

A few members are probably wondering why there is yet another article on the installation of a late-model automatic transmission into a Classic. It is true that over the last four years three different articles have been published relating to the subject.

In the Transmission section, pg.1 there is a short tech article describing how to install a flexible cable linkage for the Turbo 350. Because of the tremendous popularity of one specific late-model automatic transmission, the need has arisen for a very detailed description for installing this transmission. So many related factors were left up to the individual in the previous articles that we feel the need for this tech article.

For those members who want to maintain a column linkage, a far superior linkage is now available. Also, this article will describe the speedometer gears that are available so that you can have the correct speedometer reading. As of this article, many more parts will be available for those of you who want to bolt in this modification, rather than making a lot of the parts yourself. Since there are other articles available that describe the manufacturing of the parts, this article is limited to the explanation of the installation. This article will be a very specific detailed description with pictures of a specific installation. These are some of the reasons why this article is so important and why over the last year we have been working very hard to develop and to have manufactured the parts that are required to make this modification.

Since there are so many different possible combinations of a late-model engine and late-model transmission, with each different combination having its own various peculiarities, we are limiting this article to a specific installation. By far the most popular combination among our members has been the installation of a Turbo 350 Hydra-Matic onto a Chevy small block engine. Therefore, this article is limited to the installation of GM's Turbo Hydra-Matic 350 transmission onto a late-model Chevy small block engine. Specifically, the small block engine must have a block-mounted starter and the capability of having front engine mounts. This article and the related parts will be limited to 1955-1957 passenger cars.

When you take into account all of the factors involved, the very best way of installing a setup like this is to mount the engine in the front with the original-type front motor mounts. Install the Turbo mounts which will suspend the middle of the engine/transmission assembly and then support the rear of the transmission with a cross member.

There are two acceptable ways of installing the engine/transmission assembly. One is to side mount the engine and then to support the back of the transmission with a rear cross member. The other method we have just described in the above paragraph. The basic reason that we do not suggest to side mount the engine is that so many of the members who have tried to side mount the engine have found it very difficult and the results have not been very satisfactory. The main reason is that so much modification is required to attach the side mounts onto the frame.

Some have said, "I will install the engine/transmission assembly by front mounting the engine and rear mounting the transmission and not put anything in the middle." The results of this method have not been very successful either, because invariably problems occur with the rear transmission mount deteriorating because of the tremendous torque of the engine/transmission assembly. There is a very simple and basic reason for this. If you are to measure the torque arm of the original-type motor mounts, you will find that it is about five inches; and then if you measure the torque arm of the side mounts, you will find that it is about ten inches. Since the torque arm is 1/2 for the front engine mounts, the resultant torque is twice as great. As a result, the superior method of installation is to front mount the engine, side mount the transmission, and rear mount the transmission.

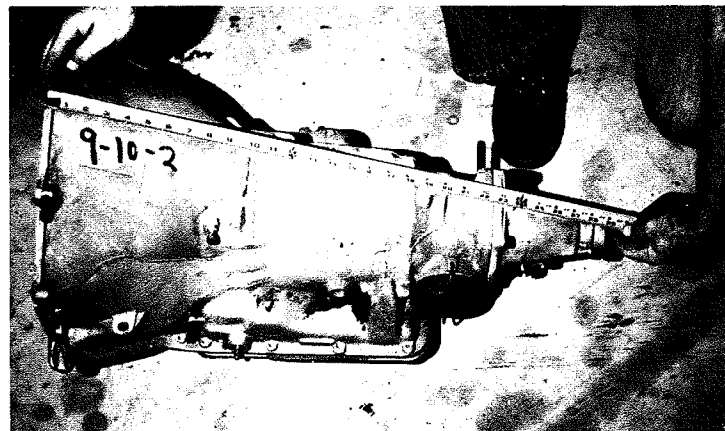
Whenever you get involved in a project of this size, it seems that invariably you end up spending a lot of time going to junkyards, parts stores, hardware stores, and the GM dealer. Thus, I would like to

mention all of the items that you need to collect so that you can install the Turbo 350 without spending hours and miles on the road. These items will be mentioned briefly in this paragraph and then explained throughout the article. I suggest carefully reading through the article and taking down notes for those items that you need to find, then determining exactly where you will get all of the parts that you need. Here is the checklist: A. Engine B. Transmission C. Flywheel/flex plate D. Dust shield E. Rear cross member F. Rear cross member brackets G. Radiator H. Cooling lines I. Drive shaft yoke J. Shift linkage K. Turbo mounting brackets L. Nuts and bolts.

A. Engine

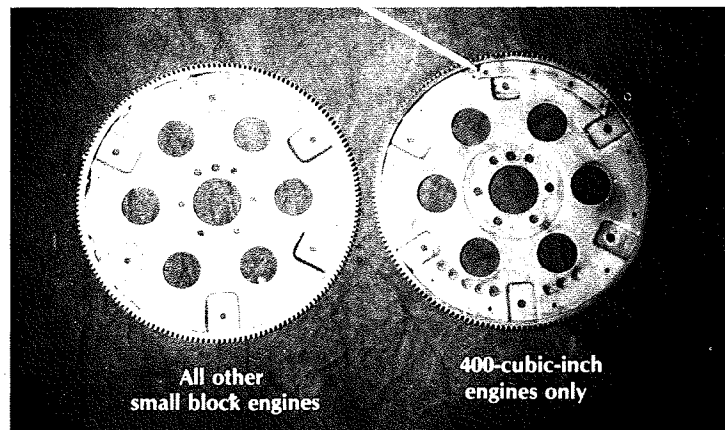
The Chevy small block engines which can be used are the: 283's, 302's, 305's, 307's, 327's, 350's, and 400's. Two specific features are required in the engine you select. The starter must be block mounted and you must be able to install the original-type front motor mounts. If the engine you have or select does not have the drilled and tapped holes for the original front motor mounts, the bosses are there such that the holes can be drilled and tapped. The reason that the early 283's, 265's, and 262's cannot be used is because there is not a way of block mounting the starter. (On some of these engines, holes can be drilled and tapped to mount the starter.)

B. Transmission



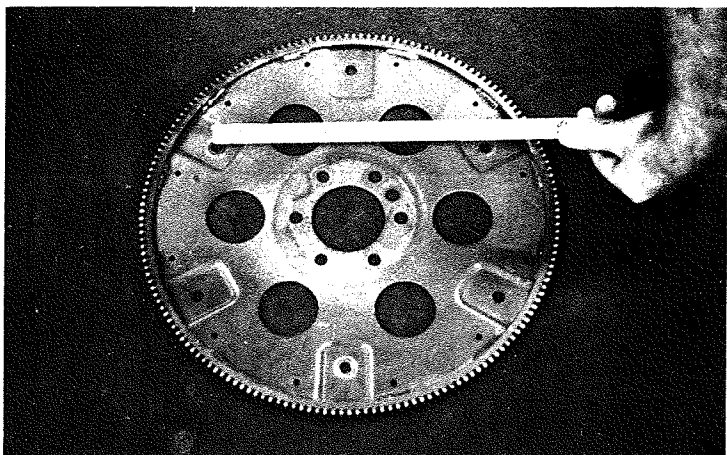
The Turbo Hydra-Matic 350 which is used, has an overall length of 28 5/8 inches with the tail shaft housing being 6 1/8 inches long. Some Turbo 350's have a longer tail shaft housing, but these should be avoided so that you can use the original drive shaft. The Turbo 350's with the longer tail shaft housings are not as common as the one mentioned above; thus, it is very easy to find the correct transmission.

C. Flywheel/Flex Plate



You need to carefully select the flywheel or flex plate, as it is sometimes called, because many different ones are available. If the engine that you are using is a 400-cubic-inch, then there is only one flywheel that can be used, and that is one that has a counter balance welded to it. (See the above picture.) This flywheel has a diameter of 14 1/8 inches. All of the rest of the Chevy small block engines use a flywheel of the same diameter, but the flywheel does not have the

counter weight balance. Some flywheels are made just for Turbo Hydra-Matic 350's, others are made for just Turbo Hydra-Matic 400 transmissions, and still others are made for either Turbo 350 or Turbo 400 transmissions. The difference is the spacing of the three holes for the torque converters. As a result, you will want to carefully choose a flex plate that will bolt to the Turbo 350 transmission.



The spacing between holes for the Turbo 400 is a little less than ten inches and requires bolts to secure the torque converter to the flywheel. The Turbo 350 transmission has a spacing of 9 3/8 inches and requires bolts and nuts to secure the torque converter to the flywheel. These can be picked up at a junkyard for about \$20, but be sure to check the edges of the flywheel where the starter will engage. Many of these flywheels can get "chewed up," and you would not want to install one of these.

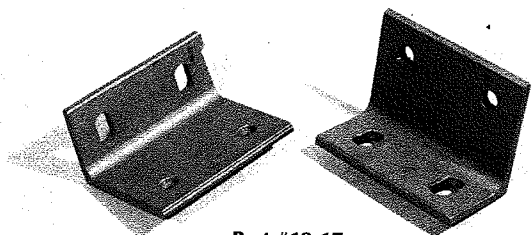
D. Dust Shroud

While you are at the junkyard, if you do not have a dust shield, you should easily be able to find one for the Chevy small block automatic transmission assembly. These come in plastic or in metal, and you can determine which of the two you think looks best.

E. Rear Cross Member

Many rear cross members can be used. Most of these can be found on Camaros or Novas that have a Turbo 350 or Turbo 400 automatic transmission. The rear cross member must be short enough to fit between the frame and must be able to take a Turbo 350 transmission mount. You can order Part #19-3 for the Club's cross member.

F. Rear Cross Member Brackets



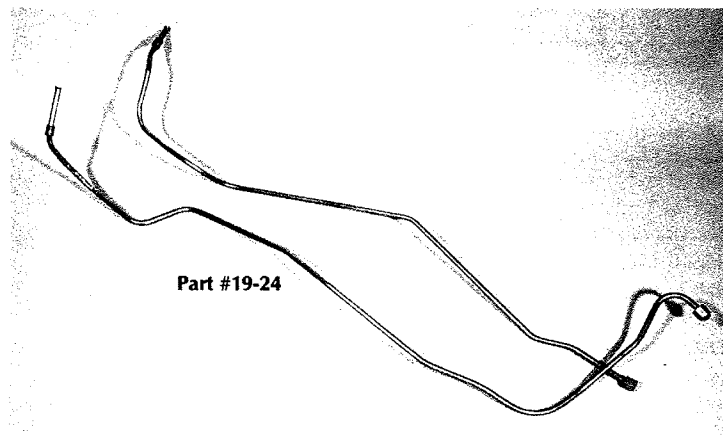
Part #19-17

The rear cross member brackets are now available, but you can make these out of two-by-three angle iron. The brackets available are made out of a high-strength steel and have slotted holes so that the rear cross member can be properly adjusted. A pair of brackets can be ordered as Part #19-17

G. Radiator

Since the fluid in the transmission requires cooling, a radiator must be used that has this capability. The easiest way to go is to simply use an original Classic radiator that was made for an automatic transmission. The radiator is available as Part #18-49.

H. Cooling Lines



Part #19-24

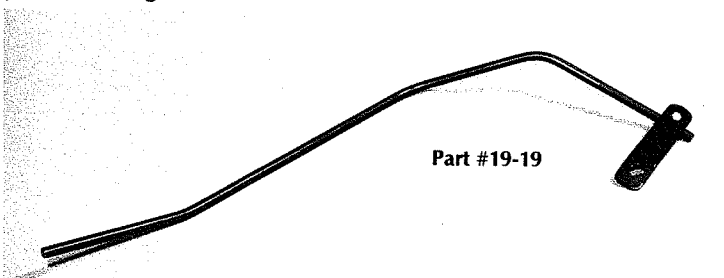
If you have a set of original powerglide transmission cooling lines, these can be modified so that they can be installed into the Turbo 350 transmission. If you do not, these are now available through the Club and have the fittings and bends such that you can easily install them into the original automatic transmission radiator and into a Turbo 350 Hydra-Matic. (These cooling lines will also fit Turbo 400 Hydra-Matic transmissions.) Order Part #19-24

I. Drive Shaft Yoke



Since the splines of the transmission tail shaft are different on a Turbo 350, you will need the correct drive shaft yoke. These yokes are very common, but certain junkyards will require you to buy a drive shaft along with the yoke. If this is the case, you might as well get one from a Nova or Camaro because the shorter drive shaft might come in handy someday. Remember, specify Turbo 350 yoke; the yoke for a Turbo 400 is different.

J. Shift Linkage



Part #19-19

For those who want to have a floor shift linkage, I suggest that you use a cable linkage and similar brackets as suggested in the **Transmission section pg 1**. The greatest number of members would like to maintain the column-type shift. An excellent linkage is available which has been designed to be installed on either a Turbo 350 or 400 automatic transmission and onto the column of a powerglide-type Classic. This linkage is credited to Wyatt Elmore, #18672, who designed it for his beautiful 1955 2-door Hardtop. It is available as Part #19-19 which includes the rod, the swivel, the bracket, and the wire clip.

K. Turbo Mounts

The Turbo 350/400 mounting brackets can be purchased through the Club, (Part #19-1)

L. Nuts-n-Bolts



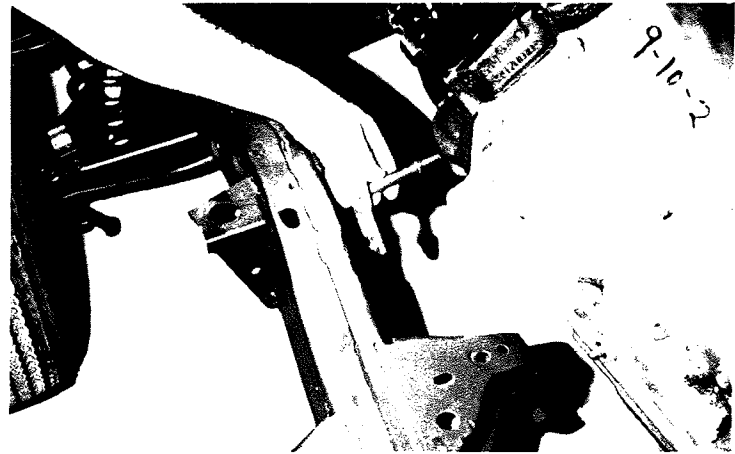
Part #19-20

The last item that I would like to briefly mention is the hardware required to mount this complete setup. You may think that it is simply a matter of collecting a few nuts and bolts and installing them. But after having carefully counted, selected, and collected all of the pieces that are required, we found that there were 92 items. As a result, we have come up with a kit that includes every nut, bolt, washer, lock washer, cotter pin, and grommet that is required to bolt the transmission to the engine, to bolt the torque converter to the flex plate, to bolt the turbo brackets to the transmission and frame, to bolt the rear cross member brackets to the frame and to the rear cross member, and to bolt the rear cross member to the transmission mount. This bolt kit is shown above and is Part #19-20.

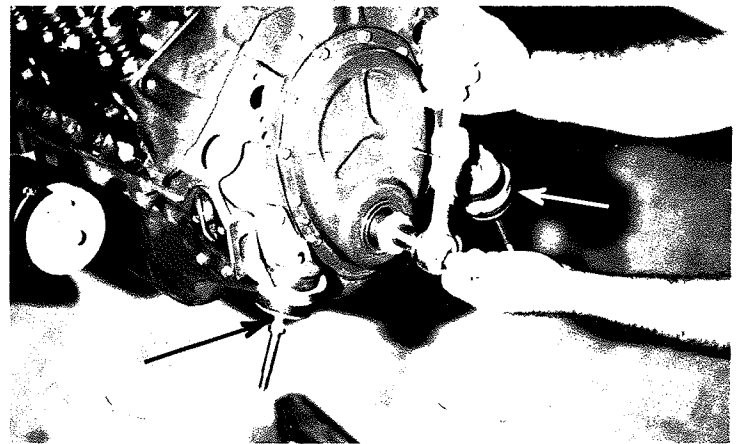
These are all grade 5 or grade 8 bolts which are the correct strength for this installation. Do not use common bolts, they are not strong enough. (You cannot believe how many trips this little kit can save you.)

By going through the above list carefully, you will be ready when it comes time for you to make the Turbo 350 installation. You will find that the time that you spend carefully selecting and collecting all of the required parts will make the job more enjoyable and much faster in the long run.

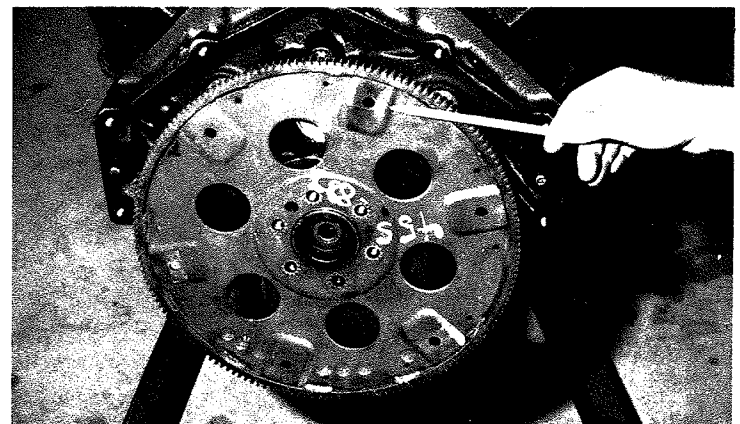
As you will notice throughout the article, the pictures have been taken on an open frame to more clearly show the steps that are involved. It is true that this made it very simple, but all of the steps can be performed while the body is on the frame and while the engine is in place on the frame. If you happen to have the engine out of your car or the car off the frame, installing the engine/transmission unit as a pair does make things quite a bit simpler.



8. There is a bracket which is spot welded to the frame which in the *Assembly Manual* is referred to as the idler lever bracket. This lever bracket supports the bracket by which the original shift linkage was connected from the transmission to the column. This bracket must be removed from the frame, and this can be accomplished with a "cold" chisel and a large hammer. (This bracket can be kept and reinstalled at a later time if you choose to return your car to original.)

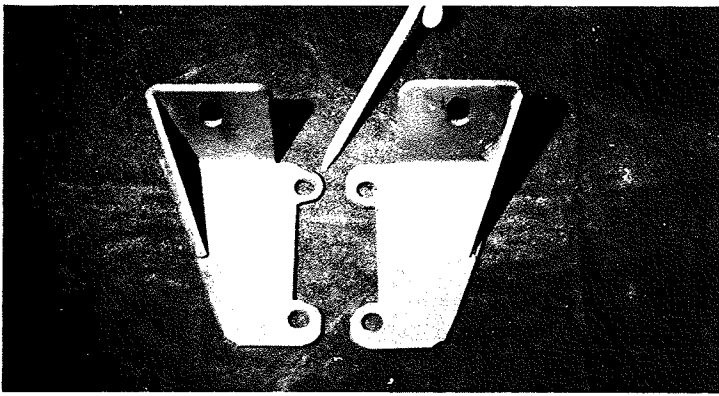


9. For those of you who are replacing the front motor mounts, or for the very first time mounting the engine with the original front mounts, the specific diagram can be found in the *Assembly Manuals*: Section 6 Sheet 8.00 (1955), Section 6 Sheet 10.00 (1956), Section 6 Sheet 6.00 (1957). If by some chance you do not have original front motor mounts, these can be ordered as Part #18-6. (The two front mounts are pointed out in the above picture.)

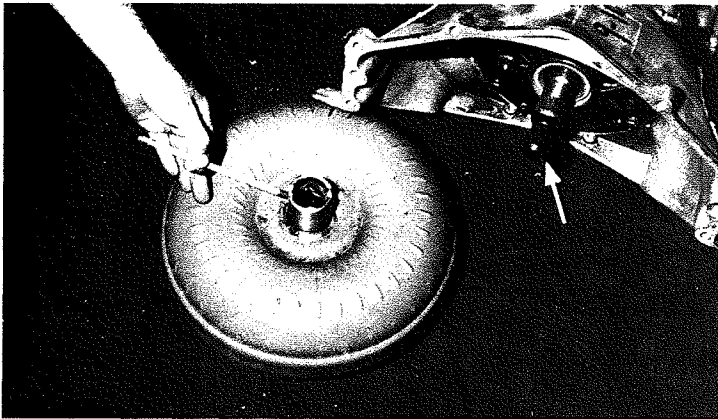


10. The correct flywheel should now be bolted onto the back of the crankshaft of the engine. The seven holes in the crankshaft will exactly line up with seven holes on the flex plate. The flex plate has some protrusions where the torque converter will be bolted and these protrusions should be pointing toward the back end of the car when the flex plate is properly bolted onto the crankshaft. The flex plate should be bolted in place by six (grade 8) 7/16-20 x 5/8-inch bolts with star washers. Torque to 50-60 ft.-lbs.

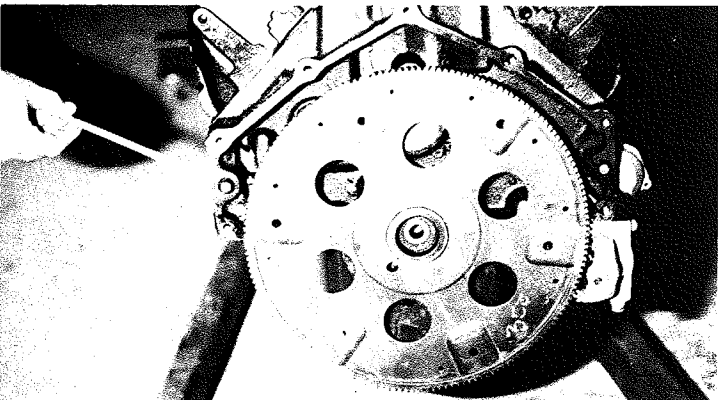
1. If by some chance you have an engine in your Classic that you can use in the Turbo 350 Hydra-Matic installation, then the first step that you must perform is the complete removal of the present transmission. If this involves removing the powerglide, you can get some help with the proper steps in the *Shop Manual* in Section 7. If you have a standard transmission, then it must be removed along with the bell housing and clutch assembly. This removal can also be found in the *Shop Manual* in Section 7. 2. Disconnect the battery. 3. Remove the radiator transmission cooling lines. 4. Remove the transmission linkage. 5. Remove the starter. 6. Remove the spark plugs. 7. If the engine is in the car, then you must support the rear part of the engine because at this time it will only be held in place by the front motor mounts. The rear of the engine can be supported by use of some 2" x 4" blocks and a jack, or some other appropriate stand underneath the oil pan.



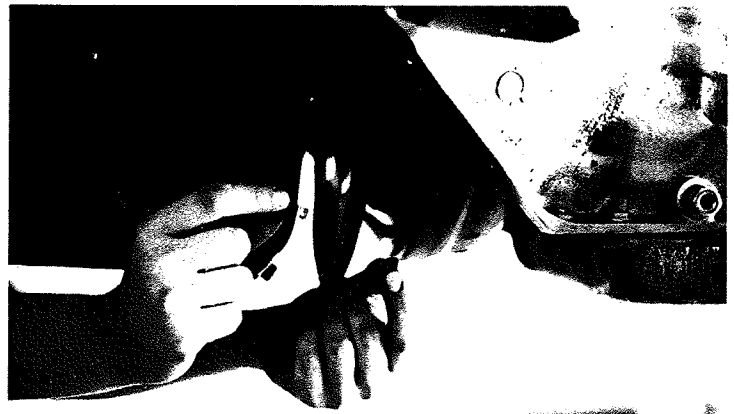
11. The two brackets which will be bolted to the transmission need to be checked for fit; these are two of the Turbo mounts. The "ears" on some of the brackets do not quite fit some of the 350 transmissions, and as a result, some of the metal needs to be ground away so that the brackets will fit into place. These brackets should fit flush to the bell housing.



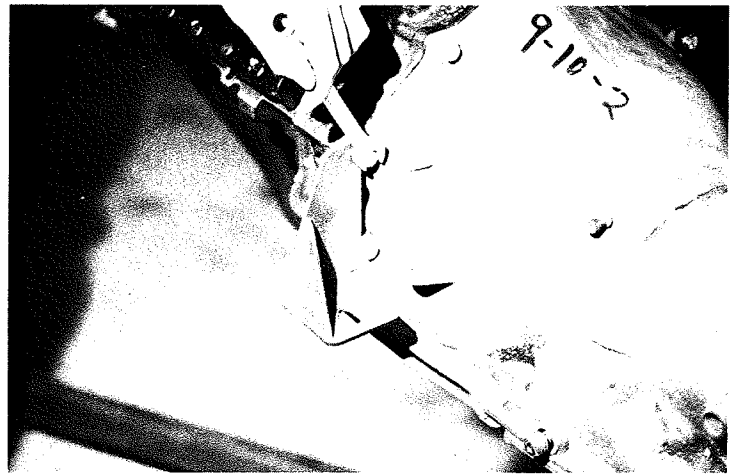
12. You will notice that the input shaft of the Turbo 350 transmission has two sets of splines (see arrow). If you look a little bit deeper past the seal, you will find a pair of "jaws" also. If you will also look at the torque converter, you will find that there are two sets of splines, but also that the outer body has two notches (see pencil). All three of these items must engage for the torque converter to be in position. With some pressure and rotation, the two splines and one set of notches will engage.



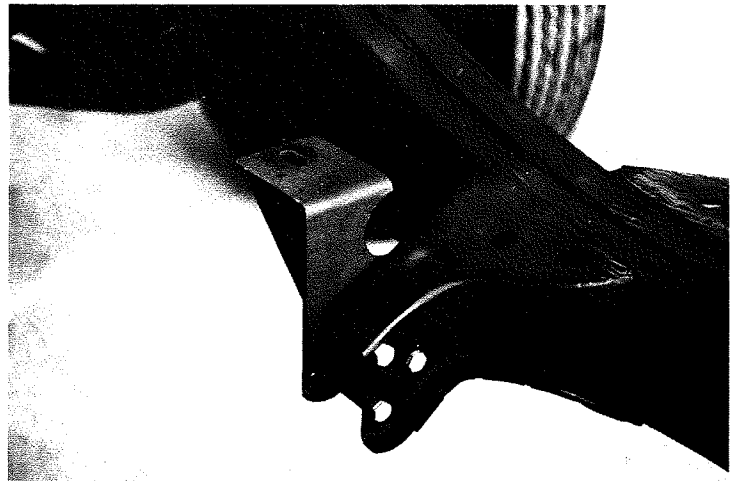
13. At this time the transmission will be bolted into position by using only the top two bolts with lock washers. Use the engine dowels to properly align the transmission with the engine. The two bolts that should be used will be 3/8-16 x 1 3/4 inches. For those of you who have the body on the frame, if you will remove the tow pan plate on the center hump of the floor (up near the firewall), the above-mentioned bolts are a little more accessible. These two bolts can be tightened. (Install transmission without filler tube and dip stick.)
14. Line up the torque converter with one of the three proper holes in the flywheel. One of the proper locations should be showing along the bottom of the engine/transmission assembly.



15. Install one of the 3/8-24 x 1/2-inch bolts and a self-locking nut. Tighten to 35 ft.-lbs. Install the bolt from the engine side, the nut from the transmission side. **16.** On the front of the crank is a bolt which can be used to turn the engine. (You might even turn the engine by turning the fan.) Turn the engine until the second correct location of the torque converter and flywheel lines up. **17.** Install another 3/8-24 x 1/2-inch bolt and nut and torque to 35 ft.-lbs. **18.** Turn engine until the third and last bolt and nut can be installed and tightened into place.



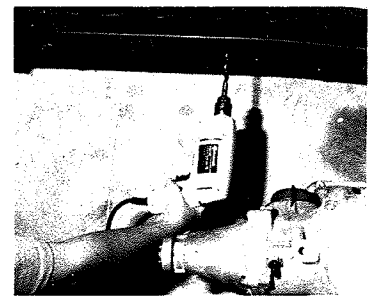
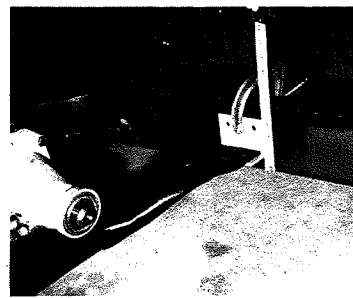
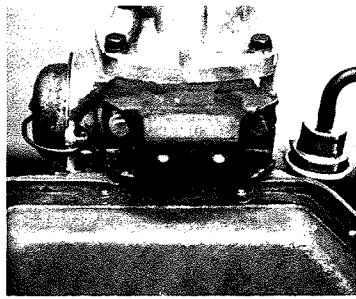
19. Install the two Turbo transmission brackets with four 3/8-16 x 1 3/4-inch bolts and lock washers. Tighten all to 25-30 ft.-lbs. The flat part of the brackets will be pointing towards the rear of the car. **20.** At this time, the rear of the transmission can be supported and jacked upward. The support at the rear of the engine can be eliminated. Either one of the two supports is sufficient; use whichever one is best for you. **21.** Raise the engine/transmission assembly until the output shaft of the transmission is about level with the top of the frame.



22. Install the two Turbo mounts onto the frame. The flat part of these mounts will point forward. This means that the slots on the pairs of brackets should line up. These brackets can be installed onto the frame using the six 3/8-16 x 3-inch bolts, lock washers, and nuts.

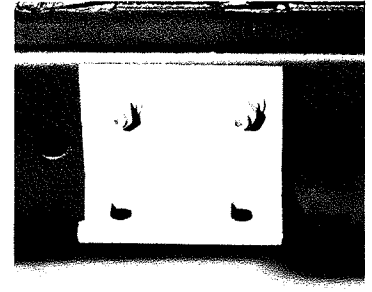
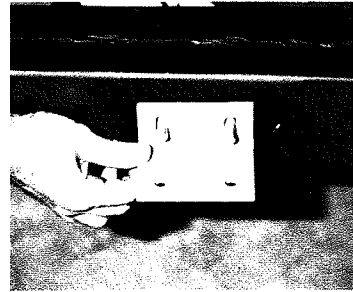
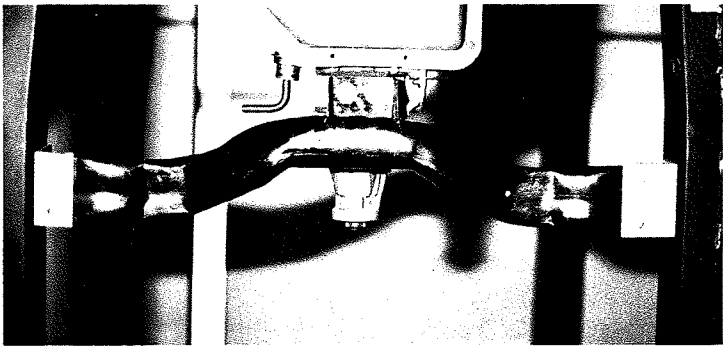


Part #19-18



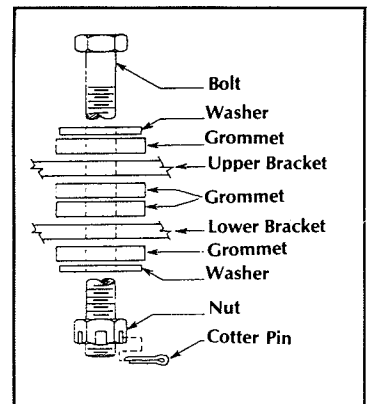
23. Install the rear transmission mount onto the transmission. This can be ordered as Part #19-18. Carefully check the thread of the bolt that you use, making sure that it is the proper bolt for the threads in the transmission. The reason that I mention this, is that on the particular transmission that I used, some of the bolts had metric thread and others were the English thread. The early Turbo 350's were all English thread; then they started to change to a mixture of English and metric thread. The most recent Turbo 350's, I believe, have quite a significant amount of metric threads involved. Thus, you want to carefully check before installing any bolt so that you do not strip the threads.

28. The bottom of the bracket to the bottom of the frame should be 1 1/4 inches. Mark the center of the four holes to be drilled in the frame. **29.** Recheck the locations. Check that they are the same distance back along the frame, and check that they are 1 1/4 inches from the bottom of the frame. **30.** Remove the cross member from the transmission mount. **31.** Center punch and drill the holes in the frame. These holes need to be just slightly larger than 3/8 inch. They can be drilled from the inside of the frame towards the outside. Be sure to hold the drill such that the holes to be drilled in the outside of the frame are lined up in the same manner as the holes on the inside of the frame. **32.** Using a small triangular file, make squares out of the round holes on the outside of the frame. The squares should be made so that they will fit the carriage bolts which will be used to install the brackets.



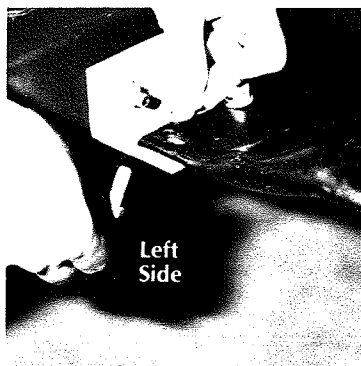
24. Bolt the rear cross member to the transmission mount. The rear cross member that we use will have the bracket pointing forward and the "tube" part of the rear cross member will be towards the back of the car. Use two 7/16-14 x 1-inch bolts with washers and lock washers. Tighten in the center of the bracket slots. **25.** Temporarily bolt the brackets to the two sides of the rear cross member; this will help you find the proper locations for the hole to be drilled in the frame. Some of you may want to weld the brackets to the frame, but I would suggest bolting them in place. It looks much nicer and can be changed at a later time. The two brackets are bolted in place differently; the reason is that the cross member is not symmetrical. On the driver's side, the three-inch part of the bracket is at the bottom, and the two-inch part of the bracket will go up the frame. On the passenger's side, the two-inch part of the bracket is at the bottom and the three-inch part of the bracket goes up the frame.

33. Install the driver's side rear cross member bracket using two 3/8-16 x 5-inch carriage bolts. Use a washer, a lock washer, and a nut with each of these bolts. **34.** Adjust the height so that the bottom of the bracket is 1 1/4 inches above the bottom of the frame and then tighten. **35.** Install the passenger side rear cross member bracket again using the carriage bolts, washers, lock washers, and nuts. Tighten. **36.** Install the rear cross member onto the rubber transmission mount, but do not tighten the bolts.

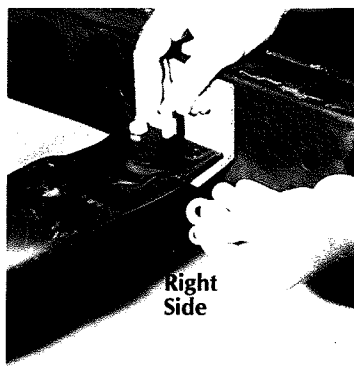


26. Both brackets should be the same distance from the "ears" on the frame. On my installation, the measurement from the back of the ear to the front part of the bracket was 11 1/2 inches. Your frame may be a little different. **27.** Mark the front and back location of the bracket on the frame. (The up and down location of the brackets will be taken care of shortly.)

37. The method we use to bolt the Turbo transmission mounts together is very similar to the front motor mounts and as a result, there is no metal touching metal. The bolts securing the Turbo mounts together are made such that a cotter pin can be used to lock the nut in place so that the two brackets are not tightened excessively. The order of the materials on each side is the following: At the top is the bolt head, then a washer, then a grommet, then the top Turbo bracket, then two grommets, the bottom Turbo bracket, then a grommet, then a washer, and finally a slotted nut. At this time the nut will not be tightened and the cotter pin will not be installed. This setup should appear on both sides of the transmission. **38.** Lower the rear of the transmission so that the cross member just rests on the frame brackets.

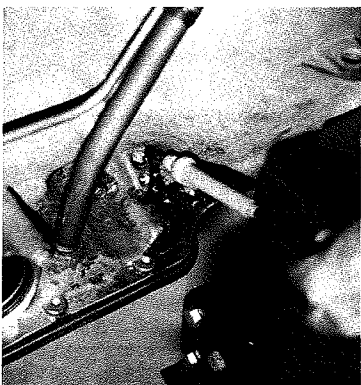


Left Side

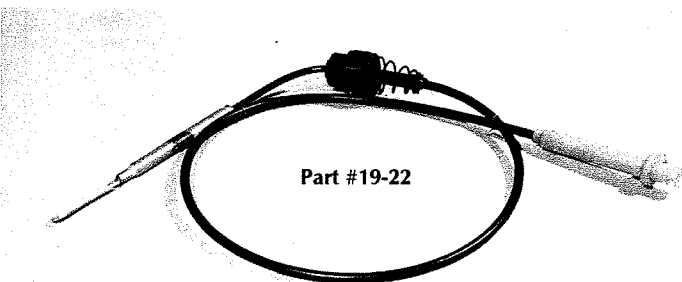


Right Side

39. Install the bolts holding the cross member to the bracket on the driver's side. The bolts can be installed from the bottom by using a washer, lock washer, and nut on top of the cross member. Do not tighten. The bolts to be used are 3/8-16 x 1 inch. **40.** Install two similar bolts on the passenger side bracket, this time with a bolt and washer from the bottom, and a lock washer and nut on the top. Do not tighten. **41.** Align the transmission so that the output shaft is centered between the frame. The distance from the frame to the center of the output shaft on my frame was 17 1/16 inches. The distance should be the same from both sides of the frame. **42.** Tighten the bolts securing the cross member to the transmission mount. **43.** Tighten the bolts and nuts securing the cross member to the brackets on the frame. **44.** Lower the transmission so that this time there are no other supports other than the front motor mounts, the rear cross member, and Turbo mounts. Tighten the two 1/2-inch bolts and nuts holding the Turbo mounts together. To avoid compressing the grommets, do not tighten excessively. **45.** Install the cotter pins to hold the nuts from vibrating loose.



46. Install the detent cable at the transmission on the passenger side. This cable is a mechanical "kick-down" of the transmission. The end of the cable has a loop which is installed over a small wire which protrudes out of the case of the transmission. The detent cable has a small bracket and bolt holding it in place.



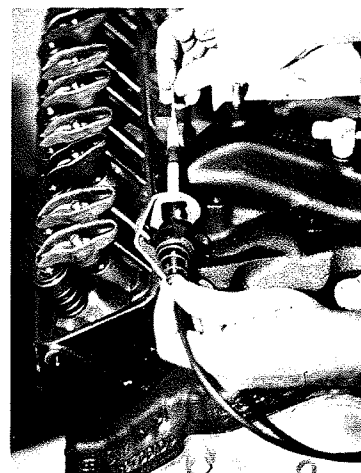
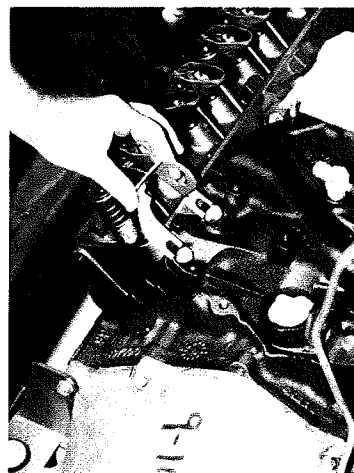
Part #19-22

47. There are several different types of detent cables, but one of the most common ones you will find is on Camaros and Chevelles. Pictured above is the detent cable we carry. It is Part #19-22

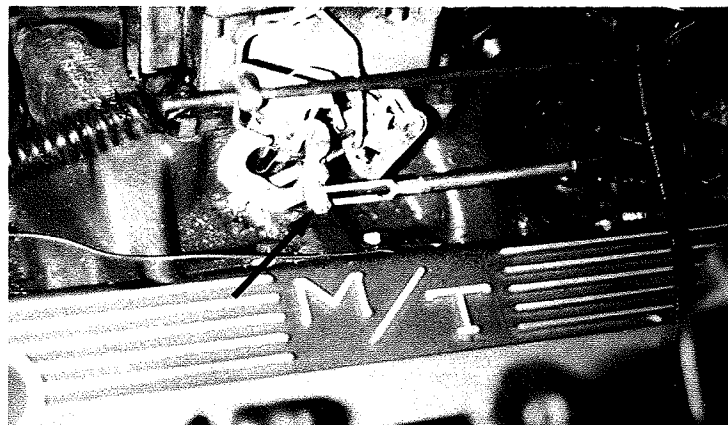


Part #19-23

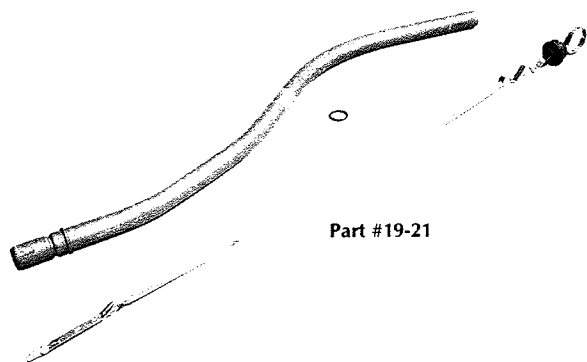
48. These will always have a bracket somewhere on the intake manifold to hold the carburetor-end of the detent cable in place. Pictured above is the detent cable bracket. It is Part #19-23



49. Install the detent cable bracket onto the two intake manifold bolts. These are the two rear bolts on the driver's side. **50.** "Snake" the detent cable up along the transmission between the cowl and the engine. Install the cable into the bracket.



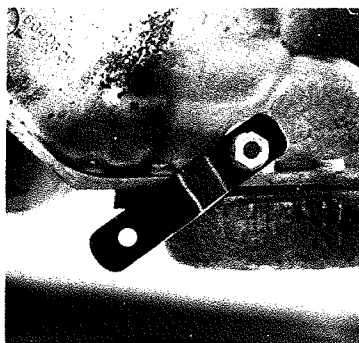
51. Attach the detent cable to the carburetor throttle control lever (see arrow). Most throttle control levers will have one end of the lever which will attach to the throttle; then the other part of that lever, which is on the opposite side of the turning radius, will have some kind of location where the detent cable can be connected. Thus, when the throttle goes back, the detent cable is pulled forward. **52.** If you are using a detent cable of the type that is shown in the picture, the detent cable can be adjusted by disengaging the snap lock. Then place the carburetor throttle in the wide open position. While the throttle is in the wide open position, adjust the cable by turning the plastic bracket; then push the snap lock down into place so that the top is flush with the rest of the bracket. The snap lock is positioned right at the location of the detent cable bracket.



Part #19-21

53. The filler tube of the Turbo 350 Turbo Hydra-Matic would normally come up along the side of the transmission and appear up by the valve cover of the engine on the passenger's side—just about where the outside of the intake manifold and valve cover join. I believe that on most '57's, this location would be acceptable; but probably on '55's, and '56's, there is not quite enough space between the transmission/engine assembly and the firewall. Thus, you need to determine the location for the filler tube so that it will not be in direct contact with the engine and the cowl at the same time. Above, you see Part #19-21. It includes the filler tube, the dip stick, and the O-ring.

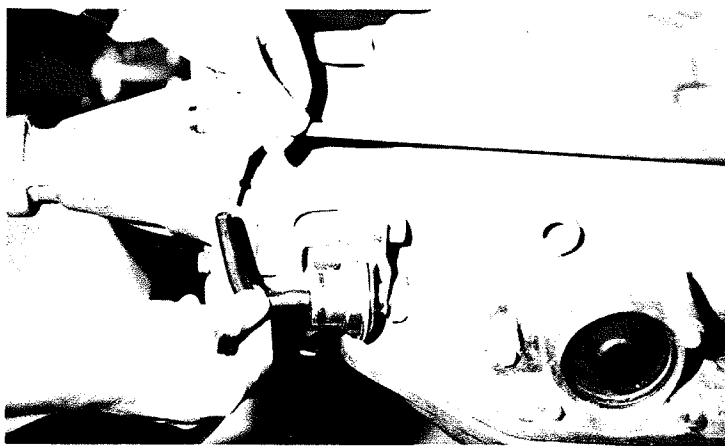
54. After you have determined where the filler tube will be best located, you will need to determine where to bend the filler tube. **55.** The filler tube can be bent if care is taken. One of the ways of bending the tube is to locate some nails in a board such that the nails will hold the tube in place while you are bending it in a given direction. If you place enough nails along the tube, it will be held in place and you will not leave any excessive creases. Heating the tube and using a conduit bender is another possibility. **56.** Install the O-ring at the bottom of the filler tube; there is a groove for this O-ring. **57.** Install the filler tube into the transmission. No retaining bracket or bolt secures this filler tube. You will see a bracket along the filler tube that is sometimes secured with one of the transmission engine bolts, but you will probably find that the bracket will not be able to be used in the normal fashion. If you choose to, you might want to rebend the bracket or make a new one so that the filler tube can be secured to the transmission/engine assembly.



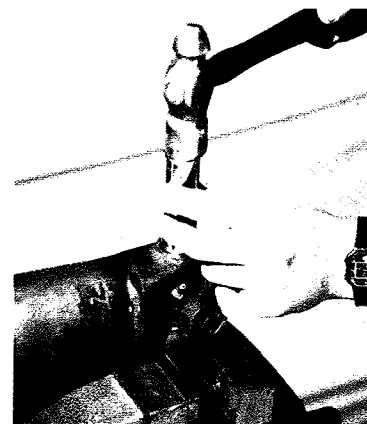
58. Install the shift linkage bracket onto the transmission. This bracket should point forward and down. **59.** Shift the transmission as far forward as possible. This will be the PARK position. **60.** Place the column shifter in the PARK position also. **61.** Adjust the swivel on the threads of the shift linkage rod so that the rod has the best position to give the most clearance along its path from the transmission to the column shifter. Check for the rod clearance. **62.** Install the upper end of the rod in the original fashion as is shown in the *Assembly Manuals* in the R.P.O. section. These can be found as the following: 1955-R.P.O. 313 Sheet 5.00, 1956-R.P.O. 313 Sheet 6.00, 1957-R.P.O. 302-313 Sheet 7.00. Tighten the nut to lock the rod in place. **63.** Make the final adjustment of the swivel on the rod so that when the transmission is in the PARK position, the gearshift lever is also in the PARK position. **64.** Install the swivel through the bracket and secure with the wire clip. (After you use the shift linkage a while and determine that everything is working properly, you can cut any of the unused portion of the rod at the column.) **Important: Do not forget that the gear pattern is different.**



65. Install the transmission radiator cooling lines at the radiator. (The old powerglide transmission radiator cooling lines can be used if they are cut to the proper length, double flared and then bent.) **66.** Install the cooling lines into the transmission. The fittings of the cooling lines screw into two brass fittings in the transmission. Do not try to screw the cooling line fittings directly into the transmission.

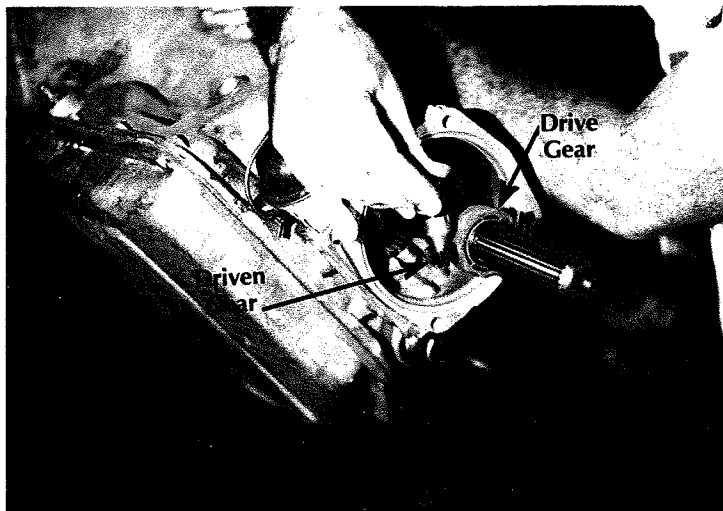


67. The modulator must have a source of constant vacuum. Install either a stainless steel line or vacuum rubber line from the modulator (on the passenger side of the transmission) to either the manifold or a proper location on the carburetor. **68.** Install the starter. **69.** Install the dust shroud. **70.** Reconnect the speedometer cable. This is the same cable that was used for the original powerglide. It is the correct length and has the proper fittings. This can be purchased as Part #19-2.



71. Remove the original yoke from your Classic's drive shaft as described in the *Shop Manual* in Section 4. Install the Turbo Hydra-Matic 350 transmission-type yoke onto the original drive shaft in the manner which is described again in Section 4 of the *Shop Manual*. **72.** Install the yoke onto the transmission tail shaft. **73.** Install the rear of the drive shaft onto the differential with the "U" bolts as described in the *Shop Manual* in Section 4. **74.** Reconnect the battery. **75.** A

completely empty Turbo 350 Hydra-Matic and converter takes about 20 pints of transmission fluid. If this is the situation with your transmission, add about eight pints of transmission fluid (GM type Dextron II) through the filler tube. **76.** While the transmission is in PARK, start the engine. **Do not** race the engine. **77.** Move the manual control lever through each of the gears. **78.** Check the fluid level with the selector lever in PARK, the engine running, and the vehicle on a level surface. **79.** Add additional fluid to bring the level to 1/4 inch below the "add" mark on the dip stick. **Do not overfill** because this will cause foaming. **80.** Very carefully test every area of the new transmission/engine installation.



81. The proper speedometer reading can be achieved by using the correct combination of the speedo drive gear (group 4.343) and speedo driven gear (group 4.337). This will depend on the ratio of the differential and the size of tires that you are using on the rear of your car. Your GM dealer can look up in his parts catalog for the supposed correct combination of these gears. I have given the different selections available: the number of teeth, their color, and the part number.

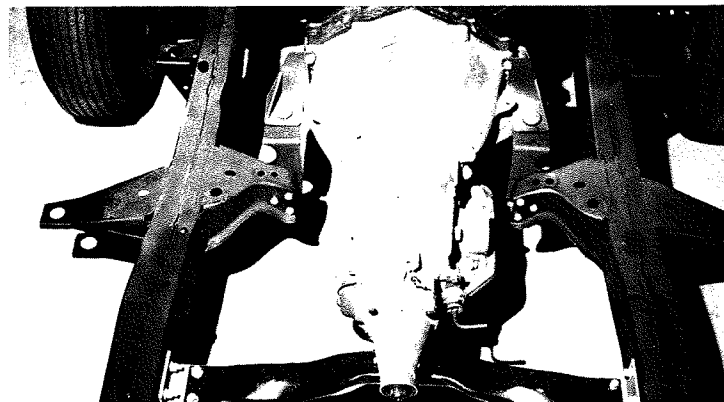
Speedo Drive Gears

GM Part #	Color	#Teeth
6271537	pink	7
6261783	black	8
8640246	green	9
6261785	purple	10
6260038	gray	17
6260037	green	18
8640188	yellow	19
8640189	yellow	20

Speedo Driven Gears

GM Part #	Color	#Teeth
3987919	natural	19
3987920	blue	20
3987921	red	21
3987922	silver	22
9780628	pink	35
1359273	brown	39
1362196	purple	43

82. You may need some help from a mechanic at a transmission shop to aid you in adjusting the linkage and detent cable.



Over the last year I have spent quite a bit of time carefully studying this complete installation. Now that there are so many different parts available, the installation of this superior transmission is well within the mechanical ability of many more of our members. Even though this conversion has been very popular, hopefully we have made it even simpler and more readily available to all of you who would like to accomplish this conversion. I certainly hope that I have covered all of the different areas which need to be covered in this installation, and if I have left anything out, it wasn't because of any intent on my part. Get out there in the garage this winter and get that new Turbo 350 Hydra-Matic into that Classic—if that's the transmission you want.



Airplane Rips Into '56 Wagon

In a freak accident on a private runway built by Weber Farms to accommodate their spraying activities, a Grumman Agcat spray plane ripped into a 1956 Wagon driven by David Kimble who was on his way home from a 10-hour shift at Sand Dune Potato Company near Quincy, Washington, August 29, 1983.

David Kimble and Lester Don Benz were in critical condition after the plane's landing gear straddled the Wagon allowing the propeller to shred the top of the car. Another passenger, Gary Clonts, received facial and arm lacerations from flying metal.

Because of the low airspeed, the pilot was unable to pull the plane up and avoid hitting the car. However, after striking the car, the pilot did gain control a few minutes later and landed the plane safely.

One passenger sustained a head injury from the collision and suffered an undetermined amount of brain damage. Another passenger lost his left eye while the third passenger avoided extensive injury by crouching on the floorboards of the backseat.



****NOTE**** Many Members sent clippings of this story which was reprinted by service.

