

To Shift or Not to Shift?

Recently at a NHRA Division Two race in Gainesville, Florida, a bad accident occurred in Stock Eliminator. This accident brought forth the need to check your cars brake rod to the master cylinder to be sure it will not fall out under no circumstance. One other thing which became apparent was when racers were asked what gears in their transmission would assist them in an emergency to stop them most didn't know! Out of ten people asked only on new the answer on their car.

If you have a standard transmission most people know you can push the clutch in and put car in a lower gear and let out the clutch with motor **on or off** and the car **will slow down**. An automatic transmission is a different situation! The motor **must be running** to be able to use it for **engine compression braking, which will help slow car down**. Knowing the engine must be running isn't enough! You need to know what gears offer engine compression braking in the car you are driving. All transmissions are not the same and the various manufacturers do not build their units the same. If you are a racer who jumps from one car to another and from one owner to another, you need to find out before you leave the starting line, **WHAT ARE YOUR OPTIONS IN AN EMERGENCY**.

The easiest way to check is on the return road. Place transmission in low gear and run car up to a safe speed and let off the throttle. If the car noses over as the engine slows car down, it means you have engine compression braking in low gear. If your car coasts and engine goes to idle speed when you lift, you have no engine compression braking and **you do not want to use in an emergency**. If you have a three speed do the same thing in second gear. Normally all high gears have engine compression braking, but it won't help much. When all else fails put transmission in reverse and be prepared to take it back out if car gets loose.

Below is a list of some of the popular race transmissions used in sportsman racecars. **This list does not contain all the possible combinations:**

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| 1. Torqueflite (PR123) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 2. Torqueflite (PN/R123N) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 3. Torqueflite (PR321) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 4. Torqueflite (PR321) | 1 st , 2 nd & 3 rd Engine braking. Also Reverse. |
| 5. Powerglide (PRN12) | 1 st & 2 nd Engine braking. Also reverse. |
| 6. Powerglide (PRN21) | 1 st & 2 nd Engine braking. Also reverse. |
| 7. Turbo Hydro 200 (PRN123) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 8. Turbo Hydro 200 (PRN321) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 9. Turbo Hydro 350 (PRN123) | 3 rd Engine braking. Also Reverse. |
| 10. Turbo Hydro 350 (PRN321) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 11. Turbo Hydro 350 (PRN321) | 1 st , 2 nd & 3 rd Engine braking. Also Reverse. |
| 12. Turbo Hydro 400 (PRN123) | 3 rd Engine braking. Also Reverse. |
| 13. Turbo Hydro 400 (PRN321) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 14. Turbo Hydro 400 (PRN321) | 1 st , 2 nd & 3 rd Engine braking. Also Reverse. |
| 14. Ford C4 (PRN123) | 2 nd & 3 rd Engine braking. Also Reverse. |
| 15. Ford C6 (PRN123) | 2 nd & 3 rd Engine braking. Also Reverse. |

We hope no one will have to use this method to stop, but you need to know your options!