

***Congratulations on your purchase of the Wedge Plate!*** This wedge plate has been designed to allow the carburetor to sit level on tilted engine installations. These kits contain the gaskets, studs, and nuts need to complete the installation. To preserve the warranty, these instructions must be read and followed thoroughly and completely, before and during the installation.

**NOTICE:** For the safety and protection of person's and property, all United States Coast Guard (U.S.C.G.) and other marine safety requirements and recommendations as well as the following instructions must be carefully studied and applied. Failure to follow the above will void your warranty, which is also voided by certain conditions stated in the paragraph thereof.

**WARNING!** For the safety and protection of yourself and others, the installation, adjustment, and repair of any Holley Marine product must be performed by ONLY a trained mechanic having adequate marine fuel systems experience. It is particularly important to remember one of the very basic principles of marine safety: fuel vapors are heavier than air and tend to collect in lower places. This means that ANY fuel spilled during the replacement of your marine carburetor will vaporize and remain in the lowest extremes of the engine compartment of your vessel when an explosive fuel/air mixture can be ignited by a spark or flame. Great care must be exercised to prevent spillage and thus eliminate the formation of such fuel vapors. In all cases, it is necessary to have and properly operate the bilge blower for a sufficient time to remove all vapors before trying to start your vessel's engine.

**NOTE:** It is STRONGLY recommended that the mechanic have an assistant to operate the appropriate helm controls during this installation.

**IMPORTANT NOTE:** A United States Coast Guard approved fire extinguisher in proper operating condition should be nearby at all times during the removal, installation, and starting procedure.

## **REMOVAL:**

**WARNING!** The following steps must be carefully studied and applied.

1. Disconnect the battery (to prevent accidental arcing) and extinguish any flame or other arcing equipment.
2. Label and remove all hoses going to the flame arrestor. Remove the flame arrestor.
3. Remove the existing carburetor following the procedure outlined below:
  - A. Carefully disconnect the fuel line. Catch all the fuel left in a suitable container and REMOVE the container from the vessel before continuing further. Absorb any fuel spilled immediately with a shop towel or rag and REMOVE from the vessel.
  - B. Label and disconnect all vacuum lines to the carburetor, such as the distributor, etc.
  - C. Disconnect any choke rods, heat tubes, and any electrical wires from the carburetor.
  - D. Disconnect and remove the throttle linkage. Save all the retaining clips.
  - E. Unbolt the carburetor and remove.
  - F. Stuff shop rags or paper towels into the manifold opening and remove the original carburetor flange gasket. Clean the manifold face, being careful to prevent particles from falling into the manifold.

**WARNING! Be EXTREMELY CAREFUL not to tilt the carburetor, which may cause fuel to spill. REMOVE the carburetor from the vessel. If a fuel spill occurs, see instruction 4A above.**

## INSTALLATION:

1. Figure 1 shows one of the carburetor/wedge plate hold-down mounting studs. NOTE: Four are packaged with the wedge plate. All are the same length, but they will be trimmed later after the installation.



Figure 1

2. Screw all four studs into the intake manifold. See Figure 2. The short threaded end of the stud will be screwed into the manifold. You may wish to use a tap (5/16-18) to clean the threads in the intake manifold.

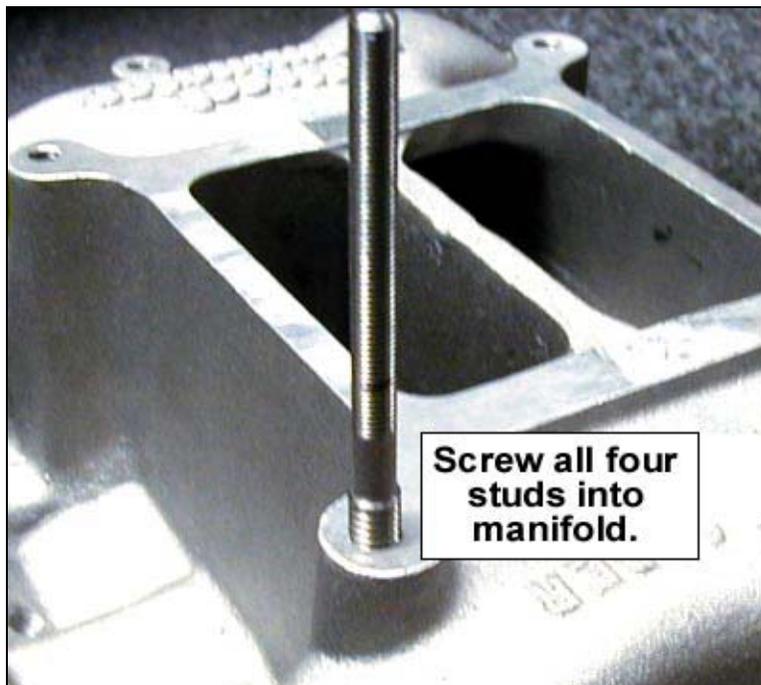


Figure 2

3. After all four studs are in place, remove the rags that are in the intake manifold and remove them from the vessel.
4. Place the new gasket on the intake manifold. Place the wedge plate on the intake manifold and then install another gasket on top of the plate. See Figure 3.

**IMPORTANT NOTE:** If it is necessary to use the throttle cable bracket, sandwich it between 2 gaskets on top of the wedge plate, "i.e." place the gasket on top of the wedge plate, then the throttle bracket, and finally another gasket.

5. After the gasket has been placed on top of the wedge plate, install the carburetor.
6. As shown in Figure 4, the wedge washers have been installed (2 washers per stud). Place the convex washer into the concave washer. Notice that the washers will move smoothly, until you tighten them down. This will provide you with a level surface when installing your hold-down nuts.
7. Install and hand-tighten the hold-down nuts. Once the nuts have been hand-tightened, place a ruler next to the stud, letting it rest on the top of the nut. Mark the bolt with a suitable marker about a 1/2 inch above the bolt. See Figure 4.

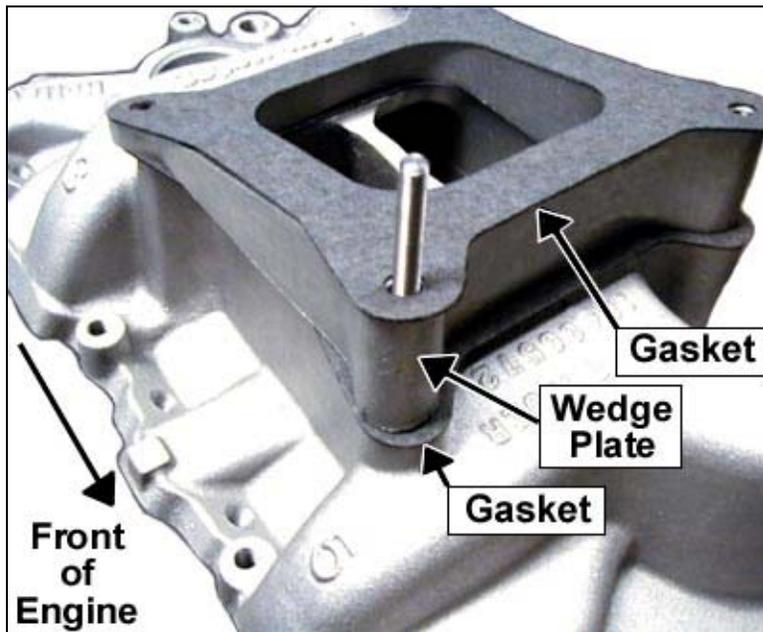


Figure 3

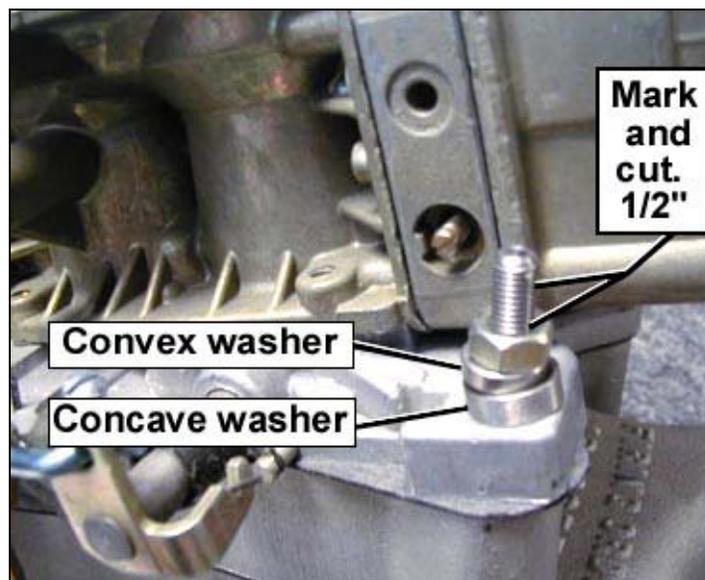


Figure 4

8. Remove the studs from the intake manifold.
9. Place the stud into a suitable holding fixture (be extremely careful not to damage the threads) and cut the stud where it was marked. By leaving the hold-down nuts in place during the cutting operation, they can act as a thread chaser after the stud has been cut.

**WARNING!** After cutting the stud, you may wish to dress up the end of the stud with a file. The size of the threads is 1/4-28. It is recommended to use a thread die to clean up the threads after the cutting operation.

10. Reinstall the studs, gaskets, wedge plate, and carburetor.

**IMPORTANT NOTE:** Before installing the hold-down nuts, make sure that the wedge washers have been installed in the proper direction.

11. Install the hold-down nuts. First, hand-tighten, and then torque to 10 ft./lbs. Always tighten the nuts in a criss-cross pattern. Start with one nut, and then go to the one diagonal from it next.
12. Reattach all hoses and linkage.
13. Reconnect the throttle and throttle return spring. Manually operate the linkage to ensure correct travel by opening to wide-open throttle and back to closed throttle.

**WARNING!** Check the assembled throttle linkage for sticking and/or binding to be sure that there is no interference when the throttle lever is operated between the idle and full wide-open positions. Sticking or binding throttle linkage can result in personal injury and property or engine damage due to uncontrolled engine speed.

**WARNING!** Check for sticking by having the assistant go to the helm and opening and closing the throttle controls while the experienced mechanic watches the operation of the carburetor to detect any malfunction.

### **FUEL LINE (Between the fuel pump and carburetor):**

**WARNING!** On applications that require modifying the fuel line after the wedge plate installation, it is EXTREMELY IMPORTANT that a ONE PIECE metallic fuel line that meets or exceeds U.S.C.G. regulations be used between the fuel pump and the carburetor. This line should be made of annealed copper, nickel copper, or copper nickel and have a minimum wall thickness of 0.029 inches. DO NOT use any type of rubber fuel line between the carburetor and the fuel pump. Since the danger of fire or explosion are present, it is safer, more economical, and less time consuming to do the job right in the beginning.

14. Reconnect all hoses to the flame arrestor.

15. Reconnect the battery.

16. Without operating the throttle, crank the engine for 15-30 seconds to allow fuel bowls to fill. If the engine does not start, stop cranking, open and close the throttle twice and crank again until the engine starts.

17. When no leaks are present, allow the engine to warm up to operating temperature, then adjust the carburetor idle speed to the engine manufacturer's specification, if necessary.

**WARNING!** Check the clearance between the flame arrestor and the engine hatch before closing. DO NOT SLAM or close the first time after the carburetor is installed without checking the clearance.