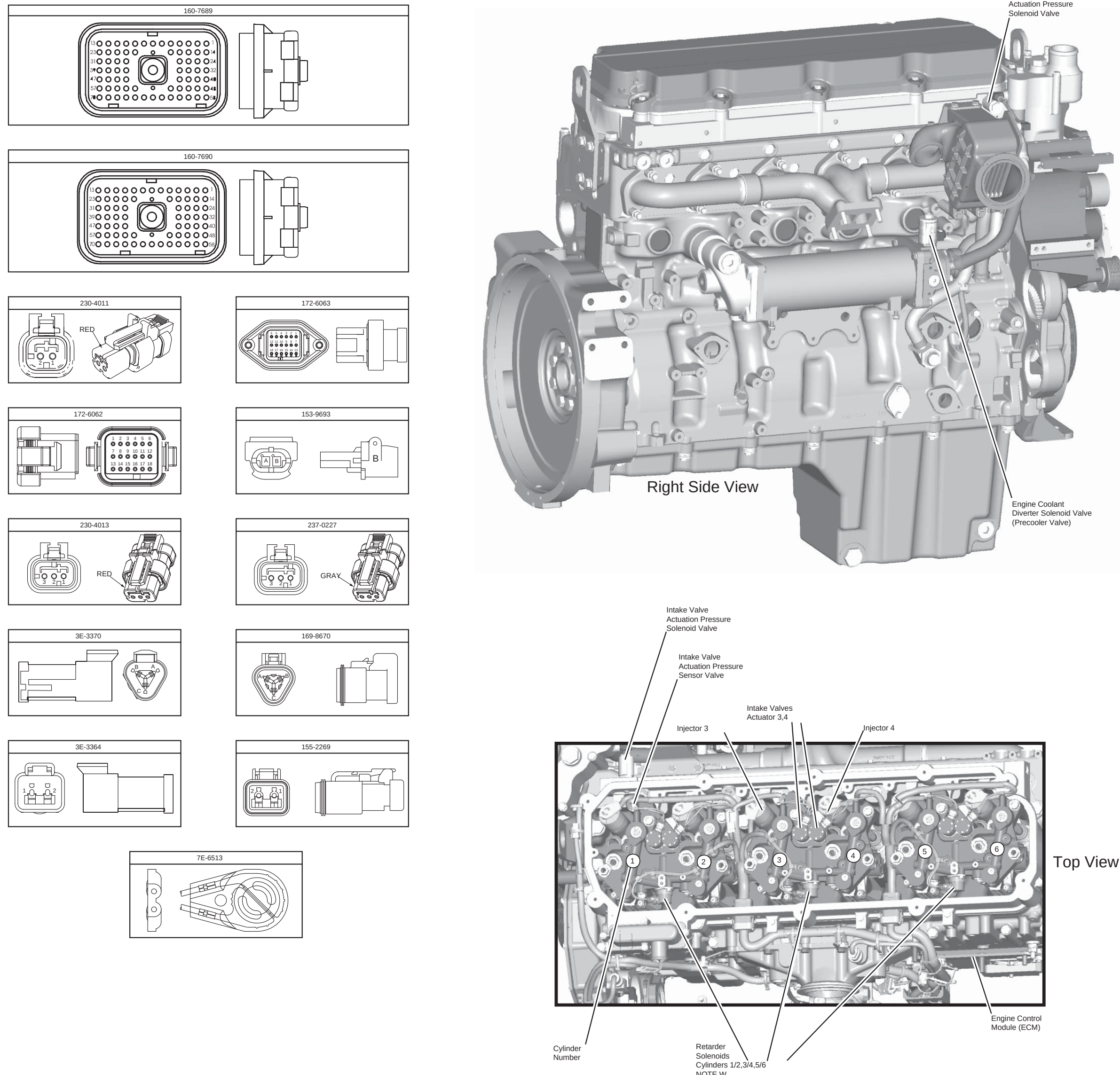
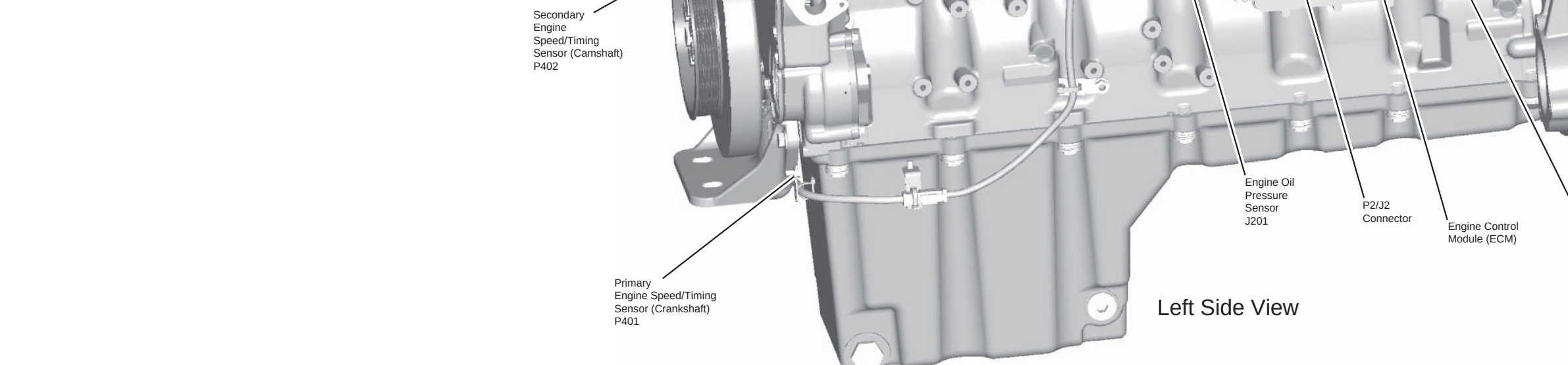




Related Electrical Service Manuals	
Title	Form Number
Troubleshooting	SEN97059
Systems Operation / Testing and Adjusting	SEN97073
Electronic PTO Installation and Applications Guide	REN1282
Operation and Maintenance Manual	SEBU7695



Diagnostic Code Listing					
PID-FMI	Description	Flash Codes	PID-FMI	Description	Flash Codes
N/A	No Diagnostic Codes Detected	55	0111-04	Coolant Level voltage low	12
0001-05	Cylinder #1 injector current low	72	0111-11	Very Low Coolant Level	62
0001-06	Cylinder #1 injector current high	72	0111-14	Low Coolant Level Warning	
0002-05	Cylinder #2 injector current low	72	0121-05	Low/High Retarder current low	14
0002-06	Cylinder #2 injector current high	72	0121-06	Low/High Retarder current high	14
0003-05	Cylinder #3 injector current low	73	0122-05	Med/High Retarder current low	14
0003-06	Cylinder #3 injector current high	73	0122-06	Med/High Retarder current high	14
0004-05	Cylinder #4 injector current low	73	0165-14	Rated Engine Power Special Instructions	
0004-06	Cylinder #4 injector current high	73	0165-14	Rated Engine Power Special Instructions	
0005-05	Cylinder #5 injector current low	74	0165-02	Low ECM Battery Power	17
0005-06	Cylinder #5 injector current high	74	0165-02	Low ECM Battery Power	17
0006-05	Cylinder #6 injector current low	74	0165-02	Low ECM Battery Power	17
0006-06	Cylinder #6 injector current high	74	0165-02	Low ECM Battery Power	17
0022-11	Primary to Secondary Engine Speed Calibration	42	0171-03	Ambient Air Temperature voltage high	31
0022-13	Engine Speed Signal Calibration Not Performed	42	0171-04	Ambient Air Temperature voltage low	31
0030-05	PTO Throttle signal invalid	29	0171-11	Ambient Air Temperature Data Lost	31
0030-13	PTO Throttle out of calibration	29	0174-00	High Fuel Temperature Warning	65
0041-03	8 Volt Supply voltage high	25	0174-03	Fuel Temperature voltage high	13
0041-04	8 Volt Supply voltage low	25	0174-04	Fuel Temperature voltage low	13
0043-02	Key Switch Fault	71	0183-07	Transmission Not Responding	69
0052-11	Air Inlet Shut/Shutdown	00	0204-11	Theft Deterrent Active	60
0054-05	Auxiliary Output #05 current low	66	0204-14	Theft Deterrent Active with Engine Cranking	60
0054-06	Auxiliary Output #05 current high	66	0204-14	Theft Deterrent Active with Engine Cranking	60
0055-05	Auxiliary Output #07 current low	67	0204-14	Theft Deterrent Active with Engine Cranking	60
0055-06	Auxiliary Output #07 current high	67	0204-14	Theft Deterrent Active with Engine Cranking	60
0064-08	Secondary Engine Speed loss of signal	34	0204-11	Theft Deterrent Active	60
0071-00	Idle Shutdown Override	01	0204-14	Theft Deterrent Active with Engine Cranking	60
0071-04	Idle Shutdown	47	0204-11	Theft Deterrent Active	60
0071-14	PTO Shutdown	47	0204-11	Theft Deterrent Active	60
0084-00	Vehicle Overspeed Warning	41	0204-11	Theft Deterrent Active	60
0084-01	Vehicle Speed loss of signal	31	0204-11	Theft Deterrent Active	60
0084-02	Vehicle Speed signal invalid	36	0204-11	Theft Deterrent Active	60
0084-03	Vehicle Speed signal out of range	36	0204-11	Theft Deterrent Active	60
0084-04	Vehicle Speed signal rate of change	36	0204-11	Theft Deterrent Active	60
0084-14	Quick Stop Occurrence	36	0204-11	Theft Deterrent Active	60
0091-04	Throttle Position invalid	32	0205-05	Intrale Valve Actuator #1 current low	92
0091-13	Throttle Position out of calibration	32	0205-06	Intrale Valve Actuator #1 current high	92
0100-03	Low Oil Pressure Warning	46	0205-07	Intrale Valve Actuator #1 not responding	92
0100-05	Oil Pressure voltage high	24	0205-07	Intrale Valve Actuator #2 current low	92
0100-06	Oil Pressure voltage low	24	0205-07	Intrale Valve Actuator #2 current high	92
0100-11	Very Low Oil Pressure	46	0205-07	Intrale Valve Actuator #2 not responding	92
0102-03	Boost Pressure voltage high	25	0205-07	Intrale Valve Actuator #3 current low	93
0102-04	Boost Pressure voltage low	25	0205-07	Intrale Valve Actuator #3 current high	93
0105-00	High Intake Manifold Air Temperature Warning	54	0205-07	Intrale Valve Actuator #3 not responding	93
0105-03	Intake Manifold Air Temperature voltage high	38	0205-07	Intrale Valve Actuator #4 current low	93
0105-04	Intake Manifold Air Temperature voltage low	38	0205-07	Intrale Valve Actuator #4 current high	93
0105-11	Very High Intake Manifold Air Temperature	54	0205-07	Intrale Valve Actuator #4 not responding	93
0105-13	Barometric Pressure voltage high	26	0205-07	Intrale Valve Actuator #5 current low	94
0105-14	Barometric Pressure voltage low	26	0205-07	Intrale Valve Actuator #5 current high	94
0110-00	High Coolant Temperature Warning	61	0205-07	Intrale Valve Actuator #5 not responding	94
0110-03	Coolant Temperature voltage high	27	0205-07	Intrale Valve Actuator #6 current low	94
0110-04	Coolant Temperature voltage low	27	0205-07	Intrale Valve Actuator #6 current high	94
0110-11	Very High Coolant Temperature	61	0205-07	Intrale Valve Actuator #6 not responding	94
0111-00	Low Coolant Level Warning	62	0385-01	Low Intrale Valve Actuator Oil Pressure	95
0111-03	Coolant Level signal invalid	12	0385-01	Intrale Valve Actuator Oil Pressure, voltage high	95
0111-04	Coolant Level voltage high	12	0385-04	Intrale Valve Actuator Oil Pressure, voltage low	95



SEN9705-03
November 2008

Schematic

C11 and C13 On-highway Truck Engines Electrical System

KCA1-UP
KCB1-UP
JAM1-UP

Harness And Wire Electrical Schematic Symbols

Symbols

Pressure Symbol: A symbol showing a pressure gauge connected to a line.

Temperature Symbol: A symbol showing a thermometer connected to a line.

Level Symbol: A symbol showing a level sensor connected to a line.

Flow Symbol: A symbol showing a flow sensor connected to a line.

Circuit Breaker Symbol: A symbol showing a circuit breaker connected to a line.

Symbols and Definitions

Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.

Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.

Switch (Normally Closed): A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.

Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.

Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.

Reed Switch: A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.

Sender: A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.

Relay (Magnetic Switch): A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.

Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.

Magnetic Latch Solenoid: A magnetic latch solenoid is an electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil circuit open at the time the coil latches.

Harness and Wire Symbols

Deutsch connector: Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.

Sure-Seal connector: Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.

Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialisation Codes.

Part Number for Connector Plug: 325-AG135 PK-14

Part Number for Connector Receptacle: L-C12 3E-5179

Pin or Socket Number: 1, 2

Wire Color: 9X-1123

Wire Gauge: 200-132 BK-14

Ground Connection: Ground

Printed in U.S.A.

Connector Tables for Harnesses 234-9512, 238-4778, 240-6655, 246-4346, 267-1274, 243-2302, 243-2315 & 266-7689

The following applies to 234-9512 & 238-4778				The following applies to 234-9512 & 238-4778			
P100				P100			
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CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL	CLRG-CA WIRE NAME POS TERMINAL
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