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OPERATING MANUAL

SMART MOVE[®] VERTICAL
SMART MOVE[®] VERTICAL DMX



Congratulations on your purchase of the Apollo Smart Move® Vertical.

The SMART MOVE® VERTICAL is the latest addition to the Smart Move® family of gobo effects devices from Apollo Design. The Vertical inherits the same smart technology found in its rotating siblings.

The Vertical features motion, time, and speed presets that create vertical movement of patterns or text. The special gobo offers multiple image areas that, when combined with the vertical movement, allows one image at a time to be placed in the focal path of the fixture.

The Smart Move® Vertical accepts metal, b/w, and one color glass gobos to produce new and exciting projection possibilities. For retail, tradeshow displays, and corporate event environments, text messages and logos can be projected. In a theatrical application many natural movements not suited to rotational effects can now be produced. Just use your imagination!

The Smart Move® Vertical comes in a DMX or standard version. Both have 17 pre-programmed effects for stand alone operation. Fits ETC Source Four and Altman Shakespeare.



Other products available from Apollo:

- Aluminum Gobos
 - Dichroic Glass Filters
 - Donuts
 - Gaffer Tape
 - Gel Cabinets
 - Gel Filters
 - Gel Frames
 - Glass Gobos
 - Intelligent Lighting Wheels
 - Pattern Holders
 - Smart Color® Scrollers
 - Smart Move® Rotators
 - Smart Power™ PSU's
 - Stage Foil
 - Stainless Steel Gobos

Maintenance Kits

Smart Move® Vertical and Smart Move® Vertical DMX kits contain the following replacement parts:

- 12" Bearing tape
- Teflon bushing
- 2 Teflon spacers

Smart Move® Warranty

- Smart Move® Verticals are covered by a 12-month parts and labor warranty. The warranty covers parts and labor for 12 months and freight for 30 days after initial purchase. In case of warranty claims, please contact Apollo Design Technology, Inc. directly at 4130 Fourier Drive, Fort Wayne, IN 46818.
- Despite the care taken in the compilation of this manual, Apollo Design Technology, Inc. cannot be held responsible for any errors that may appear in this manual. All efforts have been made to ensure that the instructions and illustrations are as accurate as possible.
- Need assistance? Call Apollo at 800-288-4626.

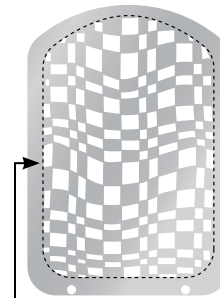
Keep this information handy if requiring technical assistance.

Serial Number: _____

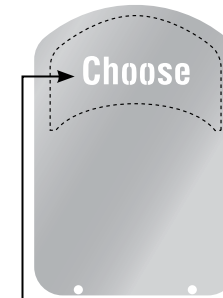
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Purchased From: _____

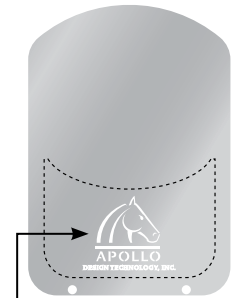
Six image areas on Vertical gobo.



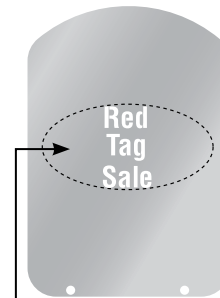
1 Use this image area for full size breakups. This image will always be in the light beam. Use an identical or different pattern in the fixture's gobo slot to create additional effects.
Maximum available image area: 4 5/8" (L) x 3" (W)
117.475mm (L) x 76.2mm (W)



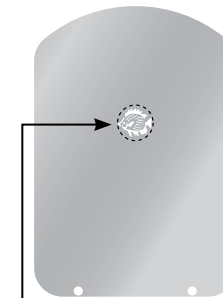
2 Images in this area will drop into light beam but not be centered.
Maximum available image area: 1 1/2" (L) x 3" (W)
38.1mm (L) x 76.2mm (W)



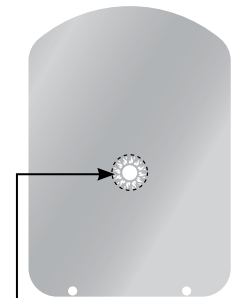
3 Images in this area will rise into the light beam but not be centered.
Maximum available image area: 1 1/2" (L) x 3" (W)
38.1mm (L) x 76.2mm (W)



4 Use this area for images that will move up and down within the light beam. One, two, or three lines of text can go into this area. One line at a time or all three lines at once can be projected here using the fixture shutters.
Maximum available image area: 1 1/2" (L) x 3" (W)
38.1mm (L) x 76.2mm (W)

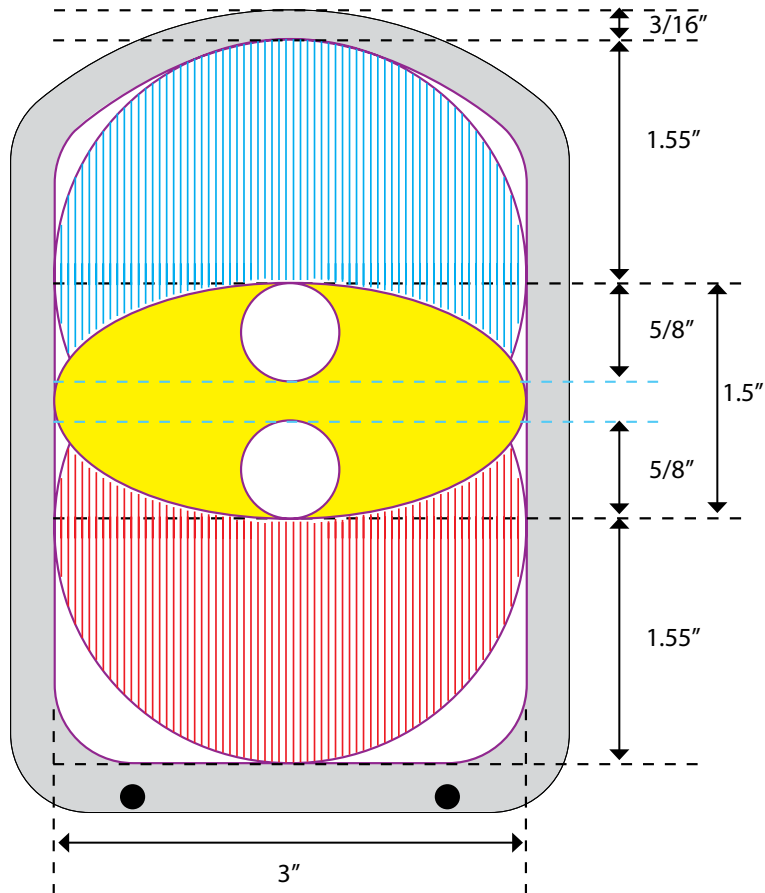


5 Use this area for images that will disappear at the top of the light beam. Use in conjunction with area #6 to have one pattern completely replace another pattern in the center of the light beam.
Maximum available image area: 5/8" diameter
15.875mm diameter



6 Use this area for images that will disappear at the bottom of the light beam. Use in conjunction with area #5 to have one pattern completely replace another pattern in the center of the light beam.
Maximum available image area: 5/8" diameter
15.875mm diameter

Close-up of the six image areas on Vertical gobo.



Smart Move® Mode

The Smart Move® Vertical DMX allows the user to access the 17 pre-programmed effects while in DMX mode. In this mode of operation, set:

DMX Channel 3 at 1-100% to enable Smart Mode

DMX Channel 2 at 1-100% to set the speed of the Smart effect

DMX Channel 1 at 1-100% to select the Smart effect

| DMX Value | Effect | Description |
|-----------|--------|----------------------------------|
| 0-2 | 00 | Stop |
| 3-7 | 01 | Full Range, Continuous |
| 8-12 | 02 | 80% Range, Continuous |
| 13-17 | 03 | 60% Range, Continuous |
| 18-22 | 04 | 40% Range, Continuous |
| 23-27 | 05 | 20% Range, Continuous |
| 28-32 | 06 | 10% Range, Continuous |
| 33-37 | 07 | 1 Second Delay, Top and Bottom |
| 38-42 | 08 | 1.5 Second Delay, Top and Bottom |
| 43-47 | 09 | 3 Second Delay, Top and Bottom |
| 48-52 | 10 | 4.5 Second Delay, Top and Bottom |
| 53-57 | 11 | 6 Second Delay, Top and Bottom |
| 58-62 | 12 | 7 Second Delay, Top and Bottom |
| 63-67 | 13 | 1 Second Delay, Center |
| 68-72 | 14 | 3 Second Delay, Center |
| 73-77 | 15 | 5 Second Delay, Center |
| 78-82 | 16 | Random Motion, 20% Range |
| 83-100 | 17 | Random Motion, 10% Range |

Modes Of Operation

Stand Alone

The Smart Move® Vertical can operate in stand alone mode or can be controlled by a lighting console using DMX 512.

For simple operation without DMX control, set the rotary switches to 701, and then adjust the speed by turning the black speed control knob clockwise for faster movement or counter-clockwise for slower movement. To access the remaining 16 preprogrammed effects, simply set the first rotary switch at 7 and the remaining two rotary switches to correspond to the effects listed on the back of the unit.

DMX Control

The Smart Move® Vertical DMX allows three modes of operation and requires 3 channels of DMX when used with a lighting desk.

Vertical Mode

This mode moves the gobo in a continuous cycle from .25 to 60 strokes per minute. In this mode of operation, set:

DMX channel 3 at 0

DMX channel 2 at 0

DMX channel 1 at 1-100% to set speed

Indexing Mode

This mode allows the user to position the gobo at any of the 200 positions in the stroke. In this mode of operation, set:

DMX Channel 3 at 0

DMX Channel 2 at 1-100% to set speed

DMX Channel 1 at 1-100% to set position

Gobo Installation

The Apollo gobos are held in place with two Phillips head screws for ease of use.

Begin installation by sliding the gobo into the slots found at the base of the Smart Move® Vertical.

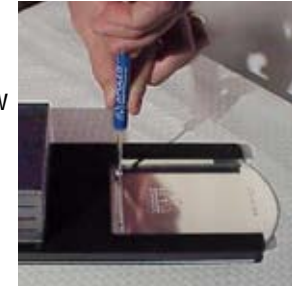


For correct projection of image, install the gobo with image upside down facing the housing as shown above.

Continue sliding the gobo into the Smart Move® Vertical until the holes in the gobo line up with the screw holes on the gobo carrier plate. Screw two Phillips head screws until tight.

Do not over tighten!

Your Smart Move® Vertical is now ready for use.



Smart Move® Vertical Operation

The Smart Move® Vertical and Smart Move® Vertical DMX fit in the iris slot of the Altman Shakespeare and ETC Source Four ellipsoidal lighting fixtures. Both units come with a load rated safety ring in the upper corner. It is recommended that an industry approved safety cable be attached to this ring and to a fixed object nearby such as a truss, house pipe, or catwalk.



This is particularly important when operating the Smart Move® Vertical or Smart Move® Vertical DMX in any orientation other than vertical.

Smart Move® Vertical Operation (Standard Version)

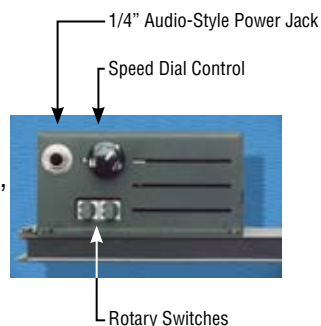
The Smart Move® Vertical is powered by a 24V DC adapter supplied with the unit. It can be plugged into any 120 volt outlet for smooth operation. The 600mA power adapter is a rugged, black plastic molded unit with a ¼ inch heavy duty audio-style jack for long life. Route the power supply cable in such a way as to avoid contact with the lighting fixture.



Do not plug the Smart Move® Vertical into a dimmable source.

The speed of the Smart Move® Vertical is controlled only by the black speed control knob on the side of the enclosure.

After powering up, the Smart Move® Vertical will perform a homing sequence. After homing is completed, usually in no more than a few seconds, the Vertical is ready to use. Set the two rotary switches on the side of the enclosure to 1 of 17 preprogrammed effects. Adjust the speed of the effect using the black speed control knob on the side of the enclosure.



Smart Move® Vertical Operation (DMX Version)

The Smart Move® Vertical is powered by 24V DC. Power, along with DMX data, enter the unit via the two 4 pin XLR connectors located on the top of the enclosure. Route the XLR cables in such a way as to avoid contact with the lighting fixture.

Four sizes of Smart Power™ supplies are available from Apollo.

Smart Power™ 75W will power 5 Smart Move® Verticals
Smart Power™ 150W will power 10 Smart Move® Verticals
Smart Power™ 250W will power 18 Smart Move® Verticals
Smart Power™ 400W will power 28 Smart Move® Verticals

The Smart Move® Vertical is also compatible with the following power supplies:

- Spectra-Q
- Chroma-Q
- Rainbow
- Wybron Forerunner

The Smart Move® Vertical is not compatible with Wybron Coloram power supplies!