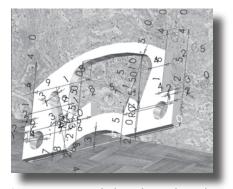
Thunderbird Detent Plates

I, Alexander Sosiak, am a practicing medical doctor. I have owned a 1959 Thunderbird for over 25 years and I am active in the old car hobby. I like to keep my car stock, but like to make invisible improvements to it. I have a hidden security system and a hidden stereo in the car that is controlled by the original knobs on the radio. I am also involved in high technology. I have several patents to my name for a breath-activated inhaler and an endosurgical device. At a message board at the site I run at Squarebirds.org, Mel Waldorf asked if the detent plate of a 1965 Ford Falcon would fit his 1958 Thunderbird with automatic transmission. It did look similar. I know I have had problems with my 1959 Thunderbird staying in park. One time, many years ago, while a mechanic was working on the airconditioning, the car popped into reverse while he revved the engine. Replacing the shift lever and repairing the shift collar partly solved this problem, but the shift lever never felt secure in park and felt sloppy hunting through the other gears.

As I studied a 1959 detent plate I had lying in my spare parts collection, I came to the realization that I could make this part at reasonable cost even if there was just a small demand. I own a license for SolidWorks, a \$10,000 3-D computer assisted drawing program, which I have used in the past to design

medical devices. I spent a few days drawing up a replacement detent plate using the program. The part is very intricate with complex curves. I did not just want to copy the part; I wanted to make it better.

To think that a small part is not complicated, look at the final sketch on the computer with dimensions of the part:



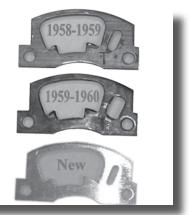
I re-engineered the plate that the park slot would be just slightly larger than the end of the shift lever. For some obscure reason, the detent plate had a fairly wide slot for park in 1958 and somewhere in 1959 it was actually widened. You would think that this would make the problem, which was well known of Ford cars with the Cruise-O-Matic coming out park spontaneously, worse not better.

As you may notice, the edges of the old part get rounded with use, making it more likely that the car will at some point come out of park unexpectedly. I was able to make the part more precise than the original part, because the parts I was making were done using



electrical-discharge-cutting, not stamped out like the original Ford part. I also made them out of better steel - low carbon mill steel.

This is a picture comparing the original parts with my redesigned part:



I gambled and make a small run of the 1958-60 Thunderbird detent plates through a company called QuickParts. I sent the design to them via e-mail. The staff at QuickParts was friendly and very helpful. I had the parts in my hand in a week. I nervously installed one of the new plates in my 1960 Golde Top Thunderbird. Thank goodness, it fits! Even with my new shift lever and collar, I immediately noticed a difference. Twenty plates sold in the first two weeks. I got rave reviews from many of the people who bought these detent plates. Mark Maron, a VTCI member who owns an immaculate 1960 Thunderbird with less than 19,000 miles commented that my plate was a better design.

Shortly after I designed the detent

plate, a close friend of mine, Keith Piacente, called me up to tell me that his 1962 Thunderbird Hardtop had gone through his garage door because it had gone into reverse on it own while it was idling in park. Luckily no one was injured and the garage door, not the car, was damaged.



I found out that the detent plates for the 1961-63 Thunderbirds were not being reproduced. I ordered a shift collar, a shift flange, shift lever and several detent plates from Bob's Bird House, I did not know which detent plate was from which year, but I noticed that there was an evolution of the detent plates from 1961 to 1963. Ford obviously knew they had a problem. The plate initially was flat like the 1958-60 Thunderbird plates. Then at some point a dimple was stamped between park and reverse. Obviously this was not enough, because the dimple was enlarged later on. The dimples on the used detent plates were rounded from wear on the park side. Their function was compromised. Ford was trying to make parts in volume economically. I knew I could do better. I again designed a narrower park slot then added a more raise stop made from a stainless steel nut and bolt that was threaded, staked and then further fixed to the piece using cyanoacrylate glue.

The following shows the comparison of the old 1961-63 plates with my redesigned plate.

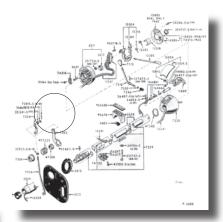
I have sold over a hundred and fifty of these plates in just a few months. I have shipped out plates to Thunderbird owners across the country, including Alaska and Hawaii. I have also sent out plates to Thunderbird owners around the world, including Canada, Great Britain, Netherlands, Pakistan and Australia. I have sold these plates at wholesale price to vendors Bob's Bird House and Pat Wilson. They sell them at the same price I do at www.squarebirds.org.



I hope to make some more needed reproduction parts. I just received

a run of detent plates that I designed for 1960-63 Falcons with automatic transmissions. At this point, my reproduction business is just part of my hobby, but it may eventually pay my bills.

Below, is shown where the 7A216 detent plate sits in the steering column for a 1958-60 Thunderbird. 1961-63 Thunderbird is similar.



It is recommended that the socket assembly (steering collar) for the gearshift lever (part number B8S 7228) and the gear shift lever (part number B8S 7210) and bushings (parts numbers B8S 7246-A and B8S 7335) also be replaced to restore the shifting action to like new. If the end of your gearshift lever is worn or the hole for the roll pin on your gearshift collar is enlarged or oblong this detent part alone will not cure your sloppy gear shifting. The shift collar and gearshift lever can be bought in reproduction from many of the vendors that advertise with the VTCI. The B8S 7246-A usually comes with the shift handle.



Square Bird Detent Installation This is your starting point. Make sure your parking brake is on and your wheels are chocked, as you will be removing the device that keeps your car in park.



Pull off the center of the steering wheel.



Scribe with a screwdriver or awl a mark towards the hole on the deep dish washer, so you will know in what position to reinstall the steering wheel.



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Remove the center nut using a 15/16 inch deep drive socket.



Upon removing the nut and the deep dish washer you will find two threaded holes on either side of the center threaded rod.



Thread the bolts of a steering wheel puller into the threaded holes. Use the correct bolts. Turn the center bolt of the puller to pop the steering wheel off. Remove the spring under the steering wheel.





Remove the screws at 9 o' clock and 1 o' clock holding the plastic shift indicator. Lift off the plastic piece from the bottom.



The plastic shift indicator will remain attached by the horn wire. Unscrew and remove the turn signal lever. Remove the spring on the turn signal switch with a small screwdriver. Keep one finder over the spring to prevent it from becoming a projectile. Pull out the plate assembly for the turn signal switch (It connects the turn signal lever to the turn signal electrical switch

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Remove the nuts at 11 o' clock and 5 o'clock. Unscrew the turn signal electrical switch.



Loosen and remove the center bushing by wedging and spreading the slot on the bushing. It should take minimal force. It has a radial slot. Place a screw driver in the slot and tap on the handle end of the screw driver with you hand so as to rotate it. It just slides onto the steering wheel shaft. After is freed up and can rotate, place the screw driver under the lip of the bushing and pry it up a little. At this point, the bushing can be seen and delineated from the other parts. Now just slide the bushing up the steering wheel shaft by hand until it comes off.





Open up and remove the shift indicator light access plate.



Unscrew the shift indicator light and move out it out of the way. Remove the second screw which holds down the white shift indicator plate. Remove the shift indicator plate. Be careful not to let these screws drop into the shift column.



Pull forward the chrome shift indicator flange. Be careful not to lose the two square head bolts which held down the chrome shift flange. The detent plate is seen here on the chrome flange plate at 7 o'clock. Remove the two screws holding down the detent plate and remove the detent plate.





Reinstall the pieces in the reverse order. One tip on reinstallation: put in the square head bolts into the chrome shift flange and then thread on the nuts a few threads. This will help prevent you from losing your mind when the bolts fall off into the shift column.

The two bolts with square heads at the 11 a.m. and 5 p.m. position: They hold the flange to the column. When reinstalling the chrome bezel (which has the detent plate on the back), the two square heads need to go into the two square slots in the steering

column tube at the 11am and 5pm position. When the chrome bezel is in place and the two bolts have the nuts run on them only about the thickness of the nuts, hold and wiggle the bolts as you tighten them so that the square bolt heads go into the slots. The bezel has stops that prevent the bolts from turning. As you tighten up the two nuts, the chrome bezel will tighten up against hemispherical shaped part of the steering column by sucking down the bezel to the steering column/square slots. The two bolts hold everything tight. If they are not secured in the two slots, everything will be loose and the shift lever will no go into the detents. And you cannot see if they are in the slots, you just have to feel it by the successful tightening of the assembly as you turn the nuts. It might be easier to have the shift lever in the large neutral slot for the bezel re-installation rather than the very small slot in the detent for Park as vou try to tighten and hold everything at the same time.

While everything is apart, lubricate the bearing on the flange with bearing grease and put some lubricant on the detent plate. Remember to reinstall all the parts including the spring under the steering wheel. Torque down the steering wheel center nut to 40-60 footpounds.

Before tightening the screws holding the plastic shift indicator, rotate the plastic shift indicator so that the circle surrounds the "P" for Park. Off course your car should be in park when doing this.

Instructions & photos by Alexander Sosiak with additions by Bill GWP.

