JBC

www.jbctools.com

INSTRUCTION MANUAL

TRA245/TRA470

Automatic General/Heavy Duty Soldering Tool for Robot

This manual corresponds to the following references:

- **TRA245-B** *works with R245 cartridges*
- **TRA470-B** *works with R470 cartridges*

Packing List

Either ref. TRA245-B or ref. TRA470-B is included.

Automatic Soldering Tool for Robot ..... 1 unit

Manual ..... 1 unit
Ref. 0027874

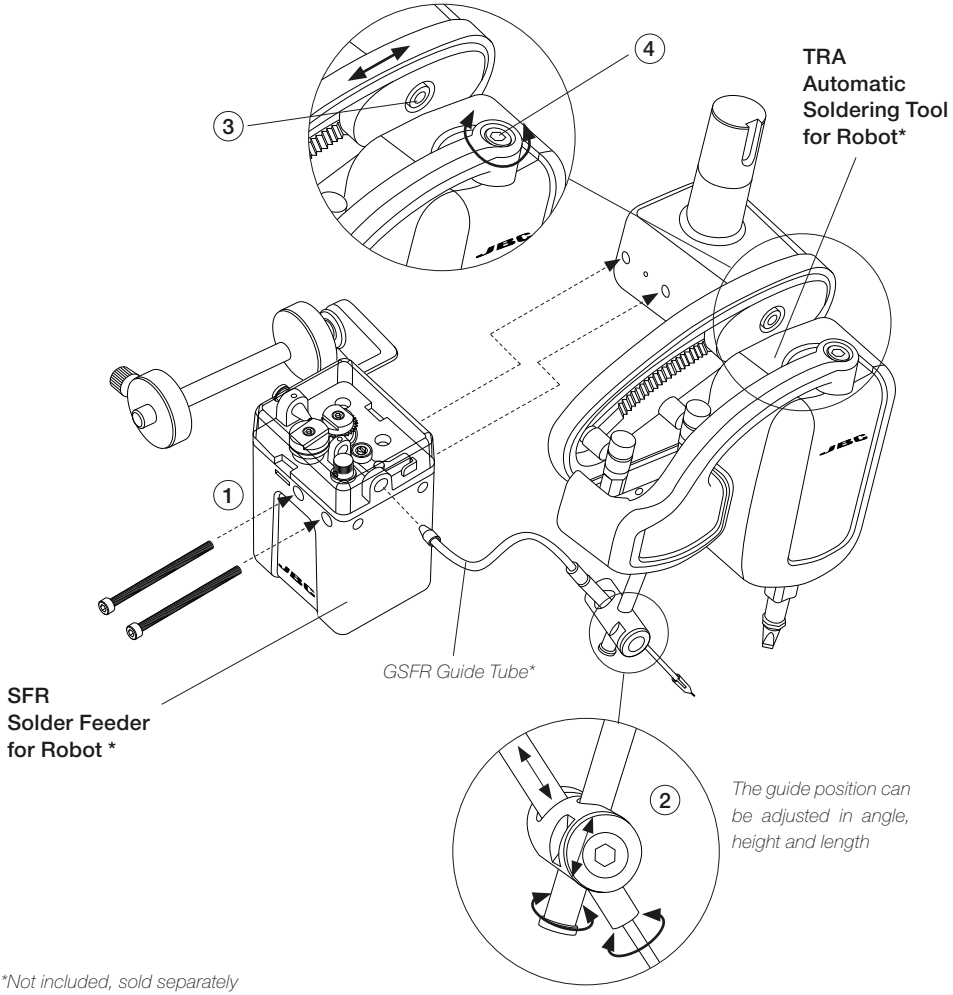
Assembly: GSFR Tube to SFR* and TRA*

1. Assemble SFR and the appropriate GSFR Guide Tube to TRA as described in the SFR instructions manual.

2. Adjust the TRA guide position in angle, height and length, then tighten the bolt to lock your settings.

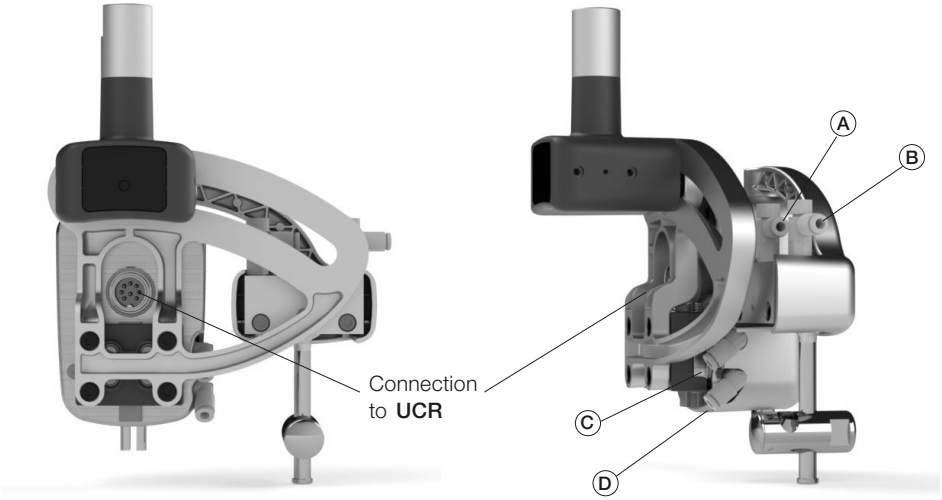
3. Adjust the TRA angle to its desired position by using the indicated bolt.

4. Adjust the TRA guide arm position for your application by using the indicated bolt.



*Not included, sold separately

Connections



Gripper Actuator	
Fluid	Air
Applicable tubing	Ø 4 mm
Operating pressure	1.5 to 7 bar 20 to 100 psi

(A) *Air tube connection: Close arm to soldering position.*

(B) *Air tube connection: Open arm to service position.*

(C) *Air tube connection: Close grippers.*

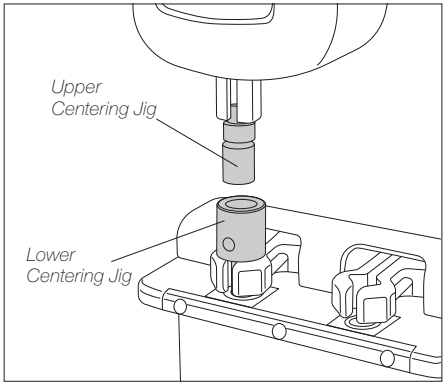
(D) *Air tube connection: Open grippers.*

Note: JBC recommends bi-stable valves for the grippers to prevent the cartridge from falling out in case of an emergency stop or power cut.

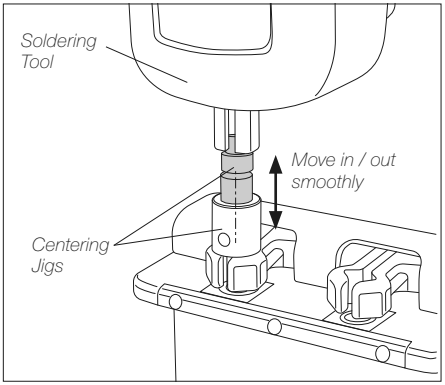
Centering Jig

In order to align CSR245 and CSR470 to the soldering tool and set the cartridge pick-up points use JBC´s centering jigs.

Install, as shown, the lower centering jig into the gripper of CSR and the upper centering jig into the soldering tool of HA Automatic Soldering Set.

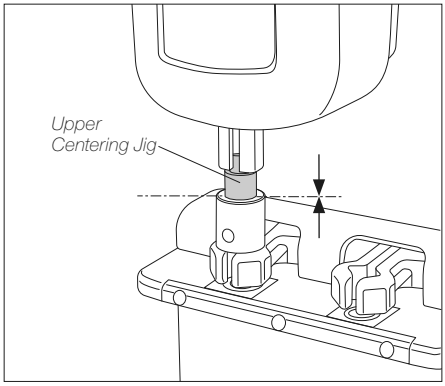


Adjust the soldering tool position until the centering jigs are aligned. It must be possible to move it in and out smoothly.



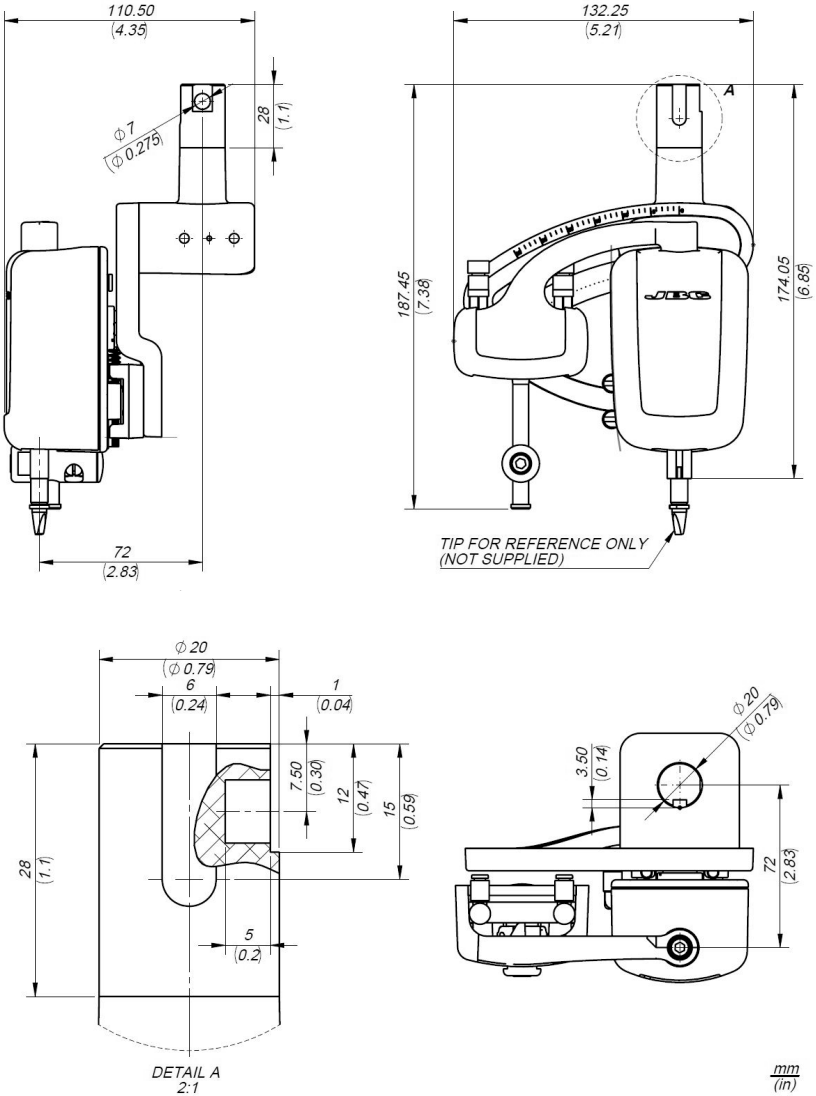
Insert the upper centering jig completely into the lower centering jig.

Set this point as the pick-up point position. From this point on, the soldering tool should do a linear movement when inserting or removing cartridges.



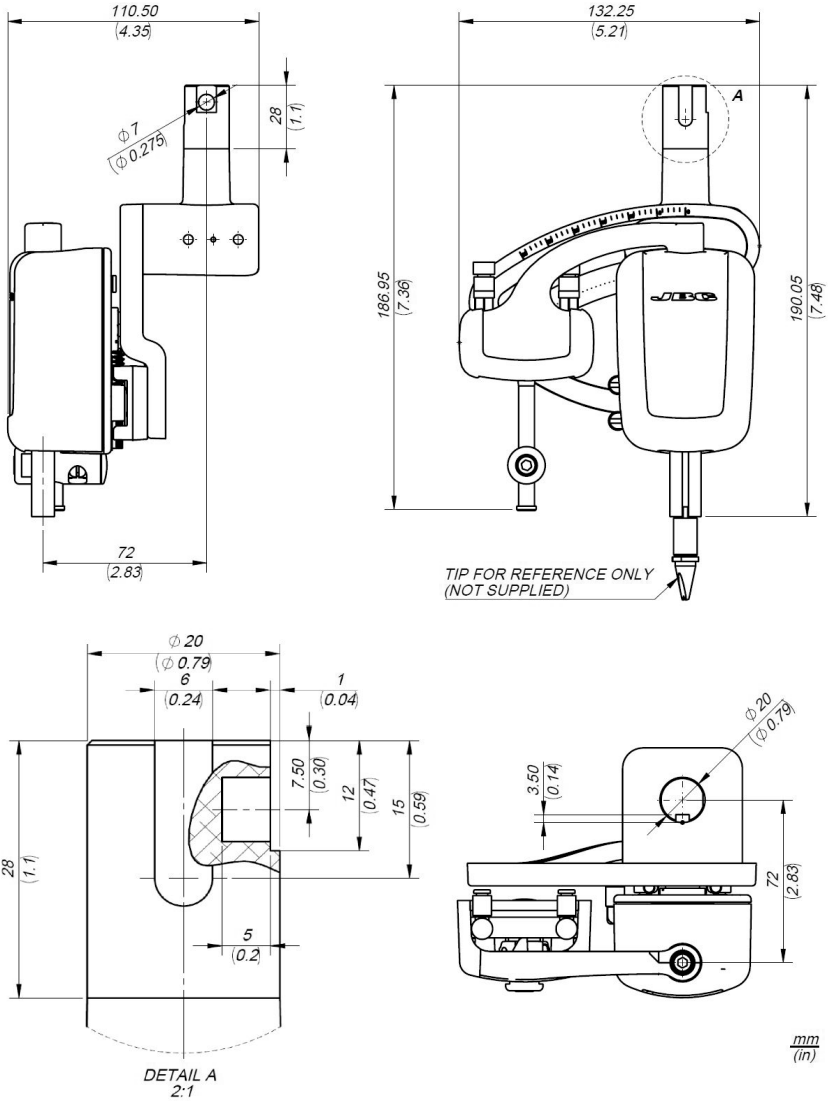
Dimensions

TRA245



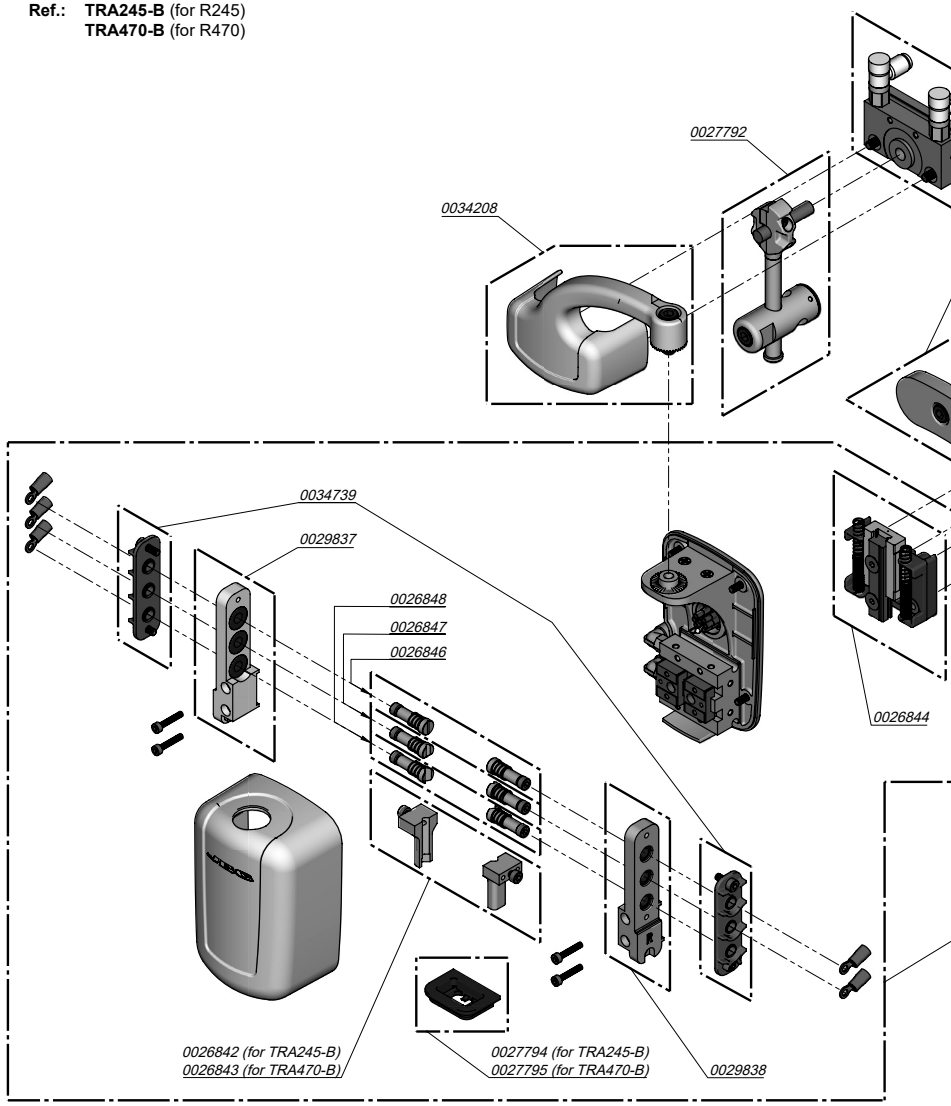
Dimensions

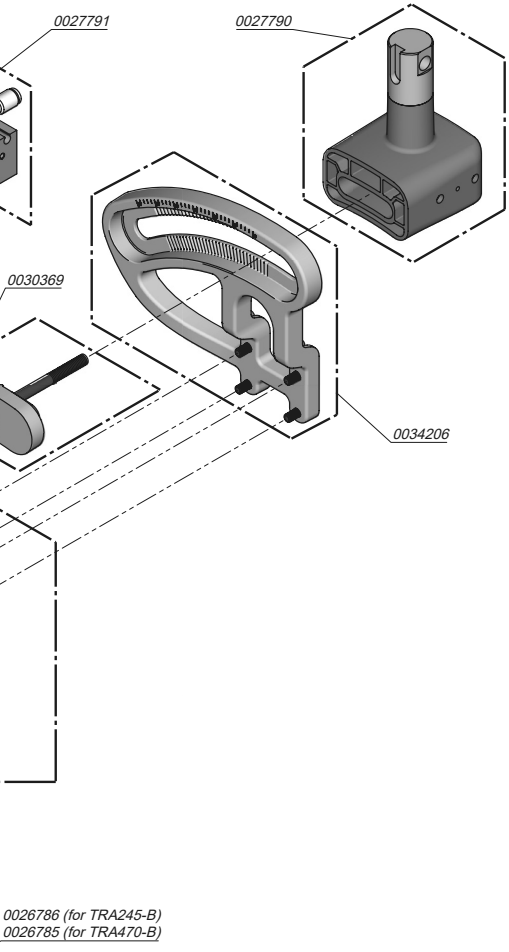
TRA470



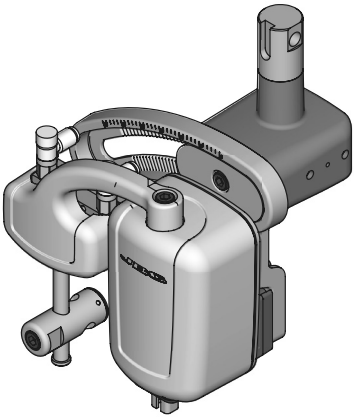
TRA
AUTOMATIC SOLDERING IRON

Ref.: **TRA245-B** (for R245)
TRA470-B (for R470)



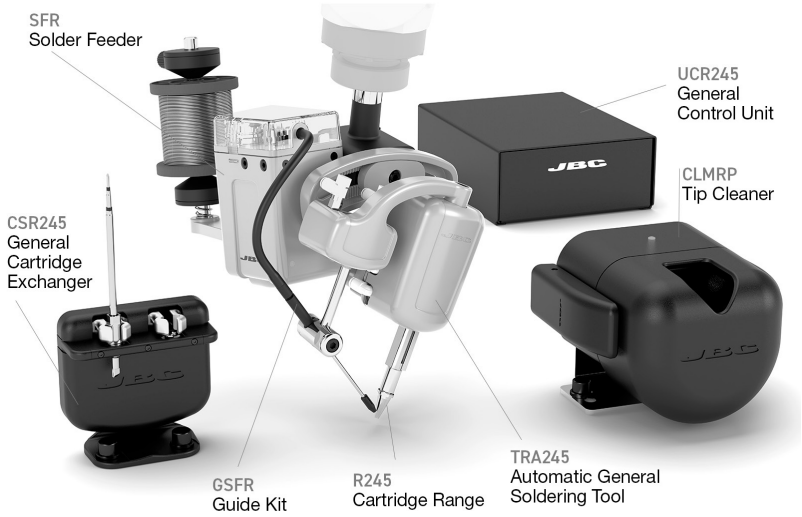


SPARE PARTS		
Reference		Description
TRA245-B	TRA470-B	
0027794	0027795	Seal for TRA245 / TRA470
0026844		TRA Slider
0030369		Frontal Guide for TRA
0029838		TRA Right Contact Arm
0029837		TRA Left Contact Arm
0027792		TRA Nozzle Actuator
0026846		TRA Upper Contacts
0026847		TRA Interm. Contacts
0026848		TRA Lower Contacts
0026842	0026843	Fingers for TRA245 / TRA470
0026786	0026785	Main Body for TRA245-B / TRA470-B
0027791		Rotatory Actuator for TRA
0027790		Flange for TRA
0034206		Adjustable Support for TRA
0034208		Dispenser Arm Support for TRA
0034739		TRA Contacts Insulating Plate



Workplace Example

HA Automatic Soldering Set for Robot



Compatibility

Automatic Soldering Tool	Cartridge Range		Control Unit		Cartridge Exchanger	
	R245	R470	UCR245	UCR470	CS2R245	CS2R470
TRA245	●		●		●	
TRA470		●		●		●

SFR, GSFR and CLMR are compatible with both R245 and R470 cartridges.

Maintenance

- Before carrying out maintenance, always unplug the tool.

- 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 tool are clean so the control unit can detect the tool's status.

- Periodically check all cable and tube connections.

- Maintain the tip surface clean and tinned before storage to avoid tip oxidation. Rusty and dirty surfaces reduce heat transfer to the solder joint.

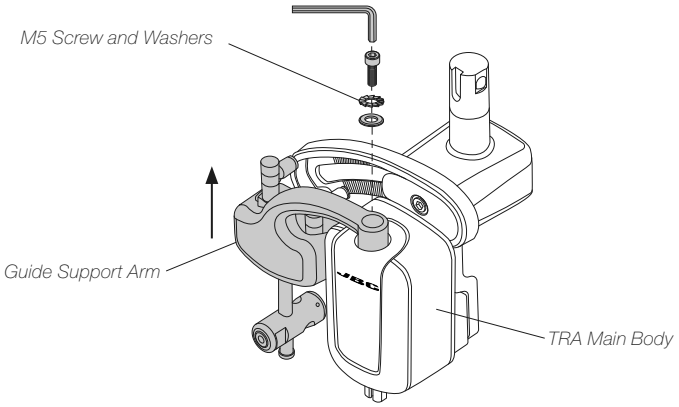
- Replace any defective or damaged parts. Use original JBC spare parts only.

- Repairs should be performed only by a JBC authorized technical service.

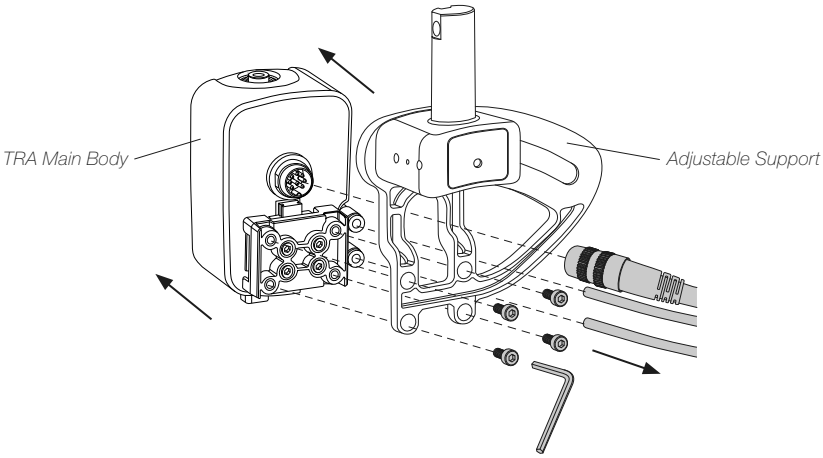
- Under normal operating conditions, the air gripper lifespan is 10 million cycles. It is recommended to replace it at the end of its lifespan.

Internal cleaning process

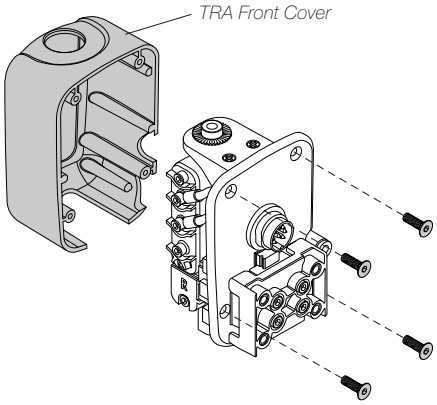
Remove the M5 screw and the washers that hold the guide support arm and the TRA main body together. Then remove the complete guide support arm.



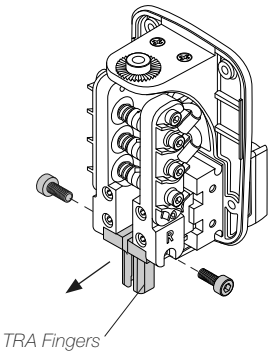
Remove the M4 screws (4x) and the connector at the rear of the TRA's main body. Then remove the pneumatic supply tubes (2x) from the fittings. Finally, remove the main body from the adjustable support.



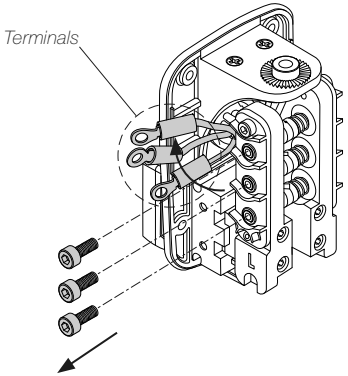
To remove the front cover of TRA, remove the M3 screws (4x). Set the front cover aside.

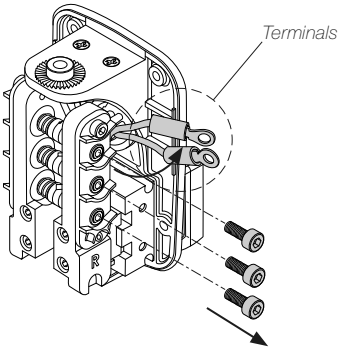


Remove the M3 screws (2x) and then remove the fingers and set them aside.

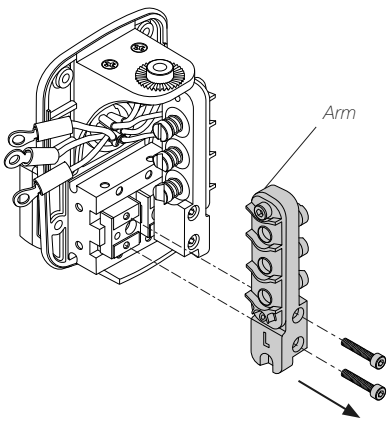


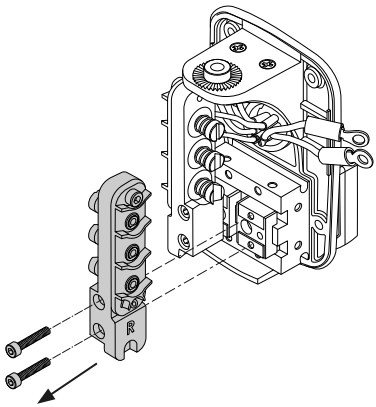
Remove the M3 screws (6x) and the terminals.



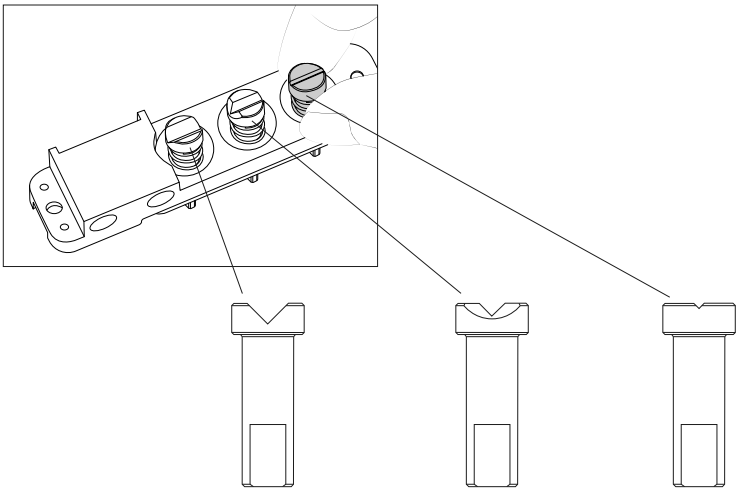


To remove the arms, remove the M3 screws (4x).

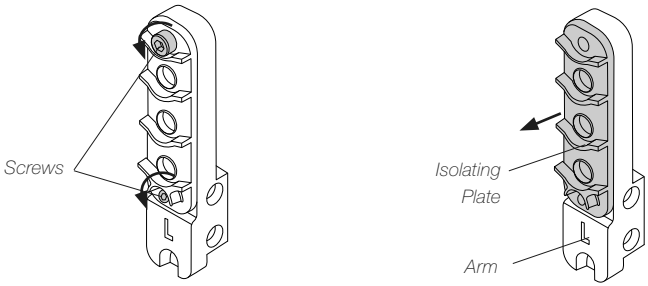




Remove springs and contacts manually and set them aside.



Remove both fixing screws (2x) first and then remove the isolating plate. Set the isolating plate and the arms aside.

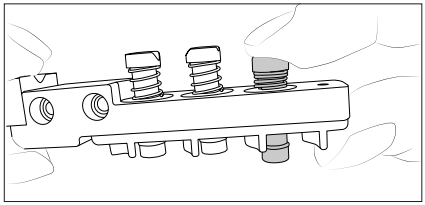


Place all components that have been disassembled in a container with alcohol. It is possible to use ultrasound to clean the submerged parts. Do not submerge the TRA main body. If needed, wipe it using a cloth moisted with alcohol.

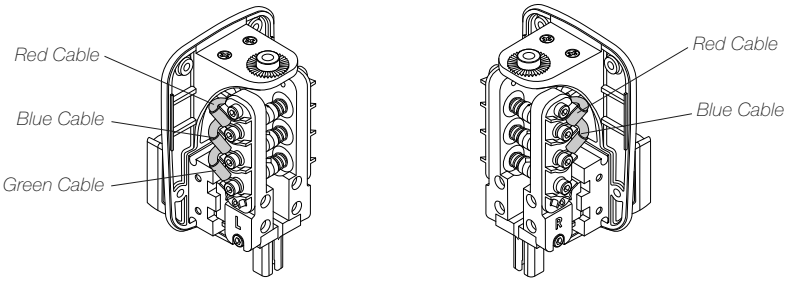
Reassembling

Once the parts are clean and completely dry, follow the reverse order of the disassembly steps. Apply threadlocker on all screws.

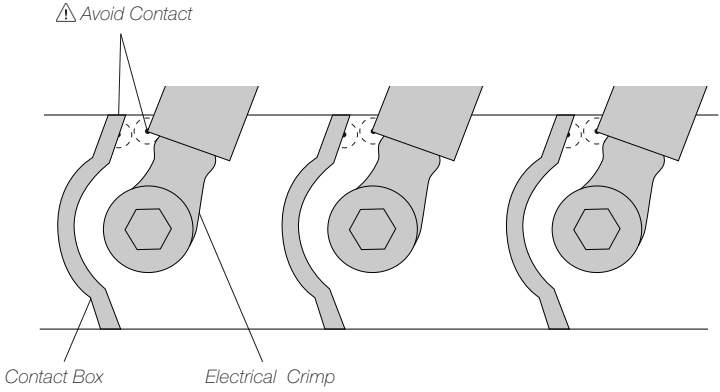
Once the contacts, their springs and the terminals are assembled together and the screws are tightened, check that the contacts work smoothly and that they do not get stuck.



Important:
Reassemble the contacts according to their cable color in the correct position, as indicated below.



When tightening the M3 screws to fix the terminals, make sure that the terminals are in the indicated position. They must be prevented from coming into contact with the nerve of the contact box:



Safety

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

- Do not use the soldering iron for any purpose other than soldering or rework. Incorrect use may a cause fire.

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

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

- The temperature of accessible surfaces may remain high after the unit is turned off. Handle with care.

- Allow the cartridges to cool down before changing them.

- Heat can cause inflammable products to ignite even when not visible.

- 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.

Notes

Notes

Notes

Specifications

TRA245
Automatic General Soldering Tool for Robot
Ref.: **TRA245-B**

- Total Net Weight:	700 g / 1.54 lb
- Package Dimensions/Weight: (L x W x H)	221 x 136 x 126 mm / 1166 g 8.70 x 5.35 x 4.96 in / 2.57 lb
- Operating Pressure:	1.5 to 7 bar / 20 to 100 psi

TRA470
Automatic Heavy Duty Soldering Tool for Robot
Ref.: **TRA470-B**

- Total Net Weight:	716 g / 1.58 lb
- Package Dimensions/Weight: (L x W x H)	220 x 213 x 160 mm / 1182 g 8.66 x 8.39 x 6.30 in / 2.61 lb
- Operating Pressure:	1.5 to 7 bar / 20 to 100 psi

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.

www.jbctools.com

0027874-220525