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CA00604QbYa003 2025.09



## FR-850

## Handpiece

Holder

**Tip**  
**Nozzle**

P.9

- duty  
ring iron

er ing iron

P. 23

air iron  
P 25

H220-8

FH2

FH

FH225

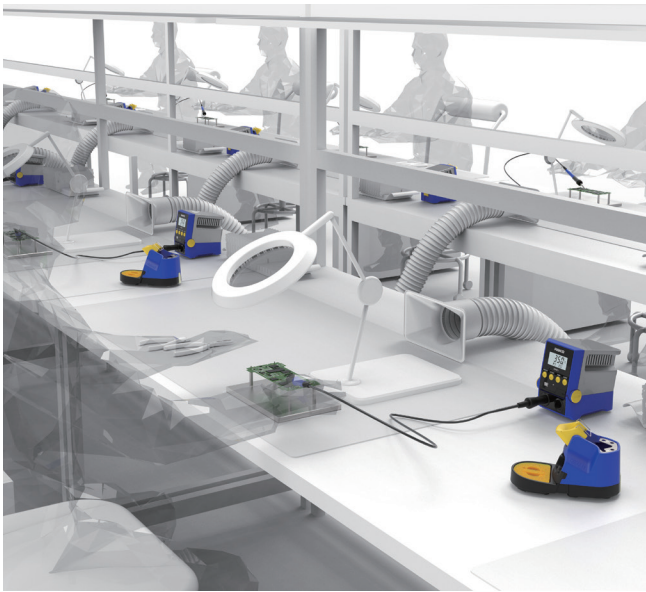
\*These handpieces may not be used simultaneously depending on the conditions.



FX-971

1-port station

Compact and space-saving design with high-powered 100 W output — Idial for a wide-range of soldering workpieces.



**FX-971**  
Station, Handpiece (FX-9701), Iron holder (FH-215, with cleaning sponge and wire), USB cable, Power cord, Instruction manual



**Station Only**  
Station, USB cable, Power cord, Instruction manual

The dedicated software is available for download on HAKKO website.

Applicable Handpiece



Soldering iron  
**FX-9701**  
See page 12 ~  
for applicable soldering tip



N<sub>2</sub> Soldering iron  
**FX-9702**  
See page 12 ~  
for applicable soldering tip



Micro soldering iron  
**FX-9703**  
See page 16 ~  
for applicable soldering tip



Micro N<sub>2</sub> soldering iron  
**FX-9704**  
See page 16 ~  
for applicable soldering tip



Specifications

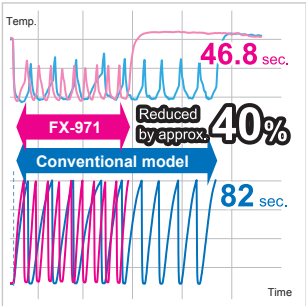
|                       |                            |
|-----------------------|----------------------------|
| Model No.             | FX-971                     |
| Power consumption     | 100 W                      |
| Temperature range     | 50 to 450°C                |
| Temperature stability | ±3°C (At idle temperature) |

Station

|                |                                                                                              |
|----------------|----------------------------------------------------------------------------------------------|
| Output voltage | AC 24 V                                                                                      |
| Dimensions     | When tilted: 93 (W) x 126 (H) x 133 (D) mm<br>When not tilted: 93 (W) x 126 (H) x 123 (D) mm |
| Weight         | 1.2 kg                                                                                       |

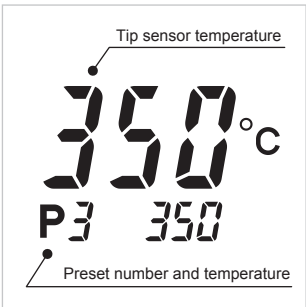
Handpiece

|                          |                           |
|--------------------------|---------------------------|
| Power consumption        | 95 W (24 V)               |
| Tip to ground resistance | < 2 Ω                     |
| Tip to ground potential  | < 2 mV                    |
| Heating element          | Composite heater          |
| Cord length              | 1.2 m                     |
| Total length (w/o cord)  | 206 mm (with T39-D24 tip) |
| Weight (w/o cord)        | 31 g (with T39-D24 tip)   |



Cycle time reduced  
by approx. 40%

It enables soldering in a shorter time and improves work efficiency.



High Visible Display

It shows information such as set temperature, tip's sensor temperature, and preset setting, clearly and widely. The viewing angle is wide, and the high-brightness display provides high visibility.



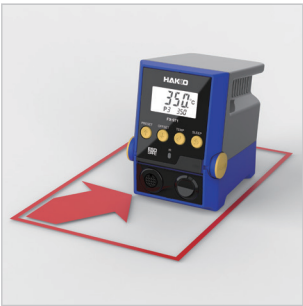
Adjustable display angle  
for better visibility  
and operation

Tilt mechanism for easy viewing and operation of the screen display, depending on the installation location, e.g., on or under the workbench or on the rack.



Software

By connecting the station to the PC, the tip set temperature, calibration/correction and the temperature history of the tip during operation are recorded on the PC, enabling management with zero human error.



Compact Design

Space saving design helps securing operation space easily.



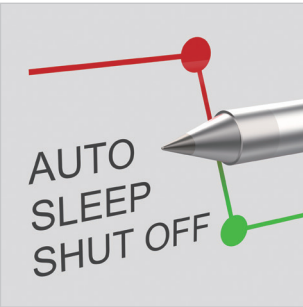
Intuitive Operation

All settings can be easily adjusted with just four buttons.



Infrared Communication

Automatic calibration and correction can be completed by transmitting the measurement data from the thermometer (FG-100B/FG-101B) to the main unit, via infrared.



Auto Sleep function  
Auto Shutoff function

The built-in sensor of the tip inside makes it possible to use auto-sleep and auto-shutoff functions without connecting the station and the iron holder, and it helps to lay out the station and iron holder freely in the working space.



FX-972

2-port multi station

Compact and space-saving design with high-powered 200 W output - Compatible with eight handpieces to enhance work efficiency across various applications



FX-972

Station, Handpiece (FX-9701), Iron holder (FH-215, with cleaning sponge and wire), Color band [qty 2], USB cable, Power cord, Instruction manual

The dedicated software is available for download on HAKKO website.



|                       |                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------|
| Specifications        |                                                                                                    |
| Model No.             | FX-972                                                                                             |
| Power consumption     | 200 W                                                                                              |
| Temperature range     | 50 to 450°C<br>With heavy-duty soldering iron connected: 50 to 500°C                               |
| Temperature stability | ±3°C (At idle temperature)<br>With heavy-duty soldering iron connected: ±5°C (At idle temperature) |

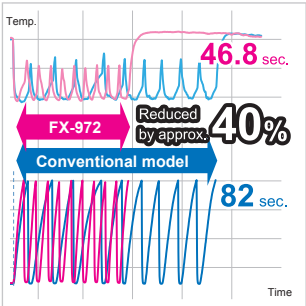
|                |                                                                                                |
|----------------|------------------------------------------------------------------------------------------------|
| Station        |                                                                                                |
| Output voltage | AC 24 V                                                                                        |
| Dimensions     | When tilted: 126 (W) x 151 (H) x 149 (D) mm<br>When not tilted: 126 (W) x 151 (H) x 136 (D) mm |
| Weight         | 2.8 kg                                                                                         |

|                          |                           |
|--------------------------|---------------------------|
| Handpiece                |                           |
| Power consumption        | 95 W (24 V)               |
| Tip to ground resistance | < 2 Ω                     |
| Tip to ground potential  | < 2 mV                    |
| Heating element          | Composite heater          |
| Cord length              | 1.2 m                     |
| Total length (w/o cord)  | 206 mm (with T39-D24 tip) |
| Weight (w/o cord)        | 31 g (with T39-D24 tip)   |

Applicable Handpiece

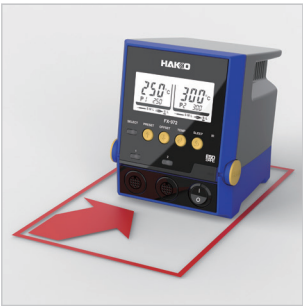


|                                               |                                               |                                               |                                                |                                               |                                               |                                               |                                                     |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------------|
| Soldering iron<br>FX-9701                     | N <sub>2</sub> Soldering iron<br>FX-9702      | Micro soldering iron<br>FX-9703               | Micro N <sub>2</sub> soldering iron<br>FX-9704 | Hot tweezers<br>FX-9705                       | Micro hot tweezers<br>FX-9706                 | Heavy-duty soldering iron<br>FX-9707          | Heavy-duty N <sub>2</sub> soldering iron<br>FX-9708 |
| See page 12 ~<br>for applicable soldering tip | See page 12 ~<br>for applicable soldering tip | See page 16 ~<br>for applicable soldering tip | See page 16 ~<br>for applicable soldering tip  | See page 18 ~<br>for applicable soldering tip | See page 20 ~<br>for applicable soldering tip | See page 22 ~<br>for applicable soldering tip | See page 22 ~<br>for applicable soldering tip       |



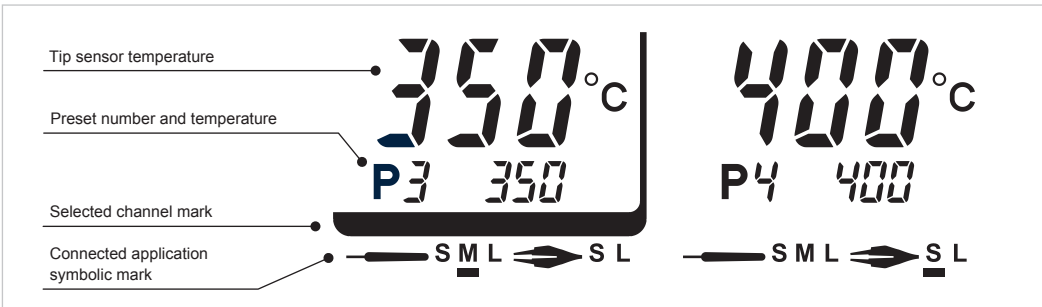
Cycle time reduced  
by approx. 40%

It enables soldering in a shorter time and improves work efficiency.



Compact Design

Space saving design helps securing operation space easily.



High Visible Display

It shows information such as set temperature, tip's sensor temperature, and preset setting, clearly and widely. The viewing angle is wide, and the high-brightness display provides high visibility.



Priority Channel

A built-in sensor detects the handpiece in use and automatically switches channels. The unused handpiece stands by at the set temperature. And the operation delay does not occur after channel switching achieving maximum power with minimum size of station.



Adjustable display angle  
for better visibility and operation

Tilt mechanism for easy viewing and operation of the screen display, depending on the installation location, e.g., on or under the workbench or on the rack.



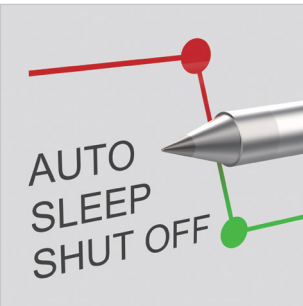
Infrared Communication

Automatic calibration and correction can be completed by transmitting the measurement data from the thermometer (FG-100B/FG-101B) to the main unit, via infrared.



Software

By connecting the station to the PC, the tip set temperature, calibration/correction and the temperature history of the tip during operation are recorded on the PC, enabling management with zero human error.



Auto Sleep function  
Auto Shutoff function

The built-in sensor of the tip inside makes it possible to use auto-sleep and auto-shutoff functions without connecting the station and the iron holder, and it helps to lay out the station and iron holder freely in the working space.



FX-973

3-port rework station

All nine types of handpieces can be used on any port, and a desoldering unit is included as standard.  
Flexible configuration options enable optimal combinations to meet the demands of various applications and workpieces.



**FX-973**  
Station, Handpiece (FX-9701), Iron holder (FH-215, with cleaning sponge and wire), Handpiece (FR-4103), Iron holder (FH-410, with cleaning wire), Tool box (Cleaning pin for 1.0 mm dia., Cleaning pin for heating element, Cleaning drill for 1.0 mm dia., Nozzle wrench, Filter [qty 2], Ceramic paper filter [qty 4]), Color band [green, qty 2], Color band [orange, qty 2], USB cable, Power cord, Instruction manual

The dedicated software is available for download on HAKKO website.

|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Model No.             | FX-973                                                                                                                  |
| Power consumption     | 400 W                                                                                                                   |
| Temperature range     | 50 to 450°C<br>With heavy-duty soldering iron connected: 50 to 500°C<br>With desoldering tool connected: 330 to 450°C   |
| Temperature stability | ±3°C (At idle temperature)<br>With heavy-duty soldering iron and desoldering tool connected: ±5°C (At idle temperature) |

Applicable Handpiece

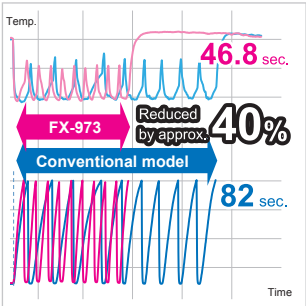
|                        |                                   |
|------------------------|-----------------------------------|
| Station                |                                   |
| Output voltage         | AC 24 V                           |
| Vacuum generator       | Vacuum pump, double cylinder type |
| Vacuum pressure (max.) | 80 kPa (600 mmHg)                 |
| Suction flow           | 15 L/min.                         |
| Dimensions             | 158 (W) x 135 (H) x 254 (D)       |
| Weight                 | 5.3 kg                            |

|                            |                           |
|----------------------------|---------------------------|
| Handpiece (Soldering iron) |                           |
| Power consumption          | 95 W (24 V)               |
| Tip to ground resistance   | < 2 Ω                     |
| Tip to ground potential    | < 2 mV                    |
| Heating element            | Composite heater          |
| Cord length                | 1.2 m                     |
| Total length (w/o cord)    | 206 mm (with T39-D24 tip) |
| Weight (w/o cord)          | 31 g (with T39-D24 tip)   |

|                              |                             |
|------------------------------|-----------------------------|
| Handpiece (Desoldering tool) |                             |
| Power consumption            | 140 W (24 V)                |
| Nozzle to ground resistance  | < 2 Ω                       |
| Nozzle to ground potential   | < 2 mV                      |
| Heating element              | Composite heater            |
| Cord length                  | 1.2 m                       |
| Total length (w/o cord)      | 168 mm (with N61-05 nozzle) |
| Weight (w/o cord)            | 190 g (with N61-05 nozzle)  |



|                                               |                                               |                                               |                                                |                                               |                                               |                                               |                                                     |                                        |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------------|----------------------------------------|
| Soldering iron<br>FX-9701                     | N <sub>2</sub> Soldering iron<br>FX-9702      | Micro soldering iron<br>FX-9703               | Micro N <sub>2</sub> soldering iron<br>FX-9704 | Hot tweezers<br>FX-9705                       | Micro hot tweezers<br>FX-9706                 | Heavy-duty soldering iron<br>FX-9707          | Heavy-duty N <sub>2</sub> soldering iron<br>FX-9708 | Desoldering Tool<br>FR-4103            |
| See page 12 ~<br>for applicable soldering tip | See page 12 ~<br>for applicable soldering tip | See page 16 ~<br>for applicable soldering tip | See page 16 ~<br>for applicable soldering tip  | See page 18 ~<br>for applicable soldering tip | See page 20 ~<br>for applicable soldering tip | See page 22 ~<br>for applicable soldering tip | See page 22 ~<br>for applicable soldering tip       | See page 24 ~<br>for applicable nozzle |



**Cycle time reduced by approx. 40%**  
It enables soldering in a shorter time and improves work efficiency.



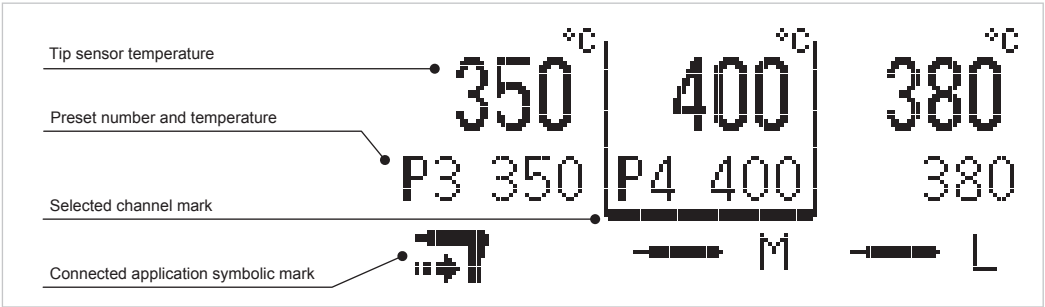
**Secure Desoldering - High suction power with precise valve control**  
Suction activates just 0.2 seconds after peak vacuum is reached, enabling rapid and powerful extraction while minimizing residual solder.



**Clogging Indicator**  
LED indicator shows suction status enabling to know the timing of cleaning, replacement of filter and maintenance



**Infrared Communication**  
Automatic calibration and correction can be completed by transmitting the measurement data from the thermometer (FG-100B/FG-101B) to the main unit, via infrared.



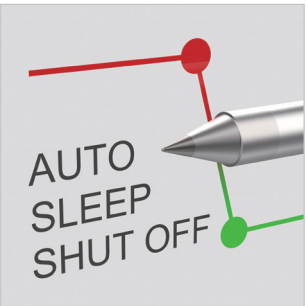
**High Visible Display**  
It shows information such as set temperature, tip's sensor temperature, and preset setting, clearly and widely. The viewing angle is wide, and the high-brightness display provides high visibility.



**Priority Channel**  
A built-in sensor detects the handpiece in use and automatically switches channels. The unused handpiece stands by at the set temperature. And the operation delay does not occur after channel switching achieving maximum power with minimum size of station.



**Software**  
By connecting the station to the PC, the tip set temperature, calibration/correction and the temperature history of the tip during operation are recorded on the PC, enabling management with zero human error.



**Auto Sleep function  
Auto Shutoff function**  
The built-in sensor of the tip inside makes it possible to use auto-sleep and auto-shutoff functions without connecting the station and the iron holder, and it helps to lay out the station and iron holder freely in the working space.



FR-850

SMD rework station - Micro hot air

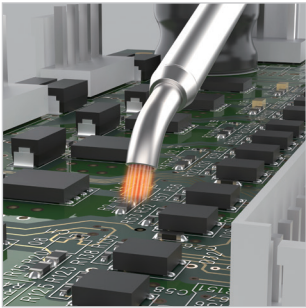
A wide temperature range and fine airflow control make it ideal for precise rework on high thermal mass PWBs and delicate miniature components. Enables targeted rework of densely packed SMDs without affecting surrounding components.



**FR-850**  
Station, Handpiece (FR-8501), Iron holder (FH-225), USB cable, Power cord, Instruction manual

The dedicated software is available for download on HAKKO website.

Applicable Handpiece



**Highly Effective for Fine Components on High Thermal Mass PCBs such as Multilayer Boards**

Adjustable airflow settings allow for precise control tailored to each component. Enhanced heater performance ensures safe and clean removal of microchips without scattering, even with minimal airflow.



**Hot Air ON/OFF Control ①**

Control hot air ON/OFF with the iron unit button. Real-time operating status is clearly indicated via top-mounted LED.



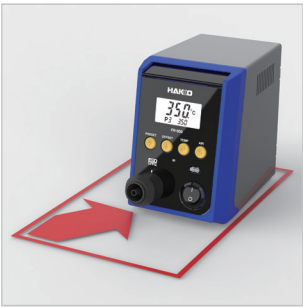
**Infrared Communication**

Automatic calibration and correction can be completed by transmitting the measurement data from the thermometer (FG-100B/FG-101B) to the main unit, via infrared.



**Software**

By connecting the station to a PC, the set temperature of the hot air, calibration/correction, and the hot air temperature history during operation can be recorded on the PC. Enables management with zero human error.



**Compact Design**

55% smaller footprint compared to conventional models. Ideal for space-saving in work environments.



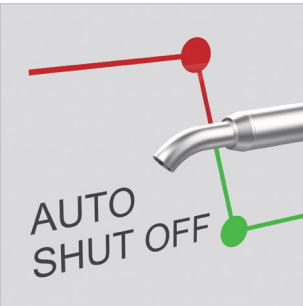
**Hot Air ON/OFF Control ②**

Wide top-mounted button is also for hot air ON/OFF control. Real-time operating status is clearly indicated via top-mounted LED.



**Intuitive Operation**

All settings can be easily adjusted with just four buttons.



**Auto Shutoff function**

Auto shutoff function reduces unnecessary power consumption and minimize equipment wear.

|                   |             |
|-------------------|-------------|
| Specifications    |             |
| Model No.         | FR-850      |
| Power consumption | 112 W       |
| Temperature range | 50 to 600°C |

|                   |                               |
|-------------------|-------------------------------|
| Station           |                               |
| Power consumption | 7 W                           |
| Air flow          | 1.5 to 5 L/min.               |
| Dimensions        | 98 (W) x 140 (H) x 165 (D) mm |
| Weight            | 1.8 kg                        |

|                             |                               |
|-----------------------------|-------------------------------|
| Handpiece                   |                               |
| Power consumption           | 105 W (24 V)                  |
| Nozzle to ground resistance | < 2 Ω                         |
| Nozzle to ground potential  | < 2 mV                        |
| Heating element             | Composite heater              |
| Cord length                 | 1.2 m                         |
| Total length (w/o cord)     | 227 mm (with NA01-C20 nozzle) |
| Weight (w/o cord)           | 70 g (with NA01-C20 nozzle)   |

\* The airflow values are approximate. The airflow range may vary depending on the nozzle attached.



# FX-9701

Soldering iron

Applicable tips

# FX-9702

N<sub>2</sub> soldering iron

Applicable tips



## Equipped with a New Composite Tip

\*Patent Registered

Designed to improve sensor sensitivity and efficiently transfer heat from the heater to the tip, ensuring stable tip temperature and enabling more precise and reliable soldering.

## Soldering iron working with N<sub>2</sub> system

Most soldering tips in the T39 series can be used for both regular type iron and N<sub>2</sub> type iron commonly. There is no need to keep and use a different tip by a same shape.

## Well-balanced grip for excellent workability

The easy-to-use grip backs up the lineup of tips that can be used for all kinds of operations. Slim cable design allows for easy handling.

## Iron Holder

Stable die-cast body. Iron holder allows easy and safe tip replacement/removal.



Tip not included



Tip not included



Tip not included



Tip not included

### FX9701-81

Handpiece (FX-9701)

#### Specifications

|                          |                           |
|--------------------------|---------------------------|
| Model No.                | FX-9701                   |
| Power consumption        | 95 W (24 V)               |
| Temperature range        | 50 to 450°C               |
| Tip to ground resistance | < 2 Ω                     |
| Tip to ground potential  | < 2 mV                    |
| Heating element          | Composite heater          |
| Cord length              | 1.2 m                     |
| Total length (w/o cord)  | 206 mm (with T39-D24 tip) |
| Weight (w/o cord)        | 31 g (with T39-D24 tip)   |

### FX9701-811

Conversion Kit

Handpiece (FX-9701), Iron holder (FH-215, with cleaning sponge and wire)

### FX9702-81

Handpiece (FX-9702), Instruction manual

#### Specifications

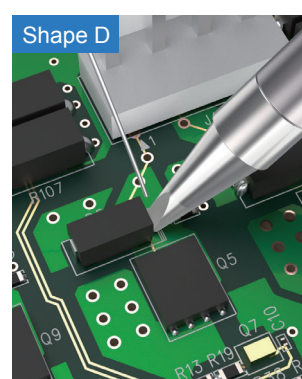
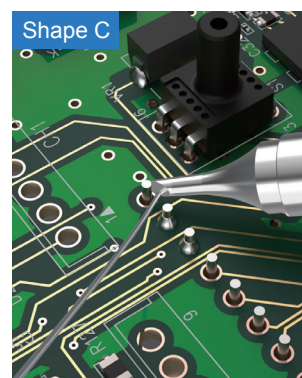
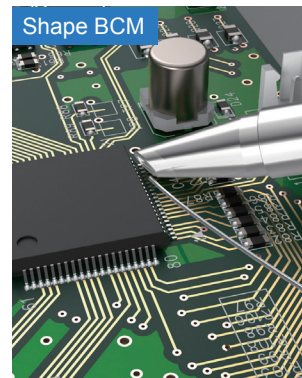
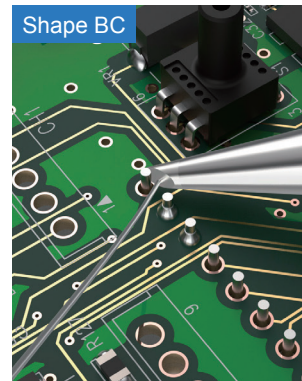
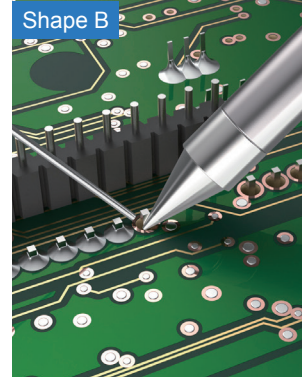
|                          |                                               |
|--------------------------|-----------------------------------------------|
| Model No.                | FX-9702                                       |
| Power consumption        | 95 W (24 V)                                   |
| Temperature range        | 50 to 450°C                                   |
| Tip to ground resistance | < 2 Ω                                         |
| Tip to ground potential  | < 2 mV                                        |
| Heating element          | Composite heater                              |
| Cord length              | 1.2 m                                         |
| Total length (w/o cord)  | 206 mm (with T39-D24 tip)                     |
| Weight (w/o cord)        | 49 g (with T39-D24 tip and nozzle assembly D) |

### FX9702-811

Conversion Kit

Handpiece (FX-9702), Iron holder (FH-215, with cleaning sponge and wire), Instruction manual

## T39 series tip

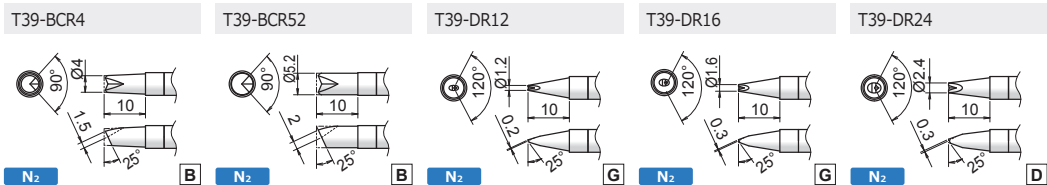
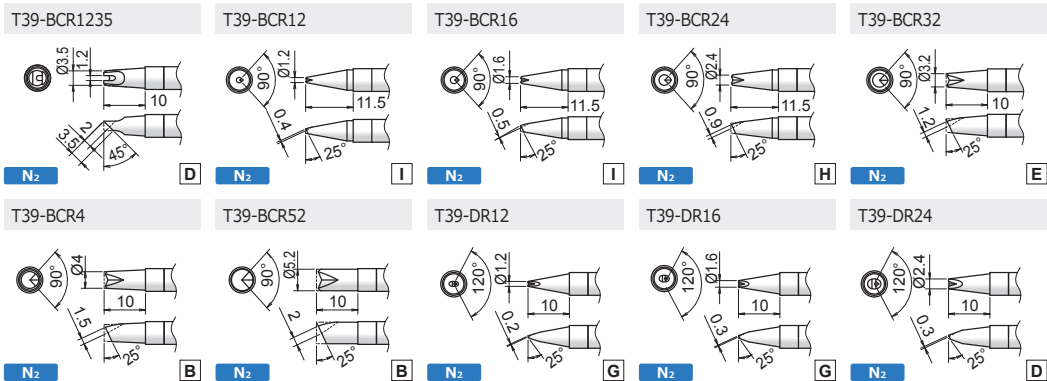
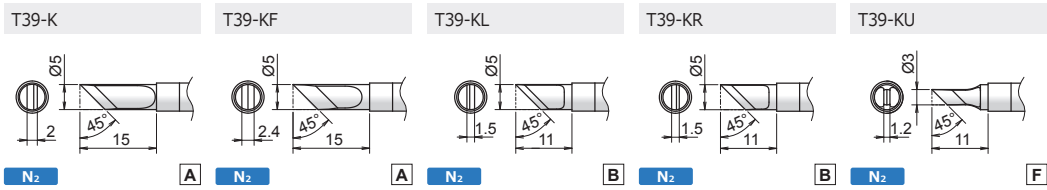
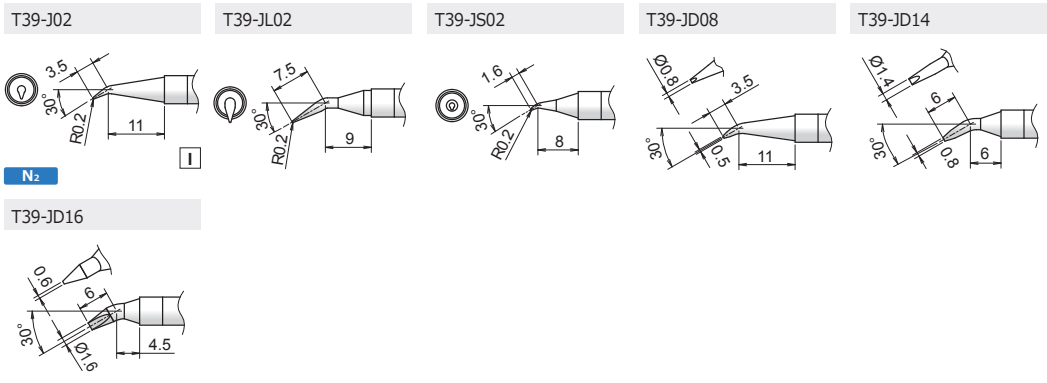
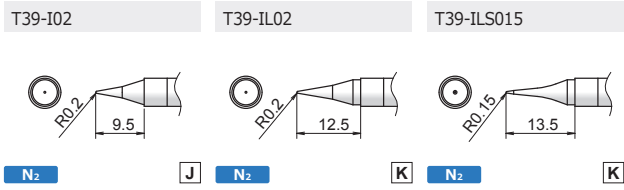
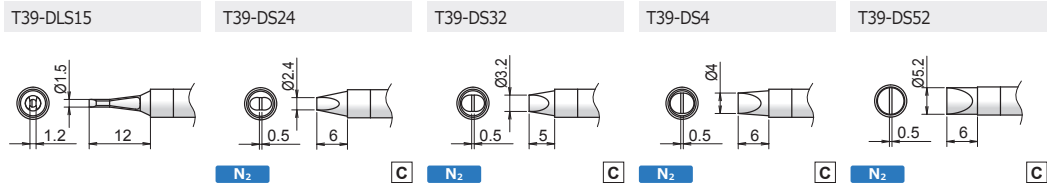
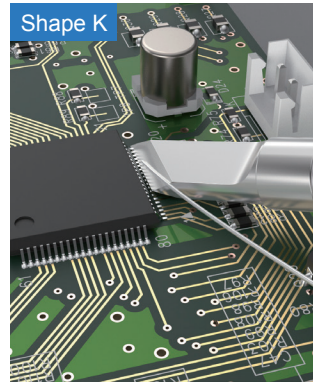
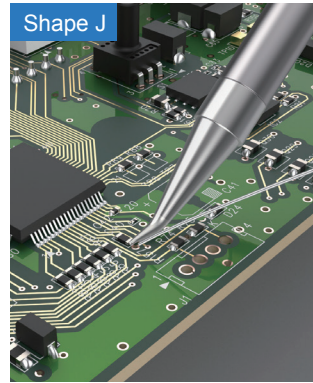
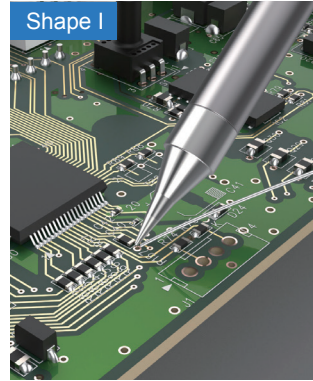
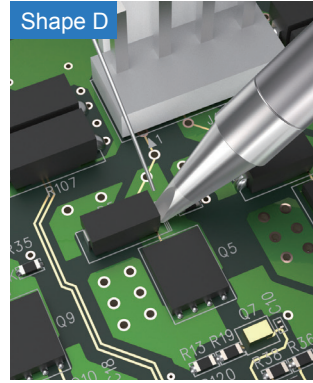


|                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|
| Unit : mm      |                |                |                |                |
| T39-B02        | T39-B05        | T39-B07        | T39-BL02       | T39-BLL02      |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> |
| T39-B502       | T39-B503       |                |                |                |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> |                |                |                |
| T39-BC1020     | T39-BC1530     | T39-BC2040     | T39-BC2535     | T39-BC3065     |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> |
| T39-BC3545     | T39-BCF1020*   | T39-BCF2535*   | T39-BCF3545*   |                |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> |                |
| T39-BCM2535    | T39-BCM3545    |                |                |                |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> |                |                |                |
| T39-C1020      | T39-C1025      | T39-C4055      | T39-CF4055*    |                |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> |                |
| T39-D08        | T39-D12        | T39-D16        | T39-D24        | T39-D32        |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> |
| T39-D4         | T39-D52        | T39-DL32       | T39-DL4        | T39-DL52       |
|                |                |                |                |                |
| N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> | N <sub>2</sub> |

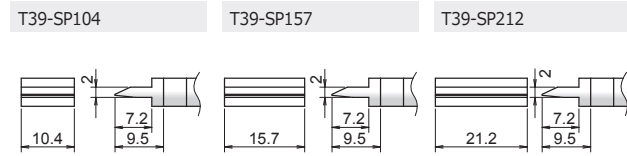
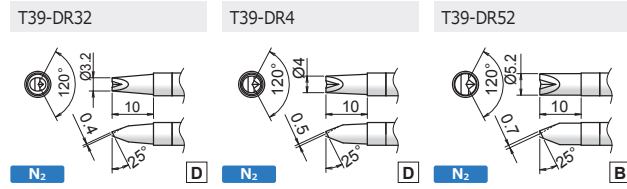
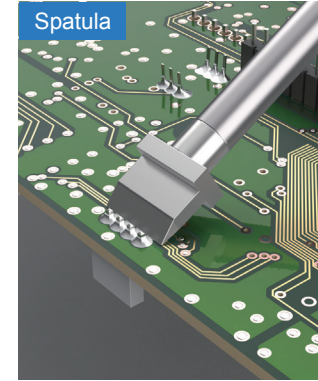
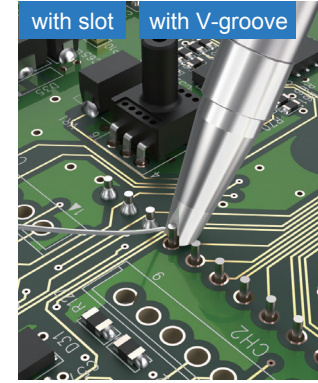
\*Pre-tinned on cut surface only



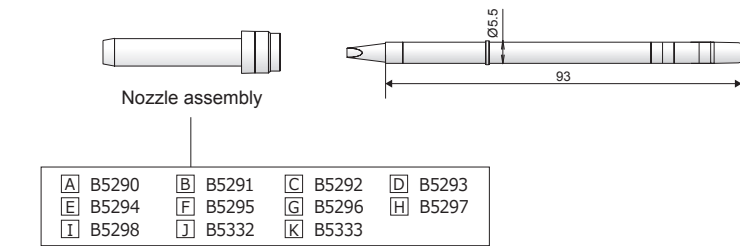
## T39 series tip



## T39 series tip



FX-9702 N<sub>2</sub> soldering iron can be used with soldering tips with **N<sub>2</sub>** mark. Use a tip with an applicable nozzle assembly.



Set up with N<sub>2</sub> system



# FX-9703

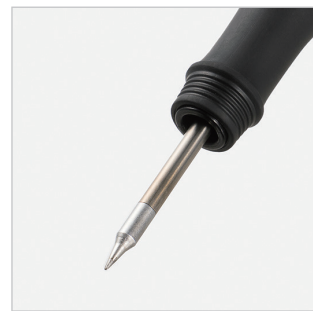
Micro soldering iron

Applicable tips

# FX-9704

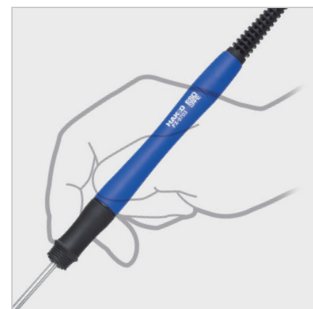
Micro N<sub>2</sub> soldering iron

Applicable tips



## Specialized in precise soldering

The distance from the tip end to the handle is only 27mm. Gripping the handpiece like a pencil makes it easy to approach fine components with high precision.



## Well-balanced grip for excellent workability

The easy-to-use grip backs up the lineup of tips that can be used for all kinds of operations. Slim cable design allows for easy handling.



### FX9703-81

Handpiece (FX-9703),  
Instruction manual



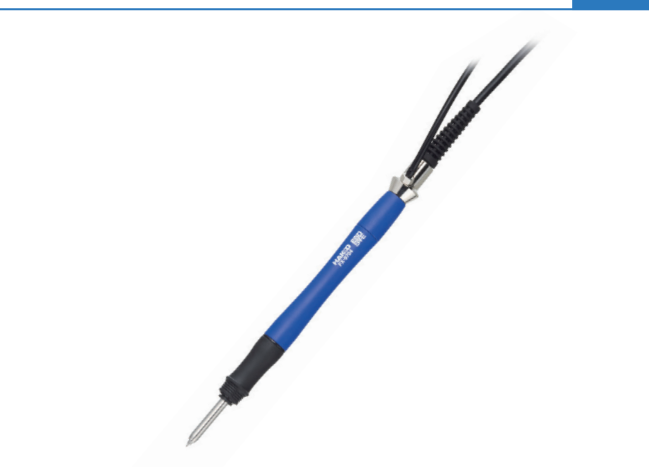
### FX9703-81

Conversion Kit

Handpiece (FX-9703), Iron holder  
(FH-215, with cleaning sponge and brush),  
Instruction manual

#### Specifications

|                          |                          |
|--------------------------|--------------------------|
| Model No.                | FX-9703                  |
| Power consumption        | 70 W (24 V)              |
| Temperature range        | 50 to 450°C              |
| Tip to ground resistance | < 2 Ω                    |
| Tip to ground potential  | < 2 mV                   |
| Heating element          | Composite heater         |
| Cord length              | 1.2 m                    |
| Total length (w/o cord)  | 174 mm (with T50-D1 tip) |
| Weight (w/o cord)        | 15 g (with T50-D1 tip)   |



## Soldering iron working with N<sub>2</sub> system

Most soldering tips in the T39 series can be used for both regular type iron and N<sub>2</sub> type iron commonly. There is no need to keep and use a different tip by a same shape.



## Iron Holder

Stable die-cast iron holder. The soldering tip can be attached or detached safely.



### FX9704-81

Handpiece (FX-9704),  
Instruction manual



### FX9704-81

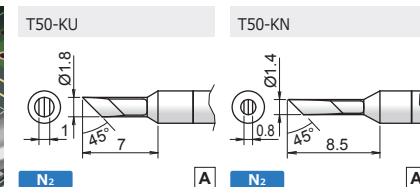
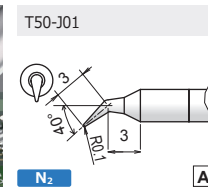
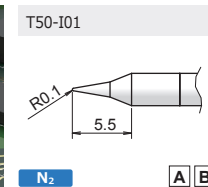
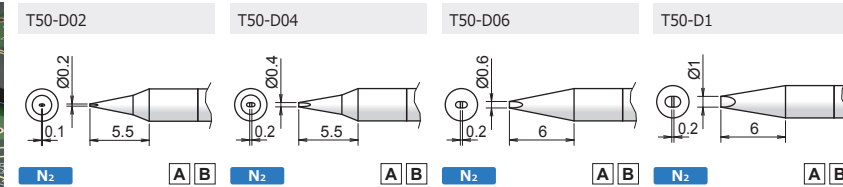
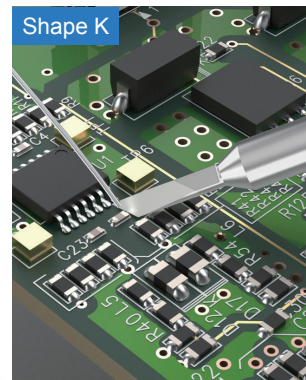
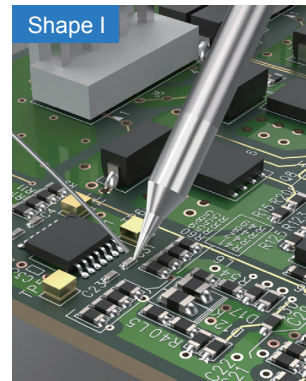
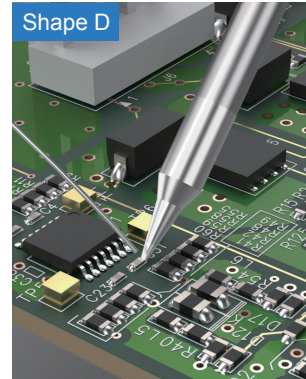
Conversion Kit

Handpiece (FX-9704), Iron holder  
(FH-215, with cleaning sponge and brush), Instruction manual

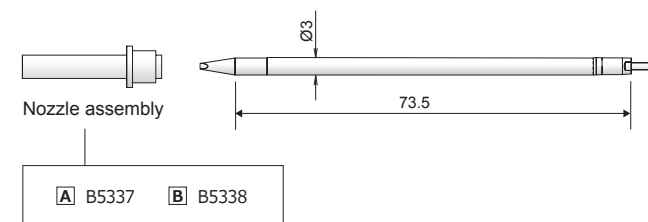
#### Specifications

|                          |                                              |
|--------------------------|----------------------------------------------|
| Model No.                | FX-9704                                      |
| Power consumption        | 70 W (24 V)                                  |
| Temperature range        | 50 to 450°C                                  |
| Tip to ground resistance | < 2 Ω                                        |
| Tip to ground potential  | < 2 mV                                       |
| Heating element          | Composite heater                             |
| Cord length              | 1.2 m                                        |
| Total length (w/o cord)  | 196 mm (with T50-D1 tip)                     |
| Weight (w/o cord)        | 35 g (with T50-D1 tip and nozzle assembly A) |

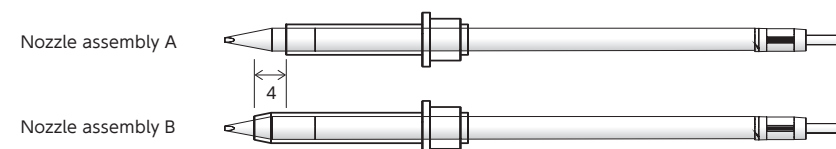
## T50 series tip



For the Micro N<sub>2</sub> soldering iron FX-9704, please use it with a nozzle assembly that corresponds to the tip.



☐ Image of Nozzle Assembly A and B attached to the T50-D06 tip



Please use nozzle assembly A when using the soldering tip in a horizontal position or when nozzle assembly B interferes with surrounding components.



Set up with N<sub>2</sub> system

Unit : mm

FX-971

FX-972

FX-973

FR-850

Connectable stations

FX-971

FX-972

FX-973

FR-850

Connectable stations



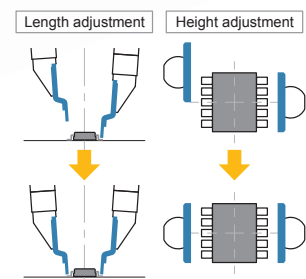
# FX-9705 Hot tweezers

Applicable tips



## Fine adjustment of tip height and length

After setting the tips, fine adjustment of the tip direction is possible for accurate contact with components, improving work efficiency.



## Improved Operability

Handle design that fits the hand and provides stability. With the two different ways of handling, precise contact with the component is possible.



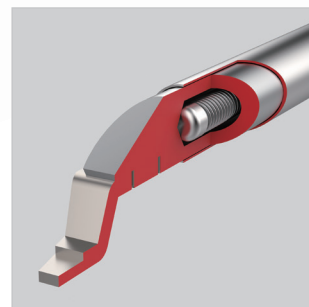
### FX9705-81

Handpiece (FX-9705), Instruction manual



### FX9705-81 Conversion Kit

Handpiece (FX-9705), Iron holder (FH-220, with cleaning sponge and wire), Instruction manual



## Equipped with a New Composite Tip

\*Patent Registered

Designed to improve sensor sensitivity and efficiently transfer heat from the heater to the tip, ensuring stable tip temperature and enabling more precise and reliable soldering.



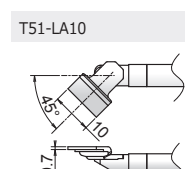
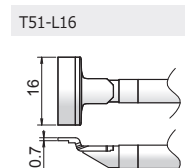
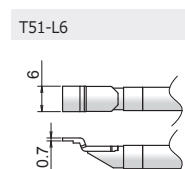
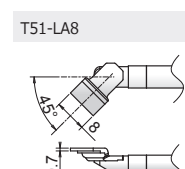
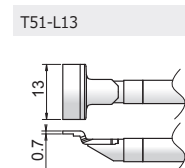
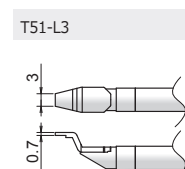
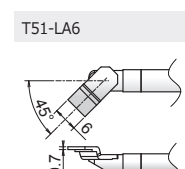
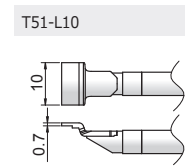
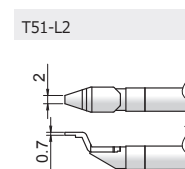
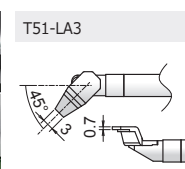
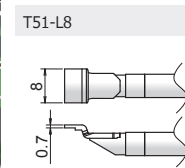
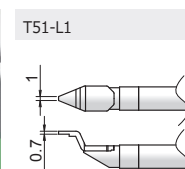
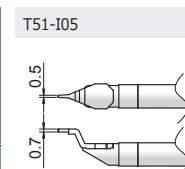
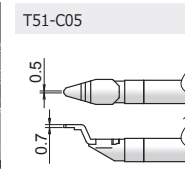
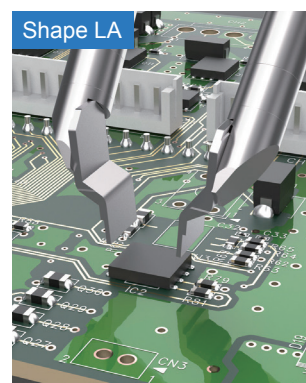
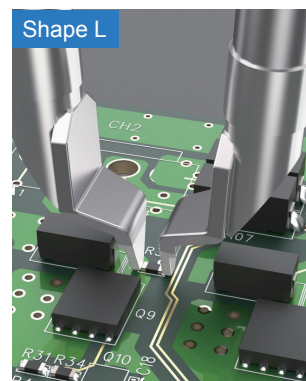
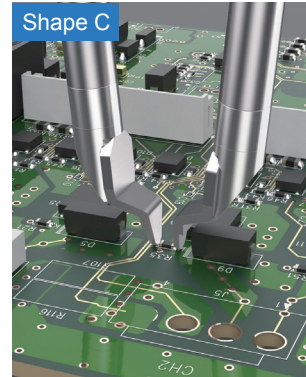
## Iron holder

Stable die-cast iron holder. The soldering tip can be detached safely. Both cleaning sponge and cleaning brush are on the iron holder.

## Specifications

|                          |                           |
|--------------------------|---------------------------|
| Model No.                | FX-9705                   |
| Power consumption        | 190 W (24 V)              |
| Temperature range        | 50 to 450°C               |
| Tip to ground resistance | < 2 Ω                     |
| Tip to ground potential  | < 2 mV                    |
| Heating element          | Composite heater          |
| Cord length              | 1.2 m                     |
| Total length (w/o cord)  | 146 mm (with T51-L16 tip) |
| Weight (w/o cord)        | 55 g (with T51-L16 tip)   |

## T51 series tip (Set of 2)

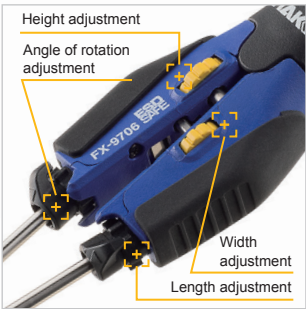


Unit : mm



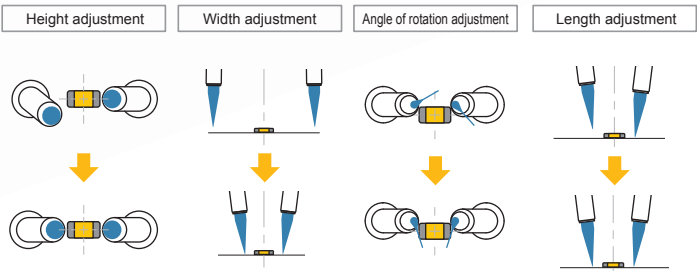
FX-9706 Micro hot tweezers

Applicable tips



Fine adjustment of tip height and length

After setting the tips, fine adjustment of the tip direction is possible for accurate contact with components, improving work efficiency.



Improved Operability

The asymmetrical design fits the handle and provides stability. The heat-resistant cover reduces operator strain, and its compact design makes operation easy.



Iron Holder

Stable die-cast iron holder. The soldering tip can be attached or detached safely.



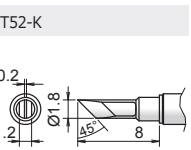
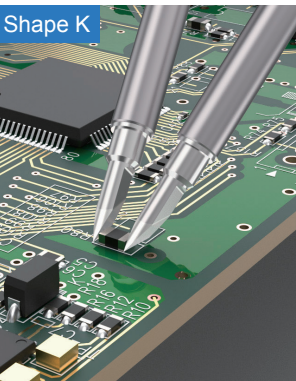
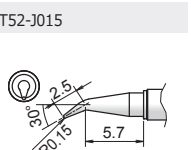
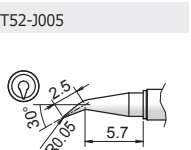
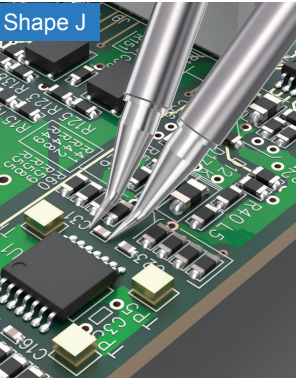
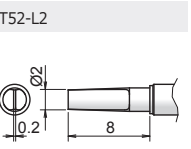
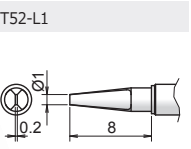
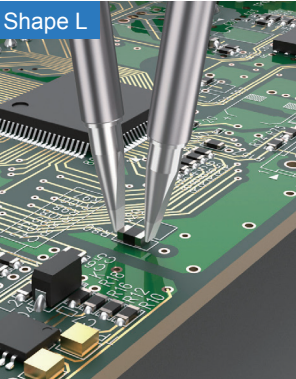
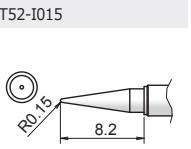
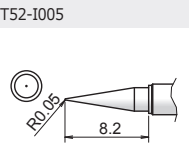
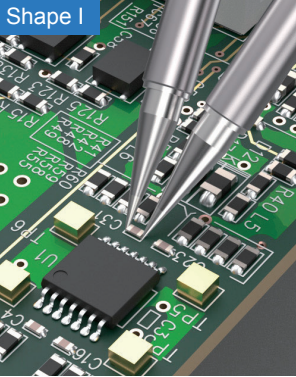
FX9706-81 Handpiece (FX-9706), Instruction manual



FX9706-81 Conversion Kit Handpiece (FX-9706), Iron holder (FH-215, with cleaning sponge and brush), Instruction manual

| Specifications           |                            |
|--------------------------|----------------------------|
| Model No.                | FX-9706                    |
| Power consumption        | 140 W (24 V)               |
| Temperature range        | 50 to 450°C                |
| Tip to ground resistance | < 2 Ω                      |
| Tip to ground potential  | < 2 mV                     |
| Heating element          | Composite heater           |
| Cord length              | 1.2 m                      |
| Total length (w/o cord)  | 130 mm (with T52-I015 tip) |
| Weight (w/o cord)        | 33 g (with T52-I015 tip)   |

T52 series tip (Set of 2)



Unit : mm



# FX-9707 Heavy-duty soldering iron

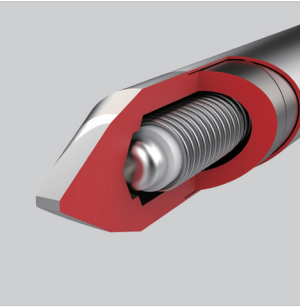
FX-971

FX-972

FX-973

FR-850

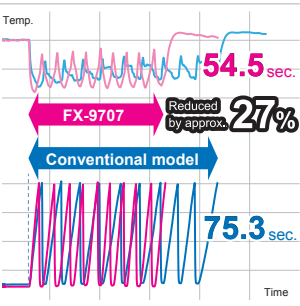
Connectable stations



## Equipped with a New Composite Tip

\*Patent registered

Designed to improve sensor sensitivity and efficiently transfer heat from the heater to the tip, ensuring stable tip temperature and enabling more precise and reliable soldering.



## Cycle time reduced by approx. 27%

Soldering operations can be performed in a shorter time, improving work efficiency.



### FX9707-81

Handpiece (FX-9707), Instruction manual

#### Specifications

|                          |                           |
|--------------------------|---------------------------|
| Model No.                | FX-9707                   |
| Power consumption        | 200 W (24 V)              |
| Temperature range        | 50 to 500°C               |
| Tip to ground resistance | < 2 Ω                     |
| Tip to ground potential  | < 2 mV                    |
| Heating element          | Composite heater          |
| Cord length              | 1.2 m                     |
| Total length (w/o cord)  | 222 mm (with T53-D24 tip) |
| Weight (w/o cord)        | 41 g (with T53-D24 tip)   |

# FX-9708 Heavy-duty N<sub>2</sub> soldering iron



## Soldering iron working with N<sub>2</sub> system

Most soldering tips in the T39 series can be used for both regular type iron and N<sub>2</sub> type iron commonly. There is no need to keep and use a different tip by a same shape.



## Iron Holder

Stable die-cast iron holder. The soldering tip can be attached or detached safely.



### FX9708-81

Handpiece (FX-9708), Instruction manual

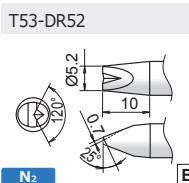
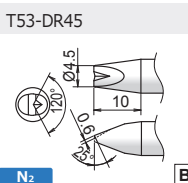
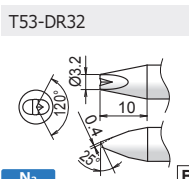
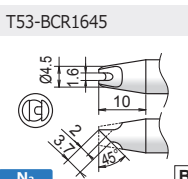
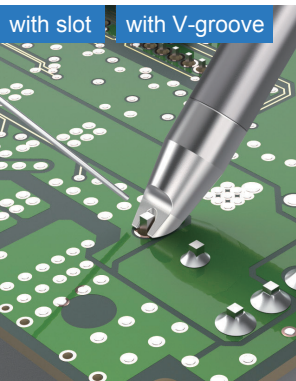
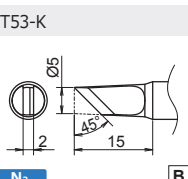
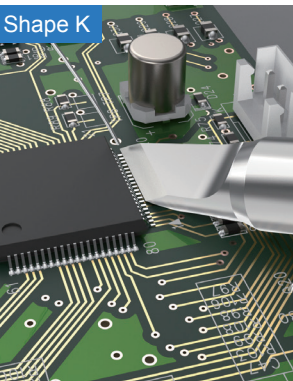
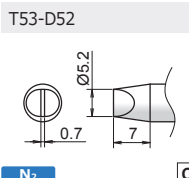
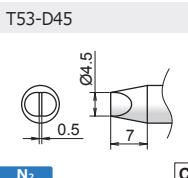
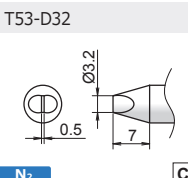
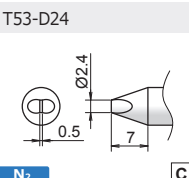
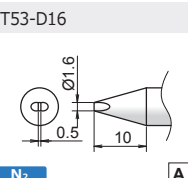
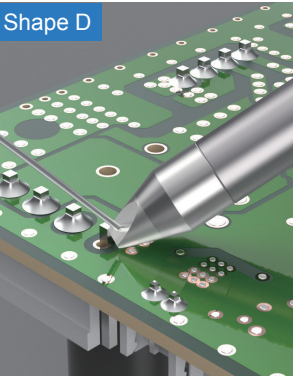
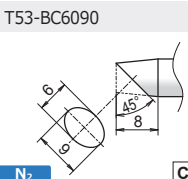
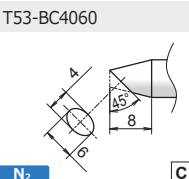
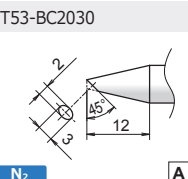
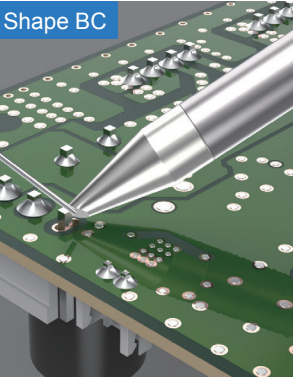
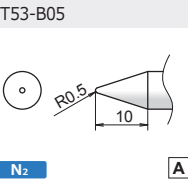
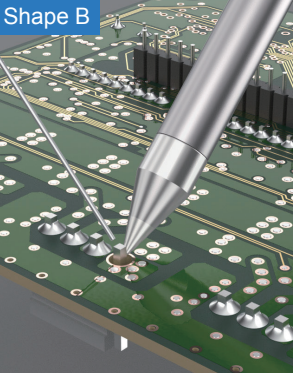
#### Specifications

|                          |                                               |
|--------------------------|-----------------------------------------------|
| Model No.                | FX-9708                                       |
| Power consumption        | 200 W (24 V)                                  |
| Temperature range        | 50 to 500°C                                   |
| Tip to ground resistance | < 2 Ω                                         |
| Tip to ground potential  | < 2 mV                                        |
| Heating element          | Composite heater                              |
| Cord length              | 1.2 m                                         |
| Total length (w/o cord)  | 231 mm (with T53-D24 tip)                     |
| Weight (w/o cord)        | 54 g (with T53-D24 tip and nozzle assembly C) |

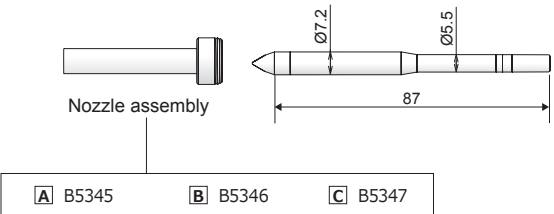
#### Applicable tips

#### Applicable tips

## T53 series tip



For FX-9708 Heavy-duty N<sub>2</sub> soldering iron, use a tip with an applicable nozzle assembly.



Set up with N<sub>2</sub> system

Unit : mm

FX-971

FX-972

FX-973

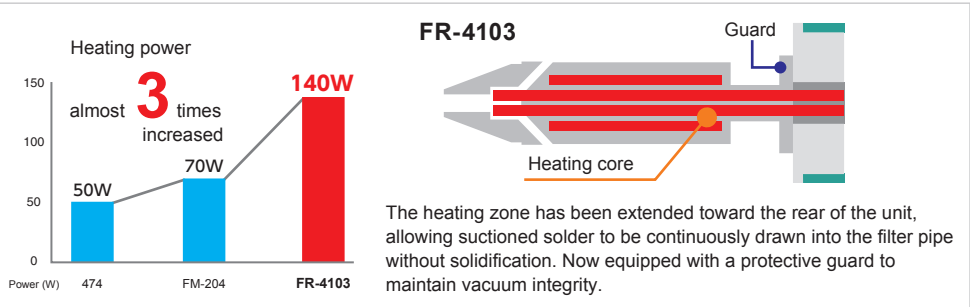
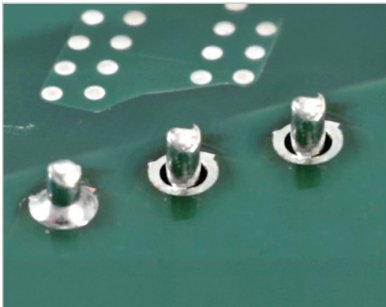
FR-850

Connectable stations



FR-4103 Desoldering tool

Applicable nozzles



140W High-Power Heater – Optimized for Solder Removal on Multilayer PWBs

Heating power almost 3 times increased! \*1  
Solder extraction on multilayer PWBs, once challenging, is now stress-free.  
Improvements in the heater and the use of ACF\*2 ensure that the extracted solder is reliably conveyed to the filter pipe, reducing solder clogging.

\*1 Compared to our previous models  
\*2 ACF (Anti Clogging Function) is a feature that automatically operates the pump for a certain number of seconds after releasing the trigger.



Easy nozzle replacement

The dedicated wrench allows safe, easy and smooth nozzle replacement.



Nozzle quick changer

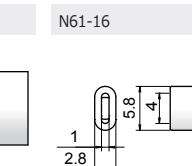
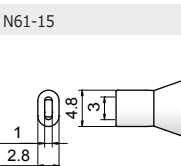
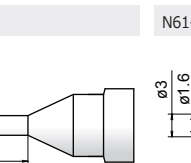
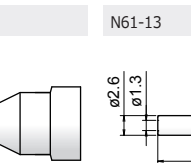
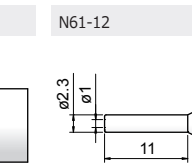
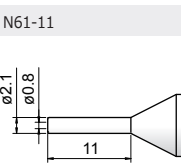
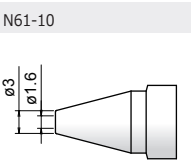
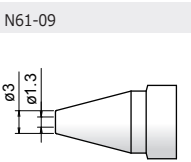
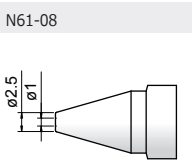
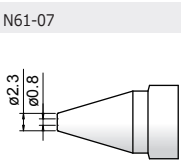
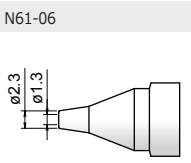
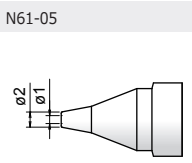
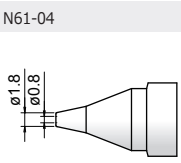
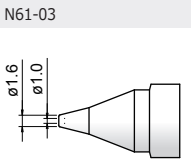
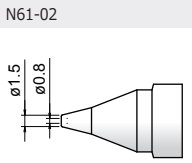
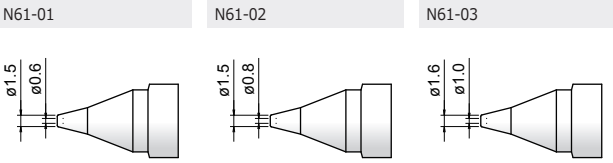
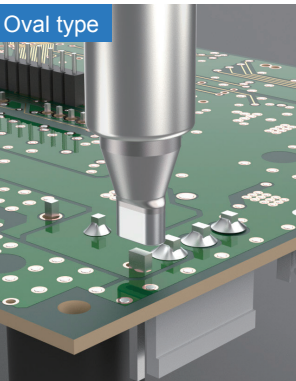
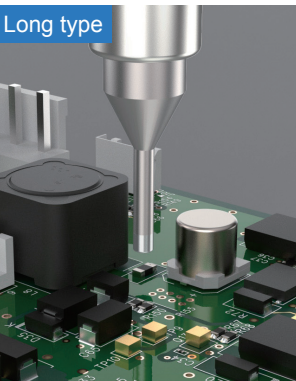
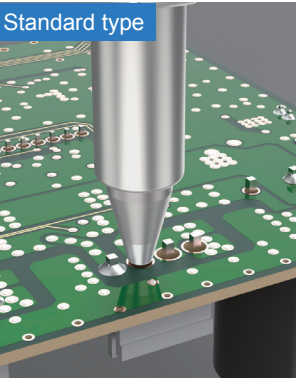
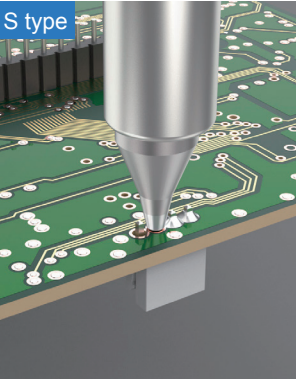
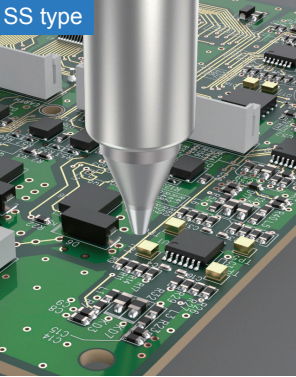
\*Option item  
Up to three types of nozzles can be set, enabling even quicker and safer nozzle changes.



FR4103-81  
Handpiece (FR-4103), Instruction manual

|                             |                                 |
|-----------------------------|---------------------------------|
| Specifications              |                                 |
| Model No.                   | FR-4103                         |
| Power consumption           | 140 W (24 V)                    |
| Temperature range           | 330 to 450°C                    |
| Nozzle to ground resistance | < 2 Ω                           |
| Nozzle to ground potential  | < 2 mV                          |
| Heating element             | Composite heater                |
| Standard nozzle             | 1.0 mm dia. S type (No. N61-05) |
| Cord length                 | 1.2 m                           |
| Total length (w/o cord)     | 168 mm (with N61-05 nozzle)     |
| Weight (w/o cord)           | 190 g (with N61-05 nozzle)      |

N61 series



Unit : mm



FR-8501

Micro Hot Air iron

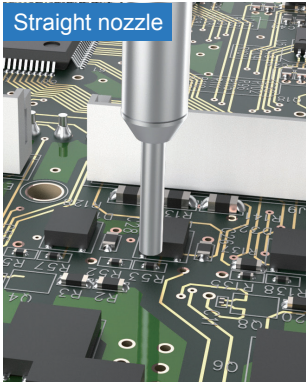
Applicable nozzles



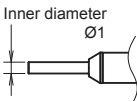
NA01

series nozzle

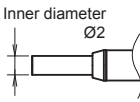
Straight nozzle



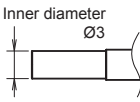
NA01-C10



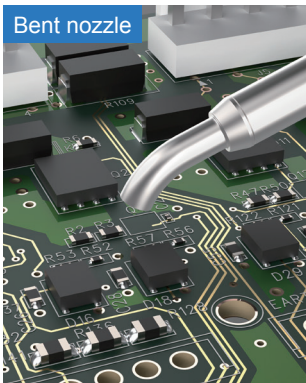
NA01-C20



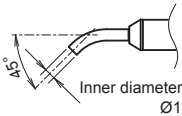
NA01-C30



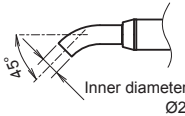
Bent nozzle



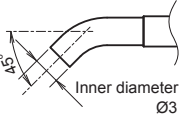
NA01-CB10



NA01-CB20



NA01-CB30



Unit : mm



Six Nozzle Types

Provides straight and bent nozzles. The bent nozzle allows hot air to be efficiently directed at components during microscope-assisted operations. Cartridge-style design enables quick and tool-less nozzle replacement.



Hot Air ON/OFF Control

Control hot air ON/OFF with the iron unit button. Real-time operating status is clearly indicated via top-mounted LED.



Temperature Measurement

Hot air temperature measurement is possible by installing the A1557 sensor on the stand.



Newly Designed Iron Holder

Equipped with an auto-cooling function that activates simply by placing the handpiece on the stand. One-touch nozzle attachment and removal ensures safe and easy handling. Capable of storing up to four nozzles.



Nozzle not included

FR8501-81

Handpiece (FR-8501), Instruction manual

Specifications

|                             |                               |
|-----------------------------|-------------------------------|
| Model No.                   | FR-8501                       |
| Power consumption           | 105 W (24 V)                  |
| Temperature range           | 50 to 600°C                   |
| Nozzle to ground resistance | < 2 Ω                         |
| Nozzle to ground potential  | < 2 mV                        |
| Heating element             | Composite heater              |
| Cord length                 | 1.2 m                         |
| Total length (w/o cord)     | 227 mm (with NA01-C20 nozzle) |
| Weight (w/o cord)           | 70 g (with NA01-C20 nozzle)   |