1. INTRODUCTION
Congratulations on your purchase of the Wilderness Systems Helix MD™ Motor Drive. For your safety and to ensure your highest level of enjoyment from the Motor Drive it is imperative that you read and comply with this Owner’s Manual prior to use.

The Motor Drive is intended for use in Wilderness Systems kayaks that utilize the Flex Pod OS and the associated Flex Pod OS scupper.

The Motor Drive is a result of our partnership with Torqeedo and is powered by the Torqeedo 403 Ultralight Motor. The Torqeedo Ultralight is state-of-the-art in terms of motor, battery, and propeller technology. It has been designed and manufactured with the utmost care and with a special focus on comfort, user-friendliness, and safety, and has been extensively tested before delivery.

Explanation and Description of Symbols

- This symbol warns about the risk of damage to or by your outboard motor
- This symbol warns about the risk of injury to yourself or others
- Magnetic field
- Keep at least 20 in / 50 cm away from pacemakers and other medical implants
- Keep at least 20 in / 50 cm away from magnetic cards (e.g. credit cards) and other sensitive magnetic information media
- Please read the operating manual carefully
- Time for inspection or disposal of the battery

2. Important Safety and Operating Information

Torqeedo motors are designed to operate safely and reliably as long as they are used according to the Owner’s Manual. Please read this manual carefully before you start the motor. Ignoring the instructions there in can cause damage or personal injury. Confluence Outdoor and Torqeedo accepts no liability for any damage caused by actions that contradict this Owner’s Manual. The Motor Drive utilizes a custom version of the Torqeedo 403 Ultralight Motor.

To ensure safe operation of the Helix MD Motor Drive:
- Check the status and function of the outboard motor (including the emergency stop) before each use.
- Raise the Motor Drive when launching or coming ashore to avoid damage.
- Be aware of your environment when operating the Motor Drive.
- Avoid collisions and impacts to the Motor Drive.
- Please note that the GPS-based range calculation does not consider changes in currents and wind conditions. Changes to the direction of travel, currents and wind directions may significantly affect the displayed remaining range.
- Always take a paddle and PFD with you on board.
- The motor automatically limits the speed to avoid overheating the battery if you operate the motor at full speed in high environmental temperatures. The display will show a flashing thermometer (temperature protection mode).
- Familiarize yourself with all the motor controls. For instance, you should be able to stop the motor quickly if necessary.
- Only allow adults who have been instructed on how to operate the motor to run it.
- Follow local laws on the permissible motorization or registration of your boat.
• Do not exceed the capacity limits.
• Stop the motor immediately if someone goes overboard.
• Do not run the motor if someone is in the water near the boat.
• Never open the battery casing. Protect the battery from mechanical damage. If the battery casing is damaged:
  • Do not use the battery anymore and do not charge it. There is a risk of fire.
  • If electrolytes leak from the damaged battery, avoid skin contact and directly breathing in the gases. If you come into
    contact with the electrolytes leaking from the battery (e.g. on the skin or eyes), rinse the affected area thoroughly with
    clear water. Contact a doctor immediately.
• Contact a Torqeedo service center for appropriate disposal advice for the damaged battery.
• Always charge the battery on a non-flammable base under the supervision of an adult.
• Only charge the battery at environmental temperatures between 0°C (32°F) and 45°C (113°F).
• Please note that since 2009 lithium batteries with a capacity of >100 Wh may no longer be carried as luggage in passenger
  planes. The battery supplied with this product exceeds this threshold and may therefore not be transported in the cargo
  area of passenger planes.
• The battery of your Ultralight motor has been declared a hazardous item in UN Class 9. Transportation companies must
  use original packaging to transport the product. Private transport is not affected by this rule. When undertaking private
  transport, ensure that the battery casing is not damaged.

  • In addition to these selected warnings, please comply with the complete operating manual.

The following section covers important instructions for handling Torqeedo 403 motor. Apart from these instructions, please
review the complete operating manual to prevent damage to your motor.

• Only run the motor when the propeller is under water. If it is run outside water for a long time, the shaft sealant rings that
  seal the motor to the drive shaft may become damaged and there is a risk that the motor could overheat.
• The Ultralight 403 motor, the associated remote throttle lever and battery are protected against dirt and water to protection
  type IP67 (1 hour under water at a depth of 1 meter).
• The Ultralight 403 motor has an integrated protective device that switches the motor off when it is at a particular slope
  (90°). This prevents the propeller turning if the boat capsizes.
• After use, always take the motor out of the water.
• After operation in salty or brackish water, wash all components in fresh water.
• Every two months use contact spray to care for all electronic contacts points.
• Except when charging the charging socket must always be locked. To do so please use the flap cover fixed to the socket.
• You extend the lifespan of your battery if you do not expose it to hot environments for longer than necessary.
• Comply with the following rules if you are storing your battery for a longer period of time. Storage for around six months:
  Charging level when stored 50%. Storage for a whole year: Charging level when stored 100%. If the battery is to be stored
  for several years the battery should be charged once a year in order to prevent the battery from completely discharging.
• If the motor has malfunctions an error code is shown on the display. After resolving the error the motor can be started out
  of the stop position again. For some error codes it may be necessary to switch the motor off using the “on/off” button on
  the throttle. You find descriptions and details in the “Error messages/trouble shooting” section in this operating manual.
• If a different propulsion method is used (towing the boat, sailing, use of another motor), the propeller must be removed
  from the water so that the electronics are not damaged.
• Performance is optimal with a Rudder Steering System.
3. INFORMATION REQUIRED BY LAW

3.1 Identification and Technical Data

The name plates with the complete product name are found at the locations shown in the diagram.

3.2 Technical Data

<table>
<thead>
<tr>
<th>Name of Model</th>
<th>Ultralight 403</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. input power (in Watt)</td>
<td>400</td>
</tr>
<tr>
<td>Max. propulsive power (in Watt)</td>
<td>180</td>
</tr>
<tr>
<td>Max. overall efficiency (in %)</td>
<td>45</td>
</tr>
<tr>
<td>Comparable gasoline outboard motor (propulsive power)</td>
<td>1 HP</td>
</tr>
<tr>
<td>Integral battery</td>
<td>320 Wh Li-Ion</td>
</tr>
<tr>
<td>Rated voltage (in Volt)</td>
<td>29.6</td>
</tr>
<tr>
<td>Final charging voltage (in Volt)</td>
<td>33.6</td>
</tr>
<tr>
<td>Final discharge voltage (in Volt)</td>
<td>24</td>
</tr>
<tr>
<td>Battery operating/storage temperature</td>
<td>-20°C – +60°C (-4°F to 140°F)</td>
</tr>
<tr>
<td>Battery charging temperature</td>
<td>0°C – +45°C (32°F to 113°F)</td>
</tr>
<tr>
<td>Total weight</td>
<td>7.25 kg /16 lbs.</td>
</tr>
<tr>
<td>Standard propeller (v = speed in km/h @ p = Output in Watt)</td>
<td>v10/p350</td>
</tr>
<tr>
<td>Max. propeller revs (in rpm)</td>
<td>1,200</td>
</tr>
<tr>
<td>Protective class IP67 (protected from 1 hour under water at a depth of 1)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3.3 Conformity Declaration

We, Torqeedo GmbH, with sole responsibility, declare the conformity of the Ultralight product range with
The following provisions:
Small water vehicles
Electrical systems
Low-voltage direct current (DC) systems
DIN EN ISO 10133:2000
Starnberg, in March 2009

The aforementioned company holds the following technical documents available for viewing:
• Required operating manual
• Plans/software source code (EU authorities only)
• Inspection records (EU authorities only)
• Other technical documentation (EU authorities only)
4. EQUIPMENT

4.1 Items Supplied

Your Motor Drive package should include the following parts:

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>Helix MD Motor Drive Unit with Torqeedo 403 Shaft and Connection Cable (2 m / 6.562 ft), Pylon, and Propeller</td>
<td>1</td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>Lithium Ion Battery with Integrated GPS Receiver</td>
<td>1</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>Remote Throttle Lever with Integrated Display</td>
<td>1</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>Remote Throttle to Battery Connection Cable – (1.5 m / 4.921 ft)</td>
<td>1</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>Magnetic Key</td>
<td>1</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>Charging Power Supply Unit and US/Euro Cables</td>
<td>1</td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td>ATAK 140 Staging Bracket w/ Screws</td>
<td>1</td>
</tr>
</tbody>
</table>
5. SET UP

5.1 Securing the Battery to the Housing Lid

Align and place the battery into the battery footprint on the lid of the Motor Drive housing. The face of the battery with the single cable port should be facing the widest end of the Motor Drive housing lid. Ensure that the hold down levers and the webbing handle straps are positioned to allow the battery clear access to the lid footprint. Once the battery is seated turn the hold down levers 90° to the locking position and tighten down with the round thumb knobs to secure the battery in place. Velcro the carry handle straps together over the top of the battery.

5.2 Connecting the Motor Drive Power Cord to the Battery

Locate the motor drive power port on the face of the battery with the single port on it. The motor drive cable utilizes an alignment guide tab to help align the connector pins. Align the male tab and pins to the corresponding female connections on the battery port. Ensure the threading and connection is seated properly to avoid cross threading and tighten the connection.

5.3 Remote Throttle with Integrated Display and Magnetic Key

The remote throttle is equipped with a magnetic key with an off/off function. The motor only works if you place the magnetic key supplied on the proper groove on the remote throttle lever (see section 6.1). If the magnetic key is removed the motor stops. You can only start the motor again if you first replace the magnetic key and then move the remote throttle lever to the middle (neutral) position.

- The magnetic key may affect the operation of pacemakers. Keep the magnetic key away from pacemakers (at least 50 cm / 20 in). The magnetic key may affect electronic and magnetic instruments (e.g. compass). Check whether instruments on board are affected before starting the journey.
- The magnetic key may delete magnetic information media (especially credit and debit cards etc.). Keep the magnetic key away from credit cards and other magnetic information media.
- Do not bind or permanently attach the magnetic key to the remote throttle.
- Attach the cords on the magnetic key firmly to your wrist or life jacket.
- Check the function of the magnetic keys before each trip.
5.4 Connecting the Throttle Cord to the Throttle

Locate the throttle connection port on the underside of the throttle. The throttle cable utilizes an alignment guide tab to help align the connector pins. Align the female tab and pins to the corresponding male connections on the throttle port. Ensure the threading and connection is seated properly to avoid cross threading and tighten the connection. Secure the cord in the slot under the two tabs of the metal plate and rout the cord out the cut-out at the end of the throttle base.

5.5 Connecting the Throttle Cord to the Battery

Locate the throttle connection port. It is the bottom port on the face of the battery with two connection ports. The cord utilizes an alignment guide tab to help align the connector pins. Align the male tab and pins to the corresponding female connections on the battery port. Ensure the threading and connection is seated properly to avoid cross threading and tighten the connection.

5.6 Mounting the Remote Throttle with the Integrated Display and Magnetic Key

There are two M4 insert located on the underside of the throttle for use with aftermarket mounting systems. We recommend Helix MD Throttle Mount system (Part # 8070056) to attach the throttle to the Wilderness Systems SlideTrax™ rails. Please visit WildernessSystems.com to check on availability of Motor Drive or other accessories.

5.7 Installing the Motor Drive in Your Kayak

The Motor Drive is intended to be used in Wilderness Systems kayaks that utilize the Flex Pod OS and the associated Flex Pod OS scupper. To install the Motor Drive unit unlatch the Flex Pod OS and remove from pod scupper and store away. Ensure your kayak is in a sufficient depth of water to accommodate the full depth of the installed Motor Drive unit (approx. 26”). There is a staging position within the pod that can be utilized that will minimize the depth of water required for the kayak. (ATAK 140 Users- See section 5.8 for special instructions for staging bracket installation) Align the Motor Drive propeller to a vertical position and lower the unit though the pod scupper with propeller facing to the stern of the kayak. At this point you can either use the staging position or fully deploy the unit, depending on the depth of water your kayak is in. Once you have the Motor Drive unit fully deployed and seated with the pod, use the latching buckles to secure the unit to the pod.
The Motor Drive is equipped with a prop alignment system that will align the propeller to a vertical position when the system is to be raised from the pod scupper. Disconnect the key from the throttle (See section 6.1). While the Motor Drive is still fully deployed in the pod scupper, locate the pull ring on the right side of the housing lid. Pull up firmly until it stops and then release. Do not yank. Unlatch the Motor Drive from the pod and slowly remove the unit. If the propeller did not align properly, reseat the Motor Drive in the pod and try again. Do not operate the prop alignment system while the motor drive is running.

5.8 ATAK 140 Staging Bracket Installation

An ATAK 140 staging bracket is included as part of the packaging. This will allow you to update the ATAK 140 to accept the Motor Drive in a staging position. To install, remove the two screw boss filler plugs located in from of the Flex Pod OS pod. Align the slots of the bracket over the screw boss locations with the lip of the bracket towards the bow of the boat. Install with the supplied screws until the bracket is held securely in place. The bracket utilizes slots to allow for adjustability in positioning the bracket.

6. OPERATION

6.1 Controls

The remote throttle is equipped with an integrated display and on-board computer and three buttons. If you press the “on/off button” for 1 second you switch the motor on. Pressing the button again for 3 seconds switches the motor off again. You can switch the motor off in any operating mode. If there is no activity for one hour the motor switches off automatically. Press the button again to switch it back on.

The remote throttle is equipped with a magnetic key with an off/off function. The motor only works if you place the magnetic key supplied on the proper groove on the remote throttle lever (see drawing). If the magnetic key is removed the motor stops. You can only start the motor again if you first replace the magnetic key and then move the remote throttle lever to the middle (neutral) position.
Control the drive power by adjusting the remote throttle lever. Forward movement of the remote throttle lever means the kayak moves forward, backward movement of the remote throttle means the kayak moves backwards. Please note that moving in reverse does not have the same output as moving forwards. The middle (neutral) position corresponds to the stop position.

Use the “setup” button to set the units for the display. You enter the menu by pressing the “setup” button for 3 seconds. First you can select the units in which the remaining range is displayed. Press the middle button to select between kilometers, American miles, nautical miles, and hours. You confirm your selection by pressing “setup” again. You then enter the speed indicator setting. You can choose between kilometers per hour, miles per hour, and knots. The selection is made again by pressing the middle button. You confirm your selection and leave the setup menu again by pressing the “setup” button again.

The “cal” label on the middle button stands for “calibration”. If the display shows a relevant error message you can recalibrate the motor with the aid of this button. You will find details on this in the “error codes” table in section 6.2.

Sample display in normal operation:

- Battery charging status in percent
- Remaining range at current speed
- Land speed
- Current consumption in Watts

Other displays:

| Drive slowly: | Is displayed when the battery capacity is < 30 %. |
| Charging: | Is displayed when charging. See Section 6.3. |
| The GPS module | integrated into the battery searches for satellite signals to position and speed. If no GPS signal is received within 5 minutes the display switches in the second field from “remaining range at current speed” to “remaining time at current speed”. In addition, a clock icon is displayed. If the remaining duration is more than 10 hours it is indicated in whole hours. If it is less it is shown in hours and minutes. |
| This icon is displayed if (neutral) position. This is necessary before starting off. |
| Is displayed if the engine or battery is too hot. The motor controls the power independently. |
| Error: | If an error occurs, the error icon and a two-digit code are displayed in the bottom field. The code shows the component causing the error and the error itself. You will find details about the error codes in the table in section 6.2. |
6.2 Error messages/trouble shooting

<table>
<thead>
<tr>
<th>Display</th>
<th>Cause</th>
<th>What To Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>E02</td>
<td>Motor overheated</td>
<td>Motor can be used again after short wait (about 10 minutes). Contact Torqeedo Service.</td>
</tr>
<tr>
<td>E03</td>
<td>Motor tipped during operation</td>
<td>Motor can be used again after tipping it down and pressing on/off.</td>
</tr>
<tr>
<td>E04</td>
<td>Remote Throttle Lever with Integrated Display</td>
<td>Motor can be used again after tipping it down from the neutral position.</td>
</tr>
<tr>
<td>E05</td>
<td>Move command with tipped motor</td>
<td>Separate motor cable from battery. Loosen blockage and turn propeller one revolution by hand. Insert motor cable again.</td>
</tr>
<tr>
<td>E06</td>
<td>Motor/propeller blocked</td>
<td>Low battery charging status. Motor can be used again slowly from the stop position.</td>
</tr>
<tr>
<td>E07</td>
<td>Motor overcurrent</td>
<td>Continue at low output. Contact Torqeedo Service.</td>
</tr>
<tr>
<td>E08</td>
<td>Circuit board overheating</td>
<td>Motor can be used again after short wait (about 10 minutes). Contact Torqeedo Service.</td>
</tr>
</tbody>
</table>
| E21     | Remote throttle calibration defective | • Recalibrate: Press “cal” button for 10 seconds. 
  • The display shows “cal up”: Press remote throttle lever forward to full gas then press the “cal” button. 
  • The display shows “cal dn”: Press remote throttle lever reverse to full gas then press “cal” button. |
| E22     | Magnetic sensor defective | Recalibrate (refer to E21) |
| E23     | Value range false | Recalibrate (refer to E21) |
| E30     | Motor communication error | Check the motor cable’s plug-in connection. Check the motor cable for damage. |
| E32     | Remote throttle communication error | Check the remote throttle’s connections. Check the cable. |
| E33     | General communication error | Check the plug-in connections and cables. Switch the motor off and on again. |
| E41, E42| Incorrect charging voltage | Use a Torqeedo power supply. If the fault occurs even though you are using a Torqeedo power supply, wait a few hours for the battery to resolve the overcharge internally. If the fault continue please contact your Torqeedo service. |
| E43     | Battery empty | Charge battery. Motor can be used again slowly from |
| E45     | Battery overcurrent | Switch motor off and on again. If this error occurs the battery status indicator and range display can no longer operate until the battery has been fully charged again. |
| E46     | Battery operating temperature fault | Battery cells outside operating temperature between -20°C and +60°C (-4°F and +140°F). The motor can be used again when the temperature has stabilized. |
| E48     | Charging temperature error | Allow battery to cool; charging will continue when the cell temperature is between 0°C and +45°C (32°F and 113°F). |
| Other Error Codes | Faulty | Contact Torqeedo Service and notify them of the error code. |
| Nothing displayed / no flashing during charging | Battery does not charge | Contact Torqeedo Service. |
6.3 Charging the Battery

Connecting the Charging Cord to the Battery

The charging system consists of the charging power source with attached cord and a separate cord with wall plug and female power source connection. Connect the female end of the separate cord to the male port of the charging source. Connect the wall plug to a wall outlet and then connect the charging cord to the top port on the face of the battery with two connection ports.

You can charge the battery without the remote throttle cable being inserted. If the remote throttle is connected with the battery the current charging status in percent and “charging” is displayed in the topmost field on the display.

6.4 Using Solar Module to Charge Battery

The battery can be charged directly using the Torqeedo solar charger 45 W (Not Supplied; Torqeedo item no.1130-00).

⚠️
- Charging the battery with the solar charger outside these specifications will damage the device and will not be covered by the warranty. This also applies if the wrong polarity is used. (Refer to the polarity of the charging socket).

⚠️
- Always charge the battery on a non-flammable base under the supervision of an adult.
- If you use a solar charger other than the one recommended by Torqeedo, ensure that the cable has an appropriate diameter – risk of fire!

6.5 Battery and Power Supply Unit

The battery is equipped with high performance lithium ion batteries. The cells have a self-discharge of less than 1% per month at 20°C (68°F), have stable cycles, and no memory effect. The lithium battery can be used at environmental temperatures from -20°C to +60°C (-4°F to +140°F). Do not cover the battery with metallic objects or those containing metal.

A controller that has several functions to protect and care for your battery is integrated in the battery. The controller, amongst other functions, protects the controller from fully discharging and overcharging. Therefore you can connect the battery to the charger without worrying or empty it completely.

During the charging process the controller contained in the battery controls the charging current.

The real capacity of your battery is subject to variations due to the technology used. The capacity of the battery also changes over time. To adjust the capacity indicator we recommend emptying the fully charged battery completely once a year at average speed.

The power supply unit supplied is modified to the controller and charges the Ultralight’s battery in around 12 hours. When charging at high environmental temperatures (> 35°C / 95°F) longer charging times may occur as the controller is equipped with a temperature-dependent charging power off switch. This ensures that the cells are charged in a manner that protects them. To charge connect the plug to the electricity supply (See section 6.3).
• Use the Ultralight battery 403 exclusively with the Ultralight 403 outboard motor.
• Only use the charging power supply unit supplied or the Torqeedo solar charger to charge the battery.
• Never open the battery casing. Protect the battery from mechanical damage. If the battery casing is damaged:
  • Do not use the battery anymore and do not charge it. There is a risk of fire.
  • If electrolytes leak from the damaged battery avoid skin contact and directly breathing in the gases. If you come into contact with the electrolytes leaking from the battery (e.g. on the skin or eyes) rinse the affected area thoroughly with clear water. Contact a doctor immediately.
  • Contact a Torqeedo service center for appropriate disposal advice for the damaged battery.
• Do not short-circuit the battery.
• Always charge the battery on a non-flammable base under the supervision of an adult.
• Only charge the battery at environmental temperatures between 0°C (32°F) and 45°C (113°F).
• Please note that since 2009 lithium batteries with a capacity of >100 Wh may no longer be carried as luggage in passenger planes. The battery supplied with this product exceeds this threshold and may therefore not be transported in the cargo area of passenger planes.
• The supplied charger is not watertight; the charging process must be protected from water spray.

• Except when charging the charging socket must always be locked. To do so please use the flap cover tethered to battery.
• Neither the battery nor the charger should be covered during the charging process.

**6.6 Pylon**

The motor and the electronic control system are located in the pylon. They generate the propulsion. In addition, several protective functions are integrated:

• Temperature protection: If the motor overheats, the motor control system reduces the output of the drive until a temperature equilibrium is established between generated and disposed heat. Above a critical temperature the motor stops and the display shows error code E02 or E08.
• Blocking protection: If the propeller is blocked or stuck, the motor could take in too much power. In this case, the motor is switched off within a few hundredths of a second to protect the electronics, motor winding and propeller. After removing the blockage you can switch the motor on again. If there is a blockage the display shows error code E05.
• Cable break protection: If the connection cable is damaged, i.e. if the connection to remote throttle, battery or motor is broken, the motor does not start or stops. An error code is shown in the display that starts with E3 and has another digit.
• Throttle control: The propeller rev change responds slowly to protect mechanical drive components and avoid short-term power peaks.
• Location sensor: The Ultralight has an integrated protective device that switches the motor off when it is at a particular slope (90°). This prevents the propeller turning if the boat capsizes.
• The fin supports steering movements and protects the propeller when it comes into contact with obstructions.

• Only run the motor when the propeller is under water. If it is run in the air, the shaft sealant rings that seal the motor to the drive shaft may become damaged. If the motor is run in the air for too long, the motor itself can overheat.
• After use, always take the motor out of the water.
6.7 Unusual Functions/Emergency Situations

You can stop your motor in 3 different ways:
• Move remote throttle to stop position
• Pull magnetic key
• Remove motor cable from the battery (main switch)

⚠️ In the unlikely event that your lithium battery catches fire try to position it such that it causes the least possible damage. Water cannot extinguish a lithium fire - if possible extinguish the fire with sand.

7. DISMANTLING

Move the remote throttle lever into the middle (neutral) position and remove the magnetic key from the remote throttle. Then press the on/off switch for three seconds to switch off. Remove all electrical connections between the remote throttle, battery, and motor.

⚠️ The pylon may be hot.

⚠️ Ensure that the motor’s individual parts are dry before stowing.
• Ensure you do not bend the cable around sharp edges.

8. STORAGE AND CARE INSTRUCTIONS

8.1 General Care Advice, Maintenance and Corrosion Protection

Materials were chosen with a high level of corrosion-resistance. All of the materials used in the Ultralight 403 are, as with most leisure maritime products, classed as “seawater resistant”, not “seawater-proof”.

⚠️ After use you should always remove the motor from the water.
• After operation in salty or brackish water, wash all components in fresh water.
• Treat all electronic parts with contact spray once a month.
• Check cables regularly for damage.
• To clean the motor you can use any cleaning agents suitable for plastic - follow the manufacturer’s instructions.
• After 5 years of operation the shaft sealing ring must be exchanged. Please contact an authorized Service Center for this.

8.2 Instructions for Flushing the System

Disconnect the magnetic key and all power cables. Remove the stopper that captures the motor drive power cord from the top of the housing lid. At the base of the housing, near the propeller, pry loose the drain plug. Thoroughly flush the system with fresh water from the top of the lid and let it drain out from the bottom. When complete, replace the stopper and the drain plug.
8.3 Battery Care

You extend the lifespan of your battery if you do not expose it to hot environments for longer than necessary. A cool environmental temperature is particularly important for longer storage.

For longer battery storage periods observe the following charging level rules. Storage for around six months: Charging level when stored 50%: Storage for a whole year: Charging level when stored 100%: If the battery is to be stored for several years the battery should be charged once a year in order to prevent the battery from completely discharging.

8.4 Changing the Propeller

1. Disconnect the cable between the motor and battery.
2. Loosen and unscrew the central nut on the propeller.
3. Pull the propeller from the motor shaft.
4. Pull cylinder pin from the motor shaft and remove the disk spring from the motor shaft.
5. Connect the cable between the motor and battery. Allow the motor to run slowly and check whether the shaft is turning unevenly using the shaft sealing ring. Contact Torqeedo Service if the shaft is damaged or uneven.
6. Disconnect the cable between the motor and battery. Insert new disk spring onto the motor shaft. Note the direction of the disk spring. The internal edge of the disk spring must be on the edge of the drive shaft. Insert new cylinder pin into the center of the motor shaft.
7. Mount propeller onto the motor shaft until it clicks into place and bring it up to the same level as the cylinder pin by turning the slot in the propeller.
8. Insert another disk spring onto the motor shaft behind the propeller. Ensure that the direction of the edge of the disk spring rests on the propeller.
9. Tighten the central nut on the propeller by hand.
9. WARRANTY CONDITIONS

9.1 Warranty Process

Adhering to the following warranty process is a prerequisite to the satisfaction of any warranty claims.

To initiate a warranty claim please contact Wilderness Systems customer service at (888) 525-2925. The customer service representative will guide you through the warranty claim process. Additional contact info can be located at the bottom of the owner’s manual.

Before shipping any assumed defective items, it is imperative to coordinate the delivery with Wilderness Systems customer service. We are unable to accept products which we have not been notified and will therefore refuse delivery.

For returning the motor to a Service Center, we recommend keeping the original packaging. If this is no longer available packaging can be provided. Lithium batteries are governed by strict shipping laws and require special packaging and are not to be shipped without proper authorization. Customer Service will supply direction on returning warranty claims.

9.2 Extent of Warranty

The warranty ends two years from the date of purchase from an authorized Wilderness Systems retailer. The right to claim under warranty expires 30 days after discovery of a fault. You must possess a valid sales receipt of purchase for a warranty to be eligible for processing.

Wilderness Systems in collaboration with Torqeedo GmbH, Petersbrunner Straße 3a in D-82319 Starnberg, Germany, guarantees the final purchaser of Helix MDTM powered by a Torqeedo outboard motor that the product is free from material and manufacturing faults during the period stated above. Wilderness Systems in collaboration with Torqeedo will indemnify the final purchaser for any expense for the repair of a material or manufacturing defect. This indemnification obligation does not cover the incidental costs of a warranty claim or any other financial losses (e.g. costs for towing, telecommunications, food, accommodation, loss of earnings, loss of time etc.). Wilderness Systems in collaboration with Torqeedo decides whether faulty parts are repaired or replaced. Distributors and dealers who repair Torqeedo motors have no authority to make legally binding statements on behalf of Wilderness Systems or Torqeedo.

9.3 Limitations and Exclusions

Wilderness Systems in collaboration with Torqeedo is entitled to refuse a warranty claim if:

• The warranty was not correctly submitted
• The user is not the original owner with proof of purchase
• The safety, operating and care instructions in the manual were not observed
• Previous maintenance or repairs were not undertaken by organizations authorized by Wilderness Systems or Torqeedo or parts that were not original spare parts were used unless the end user can prove that the facts that justify rejecting the warranty claim did not favor the development of the fault
• The product was in any way altered or modified or parts and accessories were added that are not expressly permitted or recommended by Torqeedo or Wilderness Systems.
• As well as the rights arising from this warranty, the customer also has legal warranty claim rights arising from the purchase contract with the dealer that are not hampered by this warranty
The Warranty Also Does Not Cover:
• Normal wear and tear and aging of product
• Damaged by extreme weather or environmental conditions
• Damaged while in possession of a freight carrier, a dealer, consumer, or any party other than Wilderness Systems
• Damaged by accident, neglect, improper use or handling
• Damage caused by hitting submerged objects or launching or landing your kayak without retracting the motor drive unit
• Kayaks that have been towed by power or sail boats
• Units designated as Prototypes
• Units sold as “demos” or in “as is” condition
• Units determined to have been used for any activity other than an activity which is customary for the product
• Units that have been structurally or dimensionally altered or modified
• Units used for commercial or rental purposes of any type or duration

This limited warranty excludes all other warranties, expressed or implied, including implied warranties of merchantability and fitness for a particular purpose, with regard to Wilderness Systems. Some state, country, or provincial laws do not allow the exclusion of certain implied warranties, so the above exclusion may not apply to you.

This limited warranty excludes any incidental or consequential damages or expenses resulting from any defects. Confluence Outdoor aggregate liability shall be limited to an amount equal to Consumer's original purchase price paid for the defective product. Some state, country, or provincial laws do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

To the extent any limitation or exclusion contained herein is contrary to any country, state, or provincial law, such limitation or exclusion shall be severable and all other terms herein shall remain in full force and effect and are valid and enforceable. This warranty gives you specific legal rights and you may also have other rights. For Consumers who are covered by state, country or provincial consumer protection laws or regulations, the benefits from this warranty are in addition to all rights conveyed by such consumer protection laws.

10. ACCESSORIES

Please visit WildernessSystems.com to check on availability of Helix MD and other kayak accessories.

11. DECOMMISSIONING THE PRODUCT / DISPOSAL

You can, in line with local regulations, hand in the motor at a collecting point. From there it will be professionally disposed. Do not use the battery after the printed expiration date without a Torqeedo Service Center having carried out an inspection. Expiration date of the battery is on the label found on the bottom of the battery.

The Ultralight is marked as per the EU Directive 2002/96/EC (regarding the disposal of old electrical and electronic devices to sustainably protect the environment, WEEE).
12. SERVICE CENTERS

12.1 Wilderness Systems

Wilderness Systems
575 Mauldin Road Suite 200
Greenville, SC 29607
T (888) 525-2925
WildernessSystems.com

12.2 Torqeedo

North America
Torqeedo Inc.
171 Erick Street, Unit D-2
Crystal Lake, IL 60014
USA
service_usa@torqeedo.com
T +1 (815) 444-8806
F +1 (815) 444-8807

Europe and international
Torqeedo GmbH
- Service Center -
Friedrichshafener Straße 4a
82205 Gilching
Germany
service@torqeedo.com
T +49 (0) 8153 / 9215-126
F +49 (0) 8153 / 9215-329

All other countries:
Contact details of international Service Centers are available at Torqeedo.com in the “service” section.