







Experience a Whole New Level



Automobiles, smartphones, computers, home electric appliances, etc.. Soldering is supporting our daily life in various aspects. Hakko, as a manufacturer of soldering equipment, has been working closely with users to solve their problems in order to meet the needs of soldering all over the world. Now, "the standard", which has been contributing to the soldering industry for years, is evolving. Then, we keep supporting a variety of manufacturing sites, such as laboratories, developments, productions, reworks, etc.





940B 1st Generation

The composite-type soldering tip that integrated tip and sensor, was newly developed, which has better thermal recovery than the conventional soldering tip separated from the heater/sensor.



942 2nd Generation

Responding to the growing needs for high thermal capacity brought by lead-free soldering, 75 W soldering iron debuted.

1999 >>

The global transition to lead-free solder moved forward. A major electronics manufacturer started using lead-free solder in Japan for the first time.

>> 2001 >>

3G communications started.
Multi-layered P.W.B. and smaller components of communication equipment advanced.



FM-202 2nd Generation

A multi-playing station for soldering, desoldering, and SMD rework.

Keep up with the changes in electronic components and the environment surrounding soldering.

>>> 2023 >>>

4th Generation

Thanks to Hakko's customers who keep using the products, we have been supplying those models to the market for over twenty years.

We will strive perseveringly in manufacturing to appreciate the customers' support and patronage with the spirit of "It's for you."



FX-951 3rd Generation



FX-952 3rd Generation

Those two models were equipped with auto-sleep and auto-shutoff functions as standard, which are effective in inhibiting tip oxidation. They took over the 942's performance in the new design and were more lead-free oriented.



>> 2005 >>

Lead-free soldering became standard in the world.

>> 2012 >>

4G communications started. Alongside the spread of smartphones, the multi-layering of P.W.B. and miniaturization of components such as 0402 advanced. While, solar panels, automotive capacitors, and power modules grew in size.



FM-203 3rd Generation

2-port multi-playing station for soldering, desoldering, and SMD rework.



FX-971



FX-972

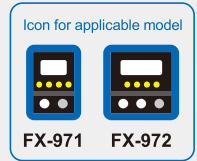
100
W
POWER

40
%
SHORTER

28
NEW
SHAPE TIPS

FX-971 • FX-972

A new level of workability not experienced ever



Compact and high power station with space-saving design

With 100 W of power in a compact body, it performs a wide range of soldering works.



New composite tip (PATENTED)

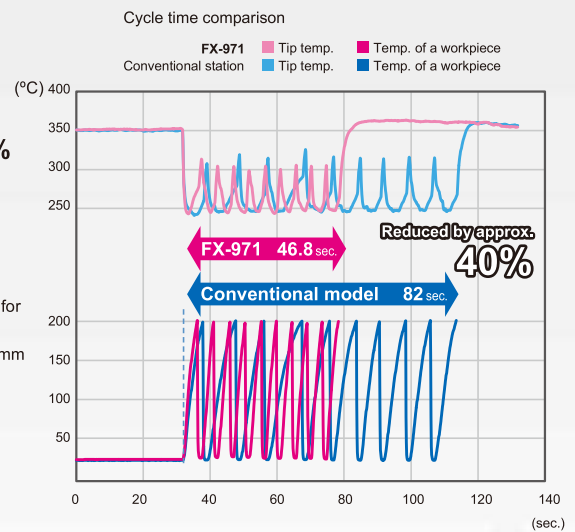
With improved sensor sensitivity and the design that smoothly transfers the heat from the heater to the tip, the tip temperature stables and it ensures better soldering.



Cycle time reduced by approx. 40%

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

Test criteria : Time until the solder portion on the workpiece reaches 200°C is measured for 10 points.
Workpiece : 0.6 mm dia. on the copper plate of 1.5 mm
Set temp. : 350°C
Solder : Lead-free solder (Sn/Ag/Cu)



Tips for any soldering at various scenes

The well-selected line-up of soldering tips. Soldering that was previously impossible or time-consuming can be improved with the tips in new shapes.





FX-971



FX-972

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.

Tip sensor temperature

Preset number and temperature

350°C
P3 350

Intuitive operation



Various settings can be easily configured using four buttons.



Portability

Easy to carry



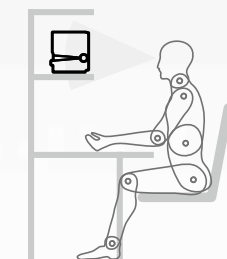
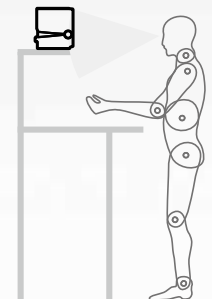
Adjustable display angle for better visibility and operation



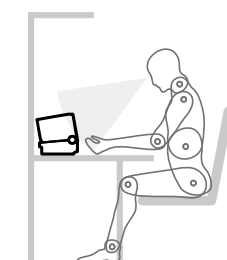
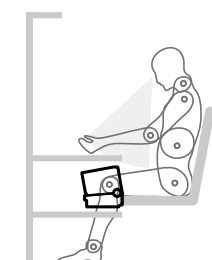
Tilt mechanism for easy viewing and operation of the screen display, depending on the installation location, e.g., on or under the workbench or on the rack.



FLAT



TILT





FX-971

Infrared communication



Automatic calibration and correction can be completed by sending the measured temperature value of the thermometer (FG-100B/FG-101B), via infrared.



*Photo is FG-100B.

Software



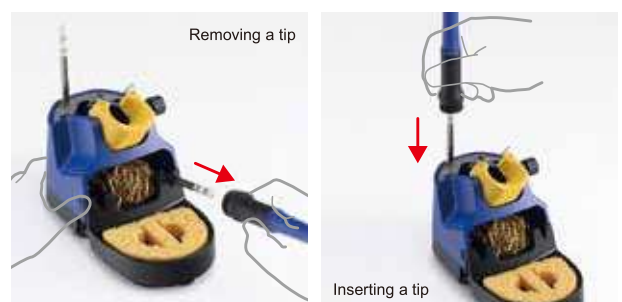
By connecting the station to the PC, the tip set temperature, calibration/correction and the temperature history of the tip during operation are recorded on the PC, enabling management with zero human error.



Iron holder



The newly designed iron holder allows easy and safe tip replacement with a tip removing attachment and tip insertion holder.



Auto-sleep Auto-shutoff



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

FX-972

200W 2-port multi-station

Useful 2-port type. Other than using 8 different applications, it has functions to improve work efficiency at various scenes.

Multi-connection support



8 different applications can be used without specifying the connecting port.

Priority channel

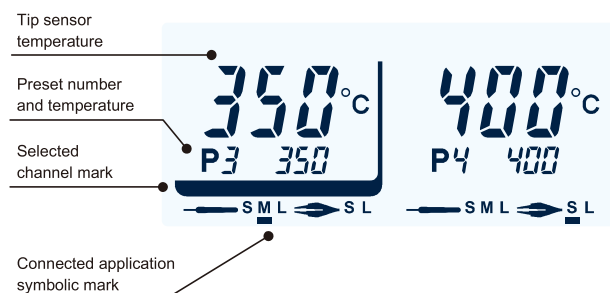


A built-in sensor detects the handpiece in use and automatically switches channels. The unused handpiece stands by at the set temperature.

Large display with information



The large display shows the tip sensor temperature, the preset temperature, and the connected application for each of the two ports.





FX-9701 Soldering iron
FX-9702 N2 soldering iron



T39-BCR1235

FX-9703 Micro soldering iron
FX-9704 Micro N2 soldering iron



T50-J01

28

NEW SHAPE TIPS

Tip for any soldering at various scenes

The well-selected line-up of soldering tips. Soldering that was previously impossible or time-consuming can be improved with the tips in new shapes.

3

SECONDS

Fine soldering tips with high power

Output power 70W is the best in its class. The new heater achieves an instant startup in 3 seconds after being powered on for immediate work. Heat damage can be avoided by using N2 gas.

Soldering iron working with N2 system

Most soldering tips in the T39 series can be used for both regular type iron and N2 type iron commonly. There is no need to keep and use a different tip by a same shape.



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.



Iron holder

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



Easy handling

The cable diameter is 3.6mm, and the weight of the handpiece is only 14 grams. You can enjoy stress-free soldering work due to easy handling.





FX-9707 Heavy-duty soldering iron

FX-9708 Heavy-duty N2 soldering iron



T53-BCR1645

200_W

POWER

Heavy-duty and high power

High power 200W is the best for heat absorbing work such as significant components like a shield case and coil or multilayered P.W.B.

27%

SHORTER

Shorter cycle time

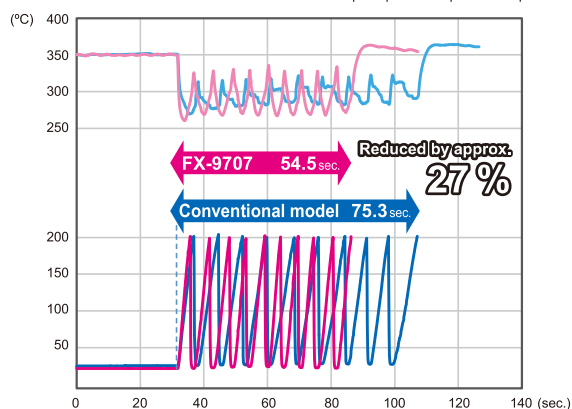
Thermal characteristics have been improved by approx. 27% compared to the conventional models.

Cycle time reduced by approx. 27%

In addition to the increased power to 200 W, the synergistic effect of the new heater construction and the newly designed tip shapes help to reduce the cycle time by approximately 27% and improves work efficiency.

Cycle time comparison

FX-9707 Tip temp. Temp. of a workpiece
Conventional model Tip temp. Temp. of a workpiece



Test criteria : Measure the soldering time until the workpiece temperature reaches 200°C at 10 soldered points.
Workpiece : diameter 12mm, thickness 1.5mm copper plate
Temperature setting : 350°C Solder : Lead-free solder (Sn-Ag-Cu)

Flow-up effective soldering tip with V-groove

New 4 kinds of soldering tips with V-groove added, making 14 kinds of tips line-up in total. It contributes to improving solder flow-up with wider contact area to the lands or leaded parts.



Easy handling

The cable diameter is only 4.4mm. The handle part is thinner and lighter than the conventional model and it brings stress-free work for heavy-duty use type handpiece.





FX-9706 Micro hot tweezers



T52-K



T52-I005

140^w

POWER

High power

140 W (70 W x 2)

It is useful for the fine components such as 0402 chips with a quick action.

4 TYPES

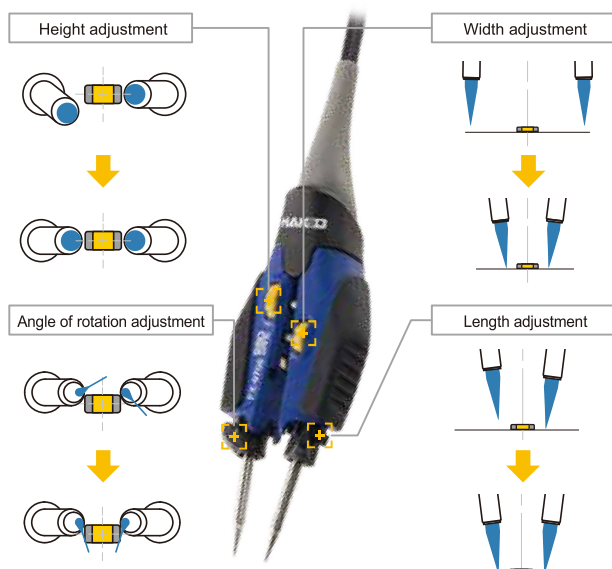
ALIGNMENT

Accurate contact with micro-components

Accurate contact with components improves heat transfer and workability.

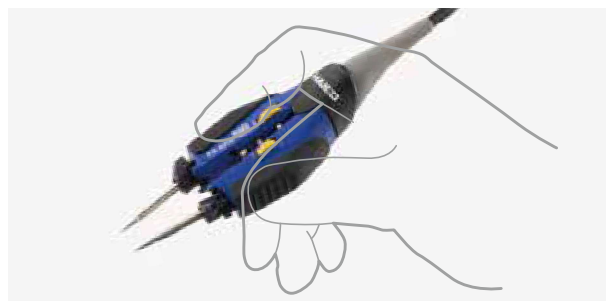
4 adjustment mechanisms

Height, width, angle of rotation and length can be adjusted.



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.



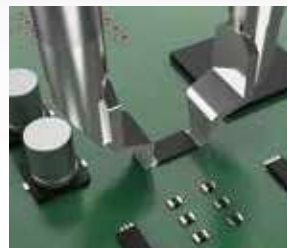
Iron holder

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





FX-9705 Hot tweezers



T51-L3



T51-LA6

190^w POWER

High power

190 W (95 W x 2)
It is useful for 1005 chips as well as the SOP components with a quick action.

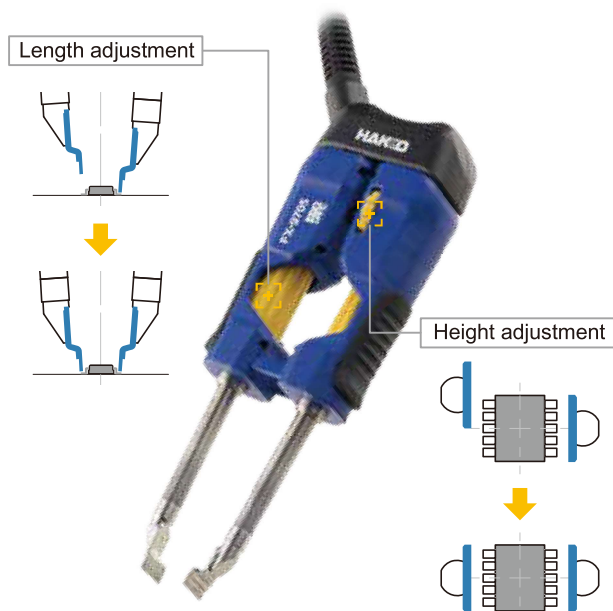
2 WAY HANDLING

Accurate contact with components

The new tip shapes in the line-up allow two different handling styles.

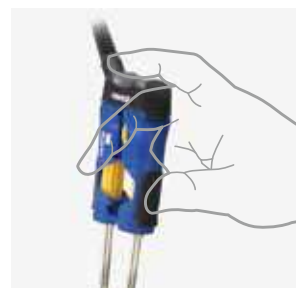
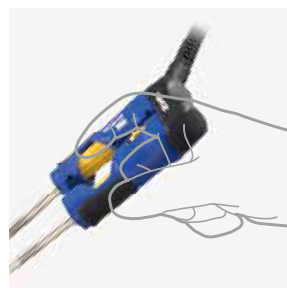
2 adjustment mechanisms

Height and length can be adjusted.



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.



Iron holder

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





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