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## **PRODUCT MANUAL FOR UVHM-P1 AND P3 SERIES ASSEMBLIES**

UVHM-P1-VESA                      PN 80000

A single position plate with one 8" arm and a VESA tilt head

UVHM-P1-WS4                      PN 80001

A single position mounting plate with one 8" arm and a WS4 tilt head

UVHM-P1-UPMT                      PN 80002

A single position plate with one 8" arm and a universal printer mounting tray

UVHM-P3-VESA-UPMT              PN 80003

A two position plate with two 8" arms, a VESA tilt head and a universal printer mounting tray

UVHM-P3-WS4-UPMT              PN 80004

A two position plate with two 8" arms, a WS4 tilt head and a universal printer mounting tray

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# PRODUCT MANUAL FOR UVHM-P1 and P3 SERIES ASSEMBLIES

## 1.1 Identifying, configuring and locating the mount for your application

**PLEASE NOTE:** these instructions are for multiple UVHM-P1 and P3 product assemblies, refer to the “List of Figures” page to locate an exploded view of the assembly that you are using.

All of these assemblies either include the P1 mounting plate which supports one arm, or the P3 mounting plate which can support either one or two separate arms (See Figures 1, 2 and 3).

Both mounting plates can be installed Vertically or Horizontally on a WALL, or can be reconfigured for FLAT mounting positions. They can also be attached to a pole.

Start by determining the desired configuration. If you are using the standard configuration with the P1 or P3 mounting plate installed Vertically or Horizontally on a WALL, refer to sections 1.3 and 1.4.

If you are reconfiguring your mount for FLAT mounting, please refer to sections 3.1, 3.2.

## 1.2 Basic installation steps

1. Preassemble the mount for the desired configuration with the tilt head attached but without the equipment installed (See Figure 6).
2. Hold the assembly with the mounting plate against the mounting surface to determine its best location.
3. Pivot the arm so that they can be rotated through their entire range of motion and does not conflict with the surrounding surfaces. Be sure to take into consideration the additional space that the equipment will need once it is attached to the end of the arm.
4. Once the mounting location has been determined, mark the locations for the fasteners through the holes on the sides of the mounting plate. Follow the installation instructions that are appropriate for your application.

## 2.1 Installing the mounting plate on a WALL either horizontally or vertically

1. The mounting plate feature either one or three patterns of ¼”-20 threaded holes for the insertion of the four mounting screws that attach the SB (stand off) brackets and arms to the mounting plate. The mounting screw pattern allows the SB brackets and arms to be removed and remounted to the plate if it is installed either vertically or horizontally. In this configuration, the SB brackets provide the first pivot point for the arms, allowing them a full range of side to side motion (See Figure 7).
2. Remove the tilt heads and/or the printer tray from the arm(s).
3. Remove the arm(s) with the SB bracket(s) from the mounting plate.
4. Securely attach the mounting plate to the mounting surface with four or more fasteners that are appropriate for the mounting surface material.

## 2.2 Reattaching the arms to the mounting plate installed on a WALL either horizontally or vertically

1. The SB brackets should still be attached to the ends of the arms. Hold the arm so that the five point knob is on top of the SB bracket. Align the holes in the SB bracket with one of the patterns of threaded holes on the mounting plate (See Figure 7).
2. Loosely install the four ¼”-20 Philips SB securing screws through the SB bracket and into the threaded holes in the P3 mounting plate. Do not fully tighten the screws until all of the screws are threaded into the plate.

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### **3.1 Installing the mounting plate FLAT on top of a horizontal surface**

The mounting plates also have one or three larger 5/16"-18 threaded holes in the centers of the patterns of 1/4"-20 threaded holes, which are used to attach the arms when the plate is installed in a flat configuration. In this configuration, the larger center hole provides the first pivot point for the arms, allowing them a full range of side to side motion.

1. If you are mounting the plate flat on top of a horizontal surface, the SB bracket and the four 1/4"-20 Philips securing screws are not used. To remove the arm from the SB bracket, unscrew and remove the five point knob from the top of the SB bracket and slide the arm out.
2. Remove the tilt head from the arm(s).
3. Remove the arm(s) with the SB bracket(s) from the mounting plate.
4. Remove the arm(s) from the SB bracket(s).
5. Securely attach the mounting plate to the mounting surface with four or more fasteners that are appropriate for the mounting surface material.

### **3.2 Reattaching the arms to the P1 or P3 mounting plate installed FLAT on top of a horizontal surface**

1. Note that the arms have two washers welded to the top and bottom of the mounting plate end, and only one washer welded on the top of the tilt head end.
2. Once the SB brackets have been removed from the arm(s), place one of the anti-slip washers on the pattern of threaded holes on the mounting plate, and align them with the large threaded holes located within the center of the patterns of threaded holes.
3. Holding the arm(s) so that the single washer end (Tilt Head End) is facing up, insert the five point knob with the threaded shaft pointing down into the top of the two washer ends (the mounting plate end) of the arm(s).
4. Carefully turn the knob to thread the knob shaft into the plate and tighten it only until some resistance is felt, and no space can be seen between the mating surfaces of the anti-slip washer, the plate and the lower washer on the mounting plate ends of the arms.

### **4.1 Basic steps for mounting a screen with VESA standard mounting holes**

1. Remove the tilt head from the end of the arm.
2. Remove the arm assembly from the mounting plate.
3. Install the mounting plate and reattach the arm(s).
4. Install the VESA tilt head to the back of the screen. (Refer to Section 4.2 Below)
5. Install the tilt head and the screen together as a unit onto the end of the arm. (Refer to Section 4.4 Below)

### **4.2 Attaching the VESA tilt head to a VESA standard flat panel monitor, touch screen or terminal**

1. Place the unit with the screen facing down on a smooth flat surface and remove the VESA mounting screws from the back of the monitor. If the screws are not present, refer to the unit manual or contact the manufacturer to obtain the correct type and length of screws.
2. Lay the VESA tilt head flat on top of the back of the screen. Align the four holes in the VESA tilt head with the pattern of four threaded holes on the back of the screen.

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3. Loosely install the four screws through the VESA tilt head and into the threaded holes on the back of the screen. Do not fully tighten the screws until all of the screws are threaded into the back of the screen.

### **4.3 Basic steps for installing a screen such as a WS4 which has a proprietary tab or keyhole mounting system on the back of the screen**

1. Remove the tilt head from the end of the arm.
2. Remove the arm assembly from the mounting plate.
3. Install the mounting plate and reattach the arm.
4. Install the tilt head on the end of the arm (See Figure 7).
5. Install the screen onto the tilt head. If you are installing a WS4 terminal, use the same small thumb screws which secured the terminal to the base, to secure it to the tilt head.

### **4.4 Basic steps for installing a printer tray**

1. Remove the printer tray from the end of the arm.
2. Remove the arm assembly from the mounting plate.
3. Install the mounting plate and reattach the arm.
4. Install the printer tray on the end of the arm (See Figure 6).
5. Install the printer on the printer tray.

### **5.1 Attaching a tilt head or printer tray to the end of the arm**

1. Lay the anti-slip washer on top of the end of the arm (See Figure 7).
2. Check that the bottom of the tilt head is flat and that the four point tilt knobs are tightened enough so that the tilt head cannot move easily.
3. Carefully lift the monitor or printer tray and center the bottom hole of the tilt head or tray over the hole in the end of the arm.
4. Gently lower the monitor until the bottom of the tilt head is resting slightly on the end of the arm. Do not release your grip on the monitor or printer tray.
5. Hold the five pointed knob so that the threaded shaft is pointing up and it is under the end of the arm. Guide the knob shaft up through the hole in the end arm and through the anti slip washer until it contacts the center of the threaded hole in the bottom of the tilt head or printer tray.
6. Carefully turn the knob to thread it into the bottom of the tilt head or tray, until the bottom of it is pulled snugly against the top of the end of the arm.
7. Verify that the end of the threaded shaft of the knob can be seen inside of the nut on the bottom of the tilt head or printer tray. Do not release your grip on the monitor until you have verified that the tilt head or printer tray is correctly attached to the end of the arm.

### **5.2 Adjusting the side to side position of a tilt head or printer tray**

1. Carefully and firmly grasp the monitor or printer at the top center of the unit to support its entire weight.

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2. Slightly loosen the large five point knob below the end of the arm just enough so that the tilt head or printer tray will turn.
3. While still firmly holding the monitor or printer, slowly rotate it to the desired position and then tighten the locking knob securely.

### 5.3 Adjusting the up and down position of the tilt head

1. Carefully and firmly grasp the monitor at the top center of the screen to support its entire weight.
2. Slightly loosen both of the four point knobs on both sides of the tilt head just enough so that the monitor can be moved up and down slightly.
3. While still firmly holding the monitor, slowly raise or lower it to the desired position and then tighten both of the locking knobs securely.

### 6.1 Locking the tilt head position for the long term

In most cases, firm tightening of the three locking knobs on the tilt head will sufficiently hold the desired side to side and up and down position of the screen. If your application requires additional security to hold the desired screen position, the tilt head can be more securely locked by slightly tightening the tilt head locking screws.

**PLEASE NOTE:** if the factory setting of the locking screws is changed, they must be reset to return the tilt head to normal function.

#### Follow the steps below to lock the tilt head in place for the long term:

1. Adjust the tilt head as described in the instructions to hold the screen at the desired position.
2. Tighten the three locking knobs as firmly as possible using only your hands.
3. Using a standard Philips type screwdriver, gently tighten the two locking screws on the sides of the tilt head, and the single locking screw on the bottom of the tilt head.

#### To reset the original position of the tilt head locking screws:

1. Support the entire weight of the screen. Doing one at a time, carefully loosen the locking screws until only three threads of the end of the screw shaft can be seen protruding through the metal next to the anti-slip washer.
2. The correct length of the protruding end of the locking screw is set when there is no weight on the tilt head and the knob is tightened slightly until there is no space between the metal surfaces and the anti-slip washers. With this knob pretension set, the protruding end of the locking screw should be set just back of where it would contact the opposing metal surface by approximately 1/32.”

### 7.1 Adjusting the side to side position of the arms

1. Slightly loosen the large five point knob on top of the SB enough so that the arm will move freely.
2. Carefully move the equipment with the arm to the new position and then retighten the five point knob to secure the arm.

### 7.2 Locking the arm position for the long term

In most cases, firm tightening of the locking knob on the SB bracket will sufficiently hold the desired the side to side position of the arm. If your application requires additional security to hold the desired arm position, it can be more securely locked by slightly tightening the SB locking screw. If you have removed

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the SB brackets to install the mounting plate on top of a flat horizontal surface, this locking feature is not available.

**PLEASE NOTE:** if the factory setting of the locking screw is changed, it must be reset to return the arm to normal function.

**Follow the steps below to lock the arm position in place for the long term:**

1. Adjust the arm as described in the instructions to hold the arm at the desired position.
2. Tighten the SB locking knob as firmly as possible using only your hands.
3. Using a standard Philips type screwdriver, gently tighten the locking screw on the bottom of the SB bracket.

**To reset the original position of the SB arm locking screw:**

1. Support the entire weight of the screen. Carefully loosen the locking screw until only three threads of the end of the screw shaft can be seen protruding through the metal next to the anti-slip washer.
2. The correct length of the protruding end of the locking screw is set when there is no weight on the tilt head and the knob is tightened slightly until there is no space between the metal surfaces and the anti-slip washers. With this knob pretension set, the protruding end of the locking screw should be set just back of where it would contact the opposing metal surface by approximately 1/32."

### 8.1 Attaching the mounting plate to a pole

The P1 or P3 mounting plate can be attached to any 1 1/2" or smaller OD (Outside Diameter) tube with U bolts for ceiling or pole mounting. Obtain two U bolts that have a 1/4" OD diameter shaft, and are 2" wide center to center. The U bolts must be long enough to go around the pole and through the ends of the mounting plate.

### 9.1 Installing and adjusting the UPMT (Universal Printer Mounting Tray)

The width of the UPMT will expand to support printers from 5" to 9 1/2" wide. To extend or retract the sides of the tray, turn one of the small round knobs on either of the sides on the middle of the tray until the desired width is adjusted.

The tray will tilt from the level position to 30 degrees forward. To adjust the forward tilt, carefully loosen the two three-pointed knobs which are on each side of the front of the tray. Raise or lower the rear of the tray to the desired tilt angle and tighten the knobs to secure the tilt position. Be advised, some types of printers will erroneously indicate that they are low on printing paper when they are tilted too far forward.

### 9.2 Printer tray cabling tips

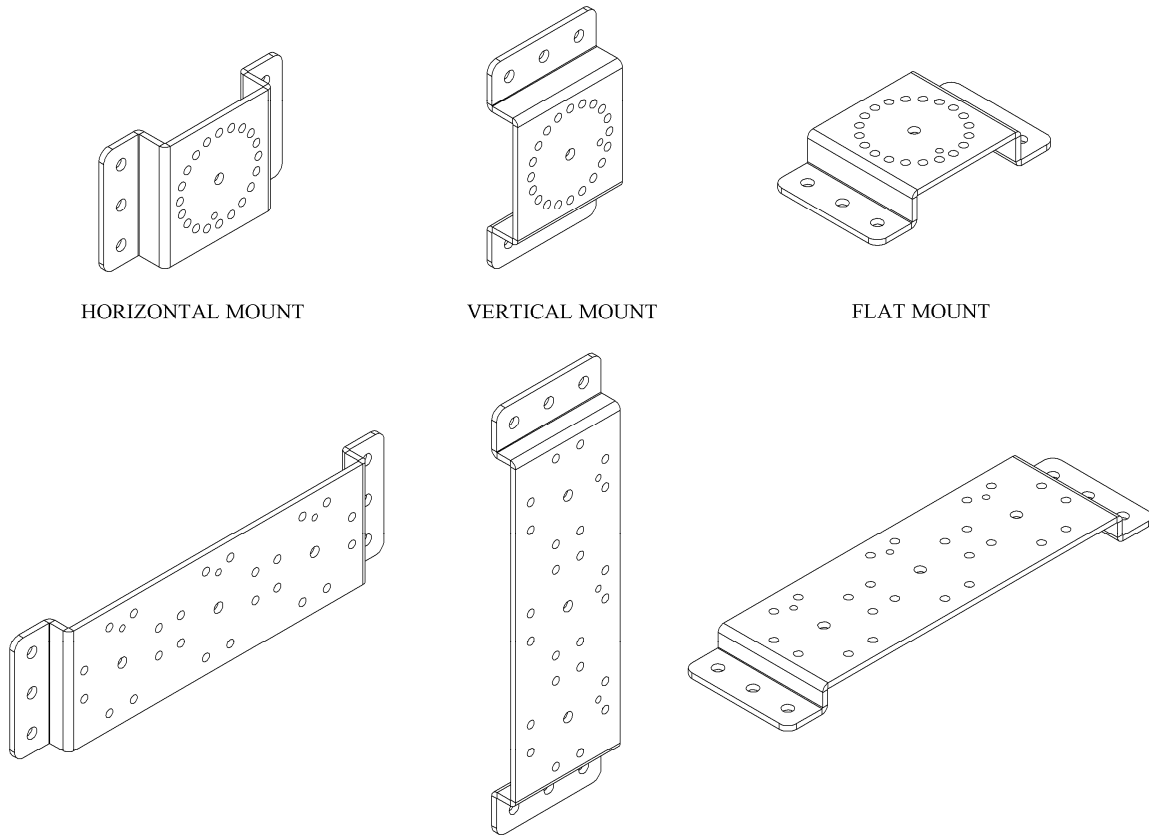
Route the data and power cables and connect them loosely to the printer. After testing your printer for correct operation, use small plastic cable ties, or hook and loop ties, to attach the cables to the metal tie loops at the rear of the printer tray, be sure that the cable connectors will not be strained when the printer is repositioned. Then with more ties, form the printer cables into a single bundle to create a cable leash that extends from a point near the mounting plate location to the rear of the printer tray. Be sure to leave enough slack cable so that the printer can be moved through its entire range of motion.

### 9.3 Monitor or touch screen cabling tips

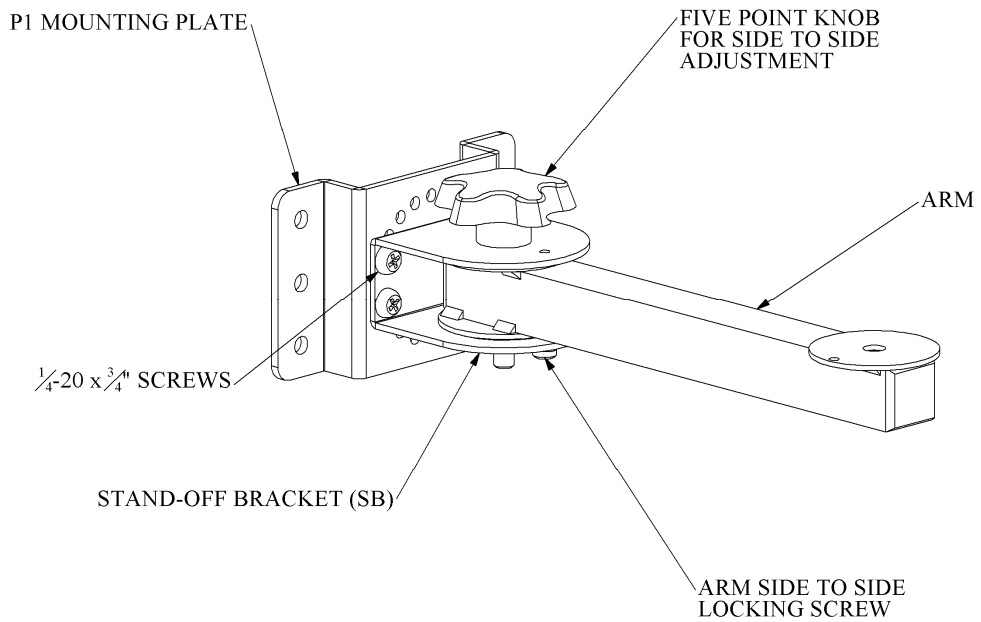
Route the data, power, and other cables and connect them loosely to the screen. After testing your screen for correct operation, use small plastic cable ties, or hook and loop ties, to attach the cables to the plastic roller behind the middle of the tilt head, so that the cable connectors will not be strained when the printer is repositioned. Then with more ties, form the screen cables into a single bundle to create a cable leash that extends from a point near the mounting plate location to the rear of the tilt

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head. Be sure to leave enough slack cable so that the printer can be moved through its entire range of motion.

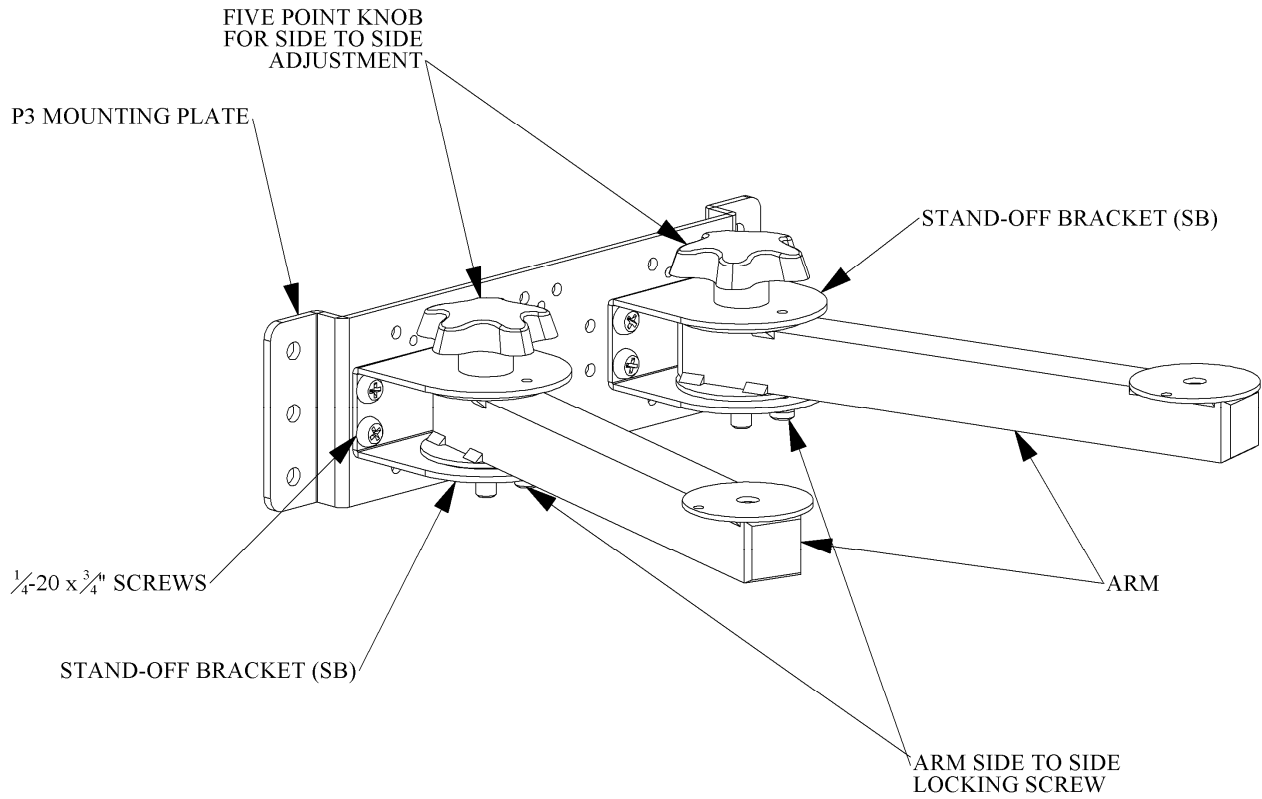


**Figure 1 - P1 and P3 mounting plates and positions**

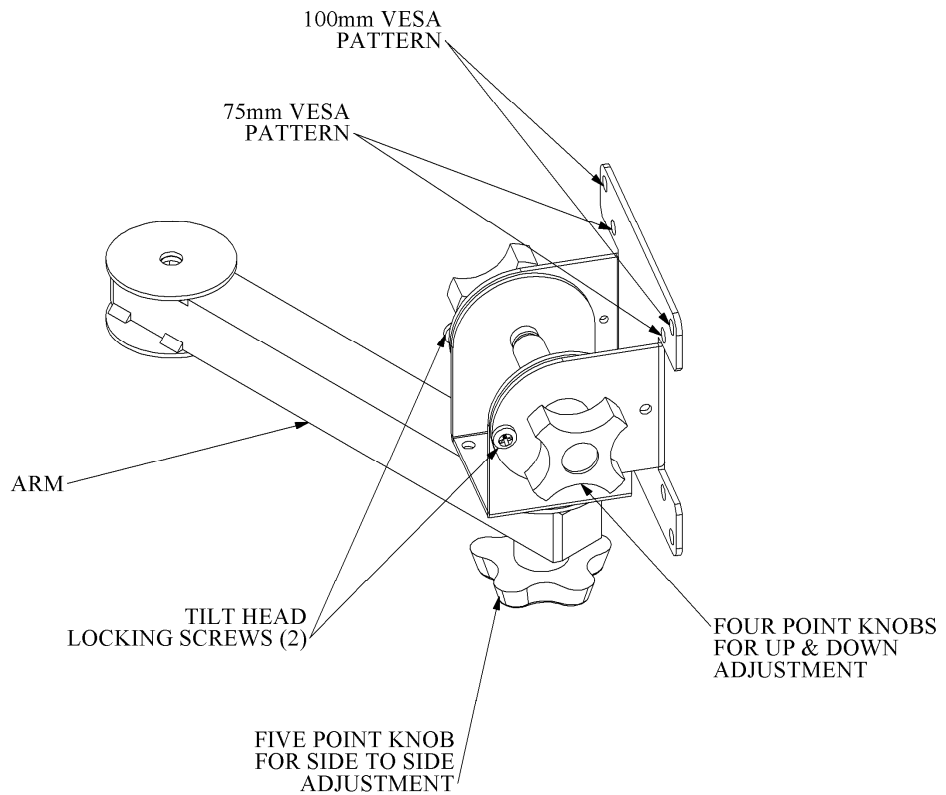


**Figure 2 – A P1 mounting plate with one 8" arm**

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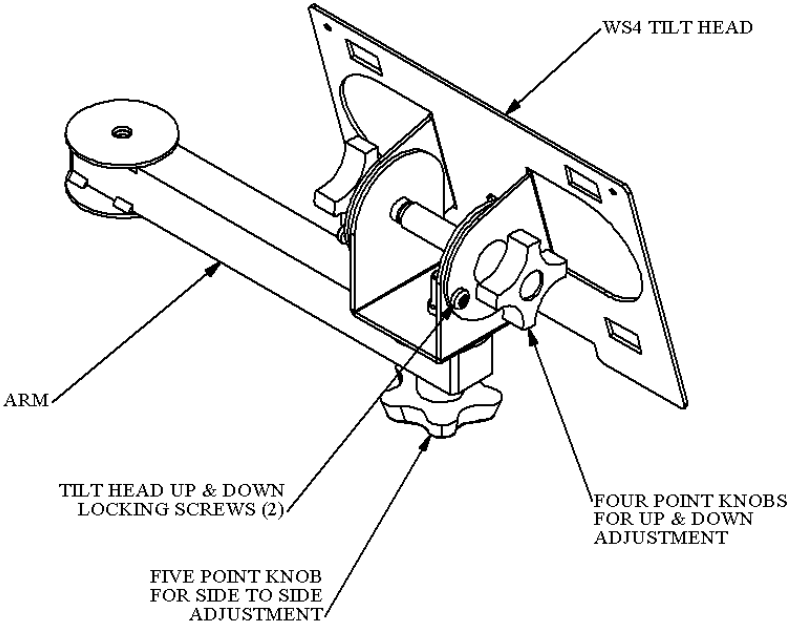


**Figure 3 - P3 mounting plate with two 8" arms**

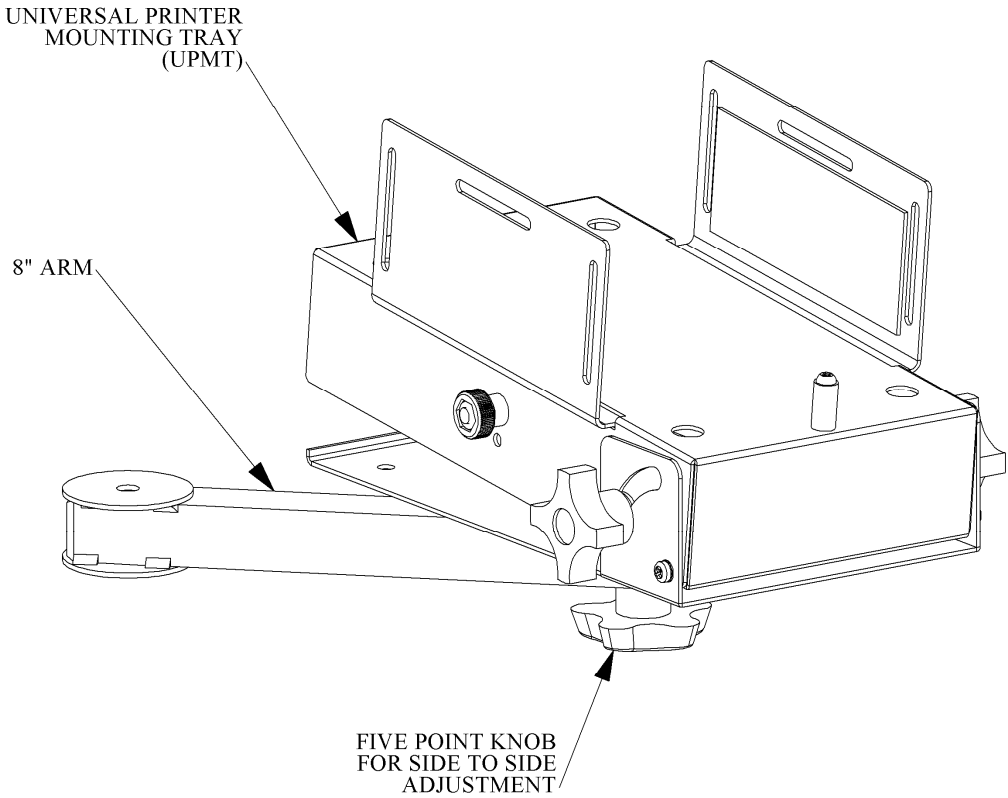


**Figure 4 - One 8" arm and a VESA tilt head**

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**Figure 5 - An 8" arm with a WS4 tilt head**



**Figure 6 - An 8" arm with a UPMT**

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## UVHM-P1-VESA P/N 80000

A single position plate with one 8" arm and a VESA tilt head

ITEM#	PART NUMBER	DESCRIPTION	QTY.
1	50127	UVHM SINGLE MOUNT PLATE	1
2	50046	UVHM STANDARD STANDOFF BRACKET	1
3	70000	BOLT, 1/4-20 x .50" LG, RND PHILLIPS	4
4	70022	SILICONE WASHER	5
5	70020	SCREW, 10-32 x 1/4" Phillips Button Head	3
6	70021	KNOB, 5/16-18 x 2.0" LG, 5 POINT STAR	2
7	70035	SLEEVE, 1/2" OD x 5/16" ID x 1-1/2" L	1
8	50028	TILT HEAD BASE	1
9	70023	KNOB, 5/16-18 x 1.75" L 4 POINT	2
10	50048	UNIVERSAL V & H MOUNT - 8" ARM	1
11	50030	VESA TILT HEAD	1
12	70011	END PLUG, SQUARE FOR 1.0" SQ. TUBE	2

For other UVHM-P assemblies please refer to the UVHM-P product manual cover page.

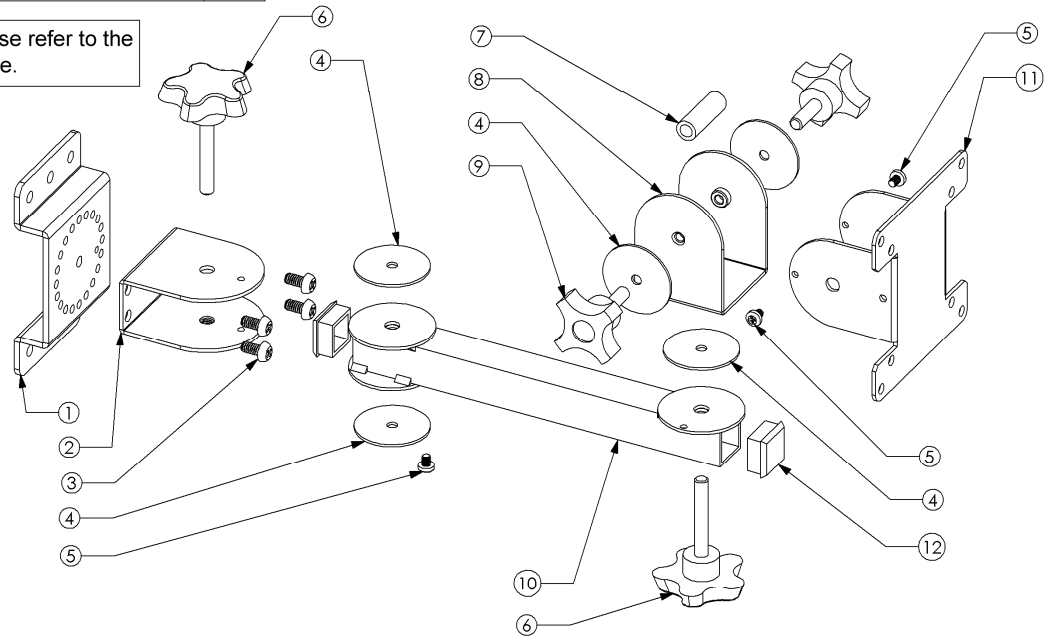


Figure 7 - UVHM-P1-VESA