JBC

www.jbctools.com

INSTRUCTION MANUAL

Solder Feeder for Automation

Ref. SFR-A

Packing List

The following items should be included:

Solder Feeder for Automation .... 1 unit
Ref. SFR-A

Reel Support .... 1 unit
Ref. 0021219

Spanner 10 mm.............. 1 unit
Ref. 0017631

Allen Key 1,5 mm .... 1 unit
Ref. 0741610

Allen Key 2,5 mm .... 1 unit
Ref. 0012574

Communications Cable 3 m....................... 1 unit
Ref. 0020261

Screws DIN 912 M4x60.......... 2 units
Ref. 0014954

Screws DIN 7991 M4x10........ 2 units
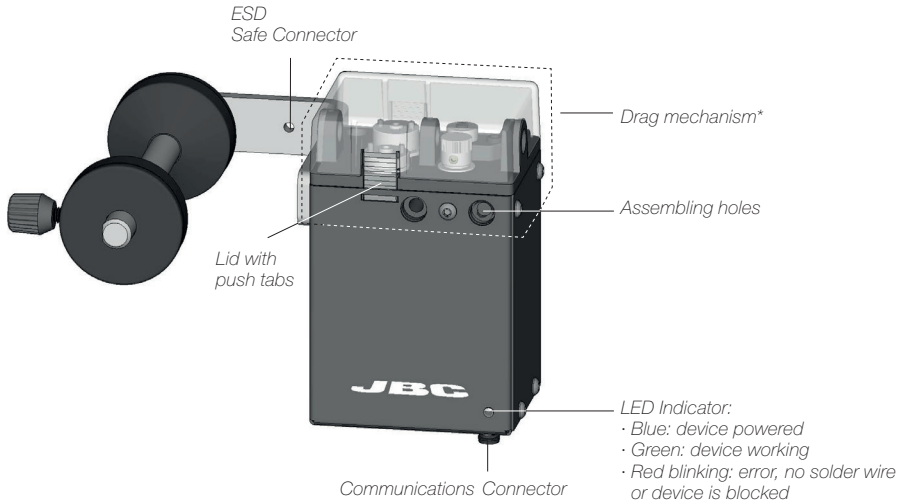Ref. 0490180

Manual .... 1 unit
Ref. 0021348
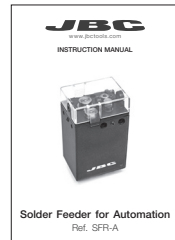
Download the Robot Communication Protocol for SFR at **www.jbctools.com/jbcsoftware.html**

Features

The SFR Solder Feeder works together with one of the different GSFR Guide Kits, available for the various solder wire diameters, with or without solder wire perforation. GSFR kits are sold separately.

ESD Safe Connector

Drag mechanism*

Assembling holes

Lid with push tabs

LED Indicator:
· Blue: device powered
· Green: device working
· Red blinking: error, no solder wire
* or device is blocked*

Communications Connector

Connection

The Solder Feeder for Automation must be controlled by a Robot/PLC/Computer. JBC developed RS232 Robot Communication Protocol. (Available at **www.jbctools.com/jbcsoftware.html**)

The SFR-A can be connected with a five-pins communications cable (Ref. 0020261).
See the table below for a description of Communication Connector pin distribution:
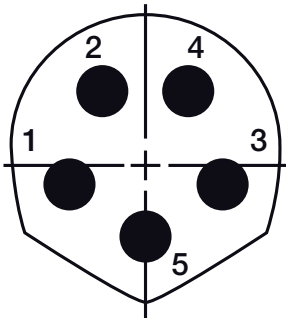
Front view
SFR Communications Connector

Communications Connector		
Pin	**Color**	**Description**
1	Brown	Power supply input: 24Vdc (±5%). 1.5 A current required
2	White	Serial input: RS232 RX
3	Blue	Common reference: GND for RS232, power supply and switch.
4	Black	Switch input: 0V or 24V to start feeding. Leave it open to stop.
5	Grey	Serial output: RS232 TX

Assembly: GSFR* Wheels to SFR

For this operation, disconnect the device, and dismantle the Cover by pushing the tabs. Use the allen key and the spanner to assemble the following components.

1. Insert the Intermediate Nozzle until its collar rests against the housing and tighten the screw.

2. Assemble the Guide Wheel and tighten the screw. If you use a Guide Kit without Solder Wire Perforation assemble the Support Wheel.

3. If you have a Guide Kit with Solder Wire Perforation assemble the Blade first, then mount the Blade Clamp onto the same axis and tighten the screw. If you use a Guide Kit without Solder Wire Perforation, assemble the Traction wheel.

Caution: handle the blade carefully to avoid injury.

4. Insert the Inlet Nozzle into the hole and tighten the screw.
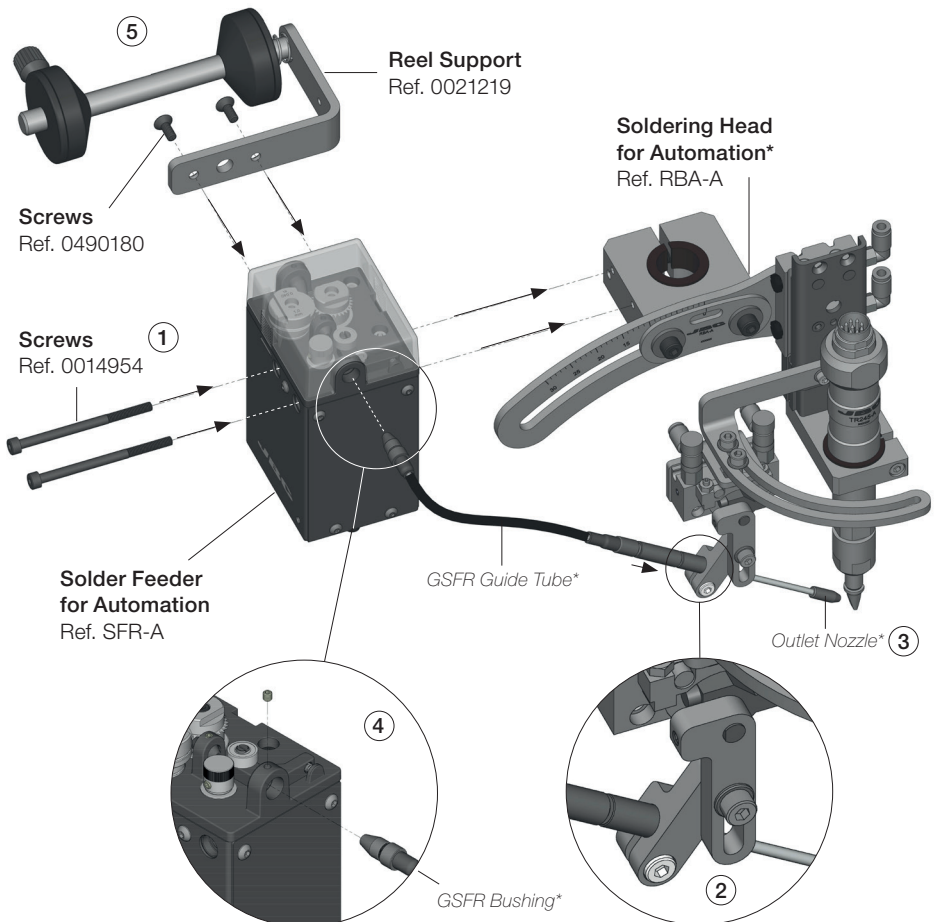
GSFR* with Solder Wire Perforation

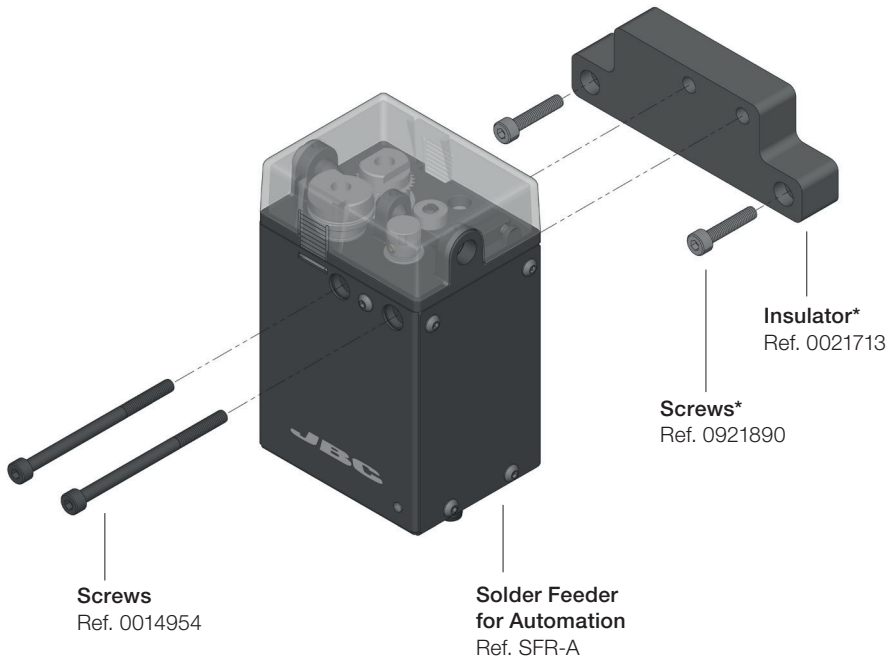**GSFR* without Solder Wire Perforation**
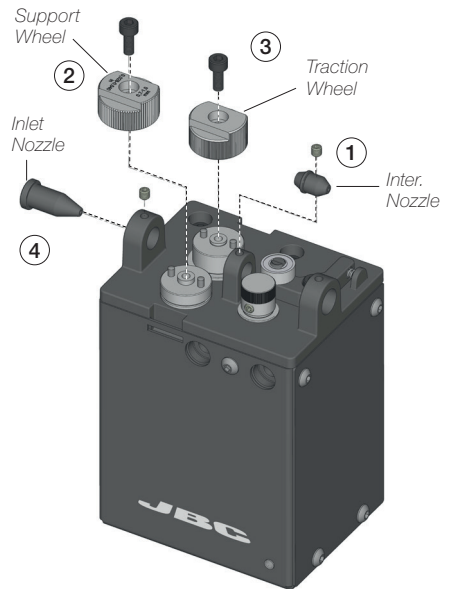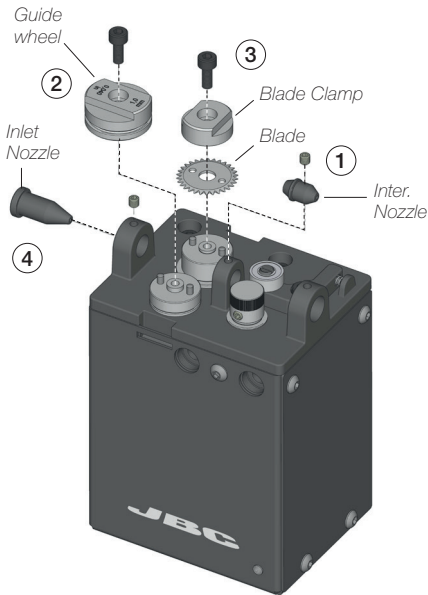
*Not included, sold separately

Assembly: SFR to RBA*

1. Assemble the SFR to the RBA with the screws.

2. Assemble the GSFR Guide Tube to the RBA and tighten the screw.

3. Assemble the Outlet Nozzle onto the Dispensing Tube.

4. Assemble the GSFR Bushing into the SFR hole and tighten the screw.

5. Finally attach the Reel Support to the SFR with its screws.

Reel Support
Ref. 0021219

**Soldering Head
for Automation***
Ref. RBA-A

Screws
Ref. 0490180

Screws
Ref. 0014954

**Solder Feeder
for Automation**
Ref. SFR-A

*GSFR Guide Tube**

*Outlet Nozzle** 3

*GSFR Bushing**

Not included, sold separately

5

Assembly: SFR independent from RBA*

Insulator*
Ref. 0021713

Screws*
Ref. 0921890

Screws
Ref. 0014954

**Solder Feeder
for Automation**
Ref. SFR-A

If mounting SFR independently from RBA, the Electrical Insulator is required.

Assemble the Insulator to your device with its screws, followed by the SFR to The insulator with its screws.

The Electrical Insulator must be assembled for the tool to work properly.
Do not use the SFR without insulator if it is mounted without the RBA.
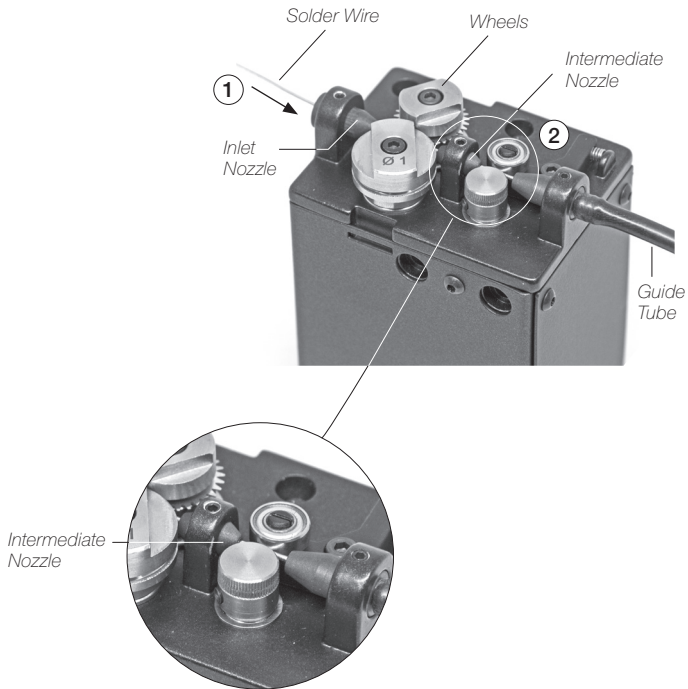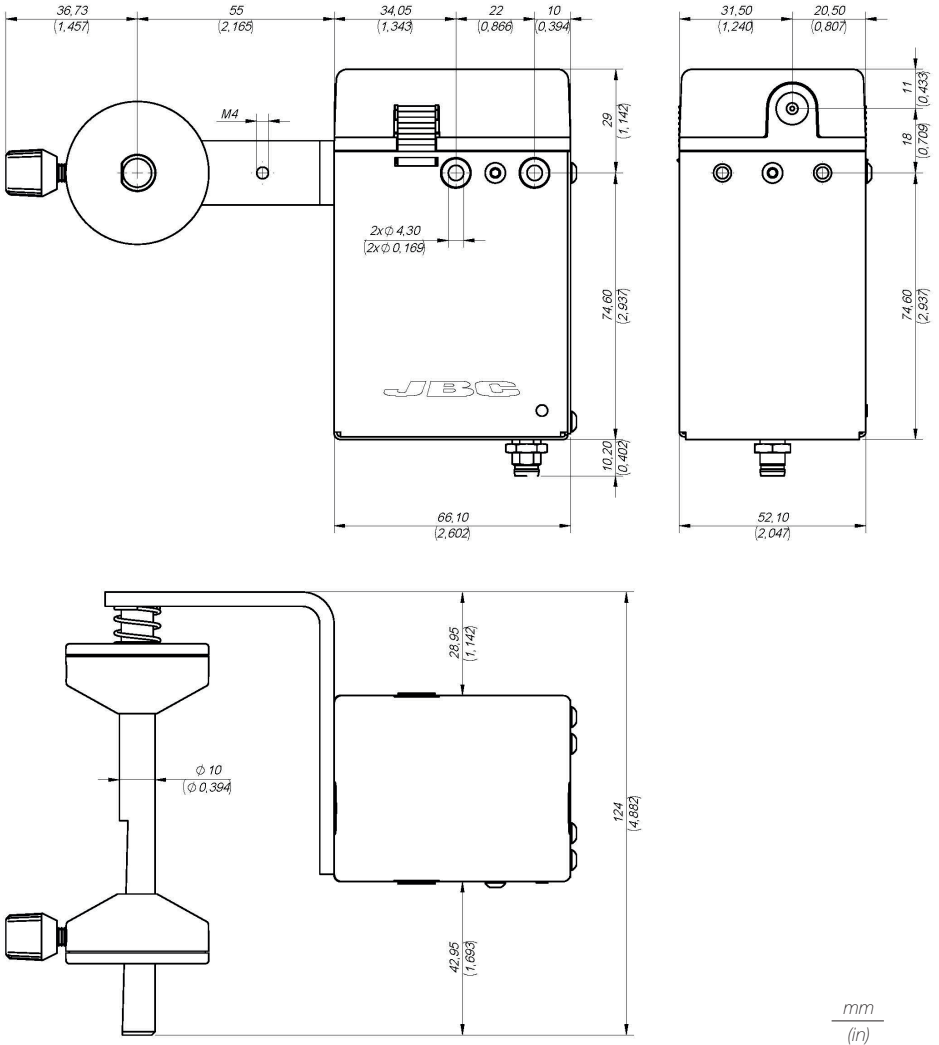
*Not included, sold separately

Solder Wire Loading

The GSFR must be assembled previously.

1. Feed the Solder Wire into the Inlet Nozzle until it reaches the wheels.

2. Make sure the wire passes through the Intermediate Nozzle and enters into the Guide Tube.

Wire feeding is controlled by an external controller (Robot/PLC/Computer). See the Robot Communication Protocol for SFR unit at **www.jbctools.com/jbcsoftware.htm**

Dimensions

36,73 (1,457)   55 (2,165)   34,05 (1,343)   22 (0,866)   10 (0,394)

M4

2x⌀ 4,30 (2x⌀ 0,169)

29 (1,142)

74,60 (2,937)

10,20 (0,402)

66,10 (2,602)

31,50 (1,240)   20,50 (0,807)

11 (0,433)

18 (0,709)

74,60 (2,937)

52,10 (2,047)

28,95 (1,142)

⌀ 10 (⌀ 0,394)

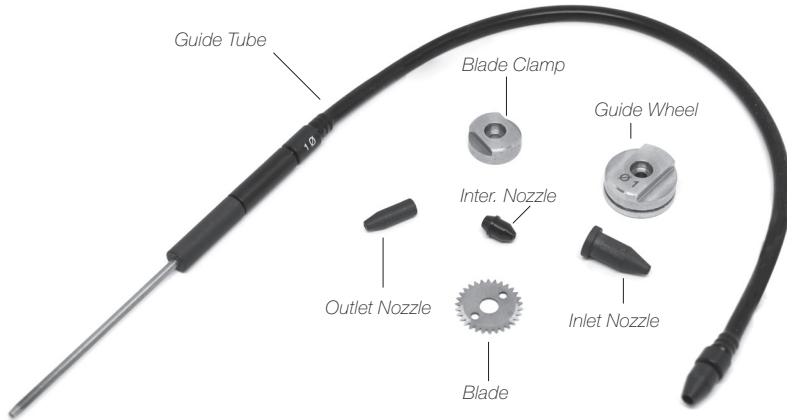124 (4,882)

42,95 (1,693)

$\dfrac{mm}{(in)}$

Solder Wire Reel dimensions: max. lenght 80mm (3.2 in), max. diameter 80mm (3.2 in), max. weight 1 kg (2.2 lb).

Accessories

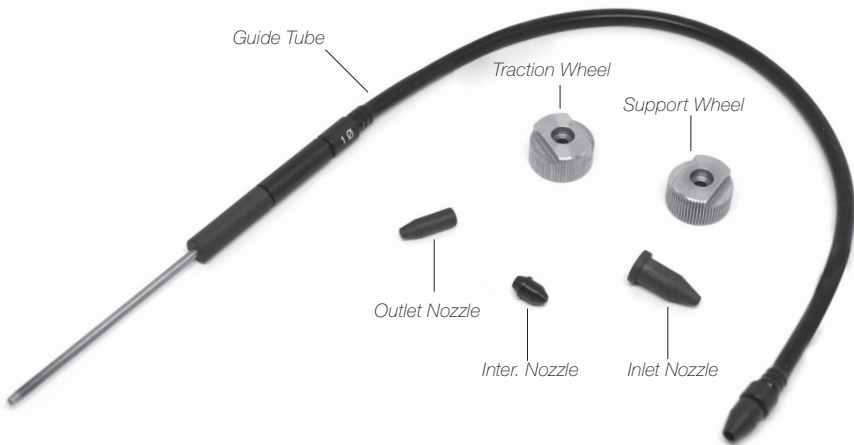**Guide Kit for SFR with Solder Wire Perforation**
Ref. GSFRXXVXX

Guide Tube

Blade Clamp

Guide Wheel

Inter. Nozzle

Outlet Nozzle

Inlet Nozzle

Blade

Guide Kit for SFR without Solder Wire Perforation
Ref. GSFRXXDXX

Guide Tube

Traction Wheel

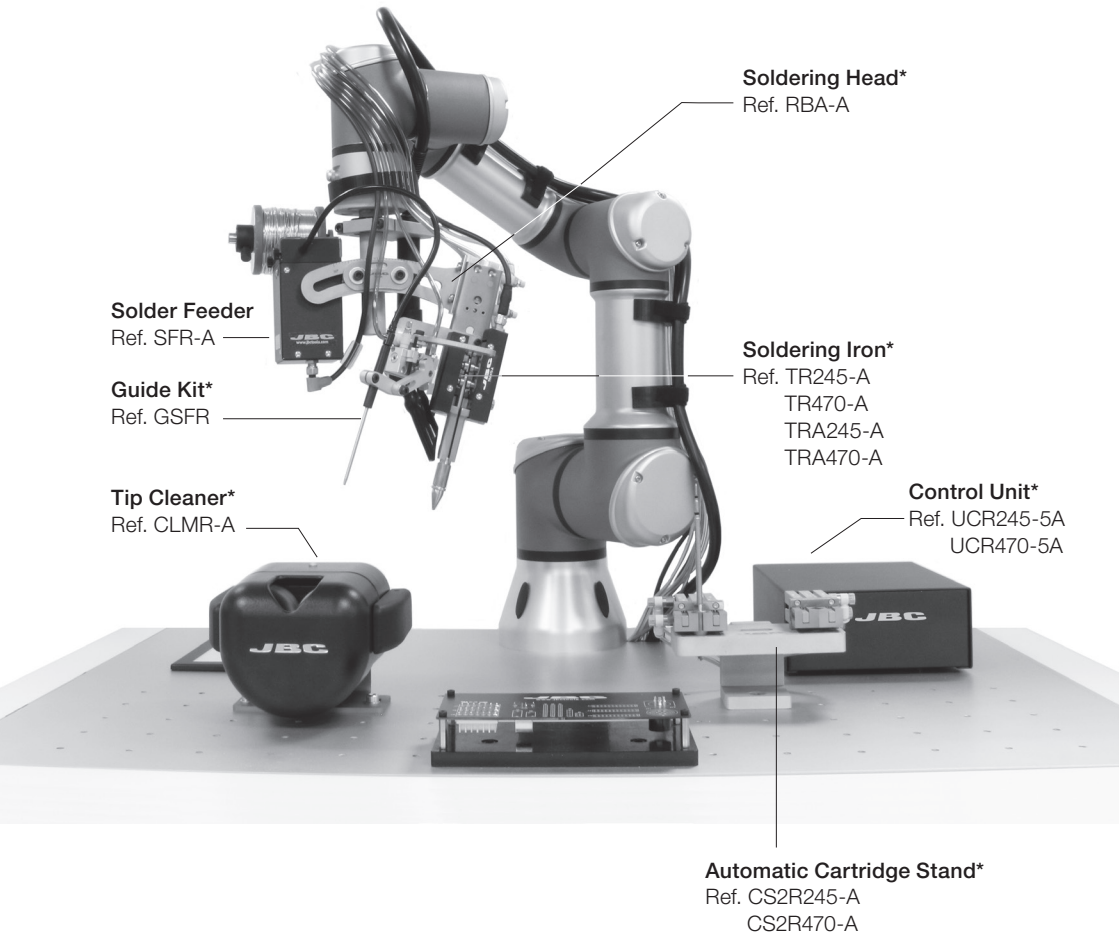*Support Wheel*

Outlet Nozzle

Inter. Nozzle

Inlet Nozzle

Different Guide Kits for different Solder Wire diameters and Tube lengths are available.
More information at **www.jbctools.com**

Work Place Example

Soldering Head*
Ref. RBA-A

Solder Feeder
Ref. SFR-A

Guide Kit*
Ref. GSFR

Soldering Iron*
Ref. TR245-A
TR470-A
TRA245-A
TRA470-A

Tip Cleaner*
Ref. CLMR-A

Control Unit*
Ref. UCR245-5A
UCR470-5A

Automatic Cartridge Stand*
Ref. CS2R245-A
CS2R470-A

Not included, sold separately

Maintenance

- Before carrying out maintenance, always unplug the tool and the device.

- Use a damp cloth to clean the Solder Feeder. Alcohol can only be used to clean the metal parts.

- Periodically check all cables and tube connections.

- Replace any defective or damaged parts. 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 device for any other purpose.

- Do not leave the appliance unattended when it is on.

- Be sure that the power supply is disconnected before changing any spare part.

- Avoid flux coming into contact with skin or eyes to prevent irritation.

- Be careful of fumes produced while soldering.

- Keep your workplace clean and tidy. Wear appropriate protective glasses and gloves while handling any component to avoid personal injury.

- Utmost care must be taken with liquid tin waste which can cause burns.

Specifications

- Net Weight: 870 gr (1.92 lb)
- Dimensions: 114 x 66 x 52 mm (4.49 x 2.60 x 2.05 in)
- Spool Capacity: Up to 1 kg (2.20 lb)
- Solder Wire Reel Dimensions: Max. lenght 80mm (3.2 in), max. diameter 80mm(3.2 in)
- Solder Wire Reel Weight: Up to 1kg (2.2 lb)
- Solder Diameter: Depends on the GSFR Kit used
- Max. Speed: 120 mm/s (4.72 in/s)
- Ambient Operating Temp.: 10 - 40 ºC (50 - 104 ºF)
- Connections: M8-5 pin Commmunication Connector

Complies with CE Standards.
ESD safe.

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Warranty
JBC's two-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 case of any manufacturing defect, the equipment must be returned, postage paid, to the dealer where it was purchased. **Please, register your product within 30 days of purchase in www.jbctools.com/ productregistration.**

This product should not be thrown in the garbage.
In accordance with the European directive 2002/96/EC, electronic equipment at the end of their life must be collected and returned to an authorized recycling facility.

CE ⊜ EAC

Manual in other languages available on our website

www.jbctools.com