

# Firmware Update

## i-CON 2V

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### Summary

We explain below how to use a microSD™ card to upload a new firmware version into the i-CON 2V. Firmware upgrades improve the performance not only of the station itself, but also of tools such as X-TOOL VARIO. In order to ensure problem-free operation of the station, we advise that you regularly check the firmware version you are running and upgrade it as necessary. The current firmware can be downloaded as a zip file at any time from <http://www.kurzera.com> folder »Electronics Production Equipment / Products / Soldering Tools & Accessories / Soldering & Desoldering Stations / i-CON 2V«.

In the zip file, in the subdirectory »asia«, the Asian version with the languages English, Chinese, Japanese and Korean is found. The subdirectory »west« includes the version with the languages German, English, Spanish, French, Russian, Italian and Portuguese. Please select the version from the appropriate directory for your firmware update.

**Note:**

*A change between the two language versions is possible at any time by a firmware update. Afterwards maybe the desired language must be readjusted in the menu »Configuration«.*

**Tip:**

*Set the language to English before the change of the language version, then after the change initially you also get English.*

### Basic concepts

The i-CON 2V is fitted with an *01C225* control board.

This board runs its own firmware. In order to determine whether a firmware upgrade is necessary, you must first check which version the station is running.

### Checking the firmware version

The firmware version running on the i-CON 2V station is given in the "Kontrast" (Contrast) menu. To access this menu, proceed as follows:

- As soon as you switch the station on, turn the i-OP to the right. This opens the "Kontrast" (Contrast) menu.

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Figure 1. Kontrast (Contrast) Menu

This displays the contrast setting and the tools (in this case: X-TOOL VARIO and CHIP TOOL VARIO).

- Press and hold down the i-OP until the display changes. The display should now be similar to that shown in figure 2.

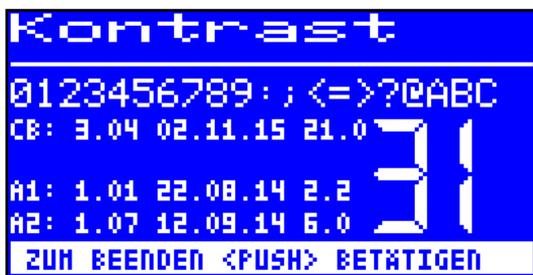


Figure 2. Firmware versions in the Kontrast (Contrast) menu

This displays the firmware versions of the various components, their dates, the hardware versions of the boards as well as those of any installed tools.

"CB: 3.04 02.11.15 21.0" means: Control-Board, Firmware Version 3.04 dated 02.11.15, Hardware Version 21.0.

"A1:" and "A2:" give the firmware versions, dates and hardware versions of the currently installed tools.

**Note:**

*This function is currently available only for CHIP TOOL VARIO and , X-TOOL VARIO.*

The firmware version and date of the control board are also displayed when the unit is switched on.



Figure 3. Firmware version display at power on

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### Firmware filenames

i-CON 2V firmware filenames have the syntax ICN2V(ddd).BIN.

**ICN2V(ddd).BIN:** The files contain the firmware for the control board.

**CTVAR(ddd).BIN:** CHIP-TOOL VARIO firmware files.

**XTVAR(ddd).BIN:** X TOOL VARIO firmware files

»(ddd)« are the three digits of the firmware version number. The filenames could thus be ICN2V304 or ICN2V305.BIN.

## Procedure

### Step 1: Preparation

The current firmware updates for the i-CON 2V, CHIP TOOL VARIO and X-TOOL VARIO are available for download from <http://www.kurzersa.com> folder »Electronics Production Equipment / Products / Soldering Tools & Accessories / Soldering & Desoldering Stations / i-CON 2V«.

**Note:**

*The i-CON 2V can read microSD™, microSDHC™ and microSDXC™ cards formatted for the FAT12, FAT16 and FAT32 filesystems. Make sure that the microSD cards are correctly formatted before using them for an update.*

*It is advisable to format the cards before using them to update the firmware!*

- Download the firmware update files.
- Save the files to a microSD™ card.

**Note:**

*The files must be saved in the microSD™ card's top level directory.*

*Do not change the filenames.*

**Note:**

*The filenames must be in the 8.3 DOS format.*

**Tip:**

*The fewer other files are in the microSD™ card's top level directory, even if they have previously been deleted, the faster the system can find the data.*

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### Step 2: Insert the microSD™ card

- Turn the i-CON 2V station off and remove all tools which are not to have their firmware updated.
- Insert the microSD™ card as shown in figures 4 and 5.

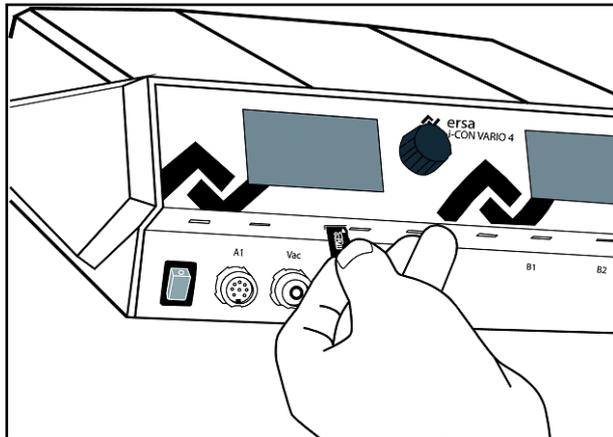


Figure 4. Inserting the microSD™ card, front view

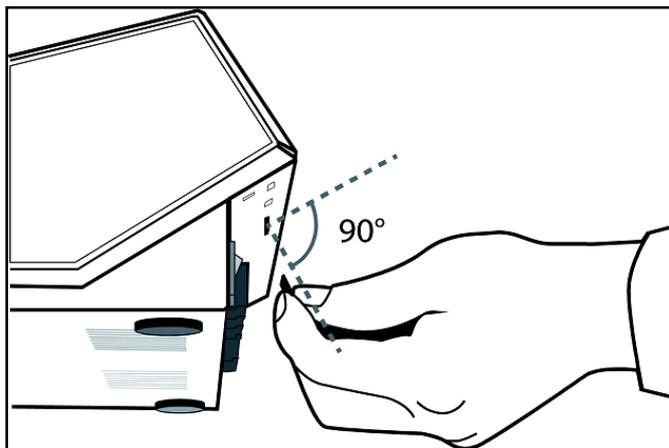


Figure 5. Inserting the microSD™ card, side view

**Note:**

Once the card has been inserted halfway, you should feel a slight resistance. This indicates that the card has been inserted correctly. If you don't feel this resistance, pull the card out and try again.

### Step 3: Uploading the firmware

**Caution!**

Do not switch off the i-CON 2V during the firmware update procedure. Power failures should be prevented, if at all possible. Do not remove the microSD™ card.

- Insert the microSD™ card and turn the station on.  
The "micro SD card" message should display.

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The firmware update starts automatically, as soon as a more recent version is detected on the card. If no such version is detected, the normal menu displays after a few seconds.

**Note:**

*If the update does not start after 5 seconds, or the error message »Error 1« displays (see figure 6), the microSD™ has been inserted either the wrong way round or at an angle. Turn the station off, insert the card correctly and turn the station back on again.*

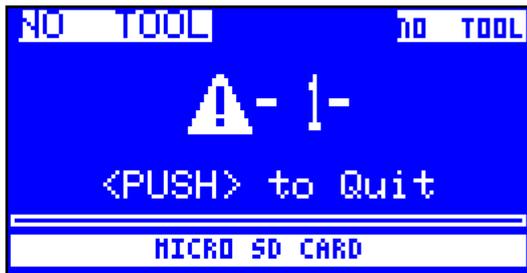


Figure 6. microSD™ card, Error 1

The message "bootloader" displays. The progress of the update is indicated by a progress bar.

Once this procedure has terminated, the system automatically looks for further updates on the card and runs the procedure again for any connected tools, as appropriate.

### Step 4: End of update

- Wait until the entire update procedure has terminated and the normal menu is displayed once more.
- Turn the station off.
- Remove the microSD™ card.
- Turn the station on again. The station is now updated to the new firmware version.

**Note:**

*Settings made before the update are retained.*

*The password is not changed, nor is it required to run the firmware update procedure.*

### Duration of the update procedure

Updating the control board takes around 30 seconds.

A tool update terminates after around 60 seconds.

### Troubleshooting

- **The firmware update procedure has still not terminated after 5 minutes.**

Format the microSD™ card or use a new one.

Save the firmware to the card and repeat the procedure.

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- **The update procedure has been interrupted** (e.g. power failure, switching off, or removal of the microSD™ card). Turn the station off and repeat the procedure from step 2.

## Version history

### i-CON 2V control board firmware

The current version is 3.10 dated 04/02/20.

#### Version 3.10 dated 04/02/20.

- ✓ Possibility to set a temperature window for the target temperature added.
- ✓ Minimum Standby Temperature for CHIP TOOL VARIO and X-TOOL VARIO set to 50°C (122°F).

#### Version 3.09 dated 29/04/19.

- ✓ i-TOOL Standby Temperature decreased to 210°C.
- ✓ i-TOOL Standby Time decreased to 2min.
- ✓ i-TOOL performance improvement.

#### Version 3.08 dated 08/01/18.

- ✓ Bug Fix: Serial Interface functionality Ready-State.

#### Version 3.06 dated 04/10/17.

- ✓ i-TOOL set temperature is adjustable from 50°C (122°F).
- ✓ Serial Interface functionality extended.

#### Version 3.05 dated 27/09/16.

- ✓ Introduced Asian Version.
- ✓ Help text for the tool calibration separated for Fahrenheit and Celsius.

#### Version 3.04 dated 02/11/15.

- ✓ Optimization and standardization of the control parameters for both legs for CHIP TOOL VARIO Hardware Version 6.

#### Version 3.03 dated 20/04/15.

- ✓ POWER TOOL set temperature is adjustable from 50°C (122°F).

#### Version 3.01 dated 17/06/14.

- ✓ Bug Fix: sign error i-TOOL calibration at negative values.

#### Version 3.00 dated 19/05/14.

- ✓ First official version.