

Safety Electric Starter

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A common problem that is often encountered when working on old outboards is; how do you put start it when the recoil starter has been removed? On some outboards, the recoil starter is attached to the cowl, and when you remove the cowl, the recoil starter is removed with it, rendering it useless. Yes, of course, you can use a piece of rope and pull-start the motor the old fashioned way. However, if you flood the engine (or other problems exist), you might have to wind-and-pull that rope dozens if not hundreds of times before you get the motor to start. This repeated rewinding and pulling takes FAR LONGER when you do it manually, compared to the much quicker rewind of your recoil starter. And, if you aren't 20 years old anymore, this can be exhausting to say the least.

Now, many of us have tried to use a large electric drill as a temporary "electric starter" assembly. (This is VERY handy when clearing out flooded conditions, compared to trying to clear a flooded motor using a manual pull-start rope.) **However, there are some safety issues when using a large power drill as a starter.** Many of your cordless drills (for example) have a clutch and brake assembly included. The split second you remove your finger from the trigger, the brake is engaged, and the shaft comes to an instant stop. This is a serious problem, because the inertia of the motor and flywheel will cause them to continue to spin, and this can cause the drill to get ripped out of your hands. This can cause damage to the drill, and possibly physical injury to your hands when this happens. Another problem arises if the outboard motor actually starts, and the drill can't keep up with the increase in RPM as the motor fires up. Once again, the drill can get ripped out of your hands. (Either that, or the flywheel nut will come off, which is also a bit of a problem!)

There exists a simple solution to this problem, one that most people don't know about. The trick here is to find an "axial ratchet" assembly, and put it inline with your power drill and socket. See Figure 1 for details.

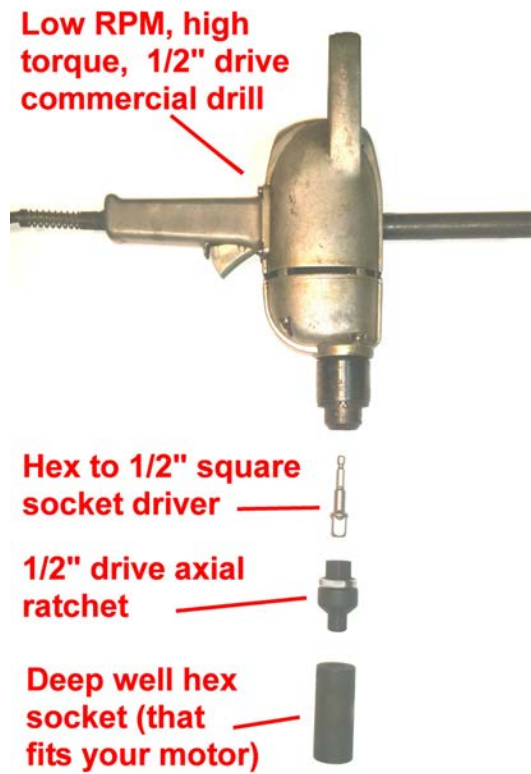


Fig. 1 - Parts Needed and Assembly

The "Ratchet Adapter" can be easily found on ebay, using the search terms "1.2" ratchet adapter" or "1/2 breaker bar ratchet". See Figure 2 for an example e-bay advertisement.

ebay Shop by category Search for anything

Back to search results | Listed in category: eBay Motors > Automotive Tools & Supplies > Hand Tools > Ratchets

SAVE UP TO 20% WHEN YOU BUY MORE

Ratchet Adaptor 1/2 Drive Reversible CRMO Ratchet Breaker Bar Converter

Condition: **New**

Bulk savings: Buy 1 \$26.99/ea Buy 2 \$24.29/ea

Quantity: 1 3 or more for \$21.59/ea

7 available
23 sold / See feedback

Unit price: **US \$26.99/ea**

Buy It Now

Add to cart

Add to Watchlist

Fig. 2 - Ebay ad for "Ratchet Adapter"

Also needed is a "hex to 1/2" square socket driver". This can easily be found at almost any tool store. See Figure 3 for details.

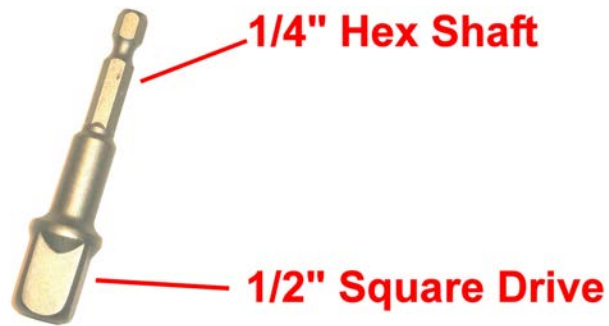


Fig. 3 - Hex to 1/2" Square Socket Driver

The final assembly will look like Figure 4 (below).

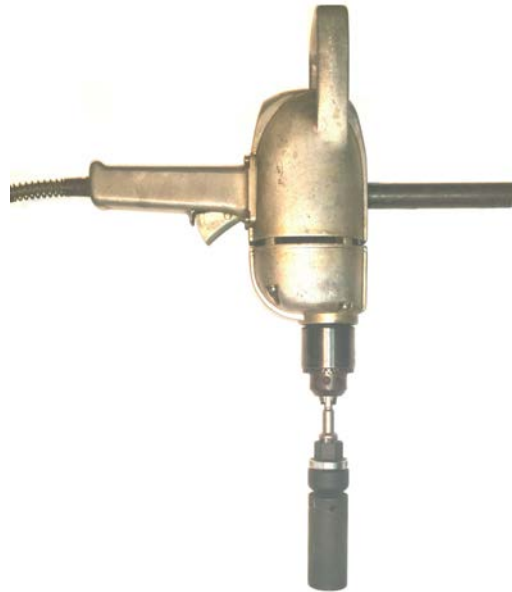


Fig. 4 - Assembled Starter

Due to the torque needed to overcome cylinder compression (especially on larger engines), use the largest, lowest-RPM, highest torque commercial drill you can find. This should be able to spin-start most motors that you will be working with.

Make sure to set the ratchet to lock in one direction, and to spin freely in the other. In this way, if you take your hand off the trigger (or if the motor fires up), the ratchet will simply "freewheel", and the drill won't get ripped out of your hands.



Fig. 5 - Electric Starter in Operation

The picture above (Figure 5) shows this "safety electric starter" in operation, with Gary Orloff running the starter, while Kevin Bem is adjusting the carburetor. This can greatly shorten the time needed to adjust carburetors and do other adjustments. And, more to the point, it will do it SAFELY!

--Bill Mohat, Member of AOMCI Western Reserve Chapter