

## Installation Guide

### VHM Arm with 8" Extension/Swivel Stop & 6" Riser for Mounting Philips MP90 on Dräger Apollo

The purpose of this guide is to describe mounting of MP90 equipment on the anesthesia machine.



**WARNING:** USE OF MOUNTING HARDWARE AND MONITORING COMPONENTS OTHER THAN THOSE DESCRIBED IN THIS DOCUMENT MAY RESULT IN SERIOUS INJURY DUE TO TIPPING OF THE ANESTHESIA MACHINE.

**WARNING:** ALL DEVICES AND MOUNTING EQUIPMENT SHOULD BE POSITIONED INWARD, CLOSE TO THE APOLLO, DURING TRANSPORT.

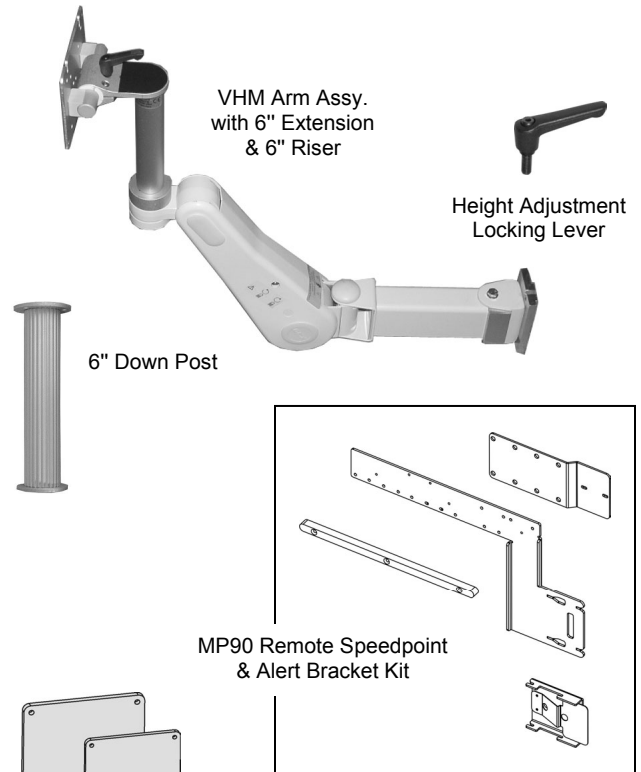
**Installer:** When installation is completed, provide these instructions and all related documentation to the end user for future reference.



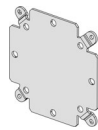
### Parts Reference

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

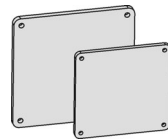
Item #	Description	Qty
1	VHM Arm with 6" Extension & 6" Riser	1
2	Nut Plate	2
3	M6 x 25mm Flat Head Socket Cap Screw (FHSCS)	2
4	Locking Lever, Height Adjustment	1
5	Cable Clip	2
6	Top Plate/Camlock Rail Assy.	1
7	M4 x 10mm Flat Head Machine Screw (FHMS)	4
8	Down Post Kit, 6"	1
9	#10-32 x 3/8"	3
10	Remote Speedpoint/Alert Bracket Kit	1
11	VESA Mounting Adapter Kit	1
12	FIMI Mounting Adapter, 15" Display	1
13	FIMI Mounting Adapter, 17" Display	1
14	1/8" Hex Wrench	1
15	5/32" Hex Wrench	1
16	1/2" Socket Wrench	1



Top Plate/Camlock Rail Assy.



VESA Mounting Adapter

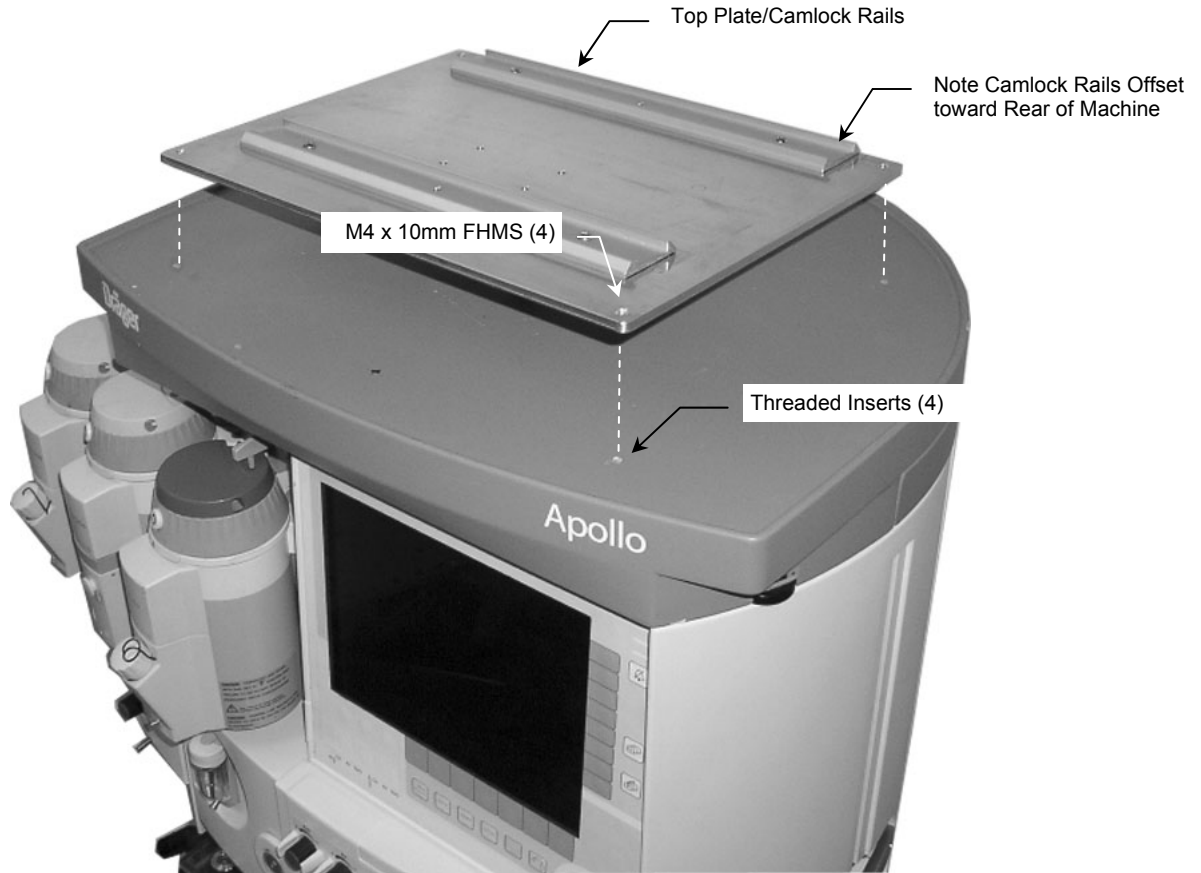


FIMI Mounting Adapters  
(for 15" and 17" Displays)

**Tools Required:** 5/32" and 1/8" hex wrenches (provided), 1/2" socket wrench (provided), Philips screwdriver not provided).

## Attaching Top Plate/Camlock Rail Assembly to top of Apollo

1. Ensure Camlock Rails are offset toward rear of machine and fasten Top Plate to corresponding threaded inserts with four (4) M4 x 10mm Flat Head Machine Screws (FHMS).



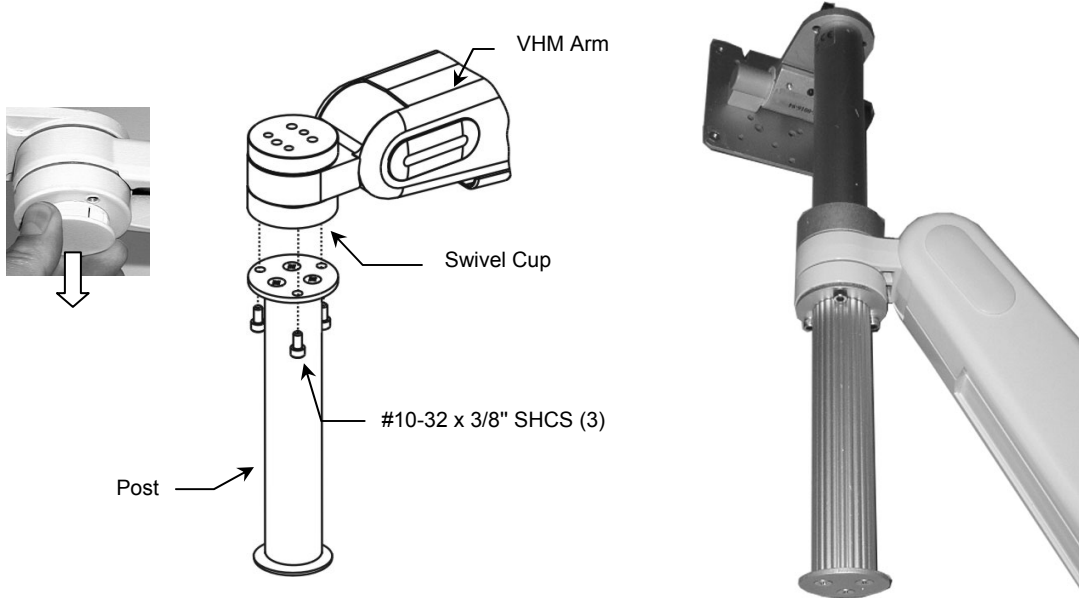
## Mounting CPU in Camlock Rails

Follow Philips instructions for mounting CPU on camlock rails.



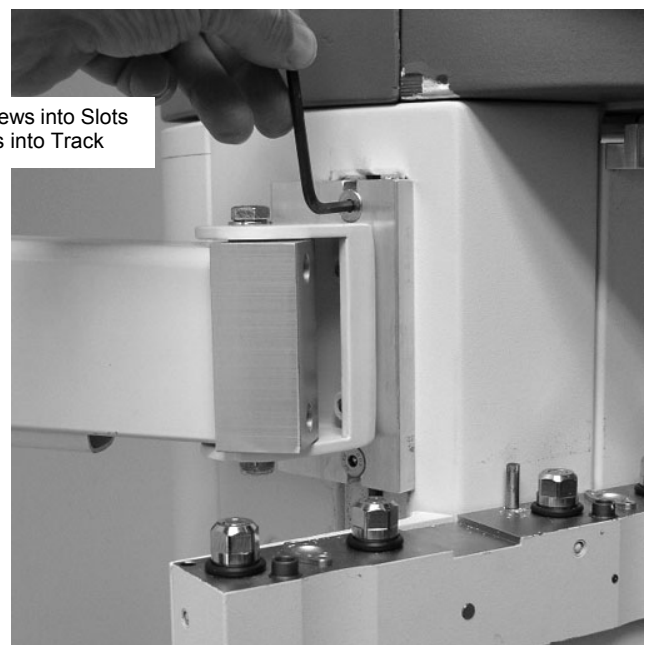
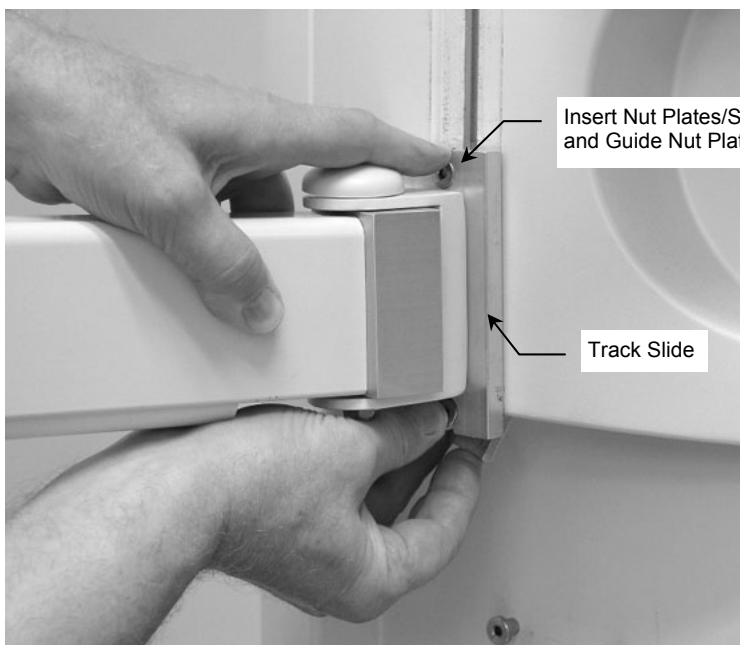
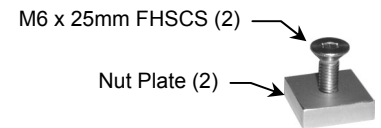
### Attaching Down Post to VHM Arm

1. Remove plastic bolt cap from Swivel Cup (front end of the arm).
2. Using the 5/32" hex wrench provided, fasten Post to Swivel Cup with three (3) #10-32 x 3/8" SHCS as shown below



### Mounting Arm in Accessory Track

1. Thread one (1) M6 x 25mm FHSCS a few turns into each Nut Plate (right).
2. Insert Nut Plate/screw assemblies in top and bottom slots of Track Slide (rear of Arm), holding the bottom screw in place to prevent it from falling from the slot. Guide entire assembly to top of track.
3. Using the 5/32" hex wrench provided, tighten two (2) flat head socket cap screws (below right).



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

1. Thread the Height Adjustment Locking Lever into the mounting hole in the right side of the Arm (right).
2. Several display-mounting options are provided in this installation kit: Refer to the following separate installation guides for mounting procedures and application information:

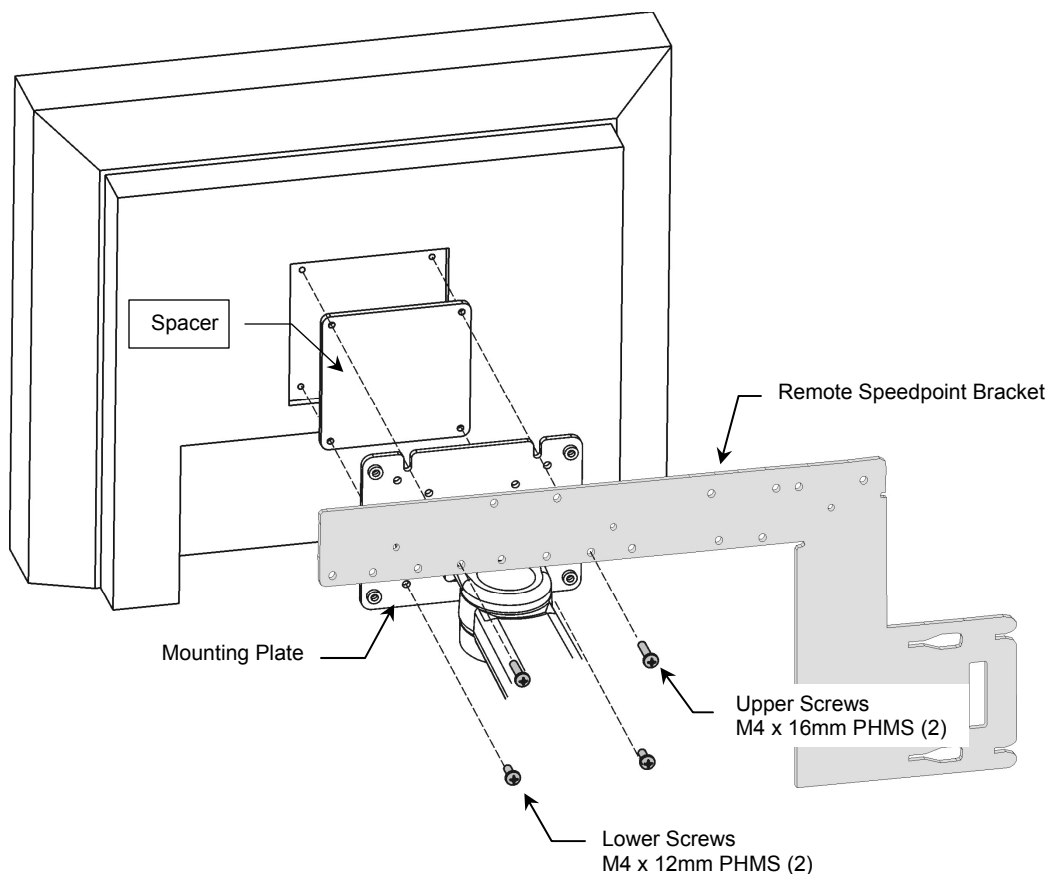


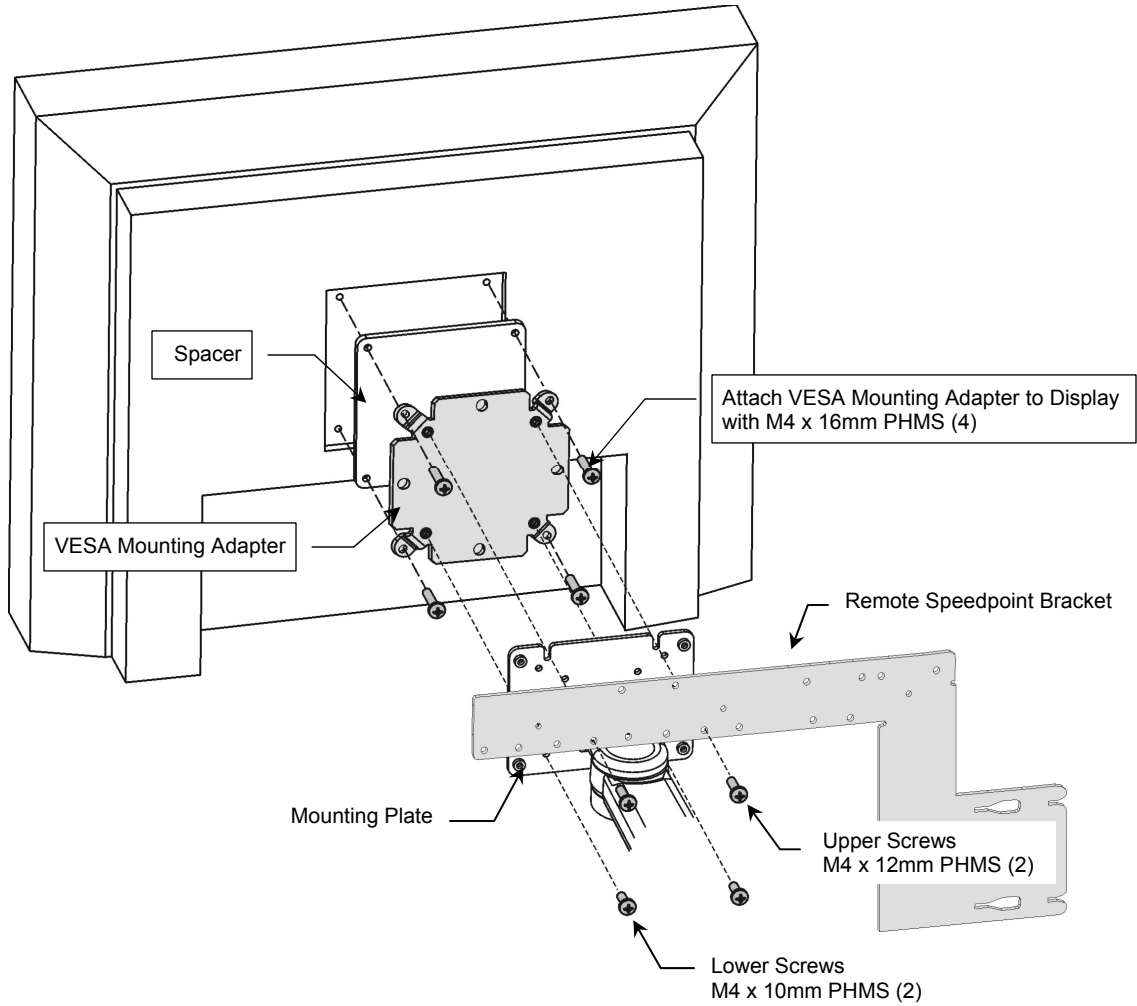
**Mounting Kit for 75/100 VESA Compatible Flat Panel Displays (DU-FLP-0002-17).** This installation kit may be required to convert a 100 x 100mm mounting pattern to a 75 x 75mm mounting pattern. This kit contains screws and spacers which may be required for mounting the flat panel display.

**Philips MP90 Remote Speedpoint Mounting Bracket and Adapter, and External Alert Device Mounting Bracket (DU-AG-0019-80).** Mounting of Brackets and display are covered in this installation guide.

**Installation Note:** A Spacer (provided) is required for mounting either an M8031B (15") or M8033C (17") display. Insert appropriate Spacer and mount display as shown below and on page 5. **15" display:** Use M4 pan head machine screws from *Mounting Kit for 75/100 VESA Compatible Flat Panel Displays*. **17" display:** Use M4 pan head machine screws plus VESA Mounting Adapter from *Mounting Kit for 75/100 VESA Compatible Flat Panel Displays*.

M8031B (15") Display

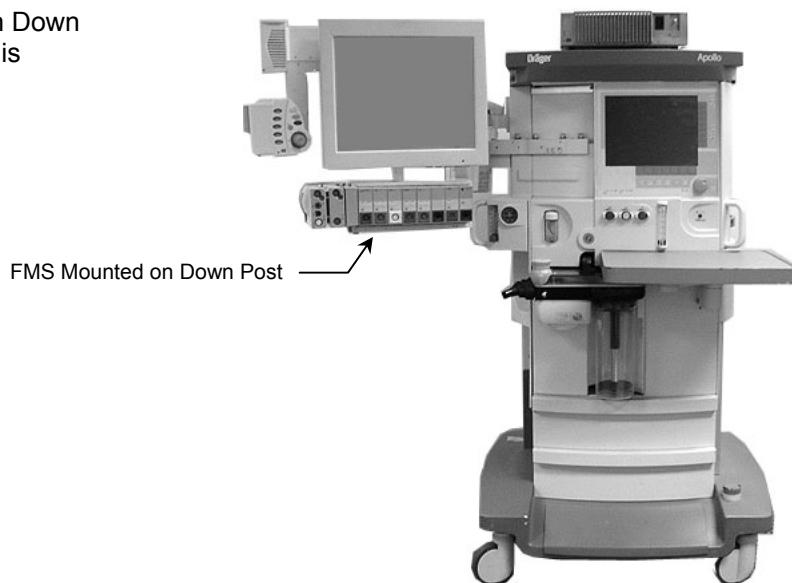




3. Perform counterbalance adjustment in accordance with Section 3.0 of *"Installation & Operation Manual for VHM™ Series Arms"* (DU-WS-0001).

## Mounting FMS on Down Post

1. Follow Philips instructions for mounting FMS on Down Post. A Philips-supplied clamp is required for this installation.

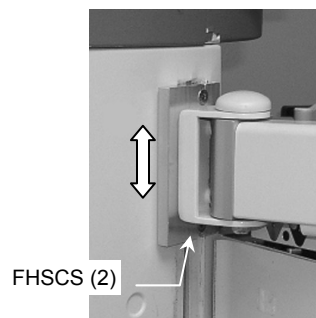


## Positioning Arm in Track

**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.



## VHM Arm Operation and Adjustment

Refer to "*Installation & Operation Manual for VHM™ Series Arms*" (DU-WS-0001).

## 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 the arm thoroughly after cleaning.