CX350D
LC Version
Tier 4B (final)
Crawler Excavator

SERVICE MANUAL

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CASE CONSTRUCTION

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2.Closed wrench (JIS B 4632) or wrench (JIS B 4630)

Table 2

				Unit: mm (in.)
Cylinder	For line band bolts	For line clamp bolts	For 1/8 grease nipples	For 1/4 grease nipples
Arm	18 mm (0.709 in)	24 mm (0.945 in)	10 mm (0.394 in)	14 mm (0.551 in)
Boom	18 mm (0.709 in)	17 mm (0.669 in)	10 mm (0.394 in)	14 mm (0.551 in)
Bucket	18 mm (0.709 in)	24 mm (0.945 in)	10 mm (0.394 in)	—

3.Dedicated special wrench

- For piston nuts : See diagram 1 + table 3
- For piston : See diagram 2 + table 3

Table 3

										Unit: mm (in.)
	Cylin-der	A	B	C	D	E	F	G	T	Multipur-pose bolt
For piston nuts	Arm	175 mm (6.890 in)	-	132 mm (1.197 in)	-	400 mm (15.748 in)	90 mm (3.543 in)	40 mm (1.575 in)	12 - 15 mm (0.473 - 0.590 in)	-
	Boom	150 mm (5.906 in)	-	112 mm (4.409 in)	-	400 mm (15.748 in)	90 mm (3.543 in)	40 mm (1.575 in)	12 - 15 mm (0.473 - 0.590 in)	-
	Bucket									-
For piston	Arm	105 mm (4.134 in)	160 mm (6. 299 in)	135 mm (5.315 in)	14 mm (0.551 in)	300 mm (11.811 in)	70 mm (2.756 in)	40 mm (1.575 in)	12 - 15 mm (0.473 - 0.590 in)	M12 x 25 (2)
	Boom	83 mm (3.268 in)	145 mm (5. 709 in)	110 mm (4.331 in)	14 mm (0.551 in)	300 mm (11.811 in)	70 mm (2.756 in)	40 mm (1.575 in)	12 - 15 mm (0.473 - 0.590 in)	M12 x 25 (2)
	Bucket	86 mm (3.386 in)	150 mm (5. 906 in)	115 mm (4.428 in)	14 mm (0.551 in)	300 mm (11.811 in)	70 mm (2.756 in)	40 mm (1.575 in)	12 - 15 mm (0.473 - 0.590 in)	M12 x 25 (2)

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5. Observe the diagnostic trouble code information with the trouble diagnosis scan tool. A diagnostic trouble code should not be set.

Wiring harnesses - Electrical schematic sheet 20 (55.100) Wiring harnesses - Electrical schematic sheet 15 (55.100)

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P0016-Crankshaft position - Camshaft position correlation

Control Module : ECM

Solution:

1. Check and diagnose the below fault codes before you proceed with the diagnostics code P0016.

   Diagnostic trouble code P0335
   Diagnostic trouble code P0336
   Diagnostic trouble code P0340

2. Inspect the CKP sensor. (Refer to " **Engine timing sensors Crankshaft sensor - Inspect (55.015)**")

   A. If a problem is found, replace the crankshaft position sensor. (Refer to " **Engine timing sensors Crankshaft sensor - Remove (55.015)**" and " **Engine timing sensors Crankshaft sensor - Install (55.015)**")

   B. If there are no problems, proceed to Step **3**

3. Inspect the CMP sensor. (Refer to " **Engine timing sensors Camshaft sensor - Inspect (55.015)**")

   A. If a problem is found, replace the CMP sensor. (Refer to " **Engine timing sensors Camshaft sensor - Remove (55.015)**" and " **Engine timing sensors Camshaft sensor - Install (55.015)**")

   B. If there are no problems, proceed to Step **4**

4. Inspect the flywheel.

   • Make sure that the sensor rotor should not be damaged.

   • Make sure that the ring gear should be installed correctly.

   A. If a problem is found, repair the flywheel.

   B. If there are no problems, proceed to Step **5**

5. Inspect the camshaft gear.

   • Make sure that the camshaft gear should not be damaged.

   • Make sure that the camshaft gear should be installed correctly.

   A. If a problem is found, repair the camshaft gear.

6. Confirm resolution:

   1. Clear the diagnostic trouble code using the trouble diagnosis scan tool.

   2. Turn OFF the ignition switch for at least **30 s**.

   3. Start the engine.

   NOTE: *When the engine does not start, crank the engine for* ***10 s****.*

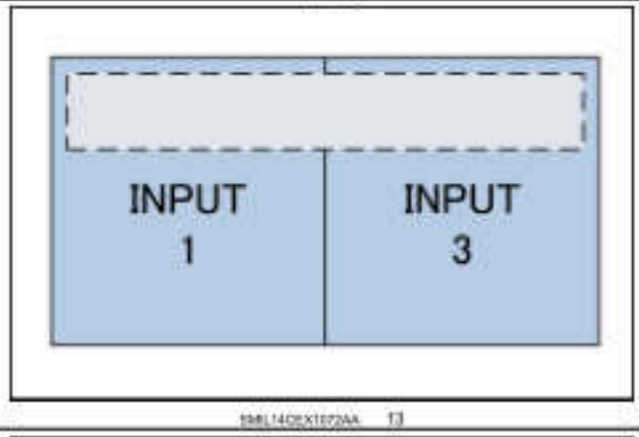
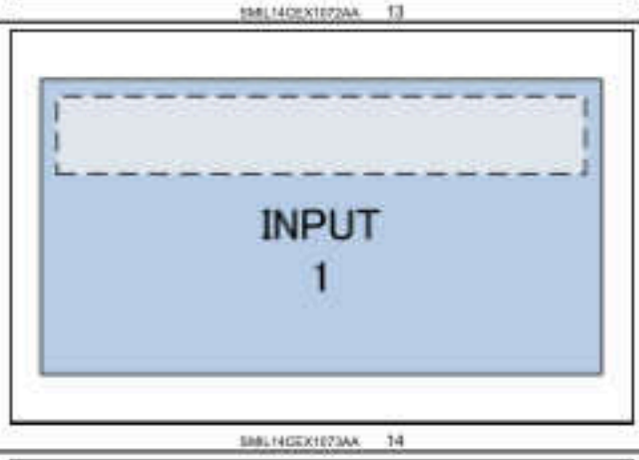
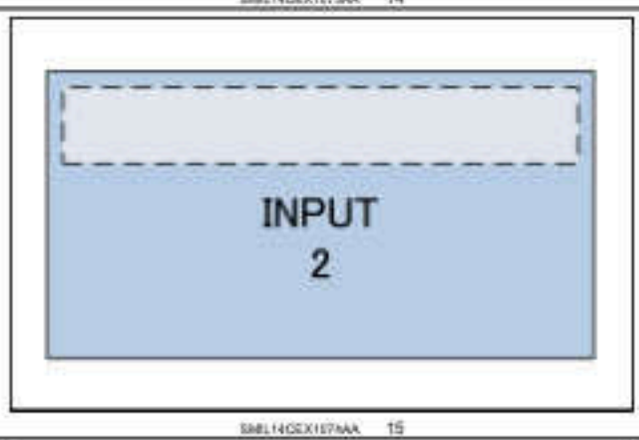
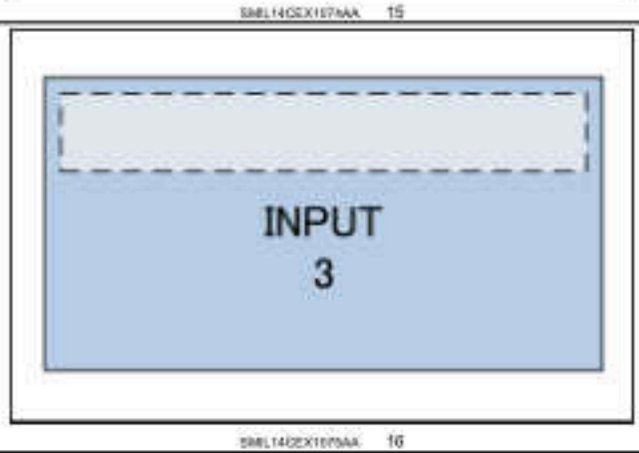
   4. Perform a test-run under the conditions for running the diagnostic trouble code.

   NOTE:
   • Conditions for setting engine run time or coolant temperature vary depending on the diagnostic trouble codes.
   • For the conditions for setting the diagnostic trouble code, refer to the applicable code listed in 15E diagnostic trouble code information.

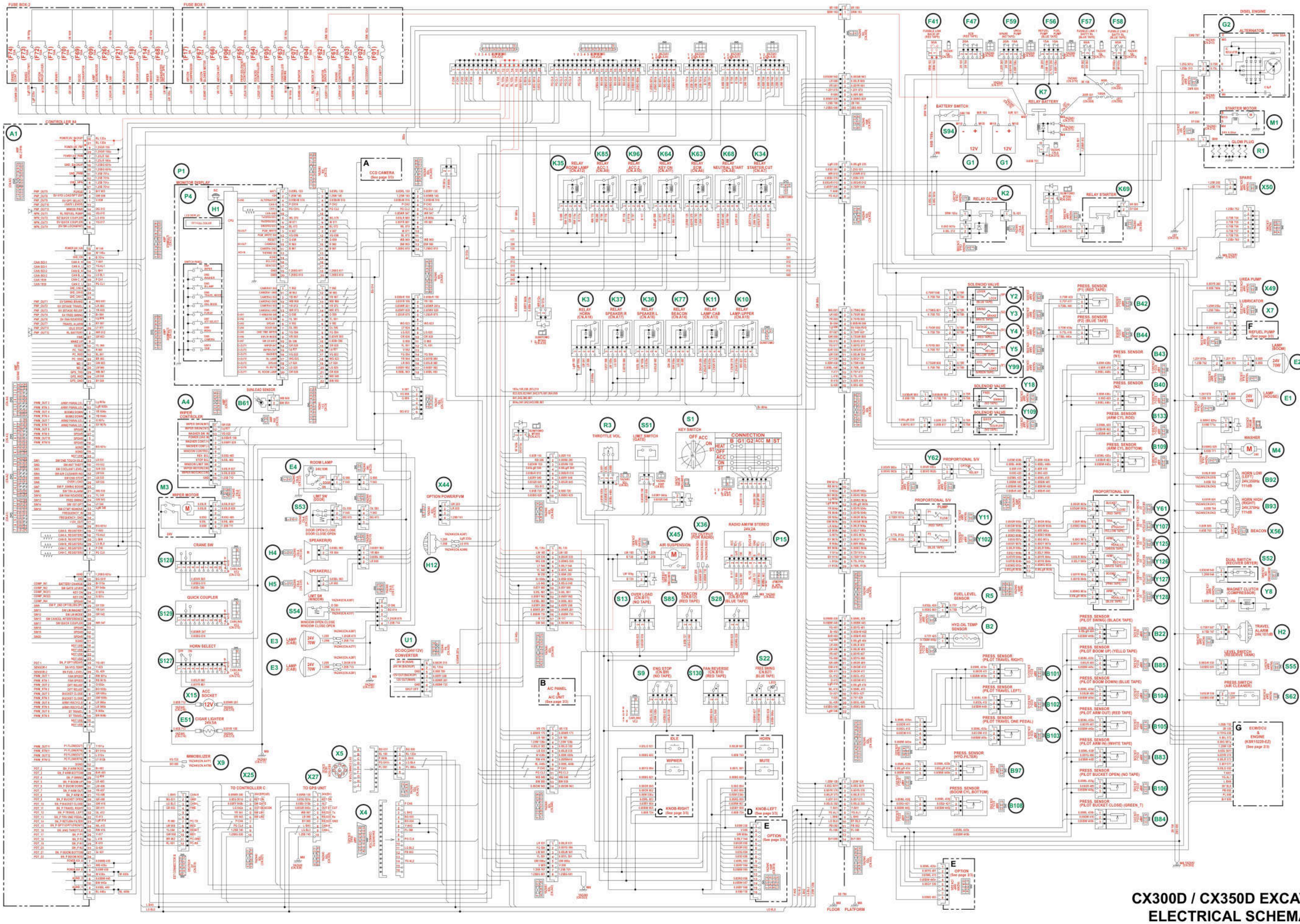
   5. Use the trouble diagnosis scan tool to confirm that a diagnostic trouble code has not been detected.

Wiring harnesses - Electrical schematic sheet 18 (55.100)

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Type	Meter position	Camera input	Display
G	TOP	INPUT 1+3	
H	TOP	INPUT 1	
I	TOP	INPUT 2	
J	TOP	INPUT 3	

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