



OPERATIONS MANUAL



MAVERICK SE OPERATION MANUAL

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MAVERICK SE IS A TRADEMARK OF XCRAFT ENTERPRISES

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Dear xCraft pilot,
Thank you for purchasing the Maverick SE! Please note that while the enclosed information is valid at the time of shipping, it is important to all the appropriate and up to date legal and non-legal information on our website:
xcraft.io

Also, remember to register your Maverick SE at:
<https://knowbeforeyoufly.org/>

Sincerely,
the xCraft team

Support

Contact xCraft support with any questions or technical help requests.

EMAIL: support@xcraft.io

CALL: 1 (208) 665-1353

Support line hours are: Mon-Fri 8am-5pm PST
xCraft Enterprises

418 E Lakeside Ave Ste 08
Coeur d' Alene, ID, 83814
www.xcraft.io

Maverick SE

The Maverick SE is a powerful quadcopter machine with a all enclosed and ducted design, also featuring return to home, loiter, and hold options.



propellers (4x) ☐

HD Camera ☐

Micro SD slot ☐

Cooling Vents ☐

Prop Guards ☐



GPS ☐

USB-C ☐

4 x 360W brushless DC motor ☐

Battery Release ☐

Battery Indicator ☐



Maverick SE Portable Case

The portable case holds all components received with the Maverick SE order, including the battery, controller, headset, power bank, charging cord, and Maverick SE drone.



Maverick SE drone ☐

Controller ☐

Headset ☐

Battery ☐

Power Bank/Cord ☐

Congratulations on your purchase of the xCraft Maverick SE drone package! Once the Maverick SE is received, here are the first steps for starting a test flight and confirming your setup is fully operational.

Test Flight

The Maverick SE drone is powered up as soon as battery is attached and clicked into place. Once the drone is on, set it on the ground and hold the power button on the controller. The controller and the drone will automatically connect.

Now the drone will be finding the GPS lock, wait until the GPS lights start blinking blue (notifying the gps lock on the drone), and then arm.

To arm the drone, flip the arming switch labeled on the controller up. the propellers will start to rotate at this time.

Once that is all complete, you can now start to fly your drone.

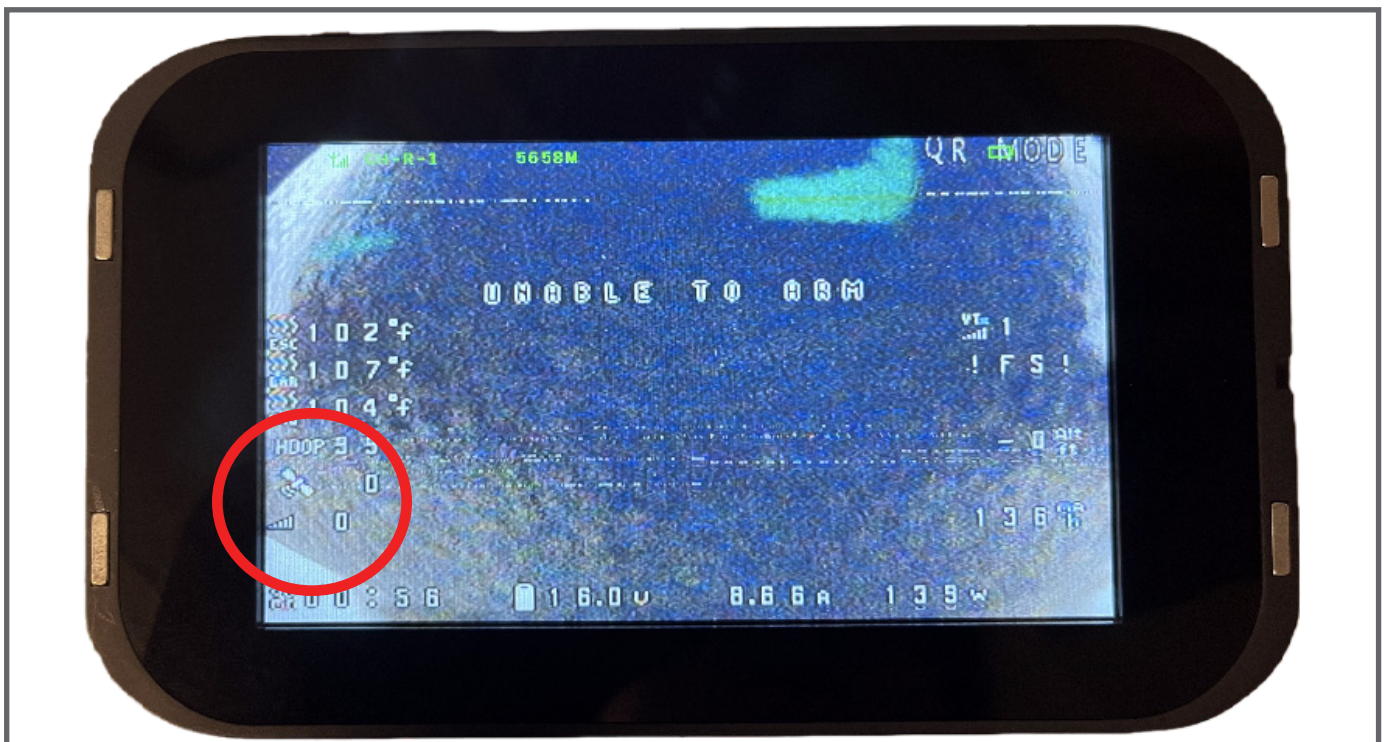


Screen Options and Indoor Flight

Now that the drone flight test is complete, let's go through the screen, FPV attachment, and indoor flight options.

If the screen is wanted during flight, connect the antennas and just hold the "on" button and it will automatically connect to the drone camera. (Make sure the drone is already on). You can also see the **satellites** used for GPS lock in the bottom left corner of the screen. To use the FPV goggles, simply attach the screen to the headset and it will automatically switch to FPV mode.

Since GPS lock is quite hard to receive most places indoors, you need to force arm without GPS lock to fly. For this, bring the left stick down to the bottom right where the label says "force arm" and then flip the regular arming switch at the top right. Your drone is now good to fly.



Charging and Micro SD

To charge the drone battery, take the power cube and included wires from the case. Take out the battery from the drone, and connect it as shown. To test the charge on the battery, press the red button labeled “test” on the back of the battery and the percentage will be shown.

To save anything taken using the camera, a micro SD card will need to be installed into the front of the drone near the camera.



Video ON/OFF
(Flick up and
down to start, up
and down to stop)

Three Operations:
1) LOITER
2) SPORT
3) RETURN

ARM/DISARM



FORCE ARM OPTION

Weight: 1.12lbs

Payload: 100g

Maximum Flight Time: 20 minutes

Camera: RunCam SPLIT HYBRID 2

Controller: EMAX E8 Tansmitter

Mounting: Accessible with Picatinny rail

Top Speed: 45 MPH

Battery: 4S 86.4Wh Battery

Case Dimensions: 20x20x11.5 in.

Drone Dimensions: 12x11.5x4.5 in.

Propulsion: (x4) 2400kv brushless motor

Important Note: All safety precautions and warnings, instructions, warranties, and other collateral information is subject to change at the sole discretion of xCraft Enterprises. For the most up-to-date information please contact xCraft Support. The following special language terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

□ **Notice:** Procedures, which if not properly followed, create a possibility of property damage, and/or create low possibility of injury.

□ **Warning:** Procedures, which if not properly followed, create the probability of property damage, collateral damage and/or serious injury or create a high probability of superficial injury.

Warning: This is a sophisticated product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in damage to the product, property, and/or cause serious injury. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by xCraft. The Operation Manual contains instructions for safety, operation, and maintenance. It is essential to read and follow all the instructions and warnings prior to assembly, setup, and/or use in order to operate the product correctly and avoid damage and/or serious injury.

Age recommendation: Not for children under 18 years. This is not a toy.

General Safety precautions and Warnings: Failure to use this product in the intended manner as described in the Operation Manual can result in damage to the product, property and/or cause serious injury. A Radio Controlled (RC) multirotor aircraft, APV platform, vehicle, etc. is not a toy! If misused, it can cause serious bodily harm and damage to property.

Warning: As the user of this product you are solely and wholly responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others. Keep your hands, face, and other parts of your body away from the spinning propellers and other moving parts at all times. Keep items that could impact or become entangled away from the propellers including debris, parts, tools, loose clothing, etc. Always operate your aircraft in open areas that are free from people. Vehicles and other obstructions. Never fly near or above crowds, airports, or buildings.

To ensure proper operation and safe flight performance never attempt to operate your aircraft near buildings or other obstructions that do not offer a clear view of the sky and can restrict GPS reception.

- Do not attempt to operate your aircraft in areas with potential magnetic and/or radio interference including areas nearby broadcast towers, power transmission stations, high voltage power lines, etc.
- Always keep a safe distance in all directions around your aircraft to avoid collisions and/or injury. This aircraft is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Do not attempt to operate your aircraft with any worn and/or damage components, parts, etc. (including, but not limited to, damaged propellers, old batteries, etc.)
- Never operate your aircraft in poor or severe weather conditions including heavy winds, precipitation, lightning, etc. • Always operate your aircraft starting with a fully charged battery.
- Always keep the aircraft in clear line of sight, under control, and keep the transmitter powered on while the aircraft is powered on.
- Always move the throttle control stick down fully and disarm the motors in the event the propellers come into contact with any objects.
- Always allow components and parts to cool after use before touching them and flying again.
- Always remove batteries after use and store/transport them per the corresponding guidelines.
- Avoid water exposure to all electronic components, parts, etc. not specifically designed and protected for use in water. Moisture causes damage to electronic components and parts.
- Never place any portion of the aircraft or any related accessories, components, or parts in your mouth. Doing so could cause serious injury or even death.
- Always keep chemicals, small parts, and electronic components out of the reach of children.
- Carefully follow the instructions and warnings included with this aircraft and any related accessories, components, or parts (including, but not limited to, chargers, rechargeable batteries, etc.)

Compass To avoid possible injury or damage, observe the following rules:

- Land immediately when severe drifting occurs in flight, i.e., the aircraft does NOT fly in straight lines.
- Ensure the compass is calibrated before every flight. Failure to calibrate may lead to poor flight performance or a crash.
- DO NOT attempt to calibrate your compass where there is a chance of strong magnetic interference. This includes areas where there are massive metal objects, parking structures, steel reinforcements underground, or under bridges.
- DO NOT carry ferromagnetic materials with you during calibration, such as keys or mobile phone

Warranty This section contains the legal terms and conditions relating to the use and operation of the Maverick SE. Please read it thoroughly. The below terms and conditions affect and limit your legal rights.

Limited Warranty xCraft Enterprises, INC ("xCraft") warrants to the first purchaser of this product that at the time of purchase the Maverick SE product is free from material defects in materials and workmanship for a period of twenty-four (24) months. In the event the Maverick SE product fails during the warranty period stated above, xCraft or its designee will have the right, but not the obligation, to inspect and validate such defect, and, if the defect is confirmed by xCraft or its designee, xCraft or its designee shall, in its sole discretion, repair or replace the defective product or component with a new, repaired or overhauled product or component, without charge, as long as the defect arises due to the result of normal use and the warranty is otherwise not void.

This limited warranty does not extend beyond the first purchaser of this Maverick SE product. Additionally, this limited warranty is conditioned upon compliance with all aspects of this Manual and any other manual or other documentation accompanying the Maverick SE product. This limited warranty does not apply to:

- The product, or any components thereof, when it is subjected to anything beyond ordinary and intended use, any accidents (including but not limited to collisions, crashes, mishandlings, etc.), alterations, software modifications, improper repair or maintenance, improper or unauthorized use, abuse, neglect, inclement weather, or acts of God;
- Any damage caused by moisture, liquid, dirt, sand, battery liquid, or any other substance; Damage caused by any failure to comply with notes or warnings contained in this Manual or any other manual or documentation accompanying this Maverick SE, including, but not limited to, any failure to conduct preflight or other periodic inspections;
- Damage arising from any combined use with any other product;
- Damage from improper usage of any electrical source; or
- Use of the Maverick SE in violation of any applicable local, state or federal rules, laws, or regulations.

Other than the express limited warranty provided above, xcraft makes no other warranty or representation, either express or implied, regarding the Maverick SE Or any components or accessories thereof or related thereto. Xcraft hereby disclaims any and all implied warranties, including, without limitation, the implied warranties of non-infringement, merchantability and fitness for a particular purpose. The purchaser

Acknowledges that the purchaser alone has determined that the product will suitably meet the requirements of the purchaser's intended use. The extent of xcraft's liability under this warranty is limited to the repair or replacement as provided above, and in no event shall xcraft's liability exceed the purchase price paid by purchaser for the Maverick SE Product.

Limitation of Liability

xCraft's total maximum aggregate liability for damages relating to the sale and operation of the Maverick SE product shall not exceed the purchase price paid for the product. In no event shall xCraft be liable for, and purchaser and all operators of the product waive and release any claim (in contract, tort, breach of statutory duty or otherwise) against xCraft for, any and all indirect, special incidental or consequential damages as well as any and all lost revenues, profits, or prospective economic or non-economic advantage (whether direct or indirect).

Indemnification

Purchaser and each operator hereby agrees to indemnify, save and hold xCraft and its officers, directors, shareholders, agents, and employees harmless from any and all damages, injuries or any other loss which is caused by the acts or omissions of purchaser or any operator of the Maverick SE, regardless of whether based upon negligence, strict liability in tort, breach of warranty, or other theory of recovery or any other cause of action.

Software The software included in this Maverick SE unit contains copyrighted software. NOTWITHSTANDING THE FOREGOING, ANY MODIFICATION OF THE SOFTWARE INCLUDED IN THIS Maverick SE BY THE PURCHASER OR ANYONE OTHER THAN XCRAFT WILL EFFECTIVELY VOID ANY AND ALL WARRANTIES CONTAINED HEREIN.

Additional Terms These terms represent the entire understanding between xCraft and the purchaser and operators of the Maverick SE product. In the event any provision of these terms is determined to be illegal or unenforceable, that provision will be limited or eliminated to the minimum extent necessary so that the remaining terms and conditions shall otherwise remain in full force and effect. The purchaser and operators agree that any legal action taken in relation to the product shall be governed by and construed in accordance with the laws of the State of Idaho, without regard to the conflict of laws' provisions thereof. The exclusive jurisdiction and venue for any legal proceedings or actions will be the State of Idaho and the U.S. federal courts located in Coeur d'Alene, Idaho. The United Nations Convention on Contracts for the International Sale of Goods (CISG) is specifically excluded and do not apply to this Agreement nor the sale of this Maverick SE unit.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

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 distance between the equipment and receiver.
- Connect the equipment to 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. Modifications not authorized by the manufacturer may void the purchaser's authority to operate this device

Government Regulations

As a Maverick SE operator, you are solely responsible for assuring your operation of the Maverick SE is conducted safely and in accordance with all local laws and regulations. Below are links for regulatory information on flying unmanned devices in differing jurisdictions, which operators may use as a starting point to research and become familiar with the applicable local laws and regulations. It is the operator's sole responsibility to familiarize himself or herself with all applicable rules, laws and regulations and other government guidance and information relating to flying the Maverick SE. The below information and links are provided for convenience purposes only – xCraft does not guarantee or warrant that the following links are accurate or exhaustive of all applicable rules, laws and regulations relevant to the operation of the Maverick SE.

- United States: <http://www.faa.gov/uas/>
- China: <http://www.caac.gov.cn/>
- New Zealand: <https://www.caa.govt.nz/rpas/index.html>
- Canada: <http://www.tc.gc.ca/eng/civilaviation/standards/general-recavi-uav-2265.htm>
- Czech Republic: <http://www.caa.cz/letadla-bez-pilota-na-palube/unmanned-aircraft?lang=2>
- Denmark: [http://selvbetjening.trafikstyrelsen.dk/civilluftfart/Dokumenter/Love%20og%20bestemmelser/Bestemmelser%20for%20Civil%20Luftfart%20\(BL\)/BL%2009-serien/9_4_ud3.pdf](http://selvbetjening.trafikstyrelsen.dk/civilluftfart/Dokumenter/Love%20og%20bestemmelser/Bestemmelser%20for%20Civil%20Luftfart%20(BL)/BL%2009-serien/9_4_ud3.pdf)
- UK: <http://www.caa.co.uk/default.aspx?CATID=1995>
- France: <http://www.developpement-durable.gouv.fr/Effectuer-des-activites>
- Germany: <http://www.riot.ch/wp-content/uploads/2014/01/BMVBS-Kurzinformation-unbemannte-Luftfahrtsysteme-10.2013.pdf>
- Italy: http://www.enac.gov.it/repository/ContentManagement/information/N1220929004/Reg%20SAPR%20english_022014.pdf
- Ireland: <https://www.iaa.ie/index.jsp?p=100&n=107&a=406&pp=413&nn=428&lID=956>
- Poland: <http://www.ulc.gov.pl/pl/uav>
- Norway: <http://www.luftfartstilsynet.no/selvbetjening/allmennfly/RPAS-FAQ/>
- Singapore: <http://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/ANS/aero-modelling.html>
- Australia: <https://www.casa.gov.au/operations/standard-page/remotely-piloted-aircraft-rpa>
- Austria: http://www.austrocontrol.at/luftfahrtbehoerde/lizenzen_bewilligungen/flugbewilligungen/unbemannte_lfz
- UAE: <https://www.dcaa.gov.ae/sitepages/en/AviationLawsAndRegulations.aspx>
- Spain: http://www.seguridadaerea.gob.es/lang_castellano/cias_empresas/trabajos/default.aspx
- Korea: <http://www.law.go.kr/lsInfoP.do?lsiSeq=157013&efYd=20150301#0000>

Prior to assembly and/or operation of this Maverick SE you must fully read and comply with all instructions and warnings contained in the Operation and Maintenance Manual or any other manual or documentation accompanying this Maverick SE product. You must operate this Maverick SE safely, responsibly, and in accordance with any and all applicable rules, laws and regulations as well as all checklists, emergency procedures, and all other instructions contained in the Operating and Maintenance Manual and any other manuals or documentation that accompany this Maverick SE product.

FAILURE TO COMPLY WITH THE Maverick SE OPERATING AND MAINTENANCE MANUAL OR ANY OTHER MANUALS OR DOCUMENTATION THAT ACCOMPANY THIS PRODUCT WILL RESULT IN THE LIMITED WARRANTY CONTAINED IN THE OPERATING AND MAINTENANCE MANUAL TO BECOME VOID. ADDITIONALLY, THE LIMITED WARRANTY CONTAINED IN THE OPERATING AND MAINTENANCE MANUAL WILL BECOME VOID IF YOU FAIL TO COMPLY WITH SPECIFIC NOTES OR WARNINGS CONTAINED IN THE OPERATING MAINTENANCE MANUAL, INCLUDING BUT NOT LIMITED TO: ANY FAILURE TO CONDUCT PREFLIGHT OR OTHER PERIODIC INSPECTIONS;

SUBJECTING THE Maverick SE TO ANYTHING BEYOND ORDINARY AND INTENDED USE; MODIFYING THE Maverick SE OR ITS SOFTWARE; OR USE OF THE Maverick SE IN VIOLATION OF ANY APPLICABLE LOCAL, STATE OR FEDERAL RULES, LAWS, OR REGULATIONS. SAFETY AND COMPLIANCE

WARNING!

This Maverick SE unit can be dangerous. Read and follow all safety and operating instructions before using the Maverick SE and ensure that basic safety precautions are always followed during operation of the Maverick SE. Failure to do so can result in damage to the product or personal property and cause serious injury. This is a sophisticated product. It must be operated with caution & common sense. It also requires some basic mechanical ability to setup & maintain. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. DO NOT use incompatible components or alter this product in any way outside of the documents provided by xCraft Enterprises. This Operators Manual contains instructions for safe operation & maintenance. To operate the product correctly and avoid damage or serious injury it is essential to read and follow all of the instructions and warnings in the Maverick SE user manual prior to assembly, setup, or use of the product. If situations occur that are not specifically covered in this Operating and Maintenance Manual (this "Manual"), use care and good judgement. Operators of the Maverick SE agree to operate the Maverick SE safely, responsibly, and only for authorized and lawful purposes. Operators of the Maverick SE are solely responsible for complying with, and by using this Maverick SE unit each operator represents that it has read and agrees to comply with:

- All instructions, warnings, and terms & conditions on the Maverick SE unit and in this Manual and any other manuals or documentation that accompany the Maverick SE, the remote control unit (if applicable), and any other accessory included with this Maverick SE unit (if applicable);
- All checklists, emergency procedures, and preflight inspections and periodic inspections and maintenance as indicated in this Manual; and
- Any and all applicable governmental and administrative laws, rules, regulations, guidelines and flight restrictions, whether federal, state, local, or international, including, without limitation, any and all applicable aviation, communication, data protection, safety, and privacy laws.

This manual and the legal terms and conditions contained in this Manual are subject to change at any time without prior notice – please refer to www.xcraft.io for the latest version.

SAFETY

- Always keep the Maverick SE in a visual line of sight.
- Take flying lessons, and practice flying often.
- Always fly outside in clear, open areas away from any people, houses, vehicles, buildings, power lines, trees, etc.
- Do not fly under the influence of drugs or alcohol. - Do not fly indoors. - Do not fly at night. - Do not fly over or near property owned by governmental entities or other individuals without their express permission.
- Do not fly near international borders.