SPLASHDRONE 3+ (New Zealand Version) Drone
Additional Support Information
IMPORTANT – PLEASE READ & ENSURE YOU UNDERSTAND!

By Flying this Quadcopter you are agreeing that you have read & understand all of the notes & documentation contained within this packaging including The Product User Manual, Disclaimer Documentation, and this Support Documentation & that you agree that you will abide by all New Zealand laws & legislation surrounding the usage of this Quadcopter (Including the Civil Aviation Act 1990)

PLEASE MAKE SURE YOU HAVE FULLY READ, UNDERSTAND, AND ARE WILLING TO FOLLOW THE INFORMATION & INSTRUCTION CONTAINED IN THIS SUPPORT DOCUMENT, BEFORE ATTEMPTING TO FLY THE DRONE

PLEASE NOTE: Information contained in this document is designed to supplement the "Splashdrone User Manual" & highlights important information to assist when flying specifically in New Zealand. GIVEN NEW ZEALAND'S DIFFERENT OUTDOOR ENVIRONMENT & RUGGED CONDITIONS, PLEASE USE INFORMATION CONTAINED IN THIS SUPPORT DOCUMENT FIRST & FOREMOST (WHEN IN DOUBT – REFER TO THIS DOCUMENT)
(Information contained in this document specifically pertains to the Splashdrone 3+ model and is correct at the time of publishing, however instructions and information is subject to change without notice.)

For IMPORTANT VIDEO INSTRUCTIONS, IF YOU HAVE A USB DRIVE IN YOUR BOX – PLEASE PUT THIS INTO THE USB DRIVE OF YOUR COMPUTER, WATCH THE VIDEO & FOLLOW THE INSTRUCTIONS.
IF YOU DON'T HAVE A USB DRIVE IN YOUR BOX PLEASE VISIT THE JCMATTHEW YOUTUBE CHANNEL ONLINE on the Internet (Easy to find by searching for "JCMatthew" on YOUTUBE)
There you will find a number of helpful Instructional Videos – particularly in relation to successfully Calibrating your Splashdrone. It is advisable that you familiarize yourself with these videos.

There are a number of third party or consumer made videos available online & YOUTUBE. We advise STRONGLY that you DO NOT take instruction from any of these videos, as the information can often be incorrect OR they relate to old models OR show incorrect usage of the product, none of which we at JCMatthew NZ Condones.

IMPORTANT INITIAL SETUP NOTES

- Please note – Your new NZ Model drone has been specifically set up, tuned & calibrated for New Zealand conditions & has been fully checked & tested to ensure it flys and performs perfectly before leaving our New Zealand factory.
- Before a flight, ALWAYS turn on the Remote Control before Powering up the Splashdrone.
- Also ensure before you turn on the Remote Control – that all the switches are in the up position. If not done, you are likely to get a constant "BEEP-BEEP-BEEP" Sound until this is corrected.
- **Once the Splashdrones power has been turned on (Battery Plugged in), Please wait for the start-up/ initialization Light sequence (RED-GREEN-YELLOW fast flashing) to be FINISH BEFORE MOVING THE DRONE OR attempting calibration – this may take 20 seconds, and please do not move or bump the drone during this Initialization process. After this light sequence finishes, then you can proceed.**
- When learning to fly, please start the Drone in "GPS Mode" which means the related switch on the Remote is in FULL-UP position. This ensures the drone is able to hover horizontally with little or no drifting.
- **Before your first flight, please carefully remove the clear circular transparent cellophane sticker** from the top

of the lid (it has RED writing on it). This is there just for transportation from the factory (plus it gives you important information) & needs to be removed BEFORE your first flight – as the white nano fabric cover (underneath) needs to have direct contact with the air – so that the Barometric sensor inside can function properly:

- Prior to take-off (When in GPS Mode & the drone is sitting on the ground outside) After the Remote control & the Splashdrone have been powered on, the number of Satellites visible (shown in the upper right hand of the Remote LCD Display) will display the number of satellites being tracked. Please also use the drone lights inside the drone to ensure that the drone has good satellite reception (GREEN GREEN….GREEN GREEN…..GREEN GREEN ONLY) Sequence. **Please only attempt to Fly when you see full Flashing GREEN Lights.**
- Make sure the batteries of both the Splashdrone & the Remote Control are fully charged using the provided before you attempt to fly.
- Remember that by just having good Satellite reception this **DOES NOT** in itself confirm that the drone is ready to fly without issue – for instance the compass & accelerometer are other important sensors that needs to be setup prior to flight. **There is NO SUBSTITUTE FOR CORRECTLY CALIBRATING THE COMPASS BEFORE EVERY FLIGHT.**
- In GPS Mode, **DO NOT Attempt to take-off UNTIL you have ALL GREEN Flashing Lights & NO RED Flashing Lights.** This will mean that you have good GPS Satellite Reception (13x or more).
- **Before Flight, ALWAYS MAKE SURE** that the drone is in perfect working condition:
    - That the motors are turning smoothly/ perfectly and are free of sand, containments & corrosion.
    - That the Payload release or Camera Gimbal (depending on your model) is working perfectly and smoothly & free of corrosion & there is no damage to either of these two parts.
    - That the Propellers are in original condition – DON'T fly with damaged propellers!
    - That there is no internal corrosion, water or water damage found inside the drone & the drone electronics & lights perform as expected prior to flight.
    - That there is no sand or contaminants around external areas of the drone & in particular the LID of the drone, which will effect the seal on the LID of the drone, particularly when used around water.
- With this new model Splashdrone 3+ (with the Black Cover/Lid) – **PLEASE ENSURE THAT THE LID ALWAYS IS SECURED WITH THE SMALL ARROW FACING FORWARD TOWARD THE FRONT OF THE DRONE. The Lid is also Labeled with a "FRONT" Sticker.**

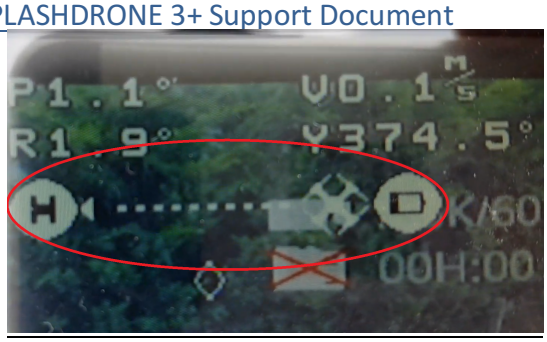
  IF THE COVER IS PUT ON A DIFFERENT WAY – THIS ALMOST CERTAINLY WILL RESULT IN A CRASH – *as the Compass/GPS housed in this lid facing a different direction – will create confusion for the Internal Flight Controller.*

  The front of the drone can be easily identified by the two SILVER BANDS ON THE DRONE ARMS which are also labeled "FRONT". *Note that the image below is of the Splashdrone 3+ PRO– the camera pictured in the image differs from the Splashdrone 3+ Plus*

- **Get to know and understand what the Lights inside the Drone mean, and pay attention to these lights at all times when using the drone.**
  From the below list – both "Flight Mode" lights and "GPS Status" lights flash consecutively or they happen one after the other, ie a flash of "GREEN GREEN RED RED RED" – means the drone is in GPS Mode & GPS Signal is very bad.

Flight Mode		
● x1	One Green Flash	ATTI Mode
● x2	Two Green Flashes	GPS Mode
● x3	Three Green Flashes	Circling flight & Smart Cruise (Optional)
● x4	Four Green Flashes	Cruise Flight
● ·····	Green Fast Flashing	APP control/ Return Home
GPS Status		
● x3	Three Red Flashes	No GPS connection, or no GPS signal
● x2	Two Red Flashes	Poor GPS signal
● x1	One Red Flashe	Satisfactory GPS signal
○	No Red Flash	Good GPS signal
Low battery warning		
● x3	Three Green Flashes	First level low battery warning, safely land as soon as possible.
● ·····	Green Fast Flashing	Second level low battery warning, the drone will start it's auto landing sequence.
Six-Sided Compass Calibration		
● ● ● ·····	Alternating - Red, Green, Yellow slow flashing	Busy with calibration process

- If you get the 1st low battery warning while in the air (3X GREEN FLASHES ON THE DRONE), PLEASE GET THE DRONE HOME & SAFELY LAND THE QUADCOPTER **AS SOON AS POSSIBLE** (as the battery will be low at this point) and the quadcopter will auto-land in it's current position if still in flight if the battery runs out.
  First battery warning can be seen as 14.6V in the upper left corner & it will also show the Icon on your remote display (as highlited in RED below)



- **<u>*IMPORTANT* Although the Splashdrone can float, takeoff & land IN CALM WATER CONDITONS if required, the top white circle on the top of the Lid of the drone is INTENTIONALLY not 100% sealed or completely watertight for technical reasons (although it is designed to resist water entry) – and therefore the Drone SHOULD NOT be fully submersed below water OR BE INTENTIONALLY LANDED IN SURF OR ROUGH SEA CONDITIONS, as this may lead to a small amount of water entering the drone & could lead to electrical issues – which ARE NOT covered under warranty.</u>**
    - Please also see the Maintenance & care notes below.
    - The Splashdrone 3+ Model that are promoted here in NZ are rated at a water resistance level of IPX 4, please see our website for more information: www. Splashdrone.nz
- If you have a WIFI Feature on your camera (including the Splashdrone 4K Camera) OR on your Smart Phone – **PLEASE TURN OFF & DO NOT operate this WIFI Feature while the Quadcopter is in Flight** – as the Remote Control also operates on the same frequency and therefore by using the WIFI in the same general area this could cause loss of control of the Quadcopter and a possible resulting crash (at owner's risk).
- Also do not fly while WIFI Networks OR Radio Interference is operating in your flight area – again this may result in loss of control – which is not covered under warranty.
- **<u>Before every flight, Please check to ensure that the Payload release or Camera/Gimbal (depending on model) is fully working perfectly and smoothly & (if flying the PLUS Model) the release pin is moving smooth & easily and is Free of salt & corrosion BEFORE FLIGHT</u>**, (which it will be if properly maintained). In exceptional circumstances a malfunctioning Payload release or Gimbal – can lead to internal electrical issues for the drone, uncharacteristic movements in the air & possible crash (which is not covered under warranty). **<u>If the Payload Release is not in perfect working condition, please replace the Payload release before flight.</u>**

<u>CORRECTLY DONE CALIBRATIONS ARE IMPORTANT!</u>

- **<u>PLEASE MAKE SURE YOU CALIBRATE YOUR SPLASHDRONE BEFORE YOUR FIRST FLIGHT & THEN ONCE BEFORE EVERY FLIGHT SESSSION IN THE SAME SPOT</u>**.
  Please ALWAYS follow the instructions for doing the "6-SURFACE" OR "6-SIDED" COMPASS CALIBRATION as described in the Product Manual – and ALWAYS USE THIS METHOD FOR CALIBRATING THE COMPASS/GPS. **PLEASE REFRAIN FROM USING THE "2-SIDED" Calibration,** as may be described in some international documentation, as the "6-Surface" Calibration Provides a much more complete & accurate result.
- DO NOT attempt to do a calibration with the Propellers on the drone.
- When Calibrating – please remove keys, phone (and any other metal or transmitting device) from your pocket or person, and place these away from the drone calibration area. Also turn WIFI on your phone OFF.
- Also do not Calibrate on or very close to a vehicle, or near a house with a tin roof, or close to a WIFI Router (as on occasion this may disrupt the compass calibration).
- **<u>IT IS IMPORTANT TO CALIBRATE THE COMPASS & ACCELLEROMETER BEFORE EVERY FLIGHT SESSION & ALSO:</u>**

- **<u>If you are moving it to ANY new location for flying</u> (here in New Zealand we specify Calibrating before each & every flight as an important measure)** over & above what is mentioned in the product manual or the same location on a different day.
- When-ever You have had even a minor crash
- When the Quadcopter is difficult to control or is drifting horizontally while hovering.
- When the Quadcopter has been in close proximity to an electromagnetic source, ie. Speakers, Large metal object.

  Failure to calibrate the compass & GPS properly when required may result in a crash (at the owner's risk).

  Please ensure that the calibration process is followed correctly, and is completely successfully according to the Quadcopter's flashing Indicator light.

  Ensure there are no devices with Wifi enabled, close to you while calibrating (Smartphone, Go pro camera) & also please don't calibrate near large metal objects (like cars).

  When using a GO Pro or any other action camera, ensure WiFi is Turned OFF before attempting to fly the drone.

- It is also especially important to calibrate the **accelerometer sensor** after a crash or if the drone is drifting or uncharacteristically moving around while in flight, as this is an obvious sign that the accelerometer sensor is out of calibration
  (details to carry this our can be found in the product manual).

AFTER EACH CALIBRATION IS COMPLETED – IT IS IMPORTANT TO UNPLUG THE POWER FROM THE DRONE & THEN SWITCH OFF THE REMOTE CONTROL.
THEN AFTER SWTICHING THE RETURN TO HOME SWITCH BACK TO NORMAL POSITION (UP) – (as part of the calibration), POWER ON THE REMOTE AGAIN & THEN THE DRONE.

<u>General IMPORTANT Information</u>

- Please ensure that the Propellers are Installed Correctly – and the correct Propeller is placed onto the correct motor. It may take you a couple of attempts to get used to putting the NEW Push/Turn Propellers on (& taking them off) properly – but once you have mastered this – it is easy.
- When installing the Propellers – hold & support the motor itself in one hand and fit the propeller with the other. DO NOT Push down on the drone without supporting the force with your other hand – otherwise you may damage the landing gear if fitted.
- Note that each propeller is labeled (CCW (Counter Clockwise) OR CW (Clockwise). Make sure the correct propeller is matched with the correct drone arm – by matching the label (CCW, or CW) on both.
- Although some downward force is needed to get the propeller installed, please be careful not to damage the plastic installation tabs on the Propeller, as incorrect installation is not covered under warranty.
- Please ensure that all of your Propellers are securely fastened before Flight.
- Please DO NOT Fly with Damaged Propellers OR with Propellers not installed correct as a Crash may result, which is not covered under warranty.
- Please DO NOT operate the Quadcopter close to power lines, large metallic objects (like cars) or other radio interference, as this may significantly effect the compass, GPS, and Radio Control possibly resulting in a crash (at owners risk).

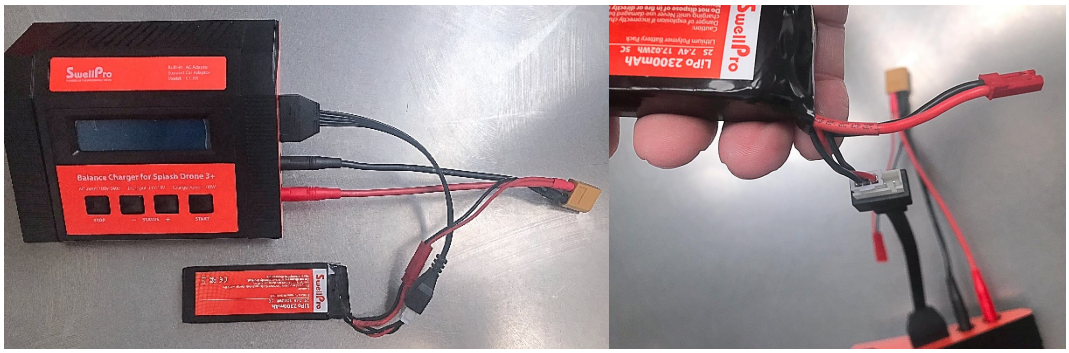
- If you ever crash your Splashdrone, make sure you shut the motors down INSTANTLY on impact. If the motors continue to spin, THE MOTORS MAY BEGIN TO SMOKE & WILL BURN OUT. This situation is NOT Covered under warranty.
- Please note that any Crash or Drone Damage (or third party damage) resulting from any water inside the drone which then goes onto cause electrical issues, is not covered under warranty. The drone IS designed to resist Splashes of water if the top lid seal is securely fastened down tight with the screws **AND** provided the white Nano-fabric material of the LID is not damaged, is clean & clear of contaminants/sand. Remember that the very top of the LID (in White) is intentionally not completely sealed and is covered by a Water resistant Nano Fabric to allow air to enter (but will also resist water entry).
- As unforeseen circumstances can arise, It is highly advisable to talk to your insurance advisor about organizing insurance cover for you & your drone before you fly.
- Please DO NOT attempt to unscrew the drone (apart from the lid), or take the drone apart or self-service. Doing so will automatically void the manufactures warranty. Also any attempt to service the drone by a non-authorised service agent, will also void the warranty.
- **REMEMBER – that the "RETURN TO HOME" Switch is NOT a failsafe or safety back-up feature**, this switch is ONLY there only for convenience.
    - If the drone does NOT behave as expected when this Switch is turned on & doesn't begin returning to you upon actioning this switch – **Then TURN OFF "RETURN TO HOME" IMMEDIATELY**, as often this means that there is a problem with the compass calibration OR there is external radio/magnetic interference.
    - If the drone ever behaves unusually in the air – please move the Switch on your controller from "GPS" Mode to "ATTI" Mode & bring the drone home at once.
      "ATTI" mode turns off many of the sensors on the drone & allows you to control the drone manually.

SPLASHDRONE BATTERY & POWER CABLE NOTES: IMPORTANT!

- **BEFORE FLIGHT ALWAYS ENSURE THAT ONCE THE POWER CABLE HAS BEEN CONNECTED – IT IS SECURELY TUCKED AWAY BETWEEN THE BATTERY & THE OUTSIDE SHELL** . This minimizes the effect of any electrical interference on the sensors in the Lid of the drone, by providing more distance between the two.
  NEVER just leave the Connected Power Cable resting across the middle of the inside of the cavity inside the drone before flight. This is very important.

- **AT ALL TIMES, PLEASE PAY ATTENTION TO THE BATTERY INDICATOR IN THE UPPER LEFT CORNER OF THE REMOTE CONTROL DISPLAY SCREEN (THIS SHOWS IN "V" FOR VOLTS).**
    1. **ONCE THE VOLTAGE DROPS TO 14.6V (or first visual warning on your remote control) – Please get the drone home and landed safely ASAP.**
    2. **Once the battery level indicator reaches 14.4V – there will be a second visual alarm on the remote – which will begin to flash. At this point the battery is close to empty & the drone will begin self-landing shortly.** 6
    3. **Once the battery level indicator reaches 14.2V – the drone will begin to descend & Land itself at its current postion.**

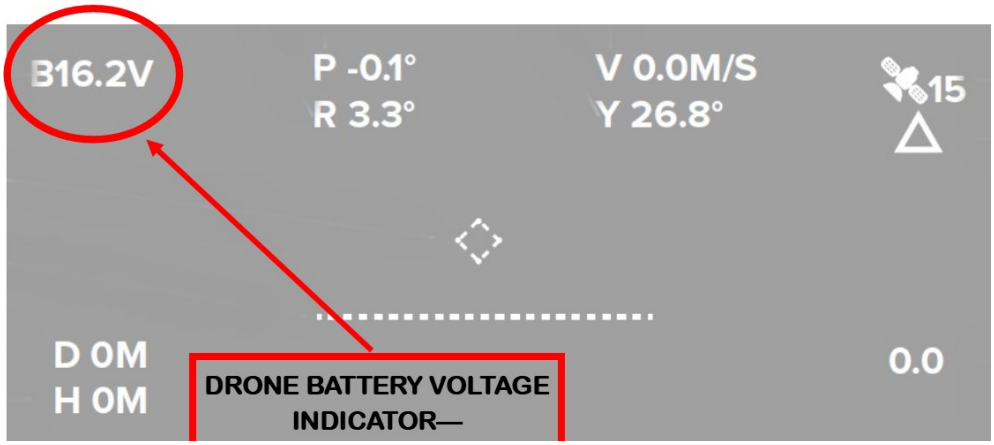
- Before Flight after installing the battery, always ensure that the battery is fully secured firmly using the Velcro Strap inside. Because the drone moves around in the air, an unsecured battery could result in weight shifting & possible crash.
- **Always make sure that both the drone battery & the remote control battery are FULLY charged before attempting to fly – in other words, wait for the Battery charger to complete charging & then shut down itself (ie the fan will turn off), before disconnecting the battery from the charger. This will maximise your flight time.**
- **Never Use a different Charger to charge your drone or Remote battery – only use the charger that was in the box. The New Splashdrone 3+ uses a New High Capacity LiHV Battery with new battery chemistry from the older LiPo models – so the correct charger MUST be used at all times. Failure to use the correct charger could result in FIRE or EXPLOSION.**
  Like wise, do not use the new Splashdrone 3+ charger to charge older Splashdrone 2 or 3 batteries.
- Please always install the battery Label-side up (as indicated on the battery), by first placing the base of the battery into the drone first (toward the lower left drone arm cavity) & then gently pushing the top of the battery into the main drone opening, and then securing the battery firmly with the Velcro
- When Connecting the Drone battery before flight/ Unplugging it after a flight, NEVER Hold onto the Power Cables, instead ALWAYS Hold the Yellow Plug Ends (for the main battery connector) & the white Plug ends (for the smaller charging connector) – otherwise you may pull the cable out of the Plug & damage the connector.
- When using the charger, please DO NOT attempt to charge multiple batteries at one time with the same charger. This practice is dangerous & should NOT be attempted.
- Also when removing the white charge cables from the charger (following charging) – do not grip the cables, use the plug to gently remove the plug (otherwise you risk damaging the plug connections).
- When charging the Remote control battery, please connect the white plug from the charger into the white plug of the battery (down one end of the charger connector). The white lugs on the on the battery connector will match the indent on the white charger connector (it will only go one way). Then small the RED connector of the Charger connects to the RED connector or the battery.



- When charging the Drone battery, please connect the white plug from the charger into the white plug of the battery. The white plugs on the on the battery will match the indent on the charger connector (it will only go one way). Then the YELLOW connector of the Charger connects to the YELLOW connector or the battery.

When charging the battery, after plugging In the charger at the wall, power on the charger & plug in both cables to the battery as shown above. After about ten seconds the charger will start automatically.

- **While in Flight, when the Drone Battery Level indicator, shown as "V" for Volts (see the reference image below) on the remote controller (this is shown in the upper left corner of the LCD Display on the Remote) drops down to 14.6V, it is important to Safely Land the Drone AS SOON AS POSSIBLE as the drone is getting low on battery at this point.**



REFERENCE IMAGE OF THE REMOTE CONTROL LCD DISLAY SCREEN WHEN THE REMOTE IS POWERED ON. NOTE THE BATTERY VOLTAGE INDICATOR IS SHOWN AS 16.2V

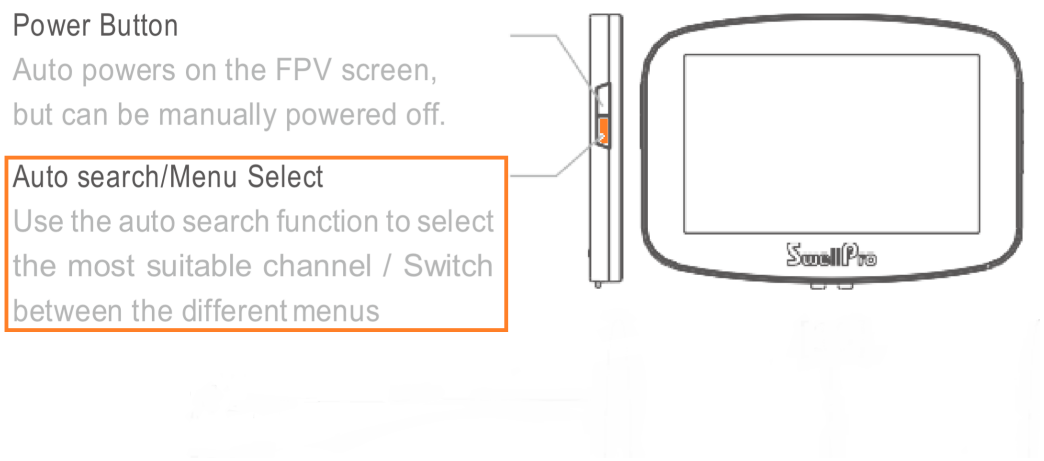
- **If the GREEN Light on the Right hand side of the Remote Control (Beside the right on/off switch) Turns to RED or RED Flashing, then the battery on the Remote control is getting low – please land the Drone as soon as possible.**
- Any crash or Drone Damage resulting from not following the above instructions – will not be covered under warranty.
- Please make sure to unplug the Remote control battery after use – this ensures that the remote control battery does not discharge further while not in use (as if the battery drains completely between use, it could damage the battery whereby it may not then hold charge). Also please don't store either of the drone battery or remote battery with no charge in them as again you may damage the battery.
- **Never Store your Drone Battery or Remote Battery with either a FULL Charge OR When it is fully drained** – as this will damage your battery.

General camera and video information

- Always handle the drone Gimbal and Camera with great care (if this is applicable on your model), as the gimbal is very sensitive and any knocks & crashes, prolonged resting on foliage, rocks or soil (before & after a flight

while still powered) or overwork of the gimbal motors caused by external force or tilting the gimbal more than is normal, can damage the gimbal permanently – which is not covered under warranty.

- Likewise be careful of the external Cables in & around the Gimbal & Camera, and be careful not to pull on these sensitive cables as the may damage them.
- The Splashdrone Radio control transmission range is upto 1km (Line of Sight), & the FPV Video range (line of sight) is normally upto a maximum of 500m reception depending on conditions & terrain. Any objects between the drone and the pilot will effect the LCD Live feedback quality & the drone control range.
    - It is STRONGLY recommended that you DO NOT FLY past the range of the Video Signal & Telemetry – 500m (so you lose the telemetry information on the screen) – as the telemetry provides important information like GPS Satellites, Battery Life remaining, and distance the drone is away. Flying outside this range with no telemetry information is at the owners risk.
- Remember some Live video display shakiness or noise is normal when flying & viewing the LCD Monitor, particularly at distances 250 metres or more. If you are recording (with the PROModel) – remember that any static on the display screen **does not** translate to static or disruption on the actual Recording – as the recording takes place at the camera & is recorded on the Micro SD Card.
- Please bear in mind that telemetry information that is visible on the LCD Screen on the remote is limited by the Video control range. The Drone will still fly further than this – but the telemetry info may not be available.
- The Live Video range CAN be extended further with the upgrade of a high gain 5.8 gHz Antenna on the remote which are widely available from third party suppliers.
- If you have the Splashdrone 3+ PRO FISH model, and wish to alter the video or photo settings of the drone using the Swellcam App, your phone & WIFI – AFTER THESE SETTINGS HAVE BEEN CHANGED IT IS IMPORTANT TO **MAKE SURE WIFI IS SWITCHED OFF BOTH ON YOU PHONE & THE SPLASHDRONE CAMERA ITSELF**, AS HAVING WIFI ON WHILE FLYING THE DRONE CAN CAUSE SERIOUS DRONE CONTROL ISSUES (at owners risk). See the Product manual for more instructions on this.
- If you have the SD3+ PRO model (3-Axis Gimbal), you can change video/photo settings directly from the camera. Press “Power” on the 4K Camera to enter into the setting model. Settings will appear on the controller screen. Use the “Up/Down” button to cycle through the different options and press “OK” to confirm the selection.
- If you have the PRO(Camera) model from time to time & often following crashes, or transportation – the Gimbal may need to be Calibrated if it doesn’t behave as expected, please refer to the Gimbal Calibration Videos on YouTube from Swellpro.
- If the FPV Video Link reception is very unclear or there is substantial onscreen static at close range, you can use the auto search button on the left hand-side of the LCD as shown here. This will Automatically search for the best & clearest channel (similar to the Auto channel search on a TV):



Important Notes Particularly For Less Experienced Flyers:

- **It is highly advised to keep the Remote Controller is in "GPS" Mode** – the Quadcopter should maintain a GPS position fix allowing for better control.
  - Before Taking off in "GPS" Mode, please ensure that you have at least 13x Satellites being tracked on your controller remote.(The motors will not arm in GPS mode unless there are sufficient Satellite) & also that the Splashdrone is ONLY Flashing "GREEN-GREEN, GREEN-GREEN" LED Lights.
  Before every attempting to fly in **"ATTI"** (Manual) mode you will need to be a proficient flier with experience and good orientation.
- This is also the same for **"Smart Cruise", "Circle Flight" and "Cruise Flight" Modes: DO NOT use these functions until you become more experienced**, just keep to "GPS" Mode.
- With the new SD3+ you can use the Smooth+ function to get smoother & more stable footage.
- This Quadcopter is NOT a Toy. Care must be taken when flying, particularly if you are new to operating a Quadcopter**. Please keep a safe distance away from the drone at all times (8+metres). It is highly advisable that you have had some Multi-rotor Flying experience before using the Splashdrone.**
  Please also be aware of your surroundings before flying & keep the Quadcopter at low flight altitudes until are completely familiar with it's control. **At high altitudes, it is easy for the Quadcopter to be blown or move off the general flight area.**
- During a flight, If you ever Flip the (RTH) Switch on the Controller to go into "RETURN TO HOME" Mode – and the Drone does not respond as anticipated OR begins to move in a different direction, generally this means EITHER the Splashdrone Compass is not calibrated correctly OR there is External Radio or magnetic Interference effecting the drone. **IN THIS INSTANCE – PLEASE SWITCH OFF RETURN TO HOME AT ONCE TO REGAIN CONTROL OF THE DRONE.**
- We recommend that new fliers purchase a toy level drone and gain some flying experience and practice.
- Initially keep the drone within 50m to 80m range – so you become more used to flying the drone

General Maintenance & Care

- **Although the drone is water resistant, the remote control is not.** Please refrain from getting the remote control wet at all. Also please make sure that sand is kept away from the remote if possible as if grains enter around the joystick or under the buttons – they can effect your ability to control the drone. IF you do get sand in these areas – please make sure you remove these with a little brush on the outside of the remote control - and free up the buttons and joysticks before use.
- After a days flying around the water or ocean (or salty) environment we recommend (While the Drone's top LID is still fully sealed up) using a light spray of FRESH water on the external parts of the drone especially including motors and other metal parts to remove any salt or other contaminants & then towel dry the drone off completely.
    - Ensure that the Motors are spinning freely & smoothly, are all relatively quiet and are clear of contaminants. Although the motors are marinized, if contaminants remain in and around the motors or corrosion develops (due to lack of maintenance) – this could cause issues for the bearings & the ability for the motors to spin - which could effect the drone in flight.
    - Under normal conditions when no visible signs of moisture are detected, Once the drone has been sprayed down with fresh water & the drone dried off – it is recommended that the LID is then removed & the Drone is placed & temporarily stored in a dry & ventilated environment (STORE WITH LID OFF, TO ALLOW VENTILATION) & if possible use readily available Anti-Moisture Sachets which can be placed inside the drone. This allows any excess moisture to be removed quickly.
    - The Drone should **NEVER** be put away in the case WET – as this will cause corrosion.
- Always check your drone for any Splashdrone BEFORE & AFTER A FLIGHT for any signs of external damage, including (for example) damage to the White Water resistant membrane on the Lid **(PLEASE DO NOT FLY NEAR OR OVER WATER IF THIS IS DAMAGED)**, & the quick release system & camera on the bottom of the drone.

IF Moisture IS Detected inside the drone, see below:

- **IMPORTANT TO REMEMBER:**

IF ANY MOISTURE REMAINS INSIDE THE DRONE (EITHER FOLLOWING A CRASH OR THROUGH

NORMAL OPERATION) AND IS NOT COMPLETELY REMOVED STRAIGHT AWAY – THIS WILL ULTIMATELY CAUSE CORROSSION TO THE ELECTRONICS IF LEFT – Which is not covered under warranty.

****ANY MOISTURE MUST BE REMOVED FROM INSIDE THE DRONE****

DO NOT attempt to ARM the motors or fly the drone if there is ANY moisture inside the drone, as this may cause electrical issues, not covered under warranty.

- If you have crashed your drone into the water, the same applies: ANY MOISTURE NEEDS TO BE COMPLETELY REMOVED STRAIGHT AWAY FROM INSIDE THE DRONE.

- **PLEASE PAY SPECIAL ATTENTION TO MAINTANCE OF THE PAYLOAD RELEASE CLIP & THE CAMERA/GIMBAL (Depending on your model) UNDERNEATH THE DRONE**. Although these parts are water resistance, if not correctly maintained over time, and are free of salt, at best they can stop working, in extreme cases this can cause electrical issues for the drone itself – effecting flight (which are not covered under warranty). **Make sure these are in fully working condition (tested before Flying each time)**
- If this drone is used around black sand beaches (ie. The West Coast), please be aware that if the drone comes into direct contact with Black sand (High Iron content), the sand can get into the magnets of the motors, and is difficult to remove. Any damage to motors from this is not covered under warranty.
- If the drone has being used for the first time in a while or after being stored – it is a good idea to do a test flight over a part of field to ensure everything is performing as expected.

- **BASIC DO'S AND DON'TS of Lithium High Voltage (LiHV) batteries. Please Treat them with Care.**
  - NEVER Leave LiHV Batteries unattended when charging – on very rare occasions they have been known to catch fire.
  - Never use a Different charger to charge the Splashdrone battery – from what came in the box.
  - DO NOT DISCHARGE LiHV Batteries more than 36% of the Charge State OTHERWISE THEY MAY NO LONGER HOLD A CHARGE & MAY SWELL.
    This means making sure you bring the Quadcopter down to land as soon as you see the Flashing Green Lights (Battery Low Signal) & see 14.6V on the battery level indicator on the left of the Remote LCD Screen & see the onscreen first battery low warning (as described above). Continued draining of the battery of charge while in flight may result in a reduced battery life or even an inability to recharge the battery at all.
  - DO NOT USE BATTERIES THAT HAVE SWELLED.
  - DO NOT CHARGE A BATTERY THAT IS STILL WARM FROM RECENT USE IN AN RC DEVICE.
  - DO NOT USE BATTERIES THAT HAVE BEEN DROPPED OR ARE PHYSICALLY DAMAGED.

FAILURE TO FOLLOW THE ABOVE BATTERY INSTRUCTIONS – MAY RESULT IN A BATTERY THAT NO LONGER WORKS AT BEST, OR IS DANGEROUS – AT WORST (WHICH IS NOT COVERED UNDER WARRANTY).

FAQ's

1.	**Quad won't power up .. no lights and no sounds .. when the battery is first attached.**	Make sure the LiHV battery is fully charged If the drone has recently been in a crash – please contact the New Zealand Service Centre or Retailer & take you drone in for service.
2.	**Initialization went great can't get GPS lock**	Make sure you are outside and have view of the sky. The first time you try and get a lock may take a number of minutes. It usually only take about 30 seconds on subsequent GPS locks
3.	**It initialized and I got GPS lock but I can't arm the motors.**	1. Check that you have at least 12x Satelites. The Drone will not arm with less than this. 2. Ensure that the both the Compass & Accelerometer Calibrations are not successfully. If Not done properly, the drone may not arm. Carry out the Calibrations again. 3. Make sure the TX is in the appropriate mode. TX mode is displayed in the LCD and followed by a number. Mode 1 has thrust/elevation on the right stick, mode 2 uses the left stick. 4. Try to arm motors again
5.	**Got it into the air and it was difficult to control**	Check motors with props off Calibrate Compass & Calibrate Accellerometer. If the Splashdrone has been recently crashed, Check for other visible damage to the Quad: Damaged Motors, Bent Props, etc. Please contact the New Zealand service Centre.
6.	**Drone would not get into the Air – keeps tipping over**	Check Correct Propellers are on the correct Motors – there are two types (Clockwise and Counter-Clockwise), the Correct Propeller must be placed on the correct motor otherwise it won't fly.

IMPORTANT flying tips:

- **Make sure you do ALL Calibrations – see the User Manual (including Compass Calibration & Accelerometer) before your first flight.**
- **Do not fly this drone INSIDE buildings.**

- **During a flight, If you ever Flip the (RTH) Switch on the Controller to go into "RETURN TO HOME" Mode – and the Drone does not respond as anticipated OR begins to move in a different direction, generally this means EITHER the Splashdrone Compass is not calibrated correctly OR there is External Radio, WIFI or magnetic Interference effecting the drone. IN THIS INSTANCE – PLEASE SWITCH OFF RETURN TO HOME AT ONCE TO REGAIN CONTROL OF THE DRONE.**
- **The SILVER BANDS on the Splash drone wings represent the front direction (or nose) of the quadcopter – this is important to understanding which way the Splashdrone is flying in relation to the Right Joystick.**
- **If you are new to flying, start out cautiously AND ALWAYS BE VERY GENTLE WITH THE JOYSTICKS ON THE CONTROLLER. The Splash drone does hover by itself – which can lead to over-confidence**
- **For the first 2-3 flights, find a big paddock or empty beach with no cars, no houses, no people – or any magnetic or radio interference.**
- **For your first 5x flights, go out in completely still/ Completely windless conditions. Then after this, ONLY fly in breezes (under 15 knots).**
- **For your first flights do not fly too high – as air currents can easily catch the drone and move it out of range very quickly.**
- **During your first flights it's a good idea to use the remote control onscreen timer or take a stop watch or timer out with you – and set it for 12 minutes. Bring the Splash in as soon as you get to 13 minutes (you can get upto 19 minutes total flight time – weather & payload dependant)**
- **Keep the Splash drone on GPS Mode (Switch Fully UP) until you get very comfortable when flying.**
- **When learning, you are best NOT to use "Yaw" which is (left/right) the left hand joystick – only use the throttle (up/down) on the left hand Joystick to start with.**
- **Use the right hand joystick to move the drone around, but move the Joysticks gently. You will find that the Drone generally holds altitude.**
- **Ensure that the Remote Display shows 13 or more satellites before attempting to lift off & the drone lights are flashing correctly (GREEN-GREEN….GREEN-GREEN).**
- **If in "Return to Home Mode" – you can quickly exit this mode by flipping the RTH Switch Completely OFF, to regain control – this means you are able to control that land on a flat landing spot manually.**
- **Under exceptional circumstances If the Drone ever starts to fly erratically, or won't respond to your inputs move the GPS switch to the ATTI (Or Manual) position, please land as soon as possible! DO NOT USE THE RETURN TO HOME SWITCH IN THIS SITUATION *(as if the sensors have not been calibrated correctly at the time, the effect of switching on RETURN HOME – may not be as expected)***
- **Do not overload the drone with weight, (To be safe, It needs to be well under 1KG at all times) – as if you are fishing, remember you also need to allow for wind conditions which make the motors work**

more, & Fishing Line tension which adds weight. Do not fly in windy conditions when carrying significant weight (even if under 1KG) – as this can overload the drone and cause either electrical issues OR it can reduce control of the drone: possibly leading to a crash – which is not covered under warranty.

- **Do not fly in wind or wind gusts that exceed 15 Knots.**
- **Remember that following a crash of the Splashdrone, it may not function or fly as expected afterwards. If it is only a minor crash or hard landing then a simple Compass/GPS & Accelerometer Calibration maybe all that is needed. If there is more serious damage, OR the drone still behaves strangely – then the drone will need to be serviced. PLEASE BE AWARE THAT FLYING THE DRONE AFTER A CRASH – IS AT THE OWNERS RISK.**

We recommend that you calibrate the compass, EVERY time you fly in a different location (even it is only metres away from your first flight)

Question: I was flying my drone the other day when it started flying erratically. What could have caused that?

Answer:

Experiencing a sudden loss of control while flying your drone is not uncommon. Sometimes while navigating your drone, you might have seen it drift in the opposite direction and fly erratically. If your drone refuses to respond to your inputs, there might have been signal interference between your transmitter and the receiver. If a system check shows that the flight controller is fine, signal interference is at play. It is important to know the causes of signal interference and degradation so that you can operate your drone safely. Most transmitters operate on the 2.4GHz band of the radio spectrum. Wi-Fi routers and cellular network towers also use the 2.4GHz frequency and can interfere with your signal. Microwave antennas and high-voltage lines create strong interference that can affect the radio transmissions that control your drone. The following will cause degradation of the transmitter signal:

Free-space loss. Your signal travels through the atmosphere. The farther your signal travels, the more it loses strength. That is why it is so important to keep your drone within recommended operational range.

Absorption loss. If your signal passes through an object that is not transparent to radio signals, you will experience absorption loss and possibly lose control of your drone as long as this object is in the way.

Diffraction. Signal loss happens from diffraction when an object (building, tree, wall) appears between the transmitter and receiver. Rounded objects tend to cause more diffraction loss than those with sharp edges.

Multipath interference. Reflected radio signals can split and reach the receiver from a number of different paths. Sometimes these paths interfere with each other and interfere with the main signal.

Terrain. Topography has a significant effect on signal transmission. Hills can obstruct the path and considerably weaken the signal, often making reception impossible.

Buildings and vegetation. Radio signals can be significantly affected by buildings because they can reflect or absorb radio waves. Trees and foliage, especially when wet, can also weaken radio signals.

Lithium HV Batteries

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LiHV batteries have two separate leads. **The shorter lead with the WHITE (JST) connector attached is for charging only.** It is the only lead protected by Charge Protection Circuitry, helping prevent costly charging errors. It is very important to note that the circuit only protects during the charge process. The second longer lead is for discharging or the power source for your UAV..

WARNING: Please read before charging or using battery

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS

• You must read these safety instructions and warnings before using or charging your batteries.
• **Lithium HVbatteries are volatile**. Failure to read and follow the below instructions may result in fire, personal injury and damage to property if charged or used improperly.
• Neither JC Matthew, or the Manufacturer assumes any liability for failures to comply with these warnings and safety guidelines.
• **By purchasing this battery, the buyer assumes all risks associated with lithium batteries.**

General Guidelines and Warnings

1) **Use specific Lithium HV charger only. Do not use a NiCd or NiMh or Lithium Polymer charger** - Failure to do so may cause a fire, which may result in personal injury and property damage.
2) **Never charge batteries unattended.** When charging Li-Po & LiHVbatteries you should always remain in constant observation to monitor the charging process and react to potential problems that may occur.
3) Some Li-Po & LiHVchargers on the market may have technical deficiencies that may cause it to charge the Li-Po & LiHVbatteries incorrectly or at an improper rate. It is your responsibility solely to assure the charger you purchased works properly. Always monitor the charging process to assure batteries are being charged properly. Failure to do so may result in fire.
4) **If at any time you witness a battery starting to balloon or swell up, discontinue charging process immediately. Disconnect the battery and observe it in a safe place for approximately 15 minutes.** Continuing to charge a battery that has begun to swell will result in fire. Likewise, never use a battery if you find it swollen or ballooned upon purchase.
5) Since delayed chemical reaction can occur, it is best to observe the battery as a safety precaution. Battery observation should occur in a safe area outside of any building or vehicle and away from any combustible material.
6) **Wire lead shorts can cause fire!** If you accidentally short the wires, the battery **must** be placed in a safe area for observation for approximately 15 minutes. Additionally, if a short occurs and contact is made with metal (such as rings on your hand), severe injuries may occur due to the conductibility of electric current.
7) A battery can still ignite even after 10 minutes.
8) In the event of a crash, you must remove battery for observation and place in a safe open area away from any combustible material for approximately 15 minutes.
9) If for any reason you need to cut the terminal wires, it will be necessary to cut each wire separately, ensuring the wires to not touch each other or a short may occur, potentially causing a fire.
10) If you accidentally cause the battery to short, place it in a safe open space and observe the battery for approximately 15 minutes. **A battery may swell or even possibly catch fire after a short time.**
11) Never store or charge a battery pack inside your car in extreme temperatures, since extreme temperature could cause fire.

Before You Charge

1) Make a visual inspection of the pack. Look for any damaged leads, connectors, broken shrink, swelling of cells, or other irregularities. Do not use if you find any of the above issues with your pack.
2) Before installing or changing the connector, check the voltage of the pack using a digital voltmeter (not your charger). All new packs ship at approximately 3.80V per cell.

   Example 2S pack should read approximately 7.60V
   3S pack should read approximately 11.40V
3) If any damage to the pack or leads is found, or the voltage is significantly less for your pack than specified above, do not attempt to charge or fly the pack;

Charging Process

1) Never charge batteries unattended.
2) Charge in an isolated area, away from other flammable materials on a concrete surface outside of buildings.
3) Let the battery cool down to ambient temperature before charging.
4) **Do not charge batteries packs in series.** Charge each battery pack individually. Failure to do so may result in incorrect battery recognition and charging functions. Overcharging may occur and fire may be the result. ***In order to discharge packs in series, the charged voltage of both packs must be within 0.01V for the same cell count pack***

5) **Be sure you use the shorter lead with the JST (BEC) connector for all charging.** This is the lead protected by the Charge Protection Circuitry referenced in the introduction. There are two sets of lead wires on this battery. The shortest one is always used exclusively for charging.

6) **When selecting the cell count or voltage for charging purposes, select the cell count and voltage as it appears on the battery label**. Selecting a cell count or voltage other than the one printed on the label can cause fire. As a safety precaution, please confirm the information printed on the battery is correct.
   a. Example: The label on a 2-Cell battery pack in series will read – "Charge as 2-Cell (7.4V), or may cause fire" – You must select 2-Cell for charging.
   b. Example: The label on a 3-Cell battery pack in series will read – "Charge as 3-Cell (11.1V), or may cause fire" – You must select 3-Cell for charging.
7) **You must check the pack voltage before charging after flight.** Do not attempt to charge any pack if open voltage per cell is less than 3.3V

   Example Do not charge a 2-cell pack if below 6.6V
   Do not charge a 3 cell pack if below 9.9V
8) **You must select the charge rate current that does not to exceed 1C (one times the capacity of the battery, unless otherwise noted*).** A higher setting may cause fire. The below chart is calculated at 1 x capacity of pack.

   Example 860 mAh: Charge at or below 860 mA
   1200 mAh: Charge at or below 1.2 Amps
1800 mAh: Charge at or below 1.8 Amps
2100 mAh: Charge at or below 2.1 Amps

First Flights

We recommend 3-5C max average discharge for breaking in new packs. Also be extremely careful not to over discharge new packs (Packs should NEVER be over discharged at any time, but over discharging on the first flight will ruin the battery permanently before you are able to enjoy it. See "Caring for Battery" below).

Storage & Transportation

1) Store battery at room temperature between 40 and 80 degrees F for best results.
2) Do not expose battery pack to direct sunlight (heat) for extended periods.
3) When transporting or temporarily storing in a vehicle, temperature range should be greater than 20 degrees F but no more than 150 degrees F.
4) **Storing battery at temperatures greater than 170 degrees F for extended periods of time (more than 2 hours) may cause damage to battery and possible fire.**

Caring for Battery

1) Charge battery with good quality Lithium HVcharger. A poor quality charger can be dangerous (such as the MRC Super Brain 969 which is NOT a proper Lithium HVcharger).
2) Set voltage and current correctly (failure to do so can cause fire).
3) Please check pack voltage after the first charge.

   Example 2-Cell: 8.4V (8.30 to 8.44) 3-Cell: 12.6V (12.45 to 12.66)
4) **Do not discharge battery to a level below 3V per cell under load.** Deep discharge below 3V per cell can deteriorate battery performance. Be sure to set your ESC for the proper cut off voltage (6.0V cut off for 2S packs, 9.0V cut off for 3S packs, etc).
5) Use caution to avoid puncture of the cell. Puncture of cells may cause fire.

Operating Temperature

Charge: 32 to 113 degrees F
Discharge: 32 to 140 degrees F

1) Let battery cool down to ambient temperature before charging.
2) During discharge and handling of batteries, do not exceed 160 degrees F.

Battery Life

Batteries that lose 20% of their capacity must be removed from service and disposed of properly.
Discharge the battery to 3V/Cell, making sure output wires are insulated, then wrap battery in a bag for disposal.

Product Warranty

Product warranty is limited to original defects in material and workmanship. Warranty does not cover collateral damage. Due to the nature and use of this product there is no term warranty. Misuse, abuse, incorrect charging, failure to comply with the above warnings and guidelines, and other inappropriate use of this product are not covered under warranty.

ACCEPTANCE OF RISK BY END-USER CUSTOMER

By purchasing this product you agree to use the product strictly in compliance with all relevant laws including (without limitation) the Civil Aviation Act 1990 in relation to the use of Remotely Piloted Aircraft Systems (RPAS) and the laws of privacy and all regulations as laid out by the CAA (Civil Aviation Authority).
It is your responsibility as the owner of this multirotor, to know and understand all the current & relevant laws and regulations surrounding it's use – and to abide by these at all times.
JCMatthew NZ Ltd takes no responsibility or liability whatsoever for the use of this product, and specifically including (but not limited to) when this use is outside or contravenes any

national or local laws and regulations.

Limitation of Liability
JCMATTHEW NZ LTD accepts no liability for damage(s)or injuries incurred directly or indirectly from the use of this product in the following conditions:

Damage(s) or injuries incurred when users are drunk, taking drugs, anesthesia, dizziness, fatigue, physically or mentally that could impair your ability.

Damage(s) or injuries caused by subjective intentional operatis.

Any mental damage compensation caused by accident.

Failure to follow the guidance of the manual to assemble or operate.

Malfunctions caused by fitment or replacement with non- standard accessories and parts.
Damage(s) or injuries caused by using third party products or fake products.
Damage(s) or injuries caused by mis-operation or subjective misjudgment.
Damage(s) or injuries caused by mechanical failures due to flight in total over 100 hours.
Damage(s) or injuries caused by continued flying after a low voltage protection alarm is triggered.
Damage(s) or injuries caused by knowingly flying the aircraft in an abnormal condition (such as water, oil, soil, sand and other unknown material).
Ingress into the aircraft or the assembly is not completed, the components have obvious faults, obvious defect or missing accessories).
Damage(s) or injuries caused by flying in the following situations:

A magnetic interference area, radio interference area, government regulated 'no-fly zones', or the pilot is in back light, blocked, fuzzy sight, poor eyesight, or pilot is not in suitable condition or lacks skill to operate.
Damage(s) or injuries caused by using in bad weather, such as a rain or wind greater than 5 knots, snow, hail, lightning, tornadoes, hurricanes etc.
Damage(s) or injuries caused when the aircraft is in the
Following situations:
Collision, fire, explosion, floods, tsunamis, subsidence, ice trapped, avalanche, debris flow, Landslide, earthquake, etc.
Damage(s) or injuries caused by infringement such as any data, audio/ video material recorded by the use of aircraft
Damage(s) or injuries caused by the misuse of the battery, Protection circuits, RC model and battery chargers.
Consequential damages caused by any malfunctions of equipment,
including memory cards, that results in the failure of an image or video to
be recorded in such a way that is machine readable.
Any consequences that are caused by operations that do not follow all instructions in the quick start guide, detailed User Guide and other useful information included in the packaging or the official website.
Operators do not obey the 10661 law or regulation.
Other losses that not covered by the scope of Liability.

Warning

NOTE: Neither JCMatthew NZ Ltd or the manufacturer is responsible for any radio or TV

interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the users authority to operate the product.

2 When using the product, ensure that the antenna of the device is at Least 20cm away from all persons. ,
This device shall only be connected to a USB interface of version 2. 0 or higher.

CAUTION, RISK OF EXPLOSION IF BATTERY IS REPLACED BY
AN INCORRECT TYPE OR SAFETY PRECAUTIONS REGARDING LITHIUM HVBATTERIES ARE NOT FOLLOWED.

3. Please note that this product is intended for personal use and should never be used in a manner that infringes upon or contravenes international or domestic laws and regulations. You shall not use this product to:(a) defame, abuse, harass, stalk, threaten or otherwise violate legal rights (such as rights of privacy and publicity)of others: (b) photograph people or their privacy area without
Their consent or photograph any non-photographing area without the
Prior authorizations: (c) use this product for any illegal or inappropriate purpose other than general personal use (such as spy, unauthorized
Investigation and unauthorized detection) (d) violate or disregard applicable local laws administrative rules and social habits.
Please be advised that in certain cases the copying of images and videos from shooting performances, exhibitions, or commercial properties by means of *a* camera or other device may contravene copyright or other legal rights even if the image or video was shot for personal use

4. The User takes full responsibility to ensure they are following the mandatory rules for New Zealand regarding UAV, Drones etc
https://www.caa.govt.nz/rpas/

New rules are now in place for RPAS, UAV, UAS, Drones and Model Aircraft and if you operate any of these aircraft, it's important that you read the rules

https://www.caa.govt.nz/rules/rules.htm#Pts_101_102:
Advisory circulars
https://www.caa.govt.nz/rules/ACs.htm#Part_101
For answers about consent, certification, airspace, etc, see

Frequently Asked Questions - RPAS, UAV, UAS, Drones and Model Aircraft
https://www.caa.govt.nz/rpas/rpas_faqs.html