

SIEMENS

SIMATIC

Programming device SIMATIC Field PG M2

Getting Started

Introduction

1

Description

2

Application Planning

3

Setting up and connecting

4

Startup

5

Appendix

A

Safety Guidelines

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
with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.
CAUTION
without a safety alert symbol, indicates that property damage can result if proper precautions are not taken.
NOTICE
indicates that an unintended result or situation can occur if the corresponding information is not taken into account.

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 device/system may only be set up and used in conjunction with this documentation. Commissioning and operation of a device/system may only be performed by **qualified personnel**. Within the context of the safety notes in this documentation qualified persons are defined as persons who are authorized to commission, ground and label devices, systems and circuits in accordance with established safety practices and standards.

Prescribed Usage

Note the following:

 WARNING
This device may only be used for the applications described in the catalog or the technical description and only in connection with devices or components from other manufacturers which have been approved or recommended by Siemens. Correct, reliable operation of the product requires proper transport, storage, positioning and assembly as well as careful operation and maintenance.

Trademarks

All names identified by ® are registered trademarks of the 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.

Table of contents

1	Introduction	5
2	Description	7
2.1	Exterior design	7
2.2	Connecting elements	9
2.3	Operator controls	10
2.3.1	On/off button	10
2.3.2	Touchpad	11
3	Application Planning	13
3.1	Unpacking and checking the delivery unit	13
3.2	Device identification data	14
4	Setting up and connecting	15
4.1	Positioning the device	15
4.2	Connecting peripherals	16
4.3	Connecting to the power supply.....	17
5	Startup	19
5.1	Requirements for commissioning.....	19
5.2	Basic commissioning - initial startup.....	19
A	Appendix	21
A.1	Guidelines and declarations.....	21
A.2	Certificates and approvals	23
A.3	Service and support	24

Introduction

Purpose of this documentation

This manual contains all the information and instructions you need to commission and use the SIMATIC Field PG M2.

Where is this documentation valid?

This documentation is valid for all available versions of the SIMATIC Field PG M2 and describes the delivery state as of March 2008.

Operating instructions SIMATIC Field PG M2

The operating instructions are available on the included "Software for Field PG" DVD. To read and print the operating instructions, select the corresponding document in the Welcome.pdf.

The operating instructions provide many useful topics dealing with items such as hardware expansion options, changing the device configuration and technical data.

The operating instructions also contain a Declaration of Conformity for the device, with respect to safety and EMC requirements.

Safety information

Always follow the instructions in this manual and in the operating instructions in order to avoid personal injury and damage to assets. The warnings are highlighted by a warning triangle and presented in different forms based on the degree of hazard.

Conventions

The abbreviation PG or device is also used within this documentation for the product name SIMATIC Field PG M2.

Description

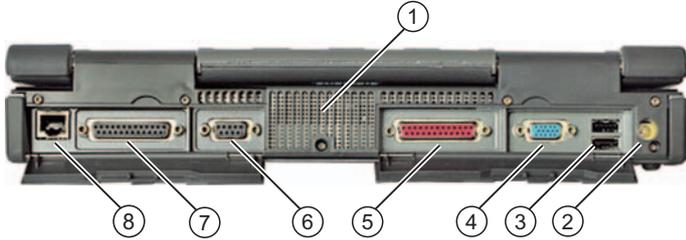
2.1 Exterior design

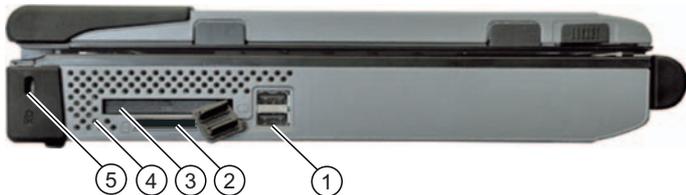
View with closed display	Pos	Description
	(1)	Device handle
	(2)	Keyboard LEDs
	(3)	System LEDs

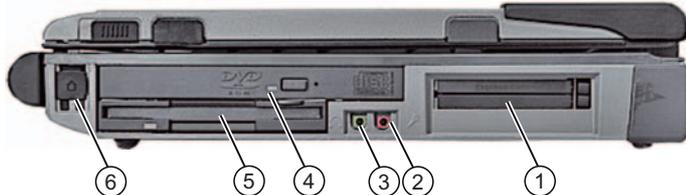
Front view with display open	Pos	Description
	(1)	Display latch
	(2)	Display
	(3)	Stereo speakers
	(4)	On/off button (power)
	(5)	Mouse buttons
	(6)	Touchpad
	(7)	Keyboard

Description

2.1 Exterior design

View from rear	Pos	Description
	(1)	Ventilation air outlet
	(2)	DC IN 18.5 V
	(3)	USB
	(4)	VGA
	(5)	LPT
	(6)	MPI/DP Multipoint Interface
	(7)	COM1/TTY
	(8)	Ethernet

View of left side	Pos	Description
	(1)	USB with cover open
	(2)	Micro Memory Card interface
	(3)	Memory card interface
	(4)	Ventilation air inlet
	(5)	Opening for Kensington lock

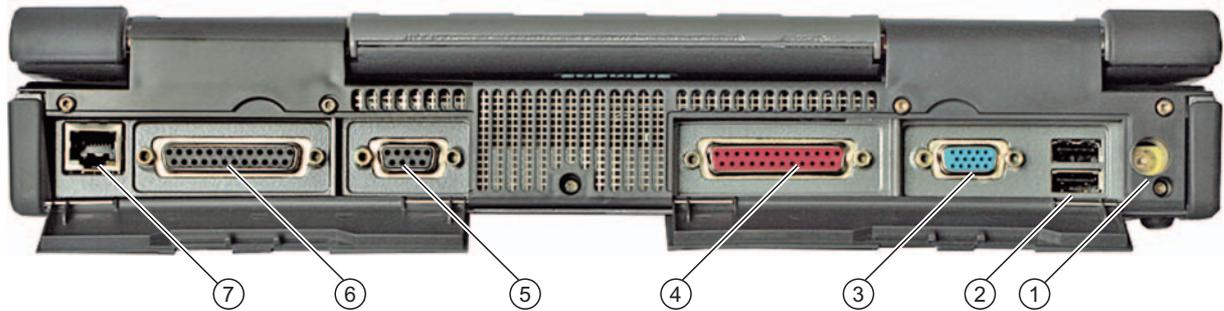
View of right side	Pos	Description
	(1)	Express card and PC card slot
	(2)	Microphone
	(3)	Headphones
	(4)	Optical drive
	(5)	Diskette drive
	(6)	Modem port (RJ-11)

View from below	Pos	Description
	(1)	Memory expansion
	(2)	Rechargeable battery
	(3)	Exchangeable hard disk unit
	(4)	Ventilation openings
	(5)	Rating plate and Certificate of Authenticity

2.2 Connecting elements

Interfaces

Layout of the interfaces on the rear of the device



Pos	Designation	Description
(1)	DC IN 18.5 V	Connector for supplied power unit
(2)	USB 2.0	2 ports for USB devices
(3)	VGA	Connector for compatible external monitor
(4)	LPT	Connector for devices with parallel ports such as printers or scanners
(5)	PROFIBUS / MPI	MPI interface (RS-485, electrically isolated), 9-pin D-sub socket
(6)	COM1 V.24	COM1(TTY) for connecting S5 programmable controllers, or standard V.24 via the "Serial Port Adaptors D9/D25" supplied for connecting a serial device such as a modem or mouse.
(7)	ETHERNET	RJ-45 Ethernet port 10/100/1000 Mbps

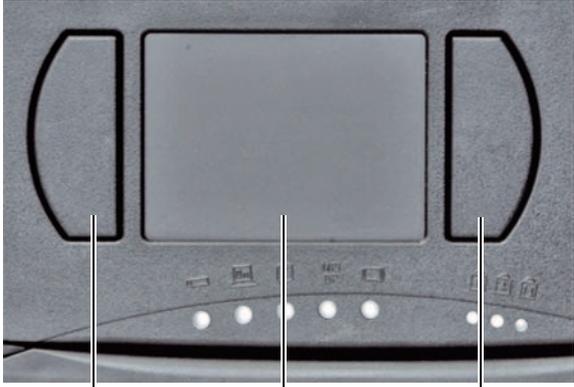
2.3 Operator controls

2.3.1 On/off button

On/off button	Description
	<p>The on/off button (power) has the following functions:</p> <ul style="list-style-type: none">• Switch on/off the PG (press the button for approximately 1 second, the behavior depends on the Windows Power Options settings)• Switch off the PG (press for more than 7 seconds)

For information on the configuration of the On/Off button, refer to the On/Off button section in the operating instructions.

2.3.2 Touchpad

Touchpad	Pos	Description
	(1)	Mouse buttons Press the left button to select an object. The response to the right button depends on the user program.
	(2)	Touchpad The touchpad can be used in many programs (operated by mouse) as an input device for controlling the cursor and selecting menus. You can position the touch-sensitive cursor anywhere on the screen.

Note

The touchpad function (mouse pointer and mouse buttons) can be enabled and disabled with the hotkey Fn + F4.

You can configure the advanced touchpad functions under "Mouse" in the Windows Control Panel. The technical principle used means that it is possible to make unintentional mouse clicks with the touchpad when it is used in a "noisy" environment. In such environments, it is a good idea to disable the tap function in the touchpad driver, and to use the mouse buttons.

Description

2.3 Operator controls

Application Planning

3.1 Unpacking and checking the delivery unit

Unpacking the device

Note the following points when you unpack the unit

- It is advisable not to dispose of the original packing material. Keep it in case you have to transport the unit again.
- Please keep the documentation in a safe place. It is required for initial commissioning and is part of the device.
- Check the delivery unit for any visible transport damage.
- Check the delivery and your specially ordered accessories against the packaging list to ensure nothing is missing. Please inform your local dealer of any disagreements or transport damages.

3.2 Device identification data

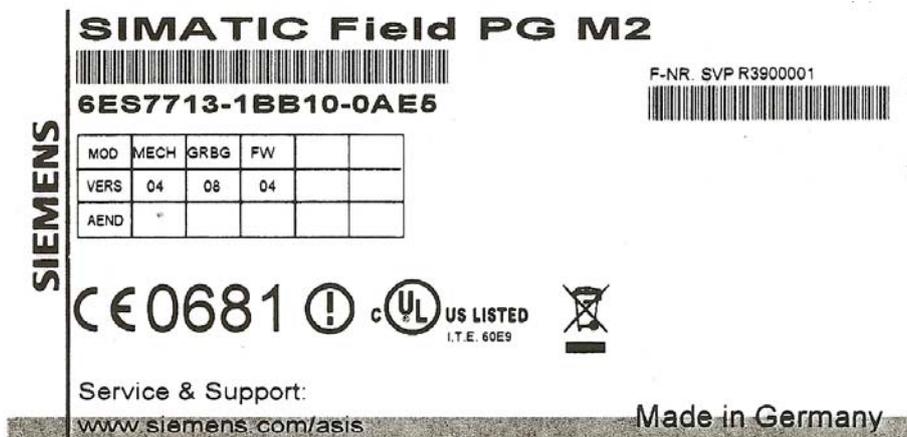
Noting the device identification data

The device can be identified uniquely with the help of these numbers in case of repairs or theft.

Enter the following data in the table below:

- Serial number: The serial number (S VP) is located on the rating plate on the bottom of the device.

Rating plate



- Order number of the device
- Microsoft Windows "Product Key" from the "Certificate of Authenticity" (COA). The COA label is stuck to the bottom on the device. The Product Key is always required to reinstall the operating system.

COA label



Serial number	S VP ...
Order No.	6ES ...
Microsoft Windows Product Key	
Ethernet address	

Setting up and connecting

4.1 Positioning the device

- Position the programming device to ensure comfortable operation and safety.
- Position the programming device with its bottom on a flat surface and at a comfortable height and distance.
- Ensure that a power outlet is easily accessible near your workplace.
- Ensure that there is enough space for connecting peripherals.
- Do not obstruct any ventilation slots when you position the device.
- Open the display by sliding the lock in direction of the arrow.
- Flip the display open and adjust it to a convenient viewing angle. The display can be adjusted within any inclination angle from 0 to 180°.

**CAUTION**

Always set the PG down on its underside, otherwise there is a risk that it will fall over and damage sensitive components.

⚠ WARNING

The outer housing is made of Magnesium. If it comes into contact with open flame, there is a risk of fire / spreading fire.

4.2 Connecting peripherals

To be noted before you connect the device

CAUTION
Peripheral devices that are incapable of hot-plugging may only be connected after the device has been disconnected from the power supply.

CAUTION
Strictly adhere to the specifications for peripheral equipment.

 WARNING
When connecting long signal lines (particularly with connections spanning buildings), ensure the signal lines are always integrated in the local potential equalization (connecting the screen with the grounding wire).

4.3 Connecting to the power supply

To be noted before you connect the device

Note

The external power supply serves as the power supply of the Field PG in line operation with 120 V and 230 V power supply networks. The setting of the voltage range takes place automatically.

The battery is charged in line operation, that's why you need to install the supplied battery before you connect the device to the power supply.

 WARNING

Do not connect or disconnect power and data cables during thunderstorms.

 WARNING

The device is designed for operation on grounded power supply networks (TN systems to VDE 0100, part 300, or IEC 60364-3).

Operation on ungrounded or impedance-grounded power networks (IT networks) is prohibited.

 WARNING

The Field PG may only be operated using the supplied power supply and / or using the supplied battery.

The external power supply may not be covered (risk of overheating).

 CAUTION

The mains connector must be disconnected to fully isolate the device from mains.

Connecting

Steps for connecting the device to mains		
1	Turn the PG so that the closed display unit is lying on the table.	
2	Unlock and fold up the battery cover on the underside of the device.	
3	Insert battery.	
4	Close the cover and turn the device round again.	
5	Plug the supplied power supply cable into the external power supply.	
6	Plug the low plug into the connection on the device.	
7	Connect the external power supply to a power point with grounded grounding wire.	

Startup

5.1 Requirements for commissioning

The operating system and system software of your device are preinstalled on the hard disk.

CAUTION

Risk of damage to the device!

Allow the device to warm up slowly to room temperature before you start it up. If you notice any condensation, wait around 12 hours before you switch on the device.
--

5.2 Basic commissioning - initial startup

The operating system is set up automatically on the programming device when it is **first** started. The following tasks need to be performed:

1. Press the on/off button and hold it down for at least 1 second. The PG conducts a self-test. During the self-test, this message appears:
`Press F2 to go to SETUP Utility /Press ESC to go to Bootmanager`
2. Wait until this message is cleared, then follow the instructions on the screen.
3. Type in the Product Key as required. You find this key on the "Certificate of Authentication", in the "Product Key" line.

NOTICE

The programming device may not be switched off at any time during the installation process.

Do not change the default BIOS settings, otherwise the operating system setup may become corrupted.
--

4. Automatic restart

After you have entered all necessary information, and after the operating system setup is completed, the PG is automatically restarted and displays the user interface of the relevant operating system.

From now on, after you switch on the PC, the user interface of the operating system is automatically opened when the startup routine is completed.

Startup with Microsoft Windows

The menus, dialogs, and keyboard layout are set up in English under Windows XP MUI. You can set another language and another keyboard layout by selecting **Start > Control Panel > Date, Time, Language, and Regional Options > Add other languages**.

Authorization / License key

A product specific authorization or a License Key (user authorization) is required to use the STEP 5-, STEP 7- and WinCC flexible programming software. This protected software may only be used with the relevant authorization. The authorization and license keys for the SIMATIC software are included on the supplied license key diskette.

To unlock the software:

- Insert the license key diskette into your diskette drive.
- Click on the Start button in Windows and
- Open the Automation License Manager with the menu command **Simatic > License Management > Automation License Manager**. Use this program to install the authorization or license key to your hard disk.

NOTICE
<p>The license key diskette supplied with the Field PG only contains the authorization or license keys for the SIMATIC software you have ordered. The SIMATIC software you receive will correspond to your order form.</p> <p>The license key diskette of the supplied "Upgrade Installation" version only contains the software for upgrading an existing authorization or existing license keys.</p> <p>Software installed on the PG for which there is no authorization or a license key in the delivery package, cannot be used or will only run in Trial mode.</p> <p>Keep the License Key diskette with its authorization or license key in a safe place.</p>

Appendix

A.1 Guidelines and declarations

Notes on the CE mark

 The following applies to the SIMATIC product described in this documentation:

EMC directive

This product meets requirements of EC directive 89/336/EEC Electromagnetic Compatibility, and is designed for the following applications as defined by the CE mark:

Application	Requirement for	
	Emissions	Immunity
Residential, business and commercial operations, and small businesses	EN 61000-6-3: 2001	EN 61000-6-1: 2001
Industrial applications	EN 61000-6-4: 2001	EN 61000-6-2: 2001

The device complies with the standards EN 61000-3-2:2000 (harmonic currents) and EN 61000-3-3:1995+A1:2001 (voltage fluctuation and flicker).

Low voltage directive

This product fulfills the Directive 2006/95/EEC of the European Parliament and of the Council on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits.

Requirements of EC Directive 73/23/EEC "Low-voltage directive". Compliance with this standard has been verified according to EN 60950-1 +A11.

RTTE directive

This product meets the requirements of EC directive 1999/5/EEC "Radio Equipment and Telecommunications Terminal Equipment - Use of the Radio Spectrum":

EN 300 328-2 V1.2.1 EN 300 893 V1.2.3

Safety: see the low voltage directive

EMC: see the EMC directive

Network-compatibility of modem interface: TBR21

Declaration of conformity

The EC declaration of conformity and the corresponding documentation are made available to authorities in accordance with the EC directives stated above. Your sales representative can provide these on request.

Installation guidelines

The installation guidelines and safety notices specified in the supplied documentation must be adhered to during commissioning and operation.

Connecting peripherals

The requirements relating to noise immunity according to EN 61000-6-2:2001 are met when you connect a peripheral suitable for an industrial environment. Peripheral devices must only be connected using shielded cables.

A.2 Certificates and approvals

DIN ISO 9001 certificate

The Siemens quality management system for all production processes (development, production, and sales) meets DIN ISO 9001:2000 requirements.

This has been certified by DQS (the German society for the certification of quality management systems).

Q-Net certificate no.: DE-001108 QM

Software License Agreement

The device is shipped with preinstalled software. Please observe the corresponding license agreements.

Certifications for the United States, Canada, and Australia

Product safety

The following approval is available for the device:	
	Underwriters Laboratories (UL) according to Standard UL 60950-1 and Canadian Standard C22.2 No. 60950-1-3

WLAN

The integrated wireless LAN conforming to IEEE 802.11 a/b/g is certified for the following countries: Germany, France, Italy, Spain, Great Britain, Austria Please follow the relevant local regulations when operating the device outside these countries.

A.3 Service and support

Local information

If you have questions about the products described in this document, you can find help at:
<http://www.siemens.com/automation/partner>

Technical documentation for SIMATIC products

Further documentation for SIMATIC products and systems can be found at:
<http://www.siemens.de/simatic-tech-doku-portal>

Easy shopping with the A&D Mall

Catalog & online ordering system <http://www.siemens.com/automation/mall>

Training

All the training options are listed at: <http://www.siemens.com/sitrain>
Find a contact at: Phone: +49(911) 895-3200

Technical support

Tel +49 180 5050 222
Fax +49 180 5050 223
<http://www.siemens.com/automation/service>

You will find support request web form at:
<http://www.siemens.de/automation/support-request>

When you contact the customer support, please have the following information for the technician on hand:

- BIOS version
- Order No. (MLFB) of the device
- Installed additional software
- Installed additional hardware

Online support

Information about the product, Support and Service, right through to the Technical Forum, can be found at: <http://www.siemens.com/automation/service&partner>

After-sales information system for SIMATIC PC / PG

Information about contacts, drivers, and BIOS updates, FAQs and Customer Support can be found at: <http://www.siemens.com/asis>