

2025

ASE L3 Test Correlation Chart

ASE Task	Text Page #	Task Sheet Title
A. Battery System		
1. Perform high voltage disconnect procedure; reconnect/enable high voltage system.	9; 131	Hybrid/Electric Vehicle HV Circuit Disconnect
2. Select, test and use proper safety gloves.	4-5	High Voltage Circuit Identification
3. Select, qualify and use proper electrical testing equipment and leads.	7-8; 96-97	Milliohm Meter Usage Meg-Ohm Meter Usage
4. Retrieve and diagnose DTCs; determine needed repairs.	63; 114; 117	-
5. Diagnose problems caused by damaged or failed harnesses, connectors, terminals and fuses.	-	-
6. Diagnose high voltage (HV) battery pack malfunctions.	133	High-Voltage Battery Diagnosis
7. Remove and install high voltage battery pack.	134-137	-
8. Test, diagnose and repair high voltage leaks/loss of isolation.	7-8; 96-97; 132; 158	-
9. Test, diagnose and repair high voltage battery pack heating and cooling systems.	126-129; 156- 157	High-Voltage Batteries
10. Test, diagnose, repair or replace high voltage battery pack internal components.	130; 137-138	-
11. Test and diagnose charging problems when using electric vehicle supply equipment (EVSE).	164-165; 167- 169	Electric Vehicle Supply Equipment Plug-In Vehicle Charging Plug-In Vehicle Charging Diagnosis
B. Internal Combustion Engine		
1. Retrieve and diagnose DTCs; determine needed repairs	63; 114; 117	-

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2. Determine if the internal combustion engine (ICE) is in CRANK mode or RUN mode.	57	Hybrid Vehicle ICE Service Precautions
3. Differentiate between driveability problems caused by the internal combustion engine and/or hybrid drive system.	37	-
4. Perform internal combustion engine cranking compression test.	52	-
5. Keep the internal combustion engine running during service.	50-52; 57	-
6. Diagnose internal combustion engine no-crank condition.	-	-
7. Diagnose internal combustion engine cranks/no-start condition.	-	-
8. Interpret vacuum and compression readings on Atkinson cycle engines.	38-39	-
9. Identify engine start/stop strategy; diagnose malfunctions.	112-114	Stop-Start Scan Tool Diagnosis
10. Service engine cooling system.	46-48; 59; 208-209	HEV Test and Replace Coolant
C. Drive Systems		
1. Perform high voltage disconnect procedure; reconnect/enable high voltage system.	9; 131	Hybrid/Electric Vehicle HV Circuit Disconnect
2. Select, test and use proper safety gloves.	4-5	High Voltage Circuit Identification
3. Select, qualify and use proper electrical testing equipment and leads.	7-8; 96-97	Milliohm Meter Usage Meg-Ohm Meter Usage
4. Retrieve and diagnose driveline DTCs; determine needed repairs.	63; 114; 117; 244-245	Types of Hybrid and Electric Vehicles EV and HEV Transmission Scan Tool Diagnosis
5. Diagnose problems caused by damaged or failed harnesses, connectors, and terminals.	-	-

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6. Test, diagnose and repair high voltage leaks/loss of isolation.	7-8; 96-97; 132; 158	-
7. Remove and install rotor from stator.	-	-
8. Diagnose motor-rotor position sensor (Resolver or Encoder type).	150	
9. Diagnose drive/traction motor-generator assembly for improper operation (such as an inoperative condition, noise, shudder, overheating, etc.).	157-158	Hybrid Traction Motor Identification Inverter and Electric Motor Scan Tool Diagnosis EV and HEV Transmission Scan Tool Diagnosis
10. Diagnose improper electrically actuated parking pawl operation; determine needed repair.	-	-
11. Identify transmission fluid and coolant fluid requirements; verify fluid levels.	151; 156-157; 246	-
D. Power Electronics		
1. Perform high voltage disconnect procedure; reconnect/enable high voltage system.	9; 131	Hybrid/Electric Vehicle HV Circuit Disconnect
2. Select, test and use proper safety gloves.	4-5	High Voltage Circuit Identification
3. Select, qualify and use proper electrical testing equipment and leads.	7-8; 96-97	Milliohm Meter Usage Meg-Ohm Meter Usage
4. Retrieve and diagnose DTCs; determine needed repairs.	63; 114; 117; 157	-
5. Diagnose problems caused by damaged or failed harnesses, connectors, and terminals.	-	-
6. Identify procedures necessary to establish the proper vehicle operational power mode during service (OFF, ACCESSORY, POWER ON, READY TO DRIVE).	-	-

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7. Diagnose the cause of a hybrid system warning displayed on the instrument panel and/or a driveability complaint.	57	-
8. Diagnose impact sensor problems; determine needed repair.	-	-
9. Diagnose AC/DC inverter overheating; determine needed repair.	156-157	-
10. Diagnose AC/DC inverter failure; determine needed repair.	154-155	Inverter and Electric Motor Scan Tool Diagnosis
11. Replace AC/DC inverter cooling pump.	-	-
12. Remove and install AC/DC inverter.	159-161	-
13. Diagnose failures in the data communications bus network; determine needed repair.	97-98	-
14. Locate and test the voltage level of capacitors.	151-153	-
15. Diagnose, locate and safely disable/enable safety interlocks.	8-9; 132	-
16. Diagnose failed DC/DC converter; determine needed repair.	153-154	-
17. Remove and install DC/DC converter.	-	-
18. Test high voltage cable integrity and loss of isolation.	158	-
19. Perform 12-volt battery testing.	62; 106-108	Hybrid and Electric Vehicle Auxiliary Battery
20. Diagnose system main relay (SMR)/contactor malfunctions; determine needed repairs.	130	-
E. Hybrid Supporting Systems		
1. Perform high voltage disconnect procedure; reconnect/enable high voltage system.	9; 131	Hybrid/Electric Vehicle HV Circuit Disconnect

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2. Select, test and use proper safety gloves.	4-5	High Voltage Circuit Identification
3. Select, qualify and use proper electrical testing equipment and leads.	7-8; 96-97	Milliohm Meter Usage Meg-Ohm Meter Usage
4. Diagnose problems caused by damaged or failed harnesses, connectors, and terminals.	-	-
5. Retrieve and diagnose DTCs; determine needed repairs.	63; 114; 117; 157	-
6. Inspect, test and diagnose EVAP emission system components; determine needed repairs.	-	-
7. Observe and interpret driver indicators, power flow display and energy monitor; determine necessary action.	-	-
8. Test and diagnose high voltage air conditioning compressor malfunctions; diagnose system problems; determine needed repairs.	213-215	Hybrid and Electric Vehicle A/C Service Precautions Refrigerant Identification/Read Pressures
9. Remove and install high voltage air conditioning compressor; identify and select proper system oil.	214-217	-
10. Diagnose cabin heating system performance problems; determine needed repairs.	209-211; 220-221	-
11. Diagnose and repair electric/electronic steering systems.	200-205	Electronically Controlled Steering Systems EV and HEV Power Steering Circuits Service
12. Diagnose brake system performance problems; differentiate between braking problems caused by hydraulic system and regenerative system malfunctions; determine needed repairs	193-195	Regenerative Braking System Identification Regenerative Braking System Diagnosis

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13. Deactivate brake system self-test prior to service.	196	-
14. Service liquid cooling system(s).	156-157; 208-209	HEV Test and Replace Coolant