

# Installation Instructions

## How to install flipIT®

- Into a desktop where no factory cut-out exists
- Into a SMARTdesks FI Series Workstation with factory pre-cut desktop and pre-drilled pilot holes\*

\*Begin instructions with Step 10



**IMPORTANT:**  
Minimum clearance area required  
under desktop is 23" w x 29" d.



These installation instructions guide you through the proper way of completing the assembly of the SMARTdesks FI Series product. It is especially important that the installer observe proper care in protecting surfaces from abrasion and making proper adjustments to the flipIT mechanism to ensure satisfactory performance and safety in use. Improper installation may void the SMARTdesks warranty. For any questions or assistance, please contact Technical Service at (410) 922-6005 or (866) 620-7408, or email [service1@smartdesks.com](mailto:service1@smartdesks.com). © 2004 SMARTdesks

**WARNING****POWER TOOLS ARE DANGEROUS.**

Review the safety procedures supplied by your power tools' manufacturers. **Heed all warnings for your safety's sake. Always use safety glasses and wear proper apparel** that won't get caught in moving parts. SMARTdesks will not be held liable for misuse of tools and disregard for power tool manufacturer's safety precautions.

**Tools Needed for Installation****Tools needed for pre-assembly:**

- Power Drill
- Tape Measure
- Commercial-grade Jigsaw
- Phillips bit driver
- 3/8" Drill Bit
- 1/8" Drill Bit
- Pencil
- Permanent Marker
- Masking Tape

The first steps of installation address how to cut a hole and make pilot holes for the installation of the flipIT mechanism into a desktop.

Before beginning, measure to see if you have a clearance of 23" wide x 29" deep under the desktop to perform the installation. If you don't have the required space, do not proceed further.

If you are installing flipIT into a factory pre-cut SMARTdesks FI Series desktop, you may proceed to step 11.

**IMPORTANT:**

When installing flipIT into a SMARTdesks product, **install the flipIT mechanism FIRST, before assembling the desk.** It's easier and more efficient to work this way.

If you are installing flipIT into a non-SMARTdesks desktop, see if it is possible to remove the desktop to make the cut-out. If that is not possible, take care to make a work environment that will protect the surface finish of your furniture and will be safe for operating power tools.

**Tools needed for assembly:**

- Screw gun or #2 Phillips screw driver
- 7/16" open end wrench



This is not packing material. This template will make it easy for you to make factory accurate pilot holes and the cut-out for flipIT.

## Unpacking

Use caution when unpacking to avoid damage or loss. A cardboard template is included and is marked as follows: TEMPLATE FOR TOP CUT-OUT. Do not mistake it for packing material. It will be used to precisely locate the pilot holes and cut-out for a trouble-free installation.

## Parts and Hardware:

Prepare a place to unpack box contents, using a packing blanket, carpeting or cardboard sheet to protect finished surfaces from damage. Before assembly, take inventory of the parts included.

NOTE: Contents of Hardware Bag: Quantities indicate count for each unit - multiply by number of components

## Parts List:

Qty	
1	FlipIT Top with Collar
1	Keyboard Tray Assembly
1	Damper Assembly
4	Keyboard Assembly Mounting Brackets
10	Wood Screws, 1 inch
4	Wood Screws, 3/4 inch
4	Machine Screws, 1/4 inch



1 ea. - Keyboard Tray Assembly



1 ea. - Flipit Top with Collar

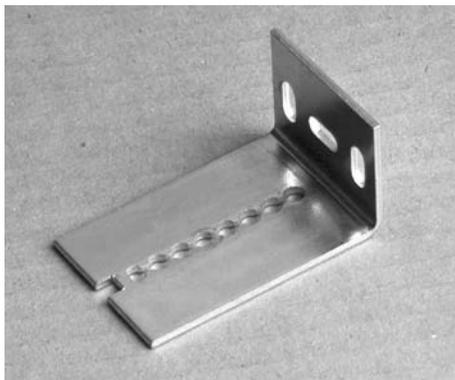
## PARTS IDENTIFICATION, CONTINUED



### Damper Assembly

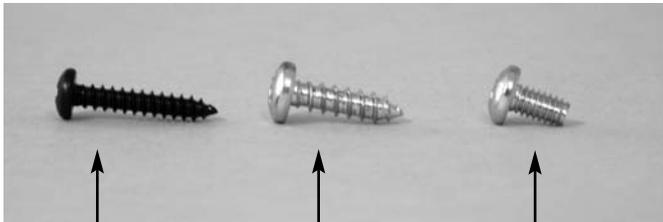
1 count

Includes L bracket and pneumatic damper with female connector.



### Keyboard Mounting Brackets

4 count  
for mounting pullout keyboard assembly to Flipit top



### 1/4" Machine Screws

4 Count

Used for affixing Keyboard Brackets to Keyboard Tray Slide Mechanism.

### 3/4" Pan Head Wood Screws

10 count

2 used for damper installation  
8 used for affixing keyboard mounting brackets.

### 3/4" Black Pan Head Wood Screws

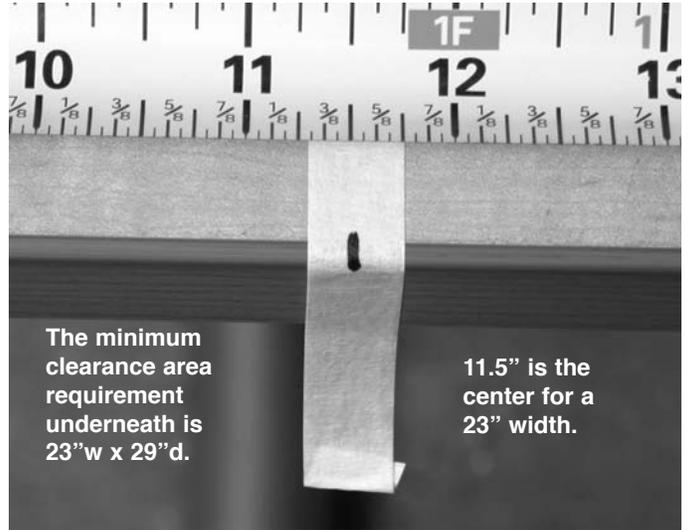
4 Count

Used for affixing FlipIT Top/Collar Assembly to desktop.

## Before you begin...

If it is possible to remove the desktop from the desk for installation, this will help you work more comfortably and efficiently. If it is not possible, take care for safety and to avoid damage to furniture surfaces. The photos show the top installed, but in fact, the top was not permanently installed, which allowed easy removal for drilling pilot holes on the reverse side.

## Step 1- Establish Centerline



The minimum clearance area requirement underneath is 23" w x 29" d.

11.5" is the center for a 23" width.

To establish monitor placement, sit at the desk and look straight ahead, visualizing where the monitor would be. Use a tape measure and determine the centerline for the monitor. Transfer the center line to the desktop with masking tape or some other means that will not permanently mar or stain the finish.

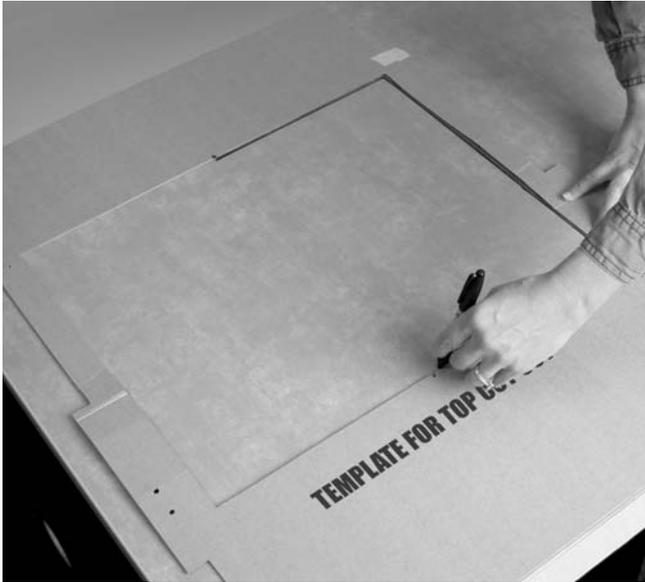
## STEP 2 - Placement of Template



Position template face up on the desktop marked **TEMPLATE FOR TOP CUT-OUT: SAW SIDE**. Fold the tab section of the template and place it against the front edge of the desktop surface. Locate the template's centerline notch to the centerline you marked on the edge. Tape template to the surface to secure in position.

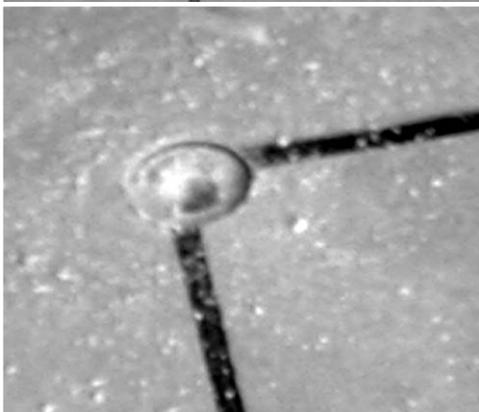
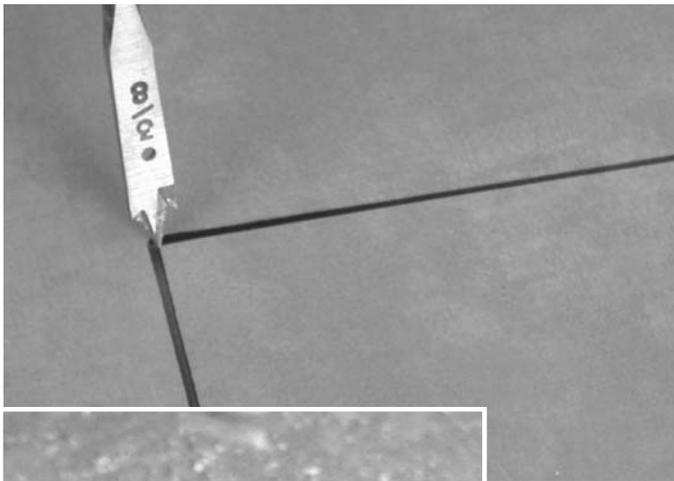
## STEP 3 - Marking the Cut-Out Area

Using a permanent marker, trace along the edge of the cut-out area in the template. This line will provide the guide for the saw blade when cutting. Remove the tape and template after drawing the line.



## STEP 4 - Drill Corner Starting Holes

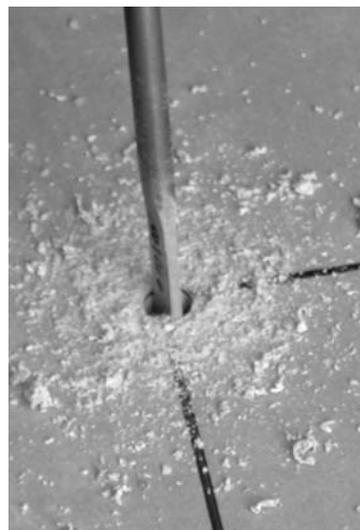
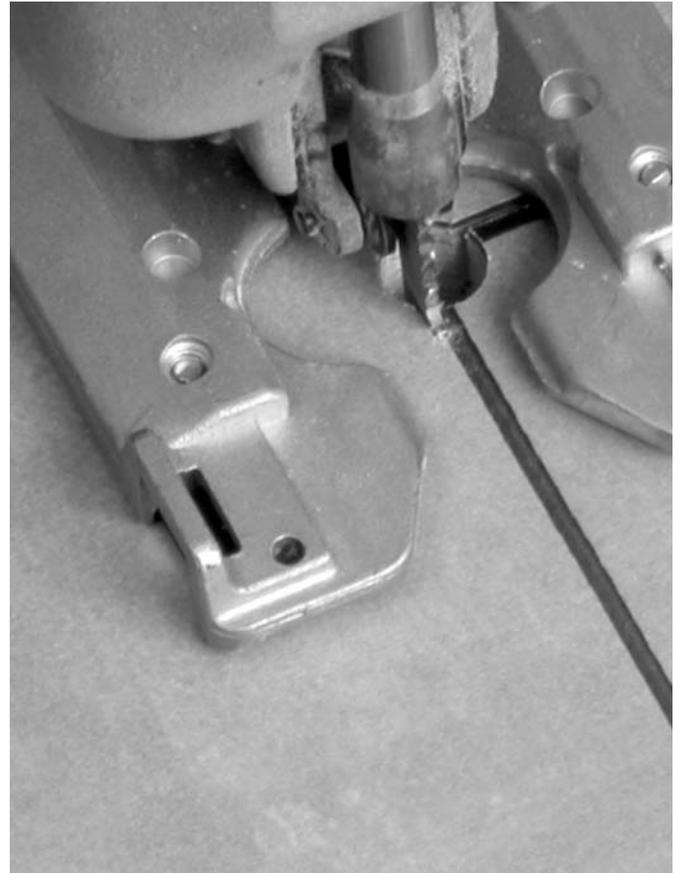
To make holes for starting your jig saw cut, use a 3/8" drill bit, place the point of the bit at the corner mark and drill completely through the surface top. Repeat this step for each corner.



Note that the holes are not tangent to the lines. This shows correct placement.

## STEP 5 - Placement of Jigsaw Blade for Starting the Cut

Place the jigsaw at the corner marking. Use the outside edge of the line as the waste side for making the cut. Ideally, the entire marker line should remain on the waste piece cut out.



Drill all the way through the top.

## STEP 6 - Cutting Out Template Area

With the jigsaw placed at the corner marking, begin cutting along the outside of the line until you reach the next marking hole in the corner. Stop at the next marking hole and realign the jigsaw blade before cutting. Repeat this step for each side.

**NOTE:** Make sure that the area underneath the desktop surface is clear so the center surface area will drop down safely.



## STEP 7 - Positioning Template for Bracket Pilot Holes

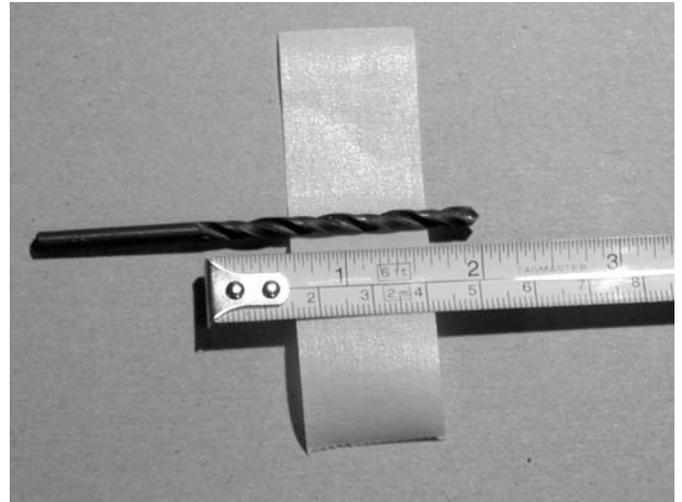
Place the template on the underside of the desktop surface aligning it with the cut out and the front edge. The template folds to conform to the front edge. Tape the template securely into position.



**NOTE:** This photo shows the underside of the desktop. If you can remove the desktop for installation, this is recommended.

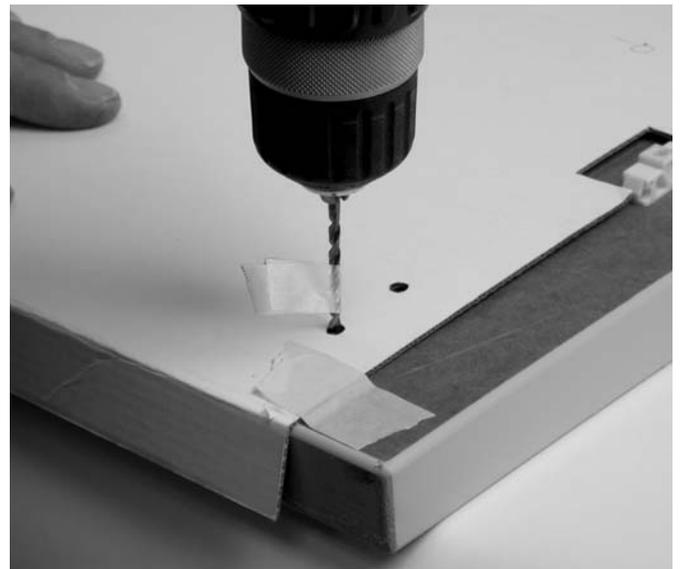
## STEP 8 - Making a Depth Gauge for Drilling Bracket Pilot Holes

To help prevent the mistake of drilling through your desktop, use a depth gauge, or make one with masking tape. Measure 3/8" from the tip of the 1/8" drill bit to indicate the drilling depth for mounting bracket pilot holes. Mark the 3/8" depth with a piece of masking tape wrapped around the drill bit.



## STEP 9 - Drilling Pilot Holes for Brackets

Use a power drill to make 1/8" holes 3/8" deep using the masking tape depth gauge you just made. Repeat this step for the remaining Pilot Holes.

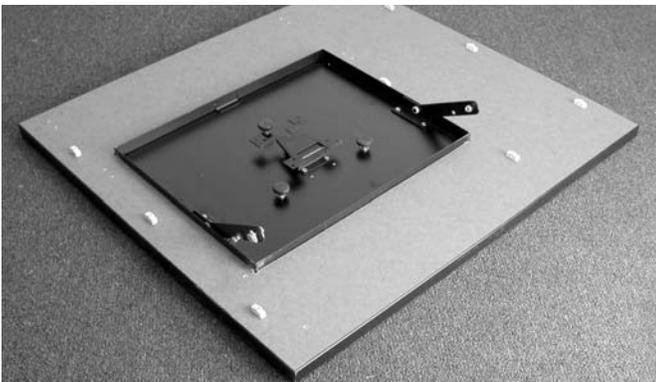


With this completed, the cut-out and pilot holes should meet factory specifications. You are now ready to begin installation of the flipIT mechanism.

## Installing the flipIT Mechanism into a SMARTdesks FI Series Desktop with Factory-Made Cut-Out & Pilot Holes.

### STEP 10 – Install FlipIT Top & Collar Assembly into desktop

To protect finished surfaces, select a carpeted assembly area, or place a packing blanket or sheet of cardboard on the floor. Place the FlipIT top assembly into the desktop precut opening.



The arms that will connect to the keyboard assembly should point to the back of the desktop. Test that the FlipIT Top hinge will open to show the computer display to the user side.



### STEP 11 - Installation of Flipit Top w/ Collar into Desktop Panel

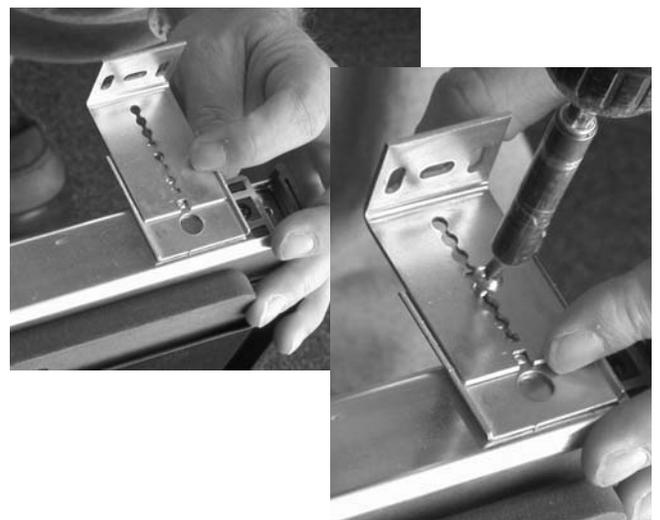
Using #2 Phillips screwdriver or screw gun, attach collar as shown using four 3/4 inch wood screws. Make sure the Top and Collar Assembly is seated completely to the desktop before securing with screws. Use predrilled holes in collar to locate the holes for the self-tapping wood screws.

Note: If you are installing into a cut-out you made with a template, you will need to make your own pilot holes. With the collar in position, mark the locations with a pencil. Use an 1/8" bit to make the holes taking every precaution to keep the drill perpendicular to the work.

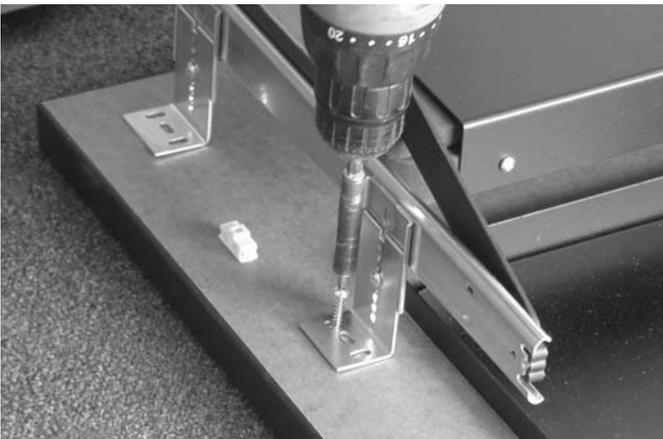


### Step 12 – Attach L Brackets to Keyboard Tray Assembly

Locate the 5th hole from the angle in the Keyboard Mounting Bracket, and secure it to the tapped hole in the Keyboard Tray Assembly using a 1/4 inch machine screw. Repeat this step in four places.



## STEP 13 - Attaching the Keyboard Tray Assembly

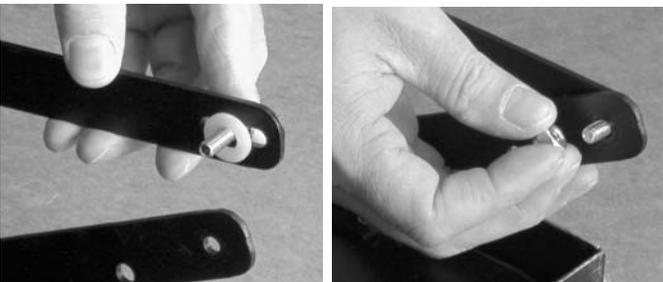


Place the Keyboard Tray Assembly in position, aligning the four Keyboard Brackets you installed in step 13 with the predrilled holes in the desktop. Attach with 1 inch wood screws: use two screws for each bracket.

Repeat Step 4 for the remaining 3 Keyboard Brackets.

## STEP 14 – Attach Keyboard Connector Arms

Loosen and remove existing tension adjustment screw, hex nut and nylon washer. Placing the nylon washer between the connector arm and the FlipIT Top arm, install the tension adjustment screw in hole as shown and rotate hex nut into place



Use 7/16" open end wrench to tighten the hex nut.

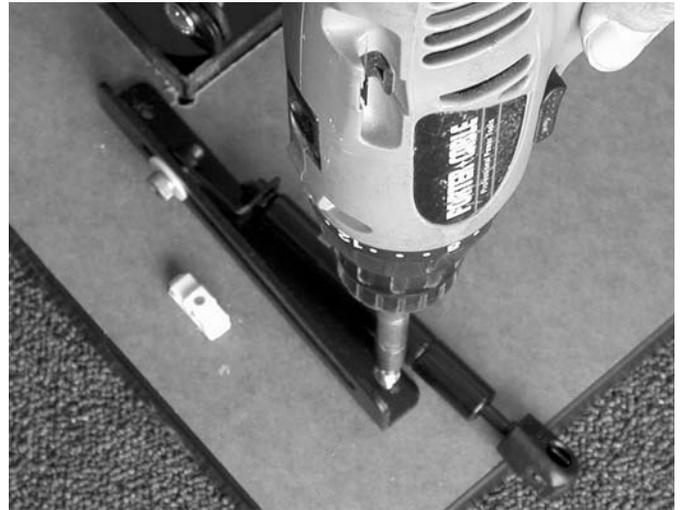
Note: Do not tighten the tension completely for the adjustment at this time. The hex nut simply holds the assembly together at this stage and will be tightened/adjusted after monitor has been mounted and tested for smooth operation.

Repeat this procedure for the other side of the assembly.



## STEP 15 – Attach Damper Assembly Anchor Bracket

Align the Damper Assembly Anchor Bracket to the 2 predrilled holes. The vertical of the L should be oriented to the outside edge of the desktop so it does not interfere with the free operation of the FlipIT Top. Mount assembly with two 1 inch wood screws into predrilled holes



Capture the rounded post with the female connector on the end of the damper piston— apply pressure until it snaps into place.



Damper Anchor Assembly mounted to desktop.

## Mounting LCD Flatscreen Display to flipIT Rotating Desktop

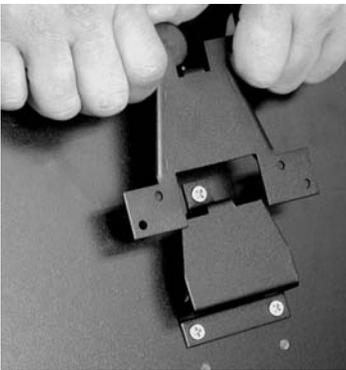
### IMPORTANT NOTE:

When handling your LCD display, take care to protect the screen from damage by placing packing blankets on work surfaces.

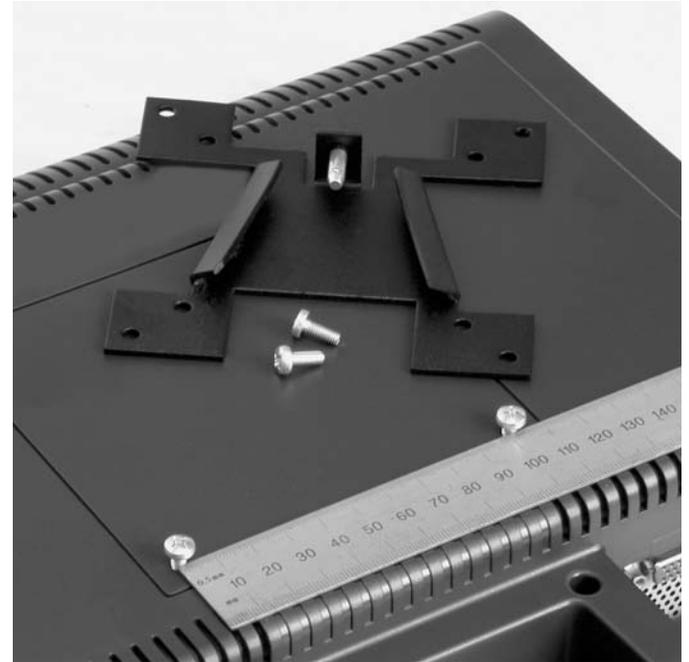
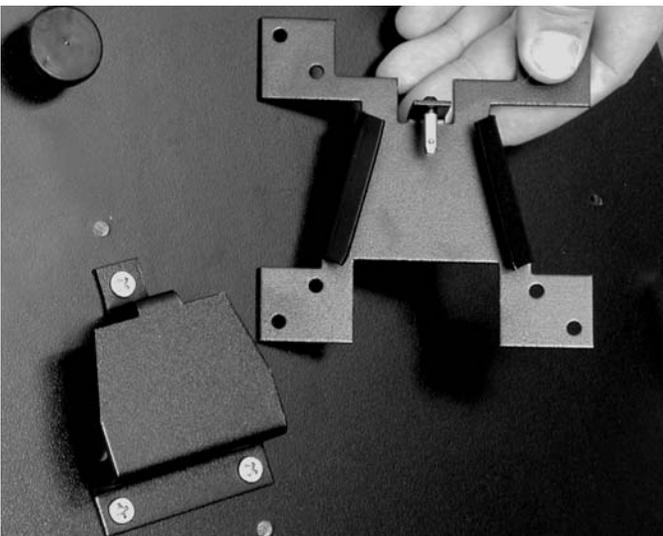


The VESA Bracket is manufactured to specifications universal to the industry, in compliance with the Video Electronics Standards Association (VESA) and Flat Display Mounting Interface (FDMI). The VESA Bracket is shipped fully assembled and mounted to the VESA Mounting Plate installed to the flipIT Rotating Desktop.

### STEP 16 – Detach VESA Bracket from flipIT Rotating Desktop

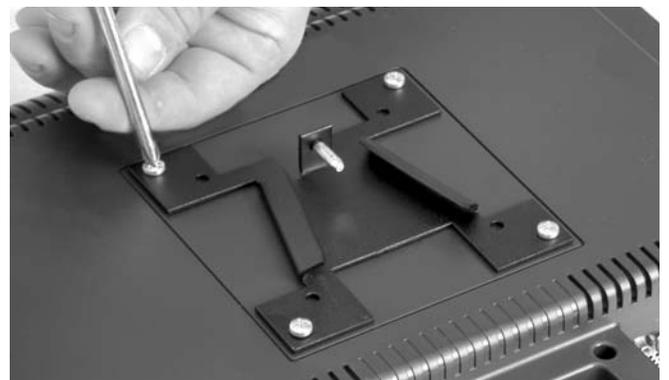


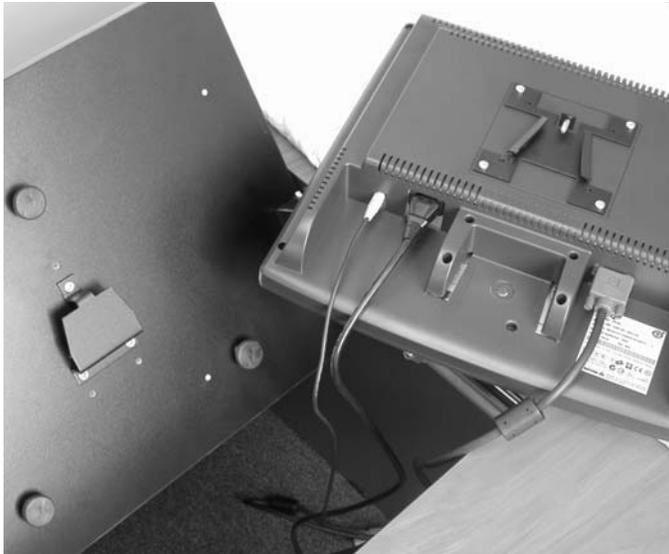
Detach the VESA Mounting Plate by grasping the bracket on both sides as shown, pulling up until it disengages. Note the operation of the spring loaded retaining pin and how it is captured in the top hole of the mounting plate when installed.



### STEP 17 – Attach VESA Bracket to LCD Display

All VESA FDMI LCD displays are shipped from the manufacturer with mounting screws installed. The locations of these screws are either 75mm or 100mm between centers. These holes may be immediately visible, capped, or accessible by removing the monitor stand or a rear cover plate on the back of the monitor. In some cases, a conversion package may be required (contact your monitor manufacturer for additional information). The predrilled holes in the VESA Mounting Bracket can be used with either configuration. Remove the screws installed in the LCD and use them to install the VESA Bracket with the retaining pin oriented to the top of the display. Secure all four screws into the corresponding holes in the four flanges of the VESA Bracket.





## STEP 18 — Connect Cables

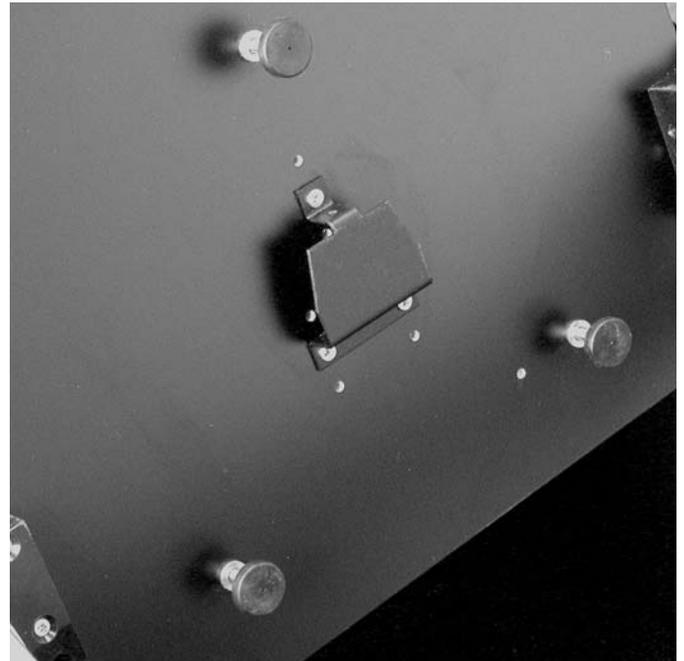
Place the display on a protected surface to keep it from being damaged as shown. Make cable connections and route them through the flipIT top, ready for complete connection later.



## STEP 19 — Attach LCD Display to flipIT Rotating Top

Grasping the LCD with both hands, position the VESA Bracket over the VESA Mounting Plate, sliding them together as you noted in STEP 17 such that the retaining pin is captured and snaps into the installed position.

## STEP 20 — Adjust Display Supports



Three rubber-tipped Display Supports are adjusted by unscrewing them until they contact the LCD housing.



## Step 21 — Verify LCD Display Clearance



Factory placement of the VESA Mounting Assembly should result in proper clearance of the LCD display. The LCD housing should have 1/2 inch to 1 inch clearance between the edge of the flipIT top and the LCD housing.

## STEP 22 - Test the Flipit Top

NOTE: Use caution when testing the clearance and closure of the flipIT top before putting it into use.



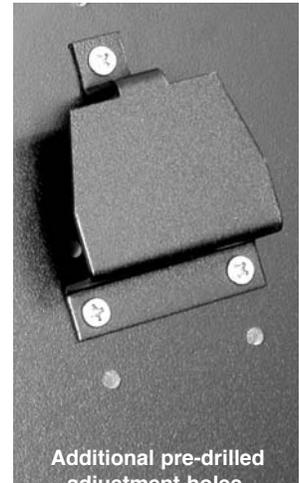
After the monitor has been mounted, push keyboard tray inward to carefully test proper clearance and closure before putting the unit into use. Test for smooth operation of the mechanism of the flipIT Top. Make sure the LCD flat display is properly positioned and the display supports are adjusted correctly.

(Only if necessary)

## STEP 23 - Adjusting the VESA Mounting Plate

Follow instructions in this step only if the flat display is above the top edge of the Rotating Desktop Panel or if it is too low.

Dismount the LCD monitor and set it aside on a protected surface. There are five (5) sets of pre-drilled holes on the Rotating Desktop Panel providing 60 mm of adjustment up or down for the VESA Mounting Plate. Remove the 3 screws from the VESA Mounting Plate and relocate the plate to a position enabling the LCD monitor to be 1/2" to 3/4" below the top edge of the Rotating Desktop Panel. Repeat Step 22 to ensure proper clearance and closure.



## STEP 24 — Adjust the Closing Tension



There are 2 tension adjustments, located at the ends of the keyboard tray connector arms. You will use a 7/16 inch open end wrench to make the final adjustments. Test the operation of the rotation top by pushing in the keyboard tray with display securely mounted. The weight of the display and the action of pushing in the keyboard tray should work together for smooth closure to the point where the damper takes over the closing operation. Do not force the damper closed with your hand. The tension adjustment should be loose enough to allow the damper to take over and close the desktop completely. If the adjustment screw is too loose, the weight of the display will free-fall, bouncing into the damper with too much momentum. Make adjustments in 1/4 turns of the hex nut until operation smoothly transitions weight to the damper and the damper fully closes the top without assistance.



SMARTdesks' flipIT™ Integrated LCD Workstation has been designed and tested to perform as an ergonomically correct and space saving unit. For more information on this and other SMARTdesks products, call 1-800-770-7042 or visit our website at <http://www.smartdesks.com>



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