

List of Event and Fault Codes and Diagnostic Trouble Codes (DTCs)

List of Event and Fault Codes and Diagnostic Trouble Codes (DTCs)

A list of all DTC's that are stored in the Stoneridge digital tachograph is presented below. A check should be made to determine whether the DTC is still active or

not. The cause of the DTC should be determined and appropriate action taken as described in the table that follows. The Code will be seen on the technical printout and the DTC will be seen on a test instrument.

Code	DTC	Type of event or fault	Description	Suggested action to be taken
		General events		
0x02		Card conflict	An invalid card combination has been detected. For example a company and a workshop card.	▶ Withdraw the offending card.
0x03		Time overlap	The last withdrawal time of the inserted driver card, as read from the inserted card, is later than the UTC time of the tachograph.	▶ Check the UTC time of the tachograph. ▶ Wait for the overlap period to elapse. ▶ If UTC time differs more than 20 minutes, a calibration has to be performed.
0x04	0x1260	Driving without an appropriate card	Driving without a valid card or with an invalid card combination.	▶ Stop and insert a valid card and/or remove inappropriate card.
0x05		Card inserted while driving	A tachograph card is inserted in any slot while driving.	▶ No further action required.
0x06		Last card session not correctly closed	The card (inserted in slot 1 or 2) has been withdrawn before all relevant data have been stored on the card. It is caused at withdrawal but detected at the next insertion.	▶ No further action required.
0x07		Overspeeding	The speed of the vehicle has exceeded the highest speed allowed for the vehicle. This has been active during at least 60 seconds.	▶ Get information on the maximum speed allowed is for the vehicle.
0x08	0x0004	Power supply interruption (VU)	The power supply to the tachograph has been interrupted for more than 200 milliseconds. The event is not generated in calibration mode.	▶ Check the vehicle and tachograph power supply levels. ▶ Check the power supply cables.
	0x2004	Power supply interruption (MS)	Power supply to motion sensor has been interrupted for more than 200 ms.	▶ Check the vehicle and motion sensor power supply levels. ▶ Check the motion sensor operation and all the wiring, replace the sensor if faulty.

List of Event and Fault Codes and Diagnostic Trouble Codes (DTCs)

Code	DTC	Type of event or fault	Description	Suggested action to be taken
0x09	0x2180	Motion data error (No CNTR)	Motion sensor data incorrect. Tachograph receives speed value from motion sensor without receiving any pulses.	<ul style="list-style-type: none"> ▶ Check motion sensor operation and all wiring. ▶ Check for evidence of tampering. ▶ Pair the motion sensor and tachograph again. ▶ Perform a new calibration of the tachograph system. ▶ Replace the sensor if found faulty.
	0x2280	Motion data error (CNTR)	Motion sensor data incorrect. Tachograph receives speed counter value from motion sensor that differs from value calculated by the tachograph.	
	0x2452	Motion data error (Event) VU Security breach attempts	Motion data incorrect. Tachograph signature mismatch.	
0x11	0x2452	Motion sensor authentication failure	An unsuccessful authentication attempt of the motion sensor has been detected.	<ul style="list-style-type: none"> ▶ Check motion sensor operation and all wiring. ▶ Check for evidence of tampering. ▶ Pair the motion sensor and tachograph again. ▶ Perform a new calibration of the tachograph system. ▶ Replace the sensor if found faulty.
0x12		Tachograph card authentication failure:	The inserted card cannot be authenticated by the tachograph.	<ul style="list-style-type: none"> ▶ Check that the inserted card is valid and correctly inserted. ▶ Check that the card works in another tachograph. ▶ Try to insert another card.
0x13	0x2452	Unauthorised change of motion sensor	The sensor has been changed since last pairing.	<ul style="list-style-type: none"> ▶ Check motion sensor operation and all wiring. ▶ Check for evidence of tampering. ▶ Pair the motion sensor and tachograph again. ▶ Perform a new calibration of the tachograph system. ▶ Replace the sensor if found faulty.
0x14		Card data input integrity	The cryptographic communication with the card inserted (in slot 1 or 2) is unsuccessful.	<ul style="list-style-type: none"> ▶ To check the card, insert it in another tachograph. ▶ Try to insert another card.
0x15		Stored data integrity error	The stored data is erroneous. Most likely, the tachograph is tampered with.	<ul style="list-style-type: none"> ▶ Check for evidence of tampering with the tachograph.
0x18		Hardware sabotage (Security violation)	Card has been removed by force or a tampering with the hardware has been detected.	<ul style="list-style-type: none"> ▶ Check for evidence of tampering with the tachograph ▶ Decommission and replace the tachograph.
		Motion sensor related events		
0x20	0x2508	No further details	Motion sensor internal error	<ul style="list-style-type: none"> ▶ Replace the motion sensor.
0x21	0x2508	Authentication failure	Motion sensor internal error, authentication failure.	<ul style="list-style-type: none"> ▶ Replace the motion sensor.

List of Event and Fault Codes and Diagnostic Trouble Codes (DTCs)

Code	DTC	Type of event or fault	Description	Suggested action to be taken	
0x22	0x2508	Stored data integrity error	Motion sensor internal error, stored data integrity failure	► Replace the motion sensor	
0x31	0x0139 0x0800 0x2007	Recording equipment faults	Internal fault in the tachograph	► If DTC remains active for no apparent reason, decommission and replace the tachograph.	
		VU internal fault			
0x35	0x2280	Sensor fault Error response or ACK	Motion sensor communication error. Content of ACK or response is not correct.	► Check motion sensor operation and all wiring. ► Check for evidence of tampering. ► Pair the motion sensor and tachograph again. ► Perform a new calibration of the tachograph system. ► Replace the sensor if found faulty.	
		0x2003 (4 sec)	Sensor fault (MS Power to Low)		Motion sensor power supply too low.
		0x2380	Sensor fault (No ACK)		Motion sensor communication error. No ACK received when expected.
		0x2380	Sensor fault (No response)		Motion sensor communication error. No response received when expected.
		Card faults			
0x40		Card fault - No further details		► Withdraw the card and check it. ► Insert the card into another tachograph and verify functionality. ► Insert another card and verify functionality.	
	0x0200	Slot 1	Error detected on inserted card in slot 1.		
	0x0300	Slot 2	Error detected on inserted card in slot 2.		
		Manufacturer specific events and faults, i.e. pop-ups			
	0x0660	Printing stopped, out of paper	Printer is out of paper.	► Insert a new paper roll.	
	0x01C0	Overspeeding pre warning	The speed of the vehicle has exceeded the highest speed allowed for the vehicle. This has been active during less than 60 seconds and the overspeeding event is not yet activated.	► Driver related message.	
	0x0D40	Calibration error	Calibration error, time for periodic inspection. Two years has passed since last calibration.	► Perform a calibration.	
	0x0B78	CAN bus off	CAN bus off, A connector, also named TCO-CAN.	► Check cables, especially A connector at the back of the tachograph.	

List of Event and Fault Codes and Diagnostic Trouble Codes (DTCs)

Code	DTC	Type of event or fault	Description	Suggested action to be taken
	0xFD0B	CAN Bus off, FMS CAN	CAN, bus off, C connector, also named FMS-CAN.	<ul style="list-style-type: none"> ▶ Check cables, especially C connector at the back of the tachograph.
	0x0007	VU power supply high	Tachograph power supply voltage is higher than maximum value.	<ul style="list-style-type: none"> ▶ Check vehicle power supply levels. ▶ Check power supply input to tachograph. ▶ Check all connections and tachograph operation.
	0x0003	VU power supply low	The power supply to the tachograph has been lower than minimum value for more than 4 seconds. Cranking voltage should not cause this event	<ul style="list-style-type: none"> ▶ Check vehicle power supply levels. ▶ Check power supply input to tachograph. ▶ Check all connections and tachograph operation.
	0x0900	No ignition but speed pulses present	Ignition off, but speed pulses are present.	<ul style="list-style-type: none"> ▶ Investigate if the vehicle has been under environmental disturbances like vibrations etc. ▶ Check motion sensor operation and all wiring – replace sensor if faulty. ▶ Check speed pulses are not being injected through front connector.

Frequently asked Questions, FAQ

In the list below the most common questions asked and their corresponding answers is listed.

Frequently asked questions	Answers
What digital tachograph can be fitted in this vehicle?	Please contact customer support workshop.support@stoneridge.com Workshop Support +44(0) 870 887 9200
The tachograph will not read / recognise the card.	Ensure that the card is correctly inserted. (▷ Insert Workshop Card, page 12) Clean the card and retry. Try the card in both slots and in another tachograph. Is the card valid? Driver cards are only read if the Tachograph is activated. If a workshop card is inserted in a non-activated Tachograph, it will accept it and ask for the PIN. If the PIN is OK it will then automatically activate the Tachograph. Check displayed messages when card is inserted. (▷ Messages, Warnings and Malfunctions, page 59)
I cannot download data from the tachograph.	Check that the workshop card is inserted and accepted, i.e the tachograph is in calibration mode. Remove the power to the tachograph and retry after reconnecting. Decommission the tachograph if the fault remains.
My card is stuck in the tachograph, how do I retrieve my card?	Remove the power to the tachograph and retry after reconnecting. ▷ Opening the Card Trays with no Power or when Disconnected, page 46.
Data integrity error on the display.	Contact your Stoneridge dealer for actions.
Why does the printout at the end of the day show more driving time than the driver thinks is done?	Because of the EU one minute rule, i.e any minute that contains at least one second of driving results in the whole minute being registered as driving.
Drivers are warned to take a break after inserting their card for a new shift due to not changing activities when removing their card at the end of the previous shift.	Before removing the driver card, ensure that the mode is changed to rest, or add Manual Entries with the activity "Rest". (rest until now?-> yes).
The illumination does not work.	Turn on the illumination using the MKII programmer.
Why can I not program all the SE5000 functions using SVDO programmer?	Only the functions necessary to calibrate the SE5000 are included in the SVDO programmer.
Where do you plug the programmer / download tool in?	Behind the printer cassette. ▷ Calibration and Download Front Connector, page 53.