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Congratulations on your purchase of the SafeAir Mavic Safety System!

This manual explains how the SafeAir Mavic system works and how to properly operate the system on the ground and in the air. Be sure to take the time to read this manual carefully in order to increase your safety and the safety of those around you.

The SafeAir Mavic system is a smart-parachute system that deploys autonomously after detecting a critical failure in your drone. The parachute slows the descent rate of your drone and reduces the kinetic energy upon impact.

Note – Using the SafeAir Mavic System does not eliminate all risk of drone operation. Please fly responsibly and in accordance with the rules and regulations defined by authorities in the area where you are operating. Visit the ParaZero website (www.parazero.com) on a regular basis for the latest information and updates.
General
ParaZero’s SafeAir Mavic is a low altitude, autonomous parachute-based safety system.
The SafeAir Mavic System is compatible with Mavic Pro, Mavic 2 Pro, Mavic 2 Zoom and Mavic 2 Enterprise series (without modular accessories).
The average measured descent rate of the drone with an open parachute is 3.9 meters per second (12.8 feet per second).

Main Features
- Unique parachute deployment system that opens in a fraction of a second, even at zero speed.
- Autonomous emergency identification and activation capabilities.
- Electro-mechanic flight termination system.
- Access data logs from black box via the desktop application.
Safety Instructions

The ParaZero SafeAir Mavic is a drone safety system, designed to deploy instantaneously by using a powerful spring-based mechanism. Be careful not to lean against, press or drop the system.

It is imperative to perform system updates on a regular basis through the desktop application. The current version number is found on the product webpage: www.parazero.com/mavic under the software tab. A new device must be updated before first flight.

Warning
Do not move the drone or system while the system is armed (green LED).
An angle breach may cause the system to deploy.
The parachute and cover will be projected at high speed and may cause injuries.
Turn the system off immediately after landing.

Caution
The SafeAir Mavic System is not intended for use in Sport mode.
The CSC function (Combination Stick Command) is not supported.
SafeAir System Package Content

A. SafeAir Mavic System and connected safety catch
B. Safety insert
C. Placement stamp x3
D. Placement tool
E. USB-C cable
F. Mavic Pro adapter
G. Alcohol pad
SafeAir System Ports & Switches

- USB-C port
- LED
- System button
- Power switch
Installation Step 1

Place the drone with the battery facing towards you and unfold its arms, but don’t attach the propellers yet. Unfold the placement tool and place it on the drone, so that the camera side arrow is placed above the camera and the motors’ pins are inserted into the marked holes. Use the “Mavic 1” holes for Mavic Pro and “Mavic 2” holes for all the rest.

Caution
Follow installation instructions carefully. Systems that are not installed correctly may interfere with the spinning rotors.
Installation Step 2

Clean the area of the hole in the placement tool using the alcohol pad, remove the sticker cover from the placement stamp and stick it, by placing it carefully through the hole in the placement tool.

Remove the placement tool and verify that the placement stamp is still securely in place.
Installation Step 3

Remove the safety catch from the bottom of the system and store it in a safe place for reuse during transport.
Installation Step 4

For Mavic Pro – remove the sticker cover from the Mavic Pro adapter and connect it on the bottom of the drone as shown in the illustration.
Preflight note: Turn the Mavic on now, as the SafeAir Mavic is placed on top of the power button. Place the harness cord under the center of the drone with the SafeAir Mavic System placed upside-down to the left of the drone, while the string holder is adjacent to the drone.
Installation Step 6

Slide the metal hook away from the base and place the SafeAir Mavic System by matching the three plugs at the bottom of the system inside the corresponding sockets of the placement stamp (See close-up on the next page).
Installation Step 7

Match plugs to sockets.
Installation Step 8

Hang the harness on the metal hook and lock the handle upwards, **but don’t over – tighten it.** Watch your fingers while doing so.
Position the string at the bottom part of the drone as shown in the illustration to avoid sensors interference.
Installation Step 10

Gently wiggle the system to confirm that it is securely in place.

If the harness cord is not tight enough, repeat the last step while placing the harness in a higher position.

Caution
Over tightening the harness cord might harm the system.

Caution
Do not lift the drone from the SafeAir System as this may cause the system to deploy unintentionally.
Installation Step 11

Connect the four rotors and verify that they are able to spin freely without any contact with the SafeAir Mavic System.
Verify that the batteries are charged before each flight. To charge the SafeAir’s battery, use the USB-C port. The minimum charging time before first flight is one hour.

Caution

Batteries that are not fully charged may not be able to operate towards the end of a long flight. If the LED turns orange on initialization, charge the system for at least 30 minutes before take-off.
System Operation Step 2

Prior to takeoff, verify that the system is placed firmly in the center of the drone and that the drone’s propellers can spin freely without touching the system.
To activate the system, verify that the system is on a level surface and turn the power switch to the ON position. If it is already ON, turn it OFF and then ON again. A starting sequence initiates, and the LED turns green and then yellow for about 20 seconds. If the yellow LED is flashing, then the system is not on a level surface. After the system is on and ready in Standby mode, a blue LED appears.
The system is now ready for flight. After first installation and when required, perform Mavic compass calibration. The system autonomously detects takeoff (~3m above takeoff level), switches to Armed mode and the LED turns green.
System Operation Step 5

After landing, the system autonomously disarms and the LED turns blue a few seconds after rotors stop. Turn off the rotors and switch the SafeAir’s power switch to the OFF position before moving the drone.

Warning As a precaution, always turn the system off before moving it. Failure to do so could initiate system deployment. Inspect your system. Verify that the system is not damaged and that the rotor stoppers are intact.
System Removal  Step 1

Warning  Verify that the SafeAir Mavic System is off before removing it from the drone.

Unlock the harness by lowering the handle and unhook the harness from the metal hook.
System Removal Step 2

Remove the system from the drone. Insert the safety catch and store the system in a dry and clean place for reuse.
The SafeAir Mavic includes an Autonomous Triggering System (ATS) that identifies most of the known critical failures and triggers the system autonomously. Should an emergency situation occur, the system deploys the parachute, stops the rotors and reduces impact energy upon landing.

The system can only deploy when it is in Armed mode (green LED). Following a deployment, the LED turns red. To switch to Standby mode, reset the system by turning the power switch OFF and then ON again. The LED should turn blue after approximately 20 seconds.

Contact us at support@parazero.com for the deployment analysis.
Installing

After the system has deployed, make sure to turn the power switch to the OFF position. Inspect your system to make sure that the parachute is not damaged, that rotor stoppers are intact and that the general condition is good. Ensure that you have all the parts listed in Step 1, and then follow the steps described in this chapter.

Important – The SafeAir Mavic System withstands significant force during deployment. Systems that have been deployed five times must not be repacked and reused, and should be replaced.

Repacking

Caution For professional SafeAir Mavic Systems that comply with ASTM F3322-18 and are intended for flight over people, parachutes must be packed and repacked by ParaZero (or by an entity that has been certified by ParaZero).
Repacking Step 1

Place all system components in front of you on a clean, dry surface.

A. Main canister and parachute
B. Safety insert
C. Top cover
D. Inner stage
E. Parachute
F. Safety catch
Repacking Step 2

While holding the main canister upside down, rotate the base unit clockwise by 45° until the base is held in its new position.
Rепакинг Шаг 3

Место установки Safety insert на рычаг активации, чтобы избежать несчастных случаев.
Repacking Step 4

Push down the two main springs and secure them in place on the hooks in the base of the system.
Repacking Step 5

Place the Inner stage on top of the folded springs. Ensure that the parachute strings are guided through the indented gap between the platform and the system, as shown below.
Repacking Step 6

Verify that the parachute strings are not tangled, twisted, knotted or damaged in any way. With one hand, hold the parachute from the center of the canopy, with the other hand in a ring shape, slide downwards along the parachute until you reach the parachute strings, so that the parachute is closed.

1. Check the strings
2. Fold parachute
Repacking Step 7

Fold the parachute and strings back and forth until they fit in your hand. The folded parachute should be approximately the length of the parachute platform.

- Zigzag fold
- One loop
- Fold strings in an eight shape
- Combine the strings with the parachute
Repacking Step 8

Place the folded parachute inside the inner stage with the strings facing downwards. Keep the parachute compressed tightly in the platform. Take out the safety insert and store it.
Repacking Step 9

Verify the cover's orientation based on the label underneath. Begin with inserting the two corners on the parachute side. This will allow you to keep the parachute compressed in place with the other hand.
Repacking Step 10

While removing the hand that was compressing the parachute, fully close the cover. Press gently on the center of the closed cover to secure it in place.
Repacking Step 11

Ensure that parachute fabric is not sticking out of the gap between the cover and the system (up to 2mm is acceptable).
Repacking **Step 12**

Insert the safety catch and store the system in a clean, dry place for reuse.
# System Status and Troubleshooting

<table>
<thead>
<tr>
<th></th>
<th><strong>LED</strong></th>
<th><strong>System Status</strong></th>
<th><strong>Corrective Action</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Green</td>
<td>Power up</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Orange</td>
<td>Power up</td>
<td>Should charge battery</td>
</tr>
<tr>
<td>3</td>
<td>Red</td>
<td>Power up</td>
<td>Low battery, must charge battery</td>
</tr>
<tr>
<td>4</td>
<td>Steady Yellow</td>
<td>System initiation sequence</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Blue</td>
<td>Standby mode</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Steady Green</td>
<td>Armed mode</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Steady Red</td>
<td>System has deployed</td>
<td>Turn the power switch to the OFF position and follow the repacking instructions</td>
</tr>
<tr>
<td>8</td>
<td>Flashing Red</td>
<td>Low battery</td>
<td>A one-hour charge gives an hour of flight time. (The red flashing LED may be accompanied by other colors)</td>
</tr>
<tr>
<td>9</td>
<td>Flashing Yellow once</td>
<td>Remote Control (RC) error</td>
<td>Make sure the RC cable is connected to the predefined RC channel</td>
</tr>
<tr>
<td>10</td>
<td>Flashing Yellow 2 times</td>
<td>System not level during initiation sequence</td>
<td>Ensure that the system is level</td>
</tr>
</tbody>
</table>
System Status and Troubleshooting continued

<table>
<thead>
<tr>
<th>LED</th>
<th>System Status</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Flashing Yellow 3 times</td>
<td>Erase onboard storage using the ParaZero Desktop Application</td>
</tr>
</tbody>
</table>

Other Specifications

<table>
<thead>
<tr>
<th>Warranty</th>
<th>One year or first deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum Altitude Above Sea Level</strong></td>
<td>6000 meters (19,700 feet)</td>
</tr>
<tr>
<td><strong>Maximum Speed</strong></td>
<td>72 kilometers per hour (43.5 miles per hour)</td>
</tr>
<tr>
<td><strong>Maximum Wind Speed</strong></td>
<td>10 meters per second (19.5 knots)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>165 grams (0.36 lbs.)</td>
</tr>
</tbody>
</table>

Normal operating temperature range is 0°C - 40°C. When the system is fully charged and kept above 15°C, flight is permissible at temperatures as low as -10°C.
CE and FCC Compliance Information

FCC Compliance Notice
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The FCC Compliance Statement is available online at parazero.com/FCC-compliance

EU Compliance Statement
The EU Declaration of Conformity is available online at parazero.com/EU-compliance