

Step	Procedure	Tool	Install Torque
1	Remove Belly Pan/Under Tray	T25 socket	
2	Remove Bumper Cover - Optional (Easier access for draining coolant)		
3	Remove Engine Cover		
4	Disconnect DP from Turbo	6mm allen	
	- Unplug O2 sensor or remove O2 sensor from DP if removing DP	O2 tool or 22mm wrench	
5	Drain Coolant		
	- Remove clip holding temperature sensor then temperature sensor	Needle nose pliers	
	- Collect coolant for reuse. Strain through coffee filter.	Bucket	
6	Remove Air Intake		
	- Remove Airbox & Duct	Channel locks	
	- Remove air intake hose	7mm socket	
	- Remove PCV line from Turbo Inlet Elbow		
	- Remove Turbo Inlet Elbow	T30	
7	Disconnect Battery	10 mm wrench	
8	Remove Diverter Valve	5 mm allen	
9	Remove Turbo Muffler	5 mm allen	
	- Disconnect Charge Pipe coupler from Turbo Muffler		
10	Disconnect electrical connector from wastegate	Left hand, thumb on release button, push	
11	Disconnect electrical connectors		
	- Remove ground wires from top of Ignition Coils	10 mm wrench (2)	
	- Disconnect connectors to ignition coils		
	- Disconnect connector on HPFP		
	- Disconnect connector by HPFP		
	- Undo clip holding wiring harness		
	- Disconnect connectors (2) on left side of engine		
	- Disconnect connectors (8) to cam adjusters		
	- Move wire harness forward out of the way		
12	Pivot coolant hard pipe upward after removing bolts (3) & clamps (3)	T30 / Pliers	
13	Loosen coolant hard pipe in center of engine - bolts (2)	T30	
14	Remove clamp from coolant hose to turbo & remove hose from turbo	7 mm socket	
15	Remove heat shield around coolant supply pipe to turbo		
16	Remove engine side vacuum pipe coming from brake booster	Needle nose pliers	
17	Remove Cam Adjustment Actuator (2-8, 1 near pax side) Mark with Sharpie	T15 Torx?	
18	Remove hose on coolant vent valve (optional)		
19	Remove turbo heat shield	T30 (2) / 10 mm / 5 mm allen	
20	Remove O2 Sensor from Turbo	O2 tool or 22mm wrench	
21	Remove upper bolt and loosen lower bolt on turbo support bracket	13 mm socket (upper) / 5 mm allen lower	
22	Remove fluid lines from Turbo		
	- Remove Turbo Oil Supply Line from Turbo side only	10 mm wrench	
	- Remove Turbo Coolant Return and Supply Lines from Turbo	12-pt / 5mm allen	
	- Remove Turbo Oil Return Line from Engine block (from underneath car)	12-pt	
23	Rotate coils packs for clearance to remove turbocharger		
24	Remove Turbocharger	13 mm socket/wrench	
25	Transfer Parts to new Turbo as applicable		
	<< Install is reverse of removal >>		
	Replace seals and o-rings		
	Coat turbo stud bolts & upper support bracket bolt w/ high temp. anti-seize		
	Fill turbo with oil at oil supply line		
	Fill coolant		
	Check oil level		
	Disable fuel pump		
	Turn engine over 3-5 seconds, repeat 3x.		

	Start engine and check for leaks		
	Idle engine for 1 minute after startup		
	Recheck Oil		
	Recheck Coolant		

Version 2