Before you start

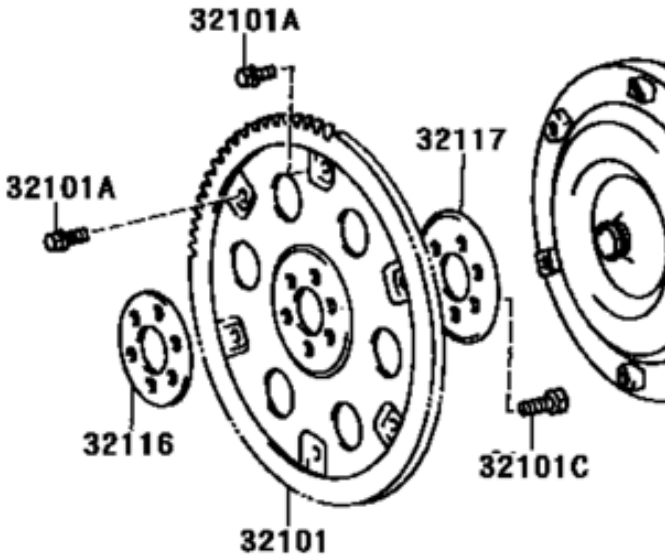
Compatibility notice:

2015+ Dodge Challenger 3.6 V6, 5.7 and 6.4 V8;
2015+ Dodge Charger 3.6 V6, and 5.7 V8;
2015+ Chrysler 300 3.6 V6, and 5.7 V8;
2015+ Ram 1500 3.6 V6, and 5.7 V8;
2015+ Dodge Durango 3.6 V6, and 5.7 V8;
We have NOT yet tested the 8HP75 transmission from RAM 2500HDs;
It is NOT compatible with 8HP90 transmissions (*Hellcats*).

1. Parts required to fit your 8HP transmission

A. Flex plate / Ring Gear

This kit is intended to be used with an automatic 2JZ flex plate, and its shims (#32117 & #32116).



We recommend using **new** OEM bolts. Torque to 75 ft. lbs with blue locktite in a star pattern.

B. Transmission accessories (*all available on our website!*)

Transmission mount
Replacement oil pan with removable filter *(strongly recommended)*
Oil cooler fittings (2)
Transmission oil
Shifter

C. Driveshaft
Also available on 8hptheworld.com!
If you need a custom length or yoke, we can also accommodate you.

D. Transmission Control Unit

As of 2024/09/10, there are only two options we'd recommend.

The *Turbolamik TCU* is arguably the most versatile, and complete controller available on the market. However, it is also the most expensive option, and requires soldering a board in the transmission valve body.

The second option is using Maxxecu's integrated 8HP controller. Its features are in constant development, but from what we've seen, and tested so far, we are extremely optimistic. You won't need to open up the valve body, however, the transmission firmware needs to be reflashed. You can rent the necessary tool from us as well.

Make sure to research both options if there are functionalities that are important to you. We carry both on our store.

To note: CanTCU is also a great option, but does not officially support Dodge 8HP transmissions yet.

Installing our JZ adapter kit

Important notices:

1. *This kit is designed for both the 8HP70 and 8HP45 variants of Dodge transmissions. You WILL have unused boltholes. Don't panic, it's perfectly normal!*
2. *Pictures are used to show bolt placement ONLY. Do not use the pictures as a reference for progress. For instance, even though our instructions show the adapter installed on the transmission first, in reality, it's the opposite.*

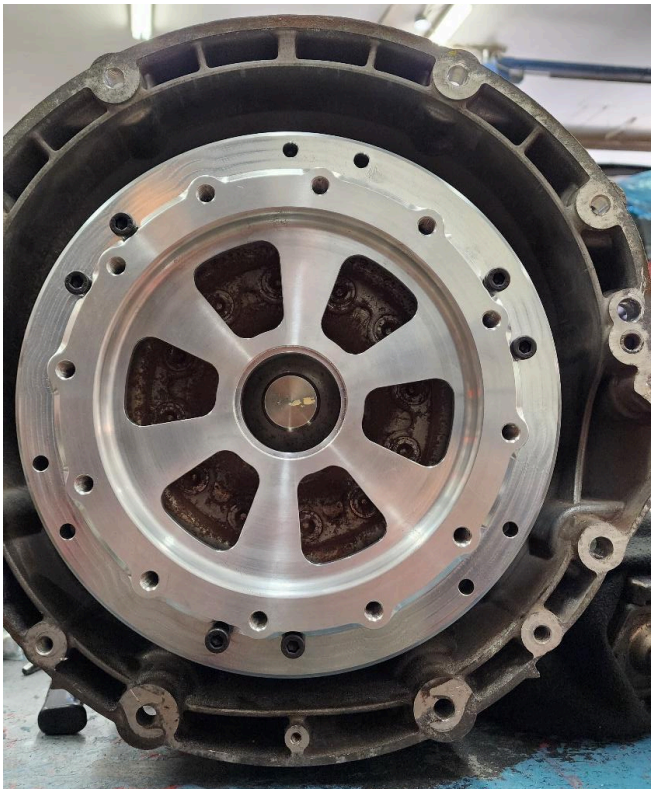
If you have any questions, please contact us at support@perfecttuning.net.

1) Installing the dowel pins

You will find a pair of dowel pins in our kit. These are tight and will require some light tapping with a hammer. It is essential they go in as straight as possible. Our kit is designed for the dowel pins to be press fit in our adapter, and slide fit in the engine block. Depending on your kit version, it may be the opposite. Regardless, it is strongly advised to still install them on the adapter itself. You'll notice the dowel pins have a flat side, and a tapered one.

2) Installing the torque plate adapter

We offer two centering bushing adapters depending on your transmission model year. 2018+ will have the bigger one, whereas previous generations will have the smaller no tapered one. **Make sure you have the correct one.**



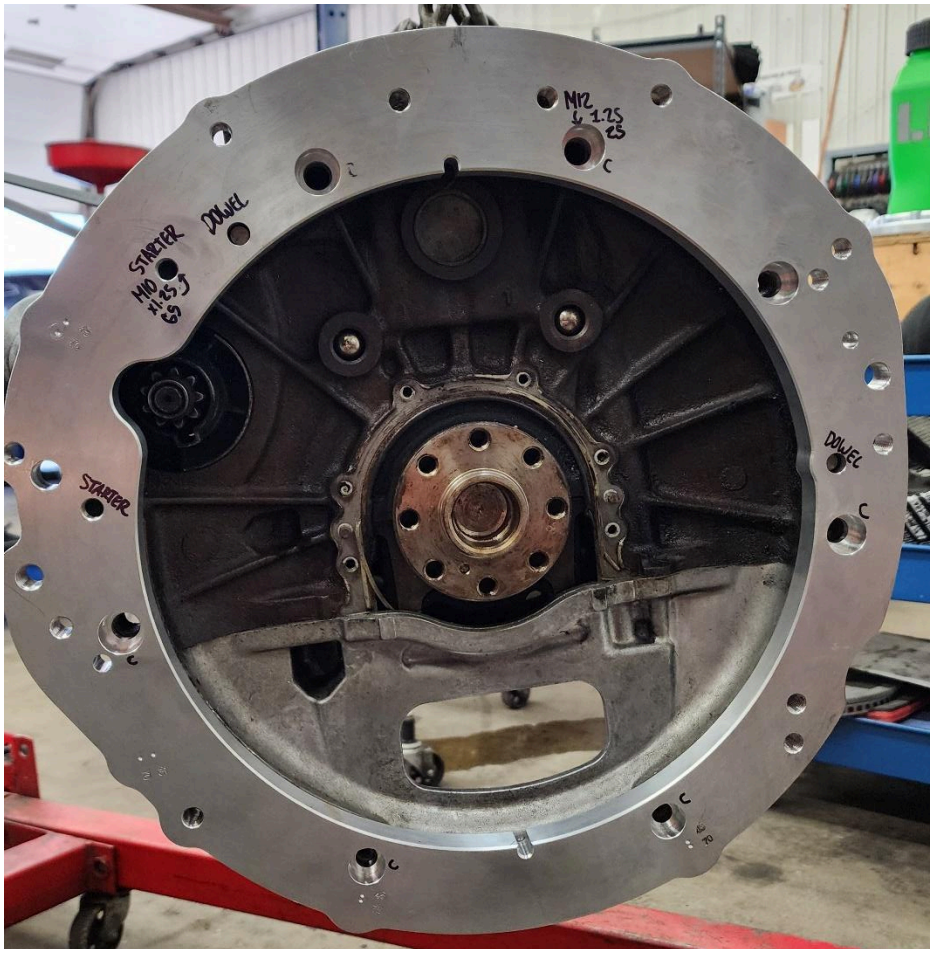
The centering bushing adapter goes in the middle.

To install our torque plate adapter, you will need six M8 Allen bolts supplied in our kit. The outside set of holes are used for the 8HP45 transmission torque converter, whereas the inner ones are used for the 8HP70 variant. Torque to 30 ft. lbs. using red thread locker.

You can then slide in the centering bushing adapter, until its lip is seated on the torque adapter.

3) Installing the transmission adapter on the engine

Our kit is designed to reuse the OEM JZ dowel pins. Your engine should be equipped with; if you have removed them, now's the time to insert them back in. The pins will help you install our adapter in the correct slots (top left, center right). To note: our engraved logo should be placed face down on the engine (not visible from the back).



You can now bolt on the adapter kit using the supplied M12 Allen bolts in the countersunk holes (marked "C" on the picture above). The two slightly shorter bolts (25 mm instead of 30 mm), are meant to be threaded in the two top boltholes. Torque to 55 ft. lbs.

VERIFY THAT ALL THE BOLT HEADS ARE NOT PROTRUDING FROM THE ADAPTER

4) Installing the starter motor

To allow for easy replacement, we reversed the way the starter motor is bolted on. That means you will have to drill out its threads. This is easily done using a 25/64” drill bit.

You can now bolt on the starter motor using the two supplied M10 hex bolts that thread into the adapter. Torque to 45 ft. lbs.

5) Installing the OEM flex plate

Now’s the time to install your OEM automatic flex plate, and shims. Bolt the 8 M10 bolts you acquired in a star pattern. Torque to 50 ft. lbs., using red thread locker.

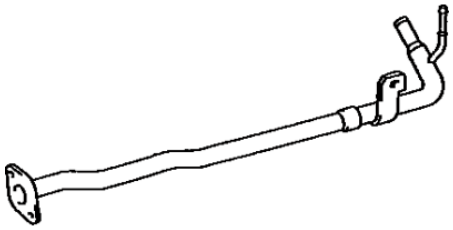
6) Bolting up the transmission to the engine

Important: Our adapter kit is designed so that you thread the top bolt through the transmission, and into the adapter. However, in our experience, there isn’t always room chassis-side to allow that (if you’re installing the transmission without removing the engine, that is).

If that is the case, we recommend making threads directly in the transmission, using an M12 helicoil kit. Additionally, you will need to drill out the threaded bolthole on our adapter to an M12 non-threaded hole. In most cases we encountered, it was only necessary to complete this procedure for the three top bolts.

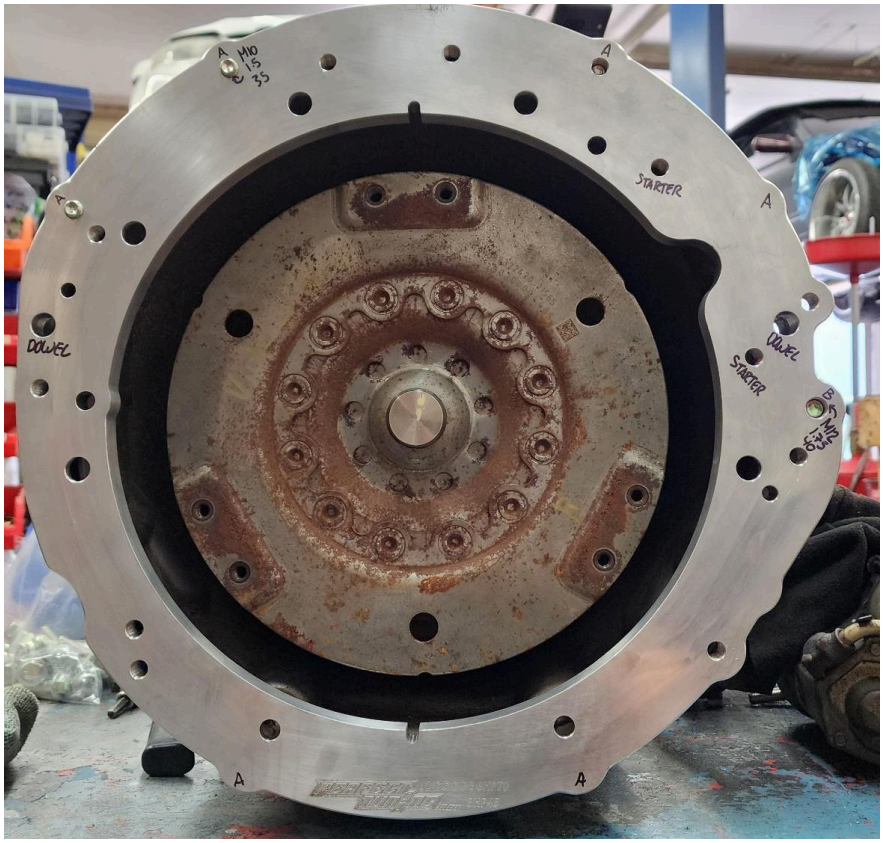
BEFORE YOU INSTALL THE TRANSMISSION:

- IF you have a JZGE block, it will bolt right up without issue
- IF you have a **JZGTE** block, you will need to replace the following pipe with a flexible hose or its GE counterpart (PN#16278-46010), or else it will block the transmission from bolting up properly.



You can now bolt up the transmission to the engine block (*easier said than done, we know*). The M10 flange bolts we supplied are to be used in the locations marked “A” in the reference picture below. To note: one of the bolts (near the starter motor) is an M12, not an M10. Torque to 55 ft. lbs.

This is a reference picture only (the adapter is not meant to be fitted on the transmission first.)



7) <u>Bolting the flywheel to the torque converter</u>

Once the transmission installed, you will now have to bolt up the OEM flex plate to our torque adapter. Using the access hole underneath the engine, insert the 6 supplied M10x1.50x20 bolts in every other hole. Torque to 25 ft. lbs., using red thread locker.

And you’re done!