DVDO EDGE Green

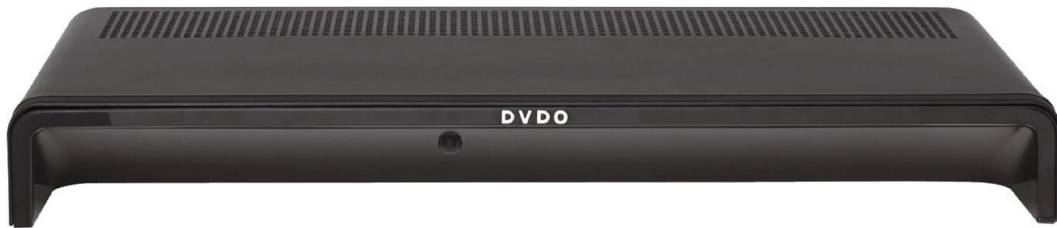## DVDO EDGE GREEN
High Definition Video Processor & Hub

Product Manual
Version 1.0

1

Safety Information

Important Safety Information

Never operate DVDO EDGE GREEN with the top cover removed.

High Voltages are present inside the enclosure which present an electrical shock hazard. Never operate EDGE GREEN with the top cover removed.

Do not expose EDGE GREEN to water or other liquids.

Never insert objects through the vent holes on the top cover. High voltages inside the enclosure present an electrical shock hazard.

No user serviceable parts inside the enclosure. Contact Customer Support for servicing.

2

Customer Support

Customer Support Information

email: info@simplaylabs.com

phone: 1-888-436-4411

web site: www.simplaylabs.com

Check the web site for warranty information, news and updates for your DVDO EDGE GREEN

DVDO by Simplay Labs, LLC

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Sunnyvale, California 94085
USA

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Table of Contents

4

Section 1: Introduction

Congratulations on your selection of the DVDO EDGE GREEN High Definition Video Processor & Hub. Incorporating advanced state-of-the-art video processing technologies from Simplay Labs, EDGE GREEN provides an extraordinarily high performance level for delivering an improved picture to a high definition television or projector, combined with extraordinary ease of use. With its new low power rating the EDGE GREEN now does "more for less" – less power to fit your lower power consumption requirements.

EDGE GREEN is really two products in one:

For the USER, EDGE GREEN is an amazingly easy to use home theater switching device that goes way beyond merely selecting which source will be viewed, by actually improving the source signal to create a better looking picture. It does this using patented picture processing technologies to remove picture noise and other artifacts (image errors), and does this automatically. EDGE GREEN also does a superb job of adapting input signals of differing dimensions to your television's resolution.

For the CUSTOM INSTALLER or "PROSUMER," EDGE GREEN is all of the above, plus an extraordinarily customizable processor, which you can tweak extensively. It incorporates numerous built-in test patterns and calibration options.

If you're a USER, remember that EDGE GREEN can always function in a highly automated manner, with easy-to-follow setup wizards.

You don't need to explore every menu and option to enjoy the extraordinary benefits of EDGE GREEN!

EDGE GREEN Features Award Winning Video Reference Series Technologies from Simplay Labs

- Precision Deinterlacing of Standard Definition and High Definition signals to give the highest quality video from all interlaced sources including most cable, satellite and over-the-air broadcasts

- Precision Video Scaling up to 1080p for perfect resolution matching to your HDTV

- Mosquito Noise Reduction to reduce the compression artifacts in digitally compressed signals, like cable, satellite and internet-based video

- Fine Detail and Edge Enhancement allow you to accurately adjust the sharpness of the picture to your liking

- Dramatically Improves Video Quality of improperly processed video by sources such as a DVD player, Blu-ray, or cable/satellite box, using DVDO's exclusive PReP - Progressive ReProcessing

- Eliminates LipSync Problems by removing the common delay between audio and video

7

EDGE GREEN Ease of Use

- Intuitive user interface with Set-Up Wizards that make installation a breeze

- On Screen Hints guide the user as they navigate the menu

- Pushing one device button automatically makes all setting changes using Auto Priority feature.

- Easy-to-use remote control.

EDGE GREEN Advanced Connectivity

- 5 HDMI 1.3 Audio/Video Inputs with 3D pass through

- 4 Analog Video Inputs, including 2 Component Inputs, 1 S-Video and 1 Composite Video

- 5 Separate audio inputs that can be assigned to any of the video inputs, including 3 Optical Digital, 1 Coaxial Digital, and 1 Stereo Analog input

- 2 HDMI 1.3 Outputs - 1 that supports audio and video that can be connected directly to an HDTV and 1 that supports audio only that can be connected directly to A/V Receiver. An Optical Digital audio output is also available for legacy A/V receivers that do not support HDMI

EDGE GREEN Compatibility

- Compatible with enhanced-definition or high-definition widescreen TVs with an HDMI audio/video input or a DVI video input and AV Receivers with an HDMI or Optical Digital audio input.

EDGE GREEN High Performance Analog Video

- High quality multi-format 10-bit video decoder featuring 3D comb filter for excellent composite video performance.

8

DVDO EDGE GREEN Feature Summary

- Accepts inputs from up to 9 video sources and 9 audio sources.

- Outputs video and audio to your digital TV via HDMI.

- Dedicated audio HDMI output routes audio to your AV Receiver.

- Separate Optical digital audio output for AV Receivers that don't have HDMI.

- Allows use of the highest quality video format your TV can accept and the highest quality audio format your AV Receiver can accept.

- Converts video formats from any video input to the highest quality format your TV can support.

- Links audio and video inputs so they can be switched together.

- Intuitive on-screen Menus for controlling and configuring your system.

- Automatically switches inputs using preprogrammed priority. Alternatively, the user may manually switch inputs using the remote or through the On-Screen Menus.

- Wizard guides you through setup of new TVs, receivers, or input devices.

- User programmable audio/video lip sync; up to 200mS delay.

- Simple Aspect Ratio controls available on the remote through the On-Screen Menus.

- Picture Controls, Aspect Ratio, Game Mode, and Zoom are individually configurable for each video input.

9

What will DVDO EDGE GREEN do for you?

DVDO EDGE GREEN will improve the quality of your experience with your home audio and video system.

EDGE GREEN achieves this by acting as an intelligent central switching hub and video processor. It connects all of your audio/video source devices to your high definition TV and AV receiver. It makes switching from one component to another simple.

Most home audio video setups consist of a number of separate components that must be connected together. The task of connecting, configuring, optimizing and operating the system is left to the user. EDGE GREEN excels at handling these tasks for you.

DVDO EDGE GREEN is a unique product that helps to simplify your system's interconnections, while delivering ease of use and world class video processing to your high definition television.   The more components your system has, the more you benefit from the simplification and performance that DVDO EDGE GREEN can deliver.

EDGE GREEN features a number of technical innovations. High performance video processing delivers outstanding picture quality. Ease of use features include automatic input switching, based on predetermined priority, so switching audio/video sources is as simple as powering on a component. Controls for Aspect Ratio, Zoom, and Picture Controls are customizable for each input.

EDGE GREEN features dual HDMI output connectors, one for video/audio and a 2nd dedicated audio HDMI connector. This configuration delivers optimal performance and ease of use in systems with both a digital display and an AV Receiver. EDGE GREEN communicates with your display to obtain its preferred format, then automatically adjusts its processing to produce a high definition image to match the display's preferred format.

EDGE GREEN communicates with your AV Receiver to learn its audio capabilities, then combines display information and relays system capability back to the source components, which provide optimized output. You can let EDGE GREEN manage your system or if you prefer, you can manually control your system through EDGE GREEN. Either way, EDGE GREEN makes it easier.

DVDO Edge Green is a result of a vision: Using a home Audio/Video system, with high definition video and surround sound audio should be and can be much easier.

This Owner's Manual will help you set up your EDGE GREEN, and provide the necessary information required to get the best picture quality to your display. It will also show you how to properly use EDGE GREEN with the other components in your system.

10

Unpacking and Inspection

Please verify that your EDGE GREEN carton contains the following items:

• EDGE GREEN Video Processor
• US IEC Power Cord (International Customers, consult your local authorized DVDO reseller)
• Remote Control
• Batteries for Remote Control
• EDGE GREEN Quick Start Guide
• Std-A to Mini-B plug 5-pin USB cable

If you are missing any items, please contact your dealer or the DVDO Support Team.
Additional cables or adapters are required to connect the EDGE GREEN to your source(s) and display(s). Both input and output cables can be supplied by your Authorized DVDO Reseller.

To find your nearest Authorized DVDO Reseller, visit **www.simplaylabs.com**.

Display Compatibility Requirements

EDGE GREEN is compatible with a wide range of displays including digital TVs, projectors and monitors. Your display is compatible with EDGE GREEN if it has an HDMI or DVI input. EDGE GREEN is not compatible with displays that have only analog inputs.
Note: If your display has a DVI input, verify that it is HDCP-compliant. If your display is not HDCP-compliant you will need to use the component or other analog connections from digital video sources that require HDCP, such as DVD and Blu-ray players.

Remote Control Battery Installation

The remote control uses two AAA batteries (included), which should be replaced as needed.

To install the remote control batteries:

1. Locate the battery compartment on the back of the remote control.
2. Remove the cover from the back. To do this, push the cover in the direction indicated.
3. Remove the old batteries (if applicable).
4. Insert two new AAA batteries in the compartment as shown on the inside of the battery compartment. Make sure the batteries are correctly inserted, observing the proper polarity.
5. After installation, replace the cover and recycle the old batteries (if applicable).

11

Remote Control

The supplied remote control is used to operate the EDGE GREEN. Shown below are some of the main buttons and their functions. These are covered in more detail in Section 3.

Power Off — — — — —

Power On

Picture Aspect Ratio

Input Select Buttons

Main Menu Screen — — — —

Exit Menus

Navigation Buttons
(4 arrow keys plus Enter)

Zoom Buttons — — — —

Select Audio Output

View Information Screens

12
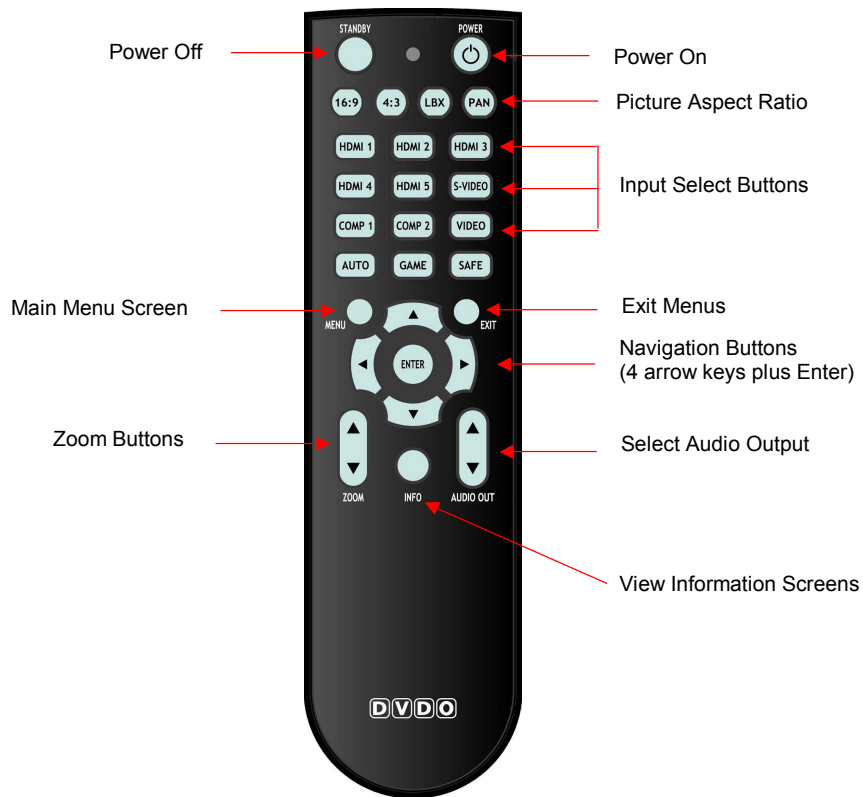
Installation Guidelines
The EDGE GREEN installation guidelines below ensure optimal performance.

Do . . .

• Install the EDGE GREEN on a solid, flat, level surface such as a table or shelf. (You can also install the EDGE GREEN in a standard 19" equipment rack using a readily available rack-mount kit.)

• Select a dry, well-ventilated location.

• Avoid excessive humidity, sudden temperature changes or temperature extremes.

• Use only accessories recommended by DVDO to avoid fire, shock or other hazards.

• Unplug the EDGE GREEN before cleaning. Use a damp cloth for cleaning.

Don't . . .

• Stack the EDGE GREEN directly above heat-producing equipment such as power amplifiers or other components that generate heat during use.

• Expose the EDGE GREEN to high temperatures, humidity, steam, smoke, dampness, or excessive dust. Avoid installing EDGE GREEN near radiators and other heat producing appliances.

• Install the EDGE GREEN near unshielded TV or FM antennas, cable TV decoders, and other RF-emitting devices that might cause interference.

• Place the EDGE GREEN on a thick rug or carpet or cover the EDGE GREEN with cloth. This might prevent proper cooling.

• Attempt to service this unit. Instead, disconnect it and contact your Authorized DVDO Reseller or DVDO directly.

• Open or remove unit panels or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your EDGE GREEN.

13

Using DVDO EDGE GREEN in a Basic Home AV System (with no AV Receiver)
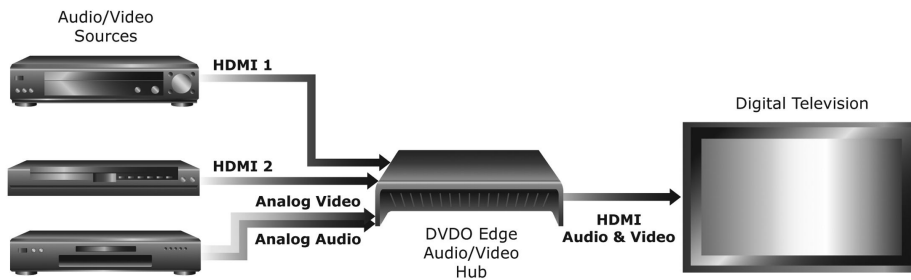
The illustration above shows a basic home audio/video system using DVDO EDGE GREEN. The components on the left are "sources." Sources are DVD Players, set top boxes, or any other component that produces an audio and video signal. These audio and video signals connect to the inputs of the EDGE GREEN, and the output of EDGE GREEN connect to a TV. EDGE GREEN switches audio and video signals, and provides image processing to match the incoming video formats to the preferred format of the TV.

The source components may use a variety of different signal formats and cabling. EDGE GREEN can accept most commonly used cabling, and can handle a mix of cabling and format types. In the illustration above, two of the sources have HDMI outputs, while the third one uses an older analog audio and video interface. Three sources are shown above, EDGE GREEN can accept up to ten.

14

Using DVDO EDGE GREEN in a Home System AV System with AV Receiver

Audio/Video Sources — HDMI 1, HDMI 2, Analog Video, Analog Audio — DVDO Edge Audio/Video Hub — Video HDMI — Digital Television — Audio HDMI — AV Receiver — Surround Sound Speakers

When used with an AV Receiver, Edge Green handles the video processing and switching, while the AV Receiver does the audio surround sound processing.
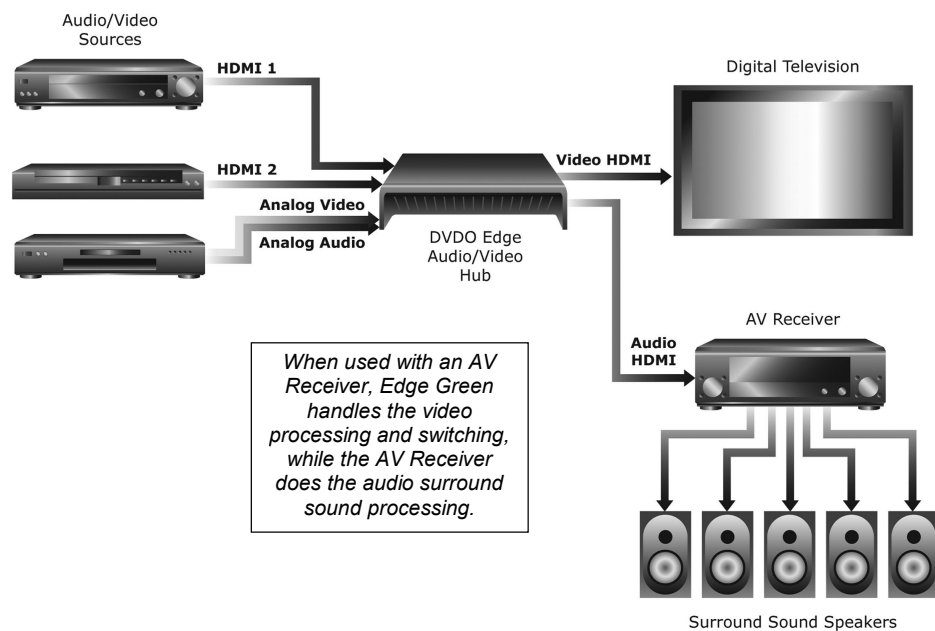
EDGE GREEN is optimized for use in a system with an AV Receiver as shown above. It has a dedicated audio HDMI output port, and an Optical audio output for AV Receivers without HDMI inputs. EDGE GREEN accepts audio and video from the source components, then routes video to the TV and audio to the AV Receiver. Switching source components is simple; EDGE GREEN handles the audio and video routing details.

EDGE GREEN provides automatic, intelligent communication between the source devices on the left, and the TV and AV Receiver on the right. EDGE GREEN automatically adjusts its internal processing to produce the preferred video format of your digital TV or display.

15

Rear Panel Connections

Analog Audio | Coax Audio Input | Optical Audio Inputs | Optical Audio Output | Reset Button | AC Power

Flexible Component Video Inputs

Video Input | S-Video | 5 HDMI 1.3 Inputs | Video & Audio HDMI 1.3 Output | Audio Only HDMI 1.3 Output | Service Connector MiniUSB | IR Input (Minijack)
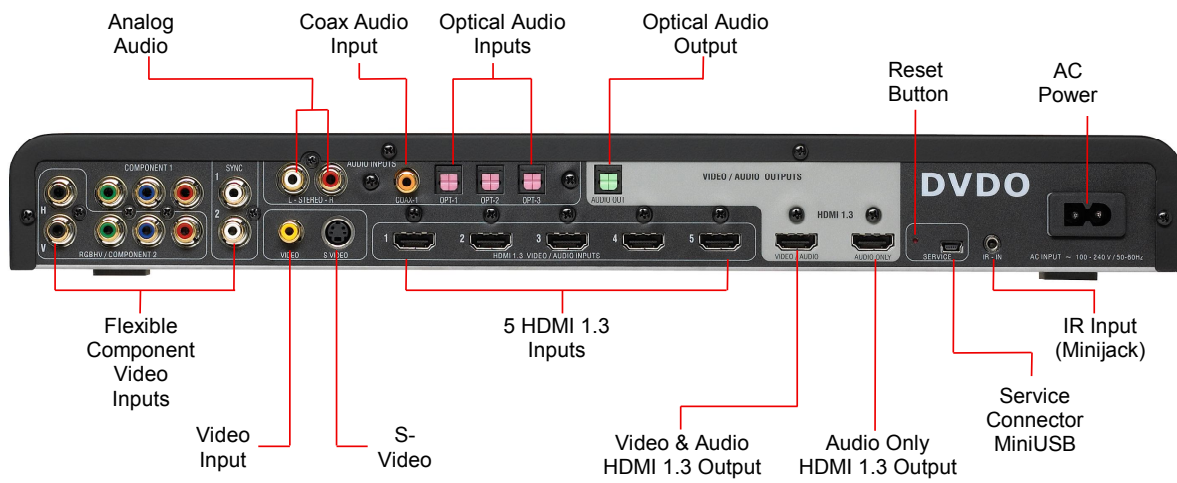
A description of these connectors starts on the next page.

16

Rear Panel: Video Inputs

Flexible Component Video Inputs
This group of connectors can accept 3 types of analog component video inputs:
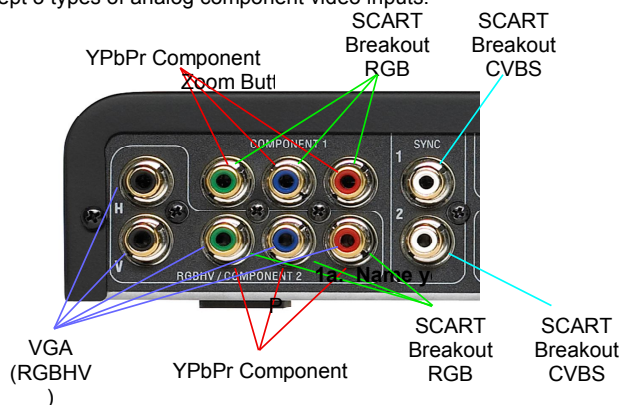
YPbPr Component (2 Inputs)
This is the most common type of component analog signal. Cables are usually, 3 RCA-> RCA type.

RGBHV
RGBHV stands for "Red, Green, Blue, Horizontal Sync, Vertical Sync.
It is usually used to connect a computer's analog VGA output using the VGA to RGBHV adapter cable.

EDGE GREEN can accept these format on RGBHV:
    VGA   640 x 480 @ 60 Hz
    SVGA 800 x 600 @ 60 Hz
    XGA   1024 x 768 @ 60 Hz
    SXGA 1280 x 1024 @ 60 Hz

RGB + CVBS
For use with a SCART breakout cable. Connect the breakout cable to a SCART connector, then connect Red, Green, and Blue to the component inputs, and connect CVBS to the Sync input horizontally adjacent to the component inputs.
Note: SCART is primarily a European connector type. CVBS means Composite Video Broadcast Signal; typically this would be an analog PAL or SECAM signal.

17

Video Input (yellow RCA connector)
> Composite video input. This signal is also known as "base band NTSC." Also accepts European analog standards PAL and SECAM.

S-Video
> S-Video is a analog input signal format similar to base band NTSC (or PAL/SECAM), except that the chroma and luma/sync components are on separate conductors, for improved signal quality. If you have a choice between Video or S-Video, choose S-Video.

Rear Panel: Audio & Video Inputs (HDMI)

HDMI 1.3
> EDGE GREEN has a total of 5 HDMI inputs. HDMI version 1.3 is the most current and most full featured revision of the HDMI standard. HDMI inputs feature 3D Pass Through. HDMI is the only input that carries both video and audio.

> **DVI (via HDMI)**
> EDGE GREEN HDMI inputs are compatible with DVI using an HDMI to DVI adapter cable (purchased separately). If you use a DVI source, you will need a separate audio cable because DVI connectors do not carry audio..

Rear Panel: Audio Inputs

Stereo Audio Input (Red and white pair)
> Analog input for stereo audio. The connector is labeled L - Stereo - R.

Coax (orange)
> Coax is the name given to a type of audio input. The cable is a RCA style, like the Video input. Coax carries digital audio in an SP/DIF format.

Optical (Toslink)
> EDGE GREEN has 3 Optical audio inputs. They carry the same signal format as Coax, i.e. SP/DIF digital audio.

18

Rear Panel: Audio & Video Outputs

HDMI 1.3 Video/Audio
    This connector is used to carry video to your TV or display. It will also carry audio depending on how you configure your EDGE GREEN.

HDMI 1.3 Audio Only
    This connector is intended to connect to an AV Receiver for audio processing. EDGE GREEN will automatically send audio to this connector if it is connected to a powered-up AV Receiver, or you can manually configure EDGE GREEN's audio output. This connector does not output video.

Optical
    If you have an AV Receiver for audio processing, but it does not have an HDMI input, you can use the Optical output to connect audio from your EDGE GREEN to your AV Receiver.
    Configuration of the audio output of EDGE GREEN can be done using the Settings Menu.

Other Rear Panel Connectors

Service
    This connector is used for software upgrades if they are necessary using a mini-USB cable. Refer to the web site: www.simplaylabs.com for updates regarding software upgrades.

Reset
    Resets the EDGE GREEN, and brings it into a known state. Reset does not change user settings. If Reset is used, it should be pressed and released quickly (less than 2 seconds).

    The reset button will also restore factory defaults. If the reset button is pressed and held, the front panel LED will blink for about 5 seconds. When it stops blinking and stays on, the reset button can be released. All factory defaults will have been restored, and any user settings will be erased.

IR - In
    This connecter can be used in installations where line-of-sight IR reception is not possible in conjunction with accessories that allow for remote IR connections.

AC Input
   Power connection for your EDGE GREEN.

19

Section 2: Detailed Set Up Instructions for DVDO EDGE GREEN

Summary

A summary of the setup procedure appears on this page, followed by a more detailed description over the following pages. Some steps may be skipped depending on your system configuration and your preferences.

1. **Gather your cables.** For help choosing cables, see "Cables" in the Appendix.

2. **Connect your AV Receiver** (you can skip this if you will use your TV's built-in audio).

   - Connect a cable from your DVDO EDGE GREEN to your AV Receiver
     - If your AV Receiver has HDMI input, connect an HDMI to HDMI cable from EDGE GREEN's Audio HDMI output to your Receiver's HDMI input.
     - If your AV Receiver does not have HDMI, connect a cable from EDGE GREEN's Optical Audio output to your Receiver's optical input.
   - Power up your AV Receiver
   - Set up your AV Receiver to accept input from EDGE GREEN

3. **Connect and set up your TV**

   - Connect a cable from your DVDO EDGE GREEN to your TV
     - If your TV has an HDMI input, use and HDMI to HDMI cable.
     - If your TV has a DVI input, use an HDMI to DVI adapter cable.
   - Power up your DVDO EDGE GREEN and your TV
   - EDGE GREEN's Display Wizard will lead you through the remaining setup.

4. **Connect and set up your input components**

   - Connect a cable from your source component's audio/video outputs to your EDGE GREEN
   - Power up the source component
   - Input Wizard should appear to guide you through setup.
   - Test to see that you have both audio and video from the source component
   - Repeat the steps above for each of your source components

20

Output Connections to TV and AV Receiver

DVDO Edge Green -- Output Connectors

Connect your TV to the Video/Audio output.
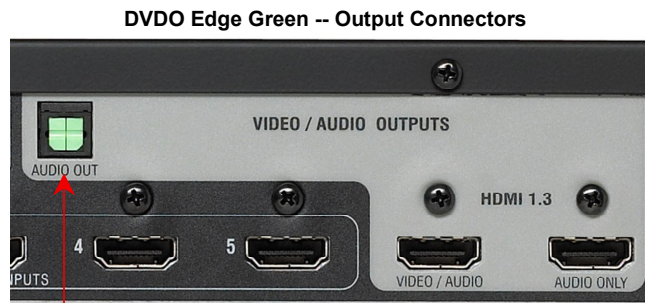
Connect your AV Receiver to the Audio Only HDMI output if the AV Receiver has an HDMI input.

OR...
Connect your AV Receiver to the Optical Audio Out connector if your Receiver <u>does not</u> have HDMI.

1. **If you don't have an AV Receiver, skip to Step 2.**

   • If your AV receiver <u>has HDMI input</u>, connect an HDMI cable from the Audio Only HDMI output to an HDMI input on your AV receiver.

   • If your AV Receiver <u>does not have HDMI</u>, connect an Optical cable from the Optical Audio Out to an optical input on your AV Receiver.

   • Use your AV Receiver's remote to power on the AV Receiver and set its input to Edge Green.

2. **Connect your TV.**

   • If your TV has HDMI input, connect an HDMI to HDMI cable from Edge Green's Video/Audio output to an HDMI input on your TV.

   • If your TV or monitor has DVI input, you will need an HDMI to DVI adapter cable. Connect the HDMI end to Edge Green's Video/Audio HDMI output and the DVI end to your TV or monitor.

   • Use your TV's remote to power up and set its input to Edge Green.

   • Plug in Edge Green's AC cable.

21

Customizing EDGE GREEN Settings

After you've completed the connections to EDGE GREEN, you are ready to begin customizing settings. Fortunately, this process can mostly be done automatically by EDGE GREEN itself as it senses the various devices that have been connected to it. Depending on what you have connected, you may need to pair the audio and video signals together (if they've been hooked up separately).

AUTOMATIC SETTINGS OPTIONS

Most settings can be handled automatically by EDGE GREEN. As you follow the instructions in this section, keep this in mind. EDGE GREEN offers advanced users and custom installers extensive options to manually override the automated settings, but as a rule of thumb, if you experience no problems with automated settings you probably should not change them.

SAFE MODE

As you begin adjusting settings, one thing to keep in mind is the Safe Mode feature. Safe Mode is a failsafe feature intended to restore the picture when technical problems are preventing it from appearing on the TV screen. Safe Mode does this by temporarily returning the display output format to automatic, and by temporarily suspending features that can cause loss of picture. (The features that are suspended include 1:1 Frame Rate, Deep Color, and Output Format selection.)

Safe Mode is entered and exited by pressing the SAFE button on the EDGE GREEN remote.

SAFE button on remote activates Safe Mode. Press this button if you can't see a picture to change display format and turn off certain features.

22

The EDGE GREEN Display Wizard

When you first power up EDGE GREEN you will see The Display Wizard. The Display Wizard adjusts EDGE GREEN's digital video output to match the specifications of your TV set or projector. It also provides the opportunity to name the display.

BASIC USERS TAKE NOTE:

THE DISPLAY WIZARD IS COMPLETELY AUTOMATIC.

- You can skip the steps on the next few pages completely, and let EDGE GREEN automatically assign a name to your display, and automatically select video and audio output formats.

Skip past this Display Wizard setup by pressing the LEFT ARROW key on the remote control to EXIT WIZARD when the Display Wizard appears on your TV screen.

If you do this, then:

- The name assigned automatically by EDGE GREEN will be based on the model number of the display (see example on next page).

- EDGE GREEN can automatically sense your display's "native resolution."

- EDGE GREEN can automatically sense which audio output you are probably using.

- You will only need to make changes to these automatic settings if you experience difficulties or have special circumstances.

- To accept the automatic settings, press the left arrow key to **EXIT WIZARD**.

- *THEN, PROCEED TO THE NEXT STEP:* **THE INPUT WIZARD** *(page 29)*

23

Display Wizard - Step 1: Name Your Display

You should now see the Display Wizard on your TV as shown left. The Display Wizard assists setup of your TV and your audio.

Using Display Wizard, you can
1. **Name your Display.**
2. **Select an output video format.**
3. **Select an output connector for audio.**

If you don't want to change anything, press **Left Arrow** to Exit the Wizard.

1a. Name your Display

If you want to change the name of your display, press **Right Arrow** to go to the on-screen keyboard.

Otherwise, press **Down Arrow** to go to the next setup step 2.

1b. Name your Display - Keyboard

Use this on-screen keyboard to rename your display.

When you are finished, highlight "Finish" then press **OK** to accept the new name.

If you want to exit the keyboard screen with no changes, highlight "cancel" then press **OK**.

24

Display Wizard - Step 2: Output Format

2a. Select an output video format.

EDGE GREEN defaults to "Auto Select" and communicates with your TV to find the TV's preferred format.

If you want to change the output format, press Right Arrow to go to the Output Format screen, shown below.

Otherwise, use Down Arrow to use the preferred format, and proceed to the next step 3.

2b. Output Format Selection.

Use the Down Arrow to highlight the output format you want, then press OK.

EDGE GREEN will switch to the new output format. You will have to confirm that you can see a picture within 10 seconds.
If you don't confirm, EDGE GREEN assumes that you can't see the picture and will return to the previous format.

25

Display Wizard - Step 3: Audio Output *(Note: "Audio Out" buttons on Remote Control offer the same selection)*

3a. Select an audio output connector.

You have 4 choices for audio output:

A. Auto: Default setting.

Automatically chooses an output depending on the capabilities of the attached, powered-on components.

B. Video HDMI: Outputs audio on the Video HDMI connector. Use this setting if your TV has audio capability and you don't have (or don't want to use) an AV Receiver.

C. Audio HDMI: Outputs audio on the Audio HDMI connector. Use this setting if you have an HDMI capable AV Receiver.

D. Optical: Outputs audio on the Audio Optical connector. Use this setting if you have an AV Receiver that does not have HDMI input.

Make a selection and/or press < to exit this screen.

You finished your Video and Audio output setup.

Left Arrow Exits Display Wizard

26

The EDGE GREEN Input Wizard

The Input Wizard informs EDGE GREEN about the various sources you have connected to EDGE GREEN.

BASIC USERS TAKE NOTE:

YOU CAN EXIT EACH STEP OF THE INPUT WIZARD IF...

- All of your source devices are connected with HDMI.

- You don't mind names like "HDMI 1" and "HDMI 2" appearing onscreen for your sources

Skip through this Input Wizard by pressing the LEFT ARROW key on the remote control to EXIT at each step.

THEN, PROCEED TO THE NEXT STEP: **OPERATING EDGE GREEN** *(page 31)*

OR...

Use the Input Wizard explained on the next few pages to:

- Create more descriptive names for your sources, such as "Cable-TV," "Blu-ray," "DVD," etc.

- Select which audio signal goes with which video signal for non-HDMI inputs.

- Decide which input sources will have priority when several are on at the same time. (EDGE GREEN automatically detects when you turn a component on, and switches to that source. You can override this automatic selection with the remote control.)

27

Input Wizard - Step 1: Input Name

Input Wizard guides you through the setup of your input components. You can run the Input Wizard for every input component.

Using the Input Wizard, you may

1. **Rename an input component.**
2. **Set Priority for the component.**
3. **Associate an Audio Input with the currently selected video input.**

1a. Input Name
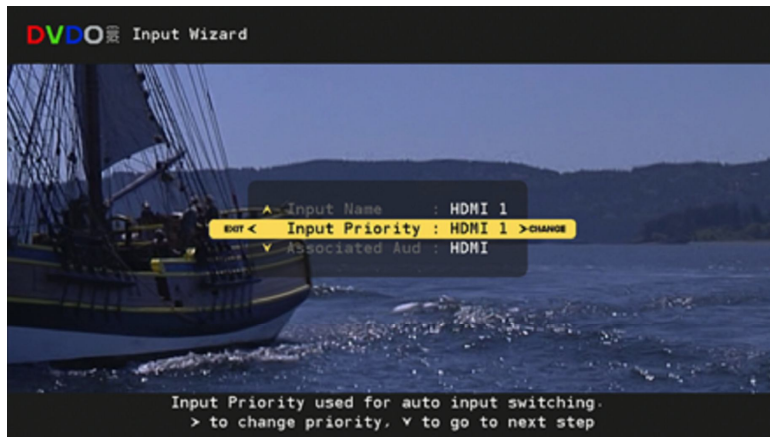Use the on-screen keyboard to rename this input, or press Down Arrow to go to step 2.

1b. Input Name - Keyboard
Use this on-screen keyboard to rename your display.

When you are finished, highlight "Finish" then press **OK** to accept the new name.

If you want to exit the keyboard screen with no changes, highlight "cancel" then press **OK**.

28

Input Wizard - Step 2: Input Priority

2a. Set Input Priority

Input Priority is used to auto-matically select inputs when EDGE GREEN is in Auto Input Select mode, which is the default.

If EDGE GREEN is in Auto Input Select Mode, and multiple inputs are powered on, then EDGE GREEN will select the input with the Highest Priority.

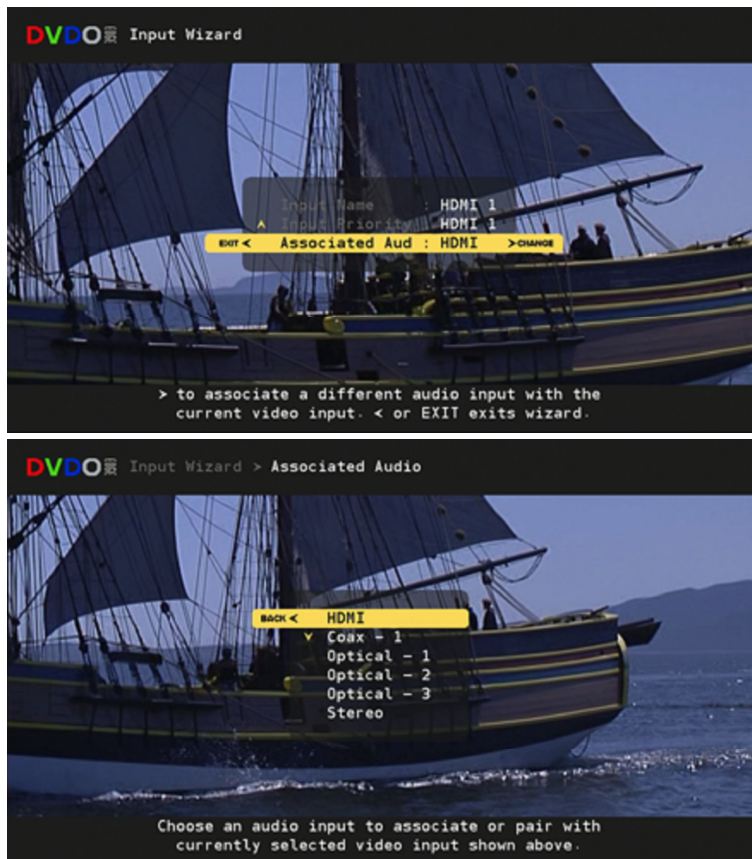If you don't want to change Input Priority, press **Down Arrow** to go to step 3.

2b. Change Input Priority

To change Input Priority put the highlight bar over the input you want to change then press **OK**.

Use **Down Arrow** to move the selection, then press **OK**

29

Input Wizard - Step 3: Associate Audio with Video (for non-HDMI)

3a. Associate Audio

"Associate Audio" is used to create an audio/video pair of inputs that are switched together.

If your source component does not have HDMI output, then EDGE GREEN will treat a video input and an audio input as a pair for switching.

"Associate Audio" lets you choose the audio input that is paired with the current video input.

For most HDMI inputs, you do not have to Associate Audio. Exit the Input Wizard. (Exception: DVI sources using HDMI adapter connections)
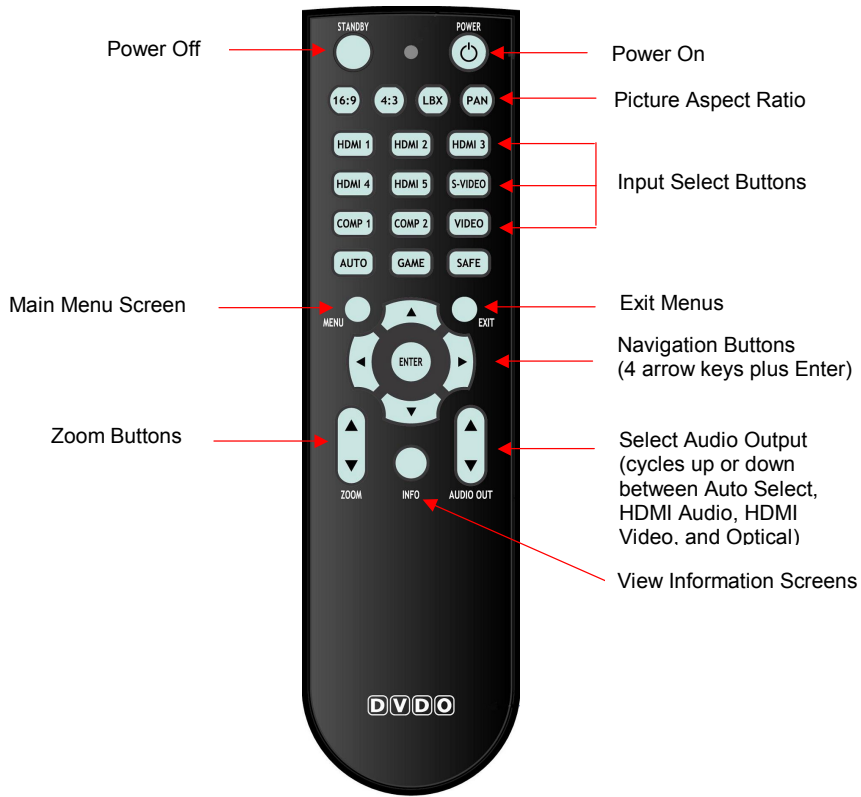
3b. Choose an audio input.

Choose the audio input that you want to Associate with the current video input.

You are finished setting up this input component.
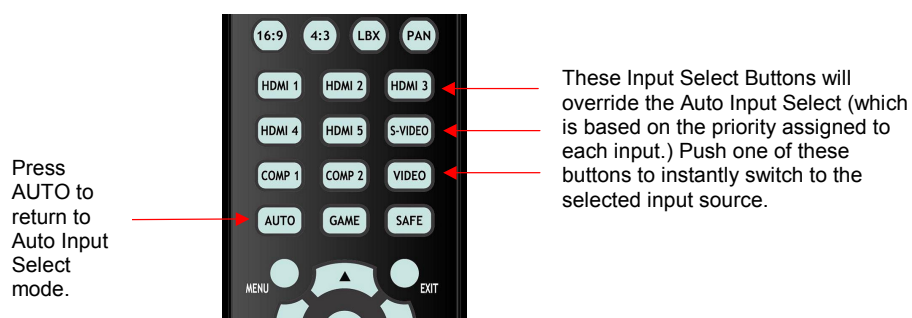
Left Arrow Exits Input Wizard

30

Section 3 - Operating EDGE GREEN with Remote Control and On-Screen Menus

Using the Remote to Control Edge Green

Power Off

Power On

Picture Aspect Ratio

Input Select Buttons

Main Menu Screen

Exit Menus

Navigation Buttons
(4 arrow keys plus Enter)

Zoom Buttons

Select Audio Output
(cycles up or down
between Auto Select,
HDMI Audio, HDMI
Video, and Optical)

View Information Screens

31

Input Select Using The Remote Control Input Select Buttons

Use the Input Select buttons on the remote control to switch inputs directly, without using the menus.

These Input Select Buttons will override the Auto Input Select (which is based on the priority assigned to each input.) Push one of these buttons to instantly switch to the selected input source.

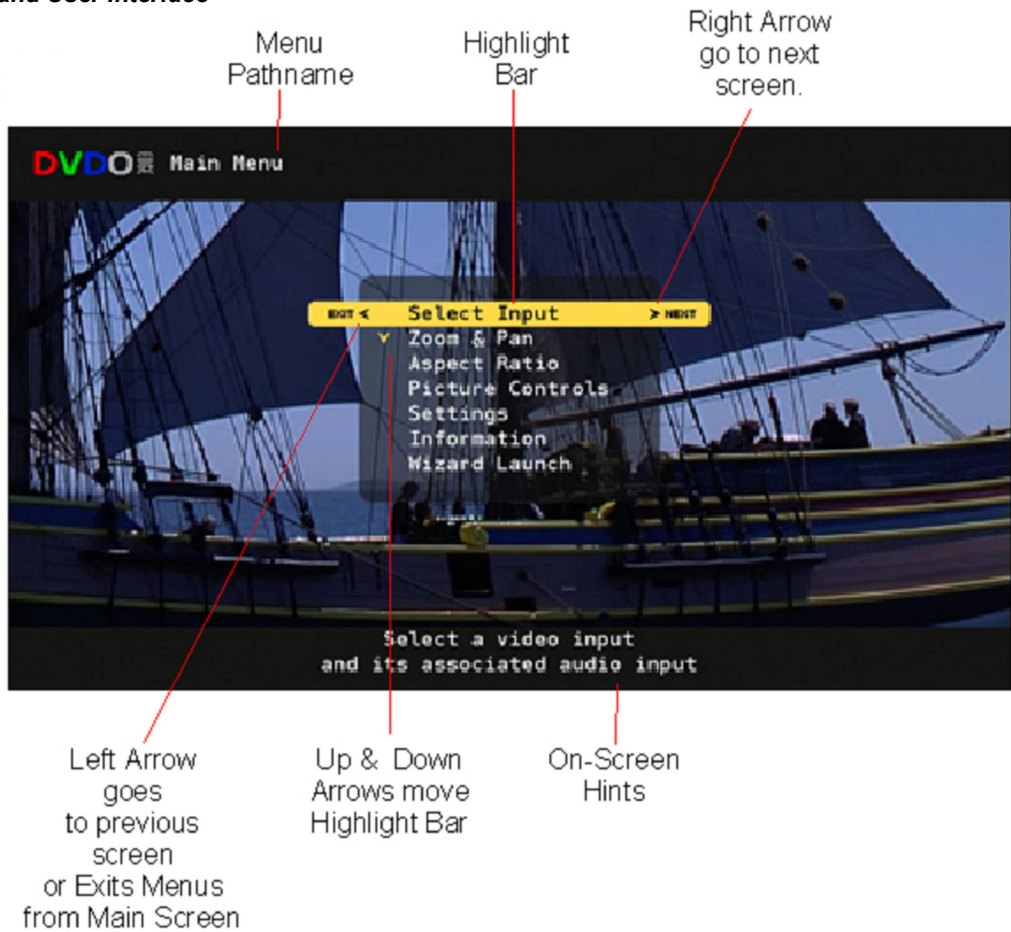Press AUTO to return to Auto Input Select mode.

Remember that when you use Manual Select, you are disabling Auto Select. (Auto Select will automatically switch to an input source when the source is turned on.)

32

Overview of Menus and User Interface

Menu
Pathname

Highlight
Bar

Right Arrow
go to next
screen.

You can control
DVDO EDGE
GREEN using the
Menu system. The
Menus are logically
organized to make
control and setup
easy while using
just a few remote
buttons. Press the
MENU button on
the remote control
to activate the Main
Menu.

(You can exit the
Main Menu by
pressing EXIT on
the remote, or by
pressing the Left
Arrow key.)

DVDO◎簿 Main Menu

EXIT ◄ **Select Input**   ► NEXT
▼ Zoom & Pan
Aspect Ratio
Picture Controls
Settings
Information
Wizard Launch

Select a video input
and its associated audio input

Left Arrow
goes
to previous
screen
or Exits Menus
from Main Screen

Up & Down
Arrows move
Highlight Bar

On-Screen
Hints

33

EDGE GREEN Menu Organization

The Menus are organized as a hierarchy in which you move from left to right. Think of the Main Menu screen as the leftmost or highest in the hierarchy. Up/Down Arrows move a Highlight Bar vertically. Right Arrow moves to the next screen until you reach a screen where you can make changes.

Move to the left in the hierarchy using the left arrow. This takes you "higher" in the hierarchy.

An example of using the Menus to adjust brightness is shown in the figure below.

Right Arrow
moves to
Picture Control
Screen

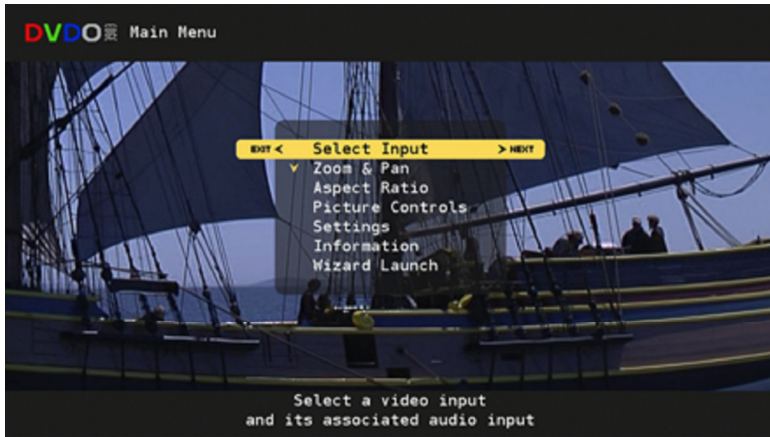Right Arrow
moves to
Adjust Brightness
Screen

Picture Aspect R

From Main, use
Down Arrow to
move the highlight
bar to
Picture Controls

Left Arrow
goes to
Previous
Screen

EXIT button
Exits Menus

34

EDGE GREEN Main Menu

Main Menu

The Main Menu is the first screen you
see after pressing the Menu button.
It is the gateway that lets you quickly
navigate to the function you want to
control.

Press MENU to activate Main Menu Screen

35

EDGE GREEN Main Menu: Select Input

There are 3 ways that input sources can be selected with EDGE GREEN:

1. **Auto Input Select** - Switches inputs automatically (the default). This will automatically switch to an input when it is powered up (see "Hints" for advice on establishing priorities when multiple devices have power on simultaneously.)

2. **Manual Input Select using the Input Select buttons** on the remote control

3. **Manual Input Select using the menus**.

Remember that when you use manual select, you are disabling Auto Select.

Input Select Using Auto Input Select

Automatic input switching is one of the features of your DVDO EDGE GREEN that makes your system easier to use. Using Automatic Switching, you switch inputs by simply powering on a component. This is the default setting for EDGE GREEN, If you do not press any of the Input Select buttons, and do not use the Menu to select an input, EDGE GREEN will continue to select inputs automatically.

When you select an input using the buttons on the remote, or using the menu, you are overriding the Auto Input Select feature. To resume Auto Select operation, you must press the "AUTO" button on the remote control, or select Auto using the Input Select Menu.

Auto Input Select is based on powering up components. EDGE GREEN detects whenever a component is powered up, and assumes this is the source you want to watch.

If you only have one input device (DVD, Blu-ray, etc.) powered on at any single time, then Auto Input Select should work perfectly with no further adjustment. However, if you have several devices powered on at the same time, then Auto Input Select decides which one to switch to based on the Priority assigned to each input. See "The Input Wizard--Step 2: Input Priority" for more details on setting input priority.

Hints for using Auto Input Select

Suppose for example that you have only 2 inputs: a cable set-top box, and a DVD player, and you keep the set-top box on most of the time. Set the priority so that your set top box has LOWER priority than your DVD player. Then, if you want to switch from watching cable to watching a DVD, simply power up the DVD player. Your DVDO EDGE GREEN will recognize a new signal on the DVD input, check the priority list, and then switch to DVD because it has HIGHER priority. This is a simple example, but the idea is to set priority *HIGHER* for the *Least-Used* inputs.

DVDO EDGE GREEN will switch inputs automatically when you power up a *Higher-Priority* component.

36

Input Select Using The Menu

Main Menu -> Select Input
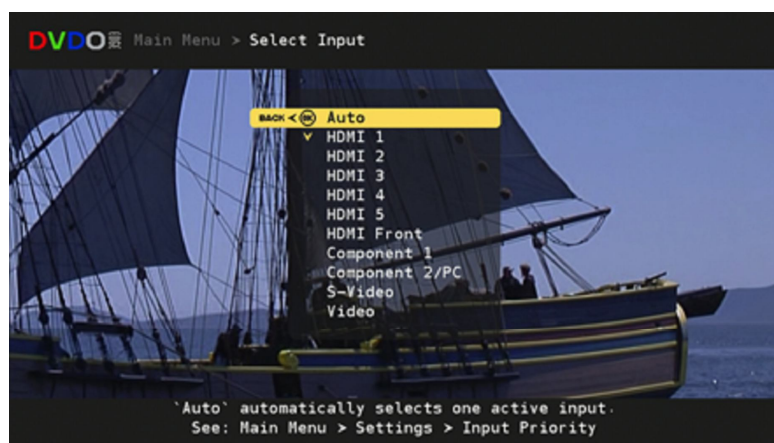
Select Input

Auto is the default setting. If more than one input has an active signal, the one selected depends on the
Input Priority setting. The active input with the highest priority will be selected.

Input Priority can be set by going to Main Menu -> Settings -> Input Priority.

Inputs can be selected manually. Position the highlight bar over an input name and press **OK**.

Remember that when you use manual select, you are disabling Auto Select.

You can also select input directly using the Input Select buttons on the EDGE GREEN remote control.

37

Zoom and Pan

Main Menu -> **Zoom & Pan** -> **Zoom**

The Zoom control allows you to magnify your picture. As the picture magnifies, the area around the edges becomes invisible off the sides, top, and bottom of your display.

Pan lets you move around on a zoomed picture. You can shift left, right, up or down. Shift has no effect unless the picture is zoomed. If the picture is not zoomed, the Pan control will be grayed, meaning it is unavailable.

The Zoom and Pan settings you choose apply only to the current input. You can customize the zoom settings for every input if you so choose. Zoom and Shift settings will be stored and will not change until you deliberately change them.

Zoom
Magnifies picture and preserves aspect ratio.

Zoom H or V
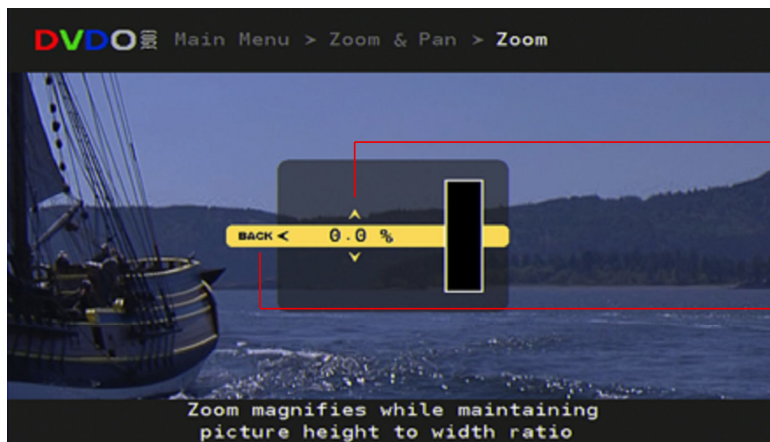Independent horizontal and vertical zoom control.

Pan H or V
Pan chooses the parts of a zoomed picture that will be displayed. Independent horizontal and vertical control.

(Selection is gray if the picture is not zoomed).

38

Zoom Control Screen

Main Menu -> **Zoom & Pan** -> **Zoom**
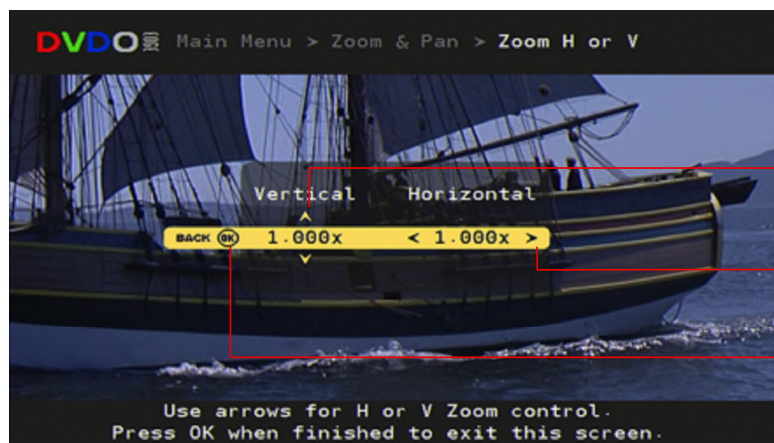

Use Up/Down Arrows
to adjust Zoom

Press Left Arrow to go BACK
to the previous screen.
or
Press **EXIT** to exit menus.

39

Independent Horizontal and Vertical Zoom

Main Menu -> **Zoom & Pan** -> **Zoom H or V**

Zoom H or V gives you independent horizontal and vertical zoom control. The original aspect ratio is not maintained using this control.

The Zoom H or V control works differently from most other control screens. It uses Up/Down arrows to zoom vertically, and Left/Right arrows to zoom horizontally. The OK button takes you to the previous screen, or you can press the EXIT button your remote to exit menus.

Use Up/Down Arrows to zoom vertically.

Use Left/Right Arrows to zoom horizontally.

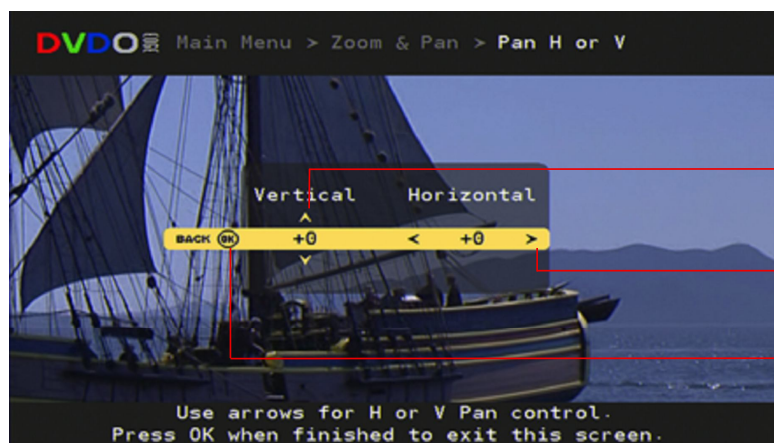When you are finished, press **OK** to go BACK or **EXIT** button to exit menus.

40

Pan H or V

Main Menu -> **Zoom & Pan** -> **Pan H or V**

The pan feature allows you to move around on a zoomed picture. As you move around, you expose parts of the picture that were not visible because the picture was zoomed. Pan works only on a Zoomed picture.

The controls on this screen work differently than most screens. The controls are work like the Zoom H or V described on the previous page.

Uses Up/Down arrows to zoom vertically, and Left/Right arrows to zoom horizontally. The OK button takes you to the previous screen, or you can press the EXIT button your remote to exit menus.

Use Up/Down Arrows to pan vertically.

Use Left/Right Arrows to pan horizontally.

When you are finished, press **OK** to go BACK or **EXIT** button to exit menus.

41

Zoom using the Remote Control

You can Zoom directly from remote without using the Menus. Zooming using the remote uses the aspect ratio preservation zoom. All Zoom controls apply to the currently selected input, giving you independent Zoom controls for every input component.

Zoom In

Zoom Out
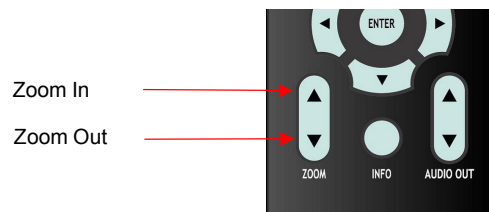
Use the ZOOM buttons on the EDGE GREEN remote control for basic zooming where you don't need to separately control horizontal and vertical zooming (aspect ratio is preserved). Use the Menu Zoom & Pan controls for more advanced zooming control.


16X Maximum Zoom

Maximum Zoom is 16x the input image size. This is useful in cases where EDGE is used to scale an image instead of a PC. For example, when viewing Internet content, instead of using a PC in 'full-screen' mode, EDGE is used to scale the native image (in a PC window) to fill the display area. This is beneficial in two ways:

1) the PC does not have to process video for a large display, resulting in better performance.

2) EDGE's high quality scaler typically results in significantly better picture quality.

42

Aspect Ratio Control Using Remote Control or Menus

You can use either the remote control or the menu to adjust Aspect Ratio. **Aspect Ratio controls apply to the currently selected input. Each input has its own independent Aspect Ratio setting.** (When you change input, aspect ratio may change.) Panorama is also known as non-linear stretch, or stretch.

Main Menu -> **Aspect Ratio**
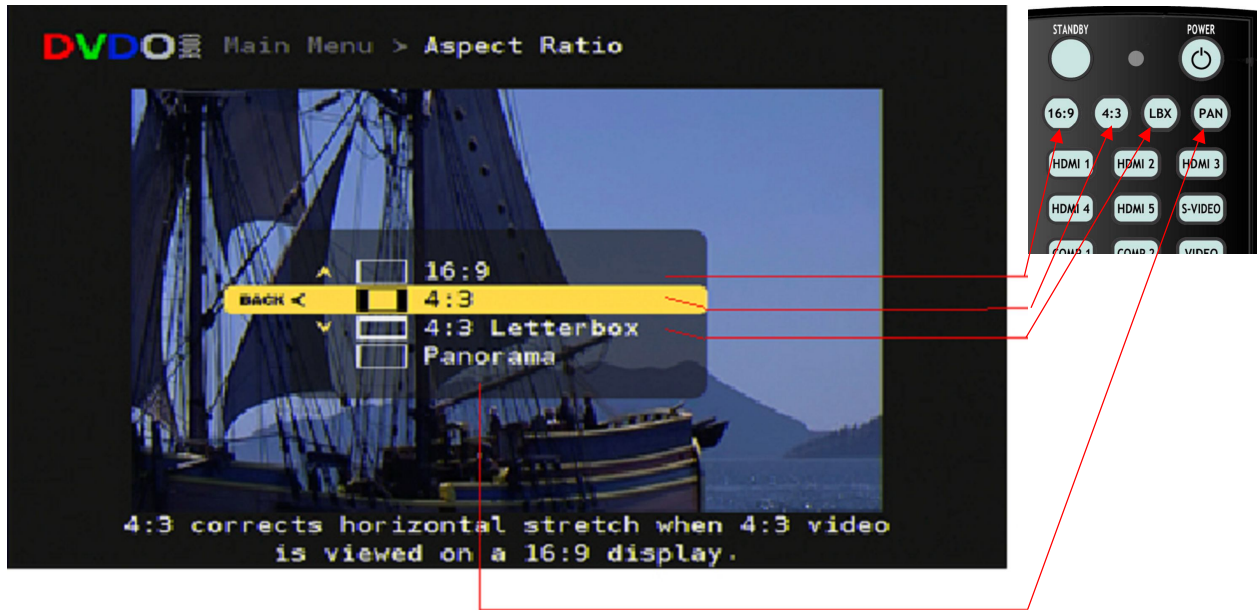
Aspect Ratio Settings

- **16:9 Full Frame**
  Select this mode when both the picture aspect ratio and the active aspect ratio of the input image are 16:9. If the active aspect ratio is different, there will be black bars on the sides or on the top and bottom part of your display.

- **4:3 Full Frame**
  Select this mode when both the picture aspect and the active format aspect ratio of the input image are 4:3. For a 16:9 display there will be black bars on the left and right side of your display.

- **4:3 Letterbox**
  Select this mode when the picture aspect ratio is 4:3 but the active format aspect ratio of the input image has a 16:9 or larger aspect ratio. Some older DVDs are encoded in this manner. EDGE GREEN will vertically stretch the input image to fill the screen.

- **Panorama**
  This mode is a variation of the 4:3 Full Frame mode. EDGE GREEN stretches the input image to remove the black bars on both sides of the display. The middle part of the image is not stretched. Only the left and right side of the image are stretched.

44

Picture Controls

Picture Controls let you make adjustments to your picture. The set of Picture Controls available are briefly described below:

Brightness	Adjusts the level of black level.
Contrast	Adjust the level of white
Color Saturation	Adjusts the vividness of colors
Hue	Color adjustment that shifts the shade of color. Sometimes called tint. This color control changes color without changing Luminance (picture brightness) or color saturation.
Detail Enhancement	Sharpening control that influences picture details
Edge Enhancement	Sharpening control that influences large image features
Mosquito Noise Reduction	Type of noise filtering that removes "mosquito noise," common video compression artifact

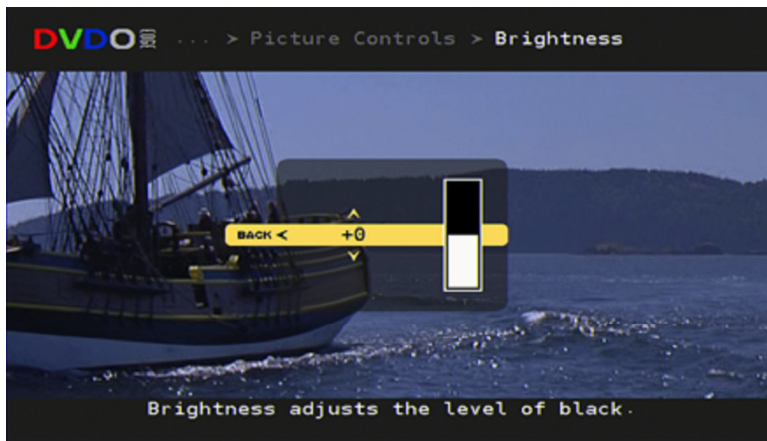**Picture Controls apply to the currently selected input, for independent Picture Control of every input component.**

Main Menu -> **Picture Controls**

Picture Controls apply to the currently selected input, for independent Picture Control of every input component.

45

Brightness Control

Main Menu -> **Picture Controls** -> **Brightness**

**Use Up/Down Arrows
to adjust Brightness**

**Press Left Arrow to go
BACK to the previous
screen.
or
Press EXIT to exit menus.**

Video brightness controls work by changing the level of the black. When you make an adjustment to brightness, all levels of brightness, from black to peak white, are shifted up or down.
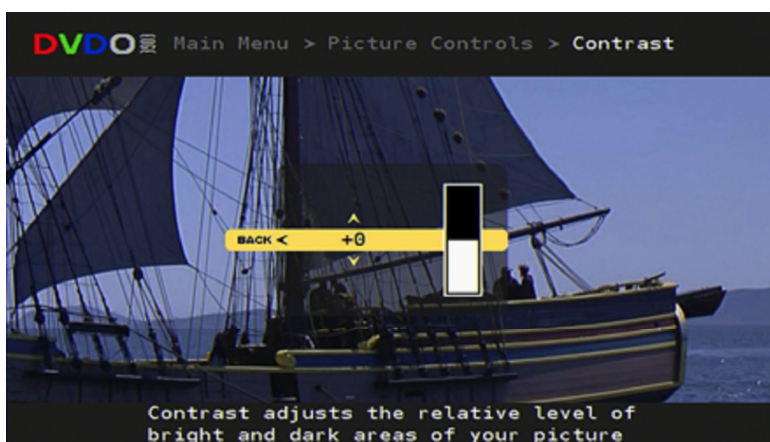
The Brightness control is complimentary to the Contrast control on the next page. Contrast adjusts the level of white.

46

Contrast Control

Main Menu -> **Picture Controls** -> **Contrast**

Contrast control, like all picture controls, is independently adjustable for every video input. When you make a change to a picture control, the change applies only to the currently selected video input.

Press **DVDO**, press **MENU**, select **Picture Controls,** select **Contrast**

**Use Up/Down Arrows
to adjust Contrast**

**Press Left Arrow to go
BACK to the previous
screen.
or
Press EXIT to exit menus.**

Video contrast works by adjusting the level of white. Contrast is complimentary to the Brightness control. Contrast controls should be used carefully because if overly adjusted, some details in lighter areas can become less visible.

47

Color Saturation

Main Menu -> **Picture Controls** -> **Color Saturation**

Color Saturation, like all picture controls, is independently adjustable for every video input. When you make a change to a picture control, the change applies only to the currently selected video input.
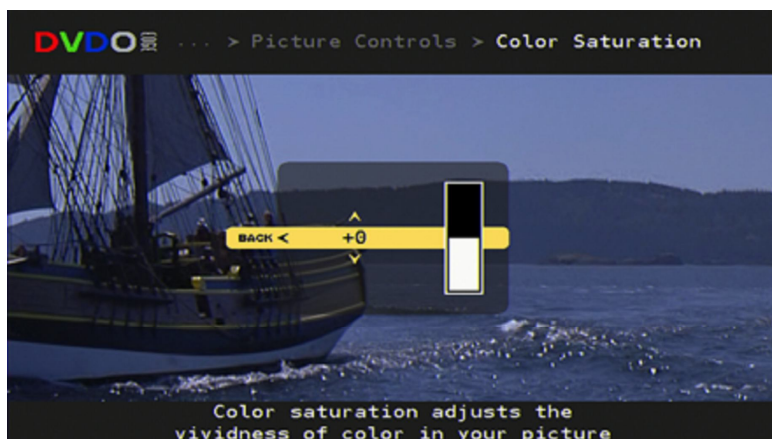
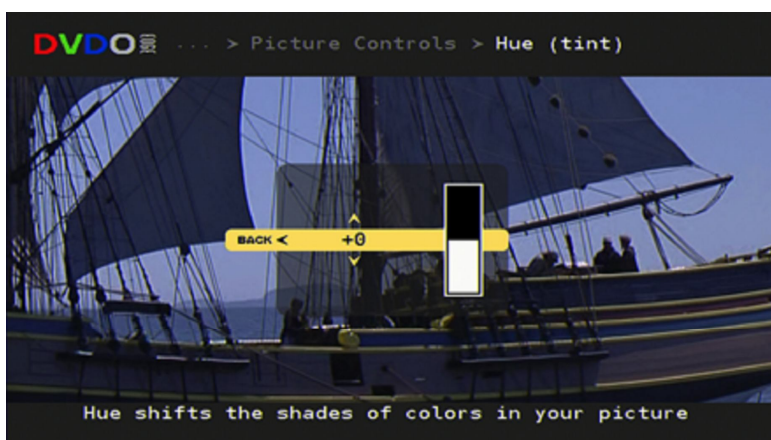

**Use Up/Down Arrows
to adjust Color Saturation**

**Press Left Arrow to go
BACK to the previous
screen.
or
Press EXIT to exit menus.**

Color Saturation refers to the mix of "color" vs. "brightness" in the picture. Increasing Color Saturation makes colors look more vivid. Decreasing Color Saturation makes colors look "washed out." Changes to either Brightness or Contrast can change your Color Saturation. You can use this control to balance the mix of color verses brightness.

48

Hue

Main Menu -> **Picture Controls** -> **Hue**

Hue, like all picture controls, is independently adjustable for every video input. When you make a change to a picture control, the change applies only to the currently selected video input.

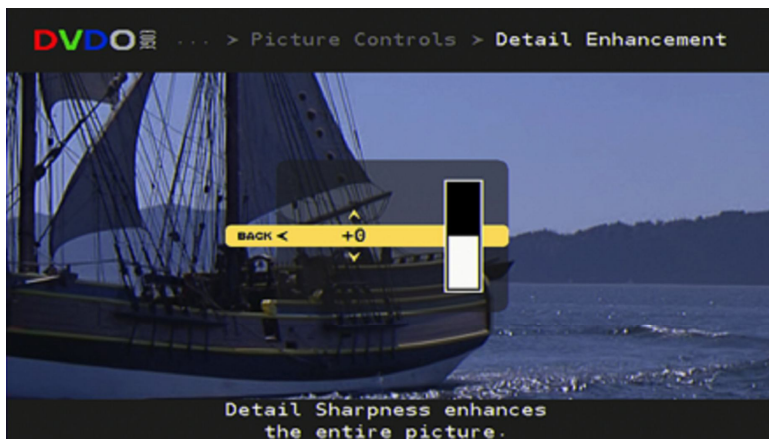**Use Up/Down Arrows
to adjust Hue**

**Press Left Arrow to go BACK
to the previous screen.
or
Press EXIT to exit menus.**

Hue is a type of color adjustment. The changes made with a Hue control effect what most people would refer to as "color." Hue controls cause a shift in color spectra. Sometimes this control is called "Tint" but this term is confusing to people that are familiar with mixing paint colors. (Adding white to a paint color changes it's tint. In terms of video controls, this is what the saturation control does. Adding white to a paint color actually preserves Hue, so the color or hue is not changed, only the saturation.)

49

Detail Enhancement

Main Menu -> **Picture Controls** -> **Detail Enhancement**

Fine Enhancement, like all picture controls, is independently adjustable for every video input. When you make a change to a picture control, the change applies only to the currently selected video input.

**Use Up/Down Arrows
to adjust Detail Enhancement**

**Press Left Arrow to go BACK
to the previous screen.
or
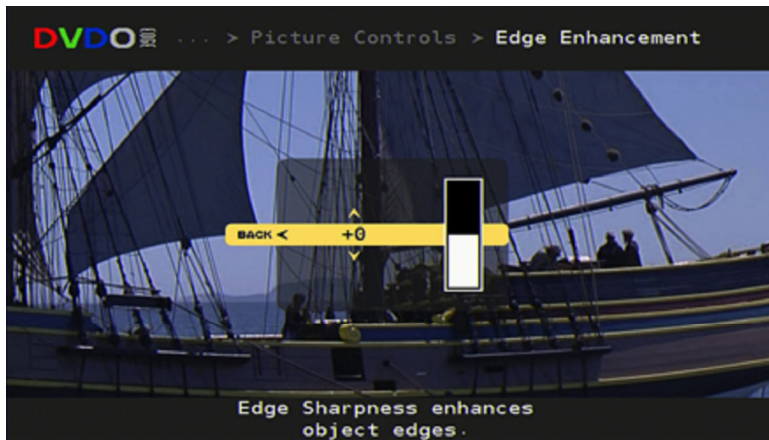Press EXIT to exit menus.**

About Detail Sharpening

Detail Sharpening can be used to enhance your picture by making details stand out.

Increase Detail Enhancement to enhance or sharpen the fine details in an image such as grass or the texture of a plaster wall. Decrease Detail Enhancement to reduce noise in a noisy image.

50

Edge Enhancement

Main Menu -> **Picture Controls** -> **Edge Enhancement**

Edge Sharpening, like all picture controls, is independently adjustable for every video input. When you make a change to a picture control, the change applies only to the currently selected video input.


Use Up/Down Arrows to adjust Edge Enhancement

**Press Left Arrow to go BACK to the previous screen.
or
Press EXIT to exit menus.**

About Edge Sharpening

Edge Sharpening can be used to enhance your picture. It tends to sharpen object edges more than it will sharpen details such as grass or the texture of a plaster wall. It is useful when you want to sharpen a lower quality picture. When you sharpen a low quality picture, raise the visibility of the objectionable areas of the picture. In this case, course sharpening may be a better choice than fine (Detail) sharpening.

51

Mosquito Noise Reduction

Main Menu -> **Picture Controls** -> **Mosquito NR**
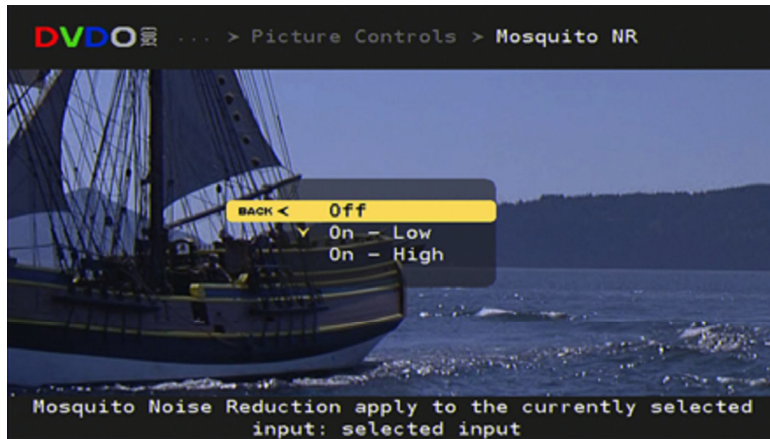
Off disables filtering

On - Low for minimum filtering

On - High for maximum filtering

About Mosquito Noise Reduction

The term "noise" in the context of video images refers to unwanted or unnatural looking elements that find their way into video signals. "Mosquito Noise" is a particular type of image noise that is caused by video compression processing. Video compression is common for all types of transmitted video, including cable, satellite, and over-the-air broadcasts. Compression is also used with DVD and other prerecorded media. The visibility of Mosquito Noise will vary. In some cases, it can become objectionable. Mosquito Noise will be more obvious in standard definition video, although it is sometimes present in high definition video.

Your DVDO EDGE GREEN has a Mosquito Noise Reduction feature that can remove some of this noise. An example of mosquito noise in a TV weather report is shown on the left side of the next page. The same image with Mosquito Noise Reduction applied is shown on the right side of the next page.

Mosquito Noise reduction works by analyzing the image for features that are likely to cause Mosquito Noise. It then intelligently applies filtering to those areas to remove the noise.

52

About Mosquito Noise Reduction (continued)

The image on the left was captured from a broadcast of a television weather report. Mosquito noise appears most obviously around the text, both in the white areas and in the darker areas around the edges of the text. The image on the right is the same image processed using Mosquito Noise Reduction to remove mosquito noise.

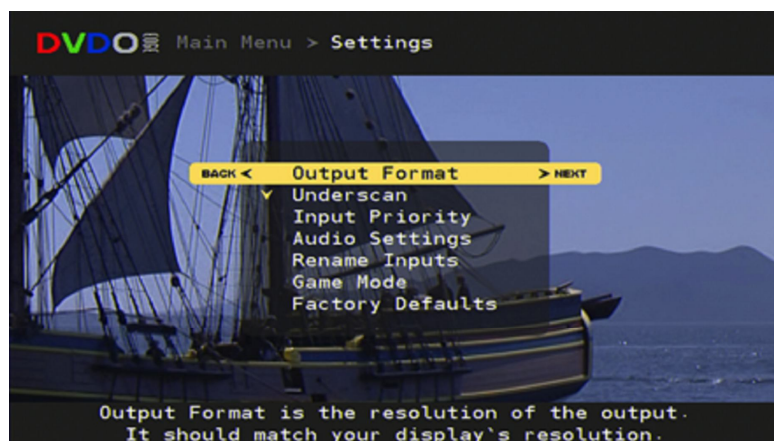TV Weather Report showing Mosquito Noise   Mosquito Noise Reduction enabled

53

Settings Menu

Main Menu -> **Settings**

Your DVDO EDGE GREEN provides a rich set of configuration options, accessible through the Settings Menus.

Output Format: Output format refers to the resolution and scanning scheme (progressive or interlaced) and frame rate of the output.

Input Priority: Used to select which input will be displayed when multiple inputs are active and Auto Priority mode is on.

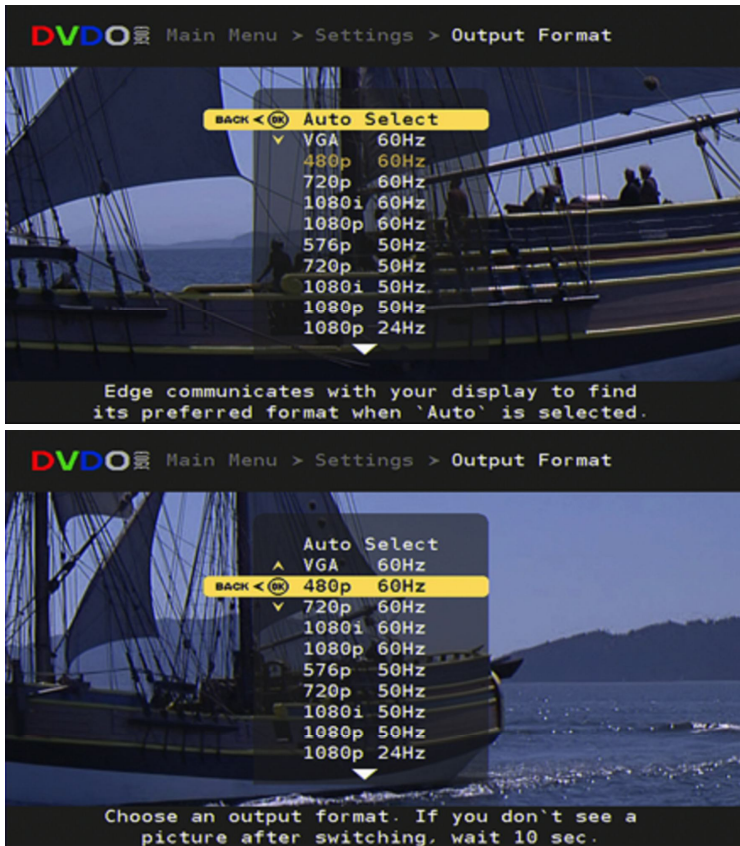**Audio Settings:** Adjusts configuration options related to audio.

Rename Inputs: Renames inputs so that the names make sense to you.

Game Mode: Sets a particular input in game mode for better response through your game controller.

Factory Default: Restores the original factory settings.

54

Settings: Output Format

Main Menu -> **Settings** -> **Output Format**

Auto Select: Default setting

Auto Select is one of the new innovations in the EDGE GREEN product.

All DVI and HDMI displays have an Extended Display Identification Data (EDID). TheEDID contains information about the display's capability. This information can be read by EDGE GREEN over the HDMI or DVI cable.

Displays will report their "preferred format" and EDGE GREEN will automatically self-configure its output to this preferred format. It is possible that the preferred format reported by the display is not on the list of standard formats shown on the "Output Format" screen.
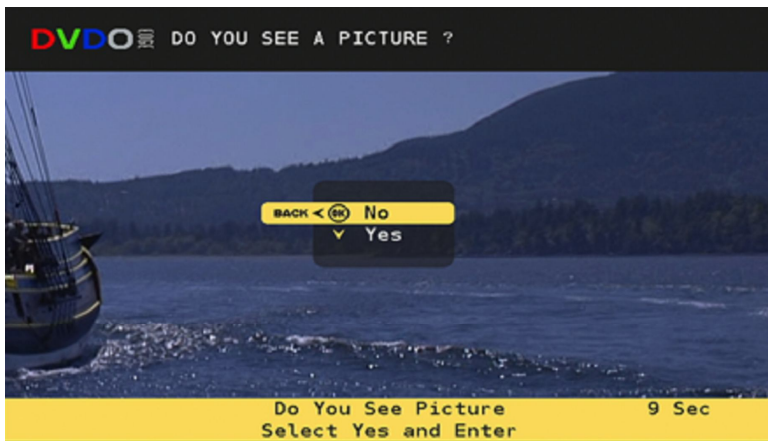
It is also possible that the preferred format is unique to the display.

To see the current output format, use the Info button on the remote or the Information screen in the menu.

Manual Format Select:
If you prefer not to use Auto Select, you can choose one of the standard formats from the list on the screen.

55

Switching Output Formats

New Format Check Screen

If the output format changes, EDGE GREEN tests to insure that your display can accept the new format.

EDGE GREEN will put up the screen shown left. You have about 10 seconds to verify thatyou see the new format by moving the highlight bar to "Yes" then "OK."

If you don't verify the new format in a few seconds, EDGE GREEN will revert to theprevious format.

56

Settings: Input Priority

Main Menu -> **Settings** -> **Input Priority**

Input Priority is used to decide which input to use when multiple inputs are active at the same time and Input Select is set to "Auto." If multiple inputs are active at the same time and "Auto Select" is selected in the "Input Select" menu, then the input with the highest priority will be selected. (You can find Input Select at this path name: **Main Menu** -> **Input Select)**
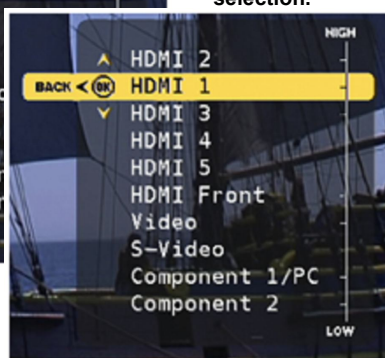

1. Position the highlight bar over the name of the input whose
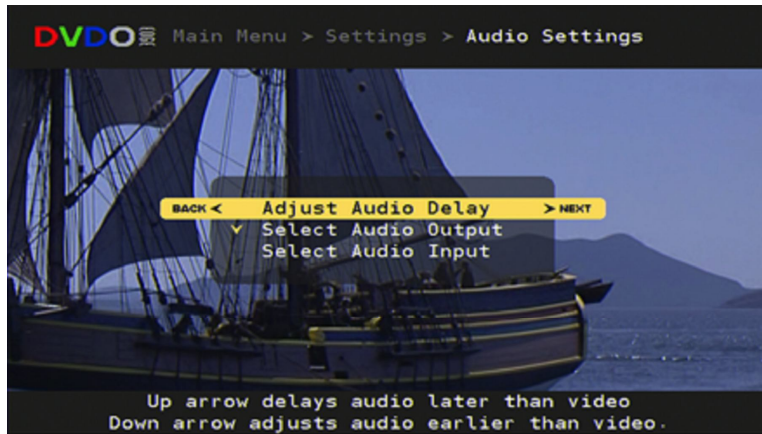   **priority you want to change.**
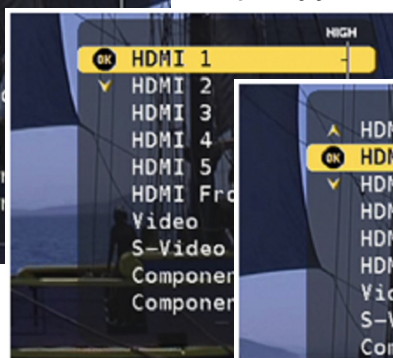
2. Press OK.

3. Use Up/Down Arrows to move selection.

4. Press OK to set new priority.

57

Audio Settings -- Select Audio Output

Main Menu -> Settings ->Audio Settings

Press **MENU**, select **Settings,** select **Audio Settings**

Using Audio Settings Menu, you can
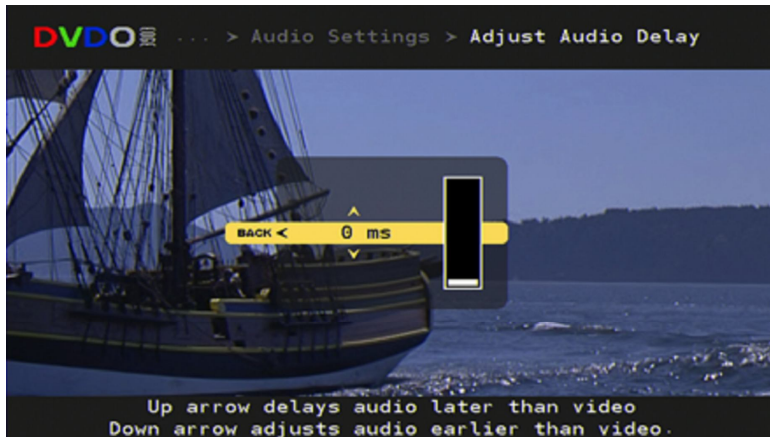
Adjust Audio Delay
If you have a constant AV Lipsync problem in your system, you can use this control to add or subtract a fixed delay to the audio relative to the video.

Select Audio Output
Your DVDO EDGE GREEN can output audio on 1 of 3 different connectors.

Select Audio Input
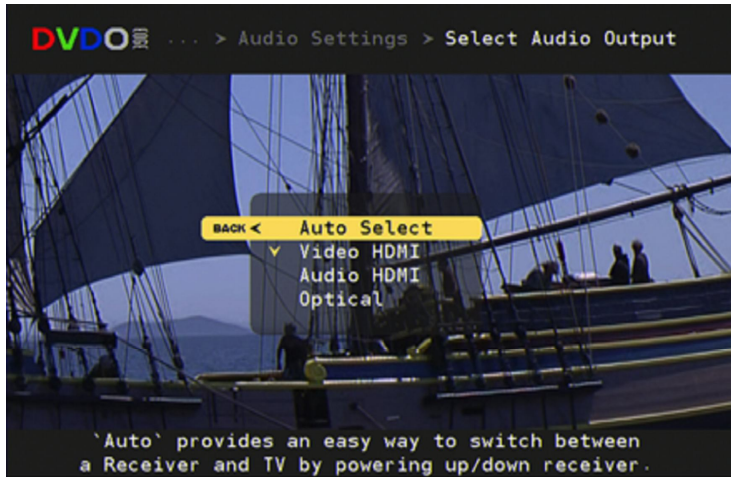Associate Audio and Video inputs.

Adjust Audio Delay

Press **DVDO**, press **MENU**, select **Settings,** select **Audio Settings,** select **Adjust Audio Delay**

Use the Up/Down arrows to either add delay to audio (Up) or subtract delay from audio (Down).

58

Settings: Audio: Select Audio Output

Main Menu -> **Settings** -> **Select Audio Output (Same as Remote Control "Audio Out Buttons")**

Auto Select
EDGE GREEN will automatically route audio to an audio output. The choice of output depends on what components are connected to the outputs and powered.

Audio Out on Video HDMI
Use this setting if you want to send audio to your video display to use its built in audio.

Audio Out on Audio HDMI
Use this setting if you have an AV Receiver that accepts HDMI and you want to use it for processing audio.

Audio Out on Optical
Use this setting if you have an AV Receiver that does not accept HDMI inputs.

Decision Logic for Auto Select: The table below shows the connector choice for audio when Auto Select is chosen.
Note: "EDID" is information about the capability of a display or AV Receiver that is automatically read by EDGE GREEN over the HDMI or DVI cable.

Output Connector	Conditions
Video/Audio HDMI	Display has audio capability (reported via the EDID). No AV Receiver connected to the Audio HDMI port, or an AV Receiver is connected but powered off.
Audio HDMI	AV Receiver with HDMI inputs is connected to the Audio HDMI port and powered on.
Optical	Display does not have audio capability (reported via the EDID). No AV Receiver connected to the Audio HDMI port, or it is powered off.

If you are using an AV Receiver for processing audio, then you need to configure your receiver to accept audio from the input that is connected to the DVDO EDGE GREEN. You need only do this once, because your DVDO EDGE GREEN will handle audio switching.

59

Settings: Audio: Associate Audio and Video Inputs

Main Menu -> **Settings** -> **Select Audio Input**

If you have a non-HDMI input component, you must use this screen to associate (pair) the audio from that component with the video.

EDGE GREEN will then treat them as a pair when switching inputs, so that they switch together.

When you choose an audio input on this screen, you are associating that input with the currently selected video input.

If your source component uses DVI for video output, and you are connecting to EDGE GREEN using a DVI to HDMI adapter cable, then you will have to connect audio via a separate cable and use this screen to associate the pair.

60

Settings: Rename Inputs

Main Menu -> **Settings** -> **Rename Inputs**
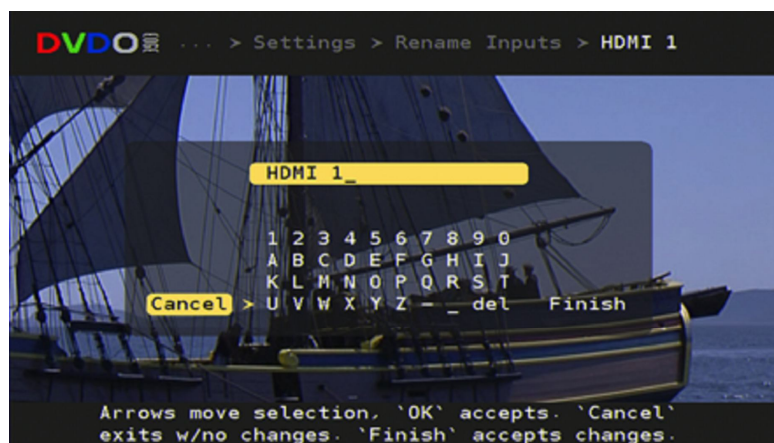
The Rename Inputs feature lets you customize your setup. The names you enter will appear in the "Select Input" menu.

Use the **Arrow keys** to move the highlighted character around on the keyboard.

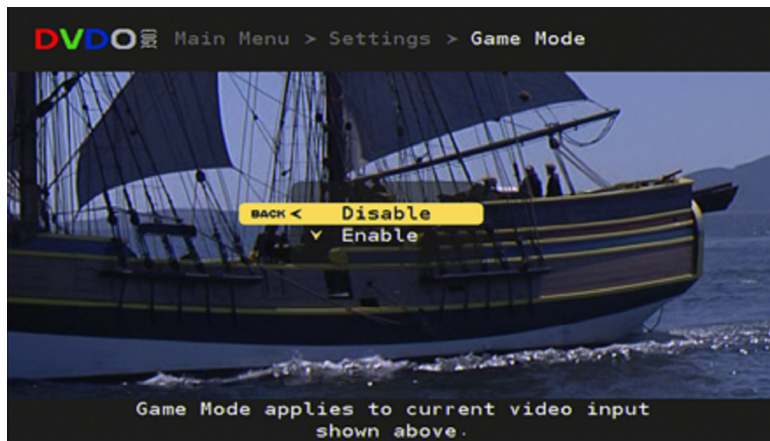**OK** puts the selected character in the edit bar.

Cancel exits the window with no changes.

Finish exits the window and applies the new name.

61

Settings: Game Mode

Game Mode can be enabled by pressing the GAME button on the remote control, or from the Settings Menu.

Main Menu -> **Settings** -> **Game Mode**

Enable / Disable
Game Mode

About Game Mode

The video processing performed in EDGE GREEN adds a few milliseconds of delay to your video and audio. For most viewing this delay is not a problem, but if you are playing video games that require quick response on your game controls, the delay can be noticeable and annoying.

Game Mode is a special processing feature that minimizes delay so your game control inputs are more responsive.

Removing delay requires some tradeoffs in processing. You may notice differences in picture quality if Game Mode is enabled.

If the incoming video signal is an interlaced format, Game Mode may result in a lower-resolution image due to the changes in deinterlace processing required to minimize delay. If the incoming video signal is a progressive format, and Game Mode is enabled, some processing features will be unavailable, including Mosquito Noise Reduction, Detail Enhancement, and Edge Enhancement.

62

Settings: Factory Defaults

Main Menu -> **Settings** -> **Factory Defaults**
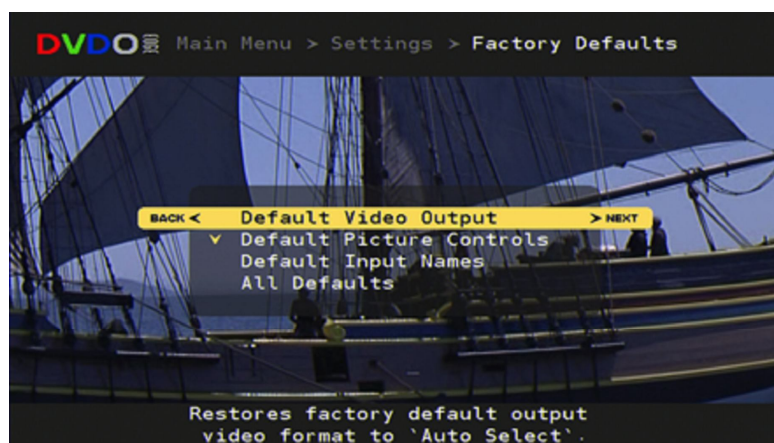
Factory Defaults is a quick way to "undo" any settings that have been made, and restore EDGE GREEN's original default settings.

Default Video Output
The Default video format setting is "Auto." In Auto mode, EDGE GREEN will automatically communicate with your display and output your display's preferred format.

Default Picture Controls
Restores default settings to Brightness, Contrast, Hue, Mosquito Noise Reduction, Detail Enhancement, and Edge Enhancement.

Default Input Names
Restores default names for video inputs.
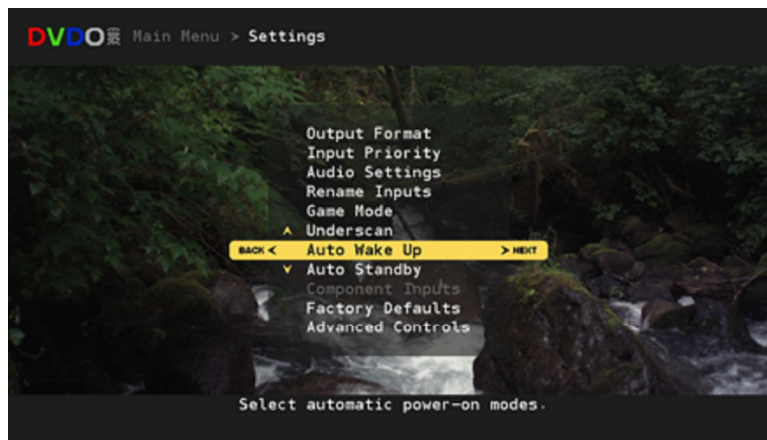
All Defaults
Restores all defaults.
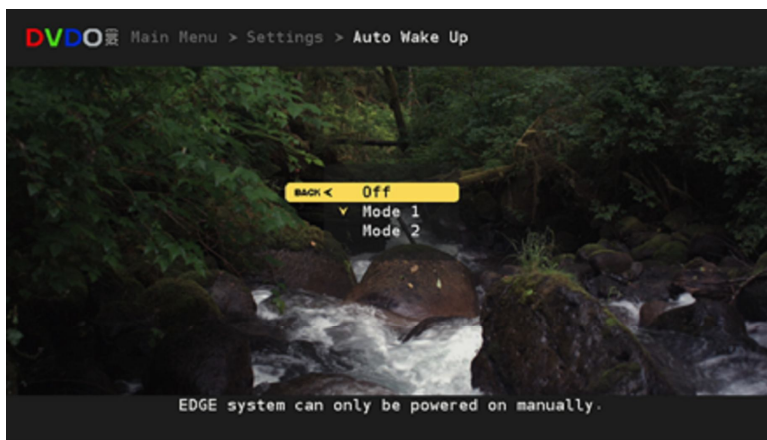
63

Settings: Auto Wake Up

Main Menu -> **Settings** -> **Auto Wake Up**

Auto Wake Up gives you more control over the conditions in which EDGE will automatically power on.

Auto Wake (cont'd)

The Auto Wake Up window gives you 3 options for defining the conditions in which EDGE will power itself on:

Off: EDGE will power on using the remote. Use this option if you want EDGE to remain powered down even if input signals become active.

Mode 1: EDGE will power on automatically only if it powered down automatically. If inputs to EDGE become inactive, EDGE will automatically power itself off. If an input becomes active again, EDGE will automatically power on. If EDGE is powered down with the remote, then it will not power on when an input becomes active in Mode 1.

Mode 2: EDGE will automatically power on whenever an input signal is present on any input. In Mode 2, it does not matter how EDGE entered the powered down state; an active input will power it on.

65

Settings: Auto Standby

Main Menu -> **Settings** -> **Auto Standby**
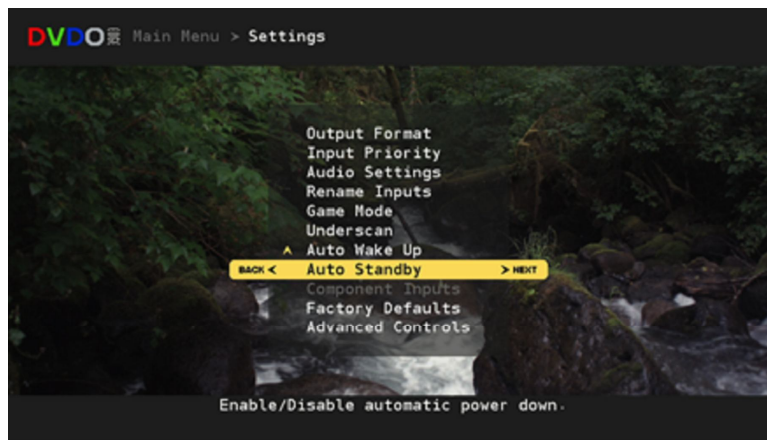
Auto Standby gives you control over the conditions in which EDGE will power itself down.

66

Auto Standby (cont'd)
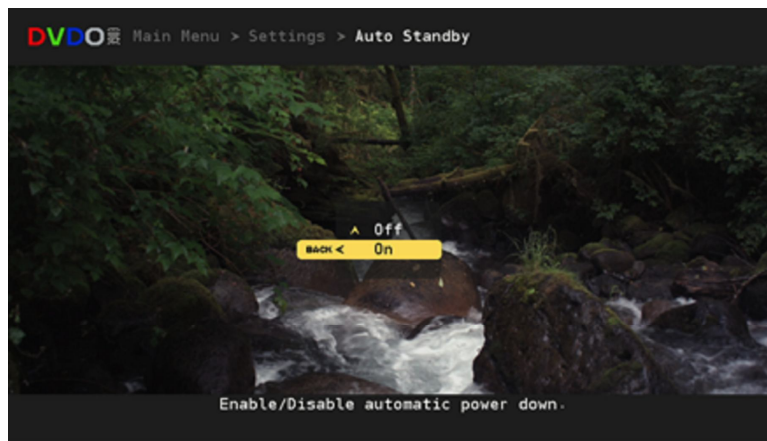
Auto Standby is a simple ON/OFF control.

If Auto Standby is OFF, the EDGE GREEN will not automatically power down. This is useful in cases where you may not have an active video signal, but you may have an active audio signal passing through EDGE GREEN. In this case, you want EDGE GREEN to remain powered on.

If Auto Standby is ON, then EDGE GREEN will automatically power down if all video input signals become inactive.

67

Settings: Component Input Settings

Main Menu -> **Settings** -> **Component Input**
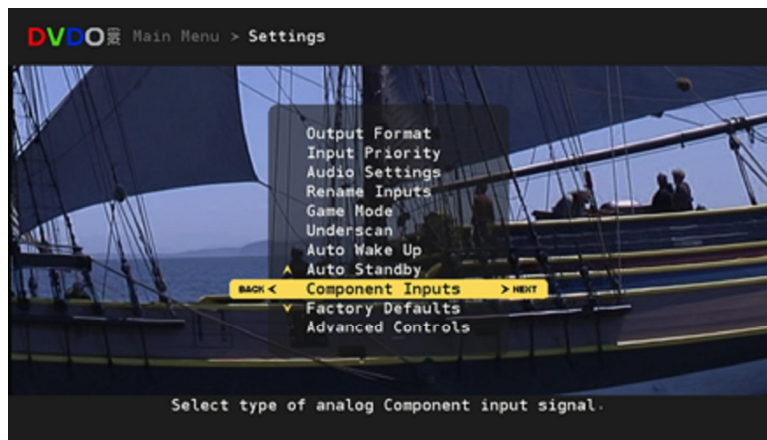
Component Input menu gives you control over the analog component inputs.

Note: To use this control, you must *first* select the Component Input, otherwise, this menu item will be grayed out.

68

Component Input (cont'd)

The Component Inputs window gives you 3 options for controlling Automatic Gain Control on Analog Inputs:

Single Sync: This is the default setting. Most component inputs will have sync on the Y signal and should use Single Sync.
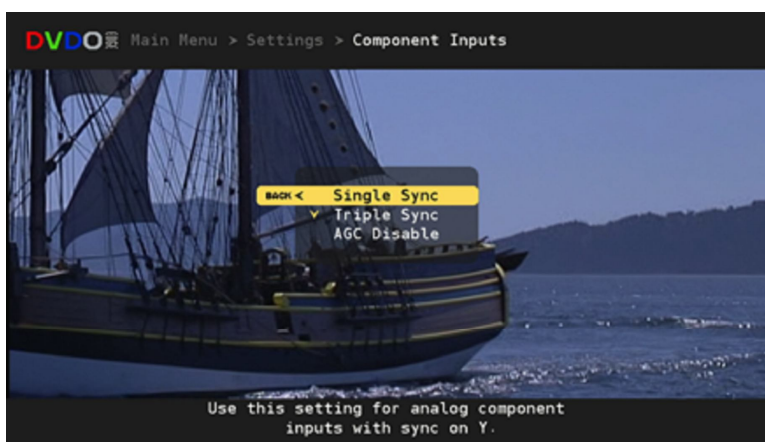
Triple Sync: A few devices will add sync to all three component input signals (Y, Pb, Pr). In you know your device does this, choose Triple Sync.

AGC Disable: This choice disables Automatic Gain Control. In some cases, AGC will cause brightness levels to be incorrect due to distortions in the analog input signals. Disabling AGC may correct this problem.

You probably don't know if a device that generates an analog component signal puts sync on Y, or on all three inputs, or if it distorts the incoming signal. In general, you should use Single Sync. If your picture does not look correct, experiment with the other settings.

69

Settings: Advanced Safe Mode Options

Safe Mode temporarily suspends features that can cause loss of picture. The features that are suspended include 1:1 Frame Rate, Deep Color, and Output Format selection. Safe Mode is entered and exited by pressing the SAFE button on the EDGE GREEN remote.

SAFE button on remote activates Safe Mode. Press this button if you can't see a picture to change display format and turn off certain features.

The Safe Mode Output Format selection by default is set to Auto when Safe Mode is entered. This option enables the user to select the output format used for Safe Mode. In addition to Auto, users can select 480p, 576p, or VGA.

To change the default format for Safe Mode, first put EDGE GREEN into standby (power down button), then use one of the following button sequences:

- For Auto: press Enter 6100 Enter
- For 480p: press Enter 6103 Enter
- For 576p: press Enter 6104 Enter
- For VGA: press Enter 6114 Enter

70

Information Screens

The EDGE GREEN has several 'Info' screens which contain important information to assist with troubleshooting. These screens can be accessed by pressing the INFO button on the remote control, or through the Main Menu.

Main Menu -> **Information**
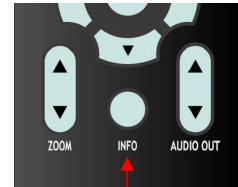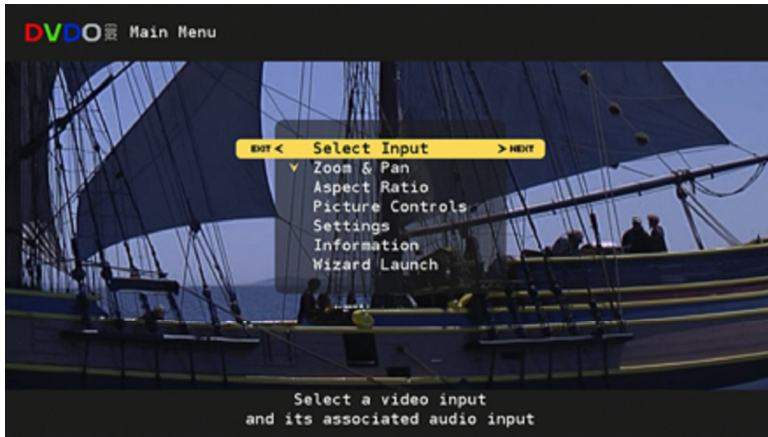
View Information
Screens

71

Some of the Information screens are shown below:

72
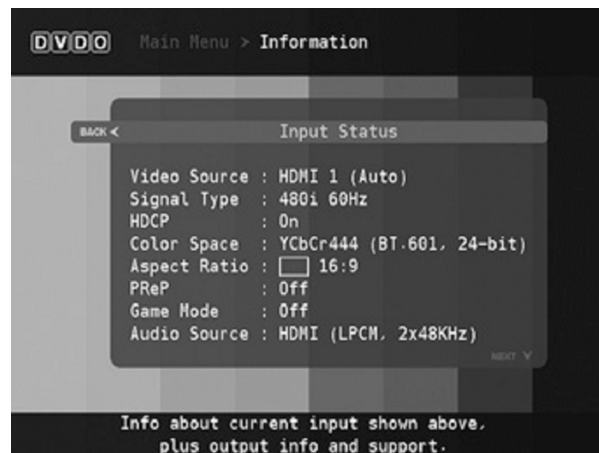
Section 4: Advanced Controls

Main Menu -> **Settings** -> **Advanced Controls**

EDGE GREEN Advanced Controls are intended for use by advanced users and calibration professionals. They are located in the "Settings" menu under "Advanced Controls."

The EDGE design concept is to create a product that automatically adjusts and configures itself for the variety of video formats, color spaces, signal levels. The consumer electronics industry has specified a number of methods by which products communicate with each other for self-configuration. Sometimes, these communication methods are incorrectly implemented. The advanced features give you a way to manually make adjustments that previously were performed automatically.

For most of these settings, there is an "Auto" choice, but manual selections give you control over these functions.

In general, the safest thing to do with these settings is to leave them in their default state.

73
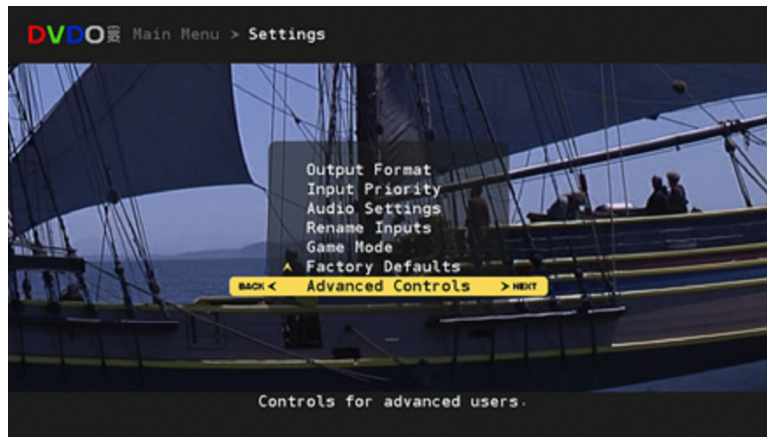
Test Patterns

There are 35 test patterns available, for advanced users and calibration professionals. These patterns automatically resize, and use the correct colorimetry for the current output format.

Test patterns are useful for calibration of your setup.
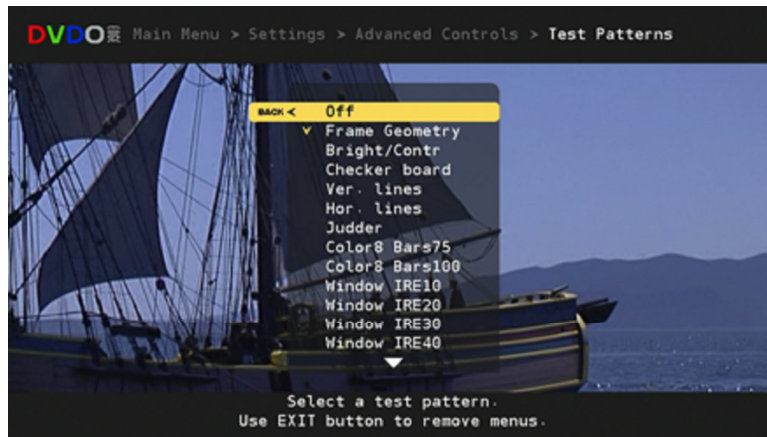
1:1 Frame Rate

When 1:1 Frame Rate is enabled, the output frame rate from EDGE will track the input frame rate. This avoids performing frame rate conversion, which can result in stuttering motion in some cases.

If 1:1 Frame Rate is disabled, then the output frame rate from EDGE will be fixed.

The 1:1 Frame Rate feature is useful when you need to display video from both 60Hz and 50Hz sources, as long as your video display can operate at both frame rates. Some video sources, such as Blu-Ray DVD players, can output 24Hz video. If you have a 24Hz source and your display can also accept 24Hz, then enabling 1:1 Frame Rate will allow the 24Hz video to pass through EDGE from source to display.

75

Understanding Safe Mode and Advanced Safe Mode Options

Safe Mode can solve a potential problem when using 1:1 Frame Rate. When 1:1 Frame Rate mode is enabled, EDGE's output frame rate will track the input frame rate, which means that EDGE's output frame rate can and will change.

If a display can not support the new frame rate, it may go blank, leaving you with no picture. If that happens, you can press the GUIDE button to enter Safe Mode.

In Safe Mode, EDGE will revert to an output format that will give you a picture. You will have access to the menus and you can make whatever changes you need to prevent the screen from going blank. Usually, the change you need to make is to disable 1:1 Frame Rate.

Safe Mode also resets Underscan back to 0, because Underscan can also cause a breakup in your picture under certain conditions.

If you make changes to menus while in Safe Mode, these changes do not take effect until you exit Safe Mode.

Advanced Safe Mode Options

Safe Mode temporarily suspends features that can cause loss of picture. The features that are suspended include 1:1 Frame Rate, Deep Color, and Output Format selection. Safe Mode is entered and exited by pressing the SAFE button on the EDGE GREEN remote.

The Safe Mode Output Format selection by default is set to Auto when Safe Mode is entered. This option enables the user to select the output format used for Safe Mode. In addition to Auto, users can select 480p, 576p, or VGA.

To change the default format for Safe Mode, first put EDGE GREEN into standby (power down button), then use one of the following button sequences:

- For Auto: press Enter 6100 Enter
- For 480p: press Enter 6103 Enter
- For 576p: press Enter 6104 Enter
- For VGA: press Enter 6114 Enter

76

Underscan

Some displays will overscan the picture, which means that the edges of the picture are outside the frame of the viewable area. The Underscan slider-bar control lets you shrink the picture, so that you can see all of it, and adjust for over-scanning.
Underscan is a display control. It is fixed regardless of which input is selected.

Underscan is affected by Safe Mode as mentioned on the previous page.

Output Color Space

The Output Color Space control provides 4 choices for output color space. If you are unsure what to use, Auto is the safe choice.

Auto: works like v1.0; usually output color space will be RGB

RGB: Red, Green, Blue color space standard using 8 bits per primary color.

YCbCr 4:4:4: Component color space used for video standards; 8 bits per component.

YCbCr 4:2:2: Component color space used for video standards: 10 bits per component.

Output Colorimetry

Colorimetry refers to the standards by which RGB is converted to YCbCr. There are two standards for performing this conversion:

ITU BT .601: This is the colorimetry standard for Standard Definition video formats.

ITU BT .709: This is the colorimetry standard for High Definition video formats.

78

Output Video Level

Video Levels refer to the dynamic range of the video signals themselves. The video industry evolved levels that allowed for some guard band in the signal levels to account for overshoot or other signaling problems. The computer industry evolved levels that allocate the entire dynamic range possible for the image information.

EDGE must drive video displays, which use video signaling levels, and computer displays which use computer signal levels.

The Output Video Level control gives you control over what signaling levels are output from EDGE.

79

Input Video Level

This control is similar to the Output Video Level control described on the previous page, except that it applies to input video signals.

Video Levels refer to the dynamic range of the video signals themselves. The video industry evolved levels that allowed for some guard band in the signal levels to account for overshoot or other signaling problems. The computer industry evolved levels that allocate the entire dynamic range possible for the image information.

EDGE must accept signals from video components, such as DVD players, set top boxes, video recorders, etc. Most of these devices use video signaling levels. EDGE must also connect to personal computers and came consoles, which may use computer signal levels.

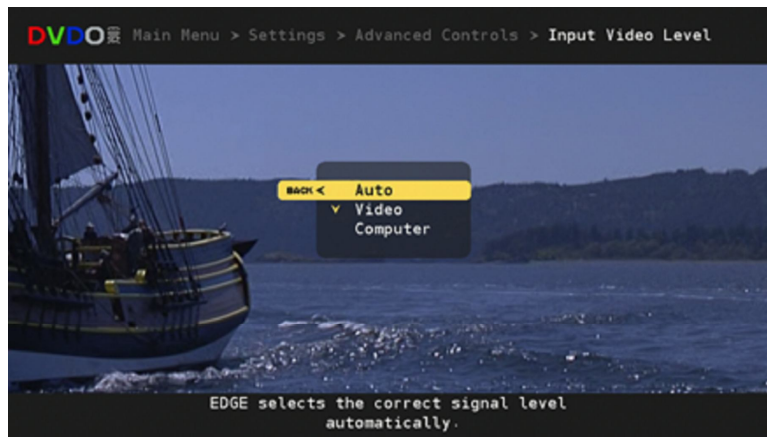The Input Video Level control gives you control over what signaling levels are used for inputs

80

PReP

PReP is an exclusive processing technology of DVDO / Simplay Labs.

Standard definition input formats such as 480p and 576p are often deinterlaced at some point before reaching EDGE GREEN. Deinterlacing is a complex processing technology that has a significant impact on image quality. The deinterlacing in EDGE GREEN uses Simplay Labs' high performance VRS Deinterlacer.

PReP accepts a deinterlaced signal, and reconverts it back into an interlaced format. It can then be deinterlaced again using the VRS technology in EDGE, which usually results in a higher quality picture.

The PReP control allows users to disable this function. Most users will never need to disable PReP.

81
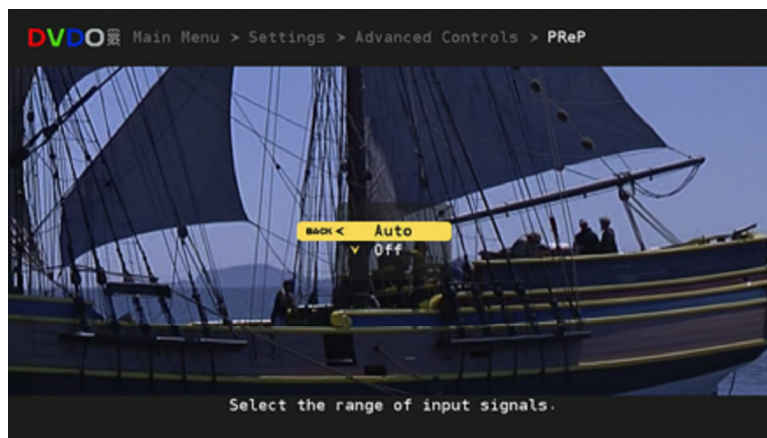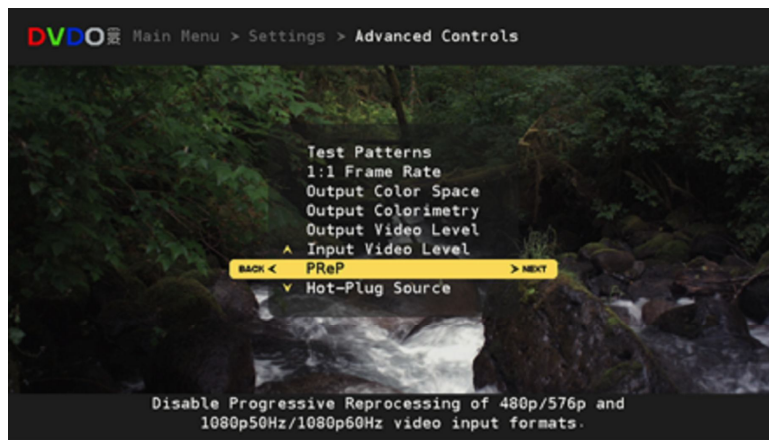
PReP (cont'd)

PReP can be enabled for 1080p, 480p and 576p input formats.

PReP (cont'd)

This window lets you control PReP for standard definition (480p or 576p) or high definition (1080p).

83

PReP (cont'd)

Auto: PReP will be enabled when AUTO is selected and the input format is 480p or 576p.

If this window was entered from the 1080p selection in the previous window, then PReP will be enabled when AUTO is selected and the input format is 1080p.

Off will disable PReP for the selected input format.

84
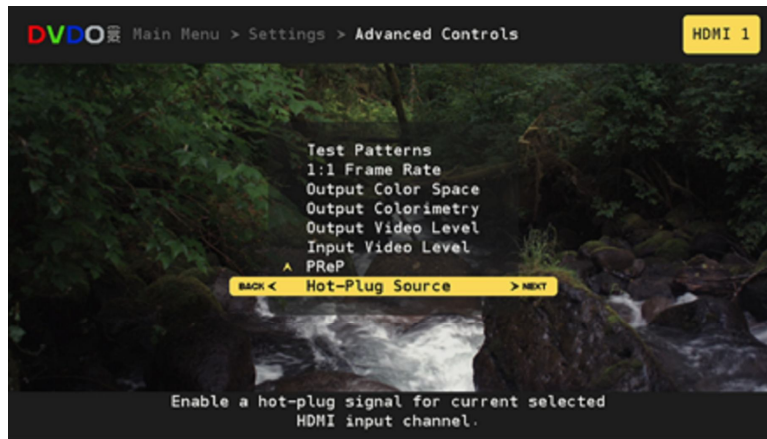
Hot Plug Source

Hot Plug Source is a feature that improves compatibility with certain source components that connect to EDGE GREEN through an HDMI input.

When Hot Plug Source is enabled for an HDMI input, a signal on the HDMI input connector, called Hot Plug, is toggled when switching to that input. Toggling Hot Plug causes the source component and EDGE to perform an HDCP re-authentication. HDCP is a copy protection technology that is part of the HDMI standard.

Enable Hot Plug Source if you experience problems switching to a particular source component. These problems can include very slow switching with flashing on the screen, or colored noise over the entire screen.

(Two common components that benefit from enabling Hot Plug Source are the Sony PS3 game console and the Oppo 970 DVD player.)

Hot Plug Source can be independently enabled for each HDMI input. To enable Hot Plug Source, first select an HDMI input, then select the Hot Plug Source window. Hot Plug Source is continued on the next page.

85

Hot Plug Source (cont'd)

To enable Hot Plug Source, first select an HDMI input, then go to the menus to the window shown above, and select "ON."

If you are unsure whether Hot Plug Source will help, then you should go ahead and enable it. The only downside to enabling Hot Plug Source is that switching could be a little slower due to the time it takes to re-authenticate.

86

Deinterlacer Bias Controls
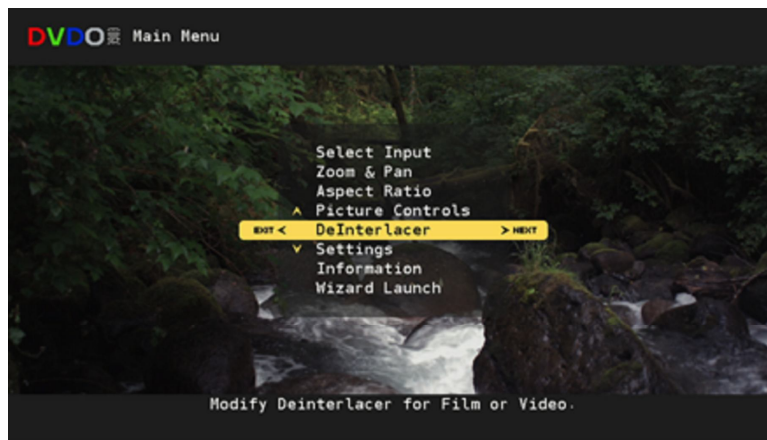
EDGE users have some control over how deinterlace processing using the Deinterlacer selection in the Main Menu. This control was put into the Main Menu to allow quick access. (The "Deinterlacer" control was added in response to requests from EDGE users in 50Hz PAL countries.)

87

Deinterlacer Bias Controls (cont'd)

These controls require the user to have some knowledge of the original source type of the motion picture. If you are unsure, leave this setting on "Auto."

Auto: Deinterlacer will automatically detect the original source type and process accordingly.

Film: Biases the detection toward film. Choosing "Film" may improve deinterlacing performance for motion pictures that were originally shot on film

Video: Biases the detection toward video cameras. Choosing "Video" may improve deinterlacing performance for motion pictures that were originally shot with video cameras.

88

Y/C Delay

Main Menu > Picture Controls > Y/C Delay

Sometimes there is a delay between the luma and the chroma component of the video signal which causes color "smearing". EDGE can compensate for this problem in the source signal by shifting the phase of luma with respect to chroma. The default setting is 0. This new slider bar control is available in the Picture Controls menu.

CUE Correction

Main Menu > Picture Controls > CUE Correction

This feature removes chroma upsampling errors (CUE) found in video sources that have errors in color decoding caused by some older MPEG decoders.

This control is available in the Picture Controls menu.

a. Off - No chroma filtering. Use this setting if the source does not have a CUE problem.

b. On - Chroma filtering is always on. Use this setting if the source has a CUE problem.

c. Auto (default) - Automatic chroma error detection and correction (AutoCUE-C™). This is a unique VRS technology that automatically detects and removes chroma errors.

89

Menu Timeout

Main Menu > Settings > Menu Timeout

The OSD menu timeout determines the time (in seconds) it takes for EDGE to close the OSD menu after no action has been performed. The user can now control the duration of the timeout.

This control is available in the Settings menu.

- 40 sec. (default) On-screen menu times out after 40 seconds.

- 160 sec. On-screen menu times out after 160 seconds.

- Off On-screen menu never times out.

Border Level

Main Menu > Settings > Advanced Controls > Output Setup > Border Level

A border is created when the active aspect ratio of the input does not match the display aspect ratio or when output image area is less than display area (underscan). For example, if the active aspect ratio is 4:3 and the display aspect ratio is 16:9, EDGE creates a left and right border on the resulting image. The border level can now be adjusted from 0 IRE (black) to 100 IRE (white) with a slider bar control.
The default setting is 0 IRE.
This control is available in the Output Setup menu.

90

Input Color Space

Main Menu > Settings > Advanced Controls > Input Color Space

This control enables the user to override the color space information that is obtained from the HDMI source and use the color space specified by the user instead.
This control is available in the Advanced Controls menu.
The menu selection is as follows

- Auto (default)

- RGB

- YCbCr 422

- YCbCr 444

Input Colorimetry

Main Menu > Settings > Advanced Controls > Input Colorimetry

This control enables the user to override the colorimetry information that is obtained from the HDMI source and use the colorimetry specified by the user instead.
This control is available in the Advanced Controls menu.

The menu selection is as follows

- Auto (default)

- ITU BT.601

- ITU BT.709

91

Output HDCP Mode

Main Menu > Settings > Advanced Controls > Output HDCP Mode

HDMI displays or other devices (such as HDMI splitters, AV Receivers) may have different HDCP implementations. This control allows the user to disable HDCP on the output signal if the current input signal is not copy protected.
This control is available in the Advanced Controls menu.

Auto - HDCP content protection is applied to the EDGE GREEN output only if the input signal is protected

On - HDCP content protection is always applied to the EDGE GREEN output

Note: This feature only applies to HDCP devices connected to EDGE GREEN's output.

Input HDCP Mode

Main Menu > Settings > Advanced Controls > Input HDCP Mode

The Input HDCP Mode control is added to accommodate the large number of HDMI devices that connect to the EDGE GREEN's inputs.

This control is available in the Advanced Controls menu.

- On - EDGE sets its input as HDCP capable. Sources can send content protected audio/video signals to the input.
- Off - EDGE turns off HDCP on its input. This feature speeds up the EDGE's ability to lock onto an input signal when HDCP is not needed or used.

92

Audio-Only Optical and Coax Sources

You can use EDGE GREEN with "pure audio" sources, such as CD players, which have no video signal associated with them. This feature works with digital audio (coax and optical) sources.

Normally, EDGE GREEN goes into standby mode when there is no video input (auto standby-on). This setup instructs EDGE GREEN to detect the presence of digital audio (coax and optical) inputs in addition to video inputs.

To use this feature

a) Select an unused video input

b) Assign the audio input that is connected to the audio only source using the on-screen menu.

Main Menu > Settings > Audio Settings > Select Audio Input

c) Selecting the unused video input effectively selects the audio input.

This feature is independent of the output and works with all three of EDGE GREEN's audio outputs (HDMI Video, HDMI Audio and Optical).

93

Section 5: How to Update Firmware for your DVDO EDGE

To update EDGE firmware, you will need the following items:

1. An internet connected PC or Macintosh computer.

2. A USB to Mini USB cable as shown in the photo below. This cable is commonly used to connect digital cameras to computers.

3. A tool for pressing the reset button on EDGE. A straightened paper clip as shown in the photo below will work.

94

Note about Firmware Updates and User Preferences

A firmware update initially resets EDGE GREEN to its factory default state, however, your EDGE GREEN includes a special data structure for storing user preferences. This was added to eliminate the need to restore factory defaults following firmware updates. This in turn eliminates erasing user preferences when firmware is updated in the future.

The new data structure is built in EDGE GREEN's memory immediately after copying the firmware to EDGE and unplugging the USB cable. During the time it takes to build the data structure, EDGE's front LED will flash red/green.

After the new firmware is copied to EDGE and the USB cable is disconnected, the front LED will flash red/green for 2-4 minutes. This is normal for this firmware. Just wait for it to stop flashing.

Connect EDGE to your computer

The smaller connector on the Mini-USB cable will connect on the back of EDGE. Next to the Mini-USB connector, there is a little hole; the RESET button is inside that hole. The Reset Button and the Mini-USB connector are shown in the photo below.

Mini-USB Connector
Reset Button

95

Updating EDGE GREEN Firmware using a PC

1. Download the PC version of the EDGE GREEN firmware onto your computer from the website at www.simplaylabs.com

2. Connect the Mini-USB to USB cable. The large end connects to your computer and the small end connects to EDGE GREEN.

3. Power up EDGE GREEN (if it is not powered up already).

4. Using your paperclip Reset tool, press the RESET button on EDGE GREEN and hold it until the front LED stops flashing and remains steady on. This takes about 5 seconds.

5. Now, an EDGE GREEN icon should appear on your PC's desktop. EDGE GREEN looks like a mass storage device to your PC.

6. Double click on the EDGE GREEN icon. You should see a file (the file name will be EDGE GREEN_100.abt (or similar). Select that file and delete it.

7. Open the EDGE GREEN firmware file. You PC should have converted the ".zip" file to a file with a ".abt" extension.   The filename should be EDGE_110.abt (or similar). Copy the ".abt" file into the EDGE icon.

IMPORTANT: Make sure the file you are copying to EDGE GREEN has a .abt extension.

8. After the file has been copied, unplug the USB cable. This will reset EDGE GREEN; when it comes out of reset, it will be running the new firmware.

After coming out of RESET, EDGE GREEN will be in a factory default state, which means that EDGE GREEN will run the setup Wizard. So, the first thing you will see is the Wizard screen. You can either use the Wizard to restore your settings, or press the LEFT arrow button on the remote to exit the Wizard.

You can verify that the new firmware is running by pressing the INFO button and using the arrow button on your remote to get to the firmware version page.

96

Updating EDGE GREEN Firmware using a Macintosh Computer

The Macintosh installer with work with MacOS versions

For MacOS 10.4 and later versions.

1. Download the Mac version of the EDGE firmware onto your computer.

2. Double click on the icon; a new icon named "DVDO EDGE Updater vxxx" should appear. This is the updater application.

3. Connect the Mini-USB to USB cable; the large end connects to your computer and the small end connects to EDGE GREEN.

4. Power up EDGE GREEN if it is not already.

5. Using your paperclip Reset tool, press the RESET button on EDGE GREEN and hold it until the front LED stops flashing and remains steady on. This takes about 5 seconds.

6. An EDGE icon should appear on your Mac's desktop. EDGE looks like a mass storage device to your Mac.

7. Double click on the DVDO icon. A status window will appear on your desktop. The window will automatically disappear when the update process is finished. The EDGE icon will also disappear.

8. Unplug the USB cable. This will reset EDGE GREEN and when it comes out of reset, it will be running the new firmware.

After coming out of RESET, EDGE GREEN will be in a factory default state, which means that EDGE GREEN will run the setup Wizard. So, the first thing you will see is the Wizard screen. You can either use the Wizard to restore your settings, or press the LEFT arrow button on the remote to exit the Wizard.

You can verify that the new firmware is running by pressing the INFO button and using the arrow button on your remote to get to the firmware version page.

97

Appendix: Cables for Video & Audio

Video Cables

HDMI to HDMI

Use an HDMI to HDMI cable to:

- Connect the HDMI output of a source component to an HDMI input on your EDGE GREEN.

- Connect the Video/Audio output of your EDGE GREEN to an HDMI input on your TV.

- Connect the Audio HDMI output of your EDGE GREEN to an HDMI input on your AV Receiver.

DVI to HDMI Adapter Cable.

Use a DVI to HDMI cable to:

- Connect the DVI output of a source component to an HDMI input on your EDGE GREEN.

- Connect from the Video/Audio HDMI output of your EDGE GREEN to the DVI input on a display.

98

Video Cables

Triple RCA to RCA (Component Video)

This cable is a triple RCA style cable (same connectors on both ends of the cable). Use it to connect from the analog component output of a source to a Component input of your Edge Green.

99

Video Cables

RCA Cable

This is the most basic type of Video cabling. RCA Cables carry baseband NTSC, PAL, and SECAM signals, which are older analog standards.

RCA cables are also used to transport digital audio signals. In this application, the connector is called "Coax." EDGE GREEN has one Coax input for digital audio

Paired RCA cables are used for the analog stereo audio input
L - Stereo - R

100

Video Cables

Plug the 5 RCA cables into the 5 connecters inside the white boundary.

The Red, Green, and Blue cables connect to the Red, Green, and Blue connectors.

The Black and White cables connect to H and V. Look for H and V labels on the cable; the Black and White colors are non-standardized regarding function.

101

Audio Cables

Optical Audio Cable

Optical cables are used to carry digital audio signals encoded in the SP/DIF format.

For sources that don't have HDMI, you can use an Optical cable to connect the source's audio output to an audio input on your EDGE GREEN.

EDGE GREEN has 3 Optical Audio Inputs.

EDGE GREEN has 1 Optical Audio Output. It can be used to connect digital audio to an AV Receiver if the Receiver does not support HDMI input.

HDMI

HDMI is described in the video cable section. HDMI is the only interconnection scheme that can carry both audio and video on the same cable.

Coax

Coax is a shorthand way of saying "coaxial cable." In the consumer audio/video industry, the term "Coax" is is a type of digital audio interconnect which uses an RCA style cable. Coax cables may be colored orange. Coax carries a digital audio signal called SP/DIF.

Analog Stereo (RCA Cables)

Analog Stereo is an audio interconnect found usually on older equipment. As the name implies, the signals are analog and a stereo 2 channel signal is carried on RCA style connectors. Usually, these cables are colored Red/White.

Which Cable Should I Use?

Your audio and video components may have multiple types of connectors, Which type should you use if you have a choice? Your choice of cables can affect the capability of your system. The guide below will help you choose the optimum cable for your setup.

Cables for Your TV

If your TV has an HDMI input, choose an HDMI to HDMI cable. Connect the cable from the Video/Audio connector on the back connector panel to the HDMI input of your TV. Most TVs have multiple inputs, so you will need to switch your TV to the HDMI input connected to your DVDO EDGE GREEN. You may never need to switch inputs on your TV again because your DVDO EDGE GREEN will handle switching in your setup.

The HDMI cable also carries audio to your TV, so you can use your TV's audio for sound.

If your TV has a DVI input, choose an HDMI to DVI adapter cable. You will need to switch your TVs input to use DVI.

DVI does not carry audio. You will probably need an AV Receiver for sound processing. The AV Receiver can be connected with an HDMI or optical cable.

Cables for your AV Receiver

If your AV Receiver has HDMI inputs, you should use an HDMI to HDMI cable, connected between the HDMI Audio output of the DVDO EDGE GREEN and an HDMI input on your receiver. You will need to switch your AV Receiver to use the HDMI input. You should not have to switch audio in your receiver again because your DVDO EDGE GREEN will handle switching for you.

If your AV Receiver does not have HDMI, then you can use an Optical cable to connect your DVDO EDGE GREEN to your AV Receiver.

103

Selecting AV Input Cables for Highest Quality

Video Cable Hierarchy

If you have a choice of video cables, use the list below to make the best choice. Use the lowest numbered cable on the list to achieve optimum video quality.

1. HDMI
   HDMI to HDMI cable. This will connect both audio and video.

2. DVI
   DVI to HDMI adapter cable. You will need a separate cable for audio.

3. Component
   Component to Component cable. You will need a separate cable for audio.

4. S-Video
   S-Video cable. You will need a separate cable for audio.

5. Video
   Video cable. You will need a separate cable for audio.

Audio Cable Hierarchy

If you have a choice of audio cable types, you can se the lowest numbered cable on the list below to achieve optimum audio quality.

1. HDMI
   HDMI to HDMI cable. This will connect both audio and video.

2. Optical
   Optical maintains the audio signal in digital form, which reduces processing and preserves quality.

3. Analog Stereo (L - Stereo - R)

104

DVDO by Simplay Labs

More information on Simplay Labs, LLC and the DVDO product family can be found
on the Simplay Labs website www.simplaylabs.com

Additional information can be found there including:
- The full DVDO EDGE GREEN User Guide
- Warranty information
- Customer support resources

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105