

4.8 vortec manual transmission



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Book Descriptions:

4.8 vortec manual transmission

Then, click the New Topic button. Im used to the 19961998 vortec motors without the drive by wire throttle body.. Im used to the 19961998 vortec motors without the drive by wire throttle body. I noticed that the throttle response isnt that great on my 05 and suspect its because the computer is getting in the way. It doesnt feel or sound like the engine is laboring, it sounds and feels more like its just not opening the throttle body up as much as Im telling it to. For example, in 4th gear, which is a direct drive, it has much better response and pulls pretty good even at only 2000 rpm. From the way it pulls in that gear you can tell its got some power. So drop it down to 3rd and it should pull a little harder. Nope. Pulls just the same and loses some response and some of the howl in the exhaust like the TB isnt opened up as much. Drop it to 2nd and its even less responsive and still cannot out pull what it can im 4th. Ive done a lot of searching and reading on this site about different tunes. Theres a ton of useful information on here but most people are running automatic transmissions. It wasnt clear how much these 4.8s with a manual will gain from doing a PCM tune, whether the ones with a manual have torque management, and whether the tuner will allow you to turn it off. I see the place to turn it off when using an inTune is in the transmission part of the tune. It seems clear to me from driving my truck that the 4.8s with a manual must have TM from the factory. I could be wrong, but Im a long time hot rodder, you can tell if the TB is open. A motor thats laboring feels and sounds different than one thats not being given any throttle. Im going to order an inTune this week and dig around in the settings to see if the option to disable TM will be available. Has anyone else with the manual transmission tried this. I am going to clean the MAF and throttle body as per the how to articles on this site as well. Im sure its due for a cleaning. Does it have a lot of miles.<http://dnmpaint.com/sdcc/images/commandos-strike-force-manual.xml>

- **4.8 vortec manual transmission, 4.8 vortec manual transmission problems, 4.8 vortec manual transmission fluid, 4.8 vortec manual transmission diagram, 4.8 vortec manual transmission system.**

Just my thoughts It has stock exhaust right now. Its getting a flowmaster super 44 put on it today. Ill see if the shop thats doing that can check the cats in some way while they are at it. I havent checked the fuel pressure. Perhaps Ill change the plugs and wires this weekend when I clean the MAF and TB. Im going to bet it has the original plugs and wires. It even still has the original shocks so I dont think the previous owner did much beyond oil changes. The oil looks great in it so I think he kept up on that at least. Ill also check the air filter. Im going to do all of that before I put in the Diablo 87 octane tune. I may log some data on the factory tune before and after I do this stuff just to see how it all affects sensor readings. I dont really trust the seat of the pants dyno, but it seems to have picked up a little throttle response. I wouldnt go as far as to say that it makes more peak HP. Since the super 44 allows me to hear the engine now, its apparent that its not revving down very quickly most of the time. It will hold at 15002000 RPM for a little before it revs down. Sometimes it revs down reasonably well, but when it does that, it will fall below 500rpm for a moment before coming up to a more sane idle speed. This leads me to believe that I have a sticking IAC solenoid, sometimes sticking a bit open, sometimes sticking closed. I checked out the TB last night but didnt have time to remove it. Its quite dirty behind the butterfly. What I believe is the passage to the IAC looks pretty dirty too. Ill have to remove that tonight and try to get that clean. Im ordering the Diablo inTune today. Im assuming that my MAF sensor is quite dirty as well. I think Im going to log some data with the inTune before and after cleaning the MAF. It would be interesting to see if there is a noticeable difference in both seat of the pants, and numerically in the MAF sensor readings. It did give me the

option to disable TCM on my 05 1500 with the

4. <http://www.odocamilloturrini.it/UserFilesFCK/commandos-2-manual-espa-ol.xml>

8 and the nv3500 transmission. This made a huge difference in throttle response. 1985zx900 is correct also. It does need a hefty tune up. Are not effective without a programmer. Is this true. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. V8 Valvetrain OHV 2 valves x cyl. Chronology Predecessor Chevrolet SmallBlock engine Northstar engine The basic LS variations use cast iron blocks, while performance editions are all aluminium with cast iron cylinder liners. Variants of the LT version of the GM smallblock have been used since. He was a V8 design veteran and former National Hot Rod Association NHRA record holder in drag racing. Design team members included Alan Hayman, Jim Mazzola, Ron Sperry, Bill Compton, Brian Kaminski, Jon Lewis, Stan Turek, Don Weiderhold, and Dave Wandel. The lower section of the block incorporates deep side skirts, along with 6bolt crossbolted main bearing caps. This fully boxes the crankshaft, creating a very strong and rigid structure that has been hotrodded by enthusiasts to over 1,000HP. Also, the cam bearing journals are larger, to allow for a higher camlift profile than was previously possible. The stock aluminum heads can provide a high amount of airflow, which previously could only be found in aftermarket raceperformance heads. Such design features allow for a higher compression ratio with no fear of detonation. The thermostat has been located at a low position, which eliminates the possibility of a gas pocket preventing the thermostat from properly sensing the heat of the coolant. However, modern fuelinjection techniques eliminate fuel atomization concerns under all conditions, so the LS family uses a dry intake manifold. This removes a common coolant leakage point, and also allows the incoming air to remain as cool as possible for better power production.

The LS engine also used coilnearplug style ignition to replace the distributor setup of all previous smallblock based engines. The initial 2001 LS6 produced 385 bhp 287 kW and 385 lbft 522 Nm, but the engine was modified for 2002 through 2004 to produce 405 bhp 302 kW and 400 lbft 542 Nm of torque. The LS6 was originally only used in the highperformance C5 Corvette Z06 model, with the Cadillac CTS V Series getting the 400 bhp 298 kW engine later. The V Series used the LS6 for two years before being replaced by the LS2 in 2006. For 2006, the Z06 replaced the LS6 with the new LS7. The casting number, located on the top rear edge of the block, is 12561168.

Applications Catharines, Ontario and Romulus, Michigan. It uses flat top pistons. L59 denoted a flexible fuel version of the standard fuel LM7 engine. Displacement is 5,327 cc 5.3 L; 325.1 cu in from a bore and stroke of 96 mm 92 mm 3.78 in 3.62 in. Vortec 5300s are built in St. Catharines, Ontario and Romulus, Michigan. Another engine variant, the L33, shares the same displacement, but has an aluminum block with cast in cylinder liners, much like the LS1. The L33 uses flat top pistons from the 4.8L instead of standard dished pistons from the LM7. It also uses 799 cylinder heads, which are identical to 243 castings found on LS6s and LS2s, lacking only the Corvette spec valve springs and hollow stem exhaust valves on the 2002-2004 LS6. It was only available on extended cab 4WD pickup trucks. Only 25% of trucks made in 2005 had the L33 engine. There were two versions of this engine LQ4, and LQ9, the latter being more performance oriented. This engine was renamed as the Vortec MAX for 2006. It features high compression 101 flat top pistons for an extra 10 hp 7 kW and 10 lbft 14 Nm, bringing output to 345 hp 257 kW and 380 lbft 515 Nm. LQ9s are built only in Romulus, Michigan. This category of engines has provisions for high displacement ranges up to 7,441 cc 7.4 L; 454.1 cu in and power output to 776 bhp 579 kW.

<http://www.drupalitalia.org/node/70136>

Based on the Generation III design, Generation IV was designed with displacement on demand in mind, a technology that allows every other cylinder in the firing order to be deactivated. It can also accommodate variable valve timing. This family of blocks has seen a wide range of applications from performance vehicles to truck usage. Certain versions feature variable cam phasing, Active Fuel

Management, and Flexfuel capability. It produces 400 bhp 298 kW at 6000 rpm and 400 lbft 542 Nm at 4400 rpm from a slightly larger displacement of 5,967 cc 6.0 L; 364.1 cu in. It is similar to the highperformance LS6, but with improved torque throughout the rpm range. However, the L76 does feature Active fuel management AFM. While the displacement on demand technology was disabled on Holdens, this feature is enabled on the 2008 Pontiac G8 GT and subsequently refitted in the 2009 model Holdens with AFM enabled, but only on models fitted with the 6L80 Automatic Transmission. The engine also meets Euro III emissions requirements. The Vortec 6000 or new VortecMax version is based on the Holden L76 engine, and features variable cam phasing, along with Active Fuel Management. It can be considered the replacement for the Generation III LQ9 engine. It produces 367 hp 274 kW at 5400 rpm and 375 lbft 508 Nm at 4400 rpm. Production of the truckspec L76 started in late 2006, and it was only available with the new body style Silverado and Sierra. The final year for the truckspec L76 was 2009 in the Silverado and Sierra; it was replaced by the 6.2L L9H engine for MY 2010. Since Holden did not use the displacement on demand technology of the L76, some redundant hardware was removed to form the L98. Power increased to 270 kW 362 bhp at 5700 rpm and 530 Nm 391 lbft at 4400 rpm. The L77 differs from the L76 with its inclusion of Flexfuel capability, allowing it to run on E85 ethanol.

<https://extremeselfprotection.com/images/canon-mv700i-manuale-italiano.pdf>

The L77 is rated at 270 kW 362 hp and 530 Nm 391 lbft of torque in the manual Commodore SS and SSV, in automatic Commodores it is rated at 260 kW 349 hp and 517 Nm 381 lbft of torque. It shares the same bore and stroke as its LQ4 predecessor. Like other Gen IV engines, it features variable valve timing. The primary difference is that the L96 is Flex Fuel capable, while the LY6 is not. It has a 10.81 compression ratio and produces 332 hp 248 kW at 5100 rpm and 367 lbft 498 Nm at 4100 rpm. Engine VIN code of 5. Applications of this family were mainly for trucks but did see some mild usage with some modifications in frontwheel drive cars. It has a cast iron block. The system adjusts both intake and exhaust timing, but does not come with Active Fuel Management. All versions featured Active Fuel Management except for the LH8, LH9 and LMF. Variable valve timing was added for the 2010 model year. It was the most basic engine of its family, it did not use any special technology. Also known as the Vortec 5300, the LH8 was available in the H3 and GM midsize pickups through 2009. The LH9 was upgraded with Variable Valve Timing VVT and flex fuel capability. Though it has the same displacement as the Vortec 5300 LY5, it features an aluminum block instead of iron, and it uses the same cylinder head casting as the Generation III LS6 engine. The bellhousing bolt pattern differs from the rearwheel drive blocks. The water pump is mounted remotely with an elongated pump manifold that connects it to the coolant passages. The only engine with this bore size that was used in a production vehicle is the LS7 with the LSX being only for aftermarket use. The block is changed, with sleeved cylinders in an aluminum block with a larger bore 4.125 in 104.8 mm and longer stroke 4 in 101.6 mm than the LS2. The smallblocks 4.4 in 110 mm bore spacing is retained, requiring pressed in cylinder liners.

<http://enjoybabelisland.com/images/canon-mv700i-manual-pdf.pdf>

The crankshaft and main bearing caps are forged steel for durability, the connecting rods are forged titanium, and the pistons are hypereutectic. The twovalve arrangement is retained, though the titanium intake valves by Del West have grown to 2.2 in 56 mm and sodiumfilled exhaust valves are up to 1.61 in 41 mm. Most of these engines are installed in the Z06, some are also sold to individuals by GM as a crate engine. While it has the same displacement the Hennessey Venom GT utilizes an iron block LSX, not an LS7. The 2014 and 2015 z28 were the only Camaros to receive the 427 LS7. This family of engines has mainly seen duty in performance cars and highend SUVs. It is an allaluminum design which, while still a pushrod engine, boasts variable valve timing. The system adjusts both intake and exhaust timing between two settings. Engines built after this date did not have any AFM components, and instead used a valley cover plate similar to the L20, save for the L94

variants mentioned below. In 2010, the L9H was further modified with Active Fuel Management, becoming the L94 in the Cadillac Escalade and GMC Yukon Denali. It produces 430 bhp 321 kW; 436 PS at 5900 rpm and 424 lbft 575 Nm at 4600 rpm without the optional Corvette exhaust and is SAE certified. Improved manufacturing efficiency makes these heads cheaper than the outgoing LS6 heads, and severely undercuts aftermarket heads. The large valves, however, limit maximum rpm 6000 in the L76 with AFM, and 6600 in the LS3 with hollow stem valves. The dualmode exhaust uses vacuumactuated outlet valves, which control engine noise during lowload operation, but open for maximum performance during highload operation. The system is similar to the C6 Z06, but uses a 2.5 in 64 mm diameter exhaust compared to the Z06s 3 in 76.2 mm. Power is boosted to 436 hp 325 kW and 428 lbft 580 Nm with this option.

A similar system was optional on later model 5th generation Chevrolet Camaros and standard on the 2016-2017 Chevrolet SS, but no horsepower or torque increases were advertised on those vehicles. The LS3 received modifications for its application to HSV E Series models, producing 425 bhp 317 kW. The LS3 engine in the E Series II GTS released September 2009 was upgraded to produce 436 bhp 325 kW. All HSV MY12.5 excluding the base Maloo and Clubsport variants have been upgraded to produce 436 bhp 325 kW. The original LS9 was a 350 cu in 5.7 L V8, developing 160 hp 119 kW and 245 lbft 332 Nm of torque. Other differences include a slightly lower 9.01 compression ratio, single unit heat exchanger and cast pistons. On May 15, 2013, Holden Special Vehicles announced that this version of the LSA engine will also be used in the GENF GTS. Please help improve this article by adding citations to reliable sources. Compression ratio 10.01 11.01 11.51 Combustion Fuel system Direct injection Fuel type Gasoline, E85 Oil system Wet sump Cooling system Watercooled Chronology Predecessor Generation IV The first Gen V LT engine was the LT1, announced in 2012 as the initial powerplant for the redesigned Corvette C7, succeeding the LS engine family. The new logo formally adopts the Small Block name for the engines. Refinements and new or revised components are used throughout, including a revised cooling system and allnew cylinder heads. However, they all retain their ancestors twovalve pushrod valvetrain. This family of blocks has seen a wide range of applications from performance vehicles to truck usage. Like its LS3 predecessor, it gets its displacement from a bore and stroke of 103.25 mm 92 mm 4.065 in 3.622 in with a compression ratio of 11.5 to 1. It was designed specifically with midengine placement and drysump lubrication in mind. It shares its 103.25 mm bore with the L86, but with a longer stroke of 98mm to displace 6.6 Liters.

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It is rated for 401 horsepower at 5,200 RPM and 464 lbft of torque at 4,000 RPM. The compression ratio is 10.81. The longer stroke yields little additional peak torque output compared to the L86, but only requires 87 Octane. The stroke is also shorter than the LS7s 101.6 mm, to optimize rod ratio for reliability. The original LT5 is rarely known as a Chevy small block V8, as it was designed and built with Lotus, and implements a DOHC 32 Valve multiport injection system, instead of the pushrod design. The new and unrelated LT5, however, has increased its displacement from 5.7 to 6.2 L, retains the Gen V OHV valvetrain, and is topped with a 2.6 L 158.7 cu in Eaton TVS Supercharger and an improved intercooler. It simultaneously couples the standard direct injection system found on Gen 5 engines with port fuel injection. Power output is 755 bhp 765 PS; 563 kW at 6400 rpm and 715 lbft 969 Nm of torque at 3600 rpm. This setup can improve fuel efficiency by about 13%. The L82 uses Active Fuel Management instead of the L84s Dynamic Fuel Management system, and is only available on lower trim trucks. The L84 is distinguished from the L82 by the presence of the Dynamic Fuel Management System, and is either available or standard on mid to highlevel trims. It gets its displacement from bore and stroke of 99.6 mm 92 mm 3.921 in 3.622 in with a compression ratio of 11.0 to 1. Firing order is 165432. VIN code indicating engine RPO is usually not consistent between

vehicle types cars or trucks or years. The noise of piston slap often is louder when listening for it below the oil pan. This is commonly called the Castech Head failure on the internet. GM issued a TSB on this failure to help service techs identify the problem. The head casting number which can be viewed from the passenger side of the vehicle just in front of the valve cover was 706. Some heads with this casting number would fail but not all of them as GM had different suppliers for the same head.

In the case of the LS9, it also means installing the supercharger assembly. It was crowned as Global Motorsport Engine of the year by a jury of 50 race engine engineers on the Professional Motorsport World Expo 2006 in Cologne, Germany. It was designed with help from drag racing legend Warren Johnson. This block incorporates two extra rows of headbolt holes per bank for increased clamping capacity. The six bolt steel main caps are the same ones used on the LS7 engine. The engine debuted at the auto show in a customized 1969 Camaro owned by Reggie Jackson. The LSX will be available starting the second quarter of 2007, set to be available in authorized dealerships and retailers on March 31, 2007. All models use Chevrolet Performance LSX Bowtie block. Bores sizes up to 4.185 in and strokes up to 4.5 in are available, making a 495 cu in displacement possible. The billet construction provides added block integrity suited to high horsepower applications. March 24, 2011. Archived from the original on December 30, 2011. Retrieved January 25, 2012. Retrieved January 25, 2012. Retrieved August 30, 2007. Retrieved April 26, 2009. February 26, 2007. Archived from the original on July 11, 2011. Retrieved September 21, 2010. February 29, 2008. Archived from the original on April 20, 2008. Retrieved February 14, 2013. Retrieved September 8, 2017. Retrieved November 26, 2014. CS1 maint archived copy as title link Archived from the original on January 12, 2005. Retrieved January 10, 2005. Retrieved January 25, 2012. Archived from the original on August 20, 2007. Retrieved August 30, 2007. Retrieved November 8, 2019. By using this site, you agree to the Terms of Use and Privacy Policy. For a better experience, please enable JavaScript in your browser before proceeding. It may not display this or other websites correctly. You should upgrade or use an alternative browser. I found a 4.8 flywheel, but so far no information if that is the same. I assume it is.

Will older clutch disc, work with new pressure plate. I guess labor charge on changing them made it a no brainer for them to use them. Haven't been able to find any info or lay my hands on a flywheel Looking for reman fly but so far NONE, with one possibly in the U.S somewhere and i am suppose to get a phone call back right. Need to try a bit harder, but man this sucks. ALL of this and its not on any of my rigs, got the engine for pennies, buddy engine is dieing so out of my kindness i decide he could do it, now all this crap. Things i get myself into. Thanks think i hear the tech line ringing. I have three sources that said a 5.3L and 5 spd manual are optional, and they are still offered that way today. So i guess it is a could have, but might never happend Nobody has any idea as of right now. Checking to see if the Numbers for both the 4.8 and 5.3 flexplate is the same. They use the same blocks and such different stroke. What a pain already. I will fab all day but not huge fan of custom finish sheetmetal work. One such issue is the marks adapter on the 5.3 rotates the tranny and transfer where the AA transfer case crossmsmber is not horizontal with the frame. it is off, way off! Anyway, there have been some other issues that they told me and I have forgotten. PM Lanzg and he can help with what they have seen so far. I have been contemplating putting a newer 5.3 into my FJ40 too. I was wondering what trouble I would run into. I originally wanted to the 6.0L but found that the horsepower and torque numbers made the 5.3 a no brainer over the 6.0. Lanzg will do. why 5.3 over 6.0 only reason this 5.3 is being used as it was purchased for pennies. BTW this is not going into a cruiser, but similiar. Others might have different opinions. I can get a 5.3 from the Junk Yard for about 600800 bucks from a 2001 or so Truck locally. a 6.0 is harder to find and they cost easily 4 times what the 5.3 costs. in stock form. 5.3 295 HP 335 Lb. Ft 6.0 310 HP 360 Lb.

Ft 15 horses and 25 Lb Ft isnt worth the extra coin to me. Those numbers are already WAY higher

than what the FJ40 came with and more than enough to make me happy I think. Of course by that same logic a 4.8 would work great too. They are even cheaper and easier to find. I drove a 12 passenger van with the 8.1 in it though. Man that would rule in the cruiser. Don't know if it would fit, but that would be so awesome. That thing had so much freaking torque. I bet my Land Cruiser has never accelerated faster than it did on the trailer behind the van. IIRC, Kolby runs that company, and his father runs Standard Clutch and Flywheel a few buildings over, so they should have something figured out. BTW, they have a number of machining centers there and make their own flywheels. Register now By continuing to use this site, you are consenting to our use of cookies. You must have JavaScript enabled in your browser to utilize the functionality of this website. You can copy and paste this link to share If you simply bolt an oldstyle converter to an LS engine without a spacer, you will have major problems after only a few miles of driving. The pump seal will be ruined and will start to leak, causing the pump to fail. The converter doesn't fit and will not center on the back of the crank. To make up for the difference, special conversion flexplates are required. An evolution of the popular 700R4, the 4L60E, is a popular swap transmission. Photo Courtesy General Motors These vehicles came with the GM spacer and bolts and the flat factory flexplate. These are basically the same components needed for the older transmission swap, just performed at the factory. TCI has conversion flexplates for automatic transmissions and kits that include the spacer and longer bolts. You must use a crankshaft spacer, such as the Hughes Performance, TCI, or GM spacer and bolts, or a custom converter must be made with a longer crank hub.

The Bowtie Overdrives LS swap torque converter eliminates the need to use a spacer; it bolts directly to the stock flexplate. If you're installing a used engine, the best solution for the transmission fit issues is to use the transmission that came with the engine. Then all you have to do is fit the transmission to the car. The unit on the left is the stock unit. The flywheel can also affect the driving characteristics of the engine. A heavy flywheel holds more inertia for smoother shifts and easier street driving. A lighter flywheel allows for quicker revs and shifts; they are great for road racing. This is a RAM 19.2 pound LS7 flywheel bolted to an LS3. Photo Courtesy Blane Burnett This is a single disc LS7 system. If you require more power, twin disc clutch kits are available for the LS series engine. Photo Courtesy Blane Burnett The most important component of these two overdrive transmissions is the throttle valve cable, or TV cable. This crucial system tells the transmission when to shift and determines the amount of pressure sent to the clutches. If this cable is off by even the slightest amount, the clutches do not fully engage, causing the transmission to burn up and eventually fail. Adapting the TV cable to the throttle body on an LS engine is challenging, and you need to maintain the right geometry. Doing this requires in depth knowledge of the TV cable system, and is not suggested for novices. Aftermarket manufacturers, such as Bowtie Overdrives, offer bolt on solutions for conversion from TV cable to throttle body. Other than looks, there is no difference in the bolt pattern. If it is not set right, the transmission may burn out within a few miles, so take the time to ensure it's properly adjusted. The most common GM automatic is the 4L60E or the 4L65E variant they are the same dimensionally, but the 65 version has an extra pinion gear internally, depending on whether the engine came from a car or a truck.

The larger Vortec engines were typically mated to the 4L80E and 4L85E variant automatic transmission. These transmissions require computer controls that are contained in the factory ECM. However, these transmissions can be purchased separately through the aftermarket for carbureted LS conversions or when an aftermarket electronic fuel injection EFI controller is used. This unit from TCI keeps just about any GM high performance transmission cool. It is placed in front of the radiator. The 6L80 and 6L90 transmissions are used in heavy duty GM trucks and most of the performance cars. One in particular is the TCI 6X 6 speed automatic. It is based on the 4L80E but with new guts to provide six forward gears capable of handling 850 hp. These can be configured in several ways and come with a TCI transmission controller. They can even be set up for a paddle shifter. The T56 transmission fits into most GM muscle cars, requiring only minor modifications, if

any, to the transmission tunnel. Swap kits help make the install easier. Classic Motorsports Group offers a kit for firstgeneration Camaros, Firebirds, and Novas. The clutch mechanism, however, definitely requires some modifications. There are several ways to get around the clutch mechanism, such as using an olderstyle manual clutch or a modern hydraulic clutch. The first component is the slave cylinder mounting plate. The mount holds the master cylinder GM PN 12570277 to the hydraulic clutch. The clutch fluid reservoir is mounted on the firewall. This tab must be fabricated and welded to the clutch pedal. The placement of this tab is absolutely critical. If the tab is too high, the pushrod does not fully engage. If it is placed too low, the pedal is hard to push. The placement of the tab on the pedal is 1.769 inches from the center of the square hole at the top of the pedal, and it sits at 114 degrees from the pedal side to the top of the tab. Although it can be done, it may not be worth the effort.

A hydraulic throwout bearing setup is the simplest solution. Photo Courtesy Blane Burnett This is a finished installation. It must be correctly positioned. The small, triangularshaped section of the tab that overhangs the pedal on the underside is trimmed off. It is possible to adapt the LS engine to use a manual clutch linkage. If you are installing an LS and manual transmission in a GM vehicle originally available with a manual clutch setup, you need linkage, clutch, Zbar, and related components. Fabricating a simple bracket that locates using the bellhousing bolts and attaches to the Zbar is the best solution. As engine and transmission mounts differ, each shifter must be ordered individually. The placement of the handle is critical. The Hurst shifter is more accurate through precision machining. Photo Courtesy Blane Burnett These 5speed manual transmissions are very popular among GM muscle builders and offer excellent performance. These kits feature hydraulic clutches, bellhousing, and all the components to make the installation simple and easy. To adapt these shifters to match the stock location, a Hurst Blackjack shifter can reposition the shifter to the ideal location. This transmission fits some GM vehicles without modifications, while others require serious cutting. The C4 Corvettes fit the TKO, but the stock shifter box must be removed and patched. The Classic Motorsports kits come with the requisite patch panel, cut guide, and instructions, taking the guesswork out of the swap. These swaps bolt up similarly to the automatic transmissions, but require a few specialized parts. There are two ways to remedy this problem. The first and best way is to use a retrofit bellhousing and flywheel package. General Motors sells these components individually through its Chevrolet Performance dealers. It is also designed to use a 168tooth flywheel and standard GM starter.

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