

Shut Off Cause

mPro Series

Archive

Options Help Extra

Entry From File 20230222.idx (Nr. 20) Position 49

Tl	St	FID	Ap	S	Se	Tqfct	PTq	An	Gd	Err	Date	Time	Workpiece
1	1	0	2	3	51	0.01	0.04	309		TQ<	21.02.2023	7:12:47	
1	1	0	2	3	51	0.00	-0.04	309		TQ<	21.02.2023	7:12:58	
1	1	0	2	3	51	0.02	0.07	309		TQ<	21.02.2023	7:29:19	
1	1	0	2	3	51	0.00	0.04	309		TQ<	21.02.2023	7:55:12	
1	1	0	1	2	50	-0.01	-0.06	0		SA	21.02.2023	14:04:45	
1	1	0	1	2	50	0.03	-0.05	0		SA	21.02.2023	14:05:58	
1	1	0	1	2	50	0.00	0.08	320		TQ<	21.02.2023	14:06:23	
5	1	0	1	3	31	12.01	12.01	4001			22.02.2023	10:37:08	
5	1	0	2	3	51	12.94	13.09	3000			22.02.2023	10:37:49	
5	1	0	2	3	51	12.00	12.63	3000			22.02.2023	10:38:54	
5	1	0	2	3	51	11.34	13.54	3001			22.02.2023	10:40:33	
5	1	0	2	3	51	10.70	11.19	3001			22.02.2023	10:41:50	
5	1	0	1	3	31	12.02	12.03	3076			22.02.2023	10:43:36	
5	1	0	1	3	31	12.03	12.54	3037			22.02.2023	10:44:26	
5	1	0	1	3	31	12.04	17.14	3027			22.02.2023	10:52:14	
5	1	0	1	3	31	12.03	12.95	3028			22.02.2023	10:53:35	
5	1	0	1	3	31	12.05	16.10	2987			22.02.2023	11:07:02	
5	1	0	3	1	31	12.01	12.34	10		TQ>	22.02.2023	15:06:34	
5	1	0	3	1	31	10.01	10.01	246			22.02.2023	15:06:42	
5	1	0	4	1	31	10.02	10.02	1396			22.02.2023	15:08:42	
5	1	0	4	1	31	10.00	10.00	1001			22.02.2023	15:09:49	
5	1	0	5	1	51	5.01	5.01	90		TQ>	22.02.2023	15:12:04	
5	1	0	5	1	51	5.01	5.01	100		TQ>	22.02.2023	15:12:15	
5	1	0	5	1	51	0.35	0.35	3000		TQ<	22.02.2023	15:13:16	
5	1	0	5	1	51	5.01	5.01	236		TQ>	22.02.2023	15:13:19	
5	1	0	5	1	51	5.01	5.01	2773		TQ>	22.02.2023	15:13:24	
5	1	0	6	1	51	10.01	10.01	2618		TQ>	22.02.2023	15:17:21	

Statistics Details RAM Filter Back Help

03/02/23 12:29 pm

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1 About this Document

This document is intended for qualified employees responsible for installation and maintenance (administrators, maintenance technician, Tightening technician, Service, Operator). It contains information about possible errors and troubleshooting.

The original language of this document is German.



If an error cannot be eliminated with the mentioned measure, the tightening technician must check the parameterization. If the error still cannot be eliminated or if it occurs more frequently, contact a *Sales & Service Center*, see reverse.

2 Shut Off Cause

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
?!?	Unknown software error.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
???	Wrong/not available application or stage is selected (software error).	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
?S?	Abort due to other errors (software error).	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
48V	48 V from power supply is missing.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
TERM	Controller aborts the rundown.	▶ Search in the log-book/syslog for the trigger of the abort. ▶ Check tightening system.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
ABGW	Tool was deselected.	▶ Check tool selection in the PLC or application parameterization.	Tightening technician	BD BB BTS	NeoTek 18/48	–
ABL	Another tool in the tool group has an NOK result (sequence error).	▶ Determine and check NOK tool.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
ADU	Error in the A/D converter. Hardware is defective.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BB BTS	18/48	–

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
AN1F	<p>Transducer 1 does not exist:</p> <ul style="list-style-type: none"> • Transducer 1 is defective. • Transducer cable is defective. 	<ul style="list-style-type: none"> ▶ Replace transducer. ▶ Replace transducer cable. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
AN2F	<p>Transducer 2 does not exist:</p> <ul style="list-style-type: none"> • Transducer 2 is defective. • Transducer cable is defective. • Transducer 2 is parameterized although it is not present. 	<ul style="list-style-type: none"> ▶ Replace transducer. ▶ Replace transducer cable. ▶ Check parametrization. 	<p>Maintenance technician</p> <p>Tightening technician</p>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
AR>	Tool moved too fast, angular speed is too high.	<ul style="list-style-type: none"> ▶ Loosen rundown and tighten again. ▶ Move tool more slowly during rundown. 	Operator	–	–	SCS F4
ARC?	<p>Error in system bus interface.</p> <p>Open ArcNet Interface.</p>	<ul style="list-style-type: none"> ▶ Check ArcNet cable. ▶ Check terminology. 	Maintenance technician	BD BB BTS	18/48	–
AUF?	Job to the tightening module is incorrect (software error).	<ul style="list-style-type: none"> ▶ Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
AW<	Not enough graphic values were recorded for the evaluation.	<ul style="list-style-type: none"> ▶ Check parametrization. ▶ Check joint. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
BLOC	Bolted on block.	<ul style="list-style-type: none"> ▶ Do not retighten screws that have already been tightened. 	Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
CLU?	<p>Clutch was released in a pre-tightening stage.</p> <ul style="list-style-type: none"> • Parameterization does not match the joint. • Mechanical clutch is incorrectly adjusted. • Material properties do not match the parameterization. 	<ul style="list-style-type: none"> ▶ Check parametrization. ▶ Check the adjustment of the clutch. ▶ Check material. 	Tightening technician	–	–	CellClutch
COM?	Error of the serial interface COM1/COM2 at the tightening module (software error).	<ul style="list-style-type: none"> ▶ Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BD BB BTS	18/48	–

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
CRC	Checksum error (CRC). Data transmission does not match.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
DBL	Internal error.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	–	–	CellClutch SCS F4
DF?	Invalid torque averaging filter in the sequence (software error).	▶ Perform software update of the controller. ▶ Perform software update of the measuring card.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
SEQ?	No sequence activated (software error).	▶ Perform software update of the controller. ▶ Perform software update of the measuring card.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
DPR?	DPR error (Dual Ported RAM) on the measuring card (software/hardware error).	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
RES?	No valid measured values available (software error).	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
F<	Force is too low (SEQ 35).	▶ Check joint.	Tightening technician	BB BTS	18/48	–
F>	Force is too high (SEQ 35).	▶ Check joint.	Tightening technician	BB BTS	18/48	–
FHW	Hardware error on the measuring card.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire
FK<	Clamping force is too low (SEQ 35).	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	–
FK>	Clamping force is too high (SEQ 35).	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	–
FLT	Error in the power section. Collective error for DC link, resolver, servo and motor.	▶ Note additional error message.	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
FMK	Collective error of the measuring card.	▶ Check FMK error, see document P2381TS.	Maintenance technician	BD	NeoTek 18/48	CellTek CellCore LiveWire
FPEF	Snug point could not be determined.	▶ Check joint. ▶ Check parametrization.	Tightening technician	BB BTS	18/48	–

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
FRK<	Residual clamping force is too low.	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	–
FRK>	Residual clamping force is too high.	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	–
FSMW	Not enough measured values to perform phase 2.	▶ Check parametrization. ▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
GAE	Invalid angle value returned from gyroscope.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	–	NeoTek	CellTek LiveWire SCS F4
GAEX	Safety shutdown by the gyroscope. Tool moved more than $\pm 180^\circ$.	▶ Don't rotate tool not more than $\pm 180^\circ$. ▶ Check parametrization.	Operator Tightening technician	BD	NeoTek	CellTek LiveWire SCS F4
GARE	Gyroscope reports that the tool was moved too fast. Angular speed is too high.	▶ Move tool more slowly during run-down.	Operator	BD	NeoTek	CellTek LiveWire SCS F4
GCOM	Internal communication to gyroscope is incorrect.	▶ Check contact to the gyroscope. ▶ In case of recurrence contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD	NeoTek	CellTek LiveWire SCS F4
GD<	Gradient is too low.	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
GD>	Gradient is too high.	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
GEB?	Torque/angle error of the transducer. • Offset error • Encoder error • Calibration error	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BB	–	–
GSP<	Snug point was not detected.	▶ Adjust gradient in the <i>Trigger Gradient Snug Point</i> input field.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
GUT	No error. Rundown result is ok.			BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
GVE	Power supply voltage of the gyroscope is too high or too low.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD	NeoTek	CellTek LiveWire

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
I2T	Motor is overloaded and too warm (servo error).	<ul style="list-style-type: none"> ▶ Cool down the tool. ▶ Make a longer break between rundowns. ▶ Reduce tightening time, tighten faster. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire
INI?	No signal from the deep sensor. Depth sensor is defective.	<ul style="list-style-type: none"> ▶ Replace depth sensor. 	Maintenance technician	BD BB BTS	NeoTek 18/48	–
IP	Tool is overloaded: <ul style="list-style-type: none"> • Torque is too high. • Speed is too low. • Cycle is too high. 	<ul style="list-style-type: none"> ▶ Check parametrization. 	Tightening technician Maintenance technician	BD BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire
IREd	Current/torque redundancy error: <ul style="list-style-type: none"> • Joint does not match the parametrization. • Motor/gearbox is defective. 	<ul style="list-style-type: none"> ▶ Check parametrization. ▶ Check tool. ▶ Check joint. ▶ Contact a <i>Sales & Service Center</i>. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
JUM	Tool has slipped off the socket.	<ul style="list-style-type: none"> ▶ Ensure that the tool is correctly seated on the socket. 	Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
KAL1	After the end of the rundown, there is still tension on the screw.	<ul style="list-style-type: none"> ▶ Perform calibration only if the output can rotate freely. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
	Calibration error transducer 1.	<ul style="list-style-type: none"> ▶ Replace transducer. ▶ Contact a <i>Sales & Service Center</i>. 	Maintenance technician Apex Sales & Service Center	BB BTS BD	– NeoTek 18/48	– CellTek CellCore LiveWire
KAL2	Calibration error transducer 2.	<ul style="list-style-type: none"> ▶ Replace transducer. 	Maintenance technician	BD BB BTS	–	–
KOMM	Communication error between controller and tightening module: <ul style="list-style-type: none"> • Wrong software versions used. • Implausibility detected. 	<ul style="list-style-type: none"> ▶ Perform software update. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
LFF	Bearing error (SEQ 56), e.g. there is dirt in the bearing.	<ul style="list-style-type: none"> ▶ Check joint. 	Tightening technician Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire

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				Fixtured Spindle	Corded	Cordless
LOCK	Internal error.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	–	–	SCS F4
M1<	Torque at M1 (gate 1) is too low (SEQ 48).	▶ Check joint. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
M1>	Torque at M1 (gate 1) is too high (SEQ 48).	▶ Check joint. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
M2<	Torque at M2 (gate 2) is too low (SEQ 48).	▶ Check joint. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
M2>	Torque at M2 (gate 2) is too high (SEQ 48).	▶ Check joint. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
MBO>	High evaluation torque is exceeded: • Changed material properties. • Changed paint thickness.	▶ Check material. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
MBU<	Low evaluation torque threshold not reached: • Changed material properties. • Changed paint thickness.	▶ Check material. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
TQ<	Torque is too low due to changed material properties.	▶ Check material. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
TQ>	Torque is too high: • Parameterization does not match the joint. • Material properties do not match the parameterization.	▶ Reduce final speed. ▶ Check material. ▶ Check parametrization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
TQRE	First and second transducer provide different torque results (redundancy error).	▶ Check transducer.	Maintenance technician	BB BTS	–	–
	First transducer and current redundancy provide different torque results (redundancy error).	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD	NeoTek 18/48	CellTek CellCore LiveWire
TqP<	Breakaway torque not reached. Friction in the bearing of the workpiece is too low.	▶ Check the bearing of the workpiece. ▶ Check parametrization.	Maintenance technician Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4

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MDS>	Breakaway torque too high. Friction in the bearing of the workpiece is too low.	<ul style="list-style-type: none"> ▶ Clean the bearing of the workpiece. ▶ Check parametrization. 	Maintenance technician Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
MDSI	Safety torque is exceeded: <ul style="list-style-type: none"> • Torque is too high when cutting (self-tapping screw). • Thread is defective. 	<ul style="list-style-type: none"> ▶ Check joint. 	Tightening technician	BD BTS	NeoTek 18/48	CellTek CellCore LiveWire
TqOV	Number of torque overruns is too high. Maximum tool capacity is exceeded.	<ul style="list-style-type: none"> ▶ Check the bearing of the workpiece. 	Maintenance technician Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
TqUN	Number of torque undershoots is too high.	<ul style="list-style-type: none"> ▶ Check the bearing of the workpiece. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
ME>	Press-in torque is too high.	<ul style="list-style-type: none"> ▶ Check joint. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
MFP<	Torque at juncture too low. Parameterization does not match the joint.	<ul style="list-style-type: none"> ▶ Check parametrization. ▶ Check material. 	Tightening technician Maintenance technician	BD	NeoTek 18/48	CellTek CellCore LiveWire
MFP>	Torque at juncture is too high. Parameterization does not match the joint.	<ul style="list-style-type: none"> ▶ Check parametrization. ▶ Check joint. 	Tightening technician Maintenance technician	BD	NeoTek 18/48	CellTek CellCore LiveWire
MST>	Maximum evaluation torque range is exceeded.	<ul style="list-style-type: none"> ▶ Check joint. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
n/e	The rundown was aborted before the next phase was reached: <ul style="list-style-type: none"> • Torque is too high. • Bolted on block. • Thread is defective. 	<ul style="list-style-type: none"> ▶ Check parametrization. ▶ Do not retighten a screw that has already been tightened. 	Tightening technician Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
NBB	Tool is not ready for use. Internal error in the tool.	<ul style="list-style-type: none"> ▶ Check tool. 	Maintenance technician	BD BB BTS	NeoTek 18/48	–
NBBR	Socket or screw is broken: <ul style="list-style-type: none"> • Changed material properties. • End of the socket life is reached. 	<ul style="list-style-type: none"> ▶ Check material. ▶ Replace socket regularly. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire

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				Fixtured Spindle	Corded	Cordless
NECK	Socket or tool is broken (anti-necking error).	▶ Check joint.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
NEG	Screw was loosened and no longer tightened: <ul style="list-style-type: none"> Negative torque is detected during pull-off. In the Linking Group, a loosening is detected which is no longer revised by a positive tightening. Screw is tightened in the wrong direction. Parameterization does not match the joint. 	▶ Check rundown. ▶ Rework rundown. ▶ Check parameterization.	Operator Tightening technician	–	–	SCS F4
NOEN	Enable signal is missing.	▶ Check system cable.	Maintenance technician	BTS	–	–
		▶ Check WLAN/Bluetooth connection.	Maintenance technician	–	–	CellClutch
EMER	Terminated by emergency stop.	▶ Fix emergency stop. ▶ Do not enter the work area during rundown.	Maintenance technician	BD BB BTS	NeoTek 18/48	–
OFF1	Offset error transducer 1.	▶ Replace transducer.	Maintenance technician	BB BTS	–	–
		▶ Send tool to a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD	NeoTek 18/48	CellTek CellCore LiveWire
OFF2	Offset error transducer 2.	▶ Replace transducer.	Maintenance technician	BD BB BTS	–	–
P1M>	Maximum torque in phase 1 is too high: <ul style="list-style-type: none"> Parameterization does not match the joint. Bolted on block. 	▶ Check parameterization. ▶ Do not retighten a screw that has already been tightened.	Tightening technician Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P2M<	Minimum torque in phase 2 is too low: <ul style="list-style-type: none"> Parameterization does not match the joint. Friction torque too low (for self-tapping screws). 	▶ Check parameterization. ▶ Replace work-piece.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire

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				Fixtured Spindle	Corded	Cordless
P2M>	<p>Maximum torque in phase 2 is too high:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Thread is defective. Bolted on block. 	<ul style="list-style-type: none"> Check parametrization. Do not retighten a screw that has already been tightened. 	Tightening technician Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P2OV	<p>Maximum torque was exceeded too often in phase 2:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Thread is defective. 	<ul style="list-style-type: none"> Check parametrization. Do not screw the tightened screw again. Replace screw. Thread recutting. 	Tightening technician Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P2UN	<p>Minimum torque was undershot too often in phase 2:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Workpiece is defective (e.g. thread is too large). 	<ul style="list-style-type: none"> Check parametrization. Check joint. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P2OU	<p>Minimum and maximum torque were undershot and overshot too often in phase 2.</p>	<ul style="list-style-type: none"> Check parametrization. Check joint. Do not screw the tightened screw again. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P3M<	<p>Minimum torque in phase 3 is too low:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Friction torque too low (for self-tapping screws). 	<ul style="list-style-type: none"> Check parametrization. Replace workpiece. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P3M>	<p>Maximum torque in phase 3 is too high:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Thread is defective. Bolted on block. 	<ul style="list-style-type: none"> Check parametrization. Do not retighten a screw that has already been tightened. 	Tightening technician Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
P4M<	<p>Minimum torque in phase 4 is too low:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Friction torque too low (for self-tapping screws). 	<ul style="list-style-type: none"> Check parametrization. Replace workpiece. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
P4M>	<p>Maximum torque in phase 4 is too high:</p> <ul style="list-style-type: none"> Parameterization does not match the joint. Thread is defective. Bolted on block. 	<ul style="list-style-type: none"> Check parametrization. Do not retighten a screw that has already been tightened. 	Tightening technician Operator	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
PAR	Wrong parameter.	<ul style="list-style-type: none"> Check parametrization. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
App?	The wrong application is selected on the tightening module (software error).	<ul style="list-style-type: none"> Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
POWR	Power supply unit is not ready/supplies no voltage.	<ul style="list-style-type: none"> Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BD	NeoTek 18/48	CellTek CellCore LiveWire
PTA<	Pretightening angle is too low because it was screwed on block.	<ul style="list-style-type: none"> Do not retighten a screw that has already been tightened. 	Operator Tightening technician	–	–	SCS F4
PTR	Error at PTR (Pulse Torque Recovery), because the torque is too high.	<ul style="list-style-type: none"> Check joint. Check parametrization. 	Maintenance technician Tightening technician	BB BTS	18/48	–
RAM	Graphics memory is full.	<ul style="list-style-type: none"> Check joint. Check parametrization. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
SA	<p>Rundown was aborted because the start signal was removed:</p> <ul style="list-style-type: none"> Operator has slipped off the start switch. Termination by PLC. 	<ul style="list-style-type: none"> Keep start switch pressed until the end of the rundown. Check PLC. 	Operator Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
SeBB	Ready signal for the servo is not present. Collective error for DC link, resolver, servo and motor.	<ul style="list-style-type: none"> Note additional error message. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
SePS	Parameterized servo parameter set does not match the selected servo parameter set.	<ul style="list-style-type: none"> Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BB BTS	18/48	–
SERV	Invalid servo type was detected (software error).	<ul style="list-style-type: none"> Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BB BTS	–	–

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
SKIP	Tightening position was skipped. SKIP is displayed as a placeholder for a non-existent result.	<ul style="list-style-type: none"> ▶ Check operator/control sequence. ▶ If it is a conscious decision in the process, no action is required. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
Spg?	Voltages are incorrect (hardware error).	<ul style="list-style-type: none"> ▶ Observe additional error messages. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire
SPC1	Transducer 1 has no channel settings. Parameter changes to the controller were not adopted.	<ul style="list-style-type: none"> ▶ Accepting parameter changes/tool data at the controller. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
SPC2	Transducer 2 has no channel settings. Parameter changes to the controller were not adopted.	<ul style="list-style-type: none"> ▶ Accepting parameter changes/tool data at the controller. 	Maintenance technician	BD BB BTS	18/48	–
SS>	Too many stick-slip cycles. The paint coating does not match the parameterization.	<ul style="list-style-type: none"> ▶ Check material. ▶ Check parameterization. 	Tightening technician	BD BTS	NeoTek 18/48	CellTek CellCore LiveWire
SST>	Stick-slip time has been exceeded. The paint coating of the workpiece does not match the parameterization.	<ul style="list-style-type: none"> ▶ Reduce speed. ▶ Check material. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
STTH	No error. <i>Stop at TTH</i> is parameterized. The rundown is stopped at the threshold torque.			BB BTS	18/48	–
STO	STO signal (Safe Torque OFF) is incorrect, e.g. due to a wire is broken.	<ul style="list-style-type: none"> ▶ Check hardware. 	Maintenance technician	BD	NeoTek 18/48	–
STRT	Rundown was aborted due to start problems (software error).	<ul style="list-style-type: none"> ▶ Contact a <i>Sales & Service Center</i>. 	Apex Sales & Service Center	BB BTS	18/48	–
StuF	Sequence error of the stage monitoring (system error).	<ul style="list-style-type: none"> ▶ Contact a <i>Sales & Service Center</i>. 	Apex Sales & Service Center	BB BTS	18/48	–
T1?	Error in the intelligent transducer 1. Transducer 1 is defective.	<ul style="list-style-type: none"> ▶ Replace transducer. 	Maintenance technician	BB BTS	–	–
T2?	Error in the intelligent transducer 2. Transducer 2 is defective.	<ul style="list-style-type: none"> ▶ Replace transducer. 	Maintenance technician	BB BTS	–	–

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
TCNA	Measurement of torsion compensation is not possible.	▶ Check joint.	Maintenance technician	BB BTS	–	–
TDS	No error. Shut-off by depth sensor. Defined screw-in depth is reached.			BB BTS	18/48	–
TMAX	Monitoring time has been exceeded: <ul style="list-style-type: none"> Parameterization does not match the joint. Changed material properties. 	▶ Check workpiece and screw. ▶ Check parameterization.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
TMS<	Time after threshold torque is too low: <ul style="list-style-type: none"> Bolted on block. Joint does not match the parameterization. 	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
TMS>	Time after threshold torque is too high. Joint does not match the parameterization.	▶ Check joint.	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
TqOL	Torque is more than 110% higher than the calibration value (torque overload).	▶ Sent the tool to a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	–	–	SCS F4
TRD?	Transducer does not exist or is defective: <ul style="list-style-type: none"> Tool cable is defective. Transducer cable is not connected or defective (applies to spindle). Transducer is defective. 	▶ Check transducer cable (only for spindles). ▶ Replace tool cable. ▶ Replace controller.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
TSD	Start switch is defective.	▶ Check hardware. ▶ Check start switch.	Maintenance technician	–	–	LiveWire
VAN	Negative analog voltage is incorrect. Hardware defective.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
VAP	Positive analog voltage is not ok. Hardware defective.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
VLP	Logic voltage is not ok. Hardware defective.	▶ Contact a <i>Sales & Service Center</i> .	<i>Apex Sales & Service Center</i>	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
A1D	Angle encoder 1 is defective.	▶ Check transducer and replace if necessary.	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire

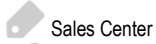
Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
A2D	Angle encoder 2 is defective.	<ul style="list-style-type: none"> ▶ Check transducer and replace if necessary. 	Maintenance technician	BD BB BTS	–	–
ANG<	Angle is too low.	<ul style="list-style-type: none"> ▶ Check joint. ▶ Check parametrization. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire SCS F4
ANG>	Angle is too high.	<ul style="list-style-type: none"> ▶ Check material. ▶ Check parametrization. 	Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore CellClutch LiveWire SCS F4
WIG<	Total angle is too low. Initiator was triggered too early.	<ul style="list-style-type: none"> ▶ Check initiator position. 	Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
WIG>	Total angle is too high. Initiator signal missing.	<ul style="list-style-type: none"> ▶ Check initiator. ▶ Check parametrization. 	Maintenance technician Tightening technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire
WiPr	Error in angle processor. Angle processor is defective.	<ul style="list-style-type: none"> ▶ Contact a <i>Sales & Service Center</i>. 	<i>Apex Sales & Service Center</i>	BB BTS	–	–
	Rundown result is implausible Nicht genügend Messwerte vorhanden. Es wurde weniger als 2° geschraubt.	<ul style="list-style-type: none"> ▶ Check rundown. ▶ Check parametrization. 	Tightening technician	–	–	SCS F4
ARE	First and second transducer have different angular results (angular redundancy error).	<ul style="list-style-type: none"> ▶ Check transducer. ▶ Send resolver to a Sales & Service Center. 	Maintenance technician	BD BB BTS	–	–
WL<	Back-off angle is too low.	<ul style="list-style-type: none"> ▶ Check joint. ▶ Check parametrization. 	Maintenance technician Tightening technician	BB BTS	18/48	–
WL>	Back-off angle is too high.	<ul style="list-style-type: none"> ▶ Check joint. ▶ Check parametrization. 	Maintenance technician Tightening technician	BB BTS	14/48	–
WREX	The wrong tool insert was used during rundown.	<ul style="list-style-type: none"> ▶ Rework rundown. ▶ Execute the tightening sequence according to the specifications. Job and tool usage are displayed on the tool. 	Operator	–	–	SCS F4

Code	Possible cause	Measure	Responsible	Tool Series		
				Fixtured Spindle	Corded	Cordless
ZRF	Gear wheel error (SEQ 56).	▶ Check joint.	Tightening technician Maintenance technician	BD BB BTS	NeoTek 18/48	CellTek CellCore LiveWire

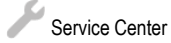
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