REC02U Mobile DVR
USER MANUAL
Distributed by Verity Rear Vision

Please read this manual completely before operating the SYSTEM

A division of
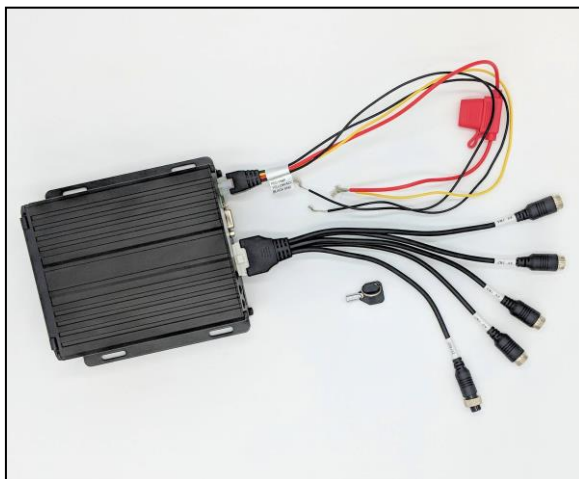
Component Solution Services, LLC.
56600 Twin Branch Dr.,
Mishawaka, IN 46545

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.

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 REC02U 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

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.

The REC02U is a DVR designed for Analog HD vehicle monitoring. It has a built-in high-performance image processor with advanced H.264 video compression technology. This unit it provides AHD video recording, storage and playback solution. Options could include: built-in 3G/4G/Wi-Fi module for remote monitoring, analysis and management. It comes with smart power management system which can recognize the power type automatically. When detected that the battery's voltage is lower than the given value, the device will shut down automatically and keep ultralow standby consumption.

Built-in high performance Hisilicon chipsets, coded with H.264 standard, high compression rate and high definition image quality
4CH AV Inputs with AHD 720P/960H/D1/CIF optional, 1CH synchronized AV output
4CH local recording with 720P resolution in real time
Power:
Professional In-Vehicle power design, 10-36V DC Wide Voltage Range
Multi protection circuits such as under-voltage, short, reversed plug-in
Smart power management system, shutdown under extremely low voltage (-6 volts +/-), low consumption
Data Storage:
Special file management system to encrypt and protect the data
Proprietary technology to detect the bad track over long life span of the hard drive which ensures continuity of video and long service life of the hard drive
Built-in ultracapacitor, to avoid data loss and sd card damage caused by sudden outage
Support 2.5-inch HDD/SSD, maximum 2TB (Optional, not Included)
Support SD card storage, maximum 256GB (Optional, not included)
Support SD card storage, 128GB INCLUDED
Transmission Interface: (Optional)
Specifications:
System main processor   Hi3520 DV200
Operating system   Embedded Linux OS
Operating language   English/Chinese

Operating interface   GUI, support mouse
Password security   User password/Admin password
Audio & Video
Video standard   NTSC default PAL
Video compression   H.264
Image resolution   720P /960H/D1/CIF
Playback quality   720P /960H/D1/CIF
Compound mode   4ch 720P/4ch 960H/2ch 720P+2ch 960H
Decoding ability   1ch 720P real time
Recording quality 6 optional levels
Image display   Single/QUAD display optional
Audio Compression   G.726
Audio recording   Audio & Video synchronized recording
Recording & Playback
Recording mode   Manual/Preset Start Mode
Video bit rate   Full frame 4096Mbps,
Audio bit rate   8KB/s
Storage media   SD card + HDD/SSD storage
Local playback   Playback by file size
Input properties
AV input   4-ch aviation interface
AV output   1-ch VGA video output, 1ch aviation AV output
Alarm input   4 digital inputs (2 Positive trigger, 2 Positive/Negative trigger)
HDD/SSD   1 HDD/SSD (up to 2TB, support hot plug/unplug)
SD card   1 SDXC High speed card (up to 256GB)
USB interface   1 USB 2.0 (support U disk/mouse)
Ignition input   1 ACC signal
LED Indication   PWR/RUN
Disk lock   1
Power / Temperatures
Power input   10~36V DC
Power output   5V 300mA
Power consumption   Standby 3mA
Maximum consumption 18W @12V 1.5A @24V 0.75A
Working temperature   -20 --- 70℃
Storage   720P 1G/h/channel
960H 750M/h/channel
Dimension   162 mm x 153 mm x 52 mm

Important: Make sure remote is facing the front of the DVR during remote operations

IR window must be in "line sight" of remote

Front Cover Plate

RUN
IR
PWR
Lock

VERITY RVS

USB 2.0
USB
DEBUG

POWER

MENU

ENTER / SELECT

UP / DOWN
RIGHT / LEFT

ESCAPE

Click the menu button on the remote; the login interface will appear. Please input your UserName, Password, and select your language, click "OK" to login the menu. (The default UserName is admin, without a password.) If you have not set these values you can use the right arrow button to pass through these.

Once you have passed this step the menu button will bring up the following drop-down menu

One View: 1 Camera option

Multi View: Show multi-camera options

Play Back: Open play back viewer

Backup: Backs up to thumb or external drive

Pause: Allows time to get some cold water

Menu: Opens operational options

MAIN MENU

Basic: Date, Time, Vehicle information, Preview setting, Ignition time (activation) on/off, System information
Network: Optional settings for DVRs with WI-FI and 3G/4G modes and Netstate
Record: Model, Mainstream, Sub stream, Record ODS, Image, Storage, IPC (i.e., Internet Protocol camera)
Advanced: Some features optional. User management, Driver habits, UART, Rear Camera, Net: Text Shown
Maintenance: Log, Disk mange (Include disk formatting) Config (export/import settings, restore), Upgrade
Alarms: All related alarm settings
Wizard: Wi-fi /3d/4d option setup

Time and Date Settings. Be sure to hit "OK" when done

Vehicle Information helps to match vehicle to recordings that have been saved.

Preview is used to set some of the Preview and Record settings. Note: the second option in preview tab is the mode. This relates to camera being shown on the screen and the configuration.

Video Output
The first tab that appears sets the placement of the video on the
screen. The second tab, "Hue", sets the brightness, contrast, hue,
and saturation. On this tab there is a restore button on the lower
left that only restores these settings and not the entire DVR
settings.

On/Off Settings "Ctrl" setting is for turning on and turning off the
device automatically. These are based on the ignition switch
activation. There are (3) time segment options. ACC Delay: You
can set up the device to keep working for a given time period after
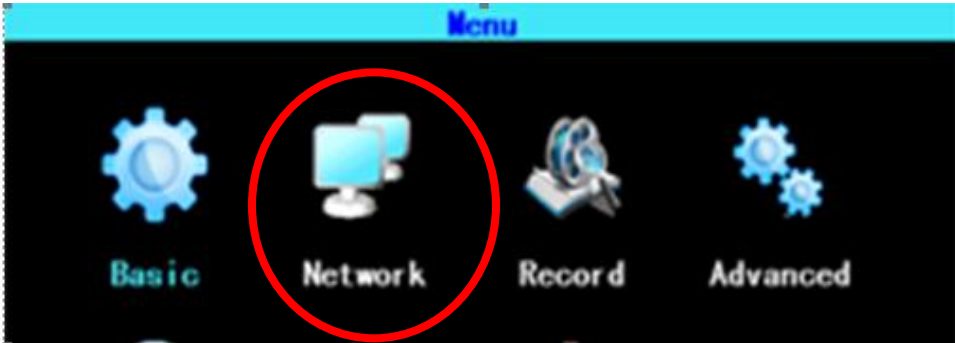the vehicle ACC ignition off. "Volt" tab is for power management.

System Setup has 2 very important settings. The first being the language. The second being the Output format which needs to be on NTSC not PAL. This is adjusted before shipment to the customer.

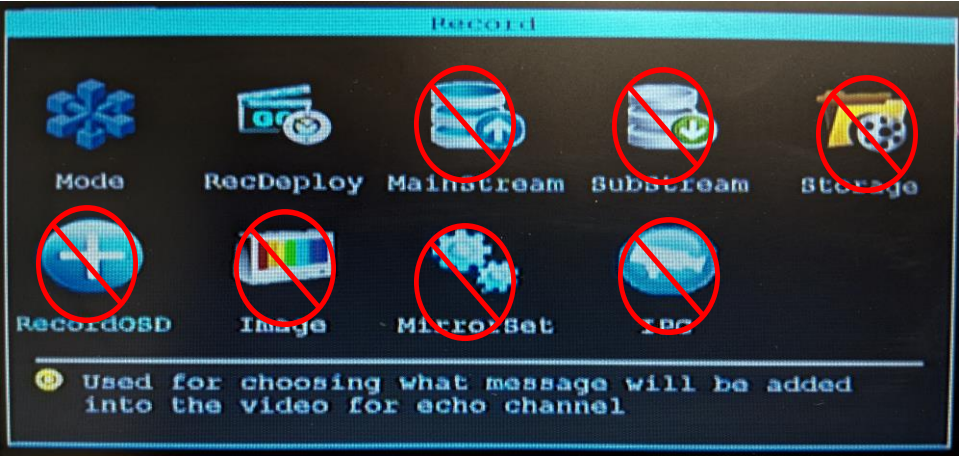**System Information** has Factory set items and has no setting in it.

The next main menu setting is "Network" and does not apply to this system.

Record is a sub-menu in the main menu. Recording setup includes Mode, Main Stream, Sub Stream, Recording OSD, Image, and Mirror recording setting.

Record contains: Mode, RecDeploy, Mainstream, Substream, Storage, RecordODS, Image, MirrorSet, and IPC. **In this manual only MODE and RecDeploy will apply to operations.**

MODE

Signal type will be set to NTSC and should stay that way. Video channel is to be set to number of cameras being used. System type set to 960.
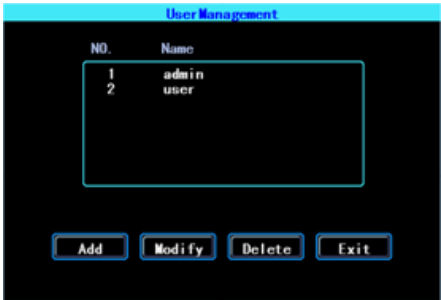
RecDeploy Sets which cameras are to be recorded

Advanced setting This menu is used for **User/Management**, monitoring Driving Habits, UART port setting, Temperature Sensor, Reverse Lines setting, and displaying the text received from the server. Only the bolded items apply.
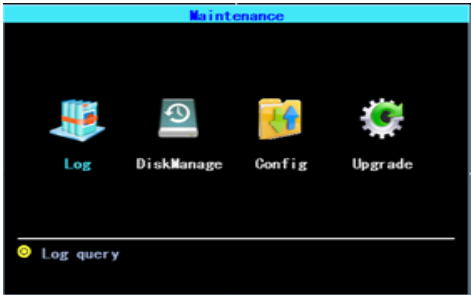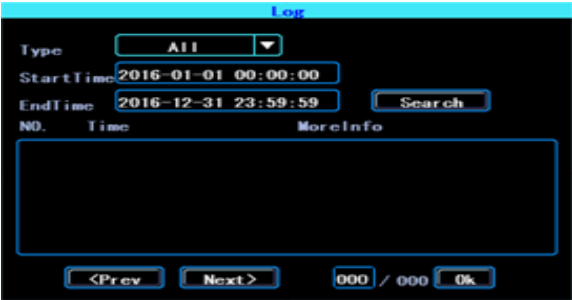

User Management
You can add, modify, delete users, and modify the login username and privileges.

Device Maintenance this menu includes the basic maintenance of the device such as Log Searching, Disk Management, Config parameter import/export, System Upgrading.

LOG displays the system's running log according to the required Log Type and Time Range.

Disk Management: used to check the status of the disk. **You need to format all disks used in this menu option. There is a supplement explaining this process in a step by step instruction sheets.**

Config and **Upgrade** are factory settings and do not apply.

The last two menu options **Alarm** and **Wizard** address Wi-Fi and 3D/4D settings

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 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 easly found on our web site 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
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.

VERITY®
REAR VISION SYSTEMS

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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.