



BGB
High Power Electronic
Crimping Tool

PN 295060

Operation Guide

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Manual Part Number: DR-BGB-1811
August 2018

Safety Notices

CAUTION

A CAUTION notice warns of a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

Manual Part Number

DR-BGB-1811

Edition

First edition, August 2018

www.bgb-shop.com

WARNING

A WARNING notice warns of a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.



Recycling

For recycling contact your local BGB distributor.



Maintenance and Cleaning

General maintenance

The high power electronic crimping tools do not contain user serviceable parts.

Support and Repair

If the crimping tool is still in the warranty period, contact BGB Analytik office for support. If the warranty period has expired, please contact BGB Analytik. Find contact details on www.bgb-shop.com.

Cleaning

The crimping tool may not be immersed in water or solvent. The outside of the case may be cleaned with an ordinary detergent and wiped off with a damp rag. Care should be taken not to get the electronics wet.

Avoid permitting metal parts of the crimping tool to come into contact with corrosive material during use. If they do, try to wipe them clean with a suitable mild neutralizing solution.

Storage and Shipping

To prevent accidental cycling when storing or shipping the tool, remove power and place the protective cap over the jaws.

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Product Content



Part No. **Description**
295060 High Power Electronic Crimping Tool



Part No. **Description**
295061 Base with Mounting Kit
 (Crimping Tool not included)



Description
 8mm
 Crimper
 Jaw Set

Part No. **295062**



11mm
 Crimper
 Jaw Set

295063



13mm
 Crimper
 Jaw Set

295064



13mm
 Crimper
 Jaw Set
 for Flip Off Caps

295065



20mm
 Crimper
 Jaw Set

295066



20mm
 Crimper
 Jaw Set
 for Flip Off Caps

295067



Description
 11mm
 Decapper
 Jaw Set

Part No. **295068**



13mm
 Decapper
 Jaw Set

295069



20mm
 Decapper
 Jaw Set

295070

Safety and Regulatory Certifications



The BGB Electronic Crimping Tools are designed and manufactured under a quality system registered to ISO 9001.

Symbols

Warnings in the manual or on the instrument must be observed during all phases of operation, service and repair of this instrument. Failure to comply with these precautions violates safety standards of design and the intended use of the instrument. BGB assumes no liability for the customer's failure to comply with these requirements.

See accompanying instructions for more information.



Remember to wear safety glasses when crimping or decapping.



The crimper or decapper jaws can pinch severely.
Never insert fingers into the crimping or decapping tool jaws.



You must not discard this electrical/electronic product
in domestic household waste.



Instrument Specification

Sound pressure

Sound pressure LpA = 79 dB(A).

Intended use

Electronic Crimping Tools are intended for use in a laboratory environment, all other uses are prohibited.

Limits

Temperature 15 - 35 °C

Maximum humidity 75%

Pressure 0.75 - 1 bar

Warnings

Warnings

WARNING

Wear safety glasses when crimping or decapping.
The crimper or decapper jaws can pinch severely.
Never insert fingers into the crimper or decapper.

Special battery warnings

WARNING

Risk of burns; battery may explode or catch fire if mishandled.

CAUTION

Do not disassemble or dispose of in fire.
Use only the 12 v DC power supply supplied with the crimping tool.
Use of other batteries may cause fire during charging or use.
Only change jaws after the power supply has been disconnected or the tool has been locked.
Do not heat above 60 °C.
Do not crush or modify.

Disposal of battery

Do not throw the battery away. Recycle it in accordance with local regulations.

Description and Setup

Description

The High Power Electronic Crimping Tool can be used to crimp and decap standard crimp caps on laboratory sample vials. Jaw sets are available in 8, 11, 13 and 20mm version or as 13 and 20mm flip off.

Crimping tool setup

Please read through this entire guide to familiarize yourself with the operation of the tool before proceeding. Use the same degree of care as you would with any precision instrument. If there is any visible damage, contact BGB Analytik immediately.



Operation

Connecting the power supply

Connect the 12 v DC supply to an electrical outlet with the power cord provided, and also to the connector on top of the crimping tool. (see Figure 1)

After power up, the jaw set may be selected with the **+** and **-** buttons while the display is blinking.



Figure 1. Power supply connector at the top of the HPS crimper

Locking the crimping tool

If the power is connected, the crimping tool must be locked before changing jaw sets.

To lock out the tool, hold the \oplus or \ominus button for 2 seconds. The display will show OFF and then flash with the last jaw set code in use. The go-button will not start the tool when it is locked out.



Figure 2.

Press \oplus or \ominus button for 2 seconds to lock out the crimp tool.

Selecting or changing a jaw set while power is connected

First, lock the tool by holding the \oplus or \ominus button for 2 seconds.

Insert the jaw set into the bushing at the bottom of the tool. Push up against the spring load and then twist until the set locks into position. (Figure 3)

To remove a jaw set push the lock button on the outside of the supporting cup and rotate. (Figure 4)



Figure 3.

Insert the jaw set into the bushing at the bottom of the tool. Push up against the spring load and then twist until the set locks into position.



Figure 4.

To lock out the tool, press the lock button and rotate.

Note: While the jaw set code is flashing use the **⊖** button to choose the size and the **⊕** button to select **c** for crimper or **d** for decapper.



Figure 5. When the selection is complete, press and hold the go-button for 2 seconds to confirm the selection.



Figure 6. The display will show **On** momentarily and then enter operating mode.

The last setting for a given jaw set is reloaded when it is selected for use.

Adjusting the tool for crimping jaws

The electronic crimping tools must be adjusted for the vials, caps, and seals that will be used. The **⊕** and **⊖** adjustment buttons on the top of the crimping tool set a stop position for the motor that drives the tool. Pressing either button one time displays the current setting. Pressing again will change the setting.



Figure 7. The numerical setting of the crimping tool sets a stop position that determines the amount of compression of the cap and is very accurate. There may be some drifting in the setting over

Take 3 to 4 empty vials and place the cap with seal onto the vial. Rest the tool on the vials. Press the go-button and hold until the crimp is complete. Check the crimped vial for tightness and form. (Figure 8 A to C)

Figure 8.
Examples
of crimped
caps



In case the crimp is too tight (Figure 8B), adjust the crimp tool for a softer crimp pressing \ominus . In case the crimp is too soft (Figure 8C) press \oplus to get a tighter crimp. Use a new vial and cap and perform the crimp test again.

CAUTION

Note: Crimping the same vial two or more times will not give the same results and might result in breakage of the vial. Always use a new vial and cap.

Adjusting the tool for decapping jaws

Probably, the factory settings are satisfactory and it won't be necessary to adjust the decapping jaws. If the caps are not removed sufficiently, the decapper jaws can be adjusted as follows:

The 11mm decapping jaws should close around the neck of the vial and strip the cap off. If the cap is not removed completely, increase the strength of the decapper stepwise by pushing the **+** button until the cap is removed completely.

The 20mm decapper jaw set pinches the sides of the cap with the decapping jaws and pushes out the glass vial. If the cap is not removed completely, increase the strength of the decapper stepwise until the cap is removed completely.

CAUTION

Note: Always use a new vial to check the decapping adjustment and be careful: if the decapping jaws are adjusted to be too tight, the vial neck may break and cause injuries. Decrease the decapping force by pushing the minus button.

20mm caps with very thin seals cannot be removed with the 20mm decapper jaw set.

Saving multiple programs for a jaw set

If you use more than one type of cap and seal of the same size, you may decide to store multiple settings. To do this, hold the **+** and **-** buttons down together for two seconds, until the current program number is displayed. Then use the **+** and **-** buttons to scroll through the programs (Pr1 - Pr9).

Programs displaying "- - -" are not in use. After choosing a program, press the go-button to select it. The program setting can be adjusted at that point. To remove a program use the **+** button until "- - -" is displayed. (Hold a button to scroll rapidly.)



Figure 10. Unless multiple programs are in use they will not appear on the display.

Reset

Pressing the reset button is the same as disconnecting and reconnecting power. After selecting the jaw set and pressing the go-button, the crimping tool retracts to the top zero position.



Fault Conditions and Display Codes

Fault conditions




Major and minor faults are identified on the LED display, normally after a crimp cycle.

Table 1 Fault codes

Fault code	Possible cause	Recommendation
Er0	Early release of the go button - the tool retracted before completing the cycle.	Try again, making sure to hold the button down until the tool is returning to the home position.
Er1	Stall condition - crimp setting is too high.	Adjust tool to a lower setting.
Er2	Motor drive failure.	See Maintenance/Repair section for contact information for warranty and repair service information.

Troubleshooting

Table 2 Frequent troubleshooting solutions

Condition	Possible cause	Recommendation
Side of cap is indented. Seal is deformed in hole.	Crimp setting is too high. The crimp is too tight.	Adjust tool to a lower setting by pressing the  button.
Cap spins easily	Crimp setting is too low. The crimp is too loose.	Adjust tool to a higher setting by pressing the  button.
Crimping is inconsistent. Some vials are good and some are not.	Vials, caps or seals are inconsistent.	Check crimper by using some standard, approved, vials caps and seals.
	Electronic failure in crimper.	Contact BGB Analytik. Find contact details on www.bgb-shop.com
11mm decapper leaves caps hanging on vials	Decapper adjustment is too low.	Adjust the decapper to a higher setting by pressing the  button.
	Jaws are worn or broken.	The decapper will have to be replaced or repaired. Please go in Contact with BGB Analytik. Find contact details on www.bgb-shop.com
Motor does not come on or moves in one direction only.	Drive circuit failure.	Contact BGB Analytik. Find contact details on www.bgb-shop.com
No activity when power supply is connected	Power supply failure.	Probably contact BGB Analytik. Find contact details on www.bgb-shop.com