

# Samsung NVM Express Driver v3.0

---

## Installation Guide

---

Revision 3.0

### LEGAL DISCLAIMER

SAMSUNG ELECTRONICS RESERVES THE RIGHT TO CHANGE PRODUCTS, INFORMATION AND SPECIFICATIONS WITHOUT NOTICE.

Products and specifications discussed herein are for reference purposes only. All information discussed herein may change without notice and is provided on an “AS IS” basis, without warranties of any kind. This document and all information discussed herein remain the sole and exclusive property of Samsung Electronics. No license of any patent, copyright, mask work, trademark or any other intellectual property right is granted by one party to the other party under this document, by implication, estoppels or otherwise. Samsung products are not intended for use in life support, critical care, medical, safety equipment, or similar applications where product failure could result in loss of life or personal or physical harm, or any military or defense application, or any governmental procurement to which special terms or provisions may apply. For updates or additional information about Samsung products, contact your nearest Samsung office. All brand names, trademarks and registered trademarks belong to their respective owners.

Copyright, 2016 Samsung Electronics Co., Ltd. All rights reserved.

### COPYRIGHT © 2016

This material is copyrighted by Samsung Electronics. Any unauthorized reproductions, use or disclosure of this material, or any part thereof, is strictly prohibited and is a violation under copyright law.

### TRADEMARKS & SERVICE MARKS

The Samsung Logo is the trademark of Samsung Electronics. Adobe is a trademark and Adobe Acrobat is a registered trademark of Adobe Systems Incorporated. All other company and product names may be trademarks of the respective companies with which they are associated.

# Table of Contents

|                            |    |
|----------------------------|----|
| LEGAL DISCLAIMER           | 01 |
| COPYRIGHT                  | 01 |
| TRADEMARKS & SERVICE MARKS | 01 |
| Revision History           | 03 |
| Overview                   | 04 |
| - System Requirements      | 04 |
| - System Configuration     | 04 |
| Driver Installation        | 05 |
| EULA                       | 09 |

## Revision History

| Revision | Description                                                                                | Revision Date  |
|----------|--------------------------------------------------------------------------------------------|----------------|
| 1.0      | . Initial release version                                                                  | November, 2015 |
| 1.1      | . Driver version update for USB compatibility                                              | January, 2016  |
| 2.0      | . Support for 960PRO and EVO                                                               | November, 2016 |
| 2.1      | . Improve idle power saving on Windows 10<br>. Unsafe shutdown bug fix on Windows 8.1 & 10 | December, 2016 |
| 2.2      | . Hyper-V compatibility bug fix                                                            | March, 2017    |
| 2.3      | . Support encrypted drive                                                                  | October, 2017  |
| 3.0      | . Support for 970PRO and EVO                                                               | April, 2018    |

# Overview

This guide describes how to install the Samsung NVM Express driver 3.0 (hereinafter “driver”) for Windows Operating Systems. The driver supports the Samsung NVMe SSD 970 PRO, 960 EVO, 960 PRO, 960 EVO and 950 PRO.

## System Requirements

The driver supports Windows 7, Windows 8.1 and Windows 10.

Recommended system configuration (minimum):

- Intel Haswell Refresh Processor
- 2GB RAM
- 50MB free disk space
- UEFI Bios v2.3

## System Configuration

Windows Operating System shall successfully load the driver only when Samsung NVMe SSD 970 PRO, 970 EVO, 960 PRO, 960 EVO or 950 PRO is installed to

- PCIe slot directly connected to CPU or
- M.2 or PCIe slot connected to PCH.

However, in the PCH case, Windows Operating System cannot load the driver under following BIOS configurations where

- PCH Storage Configuration is set to “Raid Mode, or
- NAND/Storage Remapping option\*” is enabled.

\* The option name can be different according to M/B manufacturers.

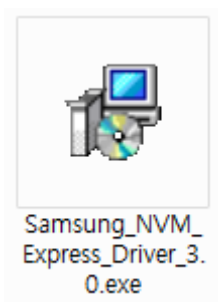
Please refer to your M/B manual.

# Driver Installation

The driver installation procedure is as follows

## 1. Download and Decompression

If you download the driver installer file, from Samsung.com\*, you will see the driver installer file, "Samsung\_NVM\_Express\_Driver\_3.0.exe".



\* <http://www.samsung.com/semiconductor/minisite/ssd/download/tools/>

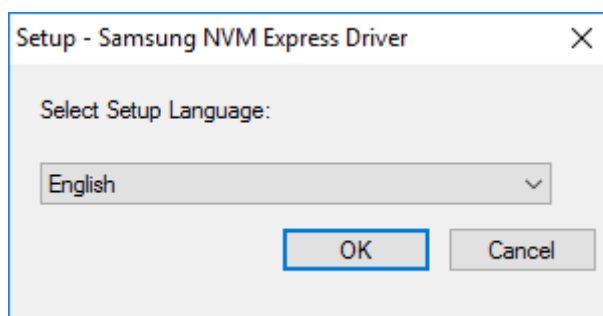
## 2. Installing the SAMSUNG NVM Express Driver

### 2.1. Running "Samsung\_NVM\_Express\_Driver\_3.0.exe" file

Double click the "Samsung\_NVM\_Express\_Driver\_3.0.exe" file with the administrator rights.

### 2.2. Language Selection

When the below screen pops up, select setup language and click OK to begin the installation.



# Driver Installation

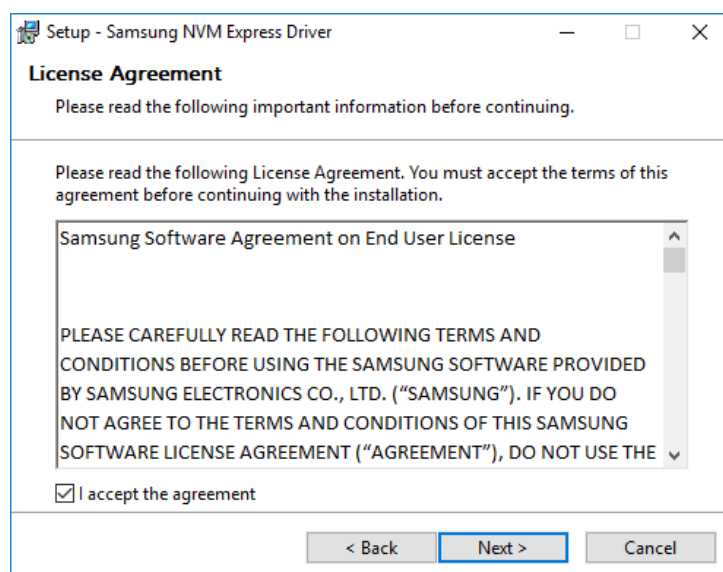
## 2.3 Samsung NVMe Driver Setup Wizard

When the below screen pops up, continue with the installation by clicking next.



## 2.4. License Agreement

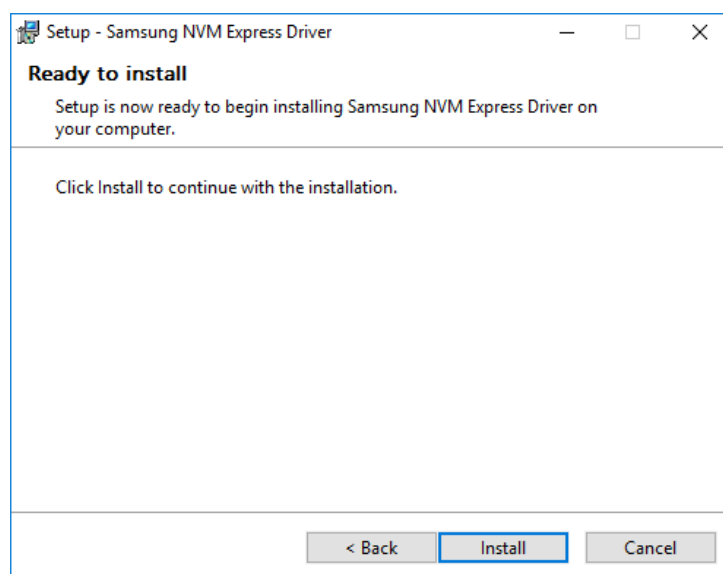
When the below Samsung License Agreement screen pops up, please read the agreement, click the "I accept the agreement" button and click Next to continue with the installation.



# Driver Installation

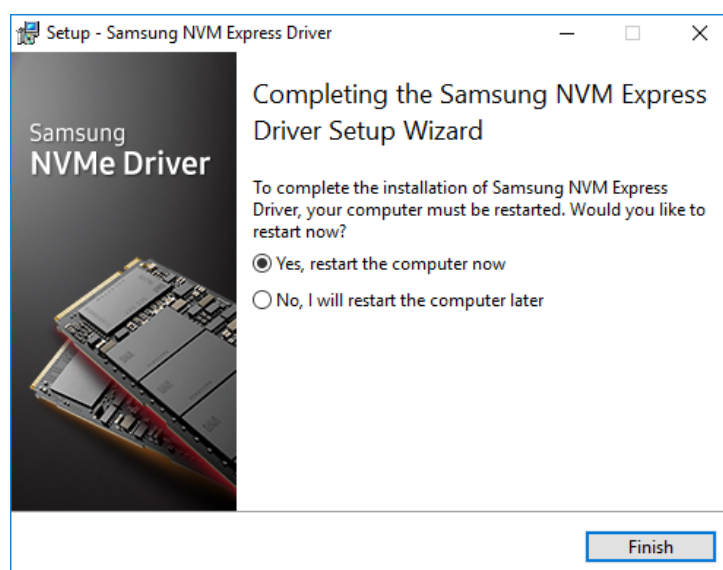
## 2.5 Ready to Install

Now, the Samsung NVM Express driver is ready to install. Click Install to continue with the installation.



## 2.6 Restarting the Computer now

Lastly, when the setup completion screen pops up, complete the installation by clicking “Yes, restart the computer now” or “No, I will restart the computer later” button and then click Finish. (We recommend restarting the computer after the installation)



# Driver Installation

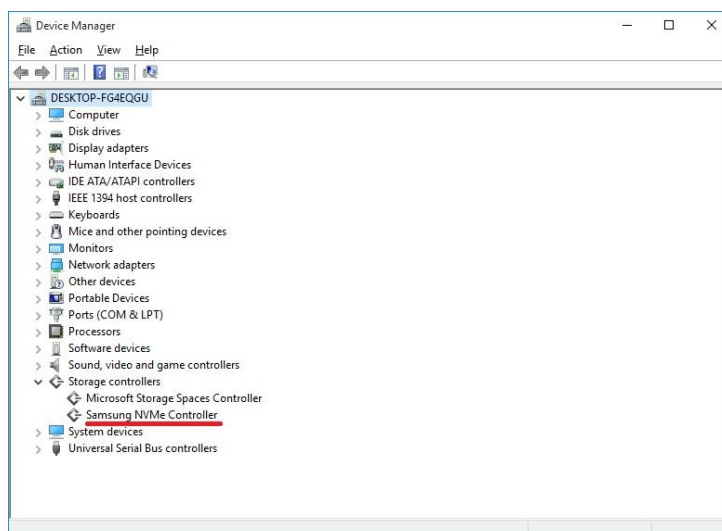
## 2.7 Repair and Uninstall

Repair and uninstallation of the driver can be performed via the Programs and Features section within the Control Panel. Alternatively the user can launch the installer executable file (with administrator rights) and complete the desired action this way. Repair tries to fix errors, while uninstall removes the driver from the computer.



## 3. Confirming the installed driver

If you initiate the Windows Device Manager, a list of all the hardware present in your system is shown. If “Samsung NVMe Controller” is shown below the “Storage controllers” as below, the installation is successful.



# End User License Agreement (EULA)

PLEASE CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE USING THE SAMSUNG SOFTWARE PROVIDED BY SAMSUNG ELECTRONICS CO., LTD. ("SAMSUNG") IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS SAMSUNG SOFTWARE LICENSE AGREEMENT ("AGREEMENT"), DO NOT USE THE SOFTWARE.

## 1. LIMITED LICENSE

Samsung grants to you a nonexclusive, nontransferable and royalty-free license to use the Software only with Samsung SSD (Solid State Drive) products. You may not modify the Software; reverse compile, reverse engineer, disassemble or reverse assemble all or any portion of the Software; rent, lease, license, sublicense, distribute, transfer or sell the Software; or create derivative works of the Software. There are no implied licenses granted by these terms, and all rights not expressly granted are reserved.

## 2. OWNERSHIP

Except as expressly licensed above, no title, ownership, or intellectual property rights of any kind, express or implied, are transferred to you, and all right, title, and interest in and to the Software remains with Samsung. The Software is licensed to you and not sold. You must reproduce and include all copyright notices and any other proprietary rights notices appearing on the Software.

## 3. CONSENT ON DATA USE AND TRANSFER

You understand and agree that Samsung will collect, use and transfer internationally data relating to your device, including technical information about the systems and applications, application programs and devices associated with and connected to your device, in order to provide product support, engage in statistical research, upgrade our software and provide other related services. This data may be shared with other Samsung affiliates worldwide and our service providers for these purposes.

## 4. NO SUPPORT

Samsung is under no obligation to update, maintain, or provide new versions or other support for the Software. Samsung may make changes to the Software at any time without notice to you.

## End User License Agreement (EULA)

### 5. NO WARRANTY

THE SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

SAMSUNG EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, NONINFRINGEMENT OF THIRD PARTY RIGHTS, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FOR ANY COURSE OF DEALING OR USAGE OF TRADE. SAMSUNG DOES NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS, OR THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE. FURTHERMORE, SAMSUNG DOES NOT MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE SOFTWARE IN TERMS OF ITS CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE. THE ENTIRE RISK ARISING OUT OF USE OR PERFORMANCE OF THE SOFTWARE REMAINS WITH YOU.

### 6. NO LIABILITY

IN NO EVENT SHALL SAMSUNG OR ITS AFFILIATED COMPANIES BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF YOUR USE OF OR INABILITY TO USE THE SOFTWARE, EVEN IF SAMSUNG HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

### 7. TERMINATION

This Agreement is effective until terminated. This Agreement may be terminated by you at any time by deleting the Software and discontinuing its use, or by Samsung if you fail to cure any breach of this Agreement within sixty (60) days from written notice of breach by Samsung. Upon termination, the licenses granted to you shall terminate, and you shall cease all use and distribution of, and cease exercising any and all other rights granted under this Agreement with respect to, the Software.

### 8. GENERAL

This Agreement constitutes the entire agreement between Samsung and you regarding the subject matter hereof and supersedes all previous oral or written communications between the parties.

## End User License Agreement (EULA)

### 9. DISPUTE RESOLUTION

This Agreement shall be governed by and construed in accordance with the laws of the Republic of Korea, without regard to conflicts of laws principles. All disputes, controversies or claims between the parties arising out of or in connection with this Agreement (including its existence, validity or termination) which cannot be amicably settled shall be finally resolved by arbitration to be held in Seoul, Korea in accordance with the Arbitration Rules of the Korean Commercial Arbitration Board by one or more arbitrators. The arbitral award shall be final and binding on the parties.

### 10. DISCLAIMER

SAMSUNG IS NOT RESPONSIBLE FOR ANY LOSS OR DAMAGE TO YOUR COMPUTER, SYSTEM, OR APPLICATION PROGRAMS, ARISING FROM THE USE OF THIS APPLICATION. SAMSUNG ALSO DOES NOT TAKE ANY LIABILITY FOR ANY KIND OF DATA LOSS AND RESTORATION THAT MAY OCCUR DURING THE INSTALLATION OR EXECUTION OF THIS SOFTWARE. USER OF THIS APPLICATION HAS TO TAKE COMPLETE RESPONSIBILITY.

# End of Document

November 2016

[www.samsung.com/ssd](http://www.samsung.com/ssd)

[www.samsungssd.com](http://www.samsungssd.com)

Design and contents of this manual are subject to change without notice.

©2016 Samsung Electronics, Co., Ltd. All rights reserved.