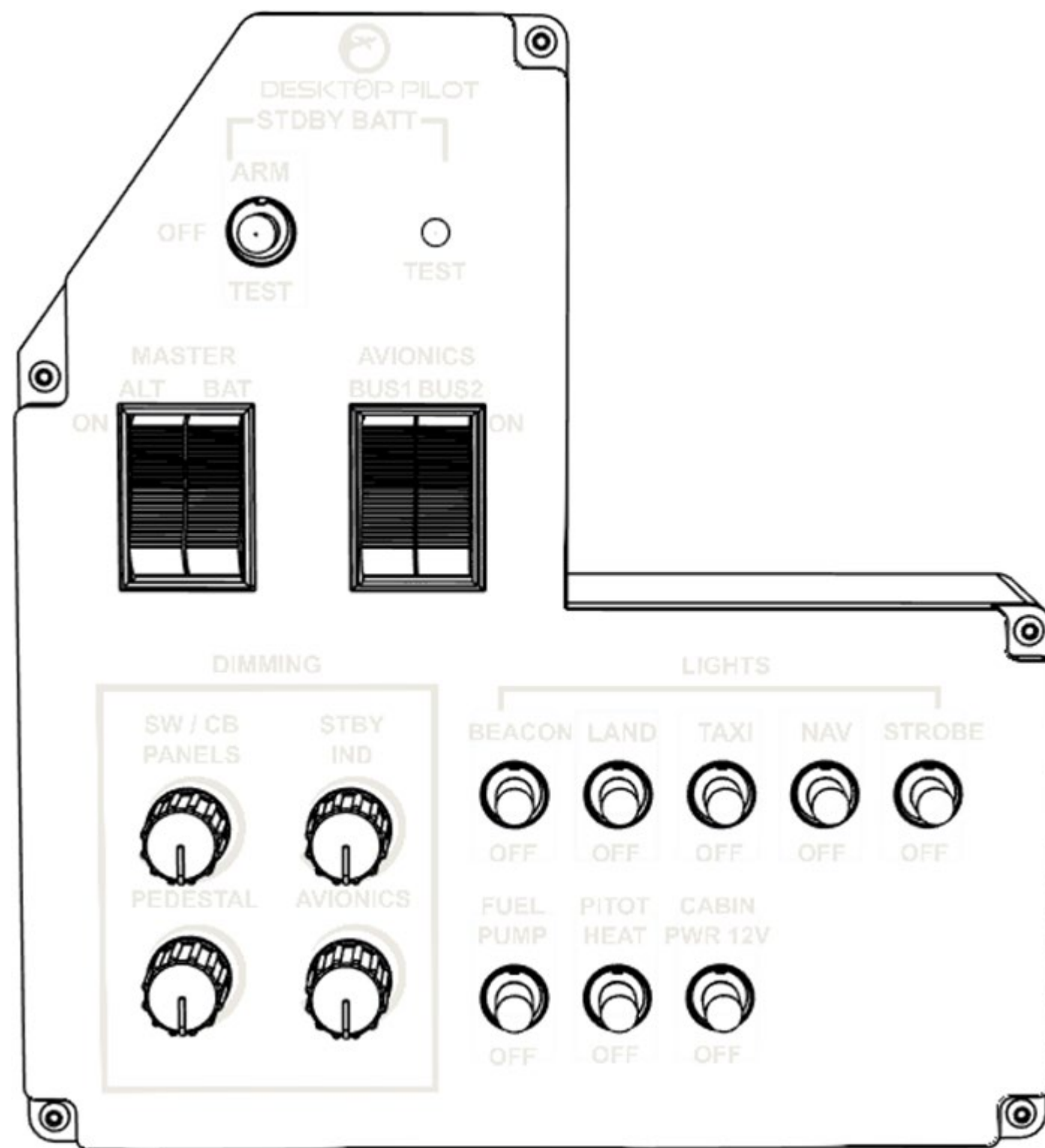


# DESKTOP PILOT

## Switch Panel

DP-172SP-01

User Manual



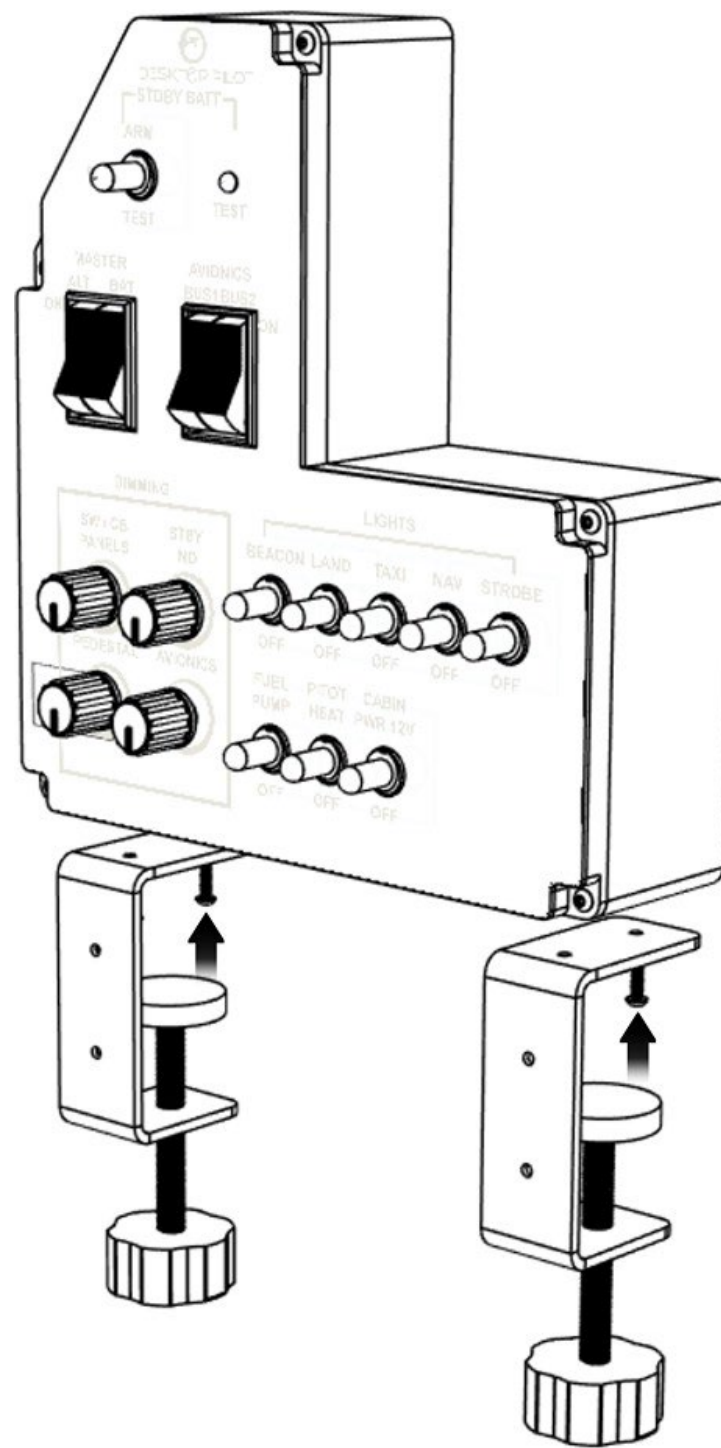
Joystick

Manual Version: 1.2

# MOUNTING OPTIONS

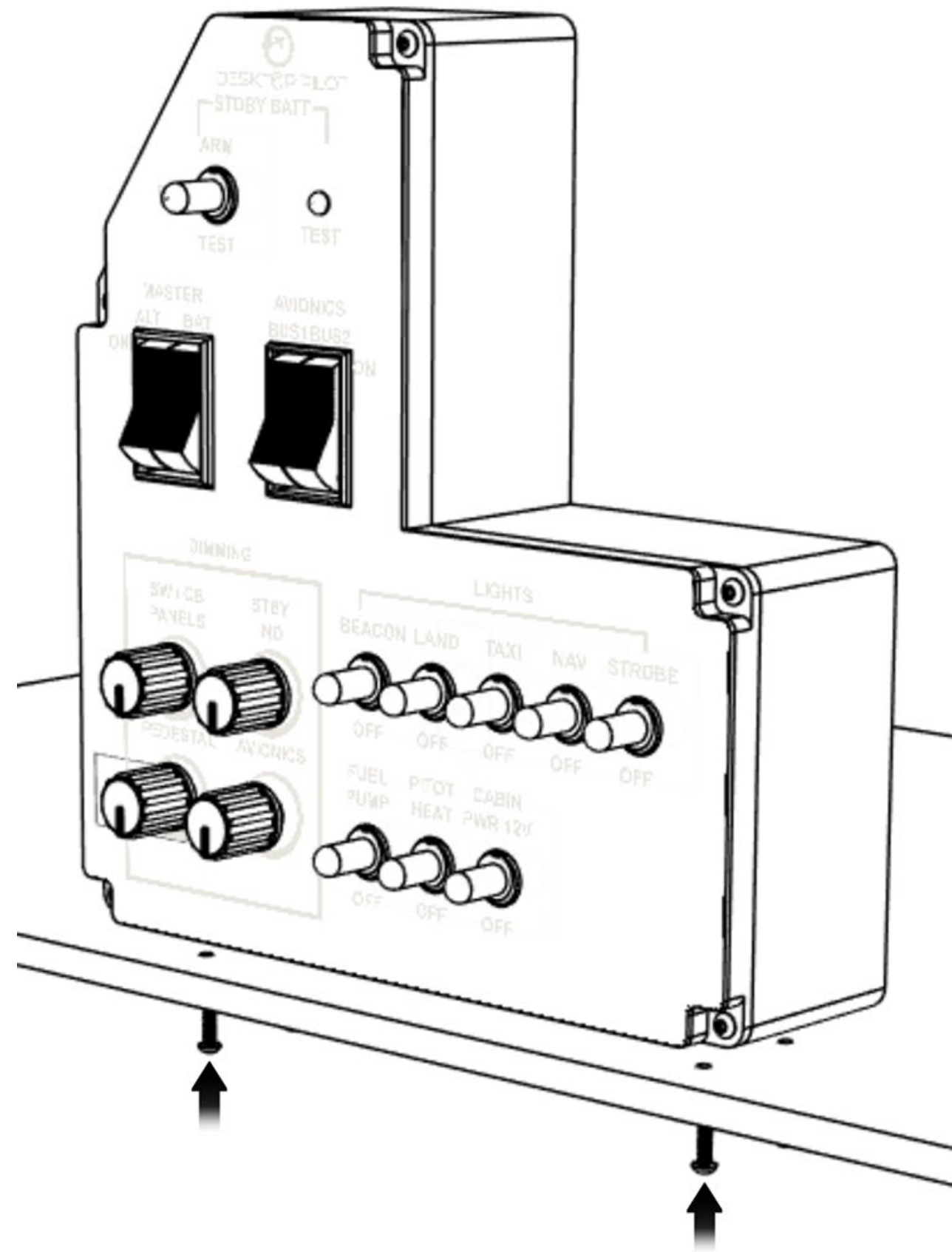
## Clamp Mounting

Attach the clamp (sold separately) using the base mounting holes and M3 screws.



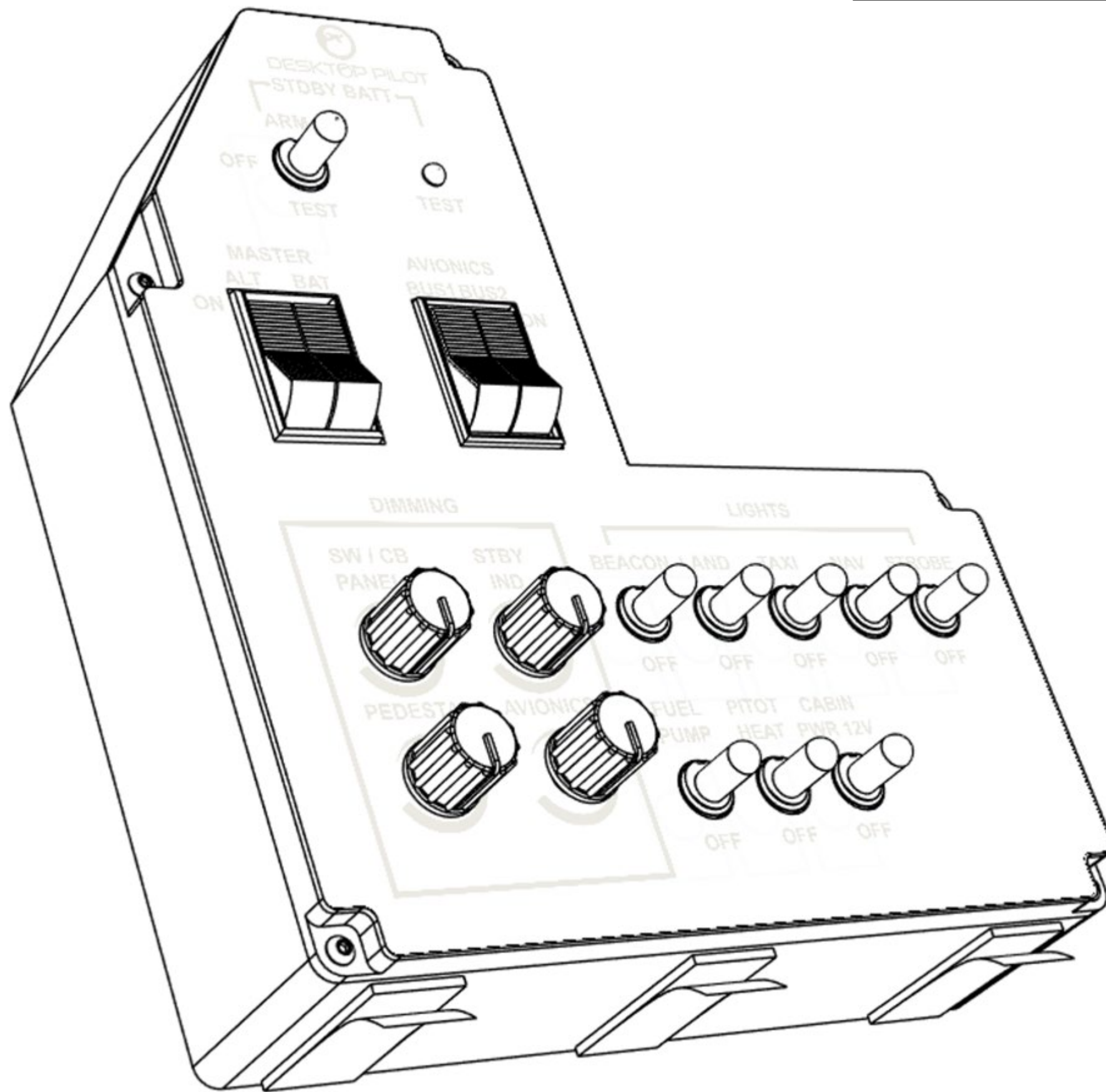
# Screw Mounting

Secure the product to the surface using the base mounting holes and M3 screws.



# Adhesive Mounting

Apply the double-sided tape to either side of the product, then press the product firmly onto the surface to secure it in place.





# PRODUCT SPECIFICATIONS

## **What's in the box?**

- Switch Panel
- USB Type-A to Type-B Cable
- Double-sided VHB Tape

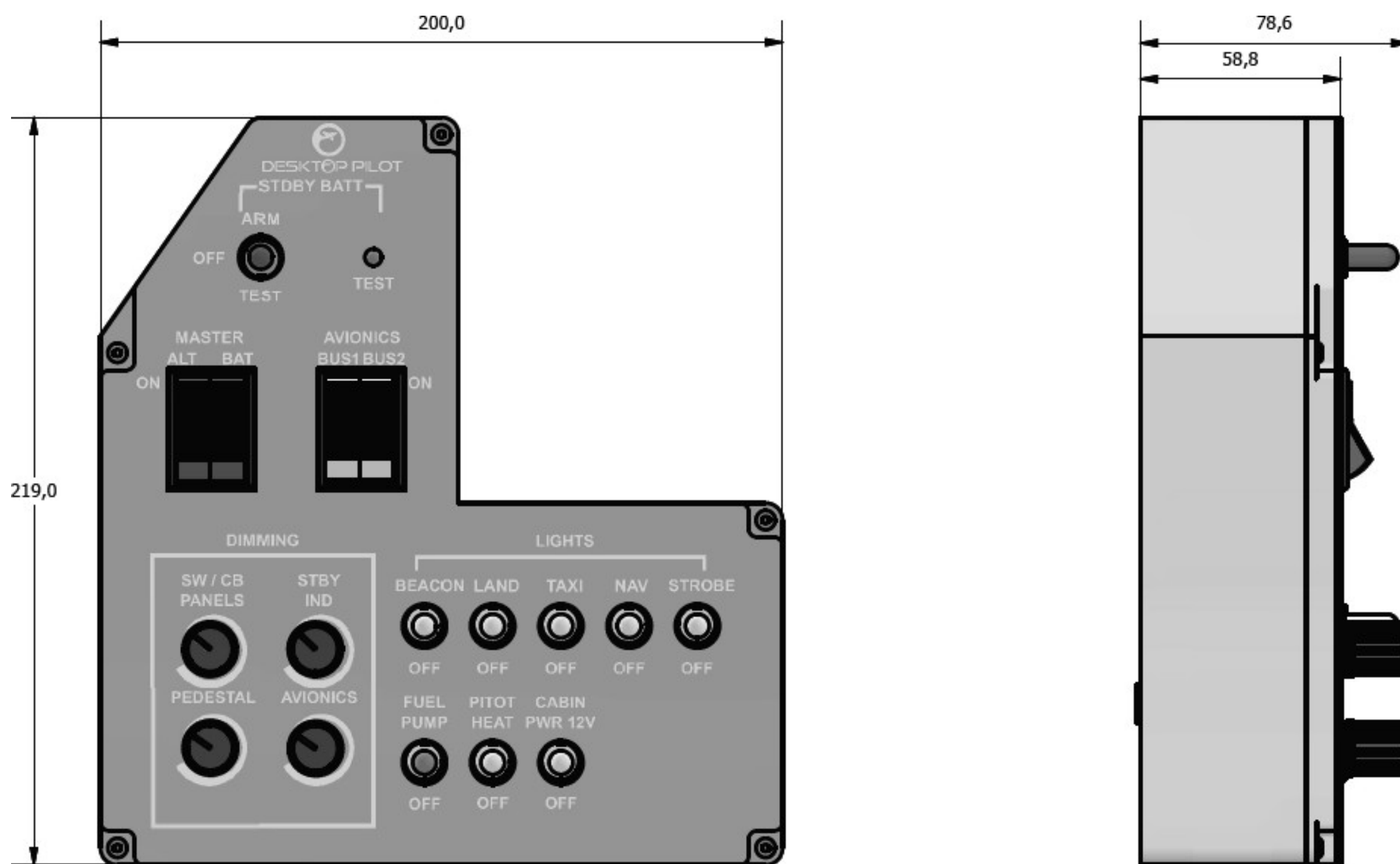
## Product Weight/Dimensions

### Dimensions (L x W x H):

200mm × 78.6mm × 219mm / 7.87in × 3.09in × 8.62in

### Weight:

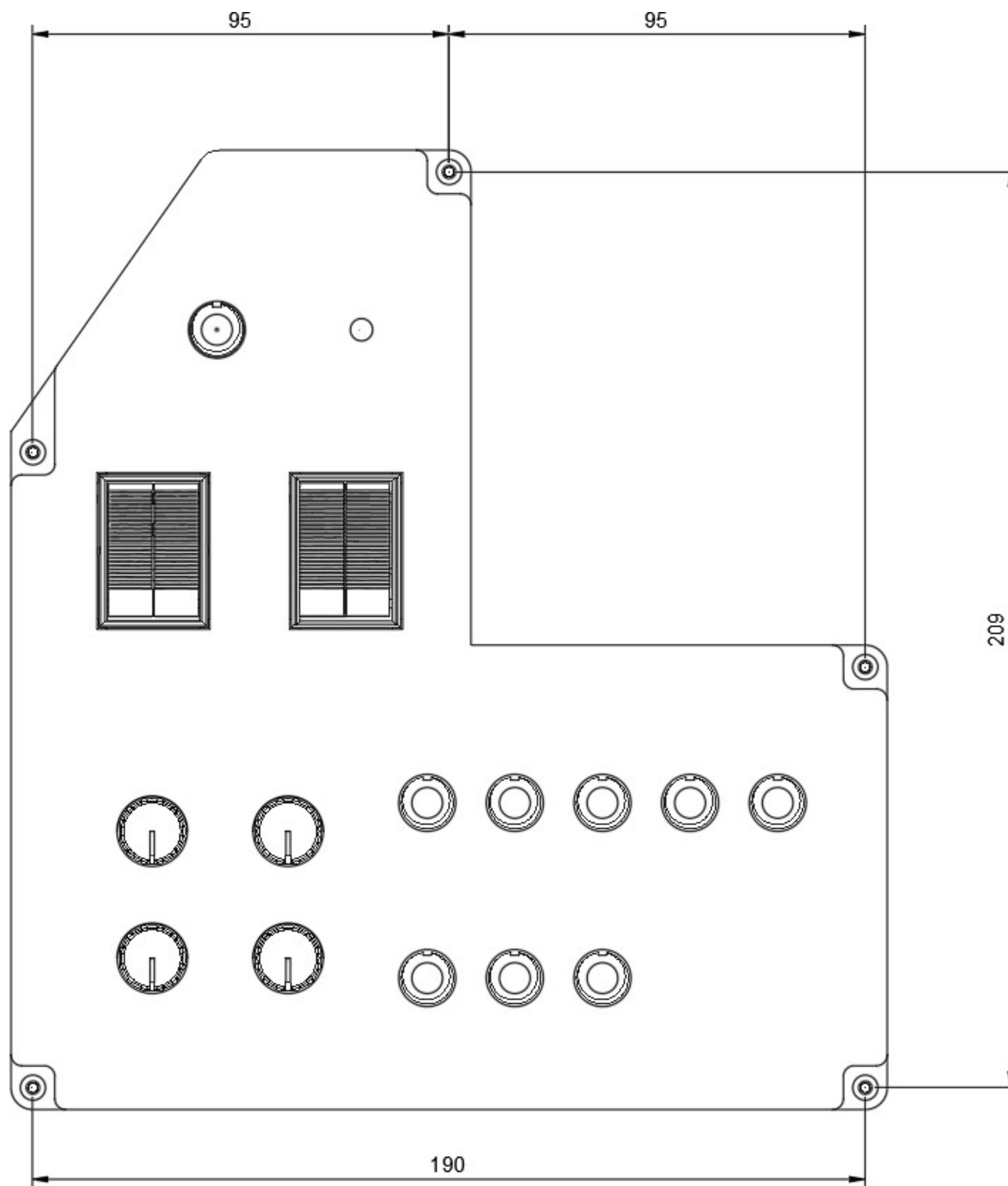
2.07lbs / 943g



All dimensions shown in the image are in **mm**

**Panel hole dimensions (W x H):**

190mm × 209mm / 7.48 in × 8.23 in



All dimensions shown in the image are in **mm**

# Safety, Maintenance, and Care Guidelines

---

To ensure safe use and extend the lifespan of the **Switch Panel** follow these recommendations:

## Safety Precautions

- **Proper Use:** Keep the unit dry and free from moisture. Use only certified USB power sources.
- **Heat & Ventilation:** Avoid placing the device near heat sources or in direct sunlight.
- **Material Care:** Avoid solvents or abrasive cleaners; plastic parts can deform above **60–65°C (140–149°F)**.
- **Handling:** Handle device carefully to avoid damage. Keep out of reach of children and pets.
- **Disposal:** Follow local recycling rules for electronics and plastics.
- **Warranty:** Unauthorized modification or disassembly may void the warranty. Contact support for approved repairs or servicing.

## Maintenance and Care

- **Surface Cleaning:** Use a soft, dry microfiber cloth to clean exterior surfaces. Avoid liquid cleaners and alcohol-based solutions.
- **USB Port Care:** Ensure USB Type B connection remains secure and free from debris. Minimize unnecessary unplugging to reduce port wear.
- **Storage:** Store in a dry, dust-free environment away from direct sunlight when not in use.

# Setup Instructions

---

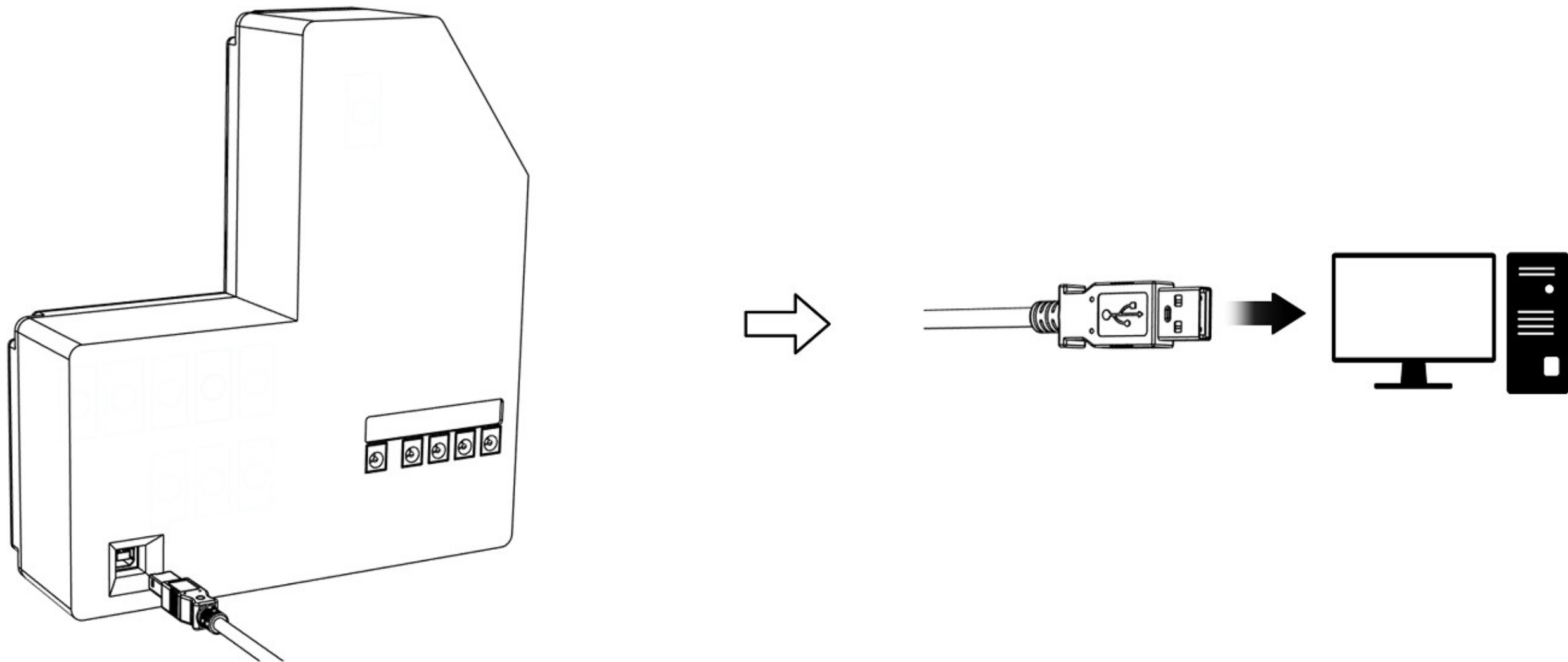
## 1) (Optional) Mount the Device

Refer to the **Mounting Options** section of this manual for instructions on securing the device.

---

## 2) Establish USB Communication

- a) Connect the **Type-B** end of the included USB cable to the Switch Panel.
- b) Connect the **Type-A** end to a USB port on your PC.



---

## 3) (Optional) Supply LED Power to Connected Products

Connect a **5V DC power adapter** to the Switch Panel's **PWR IN** port and plug it into a power outlet to power compatible Desktop Pilot products with controllable LED lighting (e.g., the Pedestal Fuel Tank Selector).

# Setup Instructions

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## Software Setup & Configuration

**Complete setup based on the flight simulator software you are using:**

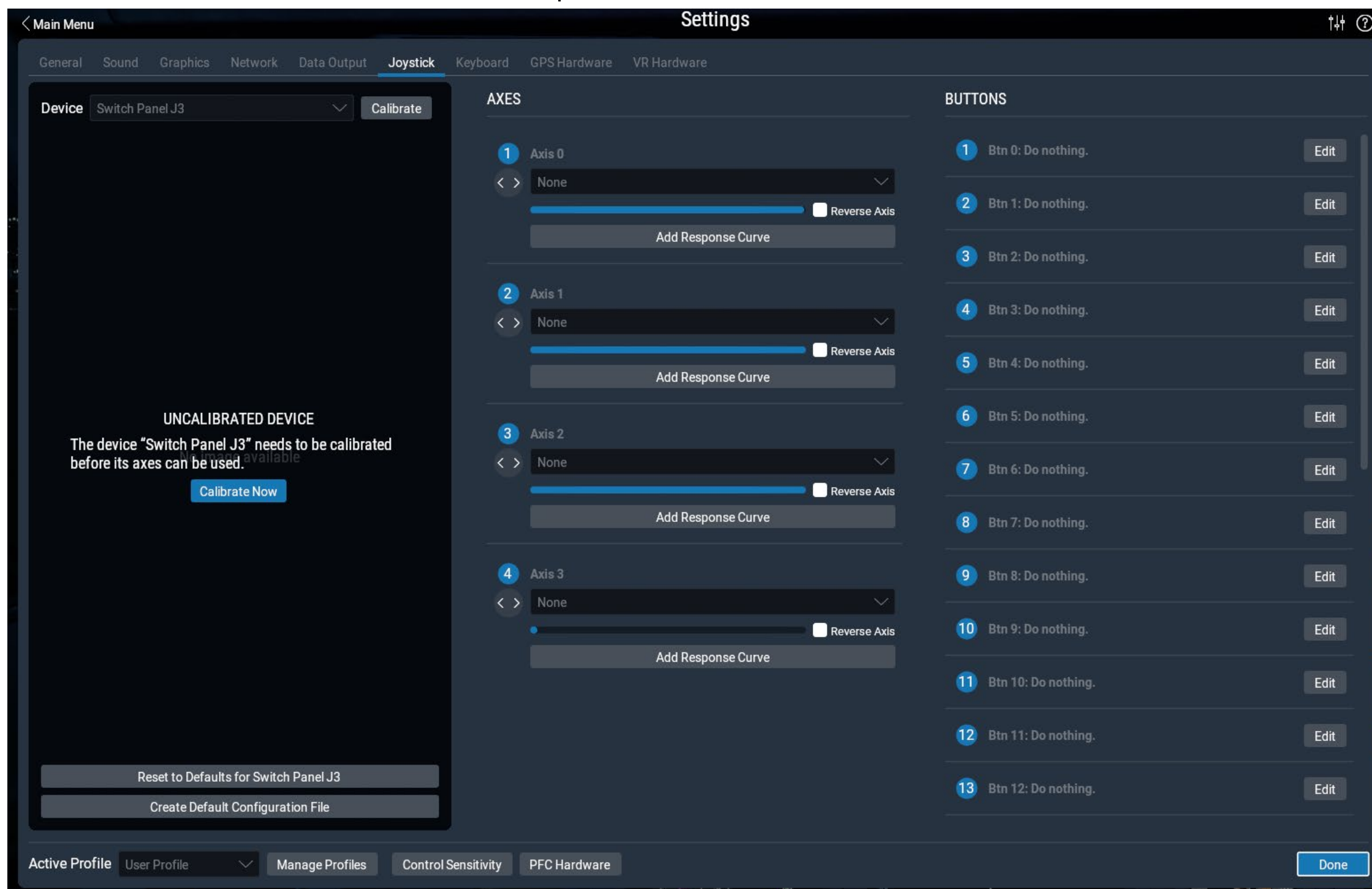
Option A: Setup for X-Plane 11.....	page 11
Option B: Setup for X-Plane 12.....	page 16
Option C: Setup for Microsoft Flight Simulator 2020 (MSFS 2020).....	page 23
Option D: Setup for Microsoft Flight Simulator 2024 (MSFS 2024).....	page 24

# Setup Instructions

## OPTION A: SETUP FOR X-PLANE 11

### 4) Configure the Switch Panel in X-Plane 11

- Go to X-Plane's **Settings** and navigate to the **Joystick** tab.
- In the device list, click the dropdown menu and select "**Switch Panel**"



- If the message "Uncalibrated Device" appears, calibrate the Desktop Pilot Switch Panel by rotating each of the four dimming knobs through its full range of motion.
- **Now assign the buttons as follows:**
  1. **Btn 0** → Search for "**Battery 2 on**" and assign it.

2. **Btn 1** → Search for "**Battery 2 off**" and assign it.
3. **Btn 2** → Search for "**Test all annunciators**" and assign it.
4. **Btn 3** → Search for "**Generator #1 on**" and assign it.
5. **Btn 4** → Search for "**Generator #1 off**" and assign it.
6. **Btn 5** → Search for "**Battery 1 on**" and assign it.
7. **Btn 6** → Search for "**Battery 1 off**" and assign it.
8. **Btn 7** → Search for "**Avionics on**" and assign it.
9. **Btn 8** → Search for "**Avionics off**" and assign it.
10. **Btn 9** → Search for "**Do nothing**" and assign it.
11. **Btn 10** → Search for "**Do nothing**" and assign it.
12. **Btn 11** → Search for "**Beacon lights on**" and assign it.
13. **Btn 12** → Search for "**Beacon lights off**" and assign it.
14. **Btn 13** → Search for "**Landing lights on**" and assign it.
15. **Btn 14** → Search for "**Landing lights off**" and assign it.
16. **Btn 15** → Search for "**Taxi lights on**" and assign it.
17. **Btn 16** → Search for "**Taxi lights off**" and assign it.
18. **Btn 17** → Search for "**Nav lights on**" and assign it.
19. **Btn 18** → Search for "**Nav lights off**" and assign it.
20. **Btn 19** → Search for "**Strobe lights on**" and assign it.
21. **Btn 20** → Search for "**Strobe lights off**" and assign it.
22. **Btn 21** → Search for "**Fuel pump for engine #1 on**" and assign it.
23. **Btn 22** → Search for "**Fuel pump for engine #1 off**" and assign it.
24. **Btn 23** → Search for "**Anti-ice: left pitot heat on**" and assign it.
25. **Btn 24** → Search for "**Anti-ice: left pitot heat off**" and assign it.
26. **Btn 25** → Search for "**Do nothing**" and assign it.
27. **Btn 26** → Search for "**Do nothing**" and assign it.

**Optional:** For **Btn 25** and **Btn 26**, search for and assign "Pause the Simulation." This allows the Cabin Power 12V switch to function as a shortcut for pausing the simulator.

- Once assignments are complete, click "**Done**" in the bottom right corner of the screen.

## 5) Install Switch Panel Plugin

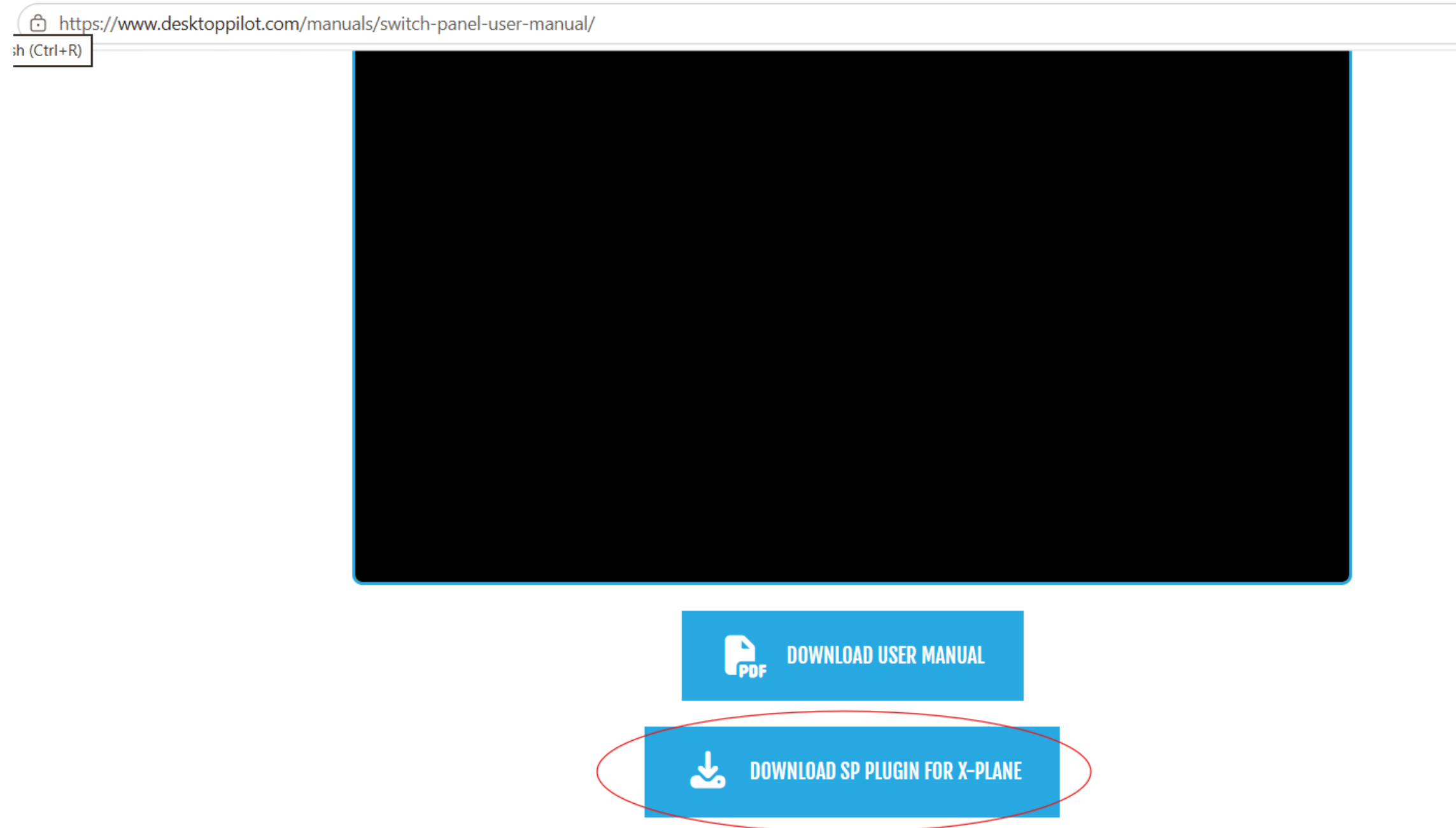
**Note:** X-Plane does not include built-in commands for the dimming knobs. To enable

this functionality, you must install the **Desktop Pilot Switch Panel plugin**.

- To download the plugin, go to:

[www.desktoppilot.com/manuals/switch-panel-user-manual/](http://www.desktoppilot.com/manuals/switch-panel-user-manual/)

Then click the **DOWNLOAD SP PLUGIN FOR X-PLANE** button:



- Once the download is complete, right-click the **DesktopPilotSP** folder and select **Extract All...**
- Copy (or drag and drop) the extracted **DesktopPilotSP** folder into the X-Plane **Plugins** folder.

To locate the **Plugins** folder:

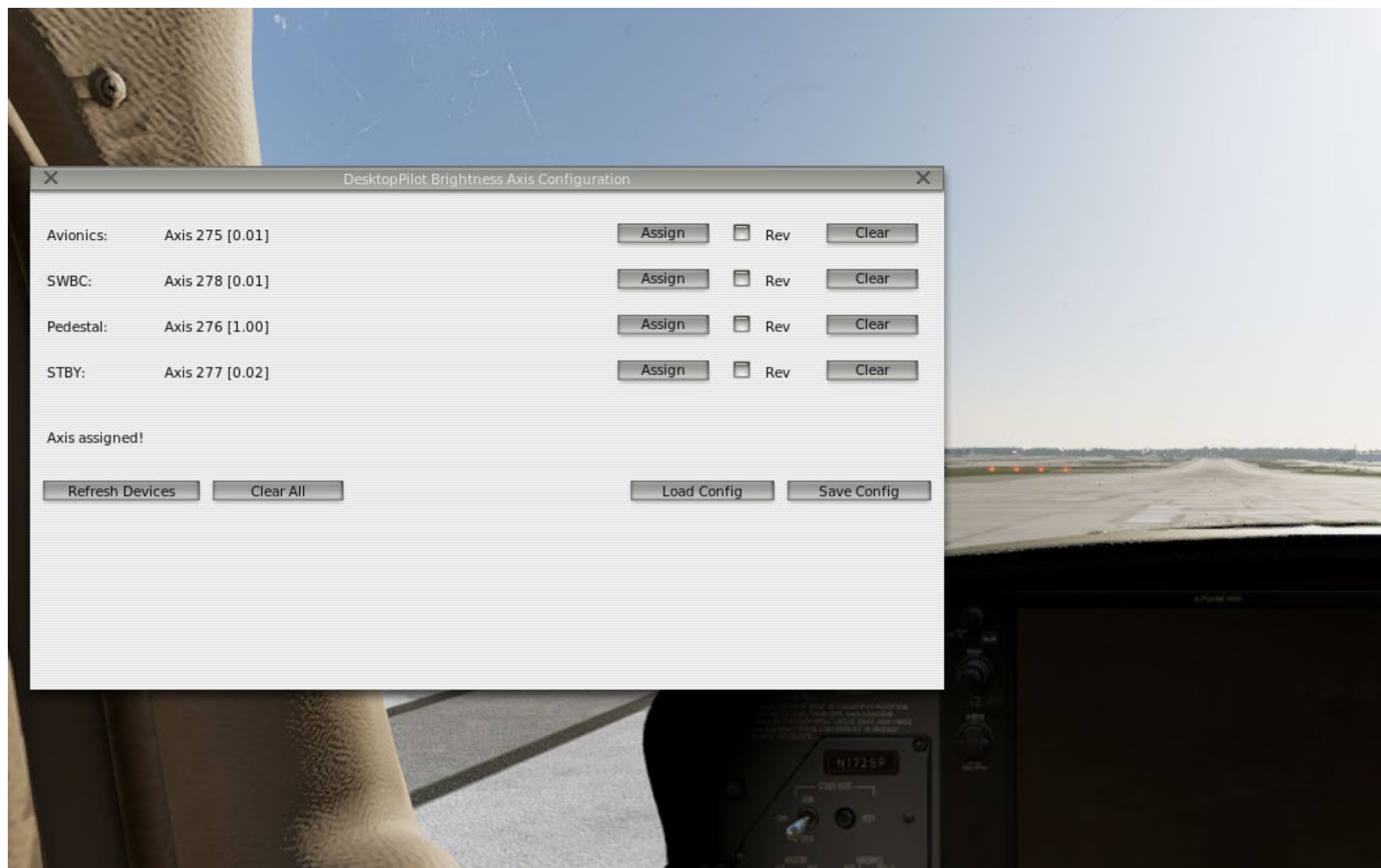
1. Open your main **X-Plane 11** folder.
2. Open the **Resources** folder.
3. Open the **Plugins** folder.
4. Paste the **DesktopPilotSP** folder inside.

**Example X-Plane 11 Plugins Folder Locations**

- C:\Program Files (x86)\Steam\steamapps\common\X-Plane 11\Resources\plugins
- or C:\X-Plane 11\Resources\plugins

**Note:** Once the folder has been added, you can close the X-Plane folder window.

- **Open X-Plane** and **Start Flight**.
- Once at the cockpit screen, the **Desktop Pilot Brightness Axis Configuration** window will automatically open. (Tip: To reopen after closing navigate to: **Plugins** → **DesktopPilot Brightness** → **Configure Axes...**)



- **Four brightness controls are available:**
  - Avionics** - Avionics panel brightness
  - SWBC** - Switch/Warning/Breaker/Circuit panel brightness
  - Pedestal** - Pedestal panel brightness
  - STBY** - Standby instruments brightness

- **To assign each brightness control:**
  - Click **Assign** next to the control name
  - The status will change to: “*Move the axis for [CONTROL NAME]...*”
  - Rotate the corresponding dimming knob on the Desktop Pilot Switch Panel.
  - The display will show: “*Axis [number] [current value]*”
- **Optional Settings:**
  - Check **Rev** to reverse axis direction (clockwise dims instead of brightens)
  - Click **Clear** to remove an assignment
- **Saving Configuration**
  - Click **Save Config**
  - Your configuration will automatically load the next time X-Plane starts
  - You can close the window — the axes will continue to function

## **Tips**

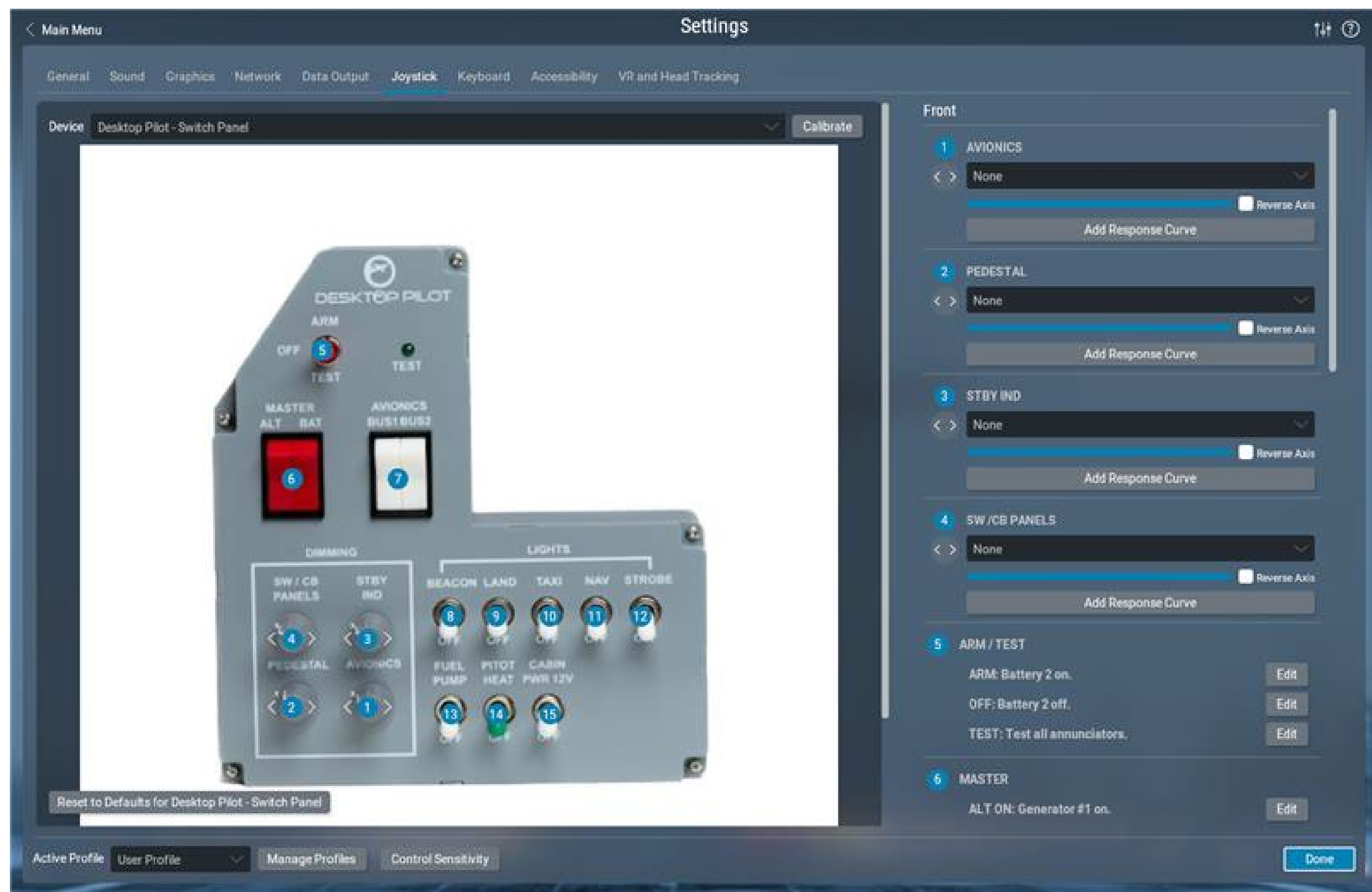
- **Axis numbers** (such as “Axis 50” or “Axis 51”) are X-Plane’s internal axis labels and are normal.
- Click **Refresh Devices** if the axes stop responding after reconnecting the device.
- Use **Load Config** to restore a previously saved configuration.
- Use **Clear All** to remove all assignments at once.
- The configuration window opens automatically each flight; after initial setup, simply close it.

# Setup Instructions

## OPTION B: SETUP FOR X-PLANE 12

### 4) Configure the Switch Panel in X-Plane 12

- Go to **X-Plane's Settings** and navigate to the **Joystick** tab.
- In the device list, click the dropdown menu and select **"Desktop Pilot - Switch Panel"**



- If the message **"Uncalibrated Device"** appears, calibrate the Desktop Pilot Switch Panel by rotating each of the four dimming knobs through its full range of motion.

- Now assign the buttons as follows:

Front

- 1 AVIONICS**  
< > None  Reverse Axis  
Add Response Curve
- 2 PEDESTAL**  
< > None  Reverse Axis  
Add Response Curve
- 3 STBY IND**  
< > None  Reverse Axis  
Add Response Curve
- 4 SW /CB PANELS**  
< > None  Reverse Axis  
Add Response Curve
- 5 ARM / TEST**  
ARM: Battery 2 on.   
OFF: Battery 2 off.   
TEST: Test all annunciators.

**6 MASTER**

ALT ON: Generator #1 on.

Edit

ALT OFF: Generator #1 off.

Edit

BAT ON: Battery 1 on.

Edit

BAT OFF: Battery 1 off.

Edit

**7 AVIONICS**

BUS1 ON: Avionics on.

Edit

BUS1 OFF: Avionics off.

Edit

BUS2 ON: Do nothing.

Edit

BUS2 OFF: Do nothing.

Edit

**8 BEACON**

ON: Beacon lights on.

Edit

OFF: Beacon lights off.

Edit

**9 LAND**

ON: Landing lights on.

Edit

OFF: Landing lights off.

Edit

**10 TAXI**

ON: Taxi lights on.

Edit

OFF: Taxi lights off.

Edit

The image shows a dark blue control panel with five sections, each containing two states and an 'Edit' button:

- 10 TAXI**
  - ON: Taxi lights on. [Edit]
  - OFF: Taxi lights off. [Edit]
- 11 NAV**
  - ON: Nav lights on. [Edit]
  - OFF: Nav lights off. [Edit]
- 12 STROBE**
  - ON: Strobe lights on. [Edit]
  - OFF: Strobe lights off. [Edit]
- 13 FUEL PUMP**
  - ON: Fuel pump for engine #1 on. [Edit]
  - OFF: Fuel pump for engine #1 off. [Edit]
- 14 PITOT HEAT**
  - ON: Anti-ice: left pitot heat on. [Edit]
  - OFF: Anti-ice: left pitot heat off. [Edit]
- 15 CABIN PWR 12V**
  - ON: Unpause the simulation. [Edit]
  - OFF: Pause the simulation. [Edit]

- Once assignments are complete, click **“Done”** in the bottom right corner of the screen.

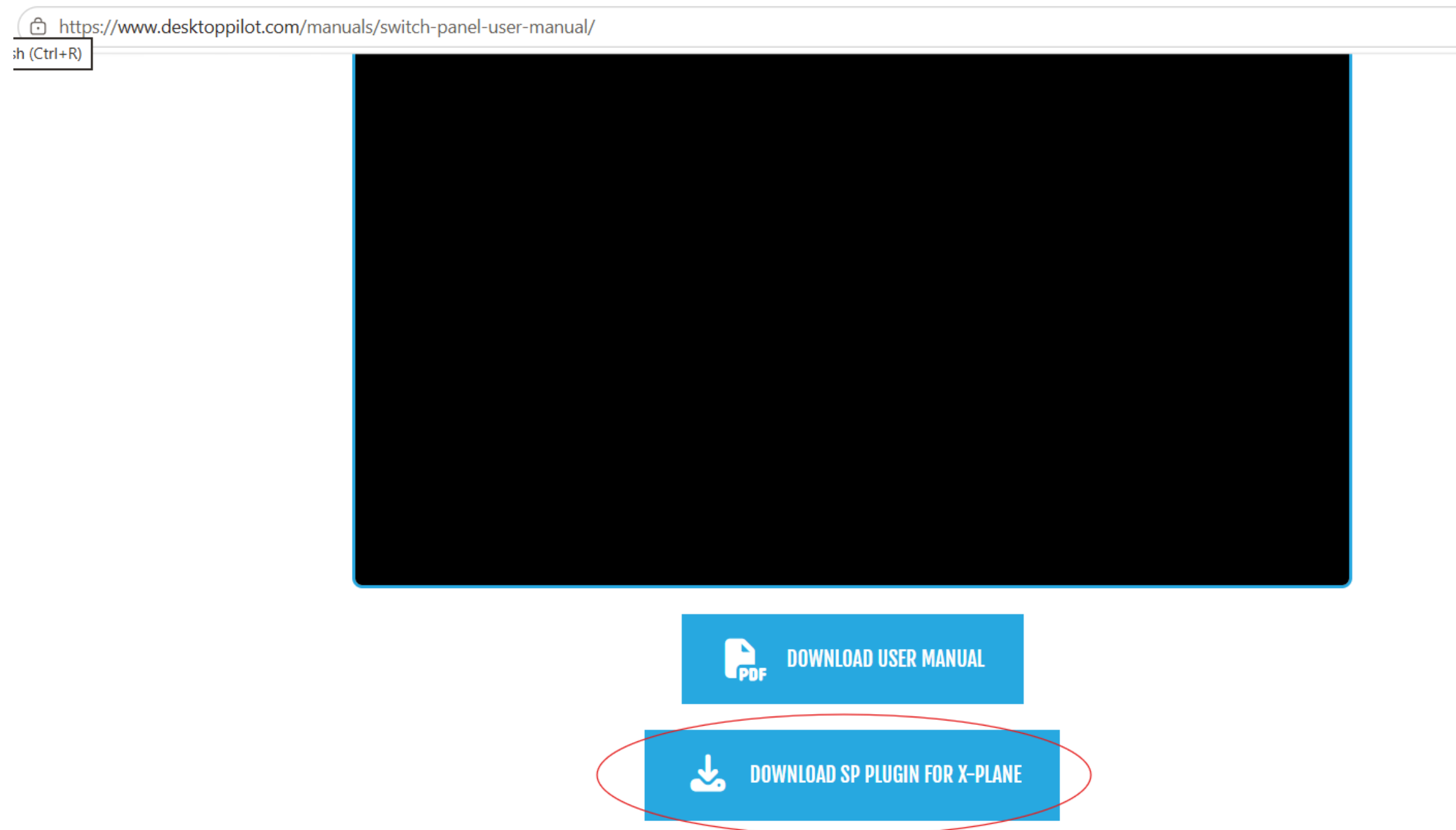
## 5) Install Switch Panel Plugin

**Note:** X-Plane does not include built-in commands for the dimming knobs. To enable this functionality, you must install the **Desktop Pilot Switch Panel plugin**.

- To download the plugin, go to:

[www.desktoppilot.com/manuals/switch-panel-user-manual/](http://www.desktoppilot.com/manuals/switch-panel-user-manual/)

Then click the **DOWNLOAD SP PLUGIN FOR X-PLANE** button:



- Once the download is complete, right-click the **DesktopPilotSP** folder and select **Extract All...**
- Copy (or drag and drop) the extracted **DesktopPilotSP** folder into the X-Plane **Plugins** folder.

To locate the **Plugins** folder:

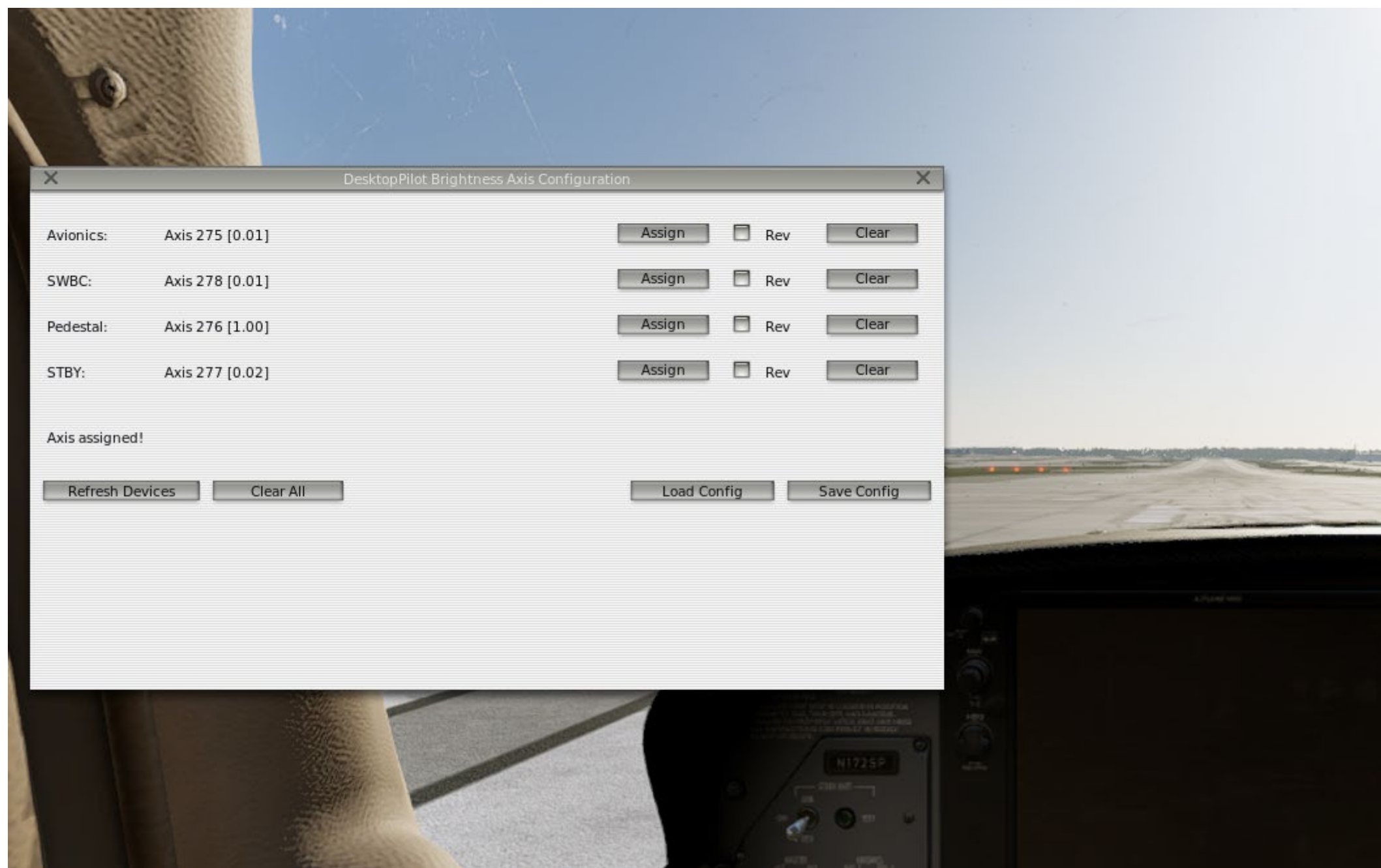
- Open your main **X-Plane 12** folder.
- Open the **Resources** folder.
- Open the **Plugins** folder.
- Paste the extracted **DesktopPilotSP** folder inside.

## Example X-Plane 12 Plugins Folder Locations

- C:\Program Files (x86)\Steam\steamapps\common\X-Plane 12\Resources\plugins
- or C:\X-Plane 12\Resources\plugins

**Note:** Once the folder has been added, you can close the X-Plane folder window.

- **Open X-Plane** and **Start Flight**.
- Once at the cockpit screen, the **Desktop Pilot Brightness Axis Configuration** window will automatically open. (Tip: To reopen after closing navigate to: **Plugins** → **DesktopPilot Brightness** → **Configure Axes...**)



- **Four brightness controls are available:**
  - Avionics** - Avionics panel brightness
  - SWBC** - Switch/Warning/Breaker/Circuit panel brightness
  - Pedestal** - Pedestal panel brightness
  - STBY** - Standby instruments brightness

- **To assign each brightness control:**
  - Click **Assign** next to the control name
  - The status will change to: “*Move the axis for [CONTROL NAME]...*”
  - Rotate the corresponding dimming knob on the Desktop Pilot Switch Panel.
  - The display will show: “*Axis [number] [current value]*”
- **Optional Settings:**
  - Check **Rev** to reverse axis direction (clockwise dims instead of brightens)
  - Click **Clear** to remove an assignment
- **Saving Configuration**
  - Click **Save Config**
  - Your configuration will automatically load the next time X-Plane starts
  - You can close the window — the axes will continue to function

## **Tips**

- **Axis numbers** (such as “Axis 50” or “Axis 51”) are X-Plane’s internal axis labels and are normal.
- Click **Refresh Devices** if the axes stop responding after reconnecting the device.
- Use **Load Config** to restore a previously saved configuration.
- Use **Clear All** to remove all assignments at once.
- The configuration window opens automatically each flight; after initial setup, simply close it.

# Setup Instructions

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## OPTION C – SETUP FOR MICROSOFT FLIGHT SIMULATOR 2020:

### 4) Configure the Switch Panel in MSFS 2020

- In MSFS, open the **Options** menu.
- Select **CONTROLS OPTIONS**.
- From the device list at the top, choose **“Switch Panel.”**
- Search for the following functions and assign these commands:  
Note: when prompted, create a new input profile (e.g., **“Desktop Pilot SWP”**) and select **“apply to all aircraft”**):

<u>Function</u>	<u>Assigned Value</u>
SET AVIONICS MASTER 2	10
SET AVIONICS MASTER 1	8
SET BATTERY 1	6
SET BATTERY 2	1
SET ELECTRIC FUEL PUMP 1	22
SET ALTERNATOR	4
SET PITOT HEAT	24
SET TAXI LIGHTS	16
SET STROBES	20
SET NAV LIGHTS	18
SET LANDING LIGHTS	14
SET BEACON LIGHTS	12

- After completing all assignments, click **Apply & Save** in the lower-left corner of the screen.

# Setup Instructions

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## OPTION D – SETUP FOR MICROSOFT FLIGHT SIMULATOR 2024:

### 4) Configure the Switch Panel in MSFS 2024.

- In MSFS, open the **Settings** menu by clicking the **gear icon** in the upper-right corner.
- Select the **Controls** tab.
- Ensure the selected aircraft is the Cessna 172 Skyhawk (G1000 variant).
- If needed, change the aircraft by pressing **G** or selecting **Change Aircraft**.
- On the left side of the screen, select **“Switch Panel”** from the device list.
- Search for the following functions and assign these commands:  
Note: when prompted, create a new input profile (e.g., **“Desktop Pilot SWP”**) and (optional) select **“apply to all aircraft”**:

<b>Function</b>	<b>Assigned Value</b>
SET TAXI LIGHTS	16
SET STROBES	20
SET NAV LIGHTS	18
SET LANDING LIGHTS	14
SET BEACON LIGHTS	12
SET ALTERNATOR	4
SET BATTERY 1	6
SET BATTERY 2	1
SET PITOT HEAT	24

For the following entries, select the command labeled **Specific** and **Digital**.

<b>Function</b>	<b>Assigned Value</b>
ELECTRICAL BUS 1 TO AVIONICS BUS 1 OFF	9
ELECTRICAL BUS 1 TO AVIONICS BUS 1 ON	8
ELECTRICAL BUS 2 TO AVIONICS BUS 2 OFF	11
ELECTRICAL BUS 2 TO AVIONICS BUS 2 ON	10
STANDBY BATTERY INCREASE	3
FUEL PUMP 1 OFF	2
FUEL PUMP 1 ON	22
ELECTRICAL SWITCH 12V POWER OFF	27
ELECTRICAL SWITCH 12V POWER ON	26
PANEL LIGHT 1 DIMMER	JOYSTICK LAXIS X-
PANEL LIGHT 2 DIMMER	JOYSTICK LAXIS Y-
PEDESTAL LIGHT DIMMER	JOYSTICK LAXIS Z-
POTENTIOMETER 5 DIMMER	JOYSTICK RAXIS X-
PANEL LIGHT 1 BRIGHTENER	JOYSTICK LAXIS X+
PANEL LIGHT 2 BRIGHTENER	JOYSTICK LAXIS Y+
PEDESTAL LIGHT BRIGHTENER	JOYSTICK LAXIS Z+
POTENTIOMETER 5 BRIGHTENER	JOYSTICK RAXIS X+

- Click Save and Back, return to the simulator, and test each control to verify proper operation.

nces Controls Accessibility VR E

Current plane  
**Cessna 172 Skyhawk**

Search by input Assigned

SET ALTERNATOR	Airplanes	Digital	4		
SET BATTERY 1	Airplanes	Digital	8		
SET BATTERY 2	Airplanes	Digital	1		
SET PITOT HEAT	Airplanes	Digital	24		
SET BEACON LIGHTS	Airplanes	Digital	12		
SET LANDING LIGHTS	Airplanes	Digital	14		
SET NAV LIGHTS	Airplanes	Digital	18		
SET STROBES	Airplanes	Digital	20		
SET TAXI LIGHTS	Airplanes	Digital	18		
STANDBY BATTERY INCREASE	Specific	Digital	3		
ELECTRICAL SWITCH 12V POWER OFF	Specific	Digital	27		
ELECTRICAL SWITCH 12V POWER ON	Specific	Digital	28		
ELECTRICAL BUS 1 TO AVIONICS BUS 1 OFF	Specific	Digital	9		
ELECTRICAL BUS 1 TO AVIONICS BUS 1 ON	Specific	Digital	8		
ELECTRICAL BUS 2 TO AVIONICS BUS 2 OFF	Specific	Digital	11		
ELECTRICAL BUS 2 TO AVIONICS BUS 2 ON	Specific	Digital	10		
FUEL PUMP 1 OFF	Specific	Digital	2		
FUEL PUMP 1 ON	Specific	Digital	22		
PANEL LIGHT 1 DIMMER	Specific	Digital	JOYSTICK LAXIS X-		
PANEL LIGHT 1 BRIGHTENER	Specific	Digital	JOYSTICK LAXIS X+		
PANEL LIGHT 2 DIMMER	Specific	Digital	JOYSTICK LAXIS Y-		
PANEL LIGHT 2 BRIGHTENER	Specific	Digital	JOYSTICK LAXIS Y+		
PEDESTAL LIGHT DIMMER	Specific	Digital	JOYSTICK LAXIS Z-		
PEDESTAL LIGHT BRIGHTENER	Specific	Digital	JOYSTICK LAXIS Z+		
POTENTIOMETER 5 DIMMER	Specific	Digital	JOYSTICK RAXIS X-		
POTENTIOMETER 5 BRIGHTENER	Specific	Digital	JOYSTICK RAXIS X+		

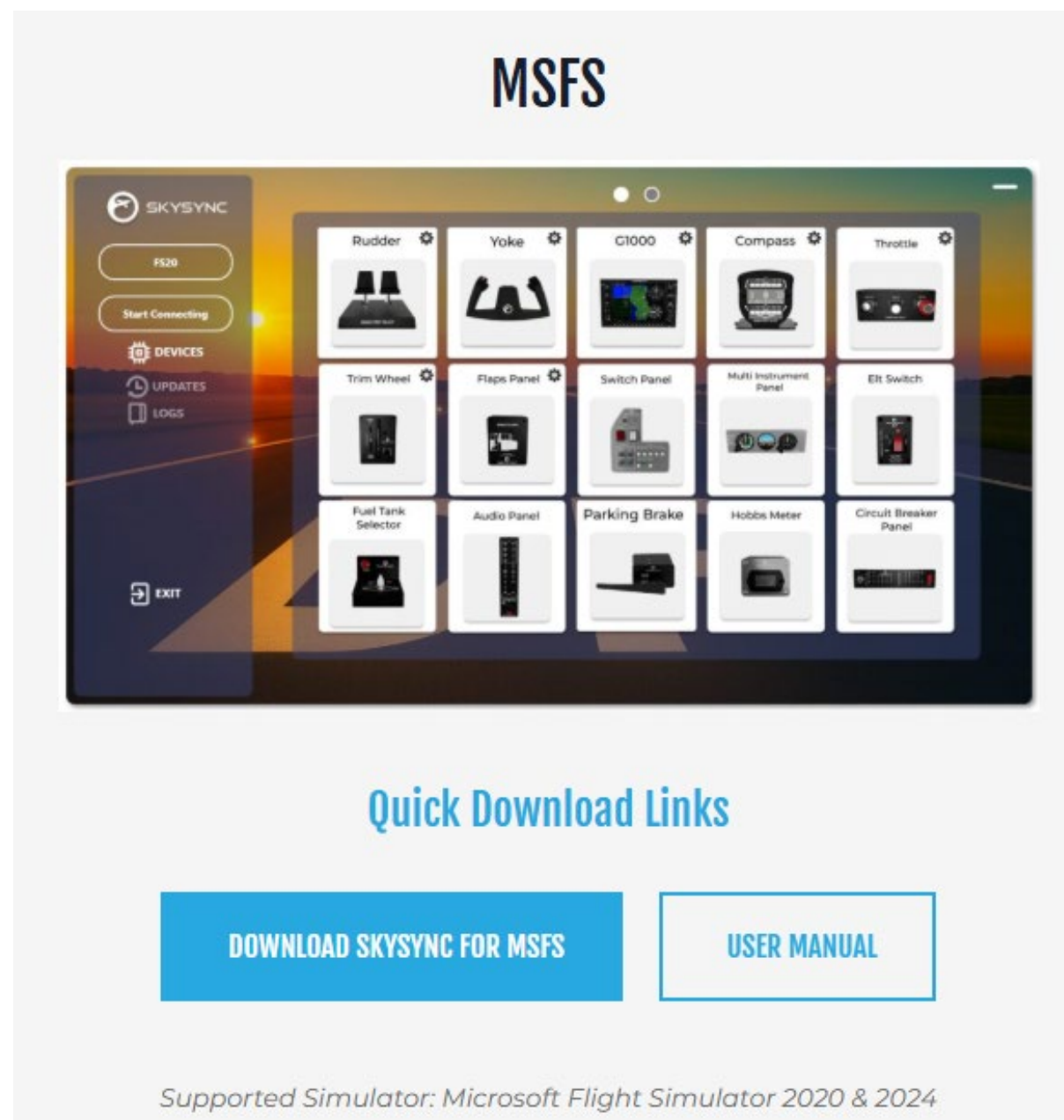
# Setup Instructions

## 4) Install SkySync and Calibrate

**Note:** MSFS does not include built-in commands for the dimming knobs. To enable this functionality, you must install the **Desktop Pilot SkySync software**.

**Important:** Ensure that MSFS 2024 is closed before and during SkySync installation process.

1. Visit <https://www.desktoppilot.com/software/>
2. Download the latest version of **SkySync for MSFS**.



3. Run the installer and complete installation.

**Tip:** Pin SkySync to your Start menu or taskbar for quick access.

4. Open SkySync, then select **Plugin** (top-right corner) → **Insert**.

A pop-up message will confirm that the plugin was inserted successfully. **Close SkySync**.

5. Open **MSFS 2024** and start a new flight.

# Setup Instructions

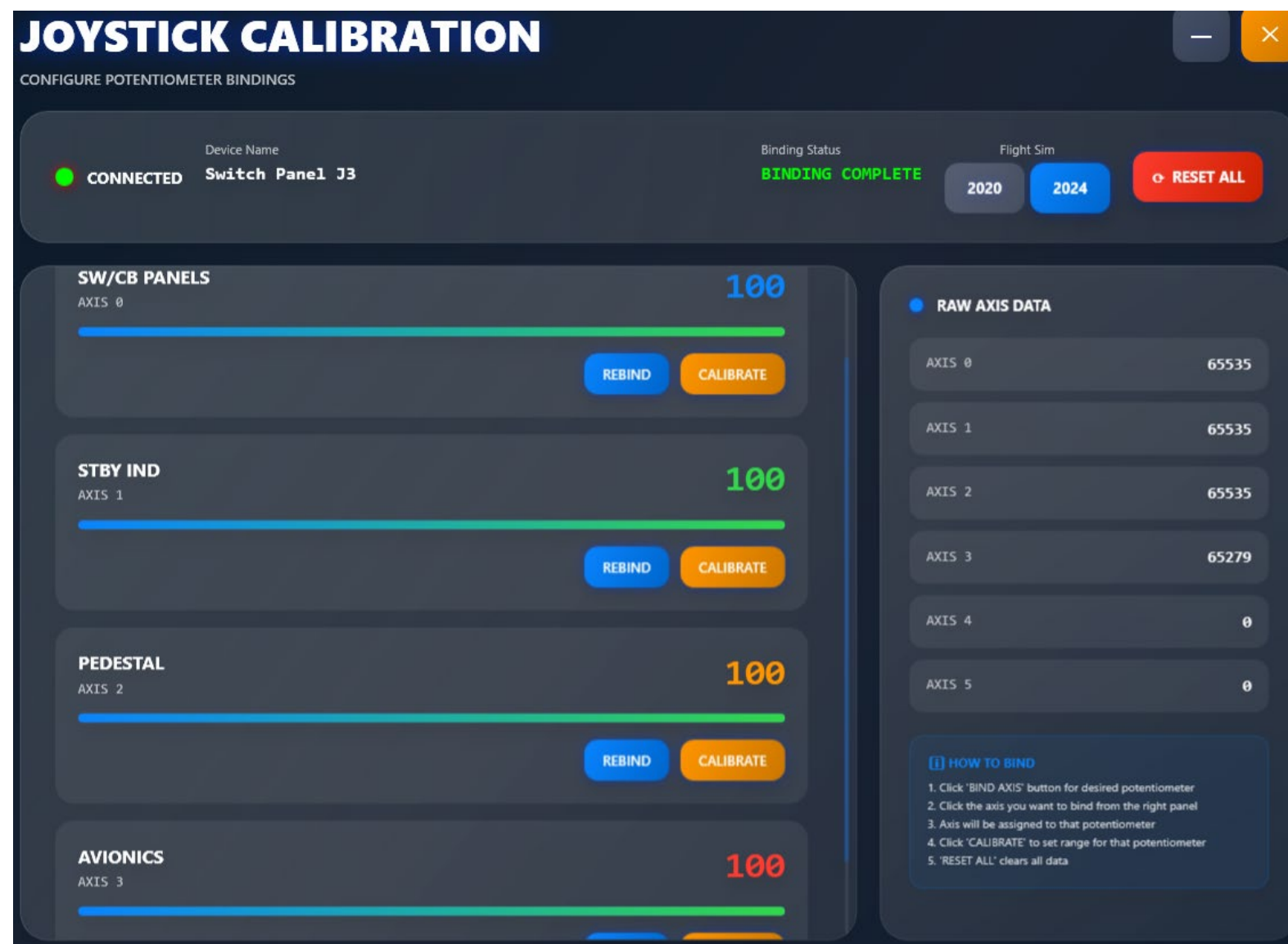
6. Open **SkySync**. In the main window, click **SkyView**. A separate SkyView window will open.
7. In the SkyView window, select **Joystick**.
8. Click **BIND AXIS**.
9. Select the axis you want to bind from the RAW AXIS DATA column.
10. Click **CALIBRATE**.
11. Rotate the corresponding knob on the Switch Panel to its' minimum value.
12. Rotate the corresponding knob on the Switch Panel to its' maximum value.
13. Repeat the same steps for any remaining knobs you wish to calibrate.

**IMPORTANT:** Keep the SkySync and SkyView windows open (or minimized) in the background while using the simulator.

## Resetting Bindings

To clear existing bindings, click **RESET ALL** in the calibration window.

**Note:** After calibration is complete, verify the functionality inside the simulator to ensure that each axis responds correctly.



# Troubleshooting Guidelines

---

**Problem: The green LED does not light up** when the Standby Battery switch is in the TEST position.

**Solution:**

- Ensure the USB cable is properly connected to both the panel and the computer.
- Check simulator settings to confirm the input is being registered.
- Note: The LED will stay on only while the switch is in the TEST position. It will turn off when the switch is moved to another position.

**Problem: Dimming knobs do not adjust brightness** of the panel or connected components.

**Solution:**

- Confirm the USB cable is connected and the device is recognized by the computer.
- If controlling external components (e.g., Pedestal Fuel Tank Select), ensure a 5V power supply is connected to the PWR IN slot.
- Make sure the passthrough cable (M to M DC) is securely connected between PDSTL ports.

**Problem: Specific switches do not trigger events** or register as inputs.

**Solution:**

- Confirm that no other hardware connected to your simulator is assigned to the same functions or button bindings, as duplicate assignments may cause conflicts or unexpected behavior
- Check the simulator's input mapping menu and verify that the switch is being detected.
- If not detected, test other switches to confirm general device function.
- Disconnect and reconnect the USB cable, then restart the simulator software.

# Frequently Asked Questions

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## **Is the Switch Panel compatible with simulator cockpit setups?**

Yes. The Switch Panel supports clamp mounting, direct screw installation, and adhesive VHB tape mounting. It is also compatible with the C172 Mounting Panel and Mounting Cabinet (sold separately).

## **Is the Switch Panel compatible with Xbox?**

No. The Switch Panel is not supported on Xbox game consoles.

## **Is the Switch Panel compatible with other flight sim peripherals?**

Yes. It functions as a standalone joystick and operates independently of other simulator hardware. Fully compatible with yokes, throttle quadrants, rudder pedals, avionics stacks, and other panels.

## **Does the Switch Panel require an external power supply?**

No. All core functions operate via USB. However, connecting a 5V DC power supply to the PWR IN slot enables brightness passthrough to supported peripherals.

## **Can the panel control external hardware brightness?**

Yes. When powered by a 5V DC input, the panel can pass brightness control to compatible devices via the PDSTL output, such as the Pedestal Fuel Tank Select module.

## **How many buttons and axes does the Switch Panel have?**

The panel provides 27 mappable buttons and 4 analog axes, allowing extensive customization for simulator controls.

# Desktop Pilot

## Your ticket to the virtual skies!

### Need Help or Have Suggestions?

If you're experiencing an issue not covered in this guide, would like to report a bug, or have ideas for improvement — we're here to help.

### Contact Us

Email: [sales@desktoppilot.com](mailto:sales@desktoppilot.com)

Phone: +1-888-296-9150

### Support Hours

Monday–Friday

10:00 AM – 6:00 PM (EST)

### Visit Us Online

<https://www.desktoppilot.com/>

Your feedback helps us improve the experience. Don't hesitate to reach out — we'd love to hear from you!

\*Manuals and troubleshooting steps are updated periodically. To access the latest full version of this manual and updated troubleshooting tips, visit:

<https://www.desktoppilot.com/manuals/>