

# PF6000 Event codes

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Control and drive unit

Valid for Version No. 2.5  
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## Quick Guide

POWER FOCUS 6000

8436180002



### WARNING

**Read all safety warnings and instructions**

Failure to follow the safety warnings and instructions may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference**

**Atlas Copco**

## Event codes in Power Focus 6000

Events are used to notify the user of certain state changes or occurrences in the system. They are of different types and require different kinds of actions.

-  Some of the procedures described can only be performed by an Atlas Copco authorized service provider.

Event code	Group	Description
1000-1999	Controller, Tool	Controller and Tool events.
2000-2999	Tool	Tool events.
3000-3999	Controller, Drive, Channel, Configuration	Controller and Drive events, and Step sync events.
4000-4999	Process	Tightening process events.
5000-5999	Configuration	Program configuration events.
6000-6999	Accessory	Accessory events.
7000-7999	Message	Messages.

Table heading	Description
Event code	The unique event number.
Type	Type of event: <ul style="list-style-type: none"> <li>• Info</li> <li>• Warning</li> <li>• Error</li> </ul>
Name	A descriptive name of the event.
Description	A short description of the event and why it occurred.
Procedure	If applicable the procedure contains an instruction on how to clear the event.
A - Acknowledge	Tells the user whether the event has to be acknowledged or not before you can proceed. The value in this list is the default value.
L - Log	Tells the user whether the event is to be saved in the event log or not. The value in this list is the default value.
D - Display	Tells the user whether the event is to be displayed on the screen or not. The value in this list is the default value.

Event							
Code	Type	Name	Description	Procedure	L	D	A
1000	Info	Controller started	The controller is started.	N/A	X		
1001	Warning	Controller serial number updated	Generated at start-up if IT-board box serial number (controller serial number) differs from AUX-board box serial number. AUX-board is considered to be non-replaceable in field. The controller will reboot when the serial number is updated.	Replace IT-board or box.	X	X	X

Event								
Code	Type	Name	Description	Procedure	L	D	A	
1010	Info	Tool connected	A tool is connected.	N/A	X	X		
1011	Info	Tool disconnected	A tool is disconnected.	N/A	X	X		
2000	Warning	Battery low		Replace battery.	X	X		
2001	Warning	Battery empty		Replace battery.	X	X		
2009	Warning	Backup battery voltage low	The controller's backup battery is almost empty	Replace battery	X	X		
2010	Error	Tool software version mismatch	Tool and controller software versions not compatible.	Service tool - update tool software.	X	X	X	
2012	Warning	Tool communication error	Communication between tool and controller interrupted.	Relocate antenna placement.	X			
2013	Warning	Illegal ring position	Tool direction switch in faulty position.	If occurring frequently - service tool.	X	X		
2014	Warning	Tool overheated	Tool overheated.		X	X		
2015	Error	Tool temperature sensor error			X	X		
2020	Warning	Tool requires motor tuning	Tool requires motor tuning.	Perform a motor tuning.	X	X		
2021	Warning	Motor tuning failed	Motor tuning failed.	Complete motor tuning or service the tool.	X			
2022	Info	Motor tuning completed	Motor tuning completed.	N/A	X			
2023	Warning	The tool requires open end tuning	The tool requires open end tuning.	Perform open end tuning.	X	X		
2024	Warning	Open end tuning failed	Open end tuning failed.	Try to perform open end tuning one more time. If it fails again, service the tool.	X			
2025	Info	Open end tuning successful	Open end tuning successful.	N/A	X			
2026	Warning	Open end position failed	Open end position failed.	Press the trigger again and wait for the positioning to be completed. If it fails again, service the tool.	X	X		
2030	Error	Tool memory corrupt	Tool memory corrupt.	Service the tool.	X	X	X	

Event Code	Type	Name	Description	Procedure	L	D	A
2031	Error	Tool accessory memory corrupt	Tool accessory memory corrupt.	Service the tool accessory.	X	X	X
2040	Error	System check failure			X	X	X
2041	Error	Torque transducer error	Will be generated either on calibration error or if tool reports transducer error.	Service the tool.	X	X	
2042	Error	Angle transducer error		Service the tool.	X	X	X
2043	Error	Tool ground fault error			X	X	X
2044	Info	Tool service interval expired	Indicates that servicing of the tool is needed. Triggered when the number of set tightenings has been exceeded.	Perform service of tool.	X	X	
2045	Warning	Tool calibration data invalid	If validation of calibration data fails.	Service the tool.	X	X	
2046	Info	Tool calibration indicator	Indicates that tool calibration is needed. Triggered when calibration alarm is enabled in settings and the current time is greater than next calibration date.	Service the tool.	X	X	
2047	Info	Auto update of servicedata checksum	Indicates that servicedata checksum has been updated automatically.	N/A	X	X	
2050	Error	Tool parameter file not supported	Required tool parameters are missing.	Update tool parameters.	X	X	
2060	Info	Unexpected trigger behaviour	Used to prevent start of tool if accessory is connected.	N/A	X	X	
2070	Info	Tool not supported	Tool is not licensed or supported.	N/A	X	X	
2071	Error	Tool memory is corrupt	Tool descriptor is corrupt.	Service the tool.	X	X	
2072	Info	Unknown device connected			X	X	
2073	Warning	Tool trigger supervision failure	HW channel failure. Mismatch between hardware and software of tool trigger.		X	X	
2074	Warning	Tool indicator board failure	Tool indicator board failure.	Service the tool.	X	X	
2075	Warning	Tool fan voltage failure	Tool fan voltage failure.	Service the tool.	X	X	

Event Code	Type	Name	Description	Procedure	L	D	A
2076	Warning	Tool accessory bus voltage failure	Tool accessory bus voltage failure.	Service the tool.	X	X	
2077	Warning	Tool trigger sensor error	Tool trigger sensor error.	Service the tool.	X	X	
2078	Info	Tool Tightening program updated			X	X	
2079	Error	Tool cable not supported	Tool cable is corrupt. The chip in the cable is not responding or is damaged.	Switch cable.	X	X	
2080	Error	Tool battery failure	DC voltage too high or too low. Battery failure.	Contact the Atlas Copco service representative and send back battery to Atlas Copco (do not reuse it!).	X	X	
2081	Error	Tool current limit reached	The current limit has been reached and the drive is disabled.	Service the tool.	X	X	
2082	Error	Tool current measurement error	Current measurement error. Current cannot be measured with a reliable result.	Service the tool.	X	X	
2083	Error	Tool internal error	Various internal hardware errors for STB.	Service the tool.	X	X	
2084	Error	Tool internal software error	Various internal software errors for STB.	Service the tool.	X	X	
2085	Error	Tool RBU error	An RBU error was detected by the tool software.	Check that the RBU is correctly installed. If error is still present then service the tool.	X	X	
2086	Error	Tool stall	Tool motor is stalling.	Service the tool.	X	X	
2093	Warning	Pulse unit oil level low	The oil level of the connected pulse tool is low.	Service the tool	X	X	
2094	Warning	Pulse unit oil level empty	The oil level of the connected pulse tool is below required operational level	Service the tool	X	X	X
2100	Info	smartHead removed	STwrench smartHead has been removed.	Reconnect smart-Head and restart the wrench.	X	X	
3000	Error	Controller internal software error	Software error in the controller.	Contact service.	X	X	X
3010	Warning	System overheated	The controller is overheated.	Cool down.	X	X	

Event Code	Type	Name	Description	Procedure	L	D	A
3020		Controller hardware failure					
3021	Warning	System voltage problem	DC voltage too high or too low.	N/A	X	X	
3030	Error	IP address conflicting with another node on the network	The set IP address is in use by another device on the same network.	Change IP address on one of the devices.	X	X	
3031	Info	Network cable unplugged	The carrier of the factory port is lost.	Check the cable connection.	X	X	
3032	Info	Radio pairing started	Tool pairing started.	N/A	X	X	
3033	Info	Radio pairing successful	Tool pairing successful.	N/A	X	X	
3034	Error	Radio pairing failed, no tool found	The controller found no tool to pair with when scanning for radio peers.	Set the tool in pairing mode and try again.	X	X	
3035	Error	Radio pairing failed, more than one tool found	The controller found more than one tool when scanning for radio peers.	Ensure that only one tool is in pairing mode when starting the pairing mode on the controller.	X	X	
3036	Error	Radio pairing failed while communicating with tool	The controller experienced a loss of connection, an unexpected answer or timeout during the pairing process.	Try to perform pairing one more time. If it fails again, service the tool.	X	X	
3040	Warning	Emergency stop	Drive disabled due to emergency stop.	Reset emergency stop.	X	X	
3050	Info	System clock updated	System clock has been updated.	N/A	X		
3051	Error	System clock error	Wrong time read from hardware Real Time Clock (RTC).	Change RTC battery.	X	X	X
3052	Warning	Remote start configuration error	Mismatch between HW and SW remote start configuration.	Check and verify that HW dip switch matches the selected start source.	X	X	
3059		Failed to connect to Atlas Copco License Manager	Indicates that the controller failed to connect to the local license manager to get licenses.	Check local network. If it fails again, service the controller.	X	X	
3060		Number of Virtual Station licenses exceeded	Indicates that the number of virtual stations in use is bigger than the actual licensed number of virtual stations.	Delete the unlicensed virtual station or contact the local license server to get more licenses.	X	X	X

Event Code	Type	Name	Description	Procedure	L	D	A
3500	Error	License Manager Generic Error			X	X	X
3501	Error	License Manager Synchronization Error			X	X	X
3502	Info	License Manager Synchronization Done			X		
3520	Warning	TurboTight not licensed	No license for TurboTight available.	Check licenses.	X	X	
3521	Warning	True Angle not licensed	No license for True Angle available.	Check licenses.	X	X	
4010	Info	Tool locked by digital input	The tool is locked by a digital input signal.	N/A	X	X	
4011	Info	Tool locked by open protocol	The tool is locked by open protocol.	N/A	X	X	
4012	Info	Tool locked by field bus	The tool is locked by the field bus.	N/A	X	X	
4015	Info	Loosening disabled	Loosening is disabled in the tightening program		X	X	
4016	Info	Tightening disabled			X	X	
4020	Info	Too many NOK tightenings	Maximum consecutive NOK tightenings in batch is exceeded		X	X	
4025	Info	No Tightening program selected	No tightening program selected.	Select tightening program or batch sequence.	X	X	
4030	Info	Batch sequence aborted			X	X	
4031	Info	Max time to complete batch sequence reached.			X	X	
4032	Info	Max time to complete first tightening reached.			X	X	
4035	Info	Locked by line control			X	X	
4040	Info	Locked by alternative identifier	Tool locked by alternative identifier.		X	X	
4050		Invalid socket configuration			X	X	

Event Code	Type	Name	Description	Procedure	L	D	A
4060	Info	Tool locked on batch complete	When running a batch with flag Tool lock on batch sequence complete this event is generated when the user press the trigger.	Unlock with signal Unlock Tool on complete.	X	X	
4070	Info	Manual mode	Indicates that manual mode has been activated for a virtual station				
4071	Info						
4500	Info	Result DriveError					
4501	Info	Result Rehit	Attempt to tighten an already tightened bolt when Rehit detection is on.				
4502	Info	Result Soft Start Torque Low	Soft start torque below minimum level.				
4503	Info	Result Soft Start Torque High	Soft start torque exceeded maximum level.				
4504	Info	Result Self Tap Torque High	Selftap torque exceeded maximum level.				
4505	Info	Result Self Tap Torque Low	Selftap torque below minimum limit.				
4506	Info	Result Safety Torque Low	Automatically calculated torque value to ensure torque sensor is mounted correctly.				
4507	Info	Result Rundown Torque High	Rundown torque exceeded maximum level.				
4508	Info	Result Rundown Angle High	Rundown angle exceeded maximum level.				
4509	Info	Result Rundown Time High	Rundown time exceeded maximum limit.				
4510	Info	Result Rundown Time Low	Rundown time below minimum limit.				
4511	Info	Result Rundown Torque Low	Rundown torque below minimum level.				
4512	Info	Result Rundown Angle Low	Rundown angle below minimum level.				
4513	Info	Result Final Torque High	Final step torque exceeded maximum level.				

Event							
Code	Type	Name	Description	Procedure	L	D	A
4514	Info	Result Final Angle High	Final step angle exceeded maximum level.				
4515	Info	Result Final Torque Low	Final step torque below minimum level.				
4516	Info	Result Final Angle Low	Final step angle below minimum level.				
4517	Info	Result Tightening Timeout	Tightening time limit exceeded.				
4518	Info	Result Trigger Lost	Tool trigger was released before target was reached.				
4519	Info	Result Slip Off	Socket has slipped off the nut.				
4520	Info	Result Target Reached Before Final Step	Target torque reached before final step in tightening program.				
4521	Info	Result Post View Torque Low	Post view torque below minimum level.				
4522	Info	Result Post View Torque High	Post view torque exceeded maximum level.				
4523	Info	Result Post View Torque Interval Not Reached	Post view torque interval not reached.				
4524	Info	Result Torque Compensation Interval Not Reached	Torque compensation interval angle before rundown end not reached.				
4525	Info	Result Comfort Stop Min					
4526	Info	Result Safety-CurrMon Sensor Mismatch	Current monitoring error.				
4527	Info	Result Comfort Stop Max					
4528	Info	Result Soft Start Angle High	Soft start angle exceeded maximum level (Four Step).				
4529	Info	Result Soft Start Angle Low	Soft start angle below minimum level (Four Step).				
4530	Info	Result First Angle High	First step angle exceeded maximum level (Four Step).				
4531	Info	Result First Angle Low	First step angle below minimum level (Four Step).				

Event Code	Type	Name	Description	Procedure	L	D	A
4532	Info	Result First Torque High	First step torque exceeded maximum level (Four Step).				
4533	Info	Result First Torque Low	First step torque below minimum level (Four Step).				
4534	Info	Result First Time High	First step time exceeded maximum level (Four Step).				
4535	Info	Result First Time Low	First step time below minimum level (Four Step).				
4536	Info	Result Final Time High	Final step time exceeded maximum level (Four Step).				
4537	Info	Result Final Time Low	Final step time below minimum level (Four Step).				
4538	Info	Result Final Supervision Torque Low					
4539	Info	Result Soft Start Time High	Soft start time exceeded maximum level (Four Step).				
4540	Info	Result Soft Start Time Low	Soft start time below minimum level (Four Step).				
4541	Info	Result PVT Compensate Overflow					
4542	Info	Result Snug Monitor Low					
4543	Info	Result Snug Monitor High					
4544	Info	Result Snug Gradient High					
4545	Info	Result No Residual Torque					
4546	Info	Result Over-speed					
4547	Info	Result Effective Loosening					
4548	Info	Result Final Less Than Target	Final torque is below target torque set in tightening program.				
4549	Info	TurboTight time limit exceeded	TurboTight time limit exceeded.				
4550	Info	Result Run-down Pulses High					

Event Code	Type	Name	Description	Procedure	L	D	A
4551	Info	Result Run-down Pulses Low					
4552	Info	Result Final Pulses High					
4553	Info	Result Final Pulses Low					
5010	Warning	Invalid Tightening program parameter value	The parameter in the selected tightening program are invalid.	Check the configuration of the selected tightening program to find and change the value of the parameter.	X	X	
5020	Info	Main trigger not the start source	Generated when configured for push start only and user presses main trigger. Will be generated until user presses the push start.	Press push start to start the tool.	X	X	
6010	Info	Accessory connected	Accessory is connected to the controller.			X	X
6020	Info	Accessory disconnected	Accessory is disconnected from the controller.			X	X
6021	Warning	Fieldbus off-line	No communication with fieldbus.		X	X	X
6030	Warning	Accessory address collision	Two or more accessories with the same address are connected.	Change address on accessory.	X	X	X
6040	Warning	Accessory communication error	Intermittent communication error with accessory.	Check cables and connectors.	X	X	
6041	Warning	Fieldbus error	Communication error with fieldbus.		X	X	X
6050	Info	Wrong socket selected	Generated when no or incorrect socket is selected.		X	X	
6090	Warning	Barcode scanner could not be identified	When no unique serial number is found.	Configure the barcode reader device.	X	X	X
7010	Info	Message text to display	General event for displaying of messages.	None			X

Original instructions



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