

SERVICE BULLETIN



M-1140

October 08, 2003

2004 ELECTRICAL DIAGNOSTIC MANUAL UPDATE

Purpose

To communicate a need for dealers to make corrections to the carbureted engine management sections of some Electrical Diagnostic manuals.

Motorcycles/Manuals Affected

- 2004 Softail Electrical Diagnostic Manual (Part No. 99498-04).
- 2004 Touring Electrical Diagnostic Manual (Part No. 99497-04).
- 2004 Dyna Electrical Diagnostic Manual (Part No. 99496-04).
- 2004 Sportster Electrical Diagnostic Manual (Part No. 99495-04).

Required Dealer Action

Notify all service personnel about service literature update.

All Carbureted Models

2004 carbureted model diagnostic manuals list the diagnostic trouble codes (DTCs) for the crank position sensor as P0373 and P0374. The correct DTCs for the crank position sensor on carbureted models are P0371, P0372 and P0374. DTC P0373 is not available.

A DTC P0371, P0372 and P0374 will set if the crankshaft position sensor (CKP) signal is weak, shorted or absent. The proper codes and descriptions are listed in Table 1.

- Replace CKP Sensor Chart P0373, P0374 in Section 4 of all manuals with a copy of diagnostic chart included below.
- Make notes in the main table of contents, the index and the Section 4 table of contents listing the new codes and page numbers.

Table 1. Code Description

DTC	DESCRIPTION
P0371	Crankshaft position shorted low
P0372	Crankshaft position shorted high
P0374	Crankshaft position sensor not detected/cannot synchronize

Softail Models

Replace diagnostic trouble code (DTC) priority list in Section 4 with a copy of the chart titled Softail Diagnostic Trouble Codes (DTC) and Fault Conditions.

Touring Models

Replace diagnostic trouble code (DTC) priority list in Section 4 with a copy of the chart titled Touring Diagnostic Trouble Codes (DTC) and Fault Conditions.

Dyna Models

Replace diagnostic trouble code (DTC) priority list in Section 4 with a copy of the chart titled Dyna Diagnostic Trouble Codes (DTC) and Fault Conditions.

Sportster Models

Replace diagnostic trouble code (DTC) priority list in Section 4 with a copy of the chart titled Sportster Diagnostic Trouble Codes (DTC) and Fault Conditions.

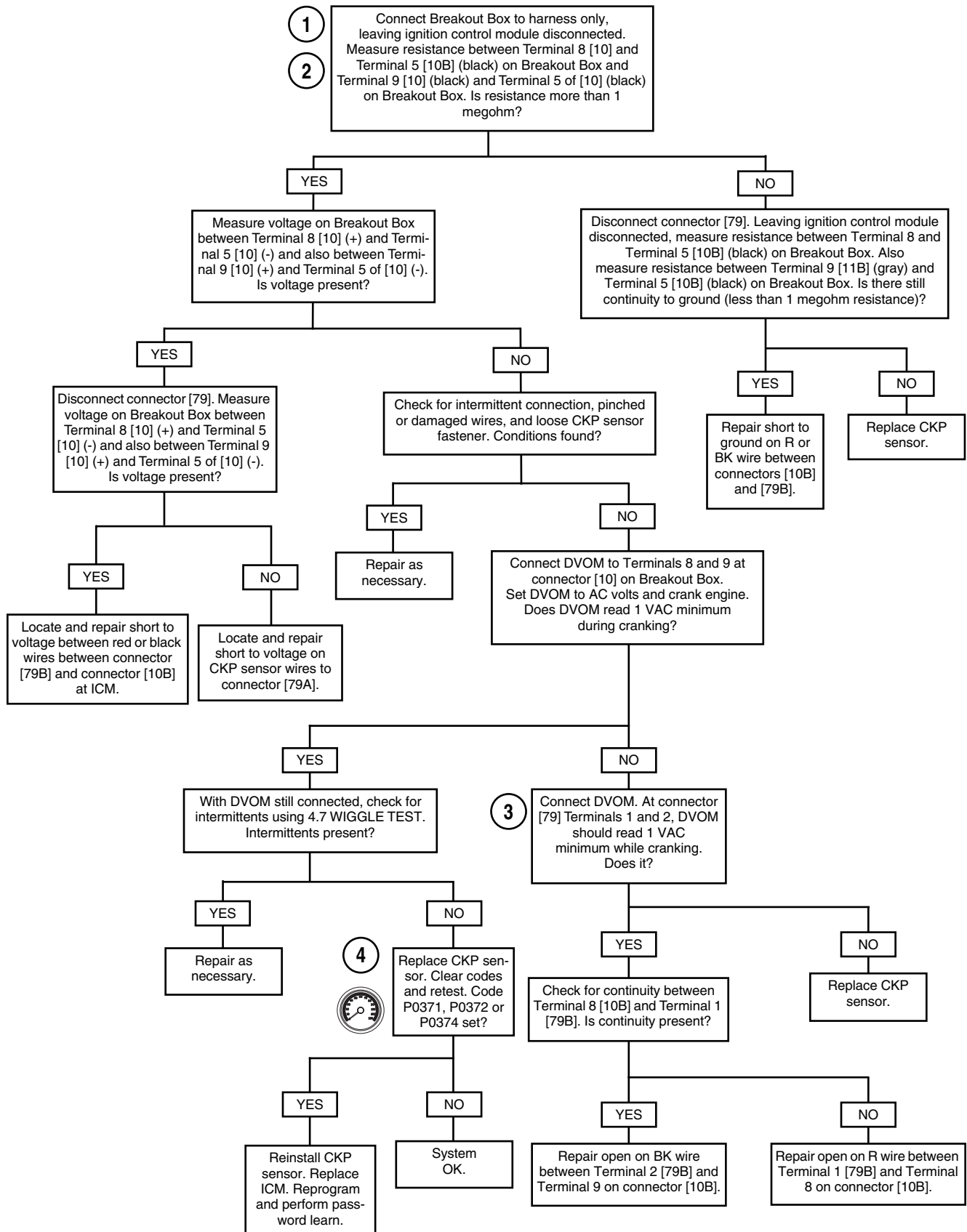
IMPORTANT NOTE

In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO
INITIAL HERE									

©2003 HARLEY-DAVIDSON MOTOR COMPANY

CKP SENSOR: DTC P0371, P0372, P0374



Clear codes using speedometer self diagnostics. See 4.5 SPEEDOMETER SELF DIAGNOSTICS. Confirm proper operation with no check engine lamp.

Softail Diagnostic Trouble Codes (DTC) and Fault Conditions

RANKING	DTC	FAULT CONDITION	SOLUTION
1	P0605	flash memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
2	P0603	EEPROM memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
3	P0602	Flash memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
4	P0604	RAM memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
5	P0607	A to D error	4.17 DTC P0602, P0603, P0604, P0605, P0607
6	"BUS Er"	serial data bus shorted low/open/high	4.10 STARTS, THEN STALLS
7	U1300	serial data shorted low	4.10 STARTS, THEN STALLS
8	U1301	serial data shorted high	4.10 STARTS, THEN STALLS
9	U1064	lost TSM/TSSM communication	4.20 DTC U1064, U1255
10	U1097	lost speedometer communication	4.21 DTC U1097, U1255
11	U1255	missing response at TSSM	4.20 DTC U1064, U1255
12	U1255	missing response at speedometer	4.21 DTC U1097, U1255
13	P1009	TSM/TSSM disabled fuel due to bad password	4.18 DTC P1009, P1010
14	P1010	TSM/TSSM disabled fuel due to no password (starts then stalls)	4.18 DTC P1009, P1010
15	P0371	crankshaft position sensor shorted low	4.14 DTC P0371, P0372, P0374
16	P0372	crankshaft position sensor shorted high	4.14 DTC P0371, P0372, P0374
17	P0374	crankshaft position sensor not detected/ cannot synchronize	4.14 DTC P0371, P0372, P0374
18	P0106	MAP sensor rate-of-change error	4.13 DTC P0106, P0107, P0108
19	P0107	MAP sensor failed open/low	4.13 DTC P0106, P0107, P0108
21	P0108	MAP sensor failed high	4.13 DTC P0106, P0107, P0108
20	P1351	ignition coil driver front low/open	4.19 DTC P1351, P1352, P1354, P1355
22	P1354	ignition coil driver rear low/open	4.19 DTC P1351, P1352, P1354, P1355
23	P1352	ignition coil driver front high	4.19 DTC P1351, P1352, P1354, P1355
24	P1355	ignition coil driver rear high	4.19 DTC P1351, P1352, P1354, P1355
25	P0562	system voltage low	4.16 DTC P0562, P0563
26	P0563	system voltage high	4.16 DTC P0562, P0563
27	P0501	VSS failed low	4.15 DTC P0501, P0502
28	P0502	VSS failed high/open	4.15 DTC P0501, P0502

Touring Diagnostic Trouble Codes (DTC) and Fault Conditions

PRIORITY RANKING	DTC NO.	FAULT CONDITION	SOLUTION
1	P0605	flash memory error	4.19 DTC P0602, P0603, P0604, P0605, P0607
2	P0603	EEProm memory error	4.19 DTC P0602, P0603, P0604, P0605, P0607
3	P0602	Flash memory error	4.19 DTC P0602, P0603, P0604, P0605, P0607
4	P0604	RAM memory error	4.19 DTC P0602, P0603, P0604, P0605, P0607
5	P0607	A to D error	4.19 DTC P0602, P0603, P0604, P0605, P0607
6	"BUS Er"	Serial data bus shorted low/open/high	4.10 STARTS, THEN STALLS
7	U1300	serial data shorted low	4.10 STARTS, THEN STALLS
8	U1301	serial data shorted high	4.10 STARTS, THEN STALLS
9	U1064	lost TSM/TSSM communication	4.20 DTC U1064
10	U1097	lost speedometer communication	4.21 DTC U1097
11	U1255	Missing response at TSSM	4.20 DTC U1064
12	U1255	Missing response at speedometer	4.21 DTC U1097
13	P1009	TSM/TSSM disabled fuel due to bad password	4.15 DTC P1009, P1010
14	P1010	TSM/TSSM disabled fuel due to no password (starts then stalls)	4.15 DTC P1009, P1010
15	P0371	crankshaft position sensor shorted low	4.17 DTC P0371, P0372, P0374
16	P0372	crankshaft position sensor shorted high	4.17 DTC P0371, P0372, P0374
17	P0374	crankshaft position sensor not detected/cannot synchronize	4.17 DTC P0371, P0372, P0374
18	P0106	MAP sensor rate-of-change error	4.13 DTC P0106, P0107, P0108
19	P0107	MAP sensor failed open/low	4.13 DTC P0106, P0107, P0108
21	P0108	MAP sensor failed high	4.13 DTC P0106, P0107, P0108
20	P1351	ignition coil driver front low/open	4.16 DTC P1351, P1352, P1354, P1355
22	P1354	ignition coil driver rear low/open	4.16 DTC P1351, P1352, P1354, P1355
23	P1352	ignition coil driver front high	4.16 DTC P1351, P1352, P1354, P1355
24	P1355	ignition coil driver rear high	4.16 DTC P1351, P1352, P1354, P1355
25	P0562	system voltage low	4.14 DTC P0562, P0563
26	P0563	system voltage high	4.14 DTC P0562, P0563
27	P0501	VSS failed low	4.14 DTC P0562, P0563
28	P0502	VSS failed high/open	4.14 DTC P0562, P0563

Dyna Diagnostic Trouble Codes (DTC) and Fault Conditions

RANKING	DTC	FAULT CONDITION	SOLUTION
1	P0605	flash memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
2	P0603	EEPROM memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
3	P0602	Flash memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
4	P0604	RAM memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
5	P0607	A to D error	4.17 DTC P0602, P0603, P0604, P0605, P0607
6	"BUS Er"	serial data bus shorted low/open/high	4.10 STARTS, THEN STALLS
7	U1300	serial data shorted low	4.10 STARTS, THEN STALLS
8	U1301	serial data shorted high	4.10 STARTS, THEN STALLS
9	U1064	lost TSM/TSSM communication	4.20 DTC U1064, U1255
10	U1097	lost speedometer communication	4.21 DTC U1097, U1255
11	U1255	missing response at TSSM	4.20 DTC U1064, U1255
12	U1255	missing response at speedometer	4.21 DTC U1097, U1255
13	P1009	TSM/TSSM disabled fuel due to bad password	4.18 DTC P1009, P1010
14	P1010	TSM/TSSM disabled fuel due to no password (starts then stalls)	4.18 DTC P1009, P1010
15	P0371	crankshaft position sensor shorted low	4.14 DTC P0371, P0372, P0374
16	P0372	crankshaft position sensor shorted high	4.14 DTC P0371, P0372, P0374
17	P0374	crankshaft position sensor not detected/ cannot synchronize	4.14 DTC P0371, P0372, P0374
18	P0106	MAP sensor rate-of-change error	4.13 DTC P0106, P0107, P0108
19	P0107	MAP sensor failed open/low	4.13 DTC P0106, P0107, P0108
21	P0108	MAP sensor failed high	4.13 DTC P0106, P0107, P0108
20	P1351	ignition coil driver front low/open	4.19 DTC P1351, P1352, P1354, P1355
22	P1354	ignition coil driver rear low/open	4.19 DTC P1351, P1352, P1354, P1355
23	P1352	ignition coil driver front high	4.19 DTC P1351, P1352, P1354, P1355
24	P1355	ignition coil driver rear high	4.19 DTC P1351, P1352, P1354, P1355
25	P0562	system voltage low	4.16 DTC P0562, P0563
26	P0563	system voltage high	4.16 DTC P0562, P0563
27	P0501	VSS failed low	4.16 DTC P0562, P0563
28	P0502	VSS failed high/open	4.16 DTC P0562, P0563

Sportster Diagnostic Trouble Codes (DTCs) and Fault Conditions

PRIORITY	DTC NO.	FAULT CONDITION	RELEVANT TOPIC
16	P0106	MAP sensor rate-of-change error	4.13 DTC P0106, P0107, P0108
17	P0107	MAP sensor failed open/low	4.13 DTC P0106, P0107, P0108
18	P0108	MAP sensor failed high	4.13 DTC P0106, P0107, P0108
13	P0371	crankshaft position sensor shorted low	4.14 DTC P0371, P0372, P0374
14	P0372	crankshaft position sensor shorted high	4.14 DTC P0371, P0372, P0374
15	P0374	Crankshaft position sensor not detected/ cannot synchronize	4.14 DTC P0371, P0372, P0374
23	P0501	VSS failed low	4.15 DTC P0501, P0502
24	P0502	VSS failed high/open	4.15 DTC P0501, P0502
21	P0562	system voltage low	4.16 DTC P0562, P0563
22	P0563	system voltage high	4.16 DTC P0562, P0563
1	P0602	Calibration memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
2	P0603	EEPROM memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
3	P0604	RAM memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
4	P0605	Program memory error	4.17 DTC P0602, P0603, P0604, P0605, P0607
5	P0607	A to D error	4.17 DTC P0602, P0603, P0604, P0605, P0607
11	P1009	Incorrect password	4.18 DTC P1009, P1010
12	P1010	Missing password	4.18 DTC P1009, P1010
19	P1351	Ignition coil driver front low/open	4.19 DTC P1351, P1352, P1354, P1355
20	P1352	Ignition coil driver front high	4.19 DTC P1351, P1352, P1354, P1355
9	U1064	Lost TSM/TSSM communication	4.20 DTC U1064
10	U1097	Lost speedometer communication	4.21 DTC U1097
7	U1300	Serial data shorted low	4.10 STARTS, THEN STALLS
8	U1301	Serial data shorted high	4.10 STARTS, THEN STALLS
6	"BUS Er"	serial data bus shorted low/open/high	4.10 STARTS, THEN STALLS