



MICRO TWEEZERS

FX-1003

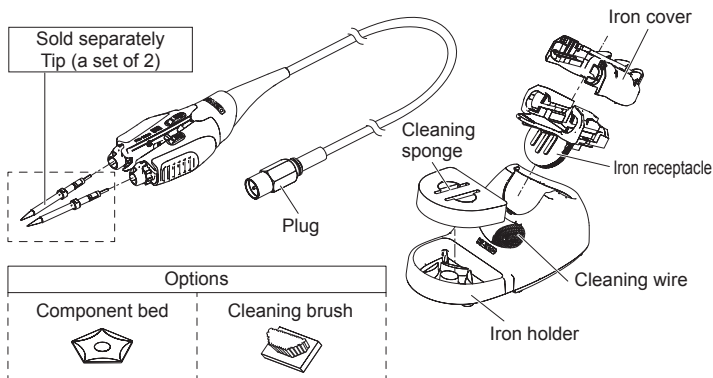
Instruction Manual

Thank you for purchasing the FX-1003.
 This product is a micro tweezers handpiece that connects to the HAKKO IH station.
 Before using this product, be sure to read this manual.
 Keep this manual readily accessible for reference.

1. Contents and Part Names

Confirm the contents before use.

Handpiece FX-1003.....	1	Cleaning wire.....	1
Iron holder FH-800	1	Instruction Manual (this document)....	1
Cleaning sponge.....	1		



Confirm the tip/replacement parts/options on the website.
<https://www.hakko.com/>

2. Specifications

This product cannot be used on its own.

Applied tip	400°C (750°F) : T38-02 Series 350°C (660°F) : T38-03 Series	Heater	IH (High-Frequency Induction Heating)
Applied station	HAKKO IH soldering iron (Confirm details on the website.)	Cord length	1.3 m (4.3 ft)
		Total length	130 mm (5.1 in) (If the I type tip is attached)
Tip to ground resistance	<2 Ω	Weight	32 g (0.07 lb) (If the I type tip is attached)
Tip to ground potential	<2 mV		

- * The total length and weight excludes the cord.
- * This product is applied with electrostatic countermeasures.
- * Please note that specifications and appearance are subject to change without notice in the interest of product improvement.

CAUTION

- **Handling precautions for ESD Safe products**
 This product contains electrostatic countermeasures, so please use the following precautions.
 1. Not all plastic parts are insulators, they may be conductive. Be careful not to expose live electrical parts or damage insulating materials when performing repairs or replacing parts.
 2. Be sure to ground the product before use.

※ 各言語（日本語、英語、中国語、フランス語、ドイツ語、韓国語）の取扱説明書は以下の URL、HAKKO Document Portal からダウンロードしてご覧いただけます。
 （商品によっては設定の無い言語がありますが、ご了承ください。）
 * 各言語（日本語、英語、中文、法語、ドイツ語、韓国語）的使用説明書可以通过以下网站的 HAKKO Document Portal 下载参阅。
 （有一部分的产品没有设定外语对应、请见谅）
 * Instruction manual in the language of Japanese, English, Chinese, French, German, and Korean can be downloaded from the HAKKO Document Portal.
 (Please note that some languages may not be available depending on the product.)

3. Warnings, Cautions, and Notes

Warnings, cautions, and notes are placed at critical points in this manual to direct your attention to significant items. They are defined as follows:

- ▲ **WARNING:** Failure to comply with a WARNING may result in serious injury or death.
- ▲ **CAUTION:** Failure to comply with a CAUTION may result in injury to the operator, or damage to the items involved.
- NOTE: This indicates procedures or information that are important in a process described in this document.

Be sure to observe the following precautions to ensure safety.

WARNING

- Those without the permission of a manager and those without the required experience or knowledge (including children) are not allowed to use this product.
- Do not allow children to play with this product.
- Do not allow children to clean or perform user maintenance without supervision.
- When this product is not used, place the handpiece on the iron holder.
- The tip reaches high temperatures when the power source is turned on. You may risk getting burned or causing a fire if mishandled.

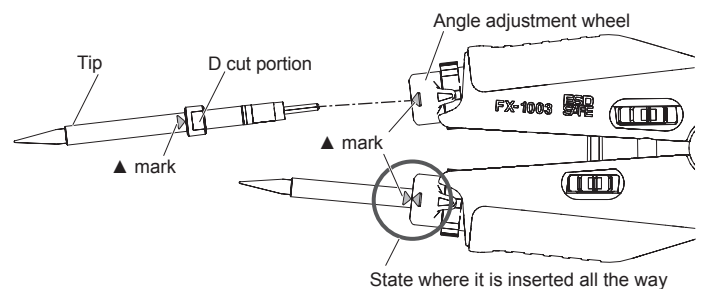
Failure to observe the following precautions to ensure safety might result in electric shock, malfunction or other trouble.

CAUTION

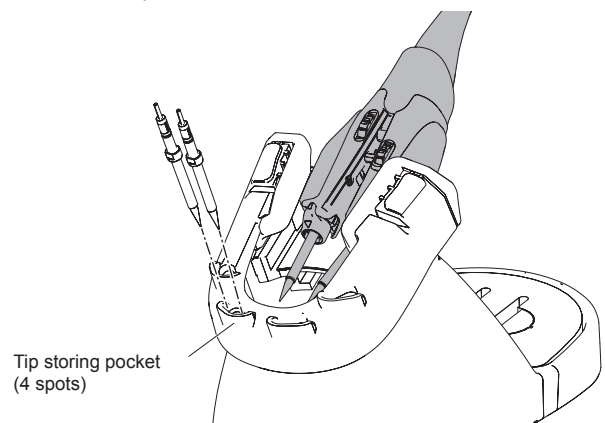
- Before using this product, fully read all descriptions in this document.
- When connecting the handpiece to the station, do so after turning the power switch OFF. The station may become damaged.
- When replacing parts, use only genuine HAKKO parts.
- Do not modify this product.
- Do not use this product with damaged cords or plugs. Also, if this product is dropped or is damaged in other ways, immediately stop use of this product.
- When inserting and removing the cord, hold the plug body and do not pull the cord.
- Do not allow this product to get wet. Also, do not handle it with wet hands.
- Do not perform any other actions that may be considered dangerous.

4. Assembly

- (1) Align the tip with the ▲ mark of the angle adjustment wheel and insert the tip all the way.



- (2) Place the handpiece on the iron holder.



5. Operation

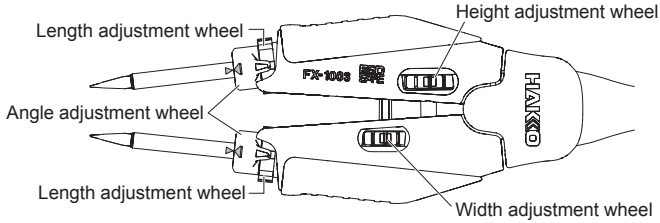
⚠ CAUTION

- Since the end of the tip is thin, handle it carefully. If the tips and pipes are bent, they may not be aligned properly even if they are adjusted.
- When attaching/removing the tips, be sure to turn the power source OFF.

5-1 Handpiece

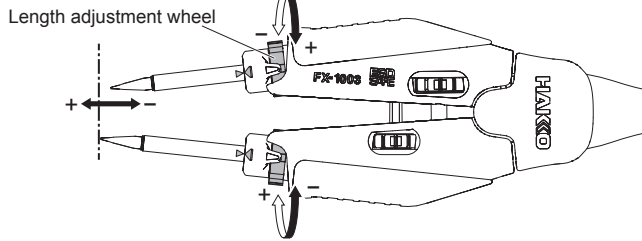
Adjust the positions of the tip ends with 4 wheels.

After adjustments are made, close the tips and confirm the positions of the tip ends.



Step 1 Length

Adjustment range: 0 to 1.5 mm



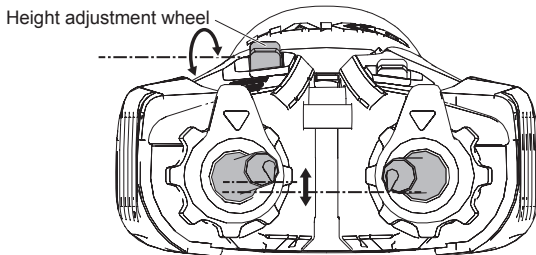
Step 2 Height and the tip end rotation angle

* J type in the illustration.

NOTE Adjust the height and tip end rotation angle alternately.

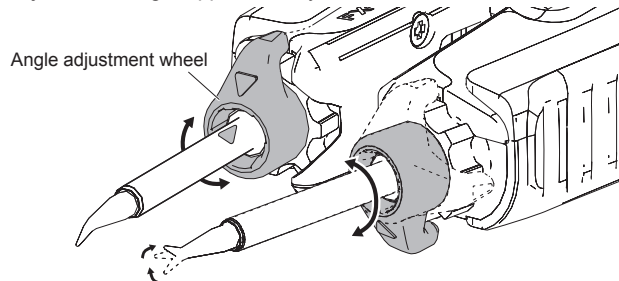
- Height

Adjustment range: The tip end moves up and down repeatedly within a certain range when the wheel is turned.



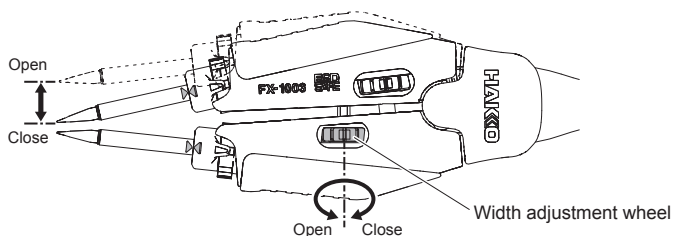
- Rotation angle of the tip end

Adjustment range: approximately 200°



Step 3 Width between the tips

Adjustment range: 0 to 10 mm

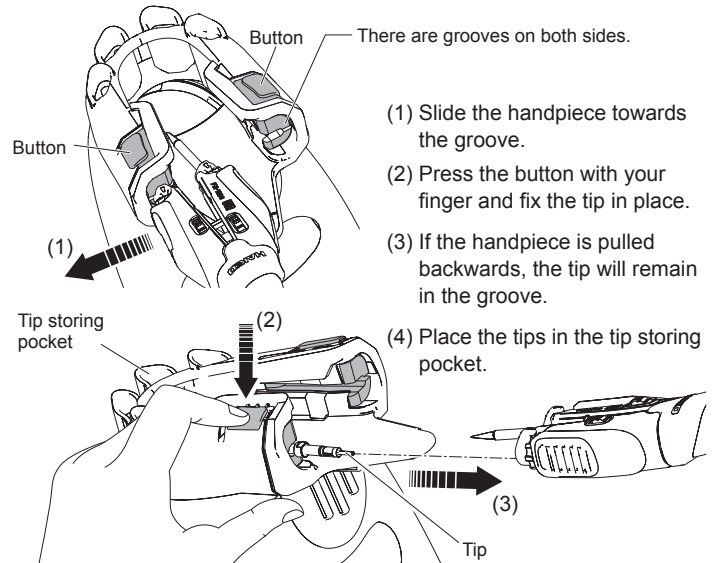


5-2 Removing the tip

⚠ CAUTION

Perform procedures after the tip cools down.

Remove the tip using the iron cover on the iron holder after turning the power source OFF.



6. Maintenance

⚠ CAUTION

Do not file oxide attached on the tip.
This will shorten the tip lifespan.

The product can be used for a longer period of time in a higher quality by periodically implementing maintenance. The rate of consumption varies depending on the use temperature as well as the quality and quantity of the solder and flux. Perform maintenance depending on your state of use.

- (1) Turn the power source ON.
- (2) Wipe the tip with a cleaning sponge after the temperature stabilizes.
- (3) If there is black oxide on the solder plating, feed new solder containing flux, and clean it off using a cleaning sponge. Repeat this until the oxide is removed.
Then, cover it with new solder.
- (4) Turn off the power source and remove the tip after it has cooled.
If there is oxide attached to parts other than the tip end, remove it using alcohol, etc.
- (5) Replace the tip if it is deformed or has worn.

Daily Maintenance

Before work	Wipe the oxide on the tip and old solder with a cleaning sponge. Foreign matter entering the P.W.B. will cause poor solder application.
When work is suspended	Enable Sleep [ON] and place the handpiece on the iron holder. This will reduce oxidation of the tip. Turn off the power switch when not using the product for a long period of time.
After work is finished	Wipe the tip with a cleaning sponge and cover the tip end with new solder. This will prevent oxidation of the tip.

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