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IMPORTANT - Crane Safety

READ BEFORE BEGINNING OPERATION OF CRANE

The Camera Crane, also known as a Boom or Jib, can be a very effective tool for video production. However, it must always be operated in a safe and cautious manner. Before bringing the crane into a live, production setting, familiarize yourself with its operation and features.

Securely mount the crane to a stable support. The tripod or stand should be stable and not at risk of collapsing due to the weight of the crane with camera and sufficient counterweight attached. Be sure the support is rated by the manufacturer to hold up to this amount of weight. Once mounted to a stable support, the crane will be front heavy. Allow the front of the crane to rest on the floor or ground.

The tripod or stand must be in a vertical position or it may not be able to support the crane properly. If you attach the crane to a tripod head, the head's tilt joint must be securely locked so that it does not come loose and fall forward or backward during use.

Attach the camera before attaching counterweight. The camera must not exceed the weight limit of the crane.

Determine the appropriate counterweight necessary to balance the camera. The correct amount of weight will bring the crane with camera mounted into a perfectly horizontal position. Always use counterweights or the crane will not be balanced properly and will lead to hazardous operating conditions. Failure of the system due to insufficient or excess counterweight may lead to harm of equipment, operator, crew and/or bystanders.

Use common barbell style plate weights with 1" interior diameter. Add the counterweight one plate at a time until the correct amount is attached. Place heavier plates first and lighter plates last.

Once the crane is properly balanced, it will be heavy, but pan and tilt effortlessly. If you have to assert a great amount of force to move the crane in any way, it is not properly setup. Continuing to operate it this way can result in injury and/or damage to equipment.

Never push or pull the crane so that the tripod or stand support moves out of its upright, vertical position. Doing so could bring the entire system out of balance.

Never leave the crane system unattended. Always maintain control of its movements.

Do not operate the crane in a crowded area where people may stray into the path of the crane's movements or beneath the crane. (see Fig.1) Always be observant and aware of your surroundings. Allow plenty of room for the crane to move so that it does not strike people or objects in its path. We recommend cordoning off the area of operation with brightly colored cones and/or easily visible caution tape. (Fig. 2)

The bolts on the crane can be periodically tightened if friction is lost. They can also be tightened to increase friction if a desired position is sought to remain still.

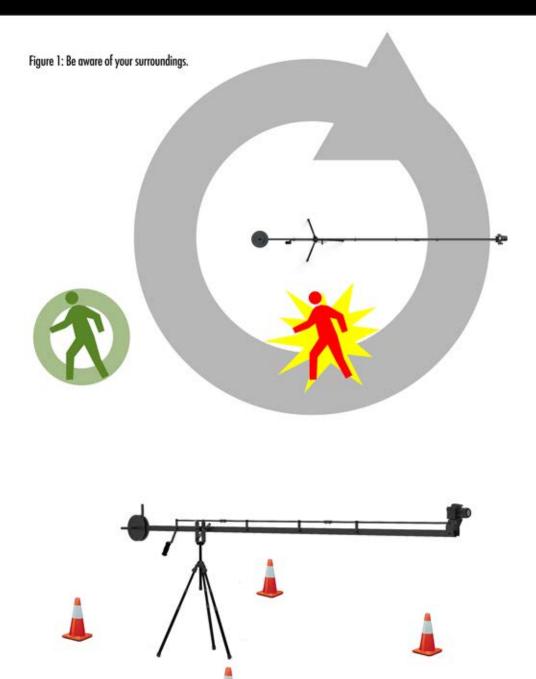


Figure 2: Mark danger zone with cones or tape to prevent others from entering the path of the crane.

Parts Inventory

The Orion comes with a back section, a front section with your choice of Camera Mount, and vertical and horizontal counterweight bars.



Option 1: The side mounted Camera Mount. With this mount the crane supports cameras up to 8 lbs.



Option 2: The overslung mounted Camera Mount with extension plate. With this mount the crane supports cameras up to 10 lbs.



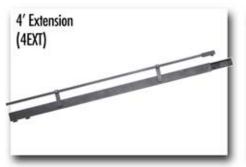
Optional Item: Extend your 8 foot Orion to a 12 foot crane by adding the 4 foot Extension.



Optional Items

Items listed below are optional accessories. Ask your dealer to purchase.

*If purchased at the same time, or as a kit, options may be pre-installed.

















STEP 1 Mount to support

1A Using tripod head

Remove the quick release plate from the tripod head. Screw into crane's mount, located on the rear section. 1/4"-20 and 3/8"-16 threads available. BE SURE TO FULLY TIGHTEN THE TRIPOD HEAD'S TILT FUNCTION (A). DO NOT ATTEMPT TO USE THE TILT FUNCTION ON THE FLUID HEAD WITH THE CRANE ATTACHED.





With the stand mount attached to the crane, set it on top of the stand's main shaft. Tighten the knob (A). To raise the shaft, loosen knob (B), raise shaft, insert pin (C).

1B Using crane stand







STEP 1 Mount to support

1C Using bearing mount

With the bearing mount attached to the crane, thread it onto the tripod's screw. The screw size should be 3/8"-16 threads. Turn clockwise to tighten.





STEP 2 Attaching the Extension Plate

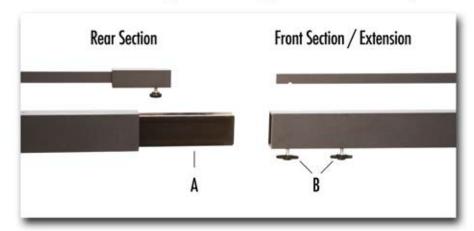
If your Orion Crane came with the overslung mount and you are using a longer camera body style, you will need to attach the extension plate to the camera mount. Attaching the Extension Plate is a simple process. Remove the 4 screws from the plate and align the four holes where you removed the screws from with the 4 outer holes on the corners of the overslung camera mount. From underneath the camera mount screw in the 4 screws until tight. The end of the screws should be flush with the top of the Extension Plate as shown below.



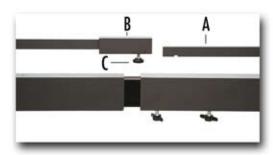


STEP 3 Connecting the sections

The rear section has an interior connecting bar (A) extending out. This slides into the front section or extension. Tighten the knobs (B) to secure the sections together.



After inserting the connecting bar, insert the tilt arm (A) into the coupler (B) and tighten knob (C) into the groove.



The sections are properly connected below.



STEP 4 Mounting the camera

At this point, the crane will be front heavy. Allow it to rest on the ground. Use the 1/4"-20 screw provided to attach the camera to the camera mount. The universal sized screw will thread into the bottom of the camera.

Attaching your camera to the Side Camera Mount





Securely mounted camera

Attaching your camera to the Overslung Mount

The Overslung Camera Mount can be used with or without the Extension Plate.

Overslung Camera Mount with Extension Plate attached



Overslung Camera Mount without Extension Plate attached.

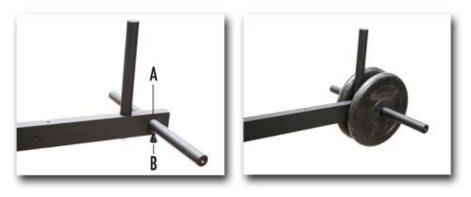


STEP 5 Mounting counterweights

After the camera is mounted, it is safe to add counterweights to bring the crane into balance. First, attach the bars that the counterweights will be placed on. Connect the vertical countweight bar to the bolt (A).



Next attach the horizontal weight bar. Insert it into hole (A). Align the threaded hole on the bar to the knob and tighten the knob (B) to secure.



STEP 5 Counterweight Balancing

Counterweight must be added to balance the crane. Operating without counterweight is dangerous and not recommended. The necessary amount depends on the weight of the camera and the length of the crane. When the crane is in 8' mode, a ratio of 3:1 is used. When the extension is added, a ratio of 4:1 is used. Example: a 5 lb load requires approximately 20 lbs of counterweight. Use standard plate weights and mount as shown below. Place large diameter plates first followed by smaller plates as needed to acheive balance. Sandbags will also make good counterweights.





When the proper amount of counterweight has been added, the crane will rest in a horizontal position. Motions will be smooth and effortless. Note, the type of camera and mounting position will affect the balance. If the mounted camera is front heavy (ex. large lens), mount it in the first row of mounting holes as below.



Side Camera Mount Shown

Operation

Auto Tilt Mode

The crane features an automatic tilting mode that keeps the camera level to the ground as the crane is raised and lowered. Combined with panning and swooping diagonal movements, the results are smooth, professional quality that are achieved with ease.

Manual Tilt Mode

Manual tilt mode is engaged by removing the pin (A) at the top of the tripod mount. Now the handle can be used to tilt the camera independent from the crane's body.



Below, the camera is manually tilted downward on the overslung camera mount. <u>WARNING</u>: When tilting manually, ALWAYS maintain control of the camera. A front heavy camera may rotate forward abruptly and without notice.



Operation

Optional Tilt Brake

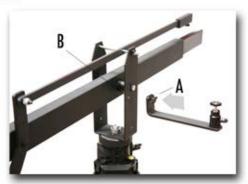
The tilt brake is an option that allows the user to lock the crane in a vertical position. Note, the tilt brake is an effective lock only when the crane is balanced properly with counterweights. Engaging the tilt brake without proper balance may cause the crane to tip over.

With the tilt brake attached, loosen knob (A) to tilt the crane into the desired position. Engage the tilt brake by tightening knob (A).



Monitor Mounting Bracket

To attach the monitor bracket, screw the knob (A) into the threaded hole (B) on the crane's tripod mount.



Zoom / Focus Controller

Most zoom controllers have a clamp that allows them to attach to the crane. Clamp the controller to the monitor bracket, Fig.1 or to the tilt handle, Fig.2.





Warranty

ProAm offers the original purchaser of this camera crane, a lifetime warranty against defects in material and workmanship under normal use and service. Limited to replacing or repairing, at ProAm's option, products or parts determined by ProAm to be defective. Proof of purchase required for service.

Purchase Info

Purchase date:	
Store info:	
Order number:	
Other details:	

Be sure to submit your videos made with the ProAm camera crane to us so that we may feature them online. Send your links to sales@proamusa.com.

Notes

Log useful information here such as camera model and counterweight required.