



JBC ALU-910VA (100V) ALU Automatic-Feed Soldering Station Instruction Manual

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JBC

JBC ALU-910VA (100V) ALU Automatic-Feed Soldering Station



Product Information

The ALU Automatic-Feed Control Unit is a device used for soldering applications. It comes with various features and components, including the ALE250 Auto-Feed Soldering Iron (sold separately). The unit operates at different voltage options: ALU-910VA (100V), ALU-110VA (120V), and ALU-210VA (230V).

The packing list includes the following items

- ALU Automatic-Feed Control Unit – 1 unit
- Guide Wheels and Components
- Power Cord – 1 unit (Ref. 0023717 for 120V, Ref. 0024080 for 230V)
- Key Set for SF / AL – 1 unit (Ref. 0019341) includes Spanner – 1 unit
- Manual – 1 unit (Ref. 0028141)

The control unit features a Control Screen, USB-A and USB-B Connectors, Main Switch, Fuse, Equipotential Connection Power Socket, RJ12 Connection for Robot System, Pedal Connection, and Solder Wire Inlet. It also has Allen Key and Spanner Storage.

Product Usage Instructions

1. Connect the power cord to the appropriate power source based on the voltage option of your ALU Automatic-Feed Control Unit.
2. Connect the tool (ALE250 Auto-Feed Soldering Iron, sold separately) to the control unit using the provided connections, following the steps in the manual.
3. Insert the solder reel into the unit, ensuring that the solder wire unwinds on the dispensing mechanism side.
4. Adjust the settings on the control screen to set the wire diameter, power level, speed, and other parameters as

- required for your soldering application. Refer to the manual for detailed instructions on adjusting these settings.
5. Press the appropriate buttons on the control screen to start the soldering process or make any necessary adjustments to the program.
 6. Follow the instructions in the manual for tin reload process, reel locking, and other maintenance tasks.

For more specific usage instructions and troubleshooting, refer to the detailed manual provided with your ALU Automatic-Feed Control Unit (Ref. 0028141).

JBC-ALU-910VA-(100V)-ALU-Automatic-Feed-Soldering-Station-featured

- ALU-910VA (100V)
- ALU-110VA (120V)
- ALU-210VA (230V)

Packing List

The following items are included



ALU Automatic-Feed

Control Unit 1 unit



Power Cord 1 unit

Ref. 0023717 (120V) 0024080 (230V)

Guide wheels and
Components



GALE Guide Kit 1 unit
Ref. GALE10V-A

- with solder wire perforation
- wire \varnothing 1.0mm / \varnothing 0.040 in)

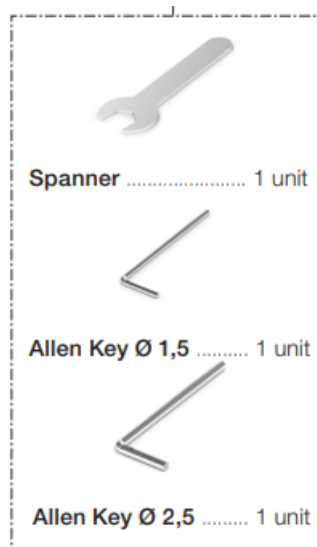
(Guide Wheels and Components already assembled in ALU Control Unit)



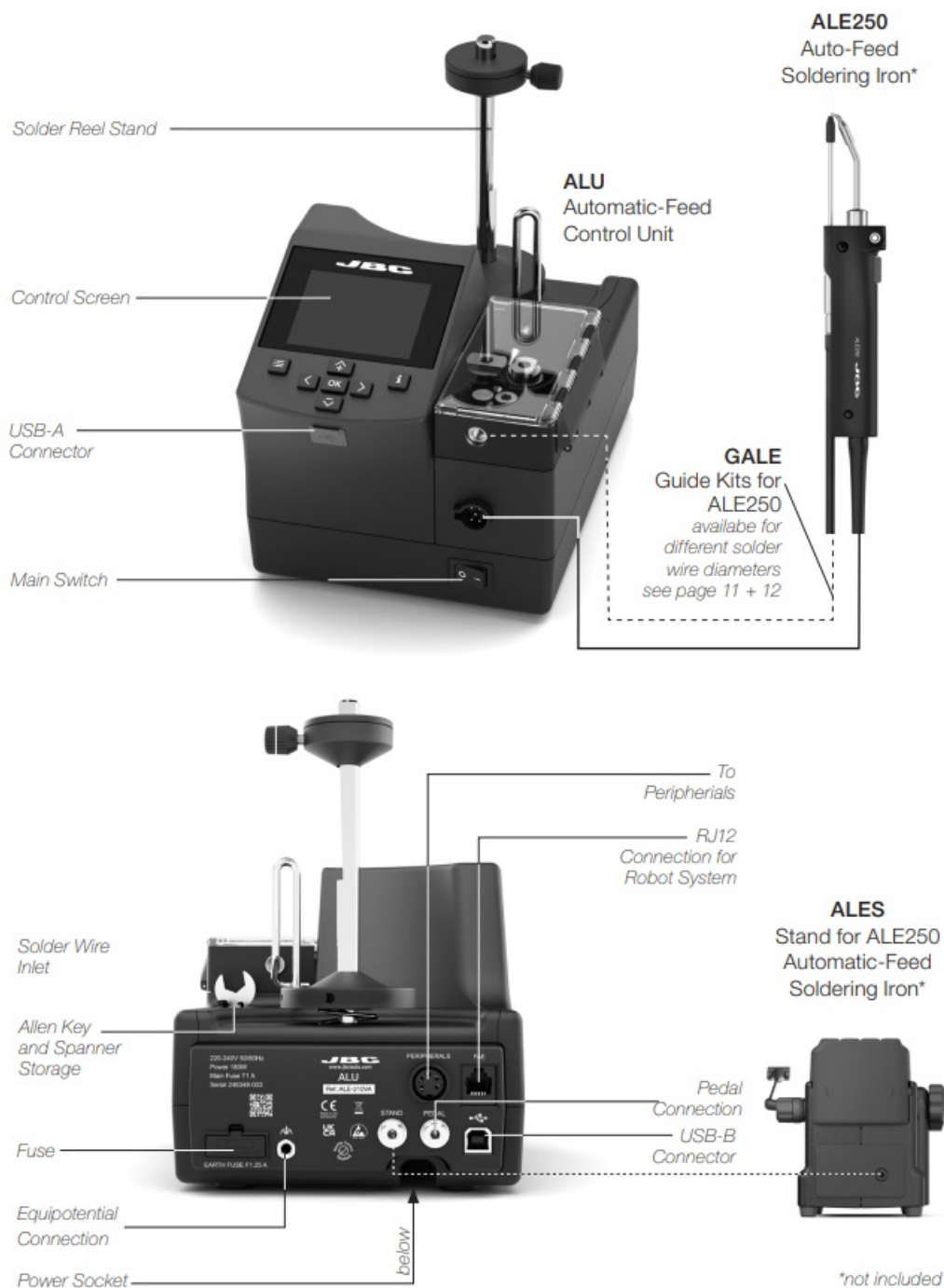
Manual 1 unit
Ref. 0028141

Key Set

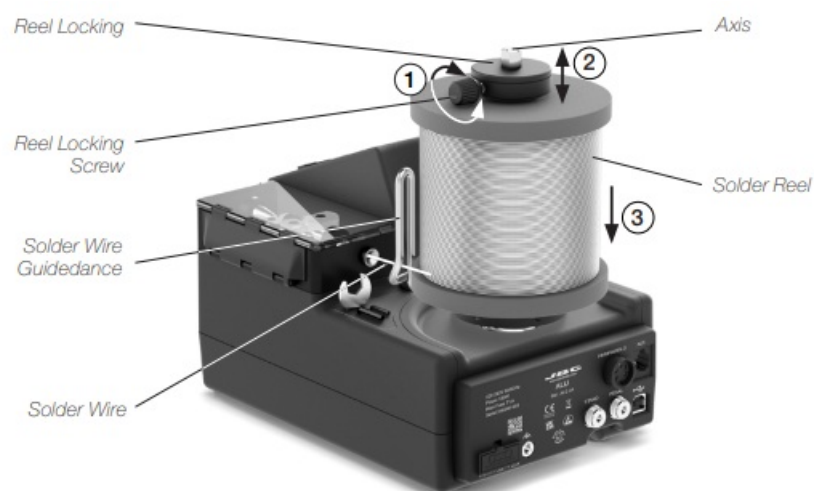
- for SF / AL 1 unit
- Ref. 0019341
- includes



Features and Connections



Solder Reel Assembly

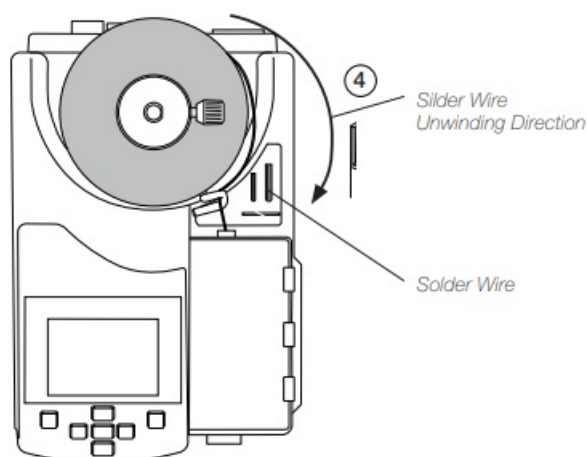


Open the reel locking screw

1. and remove the reel locking
2. from the axis. Assemble the solder reel onto the axis
3. and reassemble the reel locking screw (1). The flat side of the axis must align with the inner flat side of the reel locking.

Note: Press lightly the reel locking

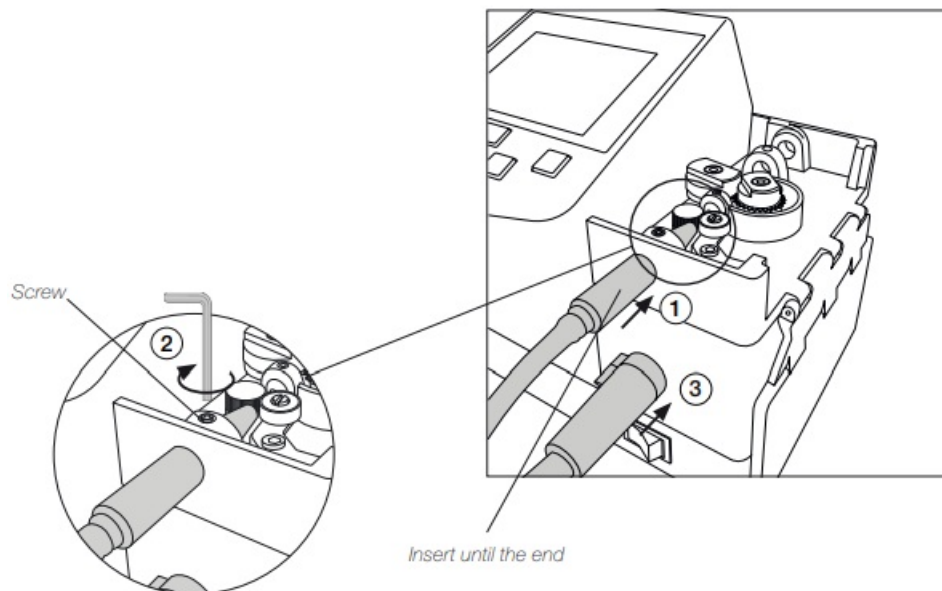
1. down before tightening the reel locking screw
2. to prevent free reel spinning. Insert the solder reel in such a way
 - when viewed from above
 - that the solder wire unwinds on the concave morhaniem cro A



Tool Assembly

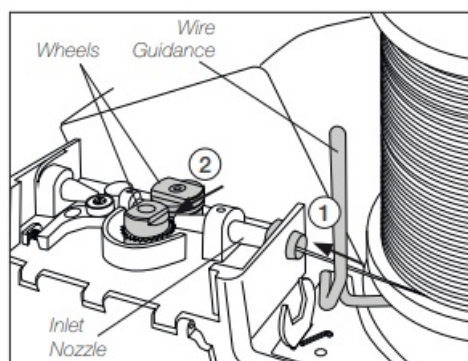
Connect the tool to the control unit following this steps

1. Insert and push the guide nozzle until the end
2. and tighten the screw
3. Then connect the tool connector

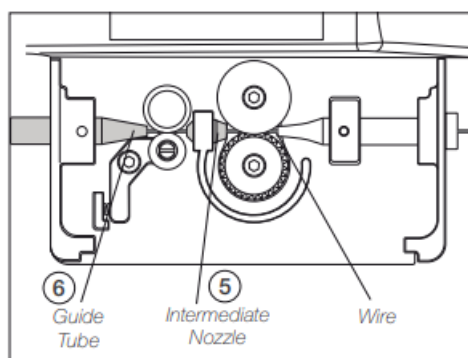



Solder Wire Loading

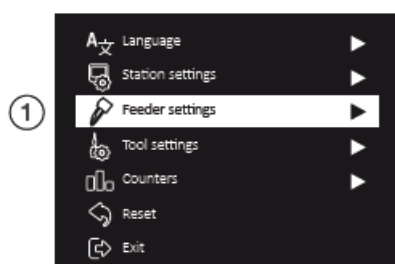
Pass the solder wire through the wire guidance and introduce the solder wire into the inlet nozzle (1) until it reaches the wheels (2).

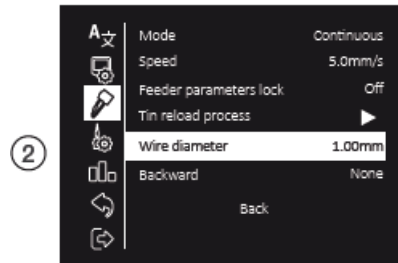


Make sure the wire passes through the Intermediate Nozzle (5) and enters into the Guide Tube (6).





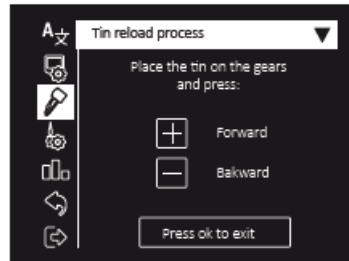
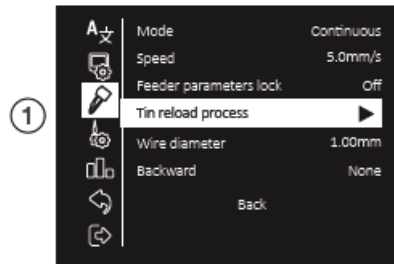
Main Menu Screen Access to Main Menu by  I, select “Feeder Settings* (1) and then “Wire Diameter” (2) to adjust the value to the current solder wire diameter.





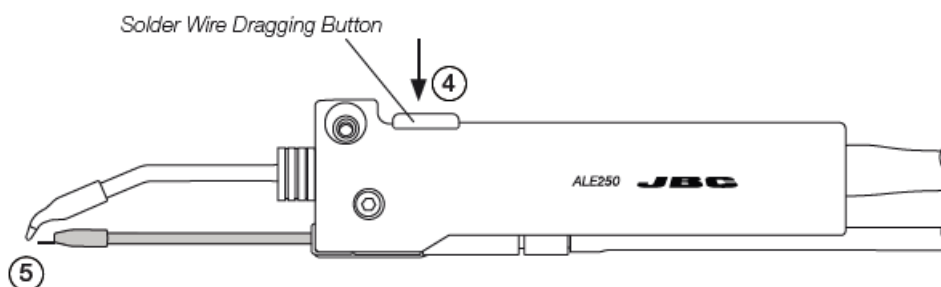
Tin Reloaded Process Screen

Select "Tin Reloaded Process" (1) and then use  to feed the solder wire and advance until it comes out through the outlet nozzle. Keep  pressed and after a while the wire will advance faster.



Solder Wire Feeding

Forward the solder wire by pushing the dragging button (4) until the wire comes out of the tip (5).

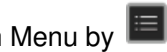



To feed the solder wire, alternatively the pedal P405 can be used. The pedal should be plugged in at the rear of the feeder control unit into the pedal connector.

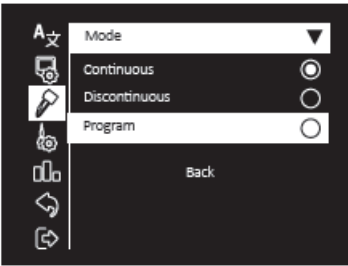


Control Process

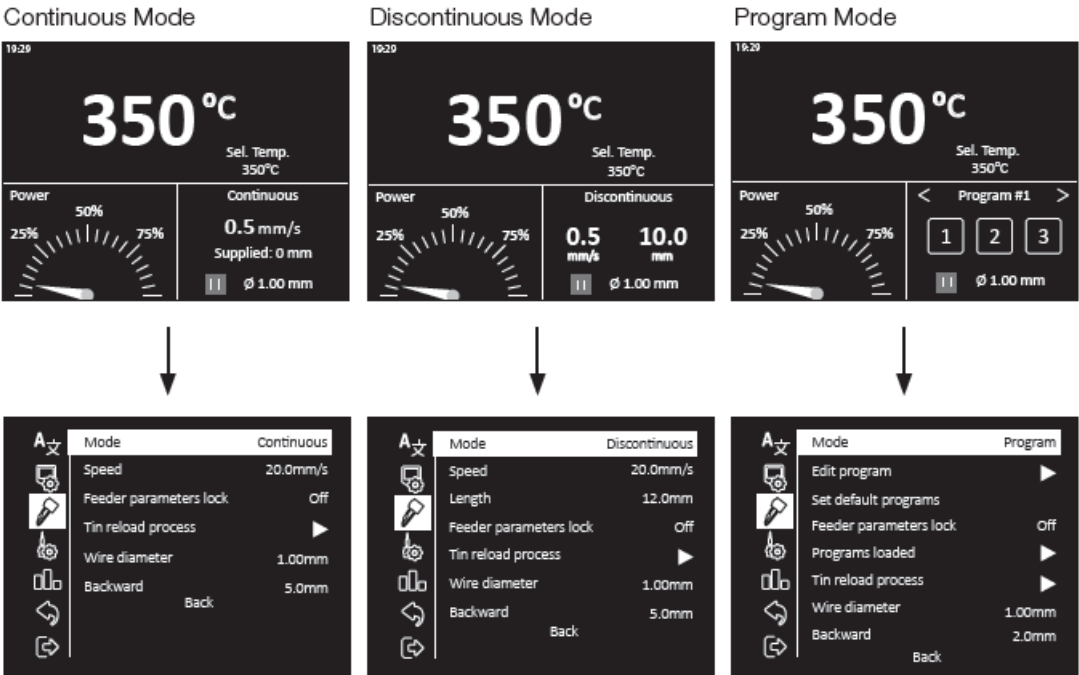
Feeder Setting Modes



Choose between “continuous”, “discontinuous” and “program” mode. Acces to Main Menu by , select “Feeder Settings” and then “Mode”.



Depending on the selected mode, different parameters are available for setup.

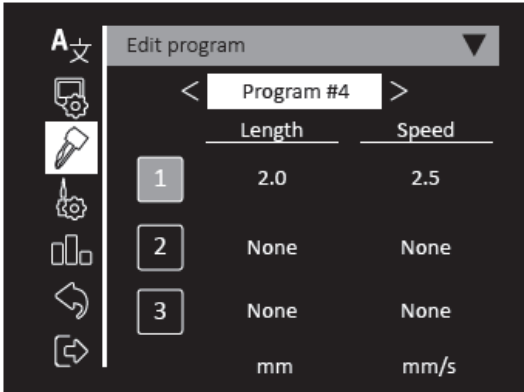
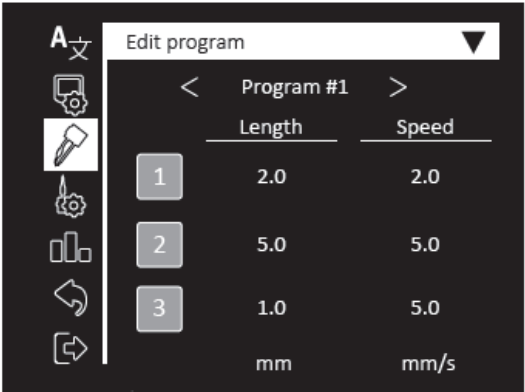


Troubleshooting

Station troubleshooting available on the product page at www.ibctools.com

Program Mode



With ALU you can define up to 5 feeder programs. Select “Edit Program” and access to the pro aramm parameters




For each programm between 1 and 3 feeding steps (length and speed) should be defined. If less than 3 feeding steps are needed, set up wire length and speed to “0.0” and the parameter will change to “None”.



Quick Access to Feeder Setting Modes

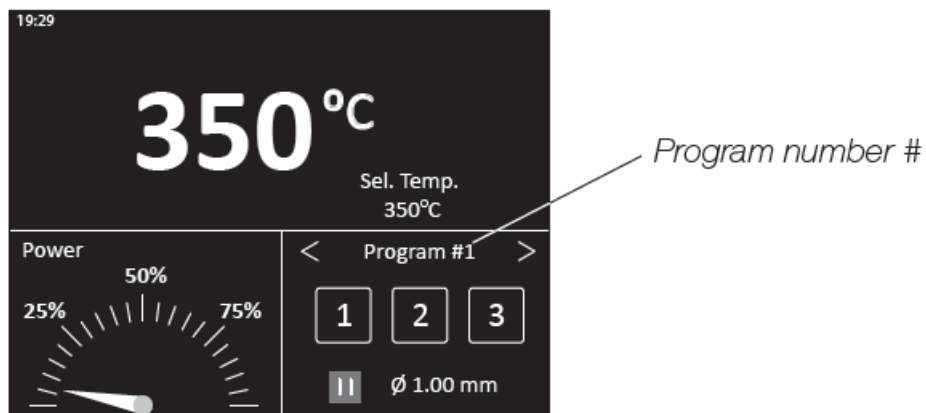
The solder wire dispensing values can directly set up from the work screen.

Press  or  to change the tool temperature value.

When the main screen is displayed, by pressing  button speed and length value can be set up. Following parameters can be changed according to the different dispensing modes

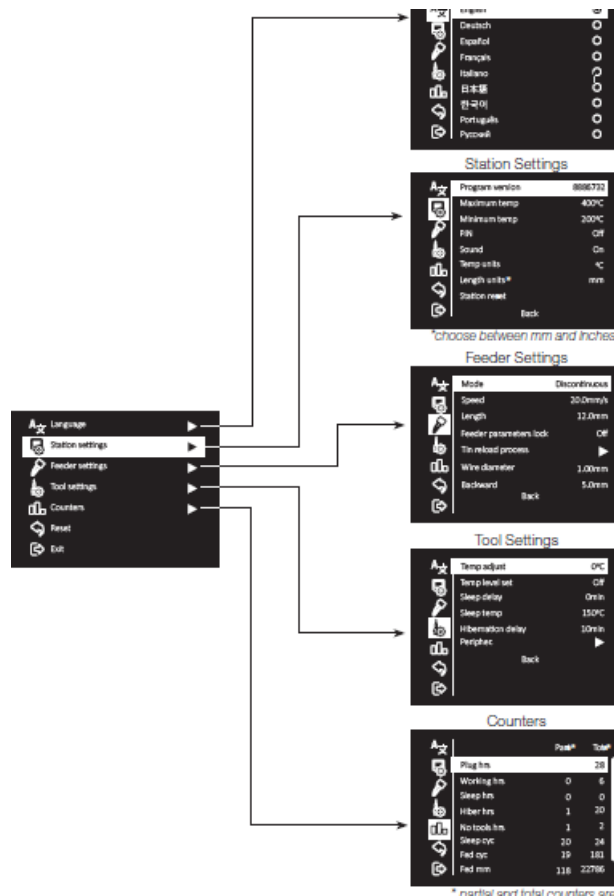
- **Continuous Mode:** Speed
- **Discontinuous Mode:** Speed and length
- **Program Mode:** 3 feeding parameter pairs (length and speed) for every program.

Note: First select the program to be modified at the work screen by using  and  to switch between the programs.



Menu Screen

- **Default PIN:** 0105



Changing Guide Kits

Changing Wheels and Blade

For this operation, disconnect the device from the mains. Disconnect the tool from the control unit and open its cover. First disassemble the guide tube (6), the nozzles (2)+(3), then the wheels, blade and clamp (4)+(5). Disassemble the counter wheel (1). Use the allen key and the spanner, provided with the station.

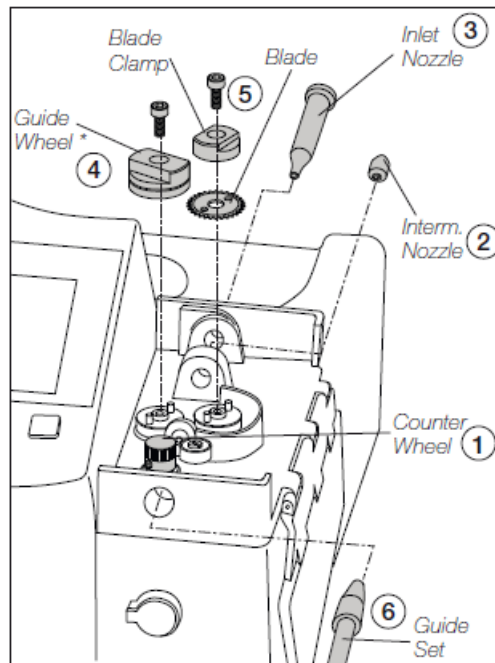
Assembly with Solder Wire Perforation

Assemble the counter wheel

1. Insert the intermediate nozzle
2. until its collar rests against the housing and tighten the screw. Assemble the inlet nozzle
3. Assemble the guide wheel
4. and tighten the screw Assemble the blade first, then mount the blade clamp
5. onto the same axis and tighten the screw.

Caution: handle the blade carefully to avoid injury.

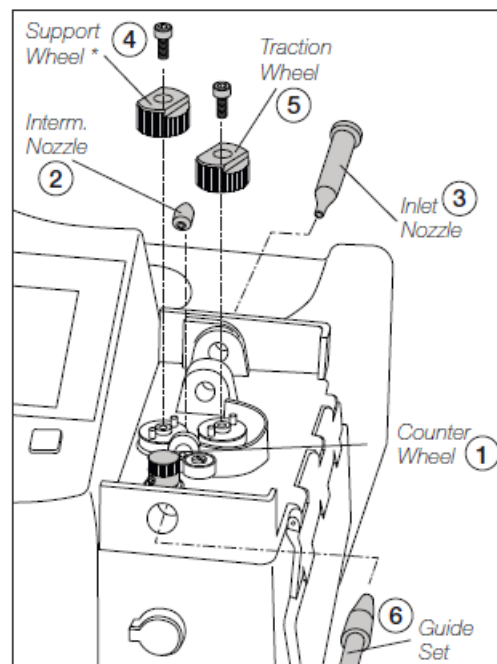
6. Insert the guide set.



Assembly without Solder Wire Perforation

Assemble the counter wheel

1. Insert the intermediate nozzle
2. until its collar rests against the housing and tighten the screw. Assemble the inlet nozzle
3. Assemble the support wheel
4. onto the axis and tighten the screw. Assemble the traction wheel
5. and tighten the screw.
6. Insert the guide set.













Accessories

Various guide sets are available. Select the appropriate guide set depending on the solder wire GALE Guide Sets for ALE250 with Solder Wire Perforation

Wire diameter		
XX	Diameter of use	
08	Ø 0.8 mm	Ø 0.032 in
10	Ø 1.0 mm	Ø 0.040 in
12	Ø 1.2 mm	Ø 0.047 in
15	Ø 1.5 mm	Ø 0.059 in
16	Ø 1.6 mm	Ø 0.063 in

	Guide tube
GALE08V-A	0028358
GALE10V-A	0028359
GALE12V-A	0028360
GALE15V-A	0028361
GALE16V-A	0028363

SPARE PARTS

	Outlet nozzle	Nozzle	Guide wheel	Blade	Blade clamp	Inlet nozzle	Intern. nozzle	Counter wheel	Screws	Threaded stud		
Wire Ø												
GALE08V-A	0025270	0021158	0021696	0021555	0018638	0018632	0024955	0026693 (Supplied with SF)	0026695 (x2)	0026696 (x3)		
GALE10V-A	0021560		0021699			0019170	0024956	0026694				
GALE12V-A	0025272		0023738			0019171	0024957					
GALE15V-A	0025274		0019696			0024233	0024958					
GALE16V-A	0025276		0025922				0024959					









Accesories
 GALE Guide Sets for ALE250 without Solder Wire Perforation

GALEXXD-A WITHOUT SOLDER WIRE PERFORATION

XX	Wire diameter	
04	Ø 0.38 - 0.40 mm	Ø 0.015 - 0.016 in
05	Ø 0.46 - 0.56 mm	Ø 0.018 - 0.022 in
06	Ø 0.60 - 0.64 mm	Ø 0.023 - 0.025 in
07	Ø 0.70 - 0.78 mm	Ø 0.028 - 0.031 in
08	Ø 0.80 - 0.82 mm	Ø 0.032 - 0.033 in
10	Ø 0.90 - 1.10 mm	Ø 0.036 - 0.044 in
12	Ø 1.14 - 1.27 mm	Ø 0.045 - 0.051 in
15	Ø 1.50 - 1.57 mm	Ø 0.060 - 0.063 in
16	Ø 1.60 - 1.63 mm	Ø 0.063 - 0.065 in
18	Ø 1.80 mm	Ø 0.073 in

	Guide tube
GALE04D-A	0028358
GALE05D-A	
GALE06D-A	
GALE07D-A	0028359
GALE08D-A	
GALE10D-A	
GALE12D-A	0028360
GALE15D-A	0028361
GALE16D-A	0028362
GALE18D-A	0028363

SPARE PARTS

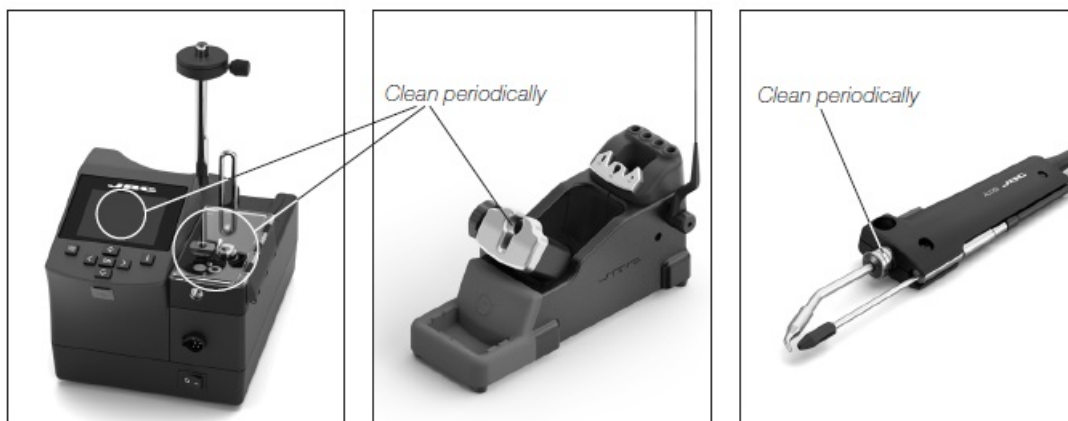
	Outlet nozzle	Nozzle	Traction wheel	Support wheel	Inlet nozzle	Intern. nozzle	Counter wheel	Screws	Threaded stud	
Wire Ø										
GALE04D-A	0025268	0021158	0019479	0020345	0019520	0024954	0026693 (Supplied with SF)	0026695 (x2)	0026696 (x3)	
GALE05D-A				0019519		0018632				0025293
GALE06D-A	0022994			0019480						0025291
GALE07D-A	0025289									0024955
GALE08D-A	0025270									0024956
GALE10D-A	0021560			0019481	0019170		0024957			0026694
GALE12D-A	0025272					0024958				
GALE15D-A	0025274					0024959				
GALE16D-A	0025276			0028367	0024233	0024960				
GALE18D-A	0021559					0024234				

Maintenance

Before carrying out maintenance, always switch the device off and disconnect it from the mains. Allow the equipment to cool down.

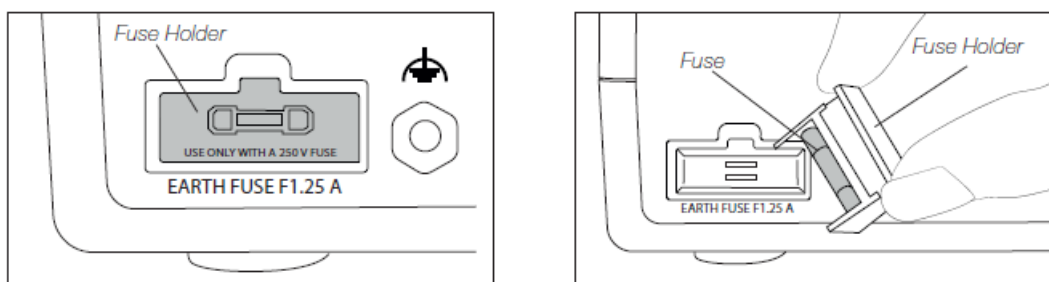
- Clean the station screen with a glass cleaner or a damp cloth.

- Use a damp cloth to clean the casing and the tool. Alcohol can only be used to clean the metal parts.
- Periodically check that the metal parts of the tool and stand are clean so that the station can detect the tool status.



- Maintain tip surface clean and tinned prior to storage in order to avoid tip oxidation. Rusty and dirty surfaces reduce heat transfer to the solder joint.
- Periodically check all cables and tubes.
- Replace a blown fuse as follows

1. Pull off the fuse holder and remove the fuse. If necessary use a tool to lever it off.
2. Insert the new fuse into the fuse holder and return it to the station.



- Replace any defective or damaged pieces. Only use original JBC spare parts.
- 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 units for any purpose other than soldering or rework. Incorrect use may cause fire.
- 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.
- Do not work on electrically live parts.
- The tool should be placed in the stand when not in use in order to activate the sleep mode. The soldering tip or nozzle, 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.
- Do not leave the appliance unattended when it is on.
- Do not cover the ventilation grills. Heat can cause inflammable products to ignite.
- Avoid flux coming into contact 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.

Specifications

ALU

Automatic-Feed Control Unit

- **Ref:** ALU-910VA – 100V 50/60Hz. Input fuse: T2A. Earthing Fuse: F 1.25A. Output: 23.5V
- **Ref:** ALU-110VA – 120V 50/60Hz. Input fuse: T2A. Earthing Fuse: F 1.25A. Output: 23.5V
- **Ref:** ALU-210VA – 230V 50/60Hz. Input fuse: T1A. Earthing Fuse: F 1.25A. Output: 23.5V
 - **Output Peak Power:** 130 W / 23.5 V
 - **Selectable Temperature Range:** 90 – 450 °C / 190 – 840 °F
 - Idle Temp. Stability (still air): $\pm 1.5^{\circ}\text{C}$ / $\pm 3^{\circ}\text{F}$ (Meets and exceeds IPC J-STD-001)
 - **Temp. Accuracy:** $\pm 3\%$ (Using reference cartridge)
 - **Temp. Adjustment:** $\pm 50^{\circ}\text{C}$ / $\pm 90^{\circ}\text{F}$ (Through station menu settings)
 - **Connections:** USB-A Update and files import-export

USB-B Software PC

RJ12 Fume extractor connection

- **Equipotential bonding:** Optional connection to EPA
- **Tip to Ground Voltage/Resistance:** $< 2\text{ mV RMS}$ / $< 2\text{ ohms}$

Meets and exceeds

ANSI/ESD S20.20-2014 / IPC J-STD-001F

- **Ambient Operating Temp:** 10 – 50 °C / 50 – 122 °F
- **Solder Wire Diameter:** 0.4 – 1.6 mm / 0.02 – 0.06 in
- **Max. Wire Length:** 250 mm / 9.84 in (for discontinuous + program mode)
- **Min. Wire Length:** 0.5 mm / 0.02 in
- Forward Speed Range 0.5 to 50 mm/s / 0.02 to 1.97 in/s
- Speed of Backward Funktion 0.0 to 5.0 mm/s / 0.5 to 0.20 in/s
- **Number of Programs:** 5 Programs
- **Number of Program Steps:** 1 to 3 Steps (for each program)
- **Control Unit Dimensions:** 235 x 145 x 150 mm
- (L x W x H) 9.25 x 5.71 x 5.91 in
- **Total Net Weight:** 5.81 kg / 12.81 lb
- **Package Dimensions / Weight:** 368 x 368 x 195 mm / 6.72 Kg
- (L x W x H) 14.49 x 14.49 x 7.68 in / 14.82 lb

Compatible Solder Reel

- **Reel Weight:** up to 2 kg / 4.41 lb
- **Max. Reel Diameter:** 100 mm / 3.94 in
- **Max. Reel Height:** 100 mm / 3.94 in
- Complies with CE standards.
- ESD safe.

Warranty

- JBC's 2 year warranty covers this equipment against all manufacturing defects, including the replacement of defective parts and Labour.
- 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.
- Get 1 extra year JBC warranty by registering here: <https://www.jbctools.com/productregistration/> within 30 days of purchase.


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.



www.ibctools.com

Documents / Resources

 <p>JBC www.jbctools.com INSTRUCTION MANUAL</p> <p>ALU Automatic-Feed Control Unit</p>	<p>JBC ALU-910VA (100V) ALU Automatic-Feed Soldering Station [pdf] Instruction Manual ALU-910VA 100V ALU Automatic-Feed Soldering Station, ALU-910VA 100V, ALU Automatic-Fe ed Soldering Station, Automatic-Feed Soldering Station, Feed Soldering Station, Soldering Stat ion, Station</p>
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References

-  [JBC Soldering and Rework equipment for electronics](#)
-  [Warranty Extension](#)