

OpenEye[®]

PoE NVR Recorder

User Manual



E-Series PoE NVR

OE-ENVRPOE4

OE-ENVRPOE8

OE-ENVR16

www.openeye.net

OpenEye® OE-ENVR E-Series Embedded Recorders
User Manual

Manual Edition 33086AA – MARCH 2015

©2015, OpenEye
All Rights Reserved.

No part of this document may be reproduced in any means, electronic or mechanical, for any purpose, except as expressed in the Software License Agreement. OPENEYE shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is subject to change without notice.

The information in this publication is provided “as is” without warranty of any kind. The entire risk arising out of the use of this information remains with recipient. In no event shall OPENEYE be liable for any direct, consequential, incidental, special, punitive, or other damages whatsoever (including without limitation, damages for loss of business profits, business interruption or loss of business information), even if OPENEYE has been advised of the possibility of such damages and whether in an action or contract or tort, including negligence.

This software and documentation are copyrighted. All other rights, including ownership of the software, are reserved to OPENEYE. OPENEYE and OpenEye, are registered trademarks of OPENEYE in the United States and elsewhere. All other brand and product names are trademarks or registered trademarks of the respective owners.

OpenEye products may include open source software that are subject to GNU GPL (General Public License), GNU LGPL (Lesser General Public License), and other similar licensing models.

If you would like a copy of the source code, as governed by the GPL and LGPL, please send, by registered mail, a certified check for \$15.00 to cover production and shipping costs. A CD with the applicable GPL and LGPL source code will be mailed to you. This offer is good for three years from the original date of purchase. Mail To: OpenEye ATTN Open Source Compliance, 23221 E Knox Ave, Liberty Lake WA 99019.

The following words and symbols mark special messages throughout this guide:

Note Text set off in this manner indicates information that is necessary for proper operation of the product.

Tip Text set off in this manner indicates information that may be helpful.

Caution Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

OPENEYE
Liberty Lake, WA • U.S.A.

IMPORTANT SAFEGUARDS

1. **Read Owner's Manual** – After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.
2. **Power Sources** – This product should be operated only from the type of power source indicated on the label. If not sure of the type of power supply to your home or business, consult product dealer or local power company.
3. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or OpenEye's instructions have been adhered to.
4. **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
5. **Water and Moisture** – Do not use this product near water. Do not exceed the humidity specifications for the product as detailed in the Appendix section in this manual.
6. **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
7. **Power Cord Protection** – Power-supply cords should not be routed so that they are likely to be walked on or pinched by items placed against them, paying particular attention to cords at plugs, receptacles, and the point where they exit the product.
8. **Overloading** – Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.
9. **Object and Liquid Entry Points** – Never insert foreign objects into the recorder, other than the media types approved by OpenEye, as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
10. **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious personal injury and serious damage to the product.
11. **Disc Tray** – Keep fingers well clear of the disc tray as it is closing. Neglecting to do so may cause serious personal injury.
12. **Burden** – Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product.
13. **Disc** – Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.
14. **Replaceable Batteries** – CAUTION: Risk of Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.
15. **Grounded Outlet** – This equipment shall be connected to a properly grounded outlet.
16. **Outlet Location** – This equipment must be installed within six feet of an easily accessible outlet.
17. **Damage Requiring Service** – Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power-supply cord or plug is damaged.
 - If liquid has been spilled, or objects have fallen into the unit.
 - If the unit has been exposed to rain or water.
 - If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper

adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation

- If the unit has been dropped or the enclosure has been damaged.
 - When the unit exhibits a distinct change in performance - this indicates a need for service.
18. **Servicing** – Do not attempt to service this product unless instructed to by an OpenEye engineer. Opening or removing covers may expose the user to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
19. **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by OpenEye or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
20. **Safety Check** – Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

NOTES ON HANDLING

Please retain the original shipping carton and/or packing materials supplied with this product. To ensure the integrity of this product when shipping or moving, repackage the unit as it was originally received from OpenEye.

Do not use volatile liquids, such as aerosol spray, near this product. Do not leave rubber or plastic objects in contact with this product for long periods of time. They will leave marks on the finish.

The top and rear panels of the unit may become warm after long periods of use. This is not a malfunction.

NOTES ON LOCATING

Place the unit on a level surface. Do not use it on a shaky or unstable surface such as a wobbling table or inclined stand.

If this unit is placed next to a TV, radio, or VCR, the playback picture may become poor and the sound may be distorted. If this happens, place the recorder away from the TV, radio, or VCR.

NOTES ON CLEANING

Use a soft dry cloth for cleaning.

For stubborn dirt, soak the cloth in a weak detergent solution, wring well and wipe. Use a dry cloth to wipe it dry. Do not use any type of solvent, such as thinner and benzene, as they may damage the surface of the recorder.

If using a chemical saturated cloth to clean the unit, follow that product's instructions.

NOTES ON MAINTENANCE

This recorder is designed to last for long periods of time. To keep the recorder always operational we recommend regular inspection maintenance (cleaning parts or replacement). For details contact the nearest dealer.

NOTES ON MOISTURE CONDENSATION

Moisture condensation could damage the recorder. Read the following information carefully. Moisture condensation might occur under the following circumstances:

- When this product is brought directly from a cool location to a warm location.
- When this product is moved to a hot and humid location from a cool location.
- When this product is moved to a cool and humid location from a warm location.
- When this product is used in a room where the temperature fluctuates.
- When this product is used near an air-conditioning unit vent.
- When this product is used in a humid place.

Do not use the recorder when moisture condensation may occur.

If the recorder is used in such a situation, it may damage discs and internal parts. Remove any CD discs, connect the power cord of the recorder to the wall outlet, turn on the recorder, and leave it for two to three hours. After two to three hours, the recorder will warm up and evaporate any moisture. Keep the recorder connected to the wall outlet and moisture will seldom occur.

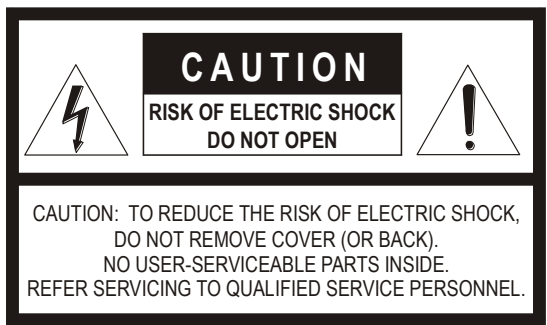
WARNING

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.

DO NOT OPEN THE CABINET.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EN 55022 Class A Notice

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Standard Warranty

OpenEye warrants all new products to be free from defects in workmanship and material under normal use **for a period of two years** after the date of purchase. Any defective product that falls under this warranty will, at OpenEye's discretion, be repaired or replaced at no additional charge. OpenEye may elect to replace defective products with new or factory reconditioned products of equal or greater value. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Exceptions to this are listed below:

- Three Years on all Digital Recorders
- Three years on all analog fixed cameras

All products shall be covered by a one year advance replacement warranty*.

OpenEye will warrant all otherwise out of warranty replacement parts and repairs for 90 days from the date of OpenEye shipment.

The above warranty is the sole warranty made by OpenEye and is in lieu of all other warranties by OpenEye express and implied, including without limitation the warranties of merchantability and fitness for a particular purpose. Under no circumstances will OpenEye be liable for any consequential, incidental, special or exemplary damages arising out of or connected with the sale, delivery, use or performance of the product, even if OpenEye is apprised of the likelihood of such damages occurring. In no event shall OpenEye liability exceed the purchase price of the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

**Requires corresponding security deposit. Advanced Replacement limited to components only outside of the USA and Canada.*

28574AG

For the most up to date information visit www.openeye.net.

TABLE OF CONTENTS

- Table of Contents 9
- Introduction..... 12
 - Product Description 12
 - Features..... 13
 - USB Flash Drive Approved List 13
 - Turning on the Recorder 14
 - Using the Front Panel to Turn On/Off the Recorder..... 14
 - Logging In for the First Time 14
- Installation..... 15
 - Front Panel Controls 15
 - 4, 8, and 16 Channel 15
 - Rear Panel Connectors..... 16
 - 4 Channel 16
 - 8 Channel 17
 - 16 Channel 18
 - Connection Guide 19
 - Connecting the Monitor..... 19
 - Connecting to a Network 19
 - Connecting Audio 19
 - Connecting to a Sensor Input 19
 - Connecting to a Relay Output..... 19
 - Quick SETUP Instructions 20
- Setup..... 21
 - Setup Menus..... 21
 - System..... 22
 - System Setup 22
 - Upgrade Firmware 23
 - Disk Setup 24
 - Format 24
 - HDD Overwrite 25
 - Check 25
 - SMART Check..... 26
 - User Setup..... 27
 - Adding / Changing a User 28
 - Configuration 29
 - Shutdown..... 29
 - Camera..... 30
 - Camera Setup 30
 - Color Setup (Adjust) 30

Sequence Setup	31
Monitor Setup	31
Record	32
Recording Setup	32
IP Camera	32
Schedule	33
Holiday Setup	35
Audio	35
Instant Recording	36
Instant Backup:.....	36
Motion/Event Setup	37
Input	37
Setting Up Motion Detection Recording.....	38
Sensor	39
Action	40
Alarm Monitor	41
Network.....	42
Network Setup	42
Serial Setup	43
E-mail Setup	44
ReportStar	45
Information.....	46
System Log View	46
Status View.....	47
Version View.....	49
Camera Discovery	50
Finding PoE and Network IP Cameras	50
Adding Cameras to Display Channels	50
Operation.....	51
Login.....	51
Default Administrator Log In	51
Live Display Mode	51
Channel Selection.....	51
Icons	52
Mouse-Over Menu	53
Popup Menu	54
No Signal	54
No Permission	54
PTZ.....	55
PTZ Popup Menu	55
Create PTZ Preset Position.....	55
Search	56
Searching Recorded Data	56
Graphic Search.....	56
Quick Backup in Search Mode	58

Express Search	58
Event Search	58
Jump to First Saved Data	58
Jump to Last Saved Data	58
Daylight Saving Search	59
Search Popup Menu	59
EXPORT	60
Manual Export	60
Using the Backup Player.....	61
Controlling Backup Player	61
Setup and Save Functions.....	62
Play Back Backup Image.....	62
Screen Division Buttons.....	63
Save Settings.....	64
Save Settings	64
Import Settings.....	64
Remote Software	65
RADIUS Overview	65
Installing RADIUS on your PC	65
Web Viewer Overview.....	66
Connecting to a Recorder Using Web Viewer	67
Search Video Using Web Viewer	67
Performing a Basic Search	68
Status Search	68
Performing a Status Search	68
Print	69
Save	69
Digital Verifier Overview.....	70
Using the Digital Verifier	70
Appendix	71
Button Index.....	71
LED Status Indicators	71
Function Buttons.....	72
Recorder Specifications	74

INTRODUCTION

PRODUCT DESCRIPTION



The newest addition to the E-Series embedded recorder lineup, E-Series NVR, merges powerful high definition network video recording with the ease of “Plug and Play” installation. Housed in a compact chassis, the E-Series NVR supports OpenEye Power over Ethernet (PoE) cameras, enabling fast and easy access to recording resolutions up to 1080p. Preconfigured for continuous recording and DDNS, with no additional setup required, the E-Series NVR offers quick search, setup, and backup features. All E-Series recorders use an embedded Linux operating system, which provides stability and protection from viruses.

E-Series NVR recorders are ready for fast and seamless integration within your existing IT infrastructure. These recorders are designed to offer unparalleled stability, security, and ease of use in each model. Your security investment has never been easier to maintain. Multiple users may connect through any network for simultaneous live viewing and digital search. This powerful software enables users to establish recording schedules, create motion detection zones, and use PTZ controls on available attached video input devices. With the latest advancements in the E-Series firmware, indexing and searching your video archive is fast and easy.

Multiple remote users can view live virtual multiplexed video, search, and backup data for off-site video storage as well as configure the recorder and perform remote software updates using RADIUS video management software. OpenEye’s suite of applications allows you to remotely manage recorder settings and permissions, monitor alarm and sensor events off-site, create custom maps of facilities, and search or backup recorded video.

FEATURES

The E-Series NVR includes the following features:

- 8/16 composite video input connectors
- Compatible with color (NTSC or PAL) and B&W video sources
- Multiple search methods (Calendar, Event)
- Records up to 240 NTSC Images Per Second (IPS)
- Live real time video display (NTSC: 480 IPS / PAL: 400 IPS)
- Continuous recording with disk overwrite mode
- Continuous recording during backup, search, and remote access
- Unique motion recording configuration for each camera channel when using OpenEye cameras
- Custom motion detection areas for each camera channel when using OpenEye cameras
- Multiple recording modes (Manual / Schedule / Event)
- Audio recording and playback (from cameras with MIC input)
- 4 built-in sensor inputs (Normally Open or Normally Closed)
- 1 built-in relay outputs (Normally Open or Normally Closed)
- Remote access
- PTZ camera control when using OpenEye cameras

USB FLASH DRIVE APPROVED LIST

These USB flash drives have been tested and approved to work with E-Series recorders. Other USB flash drives may also work with E-Series recorders but have not yet been tested.

Manufacturer	Model
SanDisk	Cruzer
Talent	Flash
Corsair	Voyager
Lexar	JumpDrive
Kingston	Traveler

TURNING ON THE RECORDER

1. Connect IP cameras to the PoE switch (4 and 8 channel models have switches located on the back of the recorder) OR
Connect the recorder to a PoE switch or a network with cameras that the recorder can access (16 channel model needs the PoE switch connected through the Network port on the back of the recorder).
2. Connect a network cable and a monitor.
3. Connect the power cable to the recorder and wait until the main screen is displayed on the connected monitor; this process will take approximately two minutes.

Tip See the Connection Guide section for more details.

Using the Front Panel to Turn On/Off the Recorder

To start the recorder:

- Press and hold the **POWER** button on the front panel of the recorder until the lights start to flash.

To shutdown the recorder:

- Click **MENU** on the hover menu, and then click **SHUTDOWN**.
OR
- Press and hold the **POWER** button on the front panel of the recorder, log in when prompted and select **OK** to shut down.

Note Only authorized users can shut down the recorder.

LOGGING IN FOR THE FIRST TIME

Default administrative log in information:

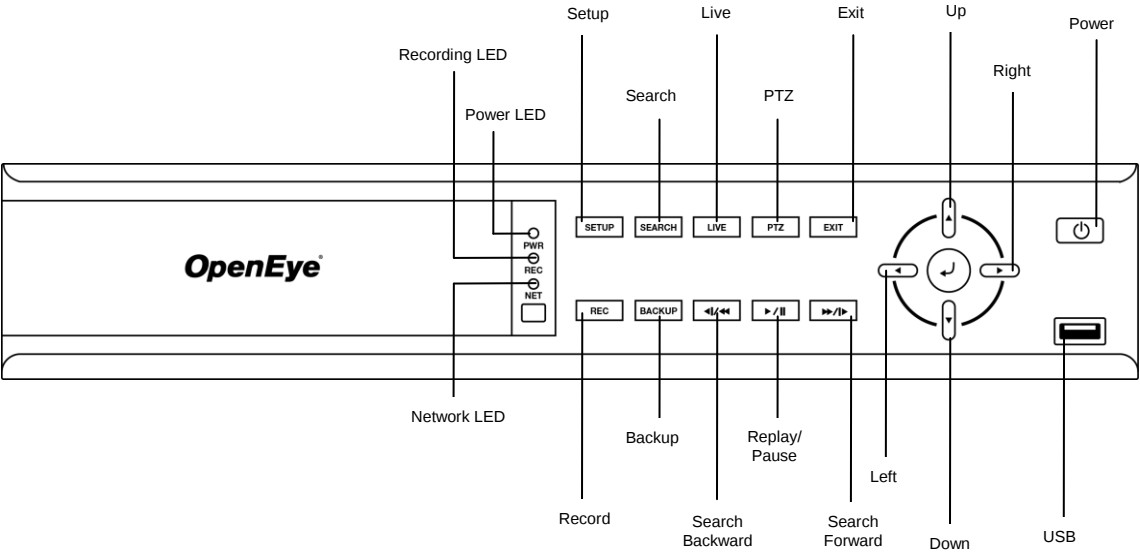
ID: admin

Password: 1234

INSTALLATION

FRONT PANEL CONTROLS

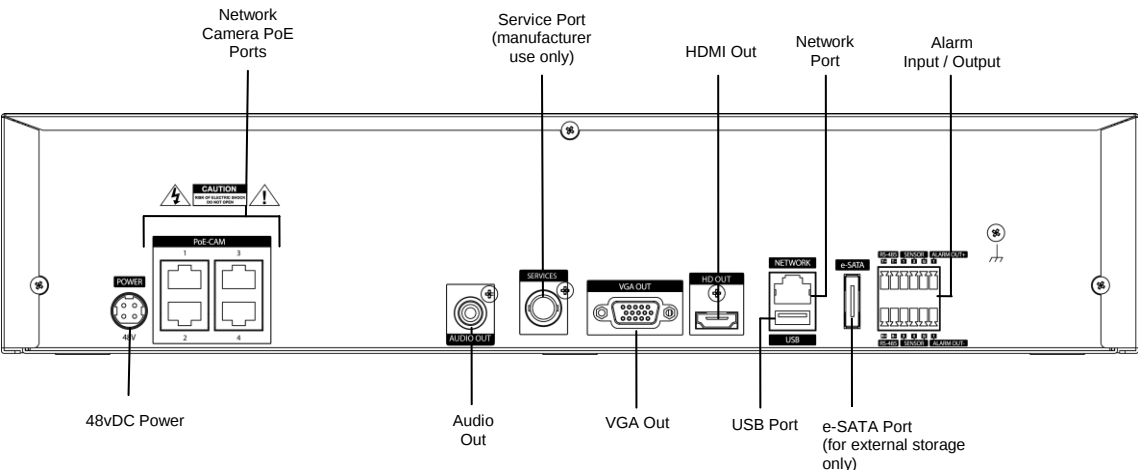
4, 8, and 16 Channel



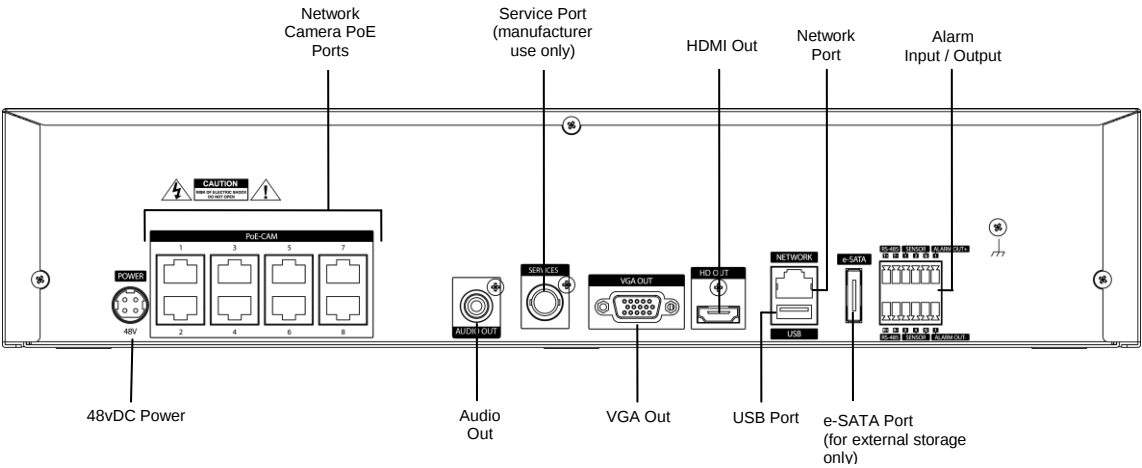
REAR PANEL CONNECTORS

The rear panel of the recorder contains virtually all of the connectors you will be using. The diagram below shows the location and description of each connector.

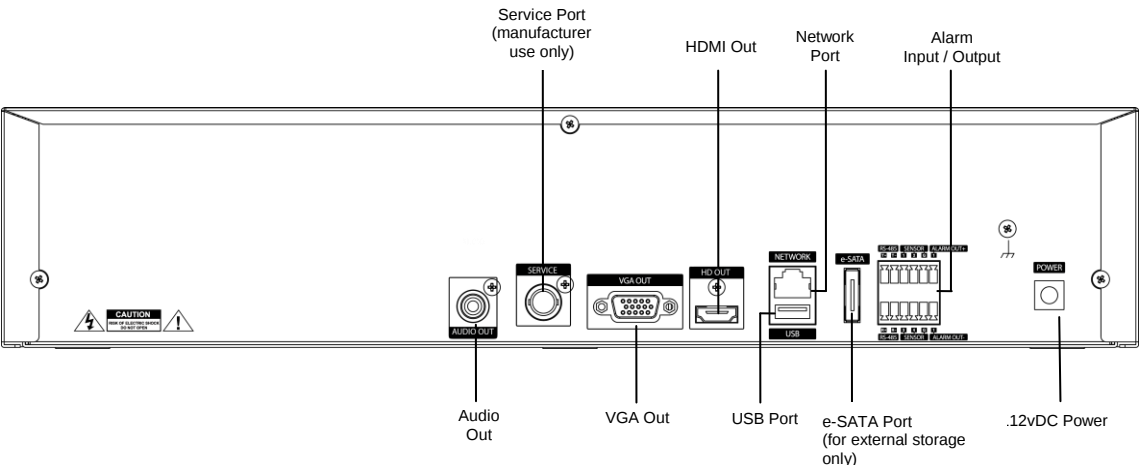
4 Channel



8 Channel



16 Channel



CONNECTION GUIDE

Connecting the Monitor

There are two available monitor outputs on E-Series NVR recorders.

- HDMI output for HDMI monitor
- VGA output for VGA monitor

Connecting to a Network

Use the RJ45 jack on the rear of the recorder when connecting to a network or PoE switch.



Connecting Audio

To listen to live or recorded audio connect the Audio Out Port to an amplified speaker system.

Note The audio output is a line level source which requires an amplified speaker system.

Connecting to a Sensor Input

To make connections on the Alarm Connector Strip: Loosen the tension screw and insert the wire into the hole. Tighten the tension screw to secure the wire.

To disconnect the wire: Loosen the tension screw and pull the wire out of the hole.

Sensor In

Use external devices to send a signal to the recorder when an event occurs. Mechanical or electrical switches can be wired to the Sensor In and Ground (G) connectors.

Note All connectors marked G are common. Connect the ground side of the sensor input and/or alarm output to the G connector.

Connecting to a Relay Output

To make connections on the Alarm Connector Strip: Loosen the tension screw and insert the wire into the hole. Tighten the tension screw to secure the wire.

To disconnect the wire: Loosen the tension screw and pull the wire out of the hole.

Alarm Out

The recorder can activate external devices such as buzzers or lights. Connect the external device to the Alarm Out and Ground (G) connectors. See Sensor Setup in the manual for more details.

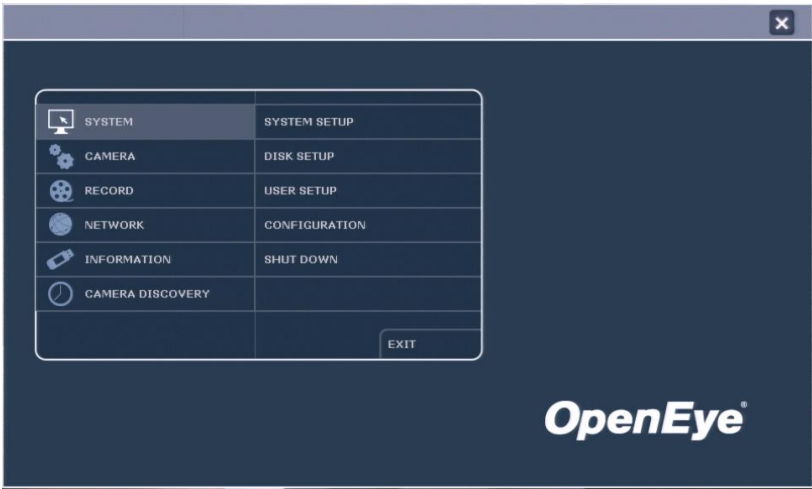
QUICK SETUP INSTRUCTIONS

1. Turn on the recorder. See the Turning on the Recorder section of this manual for more details.
2. Log in. The default password is **1234** but it is recommended to change the password after initial setup to ensure only authorized use of the recorder.
3. Complete System Setup to set up the date, time and system ID. See the System section for more details.
4. Complete Disk Setup to set overwrite options and enable SMART Check. See the Disk Setup section for more details.
5. Complete User Setup to change the Admin password and add additional users. See the System > User Setup section for more details.
6. Complete Camera Setup for all attached cameras. See the Camera section for more detail.
7. Create a recording schedule. See the Record section for more details.
8. Complete Sensor Setup to enable any external devices connected to sensor inputs or relay outputs. See the Record > Motion/Event section for more details.
9. Complete Motion/Event Setup to trigger recording on an event: motion, sensor, video loss. See the Motion/Event section for more details.

The recorder is now configured to record, search, and playback video.

SETUP

SETUP MENUS



Use the setup menus to configure all of the recorder settings, schedule recording, networking and shutdown.

Connect a USB mouse to the recorder to navigate setup menus and recorder functions. See the Logging In for the First Time section if entering setup for the first time.

If you do not have a USB mouse, you can press the **SETUP** key on the front of the recorder to enter the setup menus and log in. Use the **▲** and **▼** keys on the front of the recorder to navigate individual menus, and use the **◀** and **▶** keys to select a new setup menu.

Note The instructions in this manual direct you in the use of a mouse to navigate the setup and functions of the recorder. You may also use the keys on the front of the recorder.

SYSTEM

System Setup

SYSTEM SETUP

VIDEO FORMAT	NTSC	
LANGUAGE	ENGLISH	
DVR ID	0	
DATE FORMAT	MM/DD/YYYY	24 H
DATE	05/01/2014	
TIME	18:19:43	
TIME ZONE	GMT-08:00 PST(US, Canada), Tijuana	
USE DST	ON	
NTP TYPE	NONE	
KEYPAD BEEP	OFF	
AUTO LOGOFF	OFF	
S/W UPGRADE	S/W UPGRADE	
INFORMATION		
NTSC / PAL: Set by the rear panel DIP switch.		

SAVE

CANCEL

- 1. Click **MENU** on the hover menu, and then click **SETUP**.
- 2. Click **SYSTEM**, and then click **SYSTEM SETUP**.
- 3. Click **SAVE** to save your updates.

Language - **ENGLISH / SPANISH / FRENCH** [User Selectable].

DVR ID - Required for the operation of multiple units when using a PTZ keyboard joy stick. Each system must have a unique ID to function properly.

Date Format - **US** (MM-DD-YYYY) / **EURO** (DD-MM-YYYY) / **ASIA** (YYYY-MM-DD) – [User Selectable].

Date – Click the **DATE**, and then click the values to adjust. Click **SAVE** when you are finished.

Time – Click the **TIME** and then click the values to adjust. Click **SAVE** when you are finished.

Time Zone - Click the **TIME ZONE**, and then select your desired Time Zone. Click **OK** to save.

Note The date and time must be set manually; changing the time zone will not automatically change the Time/Date display.

System Setup Continued

Use DST – After completing the Time Zone setup, click the **USE DST** value (**ON** or **OFF**) to enable or disable Daylight Saving Time.

NTP Type – Click **NTP TYPE** to enable or disable a Network Time Protocol. In the NTP Type window, enable **NTP SERVER**, and then type your desired **NTP Server URL**. Click **SYNC NOW**, and then click **OK**.

Keypad Beep - Enables or disables audible keypad touch confirmation. (**ON / OFF**)

Auto Log Off – This feature will close the Setup Menu after a predetermined period of inactivity. (**1 ~ 10 min, OFF**).

S/W Upgrade – Start firmware upgrade from selected **USB** media.

Upgrade Firmware

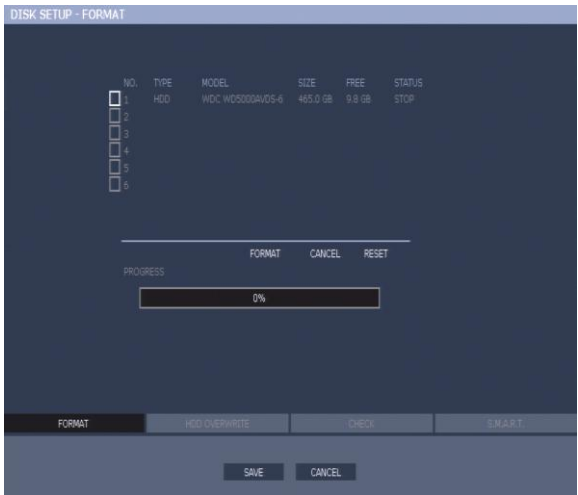
1. Connect your USB device containing the upgrade file.
2. Click **MENU** on the hover menu and select **SETUP**.
3. Click **SYSTEM**, and then click **SYSTEM SETUP**.
4. Click **S/W UPGRADE** to open the **UPGRADE FIRMWARE** window.
5. Click **SCAN**.
6. Click **OK** to start the upgrade.

Note You will be prompted to confirm the firmware upgrade and upon clicking **YES**, the recorder will begin the upgrade and then notify you of the necessary restart. Upon confirmation of restart, the recorder will automatically restart.

Disk Setup

Format

Shows installed Hard Disk Drives and the status of other attached storage devices.



To format a Hard Drive or USB device, select the appropriate device, click **FORMAT**, and then click **YES**.

Tip Refer to the list of Approved USB Flash Drives in the Introduction of this manual.

To refresh the list of connected USB devices, click **RESET**.

Caution All USB devices must be formatted as FAT32 before using with the recorder.

Note When formatting a drive, all video and other data stored on that drive will be permanently erased and cannot be recovered.

HDD Overwrite

Sets options for overwriting data when the Hard Disk Drive becomes full.

DISK SETUP - HDD OVERWRITE

WARNING CONDITION

HDD OVERWRITE

ENABLE

DISK-FULL WARNING

ON

REMAINING TIME

10 MIN

USED SPACE

90 %

WARNING METHOD

DISK-FULL ALARM

1

DISK-FULL BUZZER

OFF

DISK-FULL MESSAGE

OFF

FORMAT

HDD OVERWRITE

CHECK

S.M.A.R.T.

SAVE

CANCEL

- Enable **HDD OVERWRITE** to allow the recorder to write over previously recorded data, starting with the oldest date, when the HDD is full. If set to **DISABLE** the recorder will not record any new data once the HDD becomes full.
- Enable a **DISK FULL WARNING** for notification when the HDD becomes full and HDD Overwrite is disabled.

Check

Checks the HDD for errors or failure.

DISK SETUP - CHECK

START CHECK

RECORDING START

NO CONNECTED HDD.

RECORDING END

NO CONNECTED HDD.

0%

AUTO DATA DELETION

0 DAYS

FORMAT

HDD OVERWRITE

CHECK

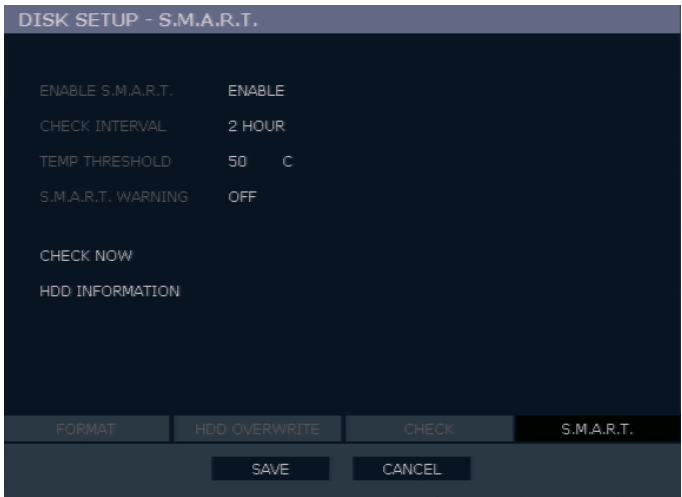
S.M.A.R.T.

SAVE

CANCEL

SMART Check

S.M.A.R.T. = Self Monitoring Analysis & Reporting Technology.
Enable SMART Check to detect signs of HDD failure.



- 1. Set **ENABLE S.M.A.R.T.** to **ENABLE** or **DISABLE**.
- 2. Set a **CHECK INTERVAL** between 1 and 24 hours.
- 3. Define a **TEMP THRESHOLD** and select Celsius or Fahrenheit.

Note The recommended upper optimum operating temperature for the HDD is between 104° F to 122° F (40° C to 50° C).

- 4. Select a **S.M.A.R.T. WARNING** to be activated when the HDD reaches the defined threshold.
- 5. Click **SAVE** to save your settings.

Tip Select **HDD INFORMATION** and press ENTER to view the current HDD and USB drive information.

User Setup

Use the User Setup to Add or Delete users.

USER SETUP

USER

1	admin	ADD/CHANGE	DEL
2	NONE	ADD/CHANGE	DEL
3	NONE	ADD/CHANGE	DEL
4	NONE	ADD/CHANGE	DEL
5	NONE	ADD/CHANGE	DEL
6	NONE	ADD/CHANGE	DEL
7	NONE	ADD/CHANGE	DEL
8	NONE	ADD/CHANGE	DEL
9	NONE	ADD/CHANGE	DEL
10	NONE	ADD/CHANGE	DEL
PAGE2			

SAVE

CANCEL

Adding / Changing a User

To add a new user:

1. Click **MENU** on the hover menu and click **SETUP**.
2. Click **SYSTEM**, and then click **USER SETUP**.
3. Click **ADD/CHANGE**.
4. Type a **USER** name.
5. Type a **PASSWORD** and **CONFIRM** for the new user.
6. Select the **FUNCTION** and **SETUP** access options for the user.
7. Select which cameras will be visible to the user in **LIVE** and **PLAYBACK** modes.

The screenshot shows a dark-themed interface titled "USER ADD / CHANGE". It contains the following sections:

- USER:** Labeled "USER1".
- PASSWORD:** Labeled "****".
- FUNCTION ACCESS PERMISSION:** A grid of checkboxes with labels: ☒ ALL, ☒ SHUT DOWN, ☒ SEARCH, ☒ PTZ, ☒ EXPORT, ☒ EXPORT VIEWER, ☒ HEALTH CHECK, ☒ USE DVD/CD/USB, ☒ NETWORK CONNECTION, and ☒ INSTANT RECORDING.
- SETUP ACCESS PERMISSION:** A grid of checkboxes with labels: ☒ ALL, ☒ SYSTEM, ☒ CAMERA, ☒ RECORD, ☒ NETWORK, and ☒ SETUP WIZARD.
- LIVE&PLAYBACK (SELECT CAMERA):** A row of checkboxes with labels: ☒ ALL, ☒ 1, ☒ 2, ☒ 3, ☒ 4, ☒ 5, ☒ 6, ☒ 7, and ☒ 8.

At the bottom, there are two buttons: "OK" and "CANCEL".

SHUT DOWN – Allow the user to shut down or restart the recorder.

EXPORT – Allow the user to perform an export or backup saved data.

USE CD/DVD/USB - Allow the user to use the DVD Drive or USB port. This is a server-side feature only.

SEARCH – Allow the user to use the search functions to locate video and access video from the current day using the REPLAY key on the front panel.

EXPORT VIEWER – Allow the user to include a copy of the Backup Viewer application when a local backup is made. This is a server-side feature only.

NETWORK CONNECTION – Allow the user to log in using Web Viewer.

PTZ – Allow the user control of any connected PTZ cameras.

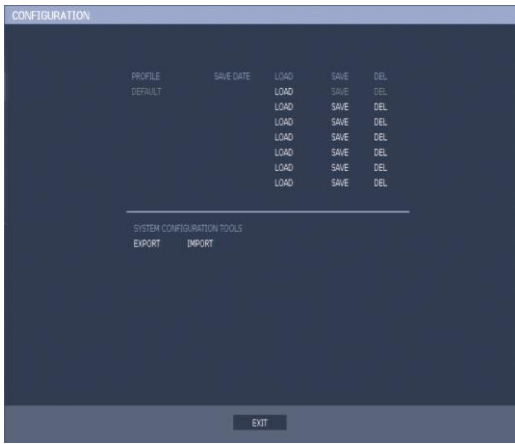
HEALTH CHECK – Allow the user to use the Health Check function of RADIUS to connect to and monitor the recorder.

INSTANT RECORDING – Allow the user to activate the Instant Recording feature.

SETUP ACCESS PERMISSION – Allow the user to access the selected portion of the setup menu.

LIVE & PLAYBACK – Allow the user to view live and recorded data for only the selected cameras.

Configuration



Import and Export current settings. See details in the Save Settings section.

Shutdown

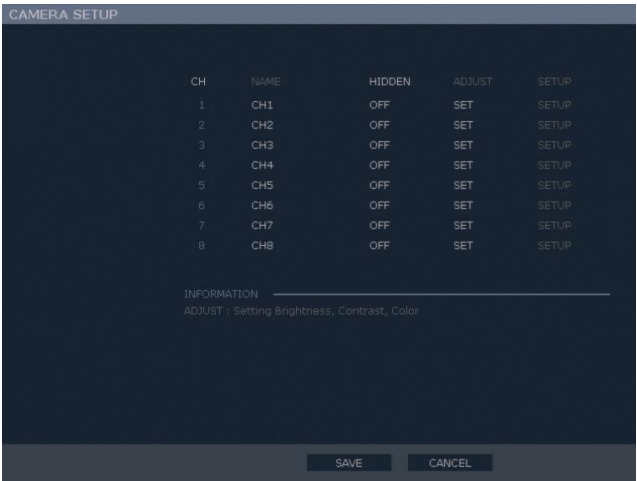
Use Shutdown to safely shutdown the system.

1. On the hover menu, click **MENU**, and then click **SETUP**.
2. Click **SYSTEM**, and then click **SHUTDOWN**.
3. Click **OK**.
4. Turn the power off when shutdown is complete by unplugging the power adapter cord on the back of the recorder.

Note Improper shut down of the system can cause data loss and system corruption.

CAMERA

Camera Setup



CH – Camera Channels

NAME – Use the on-screen keyboard to enter a camera name [user defined].

HIDDEN – ON/OFF, make the camera viewable to only specific users.

Note **HIDDEN** on the CAMERA SETUP page hides cameras from the main monitor (VGA/HDMI) when no users are logged in. To hide cameras from users, clear camera check boxes on the **SYSTEM > USER SETUP > ADD/CHANGE**.

ADJUST – Detailed camera display settings

PRIVACY ZONE – ON/OFF, configure a privacy zone for the camera.

Color Setup (Adjust)

CAMERA – 1 ~ 16 [camera to apply color settings to]

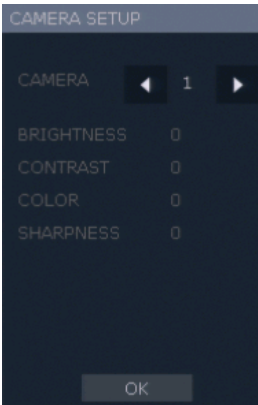
BRIGHTNESS – 0 ~ 20

CONTRAST – 0 ~ 20

COLOR – 0 ~ 20

DEFAULT – Apply default system color settings

APPLY ALL – Apply current color settings to all cameras

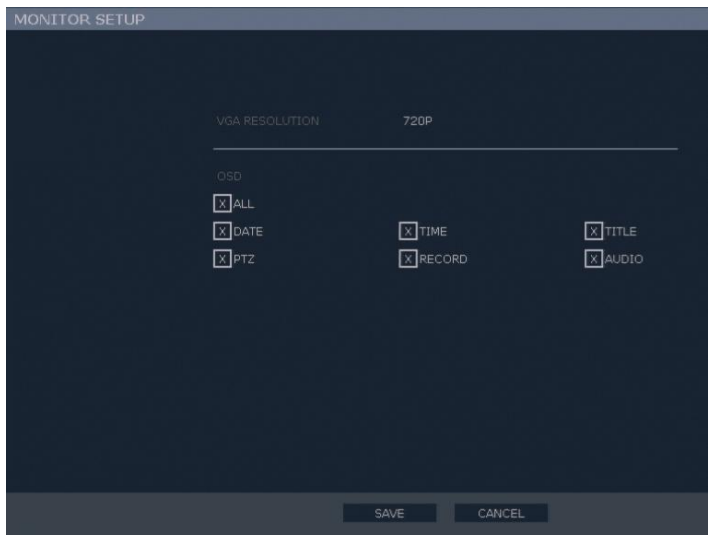


Sequence Setup

Spot/Sequence Setup allows you to set the parameters for the SPOT OUT on the recorder and the local live view sequencing.

PAGE DWELL TIME: Number of seconds the screen will remain on one screen sequence before moving to another.

Monitor Setup



VGA RESOLUTION – Set monitor resolution.

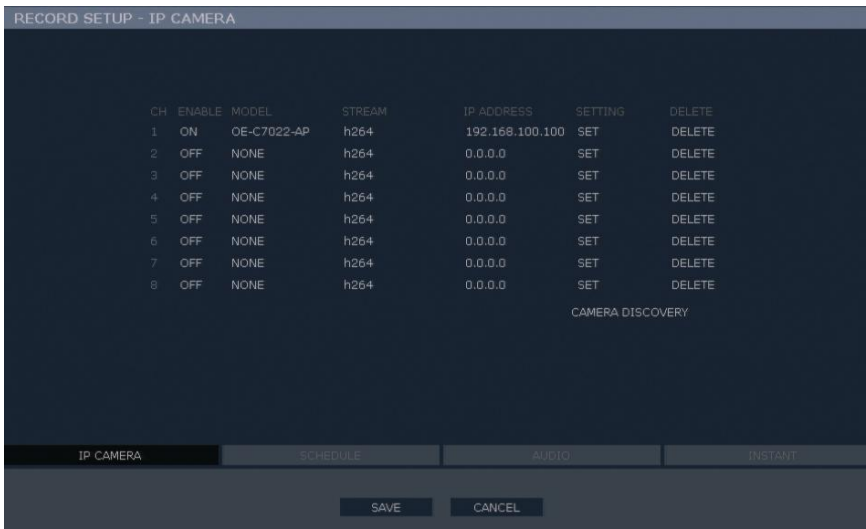
OSD – Select the items to display on the screen (**DATE**, **TIME**, **TITLE**, **PTZ**, **RECORD**, **AUDIO**).

RECORD

Recording Setup

IP Camera

IP Cameras allows you to view the status of connected IP cameras.

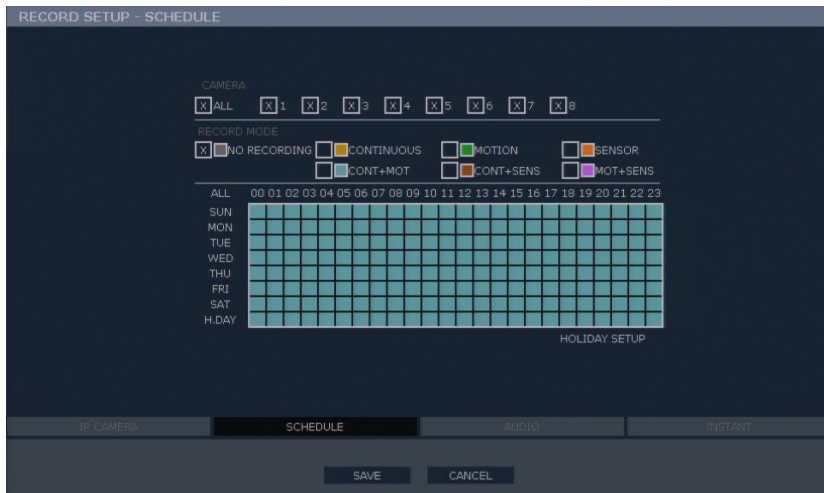


- ENABLE** – Enable the IP camera (On of Off)
- MODEL** – The IP Camera model (determined by the camera itself)
- STREAM** – Current stream settings
- IP ADDRESS** – Current IP Address of the IP camera
- SETTING** – Adjust the IP camera settings
- DELETE** – Delete the IP camera

Schedule

Set the recording schedule for each camera.

- 1. On the hover menu, click **MENU**, and then click **SETUP**.
- 2. Click **RECORD**, and then click **SCHEDULE**.
- 3. Select a camera to create a recording schedule, or select **ALL**.
- 4. Select your desired **RECORD MODE**.
- 5. Click hour block or the day of the week to set the entire day.



NO RECORDING

No Color

No recording.

Even if you set recording frames and select **ON** in **RECORD > CAMERA**, the recorder will not record anything if you select **OFF** in **RECORD > SCHEDULE**.

CONTINUOUS

Yellow

Continuous recording.

MOTION

Green

MOTION-detection recording.

In this mode, the unit records only when motion is detected in the motion area, and stops recording when motion is not detected. Adjust motion area settings in **RECORD > MOTION/EVENT SETUP > INPUT**.

If you set motion to **OFF** in **RECORD > MOTION /EVENT CONFIGURATION** and set **CONT + MOT** in **SETUP > RECORD > SCHEDULE** the recorder will NOT record when motion is detected.

SENSOR

Orange

Sensor-activated recording.

In sensor mode, the unit will record when a sensor is triggered - during **DURATION** time as set in **RECORD > MOTION /EVENT CONFIGURATION > ACTION**.

CONT+MOT

Sky Blue

Continuous and motion detection recording

The unit records in **CONTINUOUS** mode but switches to **MOTION** when motion is detected in the motion area. The recorder also will log a Motion Event and send the event to the Remote Monitoring software.

If you set motion to **OFF** in **RECORD > MOTION /EVENT CONFIGURATION** and set **CONT + MOT** in **SETUP > RECORD > SCHEDULE** the recorder will NOT record when motion is detected.

CONT+SENS

Brown

Continuous and sensor-activated recording

In this mode, the unit records continuously and switches to **SENSOR** recording mode when a sensor is triggered. The recorder also will log a Sensor Event and send the event to the Remote Monitoring software.

MOT+SENS

Lilac

Motion detection and sensor-activated recording.

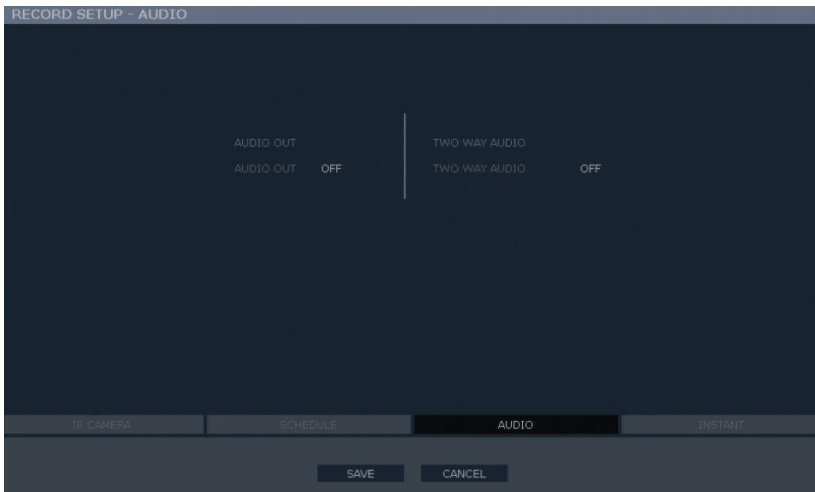
The recorder will only record when motion is detected or a sensor is triggered.

Holiday Setup

Add a recording schedule for a specific date in **HOLIDAY SETUP**. You can add up to 32 individual holiday recording schedules. To add a new **HOLIDAY** schdule:

- 1. On the hover menu, click **MENU**, and then click **SETUP**.
- 2. Click **RECORD**, and then click **RECORD SETUP**.
- 3. Click **SCHEDULE**.
- 4. Create a recording schedule in the **H.DAY** row.
- 5. Click **HOLIDAY SETUP**.
- 6. Click the **DATE**, and set your desired holiday date using the on-screen calendar.
- 7. Click the **DESCRIPTION** column to type a description or name for this holiday.
- 8. Click **ADD** to add the holiday.

Audio

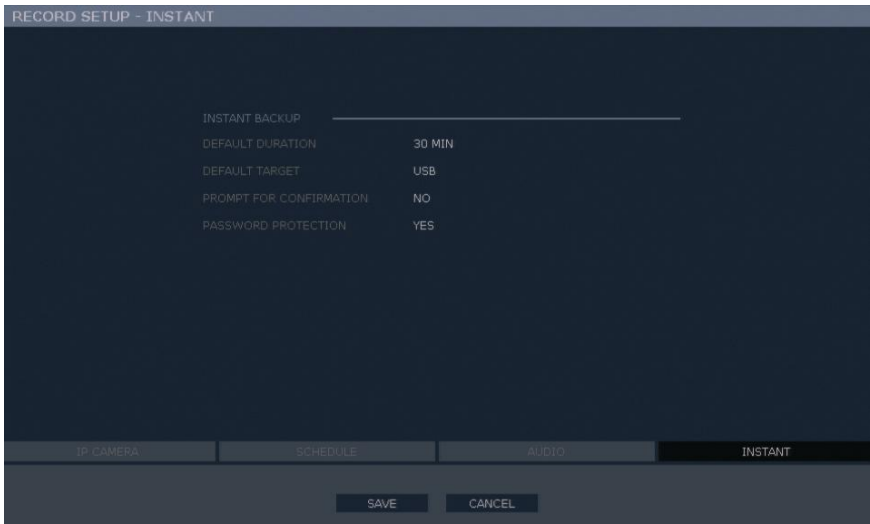


AUDIO IN – Enable or disable audio recorder from compatible IP cameras with Mic input (**ON / OFF**).

TWO WAY AUDIO – Enable or disable two-way audio (**ON / OFF**).

Instant Recording

Configure the recording settings for and Instant Backup to use when they are activated.



Instant Backup:

DEFAULT DURATION – Set the number of minutes to back up (15, 20, 30, 40, 50, 60). If the Default Duration is set to **30 MIN**, the recorder will export the last 30 minutes of data when the Instant Backup button is pressed.

DEFAULT TARGET – Set the location the recorder will export to (USB). Make sure you have the selected media on hand.

PROMPT FOR CONFIRMATION – When enabled, the recorder will prompt the user to confirm the export.

PASSWORD PROTECTION – Requires the Admin user to login before Instant Backup will start.

Motion/Event Setup

Motion / Event Setup has four sections; Input, Sensor, Action, and Alarm Monitor. When an event occurs (Input), the unit records the image according to its settings (Camera Setup) and triggers an alarm (Action).

Input

MOTION/EVENT SETUP - INPUT

CH	MOTION	SENSOR	VIDEO LOSS
1	ON	OFF	OFF
2	ON	OFF	OFF
3	ON	OFF	OFF
4	ON	OFF	OFF
5	ON	OFF	OFF
6	ON	OFF	OFF
7	ON	OFF	OFF
8	ON	OFF	OFF

INPUT

SENSOR

ACTION

ALARM MONITOR

SAVE

CANCEL

- CH** – Channels 1-8 will appear by default. To view channels 9-16, click **CH**.
- MOTION** – Enable or disable motion input (**ON / OFF**).
- SENSOR** – Associate a sensor with the camera channel.
- VIDEO LOSS** – Associate a channel to monitor for video loss detection.

Setting Up Motion Detection Recording

Note Motion detection recording is ON by default on OpenEye cameras, making it easy to configure Motion Detection Recording from the recorder. If you are having difficulty configuring Motion Detection Recording, ensure that the camera Motion Detection is ON.

To record data only when motion is detected:

1. Click **MENU** on the hover menu, and then click **SETUP**.
2. Click **RECORD**, and then click **MOTION/EVENT SETUP**.
3. Set **MOTION** to **ON**.
4. Set **VIDEO LOSS** to **ON**
5. Repeat as necessary for each camera channel.
6. When motion area setup is complete select **SAVE** to save settings and exit setup.

Sensor

MOTION/EVENT SETUP - SENSOR

SENSOR		ALARM		
NO.	TYPE			
1	N/O	POWER OFF		OFF
2	N/O	S.M.A.R.T. ALARM		OFF
3	N/O	HOLD VIDEO LOSS		ON
4	N/O	NO.	SIGNAL	TYPE
		1	OFF	N/O
			SET	CLEAR

INPUT

SENSOR

ACTION

ALARM MONITOR

SAVE

CANCEL

Sensor Setup

- 1. Set the Sensor **TYPE** to **N/O** (Normally Open) or **N/C** (Normally Closed).
- 2. Repeat for all sensors.
- 3. Click **SAVE**.

Alarm Setup

- 1. Enable or disable the **SIGNAL** (**ON / OFF**).
- 2. Set each alarm **TYPE** (**NO / NC**).
- 3. Repeat for all relays.
- 4. Click **SAVE**.

Power Off

The **POWER OFF** option is a preset function that triggers an alarm relay when the recorder loses power. This function is preconfigured to set alarm relay No. 1 to **ON** and **N/C**. When a power loss occurs, alarm relay No. 4 will open. When power is restored the alarm will close.

S.M.A.R.T. Alarm

The **S.M.A.R.T. ALARM** option is a preset function that triggers an alarm relay when the HDD exceeds the temperature threshold configured on the **SYSTEM > DISK SETUP > S.M.A.R.T.** page. This function is preconfigured to set an alarm relay to **ON** and **N/C**. When the HDD exceeds the temperature threshold, the alarm relay will open. When the temperature is at a safe level again the alarm will close.

Note **SET** and **CLEAR** are used to test the alarm relay operation. **SET** is used to manually activate all relays that are set to **ON**. **CLEAR** is used to manually deactivate all relays.

Hold Video Loss

When set, the alarm will stay on when a channel loses video. The alarm will turn off when Video returns.

Action

MOTION/EVENT SETUP - ACTION

CH	ALARM	DELAY	DURATION	PRESET
1	OFF	OFF	5 SEC	OFF
2	OFF	OFF	5 SEC	OFF
3	OFF	OFF	5 SEC	OFF
4	OFF	OFF	5 SEC	OFF
5	OFF	OFF	5 SEC	OFF
6	OFF	OFF	5 SEC	OFF
7	OFF	OFF	5 SEC	OFF
8	OFF	OFF	5 SEC	OFF

NOTIFY

INPUT

SENSOR

ACTION

ALARM MONITOR

SAVE

CANCEL

- CH** – Channels 1-8 will appear by default. To view channels 9-16, click **CH**.
- Alarm** – Associate an alarm relay with a camera channel (**OFF / 1**).
- Delay** – Set the delay time for relay to activate (**0~100** seconds).
- Duration** – Set the duration of the alarm relay (**0~100** seconds).
- Preset** – Enable a PTZ camera to move to a preset position when an event occurs (**0~100**). See PTZ Control for more information.]
- Notify** – Select the type of alarm to associate with this event (**BUZZER / POPUP**).

Alarm Monitor

Send event information to a remote client using the Alarm Monitor software.

MOTION/EVENT SETUP - ALARM MONITOR

SEND TO ALARM MONITOR

OFF

MOTION/SENSOR

MOTION

NO.	IP ADDRESS	PORT
1	192.168.0.200	2001
2	192.168.0.200	2001
3	192.168.0.200	2001
4	192.168.0.200	2001
5	192.168.0.200	2001

INPUT

SENSOR

ACTION

ALARM MONITOR

SAVE

CANCEL

1. Set **SEND TO ALARM MONITOR** to **ON**.
2. Select the types of events to send to the Emergency Agent (**MOTION**, **SENSOR**, **MOTION + SENSOR**).
3. Type the **IP ADDRESS** of the remote client.
4. Type the **PORT** number.

Note The port number selected is the port that Alarm Monitor uses on the remote PC. The port shown in this screen must match the port shown in Emergency Agent or RADIUS and the port must be open on the remote PC.

NETWORK

Network Setup

Configure network settings.

NETWORK SETUP

NETWORK	
HOST NAME	dvr
NETWORK TYPE	DHCP
IP ADDRESS	192.168.0.1
SUBNET MASK	255.255.255.0
GATEWAY	192.168.0.1
DNS	192.168.0.1
CLIENT CONFIGURATION	SETUP
TCP MTU	1500
DDNS	
DDNS SERVER	NONE
HOST NAME	-
ID	-
PASSWORD	*
ROUTER IP	OFF
STATUS	CHECK
	UNCHECKED

SAVE

CANCEL

Network

HOST NAME – Host name for the recorder on the network.

NETWORK TYPE – Select **STATIC IP** to manually define a static IP address. Select **DHCP** for a DHCP server to assign an IP address automatically. Contact your network administrator for more information.

IP ADDRESS – You can set the **IP ADDRESS** if your network type is set to **STATIC**. Contact your network administrator for this information.

CLIENT CONFIGURATION – Set up the connection ports and Max transfer speed for remote connections.

CENTER PORT – E-Series recorders use the Center port and the primary communication port to create remote connections. This port must be the same as the port setting on the remote PC.

VIDEO PORT –E-Series recorders use multiple ports to create remote connections. The remote port is user-defined (default 2000), and a secondary port is automatically assigned (default 2002). The recorder assigns the secondary port based on the remote port, in increments of two. (For example, if you set the remote port to 2222, then the secondary port will be 2224.) Verify that all these ports are available when setting up Network Address Translation (NAT) or firewall.

WEB PORT – Defines the port that Internet Explorer uses to connect over the web and view video. If this port is changed then the new port must be defined when attempting to web connect. (For example, if your IP address is 10.0.0.5 and you change the web port to 800, then you must type http://10.0.0.5:800 in your browser.)

MAX TRANSFER SPEED – Set network bandwidth. This feature is used for slower internet connections to throttle the amount of data the recorder sends across the network at a time.

DDNS SERVER – Dynamic Domain Name Service (DDNS) is a service that allows a connection to an IP address using a hostname (URL) address instead of a numeric IP address. Most Internet Service Providers use Dynamic IP Addressing that frequently changes the public IP address of your internet connection; this means that remote connections through RADIUS and Remote would require frequent updates. DDNS automatically redirects traffic to your current IP address when using the hostname address (i.e. oe123456.openeyedvr.com).

DDNS SERVER – The current DDNS server.

HOST NAME – Hostname for the DDNS server account.

ID – Username for the DDNS server account.

PASSWORD – Password for the DDNS server account.

STATUS – Checks DDNS settings by attempting to communicate with the DDNS Server.

Serial Setup

Configure connected serial devices.

RS 485	
TYPE	NONE
MODEL	NONE
BAUDRATE	9600 BPS
DATA BIT	8
PARITY	NONE
STOP BIT	1

SAVE CANCEL

Note: E-Series NVR recorders do not have an RS-232 port for connecting serial devices.

TYPE – NONE / EXTERNAL CONTROLLER

MODEL – Select appropriate model.

Port Information

BAUD RATE / DATA BIT / PARITY / STOP BIT

E-mail Setup

The recorder can send an e-mail notification to up to six defined e-mail addresses when an event happens.

E-MAIL SETUP

E-MAIL SERVER

NO.	TYPE	E-MAIL	PIC	E-MAIL ADDRESS
1	SET	OFF	email@ddnsdvr.com	
2	SET	OFF	email@ddnsdvr.com	
3	SET	OFF	email@ddnsdvr.com	
4	SET	OFF	email@ddnsdvr.com	
5	SET	OFF	email@ddnsdvr.com	
6	SET	OFF	email@ddnsdvr.com	

SAVE

CANCEL

E-MAIL

☐ MOTION

☐ SENSOR

☐ VIDEO LOSS

☐ POWER

☐ SETUP

☐ LOGIN

☐ LOGIN FAIL

☐ DISK FULL

☐ S.M.A.R.T.

OK

CANCEL

E-MAIL SERVER – Configure the recorder to use selected e-mail server (**DVR / SMTP**).

OPTION – Define the type of event that will trigger an e-mail notification.

MOTION – After a motion alarm is triggered.

SENSOR – After a sensor alarm is triggered.

VIDEO LOSS – After video loss on a camera

POWER – When the recorder is shutdown and restarted.

SETUP – When a user accesses Setup.

LOG IN – When a user logs in.

LOGIN FAIL – After one failed login attempt.

DISK FULL – When the HDD reaches the user-defined maximum disk full percentage. See **DISK MANAGEMENT – OVERWRITE**.

S.M.A.R.T. – When the HDD reaches the user-defined maximum temperature. See **DISK MANAGEMENT – S.M.A.R.T.**.

PIC – ON / OFF [Enable to send a picture of the event.]

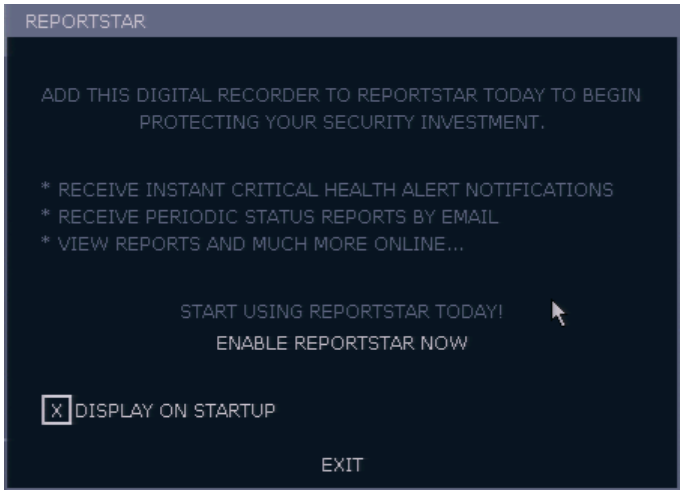
E-MAIL ADDRESS – Enter the e-mail address.

ReportStar

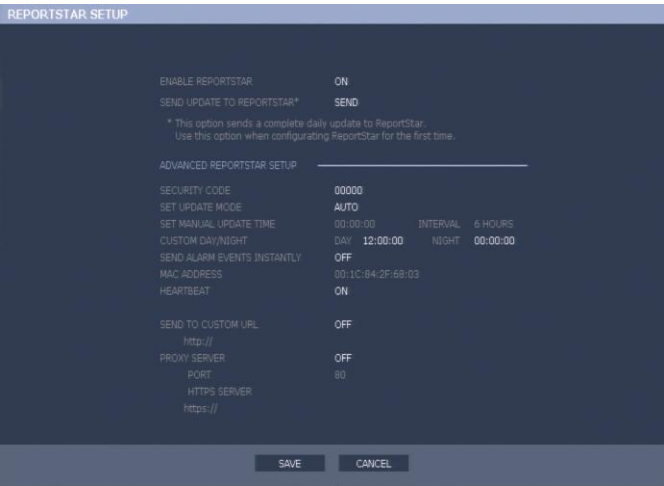
To enable ReportStar on your recorder during the initial configuration:

1. Click **ENABLE REPORTSTAR NOW**.

Note To enable ReportStar at any time after the initial configuration, go to **NETWORK > REPORTSTAR SETUP** and then set **ENABLE REPORTSTAR** to **ON**.



2. Log in using the admin user account. (default username: **admin**, password: **1234**)
3. Set the **CUSTOM DAY/NIGHT TIME**.
4. Click **SEND** to send a test report to ReportStar.
5. To send Alarm Events to ReportStar, set **SEND ALARM EVENTS INSTANTLY** to **ON**.
6. To send active updates to ReportStar every 5 minutes, set **HEARTBEAT** to **ON**.
7. Click **SAVE** to save your settings.



INFORMATION

System Log View

Displays system log information. System Log View displays the recent activity of all users on the recorder. You can export and save the System Log to review user activity.

SYSTEM LOG

DATE

05/01/2014

☒ ALL

☒ SYSTEM

☒ SETUP

☒ NETWORK

NO.

DATE/TIME

SYSTEM LOG

◀

1/1

▶

USER

TARGET

NONE

SCAN

EXPORT

PROGRESS

NONE

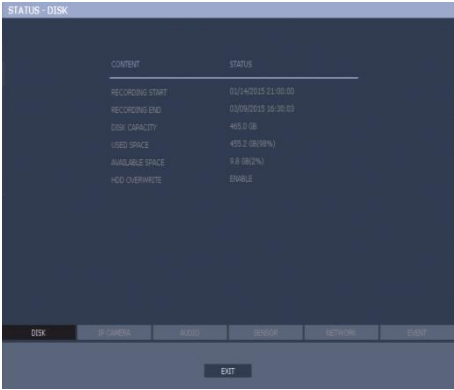
EXPORT ALL

EXIT

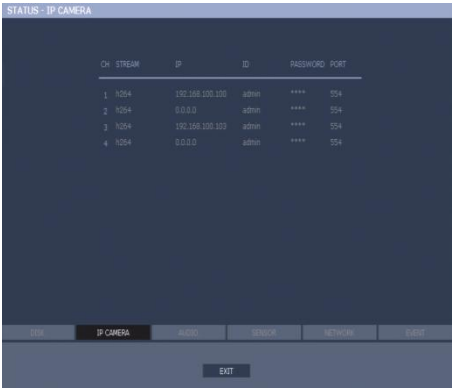
Status View

Displays status screens for:

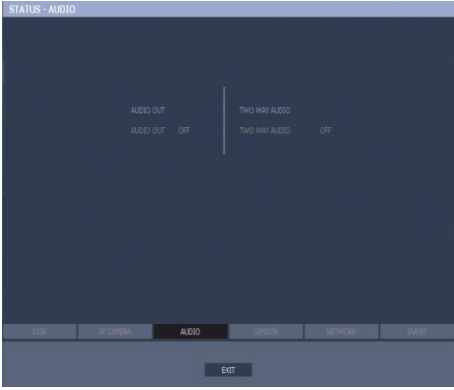
Disk



IP Cameras



Audio



Sensor

STATUS - SENSOR				
SENSOR		ALARM		
NO.	TYPE	POWER OFF	OFF	
1	NO	S.M.A.R.T. ALARM	OFF	
2	NO	HOLD VIDEO LOSS	OFF	
3	NO	NO. 1	SIGNAL	TYPE
4	NO		OFF	NO

LOG IP CAMERA AUDIO SENSOR NETWORK EVENT

EXIT

Network

STATUS - NETWORK	
CONTENT	STATUS
HOST NAME	OFF
NETWORK TYPE	DHCP
IP ADDRESS	192.168.0.200
SUBNET MASK	255.255.255.0
GATEWAY	192.168.0.1
DNS	8.8.8.8
CONTER PORT	2000
WEB PORT	80
CLIENT	

LOG IP CAMERA AUDIO SENSOR NETWORK EVENT

EXIT

Event

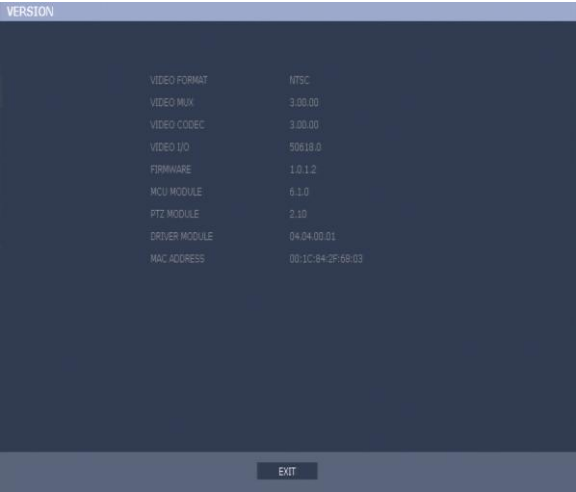
STATUS - EVENT				
CH	MOTION	SENSOR	VIDEO LOSS	ALARM
1	ON	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	ON	OFF	OFF	OFF
4	ON	OFF	OFF	OFF

LOG IP CAMERA AUDIO SENSOR NETWORK EVENT

EXIT

Version View

Displays system information and software version information for the recorder.



CAMERA DISCOVERY

Finding PoE and Network IP Cameras

- 1. Click **MENU** on the hover menu, and then click **SETUP**.
- 2. Click **CAMERA DISCOVERY**.

Note PoE cameras will display automatically, and if the recorder is connected to the network, the Camera Discovery will automatically search the network for IP cameras when opened.

- 3. Enter the camera **USERANEM** and **PASSWORD**.
- 4. Click **SEARCH** and the Camera Discovery will search the network for cameras that require permissions.
- 5. Select an IP camera, and then click **GET PROFILE** to display additional information about the camera.

Adding Cameras to Display Channels

- 1. To display the camera, click and drag the desired camera to the desired channel.
OR
Click the desired camera, click **GET PROFILE**, click the **CHANNEL** to designate a channel, and then click **APPLY**.
- 2. Once the channels are configured, click **CLOSE**.

CAMERA DISCOVERY

SEARCH

ID admin

PASSWORD ****

1	ONVIF 10.0.30.156 CM-711	
2	ONVIF 10.0.30.157 CM-711	
3	ONVIF 10.0.30.155 OE-C6412-R	

DRAG & DROP POSSIBLE.

GET PROFILE

DETAIL INFO

CHANNEL 2 CH

APPLY

CLOSE

OPERATION

LOGIN

The LOG-IN window will display on the monitor until a user logs in with the correct ID and password.

Tip To prevent unauthorized changes to the system settings, the administrator should change the default administrator password and create a User account.

Default Administrator Log In

The default administrator account login is:

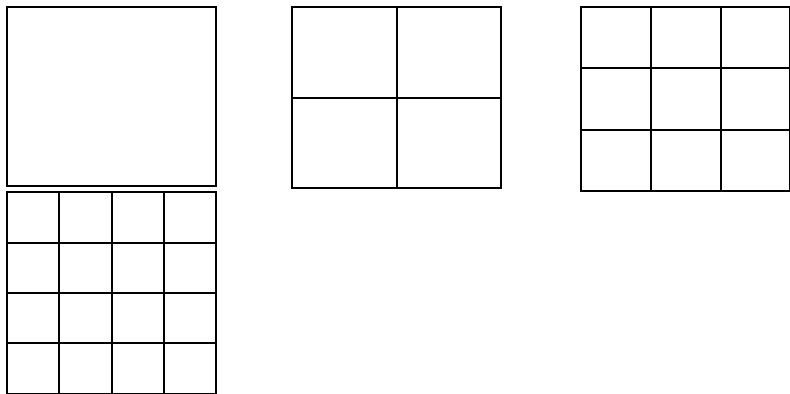
USER: **admin**
PASSWORD: **1234**

LIVE DISPLAY MODE

Channel Selection

A live image can be selected by pressing corresponding number key on the front panel of the recorder.

The images can be seen in real-time in the configuration of 1, 4, 9, 16 channels screen. To toggle through the viewing options press LIVE on the recorder.



To select a channel using a mouse, double-click the video image. To return to a previous screen mode after selecting a viewing channel, double-click again.

Note Screen division options are dependent on the maximum number of channels on your recorder.

Icons

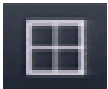
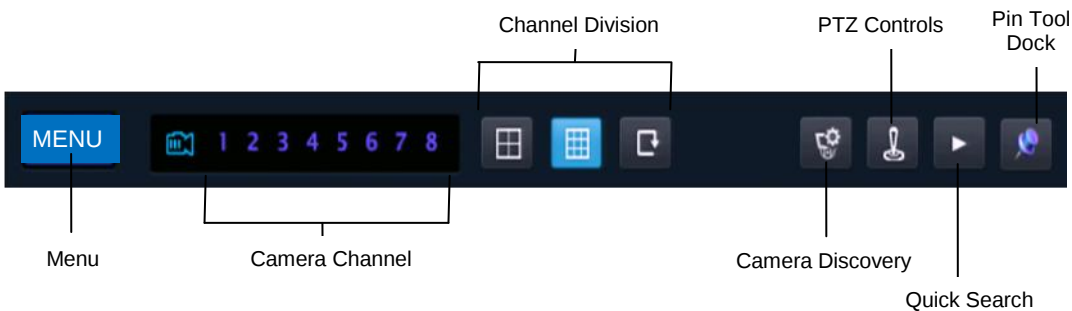
In Live mode, icons or messages on the screen indicate the system mode or status.

Right-upper corner on each CH.		Right-bottom corner on full screen.	
	Continuous Recording		No HDD, Smart Alarm & HDD Failure
	Motion Detection Recording		Using Emergency Recording
	Sensor Activated Recording		Using PTZ
	Continuous + Motion Alarm Recording		Warning for exceeding temperature
	Continuous + Sensor Activated Recording		Showing sequence mode
	Motion Detection + Sensor Activated Recording		Showing digital zoom mode
	Emergency Recording		
	Sensor Activated		
	Motion Detected		
	Audio Channel		
	PTZ Camera		

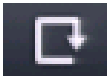
Note If there is no icon in the right upper corner of the live screen mode, it means that the system is not currently recording. If this is the case, you should check the recording schedule or camera setup in the main setup menu.

Mouse-Over Menu

Move the mouse to the bottom of the monitor in live mode. The hover menu will appear.



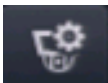
Screen Division Indicator – Availability (1, 4, 9, or 16 channel display) is dependent on recorder model. When selected, the button will be blue.



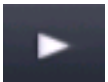
Sequence – Click to start camera sequence.



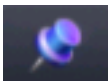
PTZ Mode – Click to enter PTZ mode. In PTZ mode, you can pan/tilt and zoom by moving the mouse pointer, referred to as a virtual joystick.



Camera Discovery – Opens the camera discovery menu to search for IP cameras.



Quick Search – Click to automatically play back the most recent video clip.



Dock Tool Menu – Click to dock the Tool menu at the bottom of the screen. If the Tool menu is not docked, it will be shown only when you place the mouse pointer in the lower portion of the screen.

Popup Menu

Right-click the live screen to open the Popup Menu.

HIDE LIVE VIEW – Hide the selected camera from Live view.

PAGE SEQUENCE – The **SEQ** icon appears on the bottom right of the screen and displayed channels will be sequentially changed.

AUDIO – Select an audio channel to play on attached speakers.

CAMERA DISCOVERY– Search the network for IP cameras.

LOGOFF – Select to log out the active user.

SEARCH – Open the Search Menu.

PTZ – Switch to PTZ mode.

SETUP – Open the Setup Menu.



No Signal

If no camera is connected to a channel, NO SIGNAL appears on the display screen. When a camera is disconnected, the recorder will generate a warning sound according to the system settings.

No Permission

The Administrator can set different levels of authorization for each user. If a user does not have permission to view a certain live or playback channel, that channel will appear black in live and playback mode. If a user attempts to access a restricted function, a NO PERMISSION warning is displayed.

PTZ

To enter PTZ mode:

- Right-click the Live screen and select **PTZ** on the pop-up menu.
- OR
- Click the **PTZ** icon on the hover menu.

Drag the mouse up/down or left/right to move pan/tilt position of the camera. As you move the mouse away from the center of the screen, the camera movement speed increases. You can also zoom-in/out by using the scroll wheel on the mouse.

Note Full PTZ functions are available using the front panel buttons, a mouse, or a keyboard controller.

PTZ Popup Menu

Right-click the desired camera to open the PTZ Popup menu while in PTZ mode.

M	Access the camera OSD menu.
ZOOM	Zoom in/out on PTZ camera. Enabled by default in PTZ mode.
FOCUS	Adjust focus on PTZ camera.
IRIS	Adjust the iris on PTZ camera.
PRESET	Go to preset position. Select the preset number. The maximum preset number is 255.
PRESET TOUR	Start preset tour. PRESET TOUR will sequence through all preset positions. Can only be enabled while in full screen mode.



Create PTZ Preset Position

1. Right-click your desired PTZ camera to open the PTZ Popup menu while in PTZ mode.
2. Select a PTZ Preset ID number.
3. Click **MOVE** under **PRESET** to move the camera to the desired position.
4. Click **SET** to save the preset position.

SEARCH

Searching Recorded Data

Search recorded video on the recorder to find a specific time or event.

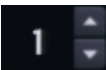
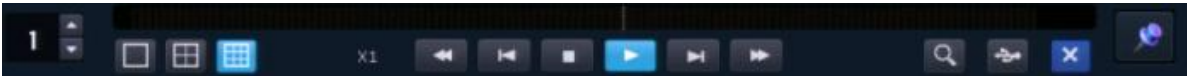
1. On the hover menu, click **MENU**, and then click **SEARCH**.
2. Select your **TARGET** media (**HDD / USB**).
3. Select your desired search method.

Graphic Search

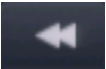
In the search mode, move the mouse to the bottom of the screen and click the colored time bar to search the desired section of recorded video.

- The white-vertical line indicates the current search time.
- The colors of the time bar are different according to the recording method selected.

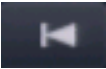
- Yellow** – Continuous recording
Green – Motion-detection recording
Orange – Sensor-activated recording
Sky Blue – Continuous + Motion detection recording
Dark orange – Continuous + Sensor-activated recording
Pink – Motion detection + Sensor-activated recording
Red – Emergency Recording
Dark Blue – Data recorded during DST (Daylight Saving Time)



Camera Channel – Camera channel being searched.



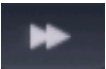
Reverse Playback/Fast Rewind – Start reverse playback. Click multiple times to speed up Fast Rewind.



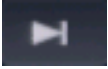
Frame Back – In single channel view this will reverse by a single frame.



Play – Begin video playback.



Fast Forward – Click multiple times to speed up Fast Forward.



Frame Forward – In single channel view this will advance by a single frame.



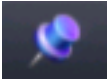
Search – Open the search window to select a different date or time to begin video playback.



Backup to USB – Click once to begin instant backup, click again to end instant backup. The export window will open for more export options.



Close – Close Graphic Search and return to Live View.



Dock Search Menu – Click to dock the Search menu at the bottom of the screen. If the Search menu is not docked, it will be shown only when you place the mouse pointer in the lower portion of the screen.

Quick Backup in Search Mode

You can easily archive video while watching a video playback.

Note A USB device must be connected before backup is initiated.

In the search mode:

1. Press the **BACKUP** on the front panel to set the Start time. You will see **S [Date/Time of clip]** in right bottom of the playback monitor.
2. Continue video playback until you reach the end of the desired clip.
3. Press the **BACKUP** again to set the end time. The backup menu will open and you can select the backup media (**USB** thumb drive) and complete the backup.

Express Search

Select a specific date and time to search for recordings:

1. On the hover menu, click **MENU**, and then click **SEARCH**.
2. Click **EXPRESS SEARCH**.
3. Click a date on the list.
4. Click the appropriate set of channels and then move the white vertical line indicator to select a specific time for searching.

Tip Dates with an asterisk contain recorded video data.

5. Click **PLAY**.
6. Use the playback controls to view the video.

Event Search

Use the Event Search to find particular events.

The 11 most recent events display on the first Event Search/Log page. Click the arrows at the top of the screen to view the remaining entries for each date. You can filter the log results by **SENSOR, MOTION, VIDEO LOSS, and DISK FULL**.

Write the Event log to a connected USB device in text file format:

1. Connect a USB device to the recorder.
2. Click **SCAN**, and then click **EXPORT** to copy the log information to the CD/DVD or USB device.
3. The Event Log is saved in a dated folder as a system.log file.

Jump to First Saved Data

Go to the first frame of the recorded data. This is the oldest image recorded.

Jump to Last Saved Data

Go to the last frame of the recorded image. This is the latest image recorded.

Daylight Saving Search

Daylight Saving Search is used to find recorded data after switching the time at the end of Daylight Saving Period. The System will record data with the same time stamp for two hours when they are repeated. If any overlapped time data exists the system will display the times on this page.

Search Popup Menu

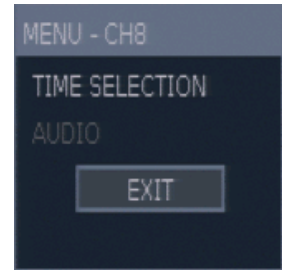
Use to access display options in Search Mode.

- Right-click the desired channel to open the Search Popup Menu.

TIME SELECTION – Change the Date/Time to search.

AUDIO ON – ON / OFF.

SAVE JPEG – Save a JPEG still image of the current frame.



Note **SAVE JPEG** is only available when a single camera is selected. To activate, select a single channel (full screen), pause playback, and press ENTER twice, or right click the channel to open the popup menu.

EXPORT

Manual Export

Back up to a connected USB or external storage device.

Tip Using this export method, video data is saved in a proprietary format and must be viewed using the Export Viewer software.

EXPORT

TARGET

NONE

SCAN

FORMAT

FROM

05/01/2014

18:11:27

TO

05/01/2014

19:11:27

☐ USE DST

CAMERA

☒ ALL

☒ 1

☒ 2

☒ 3

☒ 4

☒ 5

☒ 6

☒ 7

☒ 8

RECORDING START TIME

05/01/2014 19:00:00

RECORDING END TIME

05/01/2014 19:00:00

REQUIRED SPACE

FREE SPACE

ESTIMATE

☒ EXPORT VIEWER

PROGRESS

0 DEVICE(S) DETECTED

EXPORT

CANCEL

CLOSE

To configure a data backup:

1. Click **MENU** on the hover menu, and then click **EXPORT**.
2. Connect a USB device.
3. Click **SCAN** to locate the device.
4. Select your desired **CAMERAS** and the **FROM** and **TO** time for the backup.
5. Click **ESTIMATE** to display estimated data size and free space available.
6. Select **EXPORT VIEWER** to add the Export Viewer to the backup file.
7. Click **EXPORT**.

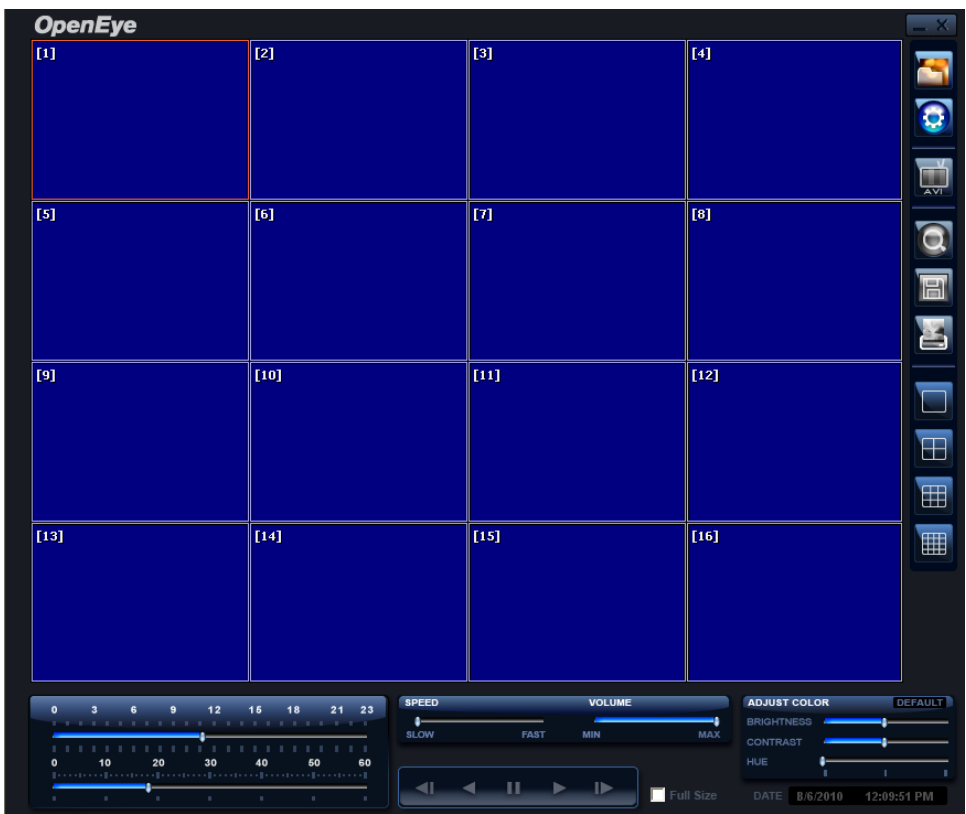
Caution Refer to the USB Flash Drive Approved List in the Introduction Chapter. If you are using a new USB device to back up your data, you must format it first as FAT32.

Note Click **ESTIMATE** before clicking **EXPORT**. If any backup parameters are changed (Date, Time, Channels) you must click **ESTIMATE** again.

Caution Do not shutdown the system during the backup process.

USING THE BACKUP PLAYER

Play recorded video on a PC using Backup Player, the proprietary media player included with every backup file.



Controlling Backup Player



Setup and Save Functions

These function buttons allow you to configure the Backup Player and save a JPEG image or AVI video.



OPEN – Allows you to choose which data to open. When selecting data that is saved to your local hard drive, the video must be in a directory named DATA. Navigate to the folder above the DATA directory and click OK to see the available playback options.



SETTINGS – Select Direct Draw De-Interlacing for image viewing. Also allows you to include image information when exporting a JPEG.



EXPORT AVI –To export an AVI file: Click this button, enter the desired Digital Signature, the AVI start time, the AVI end time and to include audio data (if desired) and press OK.



ZOOM – Select this button to turn your cursor into a magnifying glass and click the desired camera image to zoom in.



EXPORT JPEG – To save a JPEG: Click this button, enter the desired Digital Signature and click OK, then browse to the desired save location.



PRINT – Opens the print window on your computer.

Play Back Backup Image

Play recorded video on a PC using the proprietary media player included with every backup file.

1. Connect your CD/DVD or USB device to the PC.
2. Navigate to the files on the CD/DVD or USB drive.
3. Double-click the **MultiBackupPlayer** application.
4. Click the **Open Video File** icon and select the file to view from the desired date folder.

Screen Division Buttons

The Screen Division buttons allows you to view cameras in groups such as two by two, three by three and four by four. The button options are shown below.



Single Channel View – Displays one camera channel. To return to a different Multi-Camera View, select a different Screen Division button.



Four Channel View – Displays cameras 1-4 in the Video Display Area. Click the button again to rotate to cameras 5-8, 9-12, etc. To return to a different Multi-Camera View, select a different Screen Division button.



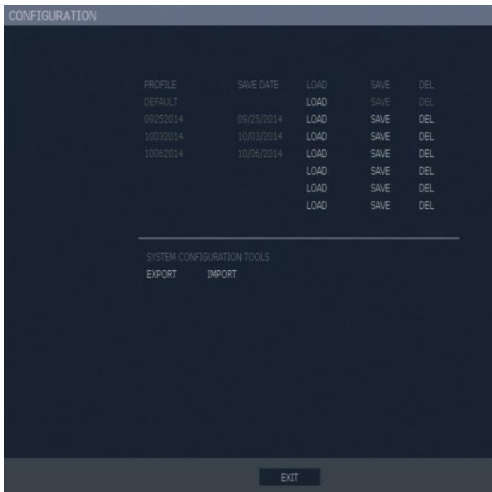
Nine Channel View – Displays cameras 1-9 in the Video Display Area. Click the button again to rotate to cameras 9-16. To return to a different Multi-Camera View, select a different Screen Division button.



16 Channel View – Displays cameras 1-16 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division button.

SAVE SETTINGS

Use the System Setup menu to export and import saved or factory default system settings.



Save Settings

1. On the hover menu, click **MENU**, and then click **SETUP**.
2. Click **SYSTEM**, and then click **CONFIGURATION**.
3. Select an empty **PROFILE** and define a name for the settings configuration.
4. To save settings to a USB device, click **EXPORT**.
5. Click **SAVE** and confirm to continue the export process.

Import Settings

1. On the hover menu, click **MENU**, and then click **SETUP**.
2. Click **SYSTEMS**, and then click **CONFIGURATION**.
3. Select a previously saved **PROFILE**, and then click **LOAD**.
4. To import a profile saved on a USB device, click **IMPORT**.
5. Click **OK** to complete the import process.

REMOTE SOFTWARE

RADIUS OVERVIEW

RADIUS is Video Management Software from OpenEye that allows you to access your recorder from any PC or laptop with a network connection.

Use RADIUS to monitor live video, search recorded video, control PTZ cameras, export video, and even search live video as it happens.

For complete instructions regarding the use of RADIUS VMS software, please refer to the RADIUS user manual.

Installing RADIUS on your PC

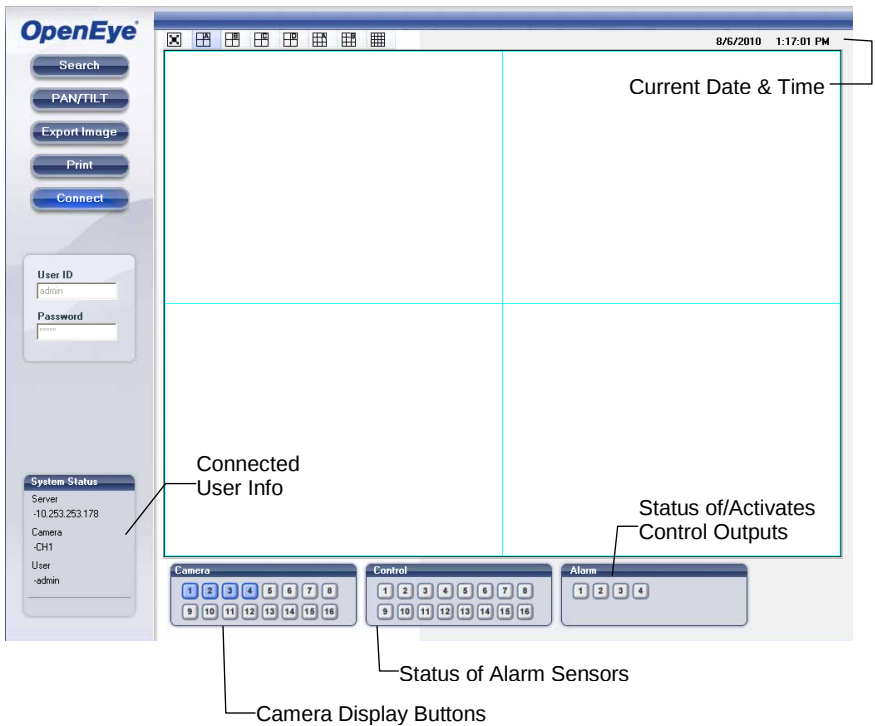
To install RADIUS on your PC, follow these instructions:

1. Locate the Software CD included with your E-Series recorder, and make sure that the PC is turned on.
2. Insert the Software CD into the CD drive.
3. Click **Start > My Computer** – or – double-click the **My Computer** icon on your desktop.
4. Locate the CD drive and double-click to display contents of the CD-ROM.
5. Double-click **OpenEye.exe** – or – right-click **OpenEye.exe** then click **Open**.
6. Click on **Install RADIUS** from the on-screen menu.
7. Follow the on-screen instructions for installing the software.
8. The Setup process will notify you when Radius is installed. Click **Finish** to complete Setup and close the installer window.

WEB VIEWER OVERVIEW

The recorder allows access to the video using Microsoft® Internet Explorer® browser versions 6 and above.

To log in to the recorder server from the Web Viewer, a user account must be made for the user. This ensures that only authorized users are allowed to log in. In addition, each user can be assigned different privileges that allow or deny access to different functions.



- | | |
|---------------------|--|
| Search | Open the Search screen. |
| PAN/TILT | Open the PTZ controller. |
| Export Image | Save JPG file of selected image. |
| Print | Print selected image on connected printer. |
| Connect | Connect to an OpenEye recorder. |

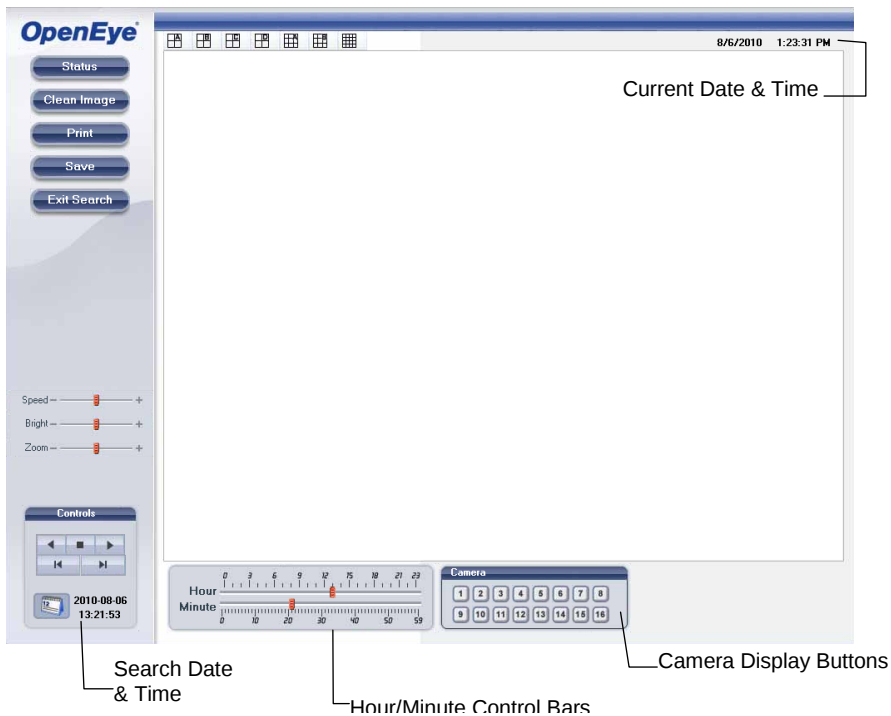
Connecting to a Recorder Using Web Viewer

1. Open Microsoft Internet Explorer.
2. Enter the IP address of the recorder into the **Address** bar.
3. When attempting this for the first time you will be asked to accept an Active X installation. Click **Yes**.

Note If you receive a message saying Internet Explorer security settings do not allow you to download Active X components then you will need to adjust the browser security settings. Add the IP address of the recorder to the trusted sites list inside Internet Explorer settings. Contact the System administrator for additional help with adjusting Internet Explorer settings.

4. Type the **User ID** and **Password** of an authorized user.
5. Click **Connect**. The cameras will display.

Search Video Using Web Viewer

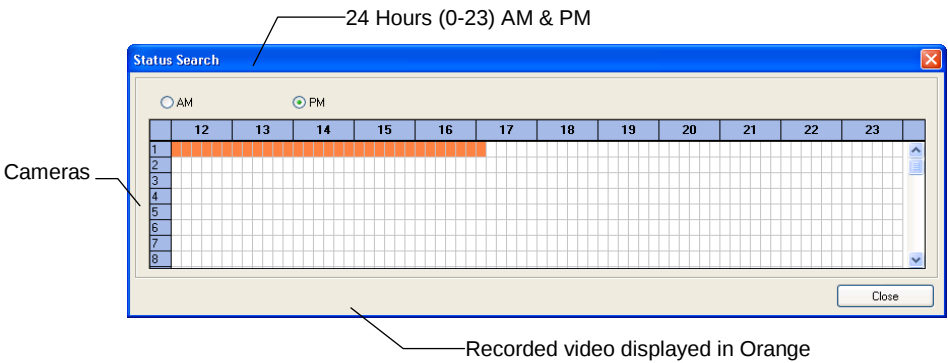


Performing a Basic Search

- 1. Click the **Calendar** icon to open the calendar and select a date.
- 2. Select a time using the hour and minute control bars.
- 3. Select one or more cameras.
- 4. Click **Play**. (Video can be played forwards, backwards, or frame-by-frame.)

Status Search

The Status Search option displays a timeline in graph format. Scroll through multiple cameras and easily locate hours with recorded video.



Performing a Status Search

- 1. In Search mode, click **Status**.
- 2. Click **Date** to open the calendar and select a date.
- 3. Click along the orange recorded video block to select a desired camera or time frame.
- 4. After locating the desired video, close the **Status Search** window and use the playback controls to play forward, reverse or frame-by-frame.

Print

1. Use the Search screen to locate the desired frame. Double-click the image.

Note Only one camera can be selected at a time for this function to work.

2. Click **Print**. The **Print Options** window opens. Depending on the printer being used, there may be several printing options available. Refer to the printer manual for more information.
3. Click **Print** to print the selected images.

Note The message “NO DEFAULT PRINTERS INSTALLED” will display if no printer is installed.

Save

Using the OpenEye Web Viewer, you can export single images in the Image file formats and save video clips in an .AVI format. Both .JPG and .AVI file formats are the most commonly used graphical formats today. Virtually every computer offers some type of support for these file formats which make them the most ideal formats to use.

JPEG

Optimized for compressing full-color or grayscale photographic images, JPEG images are 24-bit (16.7 million color) graphics. Use JPEG to export a single image or frame.

AVI

AVI image data can be stored uncompressed, but it is typically compressed using a Windows-supplied or third party compression and decompression module called a codec. AVI is used to export a video clip.

1. From the Search screen, click **Save**.
2. Select the export type, **JPEG** or **AVI**.

Note Different image format types provide different file-sizes, quality and compatibility.

3. Select **Mark Digital Signature** if desired.

AVI File

- a) Select a compression Codec. Each codec provides different levels of quality, compatibility and file-size.
 - b) Enter the **Time to Save** (seconds) to record. Although 50 is the longest time displayed, a longer recording may be entered manually.
 - c) Select Quality – **50 ~ 100**. When size is not an issue, set quality to 100.
4. Click **Next** to select a save location to save file.
 5. Click **Next** to start exporting the file. The **Cancel** button exits the window without exporting file.

DIGITAL VERIFIER OVERVIEW

JPG images and AVI video files that are exported from the recorder are automatically embedded with a digital signature. Digital signatures are a way to verify the authenticity of the images to ensure that they have not been tampered with or edited in any way. Included on the Software Installation DVD, supplied with the recorder, is the Digital Signature Verification program. This program can be installed on any computer with Microsoft Windows (XP and above).

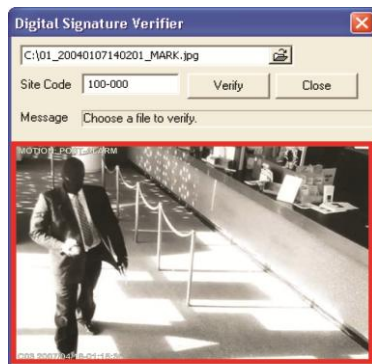
Using the Digital Verifier

1. Open the Digital Verification program by selecting **Start > Programs > OpenEye > Digital Verifier > Digital Signature Verifier**.
2. Click the **Browse** button to load the JPG image.
3. Enter the Site Code of the recorder that the image was originally extracted from. (The Site Code is specified in the **System Setup** menu.)
4. Click **Verify** to continue or **Close** to close the window without verifying.

If the image has not been tampered with, a blue square will appear around the image with the message "Original image file."



If the image has been tampered with, a red square will appear around the image with the message "Entire image changed or wrong **SITE CODE**."



APPENDIX

BUTTON INDEX

LED Status Indicators

 PWR	Power	Illuminates when power is supplied to the recorder.
 REC	Record	Flashes when the hard drive is being accessed.
 NET	Network	Illuminates when the recorder is connected to a network.

Function Buttons

	Setup	Open the setup menu.
	Search	Open the search menu.
	Live	Change the display mode. Display switches in the following order when the LIVE key is pressed successively: (Single > 4 > 7 > 9 > 10 > 13 > 16 > Single > 4 > 7 > 9 ...split screen mode).
	PTZ	In the Live view, press to enter PTZ mode.
	Exit	Exit the current menu / function.
	Record	Start Emergency Recording when viewing live video.
	Backup	In live mode, press to open the backup menu. For Quick Backup in the search mode: • Press once, to set the start time. • Press again, to set the end time. • Press a third time, to complete Backup.
	Search	Start reverse playback of recordings. Press successively to change the fast reverse speed.
	Replay	Start playback of the most recent recording.
	Search	Press to Pause or Play in Search mode.
	Search	Start playback of recordings. Press successively to change the fast forward speed.



Enter	Input data, make selections, and open pop-up menus.
--------------	---



Navigation	Move up.
PTZ	Move the camera view point up.



Navigation	Move to the right.
PTZ	Move the camera view point to the right.
Search	Play recorded videos. When pressed successively, the search jumps forward in time by 30 minute increments.
Search-Pause	Step forward one frame.



Navigation	Move down.
PTZ	Move the camera view point down.



Navigation	Move to the left.
PTZ	Move camera's view point to the left.
Search	Play recorded videos in reverse. When pressed successively, the search jumps back in time by 30 minute increments.
Search-Pause	Step backwards.

RECORDER SPECIFICATIONS

Model	OE-ENVRPOE4	OE-ENVRPOE8	OE-ENVR16
Camera Channels	4 (3MP / 1080p) 50W PoE Max	8 (3MP / 1080p) 100W PoE Max	16 (3MP / 1080p) No PoE Option
Max IPS per Channel	30IPS		
Recording Rate	120IPS	240IPS	240IPS
Live Display Rate	30IPS		
Audio Outputs	Yes (Comes with MIC supported) 1 RCA Out		
Video Outputs	HDMI & VGA		
Digital Relay Outputs	1		
Alarm Sensor Inputs	4		
Image Compression	H.264		
Recording Resolutions	800x600, 1024x768, 1280x1024, 1920x1080		
Video Signal Loss Detection	Yes		
Motion Detection	Yes (OpenEye cameras only)		
Remote Operation	Live View, Setup, PTZ, Firmware Update (RADIUS only)		
Remote Software	RADIUS, Web Viewer, Mac and Mobile apps		
PTZ Control	ONVIF		
Recording Mode	Schedules for Continuous, Motion, Sensor, Pre- and Post-Alarm, Instant, Quick Global Setup		
Playback Search	Multi-channel playback, Calendar and Timeline Search, Event and System Search, First and Last Search		
Backup	USB / Network		
Digital Signature Support	Support on AVI and JPG files		
Dynamic DNS	Free for the life of the product		
Operating System	Linux® embedded		
Storage Size	Up to 8TB (varies by model)		
External Storage Options	eSATA		
Dimensions	L: 14.96" (380 mm) x W: 14.17" (360 mm) x H: 2.6" (66 mm)		
Warranty	3 Year / 1 Year Advanced Replacement		

www.openeye.net
1-509-232-5261

© 2015 OpenEye

All rights reserved. No part of this publication may be reproduced by any means without written permission from OpenEye. The information in this publication is believed to be accurate in all respects. However, OpenEye cannot assume responsibility for any consequences resulting from the use thereof. The information contained herein is subject to change without notice. Revisions or new editions to this publication may be issued to incorporate such changes.