

# HOLDEN GEMINI

| Application   | RPM Range   | Part No. | Adv. Duration |         | .050" Duration |         | Valve Lift |         | LSA | Lash Intake | Lash Exhaust | Lifters | Valve Spring        | Installed Height | Retainer | Locks    | Stem Seal | Timing Kit | Pushrods | Rockers |
|---|-------------|----------|---------------|---------|----------------|---------|------------|---------|-----|-------------|--------------|---------|---------------------|------------------|----------|----------|-----------|------------|----------|---------|
|   |             |          | Intake        | Exhaust | Intake         | Exhaust | Intake     | Exhaust |     |             |              |         |                     |                  |          |          |           |            |          |         |
| <b>1600 1800 2000</b> NOTE: 1800cc and 2000cc engines use timing kit CS41800 USE ZDDP100 OIL ADDITIVE AND QUALITY MINERAL ENGINE OIL ONLY |             |          |               |         |                |         |            |         |     |             |              |         |                     |                  |          |          |           |            |          |         |
| Mild cam to suit standard engine  | 2000 - 6000 | 782507   | 276           | 276     | 212            | 212     | .425"      | .425"   | 107 | .008"       | 0.012"       |         | 5840-8 <sup>Ⓟ</sup> | 1.550"           | Standard | Standard |           | CS41600    |          |         |
| Medium performance suit modified engine needs extractors  | 2500 - 6500 | 782508   | 284           | 284     | 218            | 218     | .425"      | .425"   | 105 | .008"       | 0.010"       |         | 5840-8 <sup>Ⓟ</sup> | 1.550"           | Standard | Standard |           | CS41600    |          |         |
| Hot street engine needs comp, carbies and good exhaust system   | 3000 - 7000 | 782509   | 288           | 288     | 225            | 226     | .466"      | .466"   | 109 | .008"       | 0.010"       |         | 5833-8 <sup>Ⓟ</sup> | 1.550"           | Standard | Standard |           | CS41600    |          |         |
| Race cam needs cyl.head mods, comp, carbies & good exhaust  | 3500 - 7800 | 782510   | 297           | 297     | 235            | 235     | .490"      | .490"   | 107 | .008"       | 0.010"       |         | 5833-8 <sup>Ⓟ</sup> | 1.550"           | Standard | Standard |           | CS41600    |          |         |

# HOLDEN 6 CYLINDER

ROCKER RATIO 1.50

| <b>RED/BLUE &amp; BLACK HYDRAULIC</b> USE ZDDP100 OIL ADDITIVE AND QUALITY MINERAL ENGINE OIL ONLY              |             |       |     |     |     |     |       |       |     |  |  |                |                        |  |                  |                      |                      |                        |              |                        |                      |
|---|-------------|-------|-----|-----|-----|-----|-------|-------|-----|--|--|----------------|------------------------|--|------------------|----------------------|----------------------|------------------------|--------------|------------------------|----------------------|
| STD replacement cam, suit carbie  | 800 - 3200  | 35002 | 258 | 269 | 187 | 199 | .350" | .385" | 108 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4719-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| STD replacement cam, suit EFI   | 850 - 3500  | 35678 | 260 | 260 | 197 | 197 | .381" | .381" | 109 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4719-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Hi torque cam, suit towing good economy   | 1200 - 3900 | 35613 | 260 | 267 | 194 | 202 | .390" | .408" | 112 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4719-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Mild cam for LPG, good power suit STD motor minium mods.  | 1400 - 4200 | 35631 | 269 | 269 | 202 | 207 | .395" | .395" | 112 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4719-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Mild cam, improves throttle response good hyway cam suit STD to mild engine                                     | 1700 - 4500 | 35602 | 270 | 270 | 208 | 208 | .420" | .420" | 110 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4719-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Mild cam, increased mid range, good economy suits LPG. smooth idle (See Fitting notes 1)                        | 1900 - 4800 | 35666 | 270 | 280 | 204 | 214 | .420" | .442" | 112 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4719-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Mild cam, good performance & driveability needs headers, carbies, ignition mods (See Fitting notes 1)           | 2000 - 5000 | 35603 | 280 | 280 | 214 | 214 | .442" | .442" | 110 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4823-12<br>4028-12                           | 1.625"<br>1.470" | 11707-12<br>11707-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Performance street cam good driveability needs headers carbies, ignition & hi stall (See Fitting notes 1 & 2)   | 2200 - 5200 | 35665 | 280 | 290 | 214 | 224 | .440" | .465" | 112 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4823-12<br>4823-12                           | 1.625"<br>1.605" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6153<br>CRHL6153 |
| Performance street cam good driveability needs headers carbies, ignition & hi stall (See Fitting notes 1 & 2)   | 2500 - 5800 | 35667 | 286 | 286 | 224 | 224 | .467" | .467" | 111 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4823-12<br>4823-12                           | 1.625"<br>1.605" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6157<br>CRHL6157 |
| Performance street cam good mid range & upper RPM needs carbies headers etc similar (See Fitting notes 1 & 2)   | 2500 - 5800 | 35604 | 304 | 304 | 228 | 228 | .423" | .423" | 110 |  |  | Red Black/Blue | HT969C-12<br>HT969C-12 | 4823-12<br>4823-12                           | 1.625"<br>1.605" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | KG819-12<br>KG819-12   | 44HP<br>44HP | PR-105-12<br>PR-422-12 | CRHL6157<br>CRHL6157 |
| Hot street cam, wide power range, choppy idle, needs headers carbies, ignition & hi stall (See Fitting notes 5) | 2800 - 6200 | 35619 | 286 | 290 | 226 | 232 | .459" | .475" | 109 |  |  | Red Black/Blue | HT969R-12<br>HT969R-12 | 4327-12 <sup>Ⓟ</sup><br>4327-12 <sup>Ⓟ</sup> | 1.660"<br>1.660" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | VSV530-12<br>VSV530-12 | 44HP<br>44HP | PR-926-12<br>PR-990-12 | CRHL6157<br>CRHL6157 |
| Performance street/strip cam needs head headers carbies, ignition & hi stall (See Fitting notes 5)              | 3200 - 6500 | 35672 | 280 | 280 | 231 | 231 | .480" | .480" | 108 |  |  | Red Black/Blue | HT969R-12<br>HT969R-12 | 4327-12 <sup>Ⓟ</sup><br>4327-12 <sup>Ⓟ</sup> | 1.660"<br>1.660" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | VSV530-12<br>VSV530-12 | 44HP<br>44HP | PR-926-12<br>PR-990-12 | CRHL6157<br>CRHL6157 |
| Performance street/strip cam, great mid range Bathurst XU-1 grind (See Fitting notes 5)                         | 3500 - 6800 | 35616 | 300 | 300 | 240 | 240 | .450" | .450" | 110 |  |  | Red Black/Blue | HT969R-12<br>HT969R-12 | 4823-12<br>4327-12 <sup>Ⓟ</sup>              | 1.625"<br>1.660" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | VSV530-12<br>VSV530-12 | 44HP<br>44HP | PR-926-12<br>PR-990-12 | CRHL6157<br>CRHL6157 |
| Aggressive hyd cam great upper RPM need good breathing & engine combo (See Fitting notes 5)                     | 3700 - 6800 | 35802 | 295 | 295 | 246 | 246 | .507" | .507" | 108 |  |  | Red Black/Blue | HT969R-12<br>HT969R-12 | 4327-12 <sup>Ⓟ</sup><br>4327-12 <sup>Ⓟ</sup> | 1.660"<br>1.660" | 11707-12<br>11717-12 | 11703-12<br>11703-12 | VSV530-12<br>VSV530-12 | 44HP<br>44HP | PR-926-12<br>PR-990-12 | CRHL6157<br>CRHL6157 |

**FITTING NOTES:** 1. Must use performance springs. 2. Must use performance retainers. 3. Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

**FITTING NOTES:**

• Converter stall speed should be equal to or greater than the minimum rpm of the cam power range. • The use of high volume oil pumps may cause premature wear of the distributor gear.

**Note:** Springs marked with xxxx-xx<sup>Ⓟ</sup> denotes that it is a double spring.

# HOLDEN 6 CYLINDER ROCKER RATIO 1.50

| Application  | RPM Range   | Part No. | Adv. Duration |         | .050" Duration |         | Valve Lift |         | LSA | Lash Intake | Lash Exhaust | Lifters | Lifters | Valve Spring | Installed Height | Retainer | Locks | Stem Seal | Timing Kit | Pushrods | Rockers |
|--|-------------|----------|---------------|---------|----------------|---------|------------|---------|-----|-------------|--------------|---------|---------|--------------|------------------|----------|-------|-----------|------------|----------|---------|
|  |             |          | Intake        | Exhaust | Intake         | Exhaust | Intake     | Exhaust |     |             |              |         |         |              |                  |          |       |           |            |          |         |
| <b>RED/ BLUE &amp; BLACK SOLID</b> USE ZDDP100 OIL ADDITIVE AND QUALITY MINERAL ENGINE OIL ONLY                  |             |          |               |         |                |         |            |         |     |             |              |         |         |              |                  |          |       |           |            |          |         |
| Small solid cam for street application (See Fitting notes 5)   | 2500 - 5000 | 35609    | 265           | 265     | 229            | 229     | .442"      | .442"   | 109 |             |              |         |         |              |                  |          |       |           |            |          |         |
| Solid cam, great mid to upper RPM range suit speedway or hot street (See Fitting notes 5)                        | 2500 - 6000 | 35872    | 272           | 272     | 231            | 231     | .480"      | .480"   | 108 |             |              |         |         |              |                  |          |       |           |            |          |         |
| Solid cam, great mid range power, lumpy idle, needs head mods, headers, ignition & carbies (See Fitting notes 5) | 2800 - 6200 | 35626    | 278           | 282     | 238            | 244     | .486"      | .495"   | 109 |             |              |         |         |              |                  |          |       |           |            |          |         |
| Solid cam, high lift, max upper RPM needs head mods, headers, ignition & carbies etc (See Fitting notes 5)       | 3000 - 6400 | 35803    | 295           | 295     | 248            | 248     | .495"      | .495"   | 108 |             |              |         |         |              |                  |          |       |           |            |          |         |
| Race/competition, serious engine combo (See Fitting notes 5)   | 3600 - 6600 | 35647    | 308           | 308     | 254            | 254     | .517"      | .517"   | 107 |             |              |         |         |              |                  |          |       |           |            |          |         |

## VN SERIES 1 V6 1989-91 3 BOLT FLANGED CAM ROCKER RATIO 1.60

(VN series 1 cyl. heads may have a single or double v/spring)

|   |             |         |     |     |     |     |       |       |     |  |  |  |  |          |                      |        |          |          |  |       |        |
|---|-------------|---------|-----|-----|-----|-----|-------|-------|-----|--|--|--|--|----------|----------------------|--------|----------|----------|--|-------|--------|
| Hi torque for STD engine. (See Fitting notes 1)   | 1500 - 5500 | 6071561 | 262 | 264 | 193 | 202 | .440" | .440" | 112 |  |  |  |  | 3800R-12 | 7328-12 <sup>D</sup> | 1.700" | Standard | 11703-12 |  | CS6VN | PR-384 |
| Mild performance cam for STD engine needs headers & exhaust & ECU (See Fitting notes 1) | 1800 - 5800 | 6071562 | 275 | 285 | 202 | 207 | .440" | .440" | 113 |  |  |  |  | 3800R-12 | 7328-12 <sup>D</sup> | 1.700" | Standard | 11703-12 |  | CS6VN | PR-987 |
| Street cam for mod engines, needs ECU mods, headers & exhaust (See Fitting notes 1)     | 2000 - 6000 | 6071563 | 276 | 281 | 207 | 210 | .472" | .472" | 112 |  |  |  |  | 3800R-12 | 7328-12 <sup>D</sup> | 1.700" | Standard | 11703-12 |  | CS6VN | PR-987 |

## VN SERIES 2 V6 TO VR 1991-93 ROCKER RATIO 1.60

|   |             |         |     |     |     |     |       |       |     |  |  |  |  |          |         |        |          |          |  |       |        |
|---|-------------|---------|-----|-----|-----|-----|-------|-------|-----|--|--|--|--|----------|---------|--------|----------|----------|--|-------|--------|
| Hi torque for STD engine. (See Fitting notes 1)   | 1500 - 5500 | 7741561 | 262 | 264 | 193 | 202 | .440" | .440" | 112 |  |  |  |  | 3800R-12 | 4836-12 | 1.700" | Standard | 11703-12 |  | CS6VP | PR-384 |
| Mild performance cam for STD engine needs headers & exhaust & ECU etc (See Fitting notes 1)     | 1800 - 5800 | 7741562 | 275 | 285 | 202 | 207 | .440" | .440" | 113 |  |  |  |  | 3800R-12 | 4836-12 | 1.700" | Standard | 11703-12 |  | CS6VP | PR-987 |
| Street cam for mod engines, needs ECU mods, headers & exhaust (See Fitting notes 1)             | 2000 - 6000 | 7741563 | 276 | 281 | 207 | 210 | .472" | .472" | 112 |  |  |  |  | 3800R-12 | 4835-12 | 1.700" | 11707-12 | 11703-12 |  | CS6VP | PR-987 |
| Hot street cam for modified engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2) | 2200 - 6300 | 774757  | 280 | 280 | 214 | 218 | .499" | .501" | 110 |  |  |  |  | 3800R-12 | 4835-12 | 1.700" | 11707-12 | 11703-12 |  | CS6VP | PR-987 |

## ECOTEC V6 VS-VY ROCKER RATIO 1.60

|  |             |          |     |     |     |     |       |       |     |  |  |  |  |          |         |        |          |          |  |       |        |
|--|-------------|----------|-----|-----|-----|-----|-------|-------|-----|--|--|--|--|----------|---------|--------|----------|----------|--|-------|--------|
| Mild performance cam for STD engine needs headers & exhaust & ECU etc (See Fitting notes 1)            | 1800 - 5800 | 8531562  | 275 | 285 | 202 | 207 | .440" | .440" | 113 |  |  |  |  | 3800R-12 | 4231-12 | 1.780" | Standard | 10701-12 |  | CS6VS | PR-905 |
| Street cam for mod engines, needs ECU mods, headers & exhaust (See Fitting notes 1)                    | 2000 - 6000 | 8531563  | 276 | 281 | 207 | 210 | .472" | .472" | 112 |  |  |  |  | 3800R-12 | 4231-12 | 1.780" | 10707-12 | 10701-12 |  | CS6VS | PR-905 |
| Hot street cam for S/C & Turbo mod engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2) | 2000 - 6200 | 8531563T | 276 | 281 | 207 | 210 | .472" | .472" | 114 |  |  |  |  | 3800R-12 | 4231-12 | 1.780" | 10707-12 | 10701-12 |  | CS6VS | PR-905 |
| Hot street cam for S/C mod engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2)         | 2000 - 6200 | 8531430  | 262 | 274 | 207 | 218 | .505" | .505" | 114 |  |  |  |  | 3800R-12 | 4231-12 | 1.780" | 10707-12 | 10701-12 |  | CS6VS | PR-905 |
| Hot street cam for modified engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2)        | 2200 - 6300 | 853757   | 280 | 280 | 214 | 218 | .499" | .501" | 110 |  |  |  |  | 3800R-12 | 4231-12 | 1.780" | 10707-12 | 10701-12 |  | CS6VS | PR-905 |

**FITTING NOTES:** 1. Must use performance springs. 2. Must use performance retainers. 3. Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

**FITTING NOTES:**

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot.
- The use of high volume oil pumps may cause premature wear of the distributor gear.

**Note:** Springs marked with xxxx-xx<sup>D</sup> denotes that it is a double spring.