

# SMART MOVE®

Gobo Rotators



Smart Move® DMX



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# Introduction

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Since 1992, Apollo MFG has been one of the world's leading innovators, manufacturers and distributors of gobos, color filters, lights and related equipment and accessories for the lighting industry.

We are continually engineering new products to help you create and execute the designs of your dreams for theaters, bands, advertising, touring companies, television, motion pictures, museums, retail and architecture.

Apollo MFG is recognized for creating innovative and award-winning products of superior quality and value. Focused on you, our goal is to ensure unparalleled support from the initial conversation to after sales service.

Our lighting experts and engineers will consult with you on ways to use our standard products or engineer custom solutions. Allow your imagination to run free. Let the Apollo MFG team help you create the lighting design you only imagined.

**There is virtually no limit to what we can do together.**



Joel Nichols, Owner/CEO  
Apollo MFG

# Product Description

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Congratulations on the purchase of your new Smart Move® gobo rotator. The family of Smart Move® gobo rotators bridges the gap between conventional rotators that merely spin and rotators that require the use of a lighting desk. The Smart Move® rotator family produces fantastic kinetic effects. The rotators can be stand-alone units using only AC power or an addition to scrollers, foggers, and other DMX accessories.



# Safety Information

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- Be sure to read and understand all instructions in this manual.
- The Smart Move® gobo rotator is designed for indoor applications and should not be exposed to moisture.
- There is a risk of fire, shock or injury if the Smart Move® gobo rotator is not used as specified.
- Servicing the Smart Move® gobo rotator should be undertaken by qualified personnel only.
- The Smart Move® gobo rotator is not intended for residential use.
- Safety cables must be used when installing the Smart Move® gobo rotator. Apollo is not responsible for damage or injury resulting from improper use of safety cables.



# Gobo Installation

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Gobos are centered and held firmly in place by the machined aluminum retaining ring. The ring is designed to hold both metal and glass patterns. Simply invert the ring for thin steel or thicker glass gobos and textured glass. Place the gobo in the self-centering pocket in the gobo holder and install the retaining ring.

- Steel Patterns: The indentation in the retaining ring should face out.
- Glass Patterns: The indentation should be face in.

To remove the ring, place the tip of a screwdriver in the notch and gently pry the ring up. When replacing the ring, simply place the ring in position and gently press into place with your fingertips.

Replacement retainer rings and other items are available from your Apollo dealer in the event one becomes misplaced or damaged.



# Operating

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## Smart Move® DMX

- Use only Apollo cable or other approved cable. Approved cable should have two conductors of 14 AWG wire for power and two shielded and twisted conductors of 22 AWG wire for data.
- Insert the rotator in the iris slot of the lighting fixture with the control-housing box facing the front of the fixture. Loop DMX cables through the yoke or over the truss to avoid direct contact with the fixture.
- The Smart Move® DMX uses 3 channels of DMX512. To set your desired DMX address, turn each rotary switch so that the address reads between 001 and 512. Please note that after patching the rotator into the console, the console's control channel number may (and probably will) be different than the rotator's DMX address number.

# Programming Effects

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## Smart Move® DMX

- 19 Pre-Programmed Effects: Set the first rotary switch to 7 and the remaining rotary switches to correspond with the desired effects listed on the back of the unit and on page 6.



# Programming Effects

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## Smart Move® DMX

The Smart Move® DMX allows three modes of operation and requires 3 channels of DMX.

- 1. Rotating Mode:** Enables rotation of two patterns at the same speed from 0 to 21 rpm with each of the two gobo holders rotating in opposite directions.
  - DMX channel 3 at 0
  - DMX channel 2 at 0
  - Action: DMX channel 1 controls speed and rotation
- 2. Indexing Mode:** Position a specific logo at any of 200 positions. Place the pattern in the gobo holder located on the back of the unit, beneath the serial number sticker. Place the indexing gobo into the holder while rotator is on and addressed at 000. This allows the gobo's position to be calibrated for proper alignment.
  - DMX channel 3 at 0
  - DMX channel 2 above 0
  - Action: DMX channel 1 sets a position to index to
  - Action: DMX channel 2 sets the speed of movement
- 3. Smart Move Mode:** Use 19 pre-programmed effects.
  - DMX channel 3 above 0
  - Action: DMX channel 1 select a pre-programmed effect
  - Action: DMX channel 2 sets the speed or delay time for the effect just as the speed control knob usually does in stand-alone mode.
  - DMX channel 3 above 0
  - Action: DMX channel 1 selects a pre-programmed effect to run
  - Action: DMX channel 2 sets the speed or delay time for the effect just as the speed control knob usually does in stand-alone mode.

Example – rotator is addressed at 001, the third channel is set above zero. The second channel adjusts the speed of the effect, while the first channel chooses the effect. Remember, three channels of DMX are allotted to the rotator.





# Effects

## Smart Move<sup>®</sup> DMX

DMX VALUE	EFFECT
0%	0, Home Wheel
5%	1, Clockwise Rotation
10%	2, Counterclockwise Rotation
15%	3, Pendulum 45 degrees
20%	4, Pendulum 90 degrees
25%	5, Pendulum 180 degrees
30%	6, Stutter (3 second increments)
35%	7, Stutter (5 second increments)
40%	8, Stutter (10 second increments)
45%	9, Stagger (3 second increments)
50%	10, Stagger (5 second increments)
55%	11, Stagger (10 second increments)
60%	12, Shake
65%	13, Clock
70%	14, Shake / Pause (3 second increments)
75%	15, Shake / Pause (5 second increments)
80%	16, Shake / Pause (10 second increments)
85%	17, Progressive
90%	18, Whip
95%	0, Home Wheel
100%	99, Demo Mode (All pre-programmed effects)



# Troubleshooting

Symptom	Cause	Solution
Smart Move® DMX is in rotating mode but not rotating	Missing 24V DC power	Check for power.
	Missing DMX signal	Check for DMX.
	Wrong channel	Check that DMX level is at 0 on channels 2 and 3. Channel 1 controls speed and rotation.
Smart Move® DMX won't rotate without DMX signal	The unit can be set for fixed rotational mode by resetting the rotary switches at 700	Reset the switch to the proper address, then use the second and third rotary switches to choose your programmed effect.
Smart Move® DMX is not indexing properly	Wrong channel	Make sure channel 3 is at 0, channel 2 is above 0 to set the speed of movement. This allows channel 1 to set the indexed position.
	The homing sensor circuit has failed	Visually inspect rear gobo holder for missing magnetic sensor.
Gobo is not firmly held by retaining ring	The retaining ring may have been inserted backwards	Place the flat side towards steel gobos, shouldered side towards glass gobos.
Motor turns, but gobo does not	Loose or broken drive belt	Check for loose or broken drive belt.
	Loose set screw	Check for loose set screw in drive pulley.
	Tangled gobos	For double rotators, check that the two steel gobos have not become tangled together.

# Maintenance Kits

Smart Move® DMX kits contain:

- 2 belts
- 6 teflon spacers
- 1 retaining ring
- 4 teflon rollers



USA

# Specifications:

## Smart Move® DMX

SMART MOVE DMX®	
<b>Compatible Fixtures</b>	ETC S4 Altman Shakespeare Times Square Q435 Strand SL Selecon Pacific (when Iris slot cover is removed)
<b>Dimensions (LxWxD)</b>	11.30" x 4.70" x 2.62"Ø (287.02mm x 119.38mm x 66.54mm)
<b>Weight</b>	2.8 lbs. (1.27kg)
<b>Gobo Sizes</b>	1 or 2 B Round Metal and/or Glass
<b>Drive System</b>	Silent Drive Belt
<b>Rotation Speeds</b>	Infinitely Variable CW/CCW, 0-21 rpm
<b>Power Requirement</b>	24VDC + DMX 512, (1990) (sold separately)
<b>Power Consumption</b>	14.5 watts
<b>DMX Channels</b>	3
<b>Data / Power Transmission</b>	XLR 4-Pin Cable
<b>Power Cord Length</b>	N/A
<b>Safety Cable</b>	Sold Separately
<b>Retaining Ring</b>	Reversible for Metal or Glass Gobos (2)
<b>Effect Options</b>	19 (see chart)
<b>Effect Settings</b>	3 Rotary Switches
<b>Certifications</b>	CE and FCC Compliant, Made in USA



USA

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# Warranty

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- Items are covered for defects in materials and workmanship for one year, from date of the manufacturer invoice.
- The manufacturer does not cover any other loss resulting from product failure.
- Products being returned for warranty repair must display the original serial number. Removal of the serial number voids the product's limited warranty.
- Despite the care taken for the compilation of this manual, Apollo MFG cannot be held responsible for any damages resulting from errors that may appear in this manual. All efforts have been made to provide the most accurate, up-to-date instructions and illustrations possible.
- Gel strings are not included in this 1-year warranty.

<b>Serial Number</b>	
<b>Date Purchased</b>	
<b>Purchased From</b>	







# SMART MOVE<sup>®</sup>

Gobo Rotators



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