CX700B
Tier 3
Crawler Excavator

SERVICE MANUAL

Part number 84124944D
English
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CASE CONSTRUCTION

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WARNING: *This symbol is used in this manual to indicate important safety messages. Whenever you see this symbol, carefully read the message which follows. Your safety depends on it.*

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TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE

For all part orders, request for information or assistance, always specify the type and the serial number of the machine to your Case dealer.

Fill in the following lines with the required information: Type, serial number, year of manufacture of the machine and the serial numbers of the hydraulic and mechanical components.

Machine



CRL05J002E00

Type .....

Serial number .....

Year of manufacture .....

Engine

Make and type .....

Serial number .....

Serial numbers of the components

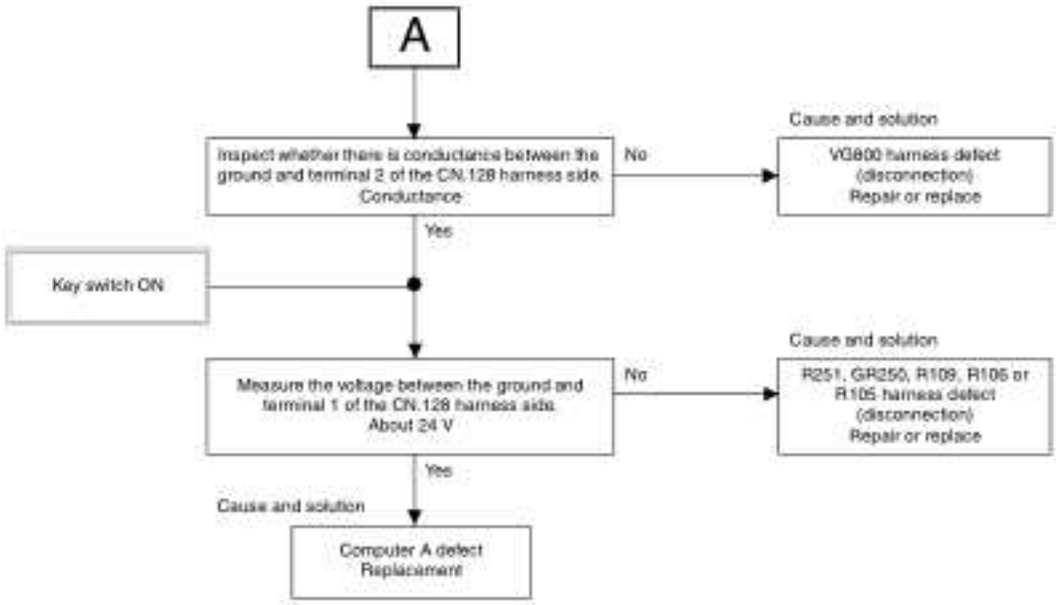
Hydraulic pump .....

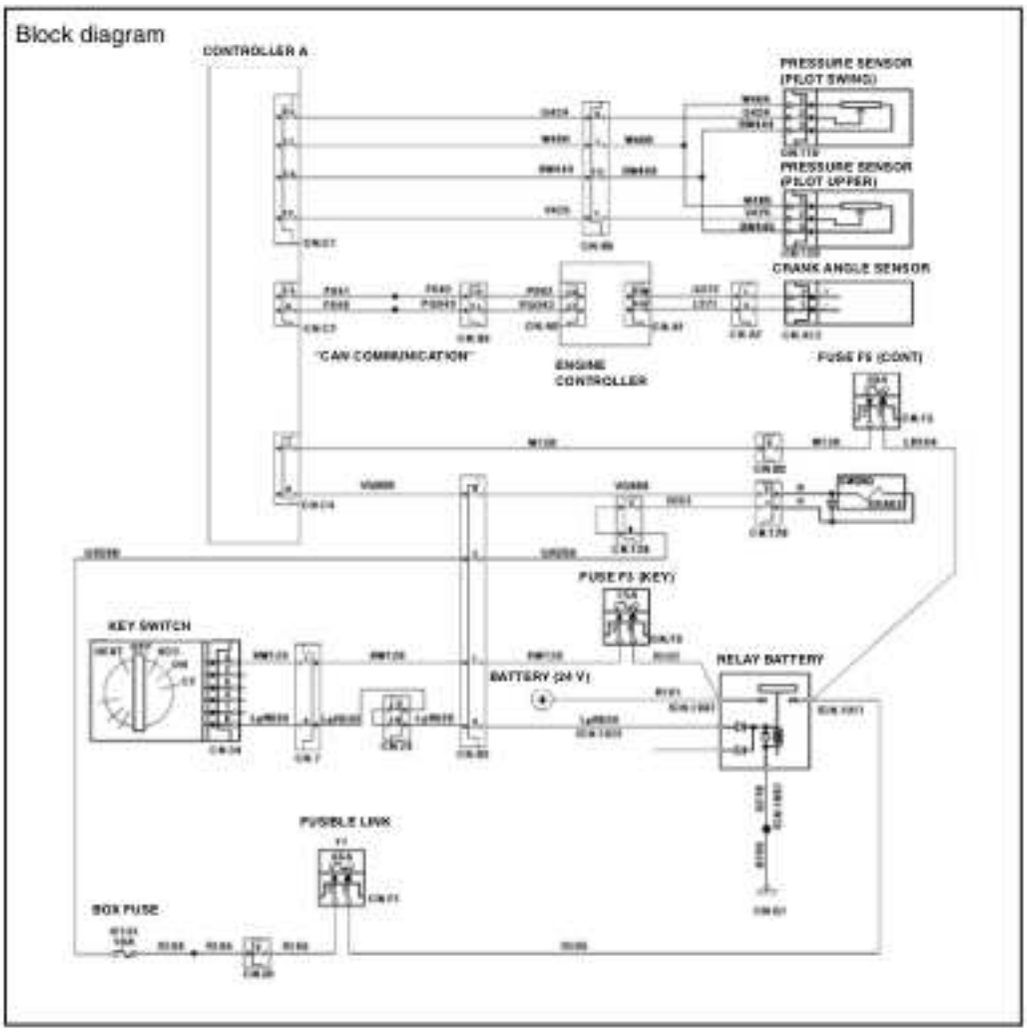
Swing reduction gear .....

Travel reduction gears .....

Control valve .....

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Step	Action	Value	Yes	No
10	Check the engine symptoms again. Have the engine symptoms normalized?	-	Go to step 20.	Go to step 11.
11	Inspect the condition of electrical components installed after purchasing such as wireless devices and working lights. Do the engine symptoms not change even when the power supply to the electrical components installed after purchasing is switched OFF?	-	Go to step 12.	Go to step 13.
12	Either correct the installation condition of electrical components or remove them. Is the action complete?	-	Go to step 13.	
13	Check the engine symptoms again. Have the engine symptoms normalized?	-	Go to step 20.	Go to step 14.
14	Inspect the injector. 1. Delete the diagnostic trouble code. 2. Start the engine. 3. See "Injector Inspection Methods Using a Thermogun". Was there a cylinder with little temperature change?	-	Go to step 15.	Go to step 16.
15	Replace the injector for the cylinder with little temperature change. **Note:** **See the "Engine" section in the Service Manual for the work procedures.** Is the action complete?	-	Go to step 16.	
16	Is there an EMPS?	-	Go to step 17.	Go to step 18.
17	1. Check the ECM software version. 2. Perform rewriting if updating the ECM software version is necessary. **Note:** **When ECM replacement or rewriting is performed, perform EGR learning.** Is the action complete?	-	Go to step 18.	Go to step 18.
18	Check the mechanical parts of the engine and repair any abnormalities. • Compression pressure • Valve system • Injector • Timing gear • Piston/crank-related Is the action complete?	-	Go to step 19.	
19	Inspect the main unit-side devices (hydraulic pump trouble, etc.) and perform repair if there are any trouble abnormalities. Is the action complete?	-	Go to step 20.	
20	Repair the main unit and check repair. Is the action complete?	-	Check repair.	

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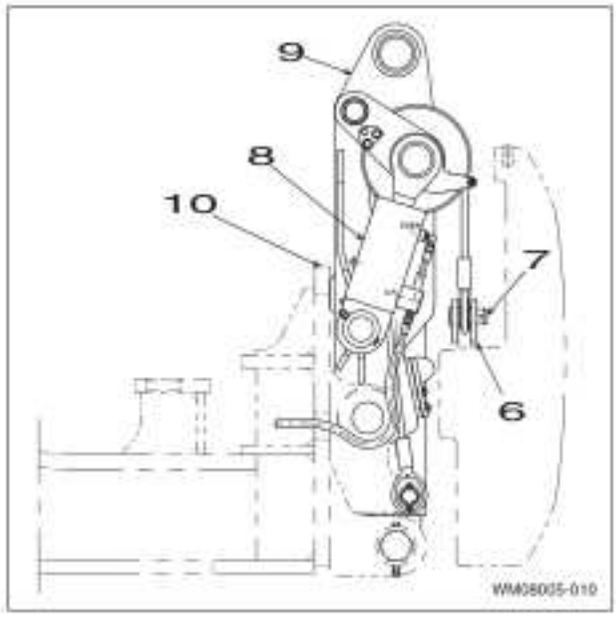
[6] Operate the arm position switch to lower the arm (9).

[7] Remove the pin (7) installed on the bracket (6).

[8] Operate the counterweight switch to move the counterweight cylinder (8) to its maximum extended length.

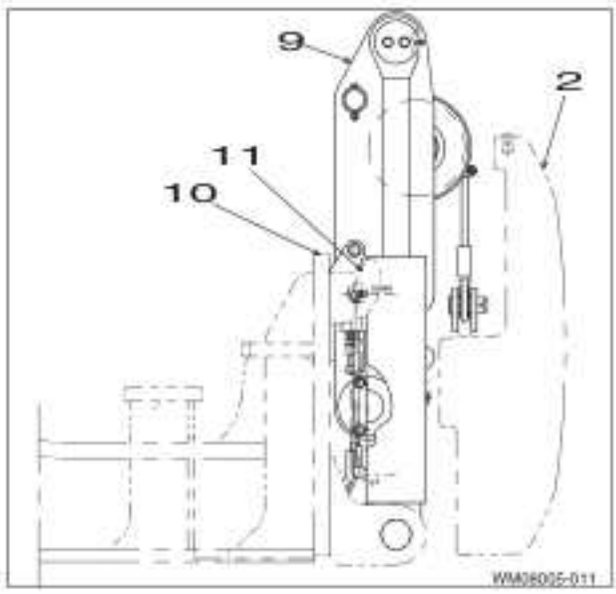
[9] Install the wire rope and bracket (6) with the pin (7) removed in [7].

- Insert the pin from the counterweight installation surface.



[10]Operate the arm position switch to raise the arm to until the arm (9) end section contacts the swing frame rear plate (10).

[11]Operate the counterweight switch to lower the counterweight (2) to where the counterweight hanger section meshes with the swing frame link (11).



[12]Remove the under cover (under the engine) and install the 2 bolts on the bottom of the counterweight (2).

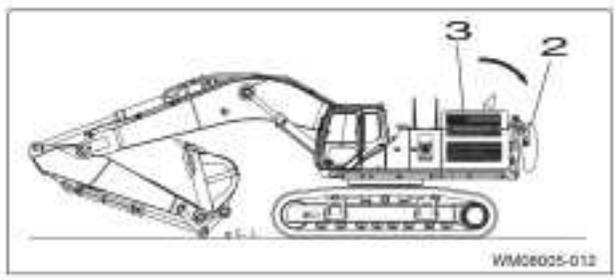
[13]Open the engine hood and install the two bolts on the top of the counterweight. When this is complete, close the engine hood (3).

[14]Tighten the counterweight bolts.
Tightening torque: 2256 - 2550 Nm
(1663.9 - 1880.7 lb ft)

[15]Turn the main switch "OFF".

[16]Close the counterweight removal and installation stop valve.

[17]Install the under cover (under the engine).



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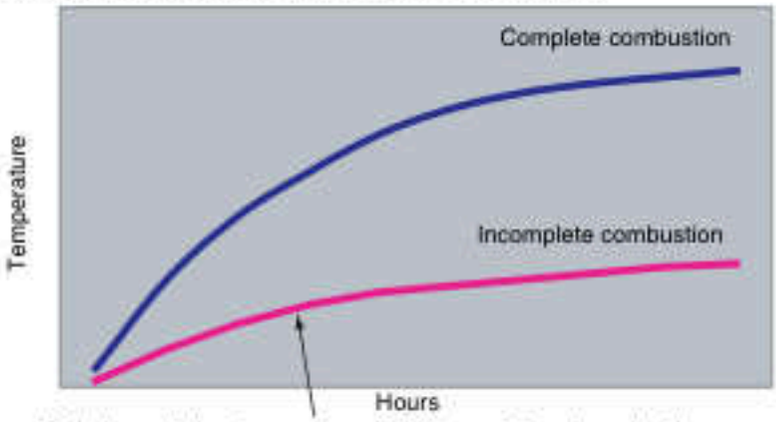
Injector Inspection Methods Using A Thermogun

Common rail-type fuel injection device injectors are located inside the head cover, and inspection (removal and installation of couplers, outside injection from cylinder) cannot be performed. An inspection method for mechanical problems (spray deficiencies, clogging, seizing) for which a diagnostic trouble code does not appear is necessary.

Judgment through temperature measurement

For engines in which combustion conditions are normal, the temperature of each cylinder will ordinarily increase.
However, for cylinders in which there is trouble and combustion conditions are poor, it is difficult for the temperature to increase.
Use these characteristics and observe the temperature change in each cylinder to judge whether there are cylinder problems.

«Difference in temperature change by state of combustion»



Cylinders with low temperature have poor status of combustion.

Therefore, you can judge that there has been some kind of trouble.

TSSA0001

The cause of the problem is often a defect (spray deficiencies, clogging, seizing) with the injector itself.
Also investigate other causes and thoroughly perform trouble diagnosis before deciding what the problem is.

Thermogun

A thermogun is a infrared thermometer capable of non-contact temperature measurement.
As a maintenance tool, this is sold as a thermogun and infrared thermometer.

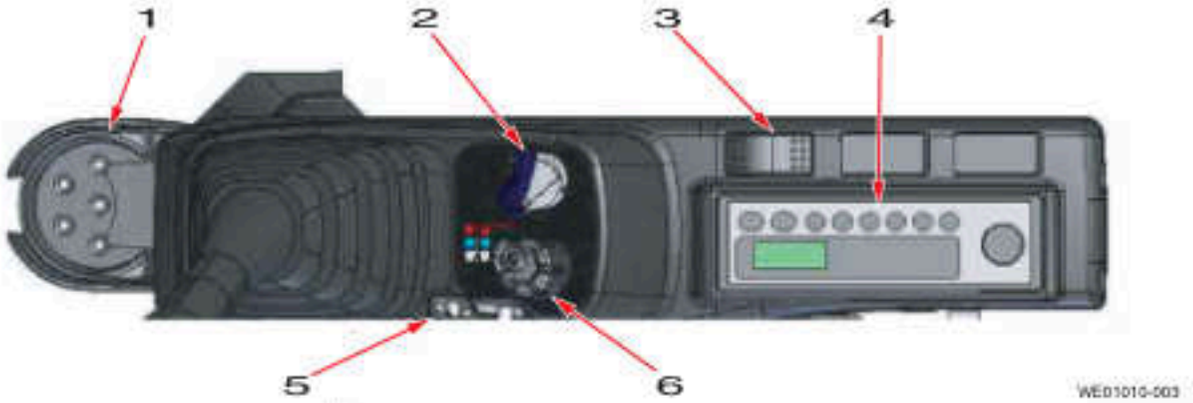
- Ideal for measuring temperatures from 0 °C to 500 °C (32 °F to 932 °F).
- Includes laser pointer
- Includes spot measurement function (convergence ratio of about 10:1)



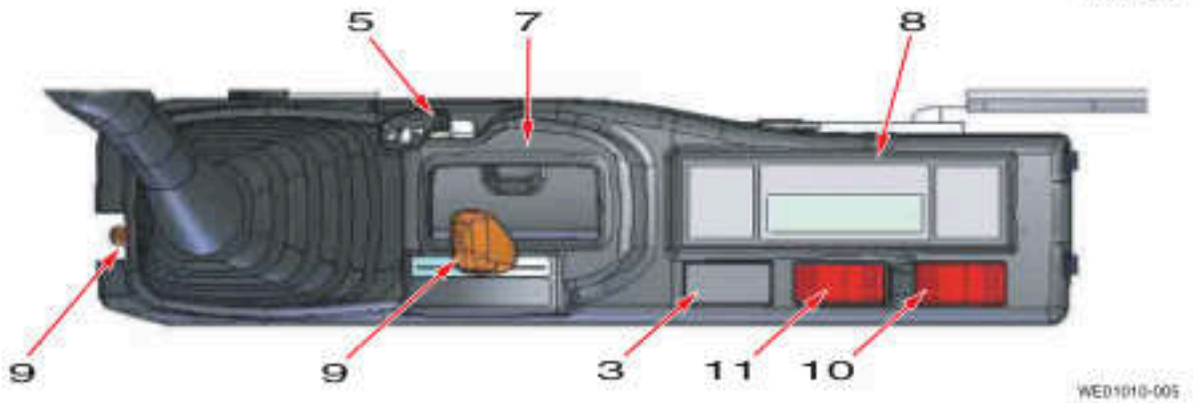
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Layout Around Operator Seat

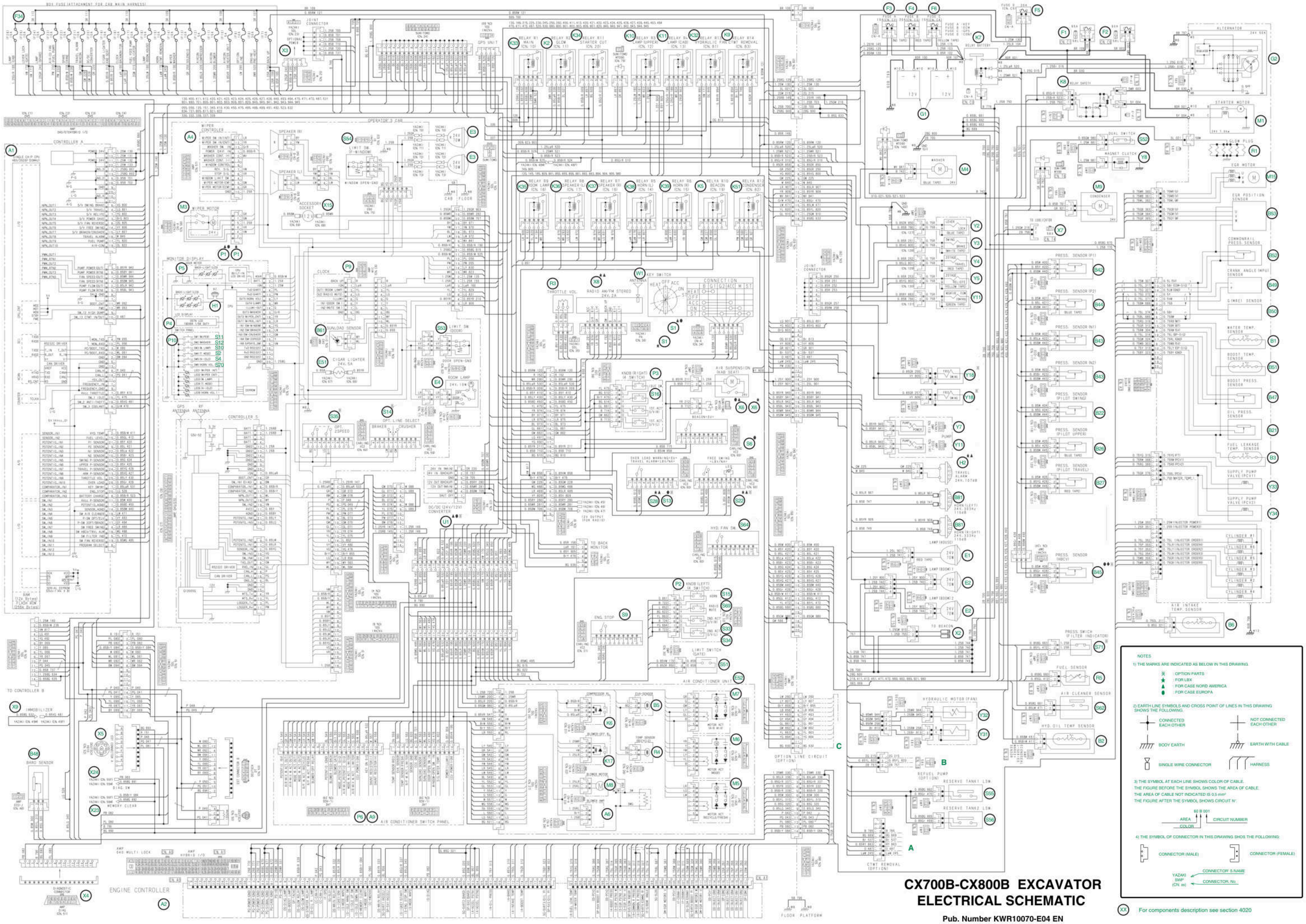






1	Cup holder	7	Ashtray
2	Key switch	8	Air conditioner control panel
3	Rocker switch base	9	Gate lever
4	AM / FM radio	10	Emergency stop switch
5	Tilt lever	11	Hydraulic motor fan reverse switch
6	Throttle volume		

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CX700B-CX800B EXCAVATOR ELECTRICAL SCHEMATIC

Pub. Number KWR10070-E04 EN

(XX) For components description see section 4020

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