BÖLLHOFF

RIVKLE® NEOSOFT
SOFTWARE GUIDE
FOR THE B4109 BATTERY
INSTALLATION TOOL

Table of Contents

1 Description

1.1 Software RIVKLE® NEOSOFT

The RIVKLE® NEOSOFT software is used to configure the following functions on the RIVKLE® B4109 tool:

- Updating device programs

- Program creation and management

- Parameter management

- Crimp data management

The software is freely downloadable from the BÖLLHOFF website and does not require a licence.

You need to connect a device to launch the application.

1.2 Compatible tools

The RIVKLE® NEOSOFT software is compatible with the entire range of RIVKLE® B4107/B4109 tools, the accessibility of functions depends on the model.

	RIVKLE® B4107	RIVKLE® B4109
Updating tool programmes	✓	✓
Creating and managing programmes	-	✓
Parameter management	-	✓
Crimping data management - Visualisation of setting curves - Crimp data export	-	✓

2 Installing the software

2.1 Recommended system requirements

To use the RIVKLE® NEOSOFT software, you need a computer with a USB port to connect the tool.

The tool is equipped with a micro-B type USB socket.

The software is an .exe application, and installation requires only the following:

- Operating system: Windows 10 or higher
- Driver: FTDI
- Disk space: 250 MB

2.2 How to install RIVKLE® NEOSOFT

To install the RIVKLE® NEOSOFT software, the FTDI driver must be installed on your computer.

The latest version of the software is available on the BÖLLHOFF website:

https://qr.boellhoff.com/RKB109

Installing the driver:

- Check that the driver is already installed on your computer. If not, follow the steps below.

- Download the driver FTDI

- Install it on your computer

Installing the software:

Once the driver is installed:

- Download the compressed folder

- Unzip the file

- Double-click on the downloaded file to open the executable "NeoSoft_v.x.xx.x.exe".

The software is an application, so you do not need to be a computer administrator to install it.

Sales@RivetNutUSA.com

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.

ISO 9001 CERTIFIED
www.RivetNutUSA.com 28
(800) 236-3200

3 User interface

3.1 Home

Open the application: NeoSoft_v.x.xx.x.exe

The following page appears as long as the tool is not connected.

Once the tool is connected, the application opens the following page:

Navigation bar

Error display

« Process control » settings

Tool counters

Tool parameters

Sales@RivetNutUSA.com

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.

ISO 9001 CERTIFIED
www.RivetNutUSA.com
(800) 236-3200

29

3.1.1 Error display

On the dashboard, you will find information on the latest errors encountered:

This error display section allows you to view the history of all errors that have occurred on the tool, whether or not they have been acknowledged.
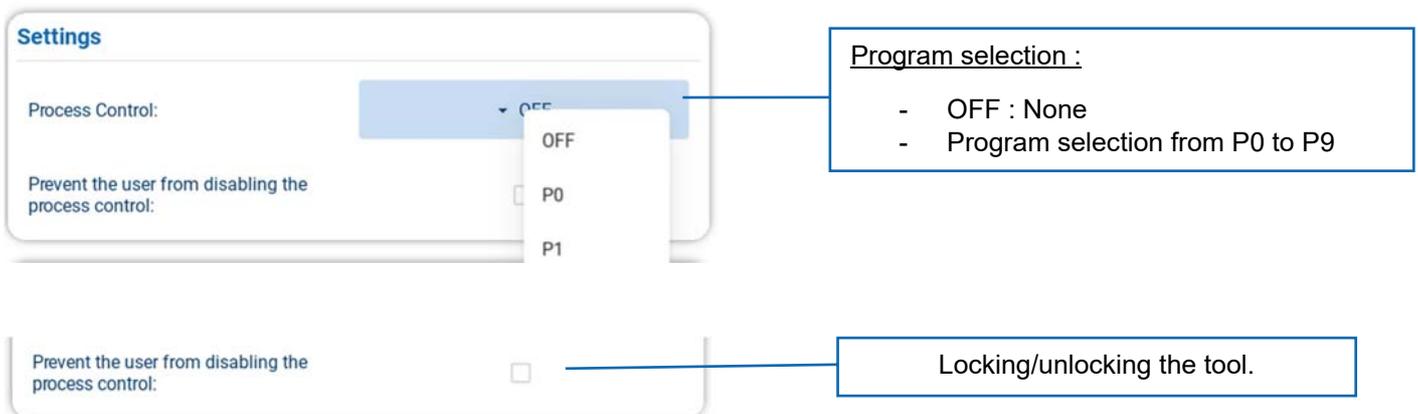
Three types of error can be displayed:

- Use error: error related to process control (crimp stroke too long or too short).

- Tool error: error linked to the use of the device (temperature too high, low or unsuitable battery, lack of oil, mandrel breakage).

- Critical error: internal device error (communication, motor control, etc.).

Click on the "Alarm manager" button to access the corresponding page for more information on the errors.

3.1.2 Process control settings

The "Settings" section allows you to quickly select a pre-recorded program (in the process control tab) and lock the tool to that program.

Program selection :

- OFF : None
- Program selection from P0 to P9

Locking/unlocking the tool.

3.1.3 Tool counters
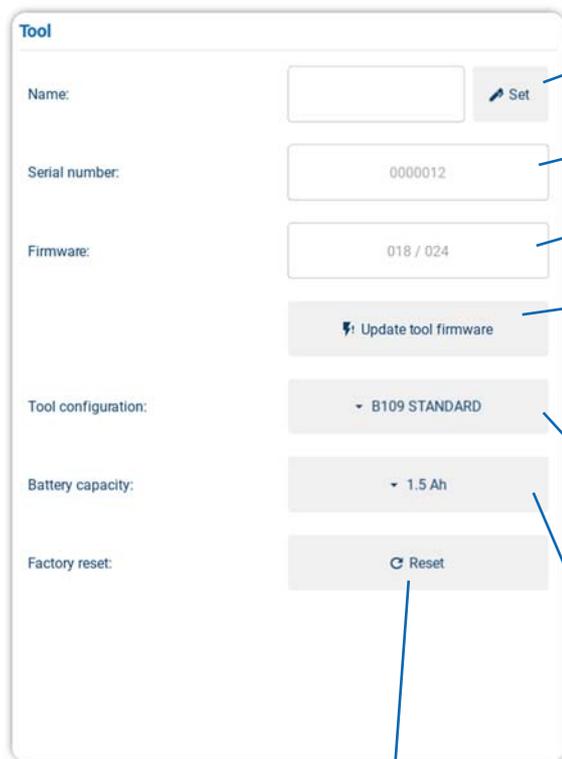
Several counters are available in this section:

The "Mandrel" counter counts the number of cycles since the last reset.

Reset is performed after a stem change by pressing the "Reset" button or by the tool itself.

The "Tool" counter counts the total number of cycles performed by the tool.

These counters can be used to anticipate tool changes and maintenance.

3.1.4 Tool parameters

The "Tool" section lets you view and configure the tool as required.

You can edit a name for the tool by clicking on this button.

Serial number

Firmware version

Button for firmware update, see section 3.4.

Selecting the tool configuration:
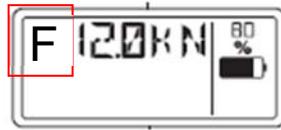
- Standard
- Standard steel
- Flexitol, specific for FLEXITOL® mounting
- LH, for RIKVLE® with left-hand thread

B109 STANDARD

B109 STAINLESS STEEL

B109 FLEXITOL

B109 LH

"Factory reset" button, used to reset the tool to its initial state.

Selecting the battery used

This setting is used to calculate the number of RK remaining as a function of battery %

The tool is available in several configurations:

- Standard

- Flexitol, for FLEXITOL® fasteners, an "F" appears on the display as a reminder that the tool is in this mode.

- LH, for RIVKLE® fasteners with left-hand thread, so screwing/unscrewing is reversed.

3.2 Navigation bar

The first part of the application's top banner is used to select the various pages:

- "Process Control", for programme management

- "Energy Management", for setting user interface parameters.

- "Maintenance", where you can view the maintenance work carried out on the appliance.

- "Statistics", for managing crimping data (information + curve), errors and crimping forces.

- "Alarm manager", for error management.

- "Contact"

All these pages are described below in this instruction manual.

 In the top left-hand corner, you'll also find the version of the application in use:

More information can be found on the right-hand side:

Maintenance score

Refer to the RIVKLE® NEO B instruction manual.
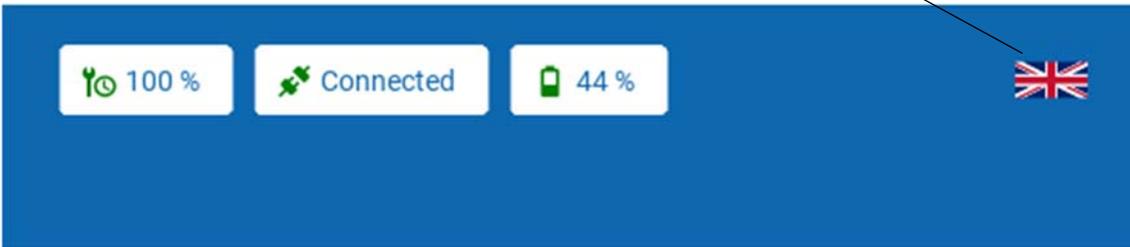
Tool connected to the software.

Percentage of battery.

Sales@RivetNutUSA.com | ISO 9001 CERTIFIED
www.RivetNutUSA.com 32
Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor. | (800) 236-3200

3.3 Selecting the language

The software is available in several languages. Click on the button to select your language.

3.4 Updating the tool firmware

The tool update is proposed by the software if the version is lower than the latest version made available.

The latest firmware versions are integrated into the RIVKLE® NEOSOFT software, so to take advantage of the latest version, you need to download the software from our site.

Please refer to the chapter "installing the software".

For basic versions of the tool: RIVKLE® B4107, the software can only be used to update the device.

The application automatically suggests updating the tool.

There is also a button for updating the tool manually.

B4107 is not compatible with this software.

The software is only compatible with the B4109.

↯ Update tool firmware

Button to update the tool:

- Click on the button.
- Select the file.
- The update will start automatically.

Sales@RivetNutUSA.com

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.

ISO 9001 CERTIFIED
www.RivetNutUSA.com   33
(800) 236-3200

For premium versions: RIVKLE® B4109

The application automatically suggests updating the tool.

There is also a button for updating the tool manually.

Button to update the tool:

- Click on the button.
- Select the file.
- The update will start automatically.

4 Process control

The "Process control" page is used to manage programmes:

  - Program creation, up to 10 programs

  - Programme modification

  - Delete programs

  - List of programmes with parameters set

  - Select the current programme in the tool

"Need help" button, direct link to the Technical Forum

List of programs

Need help ?

	Program	Stroke type	Stroke (mm)	Tolerance (mm)	Force (kN)	RIVKLE® count	Part contact detection		
✓	OFF								
○	P0	Auto	Pending	0.5	12	3	Yes	✏	🗑
○	P1	Auto	Pending	0.5	13	2	Yes	✏	🗑
	P2	-	-	-	-	-	-	✏	
	P3	-	-	-	-	-	-	✏	

Select the current programme in the tool.

List of existing programs, up to 10 programs.

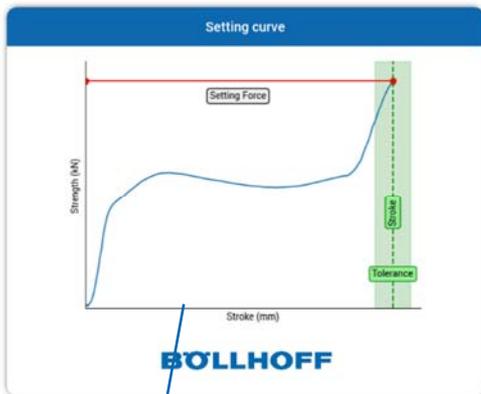Button for creating or modifying a program.

✏

Button for deleting a program.

🗑

To create a program, a special page opens:

The setting force must be entered for each program, the other functions are optional.

Update program

Setting curve

Setting Force

Strength (kN)

Stroke

Tolerance

Stroke (mm)

BÖLLHOFF

P2

Setting force (kN):   ⊙   ⌇ 11

Part contact detection: ⊙   ☑

Settings count: ⊙   ☑ ○ 5

Enable stroke checking: ⊙   ☑

Stroke type: ✓ Auto   ○ Manual

Stroke auto learning
setting cycles: ○ 3

Stroke (mm):   ✎ N/A

Tolerance ± (mm):   ‖ 0.5

CANCEL   OK

Setting force

Help in understanding the parameters.

List of configurable functions:
  - "Plating control" function
  - "Counter" function
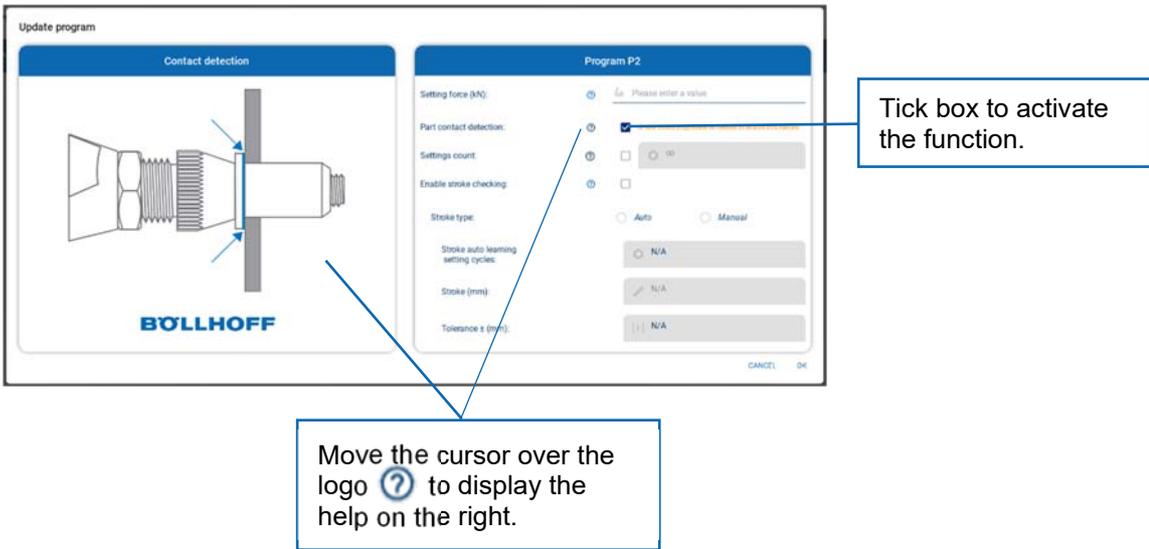 - "Stroke control" function

4.1 Plating control function

The "Plating control" function allows crimping to be authorized only when the RIVKLE® is in contact with the application.

Once the screw has been tightened, a force must be applied to the tool to press the RIVKLE® against the application, otherwise crimping is not authorized.

This function ensures that the RIVKLE® bead forms on the correct side of the application.

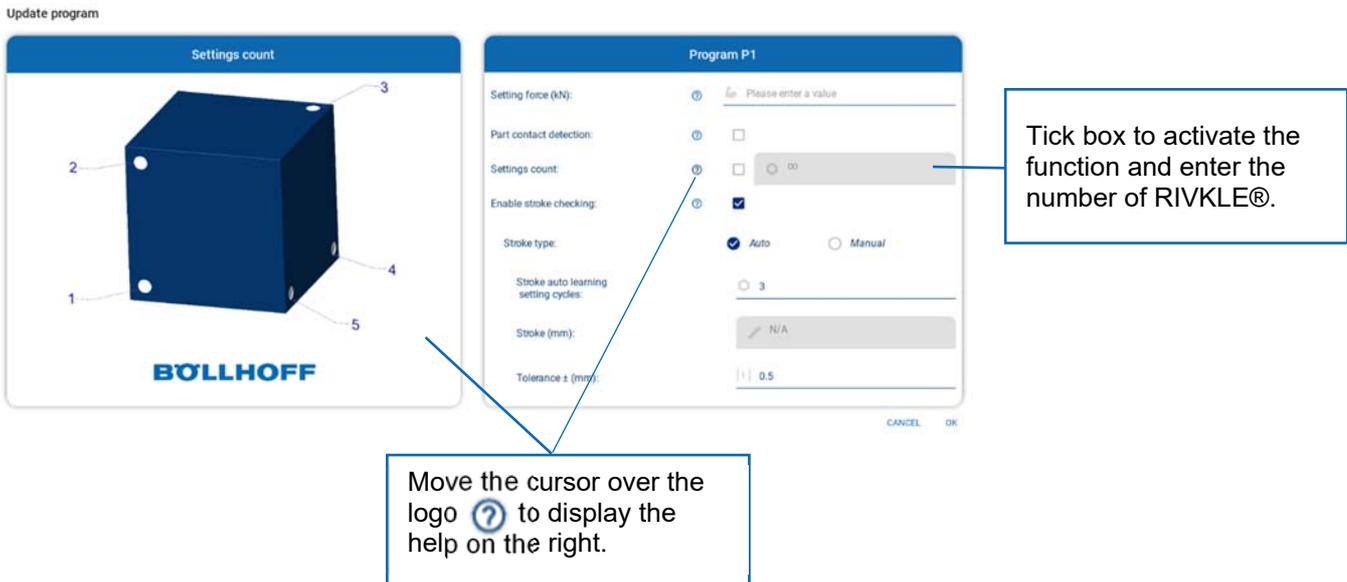To activate this function: tick the "Plating control" function.

Tick box to activate the function.

Move the cursor over the logo ⑦ to display the help on the right.

4.2 Counter function

The "Counter" function can be used to count the number of RIVKLE® crimped on the application. The total number of RIVKLE® to be crimped must be entered beforehand in the NEOSOFT software.

This function prevents RIVKLE® from being forgotten on the application.

Once this number has been reached, the tool warns the operator with a message on the screen, which must be acknowledged to start a new campaign.

Tick box to activate the function and enter the number of RIVKLE®.

Move the cursor over the logo ⑦ to display the help on the right.

Sales@RivetNutUSA.com

ISO 9001 CERTIFIED
www.RivetNutUSA.com 36
(800) 236-3200

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.
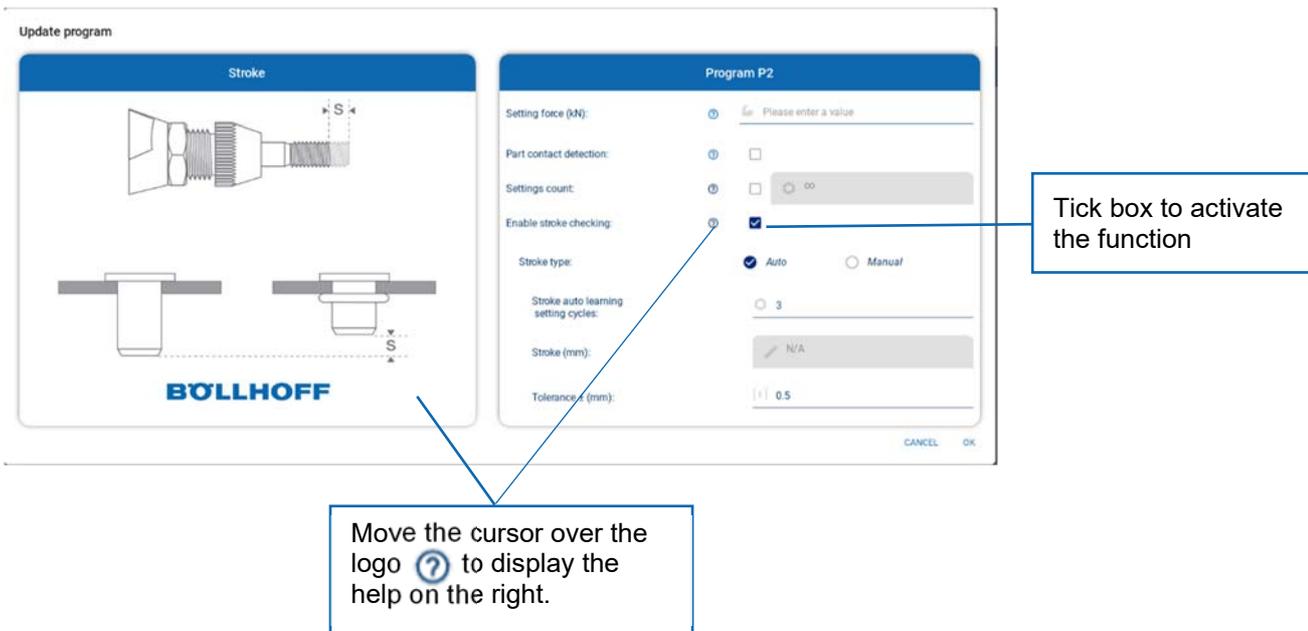
4.3 Stroke control function

The "Stroke control" function can be used to check the crimping stroke "S" reached after the RIVKLE® has been force fitted. ("S" value available in the RIVKLE® catalogue or on the product drawing).

This function checks the quality of the RIVKLE® installation. If the quality is not satisfactory, a warning message is sent to the operator (backlight and screen message).

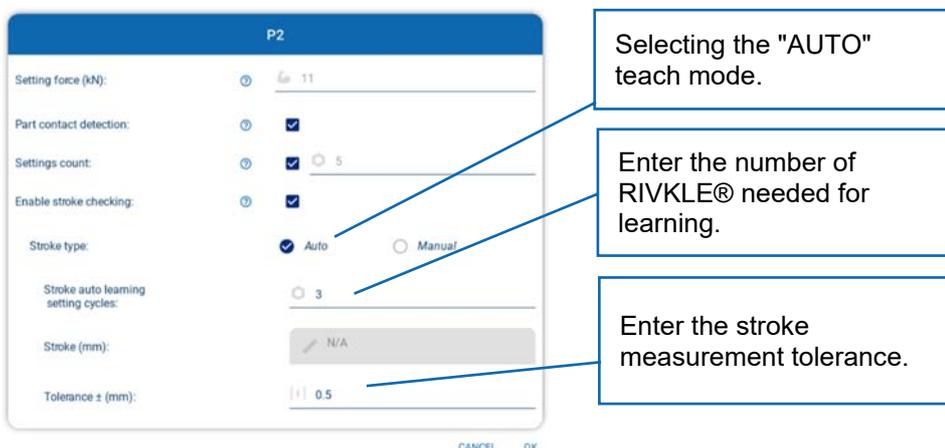To activate this function: tick the "Stroke control" function.

Tick box to activate the function

Move the cursor over the logo ⑦ to display the help on the right.

There are two methods for learning stroke:

- Automatic learning
- Manual learning

4.3.1 Automatic learning

Automatic learning allows the tool to learn the "S" crimp stroke directly from your application and your RIVKLE®. Simply crimp a predefined number of RIVKLE® on your application.

Selecting the "AUTO" teach mode.

Enter the number of RIVKLE® needed for learning.

Enter the stroke measurement tolerance.

Once the learning process is complete, you will find the "S" value in the program details :

Program	Stroke type	Stroke (mm)	Tolerance (mm)	Force (kN)	RIVKLE® count	Part contact detection
OFF						
P0	Auto	Pending	0.5	12	3	Yes
P1	Learnt	1.3	0.5	13	2	Yes

4.3.2 Manual learning

For manual learning, the crimping stroke "S" of the RIVKLE® must be entered in the program. The stroke is calculated according to the thickness of your application.

The crimping stroke can be found on the RIVKLE® drawing or in the BÖLLHOFF® catalogue.

Stroke type: ○ Auto ● Manual	Selecting the "Manual" teach mode.
Stroke auto learning setting cycles: ○ N/A	
Stroke (mm): ✎ 1.3	Enter the "S" stroke
Tolerance ± (mm): ⊦⊦ 0.5	Enter the stroke measurement tolerance.
CANCEL OK	

4.4 Application example

 In our example, we implement the control process of our RIVKLE®, guaranteeing the quality of the installation by checking:

- Setting force

- Plating of the RIVKLE® on the application

- The number of RIVKLE® placed on the application

- Crimping stroke

In our case :

- Setting force: 12 kN

- Plating control function activated

- Counter function activated with 50 RIVKLE®.

- Stroke control function activated with automatic learning on 5 RIVKLE® and a tolerance of +/- 0.5 mm

P0

Setting force (kN):	ⓘ ⌂ 12
Part contact detection:	ⓘ ☑
Settings count:	ⓘ ☑ ○ 50
Enable stroke checking:	ⓘ ☑
Stroke type:	● Auto ○ Manual
Stroke auto learning setting cycles:	○ 5
Stroke (mm):	✎ N/A
Tolerance ± (mm):	⊦⊦ 0.5
	CANCEL OK

Sales@RivetNutUSA.com | ISO 9001 CERTIFIED
www.RivetNutUSA.com 38
(800) 236-3200
Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.

Step 1: Selecting the P0 programme

Two possible choices:

- Selection on the tool directly, refer to the RIVKLE® B4107/B4109 instruction manual.
- Selection on the application:

On the home page   or   On the "Control Process" page:
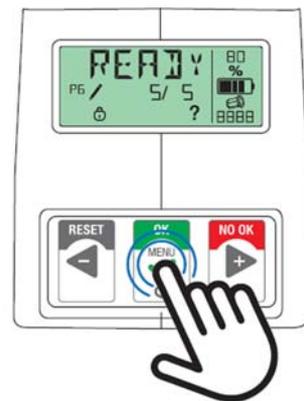

Step 2: Automatic learning

The tool waits for 5 RIVKLE® to be taught, the interface is as follows:
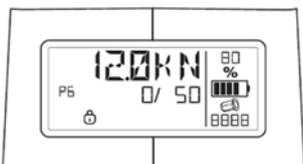

The pen icon ✏ flashes until learning is complete.

Once the 5 RIVKLE® have been set on the application, the tool displays the message "READY", press the central button until the message "OK" appears.

You can check the value of the crimping stroke by connecting the tool to the software.

Step 3: Crimping onto the application

The program is ready for production use, you can crimp the 50 RIVKLE® expected in the application:

Once the count is complete, in our case 50/50, the tool does not allow crimping.

To reset the count to zero, press the central button briefly.

The message "OK" appears and the counter is reset to 0.

Sales@RivetNutUSA.com

ISO 9001 CERTIFIED
www.RivetNutUSA.com 39

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.

(800) 236-3200

In the event of a crimping stroke error:

- Error 77: Crimping stroke below target

- Error 78: Crimping stroke above target

There are two possible choices:

3. Declare the RIVKLE® compliant with your expectations and increment the counter.

 Press the "OK" button for a long time to acknowledge the error.

4. Declare that the RIVKLE® does not meet your expectations and do not increment the counter.

 Press the "NO OK" button for a long time to acknowledge the error.

You can also reset the counter at any time.

 Press and hold the "RESET" button.

5 Tool settings

On the "Energy management" page, you'll find all the parameters you can set to personalize your tool:

- Backlighting

- Screen lighting

- Work area lighting

- Screen and tool standby mode

- Reset all these settings to default

As soon as you move your mouse over the parameter, the central image changes to display the element corresponding to the parameter.

5.1 Backlight

You can configure:

- Lighting duration:
  - OFF
  - 200 ms
  - 500 ms
  - 1 s
  - 2.5 s
- Lighting intensity:
  - 0 %
  - 25 %
  - 50 %
  - 75 %
  - 100 %

Sales@RivetNutUSA.com | ISO 9001 CERTIFIED
www.RivetNutUSA.com 41

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor. | (800) 236-3200

5.2 Screen lighting

You can configure:

- Lighting duration:
    - OFF
    - 200 ms
    - 500 ms
    - 1 s
    - 2.5 s
- Lighting intensity:
    - 0 %
    - 25 %
    - 50 %
    - 75 %
    - 100 %

Screen light

Duration OK: ▾ 200ms (default)

Brightness: ▾ 100% (default)

5.3 Work area lighting

You can configure:

- Lighting intensity:
    - 0 %
    - 25 %
    - 50 %
    - 75 %
    - 100 %

Work light

Brightness: ▾ 100% (default)

5.4 Screen and tool standby mode

You can configure:

- The time before the tool goes into standby mode:
    - 1 min
    - 2 min
    - 5 min
    - 10 min
    - 30 min
    - 60 min
- Time before the screen goes to standby mode:
    - 15 s
    - 30 s
    - 1 min
    - 2 min
    - 5 min
    - 10 min

Standby

Standby delay: ▾ 2mins (default)

Screen off timeout: ▾ 30s (default)

Sales@RivetNutUSA.com

ISO 9001 CERTIFIED
www.RivetNutUSA.com 42
(800) 236-3200

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.

6 Maintenance

The "Maintenance" page shows all the maintenance work carried out on the tool since it was started up.

This page is filled in by the maintenance technicians.

You will find the following information:

- Date and time of maintenance actions

- The number of cycles of the tool on that date

- Details of actions carried out on the tool

7 Statistics

The "Statistics" page shows the data available in the tool:

- Setting force statistics

- Statistics on alarms

- Data management for each crimp, with the associated curve

7.1 Settings force

This statistic shows the number of crimps performed per effort.

7.2 Alarms

This statistic shows you the number of times each error has occurred on the tool.

7.3 Setting curves and data

Clicking on the "Setting curves" button opens a new page for managing data and viewing setting curves.

On this page you will find the following information and actions:

- Select and view crimping data
- View the setting curve for the selected data
- Export data and curves

7.3.1 Curves and data

When you open this page, the table displays the setting data for the last 1024 cycles.

You can navigate through the data:

- By entering the cycle number to load the corresponding data, the table will load the 1024 cycles around this value.
- By clicking on the arrows, to load the data for the previous 1024 cycles or the next 1024 cycles.

To display the setting curves, simply select one or more curves in the table to display them in the graph, maximum 10 curves at the same time.

Note that if several lines are selected, the curves will be superimposed.

In our example, the crimping curves 174-175-176 are superposed on the graph

7.3.2 Exporting curves and data

You can also export the raw data to a .CSV file, which you can then process yourself.

- "Export table" button: Exports all the data available in the table in Excel format.

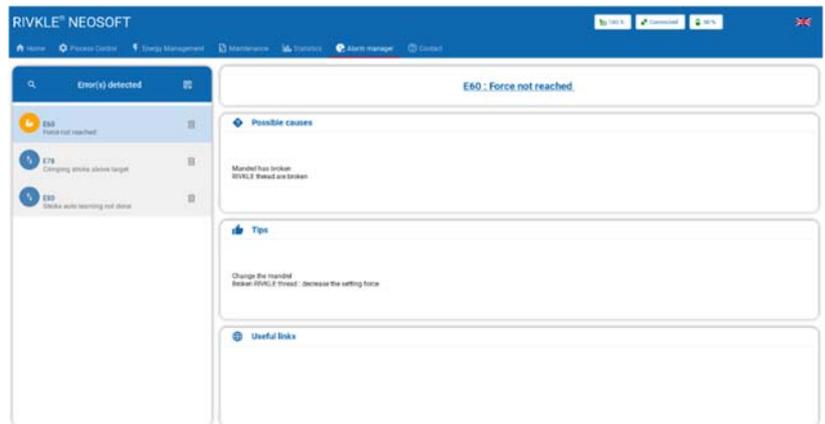- "Export curves data" button: Exports selected data from the table in Excel format.
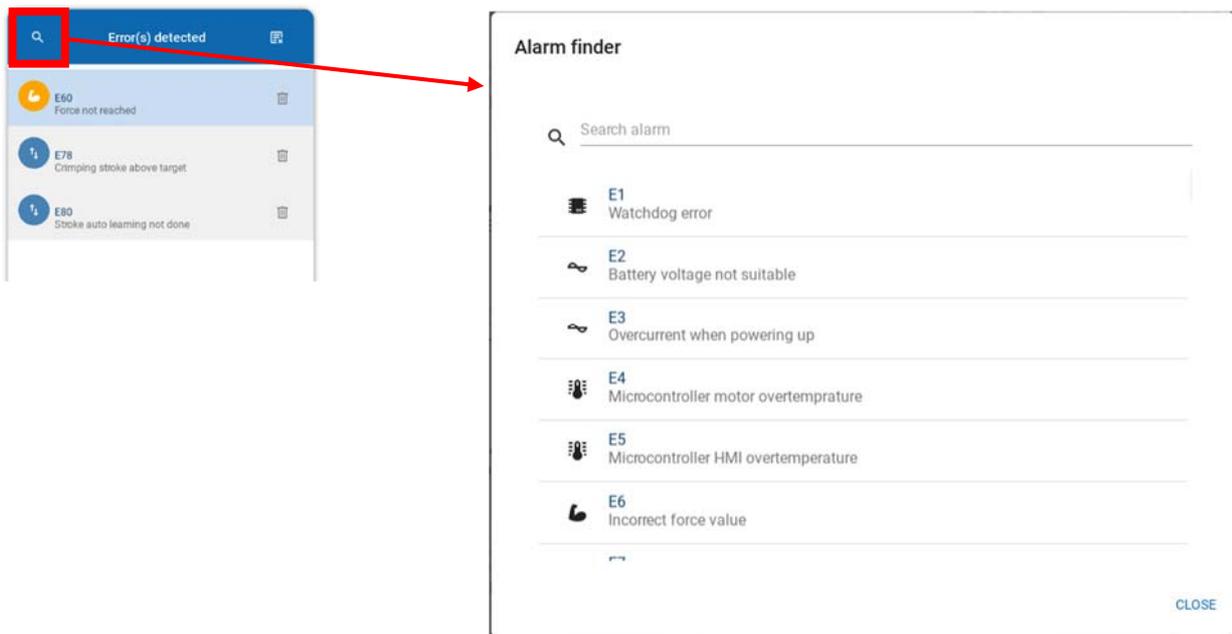
8 Alarms manager

The "Alarms manager" page provides more information about errors.

By selecting the current error, you can view the following information:

- Possible causes
- Corrective action (tips)
- Link to tutorial or BÖLLHOFF website.

You can also search for an error if it no longer appears in the current errors, by clicking on the search button.

Errors are colour-coded in the same way as on the home page.

9 Support and contact

If you have any questions or problems, the last page 'Contact' will give you the links to our website and our technical forum.

Visit the BÖLLHOFF website to discover our technical forum.

Technical Forum – Operating instructions | Böllhoff (boellhoff.com)

BÖLLHOFF

Passion for successful joining.

Böllhoff Group
Innovative partner for joining technology with assembly and logistics solutions.

Find the contact details of all our locations worldwide at www.boellhoff.com.

Bollhoff Otalu SAS
Rue Archimède | Z.I. de l'Albanne | CS 40068 | F-73493 La Ravoire Cedex
Tél : +33 4 79 96 70 00 | Fax : +33 4 79 96 70 11
info_fr@boellhoff.com | www.boellhoff.com/fr

CARDINAL
COMPONENTS · INC

Sales@RivetNutUSA.com

ISO 9001 CERTIFIED
www.RivetNutUSA.com
(800) 236-3200

Request your quote with Rivet Nut USA (an operating division of Cardinal Components, Inc.)
Cardinal Components, Inc. is your authorized preferred specialty fastener distributor.