

proven to be the best for me. It gets every bit of old grease, dirt, and rust off the casting (inside and out). It does require that I pressure wash the case thoroughly before I begin reassembly. My cases also get an exterior coat of paint to stop flash rusting. I use a spray can of cast iron color, which is manufactured by Seymour. It coats easily and well with a single coat, plus it dries quickly. If it will be more than a couple days before I am ready to use the case, I spray the interior with WD40 or something similar to prevent the flash rusting. The case is bagged until ready for use.

Now we will move on to the **7222 shifter housing** and all its components. Since the 81A type housing is the preferred one, most of the following instruction will focus on that. However, I have included some pictures and notes on the earlier style housings for reference. In Figure 29 you will see the basic housing, showing the shifter detent plug on a double-detent 81A housing. The

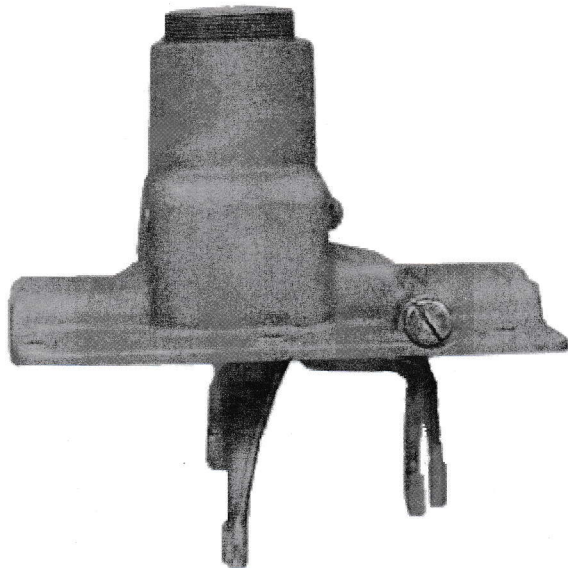


Figure 29: 81A Shifter Housing Assembly

detent spring and ball is held in by this slotted plug, which is made of steel. On old transmissions that I have dealt with, these plugs tend to be very hard to remove, often stuck with rust. My first step is to clean away any dirt and grease from the plug and its slot. Then I spray a liberal shot of PB Blaster (or similar penetrant) and let it soak. The best tool to remove this plug will be a very wide tipped screwdriver, which can be customized for the job by grinding its tip to match the slot as

closely as you can. Figure 30 shows a closer view of what we are trying to do.

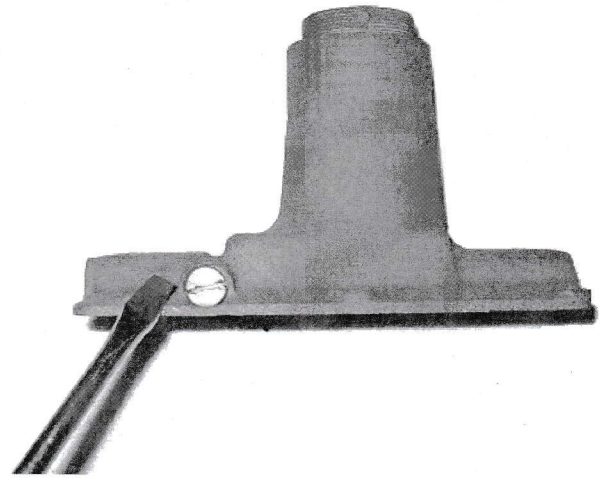


Figure 30: Shifter Detent Plug

My first efforts will generally succeed, when I place the housing on an old piece of rug on the floor. I place the screwdriver tip squarely in the slot. I use a crescent wrench to provide a turning handle (the screwdriver has a steel hex under the handle), but you could also use a pair of vise grips. I place my boot on the housing, holding it tightly to the floor. Then, while putting as much of my weight down on the screwdriver handle as I can, I attempt to turn the tool. If you are lucky that day, it loosens easily. If not, take it to a local machine shop here and they can remove it. I arranged to have a special tool made up to fit the slot exactly, and to fit a holder in my shop press, so I can exert better down pressure and do the job myself.

When the plugs are removed, you can get the spring and ball out of each side. Figure 31 shows what they look like. The ball and spring are



Figure 31: Detent Ball-Spring-Plug

usually stuck with old grease inside. The springs are easily plucked out. You may need to spray a bit of solvent in the hole to loosen up the ball. Just don't lose them when they fall out.