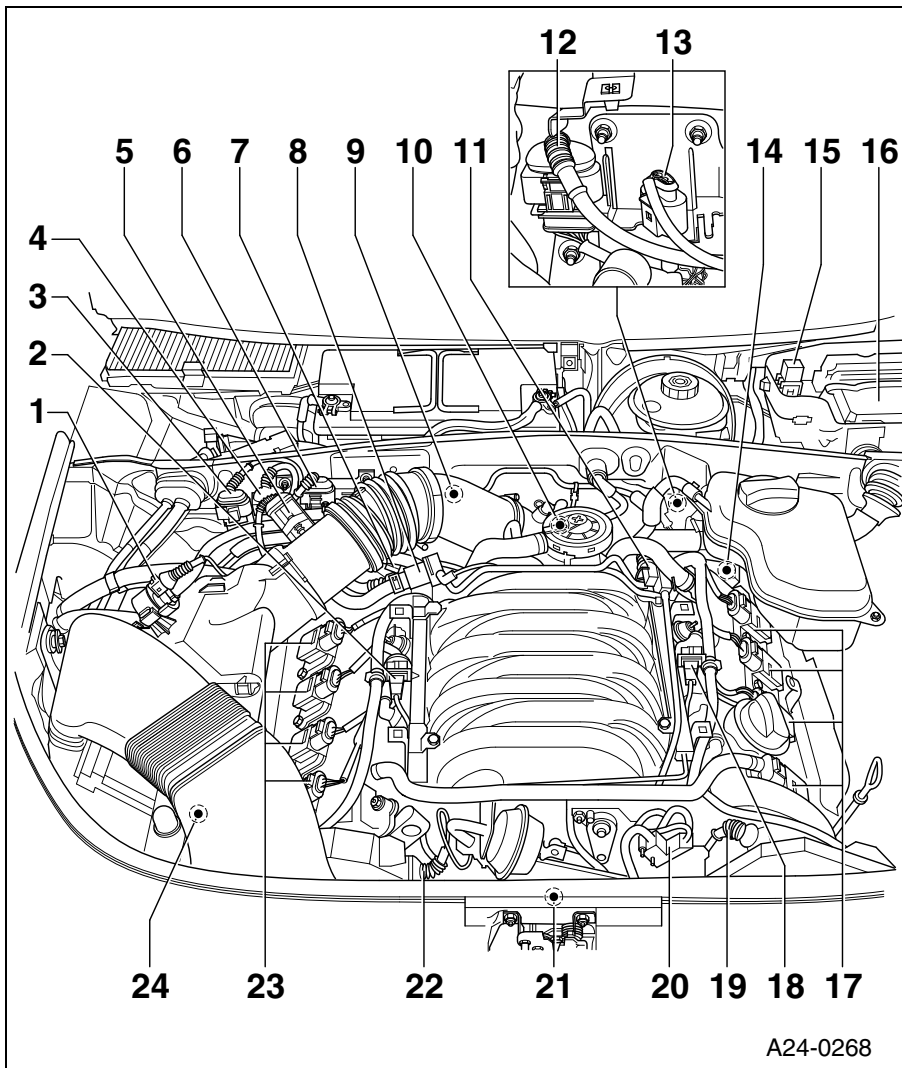
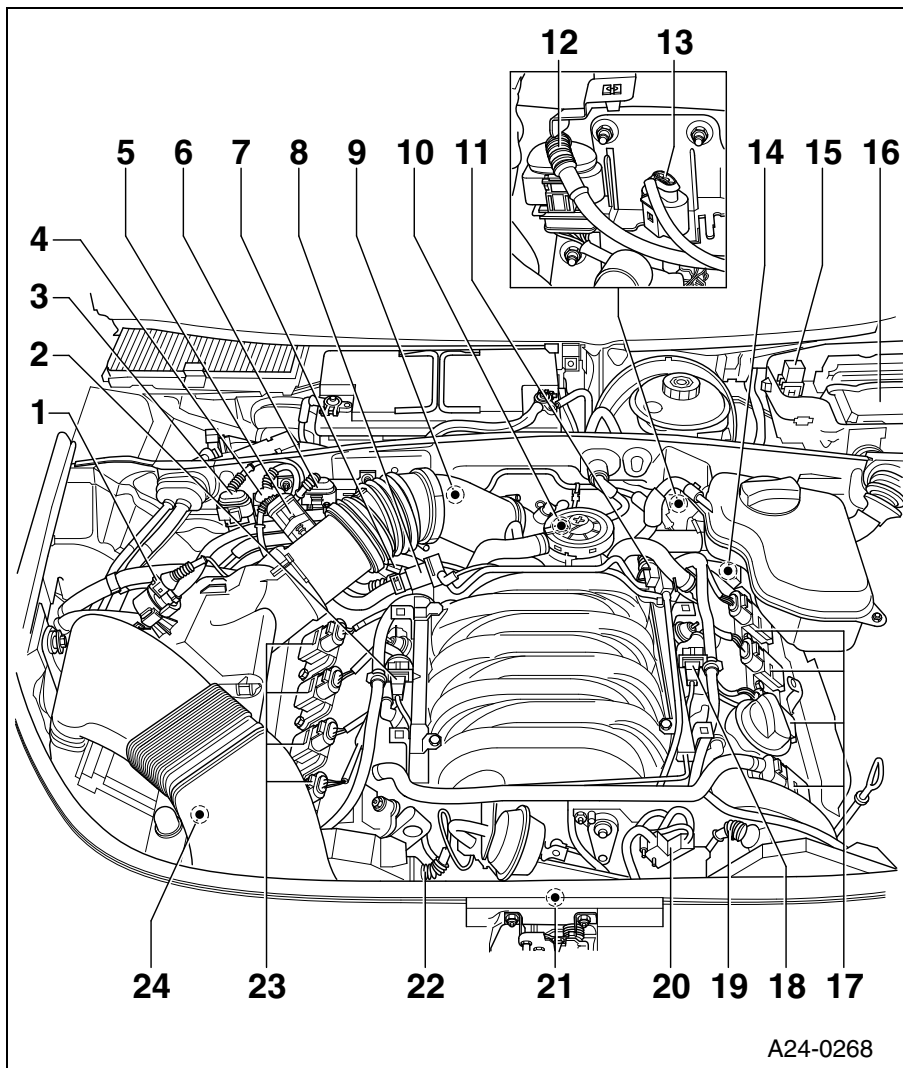


**V8 ENGINE MANAGEMENT COMPONENTS
(ENGINE CODES ART, AWN, BBD)**



**Engine compartment
(V8 engine, codes ART, AWN,
BBD)**

1. Fuel tank evaporative control (EVAP) canister purge regulator valve (N80)
2. Right knock sensor (G61) harness connector
 - 3-pin
3. Oxygen sensor harness connector (B1S2)
 - Post-catalytic converter oxygen sensor (G130) and heater (Z29)
 - 4-pin green
4. Oxygen sensor harness connector (B2S2)
 - Post-catalytic converter oxygen sensor (G131) and heater (Z30)
 - 4-pin green
5. Mass airflow sensor (G70)
 - Includes intake air temperature (IAT) sensor (G42).
6. Oxygen sensor harness connector (B1S1)
 - Pre-catalytic converter oxygen sensor (G39) and heater (Z19)
 - 4-pin
7. Camshaft adjustment valve (N205)
8. Fuel pressure regulator
9. Engine coolant temperature (ECT) sensor (G62)
 - On coolant pipe behind right cylinder bank



- 10. Throttle valve control module (J338)**
 - Throttle drive (G186)
 - Throttle plate angle sensors (G187, G188)
- 11. Secondary air injection solenoid valve (N112)**
- 12. Oxygen sensor harness connector (B2S1)**
 - Pre-catalytic converter oxygen sensor (G108) and heater (Z28)
 - 4-pin
- 13. Engine speed sensor (G28) harness connector**
 - 3-pin
- 14. Left camshaft sensor (G163)**
- 15. Secondary air injection pump relay (J299)**
 - E-box, left rear engine compartment in air plenum. See **Engine Management Fuses and Relays** in this repair group.
- 16. Engine control module (ECM) (J220)**
 - E-box, left rear engine compartment in air plenum. See **ECM, accessing** in this repair group.
- 17. Left bank ignition coils with power output stages**
- 18. Left knock sensor (G61) harness connector**
 - 3-pin
- 19. Left camshaft adjustment valve (N208)**
- 20. Intake manifold tuning valve**
- 21. Intake manifold tuning valve**
- 22. Right camshaft sensor (G40)**
- 23. Right bank ignition coils with power output stages**
- 24. Secondary air injection pump motor (V101)**
 - Underneath engine, behind right corner of front bumper