

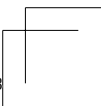
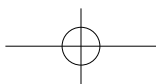
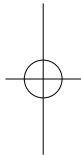
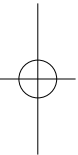
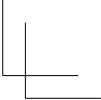
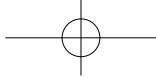
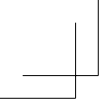


**⚠ Read this manual carefully before operating the system.
This manual should stay with this system if it is sold.**

OWNER'S MANUAL

PW-LINK Battery Pack PW-LINK Battery Charger

- * This owner's manual is original instruction.
- * Product and specifications are subject to change without notice.



Introduction

These original instructions have been prepared for your Battery Pack and Battery Charger.

TIP

This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your dealer for all service, repairs or maintenance. Your dealer may also be able to refer you to classes, clinics or books on bicycle use, service, repair or maintenance.

**PW-LINK Battery Pack,
PW-LINK Battery Charger
OWNER'S MANUAL
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1st edition, February 2026
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General warning

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

Particularly important information is distinguished in this manual by the following notations:

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
 WARNING	A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
NOTICE	A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.
TIP	A TIP provides key information to make procedures easier or clearer.

Battery Pack and Charger

A. Use of your data

This is a brief summary of how Yamaha Motor (Yamaha Motor Co., Ltd., and Yamaha Motor Europe N.V.) uses your data from e-Bike Systems (Drive Unit, Battery Pack, Display Unit). For details for the use of your personal data, please go to the specific URL below for the Privacy Policy:

Country	Language	URL
Austria	German	https://www.yamaha-motor.eu/at/de/privacy/privacy-policy/
Belgium	Dutch	https://www.yamaha-motor.eu/be/nl/privacy/privacy-policy/
Belgium	French	https://www.yamaha-motor.eu/be/fr/privacy/privacy-policy/
Bulgaria	Bulgarian	https://www.yamaha-motor.eu/bg/bg/privacy/privacy-policy/
Czech Republic	Czech	https://www.yamaha-motor.eu/cz/cs/privacy/privacy-policy/
Denmark	Danish	https://www.yamaha-motor.eu/dk/da/privacy/privacy-policy/
Finland	Finnish	https://www.yamaha-motor.eu/fi/fi/privacy/privacy-policy/
France	French	https://www.yamaha-motor.eu/fr/fr/privacy/privacy-policy/
Germany	German	https://www.yamaha-motor.eu/de/de/privacy/privacy-policy/
Greece	Greek	https://www.yamaha-motor.eu/gr/el/privacy/privacy-policy/
Hungary	Hungarian	https://www.yamaha-motor.eu/hu/hu/privacy/privacy-policy/
Italy	Italian	https://www.yamaha-motor.eu/it/it/privacy/privacy-policy/
Ireland	English	https://www.yamaha-motor.eu/ie/en/privacy/privacy-policy/
Netherlands	Dutch	https://www.yamaha-motor.eu/nl/nl/privacy/Privacybeleid/
Norway	Norwegian	https://www.yamaha-motor.eu/no/nb/privacy/privacy-policy/
Poland	Polish	https://www.yamaha-motor.eu/pl/pl/privatnosc/polityka-prywatnosci/
Portugal	Portuguese	https://www.yamaha-motor.eu/pt/pt/privacy/privacy-policy/
Romania	Romanian	https://www.yamaha-motor.eu/ro/ro/privacy/privacy-policy/
Spain	Spanish	https://www.yamaha-motor.eu/es/es/privacy/privacy-policy/
Sweden	Swedish	https://www.yamaha-motor.eu/se/sv/privacy/privacy-policy/
Switzerland	German	https://www.yamaha-motor.eu/ch/de/privacy/privacy-policy/
Switzerland	French	https://www.yamaha-motor.eu/ch/fr/privacy/privacy-policy/
Turkey	Turkish	https://www.yamaha-motor.eu/tr/tr/privacy/privacy-policy/
U.K.	English	https://www.yamaha-motor.eu/gb/en/privacy/privacy-policy/

What data Yamaha Motor collect? and How?

The e-Bike Systems (Drive Unit, Battery Pack, Display Unit) on this bicycle collects following data:

- (1) Component identification number;
- (2) live data showing the performance of the bicycle such as Drive Unit/Battery Pack/Display Unit operating state, mileage; and
- (3) other data showing the status of the bicycle such as Drive Unit/Battery Pack/Display Unit error code.

The collected data will be uploaded to server at Yamaha Motor Co., Ltd. only when special Yamaha diagnostic tool is connected to the bicycle at the time of maintenance check or service.

How will Yamaha Motor use your data?

Yamaha Motor use collected data from your e-Bike Systems (Drive Unit, Battery Pack, Display Unit) for the following purpose:

- (1) to conduct adequate maintenance service including diagnostics;
- (2) to implement proper warranty claim judgement;
- (3) to conduct research and development;
- (4) to provide and improve quality of products, features, and services;
- (5) to ensure our business purpose; and
- (6) to comply with requirements of laws and regulations.

How Yamaha Motor share your data?

Yamaha Motor may share your data with: (1) our subsidiaries, affiliates, and business partners; (2) dealers in your country or region, and (3) contractors within the scope necessary to achieve the purpose of use described above.

How to contact us

Yamaha Motor Co., Ltd., and Yamaha Motor Europe N.V. are joint data controller regarding your data collected. Any questions or complaints regarding the processing of your Personal Data can be submitted in writing to:

**Yamaha Motor Europe N.V./Digital Marketing & CRM
– PO Box 75033 – 1117 ZN Schiphol – The Netherlands.**

Email: dpo@yamaha-motor.nl

The SOLE PURPOSE of above provided contact information is TO RESPOND DATA PROCESSING INQUIRY AND OTHER KINDS OF INQUIRIES WILL NOT BE RESPONDED. Please provide the following information for the proper handling of your inquiry: **(1) Your Name; (2) Your Email Address; (3) Your Country of Residence; and (4) Your component identification number.** Yamaha Motor will use your personal information provided only for the purpose of supporting your data processing inquiry.

B. Location of the warning and specification labels

Read and understand all of the labels on your Battery Pack and Battery Charger*. These labels contain important information for safe and proper operation. Never remove any labels from your Battery Pack and Battery Charger:

* The contents of the label affixed to the product might differ from the contents of the label on this page. Be sure to check the label affixed to the product.

Battery Pack

PW-LINK Integrated Battery 840

⚠ WARNING

Handle battery properly to avoid sparking, burns, fire and explosion.
To reduce the risk of injury, user must read owner's manual.
Charge battery only with specified charger, (PASB13).
Do not place battery near fire or immerse in water.
Risk of Fire - No User Serviceable Parts.

Do not use battery if it has been dropped, subject to impact, or visibly damaged.
Do not disassemble or modify the battery, or short across its terminals.
Use battery only for specified product - no other use.

⚠ AVERTISSEMENT

Mettre la batterie correctement pour éviter les étincelles, les brûlures, les incendies et les explosions.
Pour prévenir les blessures, l'utilisateur doit lire le manuel du propriétaire.
Charger la batterie uniquement avec le chargeur spécifié, (PASB13).
Ne pas placer la batterie près du feu ou l'immerger dans l'eau.
Risque d'incendie - Aucune des pièces ne peut être réparée par l'utilisateur.

Ne pas utiliser la batterie si elle a été éjectée, a reçu un choc ou si elle est visiblement endommagée.
Ne pas tenter de modifier la batterie ou court-circuiter ses bornes.
Utiliser la batterie uniquement avec le produit spécifié, aucune autre utilisation.

Europe only

UK CA CE

46.8V 18.0Ah 842Wh
(min. 16.9Ah 791Wh)
Type : PASB8
Model : X5M

X5M-00
Rechargeable
Li-Ion battery
131NR22/71-3

Max. charge voltage : 54.7V
Max. charge current : 6A
Max. discharge current : 25A

Compliant with transport under UN-T 38-3

CAN ICES-003(B) / NMB-003(B)
This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received,
including interference that may cause undesired operation.

EU Importer
YAMAHA MOTOR EUROPE N.V.
Kathoedijk 101, 1118 NG Schiphol-Rijk,
1117 ZN, Schiphol, the Netherlands

YAMAHA MOTOR CO., LTD.
2501 SHINGAN, INATA, SHIDOKA 436-8501, JAPAN

Cell made in Japan.
Further processed in China

PW-LINK Integrated Battery 560

⚠ WARNING

Handle battery properly to avoid sparking, burns, fire and explosion.
To reduce the risk of injury, user must read owner's manual.
Charge battery only with specified charger, (PASB13).
Do not place battery near fire or immerse in water.
Risk of Fire - No User Serviceable Parts.

Do not use battery if it has been dropped, subject to impact, or visibly damaged.
Do not disassemble or modify the battery, or short across its terminals.
Use battery only for specified product - no other use.

⚠ AVERTISSEMENT

Mettre la batterie correctement pour éviter les étincelles, les brûlures, les incendies et les explosions.
Pour prévenir les blessures, l'utilisateur doit lire le manuel du propriétaire.
Charger la batterie uniquement avec le chargeur spécifié, (PASB13).
Ne pas placer la batterie près du feu ou l'immerger dans l'eau.
Risque d'incendie - Aucune des pièces ne peut être réparée par l'utilisateur.

Ne pas utiliser la batterie si elle a été éjectée, a reçu un choc ou si elle est visiblement endommagée.
Ne pas tenter de modifier la batterie ou court-circuiter ses bornes.
Utiliser la batterie uniquement avec le produit spécifié, aucune autre utilisation.

Europe only

UK CA CE

46.8V 12.0Ah 562Wh
(min. 11.3Ah 529Wh)
Type : PASB8
Model : X5W

X5W-00
Rechargeable Li-Ion battery
131NR22/71-2

Max. charge voltage : 54.7V
Max. charge current : 5.75A
Max. discharge current : 20A

Compliant with transport under UN-T 38-3

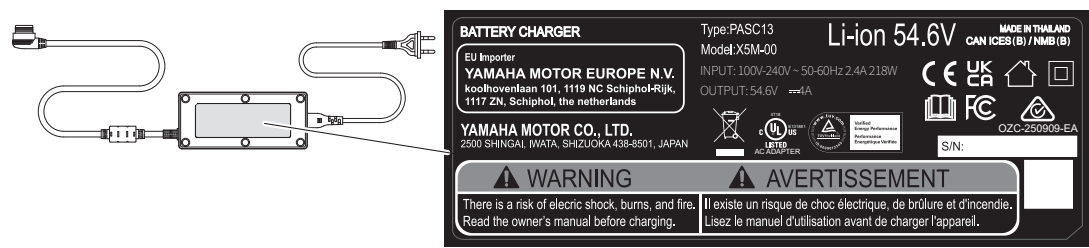
CAN ICES-003(B) / NMB-003(B)
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PW-LINK Battery Charger

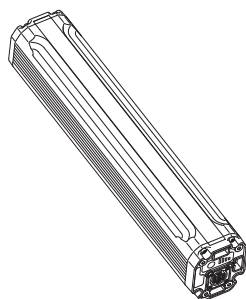


Familiarize yourself with the following pictograms and read the explanatory text, then make sure to check the pictograms that apply to your model.

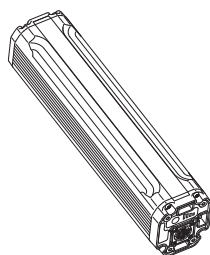
	Read the Owner's Manual		Do not disassemble
	Do not expose to open flame or great heat		Risk of burn due to high temperatures
	Risk of explosion and fire due to short circuit		For indoor use only

C. Description

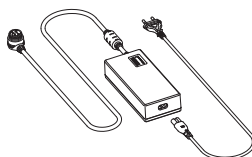
1



2



3



- 1. Battery Pack (PW-LINK Integrated Battery 840, PASB8)
- 2. Battery Pack (PW-LINK Integrated Battery 560, PASB8)
- 3. Battery Charger (PW-LINK Battery Charger, PASC13)

Temperature range

Operating temperature range	-5–40 °C (23–104 °F)
Charging temperature range	0–40 °C (32–104 °F)

D. ⚠ Safety information

Never use this Battery Charger to charge other electrical appliances.

Only use the genuine power cable when charging.

Do not use any other charger or charging method to recharge the Battery Packs. Using any other charger could result in fire, explosion, or damage the Battery Packs.

This Battery Charger can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the Battery Charger in a safe way and understand the hazards involved. Children shall not play with the Battery Charger. Cleaning and user maintenance shall not be made by children without supervision.

Never allow the Battery Charger to become immersed in water or other fluids. Do not use the Battery Charger outdoors. Also, do not use it when the terminals are wet. It could result in electric shock, a fire or charger damage.

Never handle the power plug, charging plug or touch the Battery Charger contacts with wet hands. This could result in electric shock.

Do not touch Battery Charger contacts with metallic objects. Do not allow foreign material to cause short circuit of the contacts. This could result in electric shock, fire, or damage the Battery Charger.

Periodically remove dust from the power plug. Dampness or other issues could reduce the effectiveness of the insulation, resulting in fire.

Never disassemble or modify the Battery Charger. This could result in fire or electric shock.

Do not use with a power strip or extension cord. Using a power strip or similar methods may exceed rated current and can result in fire.

Do not use with the cable tied or rolled up, and do not store with the cable wrapped around the Battery Charger main body. Cable damage can result in fire or electric shock.

Firmly insert the power plug and the charging plug into the socket. Failure to insert the power plug and the charging plug completely can result in fire caused by electric shock or overheating.

Do not use the Battery Charger near flammable material or gas. This could result in fire or explosion.

Never cover the Battery Charger or place other objects on top of it while charging. This could result in internal overheating leading to fire.

Do not drop the Battery Charger or expose it to strong impacts. Otherwise, it could cause a fire or electric shock.

Store the Battery Pack and Battery Charger out of reach of children.

Do not touch the Battery Pack or Battery Charger while it is charging. As the Battery Pack or Battery Charger reaches 40–70 °C during charging, touching it could result in burns.

Do not use if the Battery Pack case is damaged, cracked, or if you smell any unusual odors. Leaking battery fluid can cause serious injury.

Do not short the contacts of the Battery Pack. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.

Do not disassemble or modify the Battery Pack. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.

Do not use a refurbished Battery Pack. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.

If the power cable is damaged, stop using the Battery Charger and have it inspected at a bicycle dealer.

Do not turn the pedals or move the bicycle while the Battery Charger is connected. Doing so could cause the power cable to become tangled in the pedals, resulting in damage to the Battery Charger, power cable, and/or plug.

Handle the power cable with care. Connecting the Battery Charger from indoors while the bicycle is outdoors could result in the power cable becoming pinched and damaged in a doorway or window.

Do not run over the power cable or plug with the wheels of the bicycle. Doing so could result in damage to the power cable or plug.

Do not drop the Battery Pack and Battery Charger or subject them to impact. Doing so could cause the Battery Pack to become hot, catch fire or electrical shock, resulting in serious injury or property damage.

Do not dispose of the Battery Pack in a fire or expose it to a heat source. Doing so could cause fire, or explosion, resulting in serious injury or property damage.

Do not modify or disassemble the e-Bike Systems. Do not install anything other than genuine parts and accessories. Doing so could result in product damage, malfunction, or increase your risk of injury.

Do not ride the bicycle if there is any irregularity with the Battery Pack or e-Bike Systems. Doing so could lead to loss of control and serious injury.

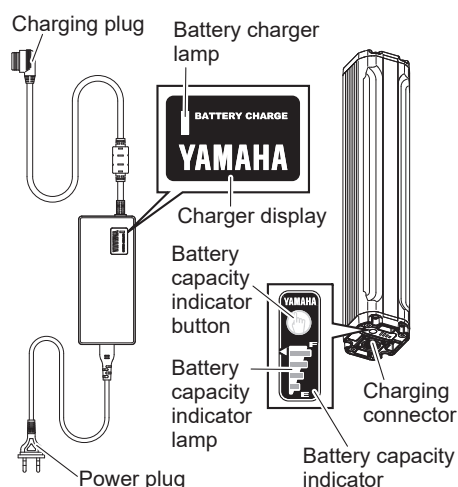
Be sure to check the residual battery capacity before riding at night. The headlight powered by the Battery Pack will turn off soon after the residual battery capacity has decreased to where power assisted riding is no longer possible. Riding without an operating headlight can increase your risk of injury.

Before equipping the bicycle with a Battery Pack, make sure that there is no foreign matter or water in the connector on the bicycle. Otherwise, it could lead to heat generation, smoke and/or a fire owing to short-circuiting of the terminals.

For bicycles equipped with a Battery Pack, do not remove the Battery Pack from the bicycle when cleaning the bicycle. Otherwise, water could enter the connector and cause heat generation, smoke and/or a fire.

If any part of the battery or e-Bike Systems becomes submerged in water due to flooding etc., immediately have your bicycle inspected and maintained by a dealer.

E. Battery Pack and charging procedure



The Battery Pack equipped for the Yamaha e-Bike Systems is a lithium-ion battery. The lithium-ion battery is lightweight and offers superior capacity. However, it does have the following characteristics.

- Its performance decreases in extremely hot or cold environments.
- It naturally loses its charge.

The Battery Pack for the Yamaha e-Bike Systems also has an embedded computer which notifies you of estimated residual battery capacity and suspected faults via the battery capacity indicator lamp.

By pressing the battery capacity indicator button, you can display the residual battery capacity for approximately 5 seconds.

See “Checking the residual battery capacity” for the estimate of the residual battery capacity. See “Troubleshooting” for information on fault flashing.

⚠ WARNING

Do not use any other charger or charging method to recharge the Battery Packs. Using any other charger could result in fire, explosion, or damage the Battery Packs.

⚠ WARNING

**IMPORTANT SAFETY INSTRUCTIONS — SAVE THESE INSTRUCTIONS
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS**

This manual contains important safety and operating instructions for Battery Charger type PASC13. Those types can be found in the labels on the products.

Before using Battery Charger, read all instructions and cautionary markings on Battery Charger, Battery Pack and product using Battery Pack.

Only use the Battery Charger type PASC13 to charge PASB8 type Battery Packs for Yamaha e-Bike Systems. Other types of batteries may burst causing injury to persons and damage.

⚠ WARNING

Battery Standard (EN 50604-1) requires to provide the following;

This battery system is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the battery system by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the battery system.

Keep batteries systems dry and clean.

Battery systems shall not be in contact with solvent materials (i.e. dilution, alcohol, oil, anticorrosive) or chemicals that impact surfaces (i.e. detergents).

Rechargeable Battery systems shall be charged before being used. Only the proper, correct charging device may be used. For charging, please heed the producer's instructions or the instructions in the manual of the device.

Keep original printed papers with product information for later consultation.

Only put battery systems to applications that they were designed for.

Store at dry places, away from open flames and food.

Do not store close to heating devices, avoid direct sunlight.

Temperature above 70 °C may result in battery leakage and rupture.

Medical aid will be required in case of symptoms obviously caused by respiration or swallowing of combustion gases or contact with skin or eyes.

After inhalation: leave area immediately. Fresh air. Seek for medical assistance.

After skin contact: remove solid particles immediately. Flush affected areas with plenty of water (at least for 15 min). Remove contaminated clothes immediately. Seek for medical attention.

After eye contact: flush the eye gently with plenty of water (at least for 15 min). Shield unaffected eye. Seek for medical assistance.

Fire:

- 1) cautiously remove other batteries if possible;
- 2) evacuate all persons from immediate area of fire;
- 3) use plenty of cold water (min. 10 times pack weight).

Products with broken seals shall not be used and shall be immediately forwarded for appropriate recycling.

NOTICE

Do not apply grease on the terminal of the Battery Pack.

Appropriate charging environments

For safe and efficient charging, charge the Battery Pack in a location that is:

- Flat and stable
- Free of rain or moisture
- Out of direct sunlight
- Well-ventilated and dry
- Not accessible to children or pets
- Temperature between 15–25 °C
- Altitude does not exceed 3,000 m

Inappropriate charging environments and solutions

The hot and cold environments described below can cause charging to enter standby or suspension without fully charging the Battery Pack.

- Summertime charging standby/suspension

If charging in a location receiving direct summer sunlight or immediately after riding, the Battery Pack might enter charging standby (all four battery capacity indicator lamps flash slowly). See “Reading the charging status for Battery Pack”. This is to automatically stop charging in order to protect the Battery Pack from exceeding the specified temperature while charging. You can avoid charging suspension by starting to charge with the Battery Pack cold or at a room temperature of 15–25 °C. If charging suspension occurs, move the Battery Pack to a cool location to reduce the charging standby time.

- Wintertime charging standby/suspension

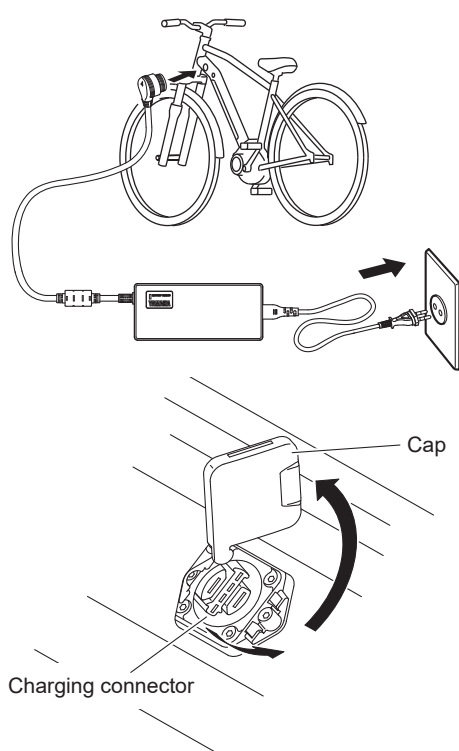
Charging standby will occur if the temperature is less than 0 °C. If charging is started and the temperature drops below this level due to late-night cooling or other factors, charging is suspended and standby mode is entered to protect the Battery Pack. In such cases, restart charging at an indoor location with a temperature of 15–25 °C.

- Noise on televisions/radios/computers

Charging next to televisions, radios, or similar appliances might cause static, flickering images, and other interference. If this occurs, recharge in a location further away from the television or radio (such as in another room).

WARNING

If a charging fault occurs during charging, remove the power plug of the Battery Charger from the socket and wait for the Battery Pack/Battery Charger to cool.



Charging the Battery Pack mounted on the bicycle

1. Connect the power plug to Battery Charger and household power outlet.
2. Remove the charging port cover from the bicycle, then connect the charging plug to the charging port.

NOTICE

- Do not connect the charging plug of the Battery Charger with the charging connector of the Battery Pack in a wet state. Otherwise, the Battery Charger and Battery Pack may malfunction.
- Be sure to connect the charging plug only after the charging connector on the Battery Pack is completely dry. Otherwise, the Battery Charger and Battery Pack may malfunction.
- Do not apply excessive force to the charging plug or pull on the cord with the charging plug connected to the Battery Pack. Otherwise, the charging plug or connector may be damaged.
- Do not pedal while the charging plug is connected.
- To prevent terminal wear and peripheral device malfunctions, avoid repeatedly plugging and unplugging the connector excessively.

3. See "Reading the charging status for Battery Pack", and check that the Battery Charger is charging the Battery Pack.
4. Indicator lamp of Battery Charger will light up. Then, the indicator lamp will go off when charging is completed.
5. Confirm that charging is complete, and then disconnect the charging plug from the charging connector on the bicycle.
6. Place the cap of charging inlet on the charging connector on the bicycle.

! WARNING

Never handle the power plug, charging plug or touch the Battery Charger contacts with wet hands. This could result in electric shock.

TIP

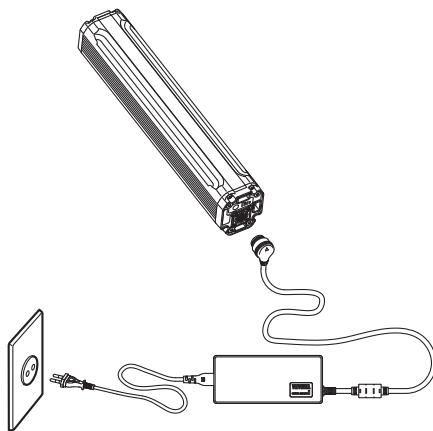
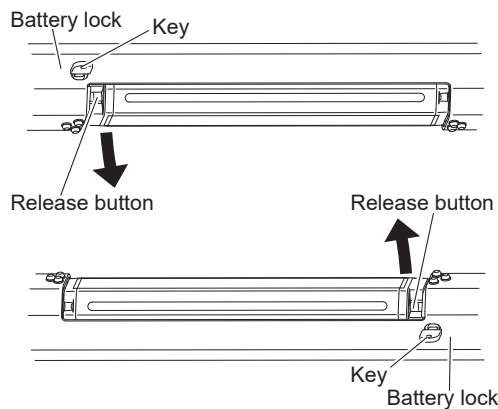
- Charging will start automatically.
- If the Display Unit is turned on while the Battery Pack is charging, all normal displays will be shown, including the battery capacity indicator, but the assist system will not function.
- If you charge the Battery Pack with the Battery Pack installed in the bicycle, the headlight might go off.
- When riding bicycle after charging, check unplugged charging plug from bicycle and AC outlet.

Charging the Battery Pack removed from the bicycle

1. Turn the Display Unit off.
2. Insert the key into the battery lock, and turn it to release the battery lock.
3. Remove the Battery Pack.

⚠ WARNING

Use both hands when removing the Battery Pack. Do not drop the Battery Pack or subject it to impact. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.



TIP

Battery Pack remove method (PW-LINK Integrated Battery)

- After releasing the battery lock, remove the battery in the arrow direction while keeping the release button pressed.

4. Connect the power plug to Battery Charger and household power outlet.
5. Connect the charging plug to Battery Pack.
6. See "Reading the charging status for Battery Pack", and check that the Battery Charger is charging the Battery Pack.
7. The battery capacity indicator lamps will light up one by one until all four are on. Then, when charging is complete, all of the lamps will go off.
8. Confirm that charging is complete, and then disconnect the charging plug from the Battery Pack.
9. Mount the Battery Pack on the bicycle.

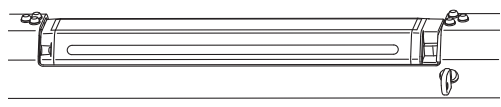
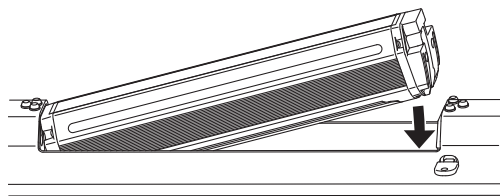
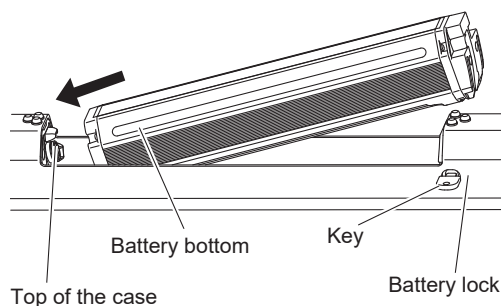
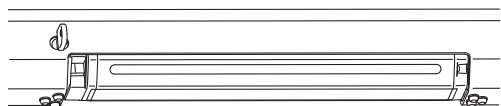
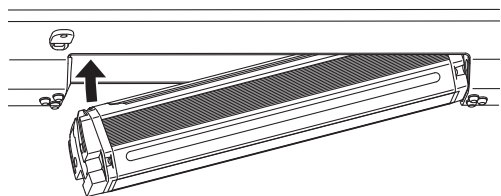
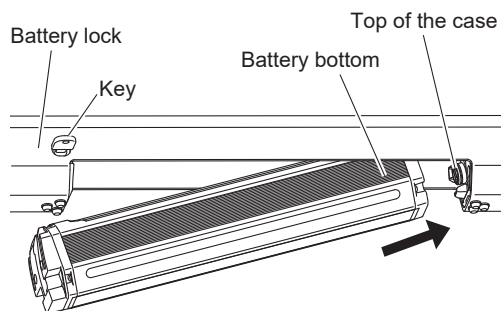
NOTICE

Make sure there is no foreign matter on the Battery Pack contacts before inserting the Battery Pack.

TIP

Battery Pack mounting method (PW-LINK Integrated Battery)

- Insert the key into the battery lock, and turn it to release the battery lock.
- Insert the Battery Pack in the direction of the arrow so that the battery bottom is aligned to the top of the case.
- Press the upper part of the Battery Pack toward the frame until it clicks into place to secure it.
- Lock the battery lock by turning the key, and then remove the key.



10. Make sure that it is securely attached by pulling the Battery Pack after installation.

WARNING

- Do not short the contacts of the Battery Pack. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.
- Do not disassemble or modify the Battery Pack. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.
- Do not dispose of the Battery Pack in a fire or expose it to a heat source. Doing so could cause an explosion, resulting in serious injury or property damage.
- Do not drop the Battery Pack or subject it to impact. Doing so could cause the Battery Pack to become hot or catch fire, resulting in serious injury or property damage.

WARNING

- Do not touch Battery Charger contacts with metallic objects. Do not allow foreign material to cause short circuit of the contacts. This could result in electric shock, fire, or damage the Battery Charger.
- Periodically remove dust from the power plug. Dampness or other issues could reduce the effectiveness of the insulation, resulting in fire.
- Never disassemble or modify the Battery Charger. This could result in fire or electric shock.
- Do not use with a power strip or extension cord. Using a power strip or similar methods may exceed rated current and can result in fire.
- Do not use with the cable tied or rolled up, and do not store with the cable wrapped around the Battery Charger main body. Cable damage can result in fire or electric shock.
- Firmly insert the power plug and the charging plug into the socket. Failure to insert the power plug and the charging plug completely can result in fire caused by electric shock or overheating.
- Do not use the Battery Charger outdoors. Also, do not use it when the terminals are wet. It could result in electric shock, a fire or charger damage.
- Do not use the Battery Charger near flammable material or gas. This could result in fire or explosion.
- Never cover the Battery Charger or place other objects on top of it while charging. This could result in internal overheating leading to fire.
- Before equipping the bicycle with a Battery Pack, make sure that there is no foreign matter or water in the connector on the bicycle. Otherwise, it could lead to heat generation, smoke and/or a fire owing to short-circuiting of the terminals.

Reading the charging status for Battery Pack

Battery charger lamp	Battery capacity indicator lamps	Current status	Details
 On	Lit battery capacity indicator lamps indicate the amount of charging completed. A flashing battery capacity indicator lamp indicates current progress.  (Example: Battery is approximately 50–74 % charged.)	Charging	During charging, the battery capacity indicator lamps light up one by one.
 Off	 Off	Charging completed	When charging is complete, the battery charger lamp on the Battery Charger and the battery capacity indicator lamp on the Battery Pack go off.
 Flashing	Four lamps flash simultaneously. 	Battery Pack is in standby mode. * The Battery Pack internal temperature is too high or too low.	Charging will automatically restart when a temperature is reached that allows charging. (See “Appropriate charging environments”.) When possible, always perform charging at the optimal temperature of 15–25 °C.

TIP

For example, even if normal charging is started, if the Battery Pack temperature or the surrounding temperature is too high or too low, the charging may be extended or charging may be stopped without the Battery Pack being charged sufficiently in order to protect the Battery Pack.

Charging time guidelines

Although charging time varies depending on residual battery capacity and external temperature, if the Battery Pack has been exhausted, this time is typically as indicated in the table below.

Battery Pack	Charging time
PW-LINK Integrated Battery 840	5.5 hours
PW-LINK Integrated Battery 560	3.5 hours

If the Battery Pack enters standby mode while charging, charging time will increase by an equal amount.

* If charging after a long period of disuse, the charging time will be lengthened depending on the Battery Pack status. However, note that if the battery capacity indicator lamps do not flash in fault pattern (See “Reading the charging status for Battery Pack”), there is no malfunction.

Display of the battery charger indicator lamp

You can check the charger and charging status using the charger’s indicator lamp.

State of the charger		Indication
AC OFF		Lights out
BATTERY CHARGE YAMAHA AC ON	Waiting for battery connection	Flashing green
	Charging	Green light on
	Waiting to charge (waiting battery communication)	Flashing green
	Stop charging (charging complete)	Lights out
	Charging abnormality	Red lights on
	Battery abnormality	Flashing Red

F. Checking the residual battery capacity

You can check the estimate of how much capacity is left in the Battery Pack and to what extent it is charged. The check can be performed using either the Display Unit's residual battery capacity indicator or the Battery Pack's residual battery capacity indicator lamps.

TIP

- Even if the Battery Pack's capacity reaches 0 (zero), you can still ride the bicycle as a regular bicycle.
- If you are using an old Battery Pack, the residual battery capacity indicator may suddenly display very little power when you start moving. This is not a malfunction. Once riding stabilizes and the load is reduced, the proper value is displayed.

Display of the battery capacity indicator lamps and the estimate of the residual battery capacity

When checking the residual battery capacity, push the battery capacity indicator button “”.

Display of the battery capacity indicator lamps	Estimate of the residual battery capacity	Applicable situation
	100–75 %	From full charge (100 %), the battery capacity indicator lamps turn off, one by one.
	74–50 %	
	49–25 %	
	24–11 %	
 Slow flashing <0.5 second intervals>	10–1 %	
 Fast flashing <0.2 second intervals>	0 %	

G. Cleaning, maintenance and storage

WARNING

For bicycles equipped with a Battery Pack, do not remove the Battery Pack from the bicycle when cleaning the bicycle. Otherwise, water could enter the connector and cause heat generation, smoke and/or a fire.

NOTICE

Do not use high-pressure washers or steam jet cleaners since they can cause water seepage, resulting in property damage or malfunction of the Battery Pack. Should water get inside one of these units, have a bicycle dealer inspect your bicycle.

Caring for the Battery Pack

Use a moist, tightly-wrung towel to wipe off dirt on the Battery Pack. Do not pour water directly on the Battery Pack, such as with a hose.

NOTICE

Do not clean the contacts by polishing them with a file or using a wire, etc. Doing so could result in a fault.

Long storage period (1 month or longer) and using it again after a long storage period

- When storing the bicycle for a long period (1 month or longer), remove the Battery Pack and store it using the following procedure.
- Decrease the residual battery capacity to where one or two battery capacity indicator lamps are lit, and store it indoors in a cool 15–25 °C, dry place.
- Check the residual battery capacity once a month, and if only one battery capacity indicator lamp is flashing, charge the Battery Pack for about 10 minutes. Do not let the residual battery capacity become too low.

TIP

- If you leave the Battery Pack at “full charge” or “empty”, it will deteriorate quicker.
 - Due to self-discharge, the Battery Pack slowly loses its charge during storage.
 - The Battery Pack’s capacity decreases over time but proper storage will maximize its service life.
-
- When using it again after a long storage period, be sure to charge the Battery Pack before using it. Also, if you are using it again after storing it for 6 months or longer, have your bicycle inspected and maintained at a dealer.

H. Transport

The Battery Packs are subject to the Dangerous Goods Legislation requirements. When being transported by third parties (e.g. via air transport or forwarding agency), special requirements on packaging and labels must be observed. To prepare the item for shipping, consult a hazardous materials expert. The customer can transport the Battery Packs by road without further requirements. Do not transport damaged Battery Packs.

Tape or mask off open contacts and pack up the Battery Pack in such a manner that it cannot move around in the packaging. Be sure to observe all local and national regulations. In case of questions concerning transport of the Battery Packs, please refer to a bicycle dealer.

I. Disposal

The Battery Pack, Battery Charger and packaging should be sorted for environmental-friendly recycling.

Do not dispose of the bicycle or its components as household waste.

According to the European Regulation 2023/1542/EU, European Directive 2012/19/EU and related national laws, electrical devices/tools that are no longer usable, defective or used Battery Packs/batteries, must be collected separately and disposed of in an environmentally correct manner.

Please return Battery Packs that are no longer usable to a bicycle dealer.



WARNING

Do not dispose of the Battery Pack in a fire or expose it to a heat source. Doing so could cause fire, or explosion, resulting in serious injury or property damage.

J. Troubleshooting

e-Bike Systems

Symptom	Check	Action
Pedaling is difficult.	Is the Battery Pack charged?	Charge the Battery Pack.
	Is the air temperature low (roughly 10 °C or below)?	During the wintertime, store the Battery Pack indoors before use.
	Are you charging the Battery Pack while it is mounted on the bicycle?	Stop charging the Battery Pack and remove it from the bicycle.
The Drive Unit turns on and off while riding.	Is the Battery Pack correctly installed?	Check to make sure the Battery Pack is locked in place. If this problem still occurs with the Battery Pack firmly locked in place, there may be a loose connection with the Battery Pack terminals or wires. Have a bicycle dealer inspect your bicycle.
Traveling range has decreased.	Are you fully charging the Battery Pack?	Charge the Battery Pack until full (F).
	Are you using the system under low-temperature conditions?	Normal traveling range will be restored when the ambient temperature rises. Additionally, storing the Battery Pack indoors (in a warm location) before use will improve traveling range under cold conditions.
	Is the Battery Pack worn out?	Replace the Battery Pack.

Battery Pack and Battery Charger

Symptom	Check	Action
Cannot charge	Is the power plug firmly connected to? Is the charging plug firmly inserted in the Battery Pack?	Reconnect and try charging again. If the Battery Pack still does not charge, the Battery Charger might be malfunctioning.
	Are the residual battery capacity indicator lamps lit?	Review charging method and try charging again. If the Battery Pack still does not charge, the Battery Charger might be malfunctioning.
	Are the Battery Charger or Battery Pack contact terminals dirty or wet?	Remove the Battery Pack from the Battery Charger and the charging plug from the socket. Use a dry cloth or cotton swab to clean the Battery Charger and Battery Pack contact terminals. Then reconnect both the Battery Pack and the Battery Charger.

Symptom	Check	Action
	There is a contact fault in the contact terminals.	Remove the Battery Pack from the bicycle. Then connect the charging plug into the Battery Pack. (If battery capacity indicator lamps still flash alternately, there might be a fault in the Battery Pack). When the Battery Pack is remounted on the bicycle and the power switch of the Display Unit is pressed, if battery capacity indicator lamps still flash alternately, there might be a fault in the Drive Unit.
		When the Battery Pack is charging, remove the Battery Pack from the Battery Charger, mount the Battery Pack on the bicycle and press the power switch of Display Unit. When the charging plug is reconnected into the Battery Pack, if battery capacity indicator lamps still flash simultaneously, there might be a fault in the Battery Charger.
	Is the charging connector on the Battery Pack wet?	Clean the charging connector and charging plug. Then dry them. Afterwards, connect the charging plug to the charging connector.
Both side battery capacity indicator lamps are flashing simultaneously. 		The Battery Pack protection feature has been activated and the system cannot be used. Replace the Battery Pack at a bicycle dealer as soon as possible.
Charger LED Light is displaying RED. 		Unplug power cable. After LED light turn off, try reconnecting it to charger. If LED light remain red, stop using charger and have it checked at a bicycle dealer.

Symptom	Check	Action
The Battery Charger emits abnormal noises, foul odors or smoke.		Unplug the charging plug and immediately cease operation. Have a bicycle dealer inspect your bicycle.
The Battery Charger becomes hot.	It is normal for the Battery Charger to become somewhat warm during charging.	If the Battery Charger is too hot to be touched by hand, unplug the charging plug, wait for it to cool, and consult a bicycle dealer.
After charging, all of the battery capacity indicator lamps do not light up when the battery capacity indicator button “  ” is pressed.	Has the charging plug been unplugged or the Battery Pack removed during charging?	Charge the Battery Pack again.
	Did you start charging with the Battery Pack at a high temperature, such as immediately after use?	Move to a location where the Battery Pack temperature can reach the range where charging is possible (15–25 °C), and then start charging again.
After disconnecting the charging plug on the Battery Charger from the Battery Pack, the battery capacity indicator lamps continue to light up.	Is the charging connector on the Battery Pack wet?	Clean the charging connector and charging plug. Then dry them.
Charger LED does not change from flashing to light on.		Unplug the charging plug and AC cord, wait approximately 60 seconds, then reconnect it.
Despite unplugging the power cable, the charger’s LED light remains illuminated.		The charger is shutting down and will turn off within one minute.

K. Specifications

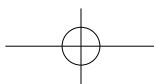
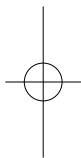
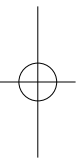
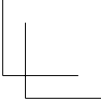
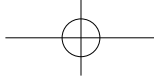
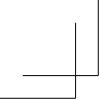
Battery Pack

PW-LINK Integrated Battery 840	Type	PASB8 (Lithium-ion battery)
	Voltage	46.8 V
	Capacity	18.0 Ah (min.16.9 Ah)
	Number of battery cells	39
PW-LINK Integrated Battery 560	Type	PASB8 (Lithium-ion battery)
	Voltage	46.8 V
	Capacity	12.0 Ah (min.11.3 Ah)
	Number of battery cells	26

Battery Charger

PW-LINK Battery Charger	Type	PASC13
	Input voltage	AC 220–240 V, 50/60 Hz
	Maximum output voltage	DC 54.6 V
	Maximum output current	DC 4.0 A
	Maximum consumed power	248 VA/230 W (Charged at AC 240 V)
	Applicable type Battery Pack	PASB8

Battery Pack and Battery Charger information is also available at the following internet address:
<https://global.yamaha-motor.com/business/e-bike-systems/products/battery-charger/>





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