



Service Manual

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**Power
Generation**

Generator Set **QSB7 Engine with the PowerCommand® 1.1R Controller**

C150 D6R (Spec A)

C200 D6R (Spec A)

Table of Contents

1. IMPORTANT SAFETY INSTRUCTIONS	1
1.1 Warning, Caution and Note Styles Used In This Manual	1
1.2 General Information	1
1.3 Generator Set Safety Code	2
1.4 Electrical Shock Can Cause Severe Personal Injury Or Death	5
1.5 Fuel And Fumes Are Flammable	6
1.6 Exhaust Gases Are Deadly	6
1.7 Earthing Rod Connection	7
1.8 Distribution Panel Door	7
1.9 Transport and Towing	8
1.10 Beware of Traffic Hazards	8
2. INTRODUCTION	9
2.1 About This Manual	9
2.2 Test Equipment	9
2.3 Schedule of Abbreviations	9
2.4 Related Literature	11
2.5 After Sales Services	11
3. SPECIFICATIONS	13
3.1 Generator Set Specifications	13
3.2 Engine Fuel Consumption (L/hr)	13
4. PERIODIC MAINTENANCE	15
4.1 Periodic Maintenance Schedule	15
5. TROUBLESHOOTING	19
5.1 Control System	19
5.2 Safety Considerations	19
5.3 InPower Service Tool	20
5.4 Network Applications and Customer Inputs	20
5.5 Troubleshooting Procedures	20
5.6 Engine Does Not Crank In Manual Mode (No Fault Message)	21
5.7 Engine Does Not Crank In Remote Mode (No Fault Message)	22
5.8 Code 118 – Fuel Pressure OOR High (Warning)	22
5.9 Code 119 - Fuel Pressure Sensor OOR Low (Warning)	25

5.10 Code 121 – Loss of Speed Sense (Shutdown)	28
5.11 Code 135 - Oil Pressure Sensor OOR - High (Warning).....	33
5.12 Code 141 - Oil Pressure Sensor OOR - Low (Warning).....	35
5.13 Code 143 - Engine Oil Pressure Low (Warning)	38
5.14 Code 144 – Engine Coolant Temperature OOR Low (Warning)	41
5.15 Code 145 – Engine Coolant Temperature OOR High (Warning)	44
5.16 Code 146 - Engine Coolant Temperature Above Normal (Warning).....	46
5.17 Code 151 – Engine Coolant Temperature High (Shutdown).....	49
5.18 Code 153 – Intake Manifold Temperature OOR High (Warning)	51
5.19 Code 154 – Intake Manifold Temperature OOR Low (Warning)	54
5.20 Code 155 – Intake Manifold Temperature High (Shutdown)	56
5.21 Code 195 – Coolant Level Sensor OOR High (Warning)	58
5.22 Code 196 – Coolant Level Sensor OOR Low (Warning).....	60
5.23 Code 197 – Coolant Level Low (Warning).....	62
5.24 Code 234 – Engine Speed High (Shutdown).....	62
5.25 Code 235 – Coolant Level Low (Shutdown).....	64
5.26 Code 359 - Engine Failed to Start (Shutdown).....	65
5.27 Code 415 – Engine Oil Pressure Low (Shutdown).....	66
5.28 Code 421 – Engine Oil Temperature High (Warning)	69
5.29 Code 426 – J1939 Data Link Cannot Transmit	71
5.30 Code 436 – AUX 101 Intake Manifold Temperature ORR (Warning).....	72
5.31 Code 441 - Battery Voltage Low (Warning).....	74
5.32 Code 442 - Battery Voltage High (Warning).....	77
5.33 Code 488 – Intake Manifold Temperature High (Warning).....	78
5.34 Code 659 – Change Fuel Filter (Warning)	79
5.35 Code 689 – Engine Crankshaft Speed/Position Erratic (Warning).....	80
5.36 Code 1117 – ECM Power Lost (Warning)	85
5.37 Code 1246 – Unknown Engine Fault.....	85
5.38 Code 1435 - Low Coolant Temperature (Warning)	86
5.39 Code 1438 – Fail to Crank (Shutdown)	87
5.40 Codes 1442 – Weak Battery (Warning).....	88
5.41 Code 1446 – High AC Voltage (Shutdown).....	89
5.42 Code 1447 – Low AC Voltage (Shutdown).....	93
5.43 Code 1448 - Under Frequency (Shutdown).....	94
5.44 Code 1449 - Over Frequency (Shutdown).....	95
5.45 Code 1469 - Engine Speed Does Not Match Frequency (Shutdown).....	96

5.46 Code 1471 - High AC Current (Warning).....	98
5.47 Code 1472 - High AC Current (Shutdown).....	99
5.48 Code 1847 – Engine Coolant Temperature High (Shutdown with Cooldown)	100
5.49 Code 1992 - Engine Crankshaft Speed Above Rated Speed (Warning).....	101
5.50 Code 2118 – Low Fuel Pressure (Warning)	103
5.51 Code 2335 - Loss of AC Voltage Sensing (Shutdown)	104
5.52 Code 2676 - Alternator Frequency Conflict (Shutdown).....	105
5.53 Code 2677 - Failure To Stop (Shutdown).....	105
5.54 Code 2678 - Charging Alternator Failure (Warning).....	106
5.55 Code 2696 - Alternator RTD Temperature High (Warning).....	107
5.56 Code 2912 - Voltage Reconnection Switch Status Change (Shutdown).....	107
5.57 Code 3131 - Secondary Overspeed (Shutdown).....	108
6. ENGINE CONTROL MODULE (ECM)	111
6.1 Keyswitch Control	111
7. ENGINE SENSORS	113
7.1 Oil Pressure Sensor.....	114
7.2 Cylinder Head Temperature Sensor (CHT)	114
7.3 Crankshaft Position Sensor (CKP)	114
7.4 Camshaft Position Sensor (CMP).....	114
8. SAE J1939 CAN (CONTROLLED AREA NETWORK)	115
8.1 CAN Datalink Signals	115
8.2 Connections	116
9. AIR INTAKE SYSTEM	119
9.1 Air Cleaner	119
10. COOLING SYSTEM	121
10.1 Cooling System Components	121
10.2 Radiator Information	121
11. MANUFACTURING FACILITIES	127
11.1 How to Obtain Service	127
APPENDIX A. WIRING DIAGRAMS	129
PC 1.1R Control Panel Wiring Diagram.....	130
Distribution Panel Wiring Diagram	131
Upper Control Panel Wiring Diagram.....	132
C150 D6R Generator Set Wiring Diagram.....	134

C200 D6R Generator Set Wiring Diagram.....	135
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1 Important Safety Instructions

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation and maintenance of the generator set and batteries.

Safe and efficient operation can be achieved only if the equipment is properly operated and maintained. Many accidents are caused by failure to follow fundamental rules and precautions.

1.1 Warning, Caution and Note Styles Used In This Manual

The following safety styles and symbols found throughout this manual indicate potentially hazardous conditions to the operator, service personnel or the equipment.



DANGER: Warns of a hazard that will result in severe personal injury or death.



WARNING: Warns of a hazard that may result in severe personal injury or death.



CAUTION: Warns of a hazard or an unsafe practice that can result in product or property damage.



NOTE: A short piece of text giving information that augments the current text.

1.2 General Information

This manual should form part of the documentation package supplied by Cummins Power Generation with specific generator sets. In the event that this manual has been supplied in isolation please contact your authorized distributor.



NOTE: It is in the Operator's interest to read and understand all Warnings and Cautions contained within the documentation relevant to the generator set, its operation and daily maintenance.

1.2.1 General Safety Precautions



WARNING: Coolants under pressure have a higher boiling point than water. **DO NOT** open a radiator or heat exchanger pressure cap while the engine is running. Allow the generator set to cool and bleed the system pressure first. To prevent severe scalding, let the engine cool down before removing the coolant pressure cap. Turn the cap slowly, and do not open it fully until the pressure has been relieved.



WARNING: Benzene and lead, found in some fuels, have been identified by some state and federal agencies as causing cancer or reproductive toxicity. When checking, draining or adding gasoline (if applicable to your product), take care not to ingest, breathe the fumes, or contact gasoline.



WARNING: Used engine oils have been identified by some state or federal agencies as causing cancer or reproductive toxicity. When checking or changing engine oil, take care not to ingest, breathe the fumes, or contact used oil.



NOTE: Keep multi-class ABC fire extinguishers handy. Class A fires involve ordinary combustible materials such as wood and cloth; Class B fires involve combustible and flammable liquid fuels and gaseous fuels; Class C fires involve live electrical equipment. (ref. NFPA No. 10)



CAUTION: *Make sure that rags are not left on or near the engine.*



CAUTION: *Make sure the generator set is mounted in a manner to prevent combustible materials from accumulating under the unit.*



CAUTION: *Remove all unnecessary grease and oil from the unit. Accumulated grease and oil can cause overheating and engine damage which present a potential fire hazard.*



CAUTION: *Keep the generator set and the surrounding area clean and free from obstructions. Remove any debris from the set and keep the floor clean and dry.*



WARNING: *Do not work on this equipment when mentally or physically fatigued, or after consuming any alcohol or drug that makes the operation of equipment unsafe.*



WARNING: *Substances in exhaust gases have been identified by some state or federal agencies as causing cancer or reproductive toxicity. Take care not to breathe, ingest, or come into contact with exhaust gases.*



WARNING: *Do not store any flammable liquids, such as fuel, cleaners, oil, etc., near the generator set. A fire or explosion could result.*



WARNING: *Wear hearing protection when going near an operating generator set.*



WARNING: *To prevent serious burns, avoid contact with hot metal parts such as the radiator, the turbo charger, and the exhaust system.*



WARNING: *Use personal protective equipment when maintaining or installing the generator set. Examples of personal protective equipment include but are not limited to: safety glasses, protective gloves, hard hats, steel-toed boots, and protective clothing.*



WARNING: *Do not use starting fluids that evaporate. They are highly explosive.*



CAUTION: *Do not step on the generator set when entering or leaving the generator room. Parts can bend or break leading to electrical shorts, or to fuel, coolant, or exhaust leaks.*



CAUTION: *To prevent accidental or remote starting while working on the generator set, disconnect the negative (-) battery cable at the battery.*



WARNING: *Ethylene glycol, used as engine coolant, is toxic to humans and animals. Clean up spills and dispose of used engine coolant in accordance with local environmental regulations.*



WARNING: *Moving parts can cause severe personal injury or death. Hot exhaust parts can cause severe burns. Make sure all protective guards are properly in place before starting the generator set.*

1.3 Generator Set Safety Code

Before operating the generator set, read the manuals and become familiar with them and the equipment. **Safe and efficient operation can be achieved only if the equipment is properly operated and maintained.** Many accidents are caused by failure to follow fundamental rules and precautions.

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