

# **JBC**

[www.jbctools.com](http://www.jbctools.com)

Product  
website



## **INSTRUCTION MANUAL**



### **ALE250**

Automatic-Feed Soldering Iron

This manual corresponds to the following reference:

- ALE250-B

## Packing List

The following items are included:



Automatic-Feed Soldering Iron ..... 1 unit

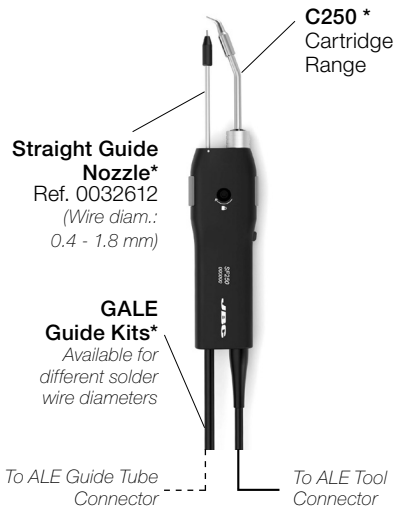


Manual ..... 1 unit  
Ref. 0032492

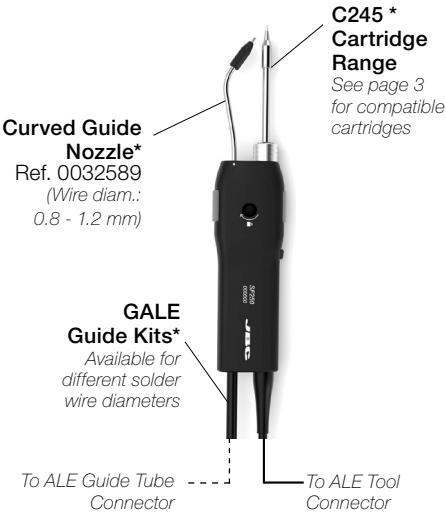
## Connections

This tool allows for multiple settings, using either a curved cartridge and a straight guide nozzle (1), or a straight cartridge and a curved guide nozzle (2).

### ① With Straight Guide Nozzle & Curved Cartridge



### ② With Curved Guide Nozzle & Straight Cartridge



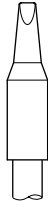
\* Cartridges, Guide Nozzles and Guide Kits are not included.

## Straight Guide Nozzle - Compatible Cartridges

The auto-feed iron with straight guide nozzle works with C250 Cartridges. Find the model that best suits your soldering needs on [www.jbctools.com](http://www.jbctools.com).



Conical Bent



Chisel



Chisel Bent



Bevel

## Curved Guide Nozzle - Compatible Cartridges

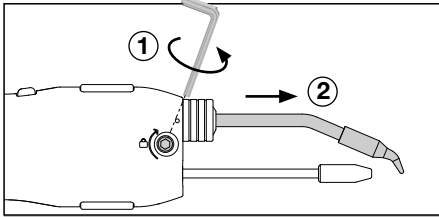
When working with a curved guide nozzle, use only some of the C245 Cartridges. Only cartridges mentioned below are suitable. These cartridges are 20 mm longer than the standard length cartridges.

|             | Cartridge Ref. | A [mm / in]           | B [mm / in]  |
|-------------|----------------|-----------------------|--------------|
| <br>Conical | C245230        | ø 0.3 / ø 0.012       | 13.5 / 0.531 |
|             | C245201        | ø 0.6 / ø 0.024       | 9 / 0.354    |
|             | C245803        | ø 1 / ø 0.039         | 10.5 / 0.413 |
| <br>Chisel  | C245806        | 1.2x0.7 / 0.047x0.028 | 10 / 0.394   |
|             | C245807        | 2.2x1 / 0.087x0.039   | 10 / 0.394   |
|             | C245855E       | 2.5x0.8 / 0.098x0.031 | 7.4 / 0.291  |
|             | C245860E       | 1.6x0.5 / 0.063x0.020 | 10.8 / 0.425 |
| <br>Bevel   | C245845        | ø 2.2 / ø 0.087       | 10 / 0.394   |
|             | C245256        | ø 3.5 / ø 0.138       | 10.5 / 0.413 |

# Changing Cartridges

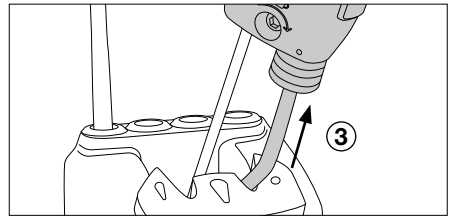
For a safe cartridge change, unplug the tool or turn the station off before following these guidelines.

## 1. Unlocking



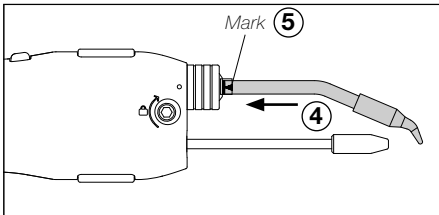
Loosen the cartridge fixing screw (opposite direction to that indicated on the tool casing) (1) to release the cartridge (2).

## 2. Removing



Place the cartridge in the cartridge exchanger and pull the tool to remove the cartridge (3).

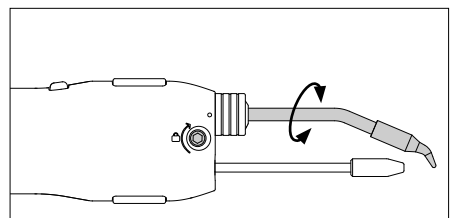
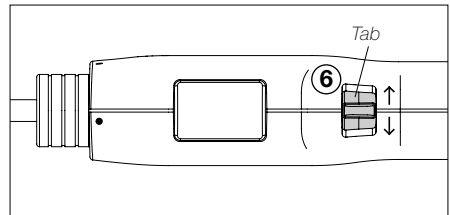
## 3. Inserting



Place a new cartridge into the automatic-feed iron (4).

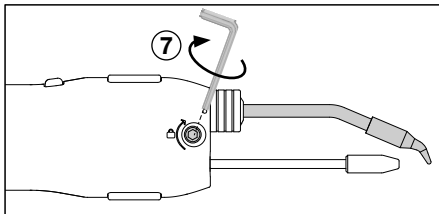
**Important:** It is essential to insert the cartridge up to the mark for a good connection (5).

## 4. Aligning



The alignment of the cartridge with the outlet nozzle can be finely adjusted by using the upper tab (6). Make sure the tab is set in the middle when inserting the cartridge to allow room for movement to both sides.

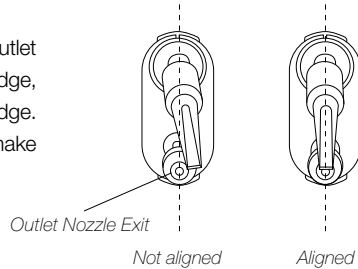
## 5. Fixing



Finally, tighten the cartridge fixing screw (7) to fix the cartridge in place.

## Cartridge Alignment Example

The cartridge should always be aligned with the exit of the outlet nozzle. The image on the left shows a slightly deviated cartridge, while the image on the right shows a properly aligned cartridge. Use the alignment top tab before fixing the cartridge to make sure the cartridge is well positioned.



## Replacing Sealing Plugs

The sealing plug prevents undesirable flux vapors or particles from entering the tool, and its usage is highly recommended. If the sealing plug is not used, particle inflow can lead to faulty performance due to poor cartridge contact or even to the tool being rendered unusable.

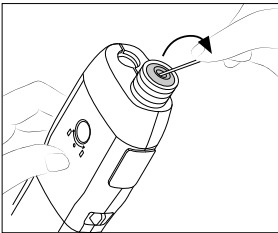
**Note:** Check the condition of the plug periodically and replace it as soon as wear or a crack appears in the sealing area of the cartridge.

⚠ Before replacing the sealing plug, unplug the power supply and make sure the device is not hot.

| Tool          | Sealing Plug |
|---------------|--------------|
| ALE250, SF250 | OB2000 **    |

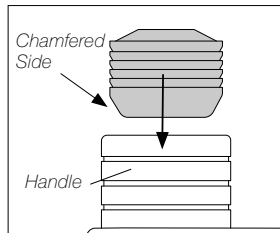
\*\* Each ref. contains 10 units.

### 1. Removing Sealing Plug



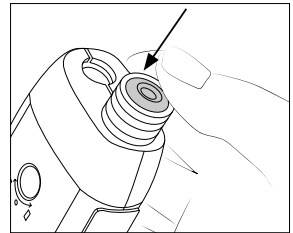
Introduce a small shaft or screwdriver, not deeper than 8 mm, and lift and pull out the sealing plug. Never use a cartridge to do this operation.

### 2. Mounting Position



**Note:** The chamfered side has to be positioned towards the tool.

### 3. Inserting Sealing Plug



Push the sealing plug all the way into the tool.

# Replacing Guide Sets

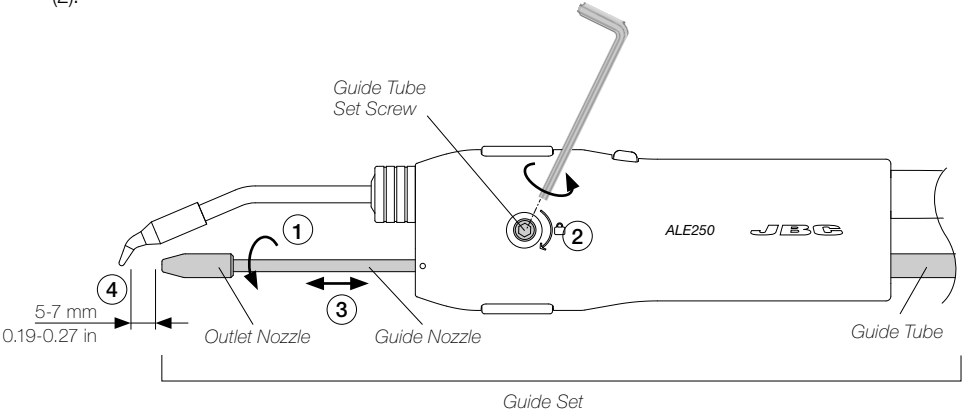
Once the tool is disconnected from the control unit and has cooled down, follow these instructions:

Unload the solder wire and disassemble the outlet nozzle by unscrewing it from the guide nozzle (1). If the outlet nozzle is stuck because of the flux, soak the outlet nozzle in alcohol to release it with ease.

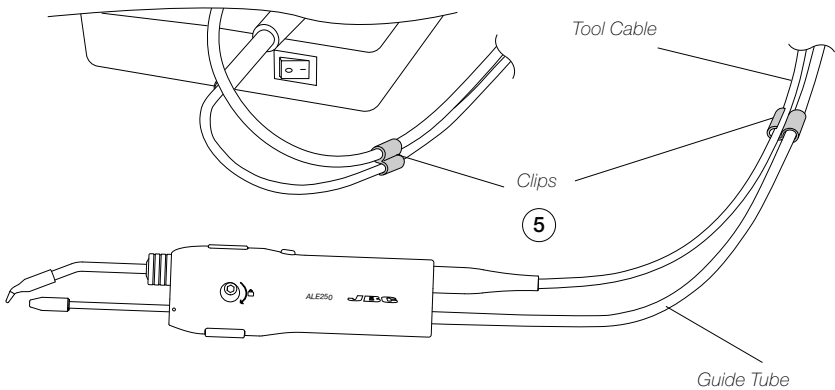
Loosen the guide tube set screw (opposite direction to that indicated on the tool casing) (2), take out the guide set (3) and insert the desired one.

Put the outlet nozzle back, by screwing it onto (1) the new guide nozzle. Leave a gap of 5 to 7 mm (0.19 to 0.27 in) between the cartridge tip and the outlet nozzle (4).

Once the guide nozzle length is adjusted tighten the guide set screw as indicated on the tool casing (2).



For a better handling use the clips (5) to attach the guide tube to the tool cable.



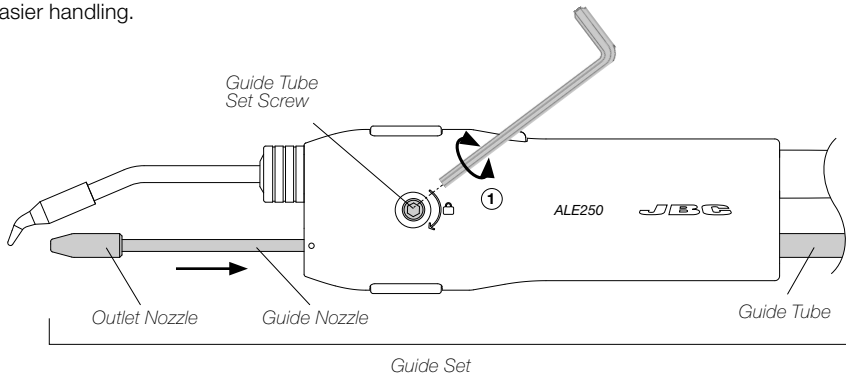
## Outlet Nozzle Replacement

Flux can cause clogging at the outlet nozzle of the guide tube set and it can be necessary to replace the worn or clogged outlet nozzle.

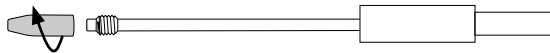
**Note:** There is a nozzle size for each soldering wire diameter. The use of the nozzle is necessary as its inner diameter is adjusted to the solder wire diameter and guides the wire with greater precision.

To replace the outlet nozzle, follow these steps:

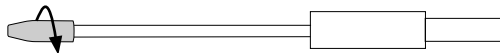
First, make sure that the tool has cooled down and unload any remaining solder wire that might still be inside the guide tube (see pages 11 and 12). Unplug the tool. Loosen the guide tube set screw (opposite direction to that indicated on the tool casing) (1) and detach the guide tube set from the tool for easier handling.



Unscrew the outlet nozzle. If the outlet nozzle is stuck onto the guide nozzle due to flux clogging, soak it in alcohol to release it.



Replace the outlet nozzle and screw it back onto the guide nozzle.

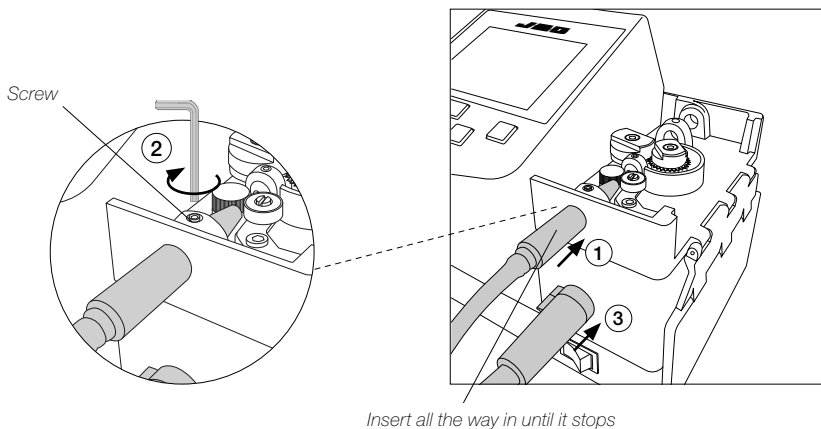


Assemble the guide set onto the tool following the disassembly steps in reverse order.

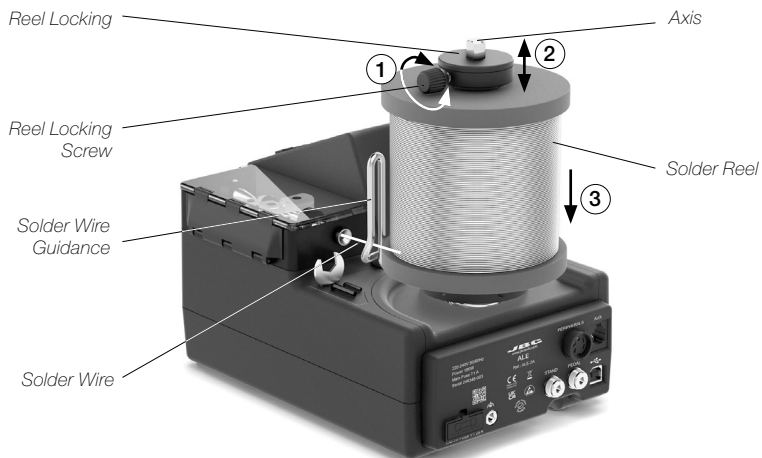
## Tool Assembly

Connect the tool to the control unit following these steps:

Loosen the set screw, insert and push the guide nozzle until it stops (1) and tighten the set screw (2) again. Then plug in the tool connector (3).



## Solder Reel Assembly

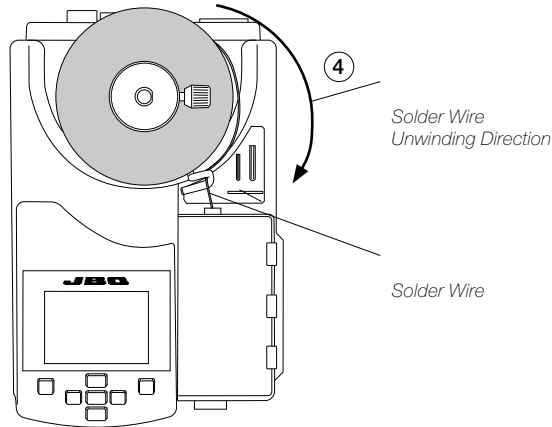


Loosen the reel locking screw (1) and remove the reel locking (2) from the axis.

Assemble the solder reel onto the axis (3).



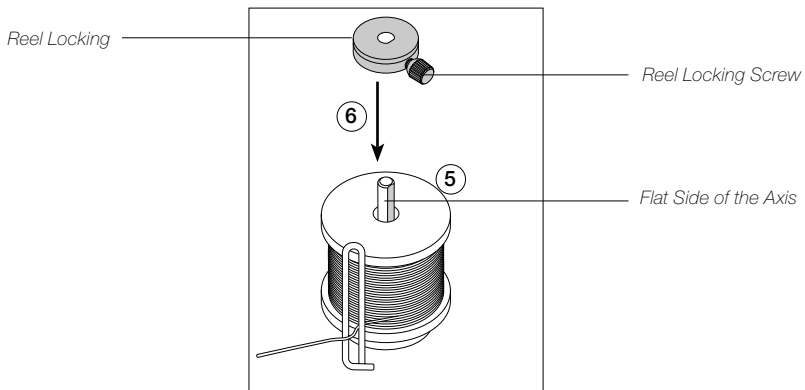
⚠ Insert the solder reel in such a way - when viewed from above - that the solder wire unwinds on the dispensing mechanism side (4).




To assemble the reel locking, its conical side must be pointing downwards.

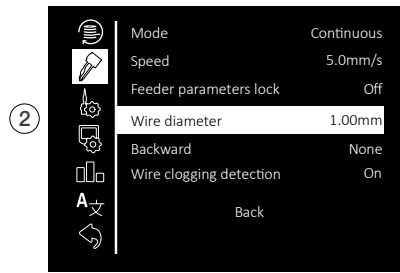
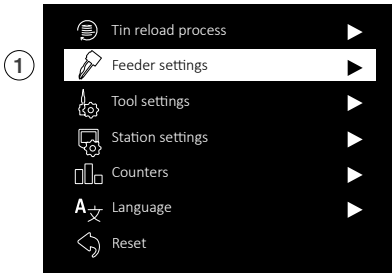
Align the flat side of the axis (5) with the inner flat side (the one with the screw) of the reel locking and reassemble it to the axis (6).

**Note:** To prevent the solder reel from spinning freely or binding, before tightening the reel locking screw gently press the reel locking down, but only enough to have the solder reel secured in place.



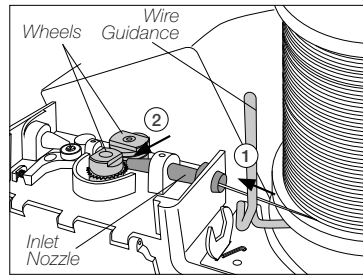
## Main Menu Screen


Access to Main Menu by pressing  , select “Feeder settings” (1) and then “Wire diameter” (2) to adjust the value to the current solder wire diameter.

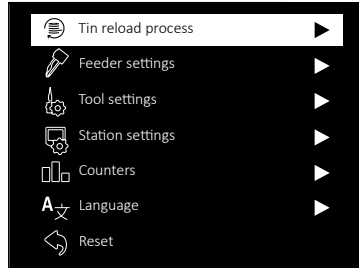



## Solder Wire Loading

Pass the solder wire through the wire guidance and introduce the solder wire into the inlet nozzle (1) until it reaches the wheels (2).

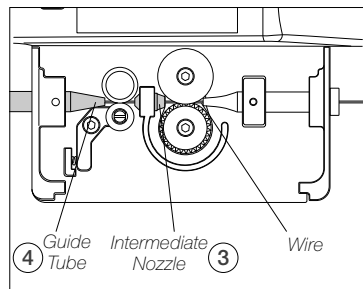


Select “Tin reload process” and then use  to feed the solder wire and advance until it comes out of the outlet nozzle.



If needed, carefully push the wire until it gets locked in between the rotating wheels for the wire to start moving forward. Keep  pressed and after a while, the wire will advance faster.

Make sure the wire passes through the intermediate nozzle (3) and enters the guide tube (4).

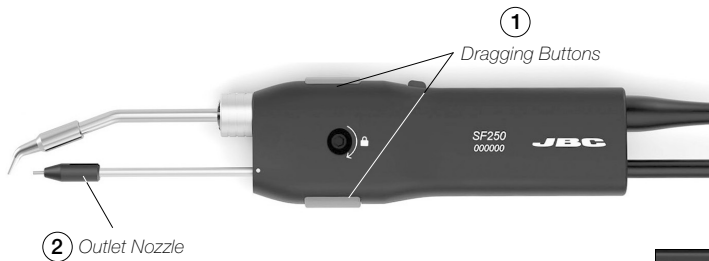


## Solder Wire Feeding

Forward the solder wire pushing any of the two dragging buttons (1) until the wire comes out of the outlet nozzle (2).

### More convenient handling thanks to its two dragging buttons

The component layout or application angle may require working in different positions. Having one button on each side of the tool increases adaptability and makes it easier to reach difficult solder joints without compromising user comfort.




Alternatively, solder wire can also be fed using pedal P405. The pedal should be plugged in at the rear of the feeder control unit into the pedal connector.



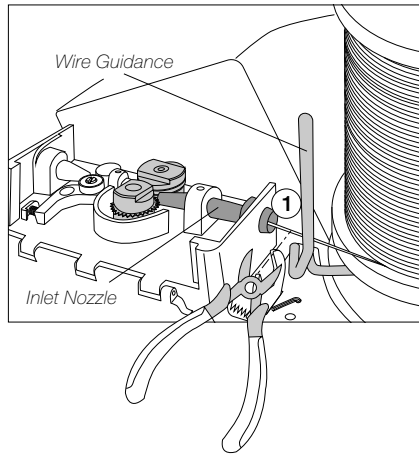
# Solder Wire Unloading

## With Solder Wire Perforation


To unload solder wire with perforation that has already passed through the guide tube, cut the wire between the wire guidance and the inlet nozzle (1).

To extract the wire out of the tube, hold the tool on your hand and press  until the wire stops moving forward.

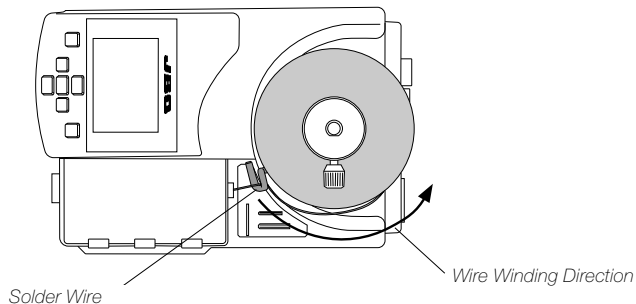
Grasp the wire coming out of the outlet nozzle with a pliers and pull from it until it is completely out.



## Without Solder Wire Perforation

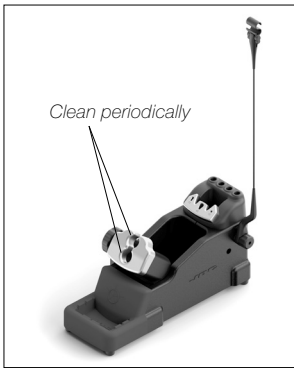
When using a kit without solder wire perforation, press  until the wire is completely wound to unload the solder wire. It is best to rotate the reel by hand as the wire is being pulled back in order to keep it neatly arranged on the reel.

Or, If preferred, proceed as described before for perforated solder wire unloading.



## Maintenance

- Before carrying out maintenance, always unplug the stand and the tool.
- Check periodically that the metal parts of the tool and the stand are clean to ensure detection of the tool when it is in the stand. Use a damp cloth or alcohol.
- Periodically check all cables and tubes connections.
- Replace any defective or damaged pieces. Use original JBC spare parts only. Repairs should only be performed by a JBC authorized technical service.



## Safety



**It is imperative to follow safety guidelines to prevent electric shock, injury, fire or explosion.**

- Do not use the tool for any purpose other than soldering or rework.
- The power cord must be plugged into approved bases. Be sure that it is properly grounded before use. When unplugging it, hold the plug, not the wire.
- The tool should be placed in the stand when not in use in order to activate the sleep mode. The soldering tip, the metal part of the tool and the stand may still be hot even when the station is turned off. Handle with care, including when adjusting the stand position.
- Avoid the contact of flux with skin or eyes to prevent irritation.
- Be careful with the fumes produced when soldering.
- Keep your workplace clean and tidy. Wear appropriate protection glasses and gloves when working to avoid personal harm.
- Utmost care must be taken with liquid tin waste which can cause burns.
- This appliance can be used by children over the age of eight and also persons with reduced physical, sensory or mental capabilities or lack of experience provided that they have been given adequate supervision or instruction concerning use of the appliance and understand the hazards involved. Children must not play with the appliance.
- Maintenance must not be carried out by children unless supervised.

## Notes

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Specifications

### ALE250

#### Automatic-Feed Soldering Iron

Ref.: **ALE250-B**

- Solder Wire Diameter:
  - Straight Nozzle: Ø 0.4-1.8 mm / 0.02-0.07 in
  - Curved Nozzle: Ø 0.8-1.2 mm / 0.03-0.05 in
- Tool Dimensions (approx.): 130 x 14 x 30 mm / 5.12 x 0.55 x 1.18 in
- Total Net Weight: 120 gr / 0.26 lb
- Package Dimensions / Weight:  
(L x W x H) 300 x 125 x 65 mm / 200 g  
11.81 x 4.92 x 2.56 in / 0.44 lb

Complies with CE standards.  
ESD safe.

# JBC

### Warranty

JBC's 2 year warranty covers this equipment against all manufacturing defects, including the replacement of defective parts and labor.

Warranty does not cover product wear or misuse.

In order for the warranty to be valid, equipment must be returned, postage paid, to the dealer where it was purchased.



This product should not be thrown in the garbage.

In accordance with the European directive 2012/19/EU, electronic equipment at the end of its life must be collected and returned to an authorized recycling facility.

