

12T, 10T, 8T Pinion Gear Installation

Read instructions carefully before assembly

Tools Required

1. M3 Hex Wrench
2. Pinion Gear Puller
3. Small Flat hand file
4. Hobby hammer
5. Liquid Thread Lock

- ★ This set of 12T, 10T, 8T PG is an alternative choice to change Tamiya's stock 10T PG
- ★ For the exact Gear Ratio that can be achieved, please refer to IMPACT notes on "TU Upgrade Gears Series"

IMPACT 12 Pinion Gear



Consist:

- 2pcs of 12T Pinion Gear (high grade darkened stainless steel)
- 2pcs of M3 stainless steel grub screws

Legends:

- PG – Pinion Gear
- TU – Transmission Unit (as named by IMPACT)
- 12T – "T" as teeth



- Pulled out press-fit stock pinion gears are not to be re-used.
- IMPACT PG is drop-in fit not a tight fit design .

- 1 The original 10T Pinion Gear *must* be removed by using a pinion puller.



- 2 The pulled out 10T Pinion Gear *cannot* be re-used again.

- 3 IMPACT Pinion Gear is designed to drop fit into the standard Mabuchi's RS380SH shaft.



- 4 Once you removed the 10T PG, filed down the motor shaft for a flatness of about 1.8mm ~ 2.0mm. That will ensure a definite grip between the PG and the shaft.

⚠ Without this flat surface for the grub screw, the PG will lose grip very easily



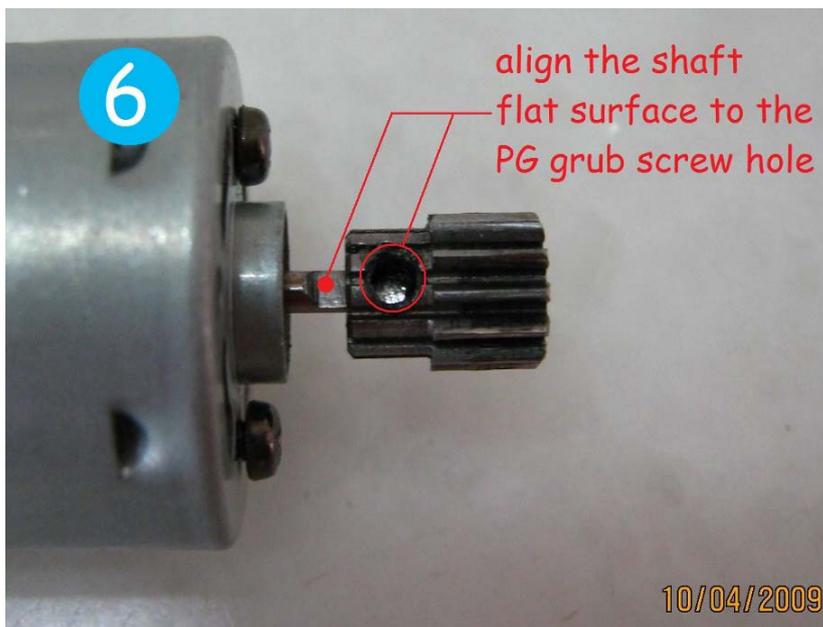
- 5 ⚠ **IMPACT Pinion Gear hole diameter 2.5mm, motor shaft diameter 2.3mm**
This is to enable easy installation.

Methods to centralize the pinion gear to motor shaft:

- 1. shim the gap with normal paper (cut to size), which has a thickness of 0.15mm**
- 2. applied a thin layer of epoxy within the pinion gear inner hole circumference.**
Wait for it to cure. If needed, use a pin vise (2.3mm) to widen the diameter.

- 6 When you are satisfied with the fit, carefully insert the PG and align the shaft flat surface to the PG grub screw hole.

This will ensure that the grub screw can grip the flat surface.

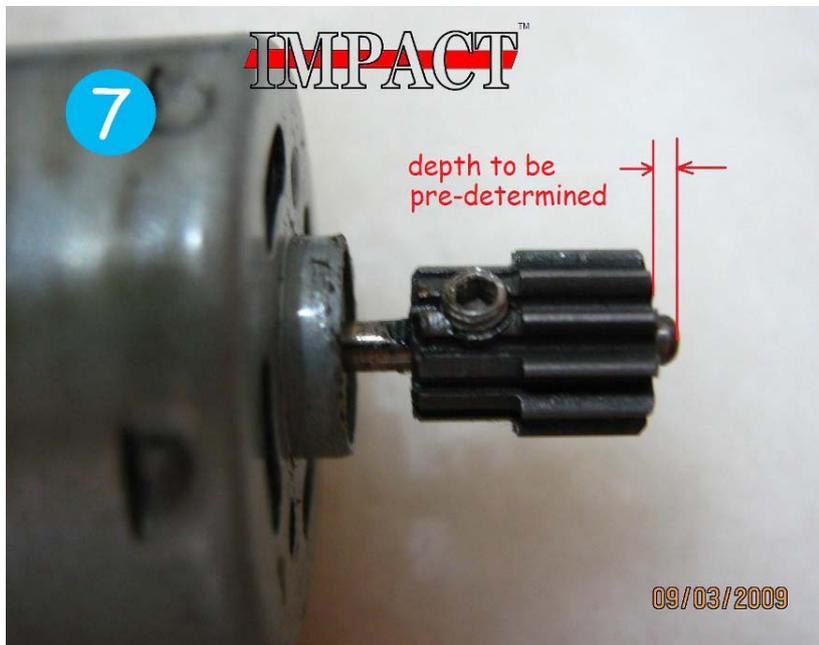


7 Once you are satisfied with the fit, pre-determine the depth of the PG you wish to insert. Since the configuration of the TU/Gearboxes can be different, carefully insert into the depth you desired.

If the insertion is showing some resistance, use a hobby hammer to carefully tap it in.

Before locking the grub screw, drop in a very small amount of Liquid Thread Lock into the screw hole. The purpose is more of holding the PG and the motor shaft together. Also to hold the grub screw.

 Without applying the thread lock, the grub screw will loss grip very easily



The motor is now ready to be installed into the TU/Gearboxes for a test run.