



Electronic Crimping Tools

Operation Guide

Electronic Crimping Tools Operations Guide

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	Model Number
11 mm Electronic Crimper	60180-ECR11
20 mm Electronic Crimper	60180-ECR20
8 mm Electronic Crimper	60180-ECR8
13 mm Electronic Crimper	60180-ECR13
20 mm Electronic Flip Off Crimper	60180-ECR20FO
20 mm Electronic No Overhang Flip Off Crimper	60180-ECR20FONO
13 mm Electronic Flip Off Crimper	60180-ECR13FO
11 mm Electronic Decapper	60180-EDCB11
20 mm Electronic Decapper	60180-EDCB20
13 mm Electronic Decapper	60180-EDCB13
6.6 Volt Lithium Ion Battery	ECR-CBATT

Markings



Warnings



- Follow all instructions or injury may result.
- Wear safety glasses when crimping or decapping!
- The crimper or decapper jaws can pinch severely.
- Never insert fingers into the crimper or decapper.
- Use only the 7.5 volt DC Power Supply supplied with the crimper for battery charging.
- Use only the specified replacement battery pack, part number ECR-CBATT.
- Use of other batteries may cause fire during charging or use.

Special Battery Warnings

- Risk of burns; battery may explode or catch fire if mishandled.
- Do not disassemble or dispose of in fire.
- Use only the manufacturer-supplied 7.5 volt DC power supply and charge the battery only in the crimping tool.
- Do not heat above 60° C or short circuit.
- Do not crush or modify.

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 Thermo Scientific or your local Thermo Scientific distributor.



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

Thermo Scientific electronic 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.



Notes

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



Settings

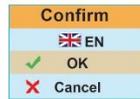
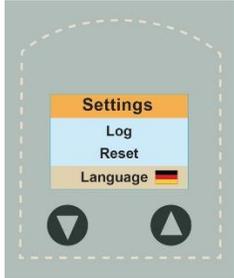
To Enter Setup Mode

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

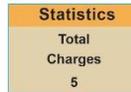
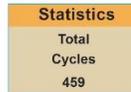
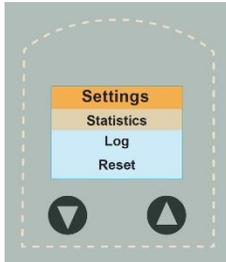
Press ▲ and ▼ to scroll through the menu.

Use the Cycle Button to make a selection.

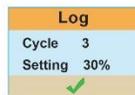
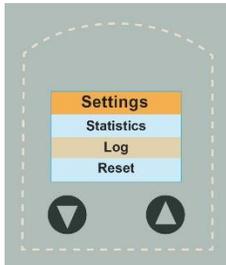
Language selection:



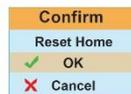
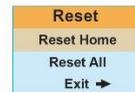
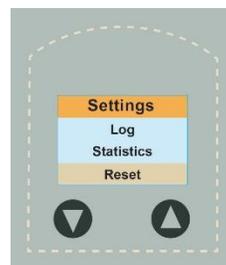
Statistics:



Log of recent crimping results:



Reset:



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 (but tool does not cycle)	Motor drive failure.	See Maintenance / Repair section for contact information for warranty and repair service information.
 Battery low Indicator	Battery needs to be charged.	Charge battery (See Page 4).
 Battery low indicator (after charging 24 hours)	Charge Circuit Failure	See Maintenance / Repair section for contact information for warranty and repair service information.

Troubleshooting, Maintenance, and Repair

General Maintenance

The electronic crimper tools do not contain user serviceable parts except for the battery pack. When cleaning or replacing the battery 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.

Battery Replacement

Use only the specified replacement battery pack, part number ECR-CBATT.

- 1) Remove screw holding the battery cover in place.



- 2) Remove battery cover



- 3) Pull battery out of case, leaving wire connected.



- 4) Push down on connector latch and pull battery loose from the board.



- 5) Connect new battery to board, making sure the latch is secure. Push battery into case, bending the wires if necessary.
- 6) Slide the cover back into the case and replace the retaining screw.

Troubleshooting

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 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.	Please see instructions for “Support and Repair”, below.
11mm or 13mm 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.	Please see instructions for “Support and Repair”, below.
Motor does not come on or moves in one direction only.	Drive circuit failure.	Please see instructions for “Support and Repair”, below.
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.
	Battery is worn out.	Replace battery. Battery is rated to deliver 60% of capacity after 1500 charges.

Support and Repair

If the crimping tool is still in the warranty period, contact your dealer for support. If the warranty period has expired, please visit www.thermofisher.com/vials for information about the crimper repair service.

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