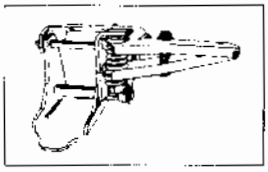
FT-1000 DOOR REMOVAL KIT

Removes Hinge Pins From Welded Door Hinges

- *SOLID HINGE PINS found on G. M. Intermediate and Full-Size Cars (A-, J-, X-Body Cars & S-10 Trucks)*
- *HOLLOW HINGE PINS (Roll Pins) Found on Chrysler Corporation's Omni, Horizon, K-Kars and E-Series Cars, as well as Chevette, Pontiac T1000, and some imports.*

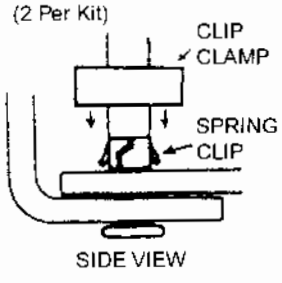


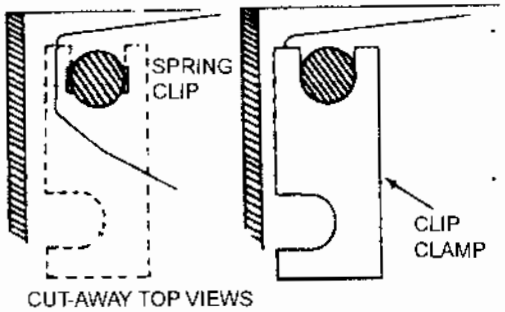
Door Removal Becomes A One Man, Ten Minute Job.

- *Quickly safely compresses door hinge spring for easy removal and reinstallation*

Consists of
DOOR SPRING TOOL

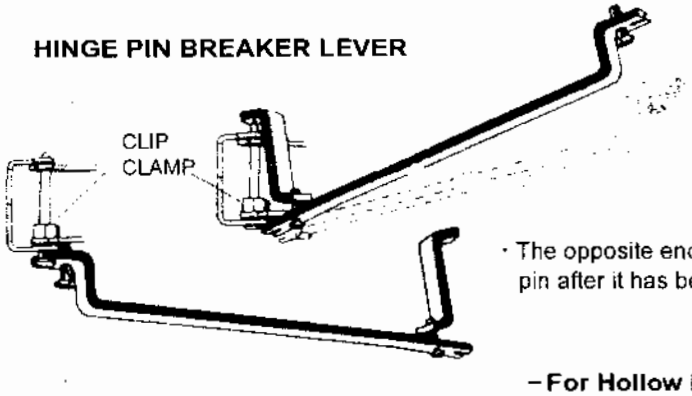
CLIP CLAMP
(2 Per Kit)





- Clip clamp slides over the spring clip to compress the prongs of the clip. This permits the clip to pass back through the hinge plates preventing hole misalignment that is invariably a problem if the clip is removed from the hinge pin.
- The is the secret to making door removal an easy one man job.

HINGE PIN BREAKER LEVER

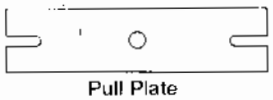


- Lever supports the hinge plate so that the knurled neck of the hinge pin can be forced out without springing the plate. A downward pry breaks the pin loose. The adjustment screw adapts the lever to any hinge.

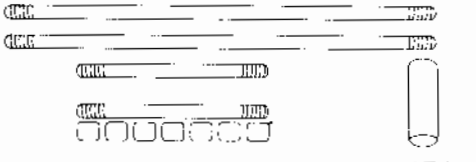
- The opposite end of the breaker lever will hook under the head of the hinge pin after it has been broken loose and will lever the hinge pin out

– For Hollow Hinge Pins –

PULL PLATE PULL PINS & BARREL NUTS

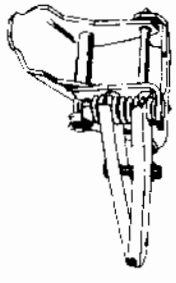

Pull Plate


#10-32 Pull Pins w/Barrel Nuts


#6-32 Pull Pins w/Barrel Nuts

Pull Tube

Remove the Door Spring

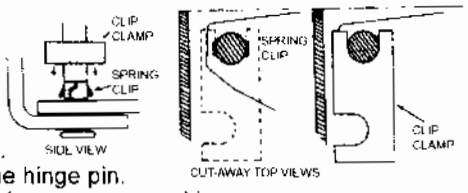


- Coil springs are removed with the Door Spring Tool.
- Open the tool wide enough to insert the blades between the last two coils at each end of the spring. This is important because the spring will not be compressed enough for removal if there are not enough coils enclosed within the tool.
- Tap the hinge end of the tool with a hammer if necessary to force the blades fully through the spring.
- Turn the barrel nut using a 1/2" open end or racheting box end wrench to compress the spring enough to remove it.
- CAUTION-DO NOT continue to tighten the nut if the spring goes solid. To do so will cause damage to the tool and may result in personal injury.
- When removing the Door Spring Tool from the spring, work the tool from side to side, but grip the tool in such a way that the two hinged blades will not snap shut suddenly and pinch the skin of the hand in the side of the tool.

WARNING-Be sure that the spring does not climb over the bosses in the hinge as the tool is being removed. A spring that slips out of a hinge will become a lethal missile.

Install the Clip Clamps

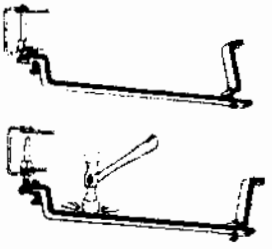
- The revised clip clamp has two slots at right angles. Either slot may be used to hold in the fingers of the spring clip.
- Be sure that the spring clip is turned so that each of the two fingers will be under the sides in the slot of the Clip Clamp when it is installed.
- Slide the slot of the Clip Clamp over the hinge pin above the spring clip and slide the Clip Clamp down over the spring clip to hold the two fingers flush.



Remove the Hinge Pin (Solid Pins)

- It is highly recommended that a Door Rack be used to spport the door being removed.
- Fit one of the three indentations near the end of the Z-Plate over the pointed end of the hinge pin.
- Adjust the bolt attaching the Z-Plate to the Breaker Lever to the proper length for the hinge you are working on.
- With the Z-Plate over the pointed end of the hinge pin and the Breaker Lever supporting the opposite side of the hinge, pry forcefully to break the hinge pin loose. The hinge pin has a 3/16" wide knurled band near the head that creates an interference fit when it is pressed into the hinge plate. Once this knurled band is forced out of the hinge plate, the hinge pin will be reasonably easy to remove unless paint build-up causes interference. A few blows with a hammer on the top of the Z-Plate while prying may be necessary if the hinge pin is stubborn.
- CAUTION - Before prying
  be sure that the end of the Breaker Lever is not covering the head of the hinge pin.
  be sure that the full width of the Breaker Lever is supporting the hinge plate.
  be sure that the Z-Plate will clear the Clip Clamp.
  be sure that the Breaker Lever will clear all obstructions.

- After the hinge pin is started, adjust the bolt attaching the Z-Plate to the Breaker Lever and make successive pries until the hinge pin is forced out approximatelv 1/2 inch.
- Using the opposite end of the Breaker Lever (the end with the Z bend), back out the bolt in the Breaker Lever until only about 1/8 inch of the bolt is protruding through the Breaker Lever. Hook the slot under the head of the hinge pin and, using the end of the bolt as a fulcrum, pry the hinge pin out as far as possible.
- Adjusting the bolt between successive pries will increase the travel of each pry until the hinge pin is at least half way out. From there on the hinge pin should come out easily unless paint build-up causes interference. If this is the case, a few blows with a hammer on the Breaker Lever while it is hooked under the head of the hinge pin will walk the hinge pin out easily.



HELPFUL HINTS

Two Clip Clamps are provided so that both hinges can be worked on simultaneously. Time can be saved by adjusting the tool and making the same pry on each hinge before readjusting the tool for the next pry.

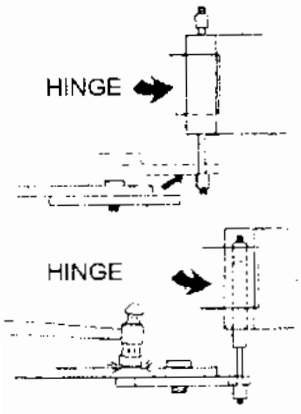
When the upper hinge pin falls free, it sometimes falls into the opening at the back of the fender and must be fished out with a magnet. Stuffing this opening with rags before removing the hinge pin will prevent this problem.

When using the Door Spring Tool, turn the tool so that the barrel nut is towards the cowl in order to have more clearance for the wrench.

Occasionally one of the prongs on the hinge pin retaining clip will break off, especially if the door has been removed previously. Check these prongs and replace the spring clip if the prongs have broken off.

Some Ford models have solid hinge pins that use an E-key as a retainer. The E-key is on the end opposite from the head end. This E-key MUST be removed from the hinge pin before the hinge pin can be removed.

Door Removal Instructions (Hollow Hinge Pins)



- It is highly recommended that a Door Rack be used to support the door being removed.
- Disconnect the door check link.
- Remove (pry out) the plastic hinge pin plugs, top bottom, that are used on some model cars to retain lubricant in the hollow hinge pins.
- There are two sizes of Pull Pins that can be used to remove the hollow hinge pins. The smaller #6-32 Pull Pin is designed for the small diameter pins found on Chrysler products, and the lager #10-32 Pull Pin is used on most other model cars that have hollow hinge pins. Install the proper Pull Pin through the hinge pin and assemble the barrel nut on the threaded end as far as possible (the #6-32 Pull Pin uses a barrel nut on each end, the #10-32 Pull Pin is headed at one end and threaded for the barrel nut at the other end). ***To prevent damage to the threads or breakage in the threaded portion, the barrel nuts must be turned all the way up to the end of the threads on the Pull Pins.***
- Remove the Z-plate from the Hinge Pin Breaker Lever and in its place install the slotted Pull Plate using the short 5/16-18 bolt. Turn the Pull Plate so that the end with the smaller slot extends past the end of the Breaker Lever if using the #6-32 Pull Pin, or the end with larger slot if using the #10-32 Pull Pin. Tighten the bolt securing the Pull Plate in place.
- Insert the slot of the Pull Plate on the Pull Pin between the barrel nut and the hinge pin as illustrated.
- Hold the Breaker Lever level and hammer on the Breaker Lever as near as possible to the hinge to drive (Pull) out the hinge pin. The use of a heavy hammer is recommended to provide the momentum necessary to drive out even the very tight roll pins found on some cars.

Note for Chrysler Cars- The 1983 Chrysler products have redesigned hinges. The hinge pins are very tight against the door panel and hinge pillar leaving no room for the Pull Plate.

To overcome this problem, Steck has added the long #6-32 Pull Pins. These are used in exactly the same method as the short #6-32 Pull Pins. However, the extra length allows the Pull Pins to flex enough to clear the door panel, and the extra length provides more room to swing your hammer.

An alternate method is to use your Pop Rivet Gun with the adaptor for a 1/8" shank rivet. This method is especially useful where space for hammering is limited. Insert a long #6-32 Pull Pin through the hinge pin and install a barrel nut on one end. Slip the Pull Tube over the opposite end and position the Pop Rivet Gun on the Pull Pin. Each Squeeze of the Gun will pull the hinge pin about 1/4" into the Pull Tube.

Larger hinge pins found on Chevettes, Pontiac T 1000's, Renaults, Opels, etc. can also be removed with the Pop Rivet Gun method. Just be sure to install a #10-32 barrel nut between the hinge pin and the #6-32 barrel nut because the #6-32 barrel nut is small enough to pull inside the larger pins, causing them to expand and lock in the hinge.