

# User Manual

Outland OTI-1080-4NX DVR

Dive User Manual

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REVISION TABLE		
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# 1 Introduction

Congratulations on the purchase of an Outland Technology DVR!

Outland Technology takes great pride in supplying high-quality underwater video systems.

This manual serves as your indispensable companion, providing detailed insights and instructions for maximizing the efficiency and performance of your underwater exploration endeavors.

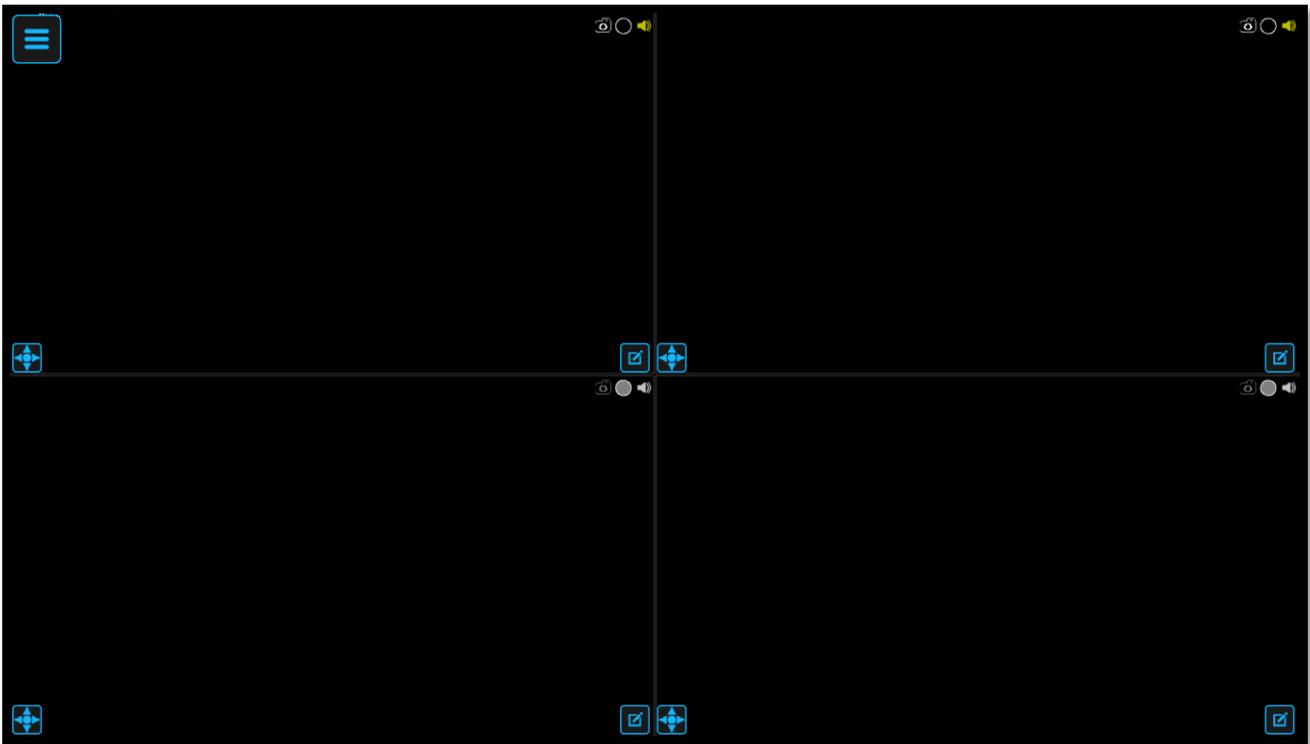
Designed and engineered by Outland Technology, a leading name in underwater technology solutions, the OTI-1080-4NX Dive DVR System represents the pinnacle of innovation and reliability in underwater video recording. Whether you are a professional diver, a marine researcher, or an adventure enthusiast, this cutting-edge DVR system promises to revolutionize your underwater experiences, capturing every moment with unparalleled clarity and precision.

Thank you for choosing Outland Technology as your partner in underwater exploration. Dive in, explore, and capture the wonders that lie beneath the surface with the OTI-1080-4NX Dive System.

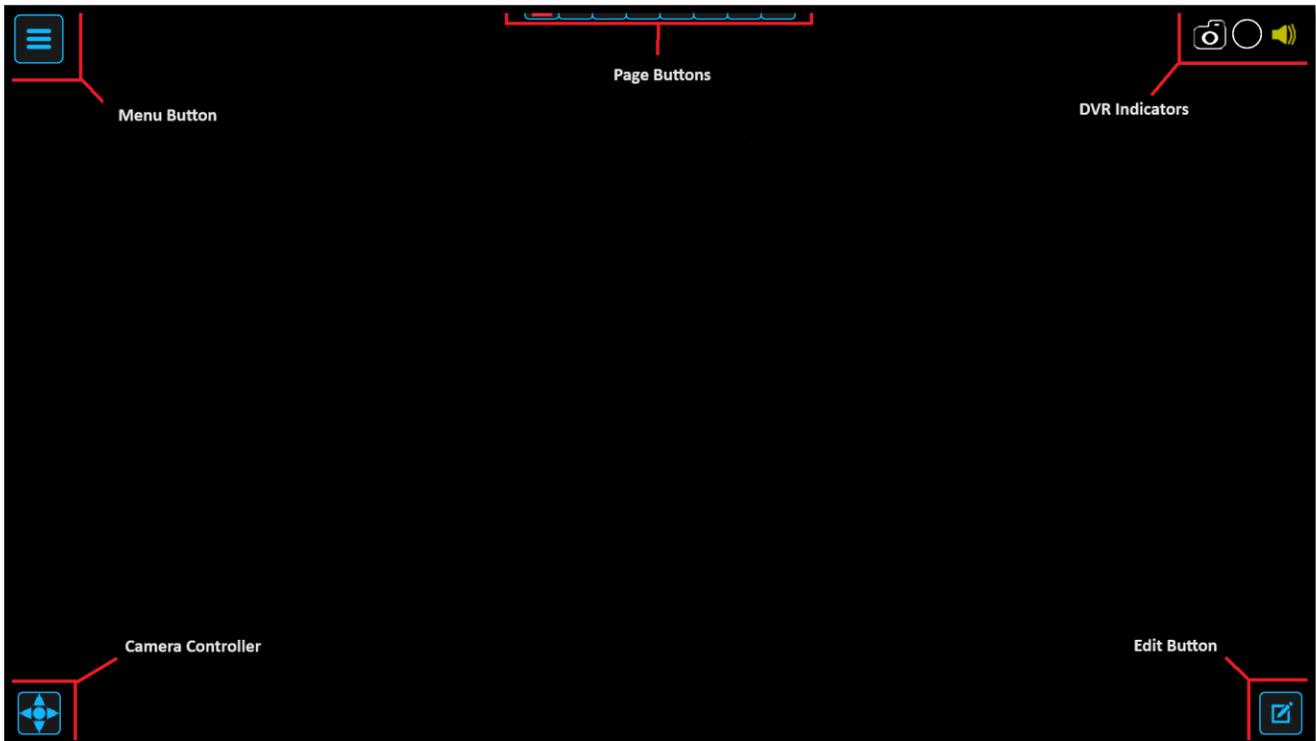
If you have any issues or questions with the DVR please do not hesitate to contact us. Outland is more than happy to assist with any questions.

## 2 Home Screen

When the DVR first turns on, you will see the Home Screen. It will show all four camera inputs.



To select a camera for full screen you can double click on any quadrant. You can also cycle through the inputs by pressing the SWAP button on the front of the DVR, or by pressing the RIGHT arrow key on your keyboard.



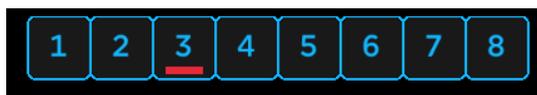
## 2.1 Menu Button

To access the various menus of the DVR, click the menu button, press the ‘SELECT’ button on the front of the DVR or press the Enter key on your keyboard. The menus will be described in more detail later.



## 2.2 Page Buttons

The page buttons allow you to save multiple “pages” of on-screen notes. A small red indicator on the bottom of the number will tell you which page you are currently on. (Photo shows page 3 active)



The pages may be different between channels, so each camera can have a different set of notes. To change page, click on a number to switch to that page. You can also press the PAGE button on the front of the DVR or press the LEFT arrow key on your keyboard. The on-screen notes will be described in the EDIT MODE ([section 3.1](#))

## 2.3 DVR Indicators

The DVR indicators allow you to see the recording setup of each channel.

The camera indicator will either be black, indicating that the channel will take a screenshot if the SCREENSHOT button on the DVR is pressed, or gray indicating that it will not.

The circle “Record” icon will be red if the current channel is being recorded, black if the channel will begin recording when the RECORD button is pressed, or gray indicating that the channel will not record. You can also click on this button to begin recording. It will record all selected channels, just like pressing the RECORD button on the front of the DVR.

The third icon is the audio input icon. It will either be gray, indicating that no audio input channel has been selected for this channel to record, or yellow indicating that one has.



All indicators off



All indicators on



Recording

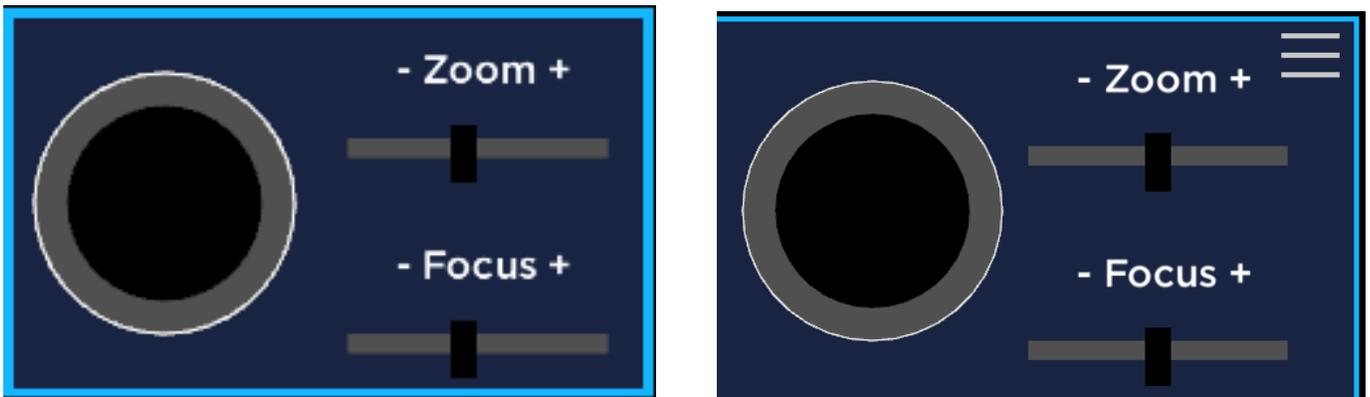
Up to two additional icons will appear while recording.

The first is the star icon. Clicking on the star icon allows you to add a highlight to the video you are recording on the channel you click on. This will add a star next to the video in the library and the timestamp of the click will be highlighted in the playback. This will be covered further in the Library [\(section 3.5\)](#)

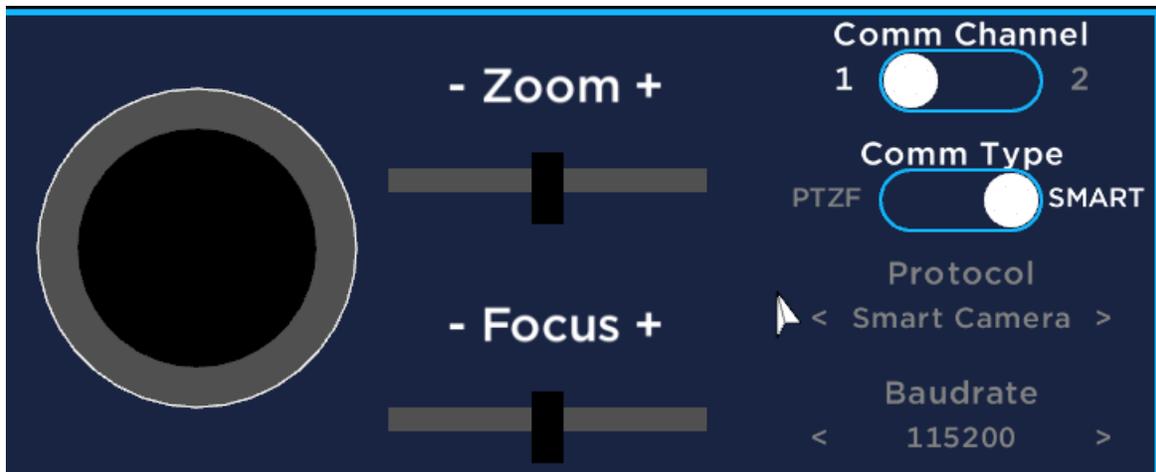
If there is a USB microphone plugged in to the DVR, a microphone icon will also appear. By default, the audio from the USB microphone will not be recorded and the microphone icon will be gray. Clicking and holding on the microphone icon will begin mixing the USB audio. Each channel is controlled seperately and the Push to Talk button for each channel is different. The '1' key on a keyboard will enable USB audio recording on channel 1, the '2' key on channel 2 etc. The '0' key enables recording on all 4 channels.

## 2.4 Camera Controller

The button in the bottom left corner of each channel opens the Camera Controller Menu. This menu allows you to configure the communications for each video channel, and allows you to control the pan, tilt, zoom, and focus of controllable cameras.



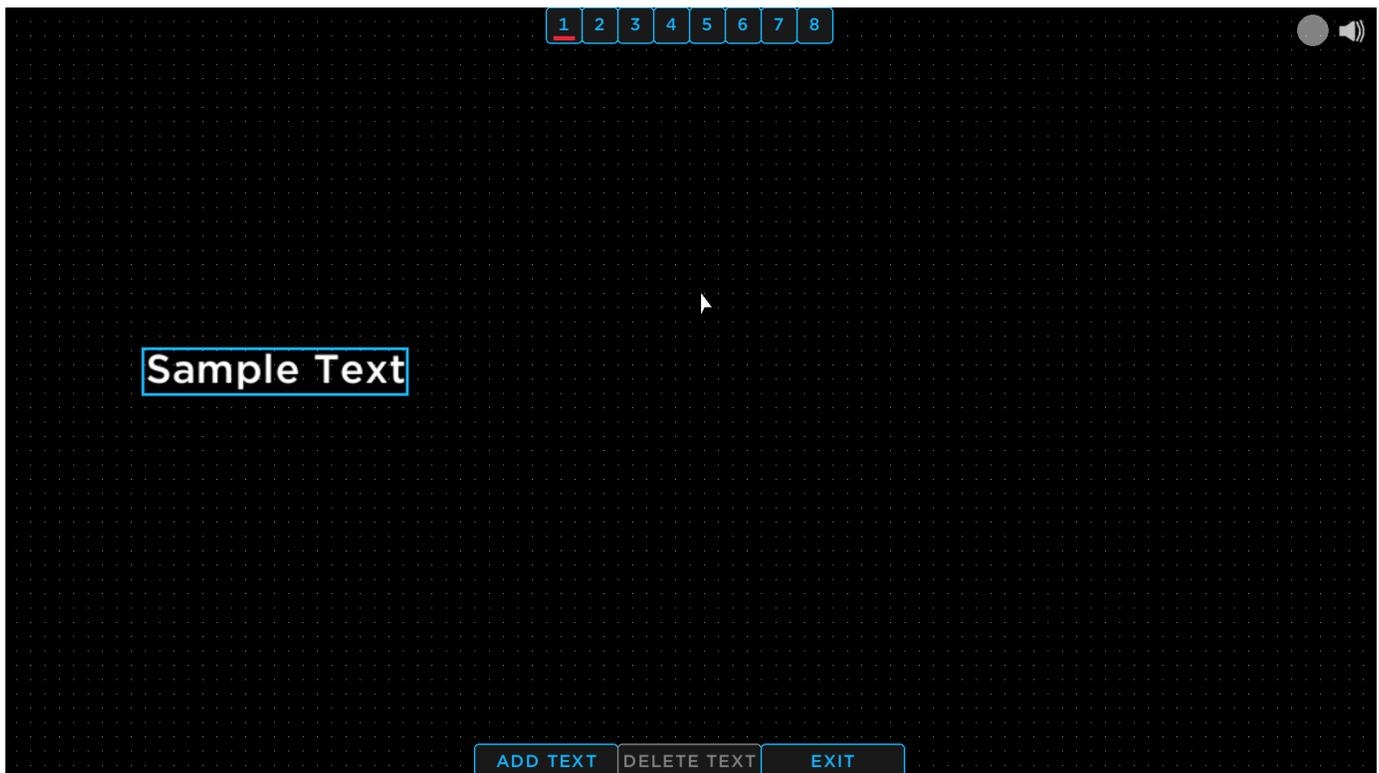
In the quad screen, the camera controller appears like the left photo, and in full screen mode, it appears on the right. Both versions allow you to control attached cameras. In full screen mode, there is also a menu that you open by clicking on the three lines in the top left.



The Camera Controller menu allows you to configure the two communication channels on the DVR. The top slider allows you to toggle the camera channel between the two communication channels. The second slider allows you to select whether there you have a smart camera or a PTZF camera. If you have a PTZF camera, you also must select the protocol and baudrate of the camera. You can cycle through these by clicking the arrows next to each option. See the data sheets of the camera to find the correct protocol and baudrate.

## 2.5 Edit Mode

The button at the bottom right of each channel will enable edit mode for the channel that you click. Edit Mode allows you to create, edit, and move notes, and HUD elements that will appear on screen and in the recordings.



## 2.5.1 Notes

You can have up to 40 notes at a time split between the 8 pages. You may set each camera channel to have a different page, or duplicate pages between channels. The Notes can be controlled in 2 main ways.

### Mouse Controls:

To add a text box, click the “ADD TEXT” button, then left click on the screen where you would like to add the text box.

The onscreen keyboard will then appear. You may click on the keys, or type with an external keyboard to add text to the text box. When you are finished, Right click the mouse to close the keyboard. You may also move a textbox by holding the left mouse button over a text box and dragging it to the desired

position. While a textbox is selected, you may also click on the “DELETE TEXT” button to delete the text box. You can change which pages the text box will appear on by checking or unchecking the boxes on the right side of the keyboard. You may also move the keyboard by clicking on the arrow icon in the bottom right and dragging the keyboard.



### Front Panel controls:

To add a text box with only the front panel controls, you press the UP or DOWN buttons to cycle through the text boxes and buttons until the “ADD TEXT” button is highlighted (the entire button is blue) then press the SELECT button. A new textbox will be generated, and the onscreen keyboard will appear. You then use the front panel keys to highlight the key you want, and press enter to add it to the text box. When finished, highlight the X in the bottom

right, then hit enter again. To edit a text box, use the UP or DOWN buttons to cycle through the text boxes (you can tell a box is selected by the box around the text turning red) then, press the select key to re-open the onscreen keyboard. To move a text box, cycle through like you would above, then press the LEFT or RIGHT buttons. This will change the the box around the text to green. Press SELECT to begin moving, then use the arrow buttons to move the box. Press the BACK button to stop moving the box. You can change which pages the text box will appear on by checking or unchecking the boxes on the bottom of the keyboard.



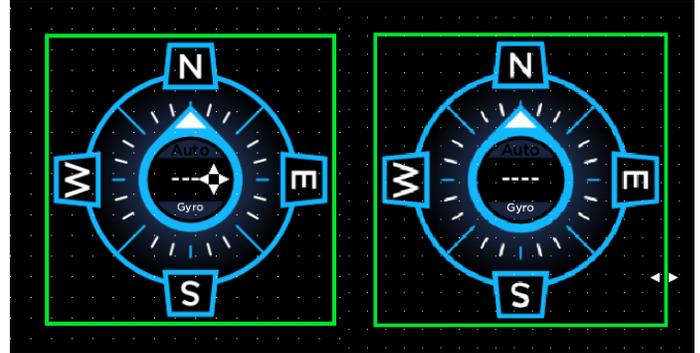
The onscreen keyboard has some additional functionality. The keys on the right side of the keyboard increase/decrease font size, Justify the text left/center/right, invert the text color, or rotate the text box. The small blue check boxes with the numbers next to them control which page(s) the current text box will appear on.

## 2.5.2 HUD Elements

There are a number of Heads Up Display (HUD) Elements that can be toggled on or off in the HUD Options Menu ([Section 3.1](#)). In Edit mode, you can move and resize these elements in two main ways.

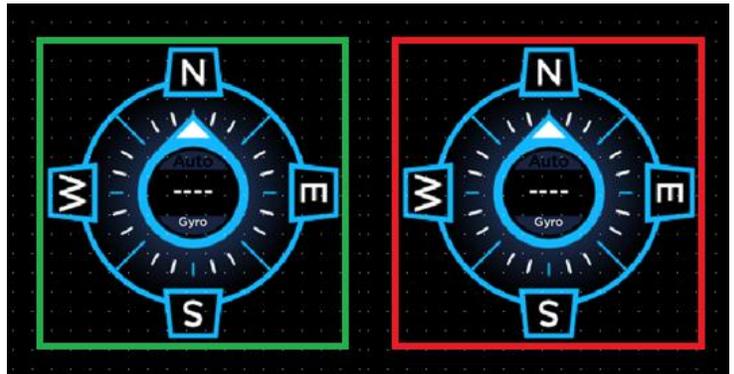
### Mouse Controls:

HUD elements can be moved and resized with the mouse. To move an element, click and hold on the element near the center when there is a four way arrow over the element (left image), then drag the element to the desired position. To resize an element, click and hold on an element towards the edge, when there is a two way arrow (right image), then drag to the desired size.



### Front Panel Controls:

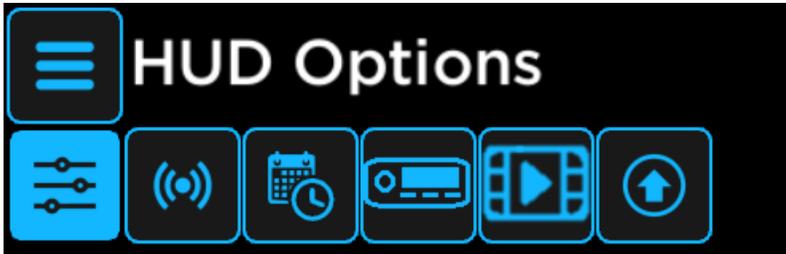
HUD elements can only be moved, not resized when using the buttons. You can cycle through the active HUD elements by pressing the up and down keys on the front panel of the DVR the element highlighted will have a green square around it (left image). You then need to select the element by pressing the SELECT button. The selected element will have a red square around it (right image). You can then move the elements with the arrow keys on the front panel. When done, press SELECT again to deselect the element.



### 3 Menus

The menus of the Overlay are as follows: HUD Options, Sensor Options, Time and Date Options, DVR Options, Library, and Update Device.

#### 3.1 HUD Options Menu



The HUD (Heads Up Display) Options menu allows you to select which HUD elements you want to display on screen, and allows you to display a logo or other picture. The HUD elements can be enabled and disabled per channel, and will only appear on channels that have the overlay enabled in the Camera Options Menu ([section 3.4.1](#)).



### 3.1.1 Heads Up Display (HUD) Elements

The HUD elements are represented by the check boxes at the top half of the screen. They are divided into two categories, custom drawn elements in the left column, and text elements on the right. Each element will need to be enabled or disabled for each channel. The channel that you are currently editing can be changed by the checkboxes at the top of the menu (Diver 1 for channel 1 etc...). There will now be a brief explanation of each of the elements.

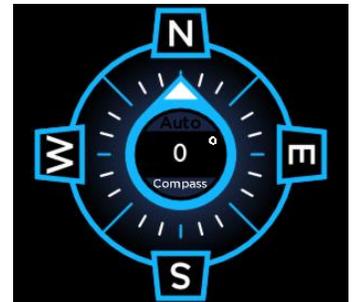
#### Time of Day:

Wed Mar 1 2023 09:15:51

The Time of Day element displays the system time and date. The DVR has an internal real time clock. You can set the time and date of this clock through the Time and Date Options ([section 3.3](#)) You can also change the font size in that menu.

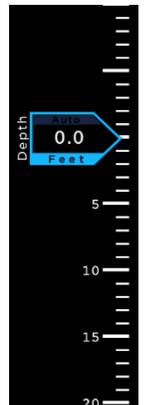
#### Compass Rose:

If a [Smart Camera](#) is plugged in to the DVR, and the communications channels are set correctly ([section 2.4](#)), the Compass Rose displays the heading of the smart camera both with a text reading in degrees, and by rotating the compass. Normally, the entire compass will rotate with the heading, but if you right click on the compass, you can lock it so that North will always be up, and the center will rotate instead.



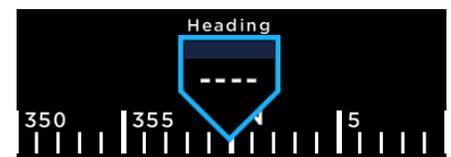
#### Depth Gauge:

If a [Smart Camera](#) is plugged in to the DVR, and the communications channels are set correctly ([section 2.4](#)), the Depth Gauge displays the depth of the vehicle both text reading in feet or meters (toggleable in the Sensor Options Menu ([Section 3.4.7](#)), and by moving the hash marks on the side.



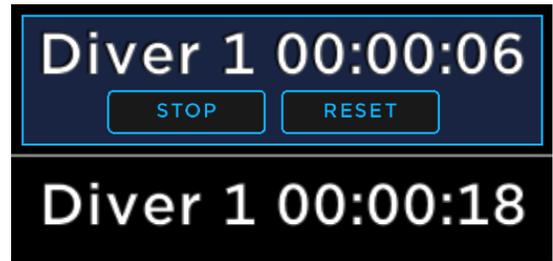
#### Heading Gauge:

If a [Smart Camera](#) is plugged in to the DVR, and the communications channels are set correctly ([section 2.4](#)), the Heading Gauge will show the heading of the smart camera both with a text reading in degrees, and by moving the pointer to the heading in degrees.



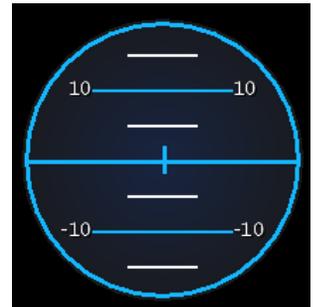
### Dive Timer:

The Dive Timer works as a stop watch on each channel. By mousing over the element, buttons will appear allowing you to start and stop the timer, or reset the timer (top image). The timers on each channel are independent. Moving the mouse off of the timer will make the buttons and background disappear leaving just the text (bottom image).



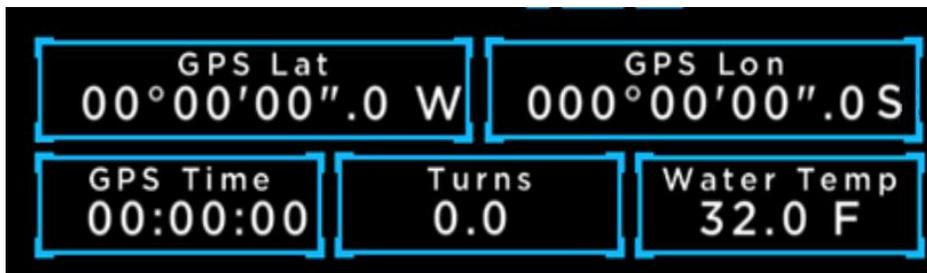
### Pitch Roll Guage:

If a [Smart Camera](#) is plugged in to the DVR, and the communications channels are set correctly ([section 2.4](#)), the Pitch Roll Guage shows the pitch and roll of the Smart Camera. The solid blue line in the center of the gauge represents the horizon. The guage itself will move in order to keep the center line at the horizon in the video.



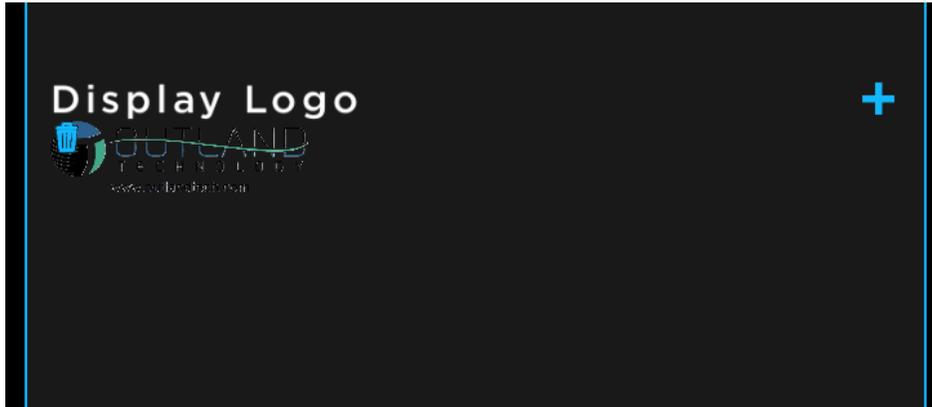
### Text Elements:

The Text Elements display the most commonly used device variables in a plain text format. The format of the GPS readout can be changed in the GPS Options Window ([section 3.4.7](#)) and the unit of the temperature can be changed in the Sensor Options window ([section 3.2](#))



### 3.1.2 Display Logo

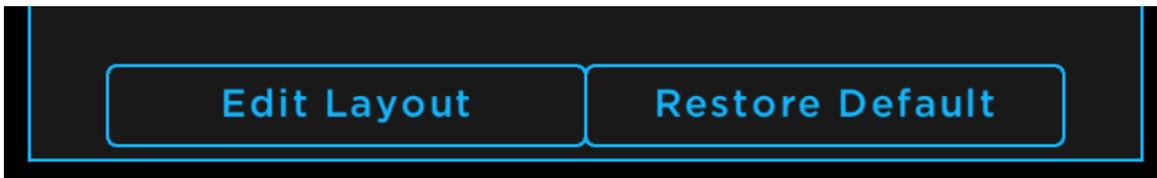
The Hud Options menu also allows you to display a custom logo on the overlay and in the recordings. To add a logo, first you must put it onto a USB flash drive as a PNG image. Then plug the drive into the DVR, go to the HUD Options Menu, then click the '+' next to the text "Display Logo". If no USB or no image is detected, text will pop up saying "No files found". If the USB drive and logo are detected, a menu will pop up with the names of all the images. Click on the name of the image that you wish to display and it will be added to the overlay and the HUD Options screen.



The image can then be moved and resized in Edit Mode ([Section 2.5](#)). To Delete an image, click on the trash icon on the top left of the logo that you would like to delete.

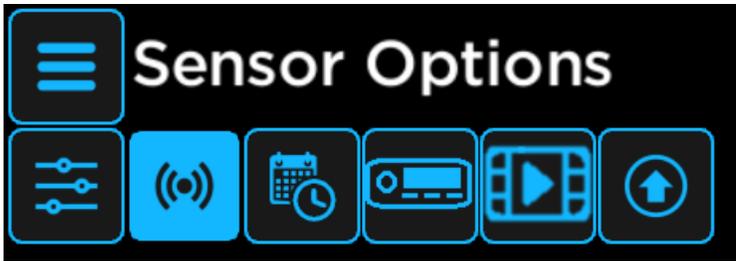
### 3.1.3 Buttons

There are two buttons at the bottom of the Hud Options menu. The first is the "Edit Layout" button and the second is the "Restore Defaults" button. Both buttons will be disabled in quad mode.

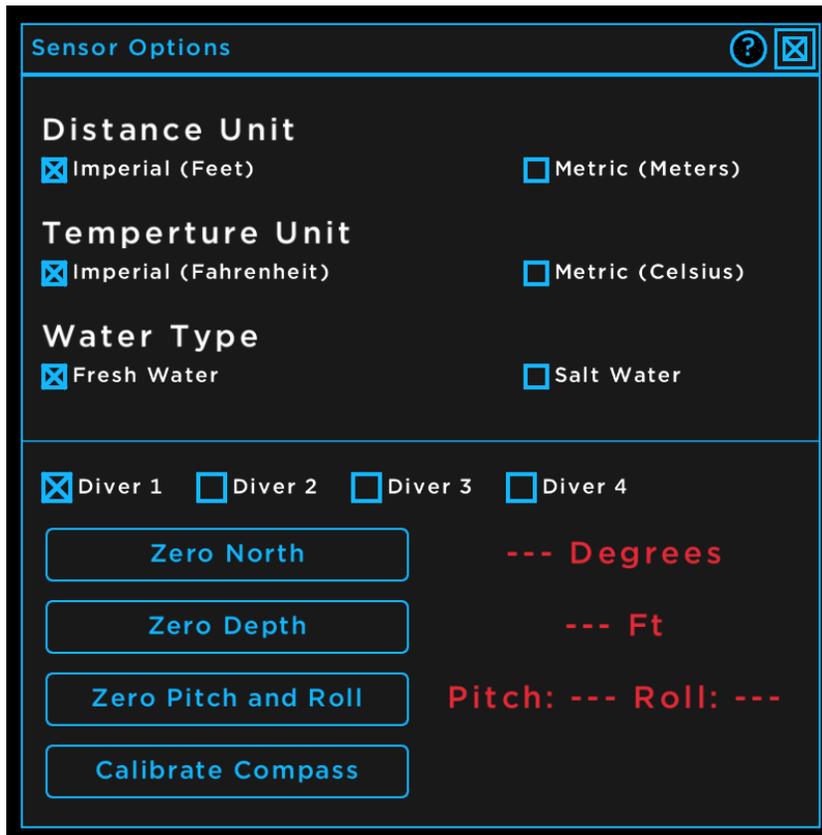


The "Edit Layout" button will enable Edit Mode. See [section 2.5](#) for details. The "Restore Default" button will set all elements back to their default values, including size, position, and whether or not they are enabled. This will change all channels

### 3.2 Sensor Options Menu

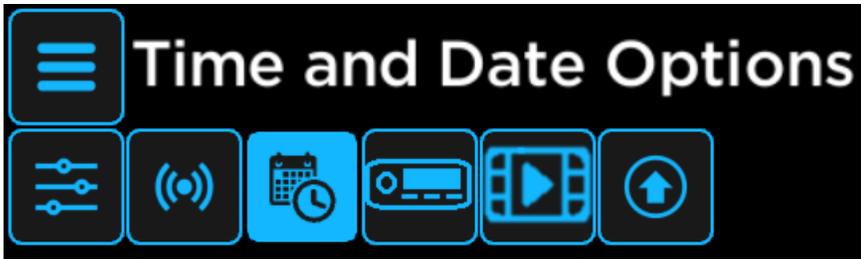


The Sensor Options Menu allows you to change the units of the displayed depth and temperature, and allow you to change the salinity settings of the water for depth calculations. It also allows you to calibrate the sensors in the smart camera if you have one.

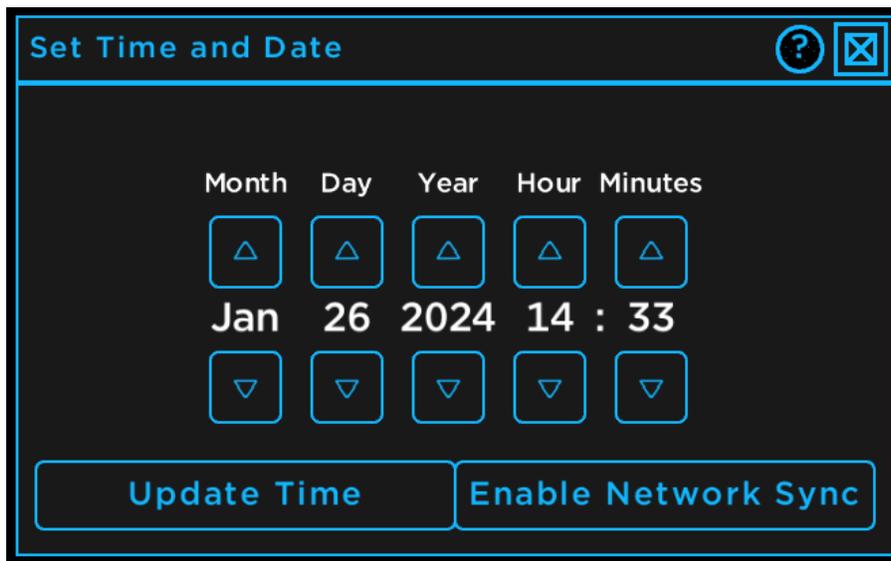


See the Smart Camera Calibration Guide for more information on the Smart Camera Calibration.

### 3.3 Time and Date Menu



The Time and Date Menu allows you to manually set the time and date of the DVR or fetch the current time and date from the internet.

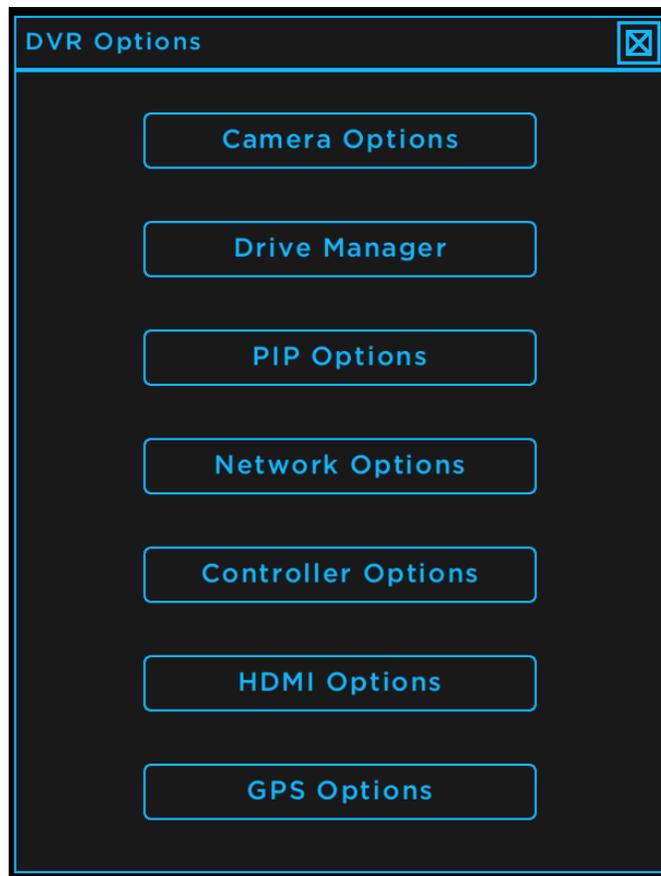


You can cycle through the desired time and date by pressing the up and down arrows above and below the displayed time. To save the desired time, you must press the “Update Time” button before closing the window. If you are connected to the internet, you can also get the real current time based on your location. Simply press the “Enable Network Sync” button to fetch the time.

### 3.4 DVR Options Menu

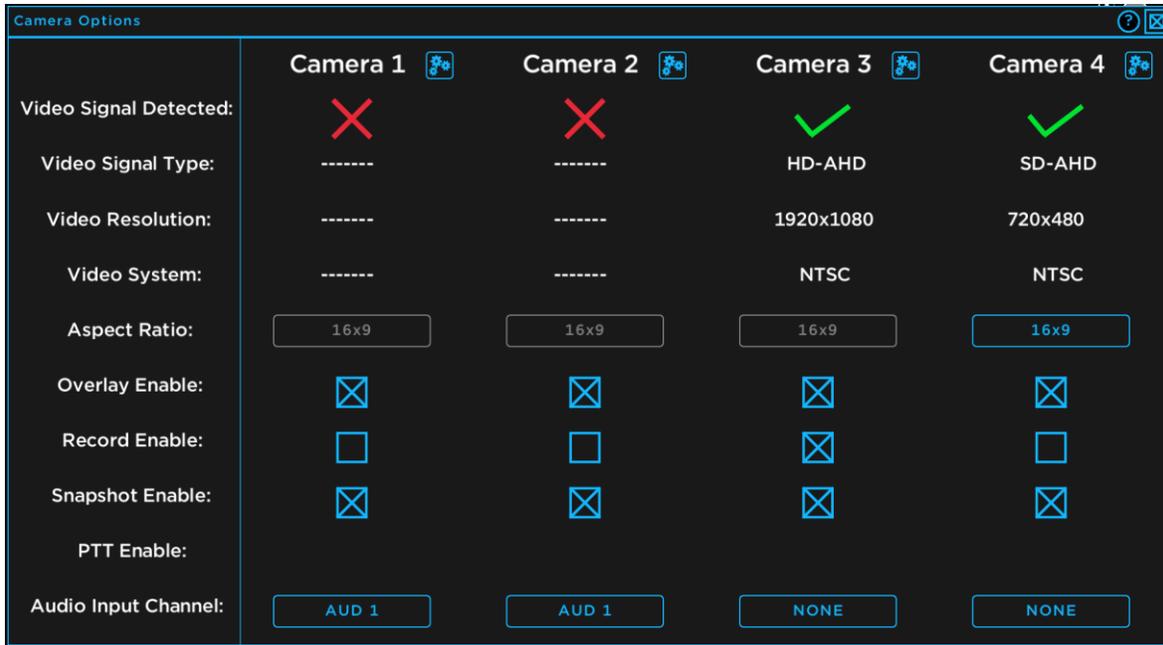


The DVR Options Menu is a collection of submenus including “Camera Options”, “Drive Manager”, “PIP Options”, “Network Options”, “Controller Options”, “HDMI Options”, and “GPS Options”. Each sub menu will be described below.



### 3.4.1 Camera Options

The Camera Options Menu allows you to view and change camera and recording settings. The screen is divided into four columns, each reporting and controlling one channel. The top half of the screen shows the information about connected cameras, and the bottom half of the screen allows you to toggle recording settings. The gear icons at the top of the screen allow you to adjust the image settings of the camera.



**Video Signal Detected:** If there is a video signal detected, there will be a green check mark, else there will be a red 'X'

**Video Signal Type:** Either HD-AHD or SD-AHD for high definition or standard definition cameras respectively.

**Video Resolution:** Number of pixels in each frame

**Video System:** Either 'NTSC' for 30 frame per second sources, or 'PAL' for 25 frame per second sources.

**Aspect Ratio:** HD cameras will always be 16x9, and SD cameras can toggle between 4x3 or 16x9 by clicking on the "Aspect Ratio" button, allowing you to stretch SD videos to fill the screen.

**Overlay Enable:** Allows you to toggle the overlay on and off per channel. Disabling the overlay hides all HUD elements and notes on a channel both on the display and in the recording.

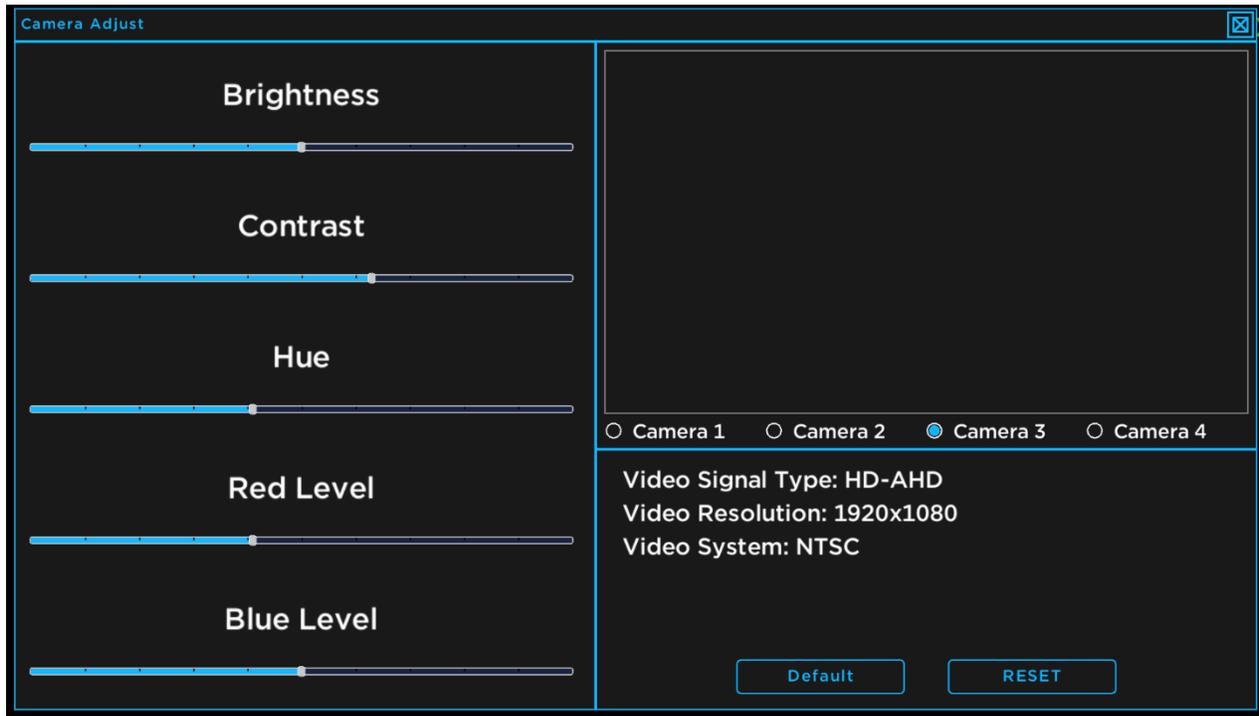
**Record Enable:** Allows you to toggle which channels are recorded when the 'REC' button is pressed on the front of the DVR.

**Snapshot Enable:** Allows you to toggle which channels take a screenshot when the 'PHOTO' button is pressed on the front of the DVR.

**PTT Enable:** If a USB microphone is detected, allows you to toggle whether the USB microphone audio is recorded.

**Audio Input Channel:** Allows you to select which analog audio channel you would like to record along side the video for each channel.

Clicking the gear icon at the top of the screen next to a camera label will open the Camera Adjust Menu. This menu should not need to be used in normal operation. It has five sliders that can be used to adjust various camera settings.



You can toggle the channel that you are adjusting by clicking the circle under the image preview. Note that all cameras of the same format will be adjusted by the same amount if any settings are changed.

The sliders are:

Brightness: Increase or decrease the brightness of the image.

Contrast: Increase or decrease the contrast in the image.

Hue: Changes the colors of the image.

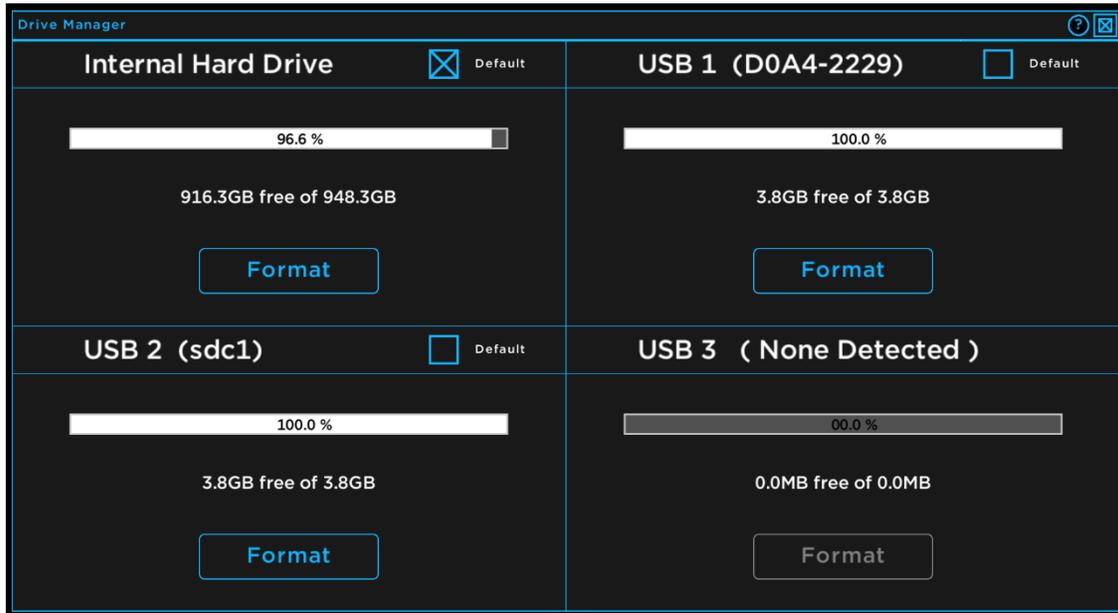
Red Level: Changes the intensity of the reds in the image.

Blue Level: Changes the intensity of the blues in the image.

There are also two buttons at the bottom of the screen. The “Default” button will change all slider values back to the default values for the current camera format. The “Reset” button will reset the camera channel, which could help resolve any glitches that may appear in the video signal.

### 3.4.2 Drive Manager Menu

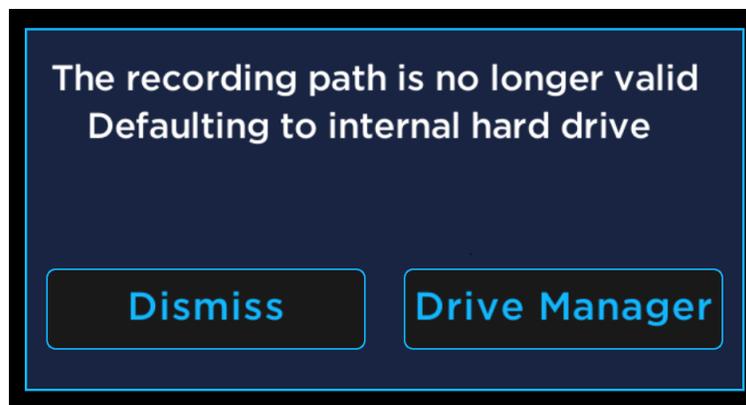
The Drive Manager Menu allows you to view and format any storage device that is detected by the DVR including the internal hard drive and any USB flash drives that may be plugged into the DVR.



Each quadrant of the screen represents a unique drive that the DVR detects. The size and free space of the drive is displayed in a bar, and in plain text. The format button allows you to delete all files on the drive. A popup will appear and verify that you want to completely erase everything on the drive first.

The internal hard drive will always be in the top left corner of the Drive Manager Menu, and USB drives will appear in the other three. If fewer than three USB drives are detected, one or more quadrants will have the size and format button grayed out.

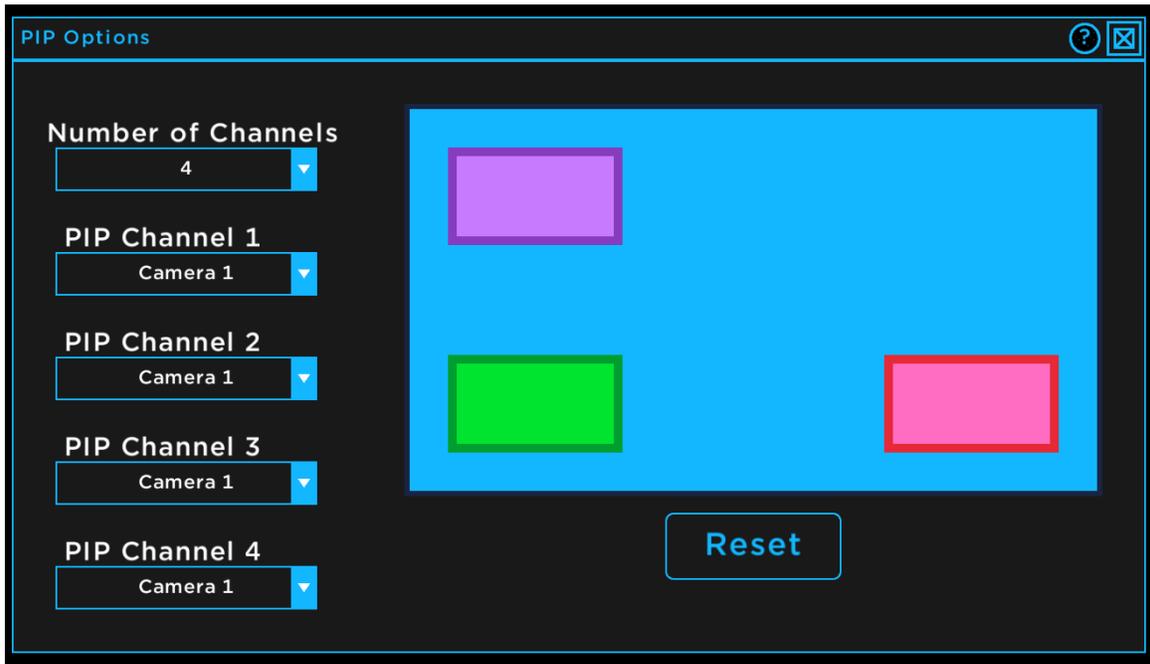
The 'Default' checkbox in the top right corner of each quadrant allows you to change the recording location. If a USB drive is selected as the default record location, any video recorded will be saved directly to the USB drive instead of to the internal hard drive. If a USB drive is selected as the record location, and it is removed, a popup will appear on the home screen, and the record location will be reset to the internal hard drive.



This warning can either be dismissed, leaving the internal hard drive as the record location, or you can open the Drive Manager allowing you to set a new recording location.

### 3.4.3 PIP Options Menu

The PIP Options Menu allows you to configure the cameras that are enabled in Picture-in-Picture mode.



There are five drop-down menus. The top drop-down menu allows you to select how many channels total you want displayed while in picture in Picture-in-Picture mode, from 2-4. The other four drop-down menus allow you to select which channel is displayed in which box. The “PIP Channel 1” drop-down selects the main channel that is displayed in the background (light blue), and channels two through four select the cameras displayed in the smaller boxes (purple, green, and red).

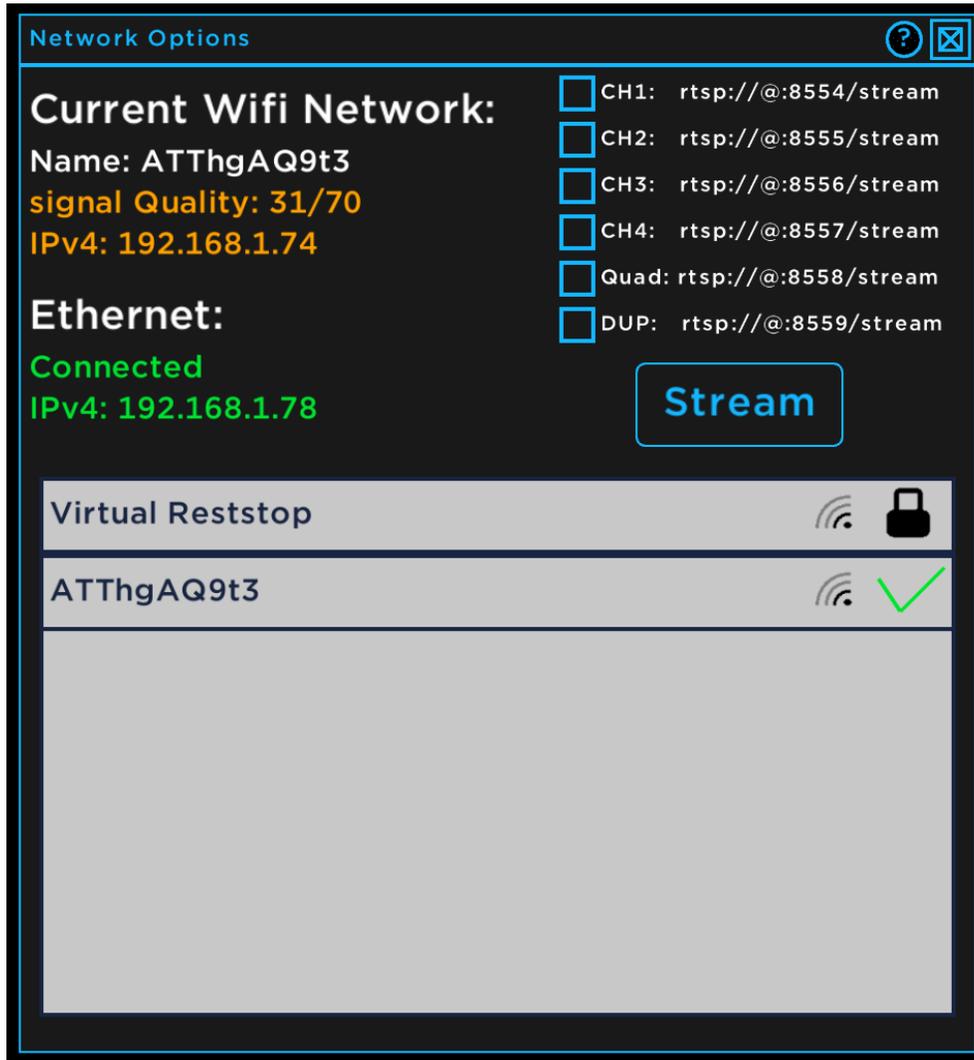
The channels can also be moved and resized in this menu. The diagram on the right side of this menu is a simplified preview of what Picture-in-Picture mode will display. To move a channel, left click and drag on the center of a box, then release the mouse where you would like to display the channel. To resize a channel, left click and drag on the edge of a box, then release the mouse when the box is the desired size.

The “Reset” button will move and resize the foreground channels back to the default positions and sizes.

To enable Picture-in-Picture mode, first exit all menus in the DVR, then press the ‘PIP’ button on the front of the DVR. To swap which channel is in the foreground, press the swap button on the front of the DVR.

### 3.4.4 Network Options Menu

The Network Options Menu allows you to view and edit the network connection for the DVR and allows you to begin streaming over the connected network.

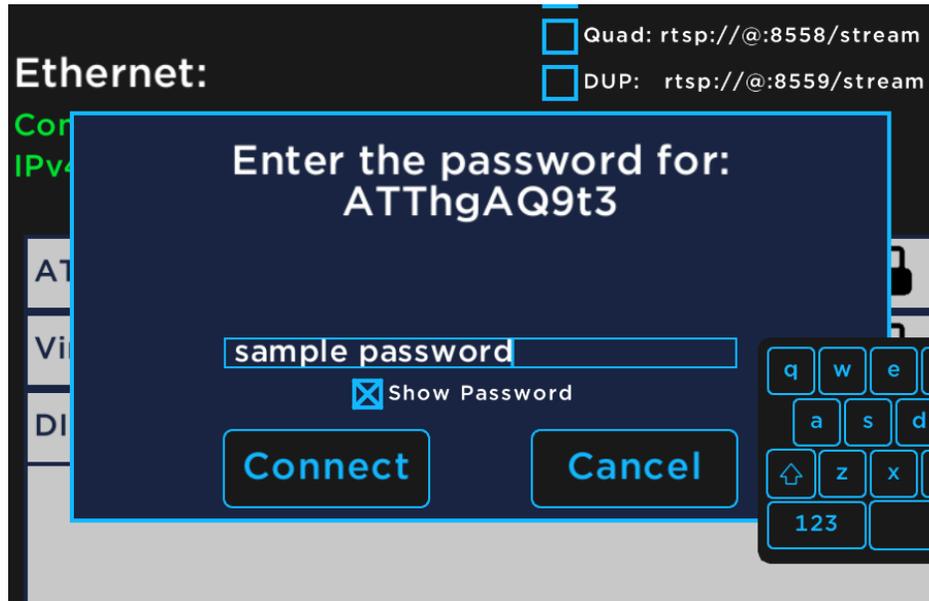


The top left of the screen shows the current, active network connections of the DVR. Under “Current Wifi Network”, it will show the name of the network, the signal quality on a scale of 0-70, and the IPv4 address on the network. The signal quality will be either red, for a very low signal, orange for moderate signal strength, or green for a strong signal. Under Ethernet, it will show whether there is a valid wired network connection for the DVR. It will also show the IPv4 address on the wired network.

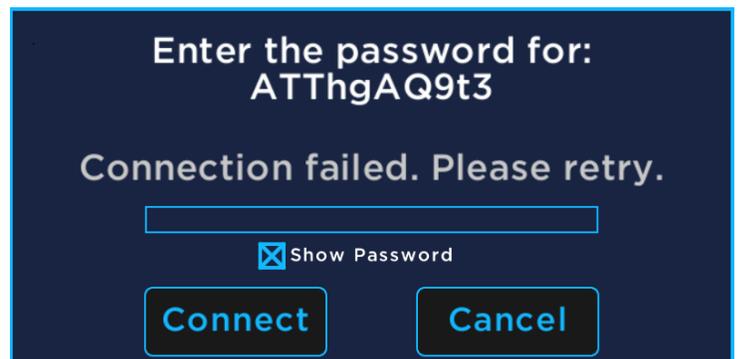
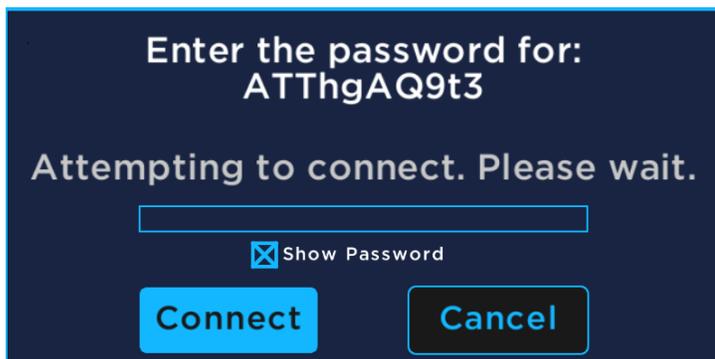
The top right of the screen allows you to configure and start a RTSP (Real Time Steaming Protocol) stream for viewing on the local network. The checkboxes allow you to select which channels you would like to stream. Each channel will start a separate RTSP stream. The address for the stream is shown on the end of the channel with the ‘@’ symbol being a stand in for the IP address of the DVR. For example, if channel one is selected, the stream will use the address “rtsp://192.168.1.74:8554/stream”. You can begin or end the selected streams by pressing the “Stream” button.

The bottom half of the menu is reserved for the available networks. Each line is a different network and will display the network name, detected signal strength in bars, and whether the network is password protected. If you are currently connected to a network, a green check mark will appear next to the signal strength. If a network is password protected, a lock icon will appear (pictured above), and if the network is not password protected, the icon will open instead.

To connect to a network, simply click on the box with the desired network name. If it is password protected, a text box will appear, allowing you to enter the network password.

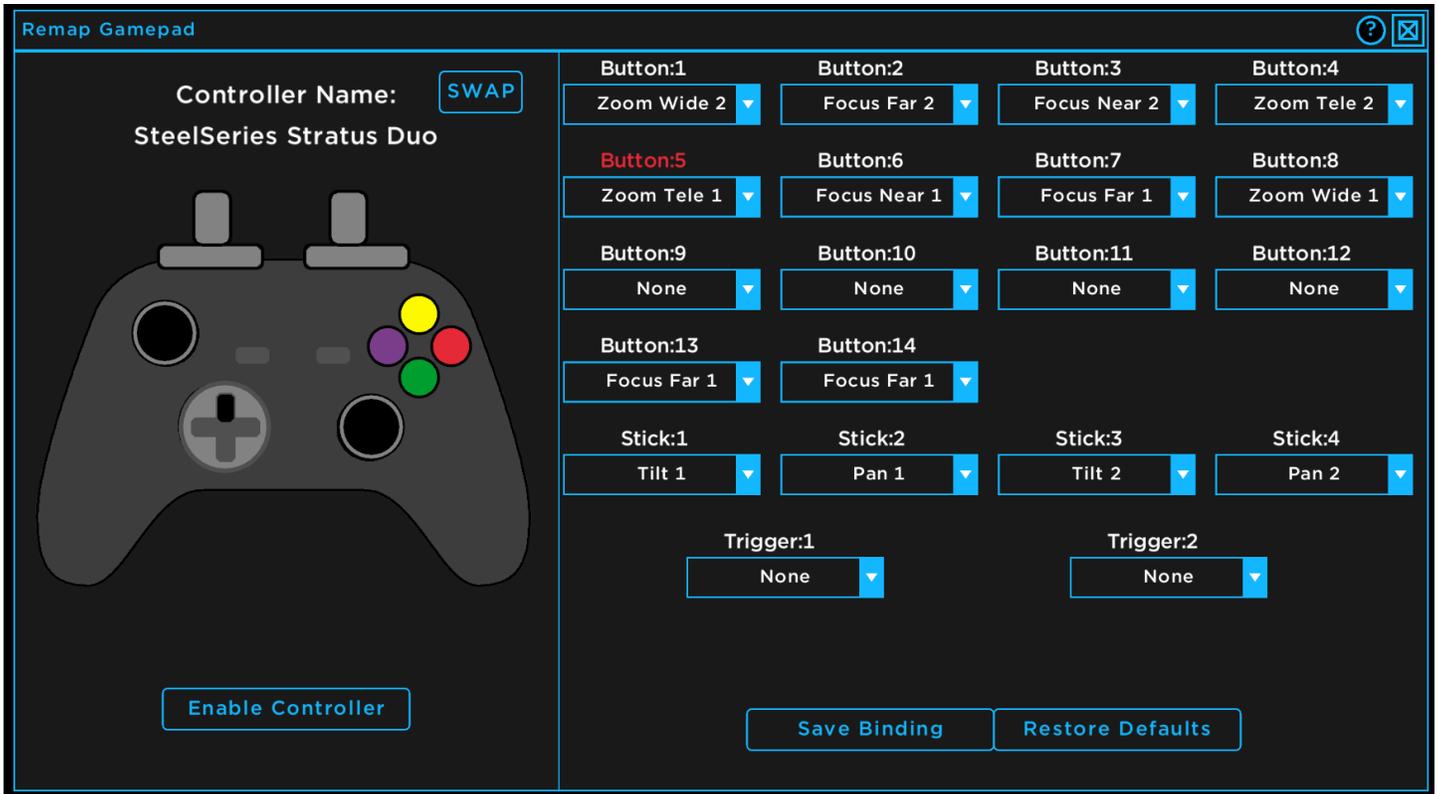


To enter the network password, click on the box and begin typing. By default, the text will be hidden while entering the network password. You can change this by checking the “Show Password” checkbox below the text entry box. After verifying the password is correct, click on the “Connect” button. The DVR will then attempt to connect to the network using the credentials you provided (bottom left image). If it connects successfully, the popup will disappear, and a check mark will appear next to the network name in the Network Options Menu (top image). If it fails, a warning will appear on the popup box prompting you to double check the password and try again (bottom right image).



### 3.4.5 Controller Options Menu

The Controller Options Menu allows you to enable and configure a USB controller to control PTZF cameras.



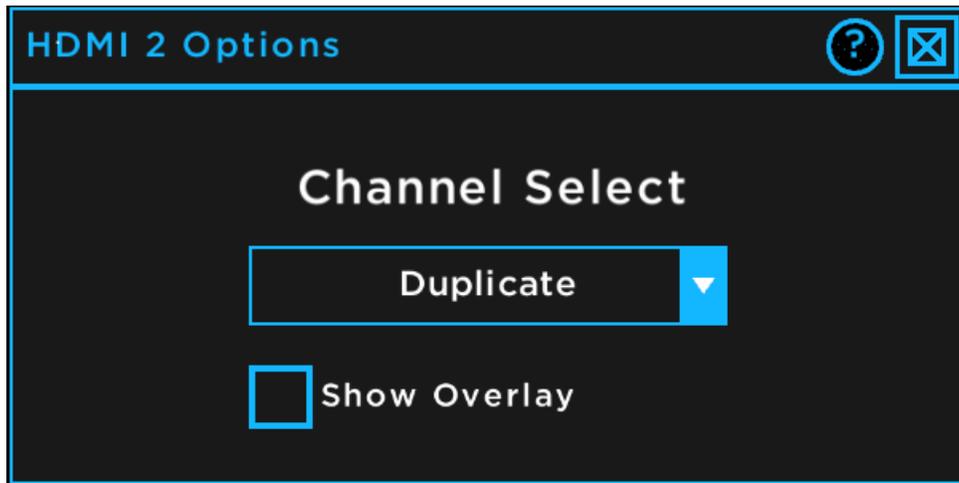
If a USB controller is detected, the name of the controller will be displayed on the top left side of the Controller Options menu. If there are multiple USB controllers detected, you can press the ‘SWAP’ button at the top of the menu to cycle through the active controller. The controller icon on the left side will mirror the inputs of the actual controller. Buttons will turn black on the controller icon when the corresponding button is pressed on the real controller, and the label for the button will turn red. For example, in the above photo the UP DPAD button is pressed on a real controller named “SteelSeries Stratus Duo”. The UP DPAD button on the icon is highlighted black and the “Button:5” label is red on the right side.

The mappings can also be changed on this menu. Each button or stick can be assigned to pan, tilt, zoom, or focus on channel one or two. To change a button’s mapping, first identify the button number by pressing the button on the real controller, and look for the label that turns red. Next, click on the dropdown menu under that number, and select the function that you want. Then, press the “Save Bindings” button at the bottom of the menu. You can also reset all buttons to their default functions by pressing the “Restore Defaults” button.

To use the controller to control the cameras, you must press the “Enable Controller” button, otherwise the controller will not work.

### 3.4.6 HDMI Options Menu

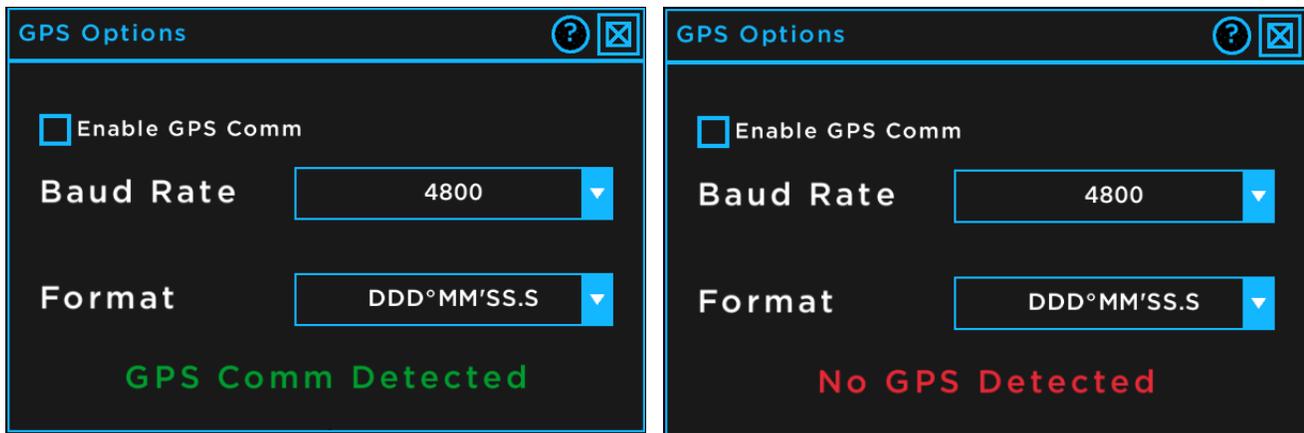
The HDMI Options Menu allows you to select what is displayed on a second monitor if one is connected.



The second monitor must be plugged in when the DVR is powered on for this menu to work. You can display any camera channel, all four camera channels, or duplicate anything that is on the first monitor by selecting it in the drop down menu. You can also toggle whether there is an overlay on displayed on the second monitor with the checkbox.

### 3.4.7 GPS Options Menu

The GPS Options Menu allows you to configure and enable a USB GPS.



The GPS Options Menu will show you if a GPS is detected. You need to configure the baud rate to match the GPS that is attached by selecting it in the drop-down menu before enabling the GPS. Then click the “Enable GPS Comm” checkbox. You can also change the format of the coordinates with the lower drop-down menu. To display the coordinates, you must enable them in the HUD Options menu ([Section 3.1](#)). The accepted formats for the GPS message are GPRMC, GPGGL, and GPGGA.

### 3.5 Library



The Library Menu allows you to manage and view videos and images on the internal hard drive.



The left side of the Library Menu shows the name and size of all videos and photos. If any photo or video has comments or highlights, there will also be an icon on the line of the video (note icon for notes, and a star icon for highlights). You can scroll through the photos and videos either by scrolling with a mouse, or by clicking and dragging the scroll bar on the left side of the screen. The photos and videos can also be sorted by clicking on the small bar at the top of the menu. There are several ways to sort the photos and videos including:

Title: The name of the photo or video.

Date: The date the photo or video was created.

Channel: The channel the photo or video was recorded from.

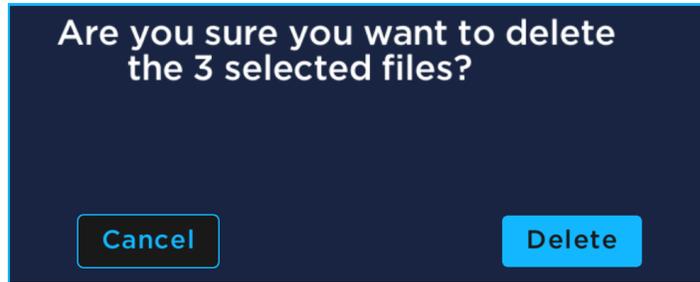
Type: Either mkv for videos or jpeg for photos

Notes: Whether or not the photo or video has notes.

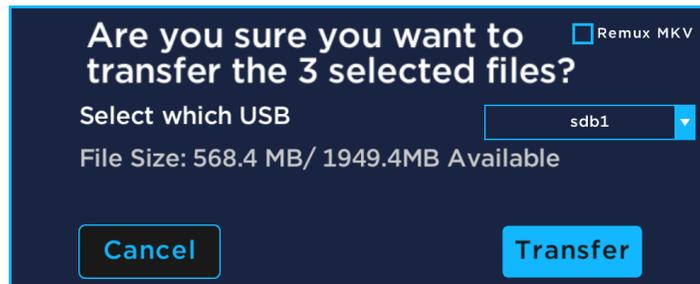
Star: Whether or not the photo or video has highlights.

Size: The size of the photo or video on the hard drive.

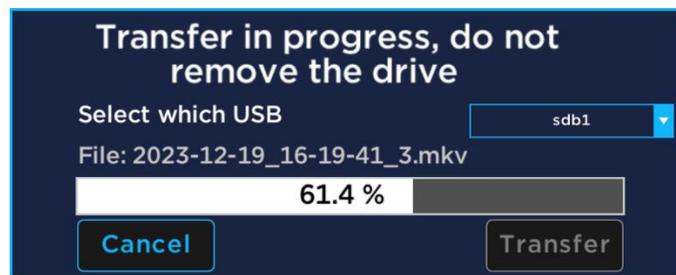
You can select multiple files by clicking on the checkbox next to each file you would like to select. The total number of files selected, and their cumulative size is displayed in the top left corner of the Library Menu. You can also select all files using the “Select All” button. You can then press the ‘Delete’ button at the top of the screen by clicking on the trashcan icon to delete the selected files or press the ‘Backup’ button by clicking on the circular arrow icon to copy the selected files to a USB storage device that is plugged in to the DVR. Both actions will display popups asking you to confirm your selections.



For the delete popup, clicking the ‘Delete’ button will permanently delete the selected files from the internal hard drive. These files are NOT recoverable. Clicking the cancel button will close the popup window.



For the transfer popup , there are a few more options. If more than one USB drive is detected, there will be a dropdown menu asking you to select which USB you would like to transfer the files to. There is also a check box labeled ‘Remux MKV’. This option, if enabled, will have the DVR do some additional processing to the videos during the transfer process. This is usually not necessary and is significantly slower but may resolve playback issues on the computer. Clicking the transfer button will open a new popup window that will show the transfer progress. Clicking the cancel button will close the popup window.



The right side of the Library Menu shows both the media preview and media information. The preview section is on the top right side of the screen, and it behaves differently for videos and photos.

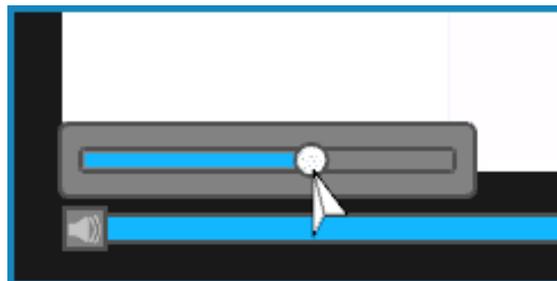
For photos, it simply displays the photo. You can toggle between the default view and a full screen view by double clicking on the image preview.

For videos, there is a video player. You can play and pause the video by clicking one time anywhere on the preview. You can also toggle between the default view and a full screen view by double clicking on the video preview. Just below the preview there is a volume slider, progress bar, and full screen button.

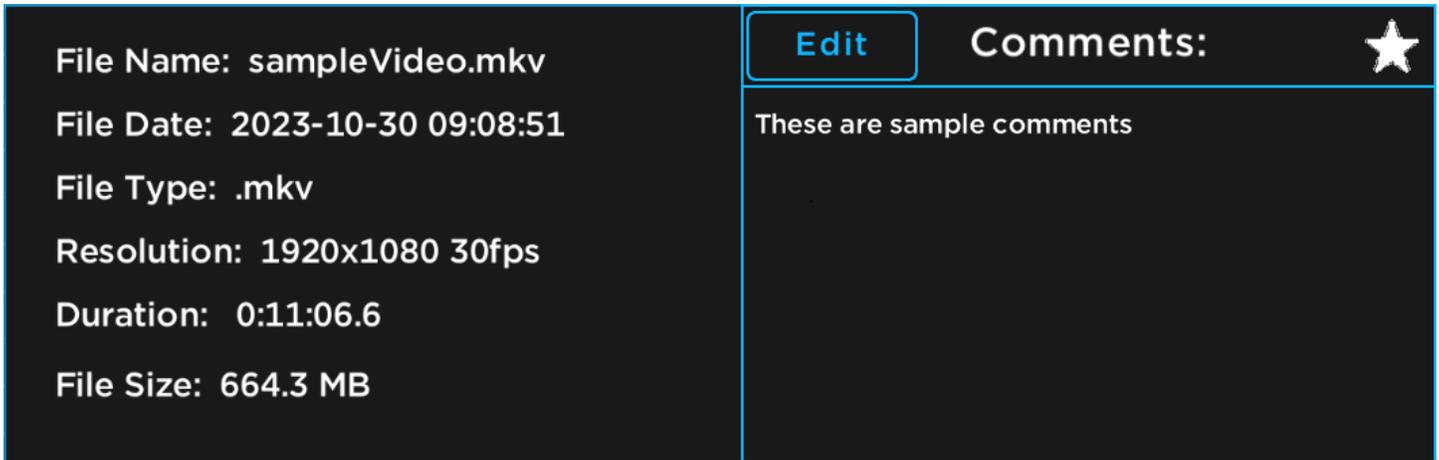
The progress bar shows the duration of the video and current position in the playback. It can also be used to seek to another point in the video. Mousing over the progress bar will show a small preview of the video at the new timestamp. Clicking will then jump to that point in the playback.



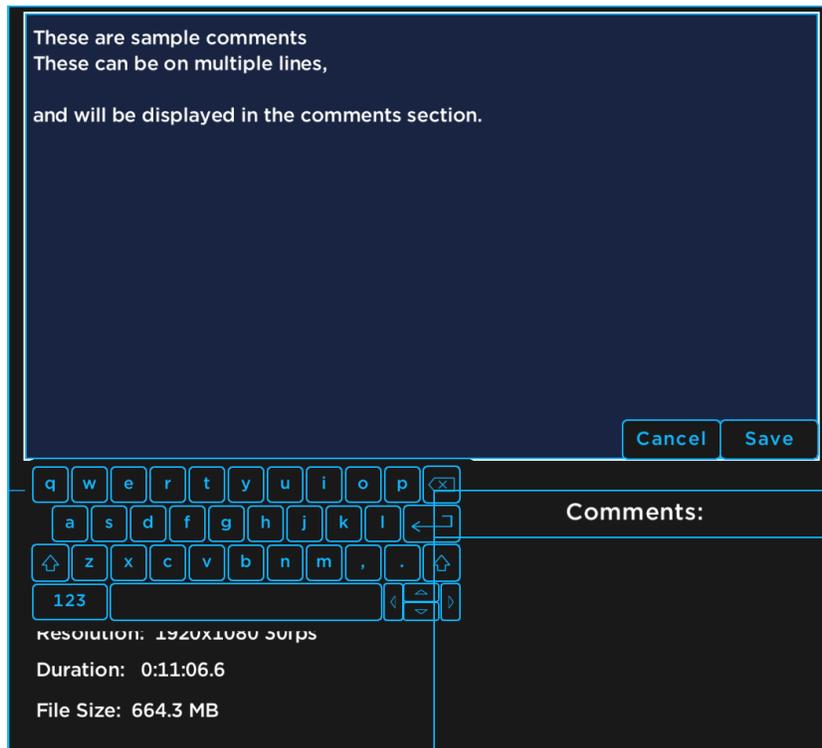
The volume slider is hidden by default but can be opened by mousing over the volume icon on the left side of the progress bar. Once open, click and drag on the slider to adjust the output volume.



Beneath the preview is the media information. The left side of the information section shows the basic information about the photo or video including the name of the file, the time and date the file was created, the size of the file on the disk and the resolution of the file. The right side of the information section will display any comments that have been added to the file, as well as allow you to edit the comments.



To add comments, click on the “Add” button at the top of the comments section. If there are already comments on the media, the button will instead say “Edit”. To delete or modify the comments click the “Edit” button. This will open a large textbox where the media preview was.



You can type with a USB keyboard or using the on-screen keyboard. The comments can be on multiple lines and can have up to 1000 characters. When you are done, you can click the ‘Save’ button at the bottom of the text entry box to save the comments to the media file, or ‘Cancel’ to discard the changes to the comments. These comments will be viewable both on the DVR, and once exported.

### 3.6 Update Options Menu



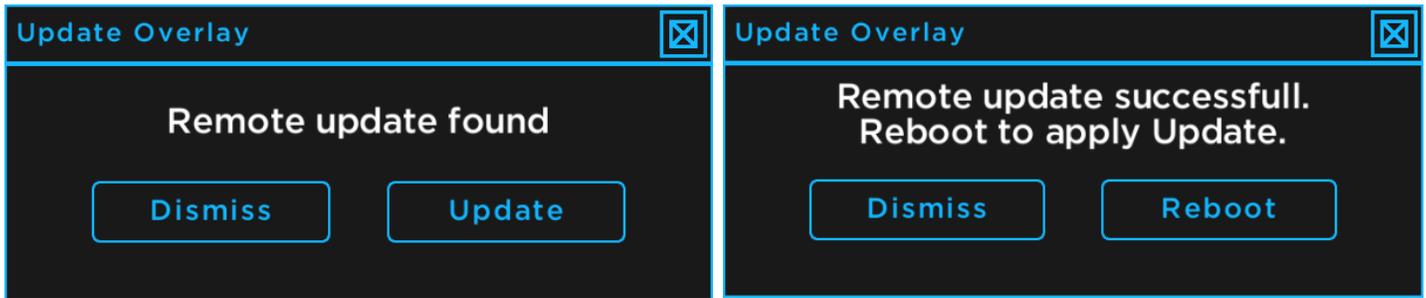
The Update Options Menu allows you to update the DVR with a USB drive or over the internet, send manual commands to devices, save the DVR settings, and check the current firmware version of the DVR.



You can send a manual command by pressing the ‘Send Manual Command’ button. These commands are codes that can affect various settings of attached devices. This screen should never be used without the explicit instructions of an Outland employee, as these commands can cause permanent damage to your system.

There are two ways to update the firmware of the DVR; with a USB and files provided by the Outland website, or with over the air updates. For a USB update, check the [website](#) for instructions.

Over the air updates are NOT automatic. To check if there is an update available for your system, first connect your DVR to the internet using the Network Options Menu ([section 3.4.4](#)), then click the ‘Check for DVR Updates’ button. If an update is available, a popup will appear asking if you would like to update your system.



If you do want to update, click the 'Update' button to begin the download (left image). It will begin downloading the update and when it is ready, a new menu will pop up asking you if you would like to apply the update (right image). Press the 'Reboot' button and the DVR will update then reboot.

The 'Save Overlay Config' button will save the system settings and configuration. This is also done automatically every 30 seconds.

The bottom of the Update Options Menu shows the firmware version of the DVR. In the above image, the version is 1.1.3