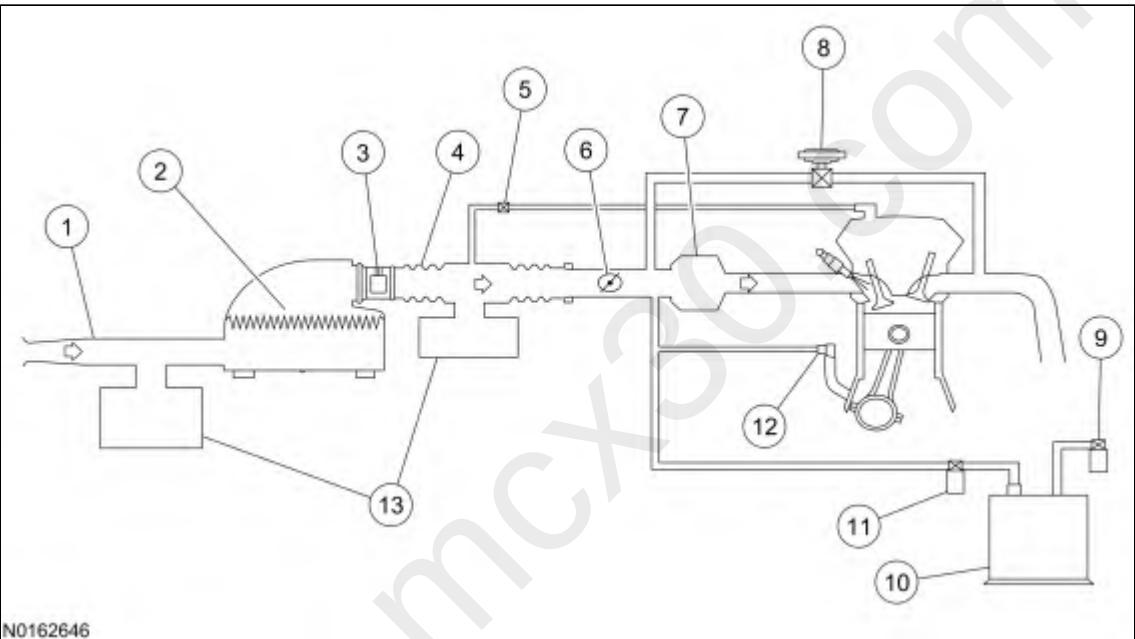


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Intake Air Systems

Overview

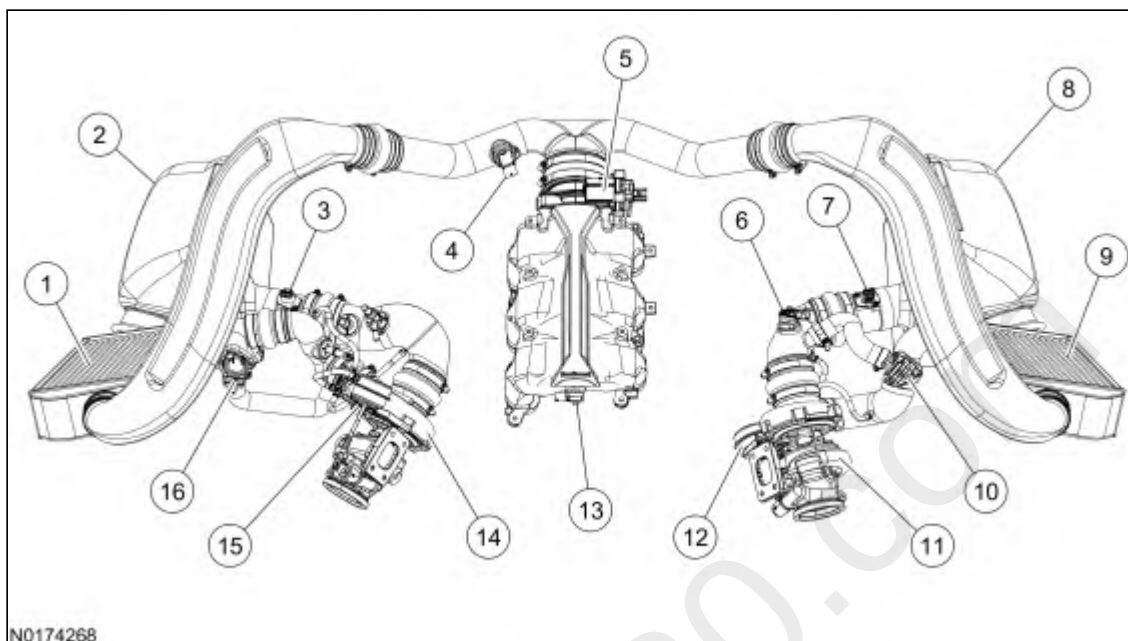
The intake air system provides clean air to the engine, optimizes airflow, and reduces unwanted induction noise. The intake air system consists of an air cleaner assembly, resonator assemblies, and hoses. Some vehicles use a hydrocarbon filter trap to help reduce emissions by preventing fuel vapor from escaping into the atmosphere from the intake when the engine is OFF. It is typically located inside the intake air system. The mass airflow (MAF) sensor (if equipped), is attached to the intake air system and measures the volume of air delivered to the engine. The hydrocarbon trap is part of the evaporative emission (EVAP) system. For more information on the EVAP system, refer to [Evaporative Emission \(EVAP\) Systems](#) in this section. The MAF sensor (if equipped) can be replaced as an individual component. The intake air system also contains a sensor that measures the intake air temperature, which is integrated with the MAF sensor (if equipped). For additional information on the intake air system components, refer to [Engine Control Components](#) in this section. Intake air components can be separate components or part of the intake air housing. The function of a resonator is to reduce induction noise. The intake air components are connected to each other and to the throttle body assembly with hoses.



Typical Intake Air System

Intake Air System	Component
1	Air Cleaner Inlet
2	Air Cleaner Element
3	Mass Airflow/Intake Air Temperature Sensor
4	Air Cleaner Outlet
5	Crankcase Pressure Sensor (If Equipped)
6	Throttle Body
7	Upper Intake Manifold
8	Exhaust Gas Recirculation (EGR)
9	EVAP Canister Vent Valve

Intake Air System	Component
10	EVAP Canister
11	EVAP Purge Valve
12	Positive Crankcase Ventilation (PCV)
13	Intake Air Resonator



Ford GT 6 Cylinder Dual Intake Air Turbocharger System — Air To Air Cooled (RWD)

Intake Air System	Component
1	Charge Air Cooler (CAC) Left Bank (Bank 2)
2	Air Cleaner Element Left Bank (Bank 2)
3	Mass Airflow Bank 2 Sensor 1/Intake Air Temperature Bank 2 Sensor 1 Sensor (MAF21/IAT21)
4	Turbocharger Boost Pressure/Charger Air Cooler Temperature (TCBP/CACT) Sensor
5	Throttle Body
6	Turbocharger Intake Pressure And Temperature (TCIPT) Sensor
7	Mass Airflow/Intake Air Temperature Sensor (MAF/IAT)
8	Air Cleaner Element Right Bank (Bank 1)
9	Charge Air Cooler (CAC) Right Bank (Bank 1)
10	Turbocharger Bypass Valve Right Bank (TCBY) (Bank 1)
11	Turbocharger Right Bank (Bank 1)
12	Wastegate Right Bank (Bank 1)
13	Manifold Absolute Pressure/Intake Air Temperature 2 (MAP/IAT2) Sensor
14	Turbocharger Left Bank (Bank 2)
15	Wastegate Left Bank (Bank 2)
16	Turbocharger Bypass Valve Left Bank (TCBY2) (Bank 2)