



301 Maple Ave. • P.O. Box 1347  
 Mena, AR • 71953  
 (479) 394-1075 • Fax: (479) 394-1996  
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General Instructions for PB Series  
 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.

**WHILE OUR PRODUCTS ARE USED ON MANY SUPER-CHARGED APPLICATIONS  
 SUCCESSFULLY, PLEASE BE AWARE THAT THERE IS A GREATER POTENTIAL  
 FOR ENGINE DAMAGE DUE TO THE POSSIBILITY OF TUNING ERRORS.**

**Important Notice**

This instruction sheet has been completed using our best efforts. We assume no liability for errors contained herein. Our website is updated on a regular basis and can be used to supplement the information contained herein.

It is the responsibility of the installer to ensure that all of the products are correct before installation. Proper assembly always requires that the installer measure all tolerances for proper clearance. We assume no liability for any errors made in product selection or installation

**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 .0016 for intake and .0016 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.



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-9 or Autolite AR 51, Gasoline (racing fuel) cars can start with NGK-R 5671 A-8 or Autolite AR 52. Gasoline (pump gas) cars can start with NGK-R 5671 A-7 or Autolite AR 3924. 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.

**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 or email (tech@brodix.com) 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.

<b>BRODIX® PB Series Cylinder Heads</b>	<b>Head Bolts Cast Iron</b>	<b>Head Studs Cast Iron or Alum. Block</b>	<b>Head Gaskets</b>	<b>Intake Gaskets</b>	<b>Exhaust Gaskets</b>	<b>Manifolds</b>	<b>Rocker</b>
PB 1800 PB 1801 PB 1802 (RECTANGULAR PORTS)	AR 235-3705	AR 235-4712 (12 pt) SK HS BIG DUKE (ALUM BLK)	4.500-FP 1047, FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067, FP 17049*	FP 1298 CO C5419	FP 1412 CO C5418	PM 1800 (4500 TOP) STD, SP PM 1903** (4500 TOP) STD, SP PM 1913** (4500 TOP) TALL, SP	T&D 3036 ROCKERS REQUIRED
PB 1803 BP PB 1803 BP PB 1600 (OVAL PORTS)	AR 235-3705	AR 235-4712 (12 pt) SK HS BIG DUKE (ALUM BLK)	4.500-FP 1047, FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067, FP 17049*	MG 2013 (PB 1803, BP PB 1803) MG 2012 (BP PB 1600)	FP 1412 CO C5418	PM 1903 (4500 TOP) STD, SP PM 1913 (4500 TOP) TALL, SP	T&D 3036 ROCKERS REQUIRED T&D 3038 (PB 1600)
PB 2005 STS PB 2005 (OVAL PORTS) BP PB 2002	N/A	BR HS/PB 2005 CI BLK (12 pt) SK HS PB 2005 (12 pt, ALUM BLK)	4.500-FP 1047, FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067, FP 17049*	MG 2015	MG 2005	PM 1907 (4500 TOP) STD, SP PM 1917 (4500 TOP) TALL, SP	T&D 3051 ROCKERS REQUIRED T&D 3071 (BP PB 2002)
BP PB 1200, BP PB 1201, BP PB 1202, PB 1203, BP PB 1204 (OVAL PORTS)	N/A	BR HS/PB 2005 CI BLK (12 pt) SK HS PB 2005 (ALUM BLK)	4.500-FP 1047, FP 17048* 4.540-FP 1017-1, CO C5433 4.630-FP 1057, CO C5434 4.630-FP 1067, FP 17049*	MG 2015 (BP PB 1200, BP PB 1201, PB 1203) MG 1202 (BP PB 1202) MG 2040 (BP PB 1204)	MG 2005	PM 1907 (4500 TOP) STD, SP PM 1917 (4500 TOP) TALL, SP	JESEL OR T&D ROCKERS REQUIRED (T&D 3070)
BP PB 5000 BP PB 5001 PB 5002	N/A	SK HS PB 5000 (ALUM BLK)	4.700 - FP 26465 4.745 - FP 26466 4.795 - FP 26467	FP 1223	FP 1428	CUSTOM SHEET METAL	JESEL OR T&D ROCKERS REQUIRED (T&D 3075)
BP DN-9	N/A	BR HS/PB 2005 CI BLK (12 pt) SK HS PB 2005 (ALUM BLOCK)	4.600 - FP 1057, CO C5434	MG 9001	FP 1412	PM 1918 (4500 TOP) TALL, SP	T&D 3074

\* GEN V OR GEN VI BLOCKS REQUIRE SPECIAL 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