# Please read this document BEFORE fitting your Gap Turbo FAILURE TO FOLLOW OUR INSTRUCTIONS WILL VOID YOUR GUARANTEE

#### 1) WHY TURBOS FAIL? - DIAGNOSIS

Investigate cause of original turbo failure before fitting replacement.

Most turbo failures are due to: Oil Starvation/ Contamination, ECU failure, Air leaks, Over speeding turbo, or Foreign matter entering compressor housing or Breather problems.

Are you fitting correct turbo?

#### 2) RECTIFY MALFUNCTION

Upon completion of diagnosis and conclusion of malfunction or component failure, either you **must rectify the malfunction**/replace the failed components with new components (retain proof of purchase, ie receipts). Check for foreign particles. All BEFORE you fit the new turbo.

### 3) REPLACE COMPONENTS

Before fitting your new/reconditioned Gap Turbo, you must **Replace Components** listed below, with new components and again **RETAIN** all receipts/proof of purchase.

- ✓ OIL FEED PIPE(from engine to top of turbo), replace banjo bolts
- ✓ NEW OIL PUMP (Peugeot/Citroen/Ford/ Mazda/Volvo 1.6 DIESEL)
- ✓ Oil + oil filter (correct grade as per manufacturers recommendation)
- ✓ Air filter
- ✓ Gaskets + washers, O rings
- ✓ Particulate filter and liquid level sensor topped up with correct spec of fluid

## 4) CLEAN or REPLACE

- ✓ Air box and air intake hose to turbo (Pressure Test)
- ✓ Oil cooler/intercooler/hose, from turbo to intercooler (damage or air leak). Get Pressure Tested
- ✓ E.G.R. VALVE Check correct operation, clean or replace if necessary
- ✔ Breather system, cam cover (rocker cover)- check for blockage
- ✓ Replace Turbo oil drain hose (check clear/ check no damage to pipe)
- ✓ Clean Inlet/exhaust manifolds, check for carbon deposits/cracks/clean head faces/replace gaskets

- Ensure the exhaust and/or catalytic converter/ diesel particulate filter (DPF) are not fully or partly blocked
- ✓ Before fitting Turbo check no debris enters turbo, check all gaskets fit with gas tight seal
- ✓ Flush Engine

## 5) FIT and TEST TURBO

- ✓ Check OIL PRESSURE is WITHIN Manufacturers Tolerances
- ✓ Do Not Use Jointing Compound on ANY part of the Turbo
- ✓ Fill turbo inlet with oil and prime turbo manually
- ✓ Before fitting turbo, immobilise engine, (eg: remove fuel pump fuse), manually crank engine until oil flows steadily out of turbo oil feed hose
- ✓ After fitting turbo, manually crank engine for 30 sec until oil flows from turbo oil return pipe
- ✓ **Start engine** and allow to idle for 3-5 mins before driving (do not let engine idle unnecessarily)
- ✓ Check for Oil/Gasket/Air Leaks, All OBVIOUS locations on engine
- ✓ Plug into diagnostic machine to check for any fault codes (rectify/repair as per diagnosis, before road test). Check boost pressure!
- ✓ Must get re test done after 50-60 miles & replace any item which re-appears in diagnosis



Put the **BOOST** back into your turbo