

## Installation Guide

### Kaiser Permanente

### Health Connect Wall Mount Kit for HP Ultra-slim CPU

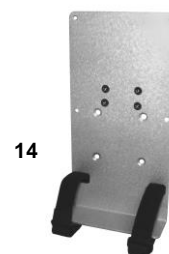
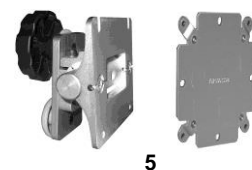
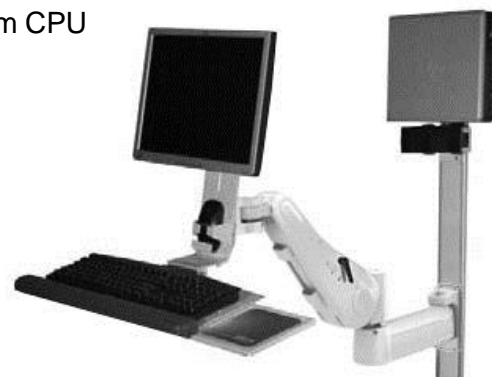
*The purpose of this guide is to:*

1. Describe Installation, Operation, and Maintenance Warnings (page 2)
2. Describe installation of Wall Mount Kit (pages 3 – 8).
3. Describe adjustments of VHM Arm and mounted instruments (pages 9 – 12).
4. Describe Routine Maintenance (page 13).

### Parts Reference

The following parts and hardware are included in this kit (hardware not shown):

Item #	Item Description	Qty
1	Wall Channel, 37" Seismic (not shown) • See Kaiser Template 2000 Standard for Wall Channel Elevation)	1
2	VHM Arm with 8" Extension and Fixed Angle Front End	1
3	Lock Lever	1
4	Folding L-Bracket Assembly	1
5	Heavy Duty (HD) Display Mount w/ Hardware & VESA Adapter	1
6	M4 x 8mm Pan Head Machine Screw (PHMS)	4
7	1/4-28 x 3/4" Flat Head Socket Cap Screw (FHSCS)	2
8	Knob, 5/16-18 Height Adjustment	1
9	Lock Nut, 5/16-18 Nylon	1
10	Teflon Washer, 5/16 x 1.25 x .031	4
11	Fender Washer, 3/8"	2
12	Keyboard Tray	1
13	#10-32 x 5/16" Flat Head Machine Screw (FHMS), 100°	4
14	CPU and Power Supply Flush Mount	1
15	Adjustable Stop	1
16	M4 x 10mm PHMS	4
17	Channel Cable Cover, 18"	1
18	Cable Guide	1
19	Cable Tie, 4"	2
20	5/32" Hex Wrench	1
21	1/8" Hex Wrench	1
22	1/2" [13 mm] socket wrench	1



### Tools Required

Phillips screwdriver (not provided), 1/2" [13mm] socket wrench (provided), 3/4" [19mm] socket wrench (not provided), 5/32" and 1/8" hex wrench (provided).

## Installation, Operation, and Maintenance Warnings

This section contains warnings regarding the installation, operation, and maintenance of the VHM Arm. This section must be read in its entirety before installing, operating, and maintaining the VHM Arm. Failure to follow these warnings may result in damage to equipment or injury to personnel.



### Warnings

Do not position VHM Arm or mounted instrument above a patient. Note that the VHM ARM has a wide range of motion both up/down and side to side. Please consider carefully the instrument being mounted and the proximity of the mounting assembly to other equipment, hospital personnel, and the patient. GCX recommends that the hospital's risk management personnel verify that the application is appropriate prior to installation and use of the VHM Arm.

- If VHM Arm is wall mounted, verify that the channel has been installed and approved in accordance with channel installation guide.
- Ensure that the weight of the instrument being mounted does not exceed the load rating of the VHM Arm. Check the bottom surface of the Arm for "Maximum Load" label. Mounted instrument must be within "*Optimal Weight Range*" for best performance.
- The Height Locking Lever or Knob must be engaged when removing a mounted instrument from the VHM Arm.

- Stand to the side of the VHM Arm and mounted instrument and use caution when disengaging the Height Locking Lever. The total mounted load may have changed due to the addition or removal of equipment (other than primary instrument) while the Height Locking Lever was engaged. A change in the total load can cause a sudden downward or upward movement of the Arm when the Height Locking Lever is disengaged.



- The mounted device may move suddenly due to normal wear or improper adjustment of the tilt and swivel functions or ultimately, gas spring end of life. The VHM Arm must be inspected and adjusted at least two times per year. This inspection must include the following steps:

- 1) With the device mounted, release the lock and move the arm through its entire vertical range of motion. The load should maintain its position at every point in the travel of arm. If necessary, the counterbalance mechanism may be adjusted.
- 2) Grasp the mounted device and swivel it from side to side. The device should swivel with some tension or resistance, not loosely. If necessary, the swivel tension may be adjusted.
- 3) Grasp the Arm and pivot it from side to side at the channel attachment. The arm should pivot with some tension or resistance, not loosely. If necessary, the pivot tension may be adjusted.
- 4) Grasp the mounted device and tilt it forward and back, through its entire range of motion. There should be enough tension or resistance in the tilt mechanism to prevent the device from tilting forward unexpectedly when in use. If necessary, the tilt tension may be adjusted.
- 5) Inspect all remaining fasteners for looseness. Tighten as required for optimal operation and safety.
- 6) The VHM Arm housing must never be disassembled by non-GCX personnel.

Failure to periodically inspect and adjust the Arm as instructed may result in damage to equipment or injury. If properly maintained, the VHM Arm should function properly for 5 to 10 years. If you are unable to adjust the arm or require service, contact GCX technical support at 800-228-2555.

## Installing the Wall Channel

Install Wall Channel in accordance with separate installation guides.

## Mounting the VHM Arm in Wall Channel

Read this Before Installing the Arm:



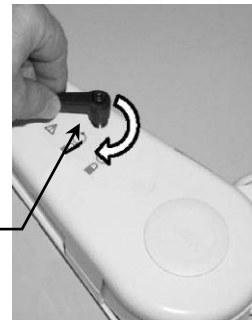
**WARNING! Do not position the Arm or mounted instrument above a patient**

Before the VHM Arm is channel mounted, verify that the channel has been installed and approved in accordance with the channel installation guide. [www.gcxc.com](http://www.gcxc.com) / Support / Wall Channel Installation.

The VHM Arm contains a strong spring which is used to counterbalance the weight of the mounted instrument. The Arm housing must never be disassembled by non-GCX personnel. The Height Locking Lever or Knob must be engaged when removing a mounted instrument from the VHM Arm. Failure to follow these guidelines could result in serious injury.

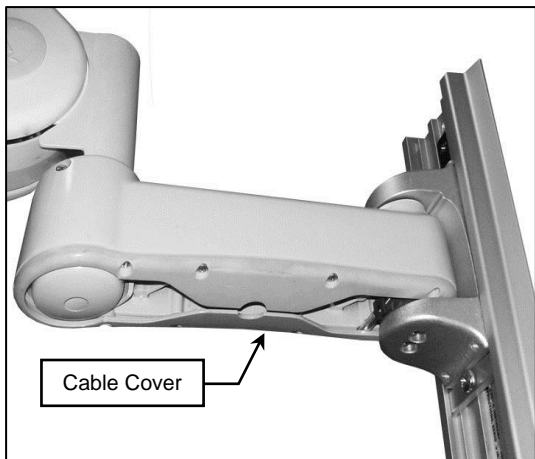
1. Thread the Height Locking Lever into the mounting hole in the right side of the Arm. The Lever operates by turning clockwise to tighten or counterclockwise to loosen. Ensure that the Locking Lever is in the locked position before mounting the Arm in the channel.

Height Lock Lever



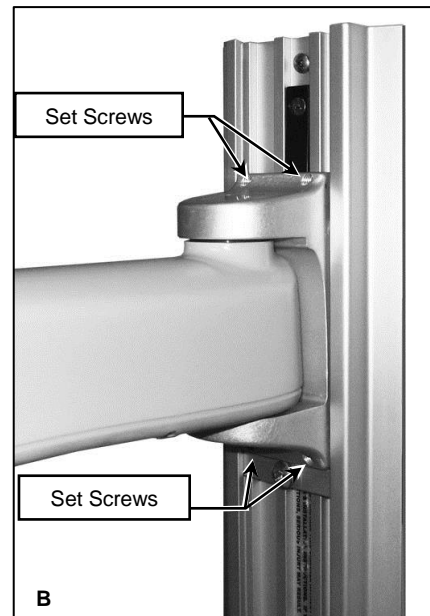
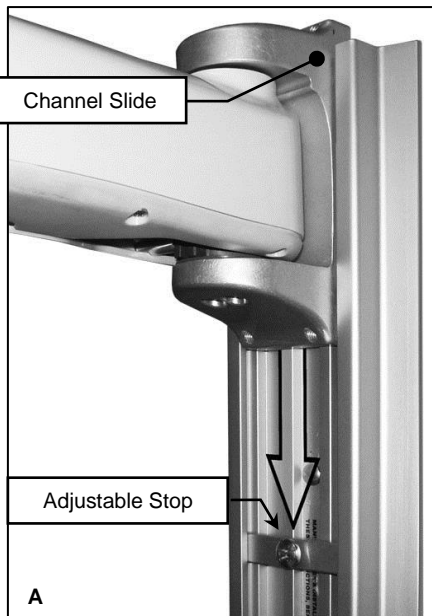
## Installing the VHM Arm with Extension into Channel

1. Install Adjustable Stop in top of Channel, slide to desired mounting position and tighten center screw (A).
2. Guide the Channel Slide (rear of Extension) into the top of the Channel and lower to desired mounting position (A).
3. Using the 1/8" hex wrench provided, tighten the (4) Set Screws in the Channel Slide to secure position (B).



### Warning

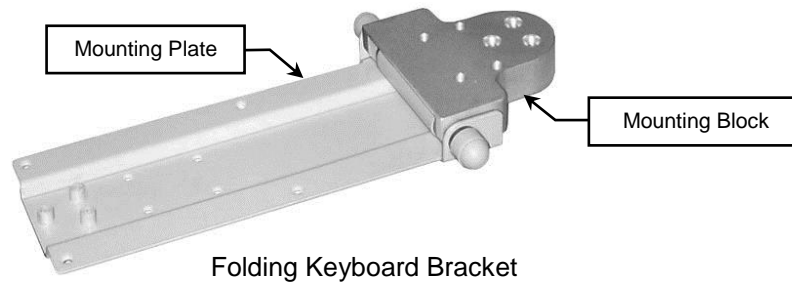
VHM Extension must be mounted with the Cable Cover facing down.



Perform counterbalance adjustment on the VHM Arm (page 9) after all mounting equipment has been installed and devices have been mounted.

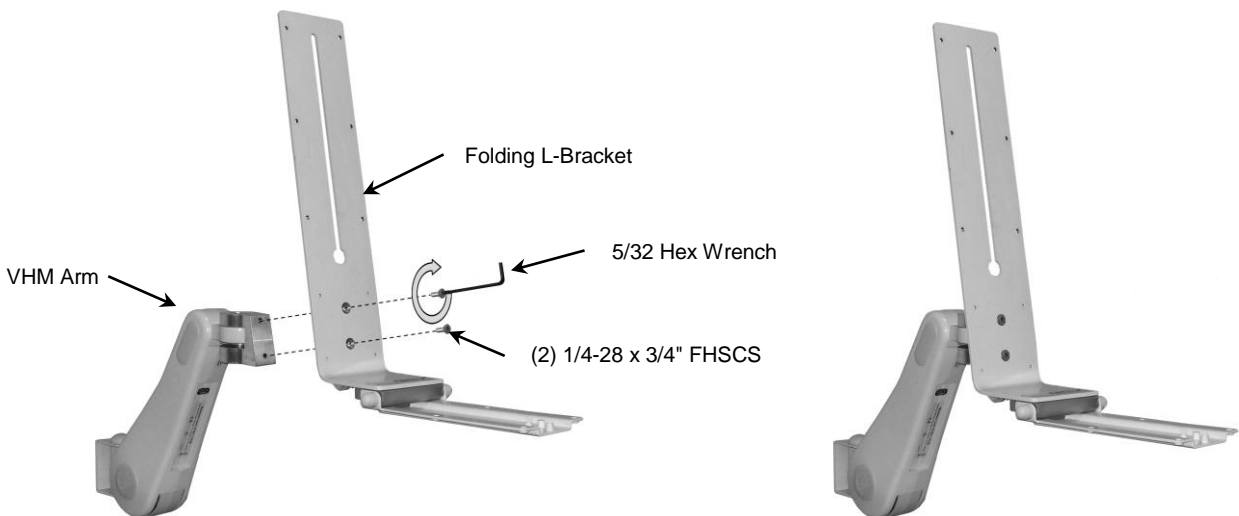


**CAUTION:** Do not place fingers in-between Folding Keyboard Bracket Mounting Block and Mounting Plate surfaces. There is risk of pinching or crushing fingers, especially while installing keyboard tray and adjusting folding tension.



**Installation Note:** VESA Mounting Plate on an M-Series Arm is shown in following illustrations. L-Bracket attachment is identical for VESA Mounting Plate on the VHM Arm

1. Using a 5/32" Hex Wrench, attach folding L- Bracket to VHM arm with (2) 1/4-28 FHSMS



#### Attaching Keyboard Tray to Folding L-Bracket

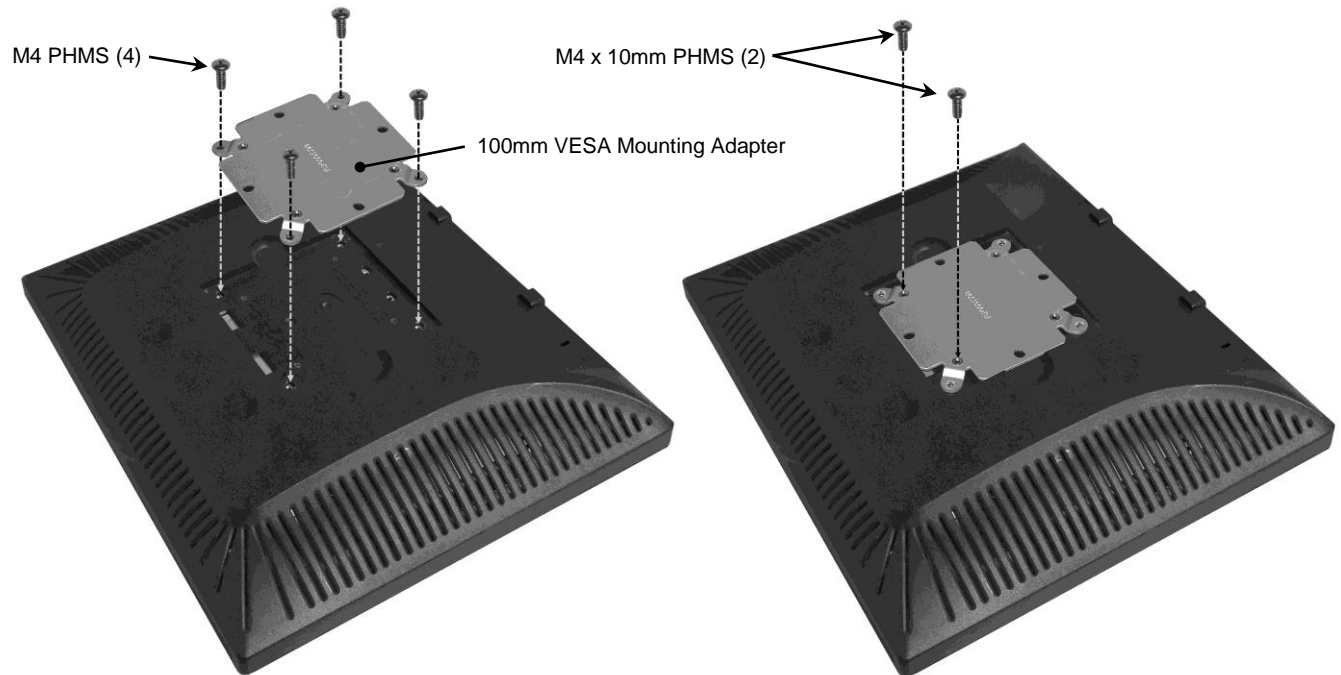
1. Slide Keyboard Tray on to L-Bracket until the (4) mounting holes on the Keyboard tray align with the (4) threaded mounting holes on the L-Bracket.
2. Using a Phillips screwdriver, secure Keyboard Tray to L-Bracket with (4) 10-32 x 5/16 FHMS.



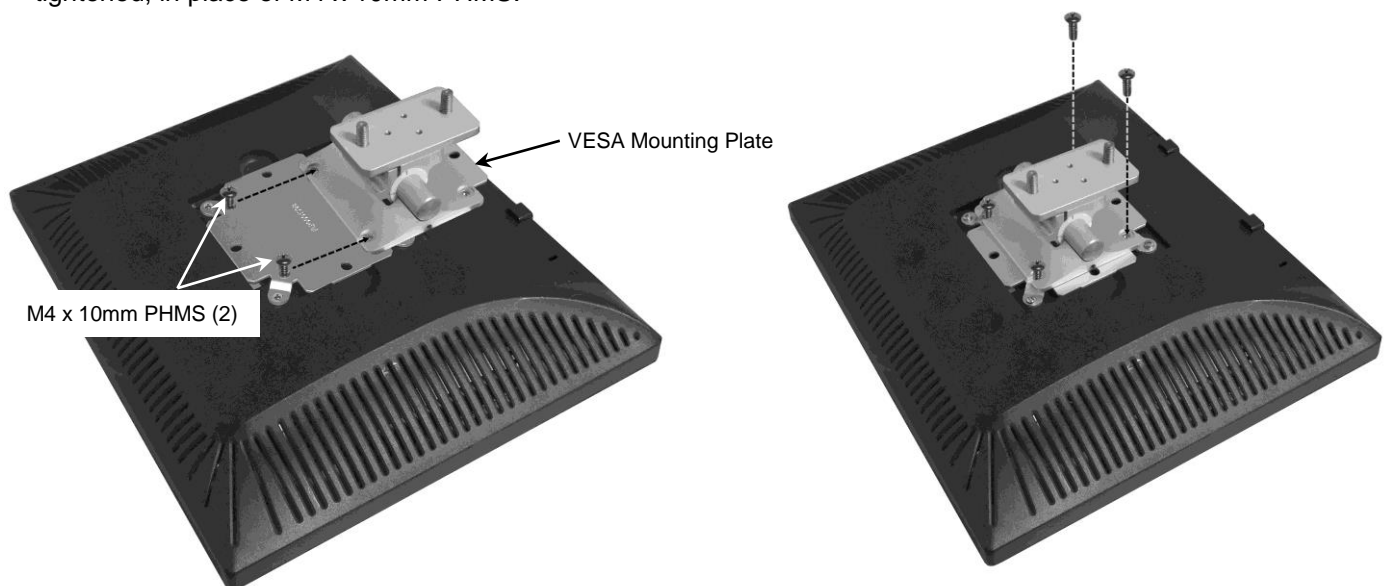
## Attaching the HD Display Mount to a Display

**Installation Note:** If the rear of the display has a 75mm VESA mounting hole pattern, the 100mm VESA Mounting Adapter will not be needed (skip Step 1 below).

1. Using a Phillips screwdriver, fasten the 100mm VESA Mounting Adapter to the 100mm VESA mounting pattern on the rear of the display using four (4) M4 PHMS of the appropriate length.
2. Thread two (2) M4 x 10mm PHMS into the top two (2) threaded holes of the 75 x 75mm mounting pattern, leaving 4mm of thread exposed (approximately 6 full turns from tight). If the 100mm VESA Mounting Adapter is not needed, select the correct length of fasteners to support the display when they are fully tightened in place of the M4 x 10mm PHMS.

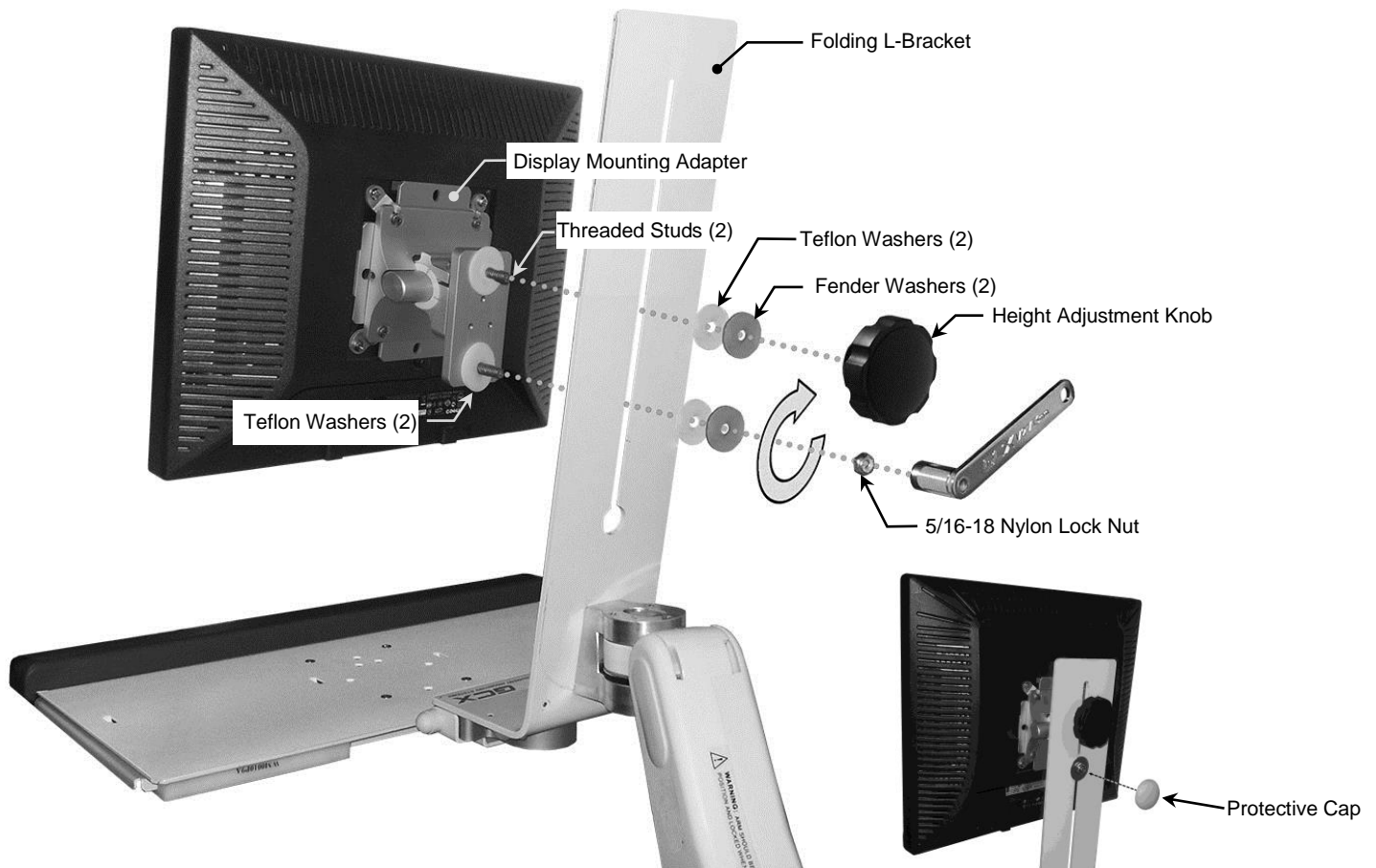


- Position the display onto the VESA Mounting Plate by guiding the screws into the slots in the top of the Mounting Plate (below left). Thread two (2) M4 x 10mm PHMS screws into the lower mounting holes (below right). Tighten all screws. If 100mm VESA adaptor is not needed, select the correct length of fasteners to support the display when they are fully tightened, in place of M4 x 10mm PHMS.



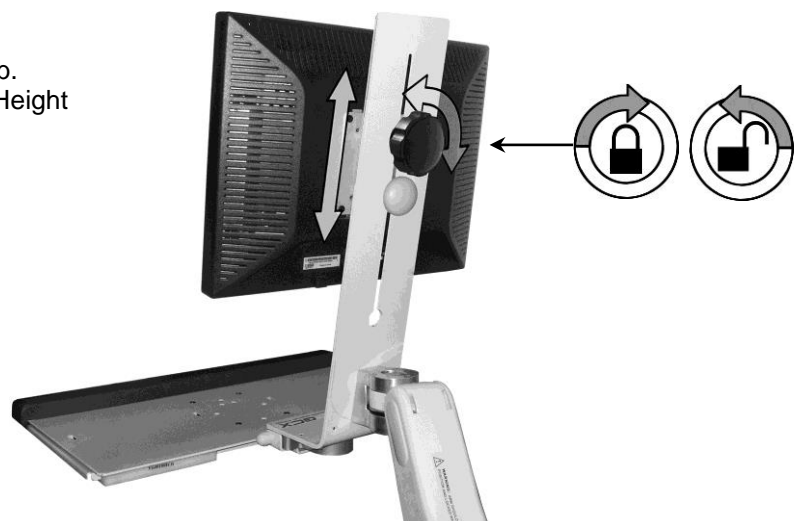
## Mounting Display on Folding L-Bracket

1. Place one (1) Teflon washer over each threaded stud on the Display Mounting Adapter.
2. Insert threaded studs (2) through vertical slot in L-Bracket and rest bottom stud at bottom of slot.
3. Assemble fender washers (2) and Teflon washers (2) over threaded studs.
4. Thread black Height Adjustment Knob onto the upper threaded stud. Thread the 5/16-18 Nylon lock nut onto the lower stud. Using a 1/2" nut driver or wrench, tighten lock nut enough to secure display to Bracket but leave it loose enough to allow movement in vertical slot. Install protective cap over lock nut. Installation Note: Only the Height Adjustment Knob is used to completely tighten the display in vertical position on the Bracket.



## Adjusting the Display

1. While holding Display, loosen Height Adjustment Knob.
2. Move Display to desired vertical position and tighten Height Adjustment Knob.



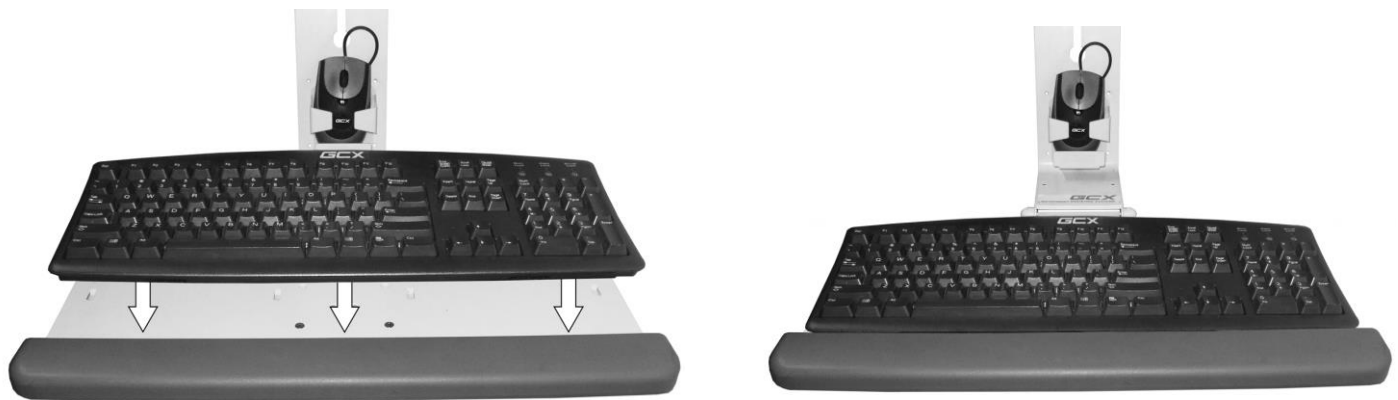
### Attaching Mouse House

1. Remove the backing from the Self Adhesive strip located on the back of the Mouse House.
2. Position Mouse House towards the bottom of the Folding L-Bracket and apply pressure for 30 seconds.



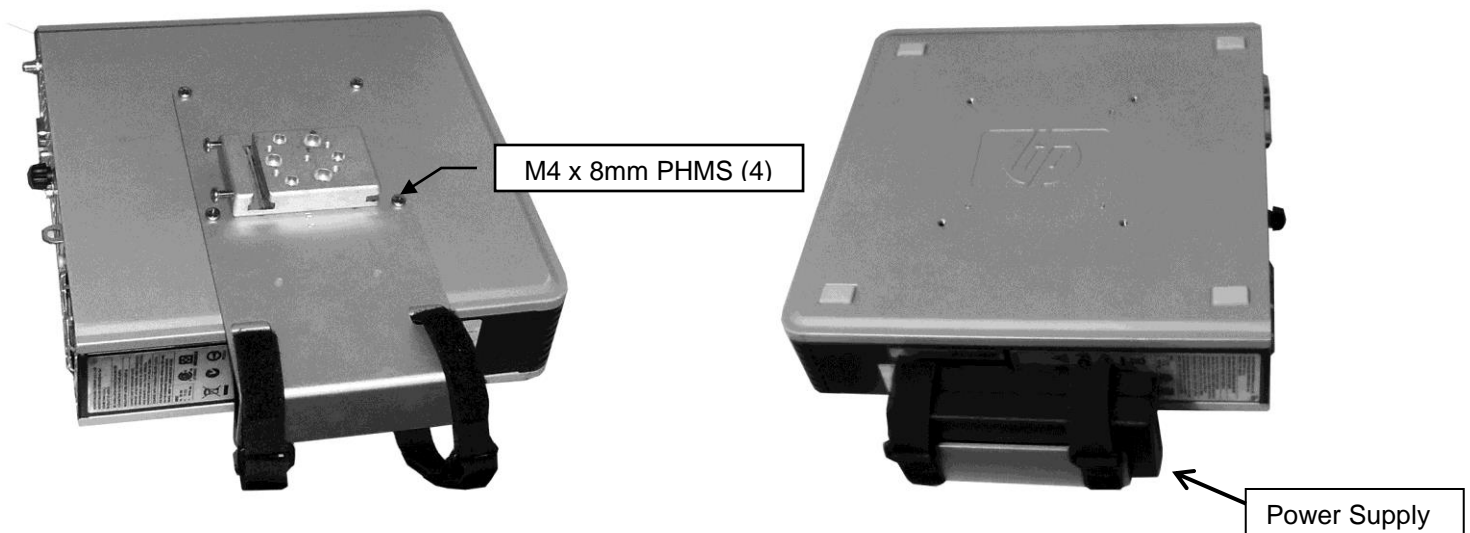
### Attaching Keyboard to Tray

1. Remove the protective backing from the (2) self-adhesive backed strips of Velcro® and apply to the bottom of the Keyboard. Position Keyboard at desired location on Tray and apply pressure to secure.



### Attaching the Slimline CPU and Power Supply to the Flush Mount

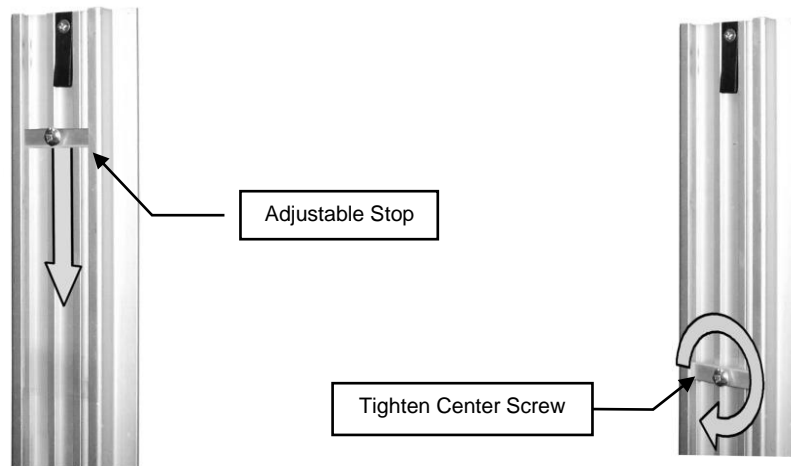
1. Using a Phillips screwdriver, attach Flush Mount to CPU using (4) M4 X 8mm PHMS. CPU can be mounted with connectors to left or right.
2. Attach Power Supply to Flush Mount using the Velcro straps, tighten straps around the flush mount as shown below.



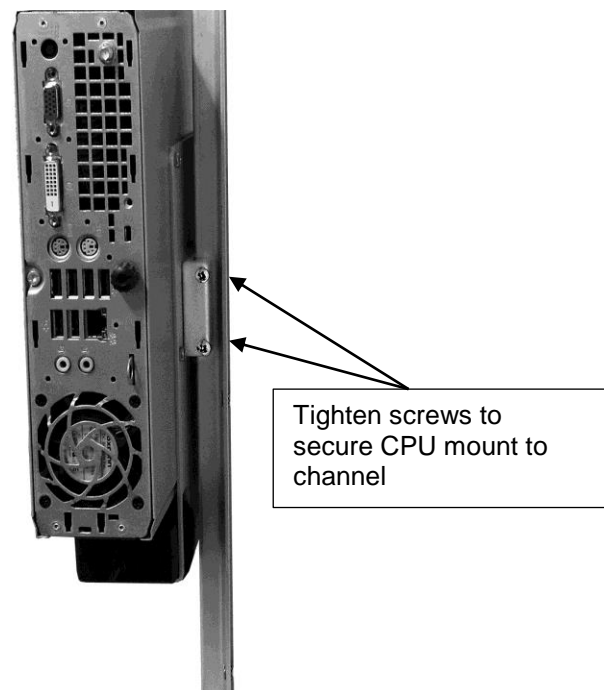


## Mounting the CPU

1. Insert the Adjustable Stop in the top of the Channel (below left) and slide it to the desired CPU-mounting position and tighten center screw in Adjustable Stop.



2. Insert CPU/Power Supply Flush Mount into channel and guide CPU Mount down channel until it rests against the Adjustable Stop.
3. Using a Phillips screwdriver, tighten both screws on right side of mount to secure position.





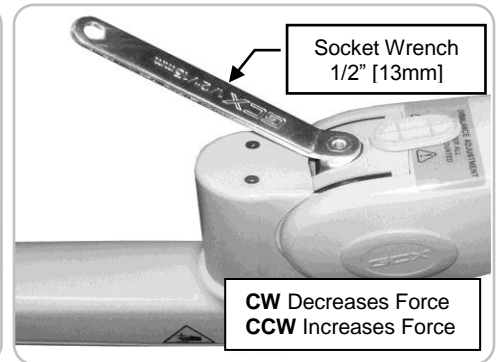
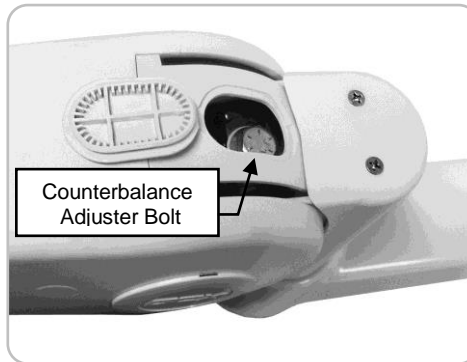
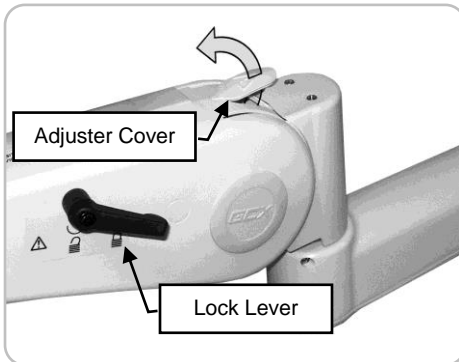
## Adjusting Counterbalance

The VHM Arm must be adjusted to counterbalance the mounted instrument throughout the Arm's vertical range of motion. When properly counterbalanced, the VHM Arm will maintain its height when the Locking Lever or Locking Knob is disengaged. Because instrument weights vary, adjustment will typically be required to achieve optimal performance. A 1/2" [13mm] socket wrench is provided for this critical adjustment.



**WARNING: Do not attempt counterbalance adjustment unless the instrument and accessories are mounted on the Arm. Use caution while performing this procedure.**

1. Grasp the Arm behind the mounted instrument(s) to prevent sudden upward motion. Carefully unlock the Arm and move it to a horizontal position that allows access to the Adjuster Cover (below left). Lock Arm in horizontal position.
2. Open the Adjuster Cover by inserting a flat blade screwdriver in the slot at the rear of the Cover and prying upward. If necessary unlock and readjust the Arm until the Counterbalance Adjuster bolt is accessible through the Adjuster Cover (below center). Lock Arm when Counterbalance Adjuster is accessible.
3. With the 1/2" [13mm] socket wrench on the Adjuster, carefully unlock the arm. Turn the Adjuster *counterclockwise* (CCW) to increase counterbalance force, or *clockwise* (CW) to decrease counterbalance force. Counterbalance is correctly adjusted when the mounted instrument can be moved up or down with minimal force and does not rise or fall after releasing the Arm.

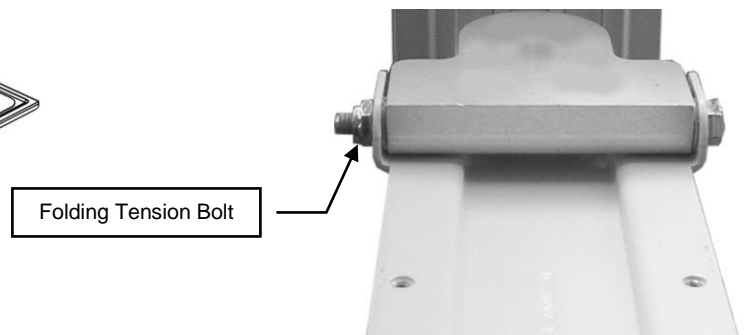
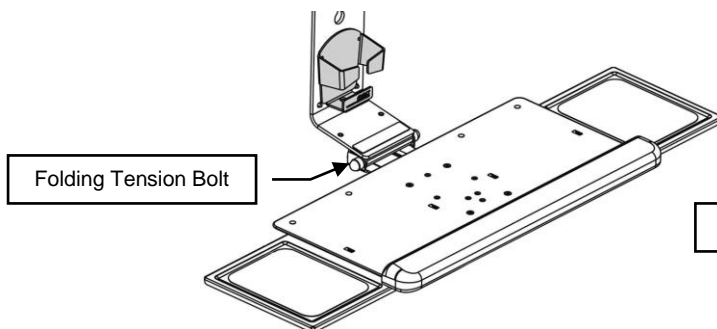


4. Close the Adjuster Cover.

## Adjusting Folding Tension on the Keyboard Bracket

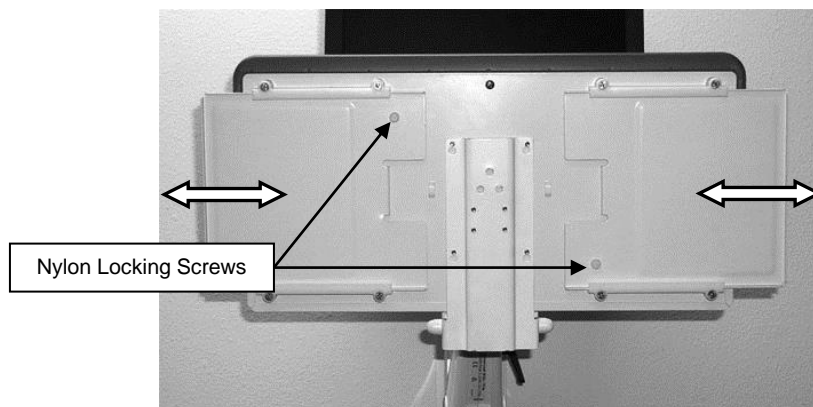
If the Folding Keyboard Bracket becomes difficult to fold or will not maintain the folded (upward) position, adjust folding tension as described below:

1. Pry Plastic bolt covers off each end of the Tension Bolt. Replace bolt covers after adjustment. Using a 1/2" wrench on each end of the bolt, tighten or loosen bolt until desired tension is achieved.



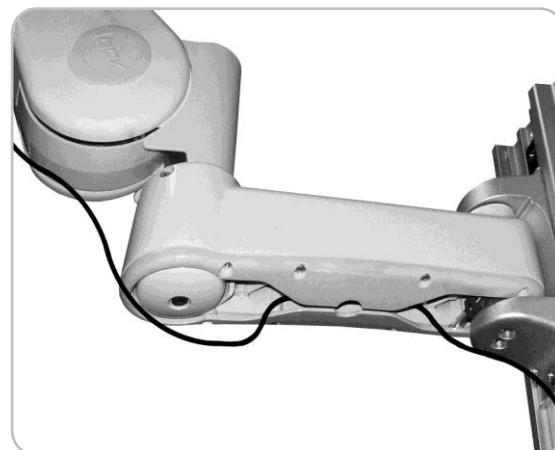
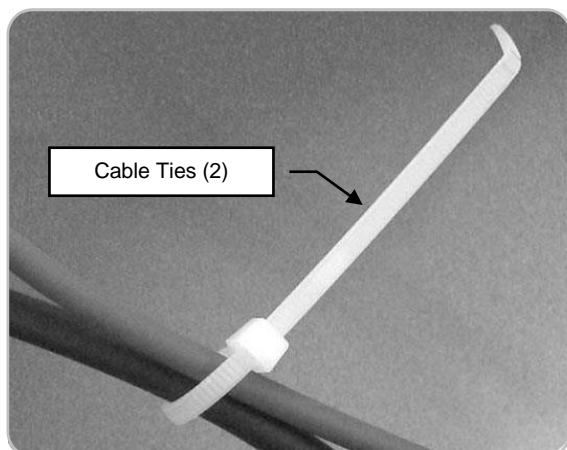
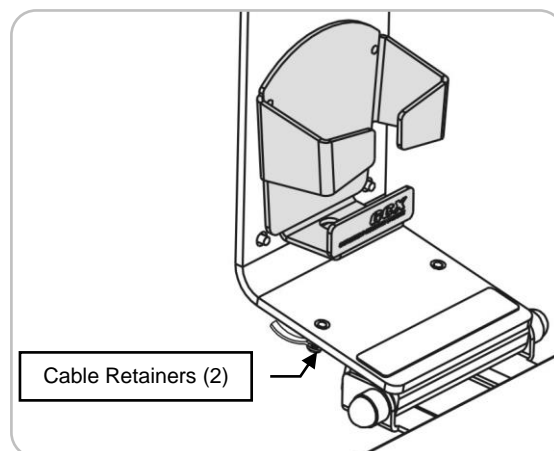
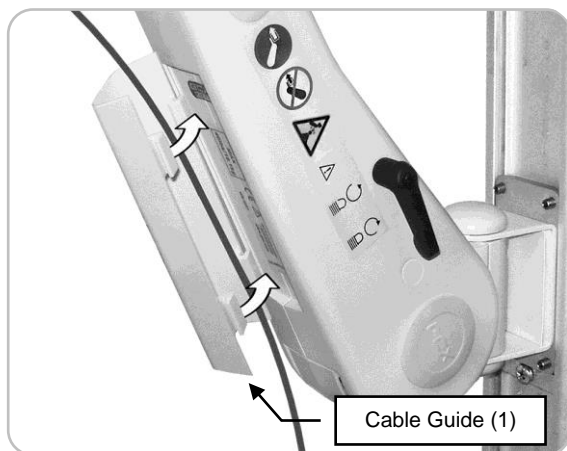
## Locking/Adjusting Mouse Trays

Turn Nylon Screw (shown below) clockwise to lock corresponding Mouse Tray in either inward or outward position.



## Cable Management

- **Channel Cover** (not shown) is provided for routing cables along the Wall Channel. Please refer to installation guide (DU-UT-0001-20) included with Channel Cover.
- **Cable Guide (1)** snaps into grooves on the underside of the Arm as shown below left.
- **Cable Retainers (2)** are provided behind the Folding Keyboard Bracket (below right) for routing keyboard and mouse cables.
- **Nylon Cable Ties (2)** (lower left) are provided for bundling cables together if desired.
- **Extension** An open cavity beneath the extension with flexible cable covers manages cables going between the channel and rear of the arm (lower right).

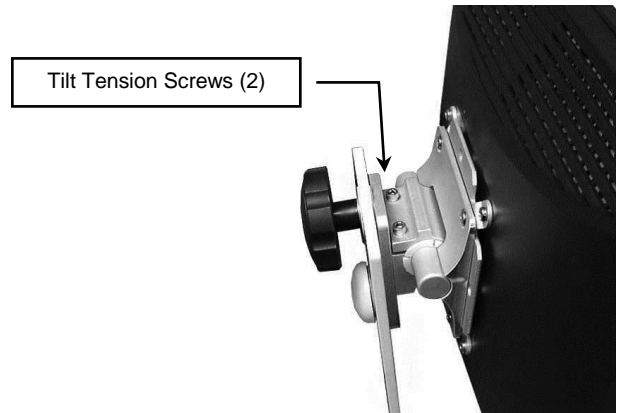


## VHM Arm Adjustments

VHM Arm adjustment procedures are shown on the following two pages. Refer to DU-WS-0001 (provided) for further information about the VHM Arm.

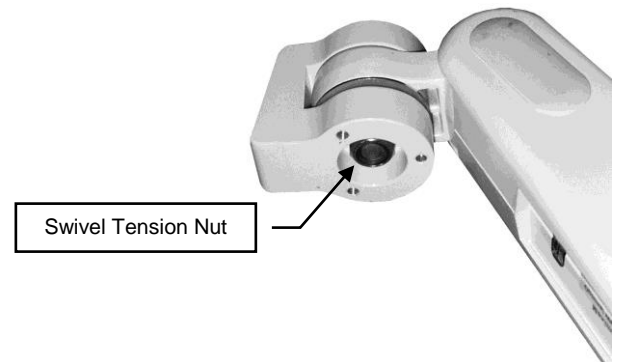
### Adjusting Tilt Tension (Display)

To adjust the tilt tension on the Display Mount, equally loosen or tighten the two (2) Tension Adjustment Screws with the 5/32" Hex Wrench until the desired tension is achieved.



### Adjusting Swivel Tension

Using a 3/4" [19 mm] socket wrench, tighten or loosen the Swivel Tension Nut until desired tension is achieved.



### Adjusting Height of the Mounted Instrument

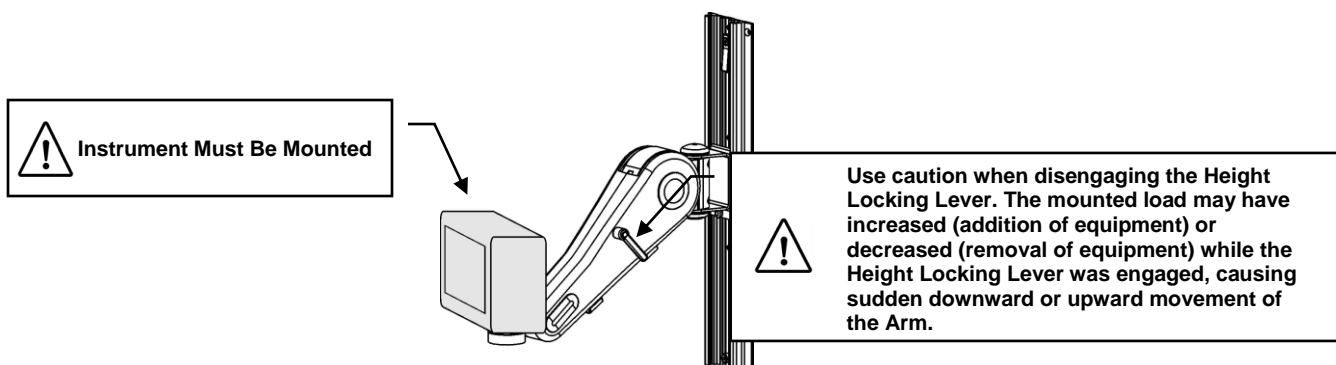


#### WARNING

- Do not attempt to adjust height without instrument being mounted on Arm.
- Use caution when disengaging the Height Locking Lever. The total mounted load may have changed due to the addition or removal of equipment (other than primary instrument) while the Height Locking Lever was engaged. A change in the total load can cause a sudden downward or upward movement of the Arm when the Height Locking Lever is disengaged.

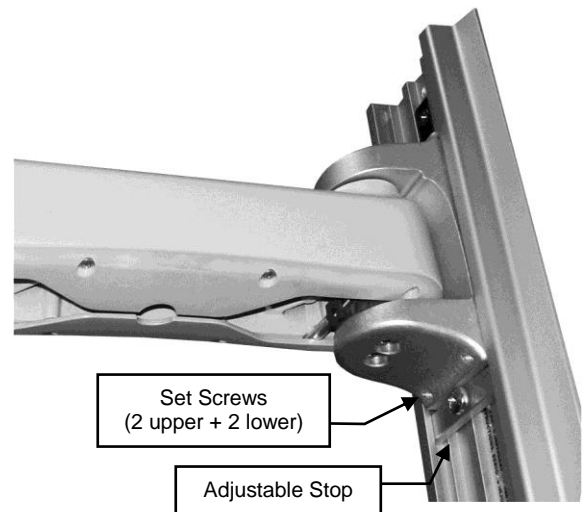
### Height Adjustment

Grasp mounted instrument on sides (or handle) and move to desired height. When Arm is counterbalanced correctly it will maintain position when adjusted to a new height. **Note:** Disengagement/re-engagement of the Height Locking Lever may be necessary during vertical adjustment of mounted instrument (see **WARNING** above). Engagement of the Height Locking Lever is not required during normal operation of the counterbalanced instrument.



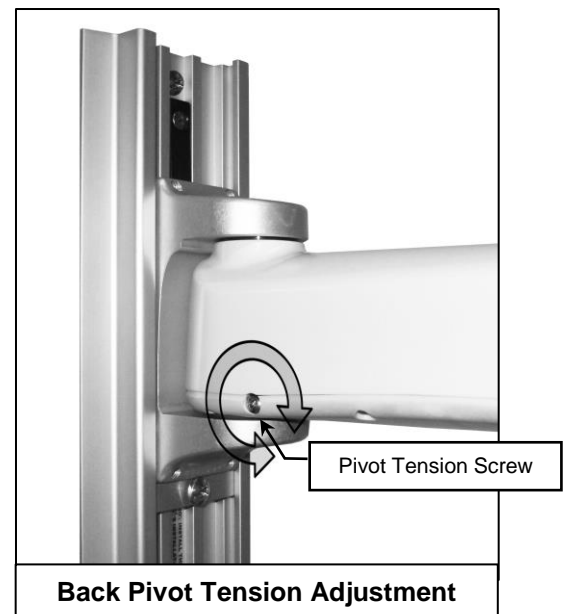
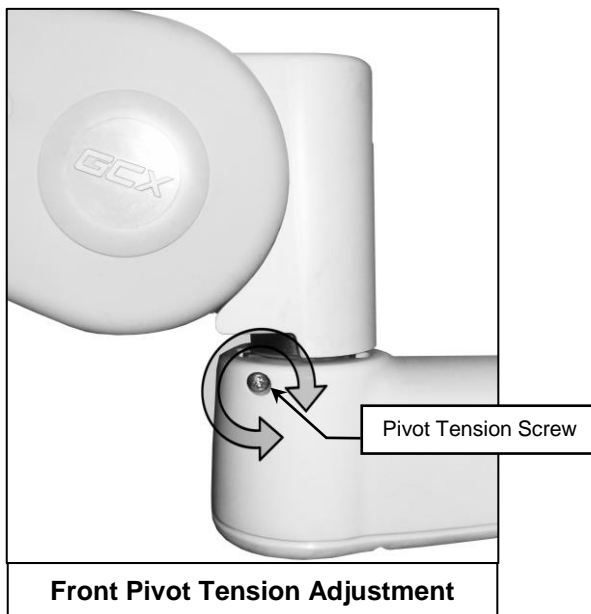
## Positioning VHM Arm in Channel

1. Lock the Arm position using the Height Locking Lever.
2. Using the 1/8" hex wrench provided, loosen four (4) set screws in Slide. The adjustable stop may need to be moved if moving the arm down.
3. Relieve the weight of the mounted instrument by lifting against the underside of the Arm, near the instrument. Simultaneously, push up or pull down on the rear of the Arm immediately in front of the channel slide.
4. Tighten four (4) set screws to secure position. Reposition the adjustable stop and tighten.



## Adjusting Pivot Tension

The VHM Extension has (2) adjustable pivot points. Tension can be adjusted by tightening or loosening the Pivot Tension Screw with a Phillips screwdriver. For optimal performance, Pivot Tension should be adjusted prior to installing monitor or display on to VHM arm. Do not torque the Pivot Tension Screws more than 30 in-lbs.



## **Routine Maintenance**

Periodically inspect all mounting hardware. Tighten or adjust as necessary for optimal operation and safety.

### **Cleaning the Mounting Assembly**

1. The mounting assembly may be cleaned with most mild, non-abrasive solutions commonly used in the hospital environment (e.g. diluted bleach, ammonia, or alcohol solutions).
2. The surface finish will be permanently damaged by strong chemicals and solvents such as acetone and trichloroethylene.
3. Do not use steel wool or other abrasive material to clean the mounting assembly.
4. Damage caused by the use of unapproved substances or processes will not be covered by warranty. We recommend testing of any cleaning solution on a small area of the mounting assembly that is not visible to verify compatibility.
5. Never submerge or allow liquids to enter the mounting assemblies. Wipe any cleaning agents off the mounting assembly immediately using a water-dampened cloth. Dry all mounting assemblies thoroughly after cleaning.

**CAUTION:** GCX makes no claims regarding the efficacy of the listed chemicals or processes as a means for controlling infection. Consult your hospital's infection control officer or epidemiologist. To clean or sterilize mounted instruments or accessory equipment, refer to the specific instructions delivered with those products.