

# PR◀AIM Spin-3 (3-Axis)

## Motorized Dutch Roll Pan Tilt Head (PT-SPIN-3)

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### Assembly Manual



## What's In The Box

Please inspect the contents of your shipped package to ensure you have received everything that is listed below.



Spin-3 (3-Axis) Pan Tilt Head



Camera Plate



Universal  
Adapter



Mounting  
Clamp



Joystick Controller  
with Cap



12V AC  
Adapter



15mtr Control  
Cable



3mtr XLR  
Cable



Tools



Storage Bag

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## Spin Pan-Tilt Head Setup

- Firstly, attach Mounting Clamp on Jib arm using the provided screws.



- Now attach Pan Tilt Head with jib Mounting Clamp. Align screw holes and tighten precisely to secure the head.



- Mount your camera (Not Included) on camera mounting plate of Pan Tilt Head and tighten the screw appropriately to secure it.



## Attaching Joystick Controller

The Pan Tilt Head circuitry is built entirely into the Joystick Controller. The only requirement is AC adapter (Included) or Battery Power (Not included). The AC adapter can handle 100-240 volts. Users will need the appropriate plug adapter for local use.

- Install 12 volt AC adapter (4 pin XLR) in the socket of Joystick Box.

**NOTE:** Any 12 volt battery may operate this Pan Tilt Head as long as the Connector and the #1 Negative pin & #4 Positive pin of Cable meet together.



**CAUTION:** Do not use an unregulated power supply! If using a regulated power supply, it must produce less than 12 volts. More than 24 volts may cause permanent damage.

- Attach 4-pin Power Cable with Joystick Controller. Then attach other cables of the motors with long cable.



## ■ Functioning of Joystick Controller

The Joystick is a 3-Axis Variable Speed Servo Controller. The further you move in one direction, the faster the output to that motor. This will be a little tricky at first, but little practice will improve your success. The joystick may be operated in a handheld position or from a flat surface such as a tabletop, or attached to the boom arm of Jib.

**NOTE:** *After plugging the power cord into a proper outlet, press 'Power On'. The LED light on the control box should illuminate and the head may jump slightly on start up or shut down. This is normal. This can be controlled by Dead Spot. Adjust the Joystick to ensure correct movement of head. It may be necessary to reconnect to the motors, if required.*

### Speed

To the left corner on joystick is a knob labeled "SPEED". This is the power control knob. Turning to the right will be full power and back to the left will decrease the available power to both pan and tilt operation. The advantage of power control is to be able to limit power when only slow accurate movements are needed. With the power control at half power (approx. 8 volts max. output) the full range of motion on the joystick will be between 0 and 8 volts making finer adjustments possible. The power control will be usable between approximately 4 volts to 12 volts.

### Dead Spot

The knob to the right corner is marked Dead Spot. Turned towards the left, will create the smallest dead spot - meaning that the head will begin to move as soon as the smallest deflection of the joystick is made. Moving to the right will increase the area where no power is sent to the head motors. At half way, the dead spot will close again. This helps to avoid crossing the tilt when only pan movement is desired.

The dead spot is so tight when the control knob is all the way to the left. It may be necessary to back it off slightly until no movement is seen in either axis.

**NOTE:** *With the dead spot on left, the head may move in both axis on its own. It should be set at approx. 9 o'clock position to ensure that no unwanted movement occurs.*

### Linear or Logarithmic Taper Joystick Control

All joysticks are linear, meaning that each degree of movement of the stick correlates to the output. On the 12 volt Pan Tilt Head, half deflection of joystick means approximately 6 volts is sent to the motors. But with the advent of Digital, we can now control the taper of joystick, making in Logarithmic as well. Logarithmic taper means that the first joystick movement only sends a small amount of power to motors and the last of the deflection will send more power per degree of deflection. On Logarithmic taper, 1/3 of joystick deflection might yield 2 volts output, the next 1/3 will yield 4 volts output and the last 1/3 yields 6 volts for a maximum again of 12 volts. This mode gives the operator fine slow movements yet retains the ability to go to maximum speed, if necessary.

### Tilt Direction Switch

*When the Pan-Tilt Head is used on a Tripod or Jib.*

When the head is shifted from Jib to Tripod, it needs reversal of direction as the location of head will be inverted. By switching "on" the tilt direction switch, we can immediately reverse the direction. So, when the joystick is moved to the right, it gives right rotation as it gives while mounted on the tripod directly.

## Pan Direction Switch

*When the Pan-Tilt Head is used on a Tripod or Jib.*

When the head is shifted from Jib to Tripod, it needs reversal of direction as the location of head will be inverted. By switching “on” the pan direction switch, we can immediately reverse the direction. So, when the joystick is moved to the right, it gives right rotation as it gives while mounted on the tripod directly.

## ■ Balancing

*Balancing the camera on head is critical for smooth operation.*

- Find the horizontal balance point of your camera by using two fingers of one hand while holding the handle with other hand.
- Mark this point on the side of camera with chalk or tape.
- Turn the unit on and move tilt control until the camera plate is vertical.
- Loosen the two screws holding tilt motor (Do Not Remove).
- Grasp the motor and turn slightly to disengage gears.
- Mount the camera onto camera plate with the screw provided.
- Tighten by threading the nut up to the bottom of camera plate securely.
- Make sure your balance point previously marked with chalk or tape is in the middle of plate.
- Loosen the knob below camera plate and slide the camera and plate up or down until the center line of your camera is about in the middle of large gear. Now tighten the knob.
- If the camera is perfectly balanced it will stay in any position while motor gear is still unattached.
- Grasp the motor and turn it back until the gears mesh.
- Gently tighten motor screws.
- Secure the camera.

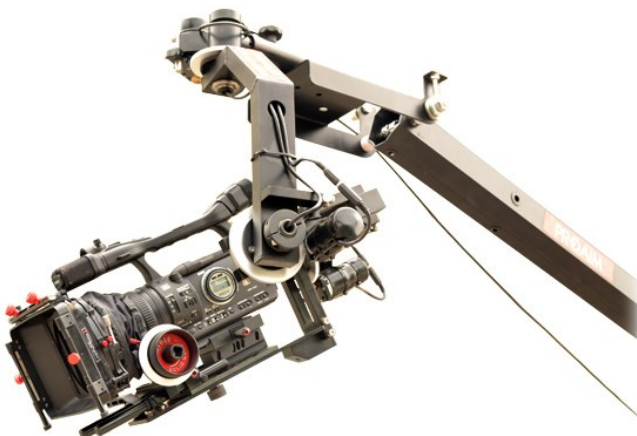
**NOTE:** *All reduction boxes have a small amount of backlash. The balancing of the camera will reduce the backlash to a minimum making it felt at the top of the tilt arc.*

## ■ Operation

- With the camera set up, as previously described above, switch ON the power on Joystick Controller.
- For inverted use, disconnect the leads to the motors, rotate the control box 180° and re-install.

**NOTE:** *Always watch the cables for binding.*

## YOUR SPIN-3 (3-AXIS) MOTORIZED HEAD ALL DRESSED UP AND READY TO GO!



**Warranty:** We offer one year warranty for our products from date of purchase. Within this period of time, we will repair it without charge for labor or parts. Warranty doesn't cover transportation costs nor does it cover a product subjected to misuse or accidental damage. Warranty repairs are subjected to inspection and evaluation by us.

**Liability:** We are not liable for damage caused by products that we do not supply or from mishandling in transit, accident, misuse, neglect, lack of care of the product, or service by anyone other than our company.

**Contact Us:** In case of any kind of dissatisfaction, please Contact us immediately and we promise our utmost support and care until you use our product.