

Skyparot Paraglider Series User Manual

SP06 Relax | SP07 Speedflyer | SP08 Advanced | SP09 Travel



This common manual applies to the Skyparot SP06, SP07, SP08 and SP09 models. It explains installation, controller setup, the combined brake and speed bar axis, foot launching, winch launching, landing, head tracking, VR, instrumentation and troubleshooting.

The essential control

Push the pitch control forward for SPEED BAR. Pull it back for symmetric BRAKES. The speed bar is not assigned to flaps, spoilers or throttle.

Simulation use only This add-on is entertainment software and is not a flight-training device.

Quick Start

1. Install the supplied Skyparot package folder directly in the MSFS 2024 Community folder.
2. Remove older copies of the same Skyparot model from Community to avoid virtual-file conflicts, then restart MSFS completely.
3. Select the installed SP06 Relax, SP07 Speedflyer, SP08 Advanced or SP09 Travel model and the desired colour variant.
4. In Weight and Balance, empty all fuel tanks and load the pilot through the Seats or Payload control. Keep the resulting total mass within the permitted range of the selected model.
5. Map your joystick or controller to Elevator Axis, Aileron Axis and Rudder Axis.
6. Enable autonomous or foot launch for slope starts and enable winch launch when a tow start is required.
7. For a foot launch, hold W throughout the run and briefly after lift-off; release W only when stable flight is established.

Installation

- The installed package folder must contain layout.json and manifest.json directly inside its top level.
- Avoid a double-nested installation such as Community/Skyparot-package/Skyparot-package.
- Close and restart the simulator after replacing an older version because aircraft configuration files are cached.

Default loading

For a clear pilot-weight setup, set all fuel tanks to 0 percent and enter the pilot mass under Seats or Payload. Each Skyparot model has its own permitted mass range, so use the range shown for the selected aircraft and do not exceed its maximum mass. Some installations may initially show virtual fuel ballast instead of seat payload. Empty that ballast before adding pilot weight. Never load both systems at the same time, because this can overload the model and materially change launching and handling.

Recommended first test

Use calm weather or a light, straight headwind. Confirm 0 percent fuel, the intended pilot payload and a total mass inside the selected model's permitted range before comparing controller behaviour.

Launch mode settings

- For a foot launch, enable the autonomous or foot-launch capability and select a suitable slope or open launch area.
- For a winch launch, enable the winch-launch capability and select the simulator's winch start option.
- Both capabilities may remain enabled. The start option selected for the flight determines which launch method is used.

Controller Setup

MSFS 2024 can store aircraft-specific controller profiles. Select the controller you want to configure, select the active Skyparot aircraft profile, set the filter to None if necessary, and use Search by Input or Search by Name to find each assignment.

Input	Paraglider function	Effect in the Skyparot models
Pitch forward	Speed bar	Reduces angle of attack, increases airspeed and normally increases sink rate.
Pitch centred	Hands-up trim	Normal unaccelerated glide and the reference position for controller calibration.
Pitch back	Symmetric brakes	Reduces speed, increases pitch and is used progressively for flare and landing.
Roll axis	Weight shift and roll	Banks the canopy. Use smooth inputs, especially during winch acceleration.
Rudder axis	Asymmetric brake and yaw	Corrects heading and helps coordinate turns or the first winch phase.
W and S	Ground movement	W runs forward; S moves backwards when the aircraft is in the supported ground envelope.
A and D	Ground direction	Turns the pilot's running direction. These keys do not replace airborne roll or rudder.
X	Tow release	Cuts or releases the winch cable. If X is not assigned, bind it to the MSFS tow-rope release command.

Recommended pitch axis procedure

1. Search for Elevator Axis or Pitch Axis. The exact label can vary with the device profile.
2. Assign one full-range, bidirectional axis. Do not use Throttle, Flaps, Spoilers or Speed Brakes for the speed bar.
3. Move the controller forward. It must command pitch down and therefore speed bar. If it applies brakes instead, enable Reverse Axis.
4. Pull the controller back. It must command pitch up and therefore symmetric brakes.
5. Use Search by Input to find and remove duplicate pitch assignments on other devices.

A useful neutral starting point for most hardware is a nearly linear response, a small 2 to 5 percent dead zone only if required, and full travel at both ends. Fine-tune this to your controller rather than copying an aggressive sensitivity curve.

Head Tracking and VR Setup

Head tracking and VR can make the open paraglider cockpit easier to use by allowing the pilot to look toward the canopy, lines, instrument and landing area without changing the flight controls. Configure the view system only after the normal pitch, roll and rudder axes work correctly.

Head tracking with opentrack and AITrack

1. Install and start AITrack, select the camera and confirm that face tracking is stable before opening the simulator.
2. Start opentrack and select the AITrack network input. Select the appropriate output protocol for Microsoft Flight Simulator.
3. Centre your head in a relaxed flying position, then use the opentrack centre command before entering the cockpit.
4. Begin with modest yaw and pitch curves, a small dead zone around the centre and reduced translation. Increase the range only after the view remains comfortable and stable.
5. Bind convenient buttons for centre and temporary tracking pause. Re-centre whenever the cockpit viewpoint no longer matches your natural forward position.

If the image shakes, first improve camera lighting and face detection, then add gentle filtering in opentrack. Excessive smoothing creates a delayed or floating view and can make precise flight more difficult.

VR headset setup

- Set the headset interpupillary distance to match your eyes. An incorrect setting can reduce sharpness and cause eye strain.
- Adjust the headset vertically and tighten it only enough to keep the image stable. Confirm that text and the instrument remain sharp with both eyes.
- In our tested setup, Pico headsets provided slightly more eye-to-lens clearance than Meta Quest. The actual clearance varies with headset model, facial interface, glasses spacer and face shape.
- If you wear glasses, use the manufacturer-approved spacer or prescription inserts and make sure the lenses cannot touch.
- Start with short flights, keep the frame rate stable and stop immediately if you experience eye strain, nausea, headache or disorientation.

View troubleshooting

Input	Paraglider function	Effect in the Skyparot models
View points backward	Tracking centre	Look naturally forward and invoke the opentrack or VR recenter command.
Fine view jitter	Tracking stability	Improve lighting, check face detection and add only gentle filtering.
Instrument is off-centre	Cockpit position	Recenter first; then adjust the simulator cockpit viewpoint if required.
VR image is blurred	Fit and eye spacing	Readjust headset height and interpupillary distance, then verify render resolution.

Speed Bar and Brake Operation

FULL FORWARD SPEED BAR	CENTRE TRIM GLIDE	FULL BACK BRAKES AND FLARE
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Using the speed bar

Push the pitch control forward progressively. The canopy accelerates and its sink rate should increase. Release the input smoothly to return to trim. A sudden full-forward command can create a strong pitch transient in the simulator and should not be used as a normal descent technique.

Using the brakes

Pull the pitch control back for symmetric braking. Moderate brake reduces speed and can improve minimum sink. Strong brake increases the risk of a simulated stall. For landing, build brake progressively and reserve the final part of the travel for the flare. Repeated small pitch-up inputs can be used as a simulated pumping technique, but avoid holding full brake at low airspeed.

Why the Flaps indication is not the speed bar

The Skyparot pitch axis directly represents the paraglider brake and accelerator range. A Flaps value shown by the generic MSFS HUD is not the speed bar control for this model. Leave flap controls unassigned for normal Skyparot operation.

If the speed bar appears inactive

Confirm that forward stick movement reaches the pitch-down end of Elevator Axis, reverse the axis if necessary, and remove duplicate pitch bindings. Then test in stable free flight with the controls centred before applying forward travel.

Foot Launch

1. Face into wind and use A or D to align the running direction while still on the ground.
2. Hold W continuously to accelerate. Do not tap the key over bumps or at the first brief loss of ground contact.
3. Keep roll and rudder available to centre the canopy. Apply only the pitch input needed to prevent an early dive or stall.
4. Continue holding W for a short time after the pilot leaves the slope, including across a convex edge or uneven terrain.
5. Release W when the canopy has adequate airspeed and stable clearance. The flight model then takes over without synthetic running assistance.

On flat ground, more distance is required than on a slope. A headwind helps generate relative airflow. If a launch fails, settle close to the terrain, regain ground control, realign and start a new continuous W run.

Winch Launch

1. Select the MSFS winch launch option and begin aligned with the tow direction.
2. A normal winch launch does not require holding W. Keep the pitch control close to neutral and add a small pitch-up input during the first phase to stabilise the canopy.
3. If required by the launch workflow, move the rudder fully left and then fully right once to initiate or confirm the tow sequence.
4. Use small roll and rudder corrections. Large alternating inputs can unload the cable and create a sideways pull when it tightens again.
5. Allow the canopy to climb progressively. Near the top, avoid an abrupt over-pitch and release the cable with X.

Aborted winch launch

Release the cable with X, allow the model to settle near the ground, then use W, S, A and D to reposition. If ground controls do not return immediately, wait until cable tension and airspeed have fallen and the pilot is again close to the terrain.

Flight and Landing

Input	Paraglider function	Effect in the Skyparot models
Neutral pitch	Best glide reference	Use this as the normal cruise position and trim reference.
Light pitch up	Minimum sink region	Useful in lift and during the approach, while maintaining adequate airspeed.
Pitch down	Accelerated flight	Expect more speed and a higher sink rate; return smoothly to neutral.
Roll plus rudder	Coordinated turn	Use both as required to control bank, heading and spiral tendency.
Progressive pitch up	Flare	Apply progressively close to the ground; avoid an early full-brake stall.

Instrument

- The variometer provides climb and sink information with an optional acoustic tone.
- The unit button changes between metric and imperial display.
- The beep button enables or disables the variometer audio.
- The altitude profile records up to three hours of the current flight and reduces older samples only for screen rendering.

Realism boundaries

A real ram-air paraglider is a flexible wing: collapses, reinflation, line tension and canopy deformation interact continuously with pendulum motion. MSFS uses an aircraft-oriented aerodynamic and structural model, so the Skyparot approximates these effects rather than reproducing every collapse mode. A sustained straight pitch-down dive, extreme looping or other rigid-wing behaviour must not be interpreted as representative of a real paraglider. Spiral dives, wingovers and high-load manoeuvres are simulated for entertainment and remain dependent on MSFS physics.

Troubleshooting

Problem	Check and corrective action
Speed bar does nothing	Bind the full Elevator Axis or Pitch Axis. Push forward for pitch down. Remove flap, spoiler and duplicate pitch bindings.
Forward input applies brakes	Enable Reverse Axis for the assigned pitch axis, then verify centre and both end stops.
Controls become erratic	Use Search by Input on every connected device and remove duplicate elevator, aileron or rudder assignments. Check that assistance features are not overriding the controls.
The glider is overweight	Set all fuel tanks to 0 percent and load only the intended pilot mass through Seats or Payload. Never combine fuel ballast and pilot payload.
The model slides before launch	Press W to engage the prepared ground-run state, align into wind and begin the launch without pausing over terrain bumps.
Foot launch drops after lift-off	Keep W held beyond the first lift and release it only after stable speed and clearance are established.
Winch pulls sideways	Start aligned, use small rudder and roll corrections, avoid large oscillating inputs and apply only light pitch-up in the initial phase.
X does not release the cable	Assign X, or another button, to the MSFS tow-rope release command in the active controller profile.
Changes do not appear	Remove older copies of the same Skyparot package from Community and restart MSFS completely.

Supported Skyparot models

- SP06 Relax, SP07 Speedflyer, SP08 Advanced and SP09 Travel use the same controller concept described in this manual.
- Pitch forward operates the speed bar; pitch back operates symmetric brakes and flare in every model.
- W, S, A and D provide supported ground movement, while airborne steering remains assigned to pitch, roll and rudder.
- Model-specific performance, loading limits and handling remain different and should not be compared by adding extra payload.

Further MSFS controller help

Microsoft Flight Simulator Support: Controller Settings FAQ

<https://flightsimulator.zendesk.com/hc/en-us/articles/16459737949980-Controller-Settings-FAQ>

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