Receiving Your RTF HexH2o

**** Please read this guide in full before using your HexH2O ****

As part of your RTF HexH2o build your hex will have been bench tested to ensure all components are functioning correctly. However there are some checks you will need to make before you fly your machine for the first time.

These include carrying out a full bench test, cross checking the configuration and settings, motor levelling and compass calibration.

By default QuadH2O will test the video/FTP link and gimbal function, configure Flight Controller modes and failsafe switches, set gains to our base settings, check OSD/monitor and radio transmitter. We will also test the BTU functionality (if ordered).

Finally we test the motors and ESCs to ensure they are functioning as intended.

You may find you want to fine tune your gains to suit your own flying style, but our base settings are a good starting point for your HexH2O.

When we ship the HexH2O we remove the props. Your RTF HexH2O is packed in a strong box padded out with foam chips to ensure a safe trip to your door.

PLEASE ENSURE YOU CAREFULLY CHECK THE CONTENTS OF THE BOX TO ENSURE YOU DO NOT PUT SOMETHING IN THE RUBBISH BY MISTAKE

**** IMPORTANT – You must calibrate your compass before you fly for the first time.***

When your HexH2O arrives:

As per our T&Cs the first thing you must do is open the box and check your machine has arrived safely. It is very important that you notify us by email **within 24hours** of receiving the delivery should it arrive damaged.

What's in the box:

You will receive the following standard items:

- The HexH2O Drone
- Ground station monitor, sun hood and integrated battery
- Ground station charger – UK/US plug
- Monitor Manual
- Radio Transmitter
- Transmitter charger – UK/US plug
- Transmitter Manual (if applicable)
- 2 x Spironet Antennas – 1 for the monitor the other for the HexH2O
- Patch antenna – for the monitor
- Set of Propellers

- Zenmuse GoPro Gimbal (pre-installed)
- OSD (pre-installed) & OSD manual
- Gopro reflection stickers (black stickers to be applied to face of GoPro)
- HexH2o sticker set
- HexH2o allen keys
- Monitor/Transmitter Mount
- Naza assistant USB lead
- Complimentary silicone sealant
- Gimbal travel lock (fitted)
- Mini level (for levelling motors)

For the flight control manual and other electrical components please download from our Manual download page

What you will need to fly*:

- Flight batteries (see our FAQ page for recommendations)
- Flight battery charger
- GoPro camera

(If not already ordered via QuadH2O.com)

What you will need to do BEFORE you fly:

Before you fly your HexH2O please **follow these instructions carefully**; Ensure you have read and understood the DJI flight controller manual and understand its operations/functions. Get the manuals here.

We also recommend you read through our HexH2o build guide – this will give you a good understanding of how it was built and what components are inside your machine (and what they do).

Carefully unpack your HexH2O. Check the body to ensure it has arrived safely in transit. Lay the contents out to ensure all parts are accounted for.

Carefully remove the perspex dome, ensuring you always open the clips by a quarter turn anti-clockwise and close them by a quarter turn clockwise.

Remove the gimbal lock from the pre-installed gimbal (this holds the gimbal in place during transport) and attach your GoPro as per the **DJI gimbal manual** instructions- be especially careful with the delicate GoPro lead.

IMPORTANT: Never power up the HexH2O without the gimbal lock fitted as this may damage the gimbal.

Fitting The Antennas

Fit one of the red spironet antennas to the HexH2O; Fit it to the SMA connector just under the right hand arms **not applicable if Lightbridge is being used*. Ensure the antenna it pointing ‘upwards’.

4. Remove the ground station monitor from its box (notice the spare cables in the bottom of the box, these are not used/required). Attach the second red Spironet and the flat Patch antenna to the monitor.

IMPORTANT: Never power up the HexH2O without the antenna fitted as this may damage the video transmitter.

Fit the provided monitor mount to the transmitter and attach your monitor to it. Your ground station is now complete.

DJI DT7 TX Settings:

If your machine comes with the DT7 (white) controller then there is no configuration required, the DT7 is a plug-and-play controller and will already be configured. There are three switches on the transmitter:

- Gimbal pitch (slider)
- Flight mode switch
- Intelligent Orientation Control switch

Please refer to your Flight Controller manual for further information regarding the switch functionality.

Hitec Flash 8 TX Settings:

If your machine comes with the Hitec Flash 8 controller:

Remove your transmitter from the packaging. Charge if required using the supplied charger inside the box (UK plug).

Your Flash 8 transmitter has **already been bound and configured** to your HexH2O/Flight Controller, there are 3 (4 for A2) active switches and one slider activated on your TX.

Switch E: this controls your flight modes : GPS/ATTI/FAILSAFE – (forward/up is GPS)

Switch G: This is for the Intelligent Orientation Control *(IOC)*, please refer to the Naza/A2 manual/ assistant software for further information.

Right Slider: This controls the pitch (up/down movement) of your gimbal

Switch B: This is for the payload release (if ordered)

Note: Failsafe is also configured on the TX, so should you lose TX power, turn it off or go out of range your HexH2O will automatically go into Failsafe mode.

We recommend you test and familiarise yourself with ALL settings via the assistant software before flying

IMPORTANT: As a safety measure, we recommend that before each flight ensure all switches on your TX are up/forward. This will ensure that you are not in failsafe mode and your flight mode is set to GPS.

Futaba or other radio transmitters

If we have provided a Futaba or another make of transmitter not listed above, separate configuration settings will have been proved with your order.

Bench Test & Check Assistant Settings

Please ensure you do not fit your props during any of the stages mentioned in this guide – **all tasks should be completed with the props OFF**

Plug the Flight Controller into the assistant software* using the provided DJI lead, then plug the other end into your PC/Laptop (you will need to ensure you have installed the Flight controller assistant software (please refer to your Flight Controller manual)

(*If you have ordered the DJI BTU module or have the A2 flight controller, you can also check the settings via your iPhone. The default password for the BTU is 123456.)

Double check and familiarise yourself with the settings in the flight controller assistant software. Ensure you can select flight modes via your transmitter and that the stick inputs register correctly in the assistant software. Also ensure failsafe activates correctly.

QuadH2O has no control over use, setup, final assembly, modification (including use of non-specified or 3rd party components), as a result QuadH2O nor any of its affiliates,

subsidiaries, directors, agents, employees or other representatives shall be liable for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

Start Up Procedure

Power on your GoPro and your monitor.

Power up the radio transmitter and then your HexH2O. Always power on your radio transmitter before the HexH2O (If you have ordered the Lightbridge, this should be powered on first).

You should now receive a video downlink from your GoPro to your monitor with on screen display from your miniOSD. *Note you may need to switch from PAL to NTSC depending on where in the world you are located – please refer to supplied monitor manual.*

You can now bench test the HexH2o **(with the props off)** to ensure all components are functioning as expected, eg: initialise motors, throttle up above 10% – the motors should idle, then increase to just over 55%, the motors should automatically increase in RPM (auto take off), double check for correct motor rotation *(arrows on the side of the motors)* and ensure correct motor/ESCs functionality/response to stick input.

Try adjusting your gimbal pitch by using the slider on your transmitter – you can adjust from looking straight ahead, to vertically down.

Lightbridge Start Up Procedure

If your order includes the DJI Lightbridge, there is a specific ‘power on’ procedure that must be followed in addition to the above start up procedure:

1. Plug trainer lead into back of radio transmitter as per Lightbridge manual *(do not power on the radio)*
2. Power on Lightbridge (wait for tone)
3. Power on your HexH2O & GoPro

If you have any issues at this stage please contact QuadH2O for assistance.

Fitting your dome and rear hatch

When removing the dome or rear hatch, carefully turn the retaining clips quarter turn **ANTI-CLOCKWISE**. If you try to open them by turning clockwise you may damage the paintwork. To fit the dome carefully align it evenly on the rubber seal and turn each retaining clips quarter turn

CLOCKWISE. Work around each opposing corner. The same process should be used when fitting and removing the rear dome.

TIP: Use a finger to apply light pressure to the lip of the dome next to the retaining clip you are turning.

Battery charging

If you ordered flight batteries from us they will need to be charged. Please refer to your charger manual for safety/charging instructions.

Important safety notes:

- Never leave a battery unattended during charging.
- Never overcharge a Lipo battery
- Never discharge below 3v per cell.

We recommend charging lipo's in a 'lipo safety bag'

When ready to fly for the first time:

Before your first fight you must ensure you calibrate your compass (please refer to the DJI flight controller manual).

Check the motors are level and true: Included in your RTF HExH2O is a small spirit level that should be used to check each motor is level. Ensure the HexH2O is on a flat and level surface, place the spirit level on the top of the motor, perpendicular to the arm. You can make small adjustments to the motor/arm until the motor is sitting level – .

Start with some gentle flying, get used to its characteristics and adjust gains etc. to suit your requirements if needed (refer to the flight controller manual for Gains adjustment instructions).

Once you have completed some test flights you can then move to trying the different flight modes and testing your failsafe (please refer to the flight controller manual).

Before flight over water:

Your HexH2O has been sealed, however the dome and hatch use a thin foam seal to make a watertight seal, this should be checked before each flight over water. We recommend that you apply a small amount of silicone grease (supplied) to both the hatch and dome seal and re-apply when needed.

To water test the dome and rear hatch:

Apply some silicone grease to the dome seal. Fit the dome and proceed to do a water test. Fill your sink, bath or other suitable water container. Carefully lower the front of the HexH2o into the water, just enough to ensure the dome is submerged and check to ensure its water tight.

If water does come through check the following things:

- Ensure your dome is seated correctly
- Ensure the dome seal is in place
- Check, and where required tighten the retaining clips *

* To tighten the retainer clips: remove the dome, put the clip to its ‘closed’ position. Holding the clip in place carefully tighten the screw. Do not over tighten, otherwise you will not be able to get the clip over the dome and/or may damage the paintwork.

Repeat the above process with the rear hatch.

Ongoing maintenance:

As part of your ongoing maintenance to your HexH2O please ensure you regularly check for software updates for the electrical components (please refer to manufacturers manuals) such as the flight controller.

Periodically check that the machine is watertight – this is best done in a controlled environment (such as a bath or pool). Seals should be periodically checked and silicone grease re-applied. We recommend that the motors are rinsed with fresh water after exposure to salt water (just as you would with a outboard motor or Jetski).

Motor bearings should also be periodically checked and replaced when required (especially after prolonged exposure to salt water).

We test the machines during the build process, however due to shipping it is required that you check for any leaks. Use silicone grease or marine grade sealant on any areas which require additional sealing.

CHECKLIST

- Check all items received in good order *(within 24hours of receipt)*
- Download the flight controller manual and any other relevant manuals from our downloads

page; familiarise yourself with their functions.
- Cross check the pre-configured flight controller using the DJI Assistant Software.
- Familiarise yourself with the radio controller and the various control switches.
- Ensure motors are level and adjust where required
- Bench test (with props off!)
- Complete a water test
- **Calibrate compass**
- Go Fly!

Important notes:

Please note whilst great care and attention is given to the build of your RTF HexH2O, it is your own responsibility to check the configuration, airworthiness and watertightness of the machine before you fly.

We recommend you allow your HexH2O and its components to cool between flights. Removing the dome and rear hatch between flights is sufficient.

When you receive your RTF HexH2O please ensure you thoroughly check all parts and components as above.

Please read our website T&C's for more information**.**

REMEMBER: IF UNSURE, PLEASE ASK US BEFORE YOU FLY