



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



## GENERAL INSTRUCTIONS FOR SMALL BLOCK CHEVY COMPATIBLE HEADS AND LS COMPATIBLE HEADS

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

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

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 small block Chevy compatible head bolts to 70 ft-lb in increments of 20 ft-lb. Torque BR Series 11 mm studs to 85 ft-lb and 8 mm studs to 28 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. Gasoline (racing fuel) 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. Gasoline (pump gas) can start with Champion RN12YC or the equivalent plugs. Plugs must be 14 mm, .750 reach. Put large flat side of spark plug gasket next to head.

**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**

### 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 in California on any pollution controlled motor vehicle.

*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

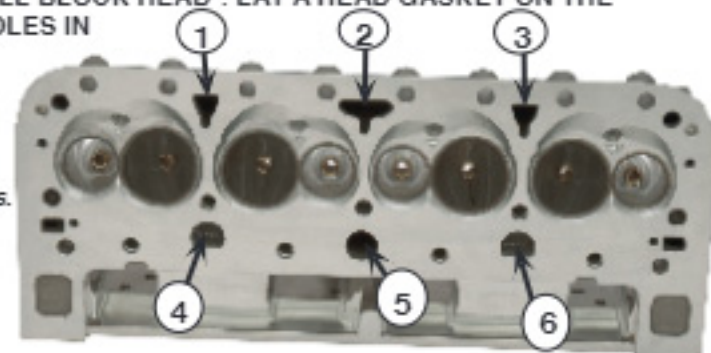
This instruction sheet has been completed using our best efforts. We assume no liability for errors contained herein. Our website is updated on a regular basis and can be used to supplement the information contained herein.

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.

## Optional Water Circulation Holes

### for Small Block Chevy Compatible Engines Only\*\*

BRODIX SMALL BLOCK CHEVY COMPATIBLE HEADS DO NOT HAVE STEAM HOLES DRILLED IN THEM; HOWEVER, THE HEAD GASKET CAN BE MODIFIED TO ELIMINATE THE NEED FOR STEAM HOLES. THIS EXAMPLE SHOWS SIX HOLES IN THE DECK OF A SMALL BLOCK HEAD\*. LAY A HEAD GASKET ON THE DECK, NOTING WHERE THE GASKET COVERS THE HOLES IN THE DECK; PUNCH AT LEAST A 3/8" HOLE IN THE HEAD GASKET. THIS PROCEDURE CAN BE DONE TO BOTH HEAD GASKETS TO IMPROVE WATER CIRCULATION.



\* #4 and #6 hole locations do not apply to the IK\* series heads.

\*\* Does not apply to LS compatible heads

## 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-teslon insert type is desirable. We do not recommend a tight seal.