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DIAGNOSIS MANUAL  
**COMMON RAIL SYSTEM**

**V6108-CR-TIE4**

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**Кубота**

Name		Coolant temperature sensor abnormality	
ISO 14229 P-Code		P0117	P0118
J1939-73	SPN	110	110
	FMI	4	3
DTC Name		Coolant temperature sensor: Low	Coolant temperature sensor: High
Management Unit for Detected Part		THWL	THWH
Detection item		<ul style="list-style-type: none"> <li>Ground short circuit of sensor / harness</li> </ul>	<ul style="list-style-type: none"> <li>Open circuit or +B short circuit of sensor / harness</li> </ul>
DTC Set Preconditions		<ul style="list-style-type: none"> <li>Battery voltage is normal</li> </ul>	<ul style="list-style-type: none"> <li>Battery voltage is normal</li> </ul>
DTC set parameter		<ul style="list-style-type: none"> <li>Voltage of coolant temperature sensor is 0.1 V or less</li> </ul>	<ul style="list-style-type: none"> <li>Voltage of coolant temperature sensor is 4.9 V or above</li> </ul>
Time to action or number of error detection		<ul style="list-style-type: none"> <li>2.8 sec. or more</li> </ul>	<ul style="list-style-type: none"> <li>2.8 sec. or more</li> </ul>
System Action		<ul style="list-style-type: none"> <li>At start-up = -25 °C (-13 °F) [default value]</li> <li>Under other conditions = 80 °C (176 °F) [default value]</li> <li>Output limitation: Approximately 50 % of normal condition</li> <li>Speed limitation (Accelerator limitation: 50 %)</li> <li>EGR stop</li> <li>Intake throttle 100 % open</li> </ul>	<ul style="list-style-type: none"> <li>At start-up = -25 °C (-13 °F) [default value]</li> <li>Under other conditions = 80 °C (176 °F) [default value]</li> <li>Output limitation: Approximately 50 % of normal condition</li> <li>Speed limitation (Accelerator limitation: 50 %)</li> <li>EGR stop</li> <li>Intake throttle 100 % open</li> </ul>
Behaviour During Malfunction		<ul style="list-style-type: none"> <li>Amount of white smoke increases at low temperatures</li> <li>Insufficient output</li> <li>Worsening exhaust gas performance</li> </ul>	<ul style="list-style-type: none"> <li>Amount of white smoke increases at low temperatures</li> <li>Insufficient output</li> <li>Worsening exhaust gas performance</li> </ul>
Engine Warning Light		<ul style="list-style-type: none"> <li>ON</li> </ul>	<ul style="list-style-type: none"> <li>ON</li> </ul>
Recovery from error		<ul style="list-style-type: none"> <li>Key switch turn OFF</li> </ul>	<ul style="list-style-type: none"> <li>Key switch turn OFF</li> </ul>

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ISO 14229 P-Code	J1939-73		Name	Reference Page
	SPN	FMI		
P0524	100	1	Oil pressure error	1-S185
P0543	3242	4	Exhaust gas temperature sensor 1 (T1) abnormality	1-S187
P0544	3242	3		
P0546	4765	4	Exhaust gas temperature sensor 0 (T0) abnormality	1-S190
P0547	4765	3		
P0562	168	4	Battery voltage abnormality	1-S193
P0563	168	3		
P0602	523538	2	QR data abnormality	1-S196
P0602	523538	7		
P0605	628	2	ECU FLASH ROM and CPU abnormality	1-S197
P0606	1077	2		
P0606	523527	2		
P0611	523525	1	Injector charge voltage abnormality	1-S199
P0628	1347	4	SCV drive system abnormality	1-S201
P0629	1347	3		
P0642	3509	4	Sensor supply voltage 1 abnormality	1-S205
P0643	3509	3		
P0652	3510	4	Sensor supply voltage 2 abnormality	1-S207
P0653	3510	3		
P0687	1485	2	Main relay is locked in closed position	1-S209
P1274	523539	2	Pump seizing	1-S212
P1275	523540	2		
P2108	523580	2	Intake throttle feedback error	1-S217
P2131	523543	2	Accelerator position sensor error (CAN)	1-S219
P2146	523523	2	Common 1 system injector drive circuit open	1-S221
P2147	523523	4	Common 1 TWV actuation system short	1-S224
P2148	523523	3		
P2149	523524	2	Common 2 system injector drive circuit open	1-S228
P2150	523524	4	Common 2 TWV actuation system short	1-S231
P2151	523524	3		
P2228	108	4	Barometric pressure sensor error	1-S235
P2229	108	3		
P2413	523575	7	EGR (DC motor) abnormality	1-S237
P2414	523576	2		
P2415	523577	2		
P242C	3246	4	Exhaust gas temperature sensor 2 (T2) abnormality	1-S240
P242D	3246	3		
P2454	3251	4	Differential pressure sensor 1 abnormality	1-S243
P2455	3251	3		
P2621	523582	4	Intake throttle lift sensor abnormality	1-S247
P2622	523582	3		

## (10) Coolant Temperature Sensor Abnormality (DTC P0117 / 110-4, P0118 / 110-3)

### P0117 / 110-4: Coolant temperature sensor abnormality (Low side)

**Behaviour during malfunction:**

- Amount of white smoke increases at low temperatures
- Insufficient output
- Worsening exhaust gas performance

**Detection item:**

- Ground short circuit of sensor / harness

**DTC set preconditions:**

- Battery voltage is normal

**DTC set parameter:**

- Voltage of coolant temperature sensor is 0.1 V or less

**Engine warning light:**

- ON

**System action:**

- At start-up = - 25 °C (- 13 °F) [default value]
- Under other conditions = 80 °C (176 °F) [default value]
- Output limitation: Approximately 50 % of normal condition
- Speed limitation (Accelerator limitation: 50 %)
- EGR stop
- Intake throttle 100 % open

**Recovery from error:**

- Key switch turn OFF

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### P0118 / 110-3: Coolant temperature sensor abnormality (High side)

**Behaviour during malfunction:**

- Amount of white smoke increases at low temperatures
- Insufficient output
- Worsening exhaust gas performance

**Detection item:**

- Open circuit or +B short circuit of sensor / harness

**DTC set preconditions:**

- Battery voltage is normal

**DTC set parameter:**

- Voltage of coolant temperature sensor is 4.9 V or above

**Engine warning light:**

- ON

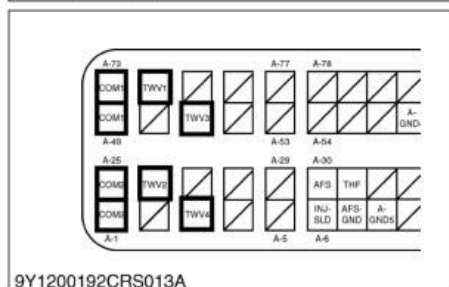
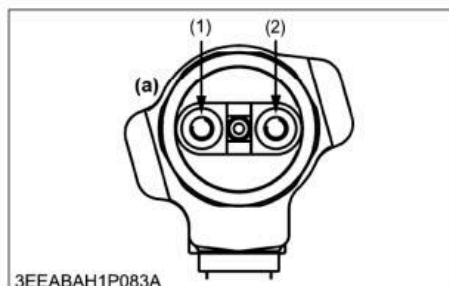
**System action:**

- At start-up = - 25 °C (- 13 °F) [default value]
- Under other conditions = 80 °C (176 °F) [default value]
- Output limitation: Approximately 50 % of normal condition
- Speed limitation (Accelerator limitation: 50 %)
- EGR stop
- Intake throttle 100 % open

**Recovery from error:**

- Key switch turn OFF

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## 6. Check the Wiring Harness

Locate the cause of wiring harness ground short, and repair the faulty area.

DTC	Relating ECU Terminals	Shorted Harness Side
P2147	Terminal A-49 / A-73 or A-1 / A-25 (A-74, A-51, A-26, A-3 occurring simultaneously)	Ground
P2148	Terminal A-49 / A-73 or A-1 / A-25 (A-74, A-51, A-26, A-3 occurring simultaneously)	Power supply

### NOTE

- If DTC P2147 (Shorted injector actuation circuit to the ground) has occurred, be sure to check the insulation of injector itself in the following procedure.

- Place the key switch in the OFF position, unplug each injector connector from socket, and visually check the connector status.

Factory specification	Must be free from sludge and sparks.
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- Using an insulation resistance tester (megger tester), measure the resistance between each of terminals (1) and (2) and the chassis ground (at the injector side).

Factory specification	10 MΩ or higher
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<b>OK</b>	The injector functions normally. Locate another cause.
<b>NG</b>	Faulty injector → Replace.

- (1) Terminal COMMON  
(2) Terminal TWV

(a) Injector

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# Full Version Available

Kubota V6108-CR-TIE4 Engine Diagnosis Manual

This is a short preview. The complete manual contains all chapters, wiring diagrams, torque specifications and full service procedures.

**VIEW THE FULL MANUAL**

<https://machinecatalogic.com/kubota-v6108-cr-tie4-engine-diagnosis-manual/>