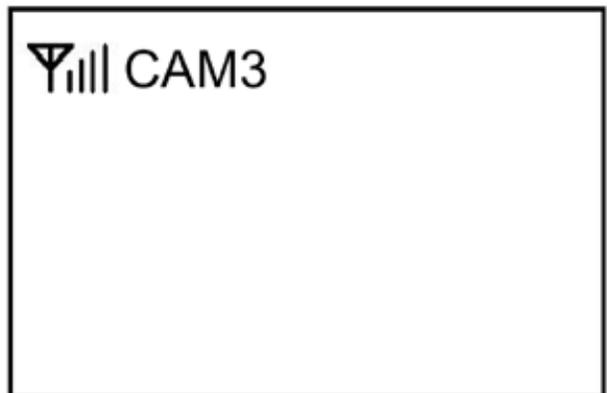
When green trigger wire is activated, camera switches to CAM1



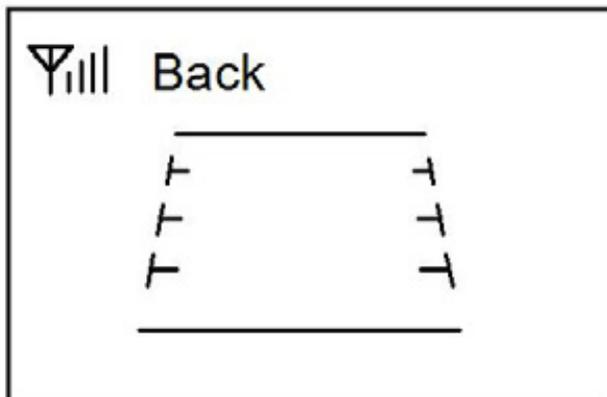
When white trigger wire is activated, camera switches to CAM2 (left side camera)



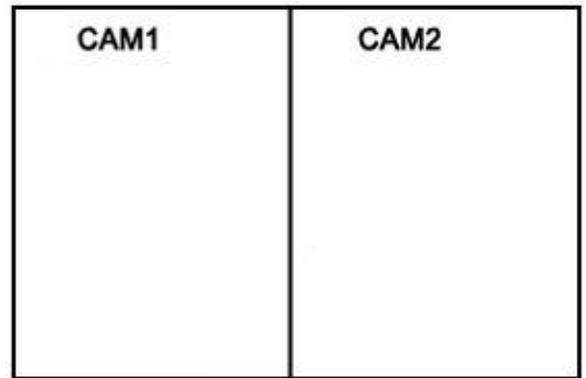
When white trigger wire is activated, camera switches to CAM3 (right side camera)



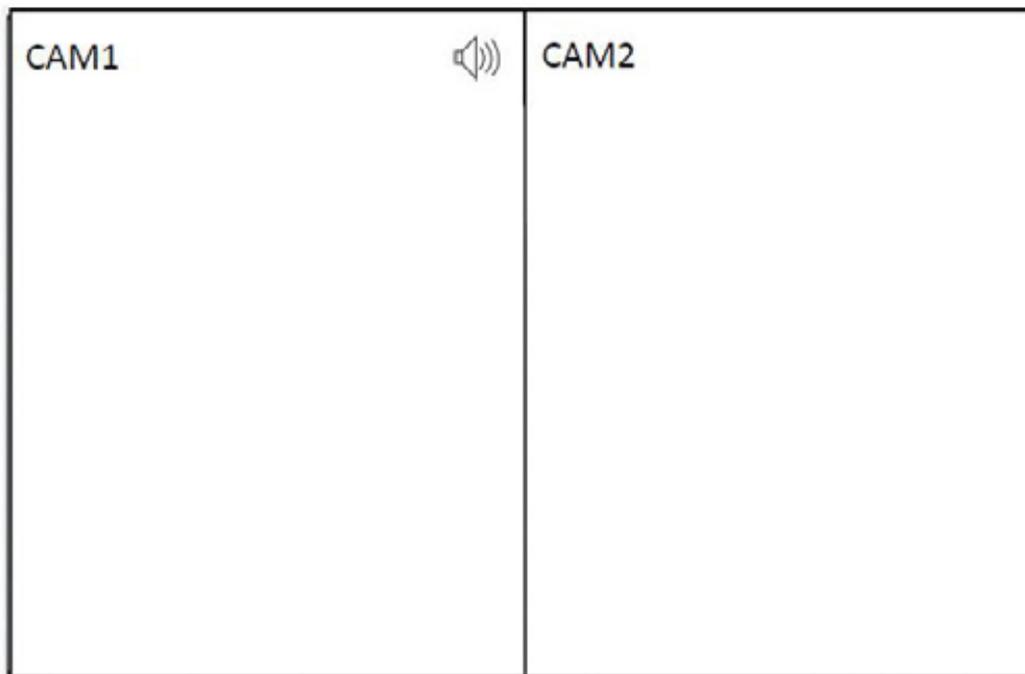
When brown trigger wire (reversing) is activated, camera switches to CAM4 (backup camera)
This also displays gridlines



When yellow trigger wire is activated, monitor switches to dual display.



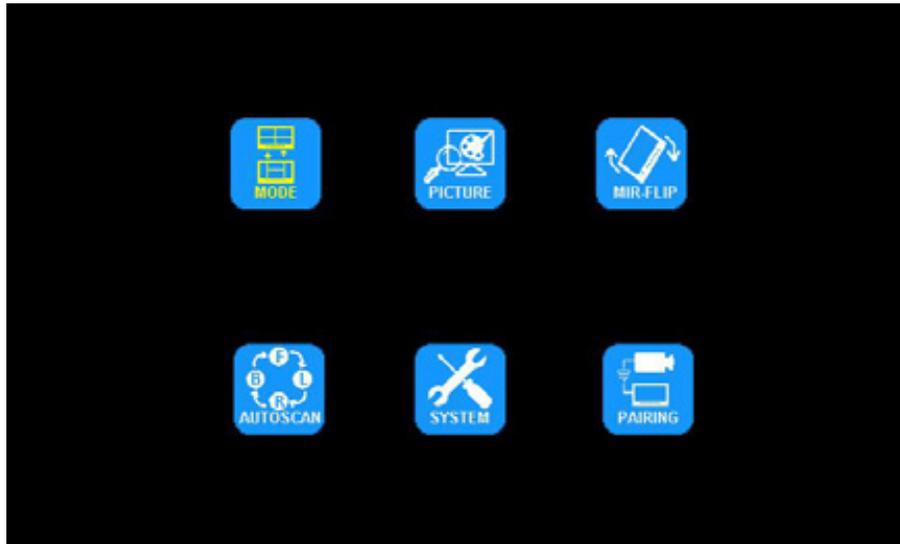
Volume With Dual Display



Use volume toggle buttons to select the channel for audio out.

Menu Introduction

MENU is only allowed for operation under single image mode, not dual display mode. Press MENU to display the following options and settings: MODE/PICTURE/MIR-FLIP/AUTOSCAN/SYSTEM/PAIRING.

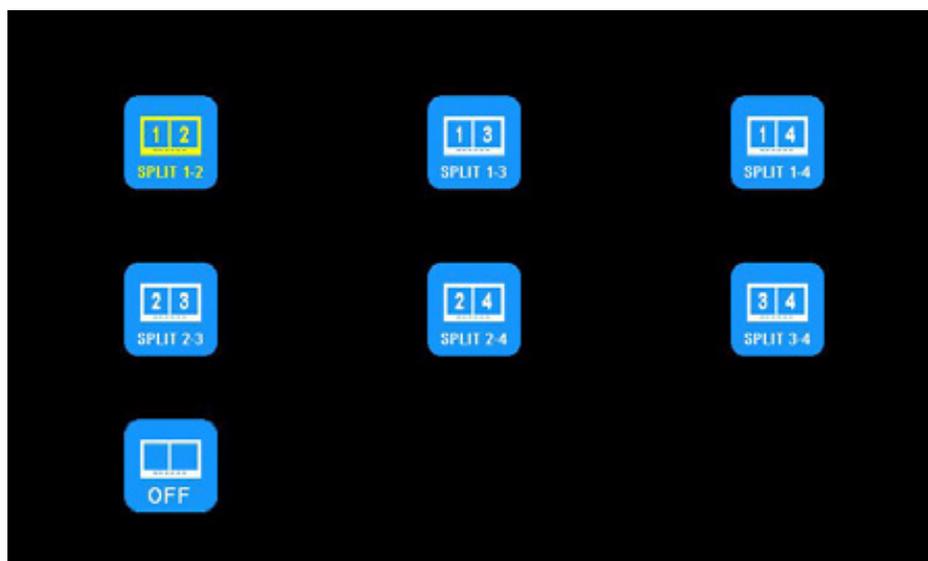


Mode

Press - or + to select MODE. Press ∇ to enter.

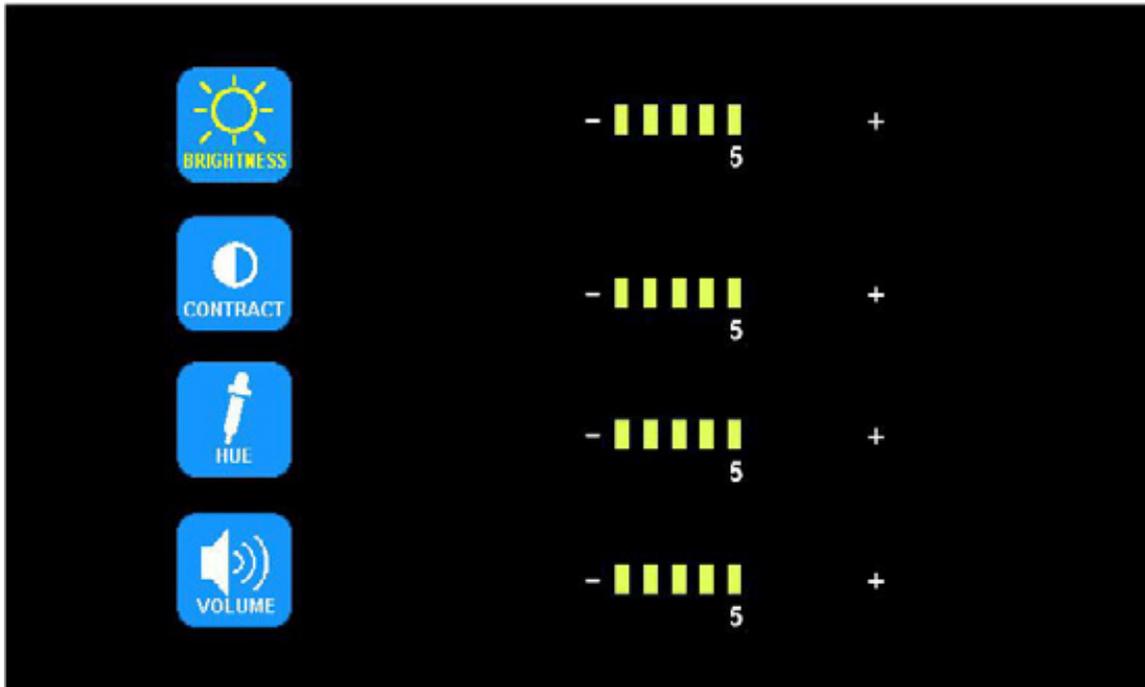
Press - or + to select SPLIT. Select OFF to exit SPLIT menu.

Split trigger is disabled when split mode is off.



Picture

Press - or + to select Picture. Press ▽ to enter.



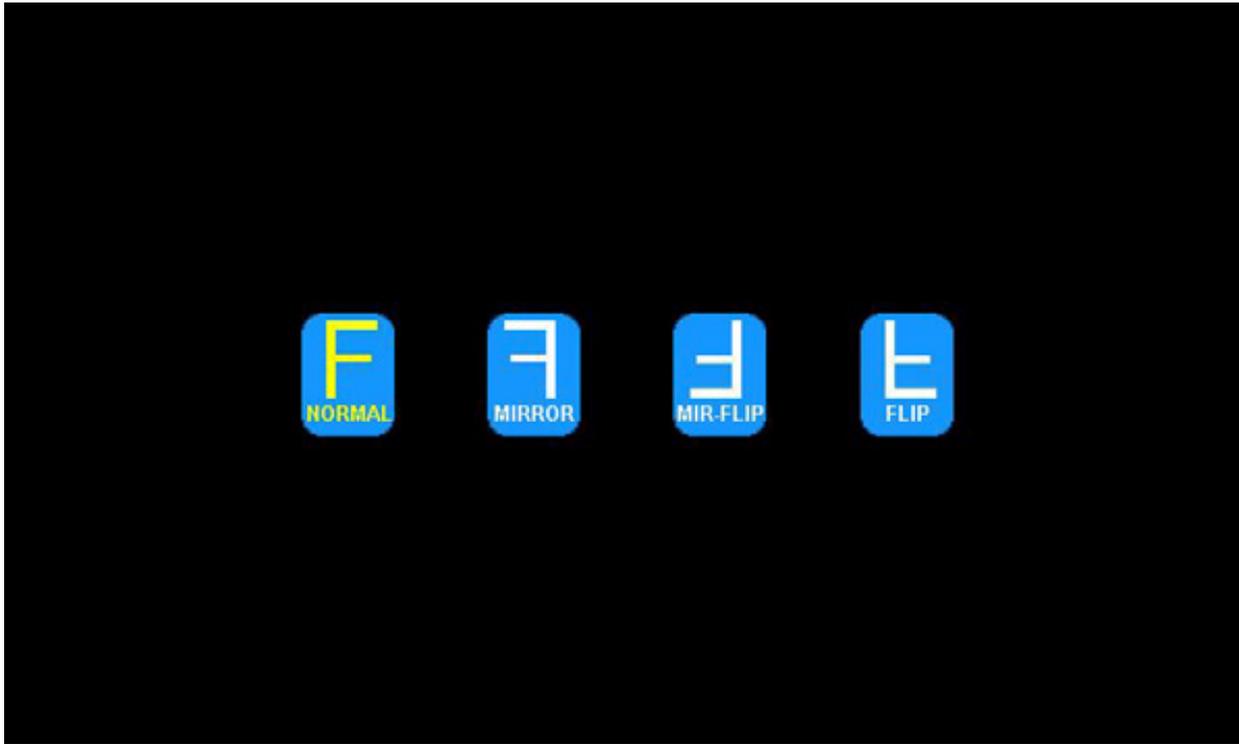
Brightness/Contrast/Hue/Volume

Press - or + to select BRIGHTNESS/CONTRAST/HUE/VOLUME.
Press ▽ to enter. Press MENU to return to main menu.

Mir-Flip

Press - or + to select MIR-FLIP.

Press ▾ to enter. Press MENU to return to main menu.

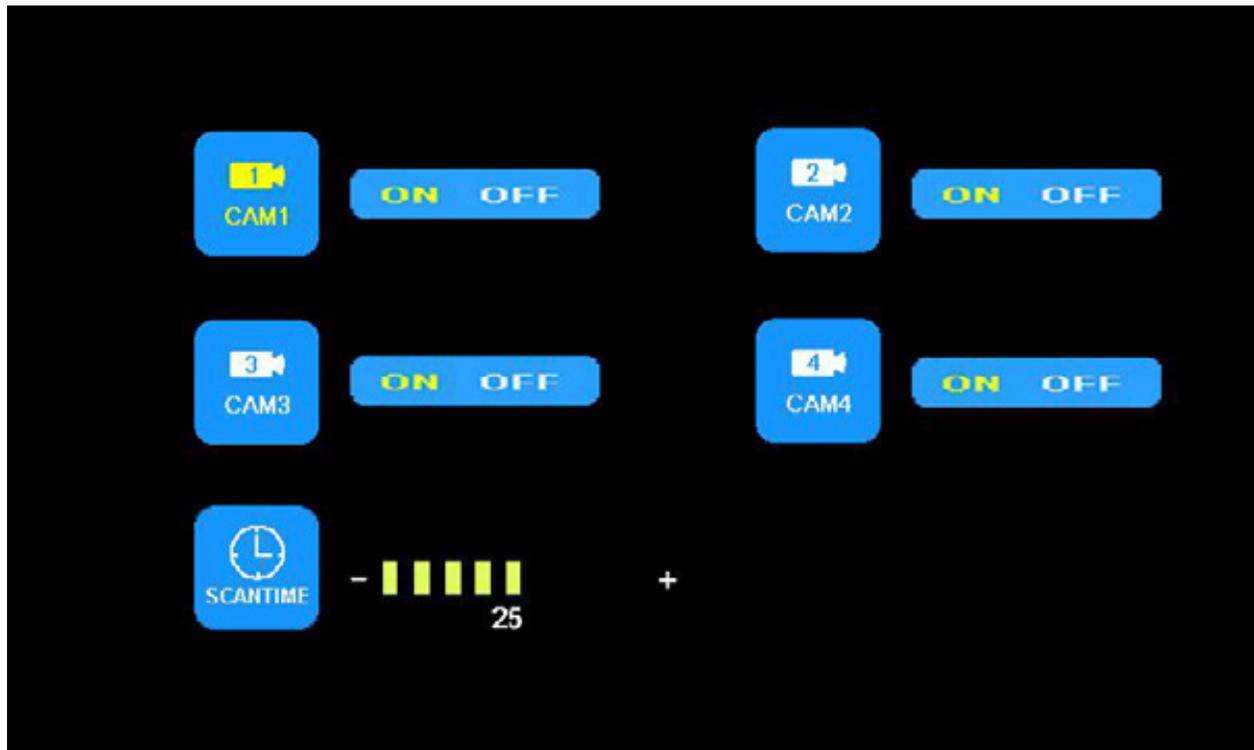


Press - or + to select NORMAL / MIRROR / MIR-FLIP / FLIP.

Press MENU to return main menu.

AutoScan

Press - or + to select Autoscan. Press ▾ to enter.



Press - or + to select CAM1/CAM2/CAM3/CAM4/SCANTIME.

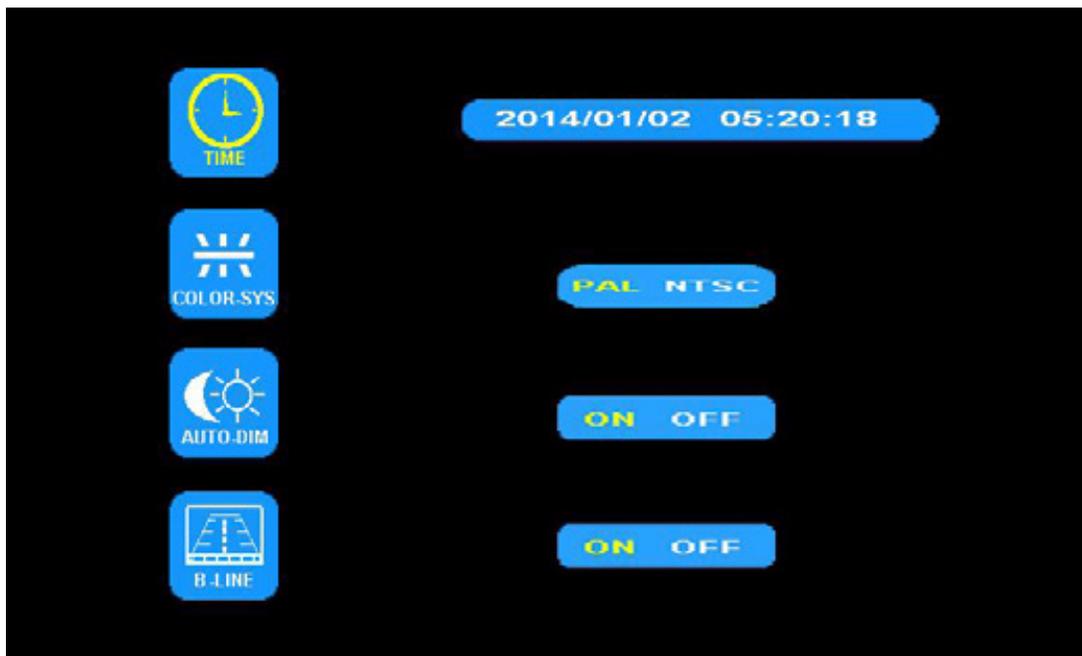
Press ▾ to enter. When the icon turns yellow, press - or + to select or adjust. Press ▾ to exit. Press MENU to return to main menu.

No video will be displayed under AUTOSCAN mode if a channel is turned OFF.

SCANTIME duration is 5-45 seconds. Toggle up/down in 5 second intervals.

System

Press - or + to select SYSTEM. Press ▾ to enter.



Time: Press - or + to select TIME. Press ▾ to enter. Press - or + to adjust.

Color-Sys: Press - or + to select COLOR-SYS. Press ▾ to enter. Press - or + to adjust.

Auto-Dim: Press - or + to select AUTO-DIM. Press ▾ to enter, press - or + to select ON/OFF. When setting is ON, the backlighting automatically adjusts depending on the environment.

Electronic Distance Label (Distance Gridlines): Press - or + to select ELECTRONIC DISTANCE LABEL. Press ▾ to enter. Press - or + to turn distance gridlines ON/OFF. When it is on, distance gridlines will be displayed on CAM4.

Pairing

Press - or + to select SYSTEM.

Press ▾ to enter. Press MENU to return to main menu.



Instant Pair

Select the channel to pair, the monitor will display the message "PAIRING START 50". Turn camera on during countdown. The monitor and cameras will synchronize themselves with each other after the camera is powered for 5 seconds. The video will be displayed if instant pairing is successful. Repeat the pairing if "No Signal" displays.

Monitor Specification

LCD Size	5.6"
Resolution	640 x 3 (RGB) x 480
Contrast	500:1
Brightness	200 cd/m ²
Viewing Angle	U: 50 / D: 70, R/L 70
Video Inputs	4
Operating Frequency	2400 - 2483.5 MHz
Receiving Sensitivity	-89 dBm
Decompression Form	MPEG4
Transmit Output Power	17 dBm
Modulation	2.4G FSK / GFSK
Time Delay	120ms
Transmitting Distance	120m (394 foot)
System Format	PAL / NTSC
Power Supply	DC 10-32V
Power Consumption	Max 5W
Speaker	1W / 8Ω
Operating Temperature	-20°C ~ +70°C, RH 90%
Storage Temperature	-30°C ~ +80°C, RH 90%

Camera Specs

Sensor	1/3" CMOS PC 3089
TV System	PAL / NTSC
Effective Pixels	756 x 504 Pixels
Sensing Area	4.80mm x 3.73mm
Scanning System	2:1 Interlace
Sync System	Internal
Horizontal Sync Frequency	15.625 kHz / 15.734 kHz
Vertical Sync Frequency	50 Hz / 60 Hz
Video Output	1.0Vp-p, 75Ω
Gamma Correction	0.45
AGC	Auto
S/N Ratio	Better than 46.5dB
White Balance	Auto
Electronic Shutter	Auto:1/60 (NTSC) / 1/50 (PAL) ~ 1/100,000 Seconds
BLC	Auto
Operation Frequency	2400-2483.5MHZ
Line of Sight Range	50m
Receiving Sensitivity	-89dBm
Video Codec	MPEG4
Frame Rate	PAL: 25f/s NTSC: 30f/s
Transmission Power	20dBm
Spread Spectrum	FHSS
Delay	120ms
RF Bit Rate	4Mbps
Operating Temperature	-20°C ~ 70°C, RH 95% MAX
Storage Temperature	-30°C ~ 80°C, RH 95% MAX
Minimum Illumination	0.1 Lux
Power Supply	DC 10 ~ 32V
Waterproof Rating	IP69K
Viewing Angle	45°

Troubleshooting

Problem	Possible Causes/Solutions
No picture/sound	Power switch is set OFF. Check power connection/source.
No signal	Check camera power supply. Pair the monitor and camera again.
Dark Picture	Adjust brightness/contrast.
No Color	Adjust hue.

ONE YEAR WARRANTY

RVS SYSTEMS, INC. WARRANTS THIS PRODUCT AGAINST MATERIAL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE. WE RESERVE THE RIGHT TO REPAIR OR REPLACE ANY SUCH DEFECTIVE UNIT AT OUR SOLE DISCRETION. RVS SYSTEMS, INC. IS NOT RESPONSIBLE FOR A DEFECT IN THE SYSTEM AS A RESULT OF MISUSE, IMPROPER INSTALLATION, DAMAGE OR MISHANDLING OF THE ELECTRONIC COMPONENTS. RVS SYSTEMS, INC. IS NOT RESPONSIBLE FOR CONSEQUENTIAL DAMAGES OF ANY KIND.

THIS WARRANTY IS VOID IF: DEFECTS IN MATERIALS OR WORKMANSHIP OR DAMAGES RESULT FROM REPAIRS OR ALTERATIONS WHICH HAVE BEEN MADE OR ATTEMPTED BY OTHERS OR THE UNAUTHORIZED USE OF NONCONFORMING PARTS; THE DAMAGE IS DUE TO NORMAL WEAR AND TEAR, THIS DAMAGE IS DUE TO ABUSE, IMPROPER MAINTENANCE, NEGLIGENCE OR ACCIDENT; OR THE DAMAGE IS DUE TO USE OF THE RVS SYSTEMS, INC. SYSTEM AFTER PARTIAL FAILURE OR USE WITH IMPROPER ACCESSORIES.

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DURING THE ABOVE WARRANTY PERIOD, SHOULD YOUR RVS SYSTEMS PRODUCT EXHIBIT A DEFECT IN MATERIAL OR WORKMANSHIP, SUCH DEFECT WILL BE REPAIRED WHEN THE COMPLETE RVS SYSTEMS, INC. PRODUCT IS RETURNED, POSTAGE PREPAID AND INSURED, TO RVS SYSTEMS, INC. OTHER THAN THE POSTAGE AND INSURANCE REQUIREMENT, NO CHARGE WILL BE MADE FOR REPAIRS COVERED BY THIS WARRANTY.

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DISCLAIMER

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If you have any questions
about this product, contact:

RVS Systems, Inc.
1797 Atlantic Avenue
Brooklyn, NY 11233
800.764.1028

Better Cameras. Better Service.
IT'S OUR GUARANTEE.

