virtualsets.com ™

This brochure was downloaded from www.virtualsets.com   Please contact us to place an order, or for any questions you have about the Ultimatte products we offer, including blue green paint and fabric.

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30 years of industry leading innovations and refinements means the newest Ultimatte hardware is unrivalled in quality, performance, and ease of use.

The new Smart Remote 2, with its touch screen control panel, organizes and informs in a way that is intuitive and efficient.
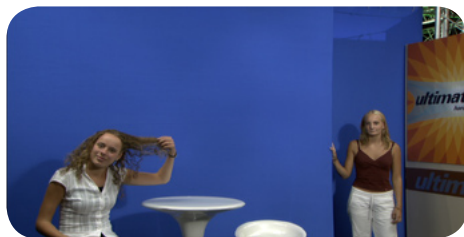
Our nuanced algorithms focused on real-world bluescreen environments are what make virtual studios a viable production genre.

A clear, easy upgrade path from standard to high definition means years of return from your investment.

TRANS-FORMING . . .

The new Ultimatte 500 Deluxe is more than just easily upgradeable to high definition. Hundreds of algorithmic changes combine to create per-formance unmatched by anything we, or anyone else, have ever seen. These changes represent the experience of thirty years of devotion to a science invented by us and a passion that still drives us to this day.

A VIRTUAL SET . . .

As a cost-effective solution to constructing expensive sets, the virtual studio has evolved into a realistic alternative to the practical set. But, virtual studios present their own unique set of problems. The ability to make a virtual set look real becomes exasperated when real objects and real people are composited together with the virtual objects and background. The Ultimatte 500 Deluxe addresses this challenge of the virtual studio with the introduction of a new feature set that transforms a Virtual Set into a Living Set.

INTO A . . .

A camera leaves a "stamp" on everything it records. A film camera has film grain as its signature and a video camera has electronic noise characteristics. Real foreground elements from a camera juxtaposed against a perfectly clean virtual background will create a fake looking composite. To address this problem the Ultimatte 500 Deluxe introduces a new feature set, the Living Set. The Living Set samples the noise characteristics of the camera and then proportionally composites that "stamp" on the virtual background, creating the same noise charac-teristics matching the foreground camera.

LIVING SET

To help create the Living Set, the Ultimatte 500 Deluxe introduces the Clean-up Windows. The typical blue screen is never lit evenly enough that the masks introduced to turn on the background can blend seamlessly. To help blend the brightness variation, soft edge masks are used. Because the soft edge mask will cause the actor to become transparent if he walks into it, there is a limit on its width. If the soft mask is not wide enough to hide the variation, the clean-up control is typically used to make up the difference resulting in the typical loss of important floor shadows and detail. The Ultimatte 500 Deluxe Clean-up Windows changes how the soft edge mask works. Instead of merely dis-solving on the background, thereby limiting the usable area, it uses the soft edge mask to modulate the clean-up control. The actor can now walk into the soft mask area without becoming transparent. The end result is that the clean-up control is now variable instead of universal and, less of it is needed.

Smart Remote 2 sold separately

SMART REMOTE 2

Available for the Ultimatte 500, the Smart Remote 2 provides powerful, yet intuitive control over the base unit. Through the large, touch-screen interface you can control all parameters of the Ultimatte 500 as well as save and load your custom settings. Each Smart Remote 2 can control up to 4 boards of Ultimatte 500 or Ultimatte 11 (can also control legacy products of Ultimatte 400, Ultimatte 9, Ultimatte 10.)

BACK PANEL
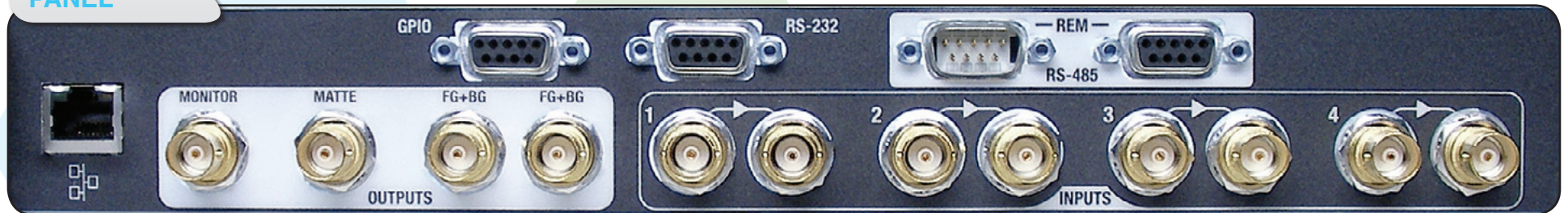
ADDITIONAL FEATURES

- Upgradeable to high definition
- Extended range matte controls to overcome foreground and wardrobe conflicts
- User adjustable foreground delay to compensate for virtual set render times*
- Matte correction and sizing for targeted correction of overdense transitions
- Clean up shrink and blur
- Flare suppression controls
- Direct Ambience control allows background to affect color and brightness of foreground*
- Indirect Ambience control allows background to affect color and brightness of foreground in subtle ways
- Foreground and Background Color Controls:
    - White levels: Master and R*, G*, B*
    - Black Levels: Master and R*, G*, B*
    - Contrast Levels: Master and R*, G*, B*
    - Saturation Levels: Master and R*, G*, B*
- Two* External Matte Inputs and Internal Windows allow for sophisticated combinations of garbage mattes, layering mattes, holdout mattes and the new clean up garbage matte*
- Clean up garbage matte that allows for variable clean up versus global clean up*
- Monitor output can be switched without affecting FG+BG Out and can also be set to mirror for use as a talent monitor

* applies to Ultimatte 500 Deluxe.

Video Inputs (All video inputs conform to SMPTE 259M)

	Signal Type	Connector

	4 x SD SDI inputs with active loop outputs:
	  Foreground: 4:2:2 - user selectable
	  Background: 4:2:2 - user selectable
	  Matte In 1: 4:0:0 - user selectable
	  Matte In 2: 4:0:0 - user selectable
	  Reference: Fixed - Input 1
		BNC (75 ohm)

Input Capture Range:	+/- 0.5H max relative to Reference (IN 1) Video timing	
Minimum throughput delay	**SD:** 19.85μsecs	

Video Outputs (All video outputs conform to SMPTE 259M)

	Signal Type	Connector

	4 x SD SDI: 2 x FG + BG (4:2:2/4:0:0)
	  1 x Matte Out (4:0:0)
	  1 x Monitor Out (4:2:2/4:0:0)
		BNC (75 ohm)

Audio and data	All outputs include embedded audio and ancillary data from input 1.	

Control Interface

	Purpose	Connector
RS-485	Smart Remote 2 connection	DB9 Male
RS-485 Loop Out	to other Main Units (4 max)	DB9 Female
RS-232	Computer Interface	DB9 Female
GPIO	3 GP In; 1 GP Out [Talley (contact closure TTL)]	DB9 Female
Ethernet	Control (future update) 10/100 Mbps	RJ-45

Power

	Voltage	Current
	100 VAC to 240 VAC, 50 / 60 Hz	0.30 - 0.15 A

Operating Temperature

0°C to +50°C (+32°F to +112°F)

Enclosure

	Weight	Dimensions
	4.5kg (10 lbs)	H = 4.45 cm / 1.75 in (1RU) W = 43.18 cm / 17 in D = 30.48 cm / 12 in (not including front and back handles)