maxon
BIKEDRIVE

USER MANUAL

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maxonbikedrive.com

WARNING!

RIDING AN ELECTRIC BIKE IS DANGEROUS!

ALWAYS USE EXTREME CAUTION WHEN USING THIS PRODUCT. MISUSE OF THIS PRODUCT COULD RESULT IN SERIOUS INJURY OR DEATH. ONLY USE THIS PRODUCT IF YOU ARE IN GOOD PHYSICAL HEALTH. NEVER ACT IN A CARELESS MANNER WHEN USING THIS PRODUCT. YOU ARE RESPONSIBLE FOR YOUR SAFETY AND THE SAFETY OF OTHERS AROUND YOU WHEN USING THIS PRODUCT!

SYMBOLS USED

	Indicates a potentially hazardous situation. Ignoring **can cause serious injury**!
	Indicates a possibly dangerous situation or draws attention to an unsafe practice. Ignoring **can cause injury or damage to components**!
	Indicates an important aspect. Ignoring **can cause damage to components**!  *In illustrations, only the "eye" will be displayed.*
	Indicates an important aspect or gives important additional information.

1 OPERATION

1.1 Components

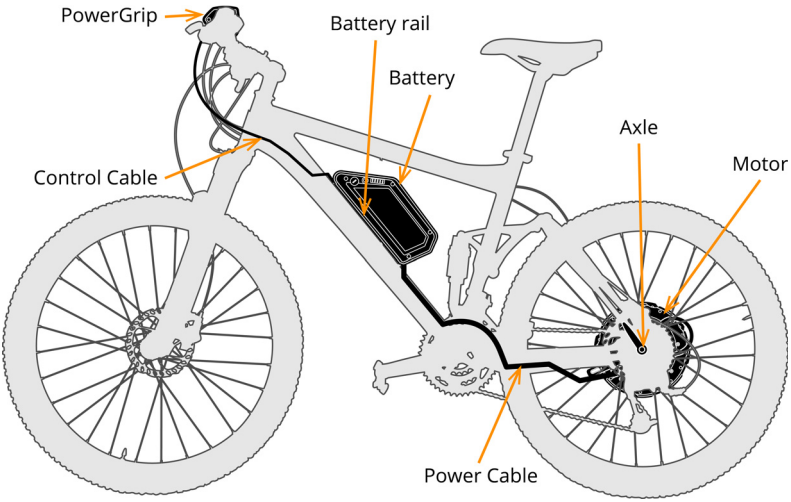


Figure 1 maxon BIKE**DRIVE** — Components

1.2 Legal Regulations

Legal regulations
Inquire about the current legal requirements in your country or in your area before putting your bike into operation.

Equipped with the BIKE**DRIVE**, the bike is a vehicle with motorized assistance. Depending on the country, the vehicle is called E-Bike, Pedelec (Pedal Electric Cycle), electric or motor-assisted bicycle, electro moped, autocycle, or similar, and is subject to appropriate legal regulations.

Federal, State, and in some cases, city laws regulate aspects, such as, traffic rules, permitted speed, type approval and homologation, license plate, prove of roadworthiness/road suitability before an official body, compulsory insurance, driving license, required equipment (for example, lighting, acoustic warning device, and specific brakes), etc.

1.3 Functional Principle

From a standing start in action!

Motorized assistance of the BIKE**DRIVE** commences as soon as you start pedaling while having selected a support level. The motor develops torque according to the selected support level and the driven speed.

You can switch off and re-activate the motorized assistance at any time. Without pedaling, you can use the motor as pushing aid.

1.4 Driving Modes

Zero

Motorized assistance is deactivated. You may switch to «Zero» at any time and continue "normal cycling". Thereby, the BIKE**DRIVE** behaves as if completely switched off. It runs in internal freewheel and you will not even notice that it is there.

Power1
Power2
Power3

You will be motor-assisted while pedaling. The torque applied by the drive will be determined by the support level you have selected with the PowerGrip and the driven speed.

Boost

While pedaling in the highest support level «Power3», you can continue turning the PowerGrip to get extra short-term performance and torque.

Pushing aid

If you activate «Boost» without pedaling, the motor will support you while pushing the bike.

1.5 Handling

A Word on Safety

The BIKE**DRIVE** is extremely powerful! It possesses an extraordinarily high degree of dynamics that will most likely surprise you at the beginning and it will require some time to get used to.

Take it easy to start with and use caution on your first rides!

WARNING

Risk of injury
The BIKEDRIVE it extremely powerful and highly dynamic. Lack of habituation to the high performance, handling, or operation can lead to serious injury!

- *Be aware that the BIKE**DRIVE** will fundamentally change the driving behavior of your bike — particularly in respect to aspects, such as, weight, weight distribution, center of gravity, braking distance, braking response!*
- *Use extra caution during the "acclimatization phase" and select a low degree of motorized assistance!*
- *Be aware that a changed setting at the PowerGrip will have an immediate effect on the drive system, on speed, and on handling!*

1.5.1 PowerGrip

Selecting the driving mode

By rotating the PowerGrip you select the driving mode and, thereby, the degree of motorized assistance (➔"Driving Mode" on page 7). You select the level using four snap-in and one non-latching positions.

Each change of the selected support level is temporarily displayed by LEDs 1...5. Following a support level change and while riding, the LEDs will show the remaining battery level (➔"Charging Level" on page 8). The system status is continuously displayed with LED A (➔"Status Indicator" on page 8).

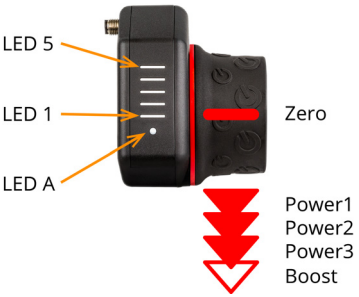


Figure 2 PowerGrip

1.5.2 Battery

On the battery you will find the main switch, a lock, and displays for battery charge and battery system status (➔page 8).

Figure 3 Battery BX360 ONE / BX500 ONE (left side)

Figure 4 Battery BX360 ONE / BX500 ONE (right side)

Power up

To power up the battery, press the main switch. During startup, all LEDs light up. After successful initialization, the LEDs will go out for a moment. Subsequently, the charging level of the battery will be temporarily displayed before the LED display will go off.

To display the battery charge level at anytime during your ride, press the main switch.

Turn off

To turn off the battery, press the main switch until the LED display goes off. This takes about 3 seconds. This takes about 3 seconds.

1.5.3 Displays

The PowerGrip features an LED display that will inform you about the currently selected driving mode, the charging level of the battery, and the status of the system. A second LED display for the charging level is located at the battery.

Dimming

To prevent glare, the brightness of the PowerGrip's LED display will automatically adapt to the ambient light.

Identification of the PowerGrip

During initialization of the system, the type of PowerGrip is displayed via the LEDs.

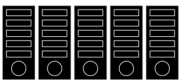
Identification

dotX25 dotX33 dotXUrban

Driving Mode

The selected support level is briefly displayed with each change. Thereafter, the battery charge level is indicated.

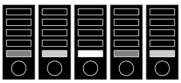
Zero



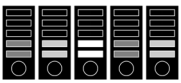
Neutral position — motorized assistance is turned off.

The PowerGrip engages in this position.

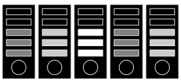
Power1



Power2



Power3



Turning towards you from the neutral position «Zero» switches consecutively into levels «Power1», «Power2», and «Power3».

Turning away from you switches consecutively one level back.

The PowerGrip engages in the selected position.

Boost

Turning towards you from the level «Power3» switches to level «Boost».

The PowerGrip does not engage in this position and bounces back to level «Power3» when released.

Charging Level

The remaining relative capacity of the battery is displayed in 20% steps.

Charging level

100...80% | 80...60% | 60...40% | 40...20% | 20...0%

Status Indicator

The operating condition and system temperature (in color graduation) is displayed.

The meaning, for example, is ● lights up in blue, ◕ flashes in red.

Operating condition

System off | System error | Master halted

System temperature

cold | normal | heated | warm

➔"Riding the Bike" on page 9

1.6 Before the Ride

IMPORTANT—Power-up procedure

*During power-up procedure, the BIKE**DRIVE** will perform a self test and initialization. Moving the bike contrary to the driving direction during this process can lead to malfunction. Therefore, while power-up procedure is in process,...*

- *do not rotate the rear wheel backwards (contrary to the driving direction),*
- *do not block the rear wheel,*
- *do not apply brakes!*

1) Make sure that the battery is sufficiently charged for your planned tour.
2) Make sure that the battery is turned off (➔page 6).
3) Slide battery into battery rail, let it click into place, and lock it. Remove key.
4) Turn PowerGrip in neutral position «Zero».
5) Turn on main switch on battery.
6) After successful initialization you are good to go. **Bear in mind the safety notes on ➔page 5!**

1.7 Riding the Bike

1.7.1 Power Limitation

In order to achieve a largest possible range, the motor power will be limited in certain support levels (➔Table 1).

PowerGrip	Support Level	Torque [Nm]	Limitation [W]
dotX25	Power1	10	80
	Power2	20	180
	Power3	30	—
	Boost	50	—
dotX33	Power1	10	180
	Power2	20	—
	Power3	30	—
	Boost	50	—
dotXUrban	Power1	7.5	180
	Power2	15	—
	Power3	22.5	—
	Boost	39	—

Table 1 Power limitation (factory setting)

1.7.2 Motor Power

While riding, various system parameters are continuously monitored. As the motor or battery temperature reaches a certain limit, the system automatically limits the maximum output torque. You may of course continue cycling but you must make do with reduced motorized assistance. The actual system temperature will be displayed via the PowerGrip's multicolor LED A (➔"Status Indicator" on page 8).

System heated

Cause: This is no reason for concern! You are using the BIKE**DRIVE** for what it is made for; motorized propulsion while pedaling.
What happens now? Just keep on going!
Depending on driving behavior, topography or usage of «Boost», heating of motor or battery will possibly further increase and will, eventually, lead to the status indication «System warm».

System warm

Cause: You have pushed the BIKE**DRIVE** to the maximal permitted temperature of the motor or the battery.
What happens now? Just keep on going!
The motor will automatically regulate to the highest possible torque output without exceeding the maximum permitted temperature of the motor or the battery.
The more you relieve the motor, the sooner you can expect to return to reach full torque. Thereby, cooling of the battery takes significantly longer than the cooling of the motor.

1.7.3 Battery Capacity

Among other factors, the operating range per battery charge also depends on the following influencing factors.

How to get the most out of a battery charge

- Gross weight and rolling friction: For example, additionally carried weight, trailer, low tire pressure, grazing brakes, worn components, headwind.
- Topography
- Ambient temperature: By principle, the battery can only deliver its maximum capacity within given temperature limits (➔Table 6 on page 38).
- Support level/start-up/acceleration/changing gears: The more you make use of motorized assistance (thus especially at start-up, during acceleration, and when climbing a hill), the less your distance and operating range will be.
  Use the gears as with a “normal” bike. Thereby, shift early into a lower gear when climbing a hill.

Running empty

You may fully discharge the battery. The internal controller ensures that the battery does not suffer damage. However, the battery should be recharged soon thereafter, at the latest within a week.

Shutdown

The BIKE**DRIVE** switches off completely after approximately 15 minutes without power output. To recommence the motorized ride, restart the BIKE**DRIVE** (➔“Before the Ride” on page 8).

1.8 After the Ride

If you take a break:

Always turn the BIKE**DRIVE** completely off whenever you are not sitting on the bike.

1) Turn the PowerGrip in neutral position «Zero».
2) Turn the BIKE**DRIVE** off.

After the fun is before the fun!

Perform the following steps for your BIKE**DRIVE** to deliver riding pleasure for many years:

1) Turn the PowerGrip in neutral position «Zero».
2) Turn the BIKE**DRIVE** off.
3) Clean the bike (➔page 13).
4) Remove the battery.
5) Remove moisture from motor, PowerGrip, battery, battery rail, and cables, if any.
6) Charge the battery (➔page 13)
7) Observe the instructions on battery storage (➔page 15).

Prepare for transport:

1) Remove the battery and cover the battery rail to protect it from dirt and humidity.
2) Protect the bike from dirt, dust, rain, snow, salt water, spray water. If necessary, use transport bag or cover with tarpaulin.
3) Observe the bike manufacturer's instructions if you intend to remove the front and/or rear wheel for transport.
4) Observe the following remark on air transportation if you intend to take your bike along on a flight.

Transport by Air
According to the International Air Transport Association (IATA), lithium batteries with a capacity exceeding 100 Wh are considered as hazardous goods subject to appropriate conditions for air transport. Carriage on board passenger aircraft is not permitted.
Note that all BIKEDRIVE batteries have a capacity of more than 100 Wh. Check with your airline or your travel agent on means of transportation before scheduling a flight.

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2 MAINTENANCE

The BIKE**DRIVE** is designed for a demanding off-road use and is extremely sturdy. Nevertheless, please contact your authorized BIKE**DRIVE** dealer if any malfunction should occur.

Please note: You are not entitled to perform any repair on the BIKEDRIVE. It does not contain any user-serviceable parts.

After appropriate instruction by the specialized dealer you are permitted to carry out the following described cleaning, inspection, and maintenance work. Thereby, keep strictly to the instructions and be aware: A manipulation of the bike that is equipped with a BIKE**DRIVE** carries a certain danger of getting injured. Careless or irresponsible behavior or failure to follow the precautionary measures can cause the drive to start.

WARNING

Risk of injury
Work on the bike can lead to serious injury!
*Turn off the BIKE**DRIVE** and remove the battery before you commence with any work, such as cleaning, maintenance, or troubleshooting!*

2.1 Care & Maintenance

2.1.1 After each Ride

Cleaning with Water
Do not expose motor and battery to direct water spray!

1) **Clean bike:** Remove soiling using a damp rag.
2) **Remove moisture:** Rub dry motor, battery, cables, and plug connectors with a soft cloth.

WARNING

Risk of injury
You must no longer use visibly damaged batteries. Continued use can lead to serious injury!
- *Remove the damaged battery from the battery rail!*
- *Do not connect the damaged battery to the battery charger!*
- *Discard the damaged battery in no case with normal household waste but only to the appropriate official collection site or via your specialized dealer!*

3) **Check for damage:** Check motor, battery, cables, and plug connectors for external damage. Let your authorized BIKE**DRIVE** dealer replace any damaged part immediately.

4) **Check PowerGrip for ease of movement:** It must automatically bounce back when «Boost» is released. If this is not the case, you have to dismount and let clean the PowerGrip (➔page 22).

WARNING

Risk of injury
Improper charging of the battery can lead to serious injuries!

- *Carry out charging only outdoors or in rooms equipped with fire detectors. Use a fireproof pad and keep sufficient distance to flammable materials!*
- *Use only an original BIKE**DRIVE** battery charger!*
- *Protect the battery, battery charger, and plug connectors from contact with humidity (water, dew, cleaning agents, etc.) and observe the permitted environmental conditions!*
- *Do not carry out any manipulation, cleaning, or maintenance on the bike while charging is ongoing!*
- *Oversee the charging process!*
- *In the event of fire:*
- *– Do not inhale combustion gases!*
- *– Call fire department!*
- *– Do not extinguish with water – use fire blanket!*

5) **Charge battery:** Choose a cool place to charge the battery. For information on charging temperature and duration see ➔Table 6 on page 38.

   a) Connect battery charger with battery.

   b) Connect battery charger to power outlet (100...240 VAC, 50...60 Hz) and switch on.

   c) Switch on battery. The charging process commences. Also observe the following note «Remarks on the Charging Process».

   d) Disconnect battery from battery charger.

   e) Disconnect battery charger from power plug.

Remarks on the Charging Process

- *The progress of the charging process is indicated by the battery LEDs. Thereby, the currently level being charged flashes, the already charged levels light up (➔page 33).*
- *The battery may warm up during charging. If the specified charging temperature range is exceeded, this is indicated by the battery charge indicator and charging will be interrupted. After a cooling phase, charging will resume automatically. The charging time can be prolonged.*
- *After reaching the full battery charge, the battery automatically shuts off. The LEDs on the battery go out.*

- *The amber battery charger LED indicates that the battery charger is connected to the battery. The LED lights up for the entire duration and after completion of the charging process.*
- *The battery charger's fan may automatically switch on and off during charging.*
- *If no battery is connected to the charger, the red battery charger LED lights up.*

6) **Store battery in a cool dry place.** For example, do not let the battery in your car when it is exposed to direct sunlight since it can get extremely hot in a very short time! Also, observe the permitted environmental conditions (➔page 38)!

2.1.2 Storage of the Battery

Store the battery in a cool, dry place. For information on the maximum permitted storage temperature see ➔Table 6 on page 38.

Long-term storage

If you are not using the battery for extended periods, store it at approximately 60% of its capacity. A permanently higher charge will accelerate the principle-related natural aging of the battery.

2.1.3 Periodic Inspection

In addition to the maintenance specified by the bike manufacturer, you or your authorized BIKE**DRIVE** dealer must perform the following inspections.

When?	What?
After heavy use	**Brakes:** Check wear on brake discs and brake pads, replace if necessary
Every 200 km or at least annually	• **Rear wheel:** Check on specified spoke tension • **Quick-release axle:** Check for firm fit • **Screw connections:** Check for firm fit • **Plug connections:** Check for firm fit
Every 1000 km or at least annually	**Battery rail:** Check for firm fit
When not in use or for storage: Every 6 months	**Battery:** Charge battery to approximately 60% (this corresponds to approximately 3 of 5 battery LEDs). Periodically check the charge and recharge to 60%, if necessary.

Table 2 Maintenance plan

2.1.4 Replacing the rear Brake Disc

BIKE**DRIVE** axles are available in two designs; with quick-release lever or hexagon socket (➔Figure 5). For better legibility, in the further course only the quick-release version (A) will be shown.

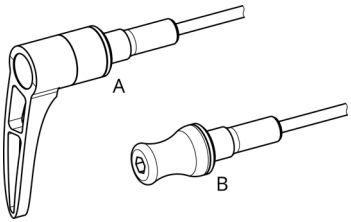
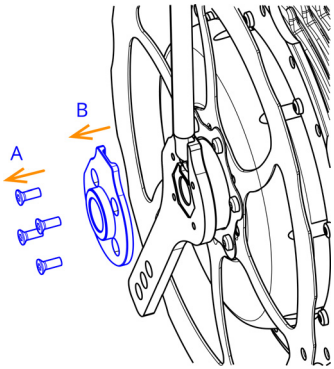


Figure 5 Axle versions

2.1.4.1 Dismantling

IMPORTANT
During disassembly, exposed parts can easily be damaged. Exercise caution.

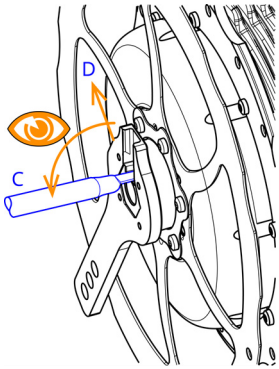
Remove cover



1) Disconnect motor plug from Power Cable.
2) Dismantle rear wheel.
3) Loosen and remove screws (A).
4) Carefully pull off cover (B).

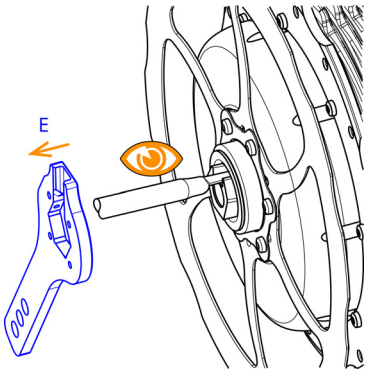
Fold down cable

Loosen set screw



5) Carefully fold down cable (C) by approx. 90°.
6) Loosen set screw (D) about 3 turns (do not remove!).

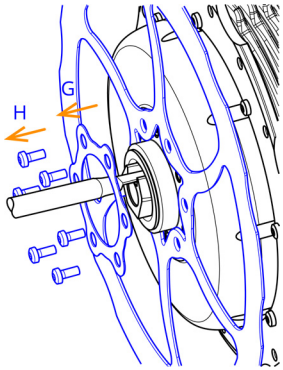
Remove torque lever



IMPORTANT
Do not damage cable.

7) Carefully pull off torque lever (E) in axial direction from hub by slightly weighing back and forth. Put over cable and plug and remove.

Remove brake disc

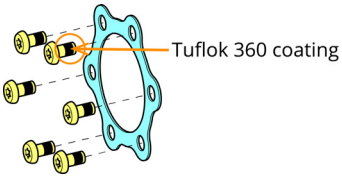


8) Loosen and remove screws (H).
9) Remove spacer plate (G).
10) Carefully pull off brake disc.

2.1.4.2 Reassembly

IMPORTANT
- During reassembly, parts can easily be damaged. Exercise caution.
- Use only one-piece, flat steel brake discs.
- To attach the brake disc, use only the maxon «Brake Screw Kit TX25», the originally used, or as to below specified screws.
- The screws must not axially touch the bottom of the tap. Wrong or too long screws lead to permanent damage of the motor.

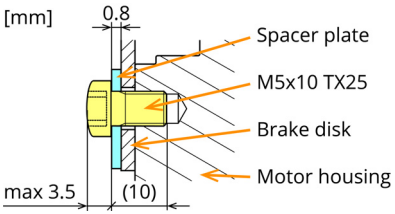
Use «Brake Screw Kit TX25»



RECOMMENDATION
Use maxon's «Brake Screw Kit TX25» (➔upper illustration).

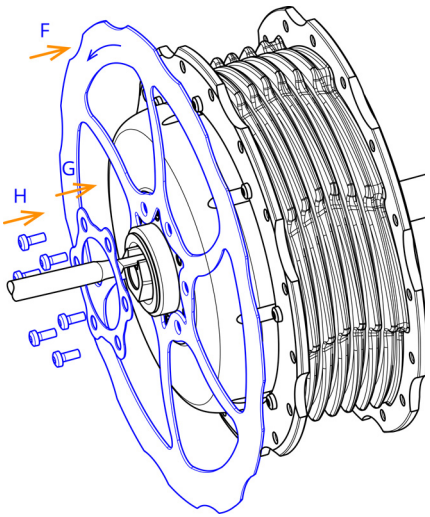
or

check dimensions



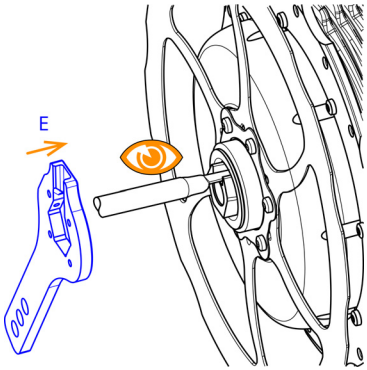
If you decide not to use the maxon screw kit:
Make sure that fastening screws and washers correspond with the indicated dimensions (➔lower illustration)!

Mount brake disc



1) Check brake disc and hub for cleanness, clean if necessary.
2) Observe specified brake disc's sense of rotation.
3) Slide brake disc (F) on hub, align radially.
4) Mount spacer plate (G).
5) Mount screws (H) from «Brake Screw Kit TX25» (for others, apply medium strength threadlocker first), lightly tighten by hand.
6) Turn brake disc against direction of travel until it strikes against screws.
7) Tighten screws crosswise (torque 7 Nm).

Mount torque lever



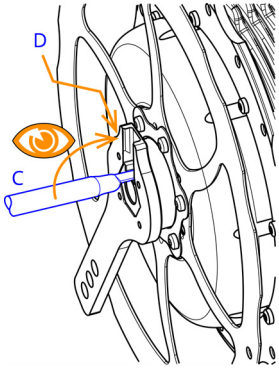
8) Align cable cutouts of torque lever (E) and hub.

IMPORTANT
Do not damage cable.

9) Carefully put torque lever in axial direction over cable and plug, slide onto hub.

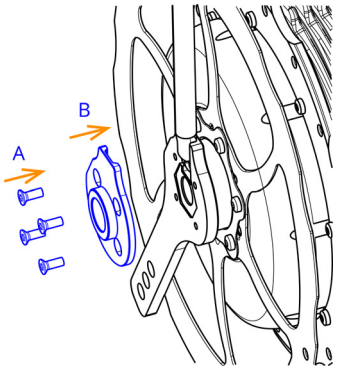
Mount set screw

Fold up cable



10) Radially align torque lever.
11) Carefully tighten set screw (D). Do not apply thread-locker!
12) Carefully fold up cable (C) by approx. 90° and insert into groove.

Mount cover

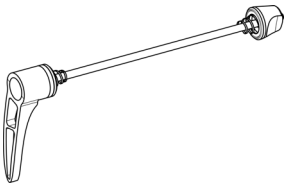


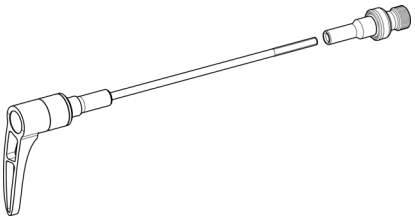
13) Place cover (B) on torque lever and align.

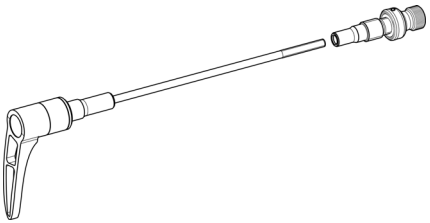
IMPORTANT
The cable must entirely rest in the groove. It must not protrude nor be pinched in the separating pane.

14) Mount screws (A) and lightly tighten.
15) Check cover for correct fit.
16) Tighten screws crosswise until parts fully contact.

Install rear wheel







17) Rotate rear wheel until torque lever points in direction of travel.

IMPORTANT
Do not damage cable.

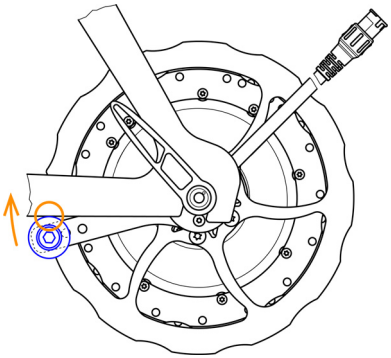
18) Carefully position rear wheel in dropout ans mount as follows:

QR
- Lead axle from left through the motor's hollow shaft.
- Align rear wheel, hold tension nut, and slightly tighten axle.

E-Thru threadless
- Insert tension nut in right dropout.
- Insert axle from left through the motor's hollow shaft.
- Align rear wheel, slightly tighten axle.

E-Thru / Flush / Maxle / X-12
- Screw tension nut in right dropout, tighten by hand until stop.
- Insert axle from left through the motor's hollow shaft.
- Align rear wheel, slightly tighten axle.

Mount stopper sleeve



19) Check condition of scratch guard (➔illustration, circle), replace if necessary.

20) Turn torque lever against direction of travel until torque lever strikes against frame from below.

21) Tighten axle.

Check settings

22) Check adjustments of rear derailleur, readjust if necessary.
Check cassette freewheel for correct function.

23) Plug Power Cable to motor plug and lock with bayonet coupling.

24) Fasten motor cable to the frame using «Power Cable Strip».

2.1.5 Cleaning the PowerGrip

Heavy soiling can keep the PowerGrip from moving freely and can prevent it from automatically bouncing back when «Boost» is released. In this case you will need to dismantle and clean the PowerGrip. Your specialized dealer uses for this purpose the «PowerGrip Service Tool» (533408), a special tool that you may purchase.

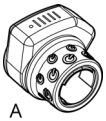
2.1.5.1 Removing the PowerGrip

1) Loosen screw cap and unplug Control Cable from PowerGrip.
2) Loosen mounting screws on PowerGrip (and handlebar grip, if any).
3) Pull off handlebar grip and PowerGrip from handlebar.

2.1.5.2 Dismantling the PowerGrip

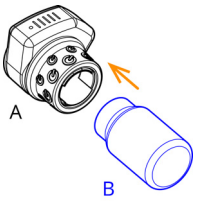
IMPORTANT
During disassembly, exposed parts can easily be damaged. Exercise caution.

Hold PowerGrip



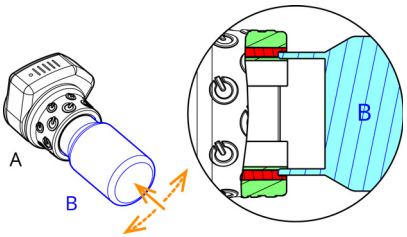
1) Take the PowerGrip (A) with one hand.

Position «PowerGrip Service Tool»



2) With the other hand, position the «PowerGrip Service Tool» (B) right-angled at the PowerGrip.

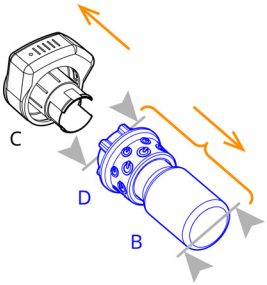
Lift off snap-in claws



IMPORTANT
Ensure concentric position of the parts.

3) Carefully push «PowerGrip Service Tool» in axial direction between snap-in claws and twist grip while moving slightly back and forth at the same time.
4) Insert «PowerGrip Service Tool» up to the stop (approximately 1 mm deep) and hold in this position.

Remove twist grip



5) Hold firm housing (C).
6) Pull off twist grip (D) **together** with «PowerGrip Service Tool» in axial direction from housing.

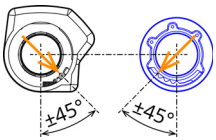
2.1.5.3 Cleaning

Now, you can clean the individual parts inside and outside:

- Clean housing with damp cloth, wipe dry afterwards.
- Clean twist grip with damp cloth or under running water, wipe dry afterwards.

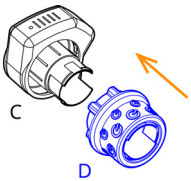
2.1.5.4 Reassembling the PowerGrip

Align parts



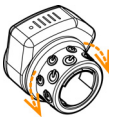
1) Align housing and twist grip as shown.

Mount twist grip



2) Slide twist grip (D) in axial direction on housing (C).
3) Press together both parts until they lock with an audible clicking sound.

Check proper function

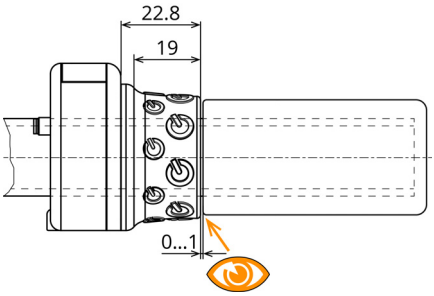


4) Slightly twist both parts against one another.
5) Check that twist grip rotates smoothly and that all snap-in positions engage easily.

2.1.5.5 Mounting the PowerGrip

IMPORTANT
- When installed, the PowerGrip must freely rotate. It must thereby automatically bounce back when «Boost» is released.
- For MTB carbon handlebars you must use carbon assembly paste.

Mount PowerGrip and handlebar grip



1) Plug Control Cable to PowerGrip and tighten screw cap.
2) Slide PowerGrip and handlebar grip on handlebar and define their axial position.
3) Make sure that handlebar grip touches the PowerGrip's inner diameter, mount plastics spacer if needed.

Fix PowerGrip and handlebar grip

4) Turn PowerGrip radially into an ergonomically comfortable position.
5) Cautiously tighten mounting screws on PowerGrip (and handlebar grip, if any).

IMPORTANT
The PowerGrip must rotate freely and must automatically bounce back when «Boost» is released.

2.1.6 Spare Parts

Through the combinations of the individual components – motor, freewheel, end caps, and axle – the BIKE**DRIVE** can be mounted in a wide range of bike designs and dropouts. The following overviews point out the possible combinations.

Note that the conversion is only possible within the motor variant. Thus, for example, the motor «MX25» can be converted from a QR 135 axle to a TA-142 axle, however, a conversion to «MX25B» or «MXUrban» is not possible.

Spare parts are supplied by your specialized dealer.

WARNING

Risk of injury / damage to components
Installing a combination of non-harmonized components can result in serious injury and damage to the bike!

- *It is not permitted to mount a motor «MX25» or «MXUrban» into a Boost dropout.*
- *It is not permitted to mount the motor «MX25B» into a standard dropout.*

2.1.6.1 Compatibility Table

MX25

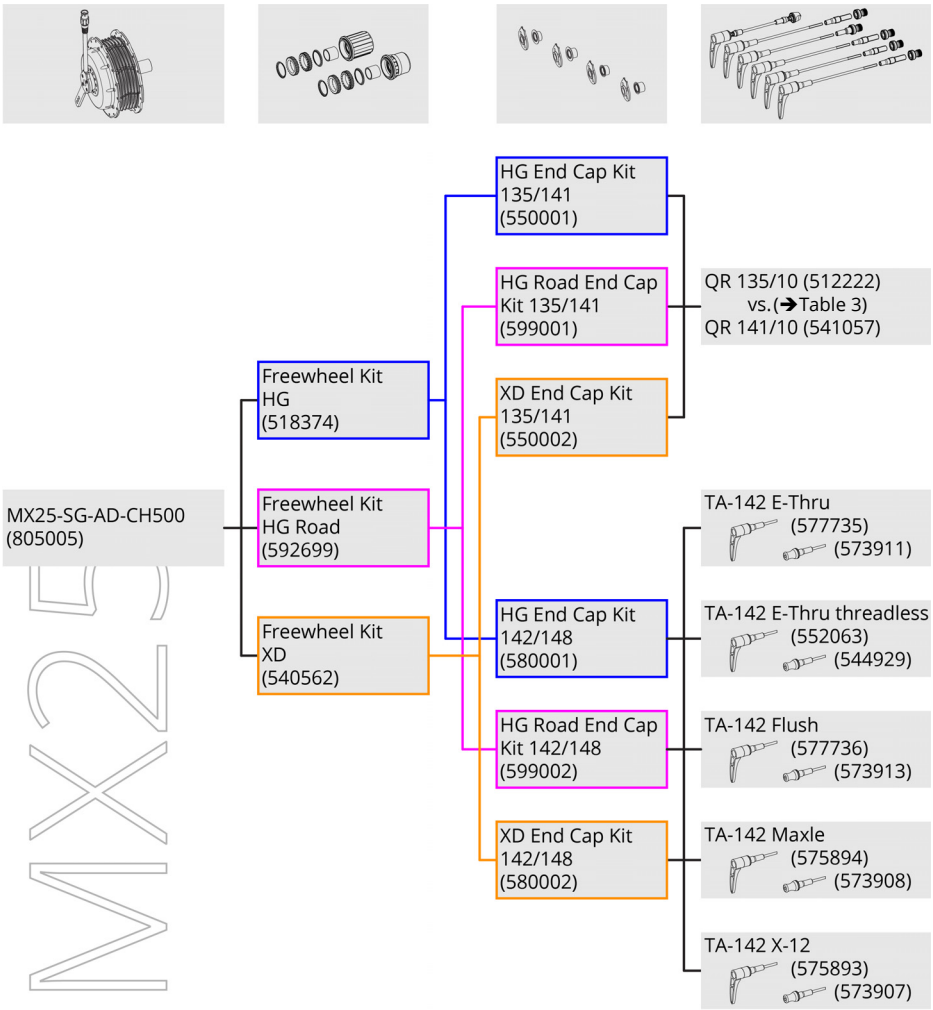


Figure 6 MX25 | Compatibility of parts

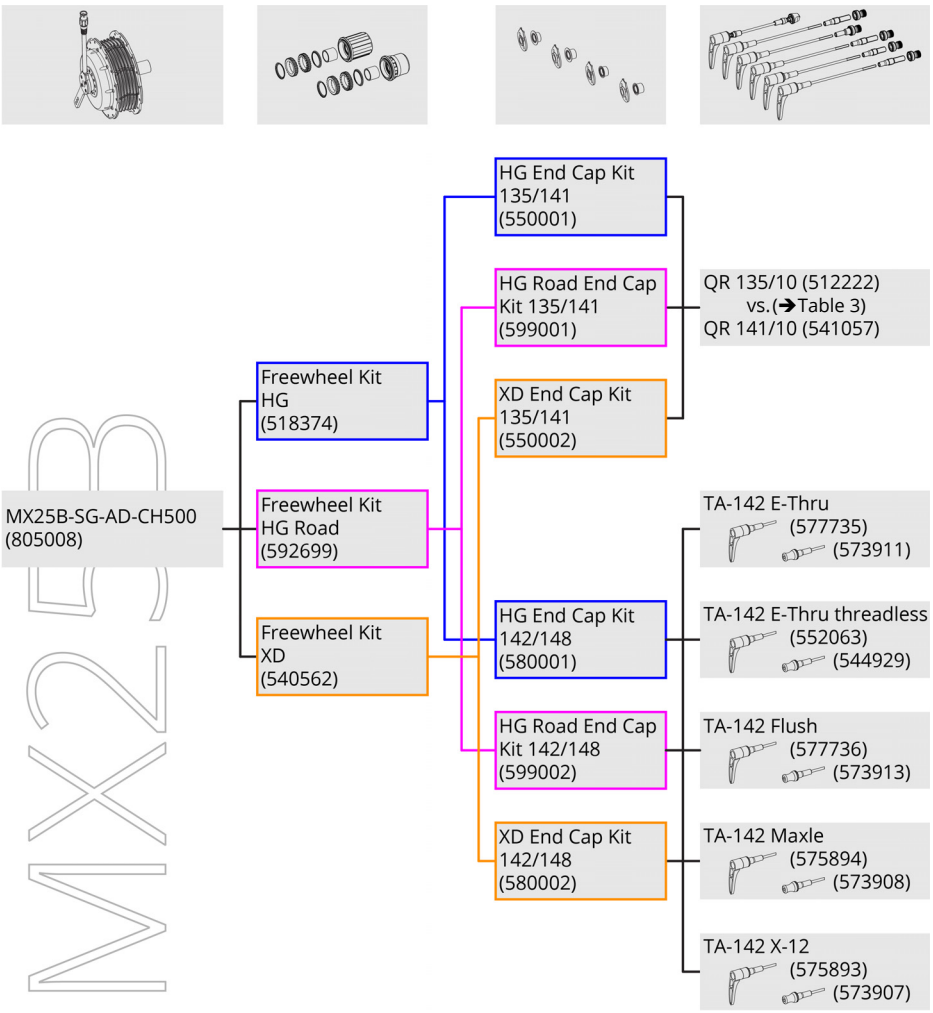


Figure 7 MX25B | Compatibility of parts

MXURBAN

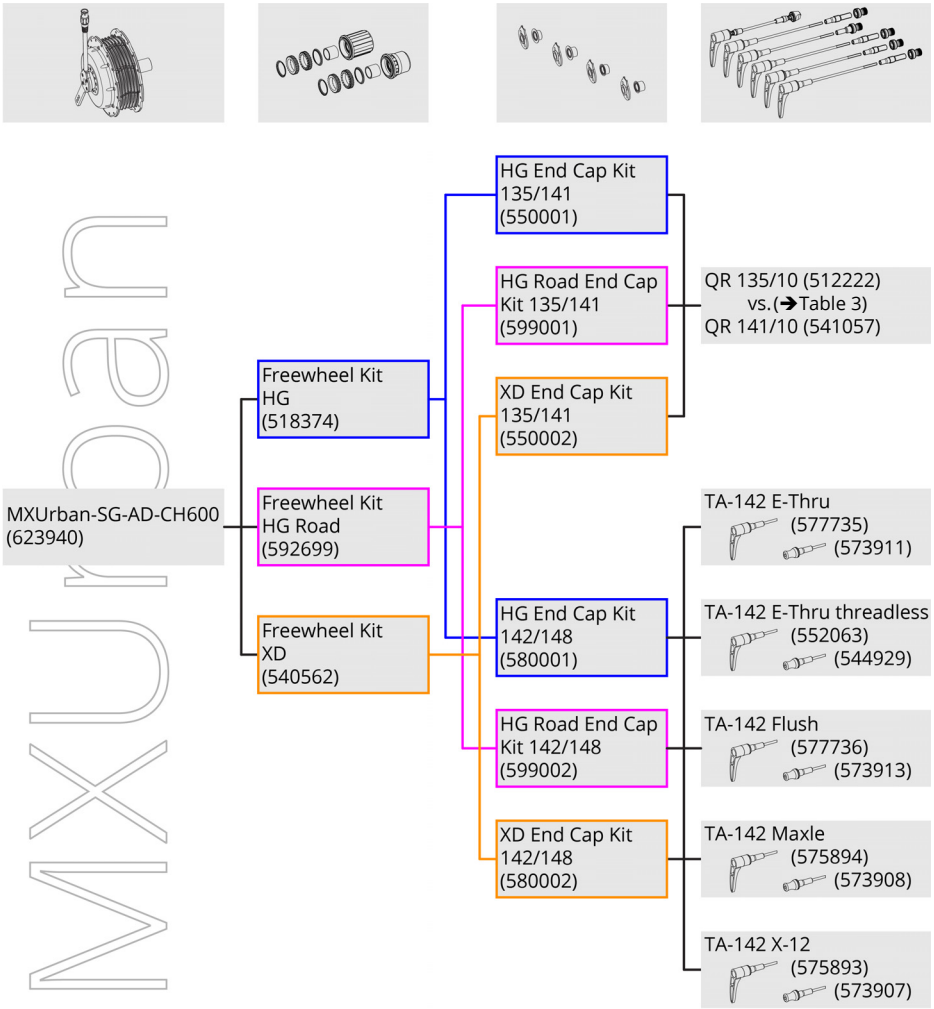


Figure 8 MXUrban | Compatibility of parts

Axle	MX25 MXUrban			MX25B		
	A	B	A+B	A	B	A+B
QR 135/10	min. 5	min. 5	10.0...18.6	min. 5	min. 5	10.0...13.6
QR 141/10	min. 5	min. 5	18.2...28.6	min. 5	min. 5	13.2...23.6

Table 3 QR 135/10 — QR 141/10 | Min/max frame dimensions [mm]

2.1.6.2 Spare Parts List

	Designation	Order number
Battery	BX360 ONE	605854
	BX500 ONE	582666
	Baseplate	515431
	Baseplate Plug Cover	535177
Motors	MX25-SG-AD-CH500	805005
	MX25B-SG-AD-CH500	805008
	MXUrban-SG-AD-CH600	623940

Continued on next page

	Designation	Order number
Rear wheels, fully fitted: *MX25* *MXUrban*	MX25-SG-AD-CH500-260DT01-N01-1KDT02 MXUrban-SG-AD-CH600-260DT01-N01-1KDT02 • Motor: as listed above • Rim: DT Swiss 533d 26", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, single crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass	607883 607915
	MX25-SG-AD-CH500-275DT01-N01-2KDT02 MXUrban-SG-AD-CH600-275DT01-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss 533d 27.5", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass	607892 607919
	MX25-SG-AD-CH500-275DT03-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss XM481 27.5", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass	607897
	MX25-SG-AD-CH500-280DT02-N01-2KDT02 MXUrban-SG-AD-CH600-280DT02-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss 545db 700c, black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass	607901 607919
	MX25-SG-AD-CH500-290DT01-N01-2KDT02 MXUrban-SG-AD-CH600-290DT01-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss 533d 29", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass	607906 607921

Continued on next page

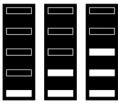
	Designation		Order number
Rear wheels, fully fitted: MX25B	MX25B-SG-AD-CH500-275DT03-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss XM 481 27.5", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass		607909
	MX25B-SG-AD-CH500-275DT04-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss XM 551 27.5", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass		607911
	MX25B-SG-AD-CH500-290DT01-N01-2KDT02 • Motor: as listed above • Rim: DT Swiss 533d 29", black • Spokes: DT Alpine III Ø2.0/1.8/2.34 mm, black, dual crossed • Spoke nipples: DT Pro Lock Squorx Pro Head, brass		607912
PowerGrip	PowerGrip dotX25		700025
	PowerGrip dotX33		700033
	PowerGrip dotXUrban		578492
Battery charger	Power Charger IV		623122
Axles (including adapters) ① *Quick-release lever* ② *Hexagon socket*	135 mm	QR 135/10 (➔Table 3 on page 29)	512222
	141 mm	QR 141/10 (➔Table 3 on page 29)	541057
	142 mm 148 mm	TA-142/148 E-Thru	① 577735 ② 573911
		TA-142/148 E-Thru threadless	① 552063 ② 544929
		TA-142/148 Flush	① 577736 ② 573913
		TA-142/148 Maxle	① 575894 ② 573908
		TA-142/148 X-12	① 575893 ② 573907

Continued on next page

	Designation	Order number
End caps	HG End Cap Kit 135/141	550001
	HG End Cap Kit 142/148	580001
	HG Road End Cap Kit 135/141	599001
	HG Road End Cap Kit 142/148	599002
	XD End Cap Kit 135/141	550002
	XD End Cap Kit 142/148	580002
Tools and Accessories	Stopper sleeve kit for torque lever	512275
	Brake Screw Kit TX25 (for disc brakes)	636472
	Brake Screw Kit TX25-CB (for Pedelec-compliant rim brakes)	546336
	Control Cable	502867
	Control Cable Extension 170 mm	521037
	Control Cable Extension 250 mm	521040
	Control Cable Extension 2000 mm	578187
	Freewheel Kit HG	518374
	Freewheel Kit HG Road	592699
	Freewheel Kit XD	540562
	Power Cable Strip	527842
	PowerGrip Service Tool	533408
	Allen wrench SW 1.27	573138

Table 4 Spare parts

2.2 Troubleshooting

Display on the PowerGrip 	**Cause:** During shut down or after full discharge of the battery, the deenergized condition of the motor will briefly be displayed at the PowerGrip. **Remedy:** You do not need to do anything! For safety reasons, the power supply will first be interrupted to the motor before the entire BIKE**DRIVE** will be switched off.
	Cause: The PowerGrip has detected an error in the system. **Remedy:** Turn BIKE**DRIVE** off (➔page 6). Wait for one minute. Turn BIKE**DRIVE** on. Consult your specialized dealer if the error still should persist.
Display on the battery 	**Flashing pattern:** The LEDs flash once per second **Cause:** Battery is in status «Safety condition overtemperature during discharge». **Remedy:** Turn BIKE**DRIVE** off (➔page 6). Wait for 15 minutes. Turn BIKE**DRIVE** on.
	Flashing pattern: The LEDs flash every 4 seconds **Cause:** Battery is in status «Safety shutdown during discharge». **Remedy:** Check if battery is charged. Turn BIKE**DRIVE** off (➔page 6). Wait for 15 minutes. Turn BIKE**DRIVE** on.
	Flashing pattern: The LEDs flash every 10 seconds **Cause:** Error on the battery. **Remedy:** Turn BIKE**DRIVE** off (➔page 6). Wait for 15 minutes. Turn BIKE**DRIVE** on. Consult your specialized dealer if the error still should persist.
Display on the battery 	**Running lights:** During the charging process, the LEDs display a running light to the current charging level **Cause:** The battery temperature is outside the permitted charging temperature (➔Table 6 on page 38). **Remedy:** If the ambient temperature is outside the charging temperature, stop charging and resume at a suitably tempered location. If the ambient temperature is within the charging temperature, you do not need to do anything. Charging will continue automatically as soon as the battery temperature is within the permitted charging temperature.

Motor does not start	**Cause:** Battery empty. **Remedy:** Recharge battery (➔page 14).
	Cause: Main switch turned off. **Remedy:** Turn BIKE**DRIVE** on (➔page 6).
	Cause: Cable defective. **Remedy:** Consult your specialized dealer.
	Cause: Plug disconnected. **Remedy:** Turn BIKE**DRIVE** off (➔page 6). Check plug connectors at motor, battery, cables, and PowerGrip for firm fit. Turn BIKE**DRIVE** on.
	Cause: Motor not correctly initialized. **Remedy:** Turn BIKE**DRIVE** off (➔page 6). Push bike a step forward. Make sure that wheels are not blocked. Turn BIKE**DRIVE** on.
	Cause: Power-up with warm motor (for example after changing the battery). **Remedy:** Wait 5 to 10 minutes to allow the motor to cool down.
Motor rotates with high speed or in wrong direction	**Cause:** Motor not correctly initialized. **Remedy:** Turn BIKE**DRIVE** off (➔page 6). Push bike a step forward. Make sure that wheels are not blocked. Turn BIKE**DRIVE** on.

2.3 Disposal

In no case dispose used components with normal domestic waste!

Dispose disused components only via official collection sites, point of sale, or your BIKE**DRIVE** dealer! The sales price includes a prepaid disposal fee allowing you to let dispose of and recycle disused components free of charge.

3 TECHNICAL DATA

The rating plate is located on the left side of the motor (as seen in direction of travel).

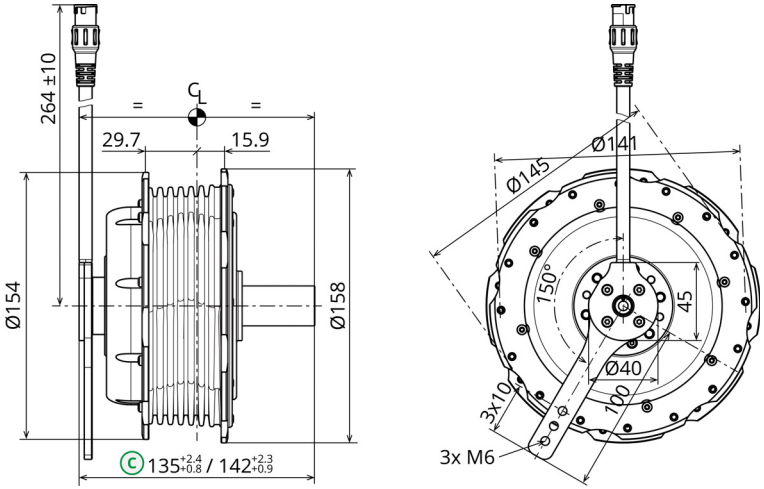
Figure 9 Nameplate (typical)

Motor			
Type	MX25	MX25B	MXUrban
	Brushless rotary current motor		
Nominal voltage	48 VDC		
Output *	500 W	500 W	600 W
Torque *	26 Nm	26 Nm	19 Nm
Rotational speed *	183 rpm	183 rpm	290 rpm
Efficiency (maximal)	85%		
Speed (maximal)	PowerGrip dotX25 25 km/h (15.5 mph) ⓐ PowerGrip dotX33 approx. 30 km/h (18.6 mph) ⓑ	PowerGrip dotX25 25 km/h (15.5 mph) ⓐ PowerGrip dotX33 approx. 30 km/h (18.6 mph) ⓑ	PowerGrip dotXUrban approx. 40 km/h (24.9 mph) ⓑ
Weight	approx. 3.5 kg (including hub)		
Dimensions	MX25 ➔Figure 10 MX25B ➔Figure 11 MXUrban ➔Figure 12		
Environmental conditions	Operating temperature −20...+50 °C Storage temperature −20...+60 °C		

* according to UNECE regulation No. 85

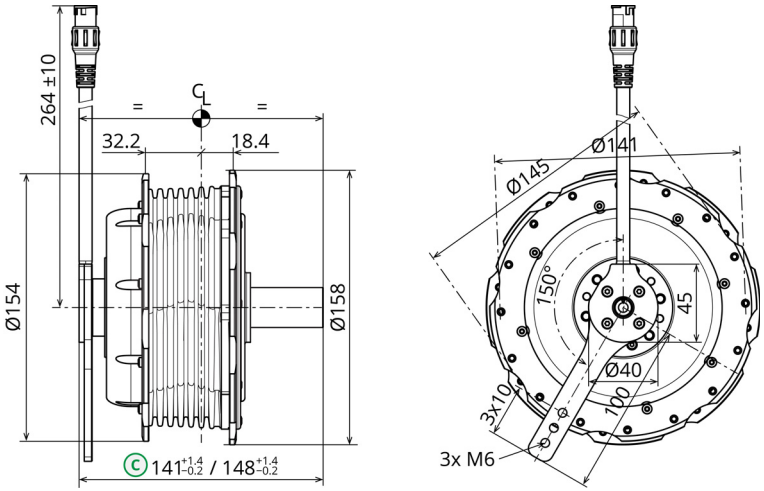
ⓐ electronically limited ⓑ depending on battery voltage

Table 5 Motor MX25 / MX25B / MXUrban | Technical data



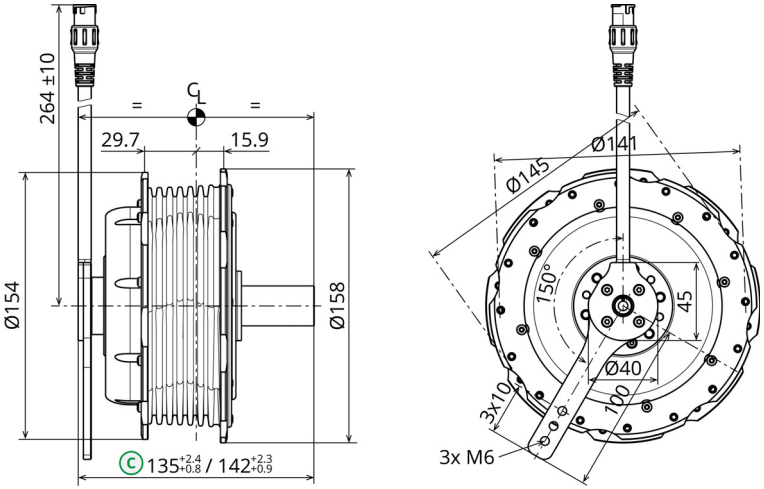
Ⓒ depending on end cap version

Figure 10 Motor MX25 | Dimensions [mm]



Ⓒ depending on end cap version

Figure 11 Motor MX25B | Dimensions [mm]



Ⓒ depending on end cap version

Figure 12 Motor MXUrban | Dimensions [mm]

Battery		
Type	BX360 ONE	BX500 ONE
	Lithium-ion battery	
Nominal voltage	48 VDC	
Nominal charge	7.5 Ah	10.4 Ah
Nominal capacity	360 Wh	500 Wh
Charging time (0...100%)	2 h	3.5 h
Weight	2.7 kg	2.8 kg
Dimensions (LxWxH)	285x86x120 mm	
Environmental conditions	Operating temperature	
	−20...+60 °C	−20...+50 °C
	Charging temperature	
	0...+45 °C	+10...+40 °C
	Storage temperature	
	0...+30 °C	
* with increased charging temperature up to approx. 5.5 h		

Table 6 Battery BX360 ONE / BX500 ONE | Technical data

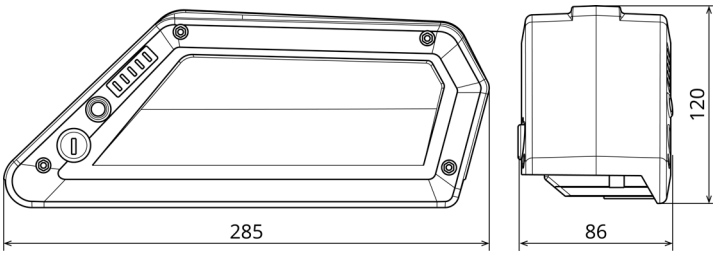


Figure 13 Battery BX360 ONE / BX500 ONE | Dimensions [mm]

Baseplate	
Type	Baseplate
	Battery mount, comprising adapter, base, battery rail, and Power Cable
Weight	435 g

Table 7 Baseplate | Technical data

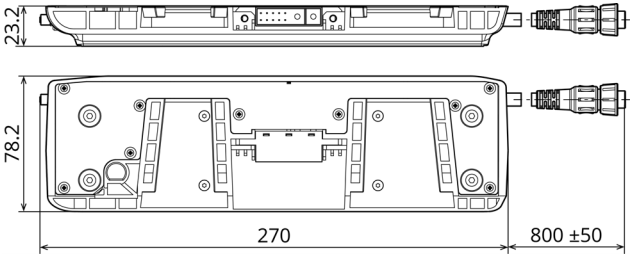


Figure 14 Baseplate | Dimensions [mm]

PowerGrip	
Type	PowerGrip
	Electronic throttle grip
Weight	56 g

Table 8 PowerGrip | Technical data

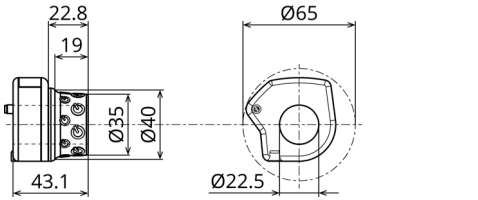


Figure 15 PowerGrip | Dimensions [mm]

Battery Charger	
Type	Power Charger IV
	Quick charger
Nominal voltage	100…240 VAC, 50…60 Hz
Output voltage	54.6 VDC
Charging current	5 A typical
Weight	1.4 kg
Dimensions (LxWxH)	189x90x65 mm
Environmental conditions	Operating temperature −10…+40 °C Storage temperature: −20…+65 °C Humidity 5…65% (non-condensing) Indoor use only

Table 9 Power Charger IV | Technical data

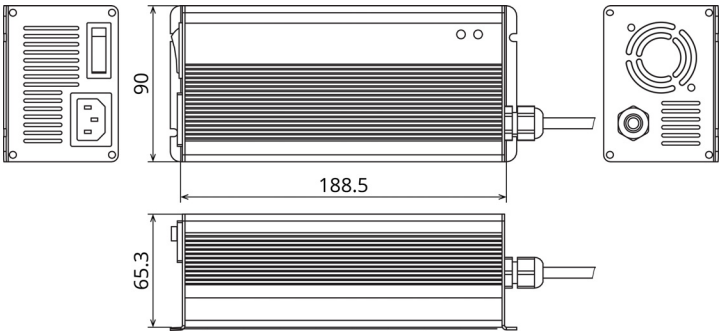


Figure 16 Power Charger IV | Dimensions [mm]

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