



HEIDENHAIN



ND 5023 – Updating the Bootloader

Addendum

1 About these instructions

These instructions provide all of the information needed for updating the product's current Bootloader and current firmware, as well as the mPub files in the product.

1.1 Document category

Addendum

These instructions are an **Addendum** to the Operating Instructions for the product. The Addendum

- has the highest reading priority of all documents and
- supplements or supersedes the contents of the Operating Instructions and, if applicable, of the Installation Instructions.

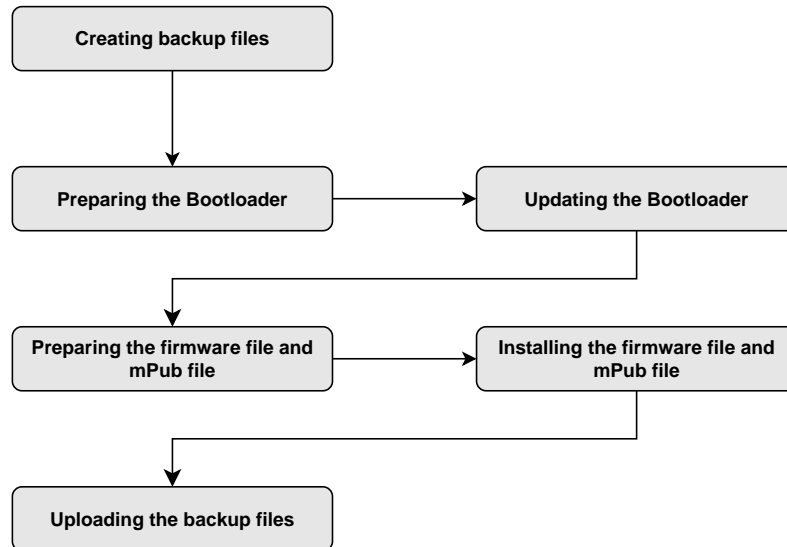
All other contents of the Operating Instructions and, if applicable, of the Installation Instructions retain their validity.

1.2 Information on the product

Product designation	ID number
ND 5023	1197249-xx

2 Updating the Bootloader and firmware

Workflow



2.1 Creating backup files

Updating the Bootloader will reset the product to a commissioning mode. HEIDENHAIN recommends that you create backup files of your product before updating to ensure that previous settings can be restored.



For more information, please refer to the Operating Instructions (ID1221049-xx) for the ND 5023.

Exporting configuration parameters

To export configuration parameters:

- ▶ Insert a USB memory device into the USB connection
- ▶ Press the **Setup** soft key
- ▶ Open in the sequence
 - **Installation Setup**
 - **File Management**
 - **Configuration Parameters**
- ▶ Press the **Export** soft key
- ▶ Press the **enter** key to initiate exporting the configuration parameters
- ▶ A pop-up warning informs you that the current parameter settings will be exported to the attached USB memory device



The config.dat file on the USB memory device will be overwritten.

- ▶ Press the **enter** key to export the configuration parameters and return to the **File Management** menu

or

- ▶ Press the **C** key to cancel

Exporting a Segmented LEC Table

To export a **Segmented LEC Table**:

- ▶ Insert a USB memory device into the USB connection
- ▶ Press the **Setup** soft key
- ▶ Open in the sequence
 - **Installation Setup**
 - **File Management**
 - **Segmented LEC Table**
- ▶ Press the **Export** soft key
- ▶ Press the **enter** key to initiate exporting the table
- > A pop-up warning informs you that the current table will be exported to the attached USB memory device
- ▶ Press the **enter** key to export the table and return to the **File Management** menu

or

- ▶ Press the **C** key to cancel

Exporting a Tool Table

To export a **Tool Table**:

- ▶ Insert a USB memory device into the USB connection
- ▶ Press the **Setup** soft key
- ▶ Open in the sequence
 - **Installation Setup**
 - **File Management**
 - **Tool Table**
- ▶ Press the **Export** soft key
- ▶ Press the **enter** key to initiate exporting the table
- > A pop-up warning informs you that the current table will be exported to the attached USB memory device
- ▶ Press the **enter** key to export the table and return to the **File Management** menu

or

- ▶ Press the **C** key to cancel

2.2 Preparing the Bootloader

Preparing the file

- ▶ Extract the downloaded ZIP file
- ▶ Copy the files stored in the first level of the folder structure to a suitable USB memory device

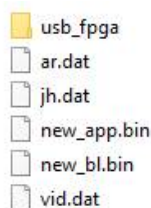


Figure 1: View of the files required

2.3 Updating the Bootloader

You have two options for updating the Bootloader:

- Using the product's user interface
- Using the Boot Menu that appears at product startup

NOTICE

Cancellation or voltage drop during updating!

If the update process is canceled or a voltage drop occurs during updating, the product will be damaged beyond repair and must be returned to the HEIDENHAIN Service department.

- ▶ Ensure that power is supplied to the product
- ▶ Do not press any keys during the update process

User interface of the product

- ▶ Insert the USB memory device into the product
- ▶ Press the **Setup** soft key
- ▶ Open the **User Management** menu
- ▶ Enter the supervisor passcode (95148) in **Supervisor Login**
- ▶ Open in the following sequence:
 - **Installation Setup**
 - **File Management**
 - **Product Software**
- ▶ Press the **Install** soft key
- ▶ Press the **enter** key
- ▶ Follow the instructions
- > The Bootloader will now be updated. The product will be restarted several times

Boot Menu at product startup

- ▶ Insert the USB memory device into the product
- ▶ Start the product
- ▶ When the following screen appears, press the **C** key. (with BL v1.0.6 and later, press the **C + enter** keys)



- > The Boot Menu is opened
- ▶ Navigate to **Import resources and new app code**
- ▶ Press the **enter** key
- > The Bootloader will now be updated. The product will be restarted several times

2.4 Preparing the firmware file and mPub file

After updating the Bootloader, commissioning firmware is installed on the product. You therefore need to update the product to the most recent firmware and the current mPub files (Operating Instructions in the desired language).



You can download the most recent firmware and mPub file versions from **www.heidenhain.de/software**.

Preparing the files

- ▶ Extract the downloaded ZIP files
- ▶ Copy the files stored in the first level of the folder structure to a suitable USB memory device

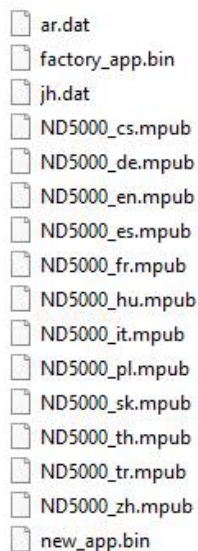


Figure 2: View of the files required



Verify that only the current versions of the mPub files are stored on the USB memory device. If several versions are stored, all of the versions will be imported.

2.5 Installing the firmware file and mPub file

You have two options for updating:


- Using the product's user interface
- Using the Boot Menu that appears at product startup

User interface of the product

- ▶ Insert the USB memory device into the product
- ▶ Press the **Setup** soft key
- ▶ Open the **User Management** menu
- ▶ Enter the supervisor passcode (95148) in **Supervisor Login**
- ▶ Open in the following sequence:
 - **Installation Setup**
 - **File Management**
 - **Product Software**
- ▶ Press the **Install** soft key
- ▶ Press the **enter** key
- ▶ Follow the instructions
- ▶ The firmware will now be updated. The product will be restarted

Boot Menu at product startup

- ▶ Insert the USB memory device into the product
- ▶ Start the product

 Updating the bootloader will lead to a change regarding how to open the Boot Menu. Please note the next step.

- ▶ When the following screen appears, press the **C + enter** keys simultaneously



- > The Boot Menu is opened
- ▶ Navigate to Import resources and new app code
- ▶ Press the **enter** key
- > The firmware will now be updated. The product will be restarted
- > You have successfully updated the Bootloader and the firmware

2.6 Uploading the backup files

After your product has been updated successfully, you can upload the backup files that you have previously created for setting up the product again.



For more information, please refer to the Operating Instructions (ID1221049-xx) for the ND 5023.

Importing configuration parameters

To import configuration parameters:

- ▶ Insert a USB memory device containing the .dat file into the USB connection
- ▶ Press the **Setup** soft key
- ▶ Open in the sequence
 - **Installation Setup**
 - **File Management**
 - **Configuration Parameters**
- ▶ Press the **Import** soft key
- ▶ Press the **enter** key to initiate importing the configuration parameters
- > A pop-up warning informs you that the current parameter settings will be overwritten
- ▶ Press the **enter** key to import the configuration parameters and return to the **File Management** menu

or

- ▶ Press the **C** key to cancel

Importing a Segmented LEC Table

To import a **Segmented LEC Table**:

- ▶ Insert a USB memory device containing the .dat file into the USB connection
- ▶ Press the **Setup** soft key
- ▶ Open in the sequence
 - **Installation Setup**
 - **File Management**
 - **Segmented LEC Table**
- ▶ Press the **Import** soft key
- ▶ Press the **enter** key to initiate importing the table
- > A pop-up warning informs you that the current table will be overwritten
- ▶ Press the **enter** key to import the table and return to the **File Management** menu

or

- ▶ Press the **C** key to cancel

Importing a Tool Table

To import a **Tool Table**:

- ▶ Insert a USB memory device containing the .dat file into the USB connection
- ▶ Press the **Setup** soft key
- ▶ Open in the sequence
 - **Installation Setup**
 - **File Management**
 - **Tool Table**
- ▶ Press the **Import** soft key
- ▶ Press the **enter** key to initiate importing the table
- > A pop-up warning informs you that the current table will be overwritten
- ▶ Press the **enter** key to import the table and return to the **File Management** menu

or

- ▶ Press the **C** key to cancel

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