OpenEye®

H.264 Recorder

User Manual

E-Series

OE3-E48016
OE3-E24008
OE3-E12004

www.openeye.net

OpenEye® OE3 H.264 Embedded Series Recorders

User Manual

Manual Edition 29716AF – JUNE 2013

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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.

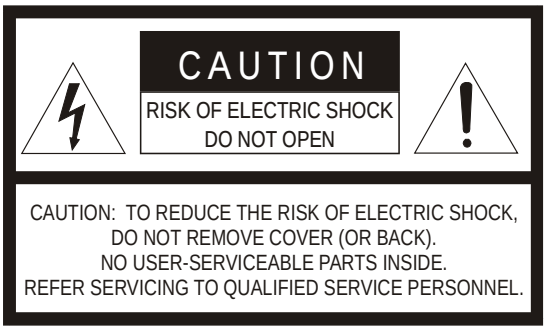
WARNING

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.

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INTRODUCTION

PRODUCT DESCRIPTION

OpenEye's E-Series recorder is a powerful, yet affordable, video management solution designed for easy installation and operation. Preconfigured for continuous recording and DDNS, with no additional setup required, the E-Series offers quick search, setup, and backup features. The E-Series runs on an embedded Linux operating system which provides stability and protection from viruses.

The OpenEye E-Series server comes ready for fast and seamless integration within your existing IT infrastructure. Designed around Linux Embedded, the E-Series server offers unparalleled stability, security, and ease of use in a 2U chassis. Accordingly, 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 server software, searching and indexing your video archive has never been easier.

All OpenEye recorders come with free RADIUS remote management and viewing software allowing you to connect to any number of recorders from virtually anywhere using your PC or laptop. OpenEye's suite of applications allow you to remotely manage recorder settings and permissions, view live virtual multiplexed video from multiple recorders on multiple displays, monitor alarm and sensor events remotely, create custom maps of facilities, and search or backup recorded video.

FEATURES

The OE3 E-Series includes the following features:

- 4/8/16 Composite Video Input Connectors
- 4/8/16 Looping Video Outputs
- Compatible with Color (NTSC or PAL) and B&W Video Sources
- Multiple Search Methods (Calendar, Event)
- Records up to 480 NTSC Images Per Second
- Live Real Time Video Display (480 NTSC Images Per Second / 400 PAL Images Per Second)
- Auto Termination (75 Ohm) on Looping Outputs
- Instant Backup
- Continuous Recording with Disk Overwrite Mode
- Continuous Recording on Archiving, Transmitting to Remote, and Playback
- Motion Based Recording Uniquely Configurable for Each Channel
- Customizable Motion Detection Grids Uniquely Configurable for Each Channel
- Multiple Recording Modes (Manual / Schedule / Event)
- Audio (Mono) Recording and Playback
- 4/8/16 Built in Sensor Inputs (Normally Open or Normally Closed)
- 4 Built in Relay Outputs (Normally Open or Normally Closed)
- Remote Access via Ethernet and/or Modem
- PTZ Camera Control
- Internal DVD-RW supports CD-RW and DVD-RW media

USB FLASH DRIVE APPROVED LIST

These USB flash drives have been tested and approved to work with the OE3 E-Series Other USB flash drives may also work with the OE3 E-Series but have not yet been tested.

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

PTZ COMPATIBILITY LIST

The OE3 E-Series recorders support a wide selection of PTZ camera protocols:

- OpenEye 500
- OpenEye 510
- OpenEye – Pelco D
- American Dynamics
- DynaColor
- D-Max
- ERNITech
- FastraxII
- Ganz-PT
- Honeywell MAXPRO
- Honeywell VCL
- Honeywell (GC-655P)
- Honeywell (HSD-250)
- Honeywell (HSD-251)
- HISHARP
- HSDN 251/230
- KALATEL
- LG (LVC-A70X)
- LILIN
- ORX-1000
- Pelco-D
- Pelco-P
- PTC-400C
- RS-485 DIRECT
- SCC-641
- SCC-645A
- SDM-100
- SJ-3728R1
- SK-P
- SK-S
- SPD-1600
- SRX-1008
- TBT-DOME
- Vison-360
- Visiontech
- WSD7425D
- WV-CS854
- YOKO-CCTV

QUICK START INSTRUCTIONS

1. Turn on the recorder. See the Turning on the Recorder section for more details.
2. Log in -- Use the number buttons to enter the password when prompted – The default password is **<none>** – Press ENTER.
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. Complete PTZ Setup for any attached Pan / Tilt / Zoom cameras. See the PTZ section for more details.
8. Create a recording schedule. See the Record section for more details.
9. Complete Sensor Setup to enable any external devices connected to sensor inputs or relay outputs. See the Record > Motion/Event section for more details.
10. 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. See the Operation section in this manual for more information on using the recorder.

LOGGING IN FOR THE FIRST TIME

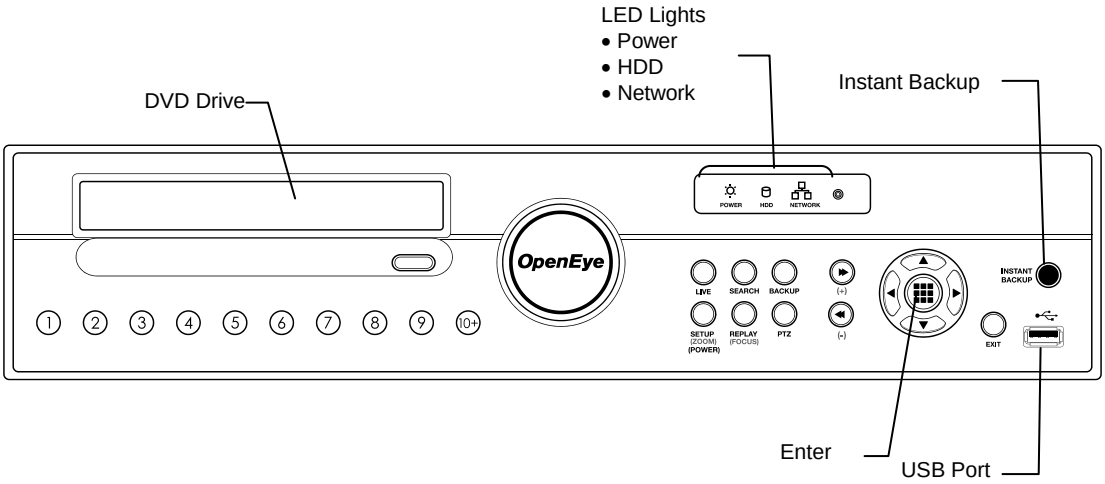
Default administrative log in information:

ID: admin

Password: <none>

INSTALLATION

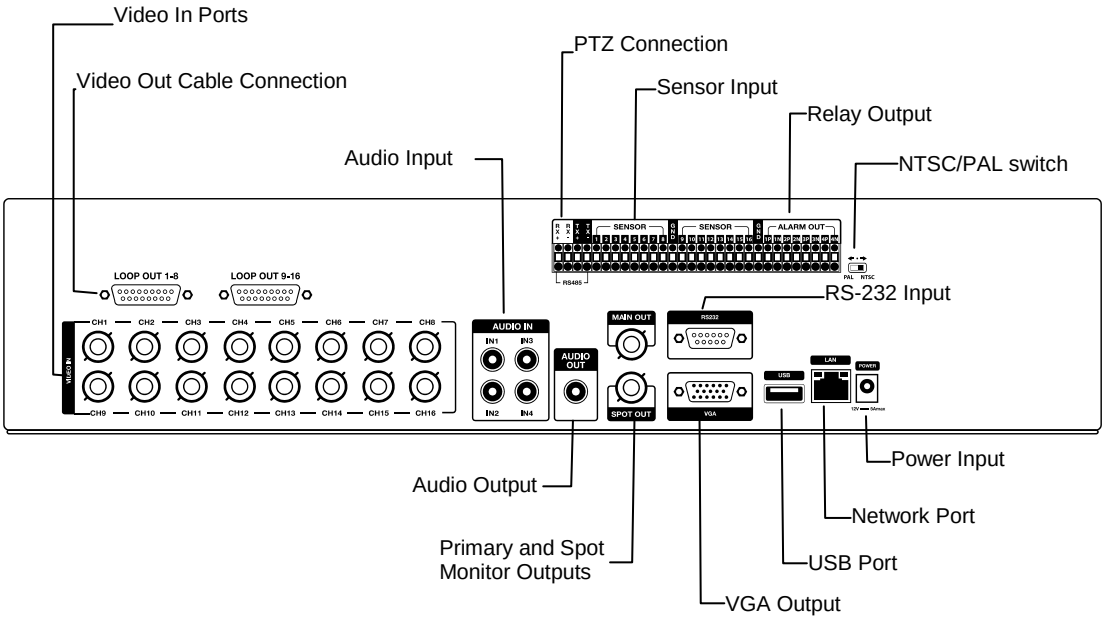
FRONT PANEL CONTROLS



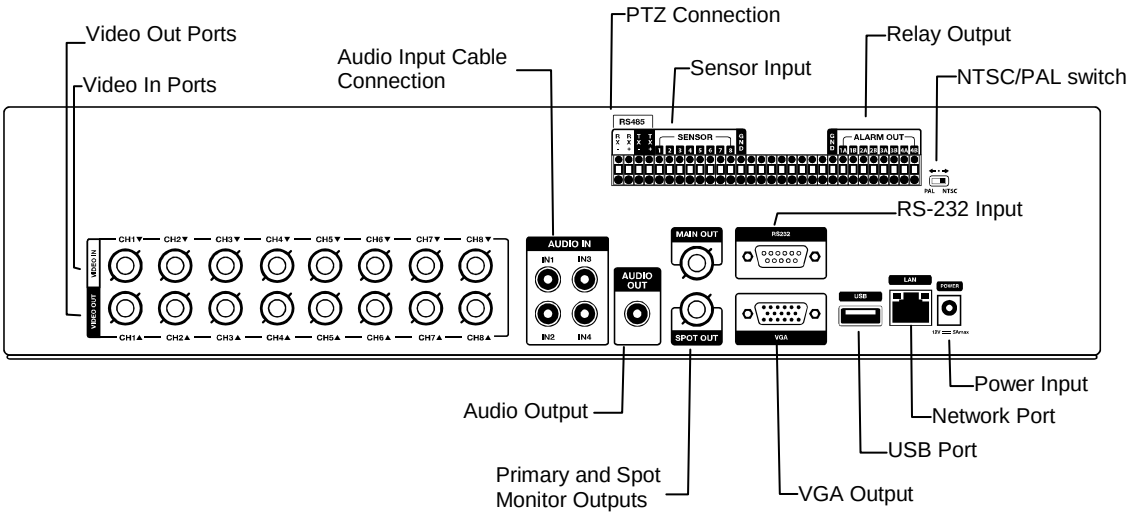
REAR PANEL CONNECTORS

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.

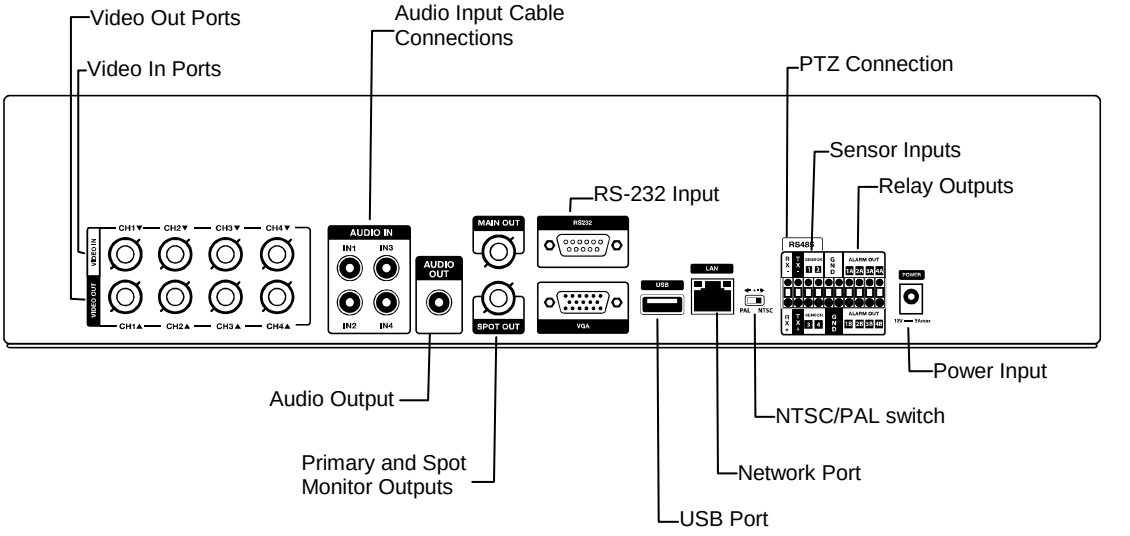
16 Channel



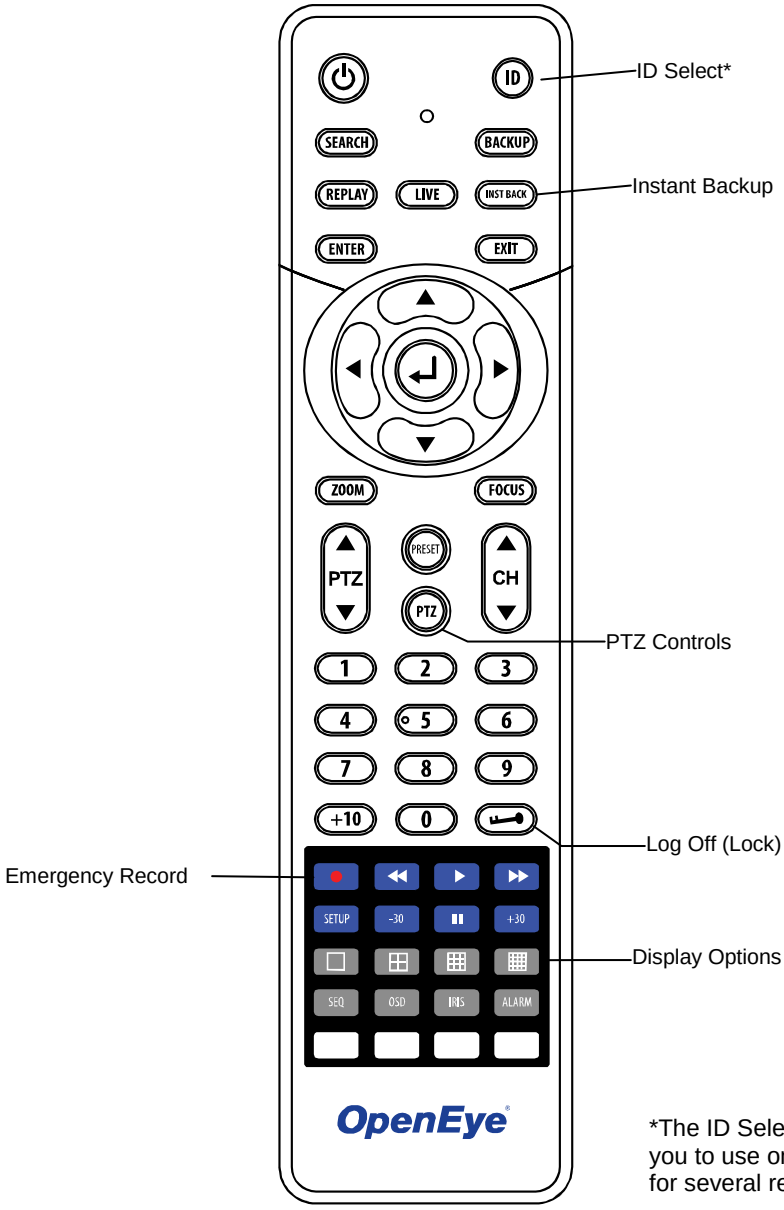
8 Channel



4 Channel



REMOTE CONTROL



*The ID Select button allows you to use one remote control for several recorders.

CONNECTION GUIDE

Connecting the Monitor

There are three available monitor outputs on the E-Series recorder.

- Composite Monitor output for CCTV monitor – BNC (Marked MAIN)
- Spot monitor output for CCTV monitor – BNC (Marked SPOT)
- VGA output for VGA monitor – Mini-Sub D15

Video Inputs and Looping Outputs

The E-Series comes with 4/8/16 BNC video inputs on the rear of its chassis. Each video input has a corresponding looping BNC output for passing the video signal to another monitoring/recording device.

Connecting to a Network

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

Connecting Audio

To record audio, connect the audio source to the connections on the audio ports on the back of the recorder.

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. The audio input can be from an amplified source or directly from an amplified microphone.

Connecting a PTZ Camera

The RS485 connector can be used to control Pan / Tilt / Zoom (PTZ) cameras. See the PTZ camera manufacturer's manual for configuring the RS485 connection.

Connect RX-/TX- and RX+/TX+ of the control system to the TX-/RX- and TX+/RX+ (respectively) of the DVR.

Note Use the RS485 connector for external control systems such as a control keyboard.

Connecting to a Sensor Input

To make connections on the Alarm Connector Strip: Press and hold the button and insert the wire into the hole below the button. To disconnect the wire press and hold the button above the wire and pull it out.

Alarm In

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

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

Connecting to a Relay Output

To make connections on the Alarm Connector Strip: Press and hold the button and insert the wire into the hole below the button. To disconnect the wire, press and hold the button above the wire and pull it out.

Alarm Out

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

INSTALLING THE RACKMOUNT KIT

Caution There must be a minimum 1U space between the recorder and any other items in the rack.

1. Attach the rackmount brackets with the screws provided on each side of the recorder. Do not remove the plastic edge guards.
2. Mount the recorder in your rack.

TURNING ON THE DVR

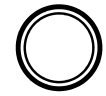
1. Connect camera cables.
2. Connect a network cable and a monitor cable.
3. Connect the power cable to the recorder and wait until the main screen is displayed on the connected monitor; this process will take approximately two minutes.

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 SETUP key on the front panel of the recorder until the lights start to flash.



SETUP
(ZOOM)
(POWER)

To shutdown the recorder:

- Press and hold the SETUP key 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.

SETTING THE REMOTE CONTROLLER ID

When multiple E-Series recorders are installed in the same location, you can use one remote controller to control multiple recorders – up to 20 recorders. To control multiple recorders, you must change the remote controller ID to the DVR ID of the recorder.

To change the remote controller ID:

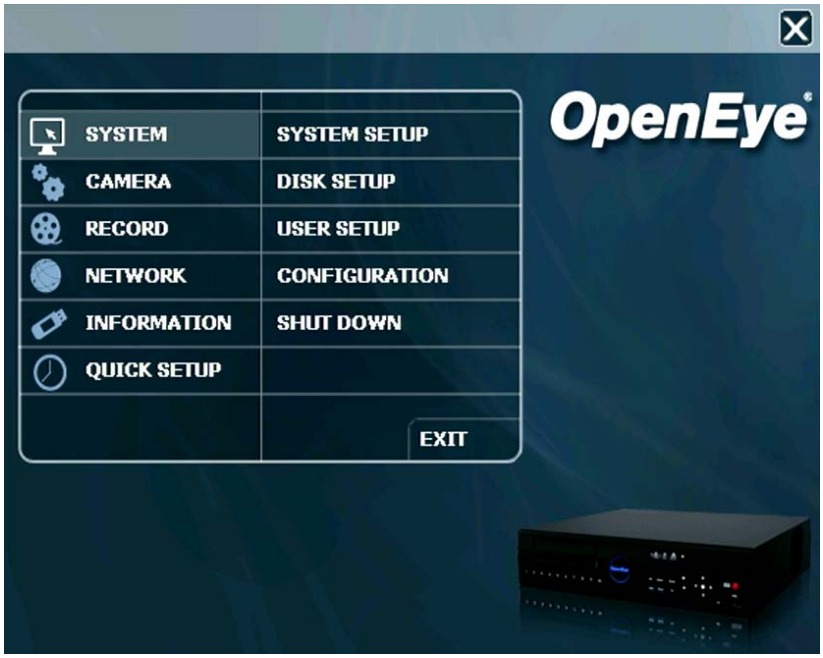
1. On the recorder, go to **SYSTEM > SYSTEM SETUP**.
2. Enter the desired DVR ID number.
3. On the remote controller, press and hold the ID button and enter the desired DVR ID number to operate the corresponding recorder.

Note The DVR ID must be input as two numbers on the remote controller. Therefore you should input 00 for the system ID 0 and input 01 for 1.

Notes:

SETUP

SETUP MENUS



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

Press the SETUP key on the front of the recorder or remote control to enter the setup menus and log in. See the Logging In for the First Time section if entering setup for the first time. Use the ▲ and ▼ keys on the front of the recorder or remote control to navigate individual menus, and use the ◀ and ▶ keys to select a new setup menu.

QUICK SETUP

The Quick Setup allows you to define global recording settings for an easy and custom recording schedule on the recorder.

Global Resolution – 352x240 / 704×240 / 704×480.

Record Mode – **CONTINUOUS** / **MOTION** / **SENSOR** / **CONTINUOUS+MOTION** / **CONTINUOUS+SENSOR** / **MOTION+SENSOR**

Average Days to Record – [The estimated days of recording determined by resolution, **IPS** (Images Per Second), **PICTURE QUALITY**, and available storage size]

IPS Per Channel – **1 ~ 30** [Maximum varies with resolution]

Picture Quality – **LOW** / **NORMAL** / **HIGH** / **HIGHEST**

SYSTEM

System Setup

To enter System Setup, press the SETUP key on the front of the recorder and press ENTER to select **SYSTEM SETUP**. Use the arrow buttons on the front panel of the recorder or the remote control to navigate the display. Select **SAVE** and press ENTER to update settings.

Video Format - **NTSC / PAL**, Display only.

Tip Use the PAL/NTSC switch on the back of the recorder to change the setting.

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

DVR ID - Required for the operation of multiple units using the supplied IR remote control. 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 - Press ENTER to select the **DATE** and use the number keys and/or arrow buttons to set the date. Press ENTER again to deselect.

Time - Press ENTER to select the **TIME** and use the number keys and/or arrow buttons to set the time. Press ENTER again to deselect.

Time Zone - Press ENTER to open the **TIME ZONE** window. Use the arrow keys to navigate the list and press ENTER to make selection. Select **EXIT** and press ENTER to close the window.

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, highlight **USE DST** and press ENTER to turn Daylight Saving Time ON / OFF.

NTP Type – Highlight **NTP** (Network Time Protocol) and press ENTER to sync the recorder with the network time.

Keypad Beep - **ON / OFF** [Enables / Disables Audible keypad touch confirmation].

Auto Log Off – **OFF** or **1-10** Minutes [This feature will close the Setup Menu after XX minutes of inactivity. This is a security feature.]

S/W Upgrade – Start firmware upgrade from selected media (**USB** or **CD/DVD**).

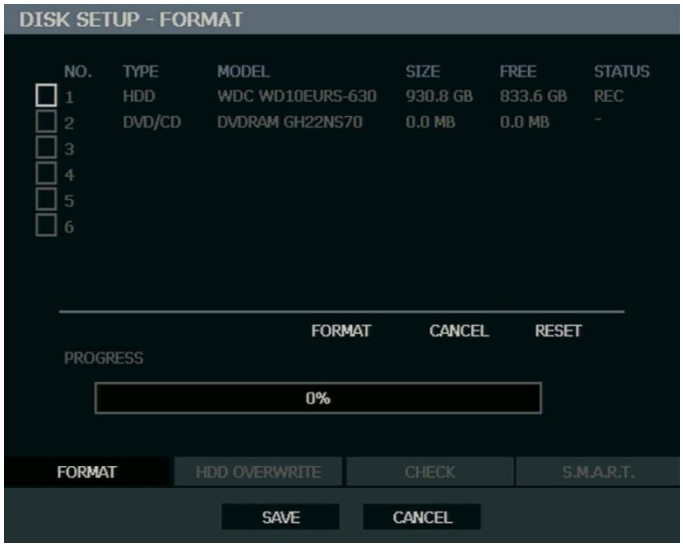
Upgrade Firmware

1. Press SETUP on the front panel or remote control.
   or
   Click **MENU** on the hover menu and select **SETUP**.
2. Select **SYSTEM > SYSTEM SETUP**.
3. Click **S/W UPGRADE** to open the **UPGRADE FIRMWARE** window.
4. Insert the **CD/DVD** or USB device.
5. Click **SCAN**.
6. Select the media type (**DVD/CD-ROM** / **USB HDD/STICK**).
7. Click **OK** to start the upgrade.

Disk Setup

Format

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



To format a Hard Drive or USB device, use the arrow keys to select the appropriate device and press **ENTER**. Select **FORMAT** and press **ENTER**. Select **YES** to confirm and press **ENTER**.

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

To refresh the list of connected USB devices select **RESET** and press **ENTER**.

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.

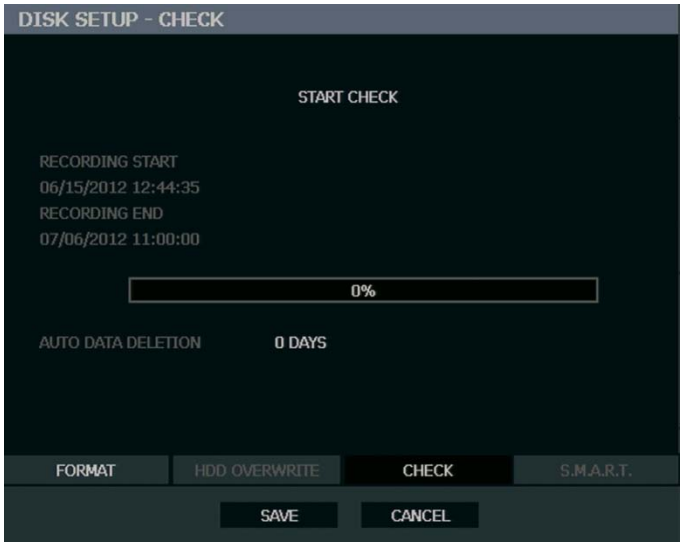
Overwrite

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

- 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.

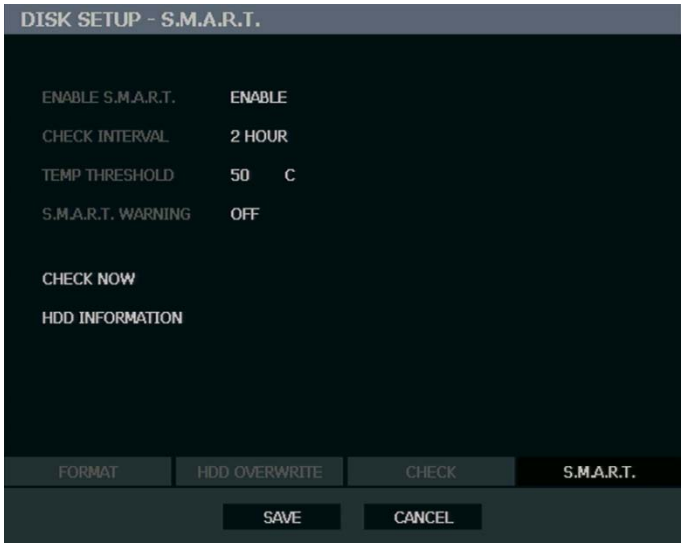
Check

Checks the HDD for errors or failure.



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.

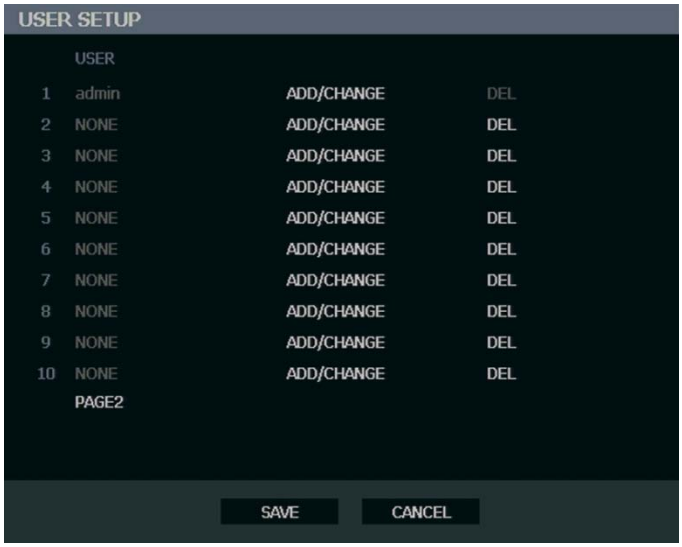
Note The recommended upper optimum operating temperature for the HDD is between 104F to 122F (40C to 50C).

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

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

User Setup

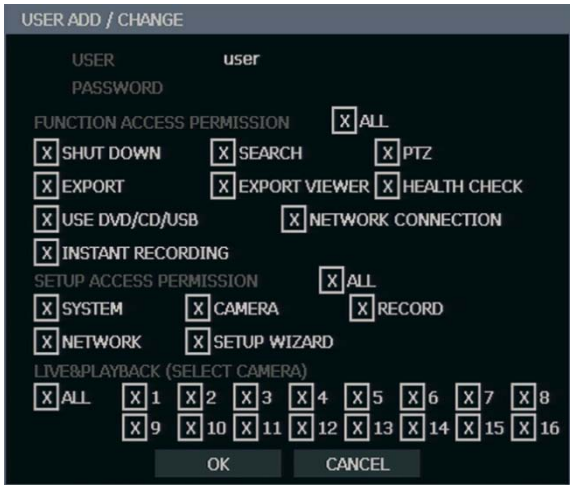
Use the User Setup to Add or Delete users.



Adding / Changing a User

To add a new user:

1. Press MENU on the front panel or remote control.
   or
   Click **MENU** on the Mouse-over menu and select **SETUP**.
2. Select **SYSTEM > USER SETUP**.
3. Click **ADD/CHANGE**.
4. Enter a **USER** name.
5. Enter 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.



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. 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

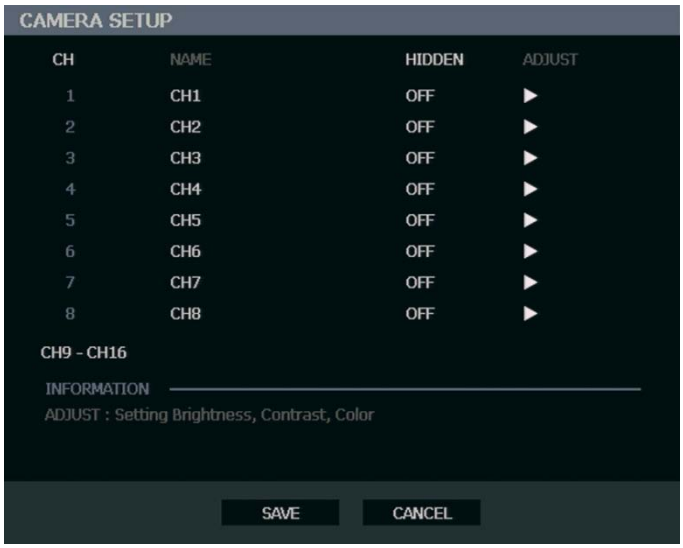
Use Shutdown to safely shutdown the system.

1. Select **SYSTEM > SHUTDOWN.**
2. Select **OK** to confirm and press ENTER to safely shutdown the system.
3. 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**

Note **HIDDEN** on the CAMERA SETUP page hides cameras from the main monitor (VGA/MAIN BNC) 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

Color Setup (Adjust)

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

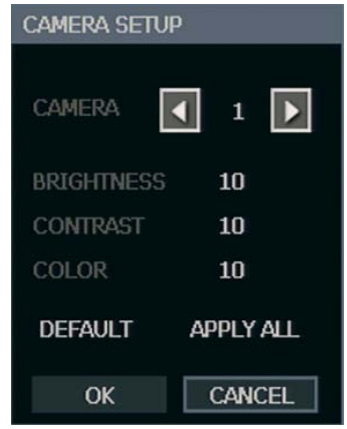
BRIGHTNESS – 0 ~ 20

CONTRAST – 0 ~ 20

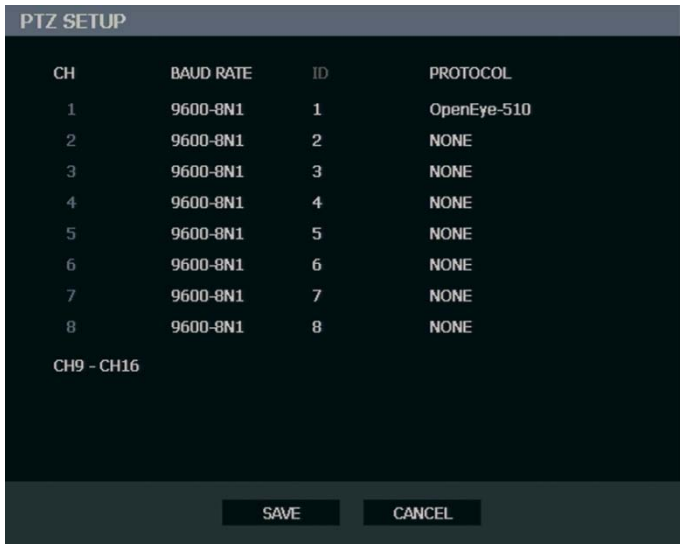
COLOR – 0 ~ 20

DEFAULT – Apply default system color settings

APPLY ALL – Apply current color settings to all cameras



PTZ Setup



CH – Camera Channels

BAUD RATE – Sets the port information for the connected camera. [Consult the documentation provided by the camera manufacturer to obtain this information.]

ID – Sets the PTZ ID from 1-255

PROTOCOL – Select a PTZ protocol

Spot / Sequence Setup

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

SPOT – Configure the SPOT OUT connection.

INTERVAL – **1 ~ 100** seconds [Set the sequence interval time].

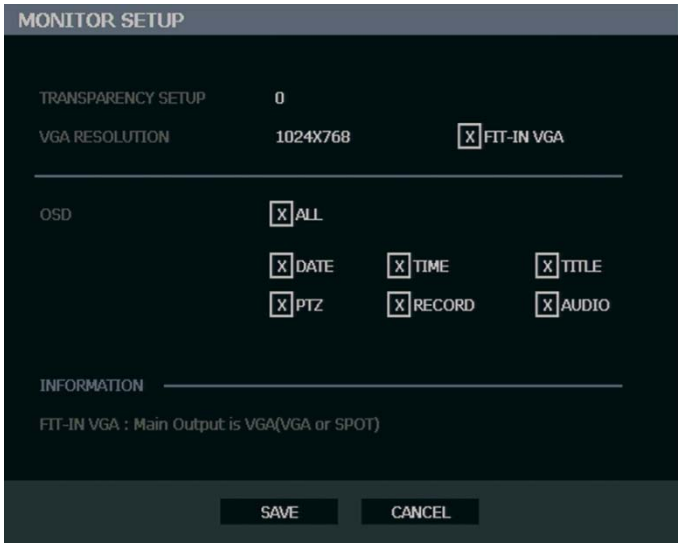
POPUP – **ON / OFF** [When set to **ON**, this function interrupts the sequencing when an event occurs, and switches to the event channel.]

CHANNEL SELECT – **1~16** / **ALL** [Select cameras to include in sequence.]

SEQUENCE – Configure the appearance of the sequence on the live view screen (MAIN/VGA).

PAGE DWELL TIME – **0 ~ 100** seconds [Set the sequence interval time for full page].

Monitor Setup



TRANSPARENCY SETUP – 0 ~ 20 [Set the transparency of the setup windows].

VGA RESOLUTION – Set monitor resolution.

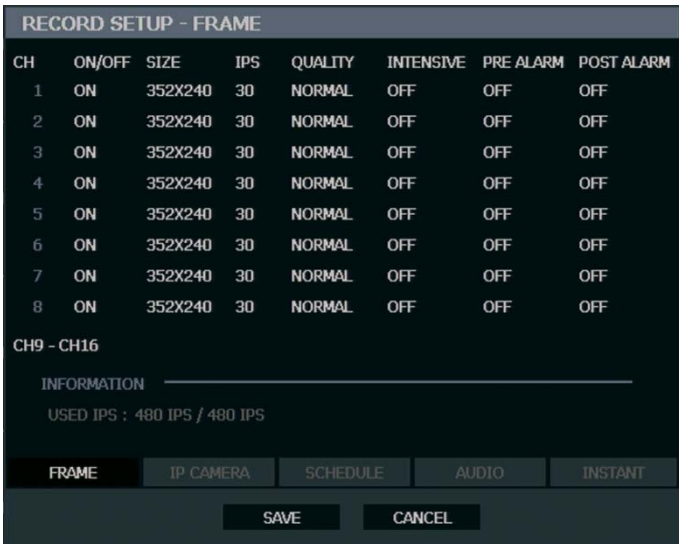
FIT-IN VGA – Adjusts the display to display properly on a VGA monitor. When the FIT-IN VGA check box is cleared, the display is adjusted to display on a monitor connected to the MAIN BNC output.

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

RECORD

Recording Setup

Frame



ON/OFF – Enable or disable recording on individual camera channels.

SIZE – **352×240 / 704×240 / 704×480.** [Resolution]

IPS – **1~30** [Recording Images Per Second]

QUALITY – LOW / NORMAL / HIGH / HIGHEST

INTENSIVE – **ON/OFF** [Intensive Recording on sensor or motion event]

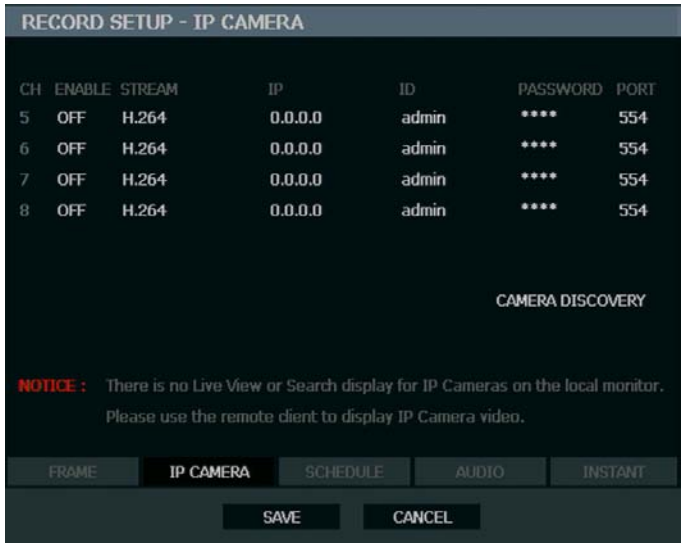
Note When a motion or sensor event occurs, INTENSIVE RECORDING automatically increases the recording rate to the maximum IPS that is available (based on your current recording configuration frame rate) up to 30 IPS per channel. If events occur on multiple channels with intensive recording enabled, the available IPS is evenly distributed across those channels.

PRE ALARM – **0~5** seconds [Pre-Alarm Recording]

POST ALARM – **0~30** seconds [Post Alarm Recording]

USED IPS – This displays the images per second (IPS) currently used, and the total available IPS.

IP Camera

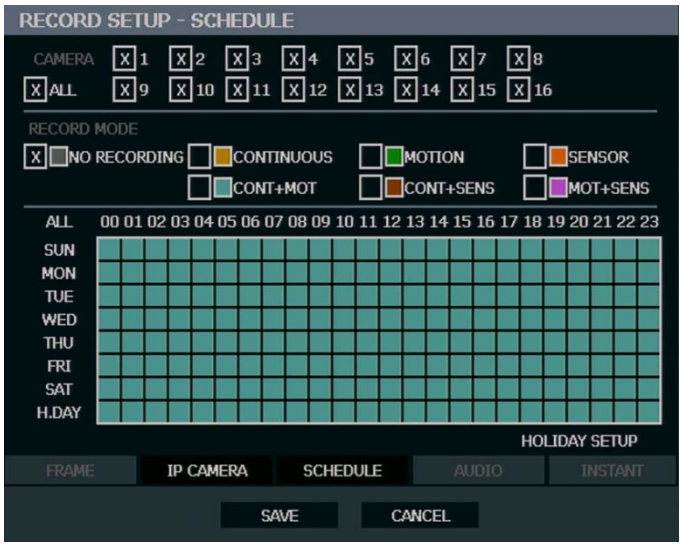


The IP camera option in the E-Series recorder is a beta feature included for limited field tests by OpenEye. Implementation is not yet complete, and this function is not intended for use as a commercially supported feature.

Schedule

Set the recording schedule for each camera:

1. Press MENU on the front panel or remote control.
   or
   Click **MENU** on the Mouse-over menu and select **SETUP**.
2. Select **RECORD > SCHEDULE**.
3. Select a camera to create a recording schedule, or select **ALL**.
4. Select the check box of the desired **RECORD MODE**.
5. Click hour block or the day of the week to set the entire day.



NO RECORDING	No recording.
No Color	Even if you set recording frames and select ON in **RECORD > CAMERA**, the recorder will not record anything if you set **OFF** in **RECORD > SCHEDULE**.
CONTINUOUS	Continuous recording.
Yellow	
MOTION	MOTION-detection recording.
Green	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 CONFGURATION** and set **CONT + MOT** in **SETUP > RECORD > SCHEDULE** the recorder will NOT record when motion is detected.

SENSOR	Sensor-activated recording.
Orange	In sensor mode, the unit will record when a sensor is triggered - during **DURATION** time as set in **RECORD > MOTION /EVENT CONFGURATION > ACTION.**
CONT+MOT	Continuous and motion detection recording
Sky Blue	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 CONFGURATION** and set **CONT + MOT** in **SETUP > RECORD > SCHEDULE** the recorder will NOT record when motion is detected.
CONT+SENS	Continuous and sensor-activated recording
Brown	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	Motion detection and sensor-activated recording.
Lilac	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. Press MENU on the front panel or remote control.
   or
   Click **MENU** on the Mouse-over menu and select **SETUP.**
2. Select **RECORD > RECORD SETUP > SCHEDULE**.
3. Create a recording schedule in the **H.DAY** row.
4. Select **HOLIDAY SETUP**.
5. Select **DATE** and set the date using the on-screen calendar.
6. Type a description in the box next to the **DATE** box using the on-screen keyboard.
7. Select **ADD** to add the holiday.

Audio

MAPPING AUDIO TO VIDEO – Associate cameras to the appropriate audio channel.

AUDIO IN – Turn audio channels **ON / OFF** to enable each audio channel for recording.

AUDIO VOLUME – Set audio volume (**1~15**).

TWO WAY AUDIO – Turn two way audio **ON / OFF**.

Emergency Recording

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

Emergency Record:

IPS – Set the images (frames) per second (recording rate per camera).

QUALITY – Set the picture quality (affects file size).

SIZE – Set the resolution of the video image.

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, DVD/CD). 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.

Using Emergency Recording

To activate Emergency Recording on the recorder:

- Press the REC key on the remote control, or click the **Emergency Recording** button on the mouse-over OSD menu.
  The **E-REC** recording icon will appear in the lower right corner of the screen.

To cancel Emergency Recording:

- Press the REC key on the remote control, or click the Emergency recording button on the mouse-over OSD menu.
  The recorder will resume scheduled recording.

Using Instant Backup

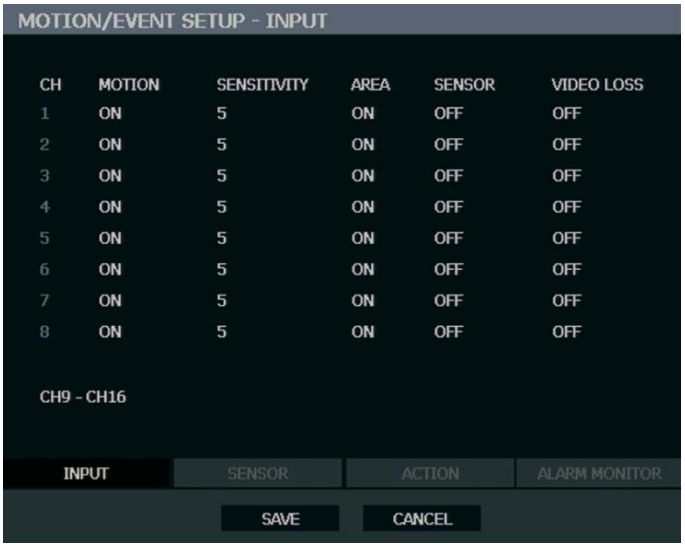
Use the Instant Backup feature to easily back up video to a pre-determined location. All users can quickly and easily create a backup of the most recent recorded video at the push of a button.

1. Insert Media.
2. Log into the recorder.
3. Press INSTANT BACKUP.
   The recorder will back up the most recent video as specified.

Motion/Event Setup

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

Input



CH – ▲ Channels 1-8 / ▼ Channels 9-16

MOTION – **ON / OFF** [Specify whether to use motion input or not.]

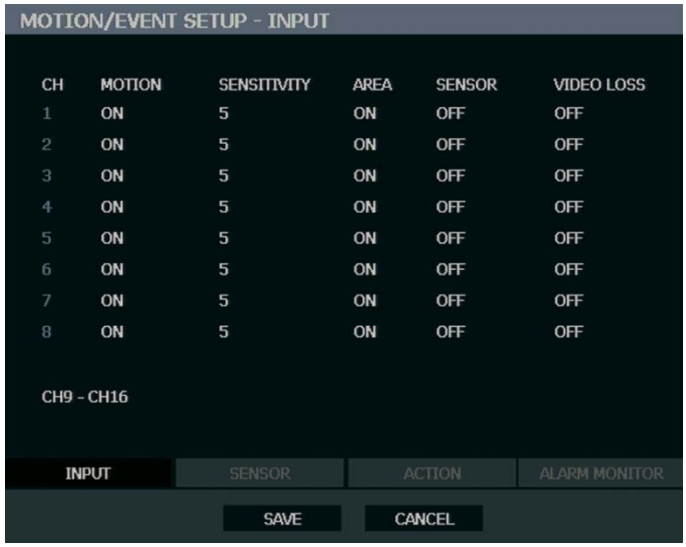
SENSITIVITY – **1~10** (1 = least sensitive, 10 = most sensitive)

AREA – Define the motion detection area.

SENSOR – Associate a sensor with the camera channel.

VIDEO LOSS – Associate a channel to monitor for video loss detection.

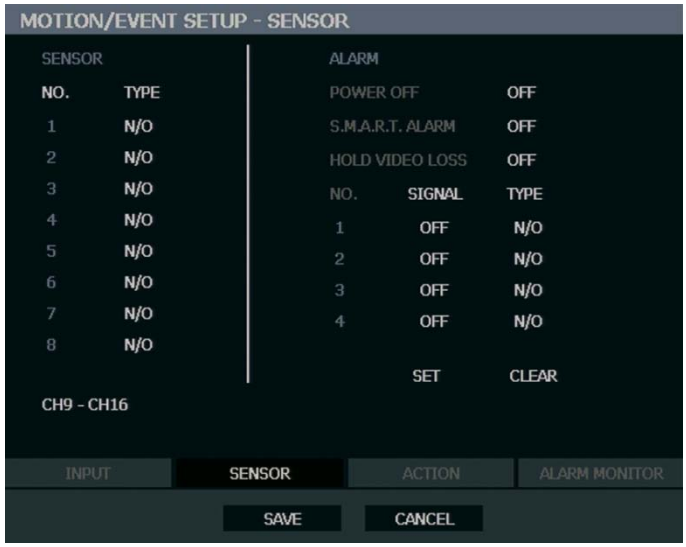
Setting Up Motion Detection Recording



To record data only when motion is detected:

1. Press SETUP on the front of the recorder or remote control.
2. Select **RECORD > MOTION/EVENT SETUP** and set **MOTION** to **ON**.
3. Set the motion **SENSITIVITY** level. [**1~10**].
4. Select **AREA** and press ENTER to set a motion area (global setting; each channel can be configured individually).
5. Use the mouse to select or clear squares on the grid:
   - **a)** Right click and select **CHANNEL SELECT**.
   - **b)** Click the squares to include in the motion grid.
   - **c)** Right-click again and select **SAVE** to save the selected motion grid.
6. When finished selecting motion areas press ENTER on the front of the recorder or remote control to save changes.
7. Repeat as necessary for each channel.
8. When motion area setup is complete select **SAVE** to save settings and exit setup.

Sensor



Sensor Setup

1. Use the arrow buttons to select Sensor 1 and press ENTER to change to **N/O** (Normally Open) or **N/C** (Normally Closed).
2. Repeat for all sensors.
3. Select **SAVE** and press ENTER to save settings.

Alarm Setup

1. Use the arrow buttons to select Alarm1 and press ENTER to turn the **SIGNAL** to **OFF** or **ON**.
2. Set each Alarm to **N/O** (Normally Open) or **N/C** (Normally Closed).
3. Repeat for all relays.
4. Select **SAVE** and press ENTER to save settings.

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. 4 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

CH – ▲ Channels 1~8 / ▼ Channels 9~16

Alarm – **OFF** / **1~4** [Associate an alarm relay with a channel].

Delay – **0~100** Seconds [Delay time before relay activates].

Duration – **0~100** Seconds [Time that the relay is active].

Preset – **0~100** [Enable PTZ camera to move to a preset position when an event occurs. See PTZ Control for more information.]

NOTIFY – **BUZZER/POPUP** [Type of alarm with event].

Alarm Monitor

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

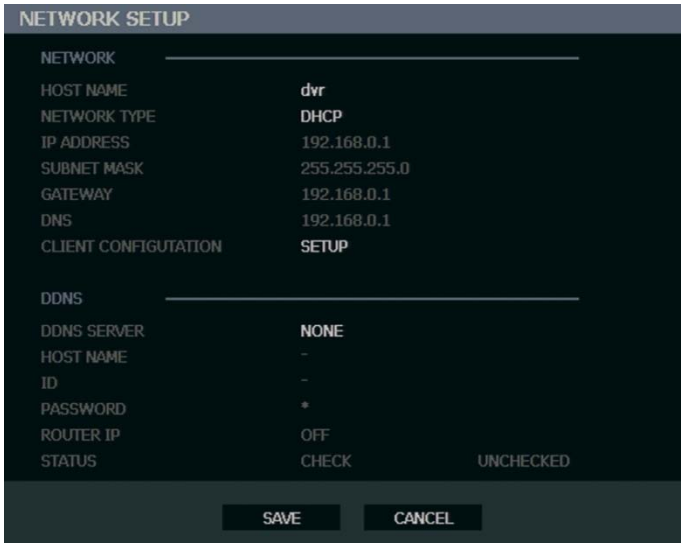
1. Select **SEND TO ALARM MONITOR** and press ENTER to select ON.
2. Select the types of events to send to the Emergency Agent (**MOTION**, **SENSOR**, **MOTION + SENSOR**).
3. Enter the **IP ADDRESS** of the remote client.
4. Enter the **PORT** number.

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

HOST NAME – Hostname for the recorder on the network.

NETWORK TYPE – **STATIC IP** (User must manually define a static IP address. Contact your network administrator for this information.)
DHCP (System gets IP address automatically from a DHCP server.)

IP ADDRESS – **DHCP** or **STATIC**. Contact your network administrator for this information.

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

CENTER PORT – The E-Series recorder uses 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 – The E-Series recorder uses 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. (ex: 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 (ex: 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.

Network Setup continued

DDNS - DDNS (Dynamic Domain Name Service) 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.

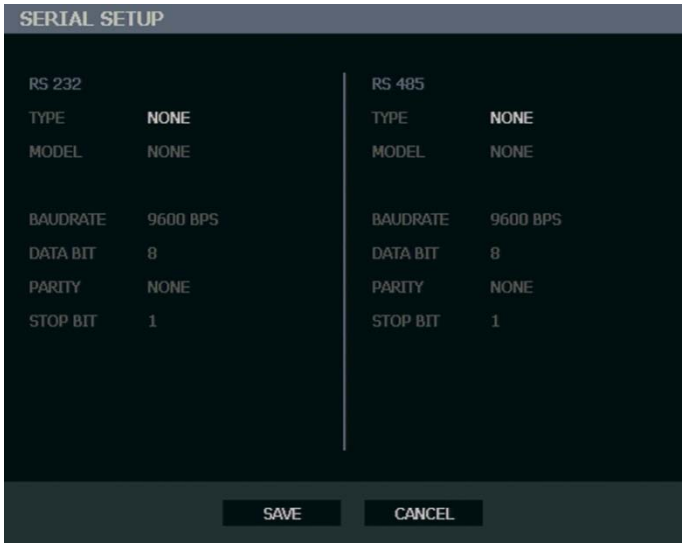
ID – Username for the DDNS server account.

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.



TYPE – **NONE / EXTERNAL CONTROLLER**

MODEL – Select appropriate model.

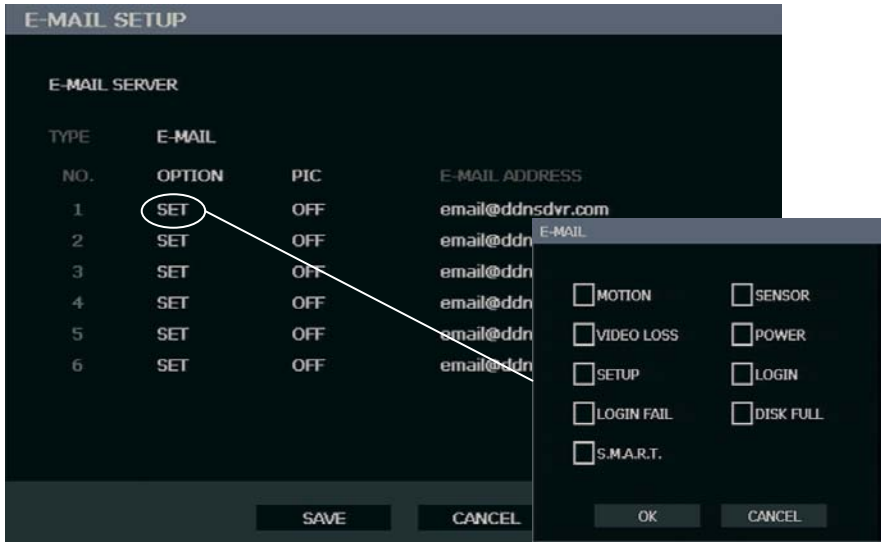
Port Information

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 SERVER – **DVR / SMTP** [Configure the recorder to use selected e-mail server.]



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 DVR 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.]

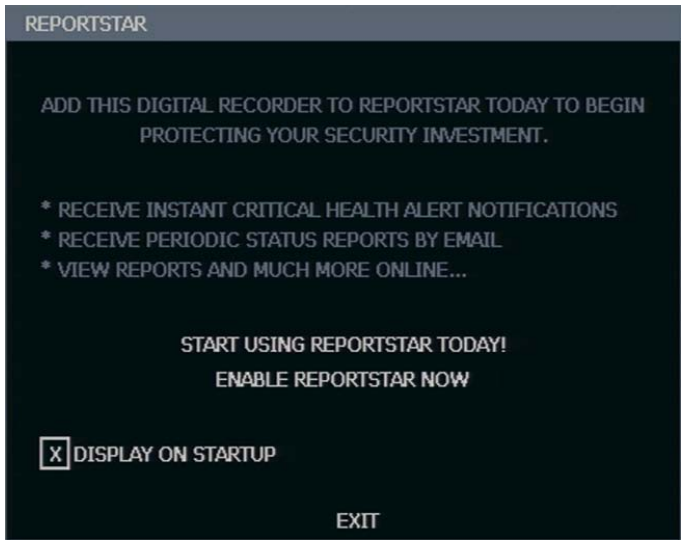
E-MAIL ADDRESS – Enter the e-mail address.

ReportStar

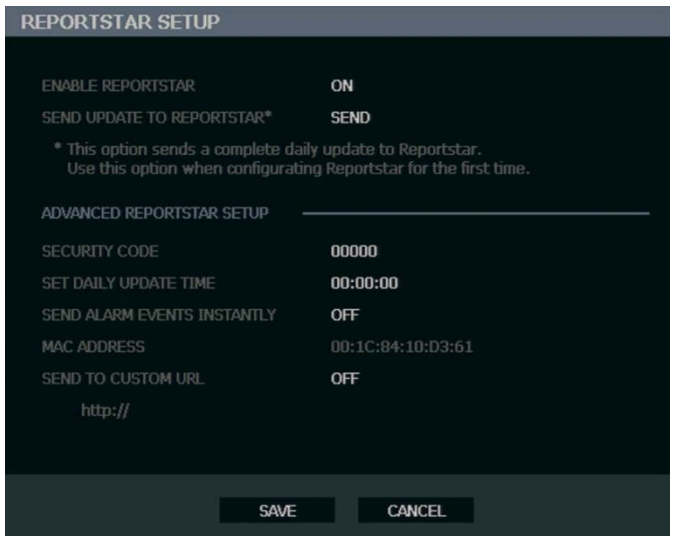
To enable ReportStar on your recorder during the initial configuration:

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**.

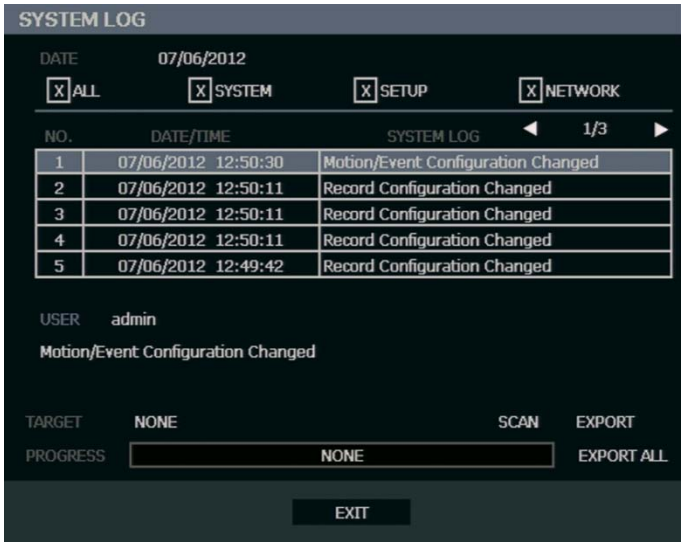


2. Log in using the admin user account. (default username: **admin**, password: **<blank>**)
3. Set the **DAILY UPDATE TIME**.
4. Click **SEND** next to **SEND UPDATE TO REPORTSTAR** to send a test report to ReportStar.
5. To send Alarm Events to ReportStar, set **SEND ALARM EVENTS INSTANTLY** to **ON**.
6. Click **SAVE** to save your settings.



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.



Version View

Displays system information and software version information for the recorder.

Status View

Displays status screens for:

Disk

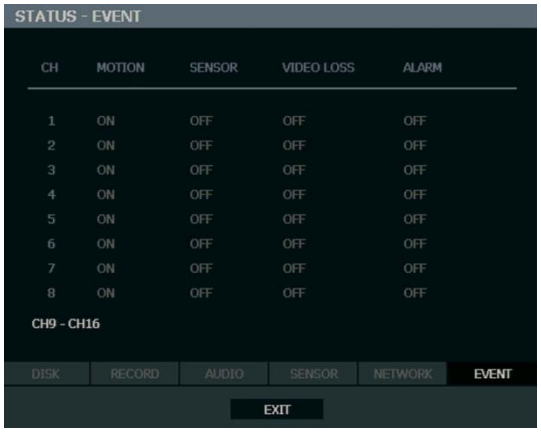
Record

Audio

Status View continued

Sensor

Network



Event

Notes:

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:

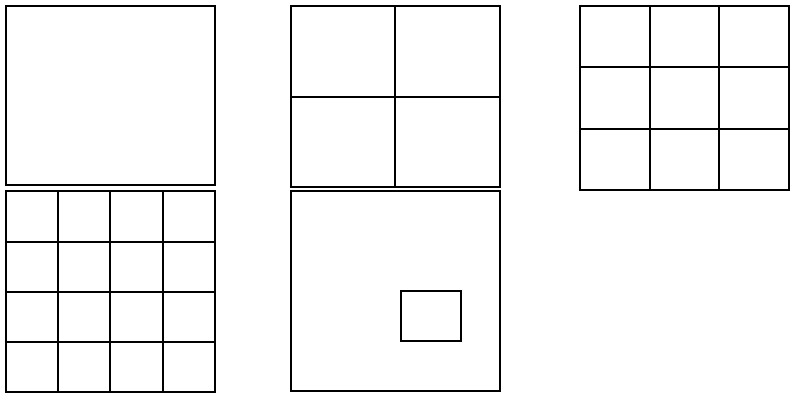
USER: **admin**
PASSWORD: **<blank>**

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 and Picture in Picture (PiP) 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.

Icons

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

Right-upper corner on each CH.

	Continuous Recording
	Motion Detection Recording
	Sensor Activated Recording
	Continuous + Motion Alarm Recording
	Continuous + Sensor Activated Recording
	Motion Detection + Sensor Activated Recording
	Emergency Recording
	Sensor Activated
	Motion Detected
	Audio Channel
	PTZ Camera

Right-bottom corner on full screen.

	No HDD, Smart Alarm & HDD Failure
	Using Emergency Recording
	Using PTZ
	Warning for exceeding temperature
	Showing sequence mode
	Showing digital zoom mode

Mouse-Over Menu

Move the mouse to the bottom of the monitor in live mode. The mouse-over menu will instantly appear.

Sequence – Click to start camera sequence.

Emergency Recording – Click to start instant recording. In instant recording mode, the system records all channels at the recording rate configured on the Emergency Recording screen.

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.

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 the you places the mouse pointer in the lower portion of the screen.

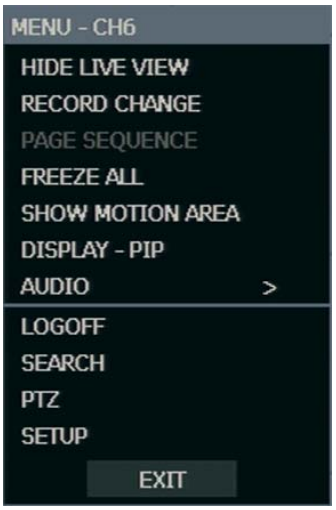
Note If there is no icon in the right upper corner of the live screen mode, it means that the system is not currently recording. If this is the case, you should check the recording schedule or camera setup in the main setup menu.

Instant Recording

The remote controller has an Instant Recording button. Press the button with the red dot to instantly start recording all the channels at the recording rate configured in Emergency Record setup. All the channels, regardless of recording mode & recording on/off, will record.

will show in live mode and a red bar represents Instant Recording video in the graphic search bar.

Popup Menu



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

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

RECORD CHANGE – Change the recording settings for that channel including PPS, quality, resolution and event response.

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

FREEZE ALL – Pause all channels displayed on-screen.

SHOW MOTION AREA – Display the motion grid for the selected camera.

DISPLAY-PIP – Change screen display to Picture in Picture (PIP).

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

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 is shown 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 is not allowed 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 **TOOL** menu on the bottom of the main screen.

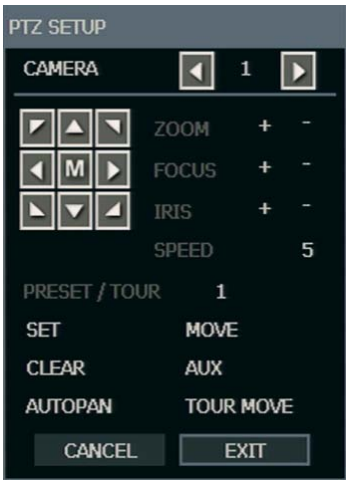
Drag the mouse up/down or left/right to move pan/tilt position of the camera. As you move the mouse away from the center of the screen, the camera movement speed increases. You can also zoom-in/out by using the scroll wheel on the mouse.

Note Full PTZ functions are available using the front panel buttons, a mouse, the IR remote control, 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 though all preset positions. Can only be enabled while in full screen mode.



Create PTZ Preset Position

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

SEARCH

Searching Recorded Data

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

1. Press the SEARCH key on the front of the recorder or the remote control to enter Search Mode.
2. Select **TARGET** media (**HDD, DVD-RW, USB**).
3. Select the desired search method.

Quick Search

- Click the ▶ button on the mouse-over menu bar to automatically playback the latest video clip.
- Using the playback control icons, you can search recordings and control the speed of the playback by 2x, 4x, 8x, 16x, or 32 times to the forward or backward directions.

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)

Quick Backup in Search Mode

You can easily archive video while watching a video playback.

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 (CD/DVD or USB thumb drive) and execute the backup.

Express Search

Select a specific date and time to search for recordings:

1. Press SEARCH on the front panel or remote control and then select **EXPRESS SEARCH**, or
   Click **MENU** on the Tool menu, select **SEARCH** and then select **EXPRESS SEARCH**.
2. Select a date from the list.
3. 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.

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.

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 remianing entries for each date. You can filter the log results by **SENSOR, MOTION, VIDEO LOSS,** and **DISK FULL**.

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

1. Insert a CD/DVD or USB device in 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.

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.

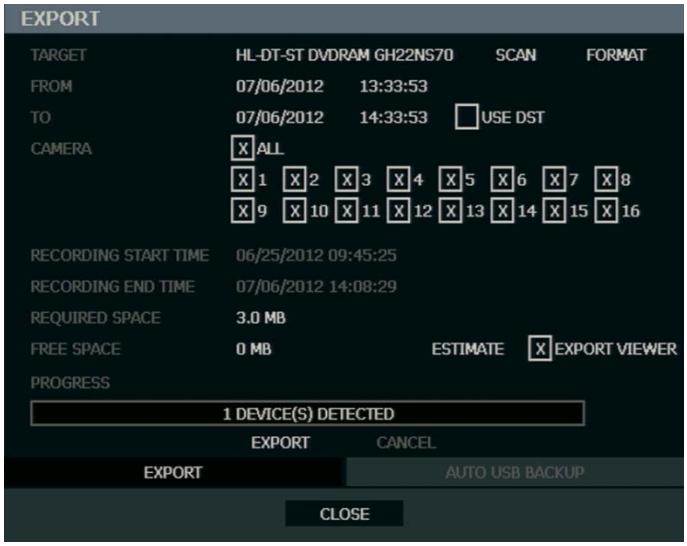
Note **SAVE JPEG** is only available when a single camera is selected. To activate, select a single channel (full screen), pause playback, and press ENTER twice, or right click the channel to open the popup menu.

BACKUP (EXPORT)

Manual Export

Back up recorded data on a CD-RW, DVD-RW or connected USB device.

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



To configure a data backup:

1. Press BACKUP on the front panel or remote control.
   or
   Click **MENU** on the hover menu and select **BACKUP**.
2. Connect a USB device or insert a CD/DVD.
3. Select **SCAN** to locate the device.
4. Select the desired **CAMERA**s and the **FROM** and **TO** time for the backup.
5. Select **ESTIMATE** to display estimated data size and free space available.
6. Select the **EXPORT VIEWER** check box to add the Export Viewer to the backup file.
7. Select **EXPORT**.

Note The recorder supports DVD+R, and DVD-R. DVD-RW/+RW may not operate correctly.

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.

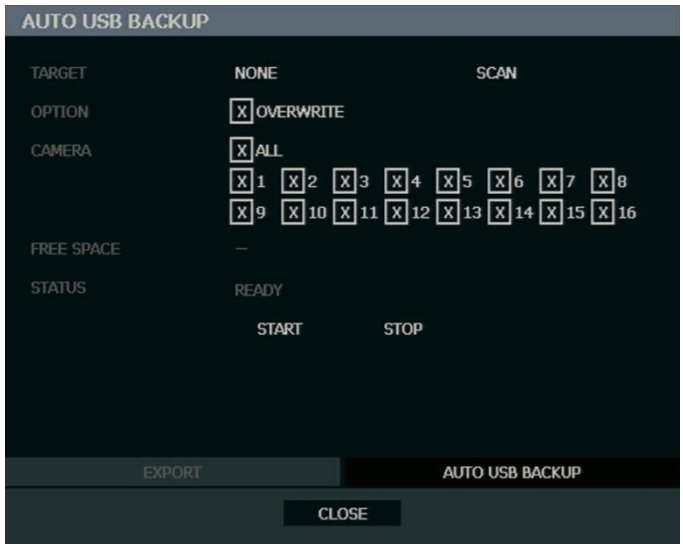
Note **ESTIMATE** must be selected first, before **WRITE**. If any backup parameters are changed (Date, Time, Channels) you must select **ESTIMATE** again.

Caution Do not shutdown the system during the backup process.

Auto USB Export

Create a mirrored backup of recorded data on a connected USB external hard drive.

Caution OpenEye recommends the use of hard drives only; the use of flash drives is not recommended for auto backup**.**

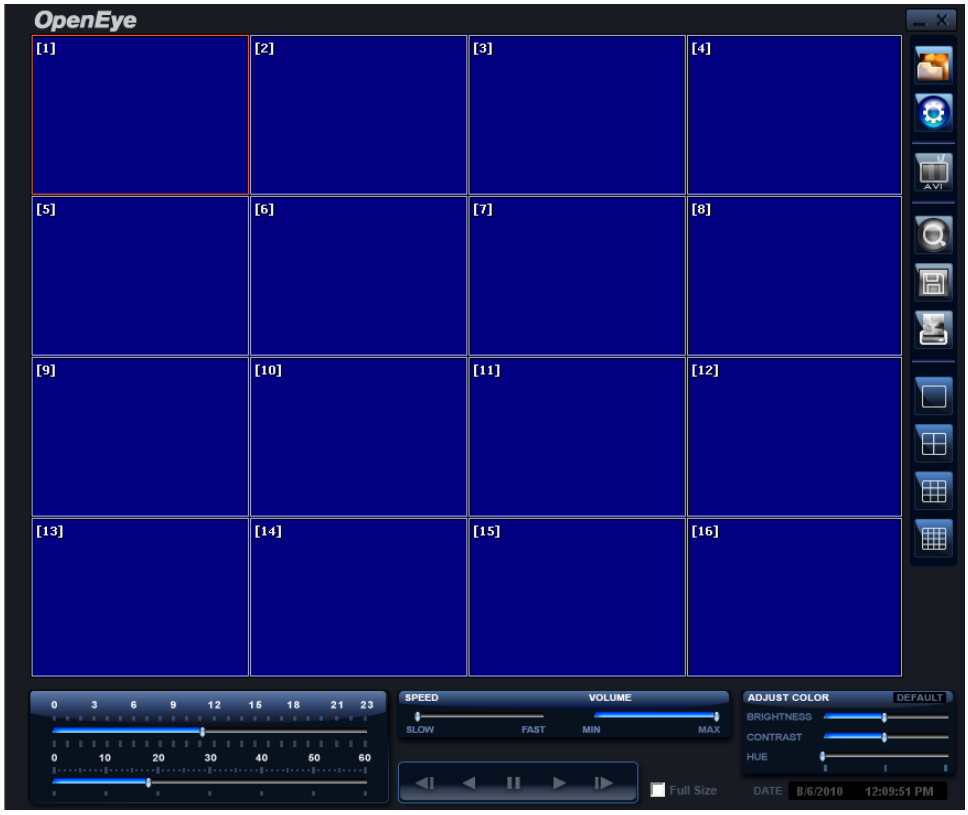


1. Press BACKUP on the front panel or remote control and log in.
2. Select **AUTO USB BACKUP**.
3. Connect a USB hard drive to the recorder.
4. Select **SCAN** to locate the drive and then select **TARGET**.
5. Select the **OVERWRITE** check box if you want to enable the recorder to write over the oldest data when the drive is full.
6. Select **CAMERAS** to include in backup.
7. Select **START** to start backup.

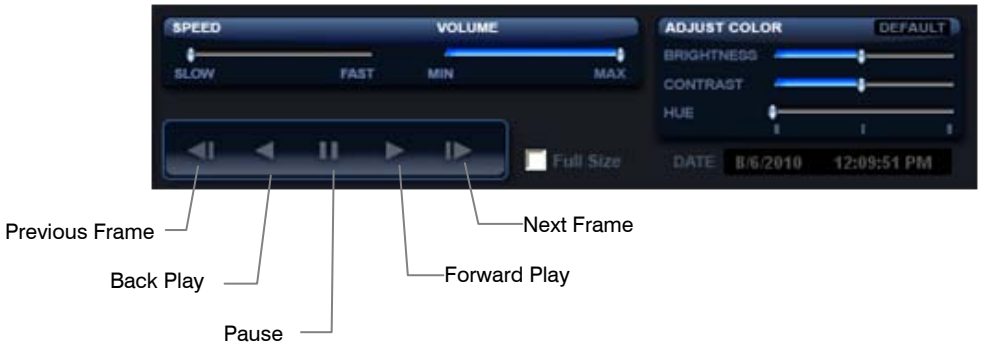
Caution Do not shutdown the system during the backup process.

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. Insert CD, DVD or connect external USB device to the PC.
2. Navigate to the files on the CD, DVD, or USB drive.
3. Double-click the **BKPlayer** 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.

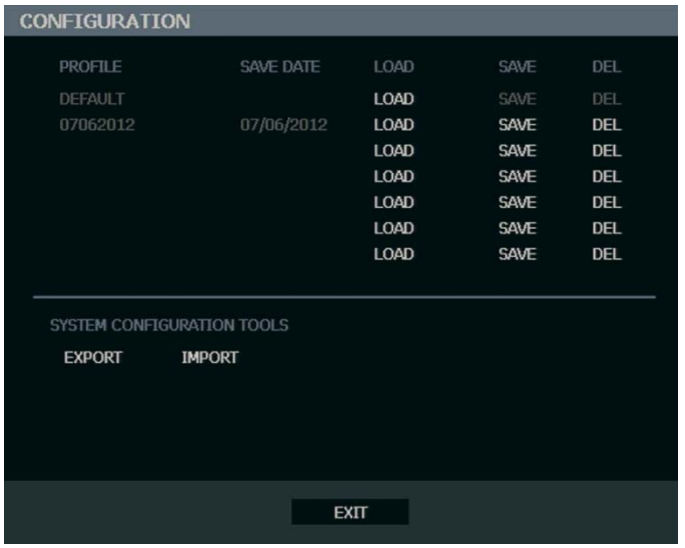
UPGRADE FIRMWARE AT THE DVR

Obtain the latest software release and save the file to a CD, DVD or USB Device. Please check the product web site at www.openeye.net or contact Technical Support for the latest software. See back cover for contact information.

1. Insert a CD/DVD or USB Drive containing the update files.
2. Select **SYSTEM > SYSTEM SETUP**.
3. Select **S/W UPGRADE** to open the **UPGRADE FIRMWARE** window.
4. Select the media type (**DVD/CD-ROM / TFTP / USB HDD/STICK**).
5. Click **SCAN**.
6. Click **OK** to start the upgrade.

SAVE SETTINGS

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



Save Settings

1. Press the SETUP key on the front of the recorder or remote control to log in.
2. Select **SYSTEM > SETUP**.
3. Select an empty **PROFILE** and define a name for the settings configuration. To save settings to a USB device, select **EXPORT**.
4. Select **SAVE** and confirm to continue the export process.

Import Settings

1. Press the SETUP key on the front of the recorder or remote control.
2. Select **SYSTEM > SETUP** and log in.
3. Select a previously saved **PROFILE** and select **LOAD**. To import a profile saved on a USB device, select IMPORT.
4. Select **OK** and press ENTER on the front of the recorder to complete the import process.

REMOTE SOFTWARE

SET UP A REMOTE CONNECTION

The administrator and up to nineteen additional users (four simultaneously) can access the recorder remotely using software installed on a personal computer.

Configuring the Recorder

1. Press SETUP on the front of the recorder or remote control to log in.
2. Select **NETWORK > NETWORK SETUP** (see the Network Setup section of this manual for more details).
3. Change port settings or write down current port settings.
4. Select **DHCP** or **STATIC IP** depending on your network (Ask your network administrator for assistance).
5. If **STATIC IP** is selected - define the IP address and additional network information.
6. If **DHCP** is selected - write down the IP address supplied by the recorder system.

Note If the recorder does not display the IP Address after setting **DHCP** to **ON**, Select **SAVE** to change the network and open Network Setup again.

7. Select **SAVE** to save current settings.

Creating a Recorder Connection with Remote Software

1. Install the Remote Software on a PC using the disc provided with your recorder.
2. Open the Remote Software. The Local Setup window will open automatically.
3. Click **New**.
4. Select **OE3-E240** or **OE3-E480** as the **Site Type**.
5. Enter a name for the system in the Site Name box.
6. Enter the IP address of the recorder - found in **NETWORK > NETWORK SETUP** on the recorder.
7. Enter the Port number found in **NETWORK > NETWORK SETUP** on the recorder (default is 2000).
8. Click **OK**.
9. Enter the user name and password of an authorized user as defined in **SYSTEM > USER SETUP** on the recorder.

Note User Name and Password are both case sensitive.

10. Click **Connect**.

Default Remote Software Log in Information

The default administrative log in information for the remote software:

User Name: admin

Password: <none>

ACCESS REMOTE CONNECTION

1. Open the Remote Software.
2. Click on the icon of the server as defined previously.
3. Enter the user name and password of an authorized user as defined in the **SYSTEM > USER SETUP** menu on the recorder.

Note **User Name** and **Password** are both case sensitive.

4. Click **Connect**.

Connecting Multiple DVRs

Connect up to four E240 or E480 recorders to the Remote Software to easily switch between recorders.

1. Configure all recorder connections as described above in Configuring a Remote PC.
2. After connecting to the first recorder, click **Connect** on the Display screen to open the Local Setup window.
3. Select a second pre-configured recorder and click **Connect**.
4. Use the drop-down menu in the lower left corner of the display screen to switch between the connected recorders.

USING THE REMOTE SOFTWARE

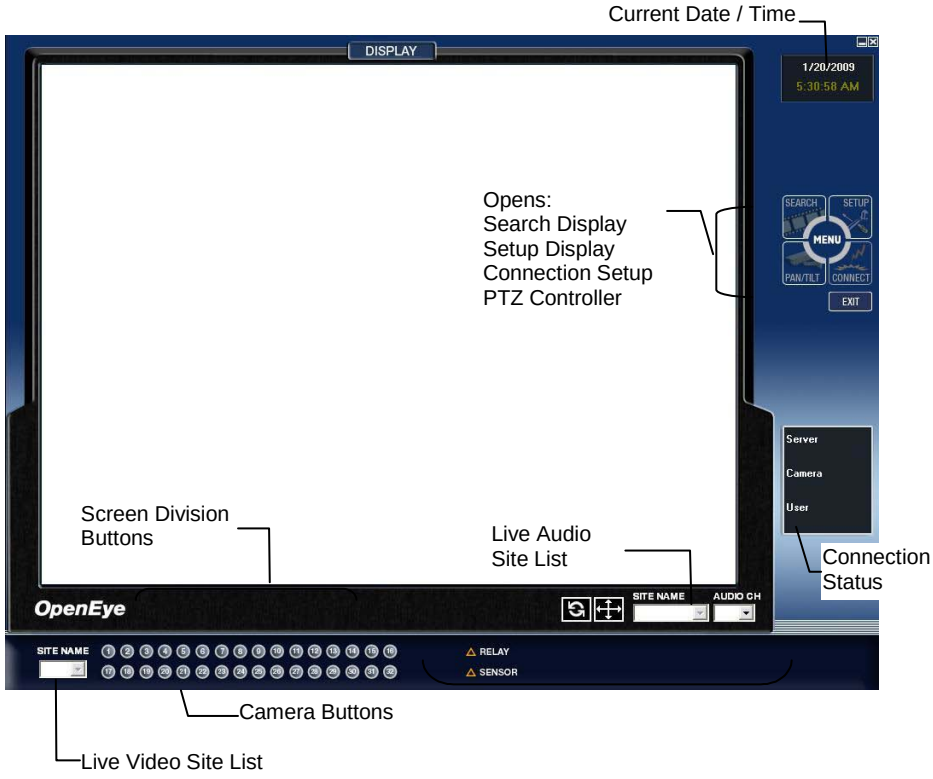
Setting the Time and Date

The Remote Software uses the system time of the PC. If the system time is not correct, follow the steps below to change it.

1. Exit to Windows by clicking the **Exit** button on the Live View screen and selecting **Restart** in Windows Mode.
2. Open Windows Explorer. Do this by right-clicking the **My Computer** icon (located on the top left hand corner of the Desktop) and select **Explore**.
3. Click **Control Panel** to open it. If you do not see **Control Panel** listed, click **My Computer** to expand the folder tree.
4. Double-click **Date** and **Time** in **Control Panel**.
5. Adjust the **Date** and **Time**.
6. When finished, close all windows and restart the PC. Do this by clicking **Start** (located on the lower left hand side of the Desktop) and selecting **Shut Down**.

Live View Screen

Each time the software is restarted, the program defaults to the Live View screen. The following diagram outlines the buttons and features used on the Live View screen. It is important to be familiar with these options as this is the screen displayed the majority of the time.



Camera View

The Recording Status is displayed on the upper right corner of each channel display in the Video Display Area.

Recording Status Indicator

The following are the different states for each camera:

●	Recording	Displayed when the camera is currently being recorded to the recorder.
▮▮	Motion Detection	Displayed when a camera (set up for motion detection) detects motion.
□	Display	Displayed when the camera is currently not being recorded to the recorder.

Screen Division Buttons

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

1st Four Cameras View – Displays cameras 1-4 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division Menu.

2nd Four Cameras View – Displays cameras 5-8 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division Menu.

3rd Four Cameras View – Displays cameras 9-12 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division Menu.

4th Four Cameras View – Displays cameras 13-16 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division Menu.

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

Full Screen – The Full Screen Option allows you to view the Video Display Area using the entire viewable area on the monitor. When this is selected, no menu options are visible. You can activate the Full Screen Option by clicking Full Screen within the Screen Division Menu. You can deactivate Full Screen mode by right-clicking on the screen.

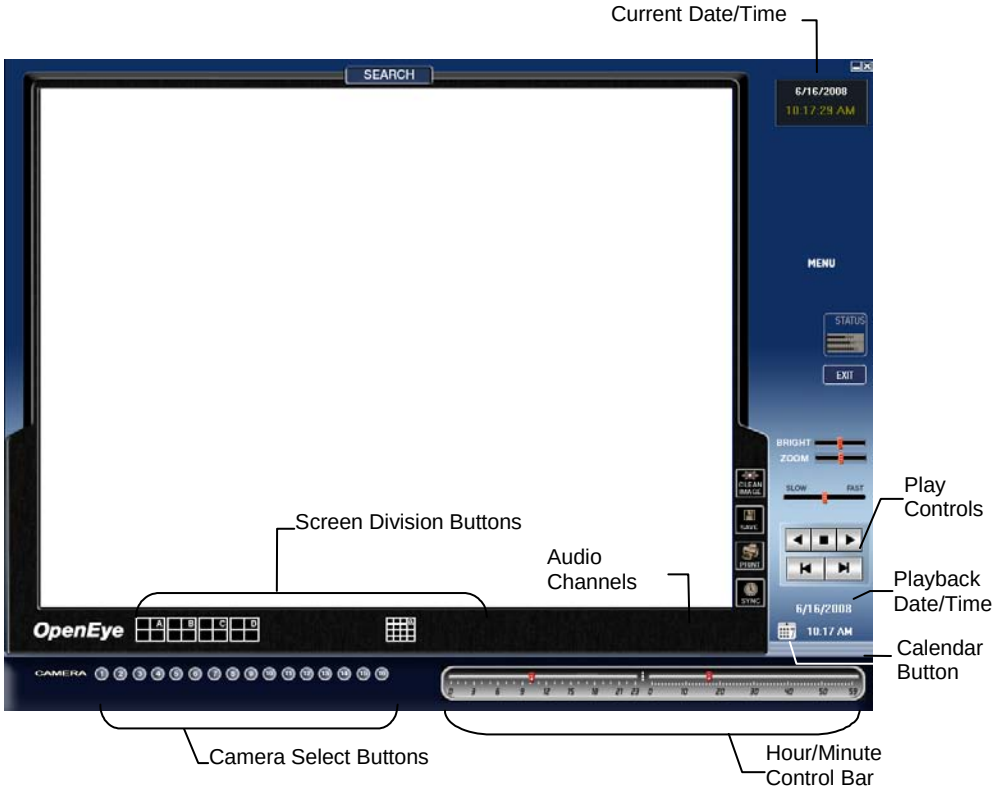
Auto Sequence – Sequences through the Screen Divisions sets. For example, selecting the 1A and then the Loop button will sequence through 1A, 2A, 3A, 4A and then repeat.

Setup Overview

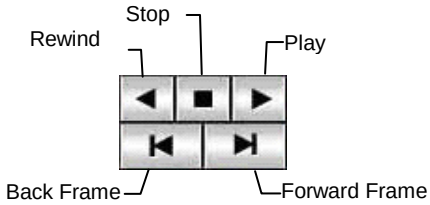
The remote setup screen is designed to look and feel like the local E240 or E480 interface. Remote users can access the System, Camera, Record, Network and Quick Setup details.

For details on how to configure the recorder using the setup options, refer to the Setup chapter in this document.

Search Overview



Play Controls



Back Frame	Moves video back one frame
Rewind	Rewinds video
Stop	Stops video playback
Play	Plays video
Forward Frame	Moves video forward one frame

Performing a Basic Search

1. Select a date using the **Calendar** button on the **Date Display**.
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.)

Adjust the Brightness of an Image

1. Pause the video and select an image to adjust by double-clicking the desired image. (Multiple images cannot be adjusted at one time.)
2. Move the Bright slide bar to the right or left to adjust the brightness.
3. Reset the Brightness by moving the slider back to the center of the bar.

Zooming in on an Image

1. Pause the video and select an image to adjust by double-clicking on the desired image. (Multiple images cannot be adjusted at one time.)
2. Move the **Zoom** slide bar to the right or left to zoom in or out of an image.
3. Reset the **Zoom** by moving the slider back to its original position on the bar.

Zooming in on a Portion of an Image

1. Using the mouse pointer, point to the area of interest on the image and click the right mouse button.
2. Keep clicking the right mouse button to zoom in further.
3. Continue clicking the right mouse button and the image zoom will cycle back to the original size.

Printing an Image

1. Using the Search screen, locate a frame to print and double-click the image.

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

2. Click the **Print** button. (A Print Preview window appears. Depending on the printer being used, there may be several printing options available. Refer to the printer manual for more information.)
3. Click the **Page Option** button to add a memo to the printout and set the paper size and orientation.
4. Click the **Print** button to print the selected images.

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

Save Clip

OpenEye Remote can export single images in the JPG file format, or save video clips in the AVI format. The JPG and AVI file formats are extremely common with universal computer support making them ideal formats to use. A digital signature is also attached to every JPG and AVI file exported from the recorder for use with the bundled Digital Signature Verifier application. This function is unique to the recorder and its verification software and should not interfere with viewing the files using other applications.

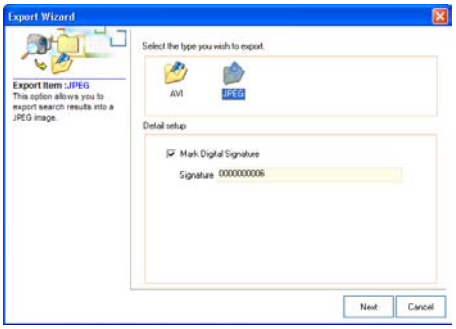
JPG

The format (JPG) is optimized for compressing full-color or grayscale photographic images. JPG images are 24-bit (16.7 million color) graphics. JPG is used 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 files save a video clip.

Saving a Video Clip



1. Perform a basic search to locate the desired clip.
2. Click **Save** to open the Export Wizard.
3. Click **JPEG** or **AVI** to select the desired file type.

AVI File

a) Select **Mark Digital Signature**.

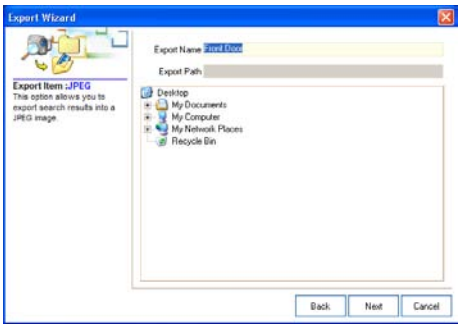
b) Select a Compression Codec. Each codec provides different levels of quality, compatibility and file-size.

c) Enter the duration (seconds) to record. Although 50 is the longest time displayed, a longer recording may be entered manually.

d) Select **Quality – 50 ~ 100**. When size is not an issue, set quality to 100.

JPEG File

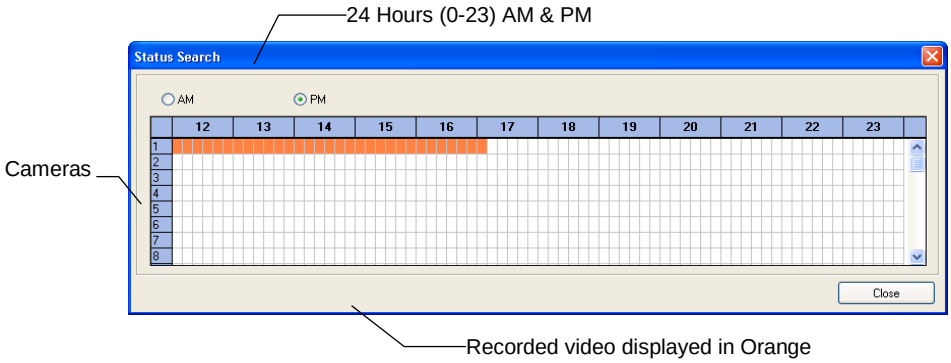
a) Select **Mark Digital Signature**.



4. Click **Next**.
5. Define the file name in the Export Name box.
6. Define the location to save the file by using menu tree below **Export Path**.
7. Click **Next**.
8. A message displays to confirm that the save was successful.
9. Click **OK**. The Export Wizard will display the name, location and size of the file.
10. Click **Finish**.

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 the **Date** button 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.

Accessing PTZ Menus

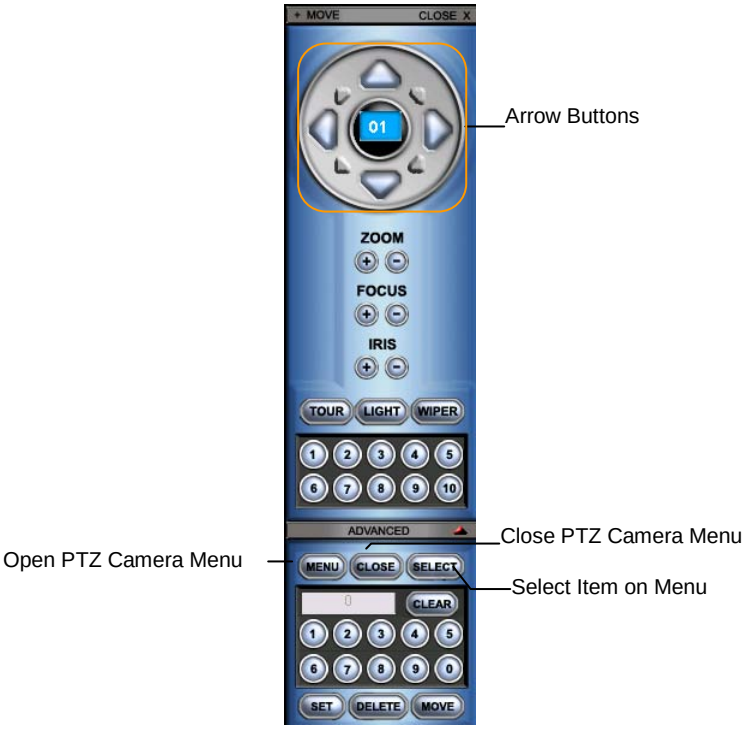
Some protocols support the ability to access the Internal PTZ Onscreen Menu. Click **Pan/Tilt** on the remote software Live View screen to open the graphical PTZ controller.

Some protocols support the ability to access the Internal PTZ Onscreen Menu.

Since every PTZ camera is different, the functions of these options can vary slightly.

The E240 and E480 recorders provide an easy way to access the cameras options. For explanations of what those options are please refer to the manual that came with the camera.

Note Use the arrow buttons on the PTZ controller move through the PTZ Menu options and/or highlight options.

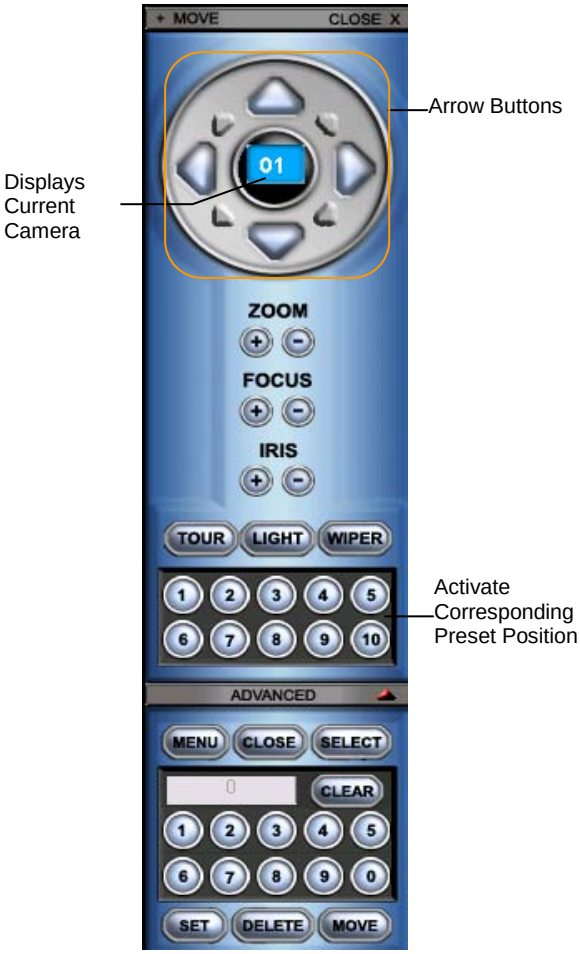


Controlling a PTZ Camera

- The first method is to use the graphical PTZ Controller that appears when **Pan/Tilt** is clicked on the Live View screen.
- The second method is to use the mouse to control the camera directly from the live video display.

Using the Graphical PTZ Controller

- Use the **Arrow** buttons to control the direction of the PTZ camera.
- To select a new camera, click the video display of a different camera on the Live View screen.



Note Eight directions are available only for select protocols. Only four of the PTZ Control buttons work for all protocols (**Up, Down, Left, Right**).

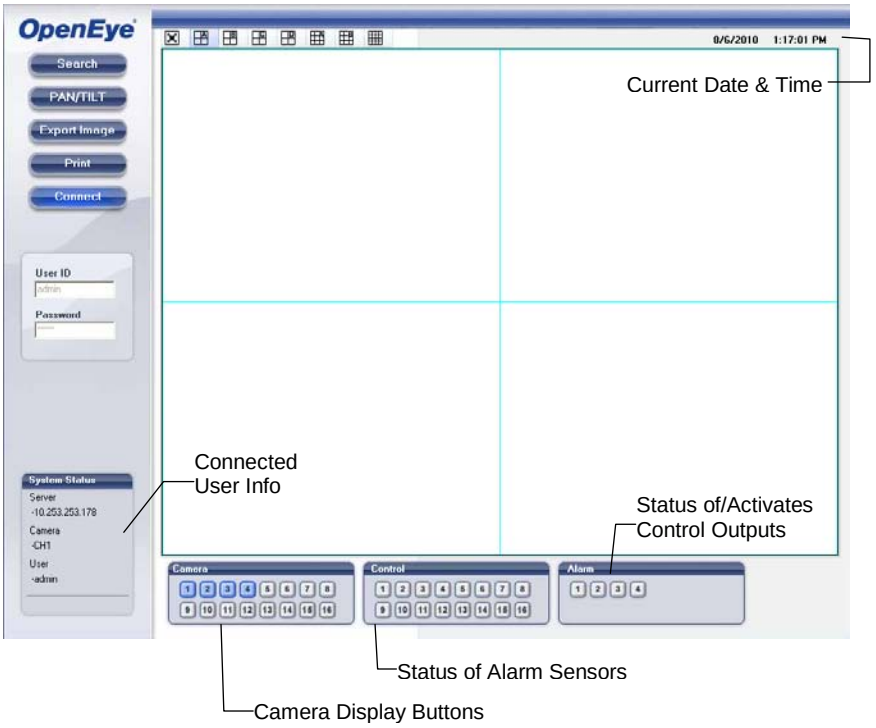
Using the On-screen Compass

1. Click **PAN/TILT** on the Live View screen.
2. Control the PTZ by dragging the mouse on the screen in the desired direction.
3. A green line will appear to show the direction the PTZ will move. The shorter the line the less the PTZ will move. The longer the line the more the PTZ will travel in the specified direction.

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.

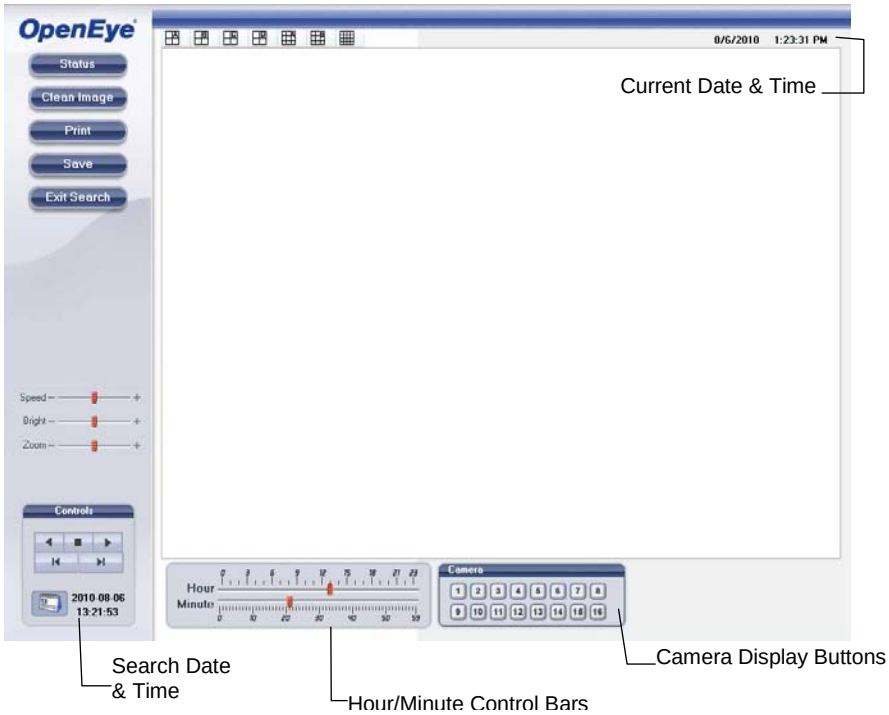
Connecting to a Recorder Using Web Viewer

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

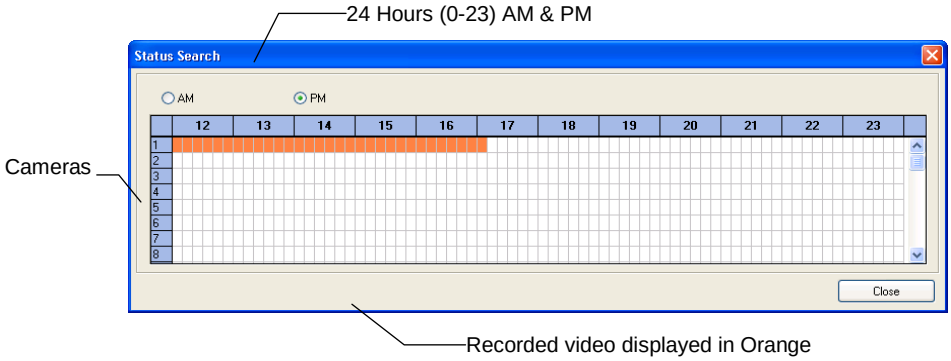


Performing a Basic Search

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 the **Date** button 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.

Clean Image

The E240 and E480 recorders can record video using one of three different resolutions. When using the 704 x 480 resolution, two fields are mixed. Because of the timing gap between the two fields, according to the standardized image rules, after image might occur to high speed moving images. The recorder allows the user to remove this by clicking Clean Image.

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.

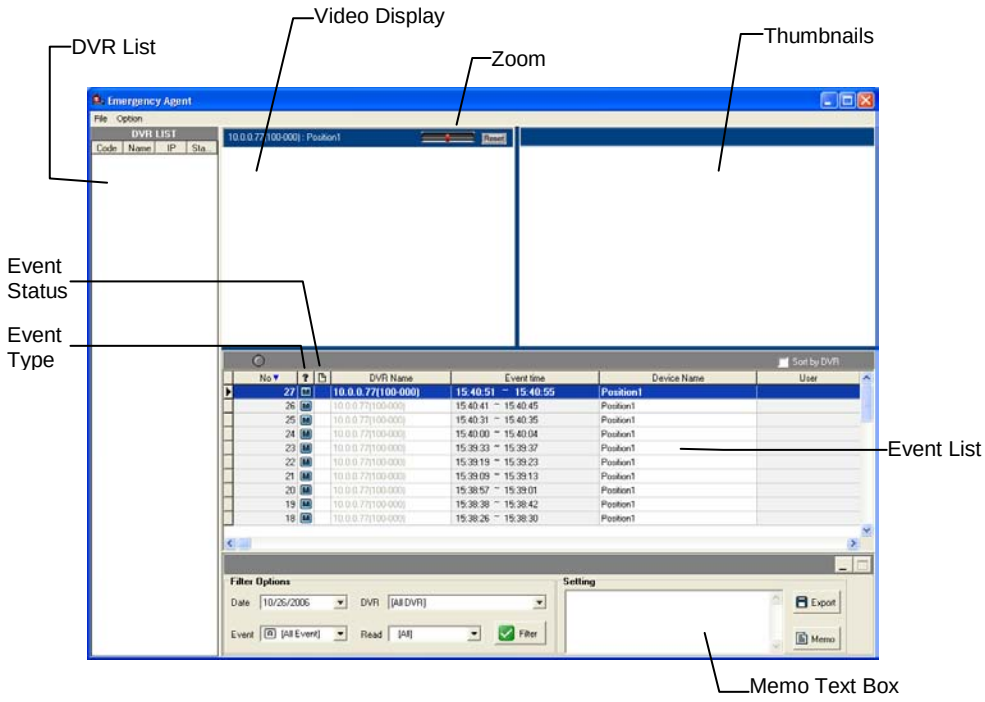
4. Click **Next** to select a save location to save file.
5. Click **Next** to start exporting the file. The **Cancel** button exits the window without exporting file.

EMERGENCY AGENT

OpenEye Emergency Agent is used to view emergency alarms from the connected recorders, including Video Signal Loss and Sensor alarms. Use the Filter Options to filter through the different types of alarms. After viewing event video, include a memo for future searches.

By double-clicking an alarm entry, the search window will open with the associated recorder, camera, and time related to the event already selected.

Note If all Alarm Event results are not visible, click **Off** to turn the Filter Options off



Connecting to a Recorder Using Emergency Agent

1. On the recorder go to **SETUP**.
2. Go to **RECORD > MOTION/EVENT SETUP > ALARM MONITOR**.
3. Set **SEND TO ALARM MONITOR** to **ON**.
4. Define the types of alarms to send to the Emergency Agent software (**MOTION**, **SENSOR**, **MOTION+SENSOR**).
5. Enter the IP Address of the computer running the Emergency Agent software.
6. Note the Port setting.

Note The Emergency Agent uses one port to transfer the data through. The port can be adjusted inside the Network settings if necessary. It is recommended that the default setting should be used unless the port must be changed.

7. Create a schedule for the appropriate sensors and cameras.

Assign Status Settings

In Emergency Agent on the PC:

1. Select an Alarm Event from the list.
2. Right-click the event and select a status level: **Default**, **Review**, **Dismiss**, or **Critical**.
3. Select a defined **Alarm Confirmed Type** from the list under **Status Setting**.
4. Type a memo in the **Memo** box and click the memo button.

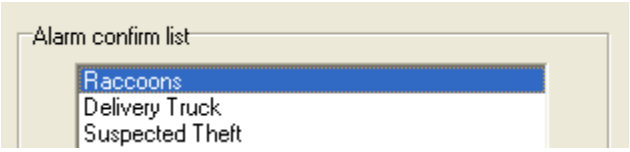
Set up EA Options

In Emergency Agent on the PC:

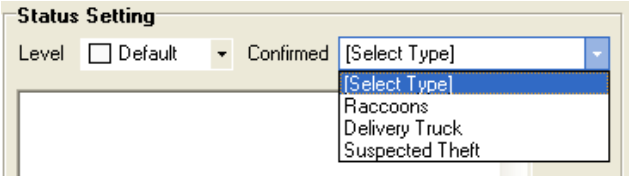
1. From the Option menu, click **Setup**.
2. Enter the Network Port number. This port number is located on the Alarm Monitor page on the recorder. **RECORD > MOTION/EVENT SETUP > ALARM MONITOR**.
3. Select **Show Popup Messenger** if desired.
4. Select a sound option for alarm events.
5. Add items to the **Alarm Confirm List**.
6. Click **OK** to save changes and close the window.

Add Items to Alarm Confirm List

1. Type the desired text in the box below the Alarm confirm list.



Note The items in the Alarm Confirm List will be available on a list under Status Setting in the Emergency Agent window.

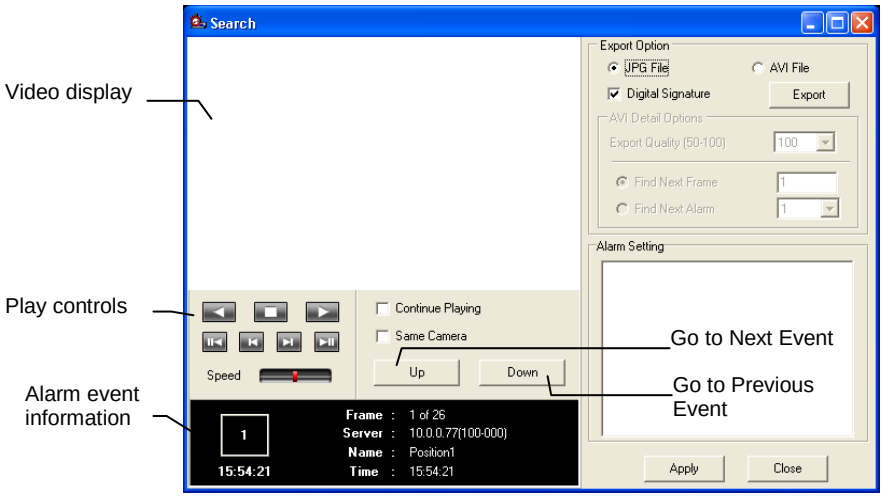


2. Click **Add**.
3. Click **OK** to save changes and close the window.

Filter Alarm Events

1. Select one or more **Status Level** buttons.
2. Select a date.
3. Select a recorder from the **Server** list.
4. Select the type of alarm event or select **All Events**.
5. Select **Normal** or **Emergency Alarm** or select **All Alarms**.
6. Select a **Confirmed** type.
7. Select the number and size of the thumbnail results.
8. Click **On** to filter results.

Search Alarm Window



View Recorded Video

1. Double-click an event listing to open the **Search Alarm** window.
2. Use the play controls to locate the desired video frame.
3. Select the **Continue Playing** check box to watch all recorded events. When not selected, playback stops at the end of the alarm event.
4. Select the **Same Camera** check box to watch all events recorded by a single camera.
5. Click **Apply** after making any changes.

Export Video

1. Double-click an event listing to open the **Search Alarm** window.
2. Use the play controls to locate the desired video frame.
3. Click **Rewind** to return to the beginning or desired spot in the video.
4. Click the **Stop** button.
5. Select the **Export Type** – **JPG** or **AVI**.

Save JPG

a) Select the **Digital Signature Text** check box to print the digital signature on the **JPG** file and click **Next**.

b) Click **Save As** to define the save location and click **Next**.

c) Click **Start** to save the image.

Save AVI

a) Select a **Codec** from the list and the number of frames to include in the AVI file. **Reduce Export Quality** only if necessary to reduce the size of the file.

b) Click **Next**.

c) Click **Save As** to define the save location and click **Next**.

6. Click **Start** to save the video file.

DIGITAL VERIFIER OVERVIEW

JPG images and AVI video files that are exported from the recorderr 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 Windows XP, Windows Vista or Windows 7 computer.

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**."

RADIUS OVERVIEW

Connecting to a Recorder Using RADIUS

RADIUS is available for all OpenEye recorders. RADIUS Multi-Site Management Software is a powerful utility that allows 100 or more recorders to be controlled using one computer. This software allows you to view live video, search saved video, edit and configure setup on each recorder, and import maps of buildings and other locations.

1. Configure the recorder for remote access as shown above in Set up a Remote Connection.
2. Follow the instructions in the RADIUS manual for Adding a New Site.

APPENDIX

BUTTON INDEX

LED Status Indicators

POWER	Power	Illuminates when power is supplied to the DVR.
HDD	HDD	Flashes when the hard drive is being accessed.
NETWORK	Network	Illuminates when the DVR is connected to a network.

Enter / Exit Buttons

	Enter	Input data, make selections, and open pop-up menus.
EXIT	Exit	Return to the previous mode or menu, without saving.

Function Buttons

Instant Backup — Back up the most recent video instantly.

Search — Open the search menu.

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.

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).

Setup — Open the setup menu.

Zoom — In PTZ mode, press to use PTZ Zoom function.

Use the ◀◀ and ▶▶ buttons to adjust.

Power — Press and hold to shutdown or start.

Replay — Start playback of the latest recordings. (By default, the system searches recordings in the past 30 seconds. If no recording is archived, the system will play back the latest one.)

Focus — In PTZ mode, press to use PTZ Zoom function.

Use the ◀◀ and ▶▶ buttons to adjust.

Numeric Buttons and Channels

Numeric / Channel — In live and search modes, press to watch that channel full screen.

Directional and Playback Control Buttons

(-)

PTZ	Adjust zoom, focus, and iris on a PTZ channel.
Search	Start reverse playback of recordings. Press successively to change the fast reverse speed.

(+)

PTZ	Adjust zoom, focus, and iris on a PTZ channel.
Search	Start playback of recordings. Press successively to change the fast forward speed.

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.

Live	Open on-screen menu.
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.

DVR FAQ

General

Q.	What does Embedded Linux mean?
A.	Embedded Linux means that the operating system of the recorder has been imprinted into the CPU (Central Processing Unit). This means that the system response time is faster, more stable, and that the core of the recorder is protected against external factors, such as virus.
Q.	Is the recorder upgradeable by CD or network?
A.	Yes.
Q.	How can I reset the recorder to the factory default settings?
A.	Load the factory default settings from the System Setup Menu. Press **SETUP**, then click **SYSTEM**, then click **CONFIGURATION**, then click **LOAD** next to **DEFAULT**.

Live Monitoring

Q.	Is it possible to monitor the live video of specific cameras?
A.	You can set the camera sequence through Spot/Sequence Setup or by connecting to one of the 3 spot monitor outputs on the rear of the unit.

Recording

Q.	How do you record?
A.	For information on this topic view the Recording Setup section of this manual.
Q.	What is Time Recording?
A.	Time recording is recording scheduled to occur regardless of whether a motion or alarm event occurs.
Q.	What is Event Recording?
A.	Event Recording is recording which is activated when an event (motion or alarm) occurs.

Searching and Playing Video

Q.	How do I play back recorded video?
A.	For more information on this topic, see the Search section of this manual.
Q.	Is it possible to back up recorded video?
A.	Yes, for more information on this topic see the Backup section of this manual.

Backup

Q.	Is it possible to back up to DVD media?
A.	Yes, you have a DVD-RW drive installed in your DVR.
Q.	Can I back up to a USB memory stick?
A.	Yes, for more information on this topic view the Backup section of this manual.

Network

Q.	Does it support dynamic IP?
A.	Yes. Enable DHCP in Network Setup.
Q.	Mail is not sent out.
A.	Please check all the settings in the Network E-Mail Setup.

Miscellaneous

Q.	What types of cameras can be used?
A.	E-Series recorders support either NTSC or PAL analog cameras. Both standards may not be used simultaneously.

TROUBLESHOOTING

Problem	Possible Solutions
No Power	Check the power cord connections. Check power at the outlet.
No Live Video	Check camera video cable and connections. Check monitor video cable and connections. Check camera power. Check camera lens setting .
Live Video Too Bright	If a cable is attached to the video channels looping output, make sure that it is properly terminated.
Recorder has stopped recording	The HDD is full, delete video or set the **DVR Overwrite Mode** to **On** in **Disk Setup > Overwrite**.

SPECIFICATIONS OE3-E240 (H.264)

Video	**Inputs**	• 4/8/16 Channel Composite
	Outputs	• CCTV Monitor (NTSC/PAL) • (VGA) Monitor
		• 16 CH Looping Composite • CCTV Spot Monitor (NTSC/PAL)
Monitoring	**Display**	• NTSC : 480 fps • PAL : 400 fps
	Screen split	• 1/4/9/16/PIP
Recording	**Performance**	• NTSC: 2CIF(240 ips), 4CIF (120 ips), 8CIF (60 ips) • PAL: 2CIF (200 ips), 4CIF(100 ips), 8CIF (60 ips)
	Resolution	• NTSC: CIF(352x240), 2CIF(704x240), 4CIF (704x480) • PAL: CIF(352x288), 2CIF (704x288), 4CIF(704x576)
	Compression	• H.264
	Mode	• Motion detection, Sensor, Continuous, Schedules • Variable compression rates, recording frame, motion sensitivity
Recording	**Storage media**	• Internal 2 x HDD (Option) • USB
	Audio	• 4 Channel, G.726 Compression
Playback	**Mode**	• Multi-channel playback (Max 16ch), Simultaneous playback
	Searching	• By Channel, Time, Date, Motion Detection, Sensor Events
Remote Monitoring S/W		• Remote Software / Web based viewer
Alarm		• 4
Sensor		• 16
Camera Control		• Pan/Tilt, Zoom, Focus, Iris
Back-up		• DVD+/-RW • USB
Temperature		• Operating: 0°C to 40°C (32°F to 104°F) • Storage: 0°C to 40°C (32°F to 104°F)
Relative Humidity		• 0% ~ 90%, non-condensing
Hardware Spec.	**Size**	• 15.75" (W) x 3.46" (H) x 15.75" (D) (400 mm x 88 mm x 400 mm)
	Weight	• 8 lb (8.2 kg) W/O Packing
	Power	• Input Voltage is 110-230V ~ 47/63Hz 1.75-.85A
	UPS	• External UPS recommended

SPECIFICATIONS OE3-E480 (H.264)

Video	**Inputs**	• 16 Channel Composite
	Outputs	• CCTV Monitor (NTSC/PAL) • (VGA) Monitor
		• 16 CH Looping Composite • CCTV Spot Monitor (NTSC/PAL)
Monitoring	**Display**	• NTSC : 480 fps • PAL : 400 fps
	Screen split	• 1/4/9/16/PIP
Recording	**Performance**	• NTSC: CIF(480 IPS), 2CIF (240 IPS), 4CIF (120IPS) • PAL: CIF (400 IPS), 2CIF(200 IPS), 4CIF (100 IPS)
	Resolution	• NTSC: CIF(352x240), 2CIF(704x240), 4CIF (704x480) • PAL: CIF(352x288), 2CIF (704x288), 4CIF(704x576)
	Compression	• H.264
	Mode	• Motion detection, Sensor, Continuous, Schedules • Variable compression rates, recording frame, motion sensitivity
Recording	**Storage media**	• Internal 2 x HDD (Option) • USB
	Audio	• 4 Channel, G.726 Compression
Playback	**Mode**	• Multi-channel playback (Max 16ch), Simultaneous playback
	Searching	• By Channel, Time, Date, Motion Detection, Sensor Events
Remote Monitoring S/W		• Remote Software / Web based viewer
Alarm		• 4
Sensor		• 16
Camera Control		• Pan/Tilt, Zoom, Focus, Iris
Back-up		• DVD+/-RW • USB
Temperature		• Operating: 0°C to 40°C (32°F to 104°F) • Storage: 0°C to 40°C (32°F to 104°F)
Relative Humidity		• 0% ~ 90%, non-condensing
Hardware Spec.	**Size**	• 15.75" (W) x 3.46" (H) x 15.75" (D) (400 mm x 88 mm x 400 mm)
	Weight	• 8 lb (8.2 kg) W/O Packing
	Power	• Input Voltage is 110-230V ~ 47/63Hz 1.75-.85A
	UPS	• External UPS recommended

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