torqeedo

DE
EN
FR
IT

Translation of the original operating instructions

Travel Ultralight

039-00537 V1.0 • 10/04/2024

Table of contents

EN

Foreword

Dear valued customer,

Thank you for choosing emission-free boating with Torqeedo. Your new electric propulsion system has been carefully designed, ethically manufactured and conscientiously tested with great care and attention to ensure that you are completely satisfied.

Please take some time to read this operating manual carefully so that you can use your system properly and enjoy it for a long time to come. If you have any questions or concerns, please contact us or your local service centre. You will find all the contact details online at Torqeedo.com.

At Torqeedo, we create the pleasure of powerful movement on the water - with respect for our human and natural environment.

We are delighted that you are joining us on this mission and would like to welcome you on board.

Your Torqeedo Team

1 Introduction

1.1 General information about the manual

Follow these instructions for proper and safe use. Keep for future reference

1.2 Version and validity

This manual is valid for the following Torqeedo motors:

Motor type	Item number
Travel Ultralight	1421-00

Battery type	Capacity	Compatible with	Item number
Travel Ultralight Battery	see name plate	Travel Ultralight	1423-00

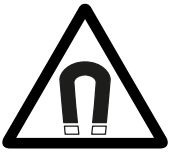
1.3 Digital operating manual

You can also download the current version of the operating manual as a PDF from our homepage. www.torqeedo.com

Make the most of our range of purely digital operating manuals! They include a lot of additional information about your product. You can access them via the app or on our homepage or you can scan the code.

2 Explanation of symbols

The following symbols, warnings and mandatory signs can be found in this manual and on your product.



Magnetic field

Caution: fire hazard

Read the instructions carefully

Do not walk on or apply loads

Caution: hot surface

Caution: electric shock

Caution: danger from rotating parts

Do not dispose of in household waste

Recyclable

Caution: crushing hazard

Caution: magnetic field, data carriers may be deleted

Persons with pacemakers or other medical implants must keep at least 50 cm away from the system

EN

2.1 Layout of warning notices

Warning notices are presented in this manual in a standard format and with standard symbols. Observe the instructions. The hazard classes defined below are used in accordance with the probability of occurrence and the severity of the consequence.

Warnings:

⚠ DANGER

Immediate hazard with high risk. Death or serious bodily injury may result if the risk is not avoided.

⚠ WARNING

Possible hazard with moderate risk. Death or serious bodily injury may result if the risk is not avoided.

⚠ CAUTION

Hazard with low risk. Minor or moderate bodily injury may result if the risk is not avoided.

Warnings:	**DANGER! Observe instructions!** Immediate hazard with high risk. Death or serious bodily injury may result if the risk is not avoided.
	WARNING! Observe instructions! Possible hazard with moderate risk. Death or serious bodily injury may result if the risk is not avoided.
	CAUTION! Observe instructions! Hazard with low risk. Minor or moderate bodily injury may result if the risk is not avoided.
Notes:	**NOTICE! Instructions, which must be observed to avoid material damage.**
Tips:	**TIP!** User tips and other useful information.

2.2 About this operating manual

Handling instructions

Handling instructions to be completed are presented as a list. The order of the steps must be followed.

Example:

a) Step

b) Step

Results

Results of a handling instruction are presented as follows:

Example:

a) Step

⇨ Interim result

⇨ Result

Enumerations

Enumerations that have no compulsory order are shown as a list of bullet points.

Example:

- Item 1
- Item 2

EN

3 Safety

3.1 Intended use

Intended use:

The Travel Ultralight motors, in conjunction with the battery variants offered, are suitable for kayaks and canoes. The motors are designed for use in salt and fresh water, as well as for waters without chemicals. They are fixed to a dedicated attachment point on the stern of a kayak that is designed for the power of the motor used.

Intended use also includes:

- Fixing the system to the fixing points provided on the stern of a kayak and complying with the prescribed torques.
- Operating the system on waters with sufficient depth.
- Observing all instructions in this manual.
- Complying with the maintenance and service intervals.
- Using only original spare parts and original accessories.

3.2 Foreseeable misuse:

Foreseeable misuse:

Any use other than or beyond that specified under "Intended use" is considered improper use. The operator bears sole responsibility for damage resulting from improper use and the manufacturer accepts no liability whatsoever in this regard.

Among other things, improper use includes:

- Using the system underwater.
- Operating in waters to which chemicals are added.
- Using the system when not installed on a vessel.
- Using the system on fixing points on the boat that are not located at the stern of the boat.
- Modifications to the product that are not described in these instructions.
- Operating the propeller out of the water.
- Carrying and lifting the kayak by the bracket or trim device.
- Transporting the kayak with the motor installed on a vehicle or trailer.

3.3 Safety features

3.3.1 Motor safety features

Safety features	Function
Emergency stop magnetic chip	Causes the motor to shut off immediately. The propeller comes to a standstill, the system remains switched on.
Electronic protection against uncontrolled start-up	Prevents uncontrolled start-up of the system after switching on. To drive, the accelerator lever/tiller must first be moved to the neutral position and the emergency stop magnetic chip must be put in place.

Safety features	Function
Tiller / accelerator	Ensures that the system can only be started in neutral to prevent uncontrolled start-up of the system:
Overheating protection by means of the battery management system (BMS)	Automatically reduces the power of the electronics or the motor to prevent overheating.
Overcurrent protection by means of the battery management system (BMS)	Automatically reduces the power if excess current is detected in the electronics or the motor.
Motor protection	Protects the motor from thermal and mechanical damage if the propeller is blocked, e.g. by ground contact or lines caught up in it.
Broken cable protection	Immediate shut-off of the motor in the event of damage or short-circuit of a connection cable.

3.3.2 Battery safety features

Safety features	Function
Fuse	A fuse in the battery prevents overcurrent and/or short-circuit in the event of a defect.
Overheating protection by means of the battery management system (BMS)	Automatically reduces the power of the electronics or battery to prevent overheating.
Overcurrent protection by means of the battery management system (BMS)	Automatically reduces the power if excess current is detected in the battery.
Broken cable protection	Immediate shut-off of the motor in the event of damage or short-circuit of a connection cable.
Battery management system (BMS)	The BMS monitors all parameters during operation, charging and storage and switches off the components affected if necessary.

3.4 General

- Be sure to read and observe the safety and warning instructions in this manual!
- Read the manual carefully before putting the system into operation.
- Observe local laws and regulations and obtain any certificates of competence required.

Failure to observe these instructions may result in personal injury or material damage. Torqeedo cannot accept any liability for damage caused by actions that contradict responsible use or these instructions.

Basics

Local safety and accident prevention regulations must also be observed when operating the system.

The system has been designed and manufactured with the utmost care and attention in terms of convenience, user-friendliness and safety, and thoroughly tested before delivery.

Nevertheless, if the system is not used as intended, danger to life and limb of the user or third parties and extensive material damage may occur.

Before use

The system may only be operated by persons with the appropriate qualifications and who demonstrate the required physical and mental aptitude. Observe the applicable national regulations.

Instruction in the operation and safety regulations of the system is provided by the boat builder or by the dealer or seller.

As the boat's operator, you are responsible for the safety of the persons on board and for all marine craft and persons in your vicinity. Be sure to observe the basic rules of boating conduct and read this manual thoroughly.

Particular caution is required when people are in the water. Stop the motor and do not use it if there are people close by in the water.

Observe the boat manufacturer's instructions in relation to the permissible motorisation of your boat. Do not exceed the specified load and power limits.

Check the condition and all functions of the system (including the emergency stop) at low power before every journey.

Familiarise yourself with all the controls of the system. Above all, you must be able to stop the system quickly when necessary.

General safety information

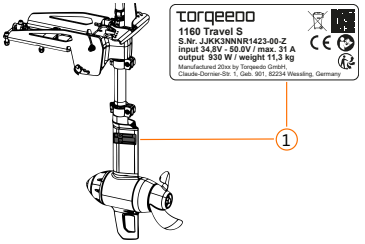
- Observe the safety regulations.
- Depending on the size of the boat, always have the necessary safety equipment ready (anchor, paddle, means of communication, auxiliary drive if necessary).
- Check the system for mechanical damage before starting out.
- Only operate a system that is in perfect working order.
- Familiarise yourself with the area you are traveling through before setting off, as the range shown on the onboard computer does not take account of wind, current or direction of travel.
- Allow a sufficient buffer for the required range.
- Find out about the area you intend to travel through before you set off and observe the forecast weather and sea conditions.
- Consider the effect of your boat on the range under the environmental conditions expected.
- Attach the emergency stop magnetic chip cord to the skipper's wrist or lifejacket.
- Keep away from the propeller.
- Watch out for people in the water.
- Switch off the Torqeedo system if people are in the immediate vicinity of the propeller.
- While driving, make sure that there is no danger of the propeller touching the ground.
- Do not touch any motor or battery components during or immediately after operation.

- Secure the boat to the landing stage or berth so that it cannot break free when you are not using the boat or if you are adjusting the settings on the menu.
- There must always be one person on the boat at the time of calibration.
- The emergency stop magnetic chip can erase magnetic data carriers.
- Keep the emergency stop magnetic chip away from magnetic data carriers.
- Only use original Torqeedo spare sets.
- Only use Torqeedo chargers.
- Always unroll cable drums completely.
- Only use charging cables that are undamaged and suitable for outdoor use.
- Do not carry out any independent repair work on the Torqeedo system.
- Always switch off the Torqeedo system via the on/off button during installation and disassembly work and disassemble the battery.
- Do not wear loose clothing or jewellery near the drive shaft or propeller. Tie up loose, long hair.
- Do not carry out any maintenance or cleaning work on the drive shaft or propeller while the Torqeedo system is switched on.
- Only operate the propeller under water.
- Battery terminals must be clean and corrosion-free.
- When working on the propeller, always switch off the system via the main battery switch and remove the emergency stop magnetic chip.
- Do not use the Torqeedo system if the battery, cables, housings or other components are damaged and inform Torqeedo Service.
- Switch off the Torqeedo system immediately at the main battery switch or remove the battery from the motor in case of overheating or smoke.
- Do not store any flammable objects near the Torqeedo system.
- Avoid strong mechanical forces on the batteries and cables of the Torqeedo system.
- Never touch frayed or severed cables or obviously defective components.
- If a defect is detected, switch off the Torqeedo system immediately at the main battery switch and do not touch any metal parts.

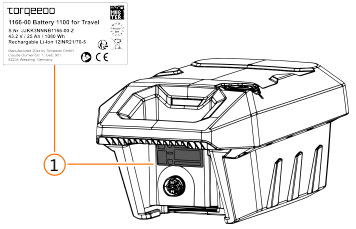
4 Product description

4.1 Serial number and type plate

4.1.1 Type plate

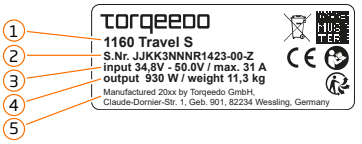


(1) Position of the type plate on the motor



(1) Position of the type plate on the battery

4.1.2 Motor identification



Motor type plate

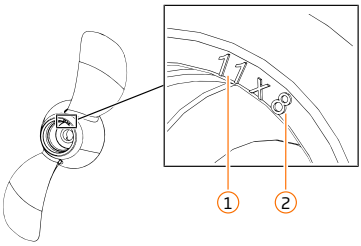
1. Item number and motor type
2. Serial number
3. Nominal input voltage/max. input current
4. Nom. shaft output power/weight
5. Address

4.1.3 Battery identification

Battery type plate

1. Item number and battery type
2. Serial number
3. Nominal voltage / Capacity in Ah / Capacity in Wh / Cell type
4. Address
5. Time for inspection or disposal of the battery.

4.1.4 Propeller identification



1. Diameter (inches)
2. Pitch (inches)

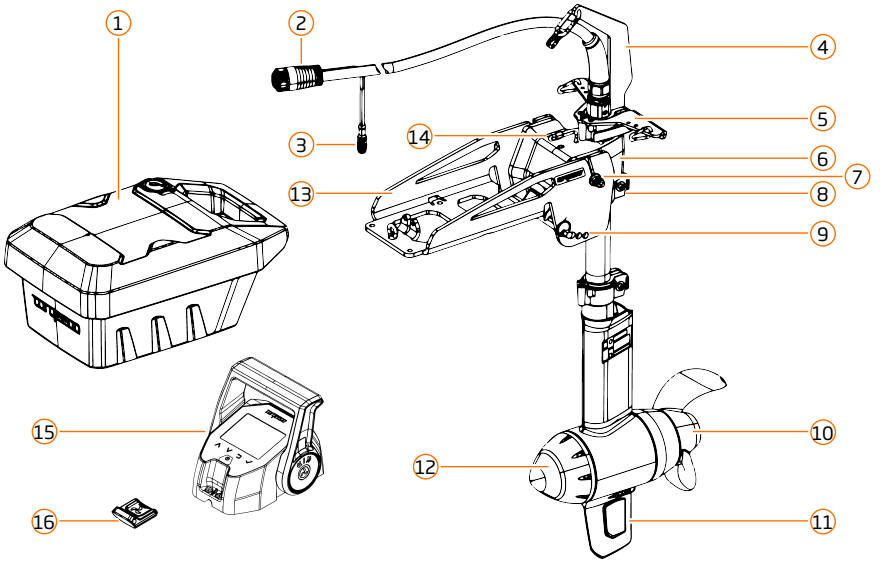
Propeller types

Abbreviation	Propeller type
WDL	Propeller resistant to fouling
WDR	Wide range, universal propeller

EN

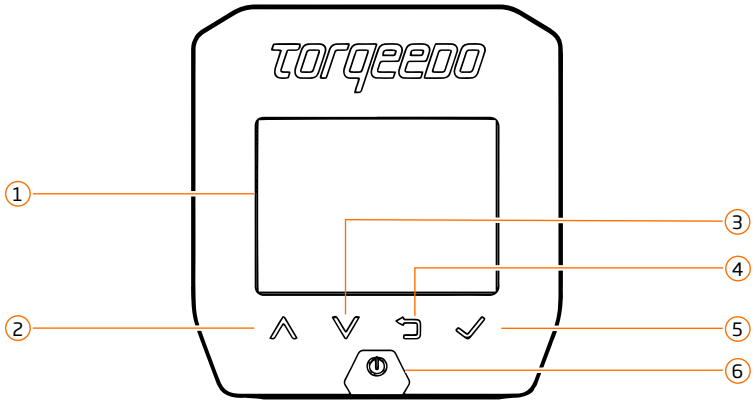
4.2 Controls and components

4.2.1 Ultralight



1	Battery with status LED
2	Motor cable connection
3	Drive lever connection
4	Tilt arm with deflection pulley
5	Control triangle with connection for control lines
6	Swing arm
7	Quick clamp
8	Clamp
9	Trim mechanism
10	Propeller
11	Removable fin
12	Pylon
13	Bracket
14	Reverse drive fixing
15	Drive lever with display
16	Emergency stop magnetic chip

4.2.2 Display and buttons



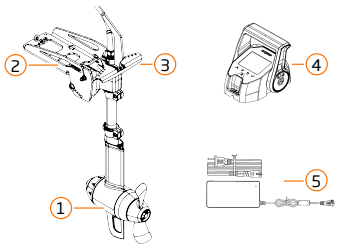
EN

The display and buttons for the tiller and accelerator have the same configuration.

1	Display
2	Scroll up
3	Scroll down
4	Back
5	Confirm / Next
6	Switch on / Switch off

4.3 Scope of supply

4.3.1 Motor

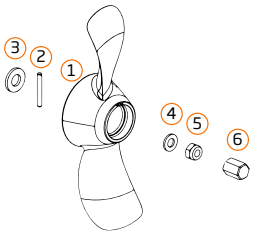


Travel Ultralight scope of supply

1	1x	Motor
2	1x	Bracket
3	1x	Control triangle
4	1x	TorqLink drive lever
5	1x	180W charger
	1x	Operating instructions

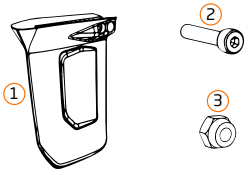
Travel Ultralight scope of supply

1	1x	Clamp
2	5x	Slot nuts with bolts
3	2x	Rope guide
4	1x	Eyelet
5	1x	Handle piece
6	1x	Grip ball
7	3x	Carabiner
8	1x	Carabiner for deflection pulley
9	1x	Deflection pulley
10	8 m	Line
11	1x	Tilt arm
	1x	Bolt for steering fixing 4.5x45
	4x	Fixing bolts with nuts and washers M8
	4x	Fixing bolts 1/4"
	1x	Assembly paste



Travel Ultralight scope of supply

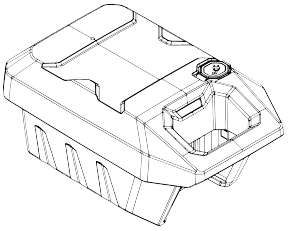
1	1x	Travel Ultralight Propeller 10x6.5 WDR
2	1x	Drive pin
3	1x	Axial thrust washer M14 A4
4	1x	Washer M10 A4
5	1x	Fixing bolt M10 A4
6	1x	Shaft anode for motor shaft



Travel Ultralight scope of supply

1	1x	Fins
2	1x	Bolt M4x20A4
3	1x	Nut M4-A4

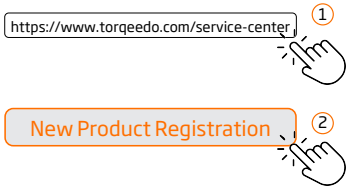
4.3.2 Battery



Travel Ultralight scope of supply

1	1x	Travel Ultralight Battery

4.4 Equipment registration



Register your product! There are lots of advantages for you!

EN

Traceability is obligatory for boat drives
As with all boat drives, the Product Safety Act and the Machinery Directive apply to Torqeedo products. These make it obligatory to take measures that allow products and components to be traced in the direction of both suppliers and customers. If any safety information is issued in relation to your Torqeedo product in future, registration will help us to contact you.

Better theft protection: Traceability of serial numbers can help
With the serial number of your product, we can identify your Torqeedo product as your property for any maintenance work, repairs or complaints. We might also be able to help in returning your property to you. All over the world, of course. (Unfortunately, it is not possible to locate stolen outboard motors using the integrated GPS receiver, as the device only receives position data and does not have a transmission function.)

Simply better information
As soon as there are any changes or innovations that affect your product (in development or production, for example), we can contact you individually – if you wish – and make sure that you have all the essential news immediately.

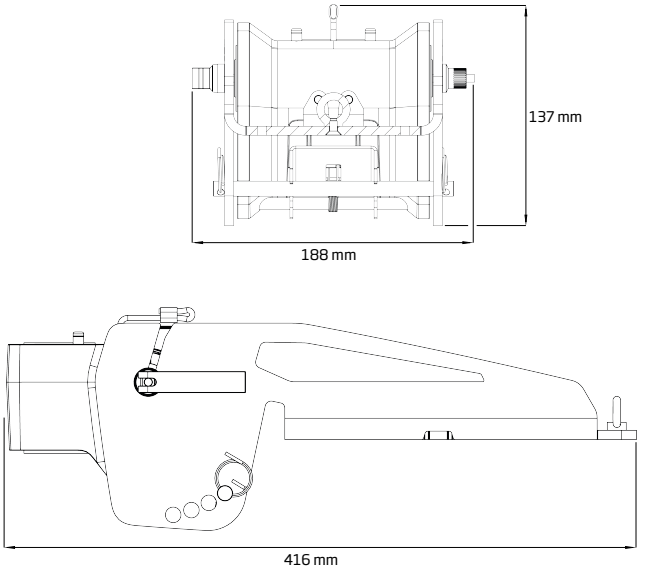
5 Technical information

5.1 Bracket fixing

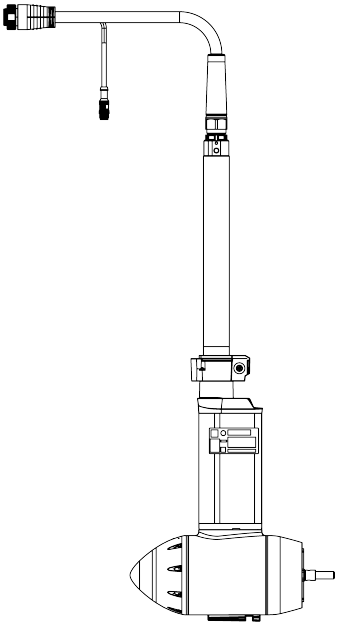
Some kayaks are supplied ready for the installation of items such as the Travel Ultralight. You will therefore receive two different fixing kits with your motor for the installation of the bracket on your kayak. One fixing kit contains M8 bolts, nuts and washers, one fixing kit contains 1/4" bolts.

5.2 Technical properties

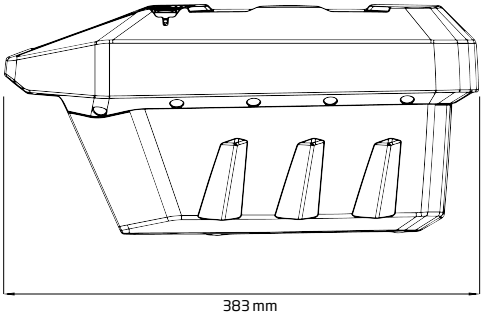
5.2.1 Bracket

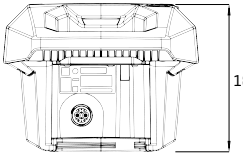


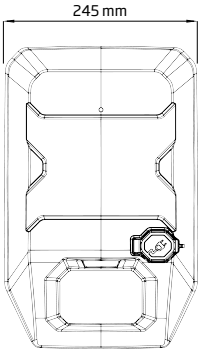
5.2.2 Motor



5.2.3 Battery







5.3 Operating conditions

5.3.1 Operating conditions for operation

Motor and battery	
Water temperature	-5 °C - +35 °C / 23 °F - 95 °F
Air temperature	-10 °C - +45 °C / 14 °F - 113 °F

5.3.2 Operating conditions for charging

Battery and charger	
Temperature	0 °C - +45 °C / 32 °F - 113 °F

5.3.3 Operating conditions for storage

Motor, battery and accessories	
Storage temperature	-20 °C - +55 °C / -4 °F - +131 °F
Battery charge status	50% SOC

5.4 Technical data

5.4.1 Data and dimensions

Motor	Ultralight
Continuous input power	1100 W
Nominal shaft power	930 W
Nominal voltage	44 V
Amperage	max. 27.5 A
Weight of motor	8.7 kg
Standard propeller	Propeller 10x6.5 WDR
Propeller speed	max. 1400 rpm
Control	Control lines
Motor tilt mechanism	Tilt-Lock / Auto-Tilt-Up
Motor trim mechanism	4 steps
Stepless forward/reverse travel	Yes
GPS / Wi-Fi frequencies	1575.42 MHz / 2412 MHz – 2484 MHz

Battery	
Capacity	See name plate
Weight	8.7 kg

Charger unit	180 W charger unit for Travel
Input voltage	100 VAC – 240 VAC
Output voltage	32 VDC
For indoor use only	

Solar charging cable	
Recommended voltage of the solar modules (Voc)	18 – 48 V (Voc)
Maximum module voltage (Voc)	49 V (Voc)
Maximum power of solar module *	200 Wp
Type of connector plug connection	MC4
Length of solar charging cable	3000 mm (9' 10")

* You can also use solar modules with a higher output, however, please note that the maximum charging power is limited by the battery.

5.4.2 Protection class according to DIN EN 60529

Protection category	Components
IP67	Travel Ultralight
IP67	TorqLink drive lever
IP67	Battery
-	Charger, for indoor use only
-	12V charging cable
IP67	Solar charging cable

5.5 Information about conformity

5.5.1 Declaration of Conformity

Your Torqeedo product has been designed and manufactured with the utmost care and attention to convenience, user-friendliness and safety, and thoroughly tested before delivery. It also meets all the requirements of EU standards. You will find the EU Declaration of Conformity for your product in the Support section of our homepage.

5.6 Patents

The product(s) is/are protected by one or more patents. You will find a list of those patents here:

www.torqeedo.com/us/en-us/technology-and-environment/patents.html

6 Installation and fitting on the boat

⚠ WARNING

Rotating components!

These can cause serious cuts.

a) Remove the emergency stop magnetic chip and take the battery out of the motor before carrying out any work or inspections on the propeller.

b) Make sure that the motor is secured to prevent re-activation when working on it.

⚠ CAUTION

Risk of crushing due to uncontrolled tilting of the motor.

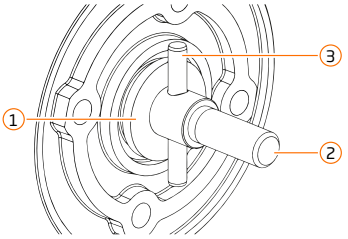
This may result in minor or moderate physical injury.

a) Do not reach into the tilting area of the motor during tilting or trimming.

b) Only tilt or trim the motor when it is permanently installed on a boat.

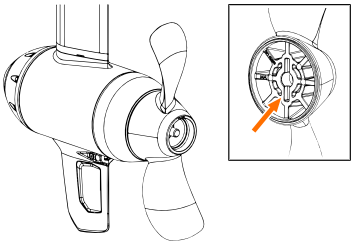
c) Fix the motor tilt line in the clamp and secure it so that it cannot come loose, remove the motor with swing arm from the bracket if it is not possible to secure the line.

6.1 Fitting the propeller



a) Position the large axial pressure disc (1) on the motor shaft (2).

b) Insert the drive pin (3); ensure that the drive pin is in the centre.

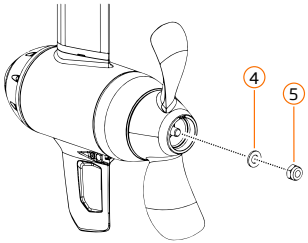


c) **CAUTION! Risk of cuts!** Wear safety gloves.

d) Position the propeller on the motor shaft and push it onto the drive pin.

e) Ensure that the drive pin slides into the groove in the propeller (arrow) provided for it.

f) Check that the propeller engages on the drive pin.



g) Position the small washer (4) on the motor shaft.

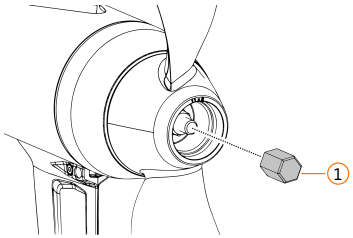
h) **NOTICE! Component damage due to thread locking varnish.** Do not use locking varnishes or additives.

i) Screw the lock nut (5) onto the motor shaft and tighten it.

j) Check that the propeller is moving freely.

NOTICE! Do not apply any thread locking varnish!

- Nut for propeller on motor shaft
  Nut M10 A4; SW17; 11 Nm



Installing the galvanic anode

a) Install the galvanic anode (1).

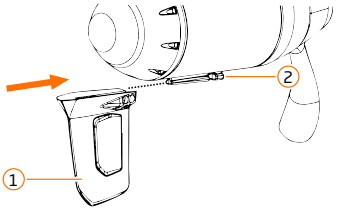
NOTICE! Do not apply any thread locking varnish!

Shaft anode on motor shaft

- Shaft anode; AF 17; 7 Nm

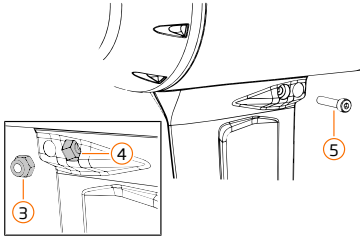
EN

6.2 Fitting the fin



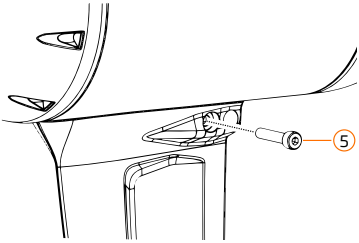
Installation

a) Push the fin (1) onto the pylon (2).



b) Insert the nut (3) into the pocket on the fin (4) provided for it.

c) Insert the screw (5).



d) Tighten the screw (5).

- Fin on pylon
  Cylinder head screw M4x20 A4; Hex socket #3
  Nut M4 A4; in fin pocket

6.3 Fitting the motor to the boat

6.3.1 Requirements for fitting to boat

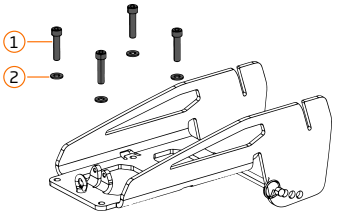
NOTICE! Please observe the following points to ensure the safe and correct installation of your Torqeedo system:

- Make sure that the kayak/boat on which the Torqeedo system is to be installed is stable.
- Boats on a trailer must be secured against tipping.
- The boat and all components must be disconnected from electrical power sources.
- The boat, the fixing points and the condition of the fixing points must be suitable for operating the Torqeedo system; observe the manufacturer's specifications for the maximum permissible power (kW) and the maximum permissible weight.

6.3.2 Installing the bracket

When installing the bracket on the boat / kayak, you have the following options:

- Installing the brackets on a kayak with prepared 1/4" threaded inserts on the stern and the supplied 1/4" bolts and washers
- Installing the bracket with the supplied M8 bolts, nuts and washers



Installing with the supplied 1/4" bolts and washers

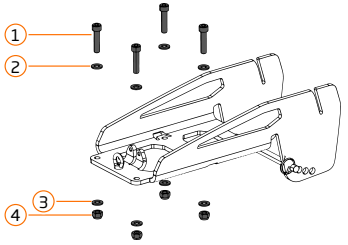
a) Position the bracket on the stern of the kayak so that the holes in the bracket are aligned with the existing threaded inserts on the kayak.

b) Use a suitable sealant if necessary.

c) Install the supplied 1/4" bolts (1) with the washers (2).

d) Check that the bracket is secure.

- Bracket on boat / kayak
  Allen screw UNC 1/4" x 5/8" A4, hexagon socket, 16 Nm (141 lbs/in)



Installing with the supplied M8 bolts and washers

a) **NOTICE! Correct installation!** Make sure that the distance between the rear two holes and the stern of the boat is a maximum of 105 mm.

b) **NOTICE! Component damage!** Do not use the bracket as a drilling template. Drill bits can damage the anti-corrosion coating of the bracket, resulting in corrosion.

c) Make sure that the location at the stern of your boat / kayak is suitable for installation and meets the specified requirements.

d) Use the drilling template, which you can download from our homepage.

e) Check the correct dimensions of the drilling template using the scale before use.

f) Position the drilling template on the stern of the kayak so that the centre line of the template is aligned with the centre line of the kayak.

g) Pay attention to the direction of travel on the template (front).

h) Drill the four fixing holes with a diameter of 8.5 mm and deburr them.

i) Position the bracket on the stern of the kayak so that the centre line of the bracket is aligned with the centre line of the kayak.

j) Use a suitable sealant if necessary.

k) Insert the M8x35 mm bolts (1) with the washers (2).

l) Position the washers (3) and nuts (4) on the bolts and tighten them.

m) Check that the bracket is secure.

- Bracket on boat / kayak
  Allen screw M8x35 A4, hexagon socket #6, 16 Nm (141 lbs/in)
  Nut M8 A4; SW 13; 16 Nm (141 lbs/in)

6.3.3 Installation variants

Depending on the design of your kayak/boat, you can customise the line guidance and motor control to suit your needs.

In the standard version, the control triangle is installed above the swing arm. This variant is suitable for most applications.

Alternatively, you can install the control triangle beneath the swing arm. This variant is particularly suitable if you are using a kayak with a prepared and deep-lying line guide.

For the shallow water version, the tilt arm is separate to the control triangle and is attached separately to the shaft tube of the motor. This allows you to adapt your motor to shallow waters.

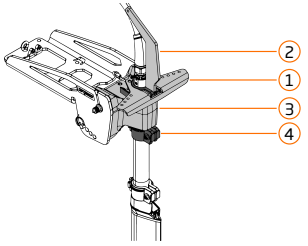
Please note that the clamping ring set for Ultralight (item number 7014-00) is required for the installation variants and for the shallow water variant.

Select the variant which allows the control lines to run as straight as possible without rubbing. We recommend that you first install the motor in the bracket and set the appropriate height for operation so that you can decide which variant best suits your boat.

When planning, take the depth of your kayak/boat into consideration and factor this into your decision.

NOTICE! Correct installation. The propeller must be at least 5 cm (2") below the water's surface during operation.

NOTICE! Correct installation. The tilt arm must always be at the top of the motor's shaft tube.



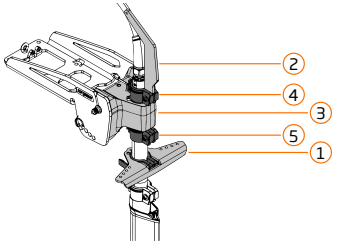
Variant with control triangle above the swing arm

(1) Control triangle with control lines above the swing arm

(2) Tilt arm

(3) Swing arm

(4) Clamping ring



Variant with control triangle beneath the swing arm

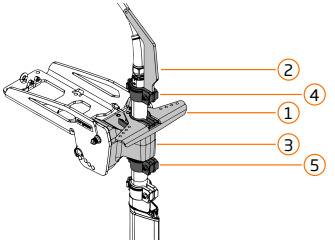
(1) Control triangle with control lines beneath the swing arm

(2) Tilt arm

(3) Swing arm

(4) Clamping ring

(5) Clamping ring (accessory item 7014-00)



Shallow water variant

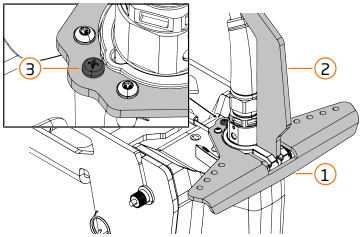
(1) Control triangle with control lines

(2) Tilt arm in position for shallow water operation

(3) Swing arm

(3) Clamping ring

(4) Clamping ring (accessory item 7014-00)



Version with fixed steering

(1) Control triangle without control lines

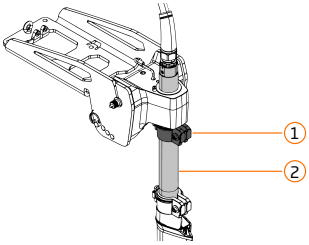
(2) Tilt arm

(3) Locking bolt to fix the steering

EN

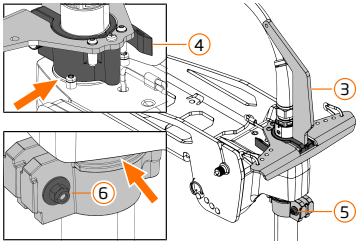
6.3.4 Install motor in swing arm (standard, control triangle above)

NOTICE! Follow the sequence when applying the assembly paste! Do not apply any assembly paste to the point on the shaft tube where the shaft tube is guided in the swing arm, as this could increase the steering resistance.



a) Position the clamping ring (1) on the shaft tube (2) of the motor, but do not tighten it yet.

b) Feed the motor cable and the data cable through the swing arm and insert the shaft tube into the swing arm.



c) **NOTICE! Avoid skin contact! Wear protective gloves.**

d) Apply the assembly paste to the shaft tube of the motor to increase friction. Make sure that the assembly paste is only applied to the relevant surfaces. Remove any remaining assembly paste from surfaces and components.

e) Position the control triangle with tilt arm (3) on the shaft tube, taking note of the installation direction and aligning it correctly with the direction of travel.

f) Tighten the quick clamp (4).

g) Check that the control triangle is secure.

h) Make sure that the control triangle rests on the swing arm (arrow).

i) Position the clamping ring without a gap beneath the swing arm (arrow) and tighten the bolt (5) and nut (6).

Clamping ring on motor shaft tube

- Bolt M5x30 A4, hexagon socket #4, nut M5 A4, SW8, 2.5 Nm

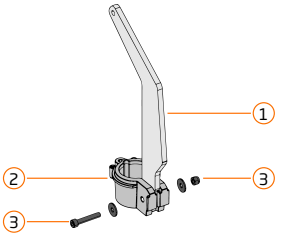
Important notes on handling the assembly paste:

Do not eat, drink or smoke during use.
In case of skin contact: Wash with soap and water. If skin irritation persists, consult a doctor.
In case of eye contact: Rinse thoroughly with plenty of water. If symptoms persist, consult a doctor.
If swallowed: Consult a doctor immediately, do not induce vomiting. Rinse mouth out thoroughly with water.

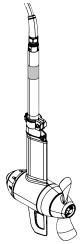
6.3.5 Installing motor in swing arm (control triangle below)

The clamping ring set for Ultralight (item number 7014-00) is required for this type of installation.

NOTICE! Follow the sequence when applying the assembly paste! Do not apply any assembly paste to the point on the shaft tube where the shaft tube is guided in the swing arm, as this could increase the steering resistance.

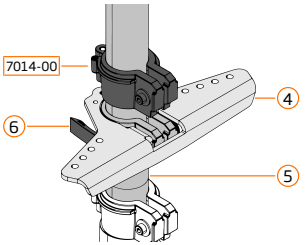


a) Position the tilt arm (1) in the clamping ring (2) and insert the bolt with washers and nut (3), but do not tighten them yet.



a) **NOTICE! Avoid skin contact! Wear protective gloves.**

b) Apply the assembly paste to the shaft tube of the motor to increase friction. Make sure that the assembly paste is only applied to the relevant surfaces. Remove any remaining assembly paste from surfaces and components.

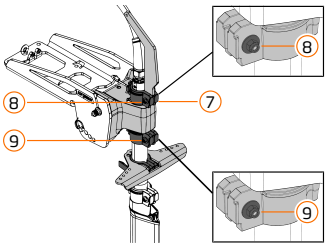


c) Position the control triangle (4) on the shaft tube (5), taking note of the installation direction and aligning it correctly with the direction of travel.

d) Tighten the quick clamp (6).

e) Check that the control triangle is secure.

f) Position the clamping ring of the separately available clamping ring set (item no. 7014-00) on the shaft tube of the motor, but do not tighten it yet.



g) Feed the motor cable and the data cable through the swing arm and insert the shaft tube into the swing arm.

h) Position the clamping ring with tilt arm (7) on the shaft tube, taking note of the installation direction and the position of the clamping ring with tilt arm at the top of the shaft tube.

i) Tighten the bolt and nut (8).

j) Make sure that the control triangle does not hit other components during steering movements and reposition the control triangle if necessary.

k) Make sure that the clamping ring with tilt arm is in contact with the swing arm.

l) Position the clamping ring of the clamping ring set under the swing arm without leaving a gap and tighten the bolt and nut (9).

Clamping ring on motor shaft tube

- Bolt M5x30 A4, hexagon socket #4, nut M5 A4, SW8, 2.5 Nm

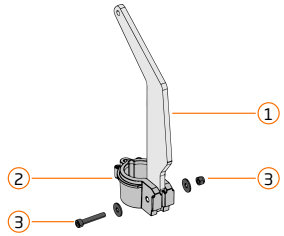
Important notes on handling the assembly paste:

Do not eat, drink or smoke during use.
In case of skin contact: Wash with soap and water. If skin irritation persists, consult a doctor.
In case of eye contact: Rinse thoroughly with plenty of water. If symptoms persist, consult a doctor.
If swallowed: Consult a doctor immediately, do not induce vomiting. Rinse mouth out thoroughly with water.

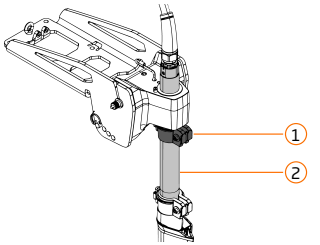
6.3.6 Installing the motor in the swing arm (shallow water)

The clamping ring set for Ultralight (item number 7014-00) is required for this type of installation.

NOTICE! Follow the sequence when applying the assembly paste! Do not apply any assembly paste to the point on the shaft tube where the shaft tube is guided in the swing arm, as this could increase the steering resistance.

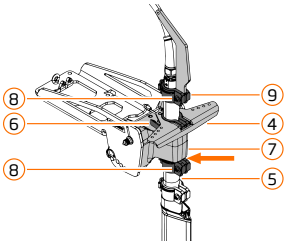


a) Position the tilt arm (1) in the clamping ring (2) and insert the bolt with washers and nut (3), but do not tighten them yet.



a) Position the clamping ring of the separately available clamping ring set (item no. 7014-00) on the shaft tube of the motor, but do not tighten it yet.

b) Feed the motor cable and the data cable through the swing arm and insert the shaft tube into the swing arm.



c) **NOTICE! Avoid skin contact! Wear protective gloves.**

d) Apply the assembly paste to the shaft tube of the motor to increase friction. Make sure that the assembly paste is only applied to the relevant surfaces. Remove any remaining assembly paste from surfaces and components.

e) Position the clamping ring with control triangle (4) on the shaft tube (5) of the motor, taking note of the installation direction and aligning it correctly with the direction of travel.

f) Set the height or depth of the motor.

g) Tighten the quick clamp (6) of the control triangle.

h) Check that the control triangle is secure.

i) Make sure that the control triangle rests on the swing arm (7).

j) Position the clamping ring without a gap (arrow) beneath the swing arm and tighten the bolt and nut (8).

k) Position the clamping ring with tilt arm (9) on the shaft tube, taking note of the installation height and direction and tighten the bolt and nut (10).

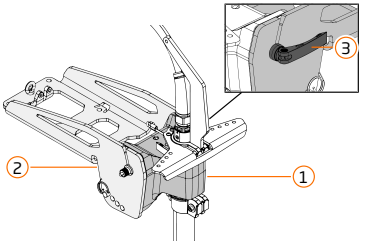
Clamping ring on motor shaft tube

- Bolt M5x30 A4, hexagon socket #4, nut M5 A4, SW8, 2.5 Nm

Important notes on handling the assembly paste:

Do not eat, drink or smoke during use.
In case of skin contact: Wash with soap and water. If skin irritation persists, consult a doctor.
In case of eye contact: Rinse thoroughly with plenty of water. If symptoms persist, consult a doctor.
If swallowed: Consult a doctor immediately, do not induce vomiting. Rinse mouth out thoroughly with water.

6.3.7 Installing the motor with the swing arm in bracket



a) Insert the motor with swing arm (1) into the bracket (2).
b) Close the quick clamp (3).
c) Check that it is correctly secured.

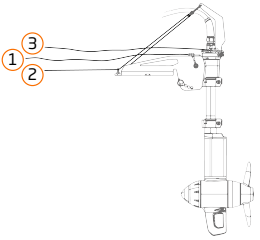
6.3.8 Installing the lines

Pay attention to the following points when installing the lines:

- Avoid rubbing on sharp edges, corners or pointed objects.
- Make sure that all lines can move freely.
- If possible, lay all lines straight and with as few deflections as possible.

The scope of delivery includes 8 metres of line for use as a control and tilt lines. Before shortening, make sure that you have enough length for all lines.

TIP: Use existing control lines if already available.

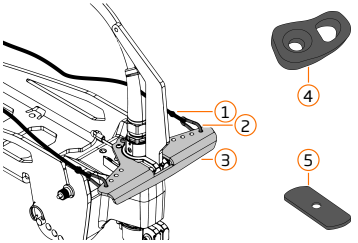


Overview of the lines used

(3) Control lines

(1) Line for reverse drive fixing

(2) Line for motor tilt



Installing the control lines

a) Cut the line into the appropriate lengths, making sure you have enough length for all lines before shortening.
b) Melt the ends of the lines together.
c) Attach the end of the control lines (1) to the carabiners (2). Make sure that the knots cannot come loose and secure them if necessary.
d) Attach the carabiners to the control triangle (3).
e) Guide the steering line to the pedals / control mechanism of your kayak and fix them there. Make sure that the knots cannot come loose and secure them if necessary.

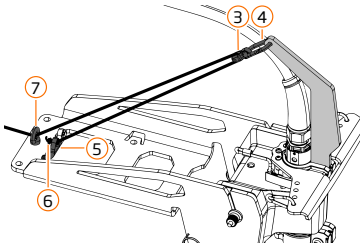
f) If necessary, use the supplied line guides (4).
TIP: Some boats have fixing rails to which you can attach the line guides using the supplied slot nuts (5).

Line for motor tilt

a) The line for motor tilt is deflected in front of the driver, so secure the clamp to the kayak / boat so that the line is secured to the front.

b) Attach the clamp (1) to the kayak / boat.

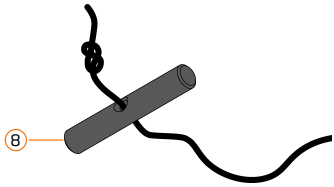
c) Attach the diverter (2) to the kayak / boat.



d) Attach the deflection pulley (3) to the tilt arm using the carabiner (4).

e) Feed the line through the line guide on the bracket (5) and tie a knot (6) at the end of the line to secure it.

f) Feed the other end of the line through the deflection pulley, then through the eyelet (7) on the bracket.

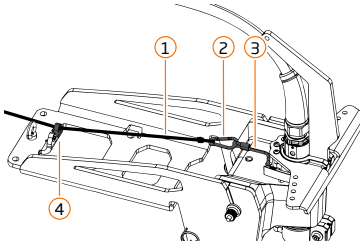


g) Feed the line to the deflector, making sure that no lines cross each other.

h) Feed the line to the clamp.

i) If necessary, use the line guides provided.
TIP: Some boats have fixing rails to which you can attach the line guides using the slot nuts provided.

j) Feed the line through the handle piece (8) and tie a knot at the end of the line to secure it.



Installing the line for reverse drive fixing

a) Secure the end of the line for the reverse drive fixing (1) to the carabiner (2). Make sure that the knots cannot come loose and secure them if necessary.

b) Attach the carabiner on the line for the reverse drive fixing directly to the swing arm (3).

c) Feed the line through the guide on the bracket (4).

d) Guide the line forwards, making sure that no lines cross each other.

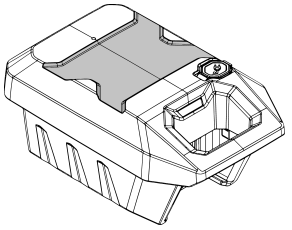
e) If necessary, use the line guides provided.
TIP: Some boats have fixing rails to which you can attach the line guides using the slot nuts provided.

f) Guide the line through the grip ball (5) and tie a knot at the end of the line to secure it.

6.4 Installing the battery

Pay attention to the following points when installing the battery:

- Ensure that the battery is secure and that it cannot slip or fall out.
- Plan the installation of the battery so that the distance between the motor and battery does not exceed the cable length, to ensure that cables and plug connections are always tension-free and load-free.
- Install the battery so that the top (LED and charging socket at the top) is facing upwards.
- The battery housing must not be drilled or modified mechanically for installation. Use straps, for example, for fixing. Do not use straps with tension locks, as these can develop very high forces and damage the battery.



a) Position the battery on your kayak / boat.

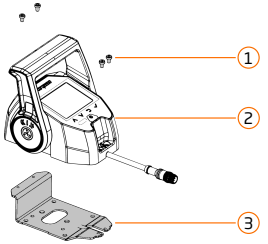
b) Use suitable fixing material, e.g. straps, to secure the battery.

c) **NOTICE! Component damage!** The battery housing must not be modified mechanically. Do not use straps with tension locks, as these can develop very high forces and damage the battery.

d) **TIP:** Using a non-slip base improves installation.

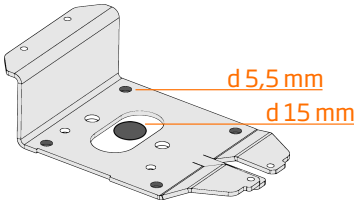
6.5 Fitting the accelerator

6.5.1 Fitting the accelerator to the boat



a) Choose a suitable position for your accelerator.

b) Remove the screws (1) and separate the accelerator (2) from the fixing plate (3).

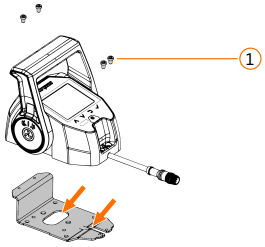


c) Use the fixing plate as a template to drill the 4x 5.5 mm holes for fitting.

d) **TIP!** You can lay the data cable either along the front or the bottom.

e) If you lay the cable along the bottom, you also have to drill the 15 mm hole.

f) Fit the fixing plate with suitable M5 screws (not supplied). We recommend using sea-water-resistant A4 screws.



g) Lay the data cable either under or along the front of the accelerator (arrow) as you prefer.

h) Position the accelerator on the fixing plate and install the screws (1).

EN

6.5.2 Lay accelerator data cable and connect to motor.

Requirements for laying data cables

Fix the data cable every 400 mm. In places where fixing is not possible, abrasion protection must be fitted to protect the cable sleeve.
Do not group or lay the data cable with cables that carry current or antenna cables; maintain a distance of at least 100 mm to avoid interference.
Observe the minimum bending radius of 64 mm when laying data cables.
Protect connectors and contacts from dirt before fitting.
Do not twist or pull on data cables.
Do not lay the data cable in areas that are always wet, such as bilges.
Lay data cables so that they are not subject to abrasion and do not pass over any sharp edges; fit abrasion protection as necessary.
Ensure that the plug connectors are not under tension or loads.

a) Connect the accelerator data cable to the extension cable supplied.

b) Lay the data cable in your boat: observe the requirements for laying data cables.

c) Connect the data cable to the motor data cable.

7 Operation

Important information before initial use!

- Before initial use, carry out a software update for all system components.
- Read this manual carefully and make sure you understand it, especially the sections on safety and operation of the product.
- Ensure that the motor and its components are correctly assembled and fitted.

7.1 Software update

An important part of your product is the software. It ensures the correct function of your product and contributes significantly to efficiency, safety and driving behaviour.

Your Torqeedo Team is continually working on improving your system and offers you free software updates for your Torqeedo products for a long period after your purchase.

Keep your system up-to-date and check that you always have the latest version of the software.

You will find the latest software and information about the update process on our homepage.

7.2 Operation in emergency situations

You can stop your Torqeedo motor in several ways in an emergency. The system has appropriate safety features for this purpose. Depending on the model, the system has either an emergency stop magnetic chip on the tiller or on the accelerator. Please note that the type of stop impacts the restart.

Option 1

a) Move the accelerator lever/tiller to the neutral position to stop the motor.

⇨ To continue travelling, you can simply select forward or reverse again.

Option 2

a) Pull off the emergency stop magnetic chip to stop the motor.

⇨ To continue travelling, put the accelerator/tiller into neutral and replace the emergency stop magnetic chip.

Option 3

a) Switch the motor off with the on/off switch.

⇨ The motor switches off.
WARNING! Inability to manoeuvre! The consequence of switching off with the on/off switch is that the system has to be restarted before it can be used again.

Option 4

a) Pull the battery out.

⇨ The motor switches off.
DANGER! Inability to manoeuvre because of damage to components! Pulling out the battery during operation can damage components and thus make it impossible to manoeuvre.

NOTE! Do not use the emergency stop magnetic chip to switch off the system normally, but only if there is an emergency situation.

Battery

The battery of your Torqeedo motor is waterproof in accordance with IP67. This means that it is protected against water penetration at a depth of 1 metre for 30 minutes.

DANGER! Risk of injury! If the battery is at a depth of more than 1 metre or in water for longer than 30 minutes (e.g. if the boat is in an accident), you must comply with the following instructions to avoid personal injury and prevent possible contamination of the environment.

- Do not take any action to bring the battery up to the surface.
- Tell the emergency services that the motor has a lithium battery of protection class IP67.
- Contact Torqeedo to clarify what to do next.

7.3 Using the bracket

7.3.1 Reverse drive fixing

Your Travel Ultralight has an automatic motor tilt function. If the motor touches the ground unexpectedly, it ensures that the motor tilts upwards to prevent any damage.

If you want to drive in reverse, you must disable this function by activating the reverse travel lock during reverse travel to disable the automatic motor tilt function.

a) Pull the line for reverse fixing using the black grip ball, until the lock engages.

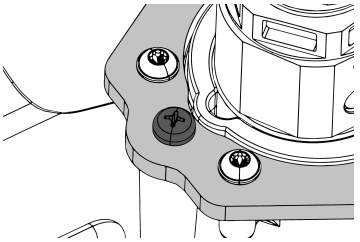
b) Ensure that the motor shaft is perpendicular to the water's surface and does not tilt upwards.
If the motor shaft is not perpendicular to the surface of the water, give the kayak/boat a forward push and repeat the first step.

c) **TIP:** You can run the line for reverse drive fixing parallel to the line for motor tilt to fix either the motor tilt or the reverse drive.

7.3.2 Fixed steering

Your motor has a fixed steering option, e.g. if your boat has a rudder and you only want to steer using the rudder.

Please note that when using the steering lock, no steering lines should be connected to the steering mechanism of the kayak/boat in order to avoid damage.



a) Set the motor to the straight-ahead position.

b) Make sure that the hole in the control triangle is aligned with the hole in the swing arm.

c) Screw the bolt for the steering fixing through the control triangle and into the swing arm.

d) Remove the steering lines if necessary.

- Fixed steering
  Bolt for plastic 4.5x45mm A4, hexagon socket #4, 1.8 Nm

7.3.3 Motor tilt mechanism

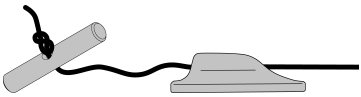
Your motor has a motor tilt with which you can tilt the motor out of the water when not in use. The motor's centre of gravity is located behind the swing arm to ensure that you can still use the motor tilt while you are travelling, allowing you to tilt the motor back down into the water at any time to continue your journey. You can fix the motor in the upper position by securing the motor tilt line in the clamp.

⚠ WARNING

Risk of injury due to rotating propeller

This may result in serious injuries or death.

a) Always stop the motor and remove the emergency stop magnetic chip before tilting the motor out of the water.



a) Pull on the motor tilt line until the motor has reached the upper position and secure the line in the clamp.

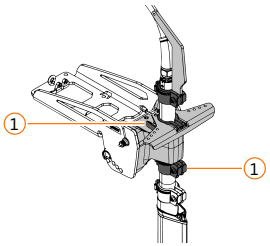
b) **NOTICE! Possible component damage!** Do not carry the kayak / boat by the motor shaft.

7.3.4 Shallow water settings

With the shallow water setting, you can adjust the depth of your motor to suit your boat or the water level.

Please note that the clamping ring set for Ultralight (item number 7014-00) is required for operation in shallow water setting.

NOTICE! Correct installation. The propeller must be at least 5 cm (2") below the water's surface during operation.



a) In the shallow water variant, install the motor as described in the "Installing the motor on the boat" chapter.

b) Loosen the bolt and nut of the clamping ring (1).

c) Secure the motor against falling and release the quick clamp of the control triangle (2).

d) Set the desired height of the motor, align the cont triangle correctly to the direction of travel and close the quick clamp.

e) **DANGER! Inability to manoeuvre due to jammed steering.** Ensure that the clamping ring is installed without a gap beneath the swing arm to prevent the motor from lifting and jamming, e.g. in rough seas.

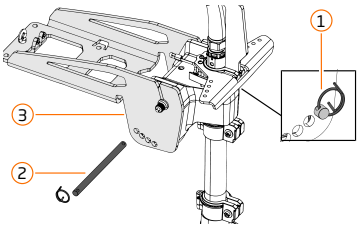
f) Position the clamping ring without a gap beneath the swing arm and tighten the bolt and nut.

g) Make sure that the propeller is at least 5 cm (2") below the water's surface.

7.3.5 Trimming the motor

You can use the motor trim mechanism to optimally align the motor with the water's surface.

The motor is optimally trimmed when the motor shaft is perpendicular to the water's surface.



a) Tilt the motor upwards and secure the motor tilt line in the clamp.

b) Remove the ring splint (1).

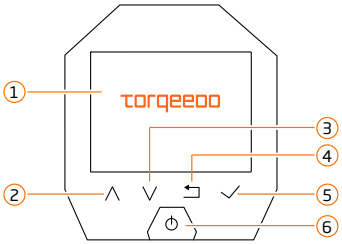
c) Pull the trim bolt (2) out of the bracket (3) and insert it in the desired trim position.

d) Install the ring splint.

e) Tilt the motor downwards.

7.4 On-board computer

7.4.1 Operation and membrane keyboard



1. Display
2. Scroll up
3. Scroll down
4. Back
5. Confirm / Next
6. Switch on / Switch off

EN

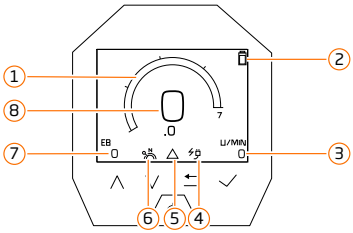
7.4.2 Main screens

You will find all the data that is important for your trip on the display of your Torqeedo Travel. You can choose between 3 variants and the charging screen and adapt them to your needs, e.g. by changing the measurement units.

When the battery charge is low, warnings are displayed on the main screen. The colour of the warnings and the "Battery charge" display depend on the SOC.

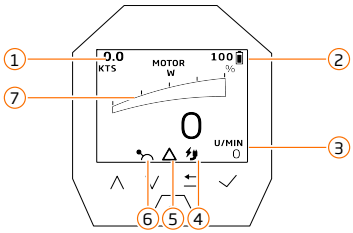
- SOC > 10% no warnings.
- SOC < 10% is displayed by a yellow warning
- SOC < 3% is displayed by a red warning

If there are important or critical pieces of information or error messages, the warnings are shown directly on the display. Follow the system prompts to ensure system and operational safety.



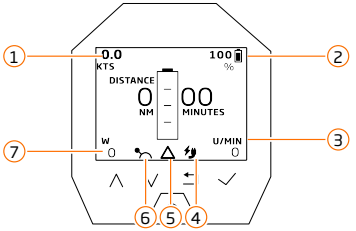
Main screen 1

1. Current speed (SOG)
2. Battery charge (SOC)
3. Revolutions per minute
4. Charge display
5. Error messages
6. Neutral position
7. Current output of the motor in watts
8. Current speed (SOG)



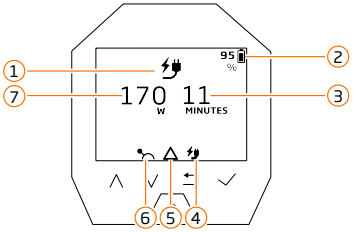
Main screen 2

1. Current speed (SOG)
2. Battery charge (SOC)
3. Revolutions per minute
4. Charge display
5. Error messages
6. Neutral position
7. Current output of the motor in watts



Main screen 3

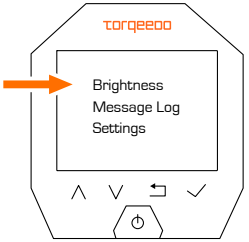
1. Current speed (SOG)
2. Battery charge (SOC)
3. Revolutions per minute
4. Charge display
5. Error messages
6. Neutral position
7. Current output of the motor in watts



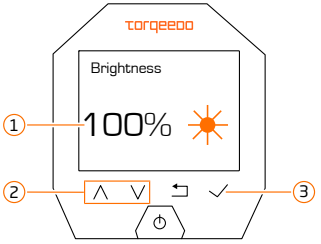
Charge screen

1. Charge screen display
2. Battery charge (SOC)
3. Time until charging complete
4. Charge display
5. Error messages
6. Neutral position (visible only when the motor is switched on)
7. Current charging power in watts

7.4.3 Brightness



a) Navigate to the menu.



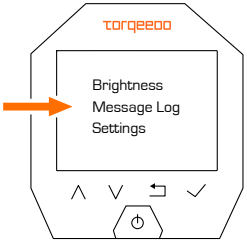
✓ The brightness (1) is displayed.

a) Use the buttons (2) to adjust the brightness.

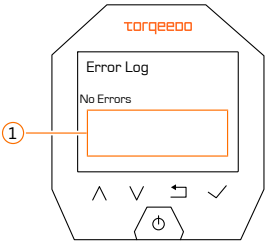
b) Select the button (3) to confirm your input.

7.4.4 Messages

All current messages and errors are displayed on the Messages menu.



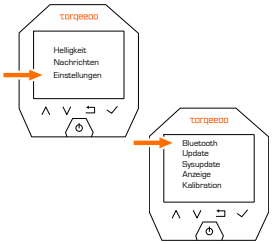
a) Navigate to the menu.



Current messages and errors are displayed in the area (1).

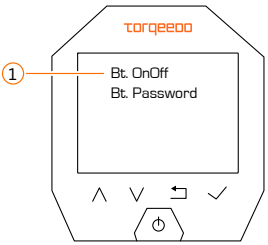
7.4.5 Bluetooth and Bluetooth password

On the Bluetooth menu, you can switch Bluetooth on and off and change your Bluetooth password.



Switching Bluetooth on / off

a) Navigate to the menu.

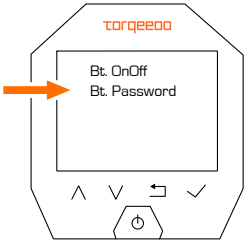


a) Select (1) to switch Bluetooth on or off.

b) Restart the motor.

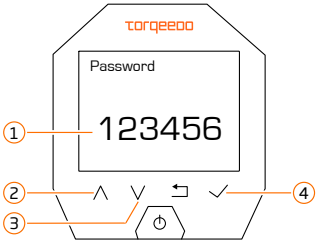
⇨ The setting required becomes active on restart.

EN



Viewing and changing the password

a) Navigate to the menu.



The current Bluetooth device password (1) is displayed.

a) Use the button (2) to change the numerical value of the highlighted digits.

b) Use the button (3) to change to switch to the next digit.

c) Select the button (4) to save the new Bluetooth password.

7.4.6 Settings

TIP! The software for your motor is continuously under development; you will find the latest version on our homepage.

The following section describes the items on the *Settings* menu.

Bluetooth	• Switching Bluetooth on and off • Choosing a Bluetooth password • Viewing the Bluetooth password
Sysupdate	• Carrying out a system update
Display	• Changing units • Adjusting presentation of maximum output • Adjusting presentation of maximum speed
Calibration	• Setting and calibrating forward and reverse
Info	• Serial number • Software version • GPS status
Status	• Access information about system status (mode for Torqeedo service partners)
Language	• Select language

7.5 Battery and charger

The battery of your Torqeedo Travel has a battery management system (BMS). While the battery cells store the energy, the BMS ensures that the battery cells remain in equilibrium. The BMS continuously monitors the charging process during charging and throughout the discharge process in operation. The BMS also monitors other parameters of the battery, such as its temperature. Based on these parameters, it controls the charging and discharge processes to achieve maximum power, safety and lifetime for your battery.

In addition, the BMS has a derating program which adapts your system to the system status during use. For example, the system lowers the maximum available output if certain charge states or temperatures are reached, in order to provide you with maximum range and safety.

The battery status LED indicates the status of the battery. You can see the status and charge level of the battery at a glance from it. Any errors and faults that occur are also indicated by it.

EN

7.5.1 Charging the battery

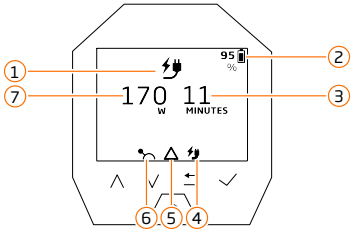
The battery of your Torqeedo Travel can be charged in several ways. The following section is for the standard charger, however, the connection to the battery is valid for all chargers, charging cables and solar panels that Torqeedo offers for your product.

You also have the option of charging the battery during operation, e.g. to increase the range. Please note that the standard charger is only intended for indoor use. Use a charging method that is designed for the environmental influences that occur, e.g.:

- solar charging cable, 7008-00

These cables fulfil the necessary protection class specifications and safety requirements to reliably charge your battery in a maritime environment.

CAUTION! Live components! Only use charging cables in adequately fused circuits, e.g. in the vehicle or a 12 V on-board power socket. Never connect charging cables directly to a battery or mains supply without fusing.

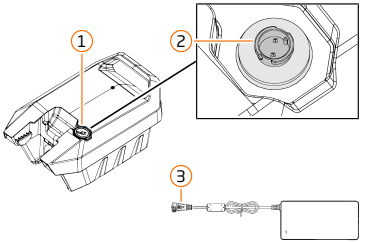


Charge screen

1. Charge screen display
2. Battery charge (SOC)
3. Time until charging complete
4. Charge display
5. Error messages
6. Neutral position (visible only when the motor is switched on)
7. Current charging power in watts

Behaviour of the motor and charging screen

- **Motor on** when starting the charging process, the motor remains on at the end of charging.
- **Motor off** when starting the charging process, the motor switches off at the end of charging.
- **Motor is switched on during the charging process**, the motor remains on at the end of charging.
- **Motor is switched off during the charging process**, the motor switches off at the end of charging.



Connecting the charger

a) **DANGER! Potential injury due to improper use!** Only use the standard charger supplied indoors and on a heat-resistant surface.

b) Remove the sealing cap (1) on the charging connection (2).

c) Position the charging plug (3) of the charging cable over the charging connection so that the markings align.

d) Push the charging plug in and rotate it 45° until it locks.

⇨ The charging process starts, the battery status LED begins to indicate the charge level.

Charging during operation

a) **NOTICE! Battery charging not possible!** Follow the sequence of steps for connecting the charger.

b) First insert the battery into the motor.

c) Then connect the charger.

⇨ The charging process starts, the battery status LED begins to indicate the charge level.

7.5.2 Battery status LED

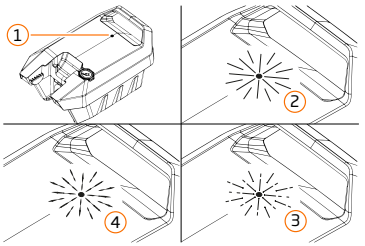
The battery of your Torqeedo Travel has a battery status LED.

You can see the status and charge level of the battery at a glance from it. Any errors and faults that occur are also indicated by it.

The current status is displayed and described by:

- The colour of the battery status LED
- Its behaviour – steady light, flashing, pulsing
- Speed of flashing and speed of pulsing

The charge level of your battery is given as the SOC (state of charge).



1. Battery status LED – off
2. Illuminated
3. Flashing
4. Pulsing

Driving

Display	Status
Green light on	> 75% SOC
Green light flashing	75% SOC
Green light flashing	50% SOC
Yellow light on	25% SOC
Yellow light flashing	10% SOC
Red light flashing	0% SOC

Charging

Display	Status
Green light pulsing	> 25% SOC
Yellow light pulsing	25% SOC
Red light pulsing	10% SOC

Storage / Standby

Display	Status
Off	Storage

Error / Fault

Display	Status
Red light on	Defect
Red light flashing	Error

Service

Display	Status
White light on	**NOTICE! Do not disconnect battery!**

7.5.3 Connecting the battery

Your Torqeedo Travel will be operational within no time. The motor is ready for operation after connecting the battery.

Charge the battery before each use to achieve the maximum range.

The charge status of the battery is shown in the display. After starting the motor, it may take a few seconds for the system to determine the charge status and display it.

NOTICE! Stiff plug connection. The plug connection between the battery and motor cable is waterproof to protection class IP67, so it is important that there is no water in the housing of the plug connection when it is connected. Existing water cannot escape and the plug connection cannot be established.

a) Attach the battery to the desired position in the kayak / boat as described in the "Installing the battery" chapter.

b) Ensure that the motor cable does not come under tension when the steering is moved and make sure that the cable does not chafe.

c) **NOTICE! Stiff plug connection.** Before connecting, make sure that there is no water in the plug.

d) Connect the connection plug of the motor to the connection socket of the battery.

7.6 Before setting off

Observe the following points every time you use your Torqeedo system to ensure a safe trip.

- Familiarise yourself with the travel area before setting off, as the range shown on the onboard computer does not take into account wind, current and direction of travel, and plan a sufficient buffer for the required range.
- If there is visible damage to components or cables, the system must not be switched on.
- Ensure that everyone on board is wearing a lifejacket.
- Always have the necessary safety equipment ready (anchor, paddle, means of communication, etc.).
- Attach the emergency stop magnetic pin lanyard to the skipper's wrist or lifejacket before setting off.
- The battery charge must be checked at all times while on the move.
- Only apply the emergency stop magnetic chip when there is no one in the water (e.g. after bathing breaks), or remove it immediately if people fall into the water to stop the drive.
- Also observe all information in the "Safety" and "Before use" sections.
- Ensure that you have the latest version of the software at regular intervals and carry out an update if necessary.

7.7 On return

Observe the following points after every use of your Torqeedo system.

- Set the tiller handle to the neutral position.
- Remove the emergency stop magnetic chip and keep it safe so that only authorised persons have access to it.
- **NOTICE! Flat battery!** Switch the motor off.
- Seal the hybrid plug with the sealing cap to prevent penetration of water.
- Charge the battery after a trip if the charge level is below the recommended value.
- Tilt the motor out of the water. **TIP!** For the best protection against UV radiation and other weather, it is advisable to disassemble the motor if it is not to be used for an extended period and to store it in a safe place.
- Flush out the motor with fresh water if you have used it in salt or brackish water.

7.8 Driving

Your Torqeedo system is designed for maximum comfort during use. It is intuitive to use. All you have to do is drive forwards or backwards by turning the tiller handle or drive lever in the appropriate direction.

The emergency stop magnetic chip performs an important safety function. It stops the motor immediately in case of an emergency or if you go overboard. You should therefore be sure to attach the emergency stop magnetic chip to the driver's wrist or life jacket, for example, before every journey.

You can set the direction of rotation to forwards or reverse to adapt the system even better to your needs.

Before your first journey, familiarise yourself with the standard setting for the direction of rotation; if necessary, you can then set / calibrate this yourself in the menu.

⚠ WARNING

Risk of injury due to damaged battery housing and escaping electrolytes!

Chemical reactions, risk of fire and caustic burns can result.

a) Check the housing and battery guides for damage, breaks or deformation before every use.

b) Do not use or charge the battery if you see any damage during your check.

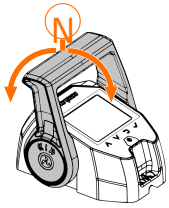
c) Contact Torqeedo and notify Torqeedo Service about the damage.

⚠ WARNING

The motor may come loose while travelling due to inadequate fixing!

This may result in serious injuries.

a) Before every journey, make sure that the motor and its components are installed correctly.



a) **WARNING! Inability to manoeuvre!** Make adjustments only if you and your boat are safely in harbour.

b) Switch the Torqeedo system on.

c) Set the tiller / accelerator lever to the neutral position.

d) Put the emergency stop magnetic chip in place, make sure the emergency stop magnetic chip is connected to the skipper.

e) Turn the tiller / accelerator lever in the appropriate direction.

DANGER! Risk of accident due to restricted manoeuvrability! Stopping is not possible when using Auto tilt up! Check your boat speed when approaching people, objects and obstacles. Drive slowly!
DANGER! Risk of injury! If you stop in Auto tilt up, the propeller may come out of the water - keep your distance!

NOTICE! Component damage due to high mechanical load! Tilt your motor out of the water if it is not the means of propulsion (e.g. under sail).

8 Storage and transport

8.1 Trailering the kayak / boat with the motor installed

NOTICE

Trailering with the motor installed is not permitted

The motor and the battery must not be secured in the bracket during towing or transport on the roof of a car, for example.

a) Remove the motor and swing arm from the bracket.

b) Disassemble the battery.

8.2 Transport and shipping

Make sure that you comply with the country-specific regulations when transporting or shipping the motor, battery or other components. If you want to transport your motor in an aircraft, check with the airline beforehand as to specific regulations, especially for the transport of batteries.

Observe the following points to avoid injury and to protect your Torqeedo motor from damage during transport.

Transporting the motor

CAUTION! Potential injury! Do not hold the motor by the propeller.

- Always disconnect the battery from the motor when transporting it.
- Clean the motor.
- If necessary, remove the motor with swing arm from the bracket.
- Do not carry the kayak / boat by the motor.

TIP! Keep the original packaging so that you can ship the motor or battery safely (e.g. for servicing or repair purposes).

Transporting the battery

DANGER! Potential risk of injury! Do not send or transport damaged batteries; contact Torqeedo to confirm how to proceed.

- Charge or discharge the battery to a charge level of 50% SOC.
- Observe the local regulations for the transport of batteries that apply to you.
- Ensure that the battery cannot be damaged during transport.

8.3 Storage of the battery

The battery of your Torqeedo Travel is equipped with the latest technology. To maintain the efficiency and service life at the highest level reliably and permanently, you simply have to follow a few easy steps when using and storing the battery.

⚠ DANGER

Risk of fire due to overheating of the battery!

This can result in burns.

a) Do not store batteries in hot conditions, e.g. in a vehicle in summer.

b) Ensure you comply with the operating and storage specifications.

EN

- Store your battery at the optimal temperature: +5 °C – +15 °C / 41 °F – 59 °F
- Charge or discharge the battery to a charge level of 50% SOC.
- Only charge the battery from 50% SOC to 100% SOC immediately before use.
- Charge the battery after a trip and do not store it at a low charge level.
- Check the charge status every 3 months and charge the battery up as necessary.

9 Care, maintenance and repair

Qualification of the user

Repairs and maintenance not described in this operating manual may only be carried out by qualified and certified technicians from Torqeedo Service or a Torqeedo service partner. Servicing must be carried out at the specified intervals or after the specified operating hours by Torqeedo Service or by a Torqeedo service partner. Failure to carry out or document the prescribed maintenance intervals invalidates the warranty and guarantee. Make sure that the maintenance carried out is documented.

9.1 Maintenance and service intervals

Before each use	Visual inspection of the entire system for damage
After each use	Flush motor with fresh water
Monthly	Treat all contacts with contact spray
Every 3 months	Check the charge status of the battery and recharge if necessary
Every 6 months or as required	Check the assembly paste on the motor shaft and clamping piece and reapply if necessary.
Every 6 months or after 100 operating hours	Visual inspection of the sacrificial anodes, replace if necessary (set by set)
Every 5 years	Replacement of the shaft seals and pylon O-rings by a Torqeedo service partner

9.2 Care

⚠ WARNING

Rotating components!

These can cause serious cuts.

a) Remove the emergency stop magnetic chip and take the battery out of the motor before carrying out any work or inspections on the propeller.

b) Make sure that the motor is secured to prevent re-activation when working on it.

EN

9.2.1 Cleaning

NOTICE! Component damage due to excessive water pressure! Do not clean the motor with high-pressure cleaners.

Cleaning after each trip

- Rinse the motor with fresh water after each use if you have used it in salt water.

Cleaning the system components

- Rinse the motor with fresh water before cleaning.
- Clean the motor only with PH-neutral plastic cleaners and follow the manufacturer's instructions for use.
- Clean other components only with PH-neutral plastic cleaners and follow the manufacturer's instructions for use.
- Do not apply excessive pressure to the display.
- Dispose of cleaning agents in an environmentally friendly way.

9.2.2 Corrosion protection

The materials selected have a high degree of corrosion resistance. Most of the materials used are classified as "sea water resistant", as is usual for maritime products in the leisure sector, not as "sea waterproof".

Follow the points below for optimum protection of your Torqeedo system against corrosion:

- Tilt the motor upwards to take it out of the water.
- Flush out the motor with fresh water if you have used it in salt or brackish water.
- Check the galvanic anodes regularly and replace as necessary.
- Store the motor only in dry conditions.
- Regularly maintain all electrical contacts and plug connections.
- Observe the points in the sections "Maintenance, care and repair" and "Service intervals".

9.3 Maintenance and repair

⚠ WARNING

Rotating components!

These can cause serious cuts.

a) Remove the emergency stop magnetic chip and take the battery out of the motor before carrying out any work or inspections on the propeller.

b) Make sure that the motor is secured to prevent re-activation when working on it.

⚠ CAUTION

Risk of crushing due to uncontrolled tilting of the motor.

This may result in minor or moderate physical injury.

a) Do not reach into the tilting area of the motor during tilting or trimming.

b) Only tilt or trim the motor when it is permanently installed on a boat.

c) Fix the motor tilt line in the clamp and secure it so that it cannot come loose, remove the motor with swing arm from the bracket if it is not possible to secure the line.

9.3.1 Anodes

Your Torqeedo Travel motor has a shaft anode on the motor shaft of the pylon.

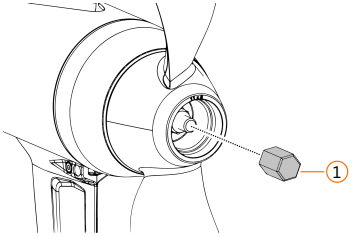
The anode is an important part of the corrosion protection provided for your motor. The special choice of material means that the anode protects its motor by sacrificing itself. You can tell that this is happening because the anode dissolves; this process is completely normal and is nothing to worry about. You must replace the anode from time to time to ensure that your engine is permanently protected. An anode must be replaced if 50% to 75% of the original material has dissolved.

Check the anode regularly and replace it if necessary.

Replace the anode of your motor in good time to prevent corrosion.

General information about replacing anodes

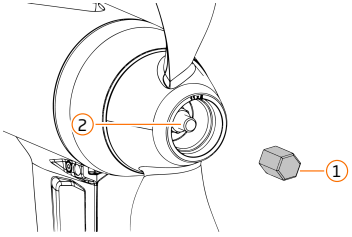
- Anodes must have an electrical connection to the component that you want to protect. Do not therefore use thread locking varnish or similar, as this can impair the electrical connection or, in the worst case, interrupt it.
- Do not replace the fixing screws: they are made of aluminium and play an important part in ensuring that the anode has good electrical contact with the component to be protected.
- The contact surface for the anode must be clean, dry and free of oxidation before a new anode is fitted.
- Always replace the anodes as a set.
- Check whether the anodes need replacing every 6 months or every 100 operating hours.
- Make a note of the replacement of the anodes in your boat's log book.



Position of the anode on the pylon

(1) Shaft anode on the motor shaft.

9.3.2 Replacing the propeller shaft anode



a) Remove the anode (1).

b) Clean the motor shaft (2).

c) Fit the new anode.

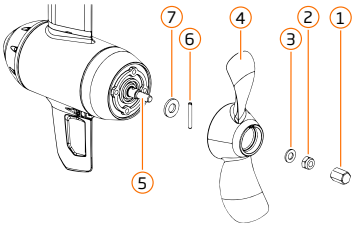
NOTICE! Do not apply any thread locking varnish!

Shaft anode on motor shaft

- Shaft anode; AF 17; 7 Nm

9.3.3 Propeller

9.3.4 Removing the propeller



a) **CAUTION! Risk of cuts!** Wear safety gloves.

b) Remove the shaft anode (1).

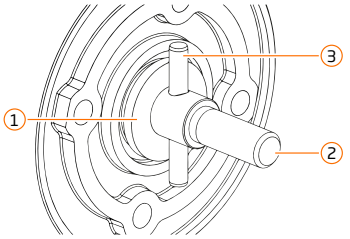
c) Remove the nut (2) and washer (3).

d) Pull the propeller (4) off the motor shaft (5).

e) Pull the drive pin (6) and the axial pressure disc (7) from the motor shaft and keep them safe.

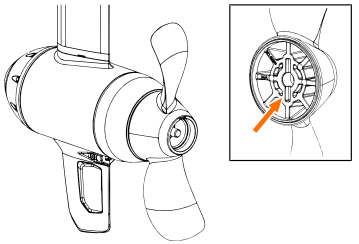
f) Check the motor shaft for foreign bodies, e.g. fishing line, etc.

9.3.5 Fitting the propeller



a) Position the large axial pressure disc (1) on the motor shaft (2).

b) Insert the drive pin (3); ensure that the drive pin is in the centre.

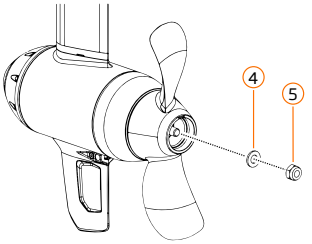


c) **CAUTION! Risk of cuts!** Wear safety gloves.

d) Position the propeller on the motor shaft and push it onto the drive pin.

e) Ensure that the drive pin slides into the groove in the propeller (arrow) provided for it.

f) Check that the propeller engages on the drive pin.



g) Position the small washer (4) on the motor shaft.

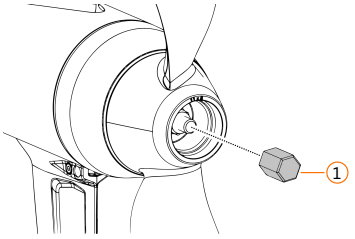
h) **NOTICE! Component damage due to thread locking varnish.** Do not use locking varnishes or additives.

i) Screw the lock nut (5) onto the motor shaft and tighten it.

j) Check that the propeller is moving freely.

NOTICE! Do not apply any thread locking varnish!

- Nut for propeller on motor shaft
  Nut M10 A4; SW17; 11 Nm



Installing the galvanic anode

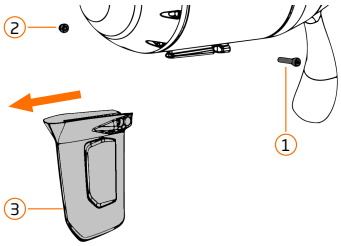
a) Install the galvanic anode (1).

NOTICE! Do not apply any thread locking varnish!

Shaft anode on motor shaft

- Shaft anode; AF 17; 7 Nm

9.3.6 Replacing the fin



Disassembly

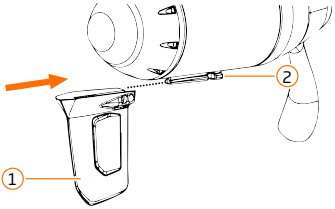
a) Remove the screw (1).

b) Remove the nut (2).

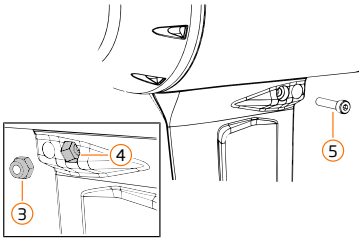
c) Pull the fin (3) off the pylon.

EN

Installation

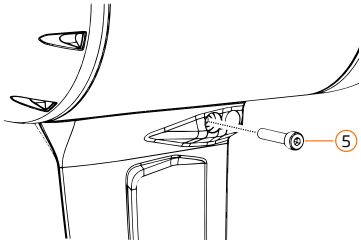


a) Push the fin (1) onto the pylon (2).



b) Insert the nut (3) into the pocket on the fin (4) provided for it.

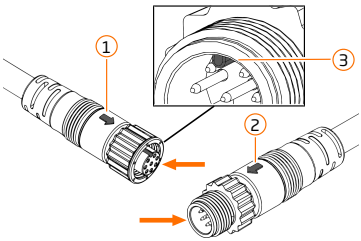
c) Insert the screw (5).



d) Tighten the screw (5).

- Fin on pylon
  Cylinder head screw M4x20 A4; Hex socket #3
  Nut M4 A4; in fin pocket

9.3.7 Plug connectors



a) Disconnect the plug connector of the data cable.

b) Treat the contacts (arrows) with contact spray.

c) Connect the data cable, ensure that the markings (1) and (2) are in line and the lug (3) slides into the counterpart.

d) Screw the plug connector carefully in place.

⚠ WARNING

Rotating components!

These can cause serious cuts.

a) Remove the emergency stop magnetic chip and take the battery out of the motor before carrying out any work or inspections on the propeller.

b) Make sure that the motor is secured to prevent re-activation when working on it.

10.1 Error notifications and messages

Error	Cause	Possible remedy
E21	Faulty calibration of tiller	Carry out calibration
E22	Magnetic sensor defective	
E23	Value range wrong	
E30	Motor communication error	Check the plug connector of the data cable.
E32	Tiller communication error	Clean the contacts with contact spray.
E33	General communication error	If necessary, get in touch with Torqeedo Service.
		Restart the motor.
E41	Incorrect charge voltage	Disconnect charger and do not use again.
E42		Contact Torqeedo Service.
E43	Discharge the battery	Charging the battery
E45	Battery overcurrent	Restart the motor.
		The battery has switched off because the power consumption is too high.
		Check that the propeller is moving freely.
		Contact Torqeedo Service.
E46	Battery too hot/cold Maximum power reduced	Allow battery to cool down/warm up.
E48	Charging temperature error	Allow battery to cool down/warm up, charging continues when cell temperature is in operating range.
E70	Battery too hot/cold. Charging not possible	
Get in touch with Torqeedo Service if error codes are not executed.		

10.2 Faults and errors

Error	Cause	Possible remedy
Motor cannot be switched on	Hybrid plug contacts damp	Blow out the hybrid plug. Ensure that the protective cap is attached to the hybrid plug during storage
Battery does not charge while driving	Connection sequence not observed	First insert the battery into the motor and then connect the solar panel or charger
Motor is difficult to steer	Assembly paste between swing arm and motor shaft	Clean the motor shaft and swing arm. Only apply the new assembly paste to the points where the clamping piece is located.
Display is not responding	Software error	Remove battery, reinsert and restart motor
Bluetooth connection not possible	Software error	Restart motor
Battery does not charge	Battery overheats	Allow the battery to cool down
Propeller does not turn or only turns with difficulty	Foreign bodies, e.g. fishing line	Remove fishing line
	Installation error, axial thrust washer missing	Installing the propeller correctly

11 Accessories and replacement parts

You will find accessories and replacement parts for your Torqeedo product on our homepage.

12 Copyright

13 General guarantee conditions

Warranty and liability

The statutory warranty is 24 months and covers all components of the Torqeedo system.

The warranty period starts from the day of delivery of the Torqeedo system to the end customer.

Scope of warranty

Torqeedo GmbH, Einsteinstrasse 901, 82234 Wessling, Germany, guarantees the end user of a Torqeedo System that the product shall remain free from defects in materials and workmanship during the coverage period specified below. Torqeedo indemnifies the end customer against the costs of remedying any such defect in materials or workmanship. This indemnity obligation does not apply to any ancillary costs resulting from a warranty claim and any other financial disadvantages (e.g. costs for towing, telecommunications, catering, accommodation, loss of use, loss of time, etc.).

The warranty shall end two years after the date of delivery of the product to the end user. Products that are used – even temporarily – for commercial or official purposes are excluded from the two-year warranty. In this case, the statutory warranty applies. Warranty entitlement expires six months after discovery of the defect.

Torqeedo shall decide whether defective parts will be repaired or replaced. Distributors and dealers who carry out repair work on Torqeedo products are not authorised to make legally binding declarations on behalf of Torqeedo. Wear parts and routine maintenance are excluded from the warranty.

Torqeedo is authorised to refuse warranty claims if

- the warranty was not submitted properly (in particular, contact was made before the goods subject to complaint were returned, a fully completed warranty certificate and proof of purchase were submitted, see warranty process).
- the product has been handled contrary to regulations.
- the safety, handling and care instructions in the manual have not been followed.
- the prescribed service intervals were not observed and documented.
- the object of purchase has been converted, modified or equipped in any way with parts or accessories that are not part of the equipment expressly authorised or recommended by Torqeedo.
- previous maintenance or repairs were not carried out by companies authorised by Torqeedo or non-original spare parts were used. This applies unless the end user can prove that the circumstances justifying the rejection of the warranty claim did not contribute to the development of the defect.

In addition to the entitlement arising from this warranty, the end user has statutory warranty entitlement arising from their purchase contract with the respective dealer, which are not restricted by this warranty.

Warranty process

Compliance with the warranty process described below is a prerequisite for the fulfilment of warranty claims.

For the smooth processing of warranty claims, we ask you to take the following instructions into account:

Please contact Torqeedo Service in the event of a complaint. They will give you an RMA number if necessary.

In order for Torqeedo Service to process your complaint, please have your service check folder, your proof of purchase and a completed warranty form to hand.

When transporting products to Torqeedo Service, please note that improper transport is not covered by the warranty or guarantee.

If you have any queries about the warranty process, please contact us using the details on the back page.

14 Disposal and the environment

Torqeedo motors are manufactured in accordance with the WEEE Directive 2012/19/EU. This directive regulates the disposal of electrical and electronic equipment for sustainable protection of the environment. In accordance with regional regulations, you can hand in the motor at a collection point. From there, it is sent for proper disposal.

Disposal of waste electrical and electronic equipment

For customers in EU countries

The product is subject to European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) and the corresponding national legislation. The WEEE Directive forms the basis for EU-wide treatment of waste electrical and electronic equipment. The product is marked with the symbol of a crossed-out waste bin, see above. Waste electrical and electronic equipment must not be disposed of with normal waste, otherwise harmful substances may be released into the environment that have adverse health effects on humans, animals and plants and accumulate in the food chain and in the environment. In addition, valuable raw materials are lost in this way. Please therefore dispose of your old equipment in an environmentally friendly way by separate collection or contact your Torqeedo Service or your boat builder in this connection.

For customers in other countries

The product is subject to European Directive 2012/19/EU on waste electrical and electronic equipment. We recommend that the system is not disposed of with the normal waste, but by separate collection in an environmentally friendly way. National legislation may also require you to do so. Please therefore ensure proper disposal of the system in accordance with the regulations in force in your country.

Disposal of batteries

Remove a spent battery immediately and follow the instructions below regarding special disposal of batteries and battery systems:

For customers in EU countries

Single use and rechargeable batteries are subject to European Directive 2006/66/EC on (waste) batteries and the corresponding national legislation. The Battery Directive forms the basis for EU-wide treatment of single use and rechargeable batteries. Our batteries are marked with the symbol of a crossed-out waste bin. Below this symbol is the name of any harmful substances they contain. Used batteries must not be disposed of with the normal waste, as harmful substances may be released into the environment that have adverse health effects on humans, animals and plants and accumulate in the food chain and in the environment. In addition, valuable raw materials are lost in this way. Please only dispose of your old batteries via specific collection points, your dealer or the manufacture.

For customers in other countries

Batteries are subject to European Directive 2006/66/EC on (waste) batteries. The batteries are marked with the symbol of a crossed-out waste bin. Below this symbol is the name of any harmful substances they contain. We recommend that the batteries are not disposed of with the normal waste, but by separate collection. National legislation may also require you to do so. Please therefore ensure proper disposal of the batteries in accordance with the regulations in force in your region.