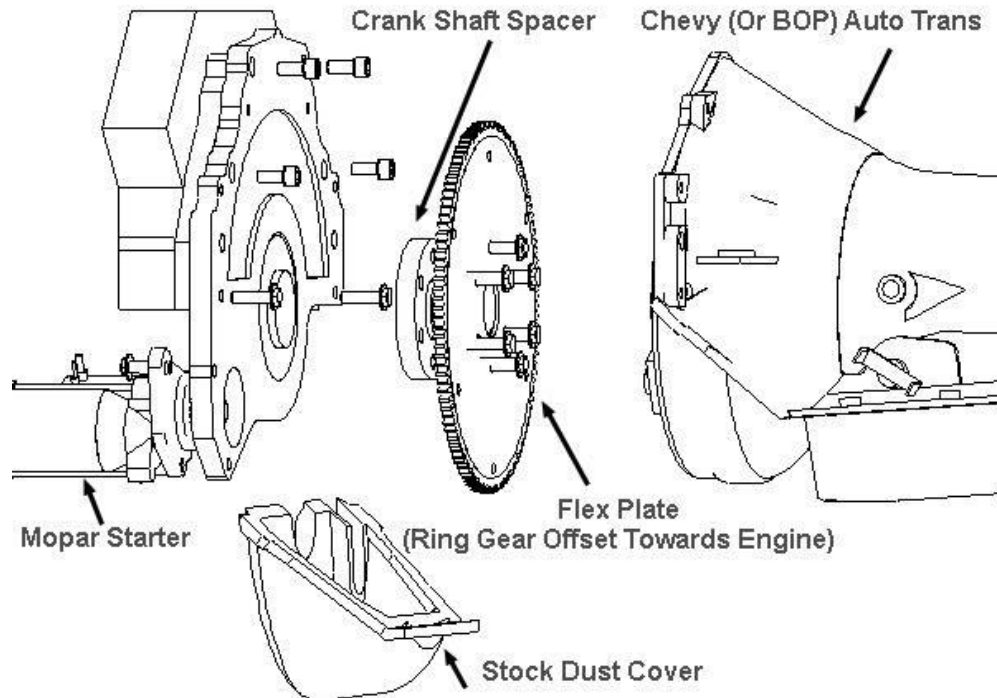


389-350 ADAPTER INSTALLATION INSTRUCTIONS

IMPORTANT: THIS IS A HIGH PERFORMANCE PART AND IMPROPER INSTALLATION COULD RESULT IN INJURY OR DEATH! NEVER WORK UNDER AN AUTOMOBILE THAT IS NOT PROPERLY SUPPORTED AND BLOCKED FROM ROLLING. ALWAYS INSTALL NEUTRAL SAFETY SWITCH. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH!



YOUR WILCAP ADAPTER IS DESIGNED TO USE THE MOPAR SMALL BLOCKGEAR REDUCTION "MINI" STARTER OR ANY EQUIVALENT MOPAR STARTER. THESE STARTERS ARE AVAILABLE FROM WILCAP OR YOUR LOCAL PARTS HOUSE SHOULD BE ABLE TO SUPPLY ONE USING THE FOLLOWING PART NUMBERS;

CHRYSLER P/N 53005984

NIPPONDENSO P/N 128000-781 OR 128000-7810

MOPAR PERFORMANCE P/N/ P5249644

POWERMASTER P/N 9300, 9512, OR 9613

TILTON P/N 54-10000

AUTOLITE PRO P/N 17466

BECK ARNLEY P/N 187-0436

TYPICAL APPLICATION OF THE STARTER WOULD BE A 1992 DODGE DAKOTA WITH THE 5.2L ENGINE.

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389-350 ADAPTER INSTALLATION INSTRUCTIONS

SPECIAL TOOLS NEEDED; YOU WILL BE REMOVING YOUR EXISTING DOWEL PINS FROM YOUR BLOCK. THIS REQUIRES EITHER A SPECIAL SLIDE HAMMER AND ADAPTER FOR 5/8" PINS OR YOU WILL NEED A 5/8" THREADING DIE (FINE OR COURSE). WHEN INSTALLING THE B.O.P. TRANSMISSION, YOU WILL NEED A 7/16 DRILL OR 29/64" REAMER TO ENLARGE THE TRANSMISSION BOLT HOLES FROM 3/8" TO 7/16"



UNPACK AND CHECK FOR SHIPPING DAMAGE PRIOR TO BEGINNING THE INSTALLATION. PACKAGE SHOULD INCLUDE;

- 1 ALUMINUM ADAPTER PLATE
- 1 FLEXPLATE
- 2 HUB SPACERS

FASTENERS;

2 EACH 2" DOWEL PINS

6 EACH 1 1/2" X 1/2"-20 GRADE 8 BOLTS, FLAT WASHERS AND LOCK WASHERS

BOP TRANS

6 EACH 2 1/4" 7/16-14 CAP SCREWS WITH LOCK WASHERS

CHEVY TRANS

2 EACH 1 1/2" 7/16-14 CAP SCREWS WITH WASHERS

4 EACH 1 1/4" 3/8-16 CAP SCREWS WITH WASHERS

4 EACH 1" 7/16-14 SOCKET HEAD CAP SCREWS

2 7/16-14 X 1 1/4" STARTER BOLTS

CLEAN THE CRANKSHAFT HUB, BACK OF THE BLOCK, FRONT OF THE TRANSMISSION BELL HOUSING AND THE TORQUE CONVERTER HUB OR NOSE. INSPECT FOR CRACKS AND BURRS AND REPAIR AS NEEDED. CHASE ALL HOLES IN THE BLOCK WITH THE CORRECT TAP AND MAKE CERTAIN THE THREADS ARE SERVICEABLE.

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389-350 ADAPTER INSTALLATION INSTRUCTIONS

CHECK THAT THE HUB SPACER SLIPS OVER YOUR TORQUE CONVERTER HUB. IF THERE IS EXCESSIVE CLEARANCE **STOP**. CONTACT WILCAP BEFORE PROCEEDING. **OPERATING THE ENGINE WITH EXCESSIVE CLEARANCE BETWEEN THE HUB SPACER AND THE NOSE OF THE TORQUE CONVERTER OR CRANKSHAFT WILL RESULT IN DAMAGE TO THE FLEX PLATE AND THE TRANSMISSION. IF THE FIT IS TIGHT THEN CHECK THE NOSE OF THE CONVERTER TO BE SURE THAT EXCESS PAINT OR ANY SMALL DINGS OR NICKS ARE NOT INTERFERING WITH THE FIT.**

USING A SLIDE HAMMER AND ADAPTER FOR 5/8" PIN, REMOVE THE ENGINE DOWEL PINS. IF YOU DO NOT HAVE A SLIDE HAMMER WITH A PIN PULLING ADAPTER, THE FOLLOWING PROCEDURE CAN BE USED; USING A 5/8" DIE, THREAD THE DOWEL PINS AS FAR AS POSSIBLE. THREAD A NUT WITH THE CORRECT THREAD ONTO THE PIN AND USING CARE NOT TO DAMAGE THE BELLHOUSING MOUNTING SURFACE, PRY THE PIN FROM THE BLOCK.

AN ALTERNATIVE TO THE DIE IS TO DRILL AND TAP THE PIN (OEM PINS ARE SOFT STEEL) AND USE A CONVENTIONAL SLIDE HAMMER WITH A THREADED END TO PULL THE PIN.

CLEAN THE DOWEL PIN HOLE AND WORK THE REPLACEMENT PINS IN TO THE HOLES AS FAR AS POSSIBLE BY HAND. USING A DRIFT OR CENTER PUNCH, DRIVE THE PINS INTO PLACE. DO NOT STRIKE THE PIN DIRECTLY ON THE FACE WITH A HAMMER.

FIT THE ADAPTER PLATE TO THE BLOCK. IF NECESSARY USE A RUBBER Mallet TO FIT THE PLATE UP TO THE BLOCK FLUSH. DO NOT USE THE CAP SCREWS TO FORCE THE PLATE ONTO THE BLOCK. CHECK FOR FIT. THE PLATE SHOULD FIT FLAT TO THE ENGINE BLOCK WITH NO ROCKING OR GAP.

ONCE THE ADAPTER PLATE IS FLUSH, MARK THE PLATE FOR ANY TRIMMING OR CUTTING FOR CLEARANCE. IF THE PLATE WILL BE TRIMMED, BE CAREFUL NOT TO CUT TOO CLOSE TO ANY OF THE FASTENER HOLES AND REMOVE ANY BURRS LEFT FROM CUTTING.

AFTER ANY CUTTING OR TRIMMING HAS BEEN COMPLETED, PLACE THE ADAPTER ONTO THE ENGINE BLOCK.

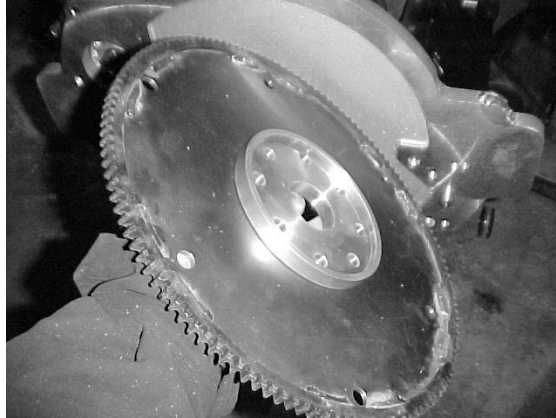
INSTALL THE FLEX PLATE AND HUB SPACER. TWO HUB SPACERS ARE INCLUDED. THE EARLY CRANKSHAFT USED A 2 1/2" REGISTER AND THE LATE USED A 2 3/4" REGISTER. THE RING GEAR ON THE FLEXPLATE IS

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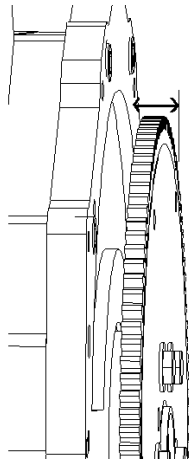
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389-350 ADAPTER INSTALLATION INSTRUCTIONS

OFFSET TOWARDS THE ENGINE SIDE. BOLT THE FLYWHEEL TO THE CRANKSHAFT USING THE SUPPLIED 1/2" X 1 1/2" BOLTS WITH THE FLAT WASHER AGAINST THE FLEXPLATE AND THE LOCK WASHER UNDER THE HEAD OF THE BOLT. TIGHTEN THE BOLTS TO THE SPECIFIED TORQUE IN A CRISS CROSS PATTERN.



THE RING GEAR IS OFFSET TO THE ENGINE SIDE . FIT THE HUB SPACER INTO THE FLEX PLATE AND ALIGN THE CRANKSHAFT BOLT HOLES. THIS SHOULD BE A SNUG FIT. IMPORTANT! ANY TIME THAT ANY FORCE IS APPLIED TO THE HUB SPACER USE ONLY A RUBBER Mallet OR WOODEN DOWEL.

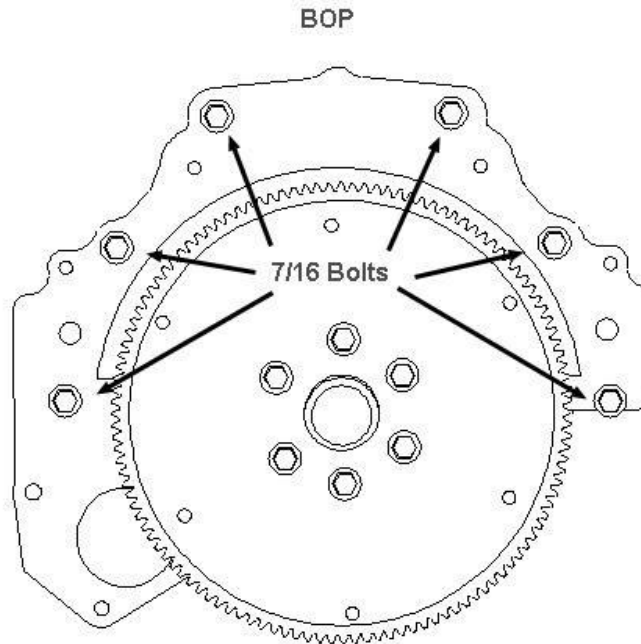


Distance from adapter to trans. side of flexplate must be between 3/4" and 7/8".

CHECK THE DISTANCE BETWEEN THE TRANSMISSION SIDE OF THE FLEXPLATE AND THE ADAPTER. THIS SHOULD BE BETWEEN .750" AND .875". **DO NOT PROCEED WITH THE INSTALLATION IF THIS IS NOT CORRECT. ASSEMBLING THE MOTOR TO THE TRANSMISSION WITH THIS DIMENSION NOT IN TOLERANCE COULD RESULT IN TRANSMISSION OR STARTER DAMAGE. CONTACT WILCAP IF YOU FIND THIS DIMENSION TO BE GREATER THAN 7/8" OR LESS THAN 3/4".**

389-350 ADAPTER INSTALLATION INSTRUCTIONS

FOR BUICK, OLDS, CADILLAC TURBO-HYDRAMATIC BOLT PATTERN TRANSMISSIONS:

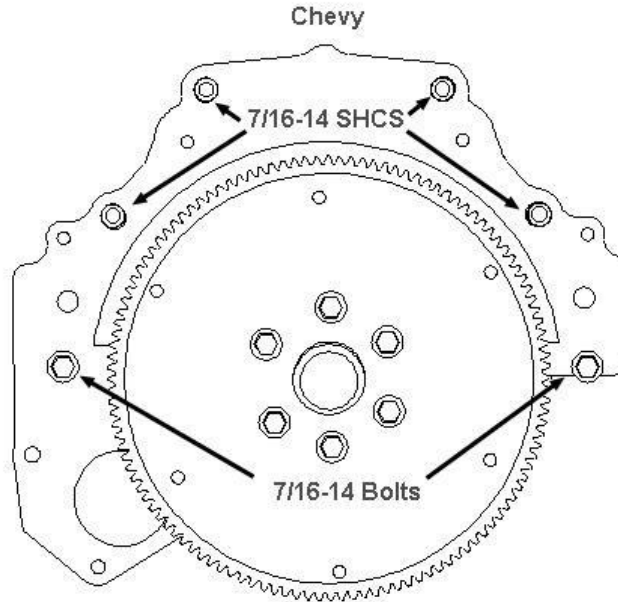


THE BOLTS WILL GO THROUGH THE TRANSMISSION, THROUGH THE ADAPTER AND INTO THE BLOCK. THESE HOLES WILL NEED TO BE ENLARGED FROM THE 3/8" CLEARANCE SIZE TO 7/16" CLEARANCE. A 7/16" DRILL BIT WILL GENERALLY DRILL OVERSIZE ENOUGH BUT A .453 OR 29/64" REAMER WORKS BEST. DRILL OR REAM OPEN THE HOLES AND AT THIS POINT YOU ARE READY TO INSTALL THE TRANSMISSION.

FOR CHEVROLET BOLT PATTERN TRANSMISSIONS:

USING THE TWO 7/16" SOCKET HEAD CAP SCREWS, BOLT THE PLATE TO THE BLOCK.

389-350 ADAPTER INSTALLATION INSTRUCTIONS

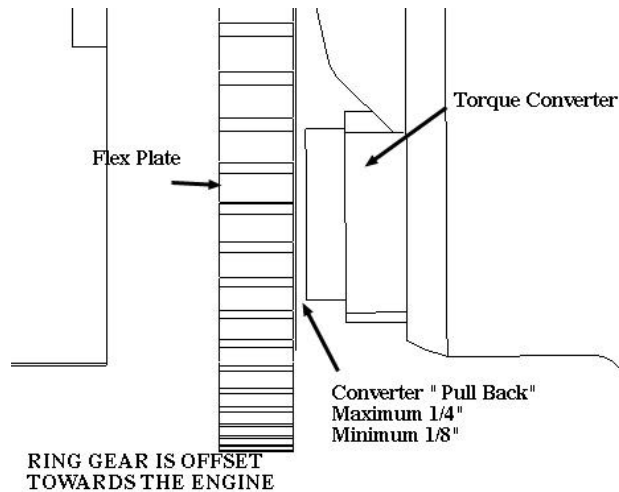
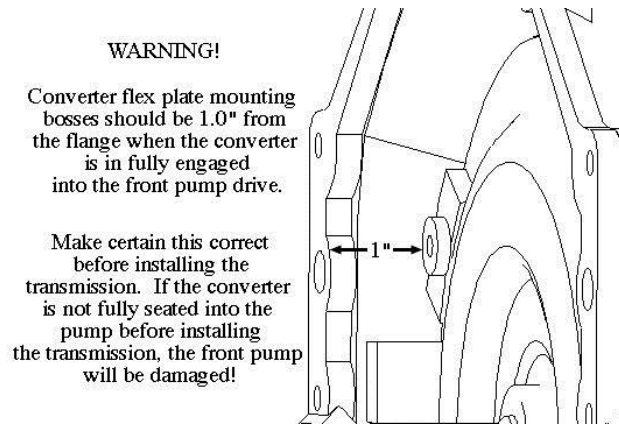


THE STOCK BOLT HOLES ON THE 1964 AND LATER GM TRANSMISSIONS ARE FOR 3/8" DIAMETER BOLTS. THESE WILL NEED TO BE ENLARGED TO ACCEPT THE 7/16" BOLTS. WHILE A 2 FLUTE 7/16 DRILL WILL WORK, THE BEST TOOL FOR THE JOB IS KNOWN AS A CORE DRILL. THESE DRILLS ARE ESPECIALLY MADE TO ENLARGE EXISTING HOLE AND ARE AVAILABLE THROUGH MACHINE SHOP SUPPLY COMPANIES. AFTER THE BOLT HOLES HAVE BEEN ENLARGED, YOU ARE READY TO INSTALL THE TRANSMISSION.

FIT UP THE STARTER MOTOR AND CHECK FOR PROPER RING GEAR TO PINION GEAR ENGAGEMENT. ADJUST IF NEEDED AND TORQUE STARTER BOLTS TO PROPER VALUE

CHECK THAT THE CONVERTER IS SEATED INTO THE FRONT PUMP PRIOR TO INSTALLING THE TRANSMISSION. CHECK THE "PULLBACK" DISTANCE OF THE CONVERTER PRIOR TO INSTALLING THE CONVERTER TO FLEXPLATE BOLTS

389-350 ADAPTER INSTALLATION INSTRUCTIONS



YOUR WILCAP ADAPTER IS DESIGNED TO USE THE STOCK GM DUST COVER. DEPENDING ON THE ORIGINAL APPLICATION, THE DUST COVER MAY NEED TO BE MODIFIED SLIGHTLY. MAKE CERTAIN THAT THE COVER DOES NOT HIT THE RING GEAR, FLEXPLATE, OR CONVERTER. UNIVERSAL DUST COVERS ARE AVAILABLE FROM WILCAP.

WHILE INSTALLING THE TRANSMISSION, REMEMBER THAT THE DOWEL PINS ARE FOR ALIGNMENT ONLY AND WILL NOT BEAR THE WEIGHT OF THE TRANSMISSION.

DO NOT HESITATE TO CONTACT US WITH ANY PROBLEMS, IDEAS OR SUGGESTION TO MAKE THIS PRODUCT BETTER. THANKS AGAIN FOR YOUR BUSINESS.