

**Caterpillar Diagnostic Code**Full download: <http://manualplace.com/download/caterpillar-diagnostic-code/>**Special Instruction****Diagnostic Code Information for Caterpillar Electronic Control{1901, 1927, 1948, 3168, 4348, 4802, 4808, 4810, 5511, 5701, 7490, 7494, 7601, 7602, 7610, 7610, 7610}****Media Number -REHS0126-18****Publication Date -29/04/2010****Date Updated -29/04/2010**

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**Diagnostic Code Information for Caterpillar Electronic Control {1901, 1927, 1948, 3168, 4348, 4802, 4808, 4810, 5511, 5701, 7490, 7494, 7601, 7602, 7610, 7610, 7610}****SMCS - 1901-II ; 1927-II ; 1948-II ; 3168-II ; 4348-II ; 4802-II ; 4808-II ; 4810-II ; 5511-II ; 5701-II ; 7490-II ; 7494-II ; 7601-II ; 7602-II ; 7610-II**

**Articulated Truck: All**  
**Backhoe Loader: All**  
**Landfill Compactor: All**  
**Soil Compactor: All**  
**Excavator: All**  
**Integrated Toolcarrier: All**  
**Load Haul Dump: All**  
**Motor Grader: All**  
**Off-Highway Truck/Tractor: All**  
**Pipelayer: All**  
**Road Reclaimer/Soil Stabilizer: All**  
**Skid Steer Loader: All**  
**Telehandler: All**  
**Track-Type Loader: All**  
**Track-Type Tractor: All**  
**Underground Articulated Truck: All**  
**Wheel Loader: All**  
**Wheel Skidder: All**  
**Wheel Tractor-Scraper: All**  
**Asphalt Paver: All**  
**Challenger: All**  
**Cold Planer: All**  
**Compact Wheel Loader: ALL**  
**Earthmoving Compactor: All**  
**Forest Products: All**

**Paving Compactor: All**  
**Track-Type Skidder: All**  
**Wheel Dozer: All**  
**Engine:Commercial All Diesel**  
**Engine:Truck All**  
**Machine Engines: All**

## Introduction

The diagnostic code information that follows is utilized by Caterpillar machines that are equipped with Caterpillar electronic controls.

Component identifiers, failure mode identifiers, and module identifiers are pieces of information that assist service personnel in diagnosing system problems of the machine.

A component identifier (CID) is a diagnostic code that informs the service personnel of the specific circuit or system within which a problem was detected.

A failure mode identifier (FMI) is a diagnostic code that informs the service personnel of the type of problem that has been detected within a circuit or system.

A module identifier (MID) is a diagnostic code that identifies the electronic control module that has diagnosed a fault.

Event codes identify significant events that occur to the systems of the machine. The ECM stores the data from the events. This function allows tracking of the history of the machine. The data is used as an aid for managers and maintenance personnel.

## Module Identifiers (MID)

Table 1

<b>MID</b>	<b>Description</b>
9	Handheld Service Tool
10	Digital Diagnostic Tool
11	Communication Adapter
12	Electronic Control Analyzer Programmer
13	CAT Electronic Technician
14	Electronic Ignition System
15	Spark Ignited Engine Timing Control
17	34XX SI Engine Control
18	35XX SI Engine Control

19	36XX SI Engine Control
20	Torsional Control
21	G3600 I/O Module
22	G3600 Pressure Module
23	Detonation Module
25	Ether Aid Control
26	CMS
27	Transmission/Chassis Control
28	Traction Aid Control
29	Computerized Profiler Control
30	Caterpillar Monitoring System
31	Electronic Scraper Transmission Control
33	Engine Control #2
34	Engine Control #3
35	Engine Control #4
36	Engine Control #1
37	Engine Control #5
38	Engine Control #6
39	Machine Control Module
40	Engine Control #7
41	Engine Control #8
42	Engine Control #9
43	Engine Control #10
47	Backup Engine Control
49	VIMS Main Module
50	VIMS Analysis Module
51	VIDS Main Module
52	Graphical Display Module #2

53	Graphical Display Module
54	Caterpillar Monitoring System #2
57	Interface Module #1
58	Interface Module #2
59	Interface Module #3
60	Interface Module #4
61	Data Acquisition Module
65	Interface Module #5
66	Interface Module #6
67	Interface Module #7
68	Interface Module #8
73	Auto Ride/2-speed Fan Control
74	Payload Control System
75	All-Wheel Drive Control
76	DeNOx Control
77	DeNOx Display
78	Hitch Control
79	Hydrostatic Transmission Control
81	Transmission Control
82	Electronic Implement Control
83	Automatic Retarder Control
84	Paver Burner Control
85	Engine Fan Control
86	Global Positioning System Interface Module
87	Chassis Control Module
88	Generator Set Control #1
89	Generator Set Control #2
90	Generator Set Control #3

91	Generator Set Control #4
92	Generator Set Control #5
93	Generator Set Control #6
94	Generator Set Control #7
95	Generator Set Control #8
97	Customer Communication Module
98	Customer Communication Module Special
99	Programmable Relay Control Module
100	Engine Vision Display
101	Engine Vision Interface Module
102	Customer Communication Module #2
103	Remote Display #2
105	Hydraulic Pump Control
106	Electro-hydraulic Control Module
107	Integrated Temperature Sensing Module #2/Engine Sensing Module #2
108	Versatile Control Module
109	Integrated Combustion Sensing Module #1
110	Integrated Combustion Sensing Module #2
111	Integrated Temperature Sensing Module/Engine Sensing Module
113	TTT Transmission Control
114	Grade Slope Control
115	Slope Sensor Module
116	Integrated Brake Control
117	Transmission Shift Lever Module
118	Paver Burner Control #3
119	Paver Burner Control #2
121	CAES
122	Product Link Module

123	Data Link Translation Module
124	Theft Deterrent Module
125	Caterpillar Monitoring System #3
126	System Master Control Module
127	Data Link Translation Module #2
129	Training Aid #1
130	Training Aid #2
131	Test Cell Computer
132	Wireless Transceiver
133	Security System Key Reader
137	Grade Slope Display #1
138	Grade Slope Display #2
139	Grade Slope Display #3
140	Grade Slope Display #4
141	Grade Slope Display #5
142	Grade Slope Display #6
145	Electronic Implement Control #2
146	Transmission Control #2
147	Electronic Implement Control #3
148	Particulate Matter Control
149	Engine Aftertreatment Control #1
153	Alarm Control #1
154	Alarm Control #2
155	Alarm Control #3
156	Operator Station #1 Module
157	Operator Station #2 Module
161	Communication Gateway #1
162	Communication Gateway #2

163	Communication Gateway #3
169	Power Converter #1
170	Power Converter #2
254	Flashing ECM
255	Blank ECM

## Component Identifiers (CID)

Table 2

<b>CID</b>	<b>Description</b>
1	Cylinder #1 Injector
2	Cylinder #2 Injector
3	Cylinder #3 Injector
4	Cylinder #4 Injector
5	Cylinder #5 Injector
6	Cylinder #6 Injector
7	Cylinder #7 Injector
8	Cylinder #8 Injector
9	Cylinder #9 Injector
10	Cylinder #10 Injector
11	Cylinder #11 Injector
12	Cylinder #12 Injector
13	Cylinder #13 Injector
14	Cylinder #14 Injector
15	Cylinder #15 Injector
16	Cylinder #16 Injector
17	Fuel Shutoff Valve
18	Fuel Control Valve
19	Throttle Bypass Valve

20	Timing Actuator
21	Engine Position Sensor
22	Timing Sensor
23	Rack Actuator
24	Rack Position Sensor
27	Variable Geometry Turbocharger Actuator #1
28	Variable Geometry Turbocharger Actuator #2
41	8 Volt DC Supply
42	Injector Actuation Valve
70	Parking Brake Switch
71	Idle Shutdown Timer
75	Steering Oil Temperature Sensor
81	Particulate Trap Inlet Pressure Sensor
82	Air Start Pressure Sensor
84	Ground Speed Sensor
91	Throttle Position Sensor
94	Fuel Delivery Pressure Sensor
95	Fuel Filter Differential Pressure Sensor
96	Fuel Level Sensor
98	Engine Oil Level Sensor
99	Engine Oil Filter Differential Pressure Sensor
100	Engine Oil Pressure Sensor
101	Crankcase Air Pressure Sensor
102	Boost Pressure Sensor
104	Turbo Oil Pressure Sensor
105	Inlet Manifold Temperature Sensor
106	Air Inlet Pressure Sensor
109	Engine Coolant Outlet Pressure Sensor



110	Engine Coolant Temperature Sensor
111	Engine Coolant Level Sensor
112	Engine Coolant Filter Differential Pressure Sensor
124	Transmission Oil Level
126	Transmission Oil Filter Differential Pressure Sensor
127	Transmission Oil Pressure Sensor
132	Transmission Pilot Pressure Supply Sensor
133	Transmission Pilot Pressure Supply Solenoid
134	Right-Side Steering Manifold Solenoid
135	Left-Side Steering Manifold Solenoid
136	Right Motor Pilot Pressure Sensor
137	Left Motor Pilot Pressure Sensor
138	Reduced Rimpull Selection Switch
139	Tip Backward Solenoid
140	Tip Forward Solenoid
141	Economy Mode Switch
142	Radiator Cleanout Door Position Switch
143	Neutralizer Pressure Switch
144	Backup Alarm Relay
145	12 Volt DC Power Supply
146	Hitch Mode Switch
147	Lockup Clutch Pressure Sensor
148	Travel Pressure Sensor
149	Ride Control 3-Way Solenoid
150	Tamper Bar Speed Sensor
151	Tamper Bar Solenoid
152	Propulsion Control Diagnostic Lamp
153	Right Drive Motor Speed Sensor

154	Left Drive Motor Speed Sensor
155	Propel Enable Solenoid
156	Right Reverse EDC Solenoid
157	Left Reverse EDC Solenoid
158	Right Forward EDC Solenoid
159	Left Forward EDC Solenoid
160	Paver Implement Relay
161	Brake (Travel) Pedal Sensor
162	Steering Wheel Sensor
163	Steering Angle Sensor
164	Injector Actuation Pressure
167	Alternator Charging Voltage Sensor
168	Electrical System Voltage
171	Ambient Air Temperature Sensor
172	Intake Manifold Air Temperature Sensor
174	Fuel Temperature Sensor
175	Engine Oil Temperature Sensor
177	Transmission Oil Temperature Sensor
190	Engine Speed Sensor
191	Transmission Output Speed Sensor
246	Proprietary CAN Data Link
247	SAE J1939 Data Link
248	CAT Data Link
249	SAE J1922 Data Link
250	SAE J1708/J1587 Data Link
252	Calibration Module
253	Personality Module
254	Electronic Control Module