Top Ring Example - Street Naturally Aspirated 4.000" bore x .0065" gap factor = .026" total top ring end gap.
Second Ring: Set second ring end gap at .004 per inch of bore minimum.

Warranty Disclaimer
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The information contained in this instruction should not be considered absolute. Final decisions concerning the installation and use of these products are ultimately the responsibility of the customer. UEM makes no guarantee of warranty on emissions.
**General Clearance Guidelines**

**APPLICATION** | **Ring End Gap Factor** | **PISTON TO WALL CLEARANCE**
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**STREET NATURALLY ASPIRATED** | 0.0065 | 0.015" - 0.020" - 0.025" (4.000" - 4.100")
**STREET TOWING** | 0.0080 | 0.020" - 0.025" - 0.035" (4.100" end up)
**STREET NITROUS OR SUPERCHARGED** | 0.0080 | 0.020" - 0.025" - 0.035" (4.100" end up)
**CIRCLE TRACK 2 BBL/RESTRICTOR GAS** | 0.0070 | 0.015" - 0.045" (4.000" - 4.050")
**CIRCLE TRACK UNRESTRICTED** | 0.0080 | 0.025" - 0.045" (4.050" - 4.100")
**CIRCLE TRACK ALCOHOL INJECTION** | 0.0080 | 0.025" - 0.045" (4.050" - 4.100")
**CIRCLE TRACK ALCOHOL CARB** | 0.0080 | 0.030" - 0.045" (4.100" - 4.150")
**DRAG GASOLINE** | 0.0075 | 0.015" - 0.045" (4.000" - 4.050")
**DRAG ALCOHOL** | 0.0065 | 0.015" - 0.045" (4.000" - 4.050")
**DRAG SUPERCHARGED OR NITROUS** | 0.0075 | 0.020" - 0.045" (4.050" - 4.100")
**DRAG SUPERCHARGED ALCOHOL** | 0.0085 | 0.025" - 0.045" (4.100" - 4.150")
**MARINE NATURALLY ASPIRATED** | 0.0080 | 0.030" - 0.045" (4.150" - 4.200")
**MARINE SUPERCHARGED** | 0.0090 | 0.030" - 0.045" (4.200" - 4.250")
**AIR COOLED BAJA** | 0.0075 | 0.030" - 0.045" (4.250" - 4.300")
**PROPANE** | 0.0065 | 0.030" - 0.045" (4.300" - 4.350")

Modern piston design locates the top ring higher for improved performance. A high top ring operates at higher temperatures and requires a larger top ring end gap. To find the proper ring end gap, multiply your bore size by the ring end gap factor listed on the chart (i.e., Street Naturally Aspirated 4.000" bore x 0.0065" gap factor = .026" total top ring end gap).

Your hypereutectic performance piston will expand less than typical cast or forged pistons. Because of this and the wear characteristics of the hypereutectic alloy, you can run tight piston-to-wall clearances.

NOTE: Hypereutectic piston engines will require 2-4 degrees less total ignition timing. One key to top performance is to have all cylinders longing for the same timing numbers. Equal air flow, fuel mix, quench, chamber temperature, swirl, and compression at each cylinder work to this end.

**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.

**NOTE:** Some pistons come with symmetrical valve reliefs. This allows the piston to be fitted to any cylinder with just orientating the quench area towards the center of the block.

**CHECKING CYLINDER HEADS:** Check cylinder heads with clay or some other method before balancing and final assembly to assure proper piston to head clearance. .040” minimum clearance.

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**APPLICATION** | **PISTON ORIENTATION**
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**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
**BUICK** | 455
**PONTIAC** | 389, 400, 428, 455

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**APPLICATION** | **PISTON ORIENTATION**
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**CHEVY V6** | 3.6L / 262 CI
4 LEFTS AND 2 RIGHTS

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

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**APPLICATION** | **PISTON ORIENTATION**
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**TOYOTA** | 22R 1985 AND NEWER

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**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.