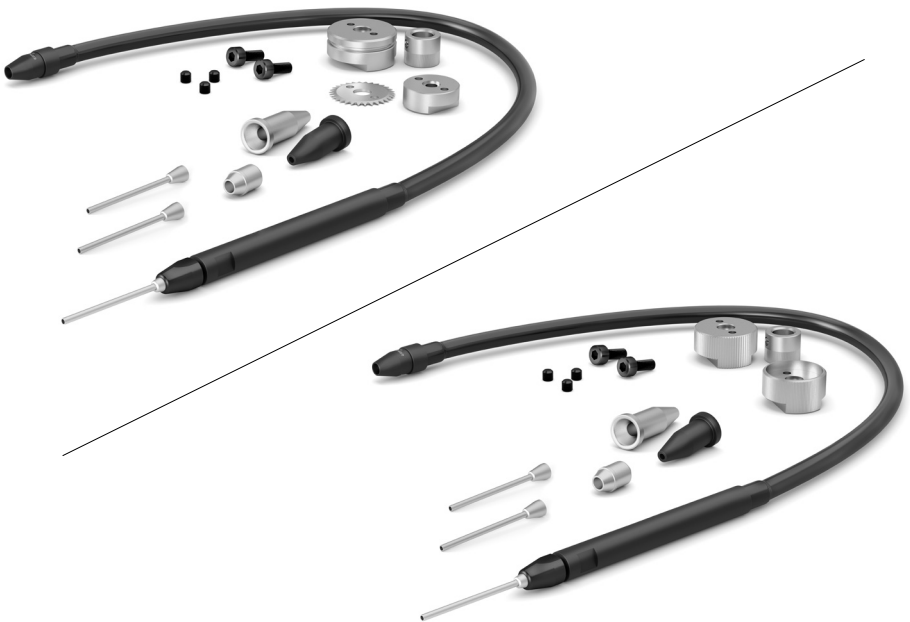




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INSTRUCTION MANUAL



GSFR

Guide Kit for Robot with/without
Solder Wire Perforation

This manual corresponds to the following references:

GSFR[XX]V[LL]-B With Solder Wire Perforation

| <u>Ref.</u> | <u>Wire Diameter Ø</u> | <u>Tube Length</u> |
|--------------------|------------------------|--------------------|
| GSFR08V03-B | 0.8 mm / 0.032 in | 0.3 m / 11.81 in |
| GSFR08V05-B | " | 0.5 m / 19.69 in |
| GSFR08V06-B | " | 0.6 m / 23.62 in |
| GSFR08V07-B | " | 0.7m / 27.56 in |
| GSFR08V10-B | " | 1.0 m / 39.37 in |
| GSFR08V15-B | " | 1.5 m / 59.06 in |
| GSFR10V03-B | 1.0 mm / 0.040 in | 0.3 m / 11.81 in |
| GSFR10V04-B | " | 0.4 m / 15.75 in |
| GSFR10V05-B | " | 0.5 m / 19.69 in |
| GSFR10V06-B | " | 0.6 m / 23.62 in |
| GSFR10V07-B | " | 0.7m / 27.56 in |
| GSFR10V10-B | " | 1.0 m / 39.37 in |
| GSFR10V15-B | " | 1.5 m / 59.05 in |
| GSFR12V03-B | 1.2 mm / 0.047 in | 0.3 m / 11.81 in |
| GSFR12V05-B | " | 0.5 m / 19.69 in |
| GSFR12V07-B | " | 0.7m / 27.56 in |
| GSFR12V10-B | " | 1.0 m / 39.37 in |
| GSFR15V03-B | 1.5 mm / 0.059 in | 0.3 m / 11.81 in |
| GSFR15V04-B | " | 0.4 m / 15.75 in |
| GSFR15V05-B | " | 0.5 m / 19.69 in |
| GSFR15V07-B | " | 0.7m / 27.56 in |
| GSFR15V10-B | " | 1.0 m / 39.37 in |
| GSFR15V15-B | " | 1.5 m / 59.05 in |
| GSFR16V03-B | 1.6 mm / 0.063 in | 0.3 m / 11.81 in |
| GSFR16V04-B | " | 0.4 m / 15.75 in |
| GSFR16V05-B | " | 0.5 m / 19.69 in |
| GSFR16V15-B | " | 1.5 m / 59.05 in |

This manual corresponds to the following references:

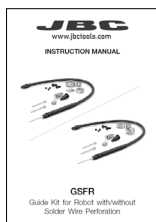
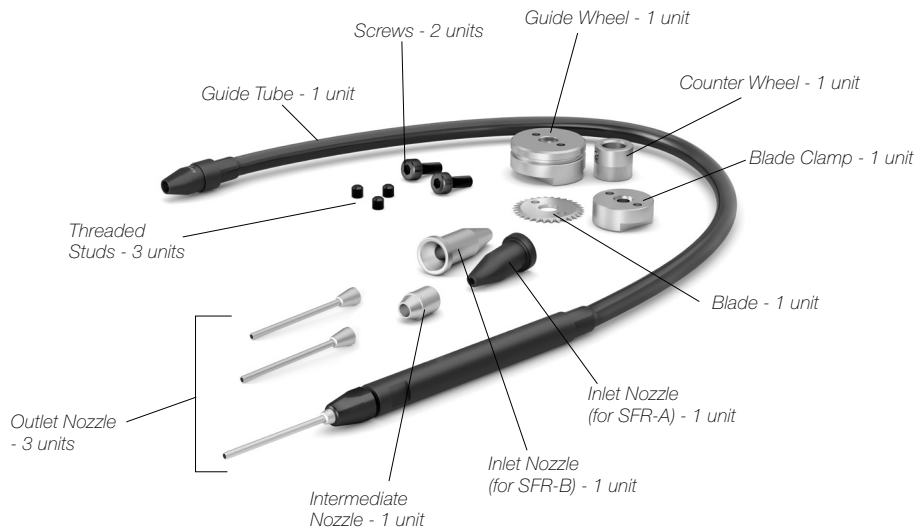
GSFR[XX]D[LL]-B Without Solder Wire Perforation

| <u>Ref.</u> | <u>Wire Diameter Ø</u> | <u>Tube Length</u> |
|--------------------|-------------------------------------|--------------------|
| GSFR05D03-B | Ø0.46 - 0.56 mm / Ø0.018 - 0.022 in | 0.3 m / 11.81 in |
| GSFR05D05-B | " | 0.5 m / 19.68 in |
| GSFR05D07-B | " | 0.7 m / 27.92 in |
| GSFR05D10-B | " | 1.0 m / 39.37 in |
| GSFR06D03-B | Ø0.60 - 0.64 mm / Ø0.023 - 0.025 in | 0.3 m / 11.81 in |
| GSFR07D03-B | Ø0.70 - 0.78 mm / Ø0.028 - 0.031 in | 0.3 m / 11.81 in |
| GSFR07D07-B | " | 0.7 m / 27.92 in |
| GSFR08D03-B | Ø0.80 - 0.82 mm / Ø0.032 - 0.033 in | 0.3 m / 11.81 in |
| GSFR08D05-B | " | 0.5 m / 19.68 in |
| GSFR08D06-B | " | 0.6 m / 23.62 in |
| GSFR08D07-B | " | 0.7 m / 27.92 in |
| GSFR08D10-B | " | 1.0 m / 39.37 in |
| GSFR10D03-B | Ø0.90 - 1.10 mm / Ø0.036 - 0.044 in | 0.3 m / 11.81 in |
| GSFR10D06-B | " | 0.6 m / 23.62 in |
| GSFR10D07-B | " | 0.7 m / 27.92 in |
| GSFR10D10-B | " | 1.0 m / 39.37 in |
| GSFR12D03-B | Ø1.14 - 1.27 mm / Ø0.045 - 0.051 in | 0.3 m / 11.81 in |
| GSFR12D05-B | " | 0.5 m / 19.68 in |
| GSFR12D10-B | " | 1.0 m / 39.37 in |
| GSFR15D03-B | Ø1.50 - 1.57 mm / Ø0.060 - 0.063 in | 0.3 m / 11.81 in |
| GSFR15D04-B | " | 0.4 m / 15.75 in |
| GSFR15D05-B | " | 0.5 m / 19.68 in |
| GSFR15D10-B | " | 1.0 m / 39.37 in |
| GSFR15D15-B | " | 1.5 m / 59.05 in |
| GSFR16D03-B | Ø1.60 - 1.63 mm / Ø0.063 - 0.065 in | 0.3 m / 11.81 in |
| GSFR16D04-B | " | 0.4 m / 15.75 in |
| GSFR16D05-B | " | 0.5 m / 19.68 in |
| GSFR16D07-B | " | 0.7 m / 27.92 in |
| GSFR16D15-B | " | 1.5 m / 59.05 in |

Packing List

Guide Kit for Robot with Solder Wire Perforation

The following items are included (*more information at page 11*).

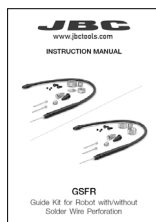
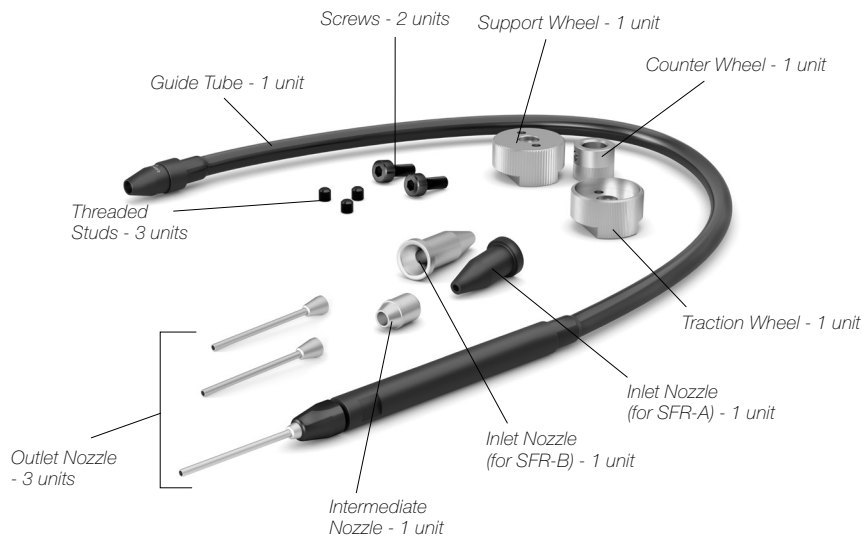


Manual 1 unit
Ref. 0030637

Packing List

Guide Kit for Robot without Solder Wire Perforation

The following items are included (*more information at page 12*).

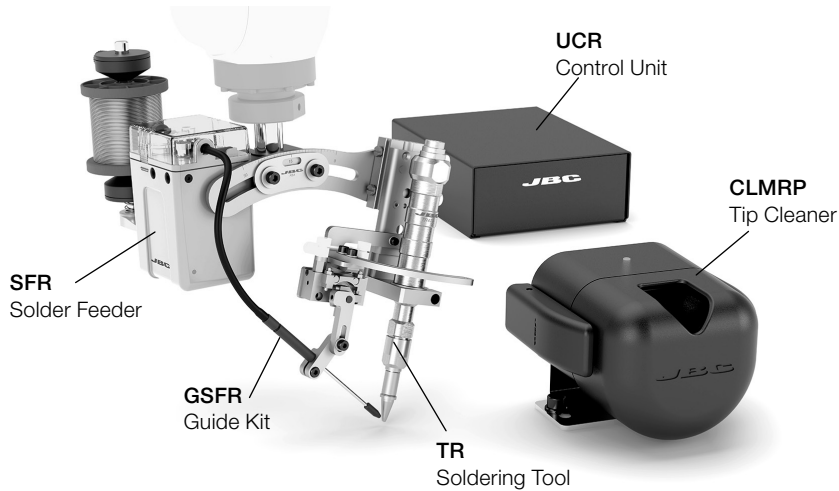


Manual 1 unit
Ref. 0030637

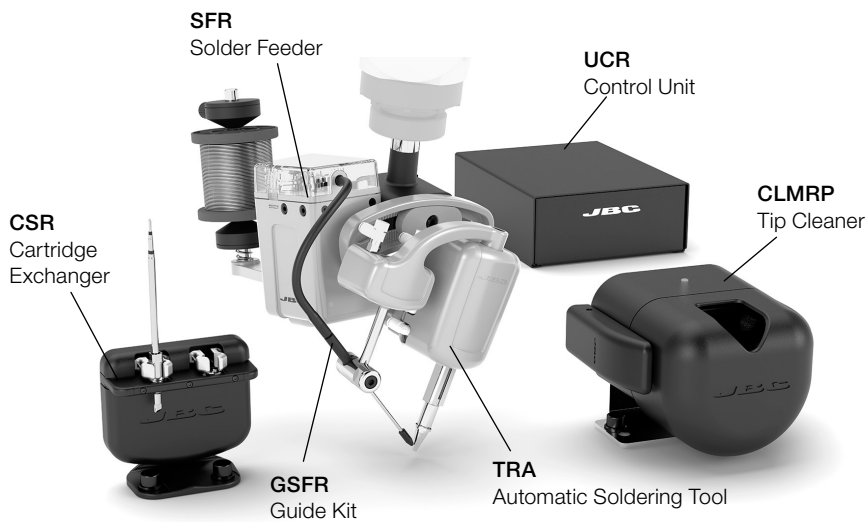
Features

The Guide Kit GSFR is designed to be used with the Solder Feeder SFR in automatic soldering processes.

Work Place Examples with TR Soldering Tool



Work Place Examples with TRA Automatic Soldering Tool and CSR Cartridge Exchanger



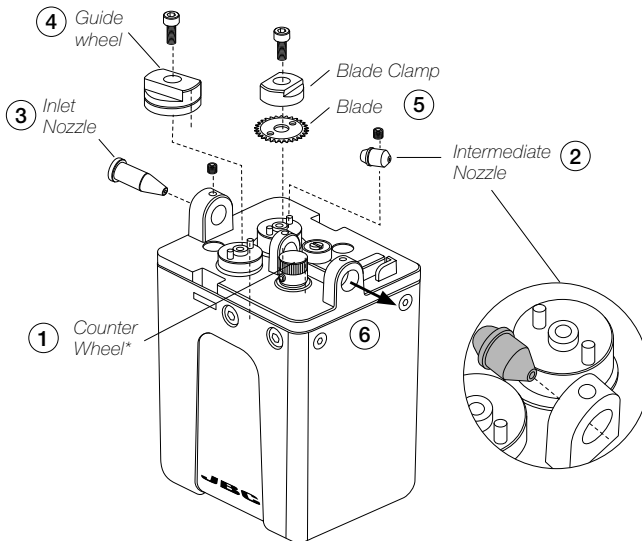
Assembly: GSFR Wheels to SFR

For this operation, disconnect the device, and take off the cover by pressing the tabs.

Use the allen key and the spanner provided with SFR for the following steps. First disassemble the guide tube (6), the Support and Traction wheels or the Guide Wheel, Blade and Blade Clamp (4)+(5). Then, disassemble the nozzles (2)+(3). Disassemble the Counter Wheel (1) if needed*.

Assembly with Solder Wire Perforation

1. Assemble the counter wheel (1) if needed*.
 2. Insert the intermediate nozzle (2) until its collar rests against the housing and tighten the screw.
 3. Assemble the inlet nozzle (3) and tighten the screw.
 4. Assemble the guide wheel (4) and tighten the screw. **Attention:** Always use the correct wheel set for each wire thickness.
 5. 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.

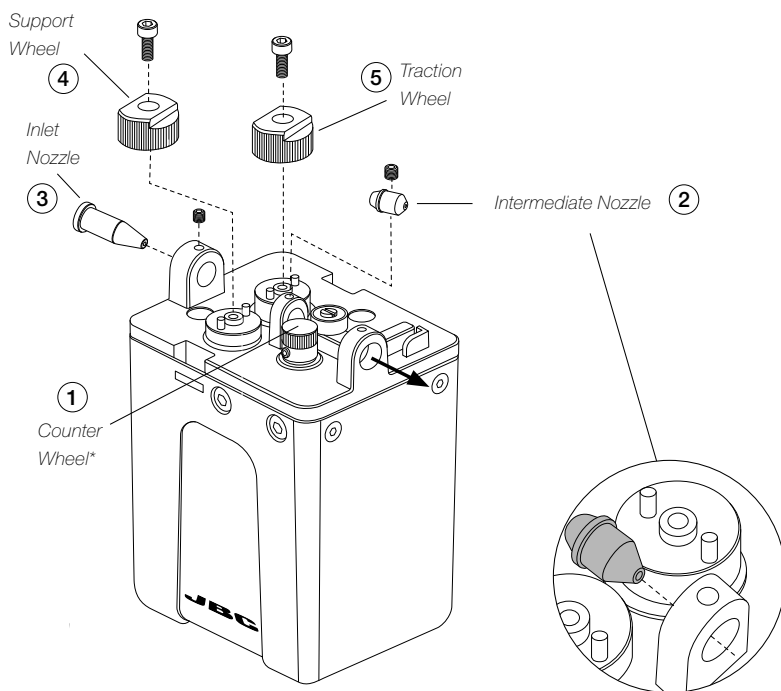


* SFR is supplied with the counter wheel ref. 0026693 already fitted. This counter wheel works for wire diameters < $\varnothing 1.2$ mm ($\varnothing 0.047$ in).

Only replace the counter wheel if you want to work with diameters $\geq \varnothing 1.2$ mm ($\varnothing 0.047$ in) that is outside the working range of the counter wheel already fitted to the SFR.

Assembly without Solder Wire Perforation

1. Assemble the counter wheel (1) if needed*.
2. Insert the intermediate nozzle (2) until its collar rests against the housing and tighten the screw.
3. Assemble the inlet nozzle (3) and tighten the screw.
4. Assemble the support wheel (4) and tighten the screw. **Attention:** Always use the correct wheel set for each wire thickness.
5. Assemble the traction wheel (5) onto the axis and tighten the screw.

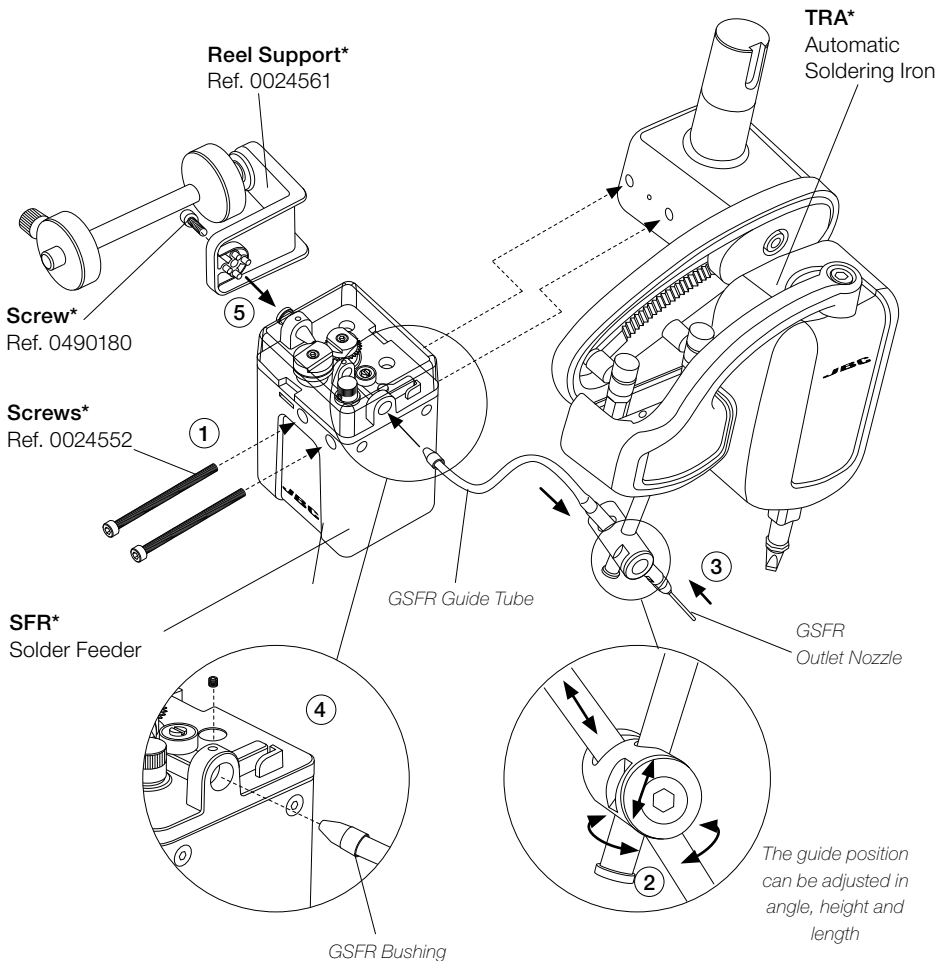


* SFR is supplied with the counter wheel ref. 0026693 already fitted. This counter wheel works for wire diameters $< \varnothing 1.2$ mm ($\varnothing 0.047$ in).

Only replace the counter wheel if you want to work with diameters $\geq \varnothing 1.2$ mm ($\varnothing 0.047$ in) that is outside the working range of the counter wheel already fitted to the SFR.

Assembly: GSFR Tube to SFR* and TRA*

1. Assemble SFR to TRA with the screws.
2. Assemble GSFR Guide Tube to TRA and tighten the screw.
3. Assemble the Outlet Nozzle onto the Dispensing Tube.
4. Assemble GSFR Bushing into SFR hole and tighten the screw.
5. Finally attach the Reel Support to SFR with its screw.



*Not included, sold separately

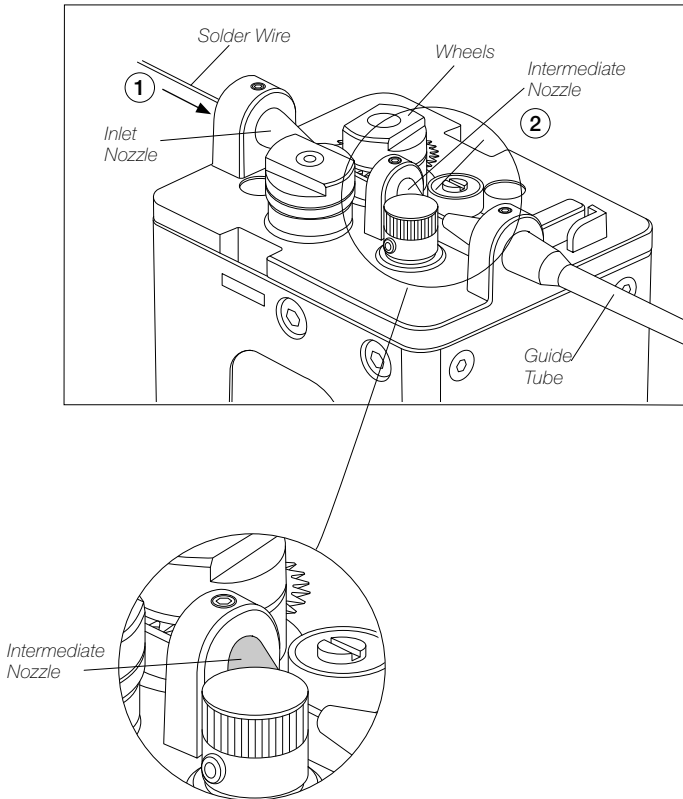
Solder Wire Loading

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.

Important: Set the wire thickness parameter before starting to dispense the wire. To set W-THI command see the Communication Protocol for SFR unit at www.jbctools.com/jbcsoftware.html.

Wire feeding is controlled by an external controller (Robot/PLC/Computer). To start wire loading process use W-SLD command. See the Communication Protocol for SFR unit at www.jbctools.com/jbcsoftware.html



Maintenance

- Before carrying out maintenance, always unplug the tool and the device.
- Use a damp cloth to clean the tool. Alcohol can only be used to clean the metal parts.
- Periodically check that the metal parts of the mechanism are clean.
- Keep Dispensing Nozzle Tip clean to avoid solder feeding obstruction.
- 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



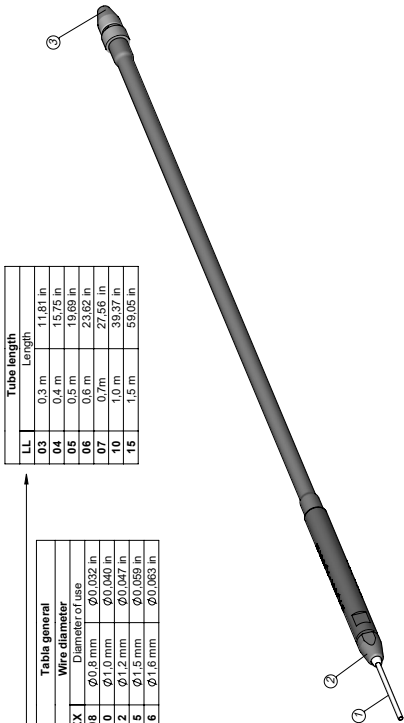
It is imperative to follow safety guidelines to prevent electric shock, injury, fire or explosion.

- Do not use the device for any other purpose.
- 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 components to avoid personal injury.
- Utmost care must be taken with liquid tin waste which can cause burns.

Exploded View

→ WITH SOLDER WIRE PERFORMANCE

GSFR XX V LL-B



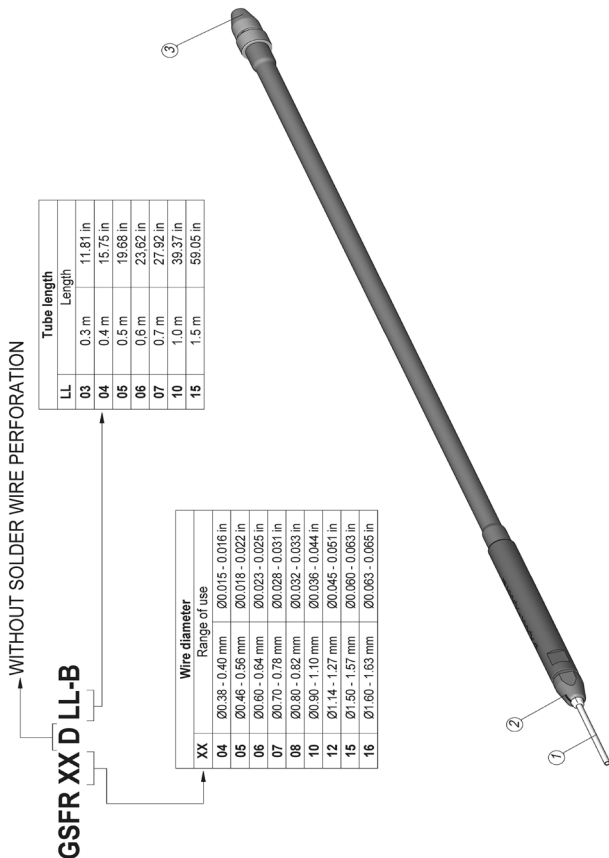
| Table general | |
|---------------|---------------|
| XX | Wire diameter |
| 08 | Ø0.8 mm |
| 10 | Ø1.0 mm |
| 12 | Ø1.2 mm |
| 14 | Ø1.5 mm |
| 16 | Ø1.6 mm |

| Table length | |
|--------------|--------|
| LL | Length |
| 03 | 0.3 m |
| 04 | 0.5 m |
| 05 | 0.7 m |
| 06 | 0.8 m |
| 07 | 0.7 m |
| 10 | 1.0 m |
| 15 | 1.5 m |

| Guide in Ref. | Guide tube Ref. |
|---------------|-----------------|
| GSFR08/03-B | 0029648 |
| GSFR08/05-B | 0029649 |
| GSFR08/06-B | 0029650 |
| GSFR08/07-B | 0029651 |
| GSFR08/10-B | 0029652 |
| GSFR08/15-B | 0029653 |
| GSFR10/03-B | 0029654 |
| GSFR10/04-B | 0034478 |
| GSFR10/05-B | 0029681 |
| GSFR10/06-B | 0029654 |
| GSFR10/07-B | 0029655 |
| GSFR10/10-B | 0029656 |
| GSFR10/15-B | 0030026 |
| GSFR12/03-B | 0029657 |
| GSFR12/05-B | 0030047 |
| GSFR12/07-B | 0031537 |
| GSFR12/10-B | 0029658 |
| GSFR15/03-B | 0029659 |
| GSFR15/04-B | 0029660 |
| GSFR15/05-B | 0029661 |
| GSFR15/07-B | 0031538 |
| GSFR15/10-B | 0029662 |
| GSFR15/15-B | 0029663 |
| GSFR16/03-B | 0029664 |
| GSFR16/04-B | 0029665 |
| GSFR16/05-B | 0031468 |
| GSFR16/15-B | 0029666 |

| Tube length Min-Ø | Guide wheel Ref. | Blade Ref. | Blade clamp Ref. | Inlet nozzle Ref. (for SPR-A) | Interm. nozzle Ref. | Inlet nozzle Ref. (for SPR-B) | Counter wheel Ref. | Screws Ref. | Threaded stud Ref. | Needle | Metal cap | Inlet tube guide |
|----------------------|------------------|------------|------------------|----------------------------------|---------------------|----------------------------------|--------------------------------|-------------|--------------------|---------|-----------|------------------|
| | | | | | | | | | | | | |
| GSFR08/LL-B | 0021696 | | | 0023740 | 0030361 | 0030537 | 0026693 (provided with SPR) | | | 0029943 | 0029942 | 0029950 |
| GSFR10/LL-B | 0021699 | | | 0023741 | 0030362 | 0030538 | | | | 0029944 | | |
| GSFR12/LL-B | 0021738 | | | 0023736 | 0030363 | 0030539 | | | | 0029945 | | |
| GSFR15/LL-B | 0019636 | 0021555 | 0019638 | 0023935 | 0030364 | 0030540 | | 0026695 | 0026696 | 0029946 | 0029946 | 0029951 |
| GSFR16/LL-B | 0029972 | | | - | 0030365 | 0030541 | 0026694 | | | 0029947 | | |

Exploded View



| Guide kit Ref. | Guide tube Ref. |
|----------------|-----------------|
| GSFR060303-B | 0029687 |
| GSFR060404-B | 0033133 |
| GSFR060505-B | 0032362 |
| GSFR060707-B | 0029668 |
| GSFR061010-B | 0029669 |
| GSFR061616-B | 0029670 |
| GSFR070303-B | 0029671 |
| GSFR070707-B | 0031776 |
| GSFR071515-B | 0033648 |
| GSFR080303-B | 0029648 |
| GSFR080505-B | 0029649 |
| GSFR080606-B | 0029650 |
| GSFR080707-B | 0029651 |
| GSFR081010-B | 0029652 |
| GSFR081616-B | 0029653 |
| GSFR100303-B | 0029654 |
| GSFR100606-B | 0029655 |
| GSFR100707-B | 0029656 |
| GSFR101010-B | 0029657 |
| GSFR120303-B | 0030647 |
| GSFR120606-B | 0029658 |
| GSFR121010-B | 0029659 |
| GSFR160303-B | 0029660 |
| GSFR160404-B | 0029661 |
| GSFR160505-B | 0029662 |
| GSFR161010-B | 0029663 |
| GSFR161515-B | 0029664 |
| GSFR162004-B | 0029665 |
| GSFR160305-B | 0031468 |
| GSFR160707-B | 0031548 |
| GSFR161515-B | 0029666 |

| Traction wheel Ref. | Support wheel Ref. | Inlet nozzle Ref. (for SFR-A) | Interm. nozzle Ref. | Inlet nozzle Ref. (for SFR-B) | Counter wheel Ref. | Screws Ref. | Threaded stud Ref. | Needle | Metal cap | Input tube guide |
|-------------------------------------------------------|--------------------|-------------------------------|---------------------|-------------------------------|-----------------------------|-------------|--------------------|---------|-----------|------------------|
| <div> <div>Tube length</div> <div>Wire Ø</div> </div> | | | | | | | | | | |
| GSFR0404-B | 0020345 | | 0030558 | 0030535 | | | | 0029940 | 0029941 | 0029949 |
| GSFR0504-B | 0019519 | | 0030559 | 0030534 | | | | 0029942 | 0029943 | 0029950 |
| GSFR0604-B | | | 0030560 | 0030536 | 0029693 (provided with SFR) | | | 0029944 | 0029945 | |
| GSFR0704-B | | 0023740 | 0030561 | 0030537 | | 0026695 | 0026696 | 0029946 | 0029947 | |
| GSFR0804-B | 0019480 | 0023741 | 0030562 | 0030538 | | | | | | |
| GSFR1004-B | | 0023736 | 0030563 | 0030539 | | | | | | |
| GSFR1204-B | | 0023855 | 0030564 | 0030540 | 0026694 | | | | | |
| GSFR1504-B | 0019481 | | 0030565 | 0030541 | | | | | | 0029951 |
| GSFR1604-B | | | | | | | | | | |
| GSFR1604-B | | | | | | | | | | |

Notes

This image shows a single sheet of white paper with horizontal 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.

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

GSFR

Guide Kit for Robot with/without Solder Wire Perforation

Ref.: **GSFR[XX]V[LL]-B** With Solder Wire Perforation (*detailed Ref. see page 2*)

Ref.: **GSFR[XX]D[LL]-B** Without Solder Wire Perforation (*detailed Ref. see page 3*)

- | | |
|--------------------------------------|----------------------------------|
| - Total Net Weight: | 42 g / 0.093 lb |
| - Total Package Dimensions / Weight: | 245 x 185 x 45 mm / 117 g |
| (L x W x H) | 9.65 x 7.28 x 1.77 in / 0.258 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.



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