# 230-350AT 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!

NO CREDIT OR REFUND WILL BE ISSUED FOR PARTS DAMAGED DUE TO IMPROPER INSTALLATION OR MISAPPLICATION. REMEMBER THAT YOUR ADAPTER PLATE IS ALUMINUM AND NOT CAST IRON. DO NOT OVER-TORQUE THE FASTENERS. IF AT ANYTIME YOU HAVE ANY QUESTIONS ABOUT THIS INSTALLATION, CONTACT WILCAP IMMEDIATELY. THE INSTALLATION AND USE OF THIS PRODUCT IS DONE AT YOUR OWN RISK.

YOUR WILCAP ADAPTER IS DESIGNED TO USE THE MOPAR SMALL BLOCK GEAR 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.

UNPACK AND CHECK FOR SHIPPING DAMAGE PRIOR TO BEGINNING THE INSTALLATION. PACKAGE SHOULD INCLUDE;
1 CAST ALUMINUM ADAPTER PLATE
1 FLEXPLATE
1 ALUMINUM HUB SPACER
FASTENERS;

- 1 3/8 16 X 1 SOCKET HEAD CAP SCREW □
- 2 3/8-16 X 1 1/4 SOCKET HEAD CAP SCREW □
- 6 3/8-16 STUDS NUTS AND LOCK WASHERS □
- 8 7/16 20 GRADE 8 HEX HEAD BOLTS □
- 8 7/16 20 LOCK NUTS □
- 3 7/16 14 X 1 1/4"BOLTS □
- 1 SPECIAL OFFSET FASTENER □

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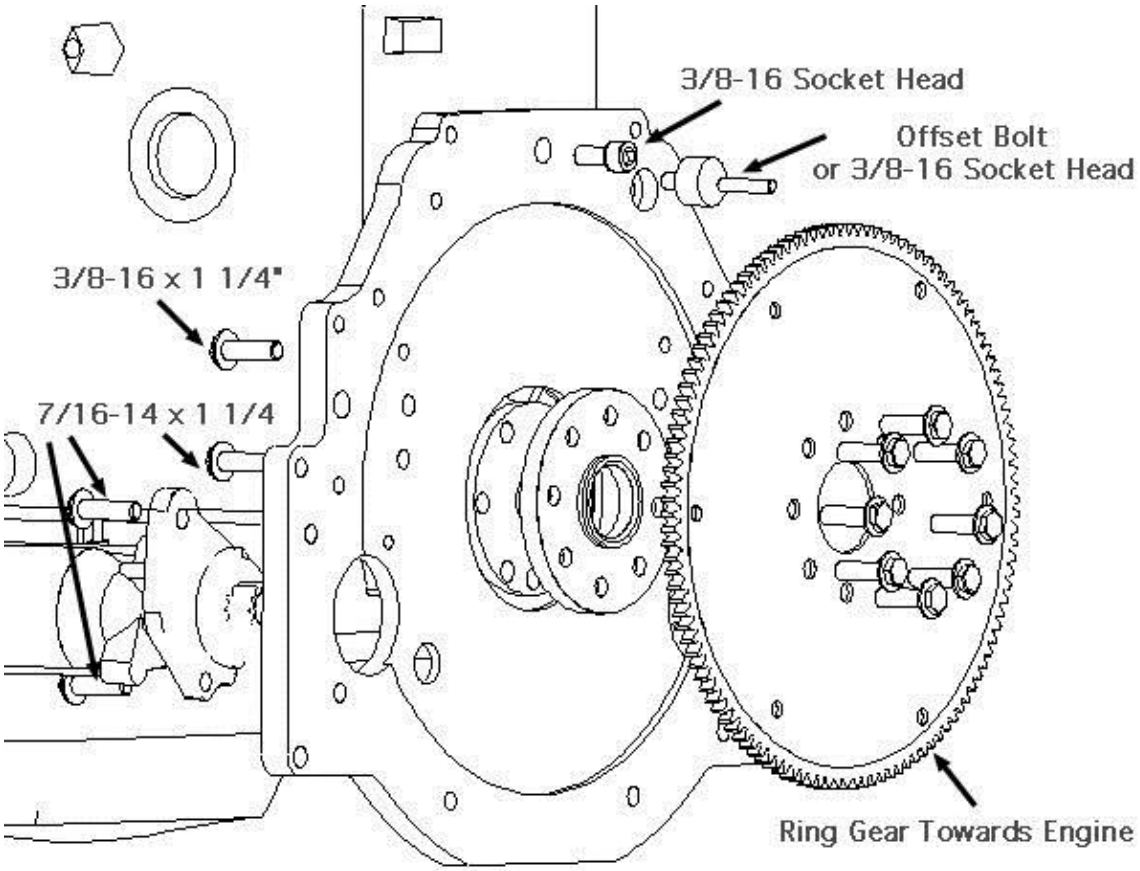


CLEAN THE CRANKSHAFT HUB, BACK OF THE BLOCK, FRONT OF THE TRANSMISSION BELL HOUSING AND THE TORQUE CONVERTER HUB OR NOSE. INSPECT FOR CRACKS AND BURRS AND REPAIR AS NEEDED. CHASE ALL HOLES IN THE BLOCK WITH THE CORRECT TAP AND MAKE CERTAIN THE THREADS ARE SERVICEABLE. CHECK YOUR DOWEL PINS TO SEE THAT THEY ARE IN GOOD CONDITION AND NOT "MUSHROOMED". REPLACE IF NEEDED.

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 WILL RESULT IN DAMAGE TO THE FLEX PLATE AND THE TRANSMISSION.

USING THE SUPPLIED 7/16-14 AND THE 3/18-16 BOLTS BOLT 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.

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IF USING THE CHEVROLET ONLY PATTERN TRANSMISSION, INSTALL THE OFFSET FASTENER USING A THREAD SEALANT ON THE THREADS. SCREW IT FLUSH WITH THE BLOCK USING THE ALLEN SCREW. DO NOT TIGHTEN. THE STUD THAT IS ON-CENTER GOES INTO THE BLOCK. THE SEALANT IS NEEDED BECAUSE THIS HOLE IS A THROUGH HOLE INTO THE ENGINE BLOCK. IF YOU ARE INSTALLING THE BOP OR UNI-CASE PATTERN TRANSMISSION, A 3/8 –16 SOCKET HEAD CAP SCREW CAN BE USED IN PLACE OF THE OFFSET FASTENER.

ONCE THE ADAPTER PLATE IS FLUSH, ROTATE THE OFFSET FASTENER TO LINE UP THE MARK ON THE PLATE WITH THOSE ON THE FASTENER. MAKE CERTAIN THE FASTENER DOES NOT SIT ABOVE THE SURFACE OF THE ADAPTER PLATE.

THE ATTACHED DRAWING SHOWS THE LOCATION OF THE HOLES PROVIDED FOR THE REAR MOTOR MOUNTS. THESE ARE PROVIDED TO ALLOW YOU TO FABRICATE A MOTOR MOUNT FOR THE REAR OF THE ENGINE.

ONCE THE ADAPTER PLATE IS FLUSH, AND THE MOTOR MOUNTS HAVE BEEN FABRICATED, 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, THE SOCKET HEAD CAP SCREWSWITH THREAD LOCKING COMPOUND AND TORQUE THE BOLTS, CHECK TO MAKE CERTAIN THAT NONE OF THE BOLTS PROTRUDE FROM THE SURFACE OF THE ADAPTER PLATE. IF NEEDED, TRIM THE BOLT HEADS OR SHANKS SO THAT THEY ARE FLUSH OR BELOW THE SURFACE OF THE ADAPTER PLATE.

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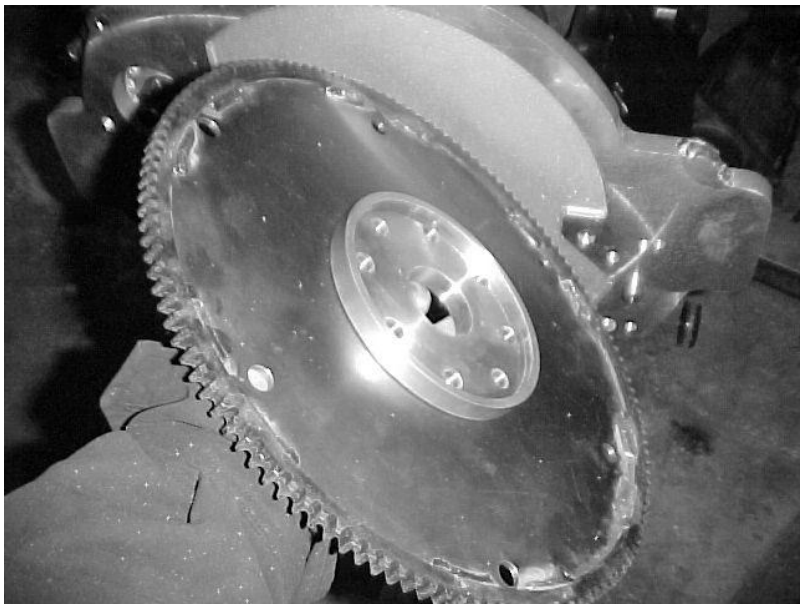
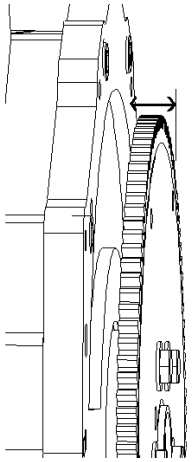
THE RING GEAR IS OFFSET TO THE ENGINE SIDE. FIT THE HUB SPACER INTO THE FLEX PLATE AND ALIGN THE CRANKSHAFT BOLT HOLES. THIS SHOULD BE A SNUG FIT. IMPORTANT! ANY TIME THAT ANY FORCE IS APPLIED TO THE HUB SPACER USE ONLY A RUBBER MALLET OR WOODEN DOWEL.



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




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 ¾”.

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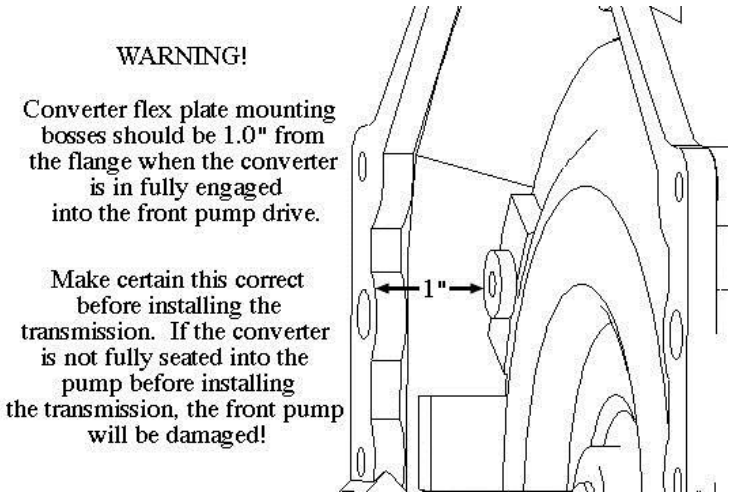
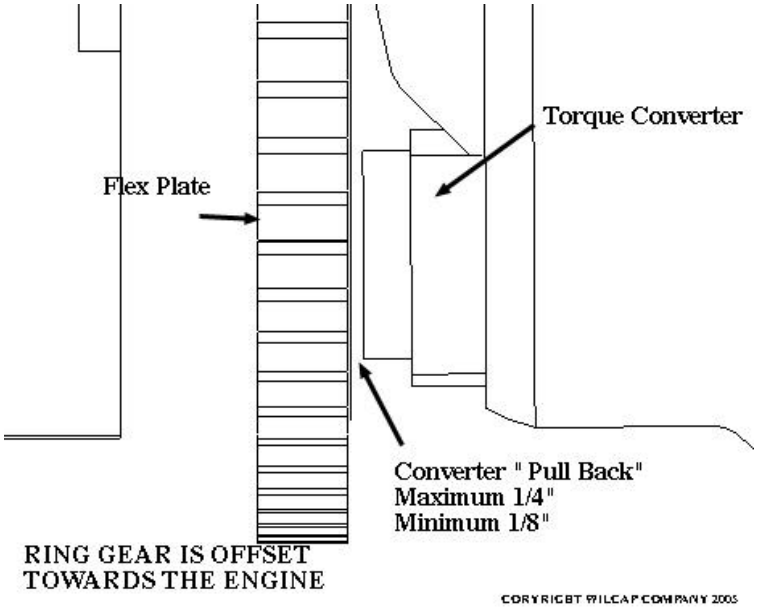
FIT UP THE STARTER MOTOR AND CHECK FOR PROPER RING GEAR TO PINION GEAR ENGAGEMENT. THE PINION GEAR OF THE STARTER SHOULD TRAVEL ½ TO 2/3 ACROSS THE FACE OF THE RING GEAR WHEN THE SOLENOID IS ACTUATED. PROPER ALIGNMENT OF THE STARTER TO RING GEAR IS OBTAINED WHEN THE REGISTER ON THE FRONT OF THE STARTER IS MATED TO THE OUTSIDE EDGE OF THE STARTER HOLE. 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 FLEX PLATE BOLTS.



# 230-350AT 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.

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

TORQUE VALUES:
3/8-16 BOLTS = 35-40 FT. LBS.
7/16-14 BOLTS = 40-45 FT. LBS.
7/16-20 CRANK BOLTS = 55-65 FT. LBS.
1/2-20 CRANK BOLTS = 65-75 FT. LBS