

## Installation Guide

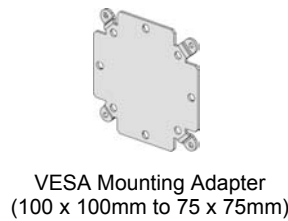
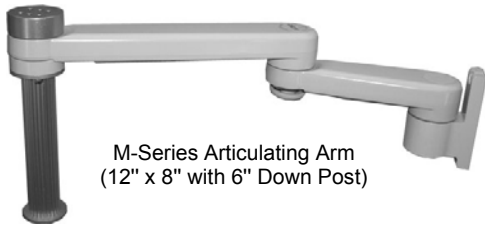
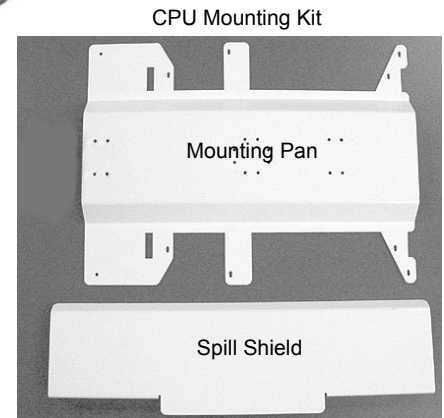
### Philips MP90 Dual Display Mounting Kit for Dräger Apollo Anesthesia Machine

The purpose of this guide is to describe installation of the Mounting Kit on the anesthesia machine.

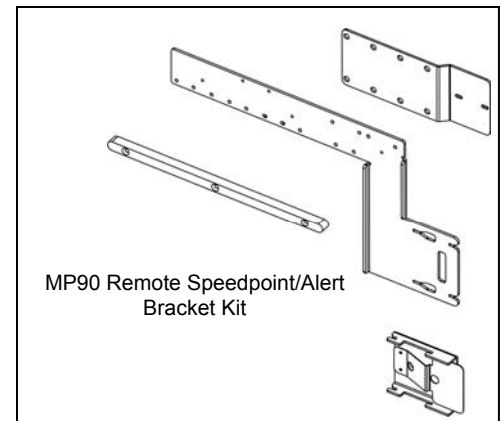
#### Parts Reference

The following separate installation kits comprise the MP90 installation kit (major kit parts shown below – hardware not shown).

Item #	Description	Qty
1	M-Series Articulating Arm (12" x 8") with 6" Down Post	1
2	Top Plate/15" Channel Assembly (includes hardware & installation guide)	1
3	Dual Channel Column with Horizontal Mounting Slide	1
4	Dual Display Mounting Bar with Flush Mount	1
5	Display/Remote Speedpoint Mounting Kit (includes hardware & installation guide)	1
6	VESA Mounting Adapter (includes hardware & installation guide)	2
7	Remote Speedpoint Clamp Bracket (includes hardware & installation guide)	1
8	CPU Mounting Kit (includes hardware & installation guide)	1



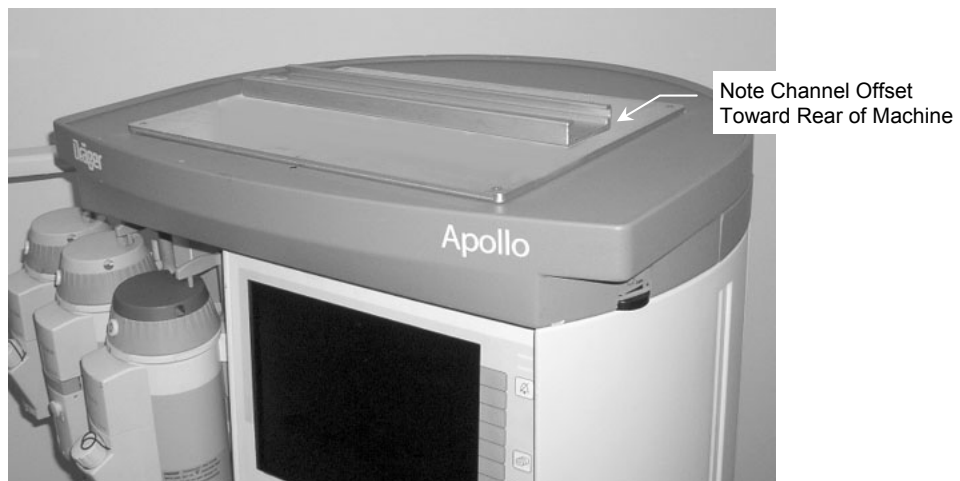
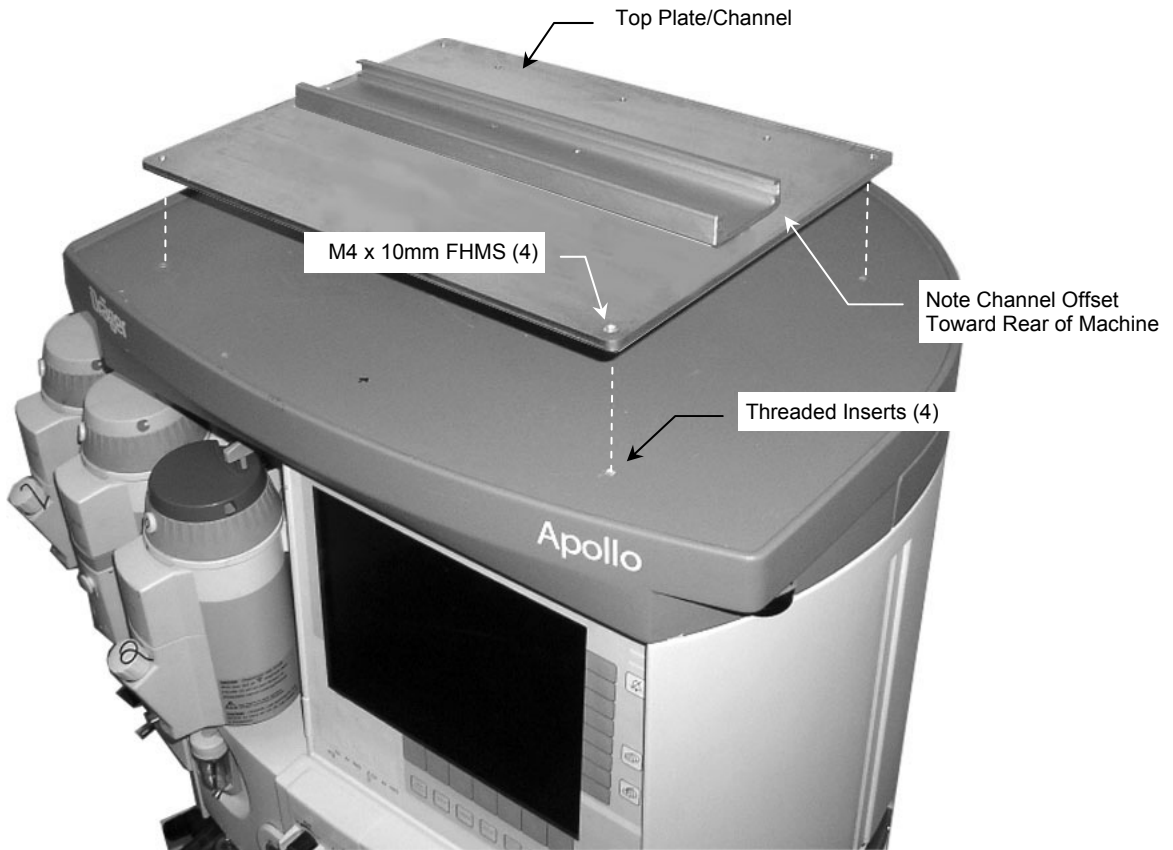
**Tools Required:** 1/8", 5/32" hex wrenches (provided), Phillips screwdriver (not provided), and 1/2" [13mm] wrench (not provided).



## Attaching the Top Plate/15" Channel

**Installation Note:** Do not use the installation procedure included with the Top Plate/15" Channel. For this application, the Channel must be offset toward the rear of the machine as described below.

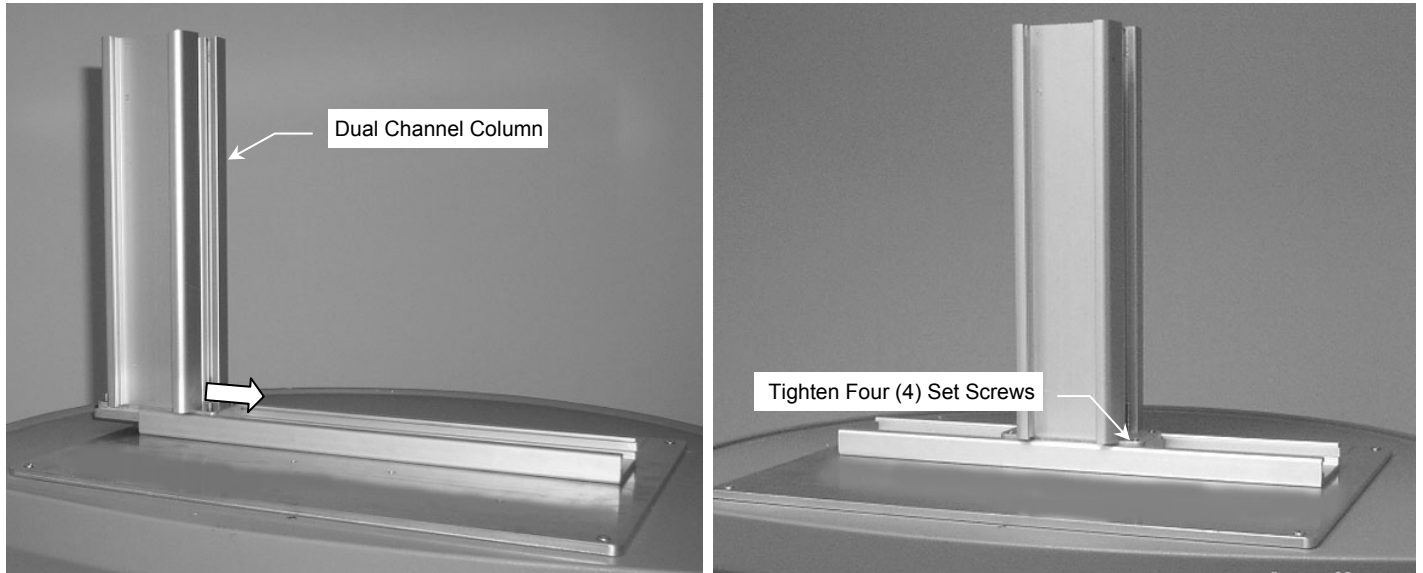
1. Ensure Channel is offset toward rear of machine and fasten Top Plate to corresponding threaded inserts with four (4) M4 x 10mm Flat Head Machine Screws (FHMS) as shown below.



## Mounting the Dual Channel Column in the Channel

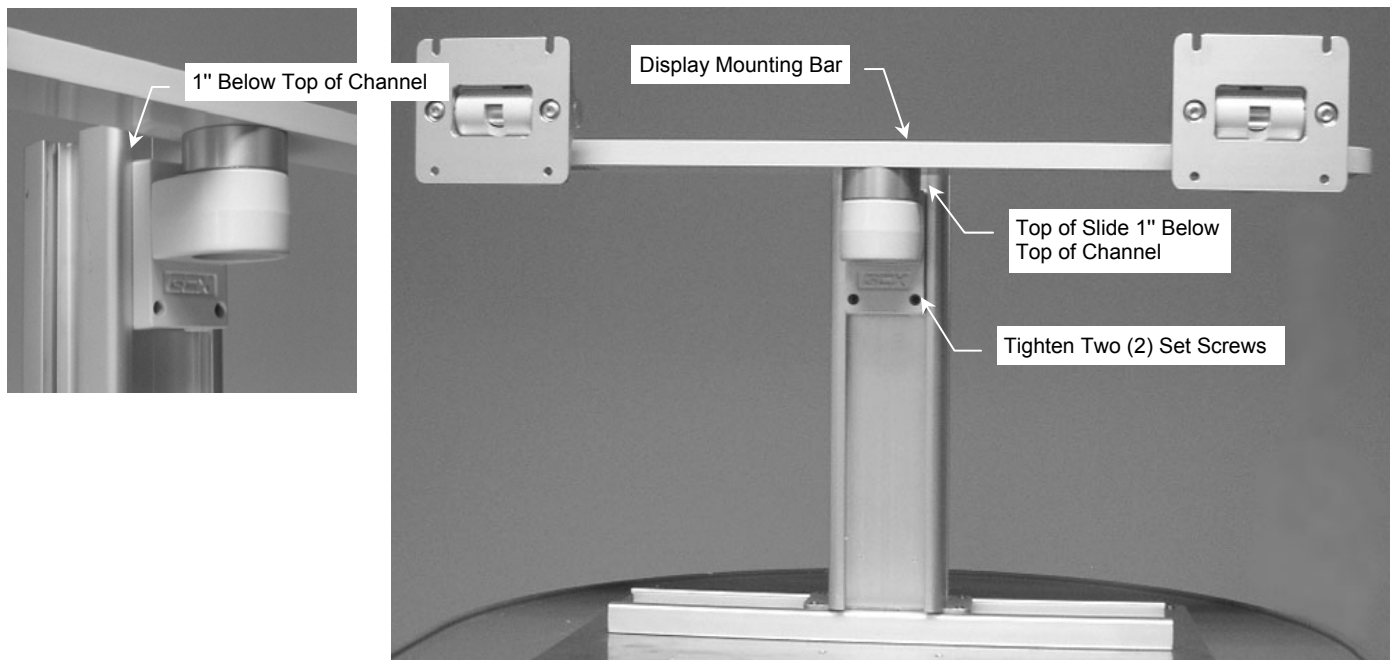
1. Guide the Channel Slide (bottom of Column) into end of channel and guide Column to center of channel. Using the 1/8" provided, tighten four (4) set screws in Channel Slide to secure the Column in the channel.

**Installation Note:** Do not install Cover Plate on top of Dual Channel Column until the Display Mounting Bar has been installed (see step 2 below in *Mounting the Display Mounting Bar on the Dual Channel Column*).



## Mounting the Display Mounting Bar on the Dual Channel Column

1. Insert Channel Slide in top of Channel, move to position 1" below top of Channel and tighten two (2) set screws at bottom of Slide with 1/8" hex wrench provided.



## Mounting Displays, Remote Speedpoint, External Alert Device, and Power Supply on Display Mounting Bar

Installation kits are provided for mounting two (2) flat panel displays on the Display Mounting Bar. The left side display, \*Remote Speedpoint, External Alert device, and power supply must be mounted in accordance with separate installation guide titled *Philips MP90 Remote Speedpoint Mounting Bracket and Adapter*, and *External Alert Device Mounting Bracket (DU-AG-0019-80)*. Mount the right side display with hardware from *Mounting Kit for 75/100mm VESA® Compatible Flat Panel Displays* (separate installation guide provided).

\* Two options are provided for mounting the Remote Speedpoint (see below right): 1) Mount Remote Speedpoint on the left side of the display according to installation guide referenced above. 2) Mount Remote Speedpoint on Articulating Arm using the Clamp Bracket included in this installation kit (see page 6).



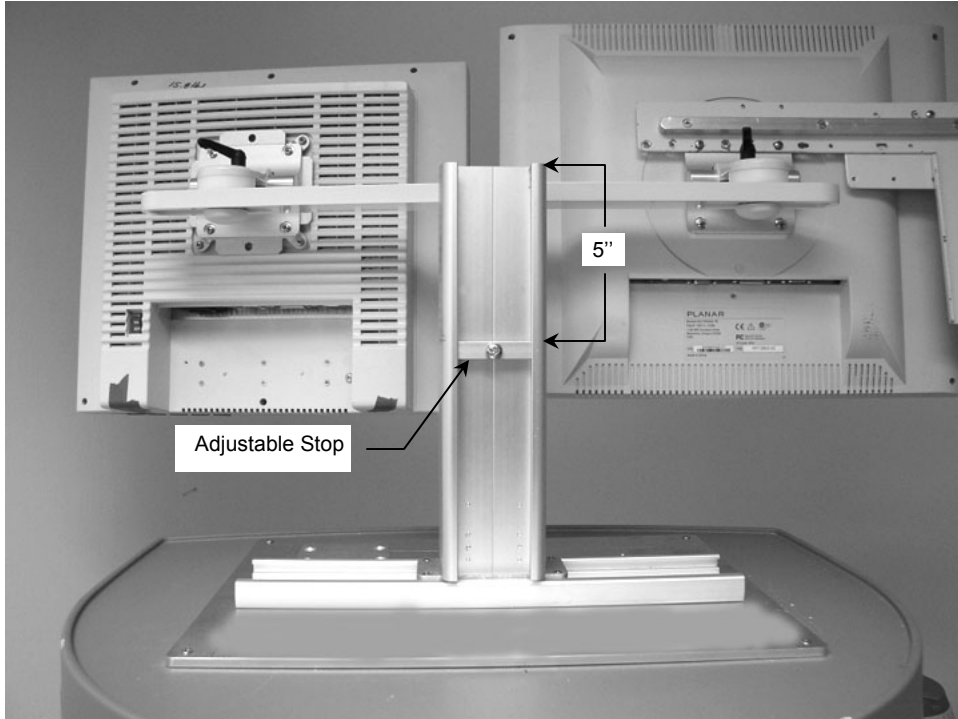
Remote Speedpoint Mounting Option 1

Remote Speedpoint Mounting Option 2

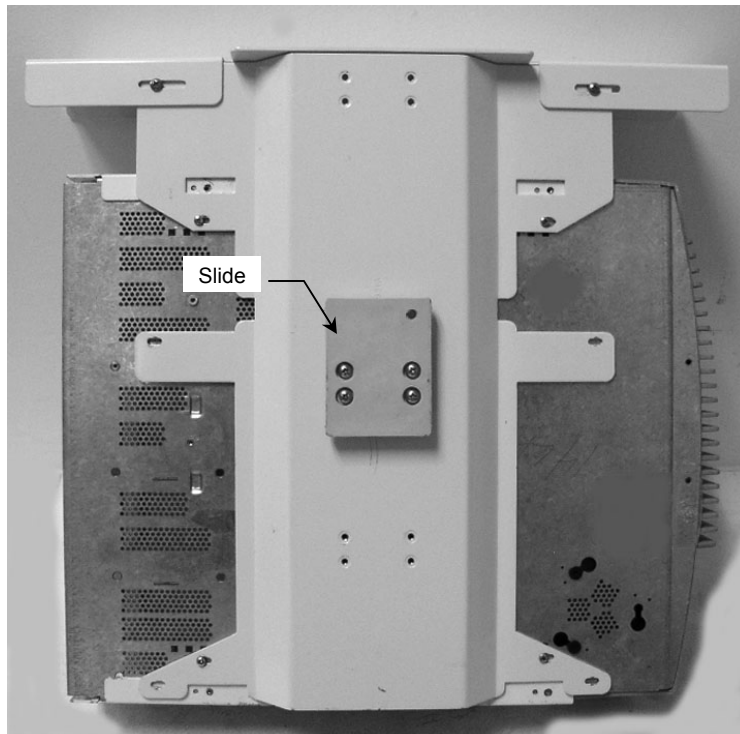


## Mounting the CPU on the Dual Channel Column

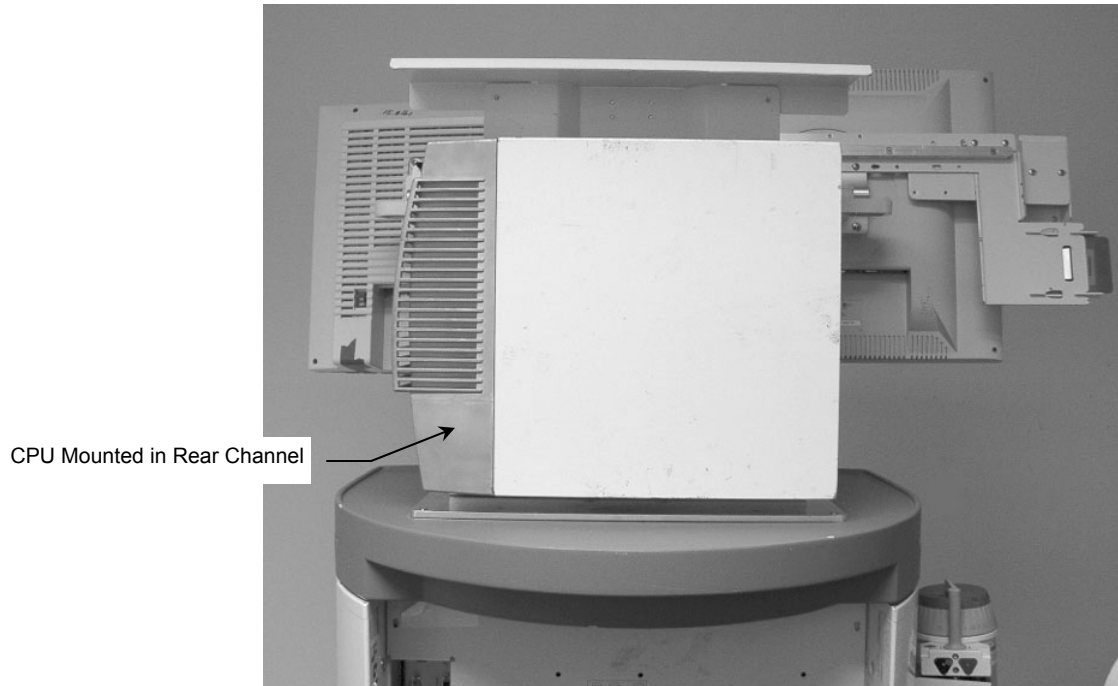
1. Install Adjustable Stop 5" below top of rear Channel and tighten center screw.



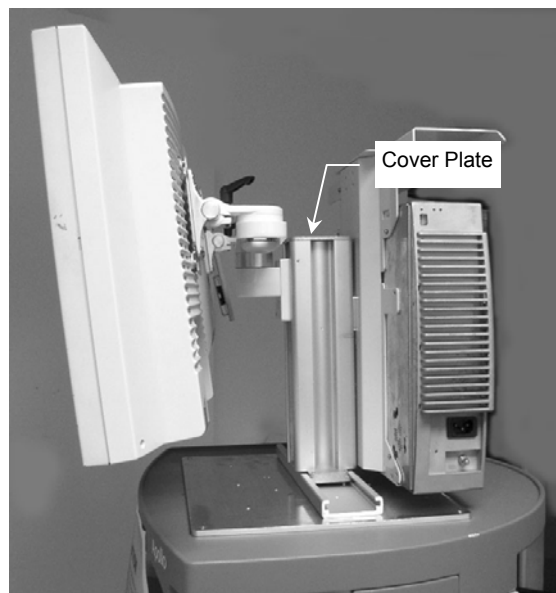
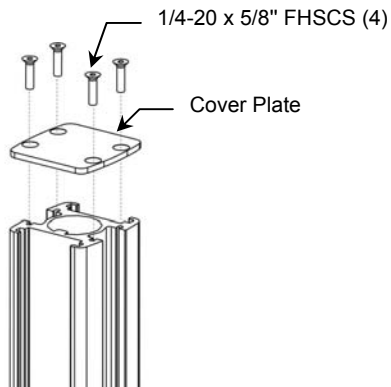
2. Attach Mounting Pan and Spill Shield to CPU in accordance with installation guide included with the CPU Mounting Kit. Attach Slide to Mounting Pan in center mounting pattern as shown below.



3. Insert Slide (rear of CPU Mounting Pan) in rear Channel and carefully guide CPU to rest against Adjustable Stop.

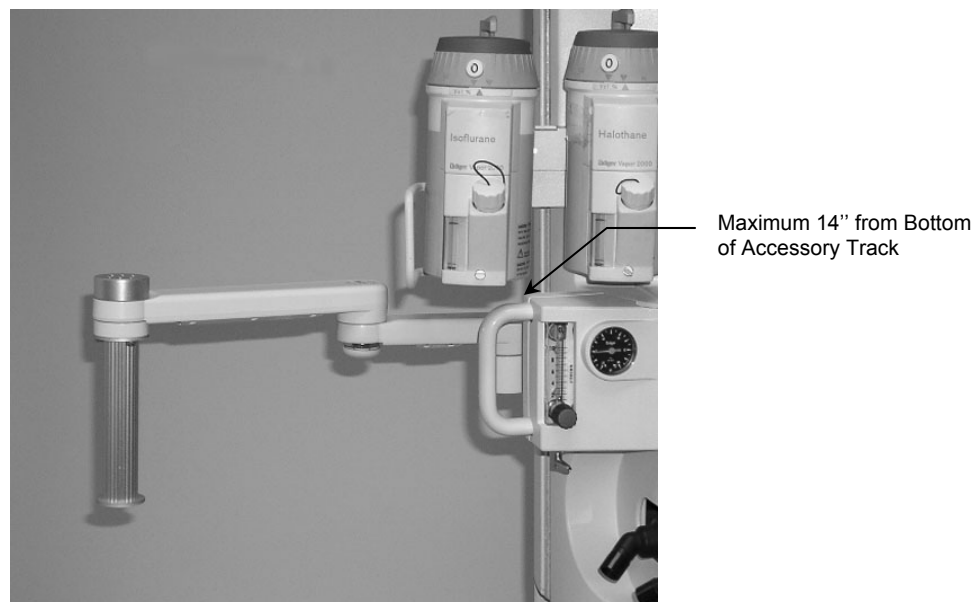
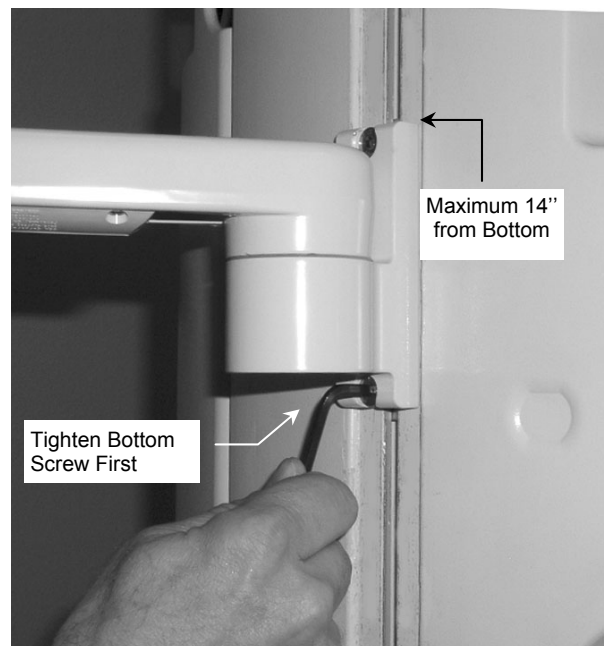
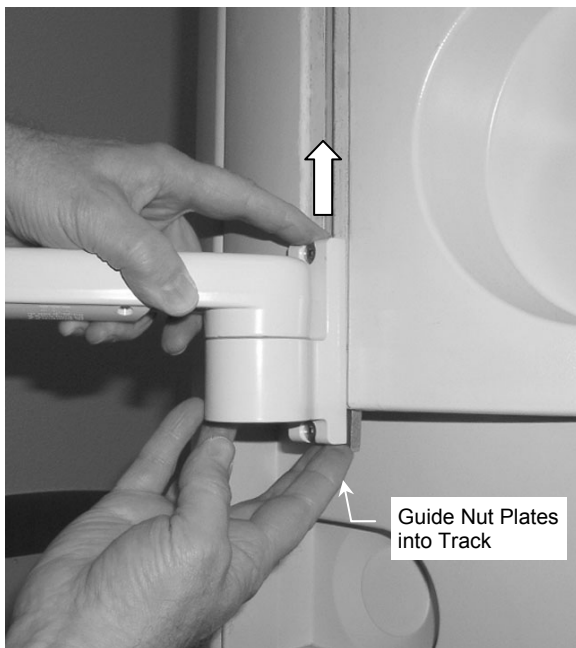
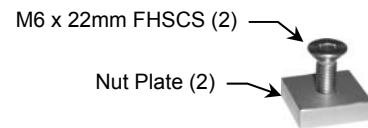


4. Using the 5/32" hex wrench provided, fasten Cover Plate to top of Dual Channel Column with four (4) 1/4-20 x 5/8" FHSCS (below left).



## Mounting M-Series Articulating Arm in the Accessory Track

1. Thread one (1) M6 x 22mm FHSCS a few turns into each Nut Plate, leaving 15 mm of thread exposed per screw (right).
2. Insert Nut Plate/screw assemblies in top and bottom slots, holding bottom screw in place to prevent it from falling out of slot (right).
3. While holding bottom Nut Plate in position (below left), guide both Nut Plates into track and move entire assembly up track to mounting position a maximum of 14" from bottom of track (below right). This prevents the Arm from interfering with vaporizers.
4. Using the 5/32" hex wrench provided, tighten bottom screw first, then top screw (below right).



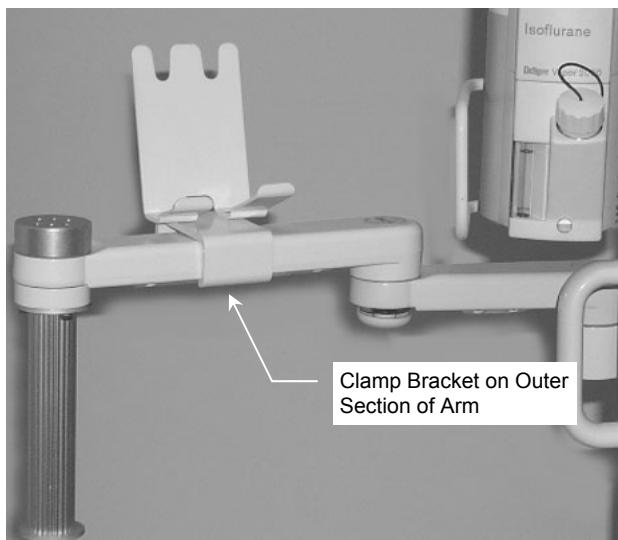
## Mounting Remote Speedpoint on Clamp Bracket

1. On rear of Remote Speedpoint, fasten two (2) Guide Bushings to threaded mounting holes with two (2) M4 x 12mm PHMS and #10 flat washers.

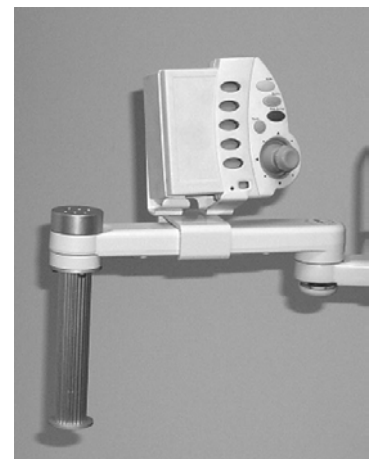
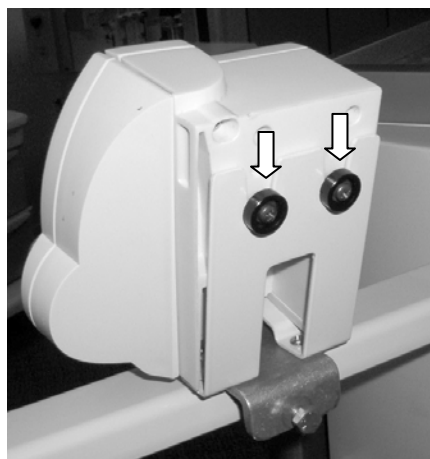


**Installation Note:** Remote Speedpoint Bracket must be mounted on outer section of Arm (see photo below left). This allows Remote Speedpoint to be folded inward without damage.

1. Open clamp by turning clamping bolt counterclockwise (CCW) with a 1/2" [13mm] wrench. Hook clamp over arm (outer section) and tighten clamping bolt.



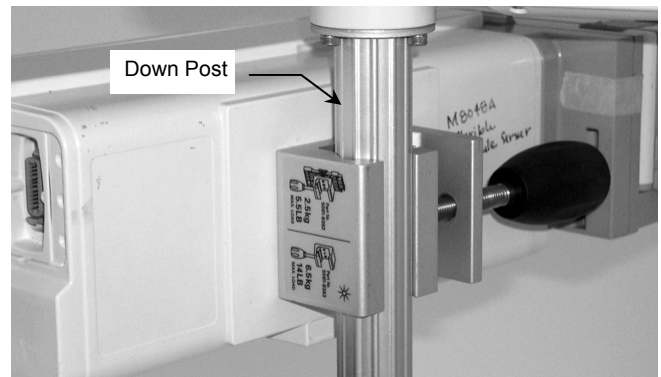
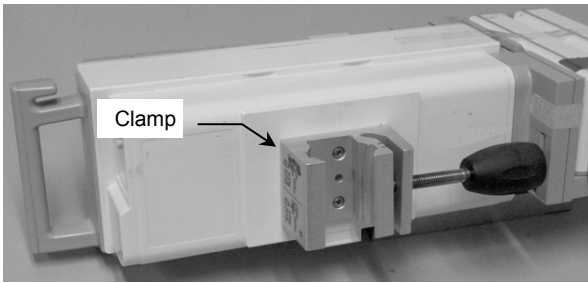
2. Mount Remote Speedpoint by sliding the Guide Bushings into the slots in the Clamp Bracket.





## Mounting FMS on Down Post

1. Mount FMS on Down Post by placing the Clamp around the Post and tightening the Knob.



## Installing Channel Covers (not shown)

Channel Covers are provided for both the 2-inch and 1-inch wide Channels. Channel Covers serve both as an aesthetic cover and may be used for cable management along the Channel. After all equipment has been mounted, install Channel Covers in accordance with separate installation guide.

## Making Adjustments to the Display Bar

### Horizontal Adjustment

The two (2) Display Mounts may be adjusted horizontally to accommodate two (2) flat panel displays with *enclosures* up to 21" in width (not diagonal measurement). Using a 1/2" [13 mm] wrench, loosen the bolt on the bottom of the Display Bar. Move display to desired position and tighten bolt. **Note:** This adjustment may affect both horizontal movement and swivel tension of the display. Ideally, this adjustment would allow the display to swivel but not move horizontally.

### Swiveling the Display

Swivel displays individually (limited to  $\pm 15^\circ$ ) or swivel the Display Bar, Arm, or Roll Stand.

### Adjusting Swivel Tension

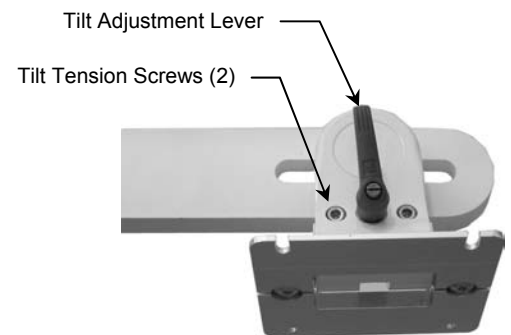
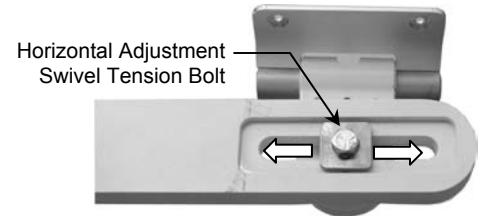
Using a 1/2" [13 mm] wrench, tighten or loosen the Swivel Tension Bolt as required to achieve desired tension. See *Horizontal Adjustment "Note"* above.

### Adjusting Tilt

Lever provides ratchet-style adjustment. Turn the Tilt Adjustment Lever counterclockwise (CCW) to loosen. Grasp display and tilt to desired angle. Turn Lever clockwise (CW) to tighten and lock position.

### Adjusting Tilt Tension

Using the 5/32" hex key (provided), equally tighten or loosen the two (2) Tilt Tension Screws. Once desired tilt tension is set, use the Tilt Adjustment Lever to fine tune/lock the tilt position.



## M-Series Arm Operation and Adjustment

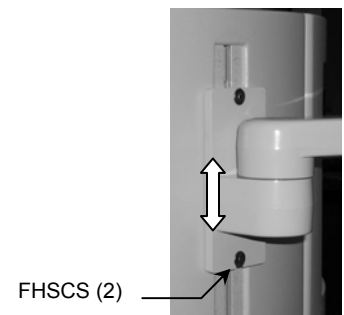
See Installation Guide provided with the M-Series Articulating Arm (*DU-WMM-0001*).

### Positioning Arm in Accessory Track

**WARNING:** Do not attempt to remove the Arm from the track while an instrument is mounted.

While \*supporting the weight of the mounted instrument, loosen the two (2) flat head socket cap screws (FHSCS) in the Slide. A 5/32" hex wrench is provided for this task. Push up or pull down at the end of the arm nearest the Slide. Tighten screws to secure Arm in track.

\* It may be necessary to dismount instrument before adjusting Arm in track.



## **Routine Maintenance of the Mounting System**

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

## **Cleaning the Mounting System**

**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 components of the mounting system. Wipe all cleaning agents off the mounting system immediately, using a water-dampened cloth. Dry the arm thoroughly after cleaning.