

PART NUMBER:	PBO085-2600
NAME:	Gen. 2 CO2 46mm Wastegate
DESCRIPTION:	46MM External Wastegate

Thank you for purchasing our Gen. 2 CO2 46mm external wastegate. With over 100 years of combined turbocharger development and racing experience, we at Precision Turbo take great pride in providing you with the best external wastegate on the market today. The Gen. 2 CO2 46mm external wastegate is designed for precise reliable boost management utilizing pressurized CO2 to control actuation. Made from high grade, high temperature stainless steel and billet aluminum components this wastegate is built to perform for years to come. It features a double O-ring sealed piston and a “suspended” cylinder sleeve that minimizes thermal transfer to the seals. Our investment cast valve body has a smooth internal surface, giving you better flow and more accurate boost control. The Gen. 2 CO2 46mm external wastegate features a Nickel Chromium Alloy valve and a single 17-7 precipitation hardened spring. Also included are 304 stainless steel inlet and outlet flanges with clamps. With a satin black anodized, 6061 aluminum billet wastegate cap you will have years of good looks and protection from the elements. The Gen. 2 CO2 46mm external wastegate is generally compatible with all aftermarket CO2/ electronic boost controllers on the market today.

If you have any questions or need any technical support (855)996-7832. Our experienced Sales Staff are here to help.



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Contents

Please verify that the following parts are included in the box.

PART NUMBER	QTY	DESCRIPTION
PBO085-2600	1	PTE GEN2 46MM PISTON STYLE CO2 WATEGATE ASSEMBLY
PBO085-2100	1	PTE 46MM WG INLET CLAMP ASSEMBLY (PART OF WASTEGATE ASSEMBLY)
PBO085-2102	1	PTE 46MM WG OUTLET CLAMP ASSEMBLY (PART OF WASTEGATE ASSEMBLY)
PBO085-2104	1	PTE 46MM WG INLET FLANGE STAINLESS (PART OF WASTEGATE ASSEMBLY)
PBO085-2108	1	PTE 46MM WG OUTLET FLANGE STAINLESS (PART OF WASTEGATE ASSEMBLY)
PBO085-2112	1	PTE 46MM WG VALVE SEAT (PART OF WASTEGATE ASSEMBLY)
PBO085-2120	2	PTE CO2 WASTEGATE PISTON SEAL O RING (INTERNAL PART OF ASSEMBLY)
PBO085-2122	1	PTE CO2 WASTEGATE CAP SEAL O RING (INTERNAL PART OF ASSEMBLY)
PBO085-1632	1	WASTEGATE CANISTER NUT WRENCH
PTE-WI-202	1	INSTRUCTION MANUAL

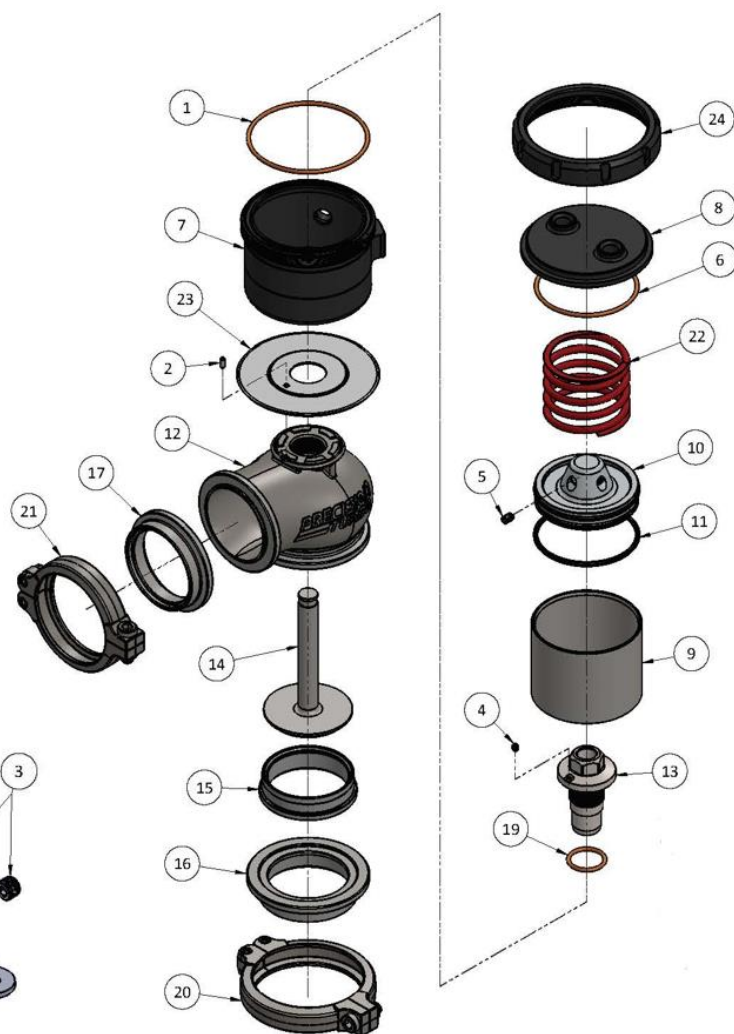
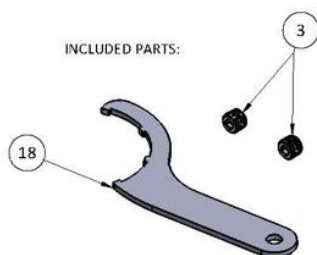
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Operational overview

Your Gen. 2 CO2 46mm external wastegate, controls turbocharger boost by bypassing turbine inlet exhaust gas via a spring/ CO2 pressure loaded valve assembly. Spring rate, in conjunction with CO2 pressure signal, and back pressure, control the opening point of the wastegate valve. CO2 pressure (300 PSI Max) is required to hold the valve closed and to actuate it. Open pressure of the valve can be controlled via an electronic boost controller that regulates pressure to the top and bottom ports of the wastegate. Opening the valve causes exhaust flow to be diverted away from the turbine side of the turbocharger, effectively slowing and/or stabilizing the turbine wheels' speed. This stabilization results in a smooth and steady boost pressure level, created by the compressor wheel of the turbocharger.

See diagram below:

Item No	Service Part Number	DESCRIPTION	QTY
1	PBO085-2121	CO2 WASTEGATE CAP O RING	1
2	Not Servicable	2MM X 6MM SPRING PIN	1
3	Not Servicable	PIPE PLUG 1/8 INCH	2
4	Not Servicable	M3 X 0.5 X 4MM SET SCREW CONE PT S/S	1
5	Not Servicable	M4 X 0.7 X 6 SET SCREW CUP PT. S/S	4
6	PBO085-2122	CO2 WASTEGATE SLEEVE SEAL O RING	1
7	Not Servicable	ACTUATOR CAN ANODIZED	1
8	Not Servicable	ACTUATOR CAP ANODIZED	1
9	Not Servicable	PISTON SLEEVE	1
10	Not Servicable	PISTON	1
11	PBO085-2120	CO2 WASTEGATE PISTON SEAL O RING	2
12	Not Servicable	46MM WASTEGATE VALVE BODY	1
13	Not Servicable	VALVE GUIDE	1
14	Not Servicable	VALVE	1
15	PBO085-2112	VALVE SEAT 46MM	1
16	PBO085-2104	INLET FLANGE	1
17	PBO085-2108	OUTLET FLANGE	1
18	PBO085-1632	W/G CANISTER WRENCH	1
19	Not Servicable	O-RING, VLAVE GUIDE	1
20	PBO085-2100	46MM WASTEGATE INLET CLAMP ASSEMBLY	1
21	PBO085-2102	46MM WASTEGATE OUTLET CLAMP ASSEMBLY	1
22	Not Servicable	MEDUIM RED SPRING 6-PSI	1
23	Not Servicable	HEAT SHEILD	1
24	Not Servicable	40MM W/G CAN NUT	1



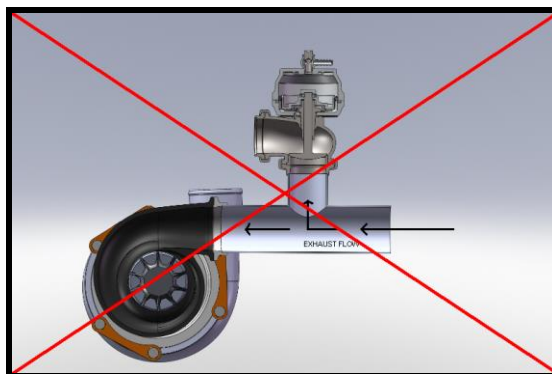
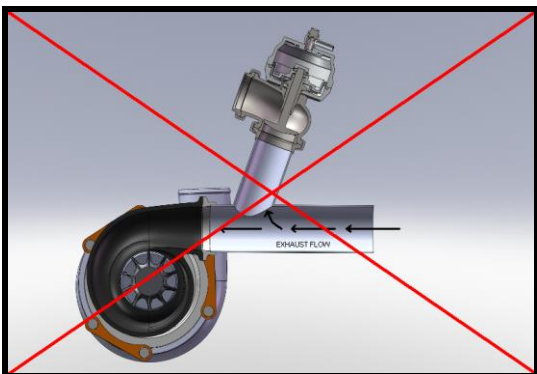
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Installation Instructions

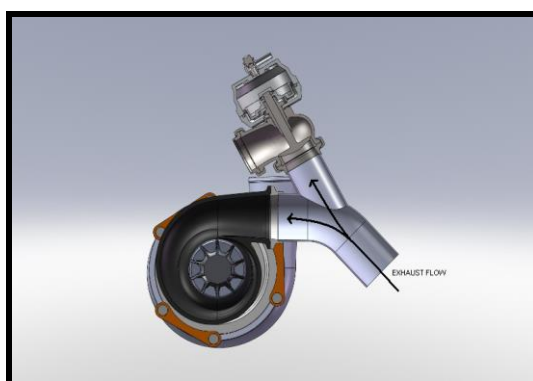
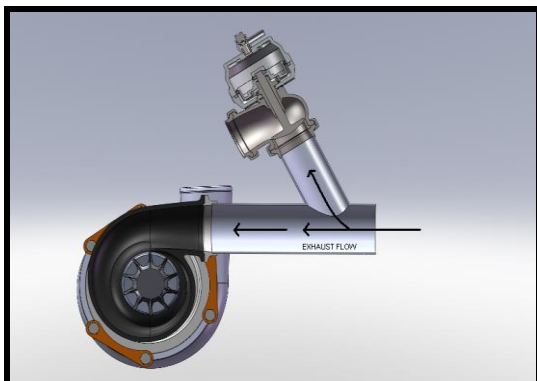
Note: The optimum mounting and placement of your new Gen. 2 CO2 46mm external wastegate will be determined by your manifold and turbocharger configuration. These notes should be considered when installing your new wastegate.

- Be sure to install the valve seat into the body of the wastegate before final installation.
- Tighten the supplied V-band clamp bolts to 85-90 inch /lbs (9.6 – 10.2 Newton meters).
- To assure proper boost control, your Gen. 2 CO2 46mm external wastegate needs to be mounted at a smooth transitional angle with the exhaust flow. 90° mounting onto exhaust tubing is not recommended. Refer to diagrams below.
- Inlet and Outlet flanges are constructed of, 304 stainless steel and are compatible with most stainless steel and mild steel welding rod material.
- It is recommended to route all vacuum hoses away from high heat sources such as the turbine housing and exhaust manifold. Maximum operating pressure 300 PSI.
- Your Gen. 2 CO2 46mm external wastegate includes two pressure ports on the can and the cap. Allowing you to install the pressure signal in one of two locations, depending on your wastegate mounting position.
- Allow for cool airflow around the top billet wastegate cover.
- Use caution when working on a hot engine. Wastegate and turbocharger components are EXTREMELY HOT and can cause severe burns.
- Wastegate outlet can be routed back into the exhaust system or vented to atmosphere. Note that venting to atmosphere only applies to OFF ROAD VEHICLES. Venting wastegate exhaust to atmosphere may be ILLEGAL and considered to be emissions related tampering under applicable laws, rules and regulations.

NOT RECOMMENDED



RECOMMENDED



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WARRANTY

Each Precision Turbo Gen. 2 CO2 46mm external wastegate is warranted to be free from manufacturer's defect for a period of 12 months or 12,000 miles, whichever occurs first from the date of the original invoice. Manufacturer's warranty otherwise applies. Seller expressly disclaims all implied warranties of merchantability and or fitness for a particular purpose.

Precision Turbo will repair or replace, at its discretion, any Precision Turbo branded product that proves defective in material or workmanship under normal installation, use and service. In the case of any warranty claim with regards to defects in material or workmanship, the product in question should be returned, freight prepaid to the address shown below.

This warranty does not cover damage or failure of components due to normal wear and tear. There is no warranty on any parts used in race applications, or on products that have been physically altered, improperly installed or not maintained. Seller's warranty is in lieu of all other warranties, expressed or implied.

RETURNS

Returns for credit or exchange are allowable only with a Returned Material Authorization (RMA) number for 30 days from date of shipment. RMA numbers can be obtained directly from Precision Turbo and Engine. Additionally, the Product Return Form (found on our website, www.precisionturbo.net) must be filled out in its entirety, and returned with the product being sent back for credit or exchange. Restocking fees may apply. Product must be new or in resalable condition and returned at the customers expense freight prepaid. All claims for shipping damage must be addressed with the carrier by the customer.

DISCLAIMER

Precision Turbo does not warrant the accuracy or completeness of the information contained in the manual. Any information and specifics contained in the manual are provided "as is" without any representation or warranty, expressed or implied, of any kind, including, but not limited to, warranties of merchantability, non-infringement, or fitness for any particular purpose. Some jurisdictions do not allow for the exclusion of implied warranties, so the above exclusions may not apply to you.

Federal, State or provincial laws, rules and regulations in the US, Canada or elsewhere may prohibit the removal or modification of components that were installed on motor vehicles or engines by the original equipment manufacturer, in order to meet emissions requirements or to comply with safety regulations applicable to engines or vehicles manufactured for use on public roads or highways. Removal of such components and installation of Precision Turbo products may be illegal and considered to be emissions-related tampering under applicable laws, rules and regulations. Motor vehicles or engines equipped with Precision Turbo products may not be used on public roads or highways, as installation of such products could cause the vehicles engine to be non-compliant with applicable emissions and or safety standards.

Installation of Precision Turbo products (or similar products from other manufacturers) on a motor vehicle or engine, may void, reduce or otherwise adversely affect any warranties given by the manufacturer or seller of the vehicle, engine or other component parts.

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.