PART NO. TTDC390-EN-00

HITACHI

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Technical Manual
Troubleshooting

ZX210LCN-G
Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODC390-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDC390-EN
Workshop Manual	: Vol. No.WDC390-EN
Engine Manual	: Vol. No.EDCD-EN

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SECTION 4

OPERATIONAL PERFORMANCE TEST

CONTENTS

Group 1 Introduction
Operational Performance Tests T4-1-1
Preparation for Performance Tests T4-1-2

Group 2 Standard
Operational Performance Standard Table T4-2-1
Main Pump P-Q Diagram T4-2-6
Injection Pump T4-2-8
Sensor Activating Range T4-2-9
MPDr. Monitor Indicating Values T4-2-10

Group 3 Engine Test
Engine Speed T4-3-1
Engine Compression Pressure T4-3-4
Valve Clearance Adjustment T4-3-6
Nozzle Check T4-3-8
Injection Timing T4-3-10
Lubricant Consumption T4-3-12

Group 4 Machine Performance Test
Travel Speed T4-4-1
Track Revolution Speed T4-4-2
Mistrack Check T4-4-3
Travel Parking Leakage T4-4-4
Swing Speed T4-4-5
Swing Function Drift Check T4-4-6
Swing Motor Leakage T4-4-8
Maximum Swingable Slant Angle T4-4-10
Swing Bearing Play T4-4-12
Hydraulic Cylinder Cycle Time T4-4-14
Dig Function Drift Check T4-4-16
Control Lever Operating Force T4-4-19
Control Lever Stroke T4-4-20
Combined Operation of Boom Raise / Swing Function Check T4-4-21
Combined Operation of Boom Raise / Arm Roll-In Function Check T4-4-22

Group 5 Component Test
Primary Pilot Pressure T4-5-1
Secondary Pilot Pressure T4-5-3
Solenoid Valve Set Pressure T4-5-4
Main Pump Delivery Pressure T4-5-6
Main Relief Set Pressure T4-5-8
Relief pressure (when relieving swing) T4-5-12
Relief Pressure (When relieving Travel) T4-5-13
Overload Relief Valve Set Pressure T4-5-14
Main Pump Flow Rate Measurement T4-5-16
Swing Motor Drainage T4-5-24
Travel Motor Drainage T4-5-26

Group 6 Adjustment
Engine Speed Adjustment and Engine Learning T4-6-1
Governor Lever and Fuel Cut Lever Position T4-6-4

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Test Harness

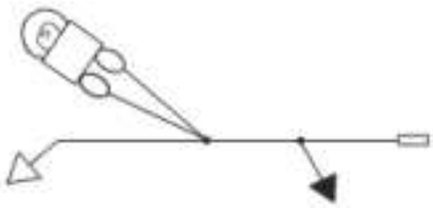
Install a test harness between connectors. Check the circuit condition depending on whether the test harness lamp lights or extinguishes during operation.

- Parts Number 4283594 (ST 7126)

Use in order to check a single-line (discontinuity and/or voltage).

+ During Operation: Light is ON.

Parts Number 4283594 (ST 7126)



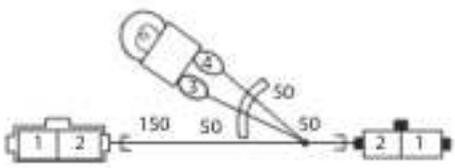
T107-07-05-012

- Parts Number (ST 7226)

Use in order to check the solenoid valve unit circuits.

+ When the corresponding control lever or switch is operated: Light is ON.

Parts Number (ST 7226)



T107-07-06-015

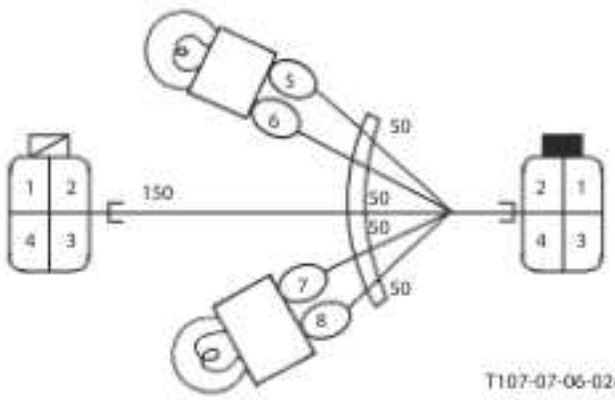
- Parts Number 4274589 (ST 7125)

Use to check the EC motor circuit.

When the engine control dial is rotated:

+ Both lamps ON: Normal
+ Only one lamp ON: Check for continuity of the circuit connected to the lamp OFF.
+ Both lamps OFF: Check the harness together with the relay.

Parts Number 4274589 (ST 7125)

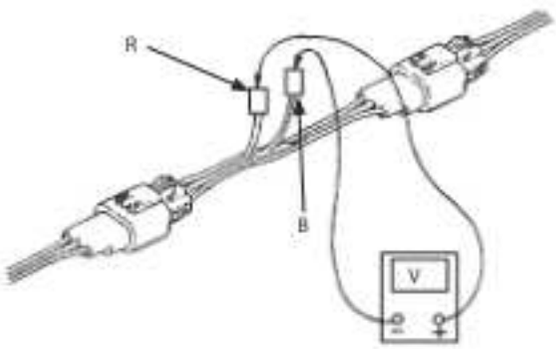


T107-07-06-024

- Parts Number 4284347 (ST 7129)

Use to measure the EC sensor circuit signal line voltage (between terminals #2 and #3).

Parts Number 4284347 (ST 7129)



T107-07-03-009

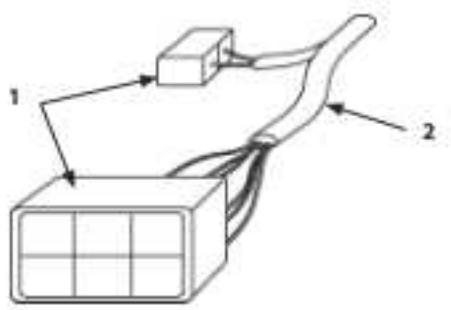
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Troubleshooting A (Base Machine Diagnosis By Using Fault Codes) Procedure

Refer to troubleshooting A procedure in case any fault codes are displayed after diagnosing by using MPDr. or the service menu of the monitor.

- Diagnosis Procedure
  - The diagnosis procedures for the displayed fault codes are explained in this group.
  - In case more than one fault code are displayed at the same time, MC may be faulty or the power/ground of the sensor system may be faulty.
  - When the MC fault code is displayed with other fault code, replace MC.
  - When fault code 04 (Abnormal Sensor Voltage) is displayed with other fault code, diagnose for fault code 04 first.
  - In case more than one fault code other than those described above are displayed at the same time, diagnose for each fault code.
  - It may be required that the machine is operated or the test harness is connected at inspection. Check the items of preparation and perform inspection according to the procedures when diagnosing.

NOTE: Harness end connector viewed from the open end side by the all connectors image shown in this section.



T6L4-05-03-001

1- Harness End Connector 2- Harness

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Travel System Troubleshooting

T-1 Both right and left tracks do not rotate or rotate slowly.

Travel Speed	Specification (sec/10 m)	Remark
Fast Speed	6.6±0.6	
Slow Speed	10.2±1.0	

Preparation

- Both right and left pilot valves, travel motors, and/or control valve spools are unlikely to be faulty at the same time.
- If both travel systems are not operated, the pilot system, which is applied to both side travel motors, may be faulty. If the primary pilot pressure is lower than specification, the front attachment operating speed becomes slow as well. Refer to A-2.
- If the fast travel mode cannot be selected, refer to T-5.

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