



RELEASE NOTES

Solidigm™ Storage Tool - CLI

December 2023

SOLIDIGM™

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Solidigm™ Storage Tool Revision History

Revision	Software Revision	Description	Date
001	1.0	This is the first revision of the Solidigm™ Storage Tool (SST). This version of the tool contains below fixes; and the functionality of many current tools, see the User Guide for more information, with support for Intel® / Solidigm™ client and data center SSD.	March 2022
002	1.1	This version of the tool contains following changes: <ul style="list-style-type: none"> This revision adds a firmware update for 670p, 665p, 660p, 760, Pro 7600p, Pro 6000p, E6100p P3100 and P4101. CVE document update (see Solidigm Advisory SOLIDIGM-SA-00563) 	May 2022
003	1.1	Documentation Correction	May 2022
004	1.2	Firmware update for D7-P5510, D5-P5316, D3-S4520 / S4620	July 2022
005	1.3	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for D3-S4510 / S4610 Added ability to save Identify data as binary Various bug fixes and small enhancements 	September 2022
006	1.4	This version of the tool contains following changes: <ul style="list-style-type: none"> Added ability for workload tracker Ended ESXi 6.x support due to the end of support from VMWare Various bug fixes and small enhancements 	December 2022
007	1.5	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for D3-S4510 / S4610 Various bug fixes and small enhancements 	January 2023

008	1.6	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for P41 Plus 	February 2023
009	1.7	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for D3-S4520 / S4620 and D7-P5520 / P5620 Added ability to bypass full system device scan when user provides device path Fixed some SST command issues on Microsoft NVMe Inbox Driver Various bug fixes and small enhancements 	March 2023
010	1.8	This version of the tool contains following changes: <ul style="list-style-type: none"> Fixed compatibility issue for Latency Monitor on Solidigm NVMe driver Enabled additional OCP Smart attributes 	May 2023
011	1.9	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for D3-S4510 / S4610, D5-P5316 and D5-P5430 Various bug fixes and small enhancements 	July 2023
012	1.10	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for D7-P5510 Added support for ESXi 8.0 Update 1 Fixed the issue in files getting updated after smart logs on Linux system Removed reboot requirement for installing VIB in ESXi Various bug fixes and small enhancements 	September 2023
013	1.11	This version of the tool contains following changes: <ul style="list-style-type: none"> Firmware update for selected D7-P5510 drives Firmware update for P5520/P5620 Firmware update for S4520/S4620 Updated LSI MegaRAID library for newer cards support 	December 2023

Note: If you purchased your Intel® / Solidigm™ SSD from an OEM, your firmware version may have a different naming sequence. Contact your local OEM representative for the latest firmware revisions.

Solidigm Data Center SSD Products Revision History

1 Solidigm™ D7-P5520 / P5620 (formerly Intel®)

Date	Revision	Description
December 2023	9CV10450	<ul style="list-style-type: none"> Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> NVMe-MI Basic Throttle State Value May Persist After Exiting Throttling State Power Management Set Feature Command sent Over NVMe MI Causes Drive to go into Disable Logical Mode Vendor Unique Feature Identifier C6h Not Reflecting Power Mode Setting Changes Made with Feature Identifier 02h Drive May Fail to enumerate During Drive Boot Up Sequence PCIe Link up Sequence May Fail During AC/DC Cycle
March 2023	9CV10410	<ul style="list-style-type: none"> Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> Non-Graceful Shutdown Counter Not Incrementing During Unsafe Shutdowns within DEh Log Page UEFI Driver Health Status GetHealthStatus Returning Unsupported PCIe Unsupported Request Errors Observed by Host during Drive Power Cycle Drive De-Enumeration During PCIe Link Up Sequence Intermittent Failure During Drive Boot Sequence Causes No Drive Attached Incorrect NVMe MI Response Message Status During Drive's Time to Ready

2 Solidigm™ D7-P5510 (formerly Intel®)

Date	Revision	Description
December 2023	JCV10404	<p>OPAL drives only:</p> <ul style="list-style-type: none"> Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> Allow the Opal drive to undergo an MR3 update without the drive becoming locked Adjustments to wear levelling mechanism Mitigate issue that cause drive to return last data written to NAND
September 2023	JCV10400	<p>Non-OPAL drives only:</p> <ul style="list-style-type: none"> Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> Environment that does not Implement Required Command Ordering Enforcement may cause drive to return last data written to NAND Drive may encounter bad ctx 3014 due to wear leveling

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| July 2022 | JCV10300 | <ul style="list-style-type: none"> • NAND Read Disturb Impact Due to Unique NAND Background Activity Fix • BM459 Assert No Available Band/Erase Block Fix • Other various fixes and improvements |
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3 Solidigm™ D5-P5430

Date	Revision	Description
July 2023	6CV10110	<ul style="list-style-type: none"> • Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> • Environment that does not Implement Required Command Ordering Enforcement may cause drive to return last data written to NAND • Host OS fails to boot with the Vendor Defined Firmware option

4 Solidigm™ D5-P5316 (formerly Intel®)

Date	Revision	Description
July 2023	ACV10340	<ul style="list-style-type: none"> • Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> • Environment that does not Implement Required Command Ordering Enforcement may cause drive to return last data written to NAND • PCIe unsupported request errors observed by host during drive power cycle
July 2022	ACV10310	<ul style="list-style-type: none"> • Add additional support for OPAL 2.0, NVMe 1.4c, NVMe-MI 1.1c, and OCP 0xC0 Log Page

5 Solidigm™ D3-S4520 / S4620 (formerly Intel®)

Date	Revision	Description
December 2023	7CV10130	<ul style="list-style-type: none"> • Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> • SMART return status 2CF4H, and SMART attribute AFh and EBh = 1 after ~2 years storage without power, indicating PLI capacitor test failure (U.2 FF only) • Drive did not correctly throttle when end of life defect threshold was reached • Unable to format and possible de-enumeration during installing image operation containing crypto scramble command
March 2023	7CV10120	<ul style="list-style-type: none"> • Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> • SMART attribute AFh and EBh was going to 1 after ~2years of storage without power, when the PLI capacitor was in fact healthy

		<ul style="list-style-type: none"> • A non-warranty SMART attribute C5h (pending sector count) was increasing in a corner case scenario
July 2022	7CV10111	<ul style="list-style-type: none"> • Mitigates the following issues besides some other minor/corner case fixes: <ul style="list-style-type: none"> • Command timeouts CI054, sometimes followed by ASSERT_SR002 and The SATA link going down. • AFh Smart attribute accidentally drops from 100 to 1 upon power on or power cycle. False failure of the cap test. However, nothing is/was wrong with the capacitor. • SMART attribute B7h SATA downshift counter not updating accurately when a SATA downshift occurs. • SSD warm reboot issue in RAID mode: BIOS hangs and drive not enumerating after OS install and warm reset in RAID mode

6 Solidigm™ D3-S4510 / S4610 (formerly Intel®)

Date	Revision	Description
July 2023	XCV10165 (2.5")	<ul style="list-style-type: none"> • Follow up fix for SMART attributes (AFh, EBh) incorrectly triggered after long-term storage (Only 2.5" SKUs are impacted) • SMART return status fix
January 2023	XCV10160 (2.5")	<ul style="list-style-type: none"> • Mitigates the following issues: <ul style="list-style-type: none"> • SMART attributes (AFh, EBh) incorrectly triggered after long-term storage (Only 2.5" SKUs are impacted)
September 2022	XCV10151 (2.5") XC311151 (M.2)	<ul style="list-style-type: none"> • Mitigates the following issues: <ul style="list-style-type: none"> • Occasional IO timeout under heavy workloads potentially leading to drive drops

7 Solidigm™ DC P3100 (formerly Intel®)

Date	Revision	Description
May 2022	119D	<ul style="list-style-type: none"> • Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

8 Solidigm™ DC P4101 (formerly Intel®)

Date	Revision	Description
May 2022	009D	<ul style="list-style-type: none"> • Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

Solidigm Client SSD Products Revision History

1. Solidigm™ P41 Plus

Date	Revision	Description
February 2023	002C	<ul style="list-style-type: none">• Fixes possible early disablement of DSLC• Fixes SMART Health info corruption and NDA that occasionally occur due to unexpected power loss• Improves drive power on to ready time during certain rebuild conditions after unexpected power loss• Corrects Verify Command missing in NVMe Commands Supported and Effects Log as reported by drive• Fixes occasional drive hang experienced during OS imaging process in WinPE environment

2. Solidigm™ 660p (formerly Intel®)

Date	Revision	Description
May 2022	005C	<ul style="list-style-type: none">• Potential BSOD during Power State Transition• Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

3. Solidigm™ 665p (formerly Intel®)

Date	Revision	Description
May 2022	002C	<ul style="list-style-type: none">• Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

4. Solidigm™ 670p (formerly Intel®)

Date	Revision	Description
May 2022	003C	<ul style="list-style-type: none">• Fix to thermal throttling Flow• Fix for Null pointers• Block SID Fix• Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

5. Solidigm™ 760p (formerly Intel®)

Date	Revision	Description
May 2022	006C	<ul style="list-style-type: none">• Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

6. Solidigm™ Pro 7600p (formerly Intel®)

Date	Revision	Description
May 2022	006P	<ul style="list-style-type: none">Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

7. Solidigm™ Pro 6000p (formerly Intel®)

Date	Revision	Description
May 2022	132P	<ul style="list-style-type: none">Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

Solidigm Other SSD Products Revision History

1. Solidigm™ E 6100p (formerly Intel®)

Date	Revision	Description
May 2022	006E	<ul style="list-style-type: none">Mitigates security vulnerability (see Solidigm Advisory SOLIDIGM-SA-00563)

List of Solidigm SSD Products

Please check all supported Solidigm™ SSDs (formerly Intel®) in the following link:

<https://www.solidigm.com/us/en/support-page/product-doc-cert/ka-00099.html>

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