

***RHINO***

A R C

**EVO**

Arc Product Manual



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# Battery & Safety Warnings

**Important:** Rhino Arc is a pan-only device. It is not intended to use with an L-Bracket for tilt move because of the gearing for high speeds.

**Note:** Rhino Arc must be used with Rhino Motion to function. It is not intended for stand-alone use.

Never use this product without fully understanding the functions and safety precautions. See [www.rhinocg.com](http://www.rhinocg.com) for operating guides.

Always keep the product and all accessories including Rhino Arc, Rhino Motion, Rhino Slider EVO, connection cable, wall charger, and all packaging out of reach of babies and small children.

Handle the device with care. Strong impacts may damage the device and cause it to stop working.

If you drop the equipment and the casing breaks, opening and exposing internal parts, do not touch the internal parts due to the possibility of electrical shock.

To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture. To reduce the risk of fire or electric shock hazard, keep this equipment away from all liquids. Use and store only in locations which are not exposed to the risk of dripping or splashing liquids, and do not place any liquid containers on top of the equipment. Use the recommended accessories only.

Do not short-circuit, disassemble, or modify the device or battery inside. Do not apply heat or apply solder to the internal battery or any attached external devices.

Use only supplied USB cable and powered USB port or charger rated at 5vDC 1500mA.

Lithium Polymer batteries are extremely hazardous and liable to cause serious injuries to persons or property. The user accepts liability for the use of a Lithium Polymer battery. As the manufacturer and the distributor cannot ensure the battery is used correctly (charging, discharging, storage, etc.), they cannot be held liable for damages caused to persons or property.

Danger of explosion or fire if battery is tampered with or mistreated. Do not disassemble the unit to access the battery or dispose of the unit and/or the battery in fire. Do not store the unit in temperatures over 50°C (104°F) or below -20°C (-4°F). Do not expose the unit and/or battery to excessive heat such as sunshine, fire or the like. Always use the specified charger to recharge the battery. Do not attempt to replace the battery, it is not user replaceable.

The ambient temperature and humidity will affect the operating time; If you use the device at locations with extremely low temperatures, its operating time will be reduced.

Lithium ion/polymer battery that is recyclable, powers the product you have purchased. Please call 1-800-8-Battery for information on how to recycle this battery.

# What's in the box



**Rhino Arc Connection Cable** - Use this to connect to Rhino Motion



**Rhino Arc Adjustment Wrench** - Use this during your first setup to position Arc properly



**Rhino Arc** - Motorized panning head



**Charger & USB Cable** - Use this to charge Rhino Arc and update firmware when necessary



# Mounting

Rhino Arc is designed for use with 3/8" ball and fluid heads. It can support up to 10 lbs of weight if it is centered over the unit.

**Step 1.** Set Rhino Arc on the Rhino Slider carriage and turn it clockwise until it's tight.



DO NOT TIGHTEN WHILE HOLDING TOP PLATE



TIGHTEN WHILE HOLDING BODY

**WARNING:** Whenever you're installing or removing Rhino Arc from the carriage, make sure to apply force to the body of the unit and not to the top plate. If too much force is applied to the top plate the internal metal gears could get damaged.

**Step 2.** Using the included allen wrench, loosen the two set screws identified with a white ring around them. Position Rhino Arc so that the screen is facing the brake on the carriage and lightly tighten the set screws.



**Note:** This step is only necessary on initial setup.



# Leveling

Rhino Arc must be level before you start using it. Level your slider using your tripod. If you don't have a ball head under Rhino Arc you'll need to ensure that your slider is level. If you want to angle your slider you'll need to add a ball head, fluid head, or leveling plate under Rhino Arc to keep it level.

## Note:

If Rhino Arc is at too much of an angle the rotating platform may not turn depending on the weight of your camera.

## WARNING:

When installing or uninstalling your ball or fluid head, hold the top plate with your free hand to ensure you don't stress the gearing.



DO NOT TIGHTEN WHILE HOLDING BODY



TIGHTEN WHILE HOLDING TOP PLATE



# Pairing

Rhino Arc is designed to work seamlessly with Rhino Motion. All move setup is done on your Rhino Motion Controller but there is an OLED screen on Rhino Arc to show remaining battery life and the pairing status.

**Step 1.** Press and hold the power button for 3 seconds to power on.

**Step 2.** Plug the included cable into the Rhino Motion Controller icon plug on Rhino Arc.

**Step 3.** Plug the other end into the camera port on the Rhino Motion Controller.



**Step 4.** Navigate to SETTINGS in the Rhino Motion Controller. Under "Arc", set it to "ON". The screen on Rhino Arc should now display "Paired". If it doesn't, make sure your cable is plugged in all the way and toggle the ON/OFF setting again.



**Step 5.** When you start a move with the Rhino Motion Controller, the screen on Rhino Arc will change to "Active" to indicate it's currently in a move.

**Note:** You'll need to pair your controller with Rhino Arc every time you power it up. If the cable becomes unplugged, go into the settings menu on your controller and turn Arc to "OFF" and then back to "ON" to re-pair it.

# Setting up a move

Creating a panning & sliding move with Rhino Arc is extremely simple. When the unit is paired with your controller you'll see a setup screen before each mode in Rhino Motion that allows you to position Rhino Arc.

**Step 1.** Choose a move type and calibrate your slider.

**Step 2.** Turn the wheel to point your camera in the direction you want it to start at.

**Step 3.** Click "SET IN" and your slider will move to the other end of the slider.



**Step 4.** Turn the wheel to point your camera in the direction you want it to end at.

**Step 5.** Click "SET OUT" and your Arc movement is set up.



# Tracking Movement

The most common move to create with Rhino Arc is a "Tracking" move. During setup, point your camera at the same spot at your "IN" position and at the "OUT" position. As your camera moves it will stay locked on what you pointed at during setup. This type of move is perfect for interviews where you want to slide your camera but also track your subject.

## **Interview Tips:**

The best way to film an interview with Rhino Arc is to use "Create a move". If you're shooting on a 24" slider a good starting move duration is around 15 seconds. For 42" sliders 25 seconds is a good starting duration. Add a four inch ramp to make the direction change extremely smooth and make sure Loop is set to "ON" for the move to repeat automatically.

## **Note:**

Keep in mind if you're filming a subject or object that is close to you, your focus point will shift slightly as you slide. If you're shooting with an extremely shallow depth of field you could lose focus. If it becomes an issue you can narrow your aperture, move your focal point farther away, or attempt to rack focus as you slide.

# Creative Movement

Another common move is a “Tracking” type shot but without a specific tracking point. The contrast of moving one direction while panning the opposite direction is a great effect to use for establishing shots or reveals where your point of interest is out of the frame until you pan to reveal it. This type of move works really well for time lapses.

## **Time Lapse Tips:**

Setting up your composition is one of the most important aspects of creating a great time lapse. When you’re setting up your Arc move in Advanced Time Lapse, use the “MOVE TO IN” and “MOVE TO OUT” functions to preview what your movement will look like. If it’s not the right composition, press the back button to create a new Arc move and try something different.

## **Note:**

Rhino Arc makes use of the intervalometer built into the Rhino Motion Controller. If you want to trigger your camera’s exposure with the controller, use the cable included with Rhino Motion to connect your camera to the port on Rhino Arc with the camera icon. This will allow the controller to still trigger your camera to take pictures during a time lapse.

# Sweeping Movement

The third kind of move is known as a "Sweeping" shot. To set it up, point your camera about 30 degrees to the left at your "IN" position and about 30 degrees to the right at your "OUT" position (assuming you're moving left to right). The camera will pan left to right as you slide and will provide a panorama of your scene. It's easy to lose the feeling of sliding with this kind of move so make sure you have something in your foreground as a frame of reference.

# Battery Life & Charging

## **Battery Life**

Live Motion & Simple Time Lapse: 4 hours

Advanced Time Lapse: 24+ hours

## **Charge Time**

USB Wall charger: 3-4 hours

USB Computer: 48 hours

For safety reasons, charging will cease after ten hours. If you're using Rhino Arc and charging simultaneously, unplug the cable after 10 hours and plug it back in to continue charging.

## Specs

Minimum Speed: .0083°/second

Maximum Speed: 80°/second

Maximum Rotation: 360°

Maximum Rotation during a move: 240°

Load Capacity: 10lbs (centered over the mounting plate with a fluid head)  
5lbs (not centered over the mounting plate with a ball head)

Weight: 1lb 3oz

## External Power

If you're shooting for long periods, you can use an external battery pack to power Rhino Arc. We recommend a battery pack with at least a 1.5A USB output (2A max). Simply plug it into the USB port on Rhino Arc to extend the duration of your shoot.

## Maintenance

Rhino Arc is completely self contained and doesn't require any regular maintenance. To keep it working properly, make sure water or sand doesn't get inside of the unit. Most of the structure is weatherproof but debris can enter through the ports on the side of the unit. Light rain or snow shouldn't affect it.





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[www.rhinocg.com](http://www.rhinocg.com)

Thank you for purchasing Rhino Arc.  
If you have any questions or comments, please email:  
[support@rhinocg.com](mailto:support@rhinocg.com)

