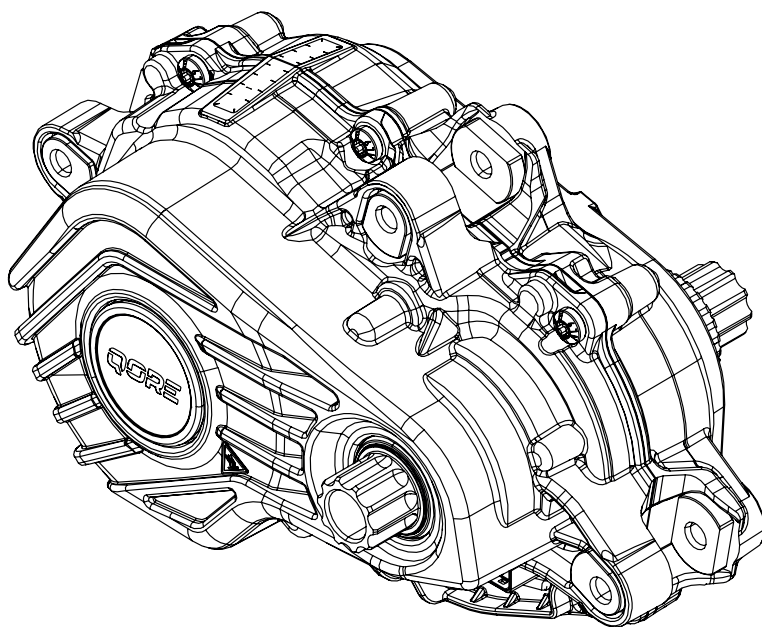


QORE Peak / Power

Drive Assembly Manual | V1.1

QORE



**IMPORTANT SAFETY INSTRUCTIONS
KEEP THESE INSTRUCTIONS**

Yamaha no. 592599-101

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1 About this assembly manual

This assembly manual contains the necessary information for the intended use and safe assembly of the QORE Peak / Power drive unit for the QORE System (hereinafter referred to simply as the “product”). The information is primarily intended for the technical personnel responsible for the assembly and integration of the product.

Before completing any work relating to the product:

- Make sure that you have read and understood this assembly manual in full, paying particular attention to the safety and warning notices.
- Keep this assembly manual in a safe place for future reference.

- Follow the instructions in this assembly manual at all times when using and handling the product.

If you have any queries, questions or problems with the product that cannot be resolved by this assembly manual, do not attempt to carry out any work yourself and contact Yamaha or your dealer.

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1.1 Design of safety and warning notices

This assembly manual contains safety-related instructions to warn the user of residual risks.

The safety instructions in this assembly manual are detailed in „**IMPORTANT SAFETY INFORMATION**“. To warn of specific hazards in the context of an activity or life cycle phase, warnings are used in the text. These warnings are identified by a warning symbol in conjunction with a signal word. The signal words indicate the degree of the hazard.

The following warnings are used in this assembly manual.

DANGER

DANGER indicates an immediate hazard which, if the safety measures are not followed, will result in fatal or serious injury.

WARNING

WARNING indicates a potential hazard which, if the safety measures are not followed, can result in fatal or serious injury.



CAUTION

CAUTION indicates a potential hazard which, if the safety measures are not followed, can result in minor or non-serious injury.

NOTICE

NOTICE indicates a potential hazard which, if the safety measures are not followed, can result in property or damage to the environment.

1.2 Format conventions

This assembly manual uses additional forms of presentation for certain information.

Highlighting in texts

Bold	Highlights information which is particularly important when describing procedures.
<i>Italicized</i>	Highlights references to information in this assembly manual.
<u><i>Italicized</i></u> <u><i>underlined</i></u>	Highlights references to information in other documents.

Figures

The figures contained in this assembly manual are schematic representations and serve only to graphically clarify the product and the respective processes. The figures may deviate from the actual state of the product upon delivery.

Lists

Instructions are presented as numbered lists and must be carried out in the specified order.

1. Activity step 1
 2. Activity step 2
- ✓ Outcome

Bulleted lists are displayed as unnumbered lists.

- Bullet point 1
- Bullet point 2
- Sub-point 1
- Sub-point 2

1.3 Terms and abbreviations

Term	Meaning
EPAC	Electrically Power Assisted Cycle

1.4 Symbols and notices

Symbols



This symbol indicates that personal protective equipment must be worn for the subsequent activity.



This symbol indicates components that are included in the scope of delivery.



This symbol indicates components that are not included in the scope of delivery but are required.



This symbol indicates tools and equipment required for the subsequent activity.

Mandatory signs



Read the instructions in full before working on the product and follow the instructions provided.



Wear safety gloves.



Wear safety boots.



Wear safety goggles.

1.5 Applicable documents

To use the product as intended, it is necessary to observe all the accompanying information provided.

This includes this assembly manual, the operating manual of the manufacturer of the EPAC, and the accompanying information for the additional components of the QORE System.

This includes, in particular:

- Operating manuals for the battery and the charger
- Operating manual for the battery holder
- Operating manual for HMI Allround
- Operating manual for speed sensor

2 IMPORTANT SAFETY INFORMATION

The following safety information describes potential hazards and residual risks that may arise when using the product. To avoid personal injury and damage to property, it is necessary to read and follow the instructions provided here before

using the product. It is also necessary to comply with all the applicable national regulations for the operation of EPACs as well as all the applicable national and international regulations on safety, health, and occupational safety.

2.1 Overall system safety instructions

WARNING

When using this product, basic precautions should always be taken, including the following:

- Read all instructions concerning the use of the product.
- To reduce the risk of injury, close supervision is required when the product is used near children.
- Do not insert fingers or other limbs into the product.
- Do not use the product if the power cord or other live wires are damaged.
- The product and its accessories are designed for use within specified ambient conditions / temperatures (see „*Technical data*“).
- If live components of the product come into contact with moisture, there is a risk of a short circuit. Keep liquids away from live components and do not spray any liquids (e.g., cleaning agents) onto live components.
- The use of unsuitable power cables and connectors can lead to personal injury and damage to property. Only the power cables and connectors approved by Yamaha for the cabling may be used.
- Working on live parts with conductive tools poses a risk of electric shock. Always remove the battery when working on the product and only use insulated tools.
- Moisture and foreign matter can enter the product through exposed connections. Seal exposed connections with dummy plugs.

ELECTRICAL HAZARDS

- Damage to live parts poses the risk of electric shock. Do not use the product if it is damaged.
- Improper cabling of the connecting cables in the drive chamber may result in damage to the product. When laying cables, do not kink them, lay them over sharp edges or pinch them.

- When the cables are pulled to disconnect them, this may damage the cables. Always disconnect the cable by pulling the plug, not by pulling on the cable.

- Dropping the product can cause bruising and contusions to persons as well as damage the product. Always handle the product with care and wear the prescribed personal protective equipment.

HAZARDS DUE TO HEAT AND FIRE

- Electrical energy or sparks can ignite materials in the immediate vicinity. The area must be free of flammable substances or other combustible materials during all assembly work.
- The surfaces of the drive housing can become hot during operation (up to 70°C) and cause burns upon contact. Avoid contact with the drive housing during and shortly after operation. Integrate the drive unit into the overall system in such a way as to ensure the safety of the end user and prevent the risk of burns.

Hazards posed by combining the product

- Combining the product with accessories (e.g., chain guides, chains) or spare parts not approved by Yamaha may result in personal injury or damage to property. Only use accessories and spare parts that are approved by Yamaha. If in doubt, contact Yamaha customer service team.
- The product may only be integrated into EPACs that are compatible with the product's specifications. If in doubt, contact the Yamaha customer service team.

Mechanical hazards

- If mechanical connections between product components are improperly made, personal injury and property damage can result from loosening connections and material damage. Only tighten screw connections to the specified torque.
- Due to its design, the product has sharp edges. During the assembly work, wear the prescribed personal protective equipment.

Hazards during assembly and commissioning

- The assembly may only be performed only by trained and qualified personnel.
- Before any assembly work, remove the battery properly and disconnect the power supply to the drive.
- The use of sharp or pointed tools during assembly can damage live parts of the product. Keep sharp or pointed tools away from cables, connectors and any other live parts.

- When assembling and commissioning the product, there is a risk of crushing, burns or injury due to rotating parts. Always wear the prescribed personal protective equipment.
- Modifications to the product may lead to malfunctions and compromise the operational safety. Do not make any modifications to the product that have not been confirmed and approved in writing by Yamaha.
- The safety features on the product are essential for the operational safety. Check that the safety features are functioning properly before using the product. If any defects are discovered, do not operate the product and contact the Yamaha customer service team immediately.
- Foreign matter in the working area of the product can cause damage to property or compromise the operational safety. Remove any unused cables, tools and other objects from the working area after completing any and all assembly work.
- Improper assembly can lead to personal injury and damage to property. Before use, ensure that the assembly has been carried out correctly and that the product is functioning properly.
- When commissioning individual modes (e.g., walk assist) or without load (e.g., without a rider), malfunctions or excessively powerful motor assistance may occur, which may injure persons in the vicinity. Always perform commissioning under load.
- When commissioning the circuitry, unexpected motor assistance from the drive may lead to personal injury and damage to property.
- The specifications of the EPAC frame may have a direct influence on the vibrations transferred to the drive.

Hazards during operation

- Undesired electromagnetic disturbances may lead to malfunctions of the drive unit. This may result in severe personal injury and damage to property. The manufacturer of the EPAC in which this product is incorporated is obliged to test and demonstrate the electromagnetic compatibility of the system as a whole.
- Modifications to the product and its components that aim to result in an increased performance are not permissible.
- The A-rated emission sound pressure level at the ears of the rider is lower than 70 dB(A).
- The product may be operated exclusively in combination with a chain guide approved by Yamaha.
- Operation of the product without an underride guard cause damage to the product. The product may exclusively be operated with a suitable underride guard (rock guard).

- If a malfunction should occur, the product switches off automatically and must be switched back on manually by the user. In this way, the product prevents hazardous situations caused by a sudden restart during the trip.
- In the event of failure, malfunctioning, or obvious damage to the product (e.g., loose connections/missing screws), do not attempt to embark on any repairs yourself and contact Yamaha or an authorized garage.
- Unauthorized access to the product can result in personal injury and damage to property. When not in use, secure the product against unauthorized access using appropriate measures.
- Like all mechanical components, the EPAC is subject to wear and tear and high levels of stress. Different materials and components may respond differently to wear and continuous stress. If the intended service life of a component is exceeded, it may fail suddenly and potentially cause injury to the rider. Any cracks, grooves or discoloration in high-stress areas indicate that the component has reached the end of its service life and should be replaced.
- High temperatures can occur in the area of the drive unit. Inspect the area around the drive unit for damage and unusual changes on a regular basis.

Hazards during maintenance

- Unauthorized repairs to the product can lead to personal injury and damage to property. Repairs should be carried out by authorized garages only.
- Before any maintenance work, remove the battery properly and disconnect the power supply to the drive.
- The surfaces of the drive housing can become hot during operation. Before any maintenance work (e.g., lubricating the chain), allow the product to cool down completely.
- Aggressive cleaning agents can damage the product. Only use solvent-free, non-corrosive and non-abrasive cleaning agents.
- For information on the cleaning and maintenance of third-party components (e.g., chain guides, chains), refer to the accompanying information provided with each component.

Hazards during storage and disposal

- The product may be damaged if it is stored in a humid environment. Store the product (whether installed or as a separate component) in a dry environment, protected against direct sunlight and away from dust and moisture.
- When disposing of the product or its components, observe the local waste disposal regulations.

2.2 Labels on the product

The machine has labels that provide further information and warn users of the hazards associated with its use. These labels must remain legible throughout the lifespan of the product and must

be replaced immediately if they are damaged. For information on the labels of the additional components of the QORE Peak / Power drive unit, refer to the separate accompanying information.

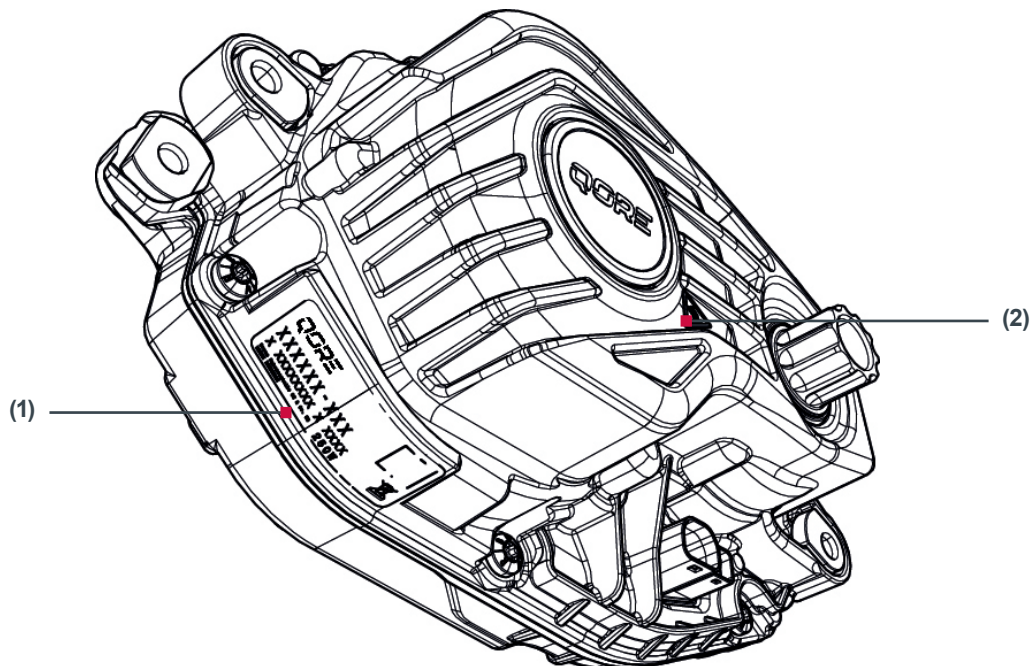


Fig. 1 Labels on the drive unit

(1) Name plate

(2) Warning of hot surface

3 Intended use

The QORE Peak / Power drive unit is intended exclusively for use in the QORE System drive system which, in its entirety, is intended for incorporation into electrically power assisted cycles (EPACs) in accordance with, for example, DIN EN 15194:2023 (EU) or USA EPAC Class 1 and 3.

Foreseeable misuse

The operation of the product with components, parameters or equipment other than those specified by Yamaha is considered misuse. Furthermore, the following are considered misuse:

- The unauthorized modification or alteration of the product and its integrated safety features without the written approval of Yamaha.
- The bypassing or disabling of safety- and protective equipment.
- The use of accessory components not approved by Yamaha for use with the product.

4 Structure and function

4.1 Drive unit

The drive unit forms the central component of the QORE System and converts electrical energy into pedal assistance. This assists the driver of the EPAC up to a maximum speed of 25 km/h. Once the maximum speed is reached, the drive

unit switches pedal assist mode off. The product also features a walk assist function, which can be triggered manually and which propels the EPAC up to a speed of maximum 6 km/h without user participation.

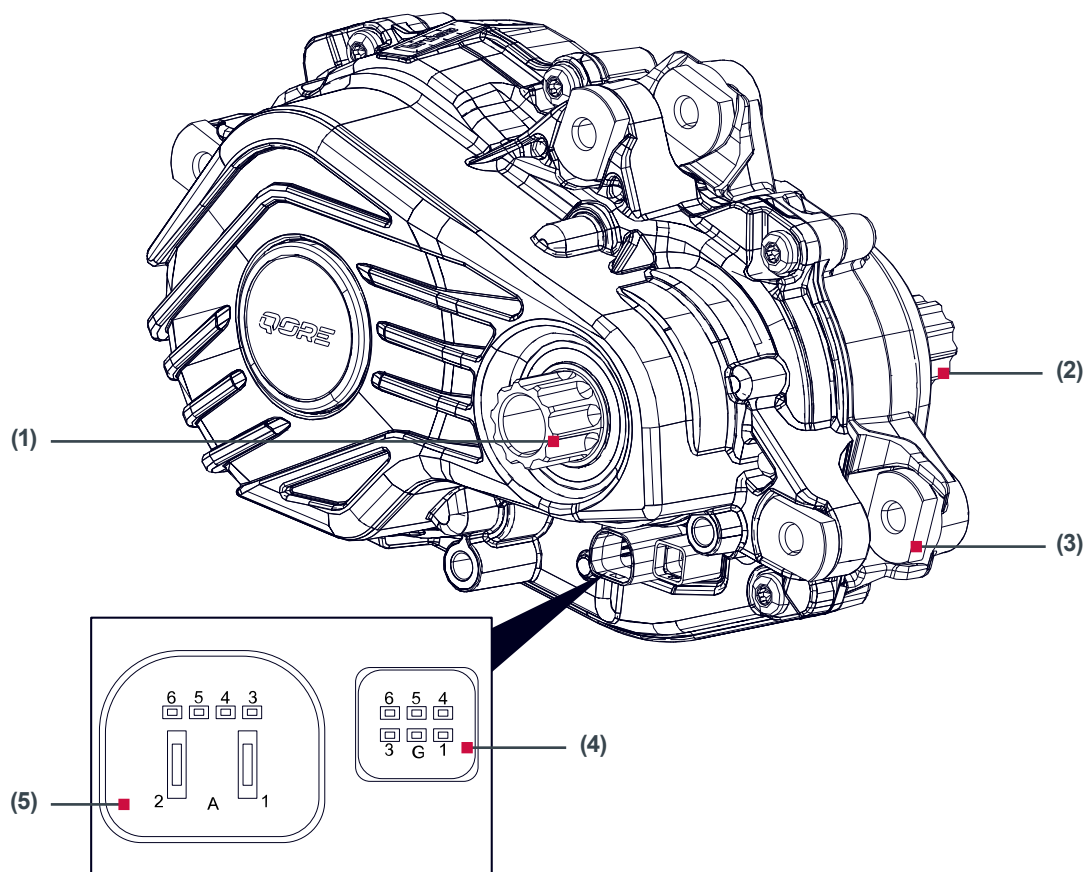


Fig. 2 Drive unit overview

- | | |
|--|-----------------------------|
| (1) Drive shaft (in travel direction to the left) | (3) 6x fastening sockets |
| (2) Drive shaft (in travel direction to the right) | (4) Speed sensor connection |
| | (5) Power supply connection |

4.2 Cable harness

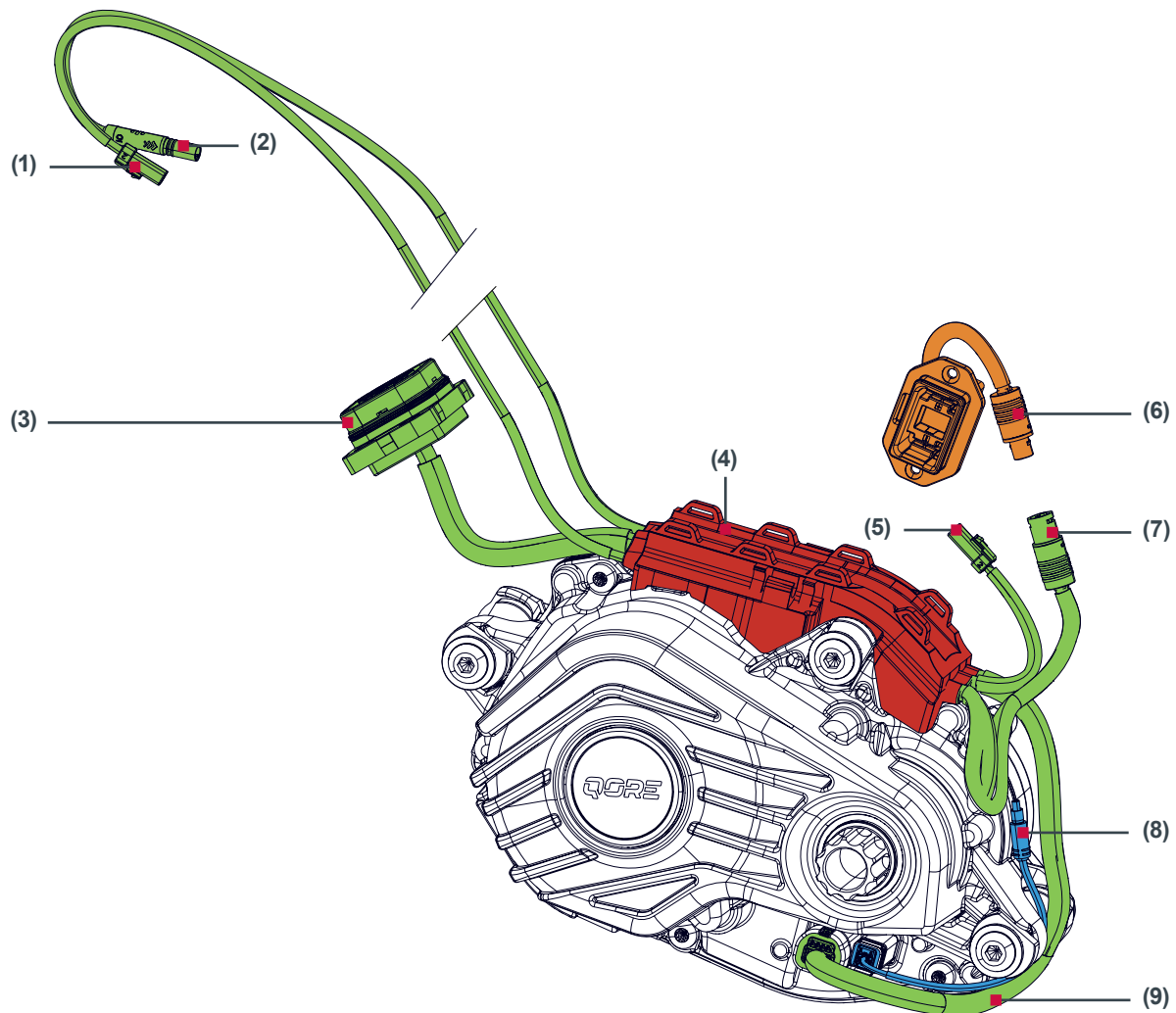


Fig. 3 Cable harness – connections and interfaces (here “Basic” version, depending on customer-specific solutions and solutions agreed separately with Yamaha, the cable harness may deviate from the figure shown.)

- (1) Front light connection
- (2) HMI connection
- (3) Battery connection/contact
- (4) Cable harness mounting bracket
- (5) Rear light connection
- (6) Frame charging port
- (7) Frame charging port connection
- (8) Speed sensor connection
- (9) Drive power supply connection

5 Technical data

Specification QORE Peak / Power	Value
Weight	2.9 kg
Dimensions	219 x 134 x 98 mm (housing) 136 mm (axle width)
Nominal voltage	48 V
Continuous rated power	250 W
Maximum power	800 W (QORE Peak) 700 W (QORE Power)
Torque	105 Nm (QORE Peak) 90 Nm (QORE Power)
Assistance level	up to 600%
Maximum speed for pedal assist	25 km/h
Maximum speed for walk assist	6 km/h
Noise emission (sound pres- sure level)	<47 dB(A)
Permissible am- bient conditions for operation	0°C to +40°C
Permissible ambient condi- tions for storage	0°C to +40°C

6 TRANSPORT AND STORAGE

The packaging of the product depends on the customer's requirements, the transport route, and the duration of storage after delivery and before assembly.



WARNING

Hazard posed by hazardous materials

The improper transport of hazardous materials can lead to a risk of fire and explosion.

- Please observe the instructions in the enclosed accompanying information and safety data sheets.



CAUTION

Bruises and contusions caused by falling components

If the product falls on limbs, bruises and contusions may result.

- Handle the product with care at all times.
- Wear personal protective equipment.

NOTICE





Damage to the product due to improper transport

Failure to follow the instructions on the packaging may result in damage to the product.

- Observe the packaging labelling when handling the package.
- If you are unsure, do not carry out any work and contact the Yamaha customer service team or your dealer.

Symbols on the packaging

The packaging may feature symbols indicating special transport or storage conditions and warning the user of hazards when handling the package.

Symbol	Meaning
	Protect the package against the rain and moisture.
	Do not exceed the specified stacking limits.
	Transport with this side facing upwards.
	Protect the package against direct sunlight.

Delivery

Upon delivery, the packages are packed according to requirements. Upon delivery, check for the following:

- Completeness of the packages
- Damage to the packaging and the components inside
- Completeness and accuracy of the shipping documents

If any defects are discovered to the packages or shipping documents during inspection, report them to Yamaha and the responsible forwarding company immediately and document them on the transport documents.

Storage

Remove the product in accordance with the instructions in this assembly manual and store it in a dry and dust-free location. Avoid exposure to direct sunlight.

Storage conditions

- 0°C to +40°C

To avoid the premature aging of the product (e.g., aging of the drive's electronic components), a storage temperature range of +10°C to +25°C is recommended.

Refer to the respective accompanying information for storage instructions on additional QORE System components.

7 ASSEMBLY



WARNING

Risk of electric shock

Working on live components poses a risk of electric shock.

- Ensure the power supply is disconnected during all assembly steps.
 - Only insert the battery after the assembly is complete.
 - Ensure that cables and connections are not damaged during the assembly.
-



CAUTION

Risk of crushing and pinching

During assembly, extremities can be caught or crushed between the frame components and the product.

- Wear the prescribed personal protective equipment.
 - Observe the correct assembly position and sequence.
 - Secure the product against falling.
-

NOTICE

During assembly, ensure that the operation of the safety-relevant parts (e.g., brake levers) is always possible.

7.1 Assembly of the drive unit

7.1.1 Assembling the cable harness



– Cable harness
(G871H9/ G893R4)

Procedure

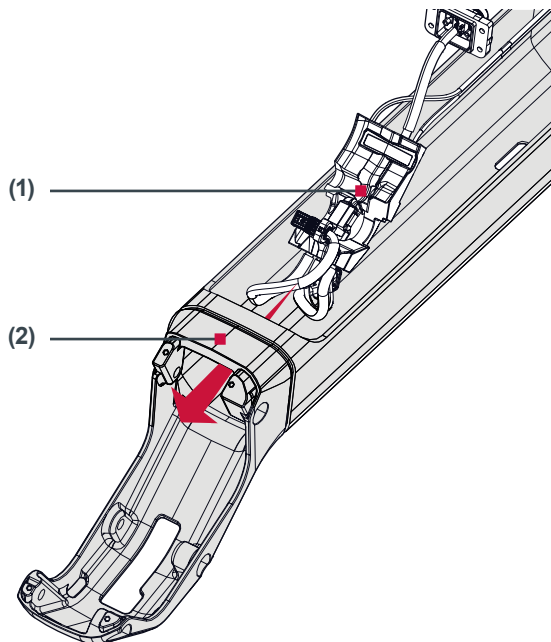


Fig. 4 Cable harness assembly

1. Thread the cable harness (1) through the lower end of the frame (2).

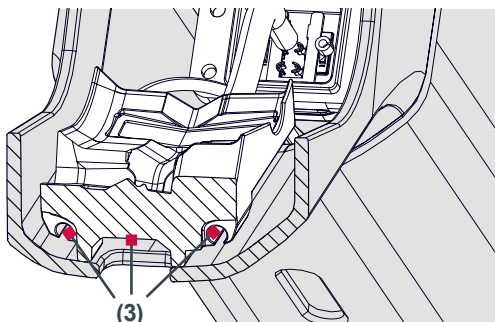


Fig. 5 Junction point cable duct (section plane)

2. Lay the cables / Bowden wires already present in the EPAC in the cable ducts (3) of the junction point intended for this purpose.

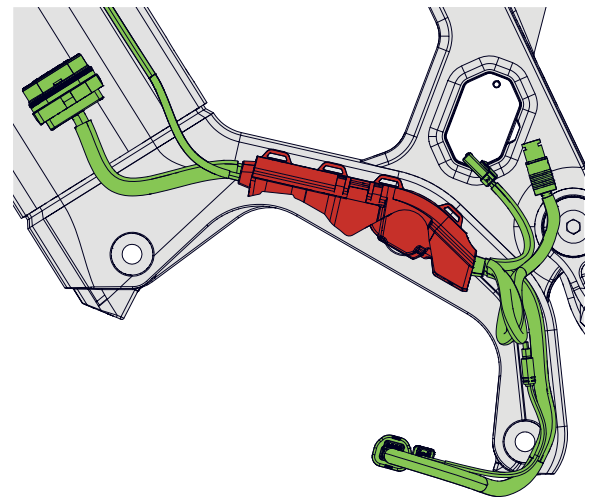


Fig. 6 Positioning the cable harness

3. **NOTICE** Lay the connecting cable so that it is free from tensile stress in all end positions and avoid kinking the cable. Do not lay the connecting cable over sharp edges.

Fit the cable harness into the intended position.

- ✓ The cable harness is fitted.

7.1.2 Assembling the drive unit on the frame



- Safety gloves
- Protective footwear
- Safety goggles



- Drive unit (Drive³ Peak G8H237; Drive³ Power G8H236)
- 6x screw



- Allen key (5 mm)
- Torque wrench
- Threadlocker

Requirements

- The cable is guided according to its own specifications, within the frame as far as possible.
- The cable harness is fitted.
- The length of the fastening screws is suitable for the planned installation.
- The fastening sockets on the drive unit are present, free from damage and positioned correctly.
- The drive unit labelling is present and legible (see „Labels on the product“).

Procedure

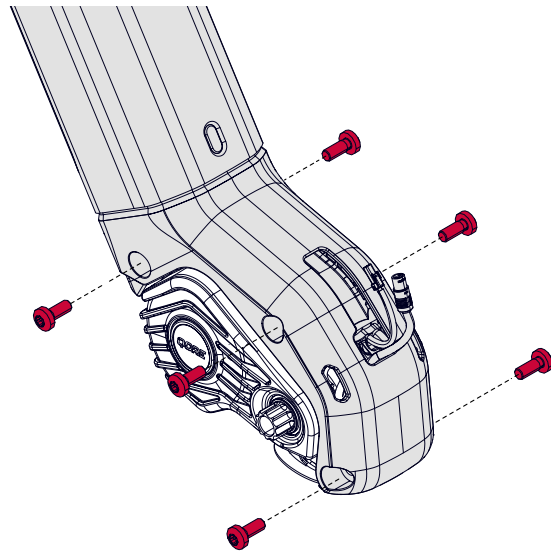


Fig. 7 Assembling the drive unit (1)

1. If it has not already been done, complete the cabling of the other system components.
2. **NOTICE** When inserting the drive, cables which have already been laid may be damaged. Carefully insert the drive unit into the frame. Position the cables in the intended recesses.
3. Insert the fastening screws.
4. Make sure that the fastening sockets and frame bore holes are correctly aligned with each other.
5. Slightly tighten the fastening screws.

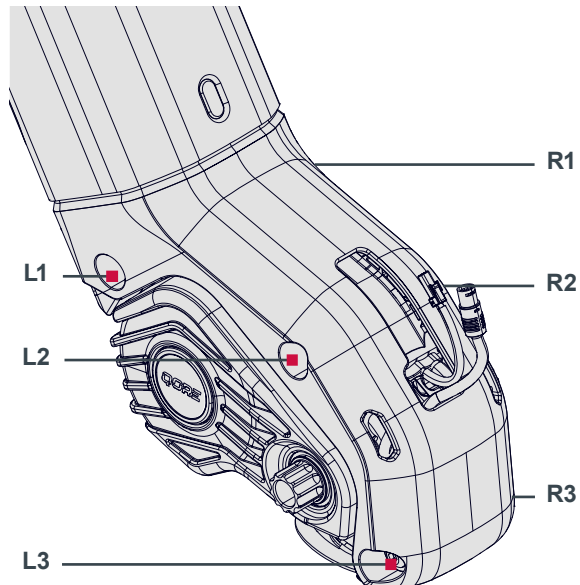


Fig. 8 Assembling the drive unit (2)

6. Tighten the fastening screws on the drive side (right) with the prescribed tightening torque of **25 Nm**

Sequence: **R1 - R3 - R2.**

7. Tighten the fastening screws on the opposite side (left) with the prescribed tightening torque of **25 Nm**

Sequence: **L1 - L3 - L2.**

- ✓ The drive unit is assembled.

7.1.3 Assembling the underride guard



- Safety gloves
- Protective footwear
- Safety goggles



- Underride guard
- 4x screws

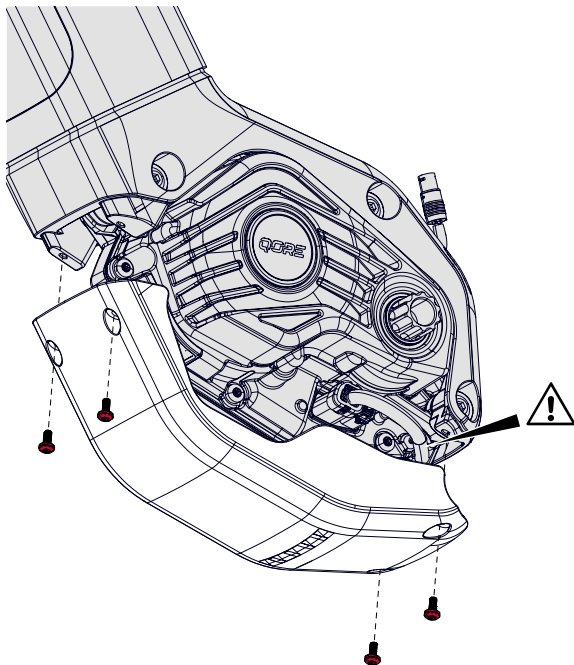


- Allen key (4 mm)
- Torque wrench

Requirements

- The drive unit is assembled.

Procedure



1. **NOTICE** When assembling the underride guard, cables which have already been laid may be damaged. Carefully affix the underride guard. Position the cables in the intended recesses.
 2. Align the bore holes on the underride guard with the bore holes in the frame.
 3. Insert the fastening screws and tighten slightly so that the underride guard can still move for fine adjustments.
 4. Tighten the fastening screws in a crosswise manner with the prescribed tightening torque of **5 Nm**.
- ✓ The underride guard is assembled.

Fig. 9 Assembling the underride guard

7.1.4 Assembling the chain guide / chain guard



- Safety gloves
- Safety goggles



- Chain guide / chain guard according to ISCG 05
- Holder / assembly goggles



- Allen key (5 mm)
- Torque wrench

Procedure

1. Fit the chain guide / chain guard according to the specifications of the component manufacturer.
 2. Hold the holders up to the assembly points of the drive.
 3. Fit the holder to the drive with the fastening screws using the prescribed tightening torque of **3.5 Nm**.
- ✓ The chain guide / chain guard is assembled.

Requirements

- The drive unit is assembled.
- The underride guard is assembled.

NOTICE

Damage to the product due to unsuitable accessories

If unsuitable accessories are used, damage to the product may occur.

- Only use approved accessories.
- Observe the information and specifications from the component manufacturers.

7.1.5 Assembling the chainring, spider and cranks



- Safety gloves
- Safety goggles



- Slotted nut
- Chainring
- Spider
- Chainring screws
- 2x ISIS cranks (r/l)
- ISIS crank screws M15x1



- Torque wrench
- Allen key (5 mm, 8 mm)
- ISIS bottom bracket tool (e.g., Parktool BBT18)
- Chainring key
- Threadlocker
- Lubricating grease

NOTICE

Damage to the product due to unsuitable accessories

If unsuitable accessories are used, damage to the product may occur.

- Only use approved accessories.
- Observe the information and specifications from the component manufacturers.

CAUTION

Risk of injury due to incorrect assembly of the cranks and pedals

If the cranks are not assembled correctly, they may become loose during the trip.

- Observe the side specification on cranks and pedals during assembly.
- Observe the information and specifications from the component manufacturers.

Requirements

- The drive unit and under-ride guard are assembled.
- The chain guide / chain guard is assembled properly.

Procedure

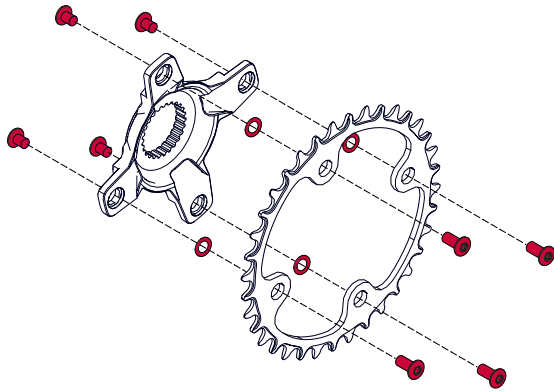


Fig. 10 Assembling the chainring, spider, cranks (1)

1. Connect the chainring and spider according to the specifications of the component manufacturer.

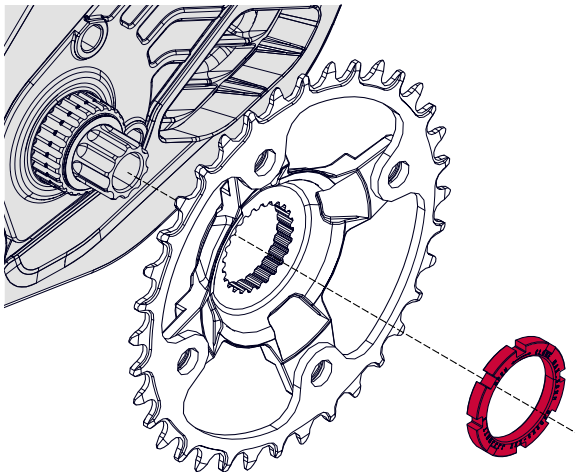


Fig. 11 Assembling the chainring, spider, cranks (2)

2. Place the chainring and spider on the drive shaft.
3. Apply the threadlocker (medium tight) to the threads of the slotted nut.
4. Tighten the slotted nut with the bottom bracket tool and the prescribed tightening torque of **28 Nm**.

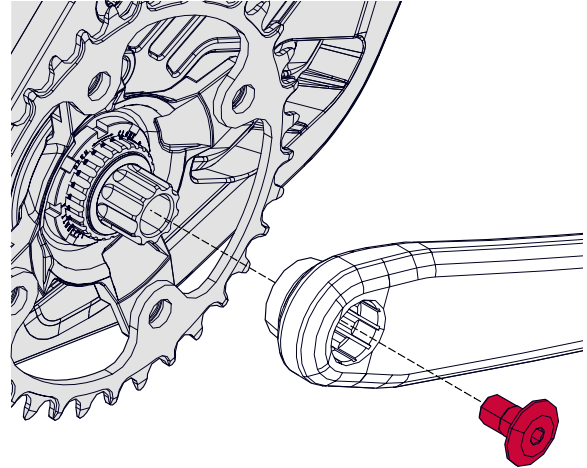


Fig. 12 Assembling the chainring, spider, cranks (3)

5. Lightly grease the ISIS holder of the crank.
 6. Place the right crank on the right drive shaft.
 7. Tighten the fastening screw of the right crank. Observe the tightening torques from the relevant crank manufacturer.
 8. Place the left crank on the left drive shaft, offset by 180°. When doing so, ensure the correct gearing and orientation.
 9. Tighten the fastening screw of the left crank. Observe the tightening torques from the relevant crank manufacturer.
 10. Fit the pedals on the cranks on the relevant sides according to the specifications of the component manufacturer.
- ✓ The chainring, spider and cranks are assembled.

8 DISPLAY AND OPERATION

The display and operation are carried out via the respective connected operating unit. Observe the safety instructions in this assembly manual (see „*IMPORTANT SAFETY INFORMATION*“) and in the accompanying documents.

For details on operation, refer to the enclosed user information for the operating unit.

9 MAINTENANCE BY THE USER

To support the longevity of the product and prevent repairs, the following activities should be carried out at the specified intervals.

CAUTION

Risk of burns due to hot surfaces

The surfaces of the drive can be hot during and after operation.

- Allow the drive to cool completely before embarking on any cleaning.

NOTICE

Damage to the product due to improper cleaning

Improper cleaning can damage the product and cause malfunctions.

- Do not clean the product with a pressure washer.
- Do not use any additional cleaning agents. Clean the product with water only.

DANGER

Risk of injury due to improper maintenance and repair

The improper maintenance or repair of the product and its components can result in malfunctions, failures and mechanical defects.

- Only perform the work described in this assembly manual.
- Do not attempt to perform any other maintenance or repairs to the drive unit or the system components.
- Maintenance and repair work that is not described in this assembly manual may only be performed by authorized Yamaha garages.

Task	Equipment / method	Interval
Check the drive and over-all system for damage.	Visual inspection.	Before starting each trip.
Check the drive and overall system for proper functioning.	Functional test.	Before starting each trip.
Check all screw connections for tightness and tighten if necessary.	Tighten loose screw connections to the torque specified in this assembly manual.	Weekly or if unusual noises occur.
Clean the drive surfaces.	Manual cleaning with a soft brush and damp, lint-free cloth.	If there is visible dirt.

10 Troubleshooting

The following information is intended to help you troubleshoot any faults that may occur when using the product.

If the fault cannot be resolved using the measures provided here, or if the fault is not detailed below, do not use the product and contact the customer service team at an authorized Yamaha dealer.

Fault	Possible cause	Remedy
The EPAC won't switch on.	The battery isn't inserted or isn't charged.	Insert a charged battery.
	The cable connections between the operating unit and the drive are loose.	Check the cable connections. Reconnect the cables insofar as this is possible without disassembly. Contact the customer service team at the authorized dealer.
	The product is defective.	Contact the customer service team at the authorized dealer.
The pedal assist is insufficient / does not work.	The pedal assist is not switched on or is set too low.	Adjust the pedal assist using the operating unit.
	The battery isn't inserted or isn't charged.	Insert a charged battery.
	The product is defective.	Contact the customer service team at the authorized dealer.
The handles / pedals won't move or are locked.	Mechanical fault.	Do not use the EPAC. Contact the customer service team at the authorized dealer.
The battery holder is rattling.	The battery is loose.	Arrange for the bracket clearance to be adjusted by your authorized dealer.

Fault	Possible cause	Remedy
The lever mechanism cannot be closed when the battery is inserted.	The bracket clearance is too small.	Arrange for the bracket clearance to be adjusted by your authorized dealer.
The lever mechanism jams / is stiff (outside the frame).	The lever mechanism is dirty.	Clean the lever mechanism (e.g., blow it out, move the lever back and forth several times).
	The lever mechanism is extremely wet.	Allow the lever mechanism to dry and clean it if necessary (e.g., blow it out, move the lever back and forth several times).
The kinematics are compromised (broken levers, frame, etc.)	Crash with the EPAC.	Contact the customer service team at Yamaha or the authorized dealer.
	The battery falls / is dropped when removed.	Contact the customer service team at Yamaha or the authorized dealer.
The bracket is loose (rattles, moves).	The screws in the frame have become loose.	Re-tighten the screws. Contact the customer service team at Yamaha or the authorized dealer.
The key can't be inserted.	The key or the lock is dirty.	Clean the key and the lock.
	The wrong key was used.	Use the correct key.
	The key is misaligned with the front of the lock.	Check the positioning of the key and the lock.
	The key is broken.	Contact the customer service team at Yamaha or the authorized dealer
The key is inserted but can't be removed.	The lock is fully or partially open.	Lock in full
The key is inserted but the lock won't lock.	The lever mechanism is still open.	Close the lever mechanism in full.

Fault	Possible cause	Remedy
The key won't turn.	The key or the lock is dirty.	Clean the key and the lock.
	The wrong key was used.	Use the correct key.
The battery can't be fitted.	The lock is closed (the lock bolt is extended).	Open the lock using the key (retract the lock bolt).
	The battery was incorrectly positioned on the centering pin on the lock bracket.	Re-position the battery.
	The lever mechanism is jamming.	Refer to the remedy for when the lever mechanism jams.
	The bracket clearance in the frame is too small.	Arrange for the bracket clearance to be adjusted by your authorized dealer.
The system switches off in the event of extreme riding conditions / vibrations.	The contacts are faulty.	Contact the customer service team at Yamaha or the authorized dealer.

11 Accessories and spare parts

11.1 Accessories

Product	Product number
Drive ³ Peak	G8H237
Drive ³ Power	G8H236
Drive ³ chain-ring slotted nut	G8D2K3
Drive ³ assembly screws	G8D4E7
Battery InTube 800	G8B371
Battery InTube 650	G8K7J5
Allround control	G66788
Smart charger 250	G66952
Country-specific cable, EU	G66967
Country-specific cable, USA	G66968
Spoke speed sensor	G8B0Y9
Brake disk speed sensor	G8B0Z1
Spoke magnet	C54757
Brake disk speed sensor bracket	E80496
Magnet center lock	E80493
Magnet 6-hole	E80490

Product	Product number
Magnet thru-axle	E80494
Socket battery holder	G8G321
Lock battery holder	G8G325
Gage battery holder	G8H2L8
Cable harness	G871H9
Cable harness extended	G893R4
Charging port cable	G871L7
Speed sensor cable	G871M0
Speed sensor & AUX cable	G871L8
Charging port cover	G8J3V7

11.2 Spare parts

Necessary spare parts are available from Yamaha upon request. For information about extended maintenance and service procedures and the availability of spare parts, contact the Yamaha customer service team.

Distributing company	Yamaha Motor eBike Systems GmbH
Address	Sickingenstraße 29-38 10553 Berlin
Phone	+49 30 343498 100
Contact	service.ebike@ yamaha-ebike-systems.com

12 DISASSEMBLY AND DISPOSAL

12.1 Disassembly

The disassembly takes place in the reverse order of the installation. When disassembling third-party components, always observe the respective accompanying information and specifications of the component manufacturer.

For information on the required tools and equipment, refer to the relevant section in section „ASSEMBLY“.

Disassembling the cranks, spider and chainring

1. Disassemble the pedals.
 2. Loosen and remove the fastening screws on the left and right cranks.
 3. Use a crank remover to remove the cranks from the drive shaft.
 4. Use a bottom bracket tool to loosen the slotted nut counter-clockwise and remove the spider with the chainring.
- ✓ The cranks, spider and chainring are disassembled.

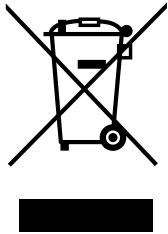
Disassembling the chain guide / chain guard

1. Loosen and remove the fastening screws from the chain guide / chain guard.
 2. Disassemble the chain guide /chain guard.
- ✓ The chain guide / chain guard is disassembled.

Disassembling the drive

1. Secure the drive against falling.
 2. Loosen the underride guard fastening screws and remove the underride guard.
 3. Loosen and remove the front and center fastening screws.
 4. Remove all connecting plugs from the drive.
 5. Loosen and remove the rear fastening screws.
 6. Take the drive out of the frame.
- ✓ The drive is disassembled.

12.2 Disposal



The symbol depicting a crossed out garbage bin indicates that a product and its accessories (e.g., charger, USB cable) must not be disposed of together with household waste at the end of their service life.

To prevent damage to the environment or human health due to improper waste disposal and to support the sustainable reuse of material resources, these items must be separated from other kinds of waste and recycled responsibly.

Batteries and rechargeable batteries

Batteries/rechargeable batteries may contain substances that are harmful to the environment and human health. You are legally required to return used batteries / rechargeable batteries. Observe the disposal instructions on the batteries / rechargeable batteries.

- Before disposing of the product, consider options for waste prevention (e.g., selling functional products or repairing them).
- Before disposal, erase all personal data from the product (e.g., saved login data, user names, passwords or files).

- Before disposing of the product, remove batteries / rechargeable batteries / lamps / illuminants if this can be done without damaging it.
- Private end-customers can dispose of the product at a public waste collection and/or take-back facility in their local area. The addresses of suitable waste disposal points are available from your city, country or district council. Comply with the local regulations.

- In Germany, commercial customers can contact the following company for the purposes of free-of-charge take-back:

GRS Service GmbH
 Gotenstraße 14
 20097 Hamburg
<https://www.grs-batterien.de/kontakt/>

- Outside Germany, contact the following company:

Go4Recycling GmbH
 Rathenauplatz 9
 50674 Cologne
<https://go4recycling.de>

13 EU Declaration of Incorporation



1 Declaration of incorporation within the meaning of the EC Directive on machinery products 2006/42/EC

Original declaration of incorporation

1.1 Business name and full address of the manufacturer:

Yamaha Motor eBike Systems GmbH
Sickingenstrasse 29-38
10553 Berlin
Germany

1.2 Name and address of the authorized person to compile the technical file:

Dr. Daniel Wolde-Giorgis, Deputy Managing Director
Yamaha Motor eBike Systems GmbH
Sickingenstrasse 29-38
10553 Berlin
Germany

1.3 Commercial name: **QORE, drive unit for Pedelecs, Drive 3 Peak**

Machine code: **G8H237**

Function / description of the machinery: **E-Bike Drive Unit / 250-watt motor for EPAC**

1.4 Yamaha Motor eBike Systems GmbH, declares that the above-specified product is partly completed machinery within the meaning of the EC Directive on Machinery. The product is exclusively intended for incorporation into machinery or partly completed machinery and therefore does not fulfill all the requirements of the EC Directive on Machinery.

The above-specified product must not be put into service until it has been found that the machinery into which it is incorporated fulfills all the essential requirements of the EC Directive on Machinery.

Below is a list of the health and safety requirements that have been applied and fulfilled for partly completed machinery in accordance with the EC Directive on Machinery 2006/42/EC, Annex I:

- General Principles:

1.1.2; 1.2.2; 1.2.3; 1.2.6; 1.3.2; 1.3.4; 1.4.2.1; 1.5.2; 1.5.11; 1.7.1; 1.7.3; 3.3.2.; 3.3.4; 3.3.5.; 3.6.2

Applied harmonized standards, as far as applicable for drive units:

- EN 15194:2017 +A1:2023 "Cycles – Electrically power assisted cycles – EPAC bicycles."

1.5 The incomplete machinery also meets all the requirements of the directive below:

- DIRECTIVE 2014/30/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility.
- DIRECTIVE 2011/65/EU: Restriction of Hazardous Substances Directive, restricts the use of certain hazardous substances in electrical and electronic.



- 1.6 Yamaha Motor eBike Systems GmbH, will supply related information of partially completed machinery to competent authorities by any requested method.

Berlin, December 04, 2025


Dr. Daniel Wolde-Giorgis, i.V. Yamaha Motor eBike Systems GmbH,
Deputy Managing Director



**IMPORTANT SAFETY INSTRUCTIONS
KEEP THESE INSTRUCTIONS**

Yamaha no. 592599-101

Yamaha Motor eBike Systems GmbH // Sickingenstraße 29-38 // 10553 Berlin