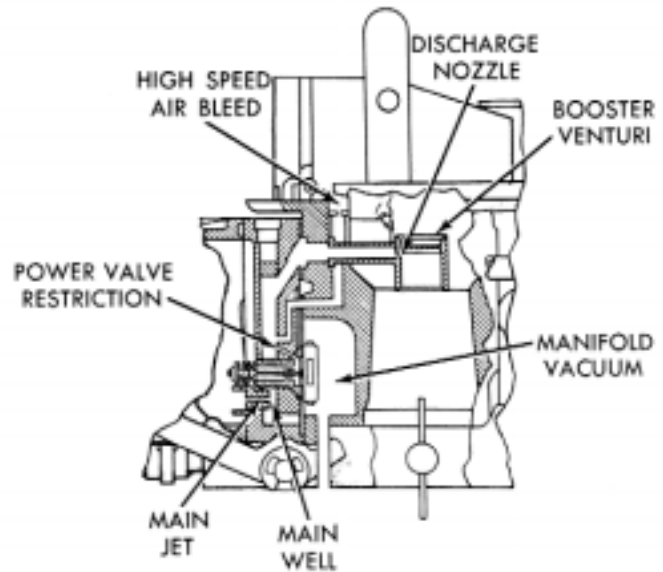


## POWER ENRICHMENT SYSTEM

The power enrichment system supplies additional fuel to the main system during heavy load or full power situations. Holley carburetors utilize a vacuum operated power enrichment system and a selection of power valves is available to "time" this system's operation to your specific needs. Each Holley power valve is stamped with a number to indicate the vacuum opening point. For example, the number "65" indicates that the power valve will open when the engine vacuum drops to 6.5" or below. An accurate vacuum gauge, such as Holley P/N 26-501, should be used when determining the correct power valve to use. A competition or race engine which has a long duration high overlap camshaft will have low manifold vacuum at idle speeds. If the vehicle has a manual transmission, take the vacuum reading with the engine thoroughly warmed up and at idle. If the vehicle is equipped with an automatic transmission, take the vacuum reading with the engine thoroughly warmed up and idling in gear. In either case, the power valve selected should be 1/2 the intake manifold vacuum reading taken. EXAMPLE: 13" Hg vacuum reading divided by 2 = 6.5 power valve. If your reading divided by 2 lands on an even number you should select the next lowest power valve. EXAMPLE: 8" Hg vacuum reading divided by 2 = 4 power valve. Since there is no #4 power valve you should use a 3.5.

Most of the popular Holley "Street Legal" and "Street Performance" carburetors incorporate a power valve blow-out protection system. A special check valve is located in the throttle body expressly for this purpose. This check valve is designed to be normally open but will quickly seat to close off the internal vacuum passage when a backfire occurs. Once closed, the check valve interrupts the pressure wave caused by the backfire, thus protecting the power valve.

If you have a carburetor older than 1992 (or you have experienced an extreme backfire) and expect a blown power valve, use this simple test. TEST: At idle turn your idle mixture screws (found on the side of the metering block) all the way in. If your engine dies the power valve is not blown.



Power Enrichment System.

## THE TRUTH ABOUT POWER VALVES USED WITH HOLLEY CARBURETORS

There still seems to be a lot of misconception about Holley carburetors blowing power valves. Nothing could be further from the truth. Holley performance carburetors built since 1992 have utilized a power valve check system that effectively eliminated this infrequent problem. Consisting of a spring, brass seat and check ball, the check ball system is 100% effective protecting the power valve diaphragm from damage due to engine backfire.

The power valve check ball is designed to be normally open but quickly seals to close off the internal vacuum passage when a backfire occurs. Once closed, the check valve interrupts the pressure wave generated by the backfire, thus protecting the power valve diaphragm. There is no way that the power valve's diaphragm can rupture due to an engine backfire!