

TORP Motor

TM40 Pro

BEFORE YOU START

What's in the Box

The TM40Pro is built for the SurRon Light Bee and TORP controller (TC1000 / encoder version). It can also run with other aftermarket controller brands (hall version). To check compatibility with other brands, contact that controller's manufacturer.

Where it goes	What you get
Shaft (pulley) side	1× M8×40 mm bolt · 1× M8×45 mm bolt
Front side	1× M8×20 mm bolt · 1× M8×25 mm bolt · 1× spacer 1 mm · 1× spacer 4 mm · 1× square washer 4 mm
Bashguard	4× black brackets · 4× M8×10 bolts · 4× M8×16 bolts

Work in this order: fit the pulley, mount the motor, mount the bashguard, then run the calibration in the TORP Controller app.

STEP 1 OF 3

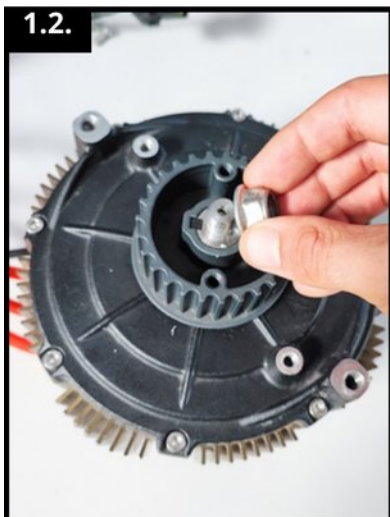
Fit the Pulley

Move the pulley from the stock motor onto the TM40 Pro



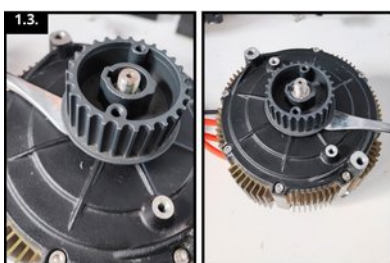
1. Take off the stock motor

Remove it from the bike so you can work on it freely.



2. Remove the nut

Undo the nut in the middle of the stock pulley.



3. Lever the pulley off

Use a lever and work a little from each side, so the pulley comes off straight.

STEP 1 OF 3

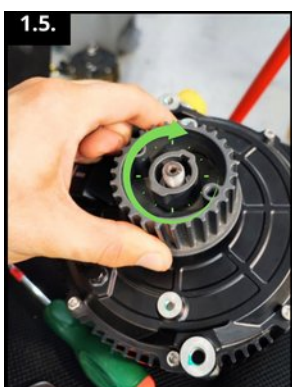
Fit the Pulley

Mount the pulley on the TM40 Pro



4. Remove the nut from the motor

The TM40 Pro comes with its nut fitted. Take it off to free the shaft.

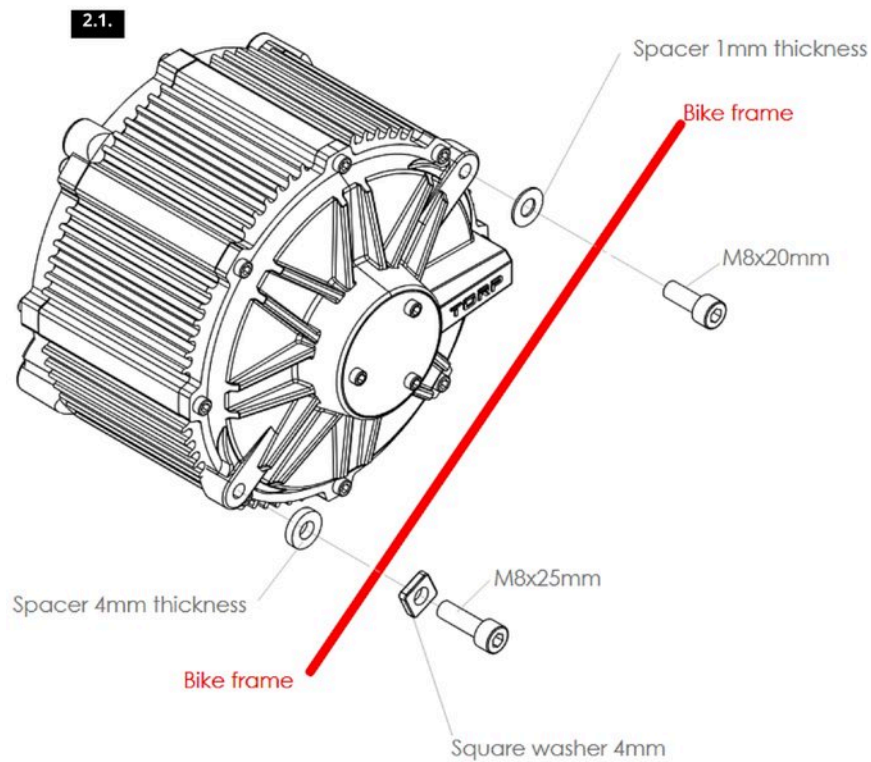


5. Mount the pulley

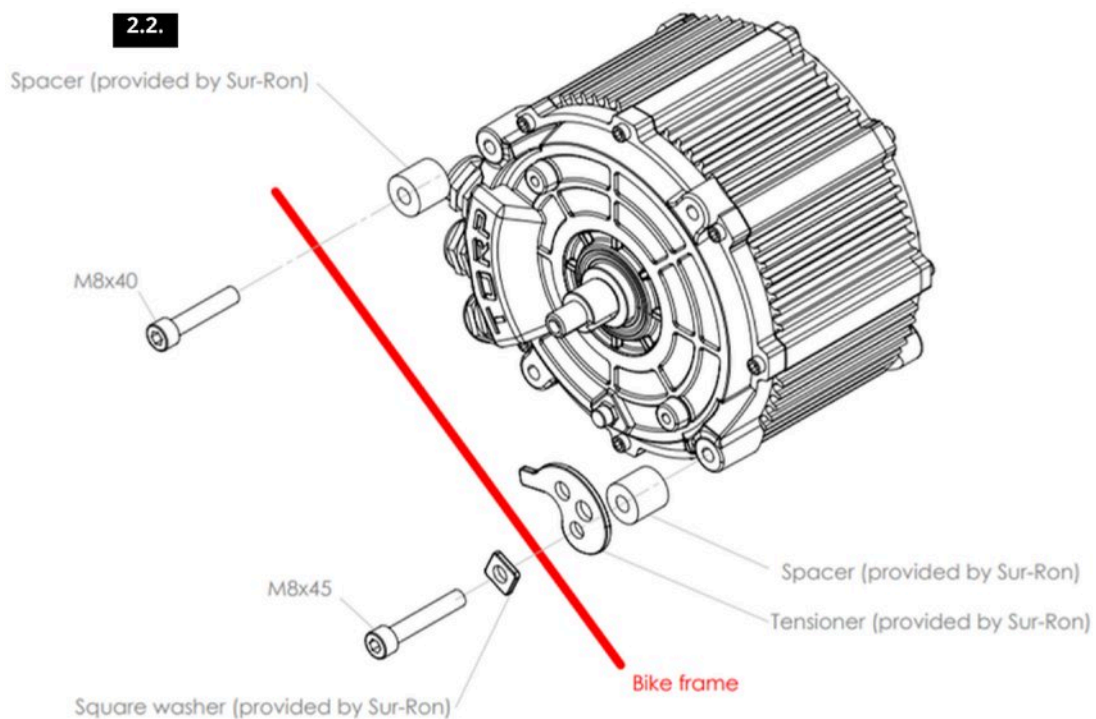
Slide the pulley onto the shaft. The shaft key is already fitted. Tighten the nut clockwise, in the direction of the green arrow.

STEP 2 OF 3

Mount the Motor



Front side - the 1 mm spacer goes with the M8×20 bolt, the 4 mm spacer and 4 mm square washer with the M8×25 bolt.



Shaft (pulley) side - the M8×40 and M8×45 bolts, with the spacers, tensioner and square washer that came with SurRon.

STEP 2 OF 3

Mount the Motor

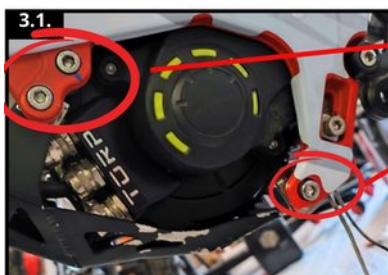


1. Torque the pulley nut

With everything mounted, hold the rear brake and tighten the nut clockwise to 40-50 Nm.

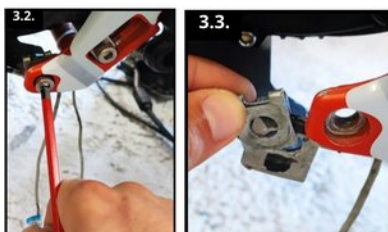
STEP 3 OF 3

Mount the Bashguard



1. Look at how it is mounted now

This is the standard bashguard mounting. It has to be changed before the bash plate will fit the TM40 Pro.

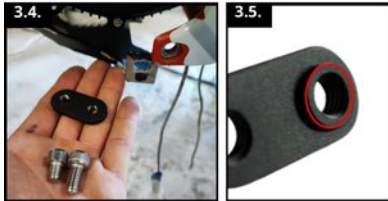


2. Remove the screws and U-clips

Take out all four screws, then remove the four “M8 U-clips”.

STEP 3 OF 3

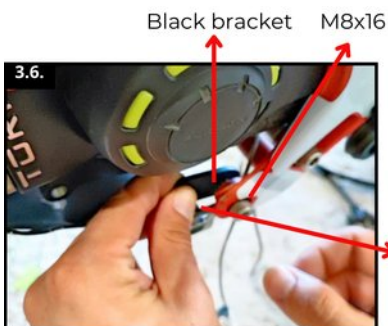
Mount the Bashguard



3. Get one set ready for each point

Each of the four points needs one black bracket, one M8×16 and one M8×10.

One side of the bracket sticks out. That side goes against the bike frame.



4. Fit the bracket and the bash plate

Put the black bracket on the inner side of the bike frame and screw it loosely to the frame with the M8×16.

Bolt the bash plate to the bracket with the M8×10. Repeat at all four points.



5. Line it up

Adjust the bash plate so it lines up with the skidplate. The black bracket has to sit inside the bash plate.

6. Tighten everything

Hold the bash plate lined up with the skid plate and tighten all screws securely.

FINISHING UP

Set the Motor Up in the App

Tell your TORP controller that a TM40 Pro is fitted

With the motor on the bike and connected to your TORP controller:

1. Connect to the TORP Controller app.
2. Open the 5th screen of the app and go to CALIBRATION.
3. Start the SETUP WIZARD and pick TM40PRO from the list.
4. Follow the wizard to the end.

CARE GUIDE

Looking After the Motor

A few habits that keep the motor reliable

⚠ Always take the battery out of the bike before you inspect or work on the motor.

Keep water out

- Never point a pressure washer at the motor. High-pressure water gets past the seals and damages the motor inside.
- Do not wash the motor while it is still hot.
- Do not ride through streams, rivers or flooded trails, or anywhere the motor goes under water.
- Clean the motor gently with a damp cloth.

Check the bolts and wiring

- Keep connectors and wiring clean and dry, especially after wet, sandy or muddy rides.
- Before plugging a connector back in, check it and clean out any dirt. Make sure the rubber seals are still inside and sitting properly.
- Vibration loosens bolts over time. Every few rides check that the motor bearings, motor case, encoder cover and pulley nut are tight. Use thread locker such as Loctite Blue if you need it.
- If you take the encoder cover off, make sure all four seals go back in — one large O-ring and three small ones.

Use a belt, not a chain

TORP motors are designed for belt drive. We recommend an aftermarket belt such as GATES. Check the belt's condition and tension before every ride — a belt that is too loose or too tight wears out early and can damage the motor.

	Belt (recommended)	Chain
Maintenance	Check condition and tension regularly.	Check and re-tighten before every ride, and lubricate regularly.
Wear	Made for high torque, so it lasts longer.	Wears out faster and can snap if it is neglected.
Noise	Quiet and smooth.	Noisier, with more vibration.
Effect on the motor	Normal load on the shaft and bearings.	Extra stress on the shaft and bearings: faster wear, more heat, internal noise.
Watch out for	Correct tension.	Correct tension, plus the connecting link - fit it properly or the chain can fail.

Need help? Contact us through the support form at torpmotors.com/contact, or in the Contact section of the TORP website.