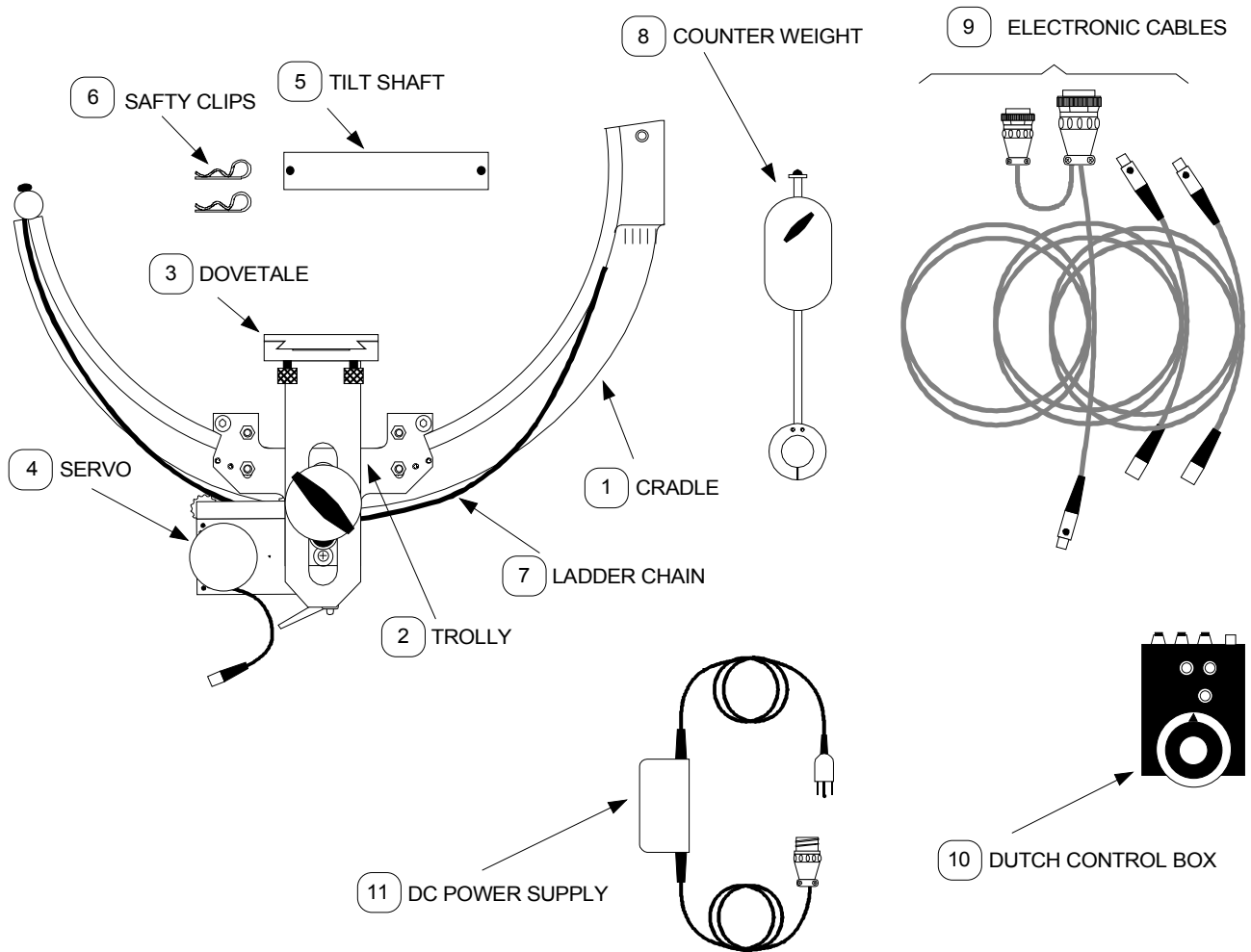


# STANTON 120 DUTCH ROLL

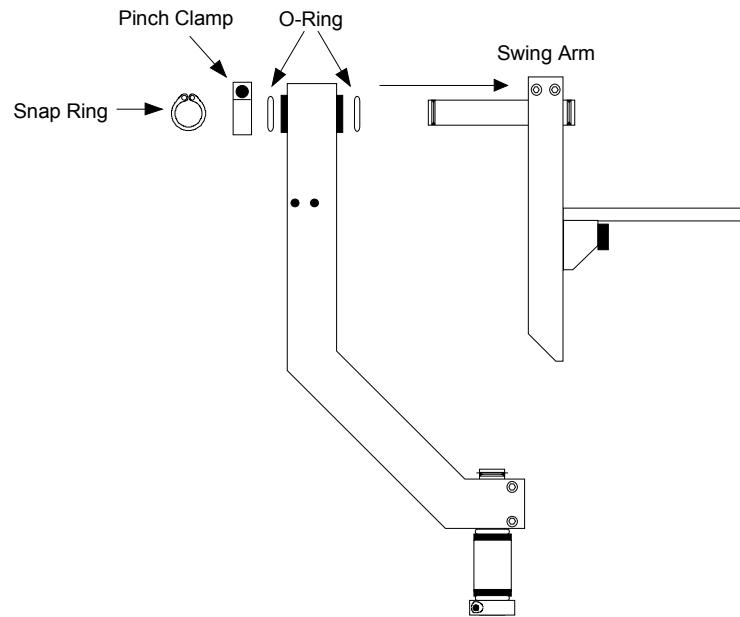
If you are missing any of the following items, please contact Stanton Video immediately (602) 493-9505

- 1. Cradle
- 2. Trolley
- 3. Dovetail
- 4. Servo
- 5. Tilt Shaft
- 6. Safety Clips (2)
- 7. Ladder Chain
- 8. Counter Weight Assembly
- 9. Electronic Cables
- 10. Dutch Control Box
- 11. DC Power Supply

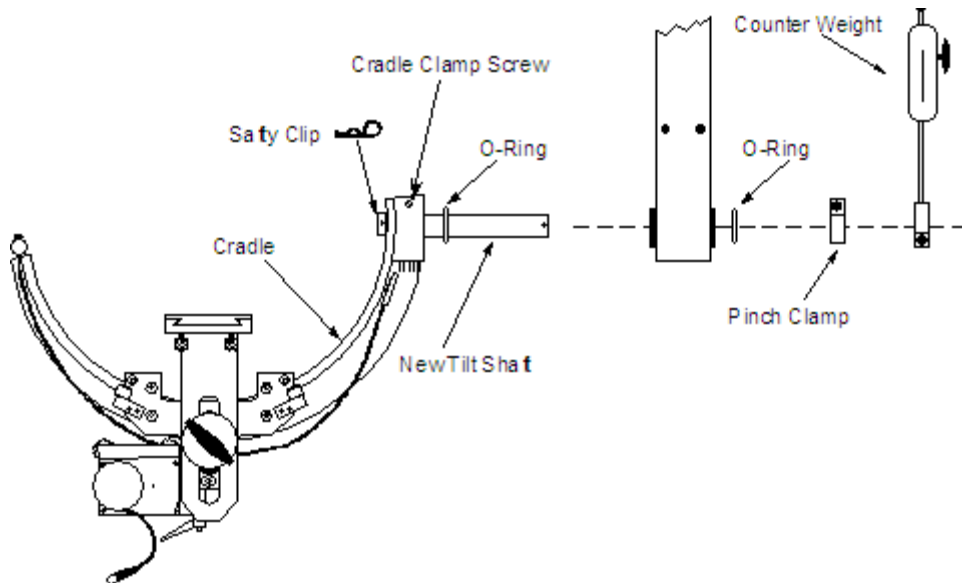


## ASSEMBLY

1. Remove the Swing arm and Tilt Shaft from the head by removing the Snap Ring and Pinch Clamp.

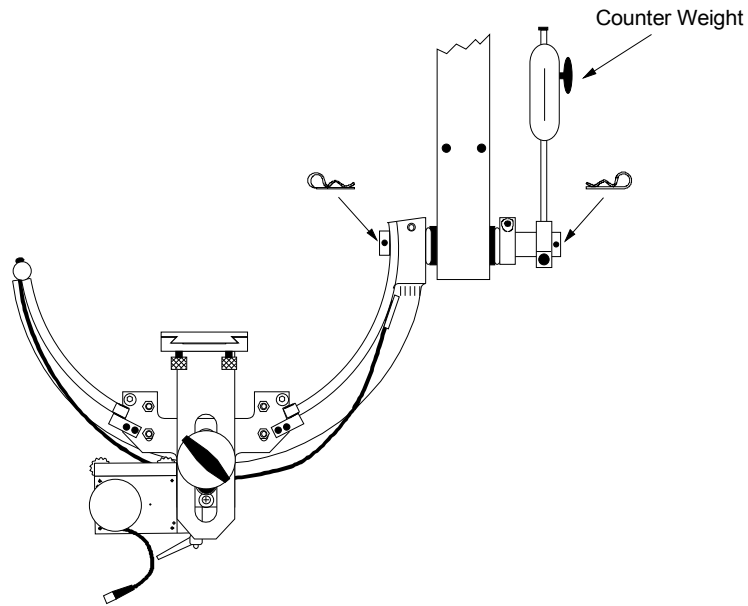


2. Mount the Cradle by inserting the New Tilt Shaft into the cradle and secure with the Cradle Clamp Screw and safety clip.



3. Slide the tilt shaft through the needle bearings and into the head. Slide on the Pinch Clamp To lock the Cradle in place.

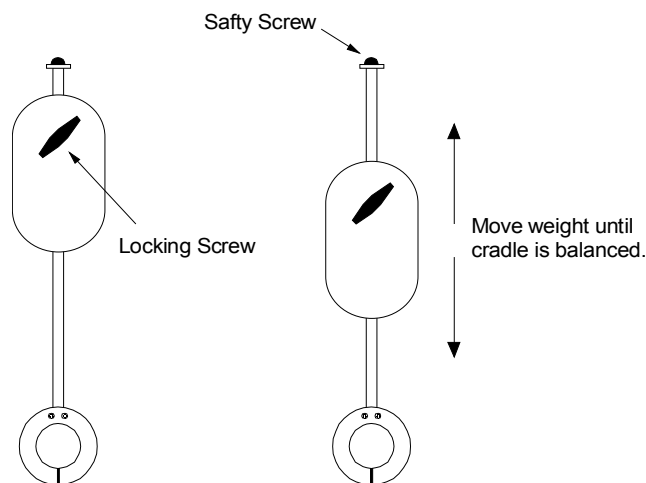
- Next slide on the Counter Weight and lock it in place. In order to clear the electronic cables the Counter Weight should be as close to the end of the shaft as possible without covering up the Safety Clip hole.
- Insert the Safety Clip into the hole at the end of the shaft. Once you have correctly positioned the Counter Weight this position will not change and no further adjustment should be necessary.



**NOTE:** The Cradle has been balanced at the factory so it should not be necessary for you to perform this adjustment. The Cradle is balanced if you can rotate the cradle to any position and it will stay in that position.

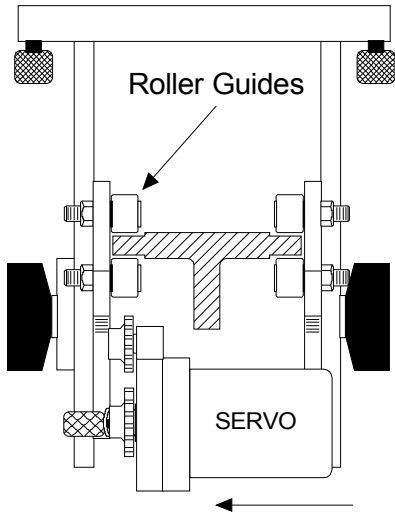
**NOTE:** With some cameras it may be possible to balance the camera without using the counter weight.

- Balance the Cradle by sliding the Counter Weight on the shaft and locking it in place with the Locking Screw. The weight is used to counter balance the **Cradle only**; you must **remove the Trolley** before performing this process.

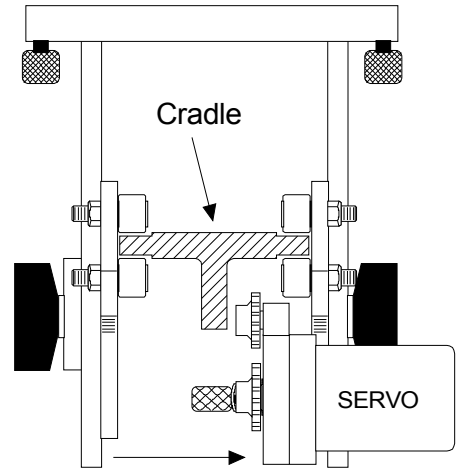


**Warning:** The Dutch head should never be operated without the counter balance **SAFETY SCREW** in place.

7. For transportation it is necessary to disengage the Ladder Chain and slide the Servo forward. This is accomplished by **removing the Drive sprocket**.

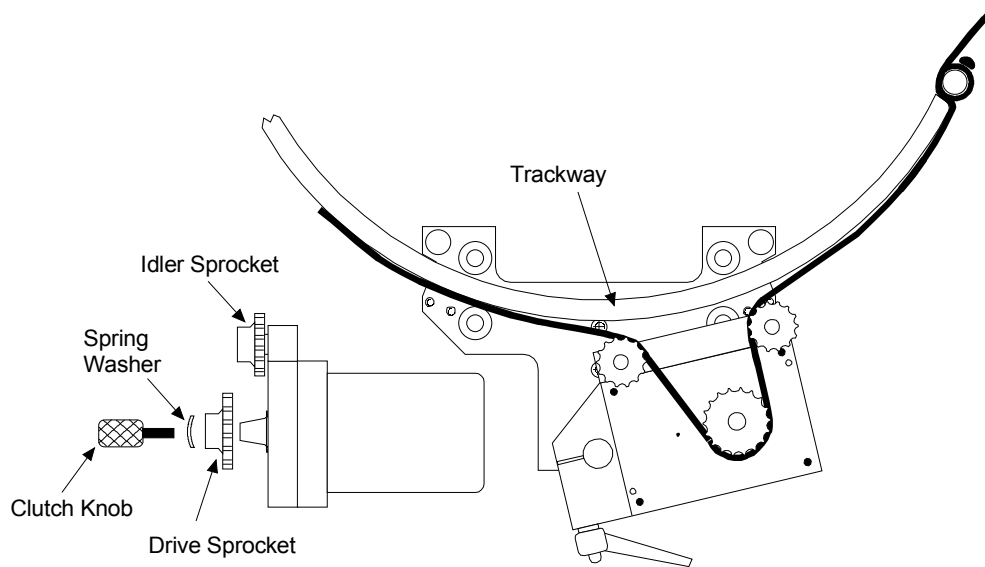


Slide motor forward for Transport

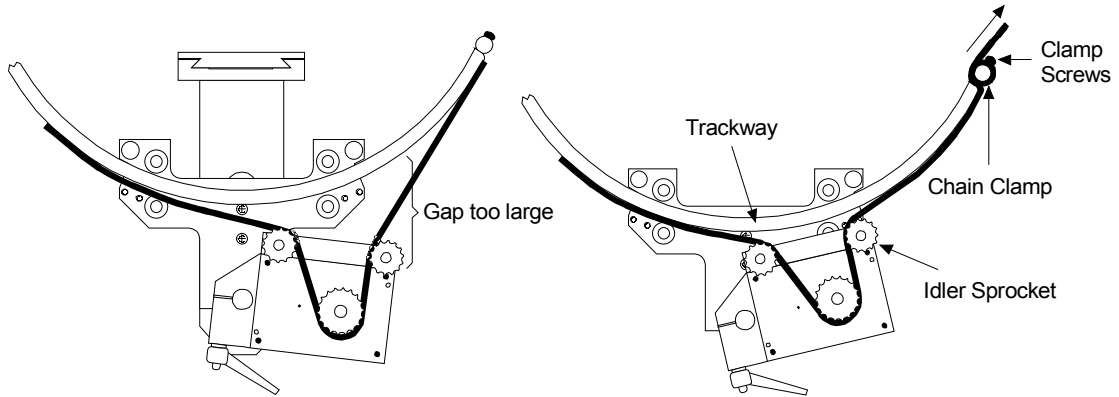


Slide motor back for Operation

8. The Ladder Chain is threaded through the Sprockets as shown below. The Idler sprockets should be as close to the Track way as possible. The Clutch Knob should be loosened so that the Drive Sprocket can "Free Wheel".



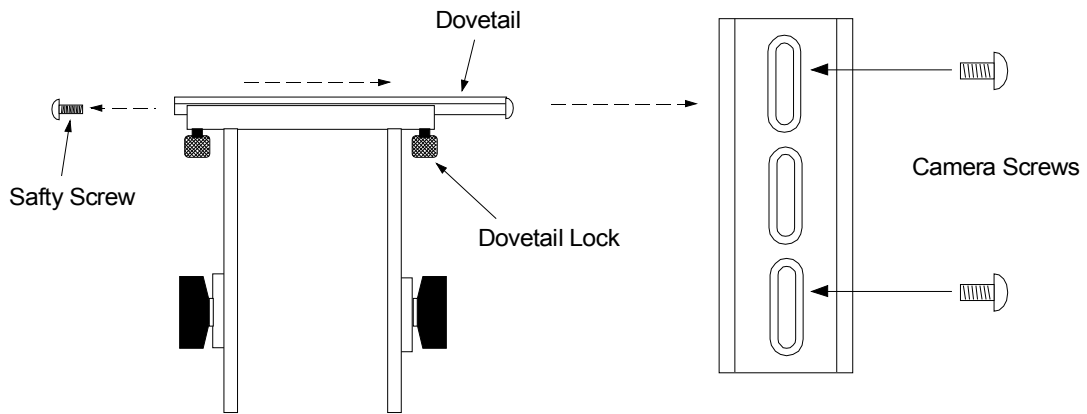
9. The blue Ladder Chain is tensioned at the factory. If it becomes loose you will find it necessary to tighten it. In order to tighten the Ladder Chain, first make sure the gap between the Idler Sprocket and the Track way is as small as possible.



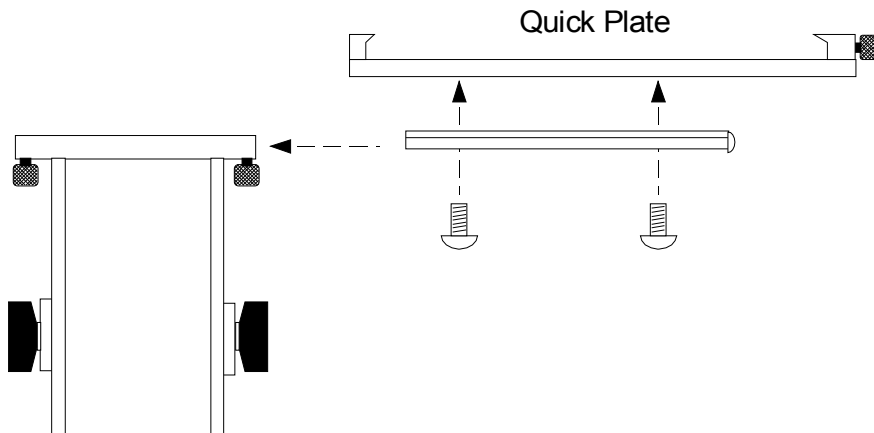
10. Loosen the Chain Clamp Screws and while pulling on the chain, re tighten the screws.

### MOUNTING THE CAMERA

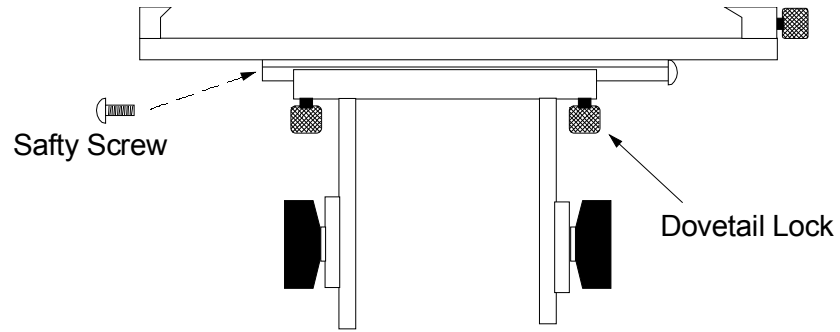
1. Remove a Safety Screw, loosen the Dovetail Locks and slide out the Dovetail.



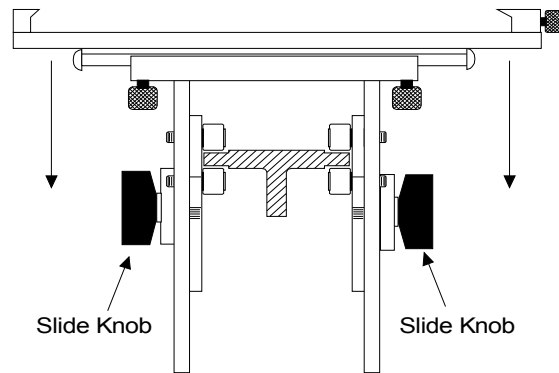
2. Mount the Dovetail to the Camera Quick Plate using the provided Button Head Screws; use two screws if possible. If you are mounting a heavy film or High Definition Camera two screws should always be used.



3. Reinsert the Dovetail and the Safety Screw. If the Dove Tail should slip the Safety Screws will prevent the Camera from slipping out.

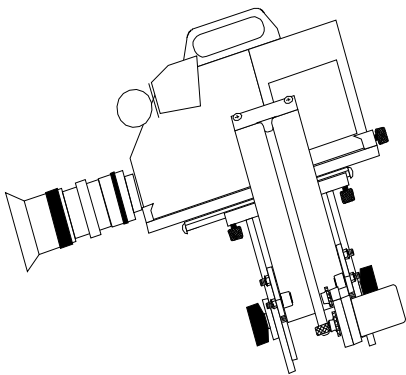


4. Loosen the Slide Knobs and move the Dove Tail to its Lowest point of travel then mount the camera to the Quick Plate.

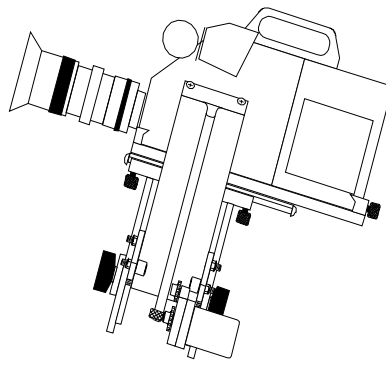


### FRONT TO BACK CAMERA BALANCE

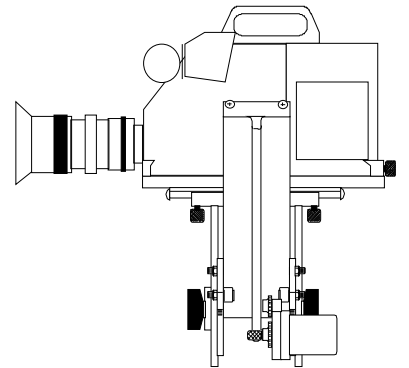
Too Far to the Front



Too Far to the Back

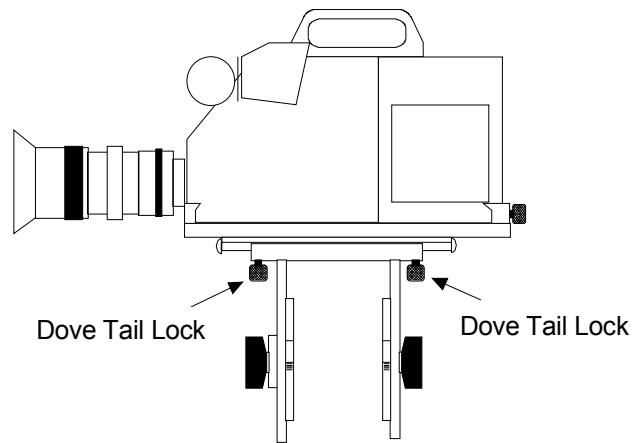


Balanced



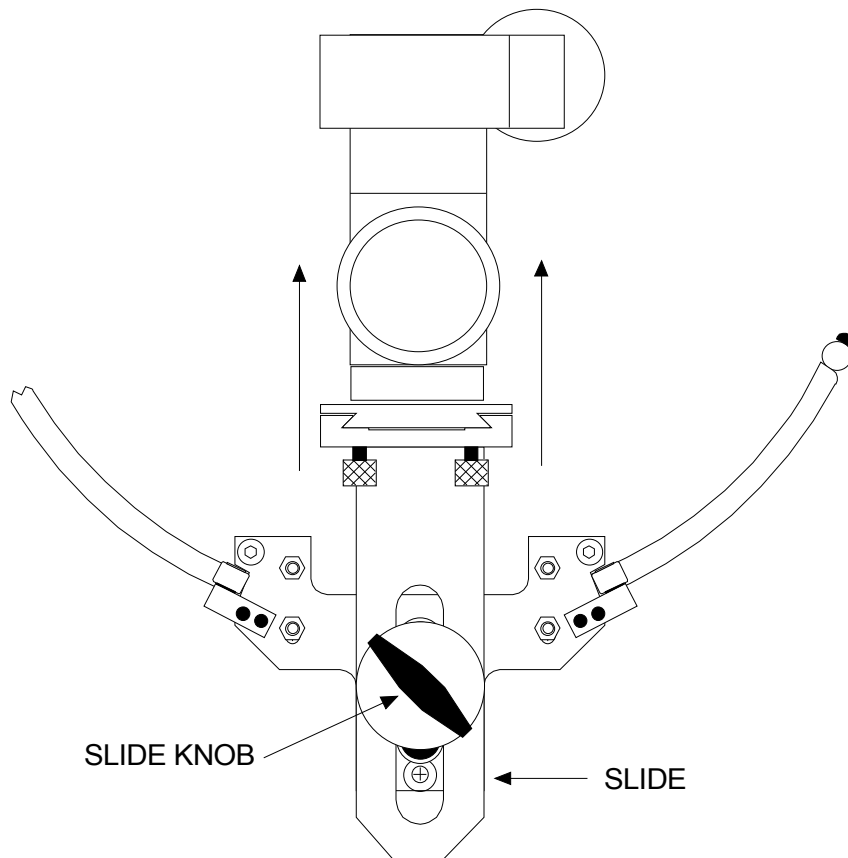
1. Make Sure the Pan and Tilt Motors are disengaged from the 4 in. gears.
2. Slide the camera forward or rearward on the dove tale until the camera will maintain a level position

3. Make sure you tighten the Dove Tail Locks to prevent the dove tail from sliding out of position.



### VERTICAL CAMERA BALANCE

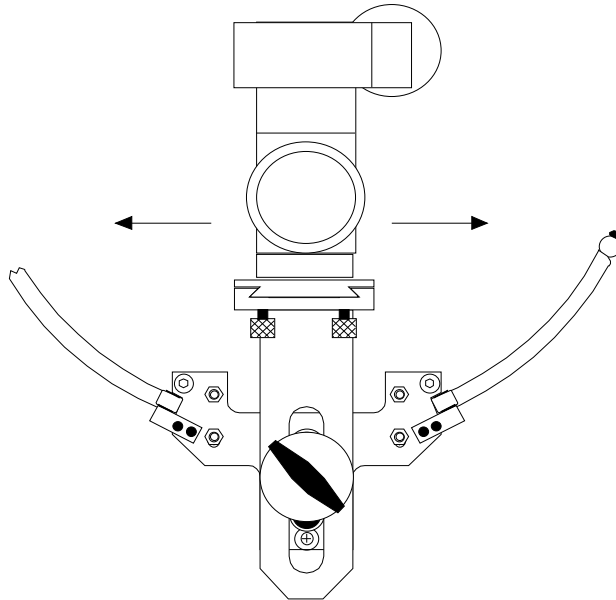
1. Balancing the camera vertically is done in the same way as with the Standard Head.
2. Slide the camera up until you find the vertical position of equilibrium. In this position you will be able to tilt the camera into any angle and it will stay in that position.
3. Make sure you tighten both Slide Knob Screws.



## HORIZONTAL ADJUSTMENT

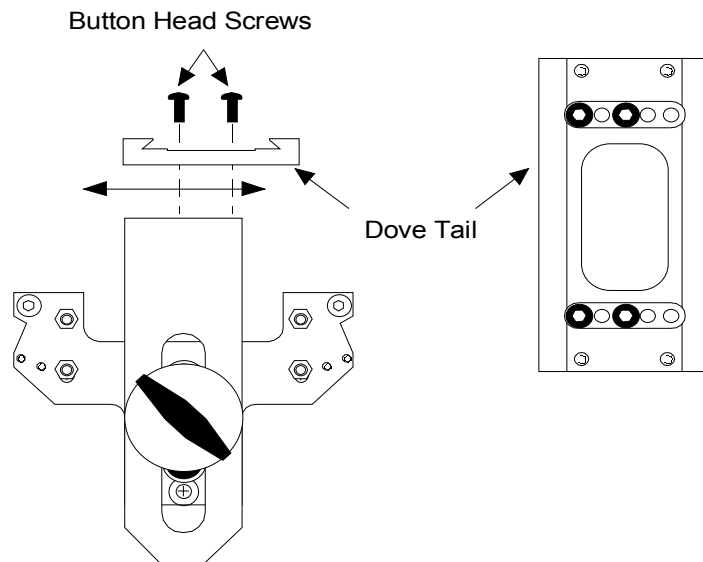
Horizontal (Side to Side) Adjustment is the placing of the camera's center of mass in the center of the trolley. This adjustment is not as critical as Vertical or Front to Back balancing. Normally, video cameras do not require any Horizontal Adjustment. If this adjustment is too far off it will affect **VERTICAL BALANCE** and you will start to have problems with the Tilt Axis.

To test for proper adjustment first make sure the Trolley is free to easily roll in the Cradle. Make sure the **Servo Clutch is loose**. The camera and Trolley will not stay in a vertical position if camera is not perfectly balanced horizontally.



When you perform this test you will probably find that the camera will not stay vertical as shown in the example above. It is impractical to try and completely eliminate this condition but complete elimination is also not necessary. Because most video cameras are light in weight and have their mounting points close to their center of mass, side to side adjustment is almost never necessary.

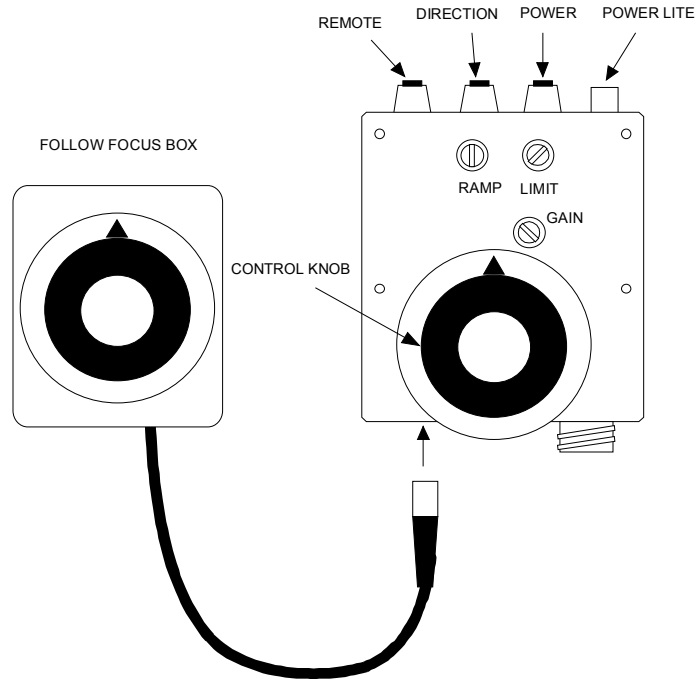
**35mm FILM:** These cameras tend to be 40 to 50 lbs in weight and will probably require side to side adjustment





## SERVO CONTROLLER

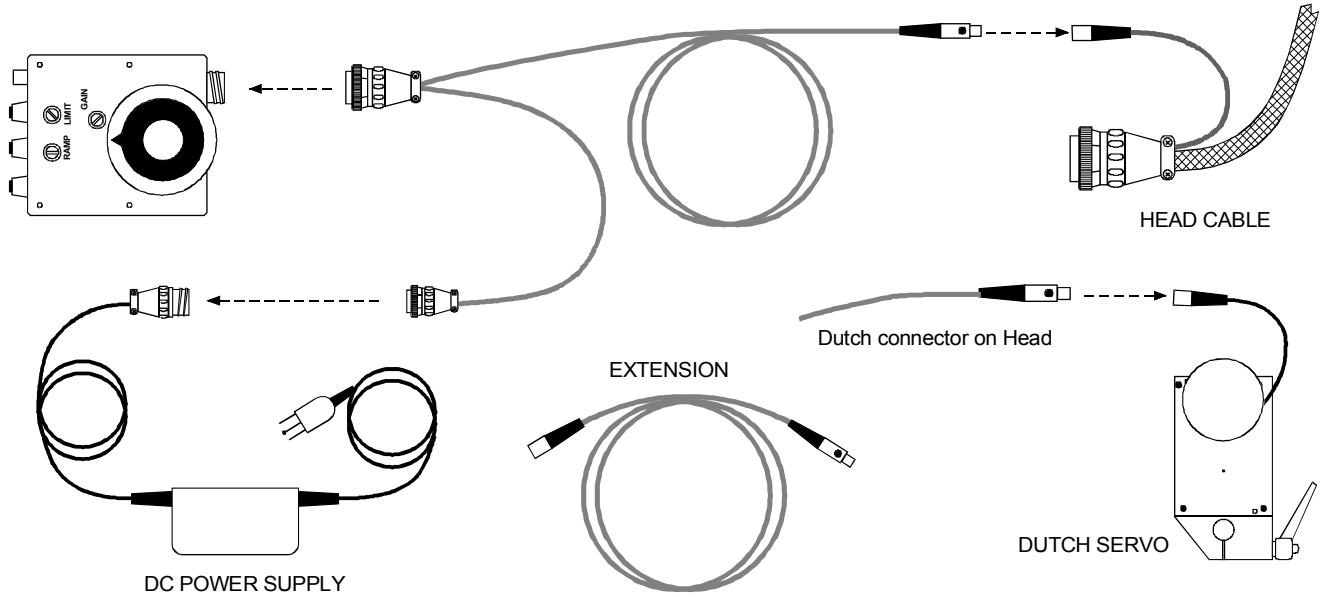
- RAMP This is an acceleration ramp and works exactly the same way as the Ramp Adjustment on the main Control Box.
- LIMIT Controls the range of Dutch movement and provides movement limits to prevent the Trolley from hitting the ends of the track.
- GAIN Helps soften the movement of the Trolley but if turned down too far may effect the accuracy of the move.



- REMOTE Switches control of the Dutch movement from the Control Knob to an external or remote source. The Follow Focus Box can be used as a remote source.
- DIRECTION Changes the relationship of Trolley direction to Control Knob rotation.
- POWER ON and OFF switch.

**Follow Focus** The Follow Focus Box can be plugged into the Control Box to provide a Memory Position. By switching (Remote Switch) between the Control Knob and Follow Focus the Trolley can be made to "Dutch" between two set points. Normally one of the Set Points would be the center position so that the Head can seek a vertical position.

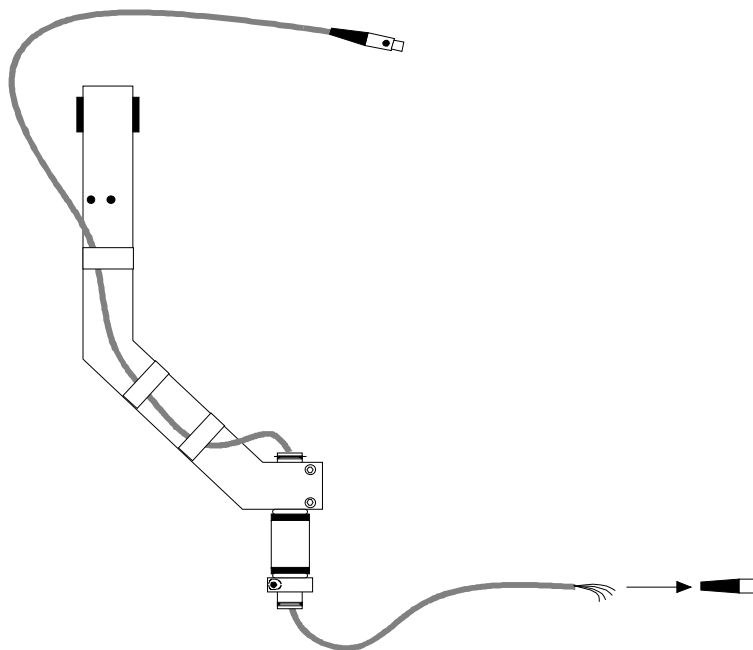
## ELECTRICAL CABLES



The Cables that come with the Dutch Head Kit allow the Kit to be used on all Jib sizes out to the Extreme. The Dutch Head cannot be used on the Jimmy Jib II (solid bar stock head).

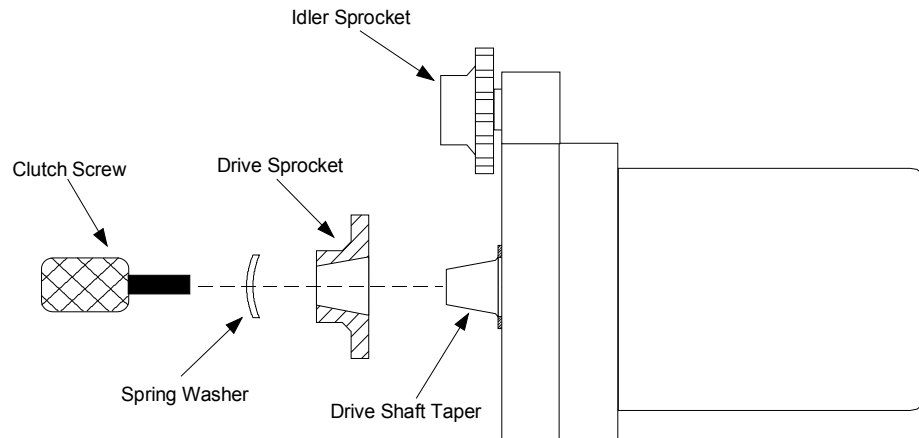
**NOTE:** If you find it necessary to run the Dutch on battery power it will be necessary to power it from a separate battery pack. It was found that when trying to power the Dutch and the Stanton Head from the same battery pack caused power to drop so quickly that it was impractical to power them both from a single battery.

HEAD CABLE On newer systems the Dutch Head Cable has been installed at the factory and is labeled as such. Routing the Head Cable through the Pan Shaft (on older systems) is the neatest method of attaching the cable. The cable will then not require a large slack Loop and will always remain on the Head. It will, however, require you to either cut the cable or remove a connector so that the cable can be routed through the pan shaft.

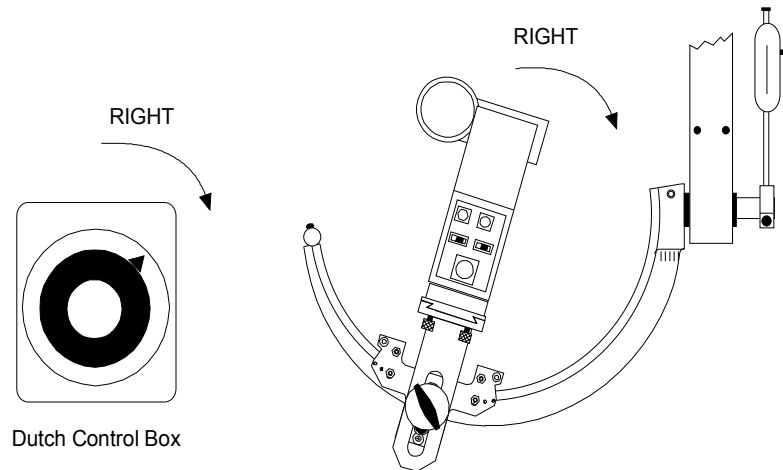


## ELECTRONIC SETUP

NOTE: Make sure the Clutch is loose enough to allow the Sprocket to “free wheel” on its shaft.



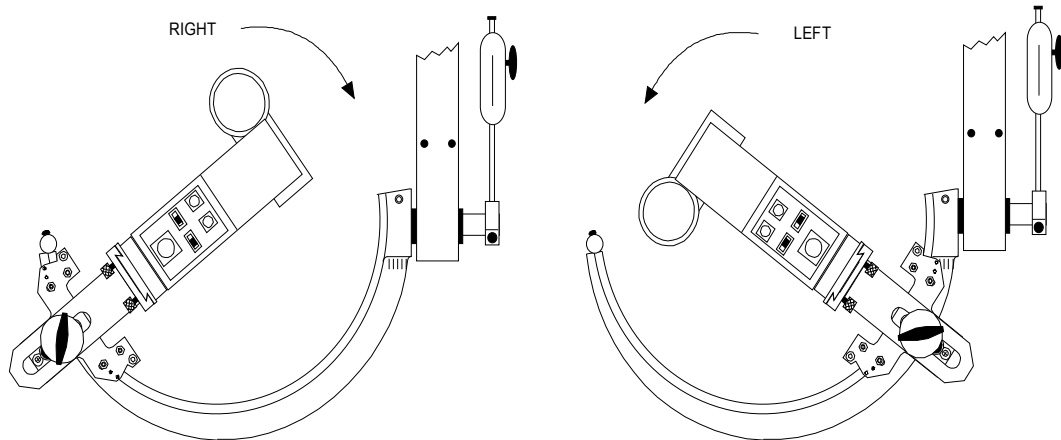
1. Mount the Dutch Control Box to the weight bar and connect the Dutch electrical Cables **Except the Servo**. Make sure the unit is off and plug in the motor. Do not connect any of the Camera cables or focus/iris cables at this time.
2. Rotate the Control Knob to the center position and turn the controller on.
3. Go forward to the Head and tighten the Clutch. By turning the Control Knob Dutch the head slightly and determine the Direction. Use the Direction Switch if the head movement is not to your preference. Normally the Knob would be set mimic rocking the Camera from side to side.



## Limit Adjustment

This adjustment must be made very carefully as it will prevent the camera or trolley from striking the head or the ends of the track. This is basically a range control that limits the degree that the Head is allowed to rotate.

1. Release the Clutch and rotate the Control Knob all the way to the Right.
2. Manually roll the Trolley to the end of the track and **Lightly** engage the clutch.
3. While carefully watching the Head, rotate the Control Knob slowly in the opposite direction (Left) until the Trolley or Camera comes close to hitting. The Limit Knob should have been factory set at about half way so you may want to increase the Limit adjustment.
4. Adjust the Limit Knob so as to attain the maximum movement possible.
5. Release the Clutch and rotate the Control Knob all the way to the right.
6. Manually move the Trolley back to the Right and engage the clutch.
7. Again rotate the Control Knob to the Left. If the Trolley or camera hits, reduce the range with the Limit Adjustment.
8. Repeat this process until you are able to Dutch the Head without hitting anything in either the maximum Right or maximum Left positions.
9. Rotate the Control Knob until the Camera is vertical and mark this position on the white disk. This mark will probably be right or left of Control Knob center. This can be done only after the Limits are adjusted.



### Warning

The Limit adjustment will effect both clockwise and counterclockwise limits at the same time. In other words, if you increase movement in one direction you will automatically increase it in the other. Whenever you increase the Limit Control always rotate the head in both directions to make sure the Trolley does not hit the end of the track.

By far the best head position for the Dutch Roll is **Under slung** because it is the least restrictive to movement of the trolley

## **CABLE ROUTING**

Routing the Cables to the Camera on the Dutch Head can now be done. This process, when done for the first time, will probably take several hours so make sure you allow yourself plenty of time to do the Job right.

1. Make sure you check cable clearance in Dutch Right and Dutch Left positions.
2. Make sure you Tilt the Head when in the Dutch Right and Dutch Left positions.
3. After 30 minutes or so the cables will tend to sag and may cause the cables to bind as the Head is Dutched.
4. It is very important to make sure that there is no binding or snagging of the cables as the head is dutched. Any tendency of the cables to "grab" will the head to jerk.

