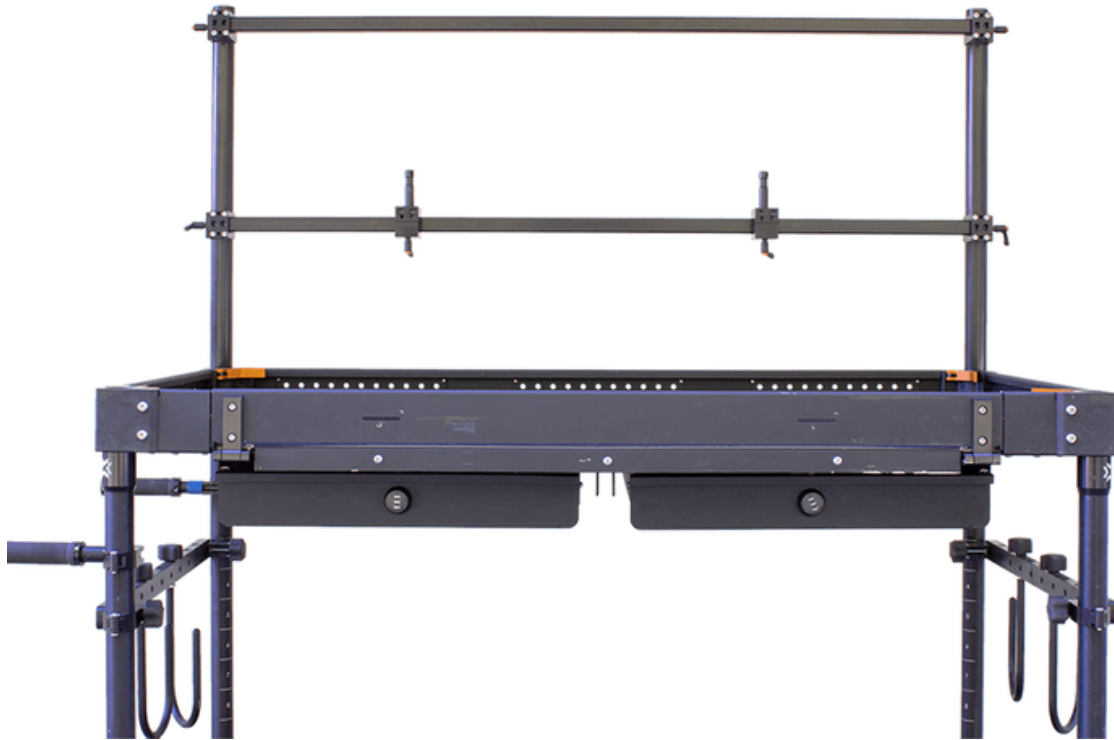




## Whaley Rail II Assembly Instructions

### Inovativ Apollo Cart



Congratulations on receiving your Whaley Rail II system! In order to properly install the Whaley Rail II frame, you will need to follow the provided assembly instructions.

Inovativ Apollo installations make use of the existing corner clamps located on the Apollo cart deck. Whaley Rail 1.5" diameter vertical posts are outfitted with post adapters to clamp into the 1.25" corner clamp.

The Apollo system is designed to make full use of cart width with full length cross rails and 24" vertical posts for more build flexibility in the monitor frame. Build out two to four monitor workstations with ability to also mount wireless flat panels.

#### **Tools Needed:**

- 5-32 or 4mm Hex Key
- 7-32 Hex Key

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05 Cross Rail Assembly

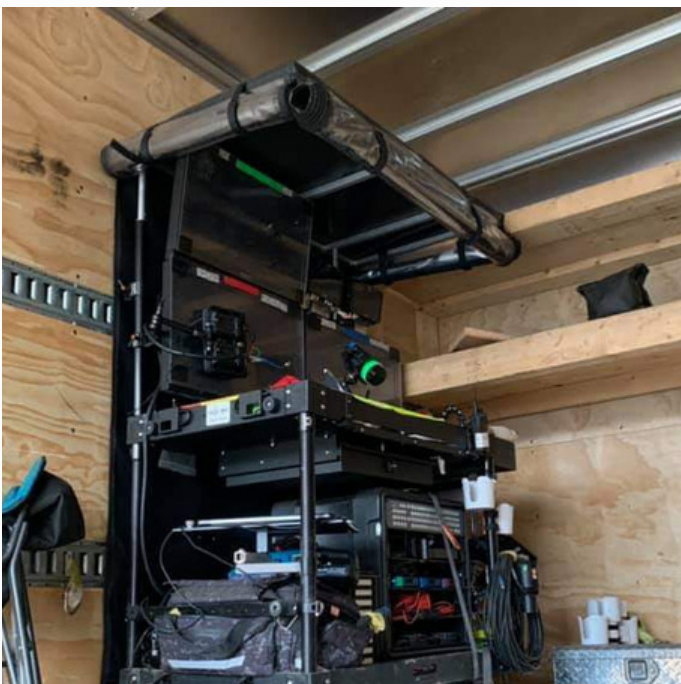
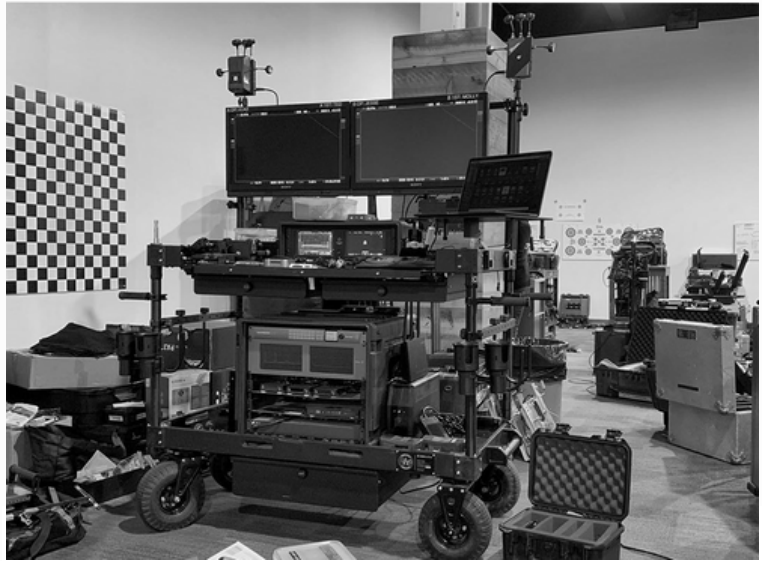
07 Rail Clamp to 5/8 Baby Pin

08 Apollo Whaley Rail Frame Removal

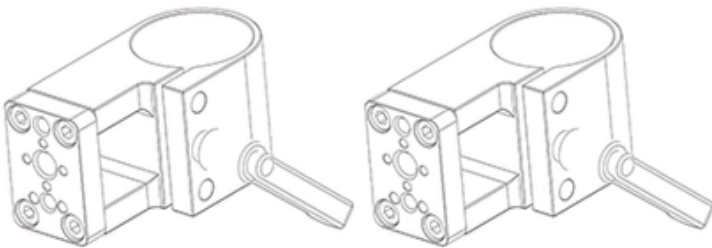
09 Production Monitor Mounting Options

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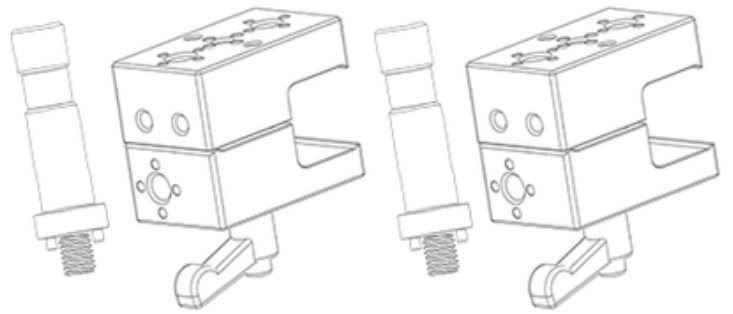
12 Whaley Rail II Accessories



# Apollo Single Rail Base Assembly



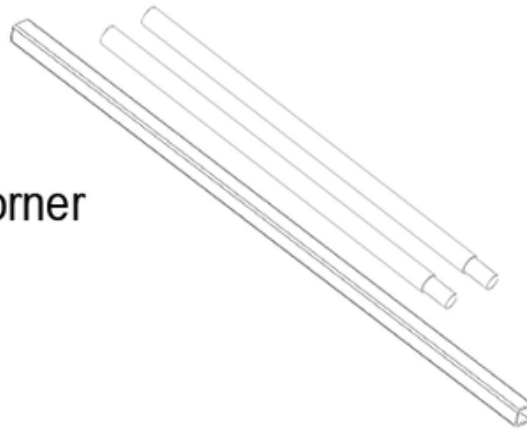
12599 - Corner Rail Clamp



13640- Rail Clamp to  
Whaley Pin-Loc 2.5" Baby Pin

24" Vertical Posts to Apollo Corner  
Clamp Post Adapter

Apollo 40 - 39" Rail  
Apollo 52 - 51" Rail

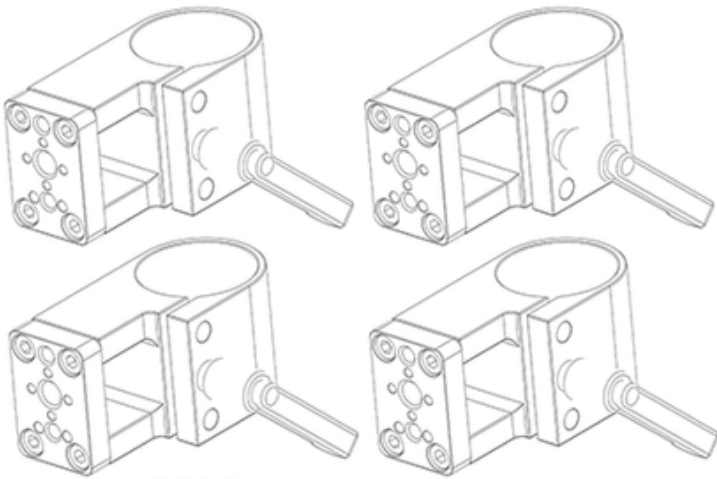


## Weight

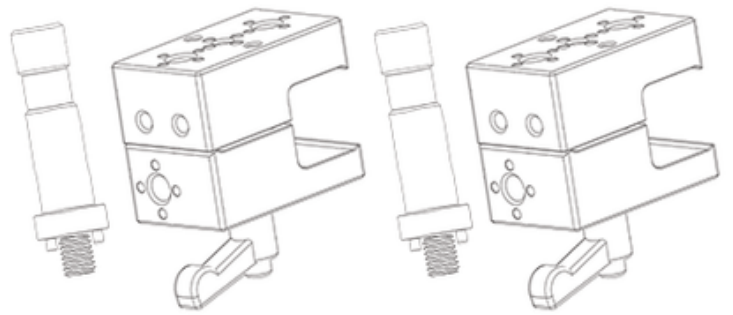
Apollo 40 Single Rail - 3.04kg/6.7lbs

Apollo 52 Single Rail - 3.24kg/7.14lbs

# Apollo Double Rail Base Assembly



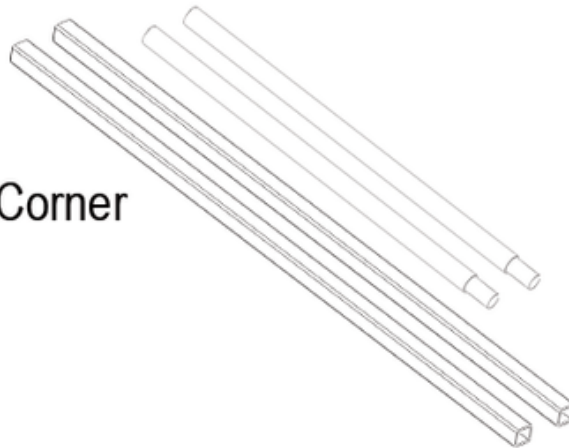
12599 - Corner Rail Clamp



13640- Rail Clamp to  
Whaley Pin-Loc 2.5" Baby Pin

24" Vertical Posts to Apollo Corner  
Clamp Post Adapter

Apollo 40 - 39" Rail  
Apollo 52 - 51" Rail



## Weight

Apollo 40 Double Rail - 4.12kg/9.08lbs

Apollo 52 Double Rail - 4.53kg/9.99lbs

# Apollo Whaley Rail II Assembly Instructions

## Apollo Vertical Post Mounting Instructions:

Our design makes use of the existing corner clamps located on the Apollo cart deck. With cart assembled, follow instructions below.

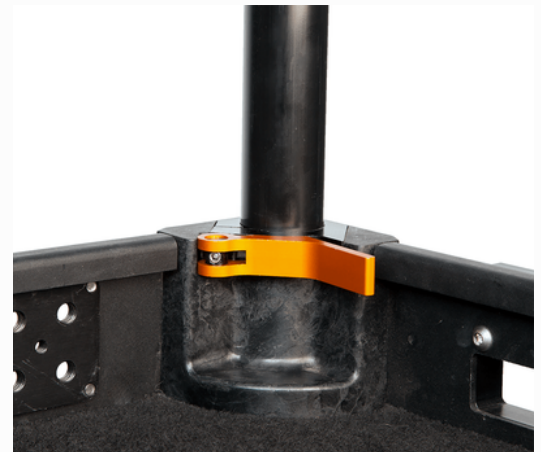
Open the Inovativ cam levers on the corner clamps and remove the orange cap to reveal mounting hole for the Whaley Rail Apollo vertical posts.

Insert the Whaley Rail Apollo vertical posts into both of the corner clamps and tighten cam-lock lever.



Note, the corner clamp may need to be adjusted to solidly clamp the Apollo vertical posts.

The clamp force is adjustable via the cam lever.



## Cross Rail Assembly

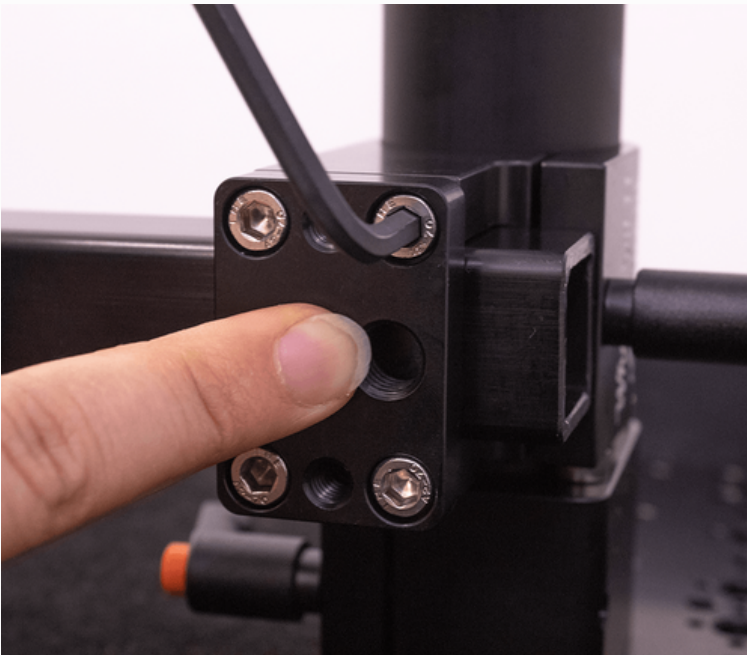
Corner Rail Clamps are either mounted with the cross rails facing either forwards or backwards to the vertical post. Our recommendation for the monitor cross rails is to have them facing forwards (the rounded side is facing towards the back of the cart).

Slide both of the Corner Rail Clamps all the way down each vertical post, resting on the deck post clamp, to install cross rail.

**Installing the rail at this lower position ensures the vertical posts are parallel once frame is assembled.** The recommended position is with the adjustable lever facing outwards, to allow for easy adjusting.

With the clamping mount plate loose, insert the 1" Square Rail into the Corner Rail Clamp on one side before guiding the rail into the second clamp. Center the cross rail ends evenly between the corner rail clamps





With the rail centered, push the clamping mount plate against the rail and tighten the M5 x 16mm SHCS in a criss-cross sequence (alternating between top and bottom screws) to keep the plate flat. Repeat this procedure on both sides prior to fully tightening screws, to ensure balanced mounting.

Once both mounting plates are snug against the rail, tighten the adjustable levers and finish tightening the mounting plate screws.

**Important:** With cart assembled, install the rails at the lowest possible position on the vertical posts. This ensures the vertical posts are parallel once frame is assembled. This will help to slide rails evenly along vertical posts.

For Double Rail setups, assemble the second rail following the above instructions. However, this time you will want to slide the second set of corner rail clamps all the way down the vertical posts to rest on top of the first set of installed corner rail clamps.

Once the rails are mounted and aligned, it should not be necessary to loosen the mounting plate screws. Simply loosen the adjustable levers to adjust the rail height and evenly slide the rails up and down.

**Note:** The rails can become stuck if slid unevenly. If you are unsure which side needs adjustment, measure or compare the heights before you apply any force.



As previously mentioned, and shown in the above image, the cross rails can be mounted either forwards or backwards on the vertical posts. Having the monitor cross rail mounted forwards and the secondary rail mounted backwards, can help to create much needed space behind the monitors, for mounting accessories and components.

**\*Tip:** If the levers are not desired, they can be replaced with provided M6 x 30mm SHCS.



## Rail Clamp to Whaley Pin-Loc Baby Pin

You are now ready to place your rail clamps.

Extremely solid clamp, rated for heavy production monitors.

Check out the Production Monitor Mounting Options section for monitor mounting options.

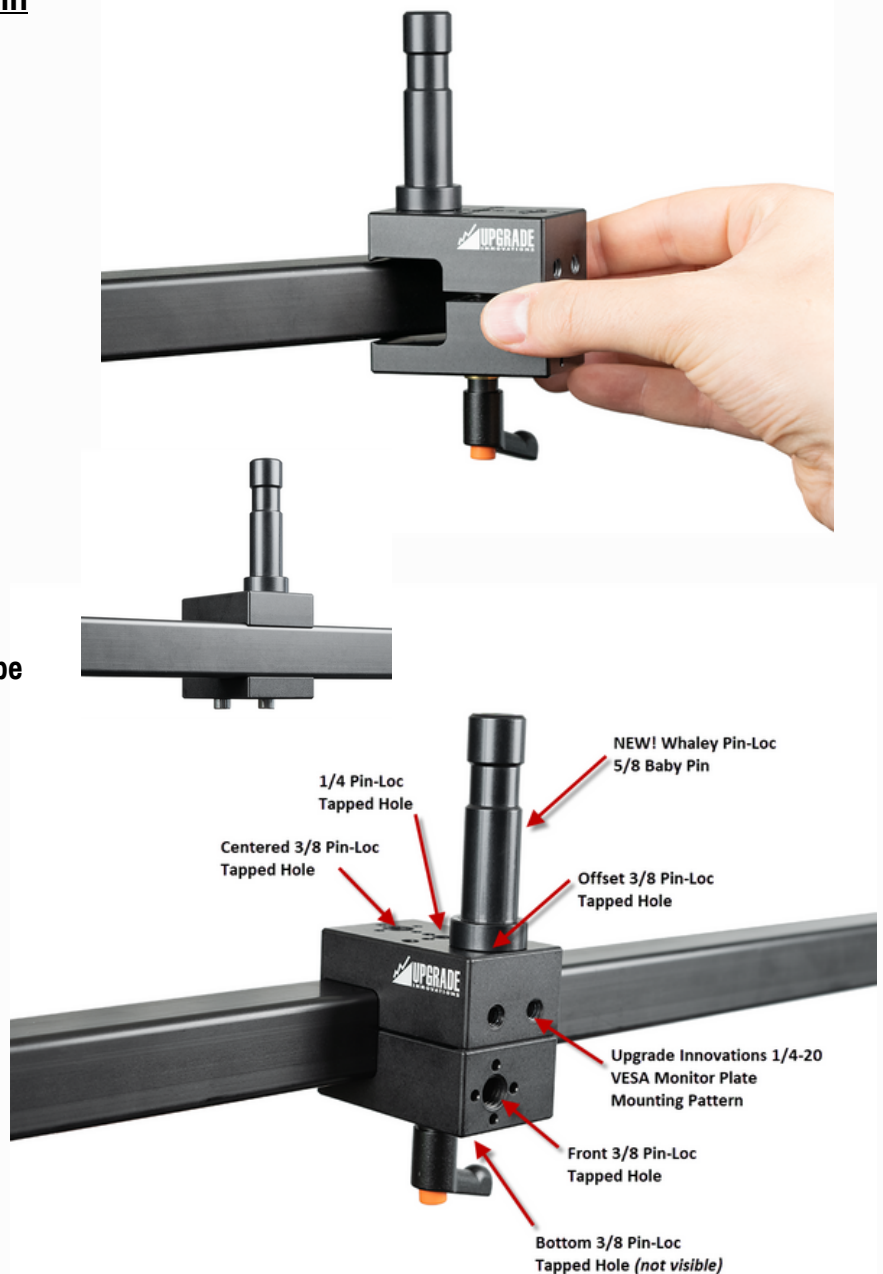
The Rail Clamps are easily placed on the horizontal rails or quick released off with two full turns of the adjustable lever.

**\*Tip: If the levers are not desired, they can be replaced with provided M5 x 40mm SHCS.**

The Whaley Pin-Loc 5/8 Baby Pin can be mounted to the ARRI 3/8-16" pin-loc mounting patterns on the Rail Clamp.

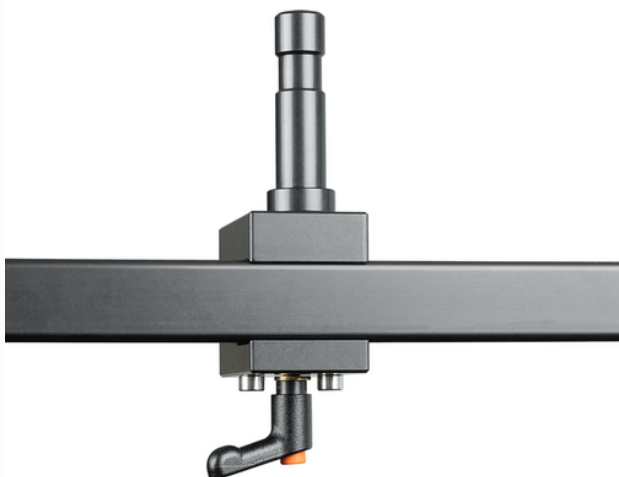
Use a 5/32 or 4mm hex key to tighten the Whaley Pin-Loc 5/8 Baby Pin.

The Rail Clamp has ARRI 3/8-16" pin-loc and SmallHD 1/4-20" pin-loc tapped holes on various sides for further mounting options.



**NEW** – Rail Clamp now features the Whaley Pin-Loc 5/8 Baby Pin. The pin-loc design will prevent baby pin from twisting loose from cart forces/vibration.

**Note:** Whaley Pin-Loc is matching the design of the ARRI pin-loc standard, however with a longer 3/8-16 thread for a more rigid anchor point.



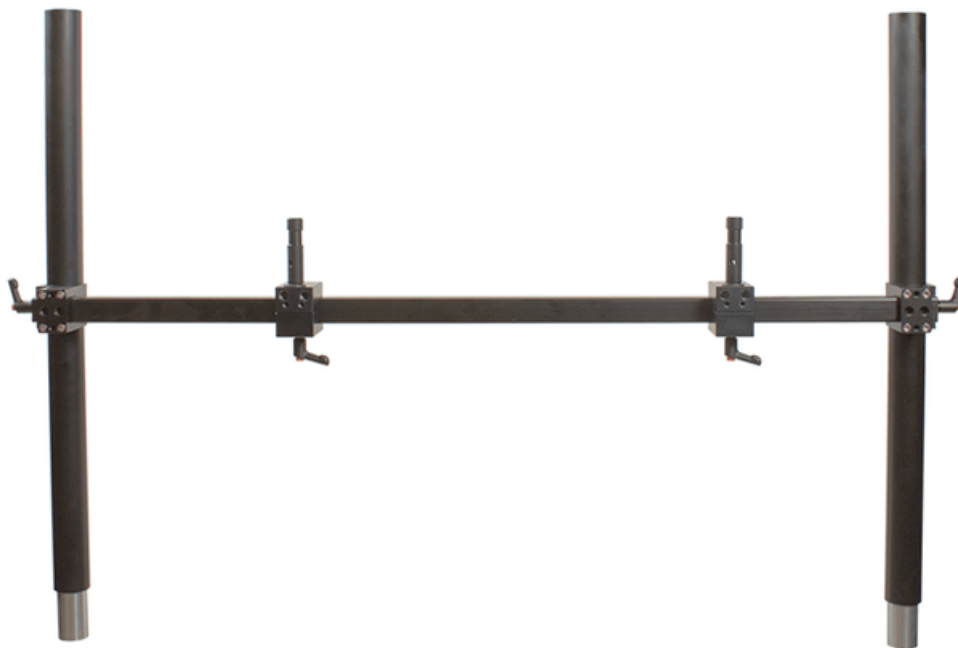
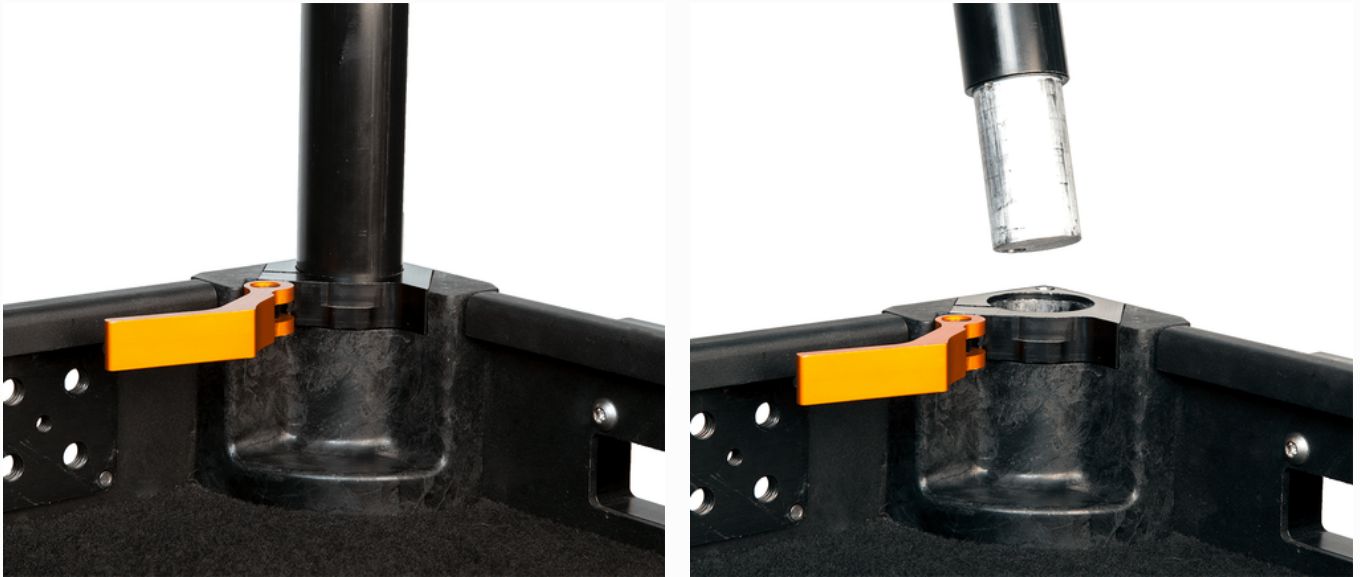
**Setup Tip:** The design of the Rail Clamp is meant to be removable and attached directly to a cross rail as needed, however if a user is looking for a "captive" Rail Clamp setup, this is also possible!

For this setup, the two provided M5 SHCS will need to be used. Apply a bit of removable Loctite to both M5 screws and thread both into the Rail Clamp (best to do this while it is already installed to the cross rail).

Once both screws are tightened, loosen each screw slightly so that when the adjustable lever is loosened, the Rail Clamp can still slide horizontally. The screws will prevent the Rail Clamp from opening fully to disengage from the cross rail, which can be beneficial for some setups!

## Apollo Whaley Rail Frame Removal

For tight locations and moves, release the Whaley Rail frame from the cart deck via the Apollo corner clamps.





## Production Monitor Mounting Options

The Whaley Rail II basic system is outfitted with two Rail Clamps to 2.5" Baby Pins.

For users looking for a complete system, Upgrade Innovations offers professional monitor mounting solutions for mobile and studio applications. See below for various accessories.



### **Rail Clamp to Quick Release VESA Plate**

Mount QR plate directly to Rail Clamp via 1/4-20" mounting pattern.

Incredibly rigid mounting setup.

Quickly release monitors for packing.



### **Rail Clamp to Quick Release - Landscape/Portrait VESA Plate**

Mount QR plate directly to Rail Clamp via 1/4-20" mounting pattern.

Incredibly rigid mounting setup.

Quickly release monitors for packing.



### **MMS09 VESA Monitor Mount to 5/8" Spigot - Ball-Loc**

Available with Standard VESA Monitor Plate, Quick Release, Landscape/Portrait or Quick Release-Landscape/Portrait

**Designed for Mobile/Cart Applications with our positive locking ball-lock hinge system**

## Production Monitor Mounting Options Cont.



### MMS11-MC VESA Monitor Mount to 5/8" Spigot – Twin Ball-Loc

Available with Standard VESA Monitor Plate, Quick Release, Landscape/Portrait or Quick Release-Landscape/Portrait

**Designed for Mobile/Car Applications with our positive locking ball-lock hinge system**

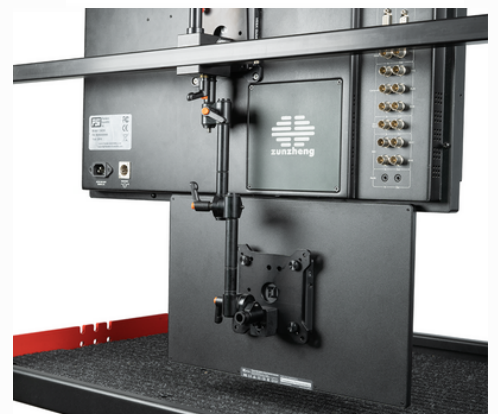
## Onboard Monitor and Accessory Mounting Options

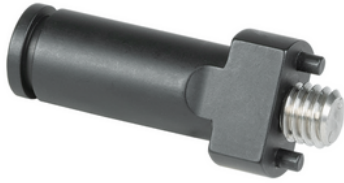


### Rudy Arm Articulating Arm System

Industry tough articulating arm that is built for universal use.

Anchor arm with our positive locking ball-lock pivot clamps, while making use of the friction-lock pivot clamp to set viewing angle on monitor.





**ARRI 3/8 Pin-Loc 15mm Mounting Spud**

Arri 3/8" Pin-Loc compatible, ideal choice for a solid mounting option for 15mm accessories



**SmallHD 1/4 Pin-Loc 15mm Mounting Spud**

The SmallHD 15mm Mounting Spud - 1/4" Pin-loc are specifically machined to securely hold your SmallHD monitors in place. Also compatible with a lot of Upgrade Innovations mounting brackets.



**Leader LV Non-Twist Mounting Plate**

Mount to Leader 5333, 5330, 5381, 5380, 5382 models adding ARRI 3/8" Pin-Lock and SmallHD 1/4 Pin-Lock.



**Leader LV5350 Non-Twist Mounting Plate**

Mount to Leader 5350 models adding ARRI 3/8" Pin-Lock and SmallHD 1/4 Pin-Lock.



**Rudy Arm Pin-Loc Adapter for VESA Plate**

Attaches to our VESA Mounting Plates via the 1/4-20 Flat Head Mounting Pattern to provide industry standard SmallHD 1/4" Pin-Loc and ARRI 3/8" Pin-Loc mounting patterns.



**Cine Mounty 3 Cargo Mounting Plate**

The Cine Mounty 3 is perfect for when you need to solid mount a small monitor. Removable rubber keepers, a built in rubber pad and a 1/4-20 knob screw keep your accessory from twisting loose.

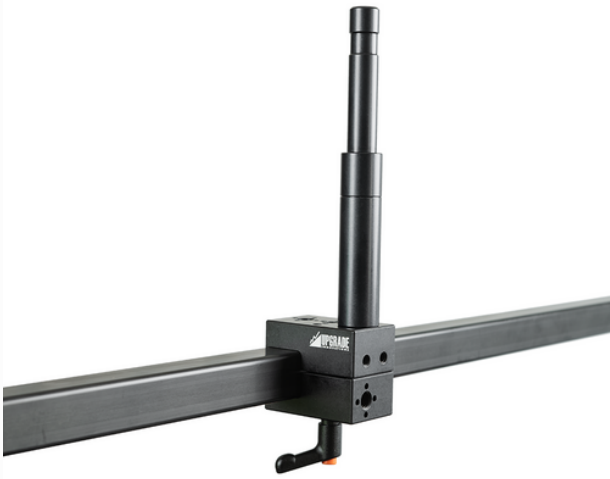
## Whaley Rail II Accessories



### Whaley Rail II – Rail Clamp to 2.5" Whaley Pin-Loc Baby Pin **NEW**

Add additional rail clamps to your system for further mounting options!

The 2.5" long non-twist Whaley Pin-Loc baby pins are also available separately.



### Whaley Rail II – Rail Clamp to 6.6" Whaley Pin-Loc Baby Pin **NEW**

Add additional rail clamps to your system for further mounting options!

The 6.6" long non-twist Whaley Pin-Loc baby pins are also available separately.



### Whaley Rail II – Vertical Post End Plug to 3/8"

End Plug jams into our 1.5" Vertical Post by using a 5/32 or 4mm Allen Key to provide a 3/8" pin-loc tapped hole for mounting further accessories.

