

## Installation & Operation Manual VHM™ Variable Height Series Arms with Fixed Angle Front End

Products covered by this Manual



VHM



VHM with Extension\*



\* Upper Pivot Style



\* Lower Pivot Style

Typical product configuration



VHM without Extension shown with Fixed Angle L-Bracket Channel, L-Bracket, Keyboard Tray sold separately



**Warning-** The combination of VHM and Extension presents a potential pinch hazard at all points and positions where the VHM arm and Extension can come into contact.

**Warning-** Note that the VHM arm has a wide range of motion both up/down and side to side. Please consider potential Pinch Points that may cause personal injury

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

**Installation Note:** See *Installation & Operation Manual for VHM™ Series Arms* (DU-WS-0001) for additional Installation, Maintenance and Safety Information

### **The purpose of this guide is to:**

- Describe parts contained within this kit (page 2).
- Describe installing Adjustable Stop (page 3).
- Describe installing VHM Arm (page 3-4).
- Describe Adjustments, Cable Management and Cleaning (pages 5-7).

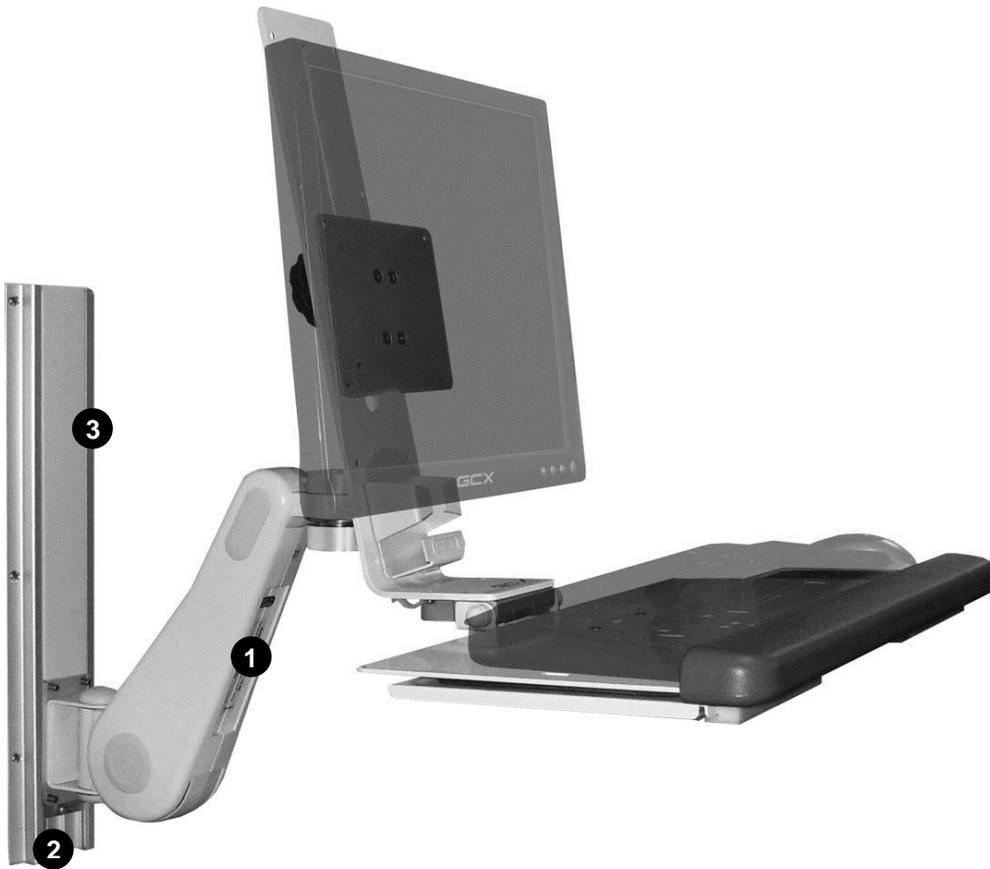
### **Tools Required:**

- Phillips Screwdriver (not provided).
- Hex Wrenches – 3mm, 1/8", (provided).
- 1/2"/13mm Socket Wrench (provided).
- 3/4"/19mm Socket Wrench (not provided).

**Parts Reference:**

The following parts and hardware are included in this kit (hardware not shown—Wall Channel sold separately).

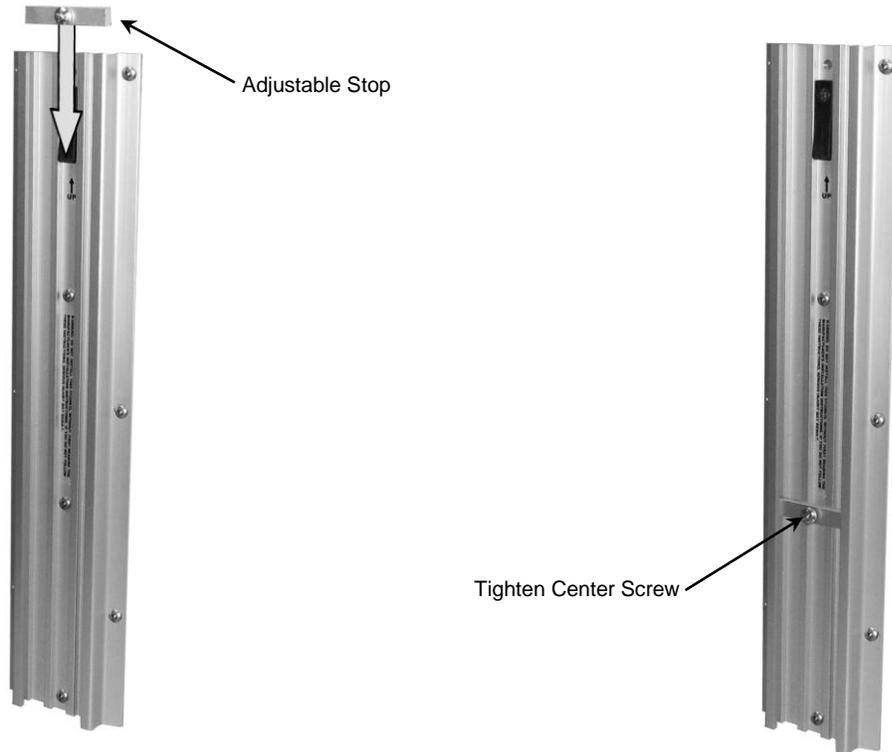
Item #	Description	QTY
1	VHM	1
2	Adjustable Channel Stop	1
3	Wall Channel Cover	1
4	3mm Hex Wrench	1
5	1/8 Hex Wrench	1
6	1/2"-13mm Socket Wrench	1



**Installation Note:** Assembly and Installation of this VHM mounting kit should be followed in the sequence listed in this Installation Guide. Please read this Installation Guide prior to installing or using this product.

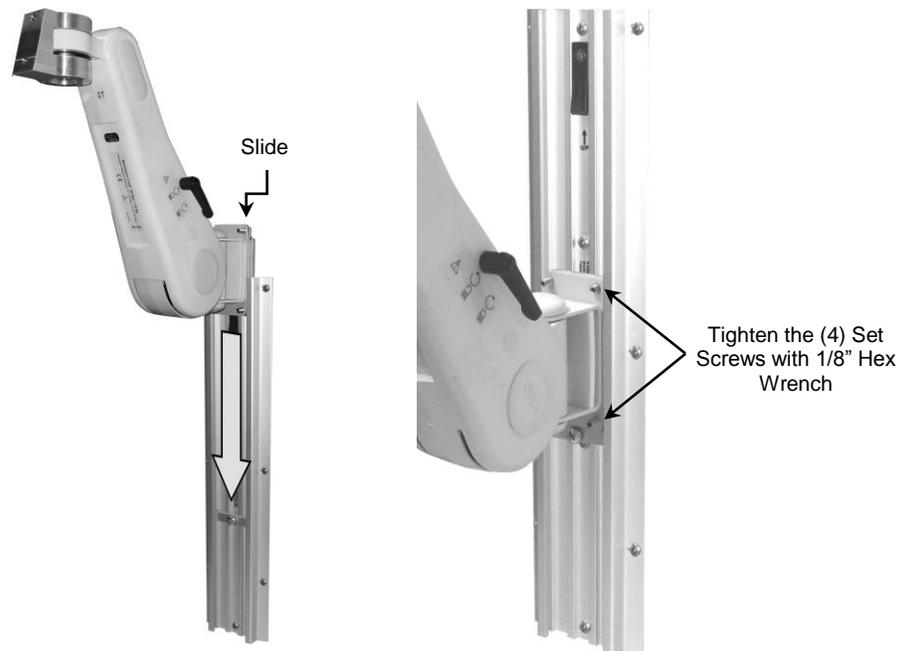
## Installing Adjustable Stop

1. Install Adjustable Stop in top of Channel, slide to desired mounting position and tighten center screw.



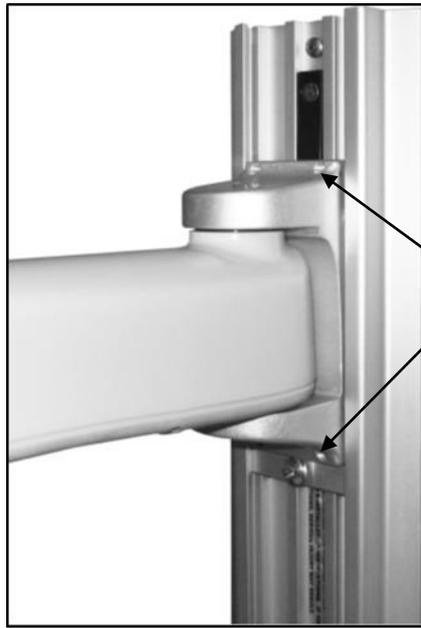
## Installing VHM without Extension Arm into Channel

1. Guide the Slide (rear of Arm) into top of the Channel and lower Arm to desired height. Tighten the (4) Set Screws with 1/8" hex wrench to secure position.

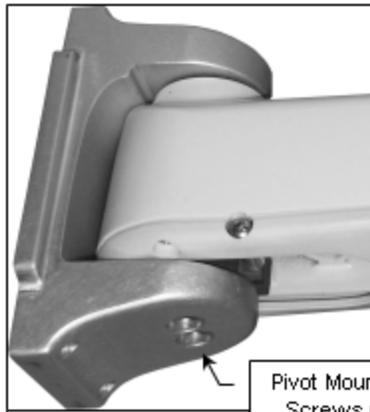


## Installing VHM with Extension Arm into Channel

1. Guide the Slide (rear of Arm) into top of the Channel and lower Arm to desired height. Tighten the (4) Set Screws with 1/8" hex wrench to secure position.



Tighten the (4) Set  
Screws with 1/8" Hex  
Wrench



Pivot Mounting  
Screws (2)

 **Warning**  
VHM Extension must be  
mounted with the 2 Pivot  
Mounting screws in the  
channel slide facing down.

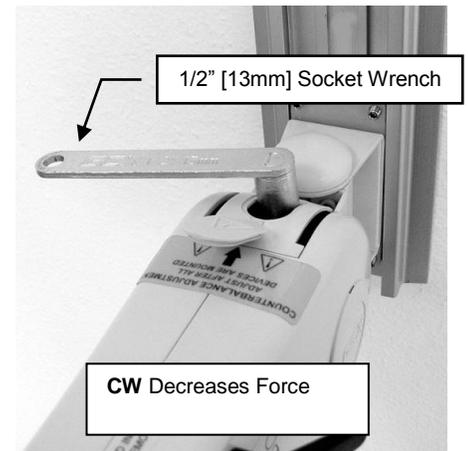
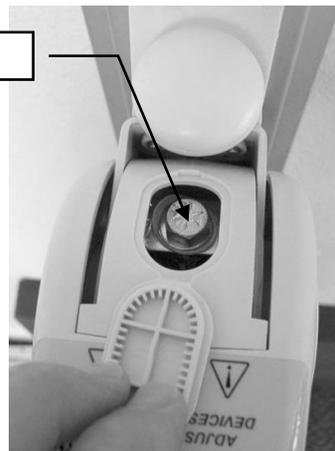
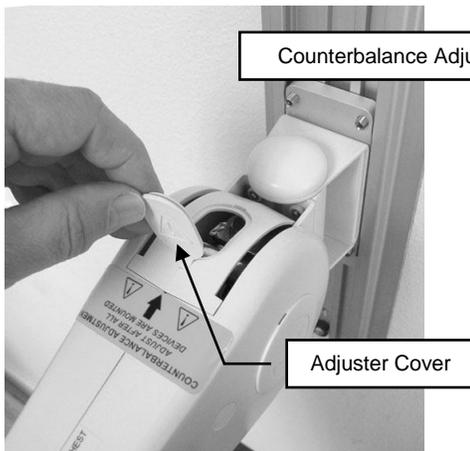
## Adjusting Counterbalance

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.**

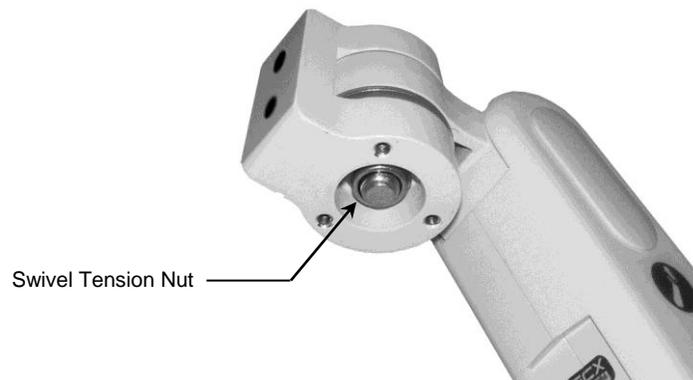
1. Grasp the Arm behind the mounted instrument(s) to prevent sudden upward motion. Carefully unlock the Arm and move it to a horizontal position that allows access to the Adjuster Cover (below left). Lock Arm in horizontal position.
2. Open the Adjuster Cover by inserting a flat blade screwdriver in 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 Swivel Tension

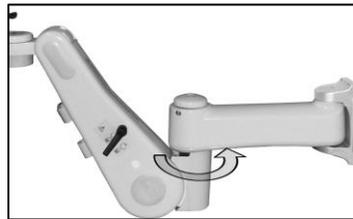
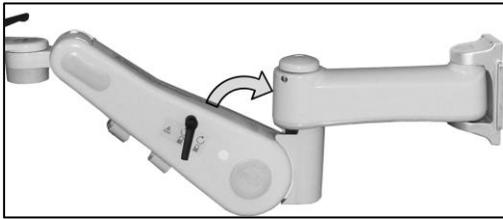
1. To adjust the swivel tension, tighten or loosen the Swivel Tension Nut with a 3/4"-19mm socket wrench. VHM shown without L-Bracket for detail purposes.



## VHM with Extension Pivot Tension Adjustment

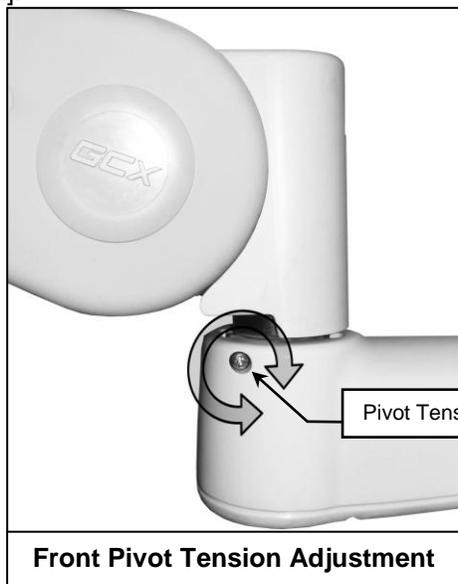


**Warning-** Note that the VHM arm has a wide range of motion both up/down and side to side. Please consider potential Pinch Points that may cause personal injury.

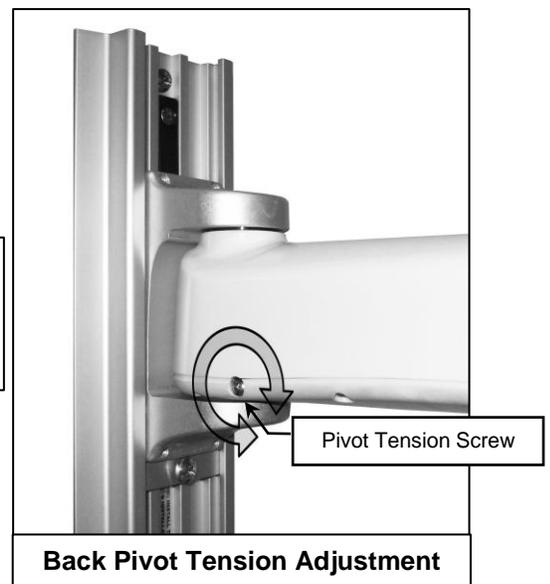


## VHM with Extension Pivot Tension Adjustment

1. The VHM Extension has (2) adjustable pivot points. Tension can be adjusted desired setting by tightening or loosening the Pivot Tension Screw with a Phillips screwdriver. Do not torque the Pivot Tension Screws more than 30 in-lbs [3.4 N-m].



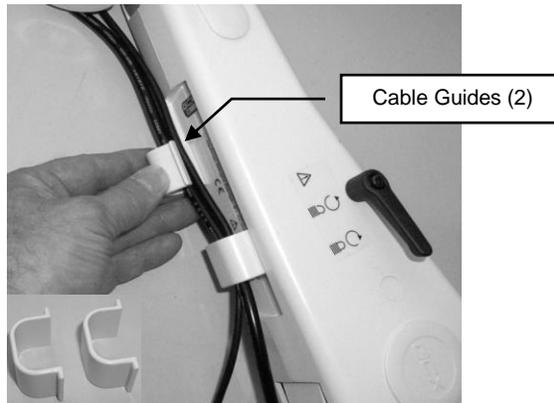
 **Caution**  
Pivot Tension Screws Max torque 30 in-lbs [3.4 N-m].



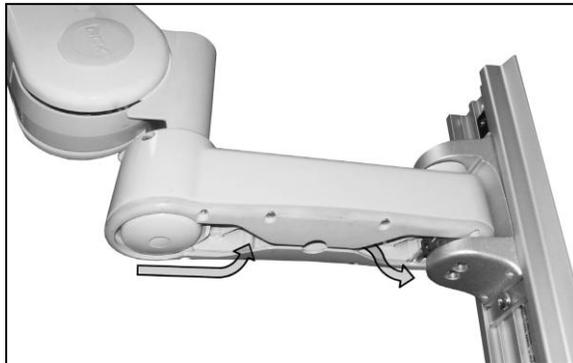
**Installation Note:** See *Installation & Operation Manual for VHM™ Series Arms (DU-WS-0001)* for additional Installation, Maintenance and Safety Information.

## Cable Management

- **Channel Covers** (not shown) are provided for routing cables along the Wall Channel. Please refer to installation guide (DU-UT-0001-20) included with Channel Covers.
- **Cable Guides (2)** snap into grooves on the underside of the Arm as shown below.



- **VHM with Extension:** An open cavity beneath the extension with flexible cable covers manages cables going between the channel and rear of the VHM arm.



## Routine Maintenance

Periodically check all mounting hardware. Tighten as necessary for optimal operation.

## Cleaning the Mounting Assembly

**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.

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 recommended that you test any cleaning solution on a small area of the arm that is not visible to verify compatibility.
5. Never submerge or allow liquids to enter the mounting assemblies. Wipe any cleaning agents off of the mounting assemblies immediately, using a water-dampened cloth. Dry parts thoroughly after cleaning.