

# Flash Memory Programmer PG-FP6

<https://www.renesas.com/pg-fp6>

## Standalone flash programmer best suitable for mass production and field programming.

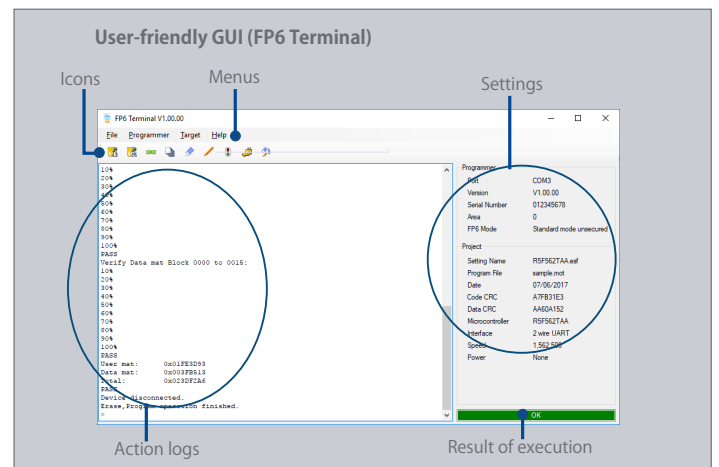
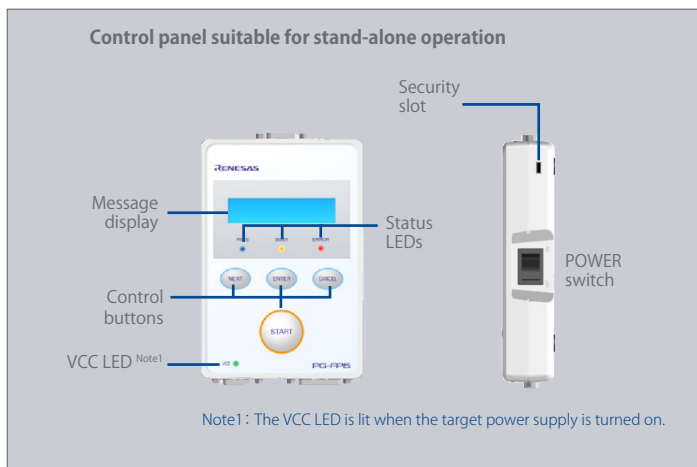
The PG-FP6 flash memory programmer is a tool that is used to erase, write and verify programs on a Renesas Electronics on-chip flash memory MCU on the user system. The PG-FP6 has made improvements on “accelerating programming speed” and “supporting more largescale flash memory” over the previous product, PG-FP5. The PG-FP6 product includes the “FP6 Terminal”, a programming GUI that controls the PG-FP6 on PC.

### Main features

- Control panel suitable for **stand-alone** operation
- Simple and user-friendly GUI, FP6 Terminal
- Useful functions for production line: programming using by buttons and automatic programming
- Able to use USB power: convenient for **programming in the field**
- **High-speed programming** of MCUs by the PG-FP6 for reduced production times
- Support for high-volume programming by **gang programming** with the use of multiple PG-FP6s
- Security Enhancement against theft of program files and the PG-FP6 main unit
- Security slot for theft prevention



PG-FP6



**Support for high-volume programming by gang programming with the use of multiple PG-FP6s**

**Bundled control of multiple PG-FP6s**  
Programming GUI "FP6 Gang Programmer"

No.	Status	Pass / Error	Serial Number
1	Success	5 / 0	91000504
2	Pass	5 / 0	11111111
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

GUI panel where you can see the states of programming and pass or failure for each of the PG-FP6s.

USB HUB

**Reduced times for high-volume programming**

You can handle simultaneous programming by controlling up to 12 PG-FP6s from a single PC.

**Easy setup**

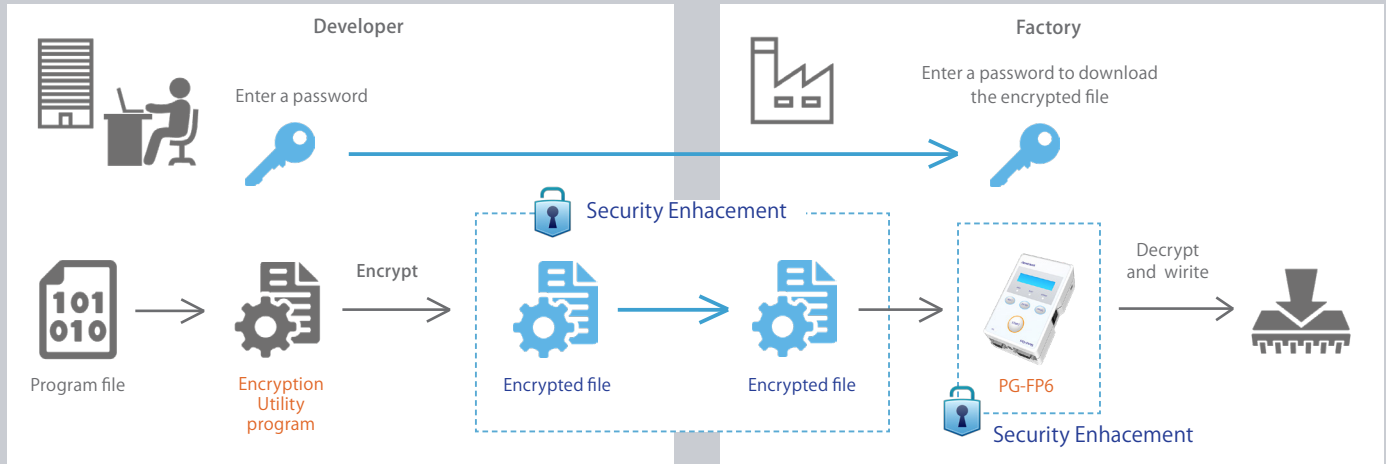
You can download setting files and program files as sets to multiple PG-FP6s at the same time.

**Security Enhancement against theft of program files and the PG-FP6 main unit**

The following three features are added to enhance security against theft of program files and the PG-FP6 main unit.

• Encryption of program files • Saving of encrypted files in the PG-FP6 main unit • Simultaneous decryption and writing in the PG-FP6

\*The program file encryption function can be run by using the encryption utility program (RPE.exe) from the command line. The file is among those installed by the FP6 Terminal installer.



**PG-FP6 usage examples**

**Stand-alone (off-line) programming**



**Production line programming**



**PC programming**



**Field programming**



**High compatibility with the predecessor**

Designed with compatibility with the predecessor PG-FP5 in mind for smooth migration. For details, please visit the following website:

<https://www.renesas.com/pg-fp6#compatibility>

**Specifications**

Product package contents	PG-FP6, GND cable, USB cable, Target cable, Power supply adapter
External dimensions	140 × 90 × 30 mm (protruding parts excluded)
Weight	Approximately 245 g
Supported MCUs	RA, RE, RL78, RX, RH850, Renesas Synergy™, Some special-purpose ICs, SuperH, R8C, 78K or V850 (singular power supply flash memory)
Host interface	USB2.0 (USB1.1), Serial interface
External control interface	Provided
Terminal control	Provided (command released)
Self-testing function	Provided
Target interface	CSI, CSI-H/S, UART, FINE
VDD supply from the programmer	Provided
ROM code	Max. 256 MB (divided by 8)
MCU-specific information	Parameter file for the PG-FP6 <sup>Note1</sup> Multiple files (max. 8) can be read.
MCU security settings, Main unit security settings, Simple mode, Bank mode	Provided
Single write operation by a programmer	The NEXT, ENTER, or CANCEL buttons are used. The START button is used for write operation.
Target cable	14-pin cable
Power	Power supply adapter for the PG-FP6 (accessory) or USB power supply
Programming GUI	Programming GUI for the PG-FP6: FP6 Terminal <sup>Note1</sup>
Operating environment	Windows® 10 (32-bit/64-bit version), Windows® 8.1 (32-bit/64-bit version), Windows® 7 (32-bit/64-bit version)

Note1: The FP6 Terminal includes parameter files, firmware and USB drivers.

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