## PR AIM Gold Pan Tilt Head (PT-GOLD)

## 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.



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## Gold Pan-Tilt Head **Setup**

 Attach the Gold Pan-Tilt Head to the camera mounting platform of your camera crane. You may install it "over slung" (above the mounting platform) or "underslung" (below the mounting platform) as per your shooting needs. Use the 3/8"-16 knob bolts to mount head to the platform and secure it properly.





#### **HEAD CABLE**

 Attach 4-pin power cord male connector from the Control Cable to the female connector on the pan mount near the pan motor.



 Attach the head cable to the cable connected to the gold pan tilt head for panning & tilting.
 If the joystick control is opposite, undo the connectors at the motors, rotate 180 degrees and re-install.



CAUTION: The power specification we have provided is as per 12volt. For this, we provide a 12volt/3A regulated power adapter. In case you use a voltage higher than 12V, it will affect the performance and life of the motor, and there is a high risk of the motor getting damaged.

 Install the 12 volt DC power (4-pin XLR) in rear of Joystick Box.

**NOTE:** Any 12 volt battery may operate the PROAIM GOLD PAN TILT HEAD as long as the connector mates and is #1 pin Negative and #4 pin Positive.



 Loosen the allen bolts and adjust the length of the camera platform according to requirement.





#### **Mounting Camera Setup**

 Attach & secure your camera on the camera platform of Head with the help of provided bolt.

**NOTE:** Connect your camera's video cable, power cable and control cables if applicable.



## BALANCING

#### Follow these steps to balance the head:-

- Find the horizontal balance point of your camera by using 2 fingers of one handing while holding the handle.
- 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 tilt motor. (DO NOT REMOVE).
- Grasp the motor and turn slightly to disengage gears.
- Mount the camera to the camera plate with the screw provided.
- Tighten by threading the nut up to the bottom of the camera plate securely.
- Make sure 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 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, Power ON by pressing the RED Switch on the top of the Joystick control box.
- For inverted use, disconnect the leads to the motors, rotate the control box 180 degrees and re-install.

The PROAIM™ GOLD PAN TILT HEAD circuitry is built entirely into the joystick box. The only other requirement is the AC power pack (provided) or battery power. The power pack can handle 90-240 volts. Users will need the appropriate plug adapter for local use.

#### **JOYSTICK**

The joystick is a two-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.

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 the head. It may be necessary to reconnect to the motors if required.

 Remove Head plate from 3-piece Head Assembly in order to attach it to your camera. You will note a number of mounting holes that can be used to adapt various cameras.



#### **POWER CONTROL**

To the right and above the joystick is a knob labeled "SPEED".

This is the power control knob. Turning to the right will increase the speed 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 a range of approximately 4 volts to 12 volts.

#### **DEAD SPOT**

The knob to the left is marked Dead Spot. Turned all the way to the left (counterclockwise) 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 all the way left the head may move in both axis on it's own. The dead spot should be set at approx. the 9:00 position to insure that no unwanted movement occurs.

#### PAN DIRECTION SWITCH

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

When the head is shifted from a Jib to a tripod or vice versa, it needs 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. When the joystick is moved to the right it gives right rotation as it gives while mounted on the tripod directly.

#### TILT DIRECTION SWITCH

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

When the head is shifted from a Jib to a tripod, it needs reversal of direction as the location of the head will be inverted. By switching "on" the tilt direction switch, we can immediately reverse the direction. When the joystick is moved to the up it gives up 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 the pan/tilt action of the head being controlled. It does not matter what head you are using; the damping effect is a characteristic of the joystick output.

#### 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 PROAIM™ GOLD PAN TILT HEAD half deflection of the joystick means approximately 6 volts sent to the motors. But with the advent of Digital we can now control the taper of the joystick, making in Logarithmic as well. Logarithmic taper being that the first of joystick movement only sends a small amount of power to the 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 of yields 6 volts for a max. again of 12 volts. This mode gives the operator fine slow movements yet retains the ability to go to max. speed if necessary.

# YOUR PROAIM GOLD PAN TILT 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.