

# PROAIM Flylite Jr. Pan & Tilt Head for Camera Jib Crane (FLT-JR)

## 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.



Flylite Jr. Pan-Tilt Head



12V Joystick Controller



12V AC Adapter



15 Mtr XLR Cable



3 Mtr Cable



Universal Adapter

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Checknut



4 x Wing Nut



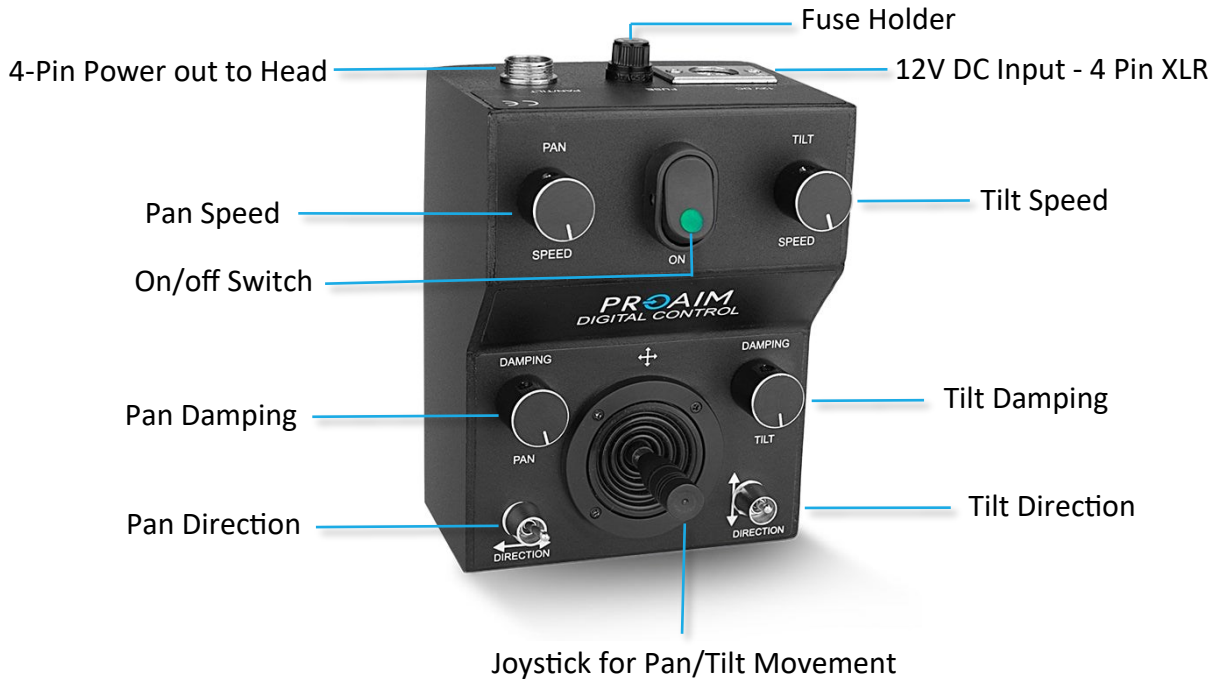
4 x Allen Keys (sizes: 2mm, 2.5mm, 3mm & 3/16mm)



Bag Packing

## FUNCTIONS





## Flylite Jr. Pan & Tilt Head Setup

- Loosen and remove the base platform of the Flylite Jr. Pan Tilt Head.



- Mount a 75mm Conversion Ring (Not Included) on the Jib Crane (Not Included), as shown in the image.

**NOTE:** It includes a 75mm bowl mounting to easily be mounted vertically or over slung on camera jib cranes and tripods with matching bowl mounts.



- Attach the Pan-Tilt head on the 75mm Conversion Ring (Not Included).

**NOTE:** Two coreless high-torque DC motors that provide inaudible and precise movements with zero backlashes and performance similar to top industry solutions at an affordable cost.



- Secure the Pan-tilt Head by attaching a knob from bottom and tighten it using an Allen key.



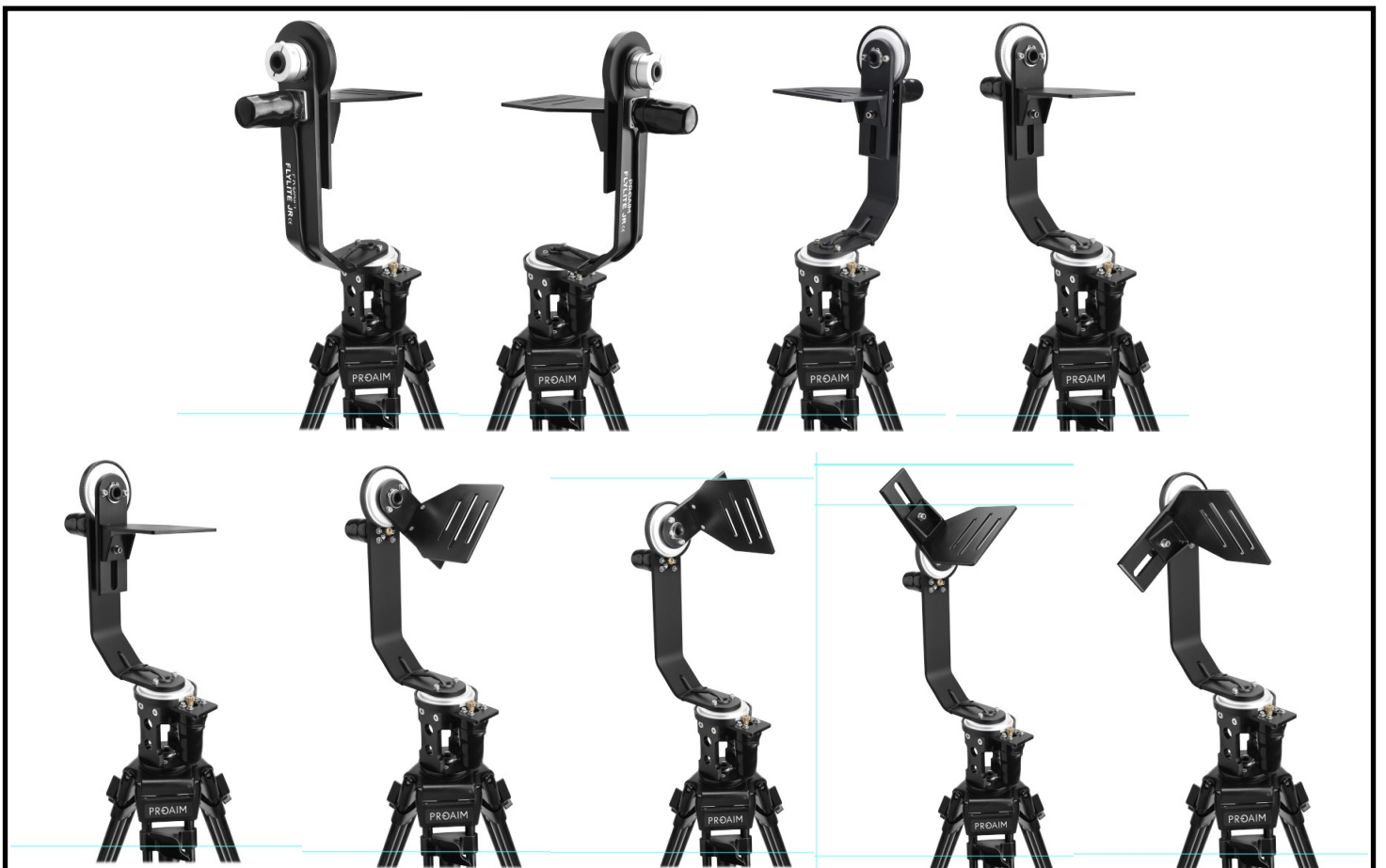
- The 2-Axis Flylite Jr. Pan & Tilt Head is ready to deliver beautiful cinematic-style shots with smooth and precise motion.

**NOTE:** The Pan-Tilt Head runs conveniently on 12V DC from a battery pack or the i AC Adapter.



## 360° Panning and Tilting 2-Axis Motorized Head

**NOTE:** It conveniently allows 360° pan-tilt movement on both horizontal and vertical axis, enabling multi-dimensional camera shots. The head has variable **pan and tilt speeds**, with a minimum speed of **6°** per second and a maximum speed of **51°** per second.



## ■ Attaching Joystick Controller

The Pan Tilt Head's circuitry is built entirely into the Joystick Controller. The only requirement is an 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.

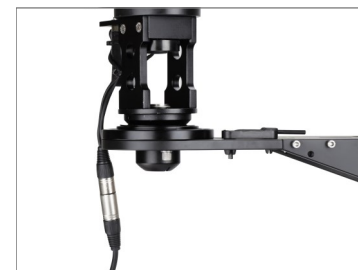
- Loosen the strap of the Joystick controller box and remove the safety cap of the controller, as shown in the image.



- Attach the 4-pin male connector of the cable to the 4-pin female connector of the Head.



- The image shows attached male and female connector will look like.



**CAUTION:** We provide a 12volt/3A regulated power adapter for power specification of 12 volts. If you use a voltage higher than 12V, it will affect the performance and increase the risk of motor damage.

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



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

**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 the cable are attached.





- Attach the power cord to the AC Adapter as shown in the image.



- Now, plug into the Universal Adapter.



## ■ Functioning of Joystick Controller

The Joystick is a 2-Axis Variable Speed Servo Controller. The further you move in one direction, the faster the output to that motor. This will be tricky initially, 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. Adjust the Joystick to ensure correct movement of the head. It may be necessary to reconnect to the motors if required.

### **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 operations. The advantage of power control is limiting power when only slow and 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.

### **Linear or Logarithmic Taper Joystick Control**

All joysticks are linear, meaning each degree of the Joystick's movement correlates to the output. Half deflection of the Joystick on the 12-volt Pan Tilt Head means approximately 6 volts are sent to the motors. But with the advent of Digital, we can now control the taper of the Joystick, making it Logarithmic as well. Logarithmic taper means that the first joystick movement only sends a small amount of power to motors, and the last deflection will send more power per degree of deflection. On the Logarithmic taper, 1/3 of joystick deflection might yield 2 volts output; the next 1/3 will produce 4 volts output, and the last 1/3 will yield 6 volts for a maximum gain 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 a direction reversal as the head's location will be inverted. We can immediately reverse the direction by switching "on" the tilt direction switch. So, when the Joystick is moved to the right, it gives the proper 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 a reversal of direction as the location of the 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.

## Damping Knob

Damping is the ability to control the "damping" effect of the joystick interface with pan/tilt action of the head being controlled. It does not matter what head you are using; the damping effect is a characteristic of joystick output.

## ■ Balancing

*Balancing the camera on the 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 the other hand.
- Mark this point on the side of the camera with chalk or tape.
- Turn the unit on and move the tilt control until the camera plate is vertical.
- Loosen the two screws holding the tilt motor (Do Not Remove).
- Grasp the motor and turn slightly to disengage the gears.
- Mount the camera onto the camera plate with the screw provided.
- Tighten by securely threading the nut up to the bottom of the camera plate.
- Ensure your balance point, previously marked with chalk or tape, is in the middle of the plate.
- Loosen the knob below the camera plate and slide the camera and plate up or down until the center line of your camera is about in the middle of the large gear. Now tighten the knob.
- If the camera is perfectly balanced, it stays in any position while motor gear is still unattached.
- 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 tilted 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.*

- Adjust the camera plate by loosening its bolt using the Allen key.



- Position the camera plate per your requirement and re-tighten its bolt using the Allen key.



- Turn on the Joystick controller box by pressing the "On" button.



- Set the pan and tilt speed using their respective knobs.

**Feature:** It features two independent speed controller switches that let you control and precisely adjust the speed, suiting the requirement of the shot.



- Increase or decrease the dampening effect of the pan-tilt head using the Damping knob.

**NOTE:** Damping control prevents the Head from stopping abruptly with a jerk, giving you smooth endings.



**NOTE:** You can also change the direction of pan and tilt, when required.





- Place the Camera **(Not Included)** on the camera plate and insert the checknut, as shown in the image.



- Tighten the checknut using a screwdriver to secure the Camera **(Not Included)** on the Head's camera plate.



- Your Setup is ready to use.



**YOUR PROAIM FLYLITE JR. PAN & TILT HEAD FOR CAMERA JIB CRANE  
ALL DRESSED UP AND READY TO GO!**



**(SHOWN WITH OPTIONAL ACCESSORIES)**

**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.