



301 Maple Ave. • P.O. Box 1347
 Mena, AR • 71953
 (479) 394-1075 • Fax: (479) 394-1996
 www.brodix.com



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**General Instructions
 for Big Block Chevy Compatible Heads**

**ATTENTION:
 VALVE SPRING WARNING FOR ALL PACKAGES**

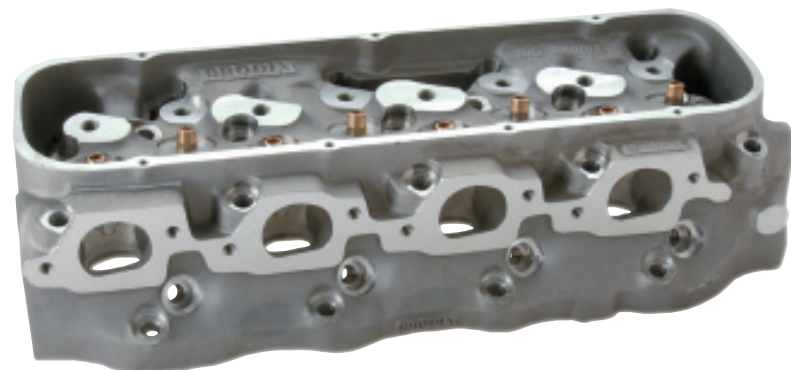
On all complete packages, it is very possible that your valve springs are not correct for your camshaft. All valve springs should be checked for compatibility to your camshaft. Severe wear of valve train components and severe engine damage could result from failure to do this. Check spring requirements before heads are installed on the engine. BRODIX requires you to supply the valve springs for any engine that has a flat tappet camshaft with over .615 valve lift.

WARRANTY DISCLAIMER:

No warranties of any nature (expressed, implied, fitness of usage or merchantability) are given on these products. Seller undertakes no responsibility for any product sold. Additional disclaimers are within and are binding upon this contract. Due to the intended usage of products offered, all products are sold on an "as-is" basis, and no warranties of any kind, whether written or oral are made by BRODIX, Inc., its agents or employees. All implied warranties, including the implied warranties of merchantability and fitness are expressly excluded, and the buyer bears the entire risk as to quality performance and use of these products. BRODIX, Inc. will assume no responsibility of personal injury, labor or other injury arising out of the usage of high performance racing parts or products. Any defective part will be handled between the original manufacturer and the buyer.

BRODIX, Inc. reserves the right to change specifications, prices and discontinue parts without notice. Installation of BRODIX heads may adversely affect the vehicle manufacturer's warranties, and may violate State and Federal laws when vehicles so equipped are operated other than strictly off-highway. BRODIX reserves the right to discontinue any product at its sole discretion and without any liability with respect to similar products already in the field. Some parts are not legal for sale or use on pollution controlled motor vehicles.

DUE TO THE POTENTIAL FOR ABUSE AND OVERLOADING WITH A SUPERCHARGER, WE DO NOT RECOMMEND OUR PRODUCTS FOR SUPERCHARGED APPLICATIONS.



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WARNING!

PLEASE CHECK THE HEAD THOROUGHLY IN EVERY POSSIBLE WAY. IF YOU SUSPECT A DEFECT, CONTACT BRODIX, INC. OR THE DEALER IT WAS PURCHASED FROM BEFORE ANY WORK HAS BEGUN. BRODIX WILL NOT BE RESPONSIBLE FOR DEFECTS AFTER ANY WORK HAS BEEN STARTED.

Inspect the head for damage from shipping, and check valve stems for nicks by mishandling.

VALVE SPRINGS MAY NOT BE COMPATIBLE WITH YOUR CAMSHAFT COMBINATION. PLEASE CHECK BEFORE ENGINE ASSEMBLY. SEVERE DAMAGE COULD OCCUR.

- * Check valve to piston clearance.
- * Check piston to cylinder head clearance.

Always check valve guide clearance when heads are purchased bare. When buying the heads complete, this is performed at BRODIX. A good cross hatch pattern is desirable for initial oil retention.

Valve stems should be lubricated before installation in valve guides. Recommended valve clearance is .0015 for intake and .00175 for exhaust.

Most bronze valve guide wear problems are created in the initial preparation and engine warm up. Bronze guides cannot run dry for any amount of time.

If a valve stem seal is used, the neoprene-teflon insert type is desirable. We do not recommend a tight seal.

As of January 1, 2011, all BRODIX heads (excluding IK@, ASCS, and SUPR castings) sold as bare castings will include the valve bowls blended, the intake ports matched, and a competition valve job.

Do not cut spring pockets any larger or deeper than standard size before consulting with a BRODIX technician.

Use Loc-Tite "271" sealant on rocker stud threads. Torque to 40-45 ft-lb.

Fel-Pro or Cometic head gaskets are recommended. Always check for gasket overlap into chambers. New type o-ring gaskets may imprint heads. In most cases, they are acceptable.

Torque head bolts to 70 ft-lb in increments of 20 ft-lb. Use a drop of 30W motor oil under head of bolt. Make sure head bolts do not bottom out in block. Sealer should be used on head bolt threads.

A re-torque after initial warm up is desired. Allow engine to cool for twelve hours before re-torquing.

Check pushrod clearance with head installed on the engine block before final assembly.

Apply anti-seize on all bolts and spark plug threads.

Alcohol cars can start with NGK-R 5671 A-10, Gasoline (racing fuel) cars can start with NGK-R 5671 A-9. Gasoline (pump gas) cars can start with NGK-R 5671 A-8. This is only a recommended starting range. You may discover that a colder or hotter plug will work better with your combination. Plugs must be 14mm, .750 reach. Put large flat side of spark plug gasket next to head.

*** Race-Rite® (RR) Series start with NGK-R 5671 A-9 for alcohol, NGK-R 5671 A-8 for racing fuel, or NGK-R 5671 A-7 for pump gas.**

Always remember big block heads have a water passage under the intake short side.

WARNING! Please be advised that heat soaking aluminum heads above 250° F can drastically affect the hardness.

Cleaning techniques that utilize heat are not recommended.

Please feel free to call, write, or email if there are any problems or questions. We have a complete repair service available if head damage occurs. We also stock oversize guides and seats.

PARTS RECOMMENDATIONS INSIDE

BRODIX® Big Block Cylinder Heads	Head Bolts Cast Iron Block	Head Studs Cast Iron or Alum. Block	Head Gaskets Gaskets	Intake Gaskets	Exhaust	Manifolds	Rocker
RR BB-O, JJ 270	AR 135-3601	AR 135-4001 (6 pt) AR 235-4601 (12 pt) SK HS BIG BLOCK RR (ALUM BLOCK)	4.310-FP 1027, CO C5432 4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	FP 1210 CO C5430	FP 1411 CO C5429	HV 2007 (4150 TOP) STD, SP EDELROCK 7561, DP HV 2008 (4500 TOP) STD, SP	STANDARD WITH 7/16 ROCKER STUDS
RR BB-R, JJ 294 RR BB-2 PLUS STS RR BB-2 PLUS	AR 135-3601	AR 135-4001 (6 pt) AR 235-4601 (12 pt) SK HS BIG BLOCK RR (ALUM BLOCK)	4.310-FP 1027, CO C5432 4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	FP 1211 (RR BB-R, JJ 294) MG 2001 (RR BB-2 PLUS, STS RR BB-2 PLUS) FP 1252-3 (RR BB-2 PLUS, STS RR BB-2 PLUS) CO C5428 (RR BB-2 PLUS, STS RR BB-2 PLUS)	FP 1411 CO C5429	HV 2000 (4150 TOP) STD, SP HV 2016 (4150 TOP) STD, DP HV 2001 (4500 TOP) STD, SP HV 2005 (4500 TOP) TALL, SP HV 2006 (4150 TOP) TALL, SP	STANDARD WITH 7/16 ROCKER STUDS
BB-1 STS BB-1	MA 42192 AR 135-3606	AR 235-4502 (6 pt) AR 235-4702 (12 pt) AR 235-4714 (12 pt)* SK HS BIG BLOCK (ALUM BLOCK)	4.310-FP 1027, CO C5432 4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	MG 2001 CO C5428 FP 1252-3	FP 1411 CO C5429	HV 2016 (4150 TOP) STD, DP HV 2000 (4150 TOP) STD, SP HV 2001 (4500 TOP) STD, SP HV 2005 (4500 TOP) TALL, SP HV 2006 (4150 TOP) TALL, SP	STANDARD WITH 7/16 ROCKER STUDS T & D 3040-WITH DOWEL PIN T & D 3117, ONE-PIECE INTAKE STAND
BB-2 BB-2 PLUS STS BB-2 PLUS	MA 42192 AR 135-3606	AR 235-4502 (6 pt) AR 235-4702 (12 pt) AR 235-4714 (12 pt)* SK HS BIG BLOCK (ALUM BLOCK)	4.310-FP 1027, CO C5432 4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	MG 2001 CO C5428 FP 1252-3	FP 1411 CO C5429	HV 2016 (4150 TOP) STD, DP HV 2000 (4150 TOP) STD, SP HV 2001 (4500 TOP) STD, SP HV 2005 (4500 TOP) TALL, SP HV 2006 (4150 TOP) TALL, SP	STANDARD WITH 7/16 ROCKER STUDS T & D 3040-WITH DOWEL PIN T & D 3117, ONE-PIECE INTAKE STAND
BB-2X BB-2 XTRA BP BB-2 XTRA BB-3 BB-3 XTRA BP BB-3 XTRA BP BB-3 XTRA 380	MA 42192 AR 135-3606	AR 235-4502 (6 pt) AR 235-4702 (12 pt) AR 235-4714 (12 pt)* AR 235-4702 (12 pt) SK HS BIG BLOCK (ALUM BLOCK)	4.310-FP 1027, CO C5432 4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.560-FP 1057, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	MG 2001 CO C5428 FP 1252-3	FP 1411 CO C5429	HV 2000 (4150 TOP) STD, SP HV 2001 (4500 TOP) STD, SP HV 2005 (4500 TOP) TALL, SP HV 2006 (4150 TOP) TALL, SP SA 2013 (4500 TOP) STD, SP SA 2022 (4500 TOP) TALL, SP BM 2017** (4500 TOP) STD, SP BM 2027** (4500 TOP) TALL, SP	STANDARD WITH 7/16 ROCKER STUDS T & D 3041-WITH DOWEL PIN (BB-2X, BB-2 XTRA, BP BB-2 XTRA) T & D 3116 (BB-3 XTRA O) T & D N/A (BB-3) T & D 3104, ONE-PIECE INTAKE STAND (BB-2X, BB-2 XTRA, BP BB-2 XTRA)
BP BB-3 XTRA O 332 BP BB-3 XTRA O 351 BP BB-3 XTRA O 365 BB-3 XTRA O (OVAL PORT HEADS)	MA 42192 AR 135-3606	AR 235-4702 (12 pt) AR 235-4714 (12 pt)* SK HS BIG BLOCK (ALUM BLOCK)	4.310-FP 1027, CO C5432 4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	MG 2050 (332) MG 2104 (351, 335) MG 2150 (365) (OVAL PORT GASKETS)	FP 1411 CO C5429	SA 2017 (4500 TOP) STD, SP SA 2027 (4500 TOP) TALL, SP BM 2017** (4500 TOP) STD, SP BM 2027** (4500 TOP) TALL, SP	STANDARD WITH 7/16 ROCKER STUDS T & D 3116 (BB-3 XTRA O)
BP HH BB 383 BP HH BB 383 MC BP HH BB 395 MC (OVAL PORT HEADS)	MA 42192 AR 135-3606	AR 235-4502 (6 pt) AR 235-4702 (12 pt) AR 235-4714 (12 pt)* SK HS BIG BLOCK (ALUM BLOCK)	4.500-FP 1047 or FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 or FP 17049*	MG 2177 (OVAL PORT GASKETS)	FP 1412 CO C5418	SA 2017 (4500 TOP) STD, SP SA 2027 (4500 TOP) TALL, SP BM 2017** (4500 TOP) STD, SP BM 2027** (4500 TOP) TALL, SP	T & D 3124 (STD 383) T & D 3125 (383 MC, 395 MC) JESEL KCS 284139 (STD 383) JESEL KPS 372150 (383, 383 MC, 395 MC)
STS BB-4 XTRA BB-5	MA 42192 AR 135-3606	AR 235-4502 (6 pt) AR 235-4702 (12 pt) AR 235-4714 (12 pt)* SK HS BIG BLOCK (ALUM BLOCK)	4.500-FP 1047 OR FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067 OR FP 17049*	MG 2001 CO C5428 FP 1252-3	FP 1411 CO C5429	SA 2012 (4500 TOP) STD, SP SA 2020 (4500 TOP) TALL, SP	STANDARD WITH 7/16 ROCKER STUDS T & D 3042-WITH DOWEL PIN
BP SR 20	N/A	SK HS SR 20 (ALUM BLOCK) AR 235-4323 (CAST IRON BLOCK)	4.600 FP 1057, CO 5434 4.630 FP 1067 OR FP 17049*	MG 2021	FP 1412	BM 2020 (4500 TOP) STD, SP BM 2021 (4500 TOP) TD, SP	T&D 3142 JESEL KPS 441184

DO NOT CUT SPRING POCKETS WITHOUT CONTACTING A BRODIX TECHNICIAN.

* GEN V OR GEN VI BLOCKS REQUIRE SPECIAL HEAD STUDS AND HEAD GASKETS ** OVAL PORT MANIFOLD MUST BE PORT MATCHED TO FIT RECTANGULAR PORT HEADS

ABBREVIATIONS: AR - ARP, BR & MG - BRODIX, CO - COMETIC GASKETS, DP - DUAL PLANE, FP - FEL-PRO, MA - MANLEY, SP - SINGLE PLANE, STD - STANDARD DECK HEIGHT, TALL - TALL DECK HEIGHT