

# F40 Firmware changelog

## Note

Please read the update instructions carefully before updating the machine. Failure to follow the update procedure correctly may result in machine damage.

Starting from BD-382491 the machines are equipped with the new logic board with integrated USB instead of the dedicated programmer board, this is visible in the "Information" screen, the hardware version is 1 (HW: 1).

## Version history

Only major changes that affect the machine's functionality are reported here. Please note that minor bug fixes and internal improvements may also be included in each update.

Version numbers not listed here are pre-production, test, beta, or special versions. If your machine has one of these, contact service for information before updating.

### ***Version 1.00 – Initial Release***

### ***Version 1.03 – October 2023***

- Corrected translation errors in "Torch calibration" screen;
- Fixed a bug with digital torch that sometimes causes the recall a wrong job number (eg. JOB 255);
- Added "5" to "AlMg" and "AlSi" wire labels;
- Added the "CC" alarm message in case of short-circuit on the welding output;
- Added the automatic recognition of the hardware version of the F40 logic board and error message if the hardware is not compatible;
- Improved immunity against HF disturbance;
- Added the possibility to launch a software update after few seconds, if the wire feeder is stuck in the "splash" screen due to some errors;
- Improved error diagnostic on the startup with updated error codes.

### ***Version 1.04 – November 2023***

- Fixed a bug that causes the thickness in double pulse mode to remain displayed incorrectly when the double pulse program was recalled with the torch;
- Fixed a bug that caused the wire feeder to display coded error messages when a temperature sensor failed, instead of a descriptive message;
- Extended the BurnBack regulation to 200%;

- Added a confirmation request before overwriting an existing saved job;

### ***Version 1.07 – February 2024***

- Fixed a bug that causes the 4T trigger mode to be not available in manual MIG;
- Fixed a bug where the restore confirmation message was displayed instead of the job overwrite confirmation message;
- Fixed a bug: now the “NO” key is working properly in the restore/overwrite job screens;
- Added some more information in the alarm popup to help troubleshooting;
- Added 3 pulsed programs for Mild Steel with M20 gas (only available with an S400 with version 1.03 or higher);

### ***Version 1.08 – September 2024***

- Updated the software to be compatible with logic board with hardware revision 1 (E1254);
- Fixed a bug in the main screen that, in some cases, caused some symbols to disappear;
- Improved the alarm description of primary current problem;
- Improved the precision of the torch calibration results shown in the display;
- Now at the end of the torch calibration procedure, the compensation setting goes automatically in “MEASURED”;
- Now a message is shown if you set the machine to MEASURED but do not immediately perform a torch calibration;
- Other internal improvements to support future updates and power source models;

### ***Version 1.09 – March 2025***

- Fixed an issue with the interface language at startup that could leave some parts untranslated;
- Fixed the overtemperature alarm screen for the S600 power supply;
- Improved diagnostic messages during USB updates;
- Increased the acceptable range of the 24V internal supply by slightly lowering the lower limit, reducing the frequency of the "Low 24V Alarm" PCB error;
- Increased the delay before displaying the Motor Current Alarm and aborting welding due to motor overcurrent, from 1 to 5 seconds;
- Extended the number of available job slots to 16;
- Added a unique board identification code ("ID") in the information screen;
- Added the ability to deactivate the wire feeder and switch the power source to standalone mode, allowing STICK/TIG/GOUGE welding without disconnecting the 14-pin connector (requires S400 firmware version 1.05 or later);

- Added the ability to import/export current parameters, settings, and programs to/from a USB stick, enabling data backup or configuring multiple machines with the same settings (available only on HW:1 wire feeders; see note above);
- Added support for wire retraction (available only on HW:1 wire feeders; see note above). The "Advanced" menu will be displayed based on the connected power source's compatibility with this function;

### **Version 1.10 – June 2025**

- Enhanced and expanded Modbus functionality by adding support for new functions, registers, and coils. (To interface Cobot or other device via Modbus, you need the automation kit pn 602089000L);

### **Version 1.11 – October 2025**

- Added the option to change the Modbus baud rate;
- Added the option to reverse the direction of the remote potentiometer (applies to the main potentiometer for WFS/Amps adjustment);
- Fixed the unit of measurement when using the digital torch: if the machine is set to IPM, the torch now also displays IPM;
- Improved the naming of saved jobs;
- Added the "TJ" symbol to job names when they are usable with the *trigger job\** function;
- General improvements to the *trigger job\** function, especially in 4T mode;
- Changed "Bronze" to "Brazing" in the material list;
- Improved the graphics of the main screen in manual mode;
- Fixed some grammatical errors in the wording;
- Implemented a new mechanism to better handle alarms in the wire feeder (or coming from a Modbus device such as a Cobot) and to properly stop welding. Requires S400 firmware version 1.06 or higher.

*\* The Trigger Job function allows quick job changes by quickly pressing and releasing the torch trigger. Jobs that can be used in the trigger job sequence are now identified by a "TJ" symbol in the job list. Jobs qualified as "TJ" are those with a preflow time of 0.3s or greater (or any 4T jobs) saved in the first four memory slots.*

### **Version 1.12 – October 2025**

- Internal modifications for compatibility with updated PCB components;
- For boards equipped with Bootloader version 1.01 or higher (BL: 1.01 in the "Information" screen), it is recommended **not to downgrade** to versions prior to 1.12, in order to avoid possible issues during future software updates.

### ***Version 1.13 – February 2026***

- Added support for “Pulse Dynamics” function on compatible power sources;

### ***Version 1.14 – May 2026***

- Fixed a graphical issue where the average value was sometimes not displayed at the end of the welding process;
- Fixed a graphical issue where "Pulse Dynamics ON" was displayed even in non-pulsed mode;
- Improved the graphics of the "Pulse Dynamics" adjustment screen;
- Added 3 automatic retry attempts for reading files from the internal USB drive in case of errors;
- Removed the job trigger symbol that was unnecessarily displayed also in jobs after the first 4;
- Minor graphical improvement in the splash screen;
- Fixed a possible issue with import/export that can cause “block error”;