

CHEVY LS LARGE INTAKE TROUBLE SHOOTING

Installing a large intake manifold like the Fast 102mm intake on a Chevy LS engine is pretty easy but there are a few small wrinkles that need to be accounted for. The one we see most often is that the large intake flange can sometimes interfere with a stock LS1 water pump. The interference occurs at the top of the water pump with the top bolt that holds the backing plate onto the water pump. CVF uses a special LS1 casting that prevents what you see in this image.



There are a couple of solutions to this issue:

- 1) If you are on a budget, you can simply do some light grinding on both the intake and water pump to gain the required clearance. Just be careful not to weaken the bolt too much or damage the intake manifold sealing surface. We do not recommend going this route to make a CVF kit work.
- 2) You can change to an LS2 water pump. LS2 water pumps do not have a bolt on backing plate so this casting lump isn't an issue and you will have plenty of clearance. The LS1 and LS2 water pumps are interchangeable except that the LS2 water pump is much shorter. This can be a good thing though because it will give you a little more radiator clearance. Just need to make sure that the front accessory drives will still line up correctly. LS2 water pumps are 5.25" tall (4.75" to the front of the belt surface). LS1 water pumps are 7.0625" tall (5.25" to the front of the belt surface). So, if your belt is running near the back side of your LS1 water pump then you will be ok, but if your belt was running on the middle/front of your LS2 pulley then you will need to upgrade your front accessory drive system. CVF Racing does not carry the LS2 water pump.
- 3) Another solution is to upgrade to a new LS serpentine drive system using a different water pump. We recommend using one of our [Wraptor](#) serpentine systems with the [Edelbrock](#) water pump option. The Edelbrock pump is sold separately, but it is customized to offer additional clearance for large intakes. If going this route, please give us a call and we can build a custom cart for you by removing our water pump and getting you a different water pump pulley to account for the flange height on the Edelbrock pump.