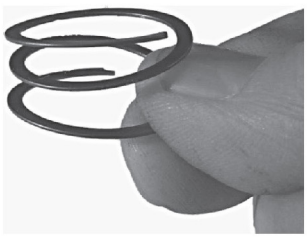
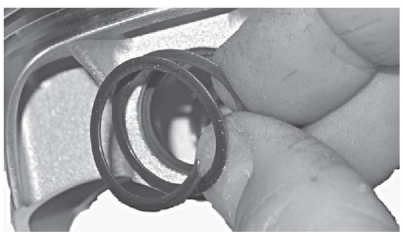
ICON FORGED
Installation Instructions For 2618 Alloy Pistons

LOCK RING INSTALLATION
Spiral lock rings – used in KB series

1. Spring the lock about 1/2" to 1/4" 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.

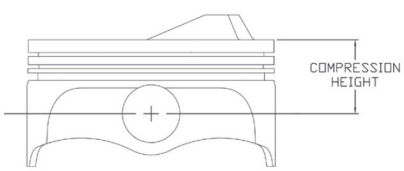
LOCK RING INSTALLATION

ROUND WIRE LOCK
Position open end of lock facing down.

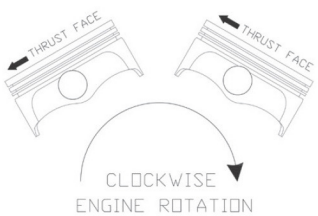
NOTE: DO NOT OVER COMPRESS LOCK.
DO NOT USE LOCKS WITH A PRESS FIT ROD.

PISTON NOMENCLATURE

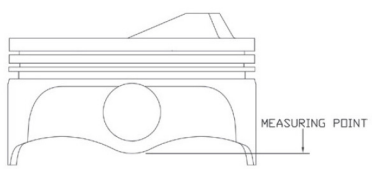
Compression Height
Centerline of wrist pin to top of piston, do not include dome height.



Offset Wrist Pin
The short side of the offset must be towards the thrust face of the engine.



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

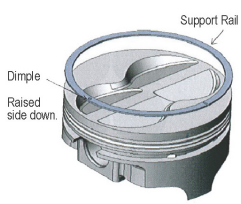


OIL SUPPORT RAIL

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.

Verify the oil support rail is flat at the point where the dimple is punched into it. If there is a slight bow lightly bend the rail straight.



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WEB: www.uempistons.com

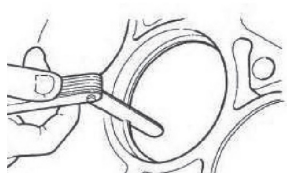
General Clearance Guidelines

APPLICATION	RING END GAP FACTOR	PISTON TO WALL CLEARANCE 3.5"TO 4.1"	4.1" AND UP
STREET NATURALLY ASPIRATED	0.0040	.0035-.0045	.0045-.0055
STREET TOWING	0.0045	.0040-.0050	.0050-.0060
STREET NITROUS OR SUPER CHARGED	0.0050	.0045-.0055	.0055-.0065
CIRCLE TRACK 2 BBL / RESTRICTOR	0.0040	.0040-.0050	.0055-.0065
CIRCLE TRACK UNRESTRICTIED	0.0040	.0045-.0065	.0055-.0075
CIRCLE TRACK ALCOHOL INJECTION	0.0040	.0045-.0065	.0055-.0075
CIRCLE TRACK ALCOHOL CARB	0.0045	.0050-.0070	.0060-.0080
DRAG GASOLINE	0.0040	.0050-.0070	.0060-.0080
DRAG ALCOHOL	0.0040	.0040-0070	.0050-.0080
DRAG SUPERCHARGED OR NITROS	0.0050	.0060-.0090	.0070-.0100
DRAG SUPERCHARGED ALCOHOL	0.0050	.0050-.0070	.0060-.0080
MARINE NATURALLY ASPIRATED	0.0040	.0045-.0060	.0055-.0070
MARINE SUPERCHARGED	0.0045	.0055-.0070	.0065-.0080

RING END GAP CALCULATIONS

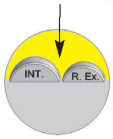
TOP RING: bore x gap factor = end gap
Example 4.030" bore x .004" factor (street naturally aspirated) = .016" minimum

SECOND RING: Naturally Aspirated – .004" per inch of bore min.
Boosted – .005" per inch of bore min.



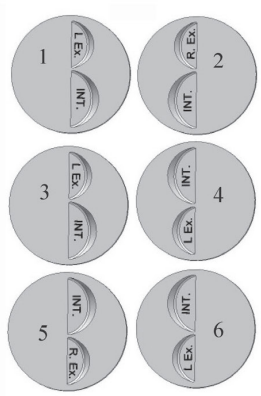
Final piston clearance should be based solely on the demands of your application.
Factors such as fuel type, altitude, outside temp., humidity, tune up, and many other factors need to be taken into account for your final clearance.

QUENCH AREA



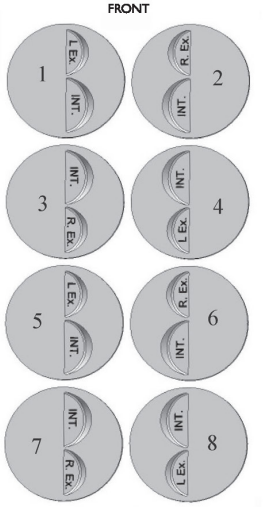
Quench is the area behind the valves. This area should match the flat area on your cylinder head. Proper quench promotes cooling of the piston and can be effective in reducing detonation.

CHEVY V-6 262 4 LEFTS AND 2 RIGHTS



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
PONTIAC 389, 400, 428, 455 **BUICK** 455

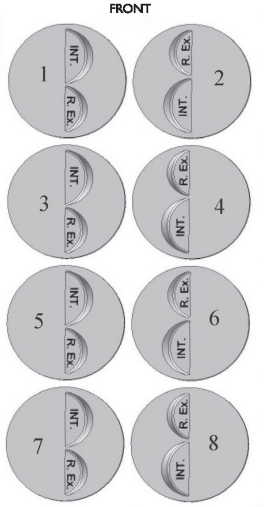
FRONT



Note for all applications: Icon suggests checking cylinder heads with clay or some other method before final assembly to assure proper piston to head clearance.

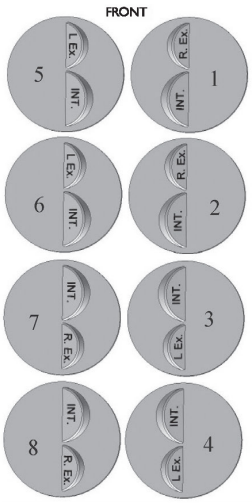
GM LS

FRONT



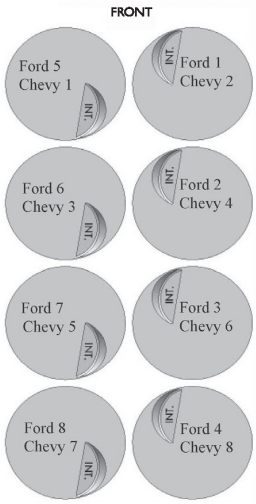
FORD 390FE, 406FE, 410FE, 427FE 428FE, 438FE, 452FE, 455FE, 482FE

FRONT



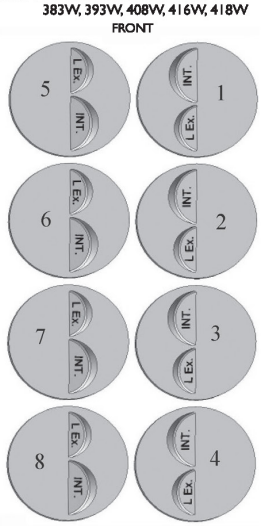
FORD CLEV 351C&W/C,377C, 387C,402C
FORD BB 429, 460, 502, 520, 545
CHEVY BB 396/402, 427, 454, 489, 502, 540

FRONT



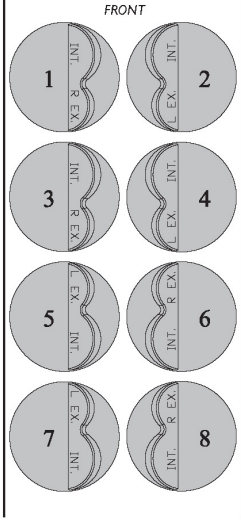
FORD 289, 302, 331, 347, 351W, 372W, 383W, 393W, 408W, 416W, 418W

FRONT



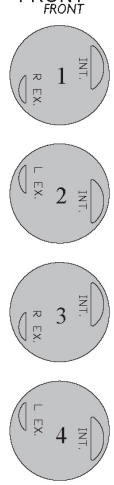
OLDS 403, 455

FRONT



TOYOTA
22R YRS
1985 AND NEWER

TOYOTA 22R
1985 AND NEWER
FRONT
FRONT



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