

SIEMENS

SIMATIC

Industrial PC Microsoft® Windows® Server 2016




Operating Instructions

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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 DANGER
indicates that death or severe personal injury will result if proper precautions are not taken.
 WARNING
indicates that death or severe personal injury may result if proper precautions are not taken.
 CAUTION
indicates that minor personal injury can result if proper precautions are not taken.
NOTICE
indicates that property damage can result if proper precautions are not taken.


If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

 WARNING
Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Safety instructions

1.1 Industrial Security

Industrial Security

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions only form one element of such a concept. Siemens' products and solutions only form one element of such a concept.

Customer is responsible to prevent unauthorized access to its plants, systems, machines and networks. Systems, machines and components should only be connected to the enterprise network or the internet if and to the extent necessary and with appropriate security measures (e.g. use of firewalls and network segmentation) in place.

Additionally, Siemens' guidance on appropriate security measures should be taken into account. For more information about industrial security, please visit (<http://www.siemens.com/industrialsecurity>).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends to apply product updates as soon as available and to always use the latest product versions. Use of product versions that are no longer supported, and failure to apply latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under (<http://www.siemens.com/industrialsecurity>).

See also

Technical support (<https://support.industry.siemens.com/cs/ww/en/>)

1.2 Disclaimer for third-party software updates

This product includes third-party software. Siemens AG only provides a warranty for updates/patches of the third-party software, if these have been distributed as part of a Siemens software update service contract or officially released by Siemens AG. Otherwise, updates/patches are undertaken at your own risk. You can find more information about our Software Update Service offer on the Internet at Software Update Service (<http://www.automation.siemens.com/mcms/automation-software/en/software-update-service>).

1.3 Notes on protecting administrator accounts

A user with administrator privileges has extensive access and manipulation options in the system.

Therefore, ensure there are adequate safeguards for protecting the administrator accounts to prevent unauthorized changes. To do this, use secure passwords and a standard user account for normal operation. Other measures, such as the use of security policies, should be applied as needed.

Initial startup: Commissioning the operating system

An operating system with installed device drivers and SIEMENS software products is already installed on your device in the delivery state.

After the initial startup, you can make the following personal settings using the menu:

- Set the display language and region
- Set password for the user account "Administrator"

Requirements

- No USB data storage media are connected to the device.
- For devices with optical drives:
There is **no** data storage medium in the optical drive.
- A keyboard, a mouse and a monitor are connected to the device.
- The default settings in the BIOS setup are unchanged before the operating system is started up for the first time.

Procedure

NOTICE**Operational safety of the device and system in danger**

Faulty or interrupted commissioning of the operating system can put the operational safety of your device and the system at risk.

Therefore, note the following:

- Do not switch off the device during commissioning.

1. Switch on the device.
2. The operating system sets up automatically. During this process, the device can restart several times.
3. Wait until you are prompted to select the language.

4. Type in the product key as required. The product key is located on the "Certificate of Authenticity" label (COA label) or on an enclosed "Certificate of Authenticity Card".
5. Follow the instructions on the screen.

Once the user has logged on for the first time and the Windows® user interface has loaded, the operating system is fully operational.

Note

Devices with multiple data storage media: Only one data storage medium is displayed

For devices with multiple data storage media it can happen that only one data storage medium is set up (partitioned and formatted) in the delivery state.

Only one data storage medium is displayed in Windows® Explorer in this case even though multiple data storage media are physically available.

- You can set up additional data storage media in Windows® Disk Management. You can find the required information in the section: "Display and manage data storage mediums (Page 14)".
-

Restoring the factory settings of the operating system and partitions (Restore)

3

The Restore function restores the factory settings of the target system (which means the volume partitions, the operating system with installed device drivers, and the SIEMENS software products).

You can quickly restore your device if it is damaged.

Setting Boot mode

You can restore the target system in both or one of the following boot modes:

If you can select from multiple boot modes, we recommend that you restore the target system in the boot mode that was set in the delivery state.

You can find information on this in the operating instructions of the device.

UEFI mode (GPT volume):

To support new features, such as TPM 2.0, Secure Boot and volumes larger than 2 TB, the operating system must be restored in the way that it boots in UEFI mode.

For this purpose, the provided USB stick must also be booted in UEFI mode.

The target system is then set up with a GPT volume and boots in UEFI mode.

Legacy mode (MBR volume):

To support older extensions and functions, such as older PCI(e) cards and older software products, the operating system must be restored to boot in Legacy mode.

For this purpose, the provided USB stick must also be booted in Legacy mode.

The target system is then set up with an MBR volume and boots in Legacy mode.

Requirement

- If the data of partition D: (Data) should be retained during restore:

Make sure that the complete target system is partitioned as in the delivery state. You can find information on this in the operating instructions of the device.

Procedure

Note

The firmware settings might have to be changed in order for the device to boot from the provided USB stick.

You can find additional information on this in the description of the firmware/BIOS for the device.

NOTICE
Risk of data loss Files, user settings as well as existing authorizations and license keys are lost when a restore is performed! <ul style="list-style-type: none">• Back up your data before restoring.

1. Insert the provided USB stick into the device.
2. Restart the device.
3. Boot with the provided USB stick in the Boot mode you have set beforehand.
4. In the Windows® Boot Manager, select the option "Restore Microsoft Windows ..." and confirm the selection.

The Restore program from Siemens starts after a few seconds.

5. Follow the instructions on the screen.

Note the following information:

Selecting the partitions to be restored

Option: "Restore complete system disk"

Use this option if you want to restore the entire target system, including the partitions C: (System) and D: (Data).

Option: "Restore existing system partition only"

Use this option if you are want to restore only the C: (System) and the boot functionality. The partition D: (Data) and all data stored there is retained.

Installing the operating system (Recovery)

The recovery function only installs the operating system on your device. In contrast to the restore function, no device drivers and no SIEMENS software products are installed by the recovery function.

Setting Boot mode

You can restore the target system in both or one of the following boot modes:

If you can select from multiple boot modes, we recommend that you restore the target system in the boot mode that was set in the delivery state.

You can find information on this in the operating instructions of the device.

UEFI mode (GPT volume):

To support new features, such as TPM 2.0, Secure Boot and volumes larger than 2 TB, the operating system must be restored in the way that it boots in UEFI mode.

For this purpose, the provided USB stick must also be booted in UEFI mode.

The target system is then set up with a GPT volume and boots in UEFI mode.

Legacy mode (MBR volume):

To support older extensions and functions, such as older PCI(e) cards and older software products, the operating system must be restored to boot in Legacy mode.

For this purpose, the provided USB stick must also be booted in Legacy mode.

The target system is then set up with an MBR volume and boots in Legacy mode.

Procedure

Note

The firmware settings might have to be changed in order for the device to boot from the provided USB stick.

You can find additional information on this in the description of the firmware/BIOS for the device.

NOTICE

Risk of data loss

Files, user settings as well as existing authorizations and license keys are lost when the operating system is installed!

- Back up your data before installing the operating system.

1. Insert the provided USB stick into the device.
2. Restart the device.
3. Boot with the provided USB stick in the Boot mode you have set beforehand.
4. In the Windows® Boot Manager, select the option "Recovery Microsoft Windows ..." and confirm the selection.

The Windows® installer starts after a few seconds.

5. Follow the instructions on the screen.

Note the following information.

Selecting the storage location for the operating system

During the installation process, you can select the storage location (drive or partition) for the operating system.

If the corresponding drive is not offered here, you must first download the driver for its data storage medium controller (e.g. RAID or AHCI controller). All drivers made available by Siemens are available on the supplied USB stick in the folder "DocuAndDrivers\Drivers".

Setting up partitions

You can set up partitions during the installation process.

The recommended minimum size of the partition on which you want to install the operating system depends on how much work memory and additional software you want to use.

You can find information on how to set up the partitions of the drives in the delivery state in the operating instructions of the device.

Configuring and updating the operating system

5.1 Changing the display language, region and formats of the operating system

Changing the region and formats of a registered user account

1. Select: "Control Panel > Region and Language"
2. Make the desired changes in the following tabs:
 - "Formats"
 - "Location"

Changing the display language for a registered user account

1. Choose: "Control Panel > Region and Language".
2. Make the desired changes.

Changing the system account and the standard user account settings

You can change the settings for the display language, region and formats of the system account (for example, the display language in the user login dialog) and the settings of the standard user account (default setting for new users).

The settings of the registered user are copied to the system account and the standard user account for this purpose.

1. Select: "Control Panel > Region and Language"
2. Make the desired changes in the following tab:
 - "Administrative"

5.2 Installing new display languages for the operating system from the provided USB stick

Install new display languages for the operating system if you want to select a language other than the languages available for selection in the settings for display language, region, and format settings.

You can find information on the languages that can be installed from the provided USB stick in the section "Display languages supplied for the operating system (Page 15)".

Requirements

- You have administrator rights for the system.
- A keyboard is connected to the device.

Procedure

1. Insert the provided USB stick into the device.
2. Press the key combination "Windows + r".
3. Enter "lpksetup" in the text box and confirm your entry.
4. In the "Install or uninstall display languages" window, click on the "Install display languages" button.
5. Select the language that you want to install from the "Languagepacks" folder on the provided USB stick.

5.3 Updating the operating system

As described in the section "Industrial Security (Page 4)", we recommend updating the operating system as soon as the appropriate updates are available.

Requirement

- You have administrator rights for the system.
- The device is connected to the Internet.

Procedure

1. Select "Start > Settings > Update & security > Windows Update > Check for updates".
Windows® determines the updates that are not installed.
2. Then start the download and installation process.

5.4 Display and manage data storage mediums

Requirements

- You have administrator rights for the system.
- A keyboard is connected to the device.

Procedure

1. Press the key combination "Windows + r".
2. Enter "diskmgmt.msc" in the text box and confirm your entry.
Windows® Disk Management opens.

Result

- Windows® Disk Management shows all data storage media available on your system.
- In Windows® Disk Management you can partition and format the data storage media.

5.5 BitLocker with Trusted Platform Module (TPM)

"BitLocker" drive encryption can be used together with the "Trusted Platform Module" (TPM).

To be able to use TPM, the TPM functionality must be activated in the device firmware and the operating system must be booted in UEFI mode.

NOTICE
Risk of data loss if the password is lost
If the password for data encryption is lost, it will no longer be possible to decrypt the data, for example, after a firmware/BIOS update.
Please store your passwords with care and protect them from unauthorized access.

Extended scope of delivery of the provided USB stick

6.1 Display languages supplied for the operating system

The following display languages for the operating system are stored in the "Languagepacks" folder on the provided USB stick:

Language (Country)	Country	Abbreviation
German	Germany	de-De
English	USA	en-us
Spanish	Spain	es-es
French	France	fr-fr
Italian	Italy	it-it
Japanese	Japan	ja-jp
Korean	Korea	ko-kr
Russian	Russian Federation	ru-ru
Chinese	China	zh-cn
Chinese	Taiwan	zh-tw
Arabic	Saudi Arabia	ar-sa
Bulgarian	Bulgaria	bg-bg
Czech	Czech Republic	cs-cz
Danish	Denmark	da-dk
Greek	Greece	el-gr
English	Great Britain	en-gb
Spanish	Mexico	es-mx
Estonian	Estonia	et-ee
Finnish	Finland	fi-fi
French	Canada	fr-ca
Hebrew	Israel	he-il
Croatian	Croatia	hr-hr
Hungarian	Hungary	hu-hu
Lithuanian	Lithuania	lt-lt
Latvian	Latvia	lv-lv
Norwegian/Bokmål	Norway	nb-no
Dutch	The Netherlands	nl-nl
Polish	Poland	pl-pl
Portuguese	Brazil	pt-br
Portuguese	Portugal	pt-pt
Romanian	Romania	ro-ro
Slovakian	Slovakia	sk-sk
Slovenian	Slovenia	sl-si

6.1 Display languages supplied for the operating system

Language (Country)	Country	Abbreviation
Serbian/Latin	Serbia	sr-latn-rs
Swedish	Sweden	sv-se
Thai	Thailand	th-th
Turkish	Turkey	tr-tr
Ukrainian	Ukraine	uk-ua

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