PeeWee® Series Camera Dollies user guide

Operational Instructions & Specifications

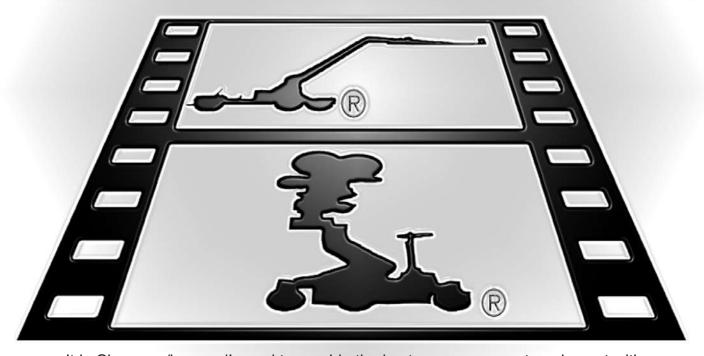


PeeWee, Super PeeWee, SPW II, SPW III and SPW III Plus CHAPMANA

Camera Dollies



CHAPMANI LEONARD STUDIO EQUIPMENT, INC.



It is Chapman/Leonard's goal to provide the best camera support equipment with exceptional Customer Service. Therefore, we are compiling this User Guide to aid in the reordering of Replacement Parts for your Leased Equipment.

For any questions regarding this User Guide, please contact

Customer Service at 888-883-6559 or 818-764-6726.

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Features

All Models are capable of two different steering modes. In **Conventional Mode** the rear wheels pivot as the operator makes a tracking turn. In **Crab Mode** all wheels turn in unison enabling the dolly to be moved in any direction while maintaining the orientation of the camera plane. The operator can select any mode by twisting the steering handles.

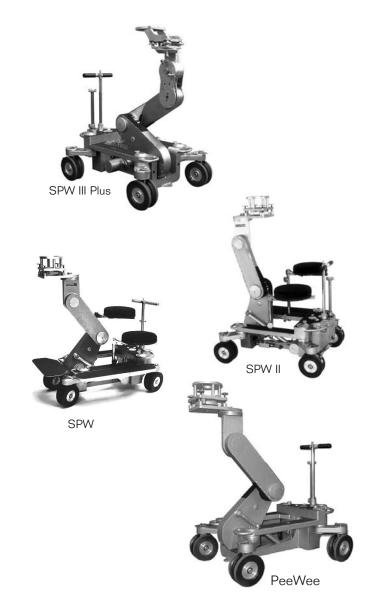
The Universal Stop Valve controls arm movement with **smooth feathered stops.** Adjustments to the Universal Stop Valve can be made without tools or the need to remove any covers or access plates. Feathering Levers are located below the Steering Controls within the operator's reach for ease of use.

Leg positions can be set for a narrow dolly profile to move through doorways or a wide stable platform with seats for camera operator and director. The PeeWee line of dollies can be incorporated into any track setup within minutes.

A variety of **tire choices** give the operator options on flat or rough terrain. Tires can be matched to various track configurations.

The Super PeeWee[®] III and III Plus have a built-in heat control in the hydraulic system to maintain a minimum hydraulic oil temperature of 70°F. This maintains **optimum performance in even the coldest environment.**

The new improved Universal Head is capable of **dutching and panning** into any position.

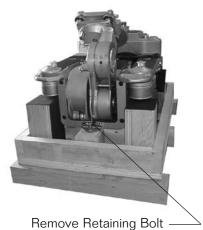


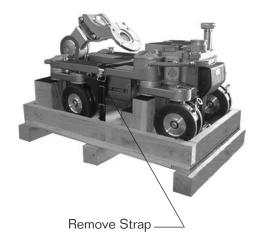
Specs	SPW III Plus	SPW III	SPW II	SPW	PeeWee
Minimum Camera Mount Height	16 ½ in. (42 cm)	15 ¾ in. (79 cm)	24 in. (61 cm) 3 in. (8 cm) w/ 90° Plate	24 in. (61 cm) 3 in. (8 cm) w/ 90° Plate	24 in. (61 cm) 3 in. (8 cm) w/ 90° Plate
Maximum Camera Mount Height	60 ¼ in.	56 in.	55 in.	55 in.	55 in.
	(1.5 m)	(1.42 m)	(1.4 m)	(1.4 m)	(1.4 m)
Vertical Boom Travel	58 ¼ in.	38 in.	31 in.	31 in.	31 in.
(Extended Arm Position)	(1.5 m)	(97 cm)	(79 cm)	(79 cm)	(79 cm)
Maximum Load Capacity	250 lb.	250 lb.	250 lb.	250 lb.	250 lb.
	(114 kg)	(136 kg)	(114 kg)	(114 kg)	(114 kg)
Maximum Number of Lifts on a Single Charge	4 Lifts	4 Lifts	4 Lifts	4 Lifts	4 Lifts
Carrying Weight	280 lb.	295 lb.	280 lb.	280 lb.	280 lb.
	(127 kg)	(134 kg)	(127 kg)	(127 kg)	(127 kg)

Unpacking and Setup

The PeeWee®
Shipping Crate #1655

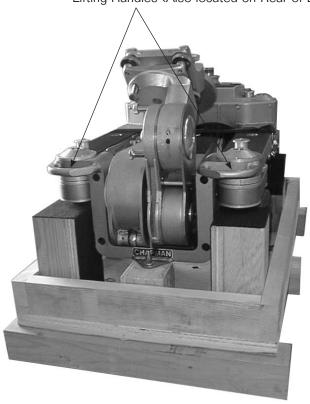






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Lifting Handles (Also located on Rear of Dolly)



Lift Dolly by the handles located on all four corners of the chassis. The weight of the dolly must be supported on all sides to insure safety when lifting.

Unpacking the Accessories

The Accessory Cart has its own shipping crate with a ramp that can be positioned for easy unloading. The crate can be disassembled for flat storage against a wall, minimizing lost space at your facility.

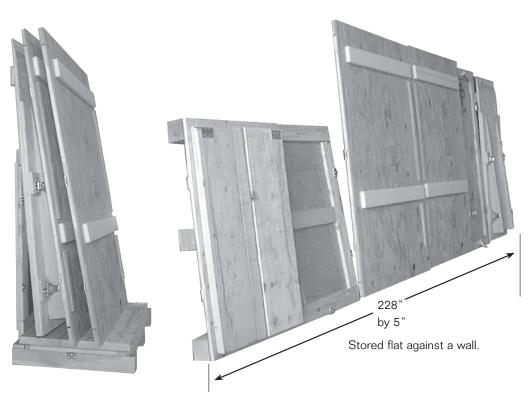


The Cart has a vinyl cover that is secured with Velcro Strips to protect the accessories during overnight storage.

Tire Pressure must be maintained at the full rating of 65 psi to insure maximum stability and safety. Extra care should be used when moving the Accessory Cart on uneven or rough terrain.

As with all equipment you must secure the Cart during transport.





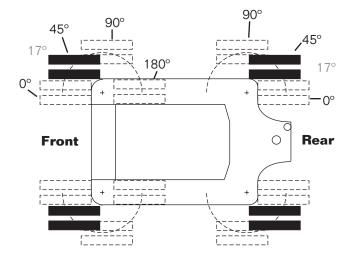
The disassembled crate can be stacked in any order to fit whatever space is available. Remove the Pins from the Hinges to separate the Ramp from the Base.

Leg Positions

The leg positions can be rotated in a 180° arc at preset increments (See table below). This allows for versatility when meeting the needs of your setup.

Front	Rear	
0°	0°	
17°	17°	Rear Leg Positions
45°	45°	are Compatible with all Front Leg
90°	90°	Positions
180°		

CAUTION! Ascertain safety in Movement Under Controlled Conditions (Practice Run)



Example Setups

Setup	Front Leg Positions	Rear Leg Positions	Comments
Narrowest Position	0°	0°	Use in Tight Quarters
Pneumatic Tires Narrow / 880mm Track / Dolly Sideways	17°	17°	Use in Tight Quarters with Pneumatic Tires
Standard 24 ½" Track	45°	45°	24 ½" Track
Widest Leg Position / 24 ½" Track / Dolly Sideways i.e. Pool Side Shooting	90°	90°	Most Stable Fits 24 ½" Track Sideways
3 Point Solid Tires	90°	0°	Most Stable on Rough Ground
3 Point Pneumatic Tires	90°	17°	Most Stable on Rough Ground with Pneumatic Tires
PeeWee Position	180°	0°	Most Compact Configuration

Adjusting Leg Positions

- **1.** Pull up on the Leg Lock Cap and rotate a few degrees. This will keep the Leg Lock disengaged while you adjust the wheel alignment for that Leg.
- **2.** Turn the wheel in the direction you want to move the Leg and gently push until the Leg Alignment Marks line up.
- **3.** After you are satisfied with the alignment of the Legs, reengage each Cap to be sure it is seated into its locked mode. This insures that all four wheel alignments match.

When operating on curved

track:1. Release the Leg Lock Pins for the wheels that will travel on the inside radius of the track. This will allow these legs to articulate with the requirements of the track. Do not unlock the Leg Lock Pins that are on the outside radius of the track. This will cause the Dolly to lose stability. Excessive speed on the track could result in a derailment.

2. Release the Tab Locks on each Wheel to allow freedom of movement.

Aligning the Dolly

If the dolly is not tracking correctly, or it has been taken off track or unloaded from transportation, the wheel alignment will have to be adjusted to achieve proper performance.

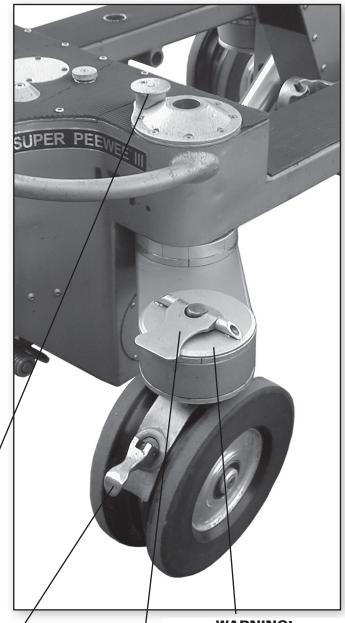
- **1.** Make sure the Steering Handle is straight. (The operator should be able to shift the steering modes) Then, lock the position of the steering column by shifting the dolly in between steering modes. (The Steering Column will not be able to move if done correctly).
- 2. Make sure each Leg is in the 45° Position.
- **3.** Release the Tab Locks and adjust each wheel until the alignment marks match up.
- 4. Reengage the Tab Locks.

Leg Locks

Leg Locks secure the Dolly in the Wheel configurations that you choose. The Leg Locks at the top of each of the four Legs are spring loaded to snap into position.

Wheel Lock

Wheel Locks on each of the rear wheels hold the Dolly stationary between planned moves. The Wheel Locks are not intended for stopping the Dolly while in motion. The dolly should always be held in place with Blocks or Wheel Chocks when on any kind of a slope.



WARNING!

Do Not Change Cap Positions when removed for cleaning.

Tab Lock

Tab Locks are located on top of each Wheel Assembly. These are used to lock the Wheel's Kingpin to the Steering System. During normal operation these Tab Locks should not be touched.

However, when using curved track, freeing the Wheels to follow the track is achieved by unlocking the Tab Lock on each leg.



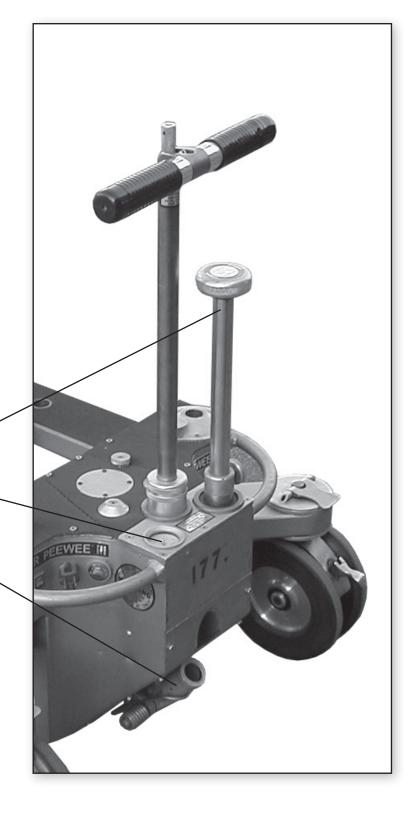
Valve Control & Gauge

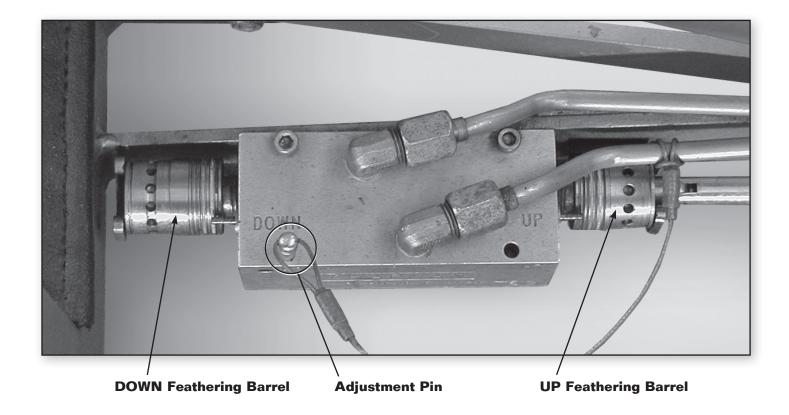
The Valve Control regulates the movement of the Arm. A fully charged system will read 2250 psi on the Pressure Gauge. This is enough pressure to enable 3 to 4 stroke lifts of the payload (camera). Total Payload = 250 lb. @ 2250 psi.

Valve Control Handle

Pressure Gauge \bigcirc

Spring Loaded \bigcirc Foot Pump





Universal Stop Valve

The Performance of the arm can be adjusted with the Universal Stop Valve. When in use, it allows the arm to make smooth, feathered stops without difficulty. It also allows the arm to move to the upper and lower stops that the operator has set.

The Feathering Barrels are used for fine tuning the operation of the Universal Stop Valve so that the Arm moves to the upper and lower Stops that the operator has designated, instead of the factory settings. This also insures that the Arm does not "Bottom-Out" when lowered to the Chassis.

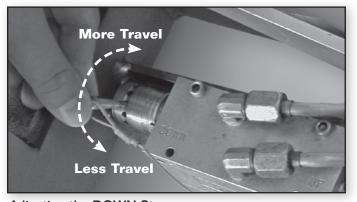
The **DOWN Feathering Barrel** is located to the left. Pushing the Adjustment Pin in to engage, then rotating the Barrel downward limits the Arm movements lowest position. Rotating the Barrel forward allows the Arm to travel to a lower position (Minimum Camera Height).

The **UP Feathering Barrel** is located to the right. Pushing the Adjustment Pin in to engage, then rotating the Barrel downward allows the Arm to travel further up (Maximum Arm Height). Rotating the Barrel forward limits the Arm travel height.

When making Stop Adjustments:

- **1.** Be certain the Arm is well beyond the desired Stop point. Then turn the Barrel in beyond the desired Stop point.
- **2.** Open the Main Valve Control to approach the desired Stop.
- **3.** Open Barrel to achieve movement until the desired Stop point is reached.
- 4. Close the Main Valve Control.

For rapid deceleration beyond the normal for this system, the Dolly Grip can use the Stop Valve to initiate the Stop, then finalize the Stop with the Main Control Valve.



Adjusting the DOWN Stop

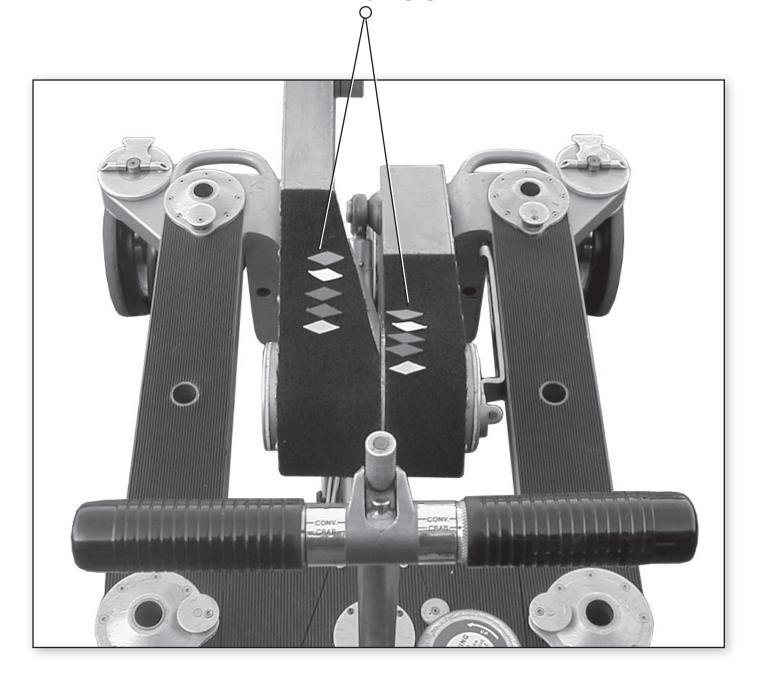


Arm Movement Markers

Colored Velcro Markers attach to the Arm (Upper and Lower). They can be repositioned to different locations on the Arm as a visual aid in repeating an Arm movement.

The Arm travels on a vertical line, eliminating focus problems on extreme tight shots. Precise repetitive Stops are possible at all speeds.



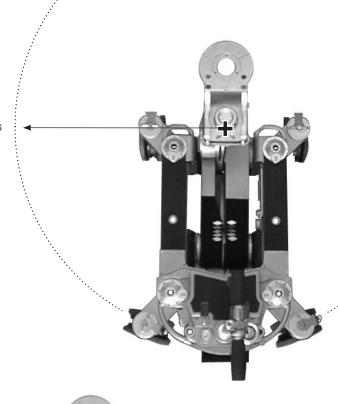


Steering Modes

Conventional Steering Mode

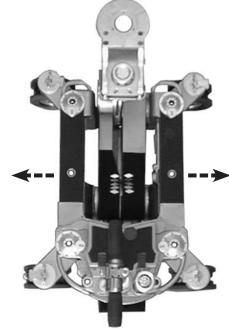
The Conventional Steering Mode is rear controlled steering. The Dolly can be shifted smoothly into Crab Steering Mode during the course of a shot, even while moving.

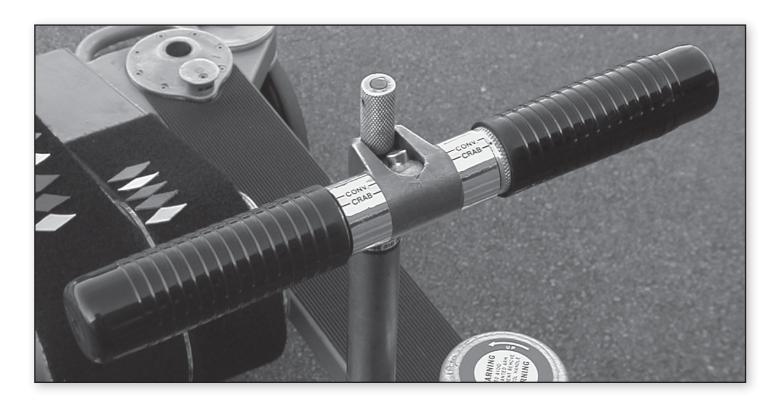
Minimum Turn Radius 33 5/8 in.



Crab Steering Mode

The Crab Steering Mode is the selection used most often by experienced Grips. It gives them more control moving the Dolly instantly in any direction. The camera lens maintains its orientation to the picture plane ensuring a steady shot without unwanted panning.





Shifting the Steering Modes

The PeeWee line of dollies is capable of two different steering modes. In **Conventional** Mode the rear wheels pivot as the operator makes a tracking turn. In **Crab** Mode all wheels turn in unison enabling the dolly to be moved in any direction while maintaining the orientation of the camera plane. The operator can select any mode by twisting the Steering Handles.

- **1.** Wiggle the Steering Column to insure that all four wheels are straight.
- **2.** Twist the Handle gently to shift into Round, Crab or Conventional Modes. If the transmission still won't shift, repeat step 1.



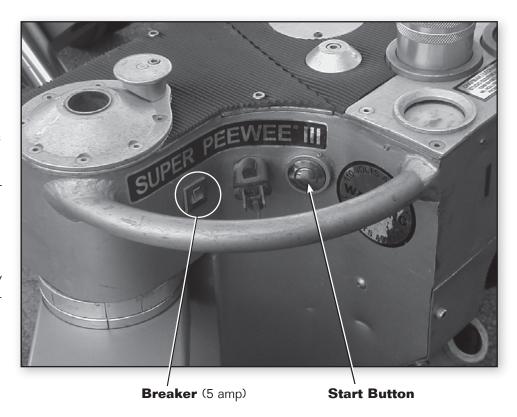
Charging the Dolly

With Electronics

A Female Plug can be inserted into the AC Receptacle (110v or 220v) located at the rear of the Dolly. Push the Start Button to begin automatic charging. The unit will stop charging when the Dolly's Hydraulic System is fully charged.

The Circuit Breaker Button is normally black. If the Circuit Breaker trips, the button flips to the white position. Pushing the button back resets the device. Should the Circuit Breaker pop again after being reset, the Dolly must be serviced by a trained, authorized Chapman/Leonard technician.

Do not attempt maintenance on the Dolly when it is plugged into an electrical outlet.



Manually

Insert the Valve Control Handle into the Foot Pump Receptacle. Approximately 60 full strokes are needed to fully charge the Dolly's system to 2400 psi. This pressurizes the nitrogen in the accumulators which in turn moves the oil through the Hydraulic System.

The Foot Pump is Spring Loaded and will return to the Up position.





The Valve Control Handle doubles as a Charging Handle when it is inserted into the Foot Pump.

SPW III PLUS MODEL

Universal Head

Adjusting the Head

1. Loosen Bolt <

2. Pull Quick-Release Pin —

3. Move Top Portion of the Universal Head

4. Push in Quick-Release Pin

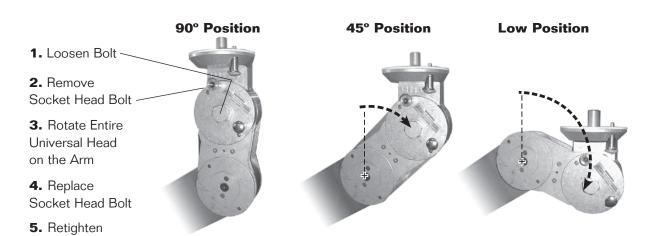
5. Retighten Bolt

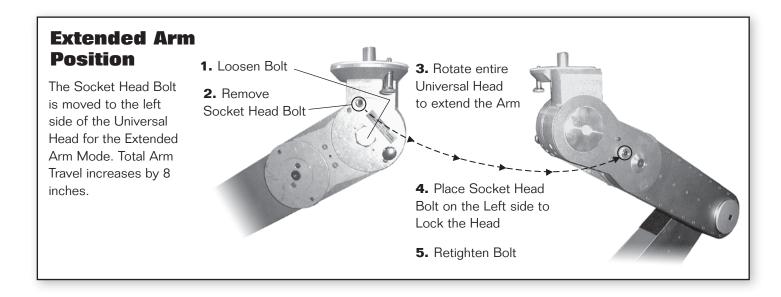


WARNING!

Control the Weight of the Camera before releasing Pins to change position.

Whenever making adjustments to the Universal Head, make sure that you are in a positive Locked position at all times.





Bolt

SPW III PLUS MODEL



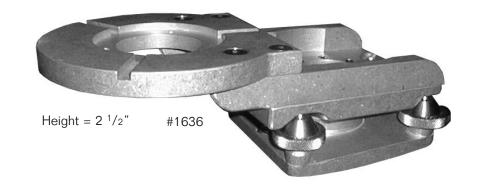
Standard 4-Way Leveling/Swing Head

To Pan the 4-Way Leveling/Swing Head, pull the Quick Release Pin on the Universal Head, loosen the Knob only slightly and move the 4-Way Leveling/Swing Head to the desired pan direction. Tighten the Knob to prevent movement.

Park the Dolly on level ground and set the Wheel Locks. Observe the Bubble Level Indicator positions. If the bubble is not centered in each tube an adjustment should be made. Lower the Leveling Knob (clockwise) that is diagonally opposite a low bubble. Raise the Leveling Knob (counter clockwise) that is diagonally opposite a high bubble. Adjust all four Leveling Knobs until both Bubble Level Indicators are centered.

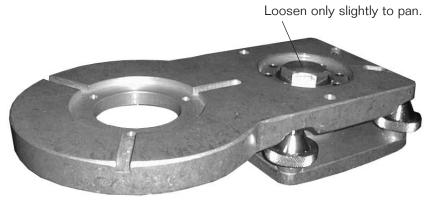
LOW 4-Way Leveling Swing Head Features

This version can be positioned backwards on the arm. When using Geared Head Turrets, a smaller Pan Wheel must be used.



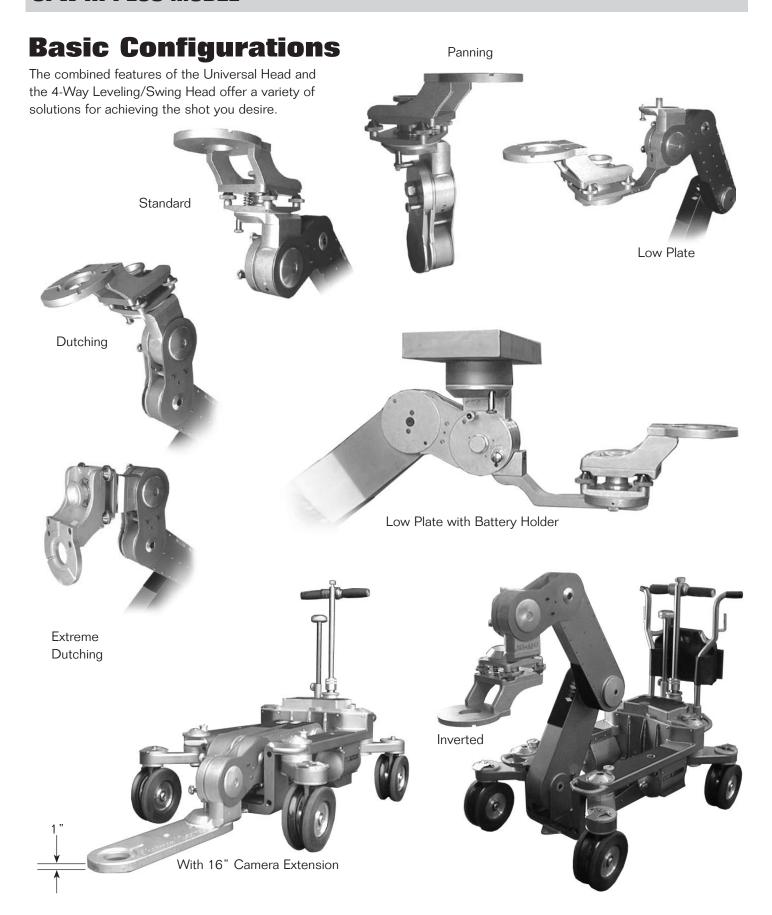
Flat 4-Way Leveling Swing Head Features

This version is restricted to forward use only. When using Geared Head Turrets, a smaller Pan Wheel must be used.



Height = $1^{3}/4$ " #1637

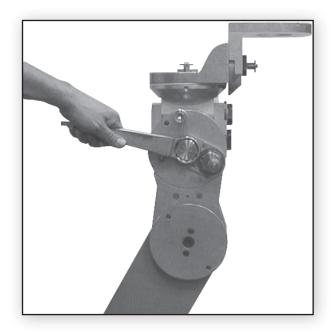
SPW III PLUS MODEL

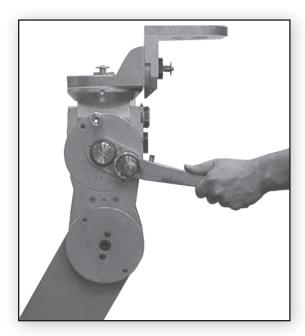


XOX Head Leveling

Step 1: "X" = SLIGHTLY LOOSEN

Position the swing head forward to locate the bubble level parallel to the length of the dolly chassis (to obtain a level adjustment), then turn the "X" bolt counter-clockwise to "slightly" loosen it. DO NOT LOOSEN TOO MUCH.



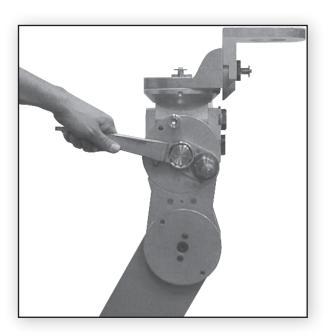


Step 2: "O" = LEVEL Adjust to the level position by turning the "O" bolt.

Step 3: "X" = TIGHTEN

Position the swing head forward to locate the bubble level parallel to the length of the dolly chassis (to obtain a level adjustment), then turn the "X" bolt clockwise to tighten it.

DO NOT OVER TIGHTEN.



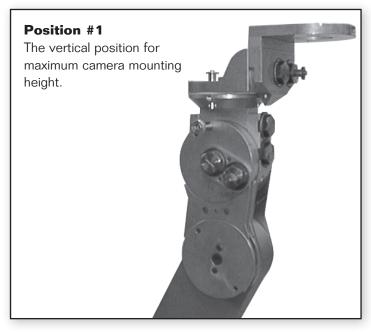


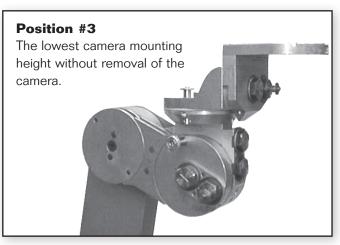
XOX Head Positions

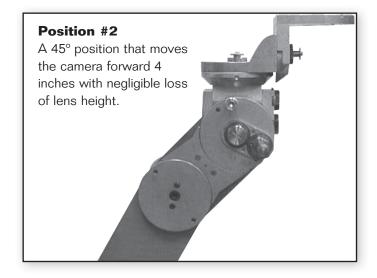
The Universal Head can be used in four basic positions. Three of the positions (#1, #2 & #3) use the locating bolt, through the extended sleeve, on the right hand side of the dolly. One of the positions (#4) uses the locating bolt, through a hole in the center of the side plate, on the left side of the dolly. All procedures are obtained with the assistance of the Super PeeWee[®] III XOX wrench. Additional rotating (Dutching) is easily obtained up to 90°.

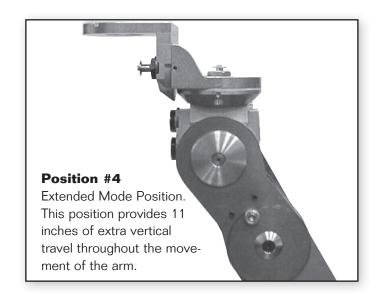
The four basic positions for obtaining high to low can achieved by supporting the camera and/or camera plate, then removing the positioning bolt. This will allow the XOX head to pivot upward or downward, obtaining the four positions pictured below. When reaching the desired position, the bolt must be replaced into the sleeve and tightened. Position #4 requires the positioning bolt to be located on the left side of the XOX Leveling Head (as viewed by the dolly operator).

DO NOT OVER-TIGHTEN













Tire Choices

Standard 80 Shore -

- Hard Floor

- Studio

- Stage

- Track

Standard 60 Shore

- Irregular Floor

- Tiled Floors

- Track

Pneumatic

- Indoors

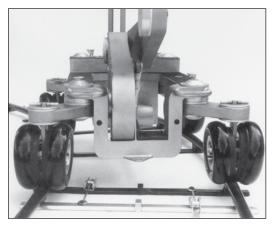
- Outdoors

- All Terrain

- Ice

- Track

Tire Pressure of 85 psi is recommended for best performance



Mounted Tracking Disk allows use of pneumatics in combination with Track.

Always read Warning Labels!



Spray the Tires with Zep Par NC Silicone Spray (Key Words on Label "Mold Release Agent"). This dramatically improves Tire Performance on Tile Floors, Hardwood, Track and even on Concrete. That's because friction is the culprit behind tire squeaks and the tendency of tires to stick to track or polished floors. Treated tires begin rolling and run through turns with only modest force. Use the same spray to clean the tires.

Cleaning Procedures

Always begin cleaning the Dolly with a Vacuum Cleaner. Never use an air hose because dirt and metal shavings will find their way into joints and bearings. This seriously shortens the life of the Dolly.

Never directly spray the Dolly with water. Use soap and water applied to a cloth or paper towel or preferably a brush to wipe down the rubber and metal parts of the Dolly.

Wax the exterior of the Dolly using Megular's Mirror Glaze Cleaner Wax. This keeps the Dolly cleaner during regular use and preserves the finish. A clean Dolly will insure optimum performance with smooth and quiet movements while enhancing aesthetics.

Spray the Tires with Zep Par NC Silicone Spray (Key Words on Label are "Mold Release Agent"). This dramatically improves Tire Performance on Tile Floors, Hardwood, Track and even on Concrete. Use the same spray to clean the Tires.







For Rubber & Plastic

Always read Warning Labels!



Maintenance Tips

NITROGEN PRESSURE / OIL LEVEL

For the PeeWee® and Hybrid models, it is important that the nitrogen pressure in the dolly be kept at PSI rating of 1450 lb. To obtain a true pressure reading, always remember: the dolly must be exhausted of all hydraulic pressure and the arm must be completely down. NOTE - If at this point the gauge reads 0, apply one hand pump to obtain a nitrogen gas reading. At this time the hydraulic oil has returned to the oil tank so now you are ready to measure the dolly's oil level by removing the oil fill cap and using the dip stick supplied by Chapman Studio Equipment. If you do not have a Dolly Dip Stick or Nitrogen Filler Tube, please call or fax us and we will send one to you.

MAINTAINING CORRECT STEERING GEOMETRY

To maintain Correct Steering Geometry, proper chain tension must be kept throughout your dolly. The rule of thumb is "not too tight, not too loose". Tension should be just enough to take the slack out of the chains. Too much tension makes the steering rough. There are eight (8) chains in the dolly. It is necessary to check all of them. Sprockets for adjusting chain tensions are located in easy to access areas within the dolly. Located on the top cover are the steering chain adjustable sprockets. The conventional or rear wheel steering adjustable sprockets can be found by taking off the top side panels. These sprockets can be adjusted with a half inch socket. The crab chain tension can be adjusted by sprockets on the bottom side of the chassis (on newer models it will be on top side). The leg chains can be adjusted by removing the wheels, then tab lock pins, allowing top wheel caps and tab locks to be removed. Loosen the four allen screws on top and underneath the bearing housing. Pull the wheel king pin very lightly to create tension on the leg chain while you tighten down the allen screws. Alignment problems can also be caused by the wheel tab locks. If the wheel tab locks are not tight enough, the wheels will slip out of alignment. If your dolly's wheel tab locks are too loose, call Chapman and order a set of shims.

SHIFTING

If a dolly operator finds it difficult to switch from crab to conventional steering mode, he should check to see that the shifting rod knob (located on the top of the steering column) is screwed all the way in and directly parallel to the chassis.

BRAKE REPAIR

Some operators will kick the brake levers on equipment to unlock the wheels quickly. Eventually, the brake mechanism loosens. You can rectify this condition if you remove the brake lever completely and clean the inside of the threads with a 3/8 inch (20 pitch) tap. Then, use compressed air to clean away debris from the re-threading. Purchase some Loctyte, or similar compound, and coat the threads and screw, replace the lever, screwing it to the proper degree of tension. Allow the Loctyte 24 hours to thoroughly cure before using the brakes.

PRIMING THE PUMP/ BLEEDING AIR FROM THE SYSTEM

PeeWee® dollies at times, lose their prime and won't respond to manual charging. The usual cause is air entering the hydraulic system. Even an electrically powered dolly is subject to this condition when unplugged. Manually priming the pump solves the problem and can be done on the set.

First boom the arm up and down until all the charge is drained, then lower the arm until it touches the bottom stop. Next, turn the valve control handle to the up position. Lift the handle out and insert it into the foot pump socket on the rear of the chassis. Then have a second person lift the arm approximately 3/4 of its full vertical travel. Use the foot pump until you notice the boom arm begin to rise. Stop pumping. Now is the time to open the bleeder valve located at the top of the cylinder. Use a 1/4" box wrench to loosen the bleeder valve. When the air is removed, close the bleeder valve. By hand, rotate the control valve clockwise to the neutral position and then continue pumping until the pressure gauge indicates a full charge.

NOTE: Never pump past the red mark on the gauge. Reinsert the control valve handle into its receptacle and the dolly is ready for operation. For the Hybrid dolly models, repeat the same steps, skipping the bleeder valve procedure, since a bleeder valve on the Hybrid dolly is not required.

This procedure is a quick fix to get the equipment functioning. To avoid the problem, bleed the hydraulic system during routine maintenance.

FIXING DOLLY ELECTRICAL PROBLEMS

The electrical systems on Chapman / Leonard dollies are protected against shorts by fuse or circuit breakers. Before inspecting the system, disconnect the unit from the power supply. Safety first!

Super PeeWees use a circuit breaker that pops when the current draw exceeds limits. The breaker button is mounted on the left-rear of the chassis.

The breaker button is normally black. If the breaker trips, the button flips to the white position. Pushing the button back in resets the device. Should the breaker pop again after being reset, the dolly must be serviced by a trained, authorized Chapman/Leonard technician.

PERFECT WHEEL ALIGNMENT EVERY TIME

The Wide Tracking Bar is invaluable for moving a PeeWee® in long tracking shots because, with this accessory, the grip can compensate for slight deviations. Perfectly aligned wheels should allow you to move the dolly 15 or 20 feet to a point, and then, without touching the Shifting Handle, to move back to the starting point and repeat the move, ending up at precisely the same point.

Variations in the floor surface, or such things as camera weight, may pull the dolly slightly to the left or right. It is best if dolly track can be implemented for perfect tracking. If dolly track cannot be used, the magic of the Wide Tracking Bar is that you can exert pressure on one side of the handle to overcome a small drift.

In cases where tracking isn't improved by extra pressure to one side of the Wide Tracking Bar, give a very slight nudge inward to the front wheel on the side of the drift. The wheel should creep toward the center line. Do this with the Tab Lock Lever only partially open to prevent misalignment. Make sure that the alignment marks are still touching. Push the Tab Lock Lever down firmly to lock the Wheel Kingpin and try a straight tracking movement again to double check accuracy.



Shipping and Liability

The Customer should be sure that the Dolly is properly crated for shipment. Get a signed receipt from the Shipping Company that will be transporting the Dolly. Keep the receipt from the transport company indicating that the Dolly has been shipped to Chapman/Leonard Studio Equipment, Inc.

When picking up or returning rental gear to Chapman/
Leonard Studio Equipment, Inc., please remember that rentals are due back by 10 a.m. at our North Hollywood facility. The Rental office is open from 7 a.m. to 5 p.m. Monday through Friday and 8 a.m. to 1 p.m. on Saturdays. The Rental bays are located on your left, immediately after entering the studio yard from Raymer Street. Trucks should be backed up to the bays for easier loading. If no bays are available, you can temporarily park on Raymer Street and advise the Rental Office of your arrival. A Customer Service Agent will advise you when a spot opens at the bay.

All drivers should first report to the Rental Staff for paper-work. Unloading will not begin until the paperwork has been picked up and stamped. Our Rental Staff is well trained to process equipment and documents quickly and courteously. It is our intent to get you back on the road in a timely manner.

