# **Turbo Spool Valve Installation manual**

Part number TBV-60-2" weld on adaptor 2.5- & 3-inch Kit. Adaptors sizes available: 2.5", 3", & 4" Adaptors are available in aluminium or stainless steel.

Note: This Turbo Spool Valve kit can be linked into an air flow meter.

A pod filter will fit over the unit if required, the valve has the additional 2-inch inlet for plumbing to the Mass Air Flow meter.

Suits engine sizes: 2.5 – 6 Litre

Turbo Spool Valve with 2-inch inlet

**Valve Hook Spanner** 



Establish a usable area for fitment in the intercooler to throttle body piping. Mark the required cut out with a scriber on the inside of the adaptor, ensure there is adequate clearance for the valve mounting angle.

See Mounting angle document for information.

Ensure it is not over or near hot exhaust pipe. 20cm minimum clearance. Make sure the temperature of the environment does not exceed 100 degrees as this is too hot for air inlet temperatures and may damage the valve.

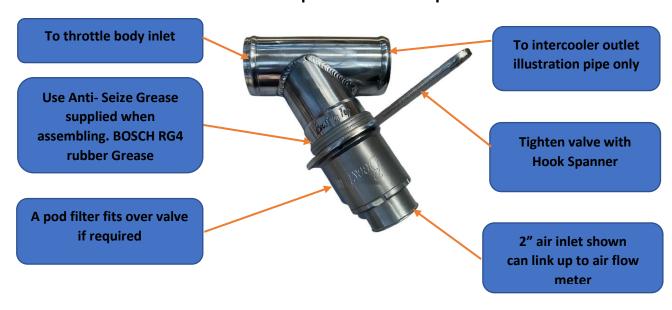


Note: Never Weld the adaptor with the valve attached, this will damage the valve unit with excessive heat and void the Warranty. Ensure adaptor is clean and wash with a solvent before welding.



Note: Never weld the adaptor in position, then cut the hole, by cutting out the hole you may damage the adaptor thread and seal area.

#### After adaptor is welded in position

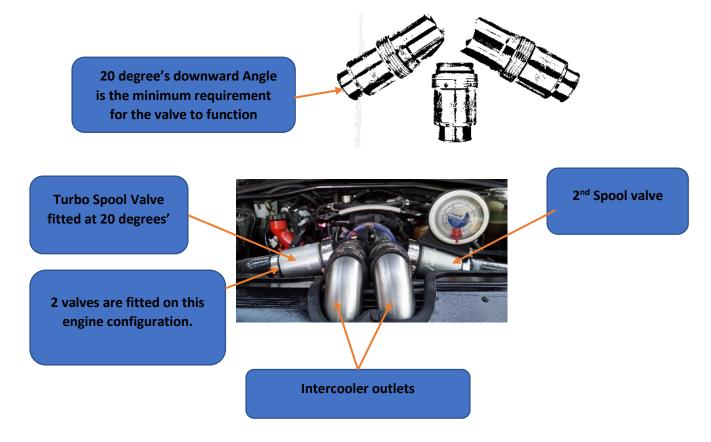


## **Valve Installation Angle Requirements**

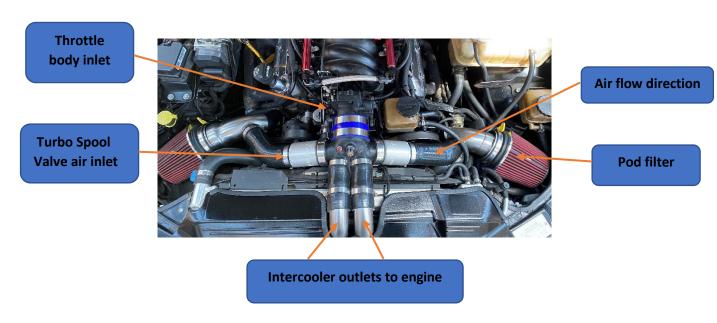
Before installation, an overview of the engine bay must be conducted. A suitable clearance area must be established, allowing for a **minimum** 20 degree's downwards mounting angle.

See figure 1 Valve position (Typically Each kit has only one valve) This diagram shows 3 positions for illustration only

Figure 1: Fitment illustration.



### Top view installation on VX Commodore ls1 with 2 valves fitted



### **After Installation**

It is the buyer's responsibility to ensure tuning of the engine is conducted. Typically, additional enrichment is required to blend air/fuel ratio to 105 KPA area. This is the area in the map where additional air is introduced. The customer is required to determine the enrichment required according to the fuel type being used. By using a wide band sensor in the exhaust and recording the AFRs then rapidly depressing the accelerator in neutral, this will give you a guide to current AFR's on the table. In the 105KPA area you should see a ratio of 12.2 to 12.5 to 1 Air Fuel Ratio. After the installation, under rapid acceleration condition, a roaring sound from the air filter will occur. This means the turbo spool valve is operating correctly. This is the sound of induction, it should be brief as the valve closes as soon as the turbo starts to boost.

Note: By Varying the Air Fuel Ratio @ 105 KPA it will change the Spool valve open duration.

Enjoy your instant power.

Note, there may be traces of assembly lube on the thread and O-ring required for testing and assembly the product.

Please keep the product box for serial number reference.



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