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# User Manual

T1 Pro

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# 1 Preface

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We're so glad you're here.

T1 Pro is our first step into a world where cargo bikes aren't just vehicles, but intelligent companions. Before we started this journey, we imagined a bike that would:

Think, watch the road and warn you in advance.

Carry all you need while zipping around tight city-center corners.

Support you, knowing when to hold you tight and when to let go.

And now, a bike that embodies that vision is here.

T1 Pro is an intelligent e-cargo bike designed to safely and comfortably transport families with young children and pets, or individuals with large loads.

TARRAN is committed to advancing the electrification of the bicycle industry with green energy and artificial intelligence. We reimagine cycling with the mindset of robotics, in the hope of providing intelligent, joyful, and accessible riding experiences, inviting more people to start cycling and to cycle better. This is what truly motivates us on a daily basis: to help more riders experience nature and human connections in an enriching and wholesome way.

Team TARRAN,  
Presented with love.

## 1.1 About This Manual

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This manual is written to help the end user safely and properly operate, maintain, and inspect T1 Pro. Ensure you have fully read and understood this manual before operating, inspecting, or maintaining T1 Pro. It is important to **KEEP THIS MANUAL IN GOOD CONDITION FOR FUTURE REFERENCE**. Should you lose this user manual, you can access it online at <https://tarranbikes.com/>.

If T1 Pro does not function as described or if you have any doubts regarding the instructions in this manual or how to safely use T1 Pro, do not use T1 Pro and contact TARRAN or your dealer.

TARRAN continually enhances products to give its users a better and safer riding experience. Some features in this manual may differ from those on the bike you bought. Check the most recent information at <https://tarranbikes.com/>.

## 1.2 Symbols Used

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Two symbols are used in this manual to emphasize safety-related points or important operations to ensure the end user correctly uses T1 Pro. The table below displays these symbols and what they mean.



**Warning!**

This symbol indicates a high level of risk, which means serious injuries may occur if the instruction is not followed correctly.



**Caution!**

This symbol indicates a low level of risk, which means that T1 Pro may be damaged if the instructions are not followed correctly.

## 1.3 Copyright

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TARRAN reserves the right to amend the product specifications and content in this manual without prior notice.

This document is protected by copyright, as provided under the Copyright Act, unless otherwise specified.

The unauthorized distribution, reproduction in any form in whole or in part, or the use or communication of its contents, is prohibited without the publisher's express permission. Violations may result in liability for damages. TARRAN reserves the right to make further claims.

## 1.4 Disclaimer

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Please read this Disclaimer carefully. Using this product means you are acknowledging and accepting the terms and conditions of this disclaimer.

By using this product, you hereby acknowledge and agree that you are familiar with the correct and safe operation of the product and agree to use this product only for proper and lawful purposes, and you accept full responsibility for your actions when using this product and any consequences that may arise. TARRAN accepts no liability for defects (warranty) if safety-related instructions and operating instructions are not observed, in the event of overloading or if faults are not properly rectified. Similarly, no liability for defects shall be accepted by TARRAN in the case of assembly errors, willful intent, accidents, or if the care and maintenance specifications are not complied with.

Nothing herein may be considered as an additional warranty.

TARRAN accepts no liability for errors or omissions caused by typesetting or printing.

As certain states or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, the above limitation or exclusion may not apply to you.

Per applicable state laws and regulations, TARRAN reserves the right of final explanation and revision for the commitment.

## 1.5 Support and Service

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If you have questions about your T1 Pro, please get in touch with an authorized TARRAN dealer or [service@tarranbikes.com](mailto:service@tarranbikes.com).

For more TARRAN information, including technical information, tutorials, and updates, please visit our website and our social media channels:

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Our website      [www.tarranbikes.com](http://www.tarranbikes.com)

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Our link tree     <https://linktr.ee/tarranbikes>

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## 2 Product

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### 2.1 Description

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T1 Pro is an electric cargo bike designed for use on paved roads with pedal assist that operates at speeds of up to 25 km/h. T1 Pro features space for up to two children in the cargo box (to transport children safely, please order the child seat with 5-point safety harness from your dealer or directly from TARRAN).

T1 Pro is powered by a mid-motor, which is powered by a rechargeable and removable battery. The battery can be charged using the provided charger. T1 Pro features five different assist levels (OFF, ECO, AUTO, NORMAL, SPORT and TURBO), which can be manually adjusted via the handlebar buttons while riding.

The mid-motor also supports the walk-assist and slope hold assist features. When activated, the bike moves at speeds of up to 4 km/h, easing the process of walking uphill with the bike.

T1 Pro is also equipped with gears to enhance cycling comfort.

With the proprietary Dynamic Dualdrive™ Landing Gear system, featuring suspension and adaptive algorithms, T1 Pro ensures superior stability and safety.

Furthermore, T1 Pro has an advanced operating system, providing riders with access to a variety of functions.

If you plan to ride on more challenging surfaces, such as gravel roads or in rainy/snowy conditions, you may need to replace the tires with ones suitable for those environments.

## 2.2 Main Parts

EN

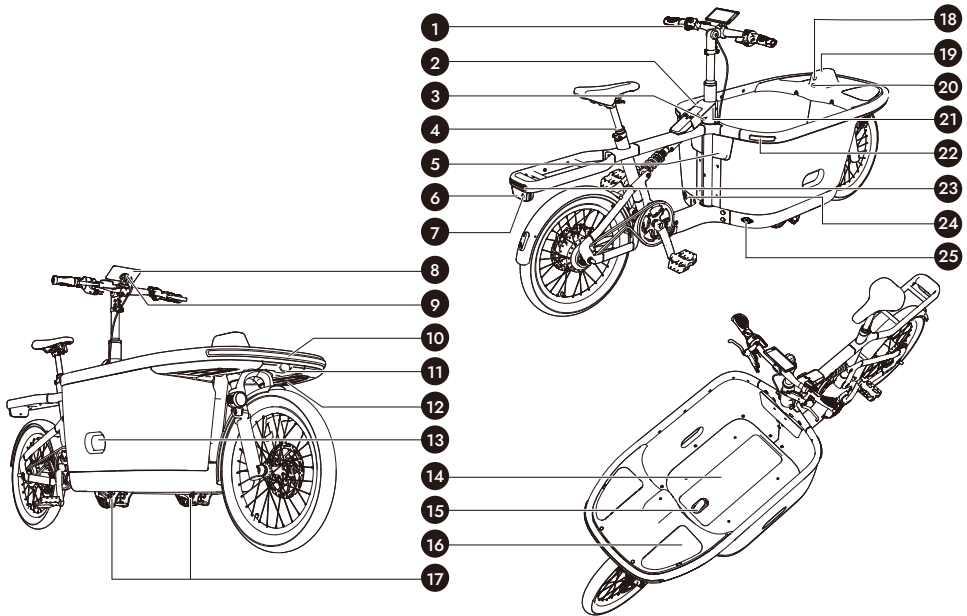


Figure 1 Main Parts of T1 Pro

1	Handlebar Control Unit	13	Box mounting step
2	Wireless Charging Phone Holder	14	Battery box lid
3	USB power output	15	Locking latch
4	Quick-Adjust Seatpost	16	Left/Right front case
5	Built-in bluetooth speakers	17	Landing gears
6	Millimeter Wave Radar	18	Selfie camera
7	Rear camera	19	1/4 inch screw mount
8	Central display	20	Type-C port for action camera
9	Central display bracket	21	NFC Card Reader
10	Halo Light	22	Turn signals
11	Front camera	23	Tail light
12	Electric bell	24	Charging Port
		25	Battery box lock

## 2.3 Key Specifications

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### Cargo Bike

Total length	2264 mm
Height	1050 to 1220 mm
Cargo box width/handlebar width	640 mm
Unladen bike weight	65 kg
Max. total weight (bike, rider, load)	220 kg
Max. weight of the rider	100 kg
Max. load capacity of the cargo box	65 kg
Rider height range	155 to 195 cm
Max. load capacity of the rear seat	25 kg
Max. height of the children in the cargo box	126 cm
Waterproof level	IPX6

### Mid-motor

Max. torque	100 Nm
Rated voltage	36 V
Rated power	250 W
Operating temperature	-20 to 55°C (14 to 122°F)
Storage temperature	-20 to 70°C (-4 to 158°F)
Waterproof level	IP67

### Battery

Nominal capacity	19.2 Ah
Nominal energy	708 Wh
Charging voltage & current	36 V/6 A
Operating temperature	-20 to 55 °C
Charging temperature	0 to 45 °C
Recommend charging temperature	10 to 45 °C
Storage temperature (≤ one month)	-20 to 55 °C
Storage temperature (≤ three months)	-20 to 45 °C
Storage temperature (≤ one year)	-20 to 25 °C
Waterproof level	IP67
Weight, approx.	3.83 kg ±0.1 kg
Charging time: from 0% to 80%	3 hours per battery
Charging time: from 0% to 100%	4.23 hours per battery

**Charger**

Input voltage & frequency	AC 200 to 240 V, 50/60 Hz
Input current	Max. 3.0 A
Output voltage & current	DC 42 V/6 A
Operating temperature	-20 to 40 °C
Storage temperature	-40 to 70 °C

**Vibration Loads**

Whole body	1.53 m/s <sup>2</sup>
Left of handlebar	0.72 m/s <sup>2</sup>
Right of handlebar	0.69 m/s <sup>2</sup>

For more detailed specifications, visit [www.tarranbikes.com](http://www.tarranbikes.com).

# 3 Safety

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T1 Pro is designed and manufactured to the highest quality and safety standards. Nevertheless, improper operation, installation, and maintenance can result in hazardous situations, such as damage, electric shocks, fire, and/or serious injuries. Please read all safety warnings in full before use and follow the instructions in this manual at all times. **Keep all safety warnings and instructions for future reference.**

## 3.1 Legal requirements

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### Warning!

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- Consult local regulations regarding the registration and use of bikes on public roads.
- Consult the national and local regulations to see if there are any restrictions on carrying passengers in T1 Pro's cargo box.
- Ensure your T1 Pro meets local and national equipment regulations before riding on public roads.
- Always follow applicable local traffic rules, including the rules for bike lighting.

## 3.2 General safety

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### Warning!

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- While no official age limit exists for riding the 25-km/h models, for safety reason we recommend not allowing children under the age of 14 to ride these models in traffic. All riders should also have good riding skills and road knowledge.
- Children may only use the bike and all its components under supervision or after instruction from a responsible person. Otherwise, there is a risk of operating errors and injuries.
- Do not allow children to play with the bike or parts of the bike, especially the spinning wheels, brake discs, landing gears, and the battery to avoid risks of entrapment, cuts, or serious injuries.
- Avoid wearing loose belts, scarves, skirts, or other long clothing that may get caught in the various parts of the bike.
- Do not ride the bike if you are unfamiliar with its operation, especially the brake system. When fully laden, the riding behavior is altered, and the braking distance increases. The braking distance will also be extended on slopes. Practice riding and braking both with and without a load to understand these differences.
- Do not ride your bike if assembly work has not been carried out completely or properly, as this compromises your safety and that of other cyclists and motorists.

- When mounting the bike with assist mode activated, the bike will start moving as soon as you press the pedal. Always apply the brakes first as the unexpected thrust can cause unsteadiness and in the worst case falls, accidents, and hazards. Do not attempt to mount by placing one foot on the pedal and swinging the other leg over; this could cause the bike to lunge forward.
- T1 Pro's electric assist feature allows speeds up to 25 km/h. All riders and children being transported in the cargo box must always wear a helmet compliant with the DIN EN 1078 standard with a CE test sticker to prevent head injuries in case of an accident.
- Always adhere to the usage parameters in section **2.3 Key Specifications** before each ride.
- Avoid parking the bike on a slope, as it may tip over.
- Switch on the headlight when riding in low light or adverse weather conditions. Cycling in the dark without sufficient lighting is hazardous, due to the reduced visibility of the road surface and limited detection by other road users.
- Avoid being distracted by the central display, as this can lead to accidents. If interaction with the central display is necessary, stop the bike completely before entering any information.
- Ensure that the landing gears are not obstructed by hands, animals, debris, or any other objects. Inspect for blockages before each use.
- The landing gears contain several moving parts. Regularly remove mud, branches, tangled debris, and other obstructions to ensure optimal functionality.
- Avoid using landing gears on uneven surfaces, mountain roads, gravel roads, or sandy roads, as the landing gears are not designed to operate effectively under these conditions.
- The landing gears produce regular motor noise during operation, which is normal. However, if irregular noises (such as abnormally sharp friction sounds, grinding noises, or collision sounds) are detected, immediately suspend use and contact TARRAN support or an authorized service center to have the bike inspected.
- The bike's moving parts are subject to wear. To maintain the bike in good and safe condition, have it inspected regularly (at least annually) by an authorized dealer.
- Use only original wear parts and spare parts authorized by TARRAN for replacements.
- Do not ride with damaged parts, as this may lead to accidents.
- Adhere to the specified operating and storage temperature ranges for all bike components. Protect the mid-motor, central display, and battery against extreme temperatures (e.g. from intense sunlight without adequate ventilation) and sunlight reflection from energy-efficient glass. Excessive heat or cold may cause permanent damage, particularly to the battery.
- Remove any accumulated snow or ice between fenders and tires or around the carbon ribbon, to avoid the risk of breakage.
- Power off the bike system and remove the battery before carrying out any work on your bike, such as assembly or maintenance work, or before transportation. Unintentional activation of the bike system may result in injury.
- Avoid direct contact between the brake discs and unprotected hands or body parts to prevent accidental injuries from sharp edges.
- After riding, avoid direct contact with the brake discs to prevent burns or injuries caused by high temperatures from friction.

- The gearing system is precisely calibrated before delivery. Maintenance of the gearing system should be performed exclusively by a qualified bike specialist. Do not attempt to adjust the gear adjustment screws or modify the gear hub yourself.
- When using the central display or wireless charging phone holder equipped with internal Bluetooth® and/or Wi-Fi, interference may occur with other devices and equipment, aircraft, and medical devices (e.g. pacemakers, hearing aids). Additionally, there is a potential risk of injury to people and animals in the immediate vicinity. Do not use the central display or wireless charging phone holder with Bluetooth® near medical devices, petrol stations, chemical plants, areas with a potentially explosive atmosphere, or on blast sites. The use of the central display or wireless charging phone holder with Bluetooth® is also prohibited on airplanes.
- DO NOT touch and apply force to the rear radar and camera module when lifting, pulling, or pushing the bike to avoid damage.
- Be cautious when braking on wet roads, as braking distances will be extended.
- DO NOT attach a trailer to the bike, as the bike is not designed for this purpose.

### 3.3 Battery

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Lithium-ion battery cells are highly flammable and may become explosive under specific conditions. To avoid the risk of battery explosion, ensure the battery is stored, operated, and charged correctly in accordance with the provided guidelines.



#### Warning!

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- Keep the battery out of reach of children.
- Protect the battery from heat (e.g. continued exposure to sunlight), open flames, and immersion in water. Do not store, operate, or charge the battery near hot or flammable objects, as this leads to the risk of explosion.
- Do not place the charger and the battery near flammable objects. Only charge the battery when it is in a clean, dry environment, and away from potential fire hazards. There is a risk of fire due to the heating that occurs during charging.
- Keep the battery and charger away from strong oxidizing agents and corrosive substances.
- Avoid subjecting the battery to mechanical stress, shocks, or high temperatures. Such conditions may damage the battery and result in the release of flammable substances.
- Keep the battery away from paper clips, coins, keys, nails, or screws that could short-circuit the contacts. A short circuit between the battery contacts may cause burns or fire.
- Never submerge the battery in water or clean the battery using high-pressure water jets, as doing so poses a risk of the battery short-circuiting, which could pose a fire hazard.
- Place the battery only on clean surfaces. In particular, avoid contaminating the charging socket and contact with sand, dirt, or other debris. This creates a risk of the battery short-circuiting, which may pose a fire hazard.

- Do not attempt to open or modify the battery yourself. This could result in the risk of the battery short-circuiting.
- Never charge or use a damaged battery. If the battery is damaged, contact your dealer immediately.
- The battery may emit vapors if it is used incorrectly or damaged. Provide a fresh air supply and seek medical attention in the event of pain or discomfort. These vapors can irritate the respiratory system.
- Incorrect use of the battery may cause liquid leakage. Avoid contact with this liquid. If accidental contact occurs, rinse the affected area with water. Seek medical attention immediately if the liquid comes into contact with eyes. Leakage from the battery may cause skin irritations or burns.
- Only use original or authorized batteries approved by an authorized TARRAN dealer. Using non-approved or third-party batteries may lead to short-circuiting, overheating, injuries, or fire hazards.
- Ensure the battery is used exclusively with the matching original mid-motor to prevent dangerous overloading.
- Never leave the battery unattended while charging.
- Do not use the battery as a handgrip. Lifting your bike by means of the battery may damage the battery.
- Never transport the battery on your person! Batteries are classified as a hazardous material and may overheat or ignite under specific conditions.
- Switch off the bike system and remove the battery before performing any maintenance, assembly, or transportation work. Accidental activation of the bike system poses a risk of injury.

### 3.4 Charger

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Improper use of the charger may pose a risk of explosion. Please familiarize yourself with the instructions in this manual before using the charger and charging the battery.



#### Warning!

- Keep the charger out of reach of children.
- Children and individuals who are unable to operate the charger safely due to physical, sensory, or cognitive disabilities, inexperience, or lack of knowledge, **MUST NOT USE** the charger without supervision or instruction from a responsible person. Otherwise, this could result in a risk of incorrect operation and injury.
- Never open or modify the charger yourself.
- Keep the charger away from rain or moisture. Ingress of water into a charger increases the risk of electric shock.
- Keep the charger clean. Accumulated dirt may increase the risk of electric shocks.
- Check the charger, cable, and plug before each use. Never use the charger if there is any damage to the charger, cable, or plug, as this increases the risk of electric shock.
- Only use a compatible original charger to charge the battery. Using a non-original charger may cause a fire hazard.

- Only charge the original battery or authorized batteries that have been approved by TARRAN for use with the bikes. Ensure the battery voltage matches the charger voltage to avoid the risk of fire or explosion.
- The voltage of the power supply must match the specifications indicated on the charger's nameplate.
- Never leave a charging battery unattended.
- Avoid placing the charger on flammable surfaces (e.g. paper, textiles, etc.) or in a combustible environment. Charging generates heat, which may pose a fire hazard. Charge the battery within T1 Pro in a dry, safe location. If this is not possible, remove the battery and charge it in a suitable place.
- Please wear protective gloves when handling the charger while charging. The charger may become very hot, particularly in high ambient temperatures.
- Keep the charger away from children. Children must be supervised during any use, cleaning, or maintenance of the charger.

### 3.5 Mid-motor

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T1 Pro is equipped with a mid-motor. Before riding the bike, thoroughly read and understand the information on handling the mid-motor.



#### Warning!

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- Do not modify the mid-motor of your T1 Pro or attach any other products that could increase the power or maximum assisted speed. Unauthorized alterations to the bike will void all warranty and liability claims. This also reduces the lifespan of the system and risks damage to the mid-motor and T1 Pro. Such modifications endanger not only your safety but also the safety of other road users and risk significant personal liability and possible criminal prosecution in the event of accidents caused by such tampering.
- Never open or modify the mid-motor yourself, or attempt to do so. The mid-motor must only be opened by authorized and qualified persons and must only be repaired using original replacement parts. This avoids adversely affecting the safety of the power unit.
- All parts installed on the mid-motor and all other parts of the bike drive (e.g. chain wheel, crankset, pedals) must only be replaced with approved components. This helps prevent overloading and potential damage to the mid-motor.
- Always remove the battery from the bike before carrying out work (e.g. inspection, repair, assembly, adjustment, or maintenance) on the bike, or transporting or storing it. Accidental activation of the bike system may result in the risk of injury.
- The walk-assist feature must only be used while the bike is not in kickstand mode and the rider should not be on the seat. Ensure the wheels remain in contact with the ground to avoid potential injury or damage.
- The pedals will turn when using the walk-assist feature. For this reason, keep your legs at a safe distance to avoid injury.

- After riding, avoid contact between the mid-motor's housing and unprotected hands or body parts. Under extreme conditions, such as sustained high torques at low riding speeds or when riding uphill or with heavy loads, the housing can reach extremely high temperatures.

## 3.6 Electric Cargo Bike



### Warning!

- The minimum rider age for operating a cargo bike with children in the cargo box is 16.
- Children transported in the cargo box must be at least nine months old. If younger children need to be transported, they must be placed in a baby basket and secured with the appropriate accessories. It is crucial to ensure your baby's neck is stable. If in doubt, consult a specialist.
- The maximum height for children transported in the cargo box is 126 cm.
- The maximum load capacity of the cargo box is 65 kg. Exceeding this limit may cause instability, reduced steering control, and potential risks. Do not exceed the permissible total weight and axle load limits of the vehicle.
- Ensure that your children wear suitable cycle helmets that meet the DIN EN 1078 standard with a CE test sticker while they are being transported in the cargo bike.
- When carrying a load, always start riding carefully in a safe environment, and adjust or reduce the load if you feel unsafe when holding the bike's handlebars.
- Ensure the cargo is positioned so that its center of gravity aligns with the vehicle's longitudinal centerline whenever possible. Keep the center of gravity as low as possible to maintain stability.
- Spread the load evenly across all available loading points. For partial loads, balance the weight across the axles to avoid overloading one side.
- Uneven or improper loading can affect braking and make the ride unstable. Always check that the load is secure and well-balanced before riding.
- Distribute the load evenly across multiple loading points if applicable. With partial loads, ensure that each axle bears weight proportionally to maintain balance.
- Use only an TARRAN-approved and tested child seat with 5-point safety harness. Follow the installation instructions precisely to ensure proper assembly.
- Do not ride the bike if any components, such as the child seat with 5-point safety harness or basket, are inadequately secured, as this may lead to serious accidents.
- Ensure the headrest of the child seat with 5-point safety harness is securely fixed inside the cargo box.
- Ensure children are properly fastened into child seat with 5-point safety harness when being transported in the cargo box. Failure to secure children or any shifting of their position may compromise the bike's stability, leading to hazardous situations or serious injuries in case of an accident.
- Ensure that any children being transported do not wear loose belts, scarves, skirts, bag straps, or long clothing that may become entangled in the various parts of the bike while being transported.

- When placing children into or lifting them out of the cargo box, ensure that the landing gears are in the correct position to support the bike's stability. This prevents accidents caused by the bike becoming unstable.
- Do not leave children unattended in the child seat with 5-point safety harness while the bike is in kickstand mode.
- It is recommended that you lift children into or out of the cargo box when the bike is securely parked and kickstand mode is engaged. Ensure children are properly secured in the child seat with 5-point safety harness.
- Ensure that any children being transported remain seated while cycling. Keep all body parts inside the cargo box. Avoid contact with springs or movable parts on the saddle and seatpost, as well as other moving components such as spokes or tires, as these can cause serious injuries.
- The bottom of T1 Pro's cargo box contains several parts that are designed to be waterproof. However, immersing the cargo box in water could still damage its components. Avoid submerging it.
- Protect the charging port on the battery and the bike from water or rain to avoid damage.

## 3.7 Quick Check Before Each Ride

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Before each ride, perform a quick check based on the current conditions. If there are any abnormal conditions, contact your dealer or TARRAN.

### Before riding your T1 Pro, perform a basic check:

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- Ensure the tires are pumped to the recommended pressure. Insufficient tire pressure leads to faster tire wear, reduced grip, and higher energy consumption of the bike system.
- Ensure the handlebar and saddle are at the appropriate height and securely fixed.
- Verify that the steering system is functioning properly.
- Verify that the battery has sufficient power (indicator not flashing) and is securely locked in place after being inserted, indicated by an audible click.
- Check that headlight, tail light, and reflectors are securely mounted, angled correctly, and functioning as intended.
- The Halo Light and turn signals can be switched on normally.
- The electric bell rings normally.
- The cameras are clean, uncovered, and able to capture images.
- The radar is clean, uncovered and can detect objects properly.
- Check that the brake levers are correctly adjusted and the braking system operates as expected
- Before operating the landing gears, ensure no animals are hiding under the bike, to avoid injury.

## If you need to transport the children or load, perform the following check:

---

- If you order a child seat with 5-point safety harness from TARRAN, follow the enclosed user guide to install it properly and safely. Ensure the children are safely secured with a three-point belt.
- The transport boxes are properly fastened and securely locked.
- The load is properly secured. Ensure that no loose fasteners (e.g., ends of lashing straps hanging down) can get caught in the wheels.
- The load is evenly distributed. The riding behavior and braking distance might change as a result.
- Ensure that the total weight does not exceed the specified individual payload limits. (refer to **2.3 Key Specifications**).

## If the brake system is not working well, perform the following check:

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- Ensure that the brake levers have a clear pressure point and cannot be pulled all the way to the handgrips. If this is not the case, do not use the bike and have the brake line bled or repaired by an approved dealer or specialist.
- Verify that the brake pads and brake discs are intact, free of grease or oil, and show no significant wear.
- Squeeze and hold the brake levers, ensuring there is no leakage of oil at any point in the brake system.

## If there are any abnormal feelings, signs, or sounds when you ride the bike, perform the following check:

---

- Ensure there are no deformations, cracks, or damage to the frame or front fork.
- Verify that the front fork suspension operates smoothly and that the front fork is securely attached.
- Ensure all quick releases are tightened properly and closed firmly, so the saddle, handlebar, pedals, and wheels cannot move, tip, or loosen.
- All screws, bolts, and nuts are tightly fastened and do not rattle.
- The handlebar and the stem are firmly fixed at the proper height and angle and with no any unusual behavior when steering left and right (e.g. play in the steering, uneven resistance or softer/less direct steering feel than usual).
- Ensure the seat post and saddle are correctly and securely attached, with the saddle adjusted to the appropriate height and angle to suit your needs.
- The tires and rims are free from damage and the wheels can turn unimpeded.
- Ensure there is no sharp debris in the tires' treads that may puncture them.
- Verify that the wheels and tires rotate smoothly and are sufficiently true. Check the tire pressure and condition, ensuring the valves are properly seated.
- Ensure handgrips, brake levers, buttons, twist shifter, and central display are installed firmly at the proper angle.

The above checks should also be carried out after a collision/crash. Do not use the bike if a part no longer functions correctly or is broken/deformed.

# 4 Basic Guide

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This section contains related guides to help you get started.  
For video instructions, scan the QR code provided.



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This section includes basic guides to components and features you should know about before, during, and after riding.

## Before riding:

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- **4.1 Handlebar Control Unit** — operating the buttons.
- **4.2 Landing Gears** — switching between kickstand mode, gliding mode and retract mode.
- **4.3 Installation and Adjustment** — installing and adjusting the saddle, handlebar, central display, and kickstand.
- **4.4 Tires** — inflating the tires to the recommended pressure.
- **4.5 TF Card** —taking out or replacing the TF card.
- **4.6 Battery** — check, installing, removing, and charging the battery.
- **4.7 Boot and Unlock** — switching on and unlocking T1 Pro.
- **4.8 Wireless Charging Phone Holder** — clamping the cell phone on the wireless charging phone holder for wireless charging.
- **4.9 TARRAN App** — downloading, installing, and registering for the TARRAN App, then pairing it with your T1 Pro.
- **4.10 Multimedia and Safety** — functions to provide fun during riding and ensure safety and security.

## During riding:

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- **4.11 Electric Assist** — changing the assist level and using the walk-assist feature.
- **4.12 Gear Shifting** —shifting gears.

## After riding

- **4.13 After Use** — powering off and locking the bike.

New bike concepts may differ from the riding experience you are accustomed to. Once the bike is set up, familiarize yourself with the function of all controls, especially including steering, cornering, and braking behavior of T1 Pro away from traffic, on flat roads and slopes, both with and without a load.

## 4.1 Handlebar Control Unit

T1 Pro is equipped with a handlebar control unit for quick and easy bike control. Refer to the table below for the function of each button.

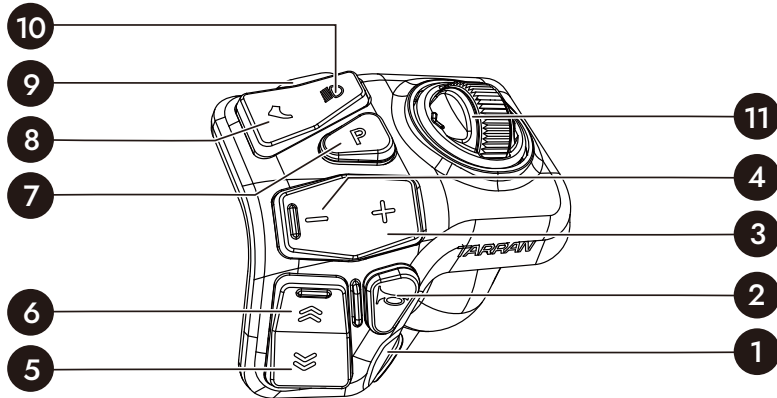













Figure 2

No.	Buttons	Operations	Features
1		Press and hold for one second	Switch the bike on/off (the landing gears are in kickstand mode).
		Short press	Turn the central display on/off
2		Short press	Triggers a single ring.
		Press and hold	Triggers repeat ringing, release the button to stop.
3		Short press	Increase assist level. (No effect if the maximum level is already reached)
4		Short press	Decrease assist level. (No effect if the minimum level is already reached)
5		Press and hold for one second	Switch to gliding mode from retract mode.

6		Press and hold for one second	Switch to retract mode from gliding mode.
7		Press and hold for one second	<ul style="list-style-type: none"> <li>• Enter kickstand mode. (The landing gears switch from gliding mode or retract mode to kickstand mode)</li> <li>• Exit kickstand mode. (The landing gears switch from kickstand mode to gliding mode)</li> </ul>
8		Press and hold the walk-assist button while walking the bike	Enter walk-assist mode; continuously hold down the button to help ease walking the bike, with a maximum speed of 4 km/h. (Releasing the button will exit walk-assist mode)
9		Press and hold for one second	Unlock the battery box lid. (Ensure the bike is powered on and in kickstand mode)
10		Short press	<ul style="list-style-type: none"> <li>• Switch on the low beam (when the headlight is off).</li> <li>• Switch between low beam and high beam (when the headlight is on).</li> </ul>
		Press and hold for one second	Switch off the headlight.
11		Short push to the left-hand side	<ul style="list-style-type: none"> <li>• Switch on the left turn signals.</li> <li>• Switch off the left/right turn signals.</li> </ul>
		Long push to the left-hand side	Switch to the previous song.
		Short push to the right-hand side	<ul style="list-style-type: none"> <li>• Switch on the right turn signals.</li> <li>• Switch off the left/right turn signals.</li> </ul>
		Long push to the right-hand side	Switch to the next song.
		Short press	<ul style="list-style-type: none"> <li>• When a call pops up: answer the call.</li> <li>• Other pages: play/pause music.</li> <li>• When on the recording preview page: take a photo or start recording.</li> </ul>

		Press and hold for one second	<ul style="list-style-type: none"><li>• When a call pops up or on a call: hang up the call.</li><li>• Enter the selfie-camera preview page.</li><li>• Switch between photo and video mode.</li></ul>
		Scroll up	<ul style="list-style-type: none"><li>• Increase volume.</li><li>• When on the preview page, switch the lens.</li></ul>
		Scroll down	<ul style="list-style-type: none"><li>• Decrease volume.</li><li>• When on the preview page, switch the lens.</li></ul>

For more detailed operation steps, watch our videos at <https://tarranbikes.com/>.

## 4.2 Landing Gears

---

T1 Pro has the proprietary **Dynamic Dualdrive™ Landing Gear** system, featuring suspension and adaptive algorithms for optimal performance. It also offers three modes for enhanced functionality: **kickstand mode**, **gliding mode**, and **retract mode**. Follow the instructions below to switch modes manually or use semi-automatic transitions to seamlessly get your bike ready to ride.

### 4.2.1 Manual Mode Switching

---

- Between kickstand and gliding modes: Press and hold the **Parking Button** for one second.
- Between gliding and retract modes: Press and hold the **Up** button for one second to switch landing gears from gliding mode to retract mode. Press and hold the **Down** button for one second to switch landing gears from retract mode to gliding mode.

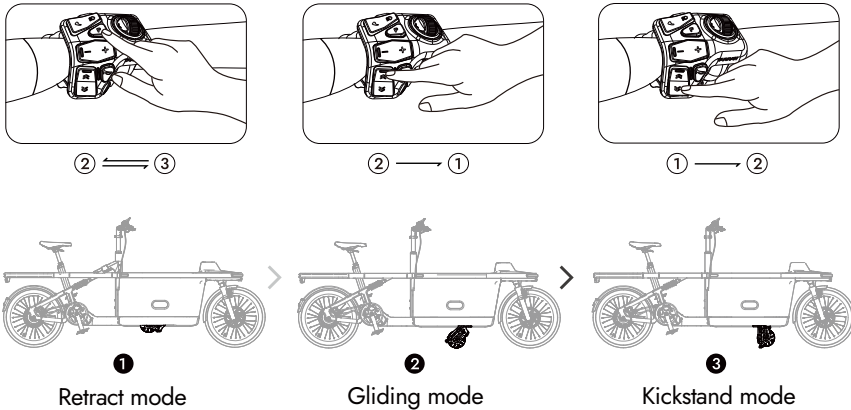


Figure 3

### 4.2.2 Semi-Automatic Transitions

---

The semi-automatic transition feature allows for quick transitions while riding or stopping. If you do not wish to use it, you can deactivate it in the central display's settings page.

#### Transition to Retract Mode (Ready to Ride)

---

- Ensure landing gears are in **gliding mode**.
- Press the **Up Button**.
- Begin pedaling after pressing the button.
- The landing gears will automatically switch to **retract mode**.

## Transition to Gliding Mode (Ready to Stop)

- Ensure landing gears are in **retract mode**.
- Press the **Down Button**.
- Apply brakes after pressing the button.
- The landing gears will automatically revert to **gliding mode**.

Note: Before powering off T1 Pro, press and hold the Parking button for one second to switch on kickstand mode.



### Caution!

- T1 Pro can only switch on kickstand mode electrically by pressing the Parking button, do not pull the bike backward forcibly.
- Do not park the bike on a slope, or the bike may tip over.
- To avoid damage, **ensure the landing gears are in retract mode** during transportation. **Do not active kickstand mode or gliding mode.**
- It is recommended to use the landing gear gliding mode only on flat surfaces to prevent the risk of the bike tipping over.

## 4.3 Installation and Adjustment

### 4.3.1 Saddle

Adjust the saddle height before adjusting the handlebar height or angle.

The height of the seatpost can be adjusted using two separate semi-automatic and manual operations. To adjust the height of the saddle, adjust the semi-automatic part first, which is easier to operate (see *Figure 4*). If further height adjustment is needed, loosen the screw and pull out the seatpost to adjust the height. After the adjustment, tighten the screw.

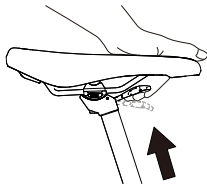


Figure 4

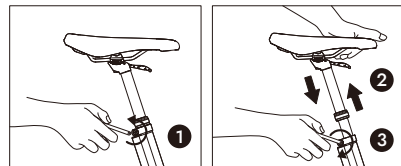


Figure 5

You can also loosen the bolts to move the saddle forward or backward (to find the most comfortable position). After the adjustment, ensure all bolts are securely tightened.



## Caution!

---

- Do not pull the seatpost out of the frame beyond the "MIN" marking or move the saddle past the "MAX" marking on the saddle.
- Loose bolts can cause the saddle to shift beyond its maximum position, putting extra strain on parts and potentially leading to breakage. This could lead to dangerous situations. It is recommended you check the saddle is tightly fastened at least once a month.
- Avoid pulling on the saddle nose when moving or handling the bike, as this can damage the saddle. Use the grip on the back of the saddle to handle the bike.

### 4.3.2 Handlebar

---

Once the saddle is adjusted properly, you can adjust the handlebars for a comfortable cycling position, including distance, angle, and height.

Use Allen keys to loosen the angle bolts or open the quick release on the stem to adjust the distance, angle, or height of the handlebar, then securely tighten the bolts and close the quick release.



## Caution!

---

- Do not pull the stem out of the frame beyond the "MIN" mark on the stem.

### 4.3.3 Central Display

---

The central display allows you to fully enjoy all the intelligent features of T1 Pro. It features a quick-release design for easy installation and removal.

#### Installation Before Riding the Bike for the First Time

---

- Retrieve the central display from the tool box.
- Install the central display onto the handlebar and adjust it to the desired angle.
- Connect the type-C cable from the bike to the type-C port on the central display. (See *Figure 6*).
- The display can be installed in either **landscape** or **portrait** mode. **Portrait mode** is recommended for navigation.

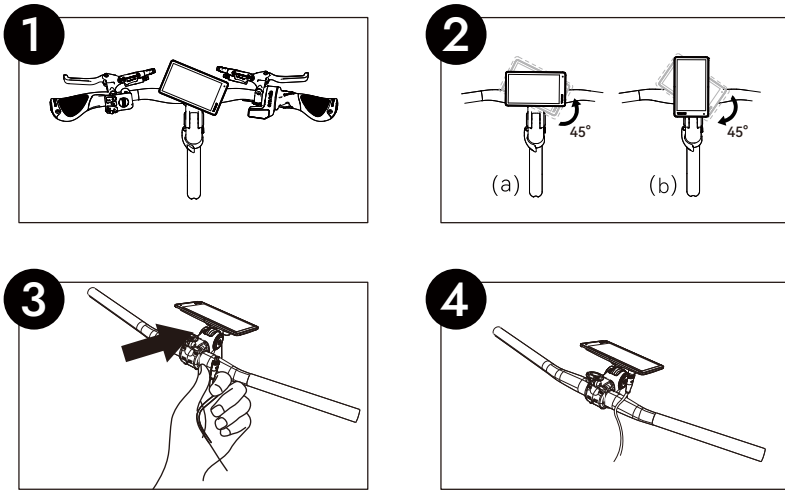


Figure 6

## Storage After Riding

You can either carry the display with you or store it in the battery box. If you choose to store it in the battery box, please follow these steps:

- Press and hold the lock button for one second to unlock the battery box lid.
- Press the power button to switch off the central display.
- Remove the central display and cover the type-C port with the protective cap.
- Place the central display inside the battery box.
- Close and lock the battery box lid.
- Power off the bike.

## Reinstallation Before the Next Ride

- Ensure the bike is turned on and unlocked.
- Unlock the battery box lid.
- Retrieve the central display from the battery box.
- Install the display back onto the handlebar and reconnect the type-C cable.
- Press the power button to switch on the central display.

Note: The bike can be powered on without the central display installed.



## Caution!

---

- Ensure the central display is installed and connected before switching on the bike.
- Always switch off the central display before removing and disconnecting the central display.
- When the type-C port is not in use, cover it with the protective cap to prevent damage.

### 4.3.4 Kickstand

---

T1 Pro is equipped with a kickstand that can be installed if needed. To install, simply use the Allen key to secure it to the rear axle nut. For enhanced stability, especially when the bike is carrying a load, we recommend using landing gears as the preferred option.



## Caution!

---

- The kickstand should only be used when the cargo box is loaded with a maximum weight of 65 kg, and the load consists of securely fixed items.
- Always ensure the bicycle is on a paved, level surface when using the kickstand to maintain stability and prevent potential damage.

### 4.4 Tires

---

Inflate the tires to the recommended pressure indicated on the tire.



## Caution!

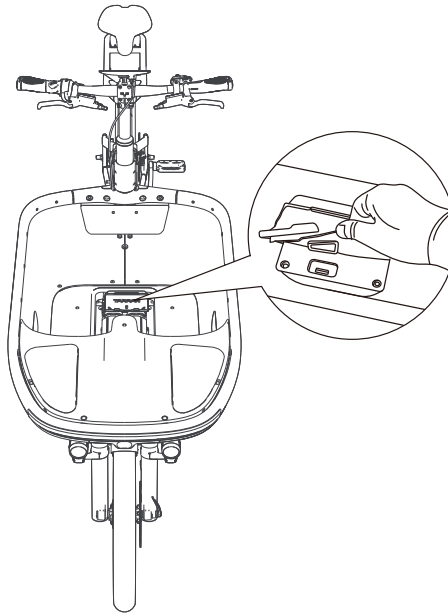
---

- Loosen the ring on the valve before inflating the tire, or the tire may be damaged.

## 4.5 TF card

---

T1 Pro comes equipped with a 128-GB TF card for storing recordings and log files. The TF card slot is on the controller module (See *Figure 7*). To remove the TF card, firmly press it with your fingertips, then gently release it to eject. You can also use other compatible TF cards. For a list of compatible TF cards, please visit <https://tarranbikes.com/>.



*Figure 7*

## 4.6 Battery

---

T1 Pro supports using two batteries to provide a longer ride range. Using two batteries is also helpful to extend the lifespan of the batteries by decreasing the use rate. Note there is only one battery in the standard package. Order an additional battery from TARRAN or an authorized dealer if you want to use two batteries.

## 4.6.1 Checking

There are two methods to check the state of charge.

**Method 1 — on the battery:** press the button near the charging port on the battery. Different LED indicator states signify different conditions.

LED Status Indicators on the Battery					
SOC	LED1 (red)	LED2 (green)	LED3 (green)	LED4 (green)	LED5 (green)
0% to 10%	Flashing	OFF	OFF	OFF	OFF
11% to 30%	ON	OFF	OFF	OFF	OFF
31% to 50%	ON	ON	OFF	OFF	OFF
51% to 70%	ON	ON	ON	OFF	OFF
71% to 90%	ON	ON	ON	ON	OFF
91% to 100%	ON	ON	ON	ON	ON

**Method 2 — on the central display:** switch on the bike and check the state of charge on the central display. Tap the battery icon. The data indicates the SOC of the battery or the total remaining assist ride range(km); this value will change depending on the selected assist level. To switch the format in which data is displayed, click the battery icon on the central display.

## 4.6.2 Installing

To install the battery, first unlock the battery box lid. There are two ways to do this:

**If the battery is not installed:**

- Use the battery box key to unlock the lid

**If the battery is installed and the bike is switched on:**

- Press and hold the battery box lock button for one second to unlock the lid

For first-time installation, we recommend using the battery box key to unlock the battery box lid. Below are the detailed instructions:

1. Retrieve the key from the toolbox.
2. Insert the key into the battery box lock and unlock the battery box lid.
3. Lift the lid to access the battery cradle.
4. Align the battery's charging port with the charging plug and insert the plug securely.
5. Gently press the opposite end of the battery until you hear a click, confirming it is locked in place.
6. Close the battery box lid.

*If you have lost your key, please contact Tarran Support for assistance.*

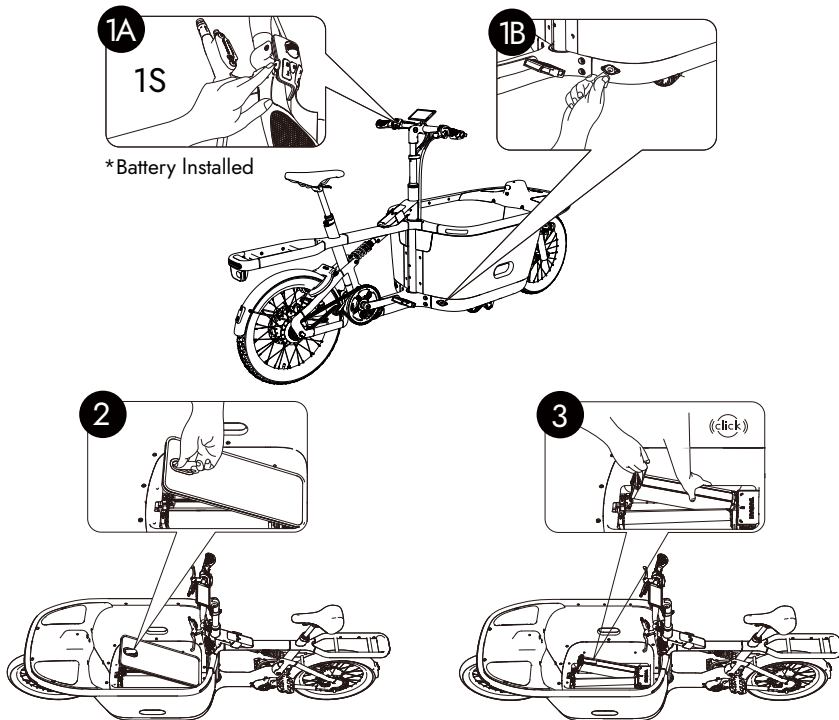


Figure 8



## Caution!

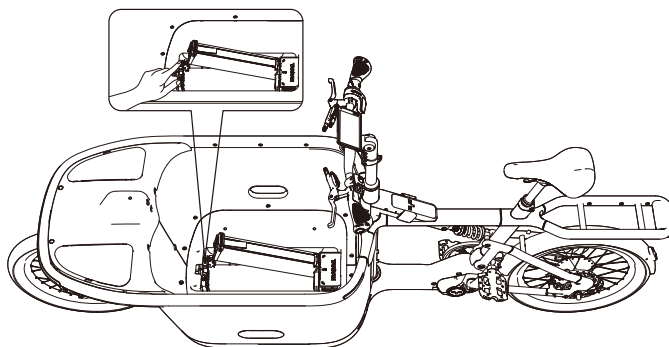
---

- To prevent the battery or the central display from being stolen, ensure the battery box lid is securely closed and cannot be opened when the bike is powered off, especially if you are leaving the bike unattended.

### 4.6.3 Removing

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When the bike is powered on, press and hold the battery box lock button on the handlebar control unit or the app for one second to unlock the battery box lid. Lift the lid, press the black release button on the battery cradle, and pull up the battery (Refer to *Figure 9*). Close the lid again.



*Figure 9*

### 4.6.4 Charging

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You can charge the battery whether it is inside or outside the battery box.

#### Charging Within the Battery Box

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1. Install the battery within the battery box
2. Insert the appliance plug on the power cable into the charger.
3. Insert the power plug on the power cable into a working power outlet.
4. Connect the charging plug of the charger to the charging port of the bike

## Charging Outside the Battery Box

1. Insert the appliance plug on the power cable into the charger.
  2. Insert the power plug on the power cable into a working power outlet.
  3. Connect the charging plug of the charger to the charging port of the battery.
- Fully charging one battery takes about four hours. The charger and battery LEDs indicate the charging status.

### LED Charging Status Indicators on the Battery

SOC	LED1 (red)	LED2 (green)	LED3 (green)	LED4 (green)	LED5 (green)
0% to 20%	Flashing	OFF	OFF	OFF	OFF
21% to 40%	ON	Flashing	OFF	OFF	OFF
41% to 60%	ON	ON	Flashing	OFF	OFF
61% to 80%	ON	ON	ON	Flashing	OFF
81% to 100%	ON	ON	ON	ON	Flashing

### LED Status Indicators on the Charger

Solid green	Battery is fully charged or charger not connected.
Solid yellow-green	Charger is charging the battery.
Solid red	Charger is malfunctioning, please disconnect and reconnect the charger plugs.
Flashing green	No battery present.
Flashing yellow-green	Charger malfunctioning; recovery in progress.
No LEDs lit	The power socket has no power, or the power cable is malfunctioning or not plugged in correctly.



## Caution!

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- To extend the lifespan of the battery, fully charge it before its first use.
- Only charge the battery with the original charger.
- Keep the charging port on both the battery and the bike dry to prevent damage from water or rain.
- To prevent the battery being completely discharged, meaning that the bike cannot switch on or switch out of kickstand mode, ensure the battery has enough power before each ride.

## 4.7 Boot and Unlock

---

There are three ways to switch on and unlock a bike.

1. **NFC smart key:** Scan the NFC smart key directly on the NFC mark on the right side of the wireless charging phone holder while the bike is powered off. This action will automatically switch on and unlock the bike.
2. **APP unlock key:** Refer to section 4.9 *TARRAN App* for instructions on how to link the bike to your account. When your cell phone is within Bluetooth range of the bike (if 4G is enabled on the bike, a longer range is supported ) and the TARRAN App is running, tap the lock icon button in the app to switch on and unlock the bike.
3. **Walk-up unlocking:** Refer to section 4.9 *TARRAN App* for instructions on how to link the bike to your account. After linking the bike to your account, when your cell phone enters the Bluetooth range of the bike and the TARRAN App is running, the bike will automatically switch on and unlock without any further action required.

T1 Pro applies an electronic lock for enhanced security. You can also order a ring lock authorized by TARRAN.



## Caution!

---

- To ensure the electronic lock functions properly, charge the battery in a timely manner to prevent the internal backup battery from running out of power.
- If the cell phone is not within the limited range of the bike's Bluetooth signal, pressing the power button will only switch on the bike and will not unlock it. Without unlocking the bike, you will not be able to ride it.

## 4.8 Wireless Charging Phone Holder

---

The Wireless Charging Phone Holder supports wireless charging for compatible cell phones. (For a list of compatible devices, go to <https://tarranbikes.com/>). Push up the clips to hold your phone firmly before riding.

If your cell phone is not on the list of compatible devices, you can still charge it via the type-C port on the wireless charging phone holder.



### Caution!

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- Do not forget to take the cell phone with you when you walk away from your T1 Pro.

## 4.9 TARRAN App

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The TARRAN App enables riders to enjoy more intelligent features. Follow the steps to install the TARRAN App, register an account, and link your T1 Pro. For more detailed instructions, watch our videos at <https://tarranbikes.com/>.

1. Scan the following QR code to download and install the TARRAN App on your phone.



2. Register an account on the TARRAN App.
3. Bind your T1 Pro with TARRAN App.

## 4.10 Multimedia and Safety

---

T1 Pro features advanced multimedia, safety, and anti-theft features to enhance the riding experience while ensuring security and convenience.

- **Multimedia:** music playback, call answering, navigation, and camera functionality.
- **Safety:** rear collision alert, integrated dash cam, and lane change collision alert.
- **Anti-theft:** sentry mode, "find my bike" tracking, and "mark as lost" feature.

For detailed usage tutorials, please scan the QR code provided.



## 4.11 Electric Assist

### 4.11.1 Assist Level

---

You can choose from the following assist levels:

**OFF:** No assistance. T1 Pro works like a normal bike.

**ECO:** Low-level support with maximum efficiency for long-range.

**AUTO:** Automatic adjustment of support in response to a drop in speed due to climbs or sudden headwinds.

**NORMAL:** Moderate support for versatile everyday riding and balanced performance on regular terrain.

**SPORT:** Powerful support for sporty riding and fast commuting in urban traffic.

**TURBO:** Maximum power support for steep ascents or high-intensity cycling.

The assist level adjusts automatically based on the force you apply to the pedals.

The assist feature automatically disengages at speeds above 25 km/h for safety reasons.

If the speed decreases, the assist feature will automatically engage again when you pedal.



### Caution!

---

- **Riding for the first time:** Try out T1 Pro in a low-traffic area to become familiar with cycling using pedal assist and its various assist levels without distractions.
- **Start with the lowest assist level:** Begin with ECO mode.
- **Check the brakes:** Disc brakes provide more power than traditional brakes. By default, the front brake lever is on the left, and the rear brake lever is on the right. Test the brakes during your initial ride to understand the pressure needed and their power. Be aware of which lever controls the front and rear brakes to ensure safe braking.

- **Electric assist operation:** The mid-motor provides assistance when you pedal, except in "OFF" mode or when using the walk-assist feature. If you stop pedaling, the assistance will also stop.
- **Riding in traffic:** Once comfortable with T1 Pro, you can cycle in traffic. The level of assist depends on two factors:
  - The selected assist level.
  - The amount of effort exerted while pedaling.

## 4.11.2 Walk-assist

---

T1 Pro features a **walk-assist mode**, designed to make walking the bike easier, whether on level ground or when walking uphill. When activated, the bike provides gentle motor assistance at a maximum speed of 4 km/h. It will not provide extra power assist if the bike's speed exceeds 4 km/h to ensure safety.

To activate walk-assist mode, **press and hold the walk-assist button** while pushing the bike forward with some speed. Releasing the button will immediately deactivate walk-assist mode. If the bike is on an incline, it will automatically switch to **slope hold assist mode** to prevent rollback.

## 4.11.3 Slope Hold Assist

---

T1 Pro features **intelligent slope hold assist**, enhancing safety and stability on inclines by preventing rollback and ensuring a smooth transition to assist mode.

- **Anti-Rollback Activation:** When using walk-assist mode on an uphill slope, releasing the walk-assist button will automatically engage the anti-rollback feature, keeping the bike stable and preventing it from rolling backward.
- **Seamless Transition to Assist Mode:** While anti-rollback is active, **starting to pedal** will switch the mid-motor to assist mode, providing power to support riding. If pedaling stops, the system will automatically re-enter **anti-rollback mode** to maintain stability on the slope.

## 4.12 Gear Shifting

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T1 Pro is fitted with gears. You can easily change gears using the Enviolo gear shifter near the right-hand handgrip.

To **shift down** (lower gear, suitable for cycling uphill): Turn the twist shifter **away from you** (clockwise).

To **shift up** (higher gear, suitable for cycling on flat terrain): Turn the twist shifter **towards you** (counterclockwise).

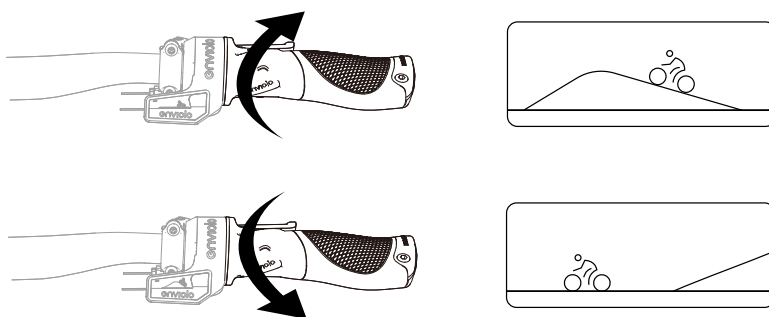


Figure 10



### Caution!

- Only changing gears while cycling.

## 4.13 After Use

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After use, press and hold the Parking button for one second on the handlebar control unit to switch to kickstand mode, enabling the landing gears to support the bike securely. When the bike is powered off, it will be automatically locked. There are four ways to switch off and lock the cargo bike:

- (1) **Power button:** Press and hold the power button on the handlebar control unit for one second to power off and lock the bike.
- (2) **NFC smart key:** Scan the NFC smart key directly on the NFC mark on the right side of the wireless charging phone holder while the bike is powered on, the bike will switch off and be locked.
- (3) **APP lock:** When your cell phone is within Bluetooth range of the bike and the TARRAN App is running, tap the Lock button on the TARRAN App, and the bike will switch off and be locked.

- (4) **Walk-away Locking:** After linking the bike to your account, if the bike is unlocked via Bluetooth key, when your cell phone moves out of the bike's limited Bluetooth range and the TARRAN App is running, the bike will automatically switch off and lock without any further action required.



### Caution!

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- Avoid parking the bike on a slope, as it may tip over.
- After riding, avoid contact between the brake discs of the bike and unprotected hands or body parts. Friction when applying the brakes can cause them to reach very high temperatures.
- Remove the central display and put it in the battery box, ensuring the cover clicks closed securely.
- When parking T1 Pro for extended periods, remove both the battery and central display to prevent theft.
- We recommend enabling 4G and the anti-theft feature, which allows you to track your bike in case of theft.

## 5 Maintenance

---

The bike is subject to high stress and wear. Different components and materials may respond differently to such stress, and sudden failure of any part can lead to rider injury. Cracks, scoring, or discoloration in high-stress areas may indicate that the component has reached the end of its service life. It is recommended to have your T1 Pro inspected regularly according to your dealer's guidelines and replace the affected parts to prevent damage, if necessary. The statutory liability for defects does not apply to wear parts.

Also, in the event of an accident or collision, there may be slight or even invisible damage to the cargo bike, which could pose a risk to both the rider and any passengers. Therefore, we strongly advise having the bike thoroughly inspected by a TARRAN dealer or an authorized service center before resuming use.

Aside from professional inspections, you can extend the lifespan of your T1 Pro by cleaning it regularly and performing self-checks to detect minor damage at an early point.

### 5.1 Cleaning

---

Road salt from winter maintenance, sea air, and sweat can lead to corrosion and other damage. Therefore, regular cleaning and corrosion protection are essential for maintaining your bike's performance and longevity.

## Cleaning Procedure:

---

- (1) Use lukewarm water and a soft sponge to clean the bike. Do not use a scouring sponge, steel wool, or other abrasive cleaning products. A small amount of mild dish soap can be used to remove grease residues, if necessary.
- (2) Clean the battery and power system carefully using a soft, damp cloth. Avoid excessive moisture to prevent damage.
- (3) Wipe down the entire bike with a clean, soft, and lint-free cloth.

**Finishing Touches:** After drying, treat all surfaces with a suitable care product recommended by your dealer to maintain appearance and longevity.



## Warning!

---

- **Water Exposure:** All parts, including the power unit, must not be immersed in water.
- **Cleaning Method:** Do not clean your bike with a high-pressure water jet or steam jet at close distance. Water may penetrate the seals and reach internal components, potentially damaging the bearings and electronics.
- **Detergents:** We recommend using bike cleaner to clean the bike.
- **Power Off:** Switch off the power unit and remove the battery before cleaning. Unintentional activation of the electrical system can cause the pedals to turn, which can cause injuries.

## 5.2 Checking

---

Before each ride, if you notice any unusual sounds or signs from your T1 Pro, refer to **3.7 Quick Check Before Each Ride** to check and ensure there are no cracks, grooves, or discoloration in areas subject to severe strain, such as the frame, front fork, handlebars, or brakes, to prevent the risk of damage or injury.

For additional guidance, watch more maintenance-related videos at <https://tarranbikes.com/> for details of how to regular check parts of your bike, including tires, brake system, steering system, landing gears, etc.

If you observe any abnormalities or suspect damage, stop using the bike immediately and contact the dealer for a professional inspection, and replace any damaged parts as necessary.

# 6 On-Board Diagnostics (OBD)

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T1 Pro is equipped with an advanced **On-Board Diagnostics (OBD)** feature, which ensures the bike's main electrical components are functioning properly.

## How it Works

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- **Self-check at startup:**  
Each time T1 Pro is powered on, the OBD system performs an automatic check of the key electrical components.
- **No notifications:**  
If all systems are functioning correctly, no notifications will appear on the display.
- **Error messages:**  
In case of a fault, the system will display an error message along with a corresponding solution on the central display.

## What to Do in Case of an Error

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- (1) Follow the solution displayed on the central display.
- (2) If the issue persists or cannot be resolved, contact us at [service@tarranbikes.com](mailto:service@tarranbikes.com).

## Further Assistance

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- For a detailed list of error messages and troubleshooting solutions, visit the TARRAN Support Page at <https://tarranbikes.com/>.

# 7 Storage

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If you plan not to use T1 Pro for over three months, it is recommended to clean the bike as outlined in **5.1 Cleaning**.

Store the bike and other parts, including battery, charger, central display, etc., in a dry, clean, and well-ventilated place within the permitted temperature range, refer to **2.3 Key Specifications**. The storage location should ideally be:

- Equipped with smoke detectors.
- Located away from combustible or highly flammable materials.
- Distant from sources of heat.
- Protected from bright sunlight.
- At a temperature between 10°C and 20°C.



## Caution!

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- **Battery storage:** If the battery is left fully discharged for an extended period it may become damaged, even with its low self-discharge rate. This can significantly reduce the battery capacity. It is important to store the battery at a charge level of around 30% to 50% (two LEDs illuminated on the charge status indicator). Check the battery level after six months. If only one LED illuminates, recharge the battery to a level between 30% and 70%.
- **Avoid overcharging:** Do not leave the battery attached to the charger after the battery is charged to an appropriate level.
- **Protect from moisture:** Keep the battery dry and protect it from dampness and water. In poor weather conditions, we recommend removing the battery from the bike and storing it in an enclosed space.
- **Temperature management:** Ensure the battery is stored within the recommended temperature range. For example, avoid leaving the battery in a car during the summer.

## 8 Transportation

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If you need to transport T1 Pro, for example on a trailer, remove the central display and battery to prevent damage. Also, to avoid damage to the landing gears, **ensure the landing gears retract and are not in kickstand mode or gliding mode.**

Undamaged batteries can be transported by road without any further restrictions.

For transport by professional users or third parties (e.g. air transport or a shipping company), specific packaging and labeling requirements must be followed. If necessary, you can consult an expert in hazardous substances about preparing the package for shipment.

Only send the battery if the casing is undamaged and the battery operates correctly. Use the original packaging for transport. Tape off open contacts and pack the battery so it cannot move in transit.

Notify the shipping service that the package contains a hazardous product.

Ensure compliance with all applicable national regulations.

For further questions regarding transporting batteries, contact a qualified bike specialist. They can also provide you with suitable transport packaging.

## 9 Disposal

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If you no longer want to use your T1 Pro, instead of disposing of it, consider passing it on others who can continue to use it. If disposal is necessary, please refer to the following guidelines:

Do not dispose of your T1 Pro and its components with household waste!

The mid-motor, battery, charger, wireless charging phone holder, speed sensor, accessories, and packaging must be recycled in an environmentally friendly manner.

### Recycling Requirements:

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- According to **European Directive 2012/19/EU**, electrical appliances that are no longer usable must be collected and recycled separately.
- According to **European Directive 2006/66/EC**, defective or used batteries must also be collected and recycled responsibly.

Please also note that national guidelines and legislation may vary.

For more information about recycling this product, you can contact your local municipality, your household waste processing service, or the retailer where you purchased the product.

## 10 Spare Parts

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To avoid the risk of damage or injury caused by the quality differences in parts from other brands, only use original or authorized spare parts when replacing parts of your T1 Pro. If you need to replace any of the following parts, please contact your Tarran dealer for genuine spare parts (ensure you are able to correctly install the following parts yourself). For other spare or wear parts, contact your dealer or TARRAN directly.

- Handgrips
- Handlebar control unit
- Central display
- Handlebar
- Stem clamp
- Stem
- Wireless Charging Phone Holder
- Pedals
- Saddle
- Seatpost
- Battery
- Headlight
- Battery box lid

# 11 Tightening Torques for Screws or Bolts

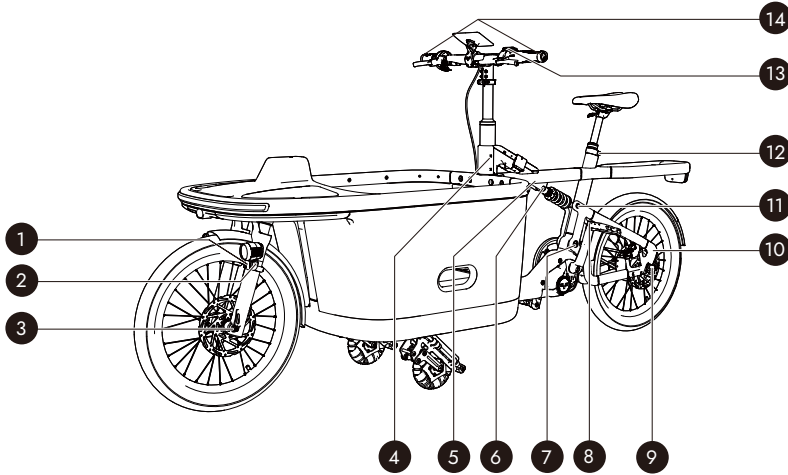


Figure 11-Summary of tightening torques

No.	Screws or Bolts	Torques	No.	Screws or Bolts	Torques
1	Headlight holder	3 Nm	8	Pedal	35-55 Nm
2	Headlight	3 Nm	9	Rear axle nut	30-40 Nm
3	Thru-axle	8-10 Nm	10	Speed sensor	0.3 Nm
4	Wireless Charging Phone Holder cover	1 Nm	11	Rear shock-rear triangle bolt	15 Nm
5	Wireless Charging Phone Holder	10 Nm	12	Seat post clamp	7-8 Nm
6	Rear shock-rear frame bolt	15 Nm	13	Handlebar control unit	1 Nm
7	Rear triangle-rear frame bolt	36 Nm	14	Handgrip	4 Nm

# 12 EC Declaration of Conformity

(English version is the original)

The manufacturer: Tarran GmbH.	
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Birkenstraße 23,  
40233 Düsseldorf,  
Germany

declares that the following product:

Name of product:	TARRAN
Function:	Cargo bike with pedal assistance, equipped with a central mid-motor providing a maximum continuous rated power of 0.25 kW, of which the output is progressively reduced and finally cut off as the cargo bike reaches a speed of 25 km/h, or sooner if the rider stops pedaling.
Type:	Cargo bike (1Ce)
Model:	T1 Pro

complies with the essential requirements and relevant provisions of the following standards and directives:

- **DIN 79010:2020-02** — Cycles - Transportation bikes and cargo bikes - Requirements and test methods for single- and multi-track cycles
- **EN 15194:2017** — Cycles - Electrically power assisted cycles - EPAC Bicycles
- **Directive 2011/65/EU (RoHS)** — Restriction of the use of certain hazardous substances in electrical and electronic equipment.
- **Directive 2012/19/EU (WEEE)** — Waste Electrical and Electronic Equipment Directive. In addition, the included battery charger complies with the following directives:
- **Directive 2014/35/EU (LVD)** — Low Voltage Directive.
- **Directive 2014/30/EU (EMC)** — Electromagnetic Compatibility Directive.

Furthermore, the integrated Wi-Fi modules comply with the requirements specified in the table below.

No.	Module	Standard
1	2.4-GHz multi Bluetooth	EN300328 V2.1.1, EN301489-1&17
2	Wi-Fi b/g/n single antenna	EN300328+EN301893, EN301489-1&17,
3	GPS	EN303413, EN301489-1-/19
4	2G/3G/4G (band 1,3,7,8,20,28)	EN301511 V12.5.1, EN301908-1 V11.1.1, EN301908-13 V11.1.2, EN301489-1&52
5	Wireless charging	EN300328V2.1.1, EN301489-1&17
6	NFC	EN300330-1&-2 (9 kHz to 30 MHz), EN301489-1&3
7	Radar (79G)	EN302264, EN301489-1&51

Düsseldorf, March, 2025

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Ben Guo (Chief Executive Officer)

# 13 Limited Warranty

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TARRAN guarantees that this product has been manufactured in accordance with the latest European safety standards and quality requirements applicable to this type of product and that, at the time of purchase, the product is free from defects in workmanship and material. Rigorous quality management procedures have been followed during production. If, despite all our efforts, your TARRAN product develops a material or manufacturing defect during the warranty period (under normal use as described in the manual), TARRAN will honor this warranty.

## TARRAN offers the following warranty coverage:

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- **Five-year warranty** on the frame.
- **Two-year warranty** on other parts against material or manufacturing defects under normal use.

Please note:

- **Wear and tear** from regular use is not covered by the warranty.
- The **battery capacity** will decrease over time with the number of charge cycles, and this reduction in capacity is not covered under the warranty.

## Eligibility for Free Warranty Service

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To qualify for free-of-charge warranty service, all of the following conditions must be met:

- The product has been used normally without any signs of external damage following safety instructions and operation steps published by TARRAN.
- The product has not been subject to unauthorized disassembly, modification, or addition outside the official manual guidelines, with no failure resulting from improper handling or human error.
- The warranty claim is still within the warranty period.
- Proof of purchase, including receipts and order numbers, can be provided.

## Warranty Exclusions

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The warranty will be deemed invalid under the following conditions:

- The products were purchased from unauthorized sellers or unofficial channels.
- Damage or injury occurs due to failure to follow the operating and safety instructions outlined in the manual.
- Any modification or alteration to the original condition of the product or its components.
- Maintenance and/or repairs are performed in violation of the maintenance guidelines provided by your authorized TARRAN dealer.

- Service, maintenance, and repairs are not carried out by an approved TARRAN dealer or service center.
- Misuse, careless handling, or use of the product for purposes other than its intended use.
- Damage sustained during transport.
- Damage caused by misuse or involvement in an accident.
- Damage that is aggravated by continued use of the product despite the discovery of damage and/or defects.
- Damage resulting from the use of non-original TARRAN parts or unauthorized accessories.
- Wear and tear caused by the use of moving parts, such as the gear hub, chain, chain ring, tires, front fork, brake systems, etc.
- Defects due to normal wear and tear.
- Products or parts with altered or removed identification labels.
- Damage or defects due to fire, floods, lightning, or other force majeure.
- Lost or stolen products.
- Products with an expired warranty period.
- Products without valid proof of purchase.

For the detailed warranty policy or the service process, visit <https://tarranbikes.com/>.