

# Installation Manual for flipIT- Kit Generation II

FIK-18 keyboard tray actuated flipIT®

FIH-18 handle actuated flipIT® without keyboard tray



How to install into any desktop using templates  
for cutting table top and pilot holes.

How to install into factory cut table top  
with pilot holes.

**ATTENTION:**

LCD must be installed in order for the flipIT lid  
to remain closed. The LCD counterbalances  
the force of the pneumatic cylinder.

flipIT® Patent Pending  
GENERATION II

SMARTdesks

# Getting Started

These installation instructions guide you through the proper way of completing the assembly of the SMARTdesks flipIT® Kit FIK-18 (with keyboard) and FIH-18 (without keyboard, plus cable release actuator handle). Improper installation may void the SMARTdesks warranty. It is especially important that the installer observe proper care in protecting surfaces from abrasion.

For any questions or assistance, please contact Technical Service at 800-770-7042 ext 810, or email [service1@smartdesks.com](mailto:service1@smartdesks.com).

## 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 Full 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
- Glue stick



### Tools needed for installation into factory cut desktop only:

- Screw gun or #2 Phillips screw driver
- 3/8" open end wrench (or pliers)



### STOP!

The installer must possess the skill to cut within the tolerance of the template layout line if no factory-made cutout is made in the table top. Do not attempt this installation without this level of craftsmanship skill.

If a factory made cut is provided, only skills of using a screw-driver and wrench are required.

## IMPORTANT:

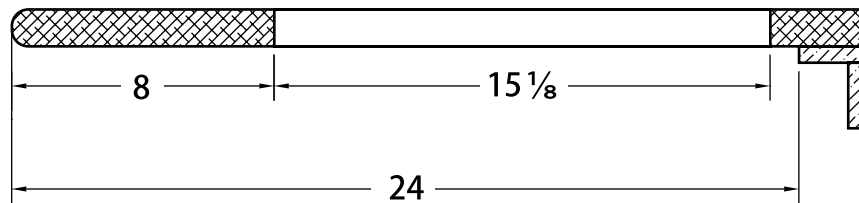
When installing flipIT into a SMARTdesks product, **install the flipIT mechanism FIRST, before assembling the desk.** It's easier and more efficient to work this way.

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.

## Planning Ahead

These instructions make certain assumptions about the working space. You can make variations in these based on your application, but here is a reference of the space allocation as designed for a standard installation. If you are placing two or more flipIT units side-by-side, 30" spacing is recommended as a minimum. The mouse tray extends on left or right. Seat users so left- and right-handed do not conflict.

## Counter Top Depth



Dimension is clear space from edge of ledger strip

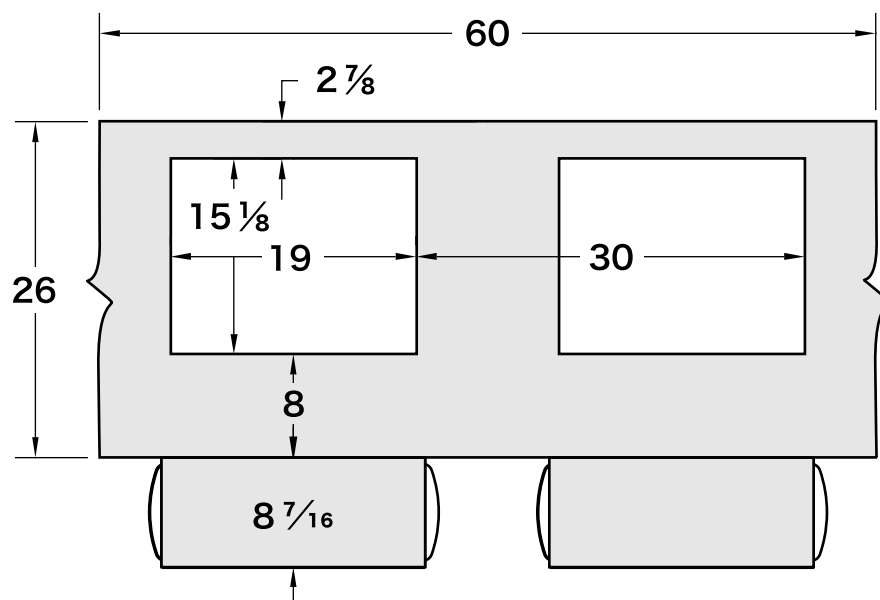
The factory placement of the cutout for the flipIT unit is 8 inches from the user's edge. This assumes a straight edge; not a round or contoured edge. **If you are experimenting with placement for an unusual application, we recommend requesting additional templates and making dry-fit installations into scrap.**

Based on this profile, a minimum of 24 inches of clearance, front to back, must be allowed for the mechanism and LCD monitor. If you are installing modesty panels, make sure you allow this clearance, as well.

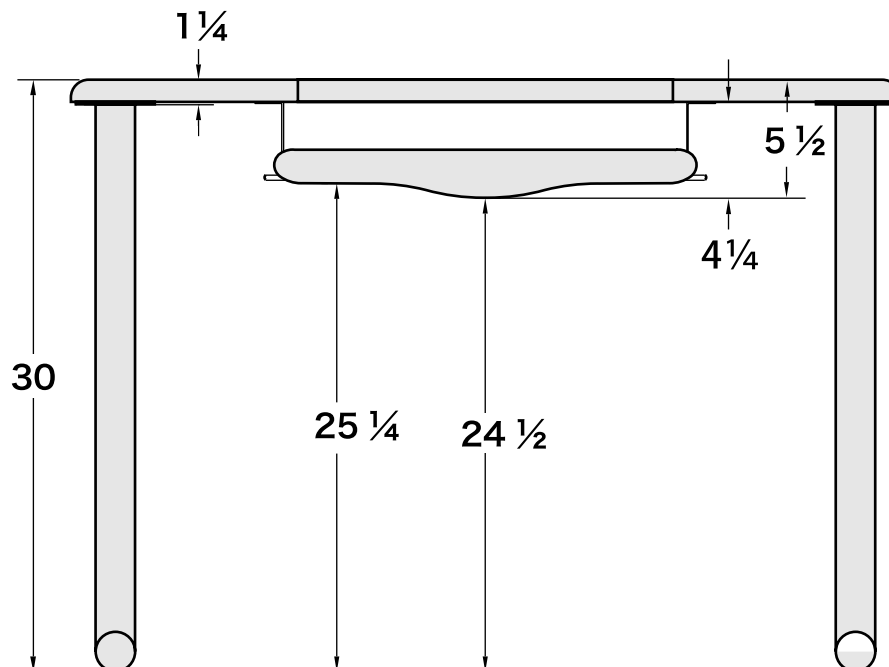
## Workstation Spacing

Use 30 inch spacing from centerline to centerline, or from common reference point as shown on the drawing (from right edge of cut-out to right edge of cut-out).

This drawing depicts a segment of table top and does not indicate a minimum table top width.



## User Side Elevation

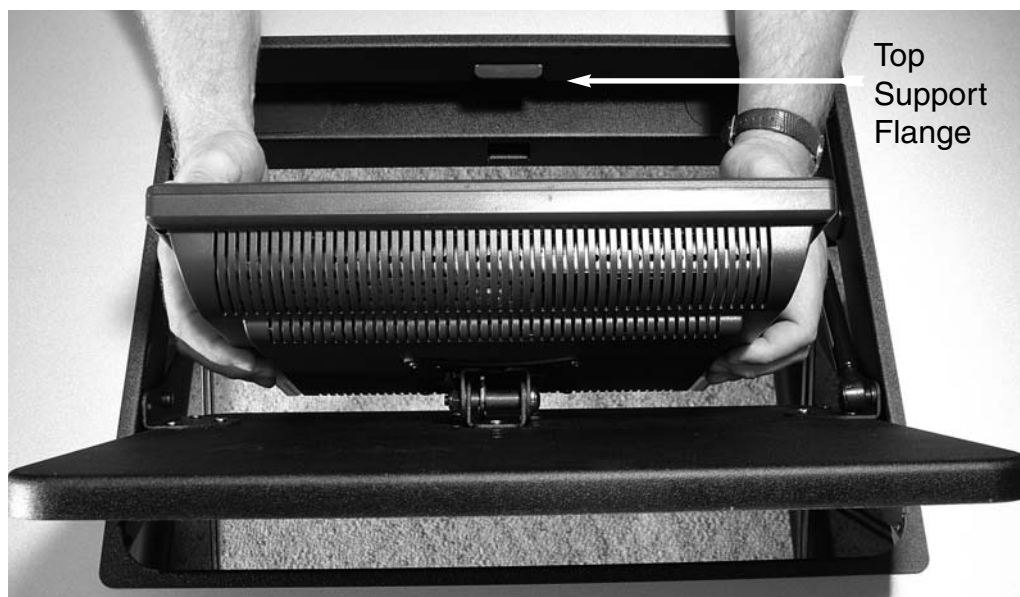


Desktop thickness may vary from no less than  $\frac{3}{4}$  inch to  $1\frac{1}{4}$  inches. The suggested position for installation of the keyboard L brackets is the 5th hole from the end, which allows  $1\frac{1}{16}$  inches keyboard clearance and the user clearances shown. The keyboard tray assembly suspends  $4\frac{1}{4}$  inches from the bottom surface. A 6-foot adult male measures  $23\frac{1}{2}$  inches from the top of the knee to the floor in sitting position.

## Weight of LCD Required for flipIT to Close

For this very reason, the pneumatic cylinder ships partially installed.

If flipIT® is to be stored without an LCD installed, it is advised that the pneumatic cylinder be disconnected for ease of handling.



**If no LCD is present, flipIT will remain open.** The pneumatic cylinder is loaded to counterbalance the weight of the LCD to open the unit. Install the LCD in the highest position possible to achieve optimum center of gravity. Top of LCD should just clear the top support flange pictured top center. Several sets of holes are provided to accommodate LCD variations.

## 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.

### Parts List:



Qty 1 FlipIT Top Assembly with grommet collar, VESA mount & pneumatic cylinder



Qty 1 Keyboard Tray Assembly (FIK-18 only)



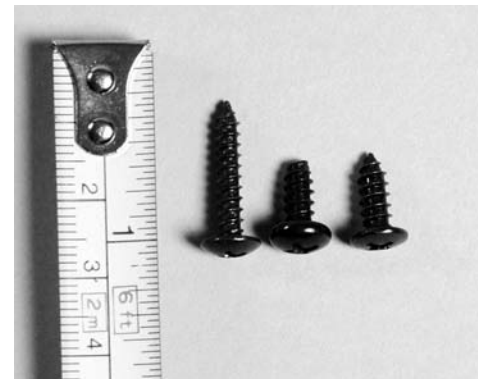
Qty 1 Cable release handle (FIH-18 only)



Qty 4 Keyboard Assembly Mounting Brackets



Qty 1 VESA LCD mounting bracket to be installed on LCD using your monitor's screws



Qty 4 Wood Screws, 3/4 inch  
Qty 4 Machine Screws, 1/4 inch  
Qty 18 Wood Screws, 3/8 inch (8 will be used)

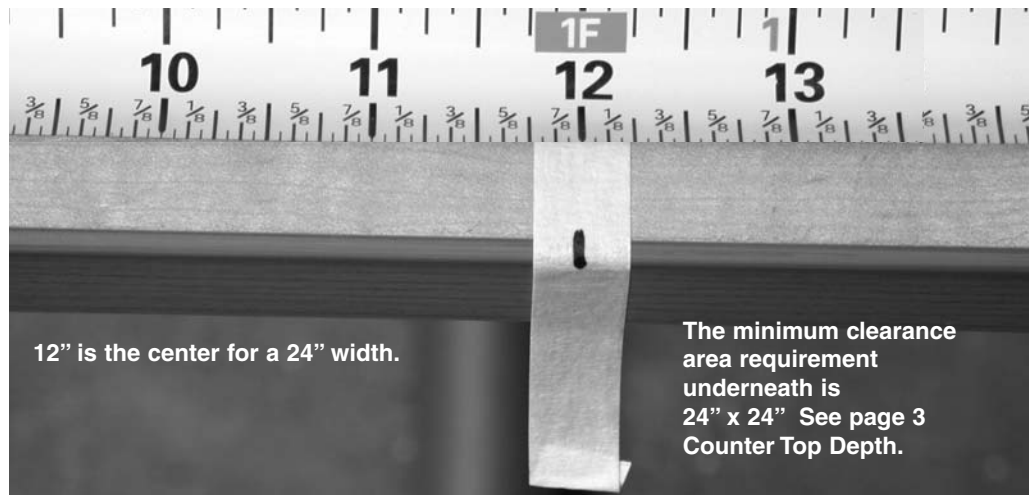


Qty 1 Paper template for top cut-out, shown installed



Qty 1 Paper template for keyboard pilot holes, shown installed (FIK-18 only)

## Step 1- Establish Centerline



12" is the center for a 24" width.

The minimum clearance area requirement underneath is 24" x 24" See page 3 Counter Top Depth.

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- Adhere Cutout Template to Desktop

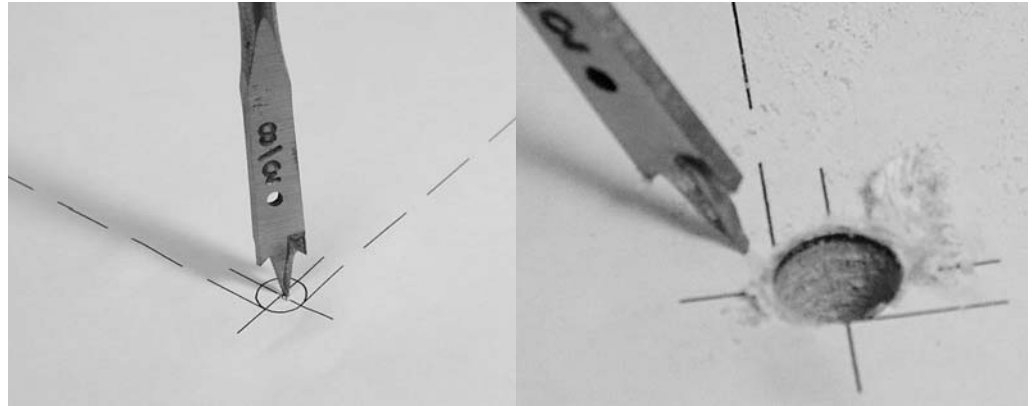


Use a glue stick on back of template cut lines.



Align front edge of template with desktop centerline and press in place.

**STEP 3 -  
Drill Corner  
Starting Holes**

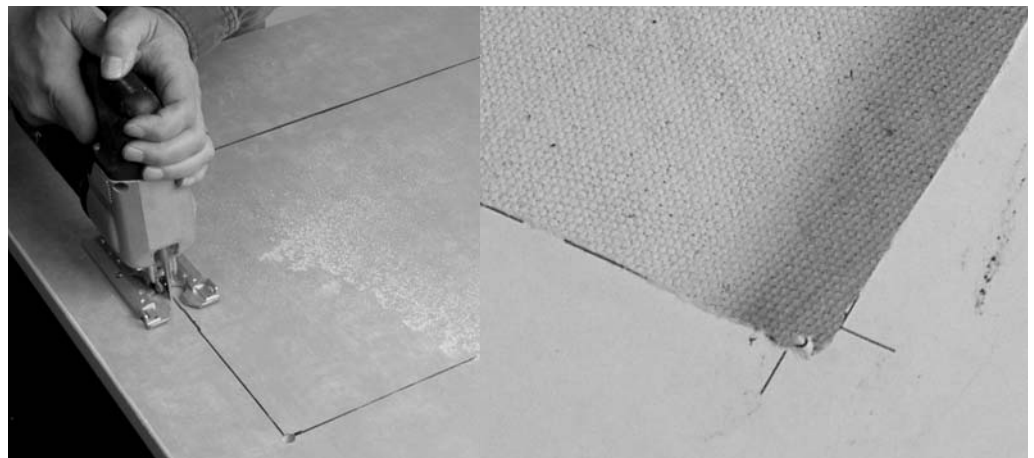


To make holes for starting your jig saw cut, use a 3/8" drill bit, place the point of the bit at the corner mark and drill completely through the surface top. Repeat this step for each corner.

**STEP 4 -  
Saw the Hole for  
flipIT**



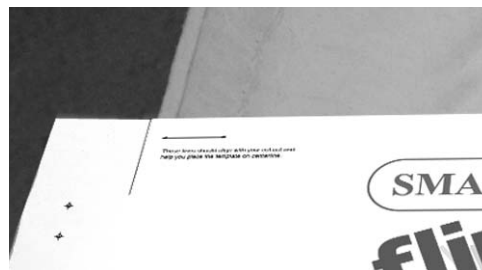
Place the jigsaw at the corner marking. Remove the layout line with the kerf of the saw cut for a factory fit. You must have the skill to saw a straight line within the tolerance of the width of the saw blade. Saw from corner hole to corner hole. Remove the remains of the paper template when this step is finished.



## STEP 5 - Positioning Template for Keyboard Tray Pilot Holes



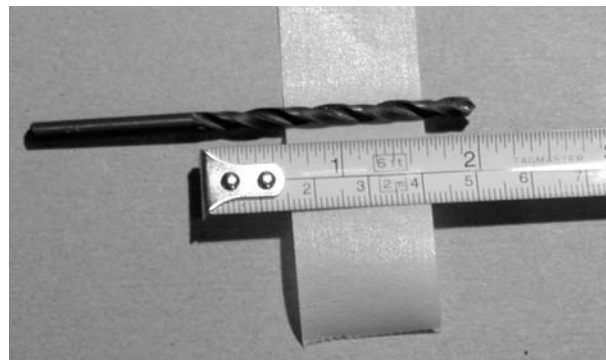
Use a glue stick on the back of the template where holes are indicated to be drilled. Press the template in place, aligning centerline at front edge of desktop.



Additional guide lines on template are provided for centered alignment.

*NOTE: These illustrations show the underside of the desktop. If you can remove the desktop for installation, this is recommended.*

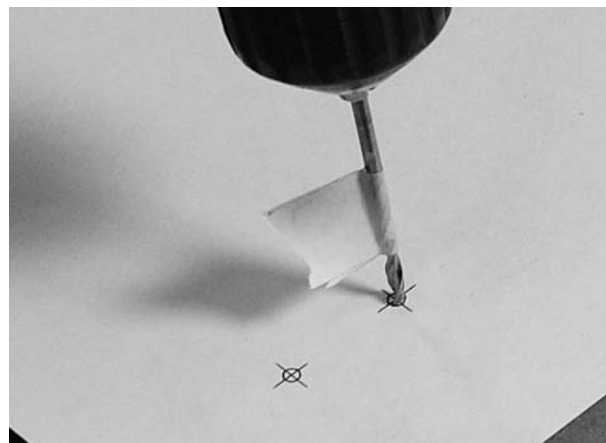
## STEP 6 - Make a Depth Gauge for Drilling Pilot Holes



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 7 - 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.

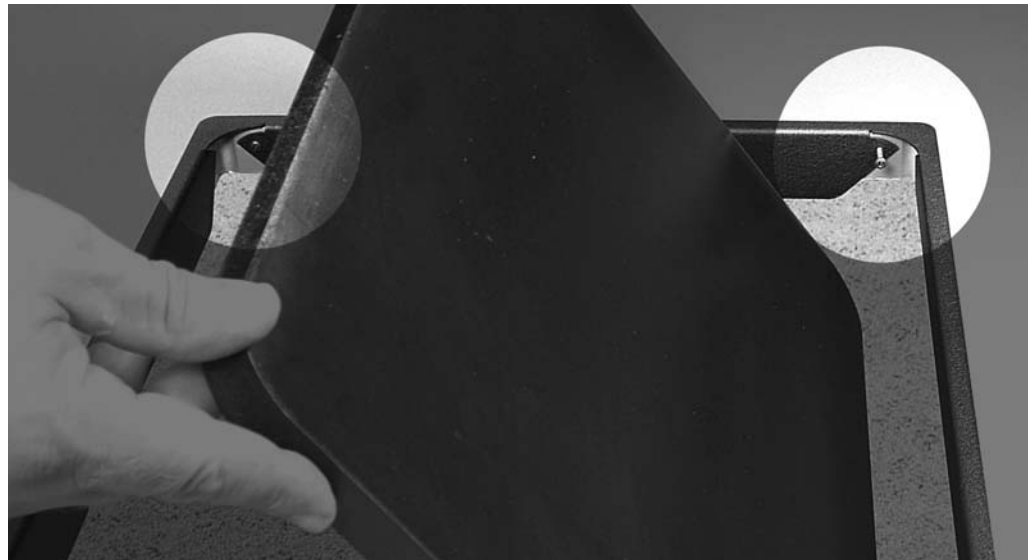
## STEP 8 – Install FlipIT Top & Collar Assembly into desktop

### Installation Tip

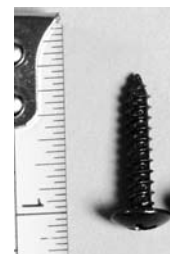
*To protect finished surfaces, select a carpeted assembly area, or place a packing blanket or sheet of cardboard on the floor.*



Place the FlipIT top assembly into the desktop precut opening. You may need to flex the edge of the collar to permit the assembly to seat properly. You may note that there is a larger gap between the lid and collar on the side facing the back edge. This extra clearance is normal.



Using an  $\frac{1}{8}$  inch bit, drill pilot holes taking care to position the drill squarely.



Using #2 Phillips screwdriver bit, install four  $\frac{3}{4}$  inch wood screws in the locations shown in the two sides of the assembly.

## FIH Model:

### Install Cable Release

If you are installing the FIH flipIT Kit with no keyboard tray, the template for pilot holes to install a keyboard tray is not included. There is no template for pilot holes for the cable release. The assembly must be positioned to suspend the slotted arm as this installation method describes. The handle is the pilot hole template.

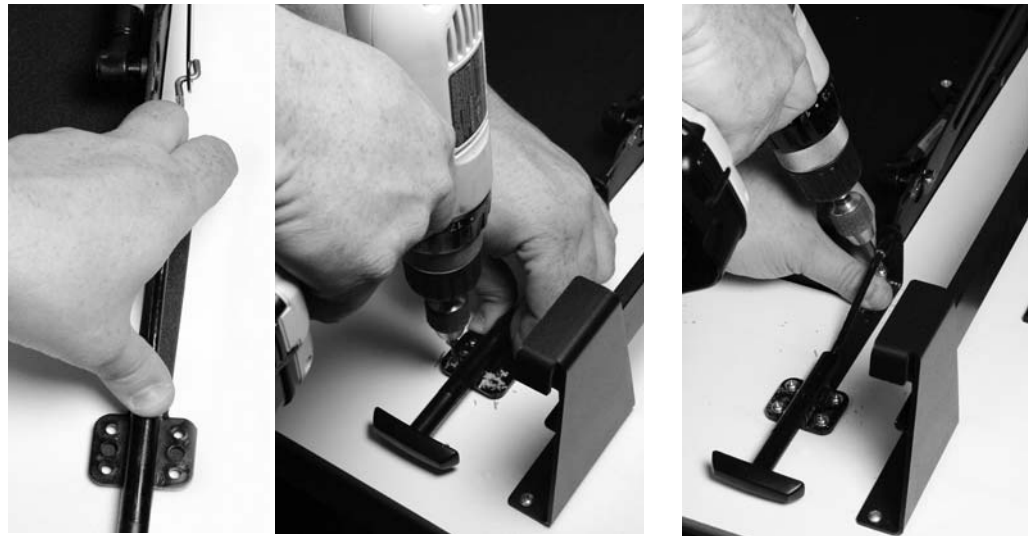


Insert the Z hook of the cable release into the round hole of the slotted arm. Pull the slack out of this arrangement, aligning parallel with cut-out. This determines the ideal location of the handle.

### Installation tip:

*If you are also installing a keyboard tray, install that hardware before installing the flipIT handle. The mounting bracket for a third-party keyboard tray is shown.*

*Do not drill through the desktop! Use a depth gauge or make one out of masking tape. See page 8 Drilling Pilot Holes.*



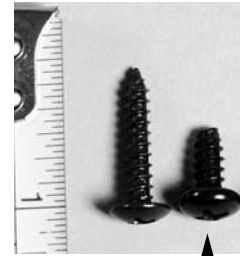
Hold the handle in place with one hand, keeping tension in the assembly, and drill pilot holes for the supplied screws, packed with the cable release assembly. Be careful to drill to a depth no more than  $\frac{3}{8}$  inch. Install the screws.



The completed installation should suspend the slotted arm with the flipIT lid completely closed. The handle's range of motion is just enough to move the lid just past the neutral point, where the pneumatic cylinder takes over for a controlled opening.

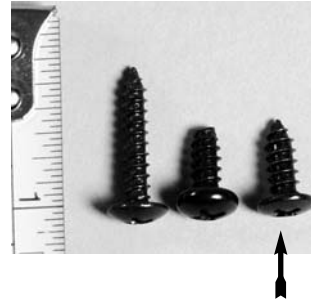
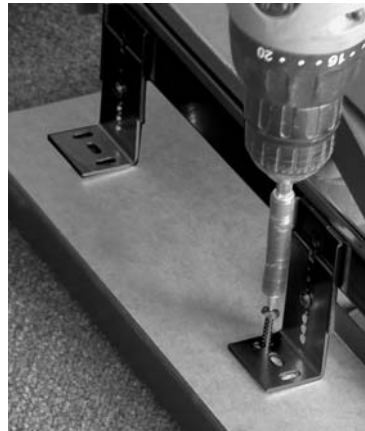
## Step 9 – Attach L Brackets to Keyboard Tray Assembly

The suggested location provides 1 ¼ inches of clearance to fit most keyboards. Measure the thickness of your keyboard and choose a different hole to accommodate a thicker keyboard. 1 ¼ inches is the minimum clearance



Locate the 5th hole from the end in the Keyboard Mounting Bracket, and secure it to the tapped hole in the Keyboard Tray Assembly using a ¼ inch machine screw. Repeat this step in four places

## Step 10 – Install Keyboard Tray



Using 8 of the ¾ inch wood screws, install the keyboard tray's L brackets to the under side of the desktop, into the pilot holes drilled, using a #2 Phillips screw driver bit.

## Step 11 – Connect Slotted Arms to Keyboard Tray Assembly

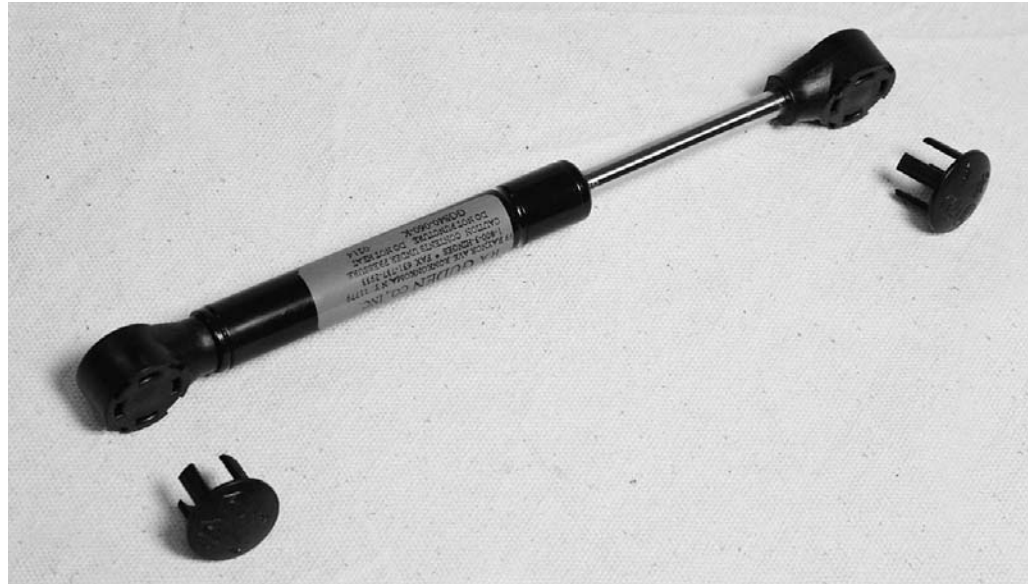


There is a slotted arm with a round hole on each side of the flipIT lid assembly. There is a friction locking nut on each of the keyboard tray arms. Using pliers, remove the nut, place the round hole over the threaded bolt and reinstall the nut. Do this on both sides.

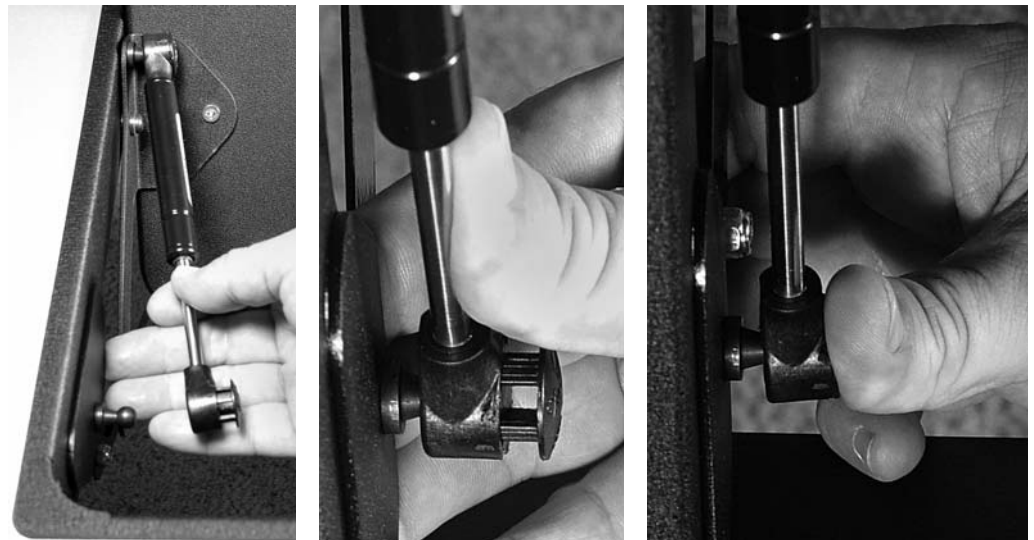
The joint should move freely: do not tighten with any torque in the joint.



## Step 12 – Connect Pneumatic Cylinder



The pneumatic cylinder ships attached to the mounting post of the flipIT lid with locking hubs installed. Use a slotted screwdriver to pry off the locking hubs to the distance shown below.



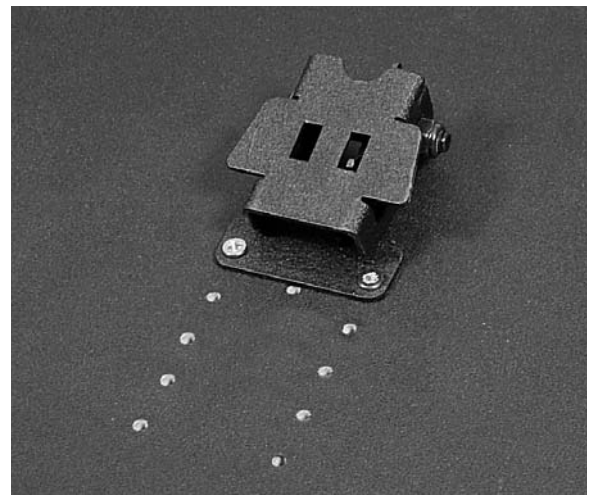
Capture the mounting peg, located on the collar, with the cylinder's fitting. First press against the connector rod until the fitting seats, then press the locking hub in.

## Step 13 – Mount Your LCD Monitor

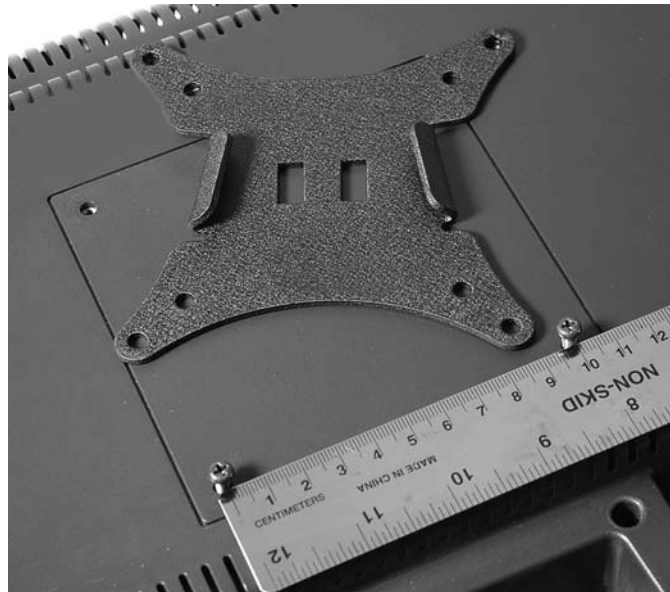
***flipIT won't close  
without an LCD  
installed***



The VESA mount is a 2-part assembly. The male part is installed on the flipIT lid (right) with 5mm Euro screws. The female half installs on your LCD using the screws from your LCD.



## 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. The predrilled holes in the VESA Mounting Bracket can be used with either configuration.

### Installation Tip:

*Place a blanket in your assembly area so you can protect your LCD screen and fine furniture surfaces.*



Remove the screws installed in the LCD and use them to install the VESA Bracket with the flanges angled wider toward the base of the display. Secure all four screws into the corresponding holes in the VESA Bracket.

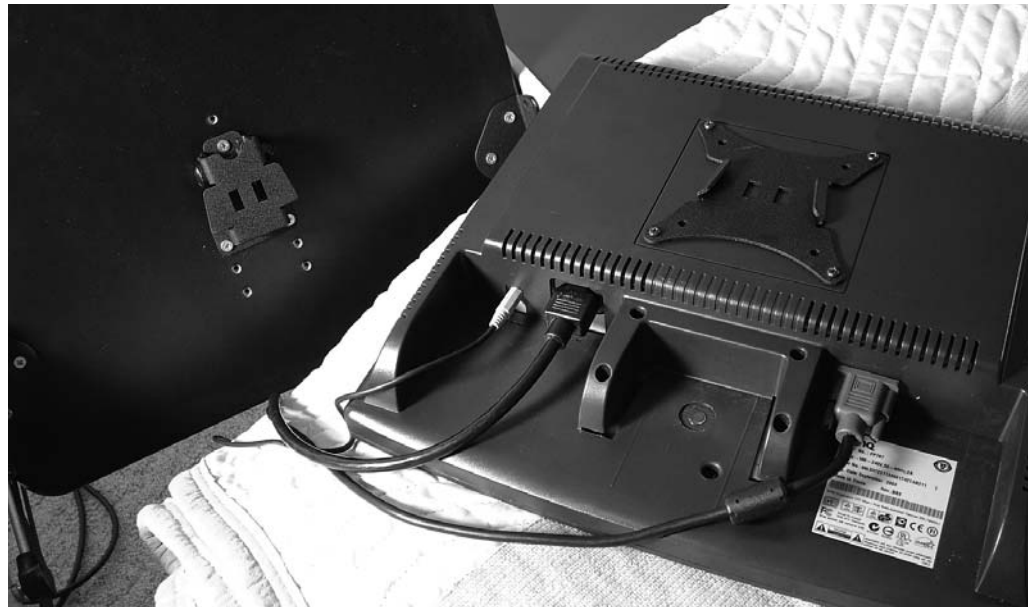


In some cases, a conversion package may be required. Contact your monitor manufacturer for additional information. The VESA mount conversion kit from Apple is used for installing the iMac G5, for example. Purchase this kit from the Apple web site. Go to the Apple Store and search the term VESA adapter.

## STEP 14 — Connect Cables

### IMPORTANT NOTE:

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



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.

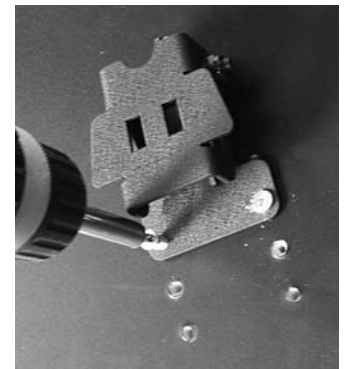
## STEP 15 — Attach LCD Display to flipIT Top



Grasp the LCD with both hands and capture the mounting surface. Gravity will hold the LCD in place. When the flipIT closes, a gravity pin will keep the mounting device nested.

### Check your clearances

Your LCD monitor should be installed as high on the lid as possible, allowing enough clearance for the lid to close. Achieving this position is important so the center of gravity can facilitate the flipIT lid to stay closed. If you find that you have mounted your monitor in its highest position and flipIT is still operating with a hair trigger, a lower power pneumatic may be required. Contact SMARTdesks.



Additional sets of mounting holes are provided to achieve the ideal position.

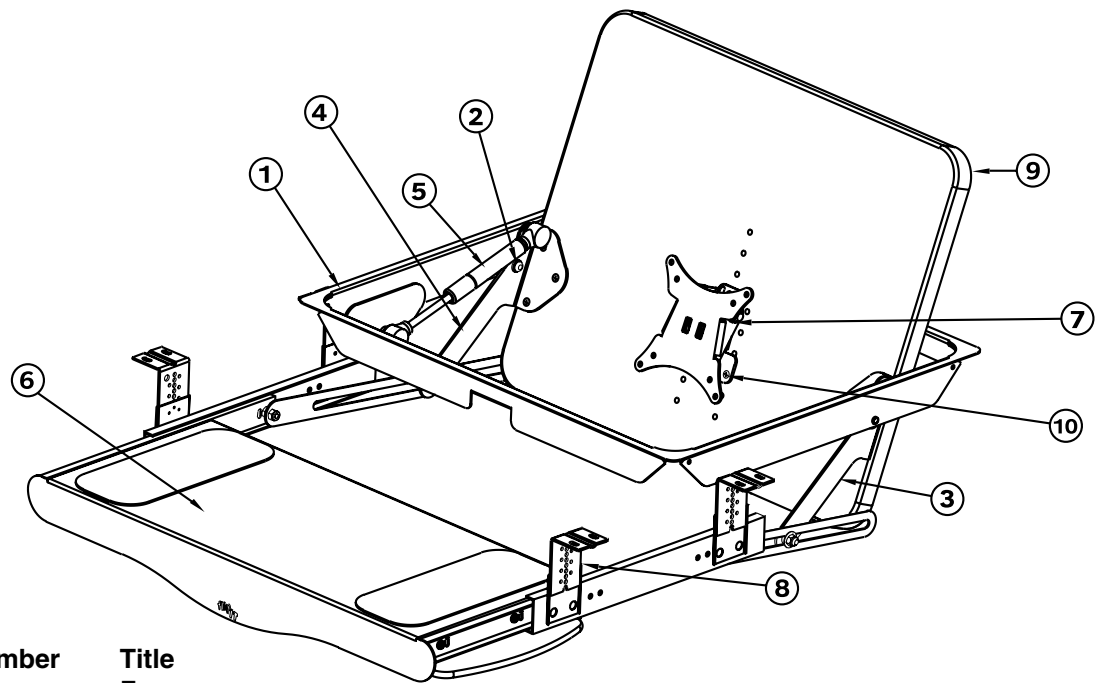
## STEP 18 - Test the Flipit Top

You can actuate the flipIT rotation either by pulling out the keyboard tray about an inch, by using the cable release (FIH model), or by depressing the back of the flipIT desktop. The pneumatic cylinder will do all of the work.

The keyboard tray works independently in all other respects on Generation II.

The flipIT desktop is closed by manually closing it like a lid.

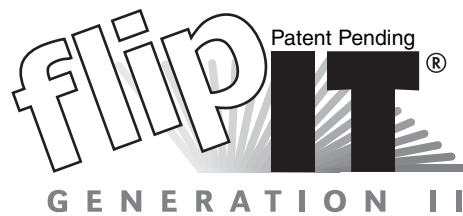
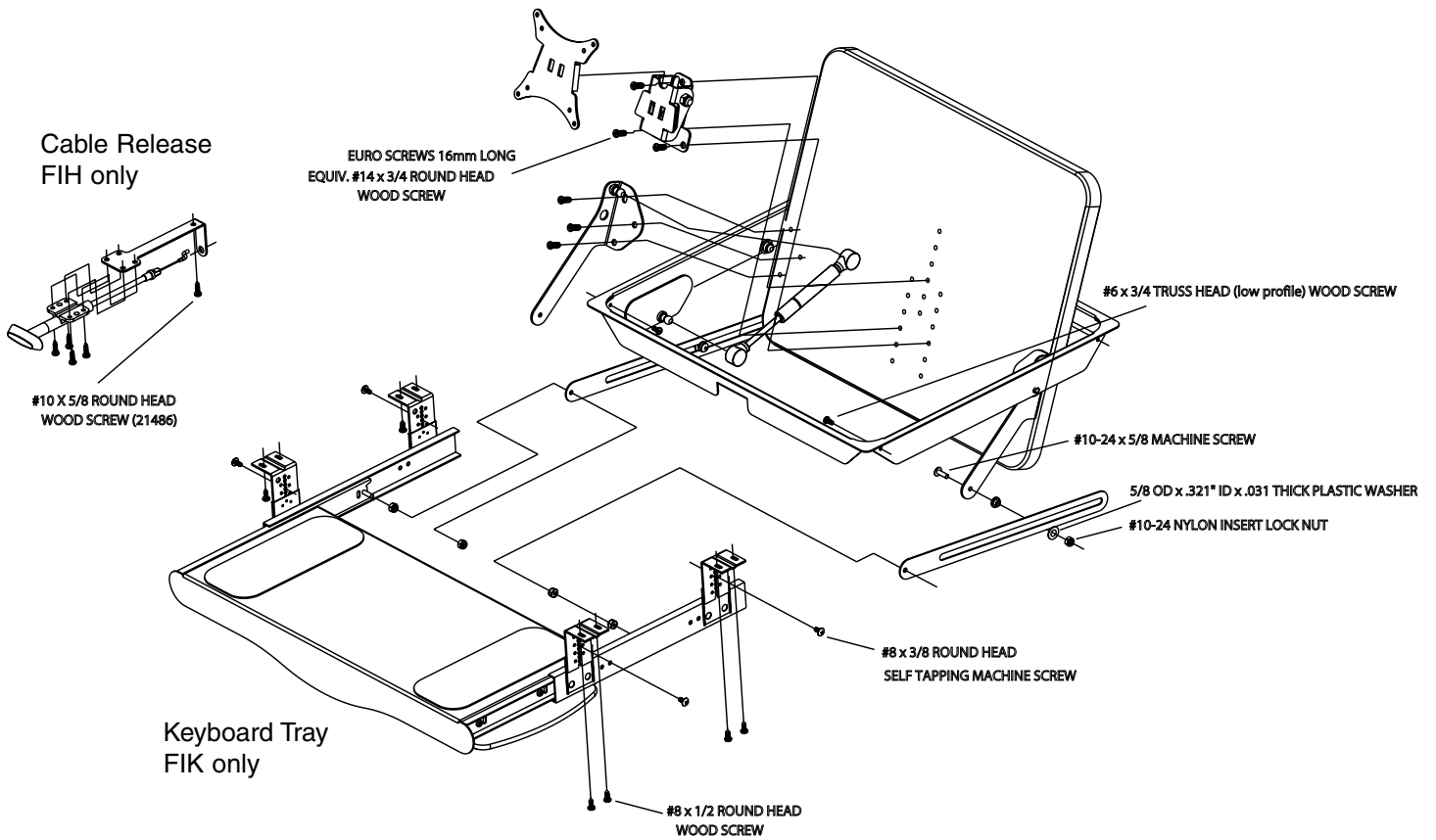
The hinge of the VESA mount on Generation II allows adjustment of the screen angle. You may adjust the LCD screen angle by squeezing the top of the display and the flipIT lid for a laid-back angle, or push on on the bottom of the display for a steep angle.



### Parts List

Item No.	Qty.	Part Number	Title
1	1	27909	Frame
2	2	27332	Bushing
3	1	27901 RH	Arm Assembly
4	1	27902 LH	Arm Catch Assembly
5	1	27919	Gas Spring
6	1	27898	Keyboard Tray / Slide Assembly (FIK only)
7	1	27892	Flat Screen Tilt Assembly
8	1	27884	Bracket / Screw Package
9	1	28193	Top Lid
10	9	28163	Euro Screw

# Parts Identification



[www.smartdesks.com](http://www.smartdesks.com)

*SMARTdesks' patent pending flipIT<sup>®</sup> Integrated LCD Workstation has been designed and tested to perform as an ergonomically correct, space saving unit.*

*For more information on this and other SMARTdesks products, call 1-800-770-7042 or visit our website at [www.smartdesks.com](http://www.smartdesks.com)*