



5 INCH DIGITAL  
MONITOR SYSTEM  
Part # SM05C



*Just View It!*®

Please read this manual completely before operating the SYSTEM

A division of  
**Component Solution Services, LLC.**  
5660 Twin Branch Dr.,  
Mishawaka, IN 46545  
[www.verityrvs.com](http://www.verityrvs.com)



© 2019 Verity Rear Vision Systems

Component Solution Services LLC., offers the Verity Rear Vision Systems® to meet any requirements and price point within the trucking, specialty vehicles, and RV industry. Verity Rear Vision Systems® is also home to the Supreme View® line of specialty format systems. Our standard cabled systems offer unparalleled features into the trucking and RV industries. Designed for professional drivers, Verity Rear Vision Systems develops and markets products and applications to transmit video, audio, and data either individually or in any and all combinations. The company has also developed, manufactured, and marketed different kinds of personal and vehicle video cameras, DVRs, and accessories for the commercial transportation, fire/rescue, and marine OEM markets.



**INCLUDES heavy duty mount installs where dashboard real estate is at a minimum Part Number ADD25F**

**Think safety  
First**

**Read our manual before operating  
or installing.**

Most likely, your system came preinstalled, so the installation section would be for reference.

Thank you for your purchase of our Verity Rear Vision Systems®. When installed and used properly, your SM05C is designed to deliver you years of trouble-free operation. This manual contains important information required to properly install and operate the unit. Verity Rear Vision Systems are designed for quick installation by trained professionals in proper installation environments. Our designs are based on decades of working with vehicle manufacturers.

Verity Rear Vision Systems products are intended to be installed as a supplement and our observation systems and/or products are not intended for use as substitutes for rear-view mirror devices, or for any other standard motor vehicle equipment which may be required to be installed on vehicles by law. Verity rear Vision Systems products promote improving the vehicle operator's field of view. Our products are no substitute for proper defensive driving techniques, observance of traffic laws and motor vehicle safety regulations.

### **Installation Location**

It is unlawful in most locals for any person to drive a motor vehicle equipped with a television viewer/screen located at any point 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. Our systems are designed to be used primarily as a rear observation device.

**DO NOT OPEN ANY COMPONENT.** There are no serviceable parts inside any of the components of the Verity Rear Vision products. Opening the product will break the tamper indicators and void the warranty. Contact our tech support if a problem should arise 574-807-6002. For faster response, fill out a service ticket found on our website. [www.verityrvs.com](http://www.verityrvs.com)

## **WARNING**

- ◆ Do not place heavy objects on cables or cover them with carpet or mats.
- ◆ Do not place cables where they can be crushed in any manner.
- ◆ Our systems are designed as a driving aid. Watching videos, broadcasts, DVDs and/or any images other than intended driving assistance cameras is prohibited.

## **CAUTION**

- ◆ To avoid damage to the electronic circuit, stop using this product while doing welding work to the vehicle and/or trailers.
- ◆ Never immerse any component in water, and do not employ spray cleaners. When cleaning, use a damp lint-free cloth only.
- ◆ Connect this unit only to other compatible devices.
- ◆ Although our products have built-in surge and cross polarity protection, make sure all cables are connected properly; improper cable connections may damage the camera and the monitor.
- ◆ Cables should not be allowed to touch hot or rotating parts, such as the engine, ventilator, etc.
- ◆ Do not locate the monitor near heat generating vents or devices.
- ◆ Turn off power to the monitor when connecting the camera.

Monitors are not designed to be waterproof. (Our SM07F waterproof monitor is the exception). Exposure to water, such as rain, may damage the unit.

# SYSTEM FEATURES

## MONITOR SPECIFICATIONS

Screen size: 5 inch digital screen (16:9)

Long Life High Resolution: 800 x 480 Pixel (RGB)

System: PAL/NTSC auto per input

Contrast: 800:1 Brightness: 500cd/m2

Power supply: DC 12V~32V with reverse polarity protection

Operation temperatures: -20~70C Storage temperature: -30~80C

3 AV color coded inputs with color coded trigger wires, auto blue screen if no signal on activated channel

Features: HD sunshade, headphone jack, auto light sensor dimming for buttons and LCD screen, LED blue light buttons, high quality Techwell® processor, in-line waterproof fuse

Easy to use OSD menu function via buttons & remote: reversing image delay time 0~15s, (for side cameras) Mirror/Normal image, plus horizontal flip per signal channel (text stays in normal view for readability), multi-language, guidelines.

## 1 / 3" COLOR CCD SENSOR SPECIFICATIONS

*With Audio and IR*

TV System: NTSC

Aluminum shelled waterproof camera with hex bolts for insured positioning

Image Type: 1/3 Inch Color CCD Sharp® or equivalent (no cheap off brands used)

Horizontal Resolution: 420TV Lines

Effective pixel: NTSC: 510(H) x 492(V)

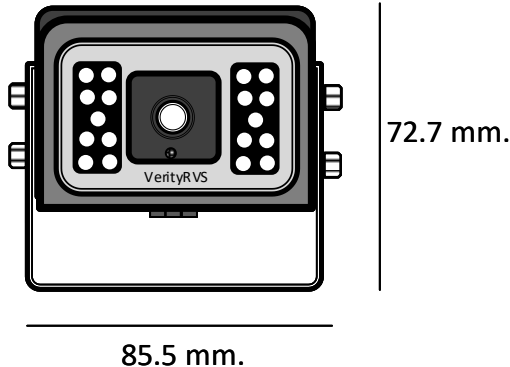
Illumination: 0 Lux (built-in 10 high output IR LED's for night vision)

Viewing angle: 130°

Waterproof: IP69 Shockproof: 10G

Operating temperature: -40°C to +70°C

Power supply: 12V DC (powered by monitor)



# SYSTEM COMPONENTS



5-Inch Digital Monitor



Heavy Duty Mount



Infrared Weatherproof Camera



20-Meter  
Camera Cable



13-pin to Monitor Cable



5 INCH DIGITAL  
MONITOR SYSTEM  
Part # SM05C



*Just View It!*

Please read the manual completely before operating the 5" DVI-D

A Division of  
Component Solutions Services, LLC.  
8800 North Branch Dr.  
Mankato, MN 56002  
www.verityrvs.com

CE FC

© 2010 Verity Rear Vision Systems

Manual



I/F Remote

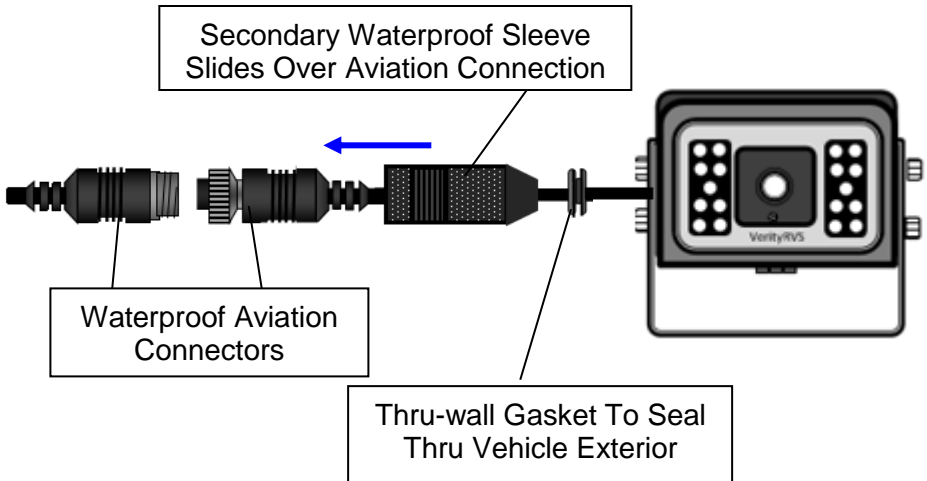
## SYSTEM COMPONENTS

This monitor can be mounted on the dash and can be mounted on both horizontal and vertical surfaces. Make sure the view is suitable to the driver to observe the images. Take care not to block any necessary viewing area when mounting. Before mounting the system, permanently hook up all connections to ensure proper operation.

### Mounting Monitor

1. After determining the monitor location, position the monitor support bracket, mark the bolt hole location, and then drill the holes. Be careful not to drill into any other surface that may be hidden.
2. Attach monitor bracket. Mount the monitor to the support bracket with supplied 4 angle adjustment screws.
3. Connect one end of the power cable (wire) to the proper connections. Connect the other end of the power cable (plug) to the monitor; connect the monitor and the camera with the 13-pin system connecting cable.

### Camera Connection



## MONITOR / REMOTE OPERATIONS

1. Remote Signal Receiver Window
2. (VOL+) Volume Increase Right Arrow
3. (VOL-) Volume Decrease Left Arrow
4. Down (move down in menu)
5. Menu Control Button
6. (CA1 - CA3) Switches between cameras
7. Power Off/On button  
Red color is stand-by  
Green is powered on

Monitor will turn on if trigger wire activated



MUTE

POWER

VOLUME  
DECREASE

MENU

MENU Options  
Control Buttons

VOLUME  
INCREASE

PICTURE  
MODE

TIMER

LANGUAGE

SWITCH  
CAMERA

FLIP  
HORIZONTAL

SETTING DISPLAY

FLIP VERTICAL





## CONNECTION OPERATIONS

### Verity Rear Vision Systems Wire Connection Key

4-pin camera connectors

White -Camera 1 rear (Yellow 4-pin)

Blue -Camera 2 right side (Red 4-pin)

Brown -Camera 3 left side (Black 4-pin)

Red wire to key-on hot (+) 10-32v. DC (fused)

Black wire to GND. (-)

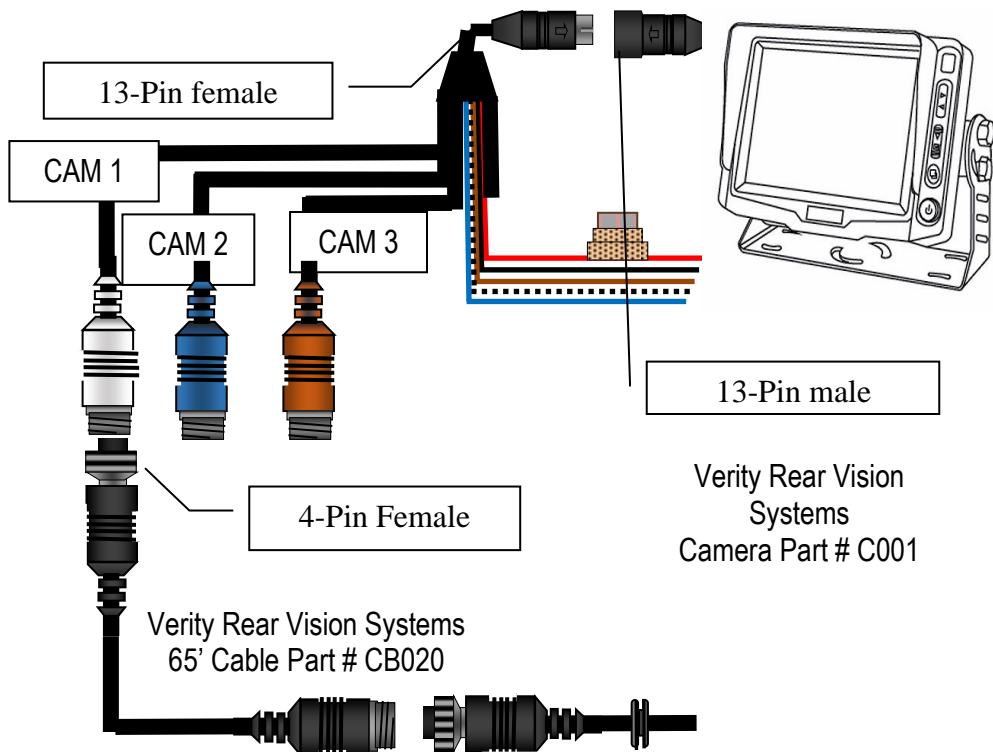
White wire to positive Back-up light

Blue wire to positive power Left turn signal

Brown wire to positive power Right turn signal

### **BE SURE TO ALIGN 13 PIN CONNECTION**

If force is applied to this connection when not aligned, it may damage plug pins and void the warranty.



# MENU OPERATIONS



1. Picture 2. Image Orientation 3. Image Priority  
4. Trigger Delay 5. Language 6. System Setup

The following are examples of how the menus work.



## 1. PICTURE:

**Brightness, Contrast, Saturation, and Hue** displays on screen. Brightness, Contrast, Saturation have a value of 1-100 and Hue has a value of 1-50.

**CAM 1(N/LR)**

Brightness		50
Contrast		50
Saturation		50
Hue		0



## 2. Image Orientation:

Flips each camera image individually both horizontally and vertically. Allow for correct image of interior cameras.

**CAM 1(N/LR)**

▶ CAM 1	◀ N -LR ▶
CAM 2	◀ N -LR ▶
CAM 3	◀ N -LR ▶



## MENU OPERATIONS



**3. Reverse Priority:** The default priority camera is CAM 1 in priority order of Cam 1 ► Cam 2 ► Cam 3. If camera CAM 2 is selected as the priority camera, the order is Cam 2 ► Cam 1 ► Cam 3. If camera CAM 3 is selected as the priority camera, the order is Cam 3 ► Cam 1 ► Cam 2.

### CAM 1(N/LR)



CAM Priority

◀ CAM 1 ▶



**4. Camera Time Delay** (Can be used to program camera switching time delay. Note due to DOT laws, the rear camera on less than 10,000 GVWR cannot have less than a 2 second time delay. Thus rear cameras must have a zero time delay.

### CAM 1(N/LR)



CAM 1

.....

◀ 0S ▶

CAM 2

.....

◀ 0S ▶

CAM 3

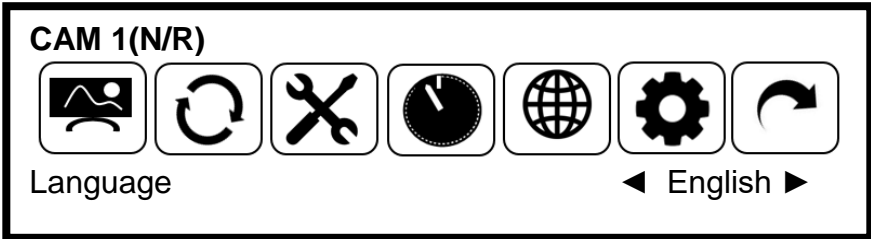
.....

◀ 0S ▶

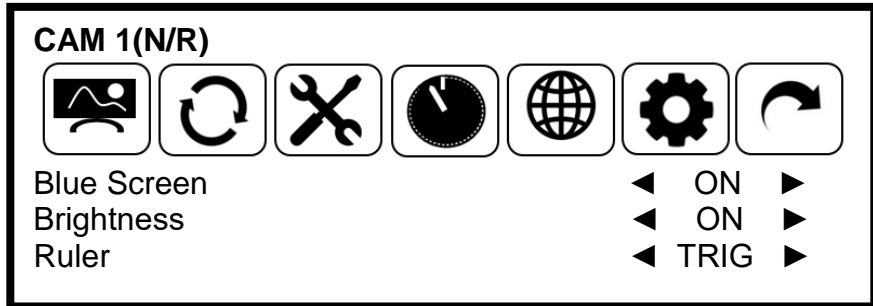
## MENU OPERATIONS



**5. LANGAUGE** The default language is English along with 11 options: English, Chinese, French, Deutsch, Italian, Spanish, Portuguese, Russian, Danish, Polish, and Dutch.



**6. SYSTEM SETTINGS** Note: When there is no power to the monitor, the system screen is black. When on, the image will only show on channels that have a camera attached to them. All other camera channels will be blue by default setting. This can be changed from blue to black screen. However, it is suggested to leave screen set to blue. This will allow the user to see a blue screen if the camera were to get damaged.



Auto Brightness is the option of auto dimming the image for night driving.

Ruler Line is the turning on and off of the guide lines. Note these lines are for reference only and do not indicate any specific measurements. When “ON”, the line stays on. When “Trig” is the setting, the line will appear when the camera is triggered on. When “Off”, no line at all will appear.

Verity Rear Vision Systems  
A division of  
**COMPONENT SOLUTION SERVICES (CSS)**  
**LIMITED ONE (1) YEAR WARRANTY**

1. CSS products' warranties are not transferable. The warranties apply to the retail consumer for one (1) year and covers against defects in material and workmanship.

2. Defective components will be replaced or repaired, based on a CSS evaluation of the component. In-bound shipping charges, based on the CSS rate allocated in the RMA (returned merchandise agreement), will be covered once the component has been deemed defective at the CSS warranty facility. The pre-assigned in-bound freight will be supplied upon return of product. All repaired/replaced warranty parts shall be for the remaining duration of the original warranty time period.

3. CSS takes pride in our products and will aid in the processing of your components:

a) All warranty claimants must have consulted our technical support department for trouble shooting and the acquiring of an RMA. Contact can be made via email at [tech@verityrvs.com](mailto:tech@verityrvs.com) or call 574-807-6002.

b) When the warranty claim is made, the consumer must establish the warranty start dates by presenting documentation regarding the date of retail purchase (e.g., bill of sale). c) Service performed by non-authorized service personnel may void all warranty claims.

d) CSS will make no payments for system removal / system re-installing, mileage allowance, or transportation expenses.

The limited warranty does not cover damage resulting from misuse, accident, modification or alteration to hardware or software, tampering, unsuitable physical or operating environment beyond product specifications, improper maintenance, or failure caused by a product for which CSS is not responsible. There is no warranty for any product with removed or altered identification labels. CSS DOES NOT PROVIDE ANY OTHER WARRANTIES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OF IMPLIED WARRANTIES, SO THIS LIMITATION MAY NOT APPLY TO YOU.

4. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

## Technical Support

A service ticket can be filled out on line to supply the quickest service. The service ticket can be easily found on our web site [www.verityrvs.com](http://www.verityrvs.com) or use the code to the right. Please have the serial number of the system which is found on the back of the monitor when contacting the service department. We take great pride in delivering the most dependable product in the industry. Each item was 100% QC tested and then we randomly recheck another up to 10% before it leaves our hands to you. We have a .034% issue rate with this product.



**Email Tech Support: [Tech@verityrvs.com](mailto:Tech@verityrvs.com)**

**Phone Tech Support: 574-807-6002**

Note: if you are a fire/rescue customer in need of tech support after hours or on weekends, leave a message and a technician will return your call as soon as one becomes available.



a division of

**Component Solution Services**

56600 Twin Branch Drive

Mishawaka, IN 46545

**574-807-6002**

**Toll Free 844-875-4799**



We at Verity Rear Vision Systems would like to personally thank you for purchasing our product. Our company strives to supply the best products at a fair price. We care that you enjoy a safe driving experience.