

# FlightDock v2 Installation Guide

## Falken Avionics

Congratulations on your purchase of FlightDock, the innovative tablet mounting system from Falken Avionics. If you have any questions, please feel free to reach out to us at: [support@falkenavionics.com](mailto:support@falkenavionics.com).

### Step 1: Unboxing & Inventory

Remove the components from the box and make sure that you received all of the FlightDock components:

1x Lower (Fixed) Mounting Rail  
1x Upper (Sliding) Mounting Rail  
1x 80mm DC Cooling Fan  
1x Fan Speed Controller  
Neoprene Pad Strips  
12x #6-32 flat head machine screws - for frame (length as required for your panel, typically 1/2")  
Scale drawing<sup>1</sup> of FlightDock

Make sure that you have all required (but not supplied) installation hardware and components:

12x #6-32 nuts (can be nut plates or nylon locking nuts as desired)  
4x #8-32 pan head machine screws - for fan (length as required for your panel, typically 1 1/4")  
4x #8-32 nylon locking nuts  
Aviation-grade wire, 22 AWG or larger (generally black / red Tefzel)  
2 amp circuit breaker, fuse, or electronic circuit breaker

### Step 2: Locating The Mount

Remove the blue tape holding the upper and lower frames together and slide the upper frame to fit your tablet. Carefully re-tape the upper and lower frames to ensure that the FlightDock is configured as it will be in flight with your table installed. (Slide the tablet out from the side after you have the slider taped - it's much easier to locate the mount without the tablet in it.)

Place and level the FlightDock on the front side of the instrument panel. Be sure to verify that:

- There is no structure on the back of the panel that will conflict with the mounting screws.
- There is enough room on the back side of the panel to mount the 80mm (3 1/8") fan and controller in the open area between the two frame members.
- There is enough room above the FlightDock to slide the upper frame up when installing or removing the iPad (about 1/2").

Use a pen or a punch to mark the 12 screw holes. Note that it is not required that you use all 12 so long as you have at least 4 on each side. (This allows you to avoid some structure on the back side of the panel if necessary.)

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<sup>1</sup> We make every effort to print this at 1:1 scale, but you should measure and compare with the actual FlightDock if using the drawing to lay out holes.

### **Step 3: Locating the Fan**

The fan must be mounted **on the back side of the panel** and located so that it sits between the uprights in the open area between the upper and lower frames. Ideally, the fan should be centered within the open space. (See scale drawing.)

Locate the fan and mark or scribe the center points for the four fan mounting holes.

Draw diagonal lines between opposite corners of the fan (i.e. top-left to bottom-right, top-right to bottom left). This gives you the center point for the fan hole.

The fan is 80mm, which is very close to 3 1/8" - a common size for aircraft instruments. If you have access to a 3 1/8" instrument punch, that tends to be the cleanest way to create the fan hole. If not, use a compass to draw or scribe a circle 80mm in diameter.

### **Step 4: Drill / Punch / Cut**

Drill holes for #6 screws marked in step 2. Deburr the holes. If using nut plates, mount the nut plates on the back side of the panel.

Using either a 3 1/8" instrument punch or other cutting tools, punch / cut out the hole for the fan. Dress / deburr the hole.

Drill holes for the #8 fan mount screws. Deburr the holes.

### **Step 5: Mount The Frame**

Remove the tape connecting the upper and lower frames. Keep the two frame members together as it may be difficult or impossible to slide in the upper frame into the lower frame once it is installed depending on what is above the mount.

Place the FlightDock back on the panel and secure with #6 hardware.

Verify that the upper frame slides cleanly up and down into the lower frame.

### **Step 6: Add Neoprene Bumpers**

The neoprene bumpers are adhered to the lower frame and are used to keep the tablet pressed against the inner retaining lip of the upper frame. This tension is what prevents the upper frame from sliding up / down when the tablet is installed.

**CAUTION: Do not force / bend / flex or otherwise risk damaging your iPad! If the neoprene provided is too thick to comfortably install the iPad, find thinner material!**

The 1/4" neoprene tape supplied is enough to hold a typical iPad in place. Thicker iPads may require slightly thinner neoprene. If your tablet is extremely thin, you may need to find slightly thicker neoprene. (You can use standard window seal stripping, available at most hardware and home supply stores.)

Neoprene bumper strips should be installed horizontally on the lower frame between the top and the middle set of mounting screws. (See the scale image included with these instructions.)

### **Step 7: Mount The Fan**

Place the fan on the back side of the panel with the printed side (the "Arctic" logo) facing through the hole into the cabin. (The fan system is designed to blow air onto the back of the tablet.)

Attach the fan by installing the four #8 screws through the panel, then through the fan. Secure with #8 nylon locking nuts on the back of the fan.

### **Step 8: Powering The Fan**

Wire the red lead on the speed control module to ship's power via a 2 amp circuit-protective device (breaker or fuse). Wire the black lead on the speed control module to ground.

Connect the fan's power lead to the speed control module. Insert the temperature sensor into the two-pin connector on the speed control module. Remove the red cover to expose the adhesive strips on the bottom of the speed control module and adhere it to the panel in a convenient location.

For more accurate temperature control, use epoxy or similar to adhere the temperature sensor to the back of the panel (optional).

### **Using The FlightDock Mount**

To install a tablet into the FlightDock mount:

1. Raise the upper frame
2. Slide the tablet into place in the lower frame
3. Press the table against the neoprene bumpers, compressing them slightly
4. Slide down the upper frame until it rests on the top edge of the tablet
5. Release the tablet

**DO NOT FORCE!** If the iPad will not fit snugly but easily into the FlightDock you will need thinner bumper materials.

To remove a tablet from the FlightDock mount:

1. Press in gently on the tablet to compress the neoprene bumpers.
2. Slide up the upper frame to release the top of the tablet.
3. Remove the table from the lower frame.