

Product Description

The top-level intercooled **E9X M3 VT2-650** supercharger system produces 650hp and 420lb-ft of torque at 8psi of boost. A 236hp gain over stock. Featuring the newly developed, self contained Vortech V3 supercharger unit in Si trim, the supercharger is capable of producing up to 775hp. The VT2-650 comes with the largest capacity liquid intercooler system on the market integrated within a specially developed cast aluminum intake manifold assembly 'ribbed' with optimized runners and velocity stacks. This ensures the intake charge temps remain in check during prolonged use on the track, autobahn, or street. The manifold was designed not only for optimum flow, but for minimal weight to not disrupt the iconic handling balance of the M3. The supercharger system includes the ESS E-Flash OBD2 cable and specific ESS MSS60 engine software that is perfectly calibrated for the VT2-650 supercharged engine providing optimum ignition timing under all conditions, recalibrated EGA's for quicker throttle response, recalibrated VANOS control, and perfectly optimized fuel delivery. The E-Flash allows the end user to upload the supercharger ECU software from any PC running Windows XP or newer and includes a full diagnostic and code clearing capability. Any future ESS software updates can be received by email and loaded directly to the car. The stock ECU software will be saved and can easily be restored in the future. Power delivery is 100% smooth and OEM-caliber. The car behaves just like stock until you demand power, then the car completely transform providing brutal acceleration normally reserved for pure race cars. The system maintains all OBD-II functions and it is backed by a comprehensive 2 year, unlimited mileage warranty program. The system takes 8-14 hours to install using normal hand tools and no irreversible modifications to the car are necessary. **VT2-650:** Intercooled, 8PSI system compatible with manual cars (or DCT cars with BMW software release 12/2010 or later, or must have ESS DCT Performance Transmission Software installed). 91AKI/95RON or above required. *HFC or cat-delete mid section recommended. Installation time: 8-14 hours,

System components:

- Vortech V3 Si-trim supercharger unit.
- Cast aluminum ESS intake manifold with integrated velocity stacks optimized for boost.
- High capacity liquid intercooler system (VT2 only).
- Vortech Maxflow Race bypass assembly.
- High temperature casted plastic intake system for SC -Uni-belt drive system with additional OEM quality rollers.- Heavy-Duty drive belt.
- CNC hard anodized brackets and hardware.-High temperature silicone hoses with clamps
- ESS oil breather assembly designed for boost.
- 8 larger Bosch Motorsport fuel injectors, 650 spec.
- K&N high flow air filter.
- ESS E-Flash reprogramming and diagnostic interface.
- Perfectly optimized, dyno tweaked VT2-650 spec MSS60 ECU software with removed top speed governor, calibrated for Spec 3 injectors.
- Detailed, step-by-step installation manual.
- All installation hardware included
- 2yr./unlimited mileage warranty.

VT2-650 specs: Boost pressure: 8 PSI Intercooled

Horsepower: 650 SAE (~57% gain over stock)

Torque on: 420 ft/lbs Correction factor for drivetrain loss is 15% above RWHP as seen in dynograph (RWHP/0.85)

Application intended for: E90 M3, E92 M3, E93 M3 from 2008-2013

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