



# Battery Operated Crimpers / Decappers

## Instruction Manual

Read this manual thoroughly before you use the product.  
Keep this manual for future reference.

Original Instructions

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# Introduction

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Read this Instruction Manual thoroughly before using the product.

Thank you for purchasing this product.

This manual describes the operation, usage cautions, and accessories for this product. Read this manual thoroughly before using the product and operate the product in accordance with the instructions in this manual.

Keep this manual for future reference.

## IMPORTANT

- If the user or usage location changes, ensure that this manual is always kept together with the product.
- If this manual or a product warning label is lost or damaged, immediately contact your Shimadzu representative to request a replacement.

## ■ Notice



- Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor.
- Any errors or omissions which may have occurred in this manual despite the utmost care taken in its production will be corrected as soon as possible, although not necessarily immediately after detection.
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Original version is approved in English.

# Indications Used in This Manual

Precaution symbols are indicated using the following conventions:

| Indication   | Meaning  |
|--|--|
|  <b>WARNING</b> | Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or possibly death. |
|  <b>NOTE</b>    | Emphasizes additional information that is provided to ensure the proper use of this product.                         |

The following symbols are used in this manual:

| Indication   | Meaning  |
|--|--|
| <br><b>Prohibitions</b> | Indicates an action that must not be performed.          |
| <br><b>Instructions</b> | Indicates an action that must be performed.              |
|  <b>Reference</b>      | Indicates the location of related reference information. |
|                       | Indicates a risk of getting your hands caught.           |
|                       | Indicate a caution on using.                             |
|                       | Indicates safety glasses should be used.                 |

# Regulatory Information

For Europe:

The product complies with the following requirements.

EMC Directive, Machinery Directive, RoHS Directive

|                                 |   |
|---------------------------------|---|
| Product Name                    | Electronic Crimping Tool  |
| Model Name                      | See the following table.  |
| Manufacturer                    | Chromatography Research Supplies, Inc.  |
| Address                         | 2601 Technology Drive, Louisville, Kentucky 40299, USA                          |
| Authorized Representative in EU | Chromatography Research Supplies, Inc.<br>c/o Authorised Representative Service |
| Address                         | 77 Camden Street Lower, Dublin, D02 XE80, Ireland                               |
| Authorized Representative in UK | Chromatography Research Supplies, Inc.<br>c/o Authorised Representative Service |
| Address                         | The Old Methodist Chapel, Great Hucklow, Buxton, SK17<br>8RG, England           |

|                           |              |
|---------------------------|--------------|
| 11 mm Electronic Crimper  | 227-35500-01 |
| 20 mm Electronic Crimper  | 227-35500-02 |
| 11 mm Electronic Decapper | 227-35501-01 |
| 20 mm Electronic Decapper | 227-35501-02 |

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|                                    | <b>Model Number</b> |
|------------------------------------|---------------------|
| 11 mm Electronic Crimper           | 227-35500-01        |
| 20 mm Electronic Crimper           | 227-35500-02        |
| 11 mm Electronic Decapper          | 227-35501-01        |
| 20 mm Electronic Decapper          | 227-35501-02        |
| <b>Related Items</b>               | <b>Item Number</b>  |
| Crimping Tool Stand                | 227-35508-01        |
| Base for Electronic Crimping Tools | 227-35510-01        |

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# Warnings, Intended Use, Limits



## Markings

| Markings  | Note  |
|---|---|
|                      | Indicates that the product complies with the Essential Requirements set out in sector-specific EU directives and regulations. |
|                      | Indicates that the product complies with the AS/NZ EESS   |
|                      | It indicates that it is compliant with the China RoHS.  |
|                      | Indicates that the product complies with the UK Conformity Assessed   |
|                      | It indicates compliance with California's Appliance Efficiency Regulations.   |
| <br>7.5V 2.0 A max. | It indicates electrical connection data.<br>Do not supply more than the specified voltage/current.                            |

## Warnings

| ! WARNING   |   |
|---|---|
|  | <ul style="list-style-type: none"> <li>Never insert fingers into the crimper or decapper. The crimper or decapper jaws can pinch severely.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>Follow all instructions or injury may result.</li> <li>Use only the 7.5 volt DC Power Supply supplied with the crimper for battery charging.</li> <li>Use of other batteries may cause fire during charging or use.</li> </ul> |
|  | <ul style="list-style-type: none"> <li>It should not be disposed of with general household waste.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>Please make sure to wear protective goggles during crimping or decapping.</li> </ul>   |

## Special Battery Warnings

| ! WARNING  |   |
|--|---|
| <br><b>Prohibitions</b> | <ul style="list-style-type: none"> <li>• Risk of burns; battery may explode or catch fire if mishandled.</li> <li>• Do not disassemble or dispose of in fire.</li> <li>• Use of other batteries may cause fire during charging or use.</li> <li>• Do not heat above 60 °C or short circuit.</li> <li>• Do not crush or modify.</li> </ul> |
| <br><b>Instructions</b> | <ul style="list-style-type: none"> <li>• Use only the manufacturer-supplied 7.5 volt DC power supply and charge the battery only in the crimping tool.</li> </ul>   |

### Disposal of Battery

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

### Intended Use

Electronic Crimpers and Decappers are intended for use in a laboratory environment.

### Prohibited Use

All other uses are prohibited.

### Limits

Temperature 15 °C to 35 °C  
 Humidity not more than 75%  
 Pressure 0.75 to 1 bar

### Sound Pressure

Sound pressure  $L_{pA} = 70.1$  dB(A)

### Recycling

For recycling contact your local distributor.



# Description and Setup

## Description

The Electronic Crimping Tools can be used to crimp or decap standard crimp caps on laboratory sample vials.

## Crimping Tool Setup

Remove the instrument, power supply and cable from the shipping container. Inspect the crimper or decapper.

## Operation

### Charging the Battery

The battery must be charged before the crimper or decapper can be used.



An indicator appears when recharging is necessary.



### Compatible Vials, Caps and Seals

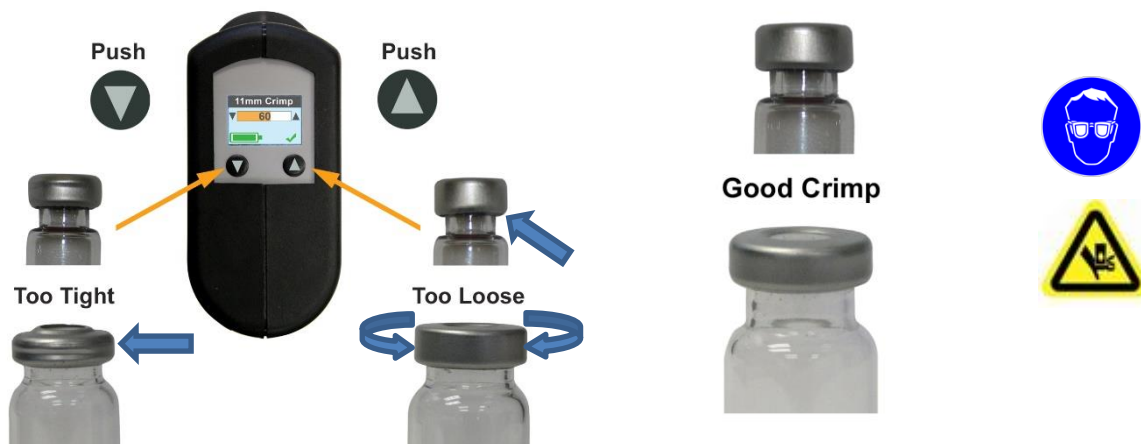
These crimping tools may not be used with all-steel caps. Aluminum caps and seals of standard size and thickness are appropriate.

## Using the crimper

The cycle button must be held down until the crimp is complete. If the switch is released early the crimper will retract and show an error.



Adjust the crimper setting for satisfactory form and tightness.



Check that the cap is neatly crimped all the way down to the bottom side of the vial neck. Also, check that the cap cannot be turned easily by hand. If it can be turned easily by hand, increase the crimp strength. Check the shape of the cap. If there is an indentation on the side of the cap, decrease the crimp strength.

### NOTE

Crimping the same vial two times will not generally give the same results and sometimes will result in vial breakage.

#### **Special considerations for 20 mm Headspace vials**

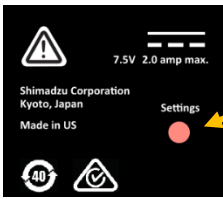
It is common practice to use the “twist test” to check headspace vials for satisfactory crimps. Many sealing systems hold pressure perfectly well so long as the seal is well compressed.

## Adjusting Electronic Decappers for Use

The adjustment is not very important when decapping. As shipped from the factory the decapper should remove a cap satisfactorily.

To adjust decappers make sure that the stroke is long enough to remove the cap.

## Settings



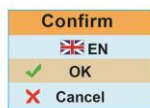
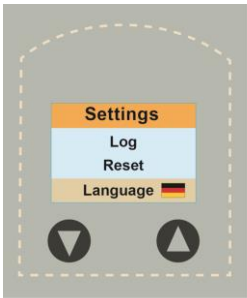
### To Enter Setup Mode

Press the Setting Button with a pen or small tool. (Or hold the Cycle Button for 3 seconds after a cycle)

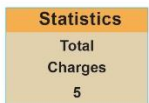
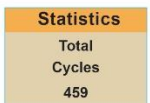
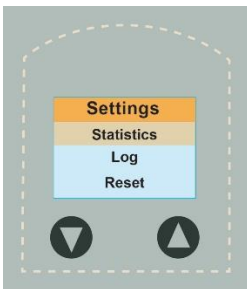
### Language selection:

Press ▲ and ▼ to scroll through the menu.

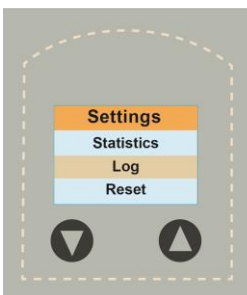
Use the Cycle Button to make a selection.



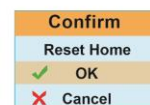
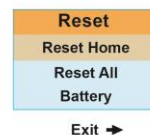
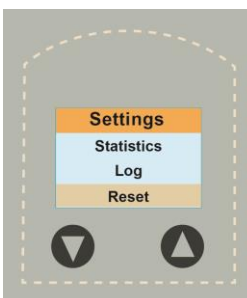
### Statistics:



### Log of recent crimping results:



### Reset:




- **Reset Home** - Sends the crimper back to its home position. No settings, logs, or statistics are changed.
- **Reset All** - Sends the crimper back to its home position and returns the tightness setting to the original factory default of 50%. No logs or statistics are changed.

# Storage and Shipping

Place protective cap over the jaws to prevent accidental cycling when storing or shipping the tool.

## Error Conditions

Errors are identified by Error Messages, normally after a crimp cycle.

| Error  | Possible Cause  | Recommendation  |
|--|---|---|
| ✘ Stall  | Stall Condition - Crimp Setting is too high.                        | Adjust crimper to a lower crimp setting by pressing the ▼ button  |
|  | Stall Condition - Battery does not have sufficient charge.          | Recharge battery.   |
| ✘ Early Button Release                               | Early trigger release - the tool retracted before completing cycle. | Try again, making sure to hold the button down until the tool is returning to the home position.  |
| ✘ Stall<br>(But tool does not cycle)                 | Motor drive failure.  | Contact your local distributor for repair and support.  |
| ✘ Battery low Indicator                              | Battery needs to be charged.  | Charge battery<br> Reference <a href="#">Page 3</a> |
| ✘ Battery low indicator<br>(After charging 24 hours) | Change Circuit Failure  | Contact your local distributor for repair and support.  |

# Maintenance and Repair



## General Maintenance

The electronic crimper tools do not contain user serviceable parts.  
When cleaning the tool, make sure to keep fingers away from the jaws!

## 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, the battery, or the battery connections 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.

## Troubleshooting

| Condition   | Possible Cause                                     | Recommendation   |
|---|--|--|
| Side of cap is indented.<br>Seal is deformed in hole.             | Crimp setting is too high. The crimp is too tight. | Adjust crimper to a lower crimp setting by pressing the ▼ button.                                |
| Cap spins easily.   | Crimp setting is too low. The crimp is too loose.  | Adjust crimper to a higher setting by pressing the ▲ button.                                     |
| Cannot find a good crimp setting.                                 | The crimper is far out of adjustment.              | Return crimper to factory setting. See "Reset" in Settings.                                      |
| 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 your local distributor for repair and support.   |
| 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.                           | Contact your local distributor for repair and support.   |
| Motor does not come on or moves in one direction only.            | Drive circuit failure.                             | Contact your local distributor for repair and support.   |
| Battery Charging is too short; battery does not get a full charge | Early termination by charging circuit.             | Leave crimping tool on charger overnight. Allow trickle current to bring battery to full charge. |

# Appendix

## A. Accessory Base for Electronic crimpers

