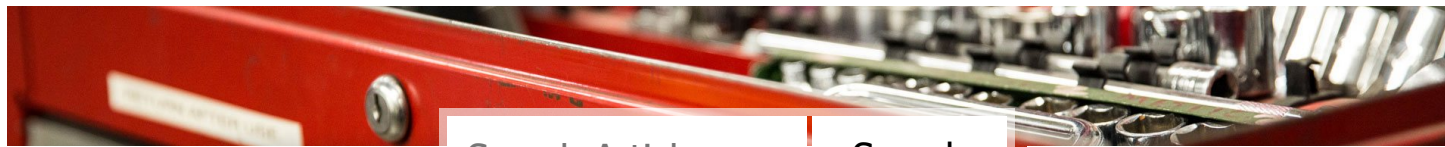




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Mopar Flexplate Identification Guide

By [Mark Houlahan](#) 1/25/2023

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Mopar to Ya!

Dodge, Plymouth, and Chrysler products are unique in that classic V8 applications fitted the starter ring gear to the body of the torque converter instead of the flexplate itself like GM and Ford applications. This means that the typical Mopar V8 engine used a rather unobtrusive flex plate or drive plate on both [small block](#) and [big block](#) applications rather than the typical flexplate with a welded ring gear and is usually nothing more than a featureless disc with mounting holes. This design is typical of Mopar's A727 and A904 3-speed automatics found behind its popular V8s of the 1960s and 1970s. It wouldn't be until the Gen III Hemi application debuted that Ma Mopar would switch to a more traditional [flexplate](#) with welded starter ring gear affixed.

These Mopar 727 transmission and 904 transmission (most enthusiasts drop the "A" from

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by Mark Houlahan - Posted in Tech 1/11/2023

Over several generations of small block Chevy (and big block Chevy) engines there

their name) are commonly found behind small and big block Mopar V8s (and their inline-six offerings). But be warned, the bellhousing bolt pattern and starter location is different among all three, so know your transmission application if buying used for your Mopar V8 project. The inline-six, or the Slant Six as it was known, places the starter up high above the centerline of the crankshaft. Small block transmissions place the starter low, below the centerline of the crankshaft. Meanwhile, the big block engines the starter is right in the middle on the centerline of the crankshaft. This quick visual inspection of the starter location will ensure you're obtaining the correct transmission for your project.



Location of the starter pocket is one of the easiest ways to determine Mopar bellhousing application.

How Many Torque Converter Bolt Patterns Does Mopar Use?

Much like Ford, the early Dodge, Chrysler, and Plymouth torque converters use a four bolt pattern to attach to the engine's flexplate. Also like Ford, Mopar uses only two bolt circle patterns on these classic V8 engines (the later



Measuring center-to-center on the mounting bolt holes will determine the bolt pattern of your Mopar torque converter.

have been several changes
 what flexplate
 help
 you determine the correct
 flexplate for your Chevy
 engine in this buyer's guide.
 by Mark Houlahan - Posted in Tech
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The engine's flexplate is a critical part to transferring power to your drivetrain. Using the correct part is imperative to engine longevity and proper drivetrain

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Gen III Hemi uses a triangular 3 bolt pattern much like GM's LS engine). These are easy to confirm by measuring from one hole across to the other on the converter for a center-to-center measurement. You will find either a 10-inch or 11-1/4-inch converter bolt pattern. The 10-inch pattern is used exclusively on the [904 3-speed automatic](#), while the 11-1/4-inch pattern is used for the majority of the [727 3-speed automatic](#) transmission applications. Note that some factory converters have one hole slightly offset (an asymmetrical pattern), so if your measurements don't match up try measuring the opposing two bolt holes.



An aftermarket flexplate with both 5/16" and 7/16" torque converter mounting holes can solve a lot of issues.

There are some high-performance Torqueflite 727 transmission models that use the smaller 10-inch torque converter bolt pattern. You will find most high stall aftermarket torque converters for the Torqueflite 727 transmission use the 10-inch bolt pattern as well.

When it comes to the bolt pattern at the crankshaft, you'll find symmetrical and offset bolt patterns here too, so confirm what your crankshaft has for a bolt pattern before ordering a flex plate. Lastly, both [5/16-inch](#) and [7/16-inch](#) mounting sizes were used for the torque converter fasteners, so you will want to confirm the bolt hole size from your torque converter for your flexplate or use a flexplate with [dual bolt patterns](#) that are available.

How Many Teeth Does a Mopar Flexplate Have?

This is a trick question you can save for your next

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Upgrade Your Ride

with a Mini Starter!

by Mark Houlahan - Posted in Tech
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Little is thought of your engine's starter until it refuses to turn your engine over at the worst possible moment. Today's powerful mini starters

bench racing session with your gearhead friends (kind of like asking what water pump fits an old Volkswagen Beetle). As you recall from our opening copy, the starter ring gear on Mopar V8 engines is not part of the engine's flex plate but welded to the torque converter body. So, technically the flex plate has zero teeth on it. The good news is that for both small and big block Mopar engines there is but one ring gear for all applications, which has a tooth count of 130 teeth. So, tooth count is essentially a non-issue when it comes to both Mopar small block and big block torque converter applications. The only Mopar product that uses a traditional flexplate design with welded starter ring gear attached is the late model [Gen III Hemi](#) engine family. Strangely enough, the tooth count on these is 131 teeth.



The typical Chrysler flexplate is nothing more than a small stamped metal plate with ears to mount the torque converter to, as the typical flexplate ring gear is mounted to the torque converter directly.

can crank the biggest engines with ease. Learn how in our buyer's guide.

Are Mopar Engines Internal or External Balance?

Another trick question? No, it's just Ma Mopar changing her mind depending upon model year and what crankshaft was used in the build of the engine from the factory. Early Dodge, Chrysler, and Plymouth V8 engines could be internally balanced or externally balanced depending upon the crankshaft being used. For example, the 340, 383, and 440; these were external balance with a cast crank and internal balance with a forged crank. Some engine families, such as the later 318 (5.2L) Magnum were all internal balance and the 360 (5.9L) Magnum were all external balance.



Some aftermarket flexplates for external balance applications are cut as shown to move the external balance weight from the torque converter to the flexplate. Note, you would use an external balance flexplate OR torque converter, but not both.

On external balance applications a weighted crankshaft balancer was used on the front of the engine, while at the rear the balance weight was added to the [torque converter](#). Some later applications moved the weight to the flex plate, and many [aftermarket flexplates](#) have the external balance added to them via a cut-out to allow aftermarket neutral balance torque converters to be used. Just

remember, for an externally balanced engine that the rear balance weight needs to be on the converter OR the flex plate, but not both. The easiest way to go through all the differences is to simply take in the list we've created below.



You can easily spot the welded on weights between the 3 and 6 o'clock positions on the face of this external balance application torque converter

Chrysler Small Block

- 318 A engines (Poly): internally balanced
- 273/318/340 LA engines (340 up to 1971 steel crank): internally balanced
- 340 LA engines 1972 up w/ cast crank: externally balanced
- 360 LA engines: external balanced

Chrysler Big Block

1958-1971 B Engines Internally Balanced (Forged Crank)

1972-1978 B Engines Externally Balanced (Cast Crank)

- 350/361/383: internally balanced
- 400: externally balanced

1958-1971 RB Engines Internally Balanced

(Forged Crank)

1972-1978 RB Engines Externally Balanced (Cast Crank)

- 383/413/426: internally balanced
- 426 Wedge: internally balanced
- 440 Forged Crank (1966-1971): internally balanced
- 440 Cast Crank (1972-1978): externally balanced
- 440 Six Pack (Forged Crank w/ Heavy Rods): externally balanced

Chrysler MAGNUM Engine

- 318 (5.2L): internally balanced
- 360 (5.9L): externally balanced

Gen III Hemi

- 5.7L/6.1L/6.2L/6.4L Hemi: internally balanced

Can You Swap a Modern Overdrive Behind a Mopar V8?

The 904 and 727 Chrysler transmissions morphed into the A500 and A518 hydraulically controlled 4-speed overdrive transmissions in the late 1980s. These transmissions will bolt right up in place of their 3-speed older cousins but know that the tailshaft area (where the OD



Using a special adapter flexplate for the Gen III Hemi will allow not only the early 3-speeds to bolt up, but their later 4-speed overdrive cousins.

components were added) can sometimes require floor pan and crossmember modifications. Later, these transmissions would gain electronic shift controls and be renamed the 42RE and 46RE respectively. There are select few electronic shift controllers out there for these transmissions, but they are an option.



Some "Mopar or No Car" fans might cringe, but yes, you can install GM's 4L60E 4-speed electronic overdrive behind your big block Mopar engine.

Moving on to Ma Mopar's newer 5, 6, and 8-speed electronic transmissions things get a bit tougher. Found behind the modern Gen III Hemi cars and trucks, including the supercharged Hellcat and Demon models, these Chrysler transmissions have so many electronic controls that the only real way to utilize them is with a full drivetrain swap, including swapping over all wiring and body modules. This is often done by purchasing a wrecked vehicle and either swapping the drivetrain, wiring, modules, and more into the classic car, or cutting away the modern body and fitting the classic body over the modern chassis and floor

structure. Either way it is a lot of work, but if you're looking to have something unique, it can be done. Below are a few details about the Gen III Hemi as far as transmission swaps go.

Gen III Hemi Transmission Swap Info

- Uses an 8 bolt crankshaft bolt pattern and 3 bolt torque converter pattern on flexplate
- 131 tooth flex plate when using a transmission originally found behind a Gen III Hemi
- All engine sizes are internally balanced regardless of cast or forged crankshafts
- Same bellhousing bolt pattern as LA and Magnum engines (318, 340, 360), but Gen III Hemi has extra bolt hole that is not used with the earlier transmissions
- When attaching a Gen III Hemi to a 727 transmission or 904 transmission an [aftermarket flexplate](#) and a neutral balance torque converter with a flywheel ring gear affixed to it will be required. The early style starter from a 318/360 Magnum engine will be required.

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