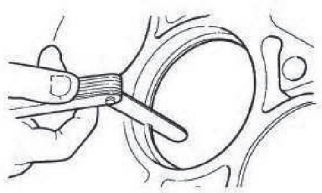
FORGED PISTONS
4032 Alloy
Installation Instruction

CALCULATING RING END GAP

Top Ring: bore x gap factor (SEE BACK PAGE FOR YOUR SPECIFIC APPLICATION FACTOR) = end gap

Example: 4.030″ bore x .004″ factor (street naturally aspirated) = .016″ minimum gap

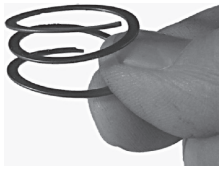
Second ring: Naturally Aspirated – .004″ per inch of bore min.
Boosted – .005″ per inch of bore min.

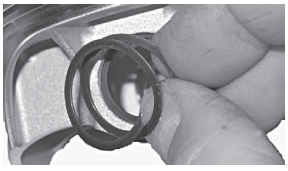


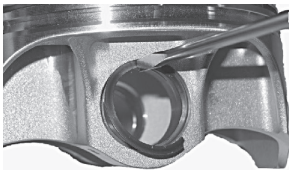
3 TYPES OF WRIST PIN RETAINING LOCKS ARE USED IN 4032 ALLOY PISTONS

SPIRAL LOCK

1. Spring the lock about ½″ to ¾″ to get your thumb between the coils.
2. Insert tang into groove. Slightly twist your wrist towards the groove angling the lock downward into the groove.
3. Using a small flat screwdriver push down on the lock to push it into the groove. Continue in a circular rotation. Do not try and spiral the lock in.

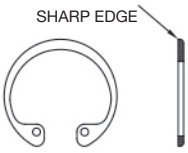






TRU-ARC LOCK

- POSITION OPEN END OF LOCK FACING DOWN, SHARP EDGE TO OUTSIDE.



ROUND WIRE LOCK

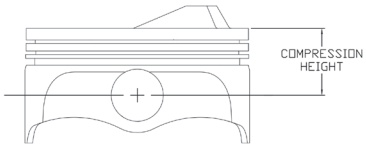
- POSITION OPEN END OF LOCKFACING DOWN.

NOTE: DO NOT OVER COMPRESS LOCK. DO NOT USE LOCKS WITH A PRESS FIT ROD.

PISTON NOMENCLATURE:

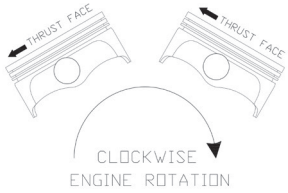
Compression Height

Centerline of wrist pin to top of piston, do not include dome height.



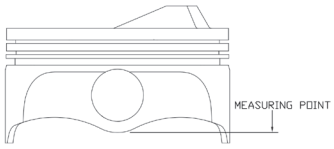
Pistons with Offset Wrist Pins

Direction arrow on top faces to front of engine. This places the short side of the offset to the thrust face of the engine.



Measuring Point

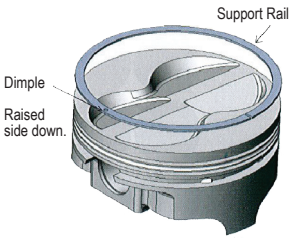
Measure even with the bottom of the wrist pin pad and 90° to the pin.



OIL SUPPORT RAIL:

Applications where the wrist pin is intersecting the oil groove require an Oil Support Rail to bridge the gap the wrist pin cut out has made. All three of the oil control rings are installed on top of the support rail.

Special Note: Raised dimple on support rail is positioned down and indexed in the open area the wrist pin has made in the oil ring groove.



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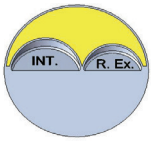
General Clearance Guidelines

APPLICATION	RING END GAP FACTOR	4032 Alloy PISTON TO WALL CLEARANCE 3.5"TO 4.1"	4.1"AND UP
STREET NATURALLY ASPIRATED	0.0040	.0025-.0035	.0035-.0045
STREET TOWING	0.0045	.0030-.0040	.0040-.0050
STREET NITROUS OR SUPER CHARGED	0.0050	.0035-.0045	.0045-.0055
CIRCLE TRACK 2 BBL / RESTRICTOR	0.0040	.0030-.0040	.0045-.0055
CIRCLE TRACK UNRESTRICTIED	0.0040	.0035-.0055	.0045-.0065
CIRCLE TRACK ALCOHOL INJECTION	0.0040	.0035-.0055	.0045-.0065
CIRCLE TRACK ALCOHOL CARB	0.0045	.0040-.0060	.0050-.0070
DRAG GASOLINE	0.0040	.0040-.0060	.0050-.0070
DRAG ALCOHOL	0.0040	.0030-.0060	.0040-.0070
DRAG SUPERCHARGED OR NITROUS	0.0050	.0050-.0080	.0060-.0090
DRAG SUPERCHARGED ALCOHOL	0.0050	.0040-.0060	.0050-.0070
MARINE NATURALLY ASPIRATED	0.0040	.0035-.0050	.0045-.0060
MARINE SUPERCHARGED	0.0045	.0045-.0060	.0055-.0070

Final piston clearance should be based solely on the demands of your application.
Factors such as fuel type, altitude, outside temp., humidity, tune up, and many others factors need to be taken into account for your final clearance.

PISTON ORIENTATION



QUENCH AREA (YELLOW): Quench is the area behind the valves. This area should match the flat area on your cylinder head. Proper quench promotes cooling of the piston and can be effective in reducing detonation.

CHECKING CYLINDER HEADS: Check cylinder heads with clay or some other method before balancing and final assembly to assure proper piston to head clearance.

PISTONS WITH **ONE** VALVE RELIEF HAVE CENTERED PINS – SEE DRAWING FOR ORIENTATION.

PISTONS WITH **TWO** SYMMETRICAL VALVE RELIEFS HAVE CENTERED PINS WITH NO ARROW ON TOP – THESE CAN BE INSTALLED IN ANY CLYINDER.

PISTONS WITH **FOUR** VALVE RELIEFS HAVE OFFSET PINS AND AN ARROW ON TOP WHICH POINTS TO THE FRONT OF THE ENGINE.

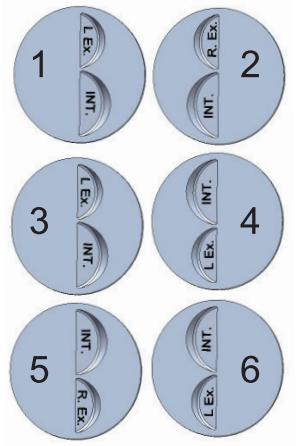
CHEVY 302, 305, 327, 334, 350, 377, 383, 400, 434

CHRY 318, 340, 360, 383, 400, 408, 440, 450, 463, 468, 493, 498, 505, 520

FORD 289, 302, 331, 347, 351W, 372W, 383W, 393W, 408W, 416W, 418W

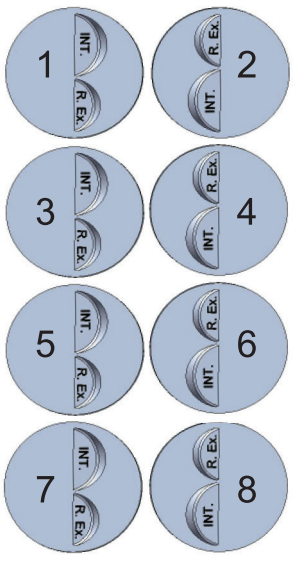
CHEVY V6 4.3L / 262 CI

FRONT



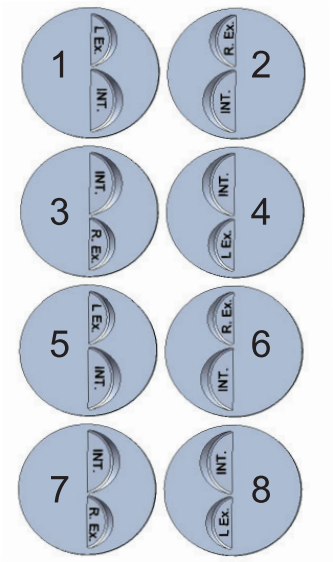
GM LS

FRONT



PONTIAC 389, 400, 428, 455

FRONT



CHEVY BB 396/402, 427, 454, 489, 502, 540

FRONT