

ATS Portable Pier Instructions (Deluxe Model)

Instructions? How complicated is this? Not very, but even smart people sometimes make mistakes.

Requirements

This product fits the second version of the Advanced Telescope Systems Portable Pier. The earliest version of the Portable Pier lacks the 3/8"-16 threaded hole in the base of the tripod legs, and this product requires the threaded hole.

Installation

This product consists of a caster with a 3/8"-16 bolt, a 0.5" thick piece of Delrin through which the bolt is threaded, and a lock washer which sits in a recess on top of the Delrin block. The lock washer is typically taped in place so that it does not get lost. If you don't see a lock washer taped in place, look through the packaging.

If you have the hard rubber footpads already installed, you don't need the black rectangle of Delrin:

1. Carefully unscrew the black rectangle of Delrin from the 3/8"-16 bolt.
2. Turn the Advanced Telescope Systems Portable Pier upside down, so that you can easily access the bottom of each leg.
3. Screw the caster assembly's bolt into the threaded hole in the bottom of the Portable Pier's footpad. Be careful not to cross-thread. You will need 9/16" wrench to turn the bolt head (visible between the wheel and the caster frame).
4. Turn until you can feel tension on the lock washer. This is to make sure that movement and use does not cause the bolt to work loose from the Portable Pier's leg.
5. Repeat for the other two legs.

If you do not have the hard rubber footpads:

1. Turn the Advanced Telescope Systems Portable Pier upside down, so that you can easily access the bottom of each leg.
2. Screw the caster assembly's bolt into the threaded hole in the bottom of the Portable Pier's leg. Be careful not to cross-thread. You will need 9/16" wrench to turn the bolt head (visible between the wheel and the caster frame).
3. Turn until you can feel tension on the lock washer. This is to make sure that movement and use does not cause the bolt to work loose from the Portable Pier's leg.
4. Repeat for the other two legs.

Use & Warnings

Each caster has a wheel and caster lock. Press down on the lever with your foot to lock the wheel. At first, you will probably have to pull up the lever with your fingers to unlock it. With

use, the mechanism will loosen up enough for you to unlock it by pressing on the top with your foot. The wheel and caster lock will not prevent all motion—but you will find that even vigorous shaking of the mount will not cause it to move very much, and it will return to its original position.

These casters are intended for use on solid surfaces, such as concrete, asphalt, and hard packed earth or gravel. We do not recommend using them on sand, dirt, or uneven surfaces—although you may find that they work fine under your particular conditions. The casters are rated by the manufacturer at 260 pounds capacity *each* (for the 4” wheels) or 280 pounds capacity *each* (for the 5” wheels). The casters are not intended to support severe shocks, such as dropping the entire mount several feet onto concrete.

The casters add approximately 5” to the height of your mount (with the 4” wheels) or 6” to the height of your mount (with the 5” wheels). If your mount is on a slope (such as when rolling down a driveway), it is *possible* that the extra height may move the center of gravity sufficiently to increase the risk of tipping. When rolling your mount, make sure that you hold the mount securely to prevent tipping.

IMPORTANT

To prevent pier instability, it is very important that you lock all wheels before collapsing any of the pier legs.

The caster wheels should never be removed, or the pier collapsed, when there is equipment loaded on the pier.

Failure to follow these instructions can result in the damage of astronomy equipment.

Enjoy your caster wheels, but BE SAFE.

Vibration Issues

A *few* customers have had problems with vibration at high magnification. (Most customers have had my experience—even well above 300x, no problem.) If so, tightening the axles can reduce vibration. Take two 9/16” wrenches to opposite ends of the axles, and tighten. If you tighten too much, the wheels won't roll easily.

Construction

The casters and legs are made in the United States of America.

Comments, requests for technical assistance, and suggestions should be directed to:

Clayton E. Cramer
ScopeRoller
36 Sunburst Road
Horseshoe Bend, ID 83629
United States of America
(208) 761-5916
casters@claytoncramer.com