

Crawford Performance Turbo Kit (CP30/35R) Install Instructions (08+ STI) Version 1.30 (10/03/11)

Parts List

Item Num	Quantity	Description	Sent	Received
CP-I0101	1	Crawford Performance Rotated Turbo Install Kit		
L0578	1	CP30/35 turbo oil feed A/N line		
F0389	1	Fitting – STI oil line adaptor		
F0380	2	Fitting – ¼ pipe to ½ barb		
H0480	3	Hose – Heater per ft (12”), hose for turbo water lines		
H0480	2	Hose – Heater per ft (12”), hose for water reservoir		
C0250	4	Clamp – hose for water lines on CP turbo kit		
S0775	1	Shield – thermal 1 ¼” thermal shielding for water line		
F0372	1	Fitting – BB GT turbo oil feed		
P0629-1	1	Pipe – turbo drain pipe, metal turbo drain pipe		
B0197	8	Bolt – M8x1.25x20mm Hex c./s SS for turbo		
B0205	7	Bolt – M10x1.25x45mm adjustable idler pulley		
G0446	1	Gasket – WRX Up Pipe, bottom gasket for up pipe		
N0586	6	Nut - M10x1.25 Flange nut for turbo/ up pipe		
S0776-1	1	Shield – CP S/S Turbo Heat Shield		
B2034	2	Bolt – M8x1.25x16mm hex, turbo drain line		
H0510	3.75	Hose – Vacuum 6mm ID (45” for turbo kit)		
H0511	1.3	Hose – Vacuum 8mm ID (16” for turbo kit)		
F0371	1	Fitting – ¼” Tee Fitting for turbo boost line		
F0371-1	1	Fitting – 3/8” Tee Fitting for vacuum lines		
F0373	1	Fitting for turbo boost line, 3/16 straight		
CP-I0102	1	Crawford Performance BIG FMIC Install Kit		
P0701	1	Pipe – CP30/35 Intake #1 (over intake manifold)		
P0702-1	1	Pipe – CP30/35 Intake #2 (to throttle body)		
P0704	2	Pipe – CP30/35 Connects to Intercooler on Both Sides		
H0490	4	Hose – 2” Straight hose, Each side of intercooler		
H0489	1	Hose – 2-2.5” Transition hose, Turbo to Pipe		
H0493	1	Hose – 2-2.75” Transition hose, Throttle body to Pipe		
C0244	10	Clamp – T-Bolt, 2” ID T Bolt Clamp		
C0246	1	Clamp – T-Bolt, 2.5” ID, Turbo Hose		
C0248	1	Clamp – T-Bolt, 2.75” ID , Turbo Hose		
P0655-2	1	Plate – Hood Block off Plate		
CP-I0103	1	Crawford Performance Cold Air Intake 04/07 STI		
H0496	1	Hose – 4” to 3” Transition Hose		
C0249	1	Clamp – 3” ID T-Bolt Clamp		
C0247	1	Clamp – 4” ID T-Bolt Clamp		
F0362	1	Filter – K&N, CP30/35 Chrome Filter		
B0206	2	Bolt – M4-.07x12mm SFHCS CP CAI MAF Screw		
P0628-1	1	Pipe – CP 08+ Rotated CAI Crawford 04-07		
CP-T0115	1	Crawford Performance .63 A/R Turbo Assembly		
T0890	1	Turbo – Garrett GT30R for CP30R Kit		
CP-T0116	1	Crawford Performance .82 A/R Turbo Assembly		
T0892	1	Turbo – Garrett GT35R for CP35R Kit		
P0630-1	1	Pipe – Coating Wastegate Discharge Pipe w/ Flange		
U0902-1	1	Up Pipe – CP30/35 Jet Hot Coated Up Pipe		

D0321-1	1	Down Pipe – CP30/35		
W0932	1	Wastegate – Tial 44mm		
B0219-1	1	Bracket – Jet Hot coated CP30/35 Support Bracket		

Turbo Kit Parts



CP30R or CP35R Turbo Kit:
Turbo kit and accompanying parts for installation

Heat Shield Installation:



Heat shield:

CP30R and CP35R Heat Shield for Wires and Power Steering Lines



Heat Shield:

Two screws are used to hold the heat shield in place. One Screw is located on the strut pillar and the second screw is in the power steering lines located on the front cross member. We recommend allowing the maximum amount of space between the power steering lines and heat shield for proper cooling.



Proportioning Valve:

Please note the proportioning valve has been carefully bent 45 degrees towards the strut pillar while the wiring harness has been relocated down and behind the heat shield for maximum protection. This will allow the turbo and intake pipe to fit between the manifold and chassis. Also note the heat shield has been pulled towards the center of the engine bay to allow for proper cooling of the power steering lines.

Turbo Installation:

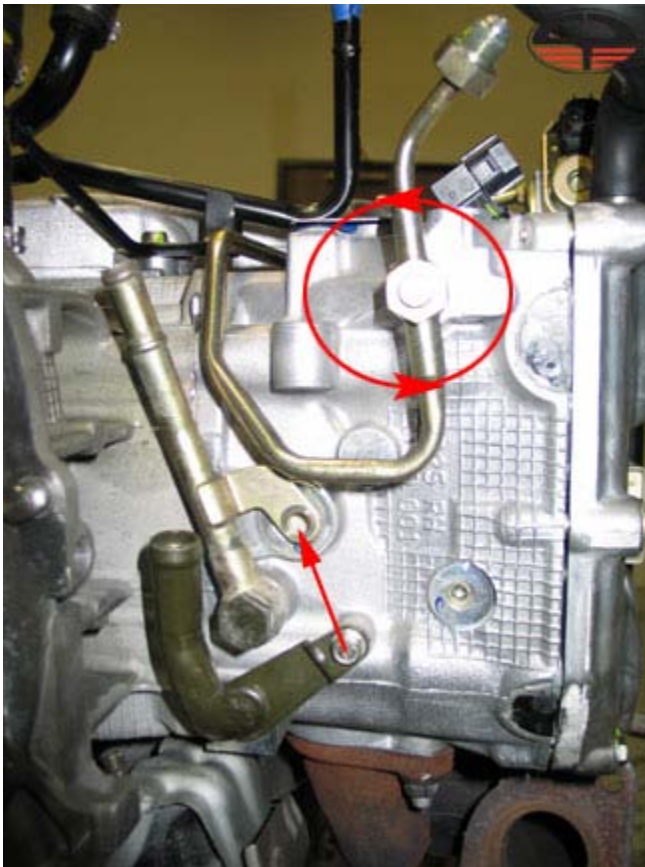


Water line return:

Water line runs from the top of the water reservoir runs to the side of the Air Oil Separator Version 2 (this should be a fairly long water line). The other side of the AO Sep returns the water line to the side of turbo as seen in picture below. This should be a fairly short water line.



The water line on the other side of the turbo runs down to water line that comes off the head. (water line rotated as seen below).



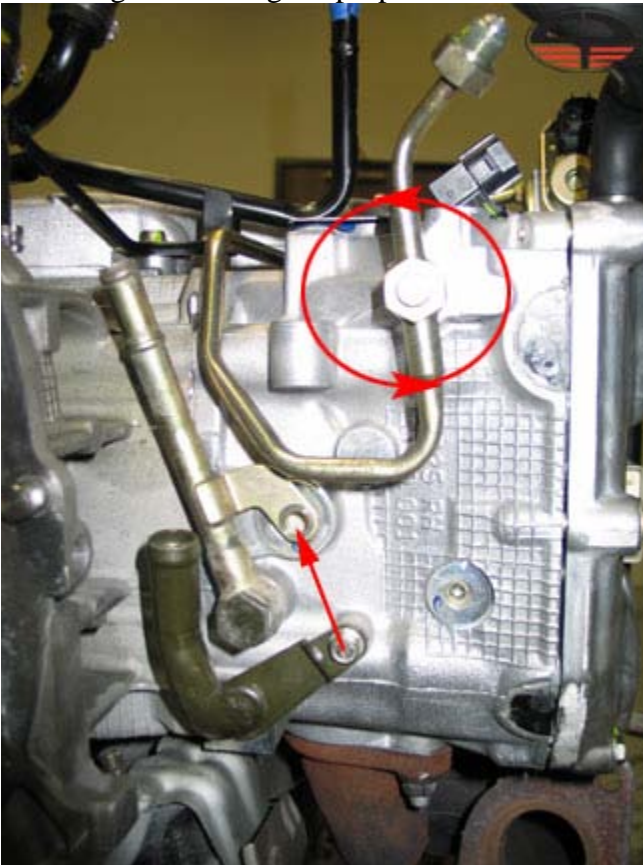
Oil feed line:

The oil feed line runs from the original AVCS oil feed line to the top of the turbo.



Turbo mounting bracket:

Turbo mounting bracket, with has two for the turbine side inlet, and three holes that mount to side of the transmission and short block. You may need to rotate the turbo by loosening the housing for proper oil drain fitment.



Oil feed line (metal AVCS line) :

Oil feed line (AVCS line) should be rotated counter clockwise to allow the oil feed line to fit next to the turbo compressor outlet. The oil feed adaptor fitting fits on top of the metal oil feed line before the stainless braided feed line. (Be careful when adjusting the metal oil feed line).

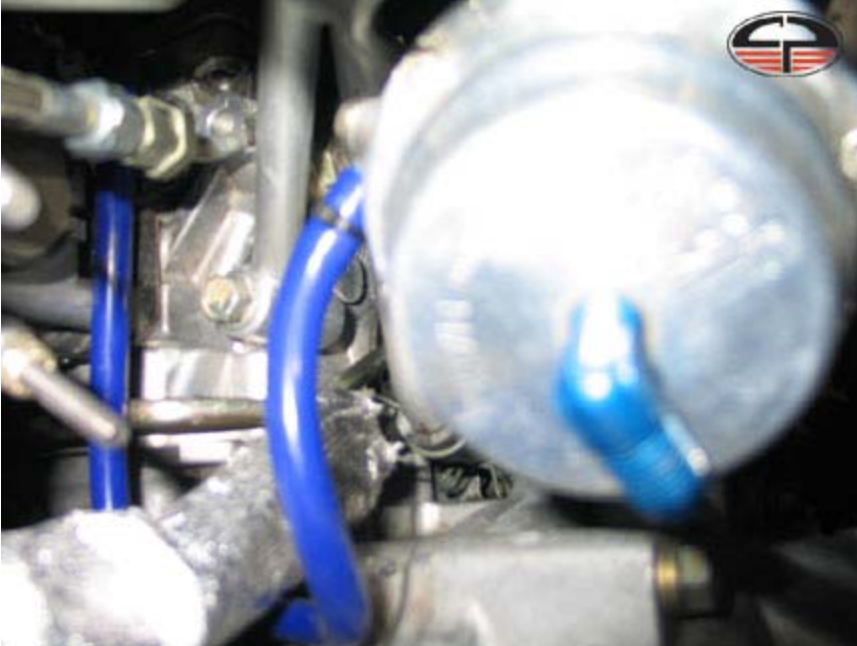
Water feed line (OEM line):

The water line needs to be rotated up from its stock location in order to run the water line from water feed to the inlet on the side of the turbo.



Oil Return line:

The metal oil return line drops down past the turbo mounting bracket (02-07 STI mounting bracket shown above) and down to the stock rubber hose location. Do not use a stainless steel line as the internal rubber will burst under extreme temperatures, causing fires and engine failure.



Oil feed line:

Note the oil feed line attached to the AVCS line to the **top left** of the picture. The oil feed line (AVCS metal line) is almost pointing directly up.



Oil feed line:

Notice the counter clockwise rotation of the oil feed line, which will allow the turbo to fit and oil feed line to connect to the top of the turbo.

Oil return line:

The oil return line drops down through the metal turbo bracket directly to the stock location. You will need to shorten the rubber oil return line to connect the drain to the turbo drain line.

Water feed line:

The water feed line has been rotated counter clockwise to fit the water feed line to the turbo.

Turbo mounting bracket:

Note the location to where it bolts to the transmission



Turbo mounting bracket:

The turbo mounting bracket bolts to the bottom of the up pipe which connects to the turbo. Notice the slip joint fitting (02-07 Turbo Kit shown above, but very similar in the 08+ models) off the waste gate which connects the waste gate exhaust to the down pipe.

Heat shield:

The heat shield is directly underneath the up pipe and protects the power steering lines and wires beneath it.

*****Notes when installing the turbo, up pipe, downpipe and waste gate:**

Keep all bolts loose until everything is connected together. This will allow for easier installation of all parts. Once everything is connected make sure to tighten all bolts and clamps

Intake and Intercooler pipe locations:



Intercooler pipe #1 (Hot side)

This pipe comes directly off the turbo and routes over the intake manifold. This pipe has five bends and will run through the fender well.



Intercooler pipe #1 (Hot side)

The pipe comes off the turbo and routes directly over the manifold. The pipe uses a 2.5 inch to 2 inch silicon hose from the turbo to the pipe. Use accompanying T-bolt clamps.



Notes: When installing the intercooler pipes notice the locations of the water tank mount (photo below) and also where the intake pipe will connect to the intercooler pipe for support (photo above).

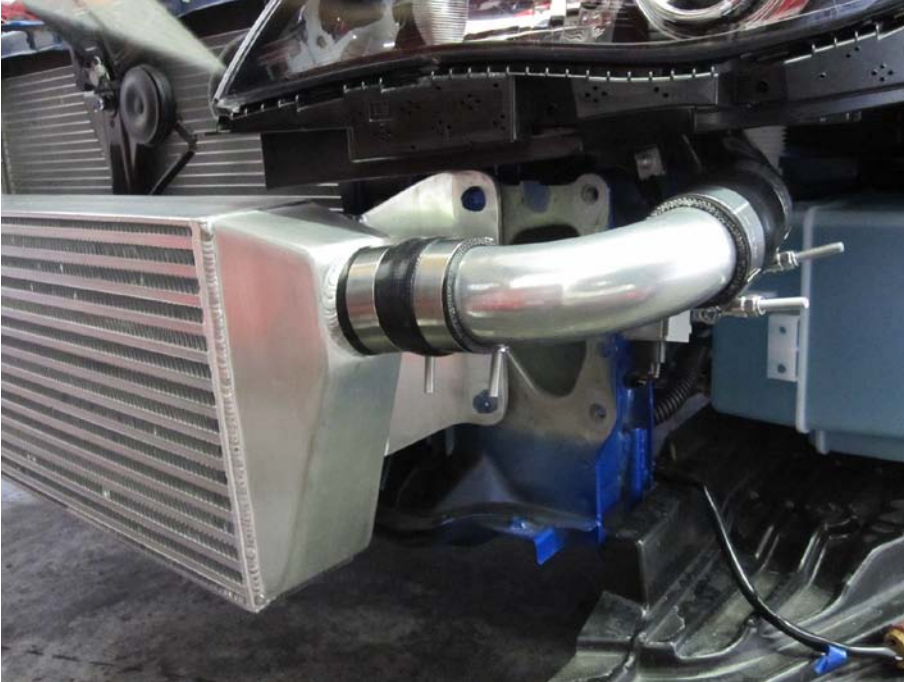


Water Reservoir: The drain line on the bottom of the reservoir will return to its OEM location located between the ports the right hand side of the manifold. The OEM location pipe may need to be bent towards the intake pipe so the water line is not kinked.



Intercooler pipe #2 (Hot side)

This pipe connects to pipe #1 and routes directly to the intercooler. There should be two of these pipes in the kit, one for each side of the intercooler.



Intercooler pipe #3 (Cold side)

This pipe connects from the cold side of the Crawford Performance front mount intercooler to the fourth and final pipe.



Intercooler pipe #4 (Cold side)

This pipe connects from intercooler pipe #4 to the throttle body. The U shape side connects to the throttle body and the other side connects underneath the engine just above the cross member.



Intercooler pipe #4 (Cold side)

Please note how it routes past the OEM water tank. It is a tight fit, but will work with the USDM system. We are not sure if this is different for other countries.



Intercooler pipe #5 (Cold side)

This pipe connects from intercooler pipe #4 to the throttle body. The larger side connects to the throttle body using 2 inch to 3 inch silicon hose. Use accompanying T-bolts.



Intercooler Trimming Notes: Trimming the bumper, we retain the plastic mounts for the bumper but cut (see photo below) them accordingly so that we can retain some support.



Note where the plastic support piece is located on the underside of the chassis. See below...



Trimming – This is a process that takes time and we recommend cutting the bumper slowly and with a straight line across the front. Do not follow the curve of the bumper as this will leave a gap between the bumper and the intercooler. Also this intercooler kit will retain the OEM fog lights if you still have them.

Complete Turbo Kit Installation

