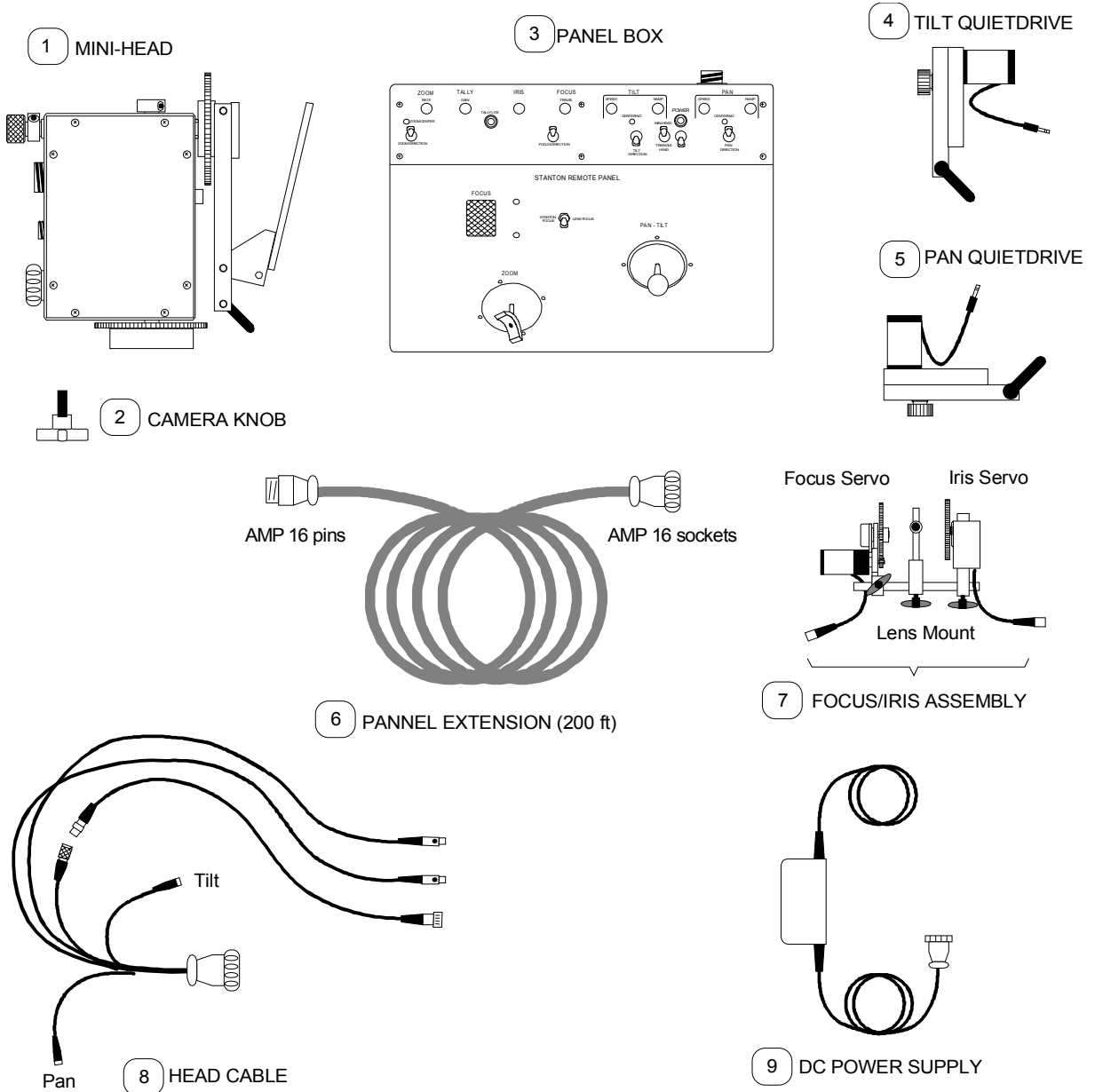


# MINI-HEAD

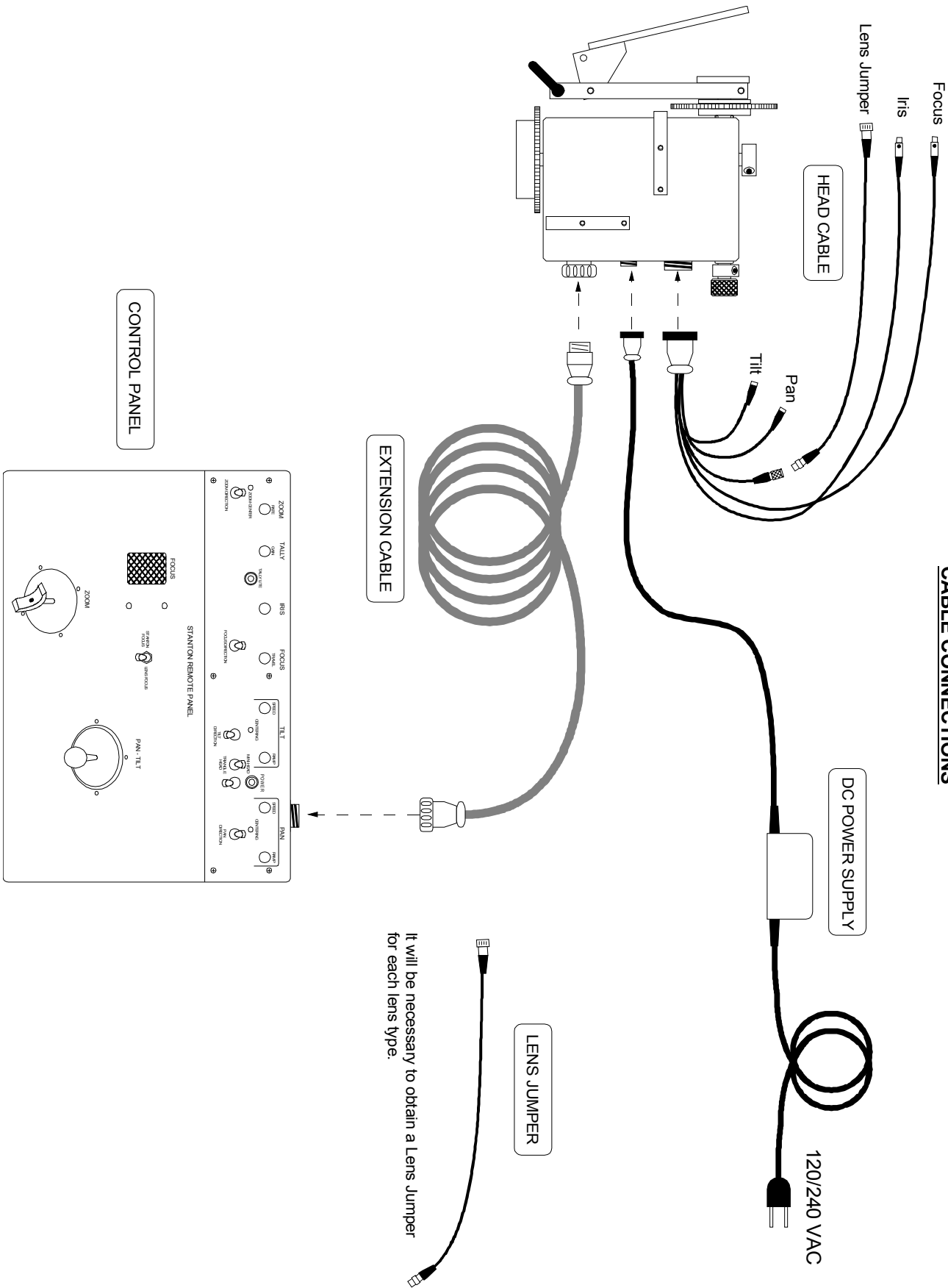
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If any of the following items are missing please contact Stanton Video at (602) 493-9505

- |                     |                             |
|---------------------|-----------------------------|
| 1. Mini-Head Box    | 6. Extension Cable (200 ft) |
| 2. Camera Knob      | 7. Focus & Iris Servos      |
| 3. Panel Box        | 8. Head Cable               |
| 4. Tilt Quiet drive | 9. DC Power Supply          |
| 5. Pan Quiet drive  |                             |



## CABLE CONNECTIONS

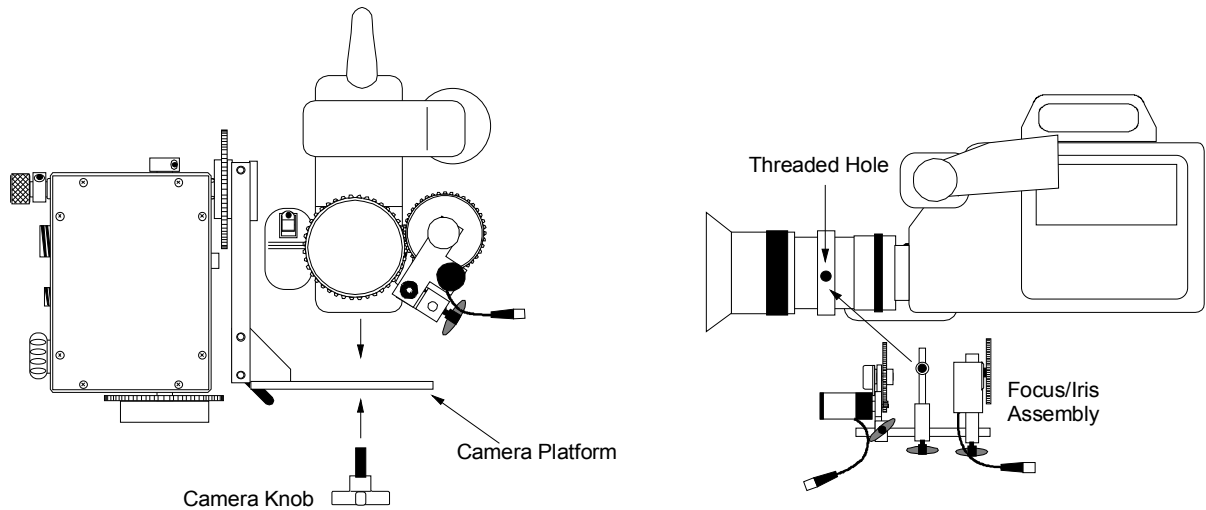


## MOUNTING AND BALANCING THE CAMERA

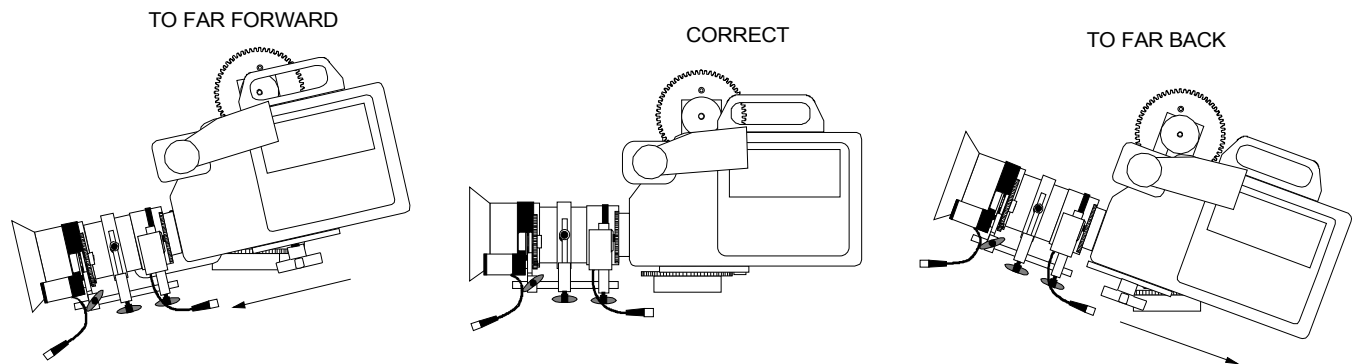
**NOTE:** This is the most common "screw up" committed by users. This must be done properly or the Tilt axis will not work. Balancing means that the center of weight of the camera must be aligned with the center of Tilt.

### HORIZONTAL BALANCE

1. Slide the camera platform to its lowest position and tighten the camera platform knob.
2. Configure your camera completely with the battery and Focus & Iris servos. Mount the camera to the camera platform with the camera knob.

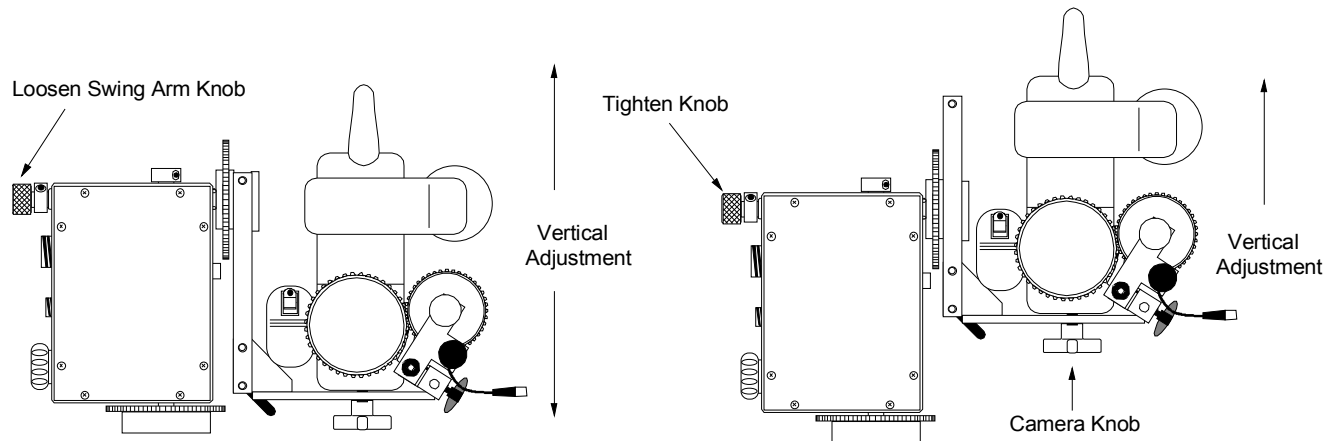


3. Slide the camera forward or backward in the platform slot until the camera stays level. Tighten the camera knob.



## VERTICAL BALANCE

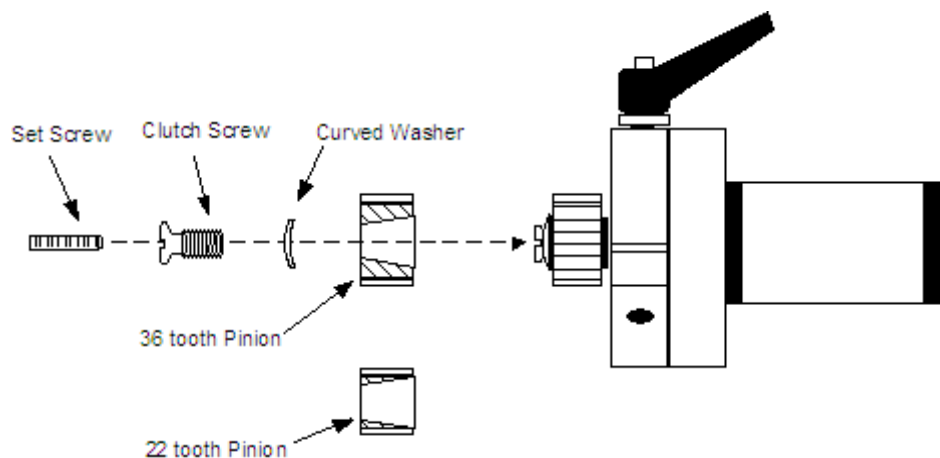
4. Slide the Camera Platform up the swing arm in 1/2 in. increments. The tendency of the camera to pendulum back to center will become less as it is moved up the swing arm.
5. When you reach the vertical balance point you will be able to tilt the camera to any position and it will remain in that position.
6. If you move the camera too high on the Swing Arm, it will try to rotate upside down.
7. Once you have found the correct platform position, make sure the Swing Arm Knob and Camera Knob are tight.



## PAN & TILT SLIP CLUTCH

NOTE: The most common mistake made by first time jib users is the improper balancing of the camera. If the camera is out of balance, the strain on the Tilt Motor will cause the motor clutches to slip. This is a safety feature. The Clutches prevent damage to the gear motor when inverting or moving the Head manually with the motors engaged.

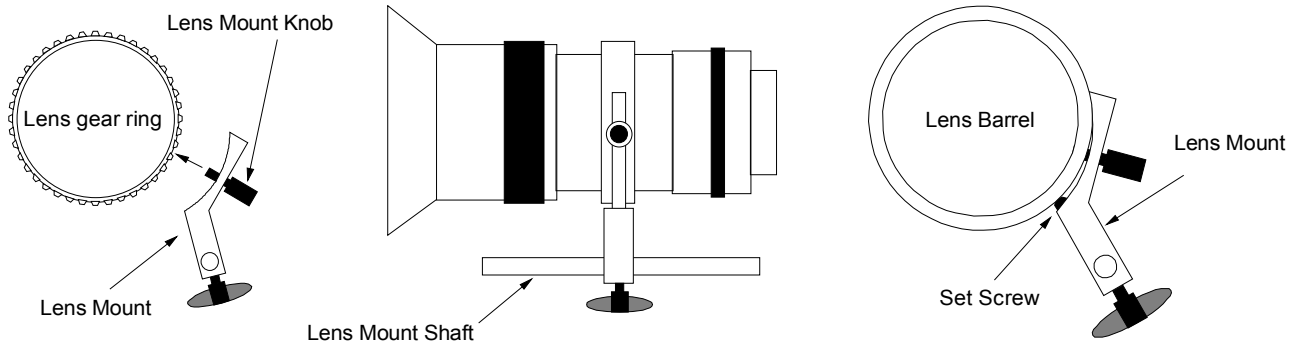
The clutch friction should be high enough to allow the motors to pan or tilt the camera but still have enough slippage to allow the head to be moved manually. If the clutches are slipping (during normal joystick operation) and you are sure you have balanced the camera properly, it may be necessary to increase clutch tension. The clutch adjustment screw is locked with a set screw which prevents the screw from turning when the gear slips. To increase friction turn the screw clockwise in small increments



It has been found that the use of the small 22 tooth pinion on the Tilt Axis has improved the "feel" and movement of this Axis. This is especially true when using heavier film cameras. This small pinion is available as an accessory.

## FOCUS & IRIS MOUNT

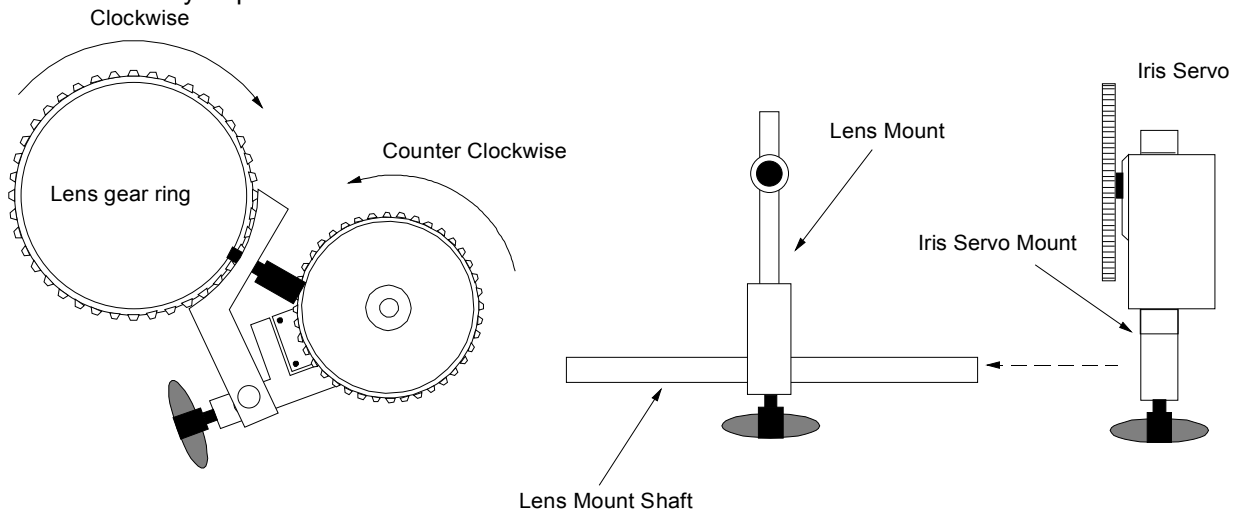
The Focus/Iris assembly consists of two servos with gear wheels attached. This assembly mounts to the screw hole utilized by the lens manufacturer to mount their cable drive focus systems. As you tighten the Lens Mount Knob to mount the assembly, you must be careful that the screw does not bottom out inside the lens. If you continue to force the screw you may do internal damage to your lens.



Occasionally the curvature of the Lens Mount is greater than the lens. This means that there will be contact only at the center of the mount instead of along the entire curve. This can cause the Focus/Iris assembly to twist on the lens. To correct this problem, adjust the set screw in the Lens Mount. Back out this set screw only far enough to just touch the lens.

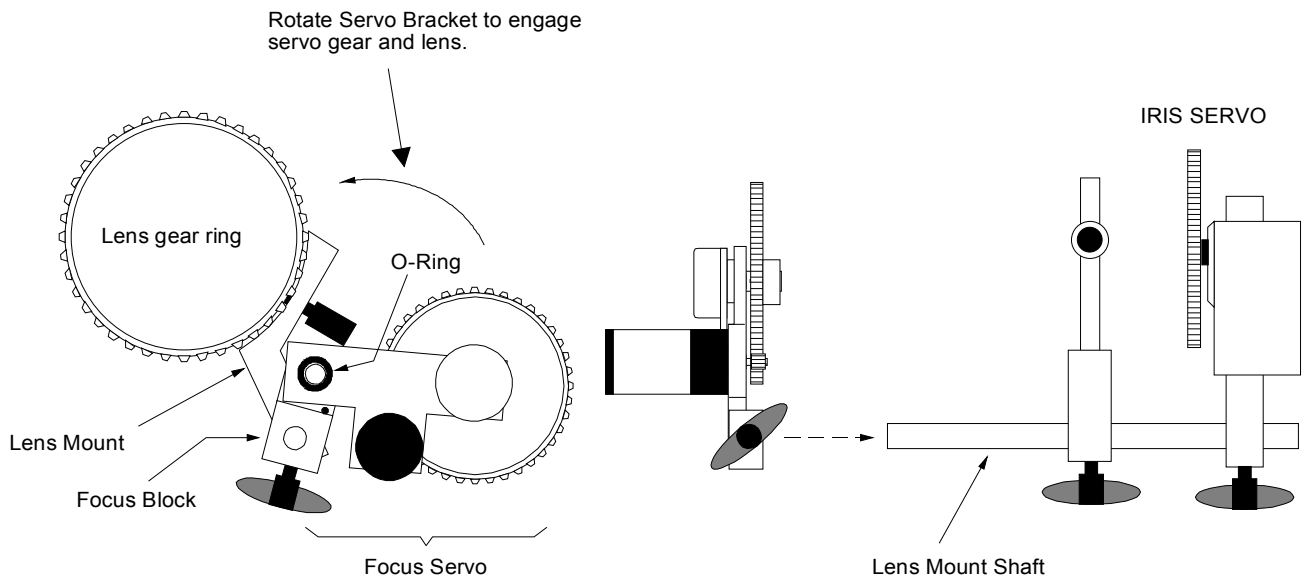
## IRIS SERVO

1. The lens auto iris switch should be in the off position.
2. Slide the Iris Servo onto the Lens Mount Shaft and plug the servo into the proper (blue) connector. **Turn the unit on.**
3. Rotate the Lens Iris clockwise (iris closed) until you hit the lens stop. Rotate the Iris Servo gear (using the Iris Knob on the control box) counter clockwise until you hit the servo stop. This will synchronize the Lens and Servo stops.
4. Engage the Iris Servo with the Lens by rotating the Iris Servo on the Lens Mount Shaft. Lenses with extenders may require the Iris Servo to be reversed in its mount.

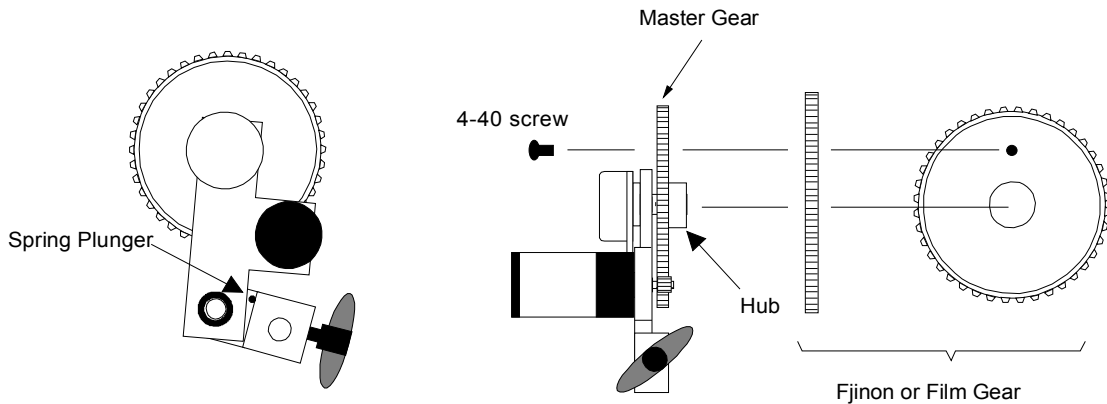


## FOCUS SERVO

1. Slide the Focus Servo onto the Lens Mount Shaft and plug it into the proper (red) connector.
2. Rotate the Servo on the Shaft until the Lens Focus Gear ring and servo gear engage.
3. The Focus Servo Bracket is spring loaded. Compress this spring slightly when you engage the gears.



If you have a Canon Lens, the Master Gear will directly engage the lens. If you have another lens it will be necessary to add an extra gear. Slip the extra gear over the hub of the Master Gear and secure with the 4-40 screw.



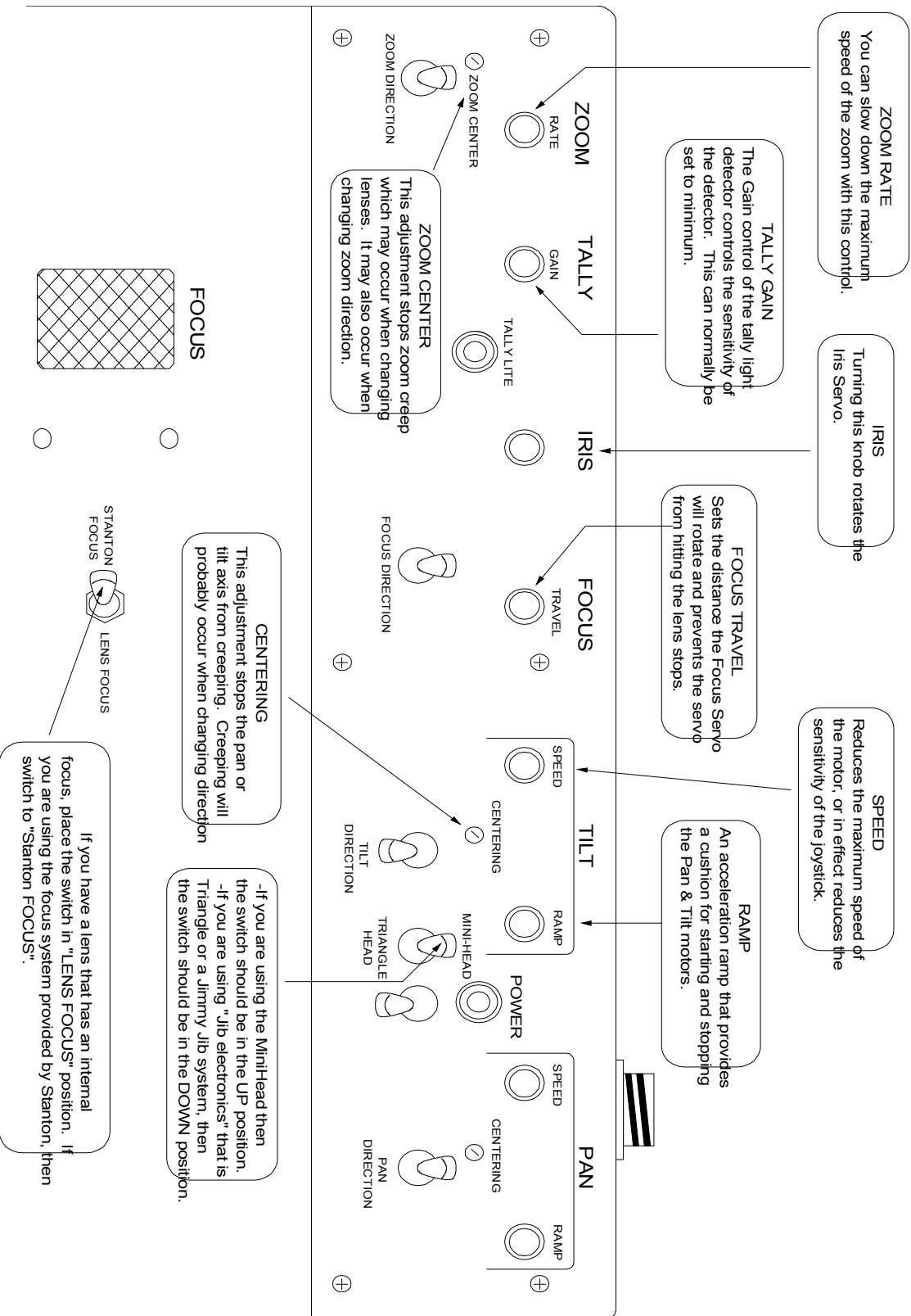
The Focus Block can be placed in multiple positions to facilitate mounting the Focus Servo to a variety of video lenses and cameras. The o-ring holds the focus block in place. While inserting the focus block into its new location, the Spring Plunger must be depressed with a small screw driver.

The Focus Servo can be mounted to 15mm matte box rods by removing the Focus Block and replacing it with a 15mm Focus Block. This is an accessory available from Stanton Video.

**Focus Travel** The Focus Travel (rotation) can be adjusted via the Control Panel. When the travel is changed the amount of rotation is extended in both directions. In other words if you increase travel the servo will rotate farther in both the clockwise and counter-clockwise directions.

# CONTROL PANEL

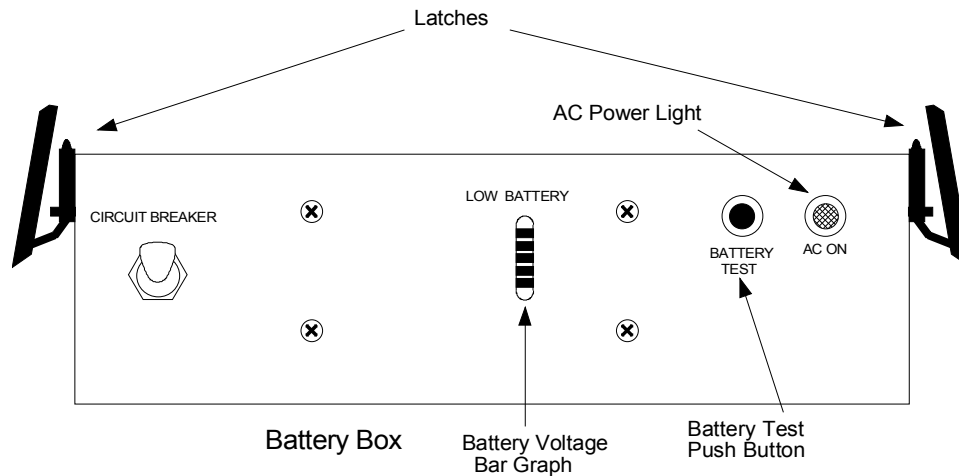
1. The Direction Switches control the direction of the device.
2. Changing a direction switch will probably require readjusting the centering control.



## BATTERY PACK

NOTE: This item is an accessories and is not included in the standard system.

1. To test the condition of charge, push the Battery Test button and the bar graph will light up. The Bar Graph is more of a Low Battery indicator than a Charge indicator. The best way to assure you have a full charge is to leave the charger on for at least 8 hrs.
2. Connect the Battery Cable between the Control Box and the Battery Pack.
3. MAKE SURE ALL CABLES ARE CONNECTED and turn on the Control Box power switch. The Power light will come on.



## AC OPERATION

1. Connect the AC Transformer to the AC power source (120/220 VAC). This power source provides **AC in a +12V -12V** configuration so you must not try to connect DC power supplies to the battery pack.
2. Plug the Transformer's XLR connector into the back of the Battery Box; the AC Power Light should come on.
3. The batteries are now charging and if the Battery Pack is connected to the Control Box the entire system is running on AC.

**Circuit Breaker:** The circuit breaker protects the batteries and must be in the on (up) position in order for the batteries to charge. Remember you will not be able to **charge your batteries** unless the **Circuit Breaker is on**.

The normal position of the breaker is "on", however there is one condition where you will want to turn the breaker off. This occurs when there is a **Short or Dead Cell** in the battery which will cause the Transformer voltage to be reduced to the point where the Head will begin to operate erratically. If you turn the Breaker off the batteries will then be separated from the rest of the circuit and the head will be operating on **AC Only**.

NOTE: The Battery Pack uses GELL CELLS not ni-cads.  
Gell cells can be charged indefinitely but must not be totally discharged.



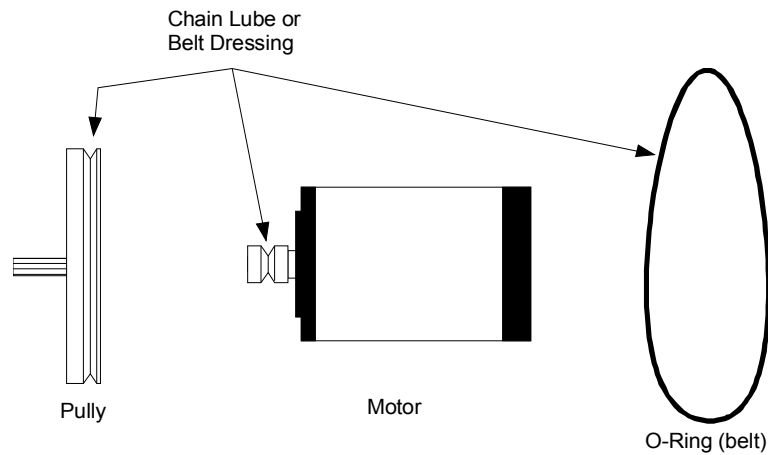
## QUIETDRIVE LUBRICATION

The following instructions describe the proper lubrication of the QuietDrive gear motor. To prevent belt slippage the belt must be coated with some type of belt dressing. The critical point that must be remembered is that grease must not get onto the belt and you must not put so much grease into the gearbox that it gets thrown on the belt.

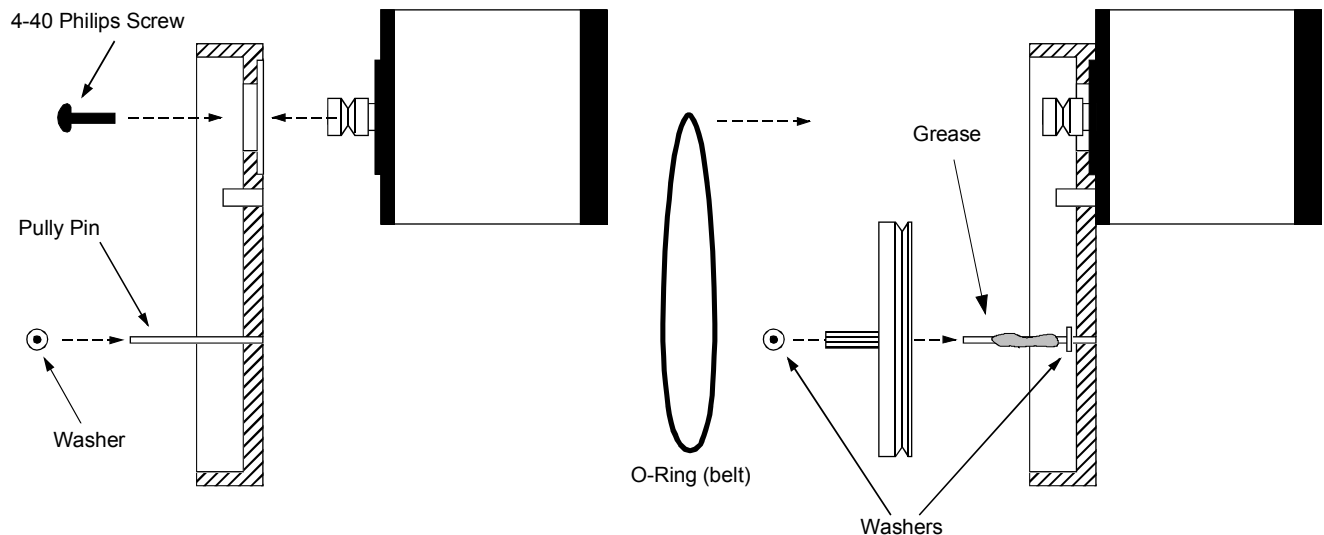
### BELT DRESSING

We have found that JP1 Chain Lube (blue can) works the best as a belt dressing. This substance becomes very tacky without gluing the belt to the pulleys as some of the regular belt dressings tend to do.

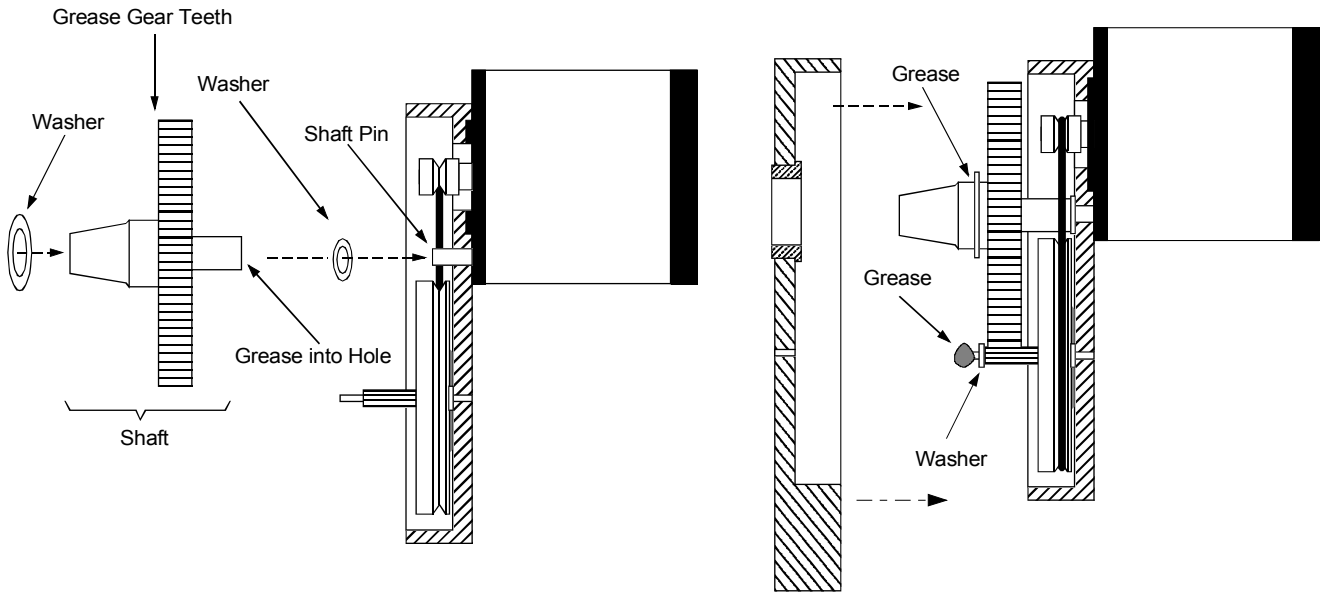
1. Remove the Motor, the Pulley and the belt from the gearbox. If the belt has been slipping thoroughly clean the pulleys and belt with alcohol.
2. Coat the Belt and the grooves of the Pulleys with the dressing. Set these parts aside to dry for about 30min.



3. Mount the motor to the gearbox with the two 4-40 Philips screws and slide the tiny washer onto the Pulley Pin.
4. Add a small amount of grease to the Pulley Pin, slide the tiny washer onto the pulley pin, then add another small amount of grease to the Pulley Pin and slide the Pulley onto the Pulley Pin.
5. Run the Belt between the two pulleys taking care not to allow grease onto the Belt from the pins.



6. Add the thin washer to the Shaft Pin.
7. Place grease into the hole in the rear of the Shaft and grease the teeth of the Gear. Push the Shaft onto the Shaft Pin. It will be necessary to push until the Shaft seats against the back of the gearbox.

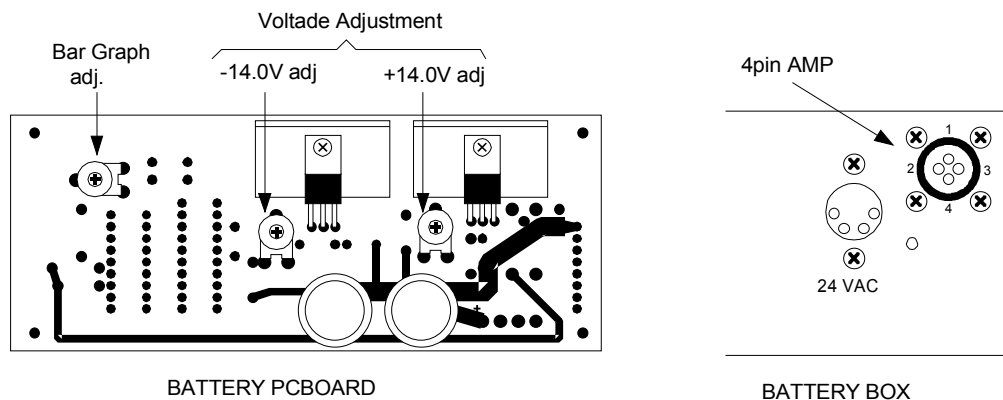


8. Place the tiny washer onto the Pulley Pin and grease the end of the Pin. Apply grease lightly to both sides of the large thin washer, install washer on the gear on the Shaft and close the gearbox.

**NOTE:** The lubricant used should be a non melting high temperature type of grease.  
The Belt is an O-ring that is 2" OD with a 1/16" cross section.

### CHARGING VOLTAGE ADJUSTMENT

1. The unit must be fully charged before making any adjustments.
2. Turn charger on and check voltage across pins 1,2 & 3 at the 4 pin AMP connector on the Battery Box.
3. Turn the Adjustment Pots to attain 14 Volts between pin 1 & 2 and 14 volts between 2 & 3.

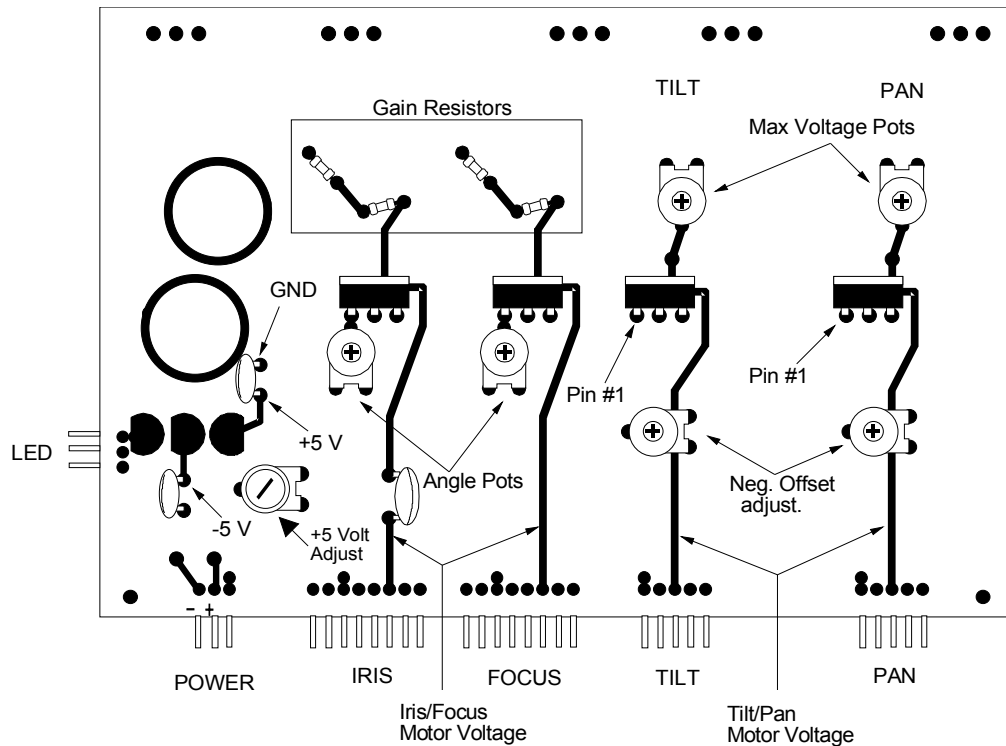


4. After you have adjusted the two pots, measure the voltage between pin 1 & 3. It should be about 28 volts.

## CIRCUIT BOARD SET UP ADJUSTMENTS

### Focus Rotation Angle

1. The Angle Pots allow you to increase focus rotation. The factory setting is minimum (about 90 deg.).
2. To increase the Focus Rotation Angle turn the Angle Pot counter-clockwise.
3. Maximum is about 250 deg. If you over adjust the pot, the focus motor will continuously rotate in one direction.



### +5 Volt Adjustment

1. Connect a voltmeter from gnd to -5 V and measure the voltage. This measurement will usually be about -4.97 volts.
2. Connect the voltmeter from gnd. to +5 V.
3. Rotate the +5 Volt adjust. until the meter reads the same as the -5 V measurement. The goal is to make both the +V and -V read the same.

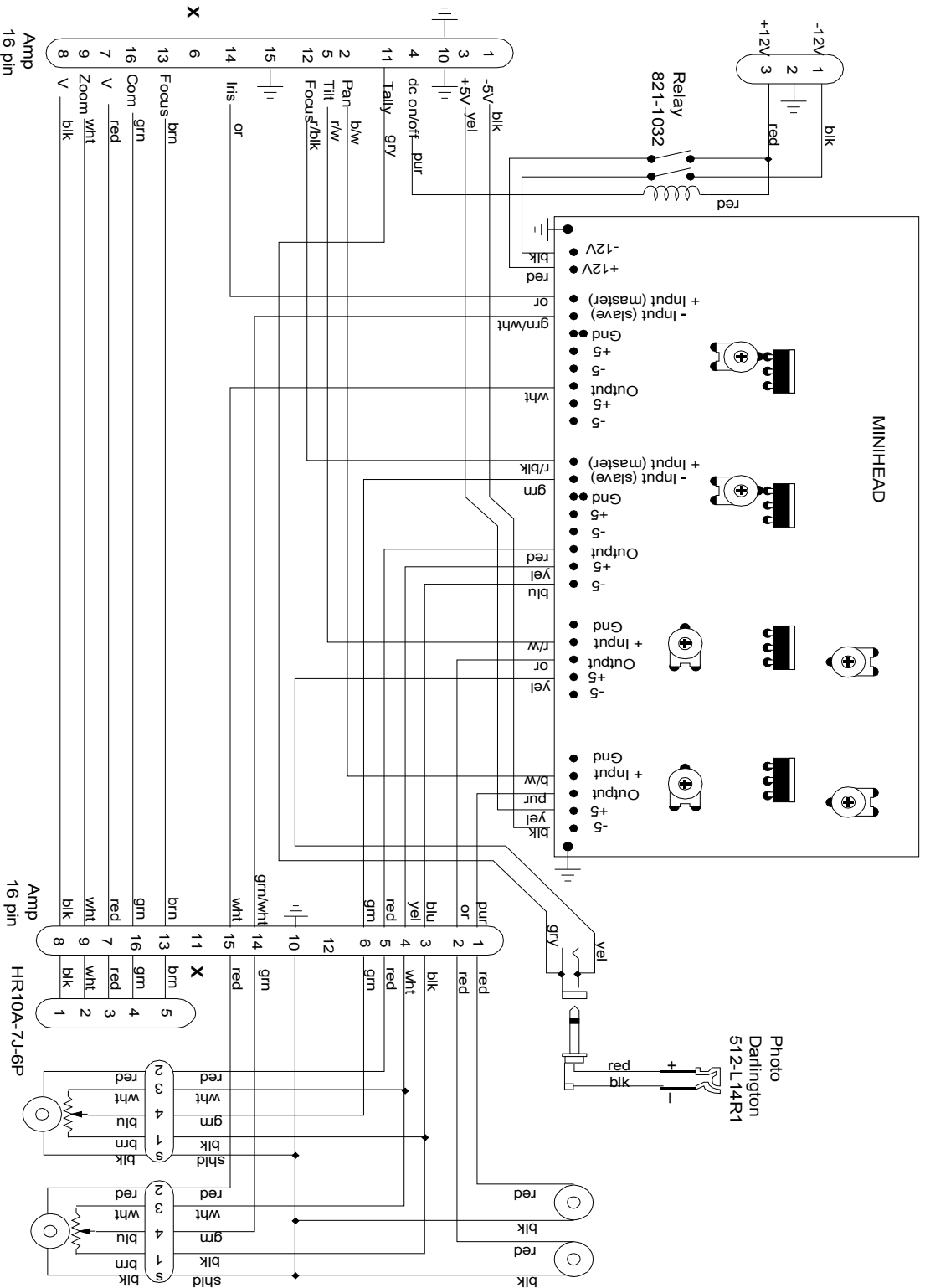
### Negative Offset

1. Turn the Speed pot all the way down (counter clockwise).
2. Turn the Ramp pot all the way down (counter clockwise).
3. Connect Pin #1 of the Op-Amp to gnd. with a jumper cable.
4. Connect a voltmeter from Pan/Tilt Motor Voltage to gnd.
5. Rotate Neg. Offset Adjust. until the meter reads as close to Zero voltage as possible.

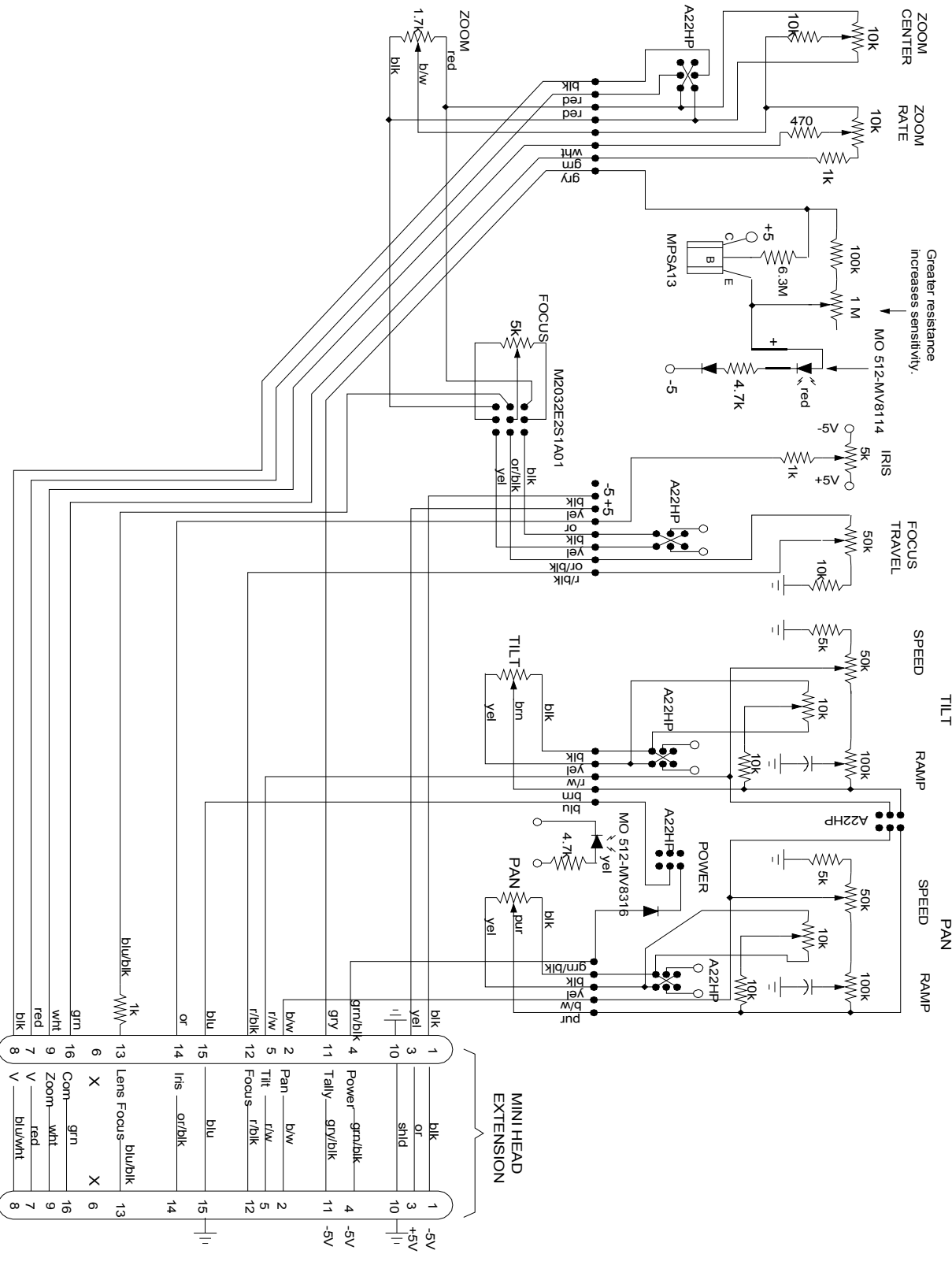
### Maximum Voltage

1. Connect the voltmeter from gnd. to Motor Voltage.
2. Power unit from AC (connect to battery pack and turn on charger).
3. Deflect the Joystick (maximum deflection) of the axis being adjusted.
4. Rotate Max. Voltage pot until meter reads minimum voltage. Now rotate pot in the opposite direction and stop when the motor voltage ceases to increase

MINI HEAD WIRING DIAGRAM



PANNEL WIRING DIAGR.



Greater resistance  
increases sensitivity.

ZOOM  
CENTER

ZOOM  
RATE

IRIS

FOCUS  
TRAVEL

SPEED

TILT

RAMP

SPEED

PAN

RAMP

MINI HEAD  
EXTENSION

1	blk	1	-5V
2	or	2	
3	shld	3	+5V
4	10	4	-5V
5	blu	5	
6	blu	6	
7	or	7	
8	or/bdk	8	
1	blk	1	-5V
2	blu	2	
3	or	3	
4	blu/bdk	4	
5	blu	5	
6	blu	6	
7	blu	7	
8	blu	8	

## Important

**If you are using the Control Panel to replace the Joystick control on your Jimmy Jib remote system, you must read the following...**

The Control Panel will work with any model 4 remote system.

The Mini Head/Triangle switch **must** be set in the ***Triangle*** position.

The Focus switch on the Panel **must** be set in the **Stanton Focus mode** for the focus to function.

The Iris control on the Control Box **must** be turned to the middle position (white line on knob in a straight up position) in order for the iris on the panel to function correctly.

The Pan/Tilt Ramping and Speed controls on the panel **will not function** in the ***Triangle Mode***. You will have to use the controls on the control box itself to affect ramping and speed.

The on/off switch on the Panel **does not function** in the ***Triangle Mode***. The Power Light in the Panel comes on when the power on Control Box is turned on.

When the panel is first plugged in, the remote head will probably drift. Make the centering adjustment **on the Panel and not on the control box** as this will insure when you go back to the joystick, you will still have proper centering. Also make sure the Speed control (on the control box) is turned up to maximum and the Ramping control (on the control box) is at the minimum setting. If you change the direction the joystick operates, (Direction Switch on Panel) you will have to readjust the centering.

The Tally on the Panel will not function in Triangle mode

Zoom Centering must be adjusted while the lens switch on the Control Box in the Fujinion position. If it is in the Canon position, zoom will drift and you will be unable to center it. Again, you should pick the direction you want to zoom in before making this adjustment.

You cannot use your old control cable with the Panel.