SPORTENZIA

USER MANUAL

TOOPRE TL-341 CRANK BOLT REMOVAL TOOL KIT

A leverage arm pulled by a threaded rod and a bearing-mounted handwheel gradually frees a crank bolt with an 8 or 10 mm hex socket. Contents, preparation, step-by-step procedure and troubleshooting.

REF. TOOPRETL341 · 8 AND 10 MM HEX SOCKETS · ALUMINIUM, STAINLESS STEEL, CR-V STEEL, POM



01 · CONTENTS

CONTENTS AND GETTING STARTED

In the case

QTY	PART	PURPOSE
1	Aluminium handwheel, built-in bearing	Applies the force on the rod
2	M10 × 200 and 270 mm threaded rods, stainless	Chosen to suit the bike
1	Aluminium hook	Bears on the pedal axle
1	Aluminium leverage arm	Holds the short key
1	Short 8 mm hex key, CR-V	Initial loosening
1	Long 8 mm hex key, CR-V	Finishing the unscrewing
1	8 to 10 mm hex adapter	10 mm sockets
1	Dummy pedal axle, M14 × 1.25	Replacement bearing point
2	Aluminium rod bracket, POM fixed shaft	Mounting parts
	Set screws	Hold the parts together



The open case: rods, handwheel, leverage arm with its short key, long key, adapter.

SAFETY

- The force involved is high: work on a stable bike, in a workstand or held firmly on the ground.
- Shift the chain onto the big chainring and wear gloves: if a part slips, your hand heads for the teeth.
- While tightening the handwheel, keep your face and fingers out of the path of the rod and the arm.
- If the hook or the key moves, back off the handwheel and set up again rather than forcing.

What the kit does

The leverage arm holds the short key in the bolt, the hook bears on the pedal axle and the threaded rod links the two. As you turn it, the handwheel draws hook and arm together: the arm pivots and the key turns the bolt, with gradual force, no jolt and no extension bar.

Compatibility

- Bolts with an **8 mm** hex socket (short key) or a **10 mm** hex socket (with the adapter).
- Hook bearing point: the pedal axle, or the dummy axle screwed in its place (M14 × 1.25).
- The kit removes the bolt, not the crank: on a square taper or splined axle, a crank puller is still needed.
- Not suitable for bolts with an external head, made for a socket wrench.

02 · PREPARATION

CHOOSING THE PARTS, PREPARING THE BIKE

Choosing the parts

8 mm socket	Short key fitted to the leverage arm.
10 mm socket	8 to 10 mm adapter slipped over the short key.
200 mm rod	When the hook and the head of the arm are close: less rod sticking out.
270 mm rod	When the distance is greater, or the short rod leaves no room to thread on the handwheel.
Bearing point	The pedal axle if the hook sits on it well; otherwise the dummy axle.

Preparing the bike

1. **Identify the socket** in the bolt: try the 8 mm key; if it is loose, try the 10 mm adapter. The right key goes fully home, with no play.
2. **Shift the chain** onto the big chainring: part of the teeth is then covered on the side you work on.
3. **Position the crank** on the drive side, horizontal and pointing towards the rear wheel, as in the photos: the rod will then rise towards the front of the bike.
4. **Check the bearing point** by offering the hook to the pedal axle, right against the crank. If it does not sit squarely, remove the pedal and fit the dummy axle (see box).

Checking the tool

- Short key locked in the leverage arm: its set screw (2 mm socket) must be tight.
- Rod clean and straight: the handwheel must thread on by hand, with no tight spot.
- Hook firmly fixed to the end of the rod, handwheel turning freely on its bearing.



The assembled tool: hook at the end of the rod, leverage arm with its key, handwheel.

FITTING THE DUMMY PEDAL AXLE

- Remove the pedal with a suitable tool (not supplied). On the drive side, it unscrews anticlockwise.
- The dummy axle has an M14 × 1.25 thread: start it by hand. If it binds or feels loose, the thread does not match your crank: do not insist.
- Finish with the long 8 mm key, moderately tight: it is only a bearing point.
- The set-up described here is for the drive side. For the left crank, contact us before using the dummy axle.

03 · PROCEDURE

FREEING AND REMOVING THE BOLT

Step by step

1. **Fit the hook** to the end of the chosen rod, then place it on the pedal axle or the dummy axle: opening facing down, rod pointing up and towards the front of the bike.
2. **Engage the key** of the leverage arm (or the adapter for a 10 mm bolt) fully into the bolt, arm standing upwards.
3. **Pass the rod** through the hole in the head of the leverage arm.
4. **Thread on the handwheel** by hand until it touches the arm. Check the alignment: hook properly seated, key straight in the bolt.
5. **Turn the handwheel** slowly, clockwise. The arm is pulled and the key turns the bolt. The bolt often lets go with a sharp crack.
6. **Stop once it is free** back off the handwheel, then remove the rod, the hook and the leverage arm.
7. **Finish with the long key** 8 mm (with the adapter for a 10 mm bolt): unscrew the bolt fully and take it out.
8. **Dismantle the tool** remove the dummy axle if you fitted it, wipe the parts and store them in the case.

If the bolt resists

- Go on in quarter turns and check the alignment in between: hook seated, key fully home.
- A different rod gives no extra force: its length only makes room for the set-up.
- Penetrating oil applied where the bolt meets the crank, left for a few minutes, helps a seized bolt.
- If the socket starts to round off, stop at once (see troubleshooting).



Drive side: hook on the axle, rod towards the front, arm upright, key in the bolt.

BEFORE TURNING THE HANDWHEEL

- The set-up must turn the bolt anticlockwise, seen from the front: the usual loosening direction of a crank bolt.
- Key fully home, square to the bolt: a key only half engaged rounds off the socket.
- Hook sitting fully on the axle, not on its tip.
- If the handwheel becomes very stiff and nothing moves, stop and check the alignment.

10 mm bolt

The adapter slips over the short key of the arm to free the bolt, then over the long key to finish. Each time, check that it sits fully home on the key and in the bolt.

04 · CARE

AFTER REMOVAL, CARE, TROUBLESHOOTING

After removal

- Crank to take off: once the bolt is out, use a crank puller suited to your axle (not supplied).
- When refitting, clean the bolt thread, grease it lightly and tighten it to the torque given by the crank maker.
- A bolt with a damaged socket should be replaced: it would not hold the key next time.

Caring for the tool

- Wipe the rods and hook after use; a drop of oil on the rod threads keeps the handwheel running smoothly.
- The handwheel bearing is sealed: do not take it apart, just wipe it.
- Check the set screws of the leverage arm (2 mm socket) and the handwheel (2.5 mm) now and then; keys not supplied.
- Store each part in its slot in the case, somewhere dry.

If something goes wrong

SYMPTOM	LIKELY CAUSE	FIX
The hook slips off the axle	Pedal axle too short or the wrong shape	Fit the dummy axle
The handwheel runs out of thread	Rod too short	Switch to the 270 mm rod
The key pops out of the bolt	Key not fully engaged or askew	Back off, re-engage fully, realign
Nothing moves, the handwheel stiffens	Very tight bolt or set-up turning the wrong way	Check the direction, then go on in small quarter turns
The dummy axle will not screw in	Crank thread other than M14 × 1.25	Do not insist, contact us
The bolt socket is rounding off	Wrong key size	Stop: have a workshop extract the bolt

Specifications

Model	**TL-341**	Sockets	**8 and 10 mm hex**
Rods	**M10 × 200 mm, M10 × 270 mm**	Dummy axle	**M14 × 1.25, 8 mm socket**
Keys	**8 mm short and long, CR-V**	Materials	**Anodised aluminium, stainless, CR-V, POM**
Weight	**About 1723 g**	Case	**330 × 280 × 80 mm**

DO NOT

- Extend the leverage arm or the handwheel with a tube.
- Hammer on the arm or the handwheel.
- Tighten the handwheel on a key that is not fully home in the bolt.

Need help?

sportenzia.com/pages/contact

Our team answers your questions about setting up and using the kit.

A crank bolt comes free with patience, not with force.