



Series Install of a Manual Boost Controller (SMBC)

A Manual Boost Controller (MBC) installed in series (SMBC) to the stock Boost Pressure Control(BPC) is the only option for Saab T-7 Engines as they will not tolerate a traditional install of a MBC that bypasses the BPC. If you were to install the MBC between the turbo compressor hose and the waste gate hose, the car's Limp Home Mode solenoid located on the motorized throttle body would be signaled on and lower the boost at the throttle plate. When this happens, the only way to reset this is by shutting the car off and restart it without the MBC in place. The MBC installed in series between the Turbo Compressor and the Boost Pressure Control Valve (BPC) will provide a quicker turbo spool up and a bit of off the line performance increases without raising peak boost levels which the engine management system will not tolerate. This install is applicable for all T-7 engines including 9-3's from 2000 on, 9-5's from 1999 on, and all Viggens.

	<p>1) This is the Boost Pressure Control (BPC) Valve in a 9-3 with a T-7 Engine</p>		<p>5) Remove the Bottom Hose at the BPC, which comes from the turbo compressor. For the 9-5, I had to remove the hose from the three hose rubber connectors to fit the MBC in place. The unhooked hose from the BPC will be fitted onto the straight hose barb on the MBC. The small hose can now be pushed onto the BPC. Your MBC may be different. You need to connect the MBC's inlet side to the hose going to the turbo compressor, and the MBC's outlet goes to the BPC.</p>
	<p>2) This is the Boost Pressure Control Valve on a 9-5. Almost the same valve that is on the 9-3.</p>		<p>6) With the SMBC installed, use a mild setting on the SMBC. Too high of a setting will yield similar results as a normal MBC install and put the car into Limp Home Mode. Should this happen, back the setting off some and restart the car. Do this until you have the optimal amount of increase without any check engine lights</p>
	<p>3) The BPC for the 9-3 and 9-5 are the same. This explains the hoses on the BPC. The bottom most port comes from the turbo compressor. The middle hose goes to the wastegate. The top most port returns air back to the air intake system, also allowing air to bleed off when getting off the throttle, helping to close the wastegate. For the series install, we will only be using the bottom most port from the turbo.</p>		<p>7) Here's is another view of the install. Recap: the turbo compressor hose was taken off the BPC and hooked into the straight hose barb in the MBC. The elbow end of the MBC was attached to the BPC where the hose from the turbo was, basically installing the MBC in series from the turbo to the BPC.</p>
	<p>4) Attach a piece of vacuum hose to the top barb, or the port that would normally go to the wastegate. The port opposite of where the ball inside sits. The other end of this small hose will be placed on the BPC where the hose from the turbo was. Use 1/4" ID hose. Secure with wire wraps for safety if the hose does not grip tight. (This is done for you if you have ordered through Smart Performance website)</p>		<p>Drive and tune: Your SMBC is sent with a very low setting. To increase the setting, turn the head clockwise so that less threads are showing. Go very slowly with adjustments so not to increase boost too much as the T-7 will not tolerate it and your check engine light will come on and the car will go into Limp Home mode. If this happens, you must turn off the car and restart it. In some cases, you might have to pull the battery cable off for a few minutes to allow the ecu to reset.</p>