

DESIGN 911

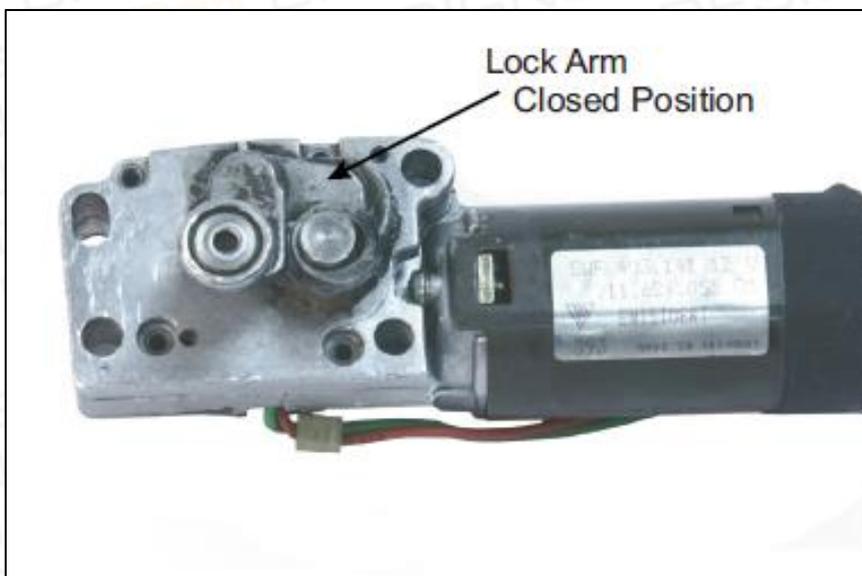
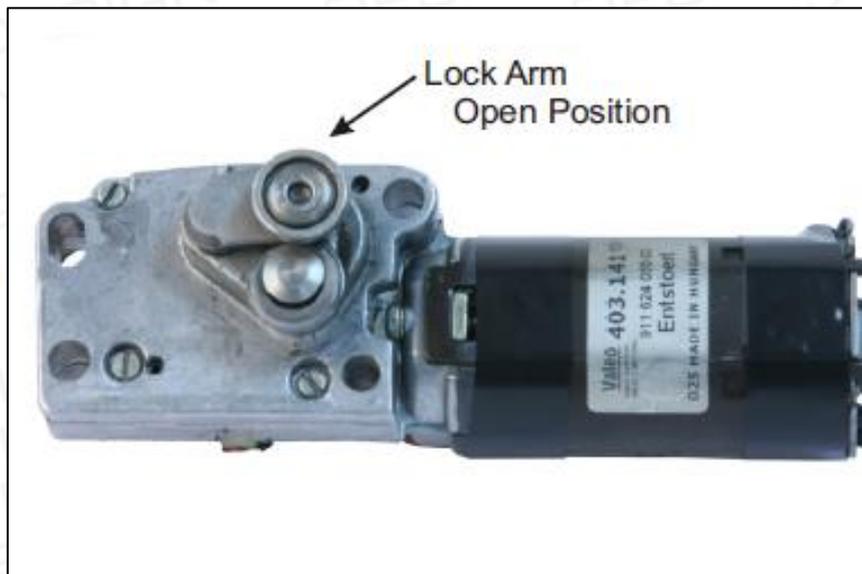
Centre for Porsche

Porsche 911 Convertible Top Locking Motor Gear Replacement Instructions

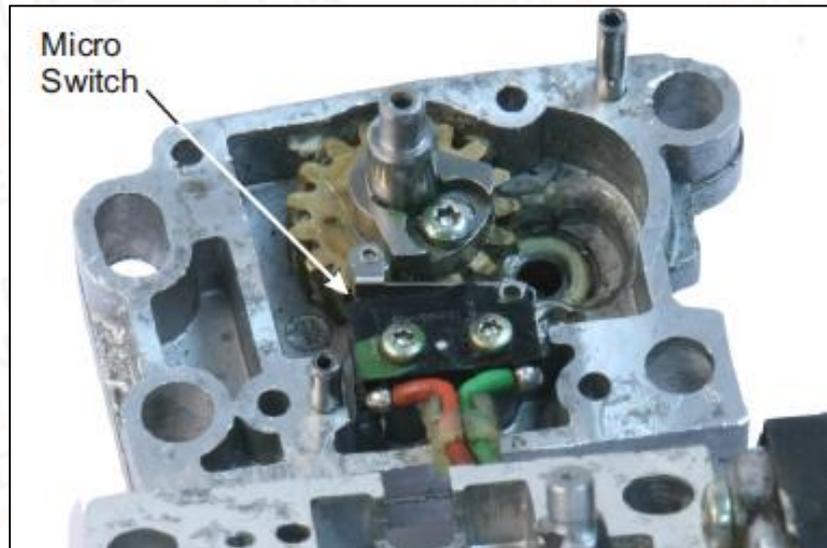
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Starting with the top in the open position and remove damaged motor from car.

Remove 4 slotted screws on lock lever cover and using the manual drive screw on the back of the motor turn until top locking lever is in the fully open position.



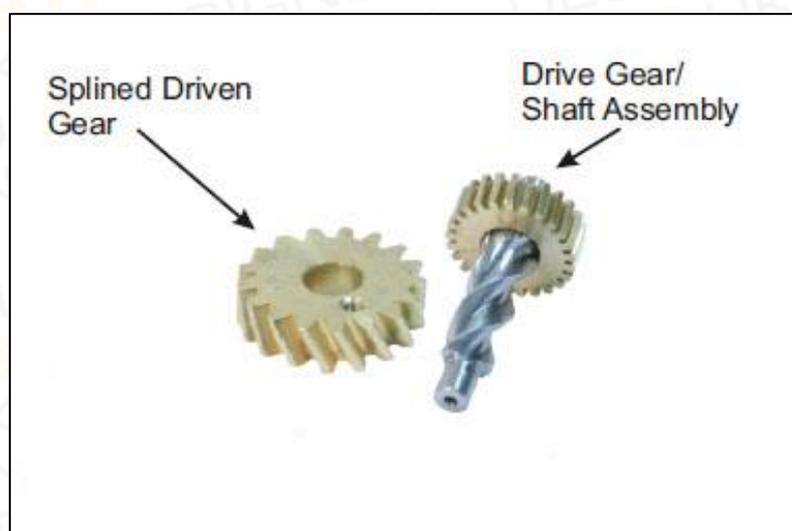
Carefully pry off upper cover exposing the gear set and micro-switch taking care not to change the lock arm position. **NOTE:** the locking arm will move freely once the gears disengage.



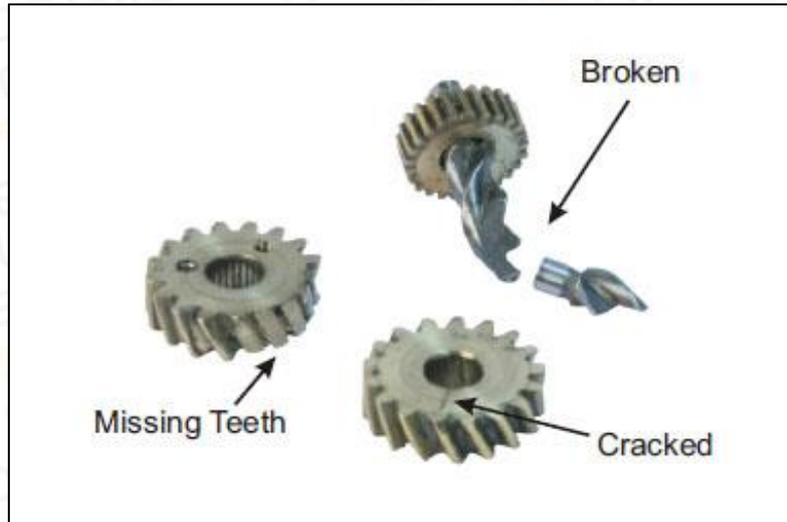
Remove (2) T9 Trox screws holding micro-switch in place, separating the lock cover and driven gear from the motor assembly.



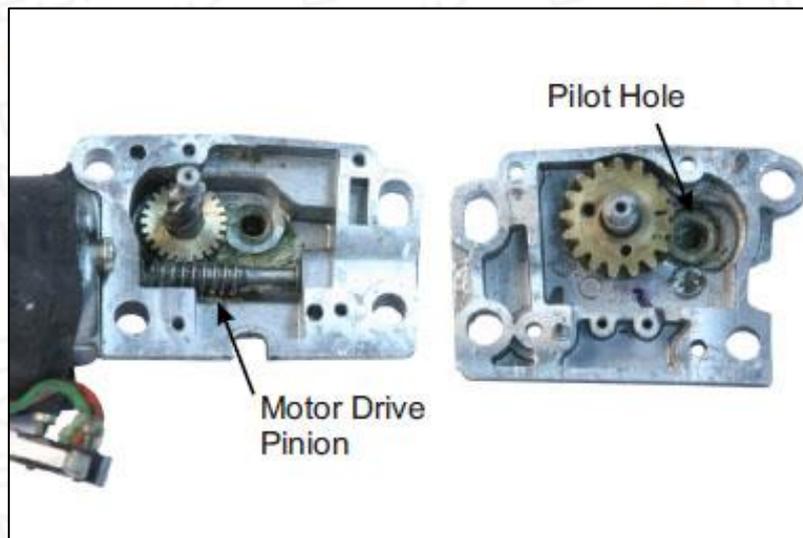
The new gears are supplied as a match set.



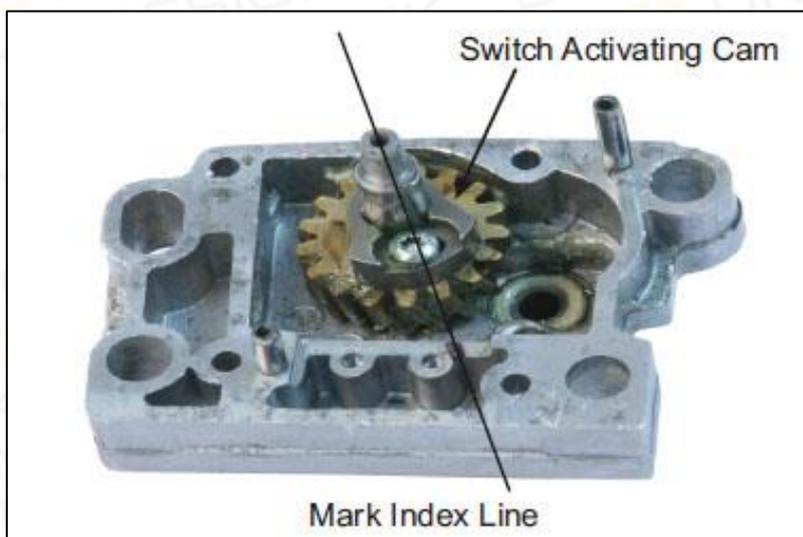
Both must be replaced and not only the damaged gear. The drive gear/shaft assembly and driven lever operating gear are subject to multiple types of failures.



NOTE: If upon opening the cover the motor pinion worm gear on the motor shaft is broken the entire motor assembly will need to be replaced as this is not serviceable.



Put an indexing mark for the micro switch activating cam on both the cam centreline and cover body to help with proper reinstallation later. **NOTE:** Make sure the lock arm is still in the open position. This is critical for timing the motor.



There are 2 types of activating cams depending on the brand of motor in your car. The differences are in how they are secured to the driven gear.

VERSION # 1 – found on Valeo motors has the cam retained on the shaft by a circlip and has a set screw on the face of the cam to locate its timing position.

VERSION # 2 – found on SWF motors has the cam retained by a set screw from the top of the cam into the driven gear to locate its timing position.

NOTE: the replacement large driven gear has a mounting hole for the SWF style cam but is suitable for both styles of motors.



Loosen the retaining hardware for the switch activating cam and remove it. Using a suitable press tool, press out the lock arm from the large driven gear taking care not to damage the end of shaft. Note: this shaft is splined to the gear.

Taking care not to lose any of the distance shims under the damaged driven gear, set the new driven gear over the shaft hole making sure the cam locating hole is aligned with the mark made earlier on the housing cover. After lubricating all parts lightly with hi pressure grease (Porsche # 000 043 024 00), press the shaft back through the new driven gear.

Ensure the locking lever is turned back to the open position and reinstall micro switch cam. Use the indexing marks made earlier to align the cam timing correctly, but only tighten the retaining screw lightly.

Note: some adjustment may necessary later.

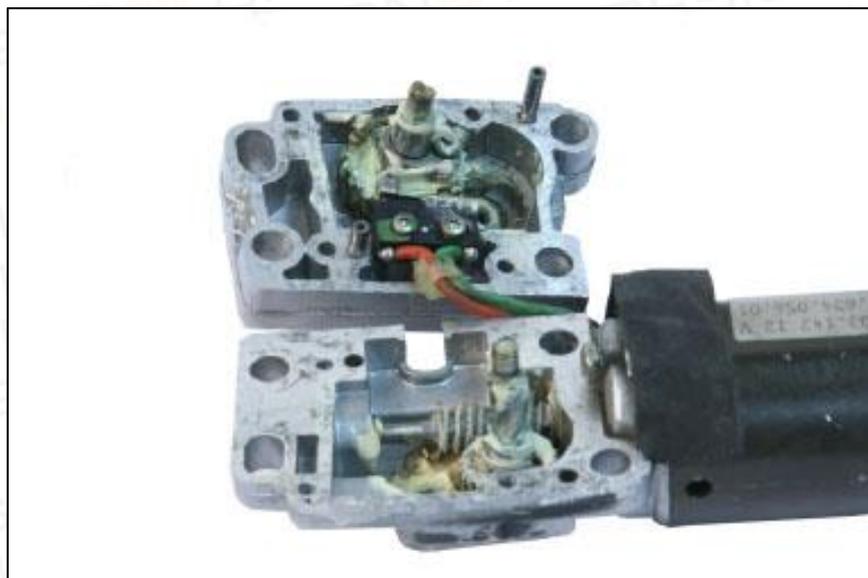


Reinstall the micro switch onto the cover. Move the lock lever from the fully open position to the fully closed position making sure the micro switch is activated at the very end of travel for each cycle. If necessary loosen the screw to move the activating cam to ensure this happens before fully tightening the set screw.



Install new drive gear / shaft assembly making sure it mates properly with motor pinion gear, taking care not to lose any of the distance shims under the old gear if present.

Using HP grease (Porsche # 000 043 02400), grease all new gear teeth and pilot holes.



Reinstall lock arm cover making sure drive gear shaft mates properly into pilot hole in cover and ensuring that lock arms is still in the fully open position.

Tighten 4 cover screws, reinstall on vehicle, and test.

Note: the top motor release and operating system used in these vehicles is complex. Motor failure is often not the only fault the system and these other faults may be the cause of the motor failures themselves. Failure to ensure all system functions are operating correctly may lead to premature failure of the repaired motor. Proper diagnostic procedures and fault tree diagnostics as outlined in the factory workshop manual should be performed any time on these motors fails and is replaced.