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SAS light – Check Engine – Malfunction Indicator Lamp

Here's how to do it:

In car ECM Diagnostics/ECM Reset procedure:

- 1) Sit in the driver's seat.
- 2) Turn the ignition key to the ON position and wait three seconds. (Do not start the car.)
- 3) Fully depress and release the accelerator pedal five times in less than five seconds.
- 4) Wait exactly seven seconds. Fully depress the accelerator pedal for ten seconds until the MIL (SES) **light** flashes.
- 5) Release the accelerator pedal and start counting flashes to obtain the four-digit trouble code.

Long flashes (0.6 seconds) indicate the first digit of the code; count the blinks one through nine and write down the first digit. (Ten blinks indicates a zero.)

The next three digits follow in turn in the same fashion except with faster blinks (0.3 second) and a 1.0-second pause between digits.

The ECM code repeats itself until you turn the ignition key to the OFF position, at which point the ECM resets itself to standard get-in-and-drive-the-car mode.

You can look up the trouble codes in the tables below corresponding with your T31 X-Trail Model;

Additionally, if you get four blinks of ten (0000), the ECM is indicating no malfunction.

You can clear the code (and the annoying MIL) by holding down the accelerator pedal for more than 10 seconds while in Diagnostic Test Mode II. When you release the pedal, the ECM erases the trouble code(s).

### **T31 Petrol X-Trail Error Codes List:**

## ECM

< ECU DIAGNOSIS >

[QR25DE (WITHOUT EURO-OBD)]

DTC No.	Detected items	Engine operating condition in fail-safe mode
P2118	Throttle control motor	ECM stops the electric throttle control actuator control, throttle valve is maintained at a fixed opening (approx. 5 degrees) by the return spring.
P2119	Electric throttle control actuator	<p>(When electric throttle control actuator does not function properly due to the return spring malfunction:) ECM controls the electric throttle actuator by regulating the throttle opening around the idle position. The engine speed will not rise more than 2,000 rpm.</p> <p>(When throttle valve opening angle in fail-safe mode is not in specified range:) ECM controls the electric throttle control actuator by regulating the throttle opening to 20 degrees or less.</p> <p>(When ECM detects the throttle valve is stuck open:) While the vehicle is driving, it slows down gradually by fuel cut. After the vehicle stops, the engine stalls. The engine can restart in N or P (CVT), Neutral (MT) position, and engine speed will not exceed 1,000 rpm or more.</p>
P2122 P2123 P2127 P2128 P2138	Accelerator pedal position sensor	<p>The ECM controls the electric throttle control actuator in regulating the throttle opening in order for the idle position to be within +10 degrees.</p> <p>The ECM regulates the opening speed of the throttle valve to be slower than the normal condition. So, the acceleration will be poor.</p>

### DTC Inspection Priority Chart

INP001.000000001528541

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> <li>• U1000 U1001 CAN communication line</li> <li>• U1010 CAN communication</li> <li>• P0101 P0102 P0103 Mass air flow sensor</li> <li>• P0112 P0113 Intake air temperature sensor</li> <li>• P0117 P0118 P0125 Engine coolant temperature sensor</li> <li>• P0122 P0123 P0222 P0223 P1225 P1299 P2109 P2135 Throttle position sensor</li> <li>• P0327 Knock sensor</li> <li>• P0335 Crankshaft position sensor (POS)</li> <li>• P0340 Camshaft position sensor (PHASE)</li> <li>• P0500 Vehicle speed sensor</li> <li>• P0562 P0563 Battery voltage</li> <li>• P0805 ECM</li> <li>• P1610 - P1615 NATS</li> <li>• P1706 Park/neutral position (PNP) switch</li> <li>• P0201, P0202, P0203, P0204 FUEL INJECTOR</li> <li>• P2122 P2123 P2127 P2128 P2138 Accelerator pedal position sensor</li> </ul>
2	<ul style="list-style-type: none"> <li>• P0031 Air fuel ratio (A/F) sensor 1 heater</li> <li>• P0036 P0037 P0038 Heated oxygen sensor 2 heater</li> <li>• P0130 P0131 P0132 Air fuel ratio (A/F) sensor 1</li> <li>• P0136 Heated oxygen sensor 2</li> <li>• P0444 P0445 EVAP canister purge volume control solenoid valve</li> <li>• P1111 Intake valve timing control solenoid</li> <li>• P1217 Engine over temperature (OVERHEAT)</li> <li>• P1805 Brake switch</li> <li>• P2101 Electric throttle control function</li> <li>• P2100 P2103 Throttle control motor relay</li> </ul>
3	<ul style="list-style-type: none"> <li>• P0011 Intake valve timing control</li> <li>• P1212 TCS communication line</li> <li>• P1320 Ignition coil</li> <li>• P1564 ASCD steering switch</li> <li>• P1572 ASCD brake switch</li> <li>• P1574 ASCD vehicle speed sensor</li> <li>• P1715 Primary speed sensor</li> <li>• P2119 Electric throttle control actuator</li> </ul>

## DTC Index

INFO:000000001528542

xApplicable —: Not applicable

DTC*1		Items (CONSULT-III screen terms)	Trip	MI	Reference page
CONSULT-III	ECM*2				
U1000	1000*3	CAN COMM CIRCUIT	1	x	<a href="#">ECQ-451</a>
U1001	1001*3	CAN COMM CIRCUIT	2	—	<a href="#">ECQ-451</a>
U1010	1010	CONTROL UNIT(CAN)	1	x	<a href="#">ECQ-452</a>
P0000	0000	NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	—	Flashing*4	—
P0011	0011	INT/V TIM CONT-B1	2	—	<a href="#">ECQ-453</a>
P0031	0031	A/F SEN1 HTR (B1)	2	x	<a href="#">ECQ-456</a>
P0036	0036	HO2S2 HTR (B1)	2	x	<a href="#">ECQ-459</a>
P0037	0037	HO2S2 HTR (B1)	2	x	<a href="#">ECQ-459</a>
P0038	0038	HO2S2 HTR (B1)	2	x	<a href="#">ECQ-459</a>
P0101	0101	MAF SEN/CIRCUIT-B1	1	x	<a href="#">ECQ-462</a>
P0102	0102	MAF SEN/CIRCUIT-B1	2	x	<a href="#">ECQ-467</a>
P0103	0103	MAF SEN/CIRCUIT-B1	1	x	<a href="#">ECQ-467</a>
P0112	0112	IAT SEN/CIRCUIT-B1	2	x	<a href="#">ECQ-472</a>
P0113	0113	IAT SEN/CIRCUIT-B1	2	x	<a href="#">ECQ-472</a>
P0117	0117	ECT SEN/CIRC	1	x	<a href="#">ECQ-475</a>
P0118	0118	ECT SEN/CIRC	1	x	<a href="#">ECQ-475</a>
P0122	0122	TP SEN 2/CIRC-B1	1	x	<a href="#">ECQ-478</a>
P0123	0123	TP SEN 2/CIRC-B1	1	x	<a href="#">ECQ-478</a>
P0125	0125	ECT SENSOR	2	x	<a href="#">ECQ-482</a>
P0130	0130	A/F SENSOR1 (B1)	2	x	<a href="#">ECQ-484</a>
P0131	0131	A/F SENSOR1 (B1)	2	x	<a href="#">ECQ-487</a>
P0132	0132	A/F SENSOR1 (B1)	2	x	<a href="#">ECQ-490</a>
P0136	0136	HO2S2 (B1)	2	x	<a href="#">ECQ-493</a>
P0201	0201	INJECTOR CIRC-CYL1	2	—	<a href="#">ECQ-497</a>
P0202	0202	INJECTOR CIRC-CYL2	2	—	<a href="#">ECQ-497</a>
P0203	0203	INJECTOR CIRC-CYL3	2	—	<a href="#">ECQ-497</a>
P0204	0204	INJECTOR CIRC-CYL4	2	—	<a href="#">ECQ-497</a>
P0222	0222	TP SEN 1/CIRC-B1	1	x	<a href="#">ECQ-500</a>
P0223	0223	TP SEN 1/CIRC-B1	1	x	<a href="#">ECQ-500</a>
P0327	0327	KNOCK SEN/CIRC-B1	2	—	<a href="#">ECQ-504</a>
P0335	0335	CKP SEN/CIRCUIT	2	x	<a href="#">ECQ-508</a>
P0340	0340	CMP SEN/CIRC-B1	2	x	<a href="#">ECQ-510</a>
P0444	0444	PURG VOLUME CONT/V	2	x	<a href="#">ECQ-514</a>
P0445	0445	PURG VOLUME CONT/V	2	x	<a href="#">ECQ-514</a>
P0500	0500	VEH SPEED SEN/CIRC*5	2	x	<a href="#">ECQ-517</a>
P0562	0562	SYSTEM VOLTAGE	2	—	<a href="#">ECQ-519</a>
P0563	0563	SYSTEM VOLTAGE	2	—	<a href="#">ECQ-520</a>
P0805	0805	ECM	1 or 2	x or —	<a href="#">ECQ-521</a>
P1111	1111	INJECTOR CIRC-CYL1	2	x	<a href="#">ECQ-523</a>

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## T31 Diesel Error Codes List:

### ECM

< ECU DIAGNOSIS >

[M9R]

#### DTC Inspection Priority Chart

WFO10-00000000-1530535

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)	ECR
1	<ul style="list-style-type: none"> <li>• U1000 CAN communication line</li> <li>• P0018 Crankshaft position - camshaft position correlation</li> <li>• P0100 Mass air flow sensor</li> <li>• P0110 Intake air temperature sensor</li> <li>• P0115 Engine coolant temperature sensor</li> <li>• P0120 Throttle position sensor</li> <li>• P0130 P0131 P0133 P0134 P2231 P2A00 Air fuel ratio (A/F) sensor 1</li> <li>• P0135 Air fuel ratio (A/F) sensor 1 heater</li> <li>• P0180 Fuel temperature sensor</li> <li>• P0190 P2293 Fuel rail pressure sensor</li> <li>• P0225 P2120 Accelerator pedal position sensor</li> <li>• P0235 Turbocharger boost sensor</li> <li>• P0335 Crankshaft position sensor</li> <li>• P0340 Camshaft position sensor</li> <li>• P0409 EGR volume control valve control position sensor</li> <li>• P0470 Exhaust gas pressure sensor</li> <li>• P0500 Vehicle speed sensor</li> <li>• P0530 Refrigerant pressure sensor</li> <li>• P0544 Exhaust gas temperature sensor 1</li> <li>• P0560 Battery voltage</li> <li>• P0606 P060B P062B P062F P1607 ECM</li> <li>• P0611 Injector adjustment value</li> <li>• P0641 P0651 P0697 Sensor power supply</li> <li>• P1610 - P1616 NATS</li> <li>• P2031 Exhaust gas temperature sensor 2</li> <li>• P2080 Exhaust gas temperature sensor 3</li> <li>• P2226 Barometric sensor</li> <li>• P2299 Accelerator pedal - brake pedal position sensor inconsistency</li> <li>• P242A Exhaust gas temperature sensor 3</li> <li>• P2452 Differential exhaust gas pressure sensor</li> <li>• P2453 Differential exhaust gas pressure sensor</li> </ul>	<p style="text-align: center;">A</p> <p style="text-align: center;">C</p> <p style="text-align: center;">D</p> <p style="text-align: center;">E</p> <p style="text-align: center;">F</p> <p style="text-align: center;">G</p> <p style="text-align: center;">H</p> <p style="text-align: center;">I</p> <p style="text-align: center;">J</p>
2	<ul style="list-style-type: none"> <li>• P0045 Turbocharger boost control solenoid valve</li> <li>• P0089 P2294 Fuel rail pressure control valve</li> <li>• P0090 Fuel pump</li> <li>• P0200 P0201 - P0204 P0263 P0266 P0269 P0272 P1201 - P1204 P2146 P2149 Fuel injector</li> <li>• P0380 Glow plug</li> <li>• P0487 P0488 EGR volume control valve</li> <li>• P0571 Brake pedal position sensor</li> <li>• P0670 Glow control unit</li> <li>• P0685 ECM relay</li> <li>• P2100 Electric throttle control actuator</li> <li>• P2101 Throttle position sensor</li> <li>• P2425 EGR cooler bypass valve control solenoid valve</li> <li>• P2505 Ignition relay</li> <li>• P2600 Turbocharger cooling pump</li> </ul>	<p style="text-align: center;">K</p> <p style="text-align: center;">L</p> <p style="text-align: center;">M</p> <p style="text-align: center;">N</p>
3	<ul style="list-style-type: none"> <li>• P0297 P3031 Service regeneration</li> <li>• P0300 - P0304 Misfire</li> <li>• P0564 P0575 ASCD steering switch</li> <li>• P1435 P1438 DPF regeneration</li> <li>• P2002 P242F DPF</li> <li>• P2283 Turbocharger system</li> </ul>	<p style="text-align: center;">O</p> <p style="text-align: center;">P</p>

## ECM

[M9R]

&lt; ECU DIAGNOSIS &gt;

## DTC Index

JAF/01D/00000000/1307583

X: Applicable —: Not applicable

DTC*	Items (CONSULT-III screen terms)	Trip	MI lighting up	Reference page
U1000	CAN COMM CIRCUIT	3	—	<a href="#">ECR-114</a>
P0016	CMP/CKP RELATION	3	—	<a href="#">ECR-116</a>
P0045	TC BOOST SOL/V	3	x	<a href="#">ECR-117</a>
P0089	FUEL PUMP	3	x	<a href="#">ECR-118</a>
P0090	FUEL PUMP	3	x	<a href="#">ECR-121</a>
P0100	MAF SENSOR	3	x	<a href="#">ECR-123</a>
P0101	MAF SENSOR	3	x	<a href="#">ECR-126</a>
P0110	IAT SENSOR	3	x	<a href="#">ECR-130</a>
P0115	ECT SENSOR	3	x	<a href="#">ECR-132</a>
P0120	TP SENSOR	3	x	<a href="#">ECR-134</a>
P0130	A/F SENSOR1	3	x	<a href="#">ECR-137</a>
P0131	A/F SENSOR1	3	x	<a href="#">ECR-139</a>
P0133	A/F SENSOR1	3	x	<a href="#">ECR-141</a>
P0134	A/F SENSOR1	3	x	<a href="#">ECR-143</a>
P0135	A/F SEN1 HTR	3	x	<a href="#">ECR-145</a>
P0180	FUEL TEMP SENSOR	3	—	<a href="#">ECR-148</a>
P0190	FRP SENSOR	3	x	<a href="#">ECR-150</a>
P0200	INJECTOR	3	x	<a href="#">ECR-153</a>
P0201	CYL 1 INJECTOR	3	x	<a href="#">ECR-155</a>
P0202	CYL 2 INJECTOR	3	x	<a href="#">ECR-155</a>
P0203	CYL 3 INJECTOR	3	x	<a href="#">ECR-155</a>
P0204	CYL 4 INJECTOR	3	x	<a href="#">ECR-155</a>
P0225	APP SENSOR 1	3	x	<a href="#">ECR-158</a>
P0235	TC BOOST SENSOR	3	x	<a href="#">ECR-161</a>
P0263	CYL 1 INJECTOR	3	—	<a href="#">ECR-163</a>
P0266	CYL 2 INJECTOR	3	—	<a href="#">ECR-163</a>
P0269	CYL 3 INJECTOR	3	—	<a href="#">ECR-163</a>
P0272	CYL 4 INJECTOR	3	—	<a href="#">ECR-163</a>
P0297	SERVICE REGENERATN	3	—	<a href="#">ECR-164</a>
P0300	MULTI CYL MISFIRE	3	—	<a href="#">ECR-165</a>
P0301	CYL 1 MISFIRE	3	—	<a href="#">ECR-165</a>
P0302	CYL 2 MISFIRE	3	—	<a href="#">ECR-165</a>
P0303	CYL 3 MISFIRE	3	—	<a href="#">ECR-165</a>
P0304	CYL 4 MISFIRE	3	—	<a href="#">ECR-165</a>
P0335	CKP SENSOR	3	x	<a href="#">ECR-167</a>
P0340	CMP SENSOR	3	x	<a href="#">ECR-169</a>
P0380	GLOW RELAY	3	—	<a href="#">ECR-172</a>
P0409	EGR POS SENSOR	3	x	<a href="#">ECR-175</a>
P0470	EXH GAS PRESS SEN	3	x	<a href="#">ECR-178</a>
P0487	EGR CONT VALVE	3	x	<a href="#">ECR-180</a>
P0488	EGR SYSTEM	3	x	<a href="#">ECR-182</a>