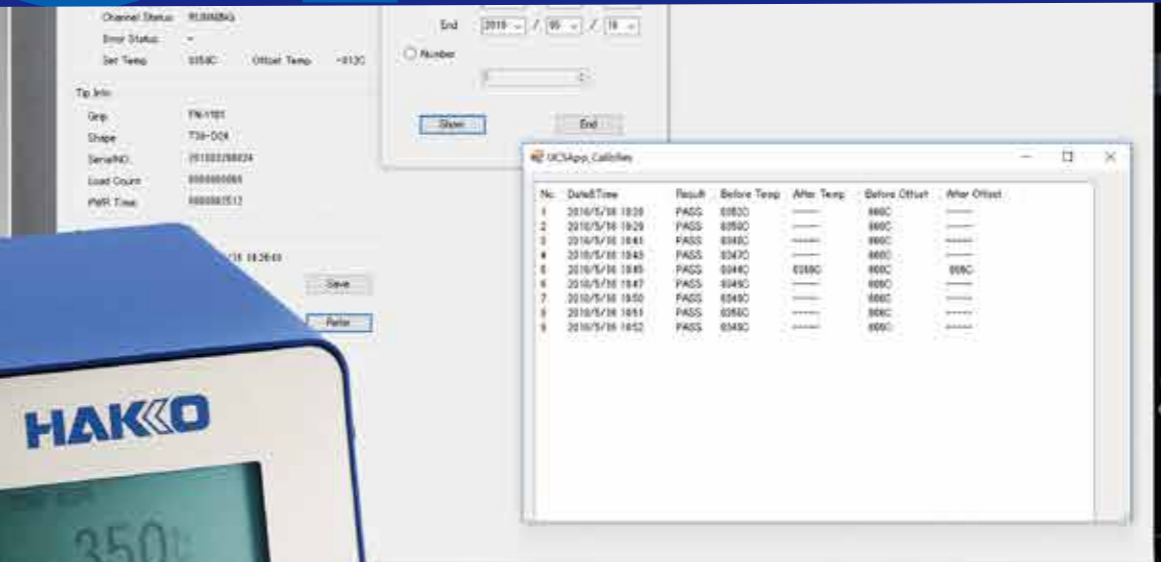
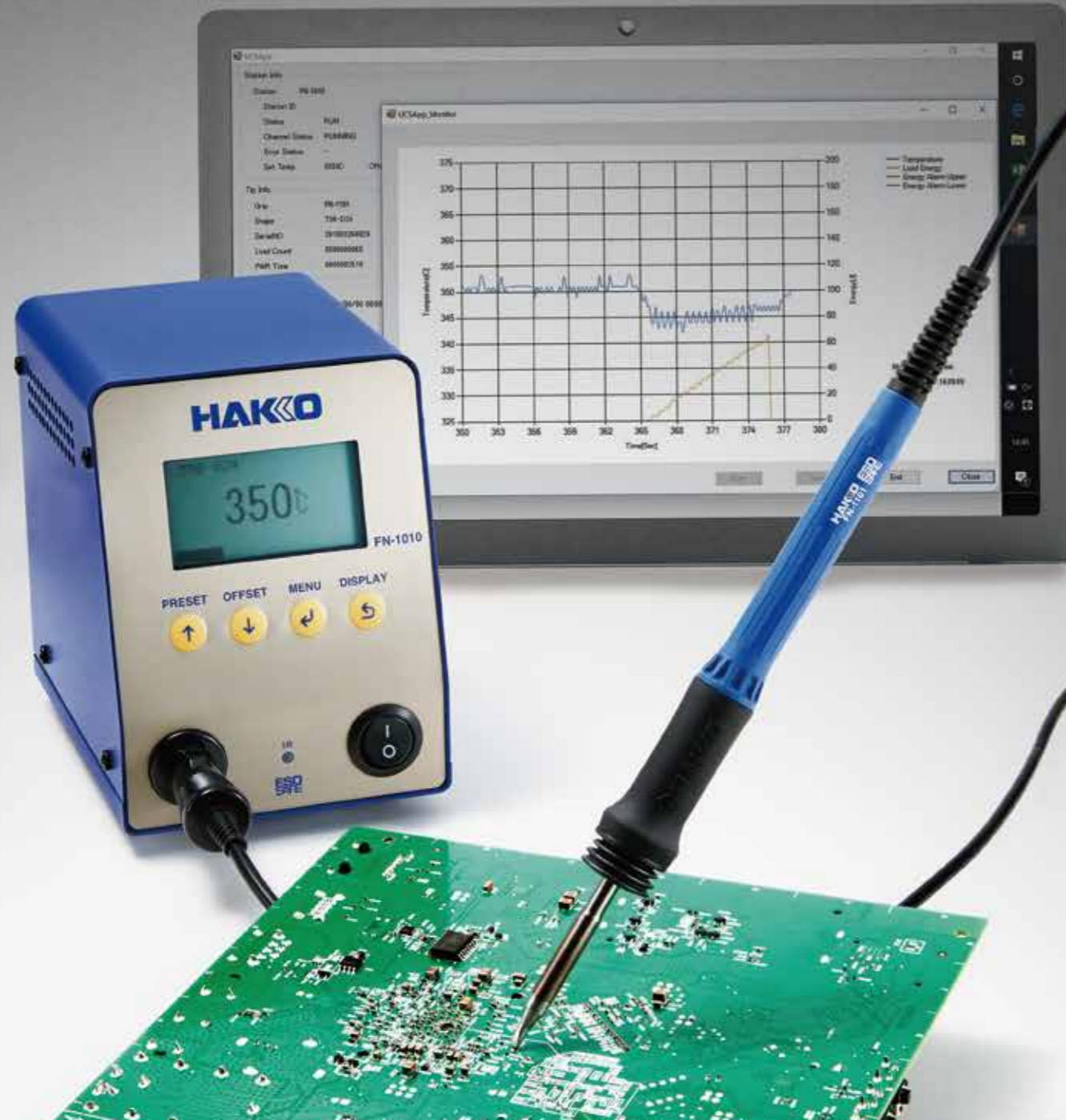


**FN-1010** and **FG-100B**  
 equipped with communication function.  
 Pioneer **the future** of soldering with advanced  
**IoT technology**

**HAKKO**

**FN-1010**  
**FG-100B**



**Improve traceability!**  
**Minimize human error!**  
**Optimize soldering conditions**

**HAKKO**  
**HAKKO CORPORATION**  
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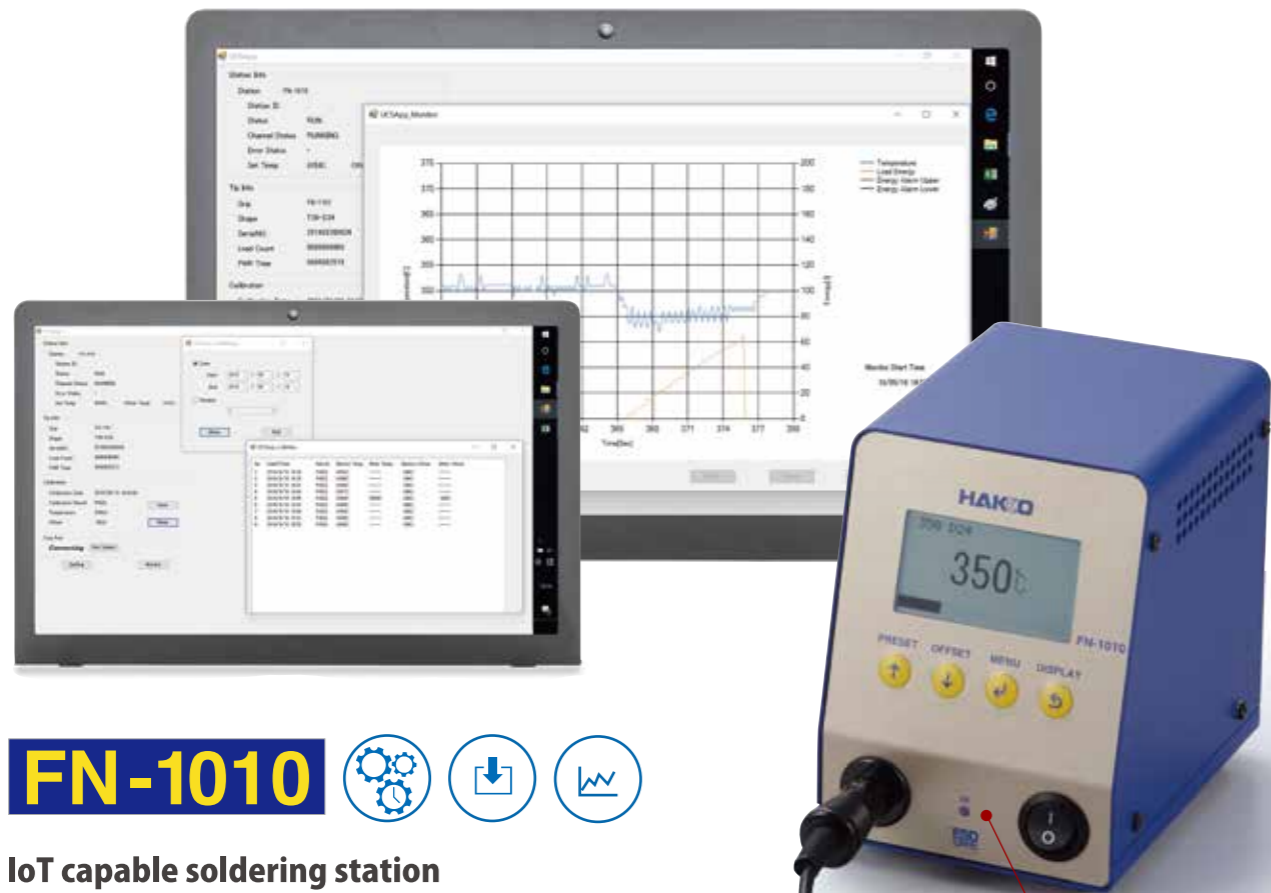
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## FN-1010

### IoT capable soldering station

FN-1010 can control tip temperature more strictly and precisely. It also can collect and visualize the information of manual soldering.



## FG-100B

### Thermometer

It will automatically notify the completion of measurement. It can minimize individual differences in the measurement process.



AUTO HOLD function



IR receptor



## FH-210

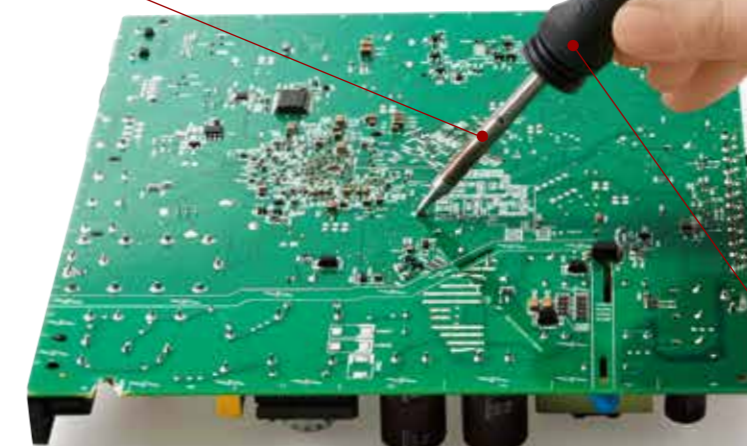
### User-friendly iron holder with safety design

- Tip cleaner that prevents solder balls
- Tip replacement without heat resistant pad



### Possible to collect a variety of information of manual soldering

Information such as tip shape, serial number, number of loads, and total time of power supplied, can be collected.



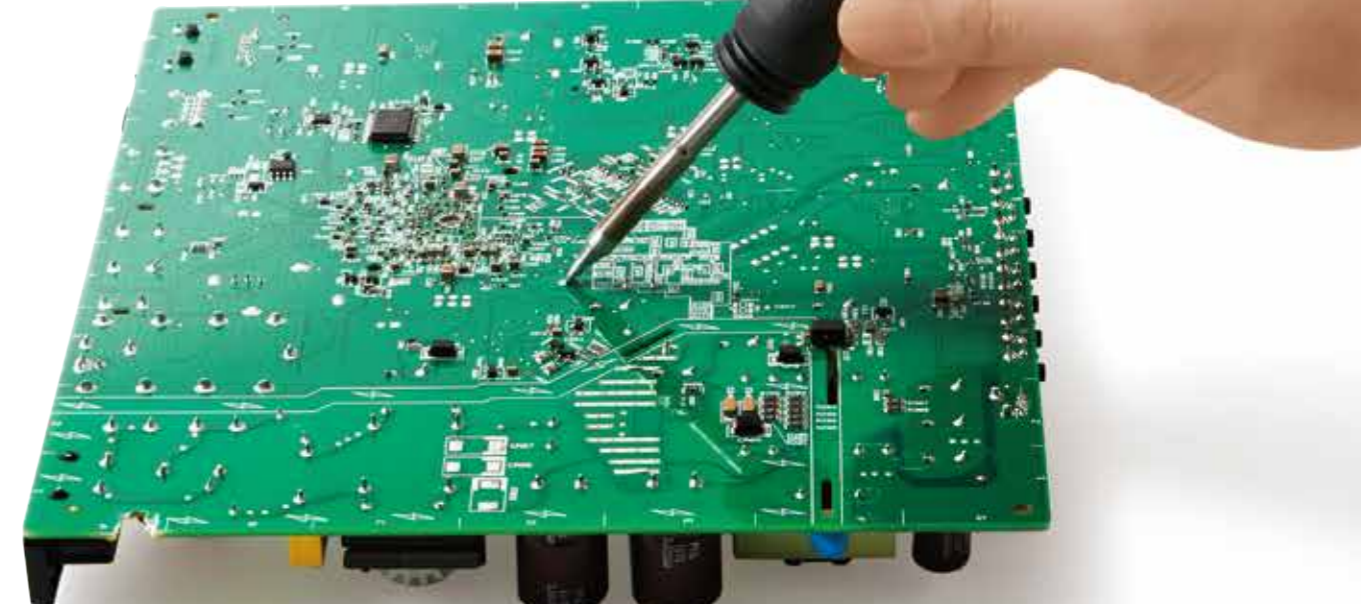
Free fall detection

Built-in motion sensor detects free fall and cuts the power

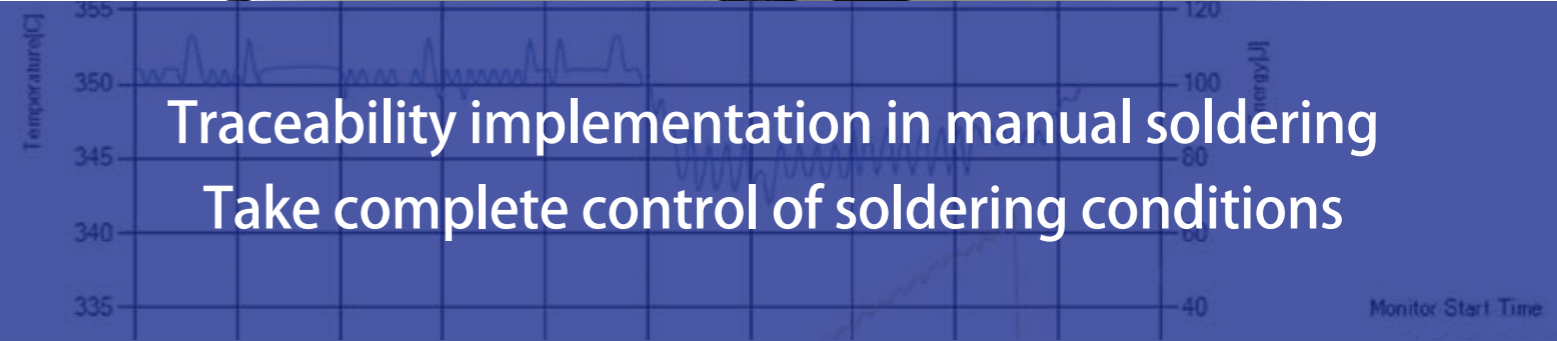
## FN-1101

### T36 series soldering tip equipped with memory chip and soldering iron equipped with motion sensor

The memory chip can collect and record information of manual soldering in real time. The motion sensor detects when an iron is dropped and cuts the power for safety purposes.



Date&Time	Result	Before Temp	After Temp	Before Offset	Aft
018/5/16 10:28	PASS	0352C	-----	000C	---
018/5/16 10:29	PASS	0350C	-----	000C	---
018/5/16 10:41	PASS	0348C	-----	000C	---
018/5/16 10:43	PASS	0347C	-----	000C	---
018/5/16 10:45	PASS	0344C	0350C	000C	00



## Human error free temperature control

## Traceability implementation in manual soldering Take complete control of soldering conditions

1

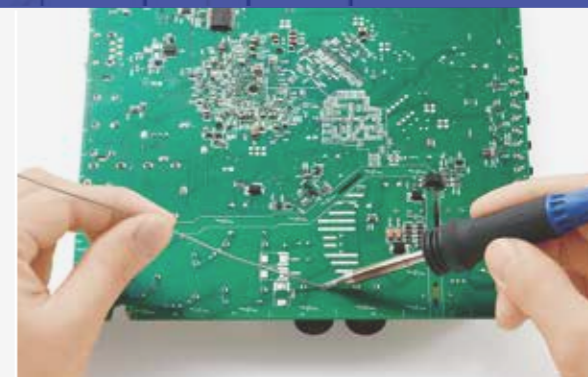


### Measure tip temperature

Tip temperature measurement can be completed automatically by using AUTO HOLD or MAX HOLD function of FG-100B.

### Collect information of manual soldering

- Tip shape
- Serial number
- Number of loads
- Total time of power supplied
- Load sensitivity
- Type of solder alloy (Lead-Free/Lead)
- Count alarm



1

2



### Send measurement result

Measurement result can be sent to FN-1010 through infrared.

### Collect and save information in real time

Digitize energy supplied from soldering tip during soldering operation



2

3

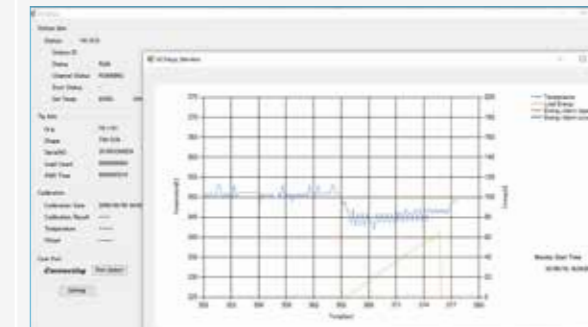


### Automatic calibration & off-set

Automatically determine whether or not measurement result falls in the range, which needs to be pre-set. If in the range, it will go back to operation mode, and if out of the range, it will automatically calculate off-set value and make the off-set.

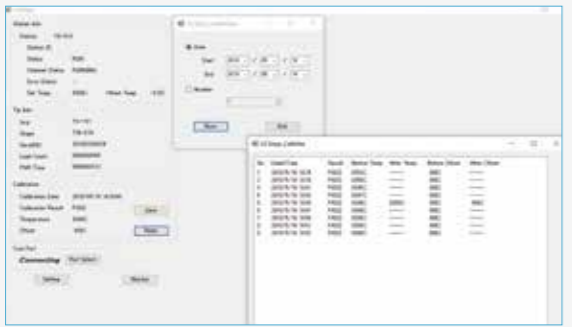
### Visualize and control soldering process

It is now possible to visualize and control invisible factors of soldering. Collected information can be utilized to optimize soldering conditions.



3

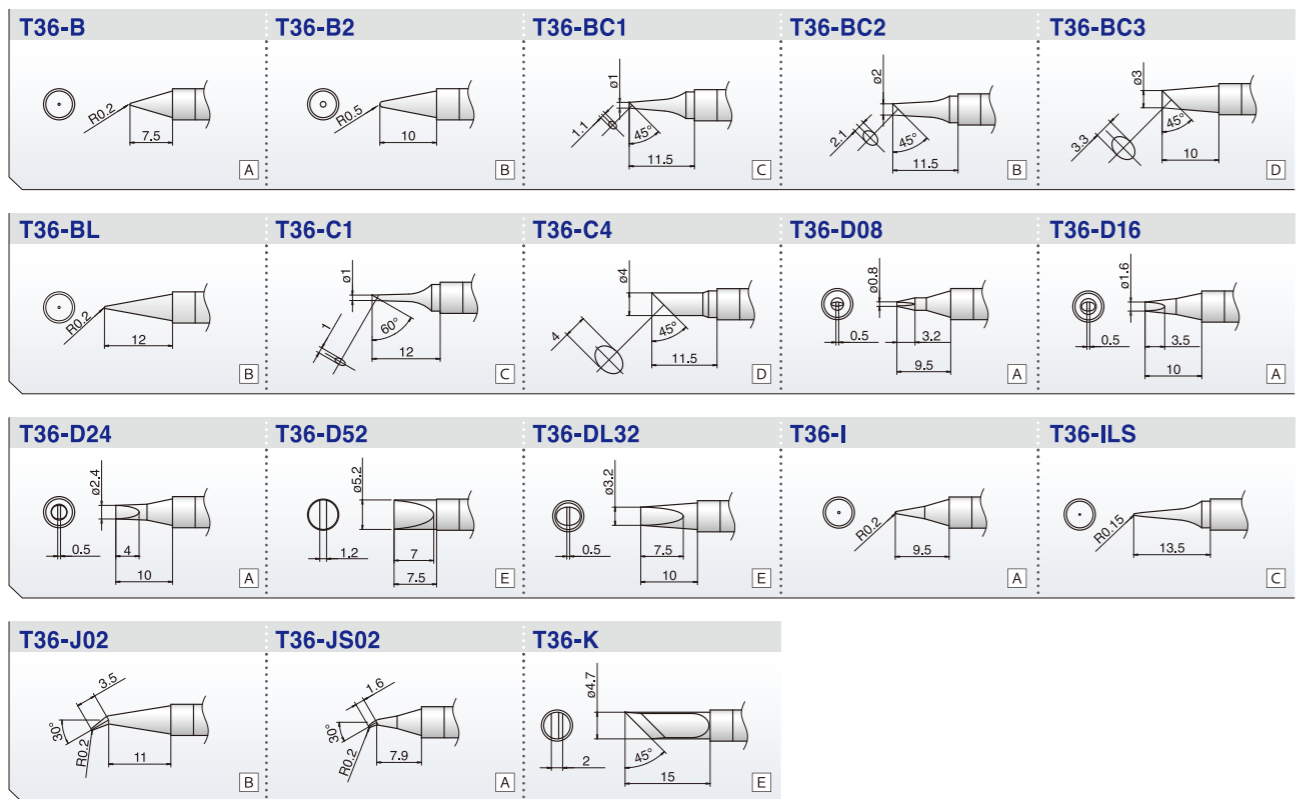
4



### Automatically record results of temperature measurement, calibration and off-set

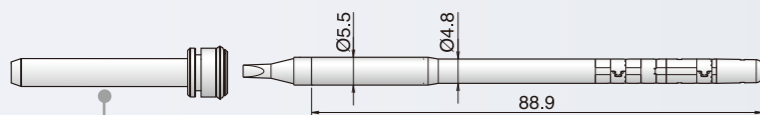
When measurement result falls in the range, it will be recorded as "PASS". The measurement result along with off-set value will be also recorded.

Soldering Soldering **T36 series** soldering tip equipped with memory chip Unit: mm



**Nozzle assemblies for N<sub>2</sub> Soldering Iron**

Nozzle assemblies make the optional iron FN-1102 capable with N<sub>2</sub> System.



**Nozzle assemblies**

- [A] B5233 [B] B5234 [C] B5235 [D] B5236 [E] B5237

**Option**

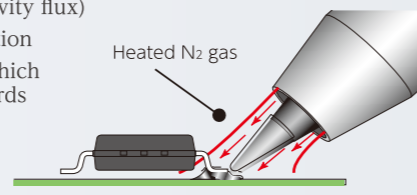


N<sub>2</sub> Soldering Iron FN-1102

**N<sub>2</sub> System**

Heated N<sub>2</sub> gas discharged from the tip end produces three effects. As a result, solderability increases, which allows you to enjoy the following advantages.

- Compatible with no-clean soldering (low-activity flux)
- Reduces soldering time
- Reduces tip oxidation
- Solve the insufficient heat supply problems which may occur during soldering of multilayer boards
- Relieves loads applied to heat-sensitive parts
- Reduces cracking of multilayer ceramic capacitors by thermal shock



**FN-1010**

**Packing List**



**IoT Capable Soldering Station**

- Station ● Soldering Iron FN-1101 ● Iron holder FH-210
- Tip cleaner FT-401 (with cleaning wire)
- Power cord ● Instruction manual

**Specifications**

Model No.	FN-1010
Power consumption	100 W
Temperature range	50 to 450°C
Temperature stability	±3°C at idle temperature
<b>Station</b>	
Output voltage	AC 21V
Dimensions	104 (W) × 138 (H) × 152 (D) mm
Weight	1.9 kg
<b>Soldering Iron</b>	
Power consumption	95 W (21 V)
Heating element	Composite heater
Cord length	1.2 m
Total length	180 mm (with 2.4D tip)
Weight	32 g (with 2.4D tip)

\* Total length and weight exclude cord.  
\* Delivered with the resistance set to 2 Ω or less and the leak voltage set to 2 mV or less.

**FG-100B**

**Packing List**



**Thermometer with Auto-measurement Function**

- Unit ● 006P 9V Dry battery (For trial) ● Sensor (qty 10)
- Instruction manual

**Specifications**

Model No.	FG-100B
Power supply	006P 9V dry battery (alkaline cell recommended)
Temperature resolution	1°C
Temperature measurement range	0 to 700°C
Temperature precision	±3°C (300 to 600°C), ±5°C (in other ranges)
Temperature sensor	K (CA) type thermocouple
Display	LCD : 3 1/2 digits
Operating environment	Ambient temperature/humidity range : 0 to 40°C, 20 to 90%RH (without condensation)
Environmental conditions	Applicable rated pollution degree 2 (according to IEC/UL 61010-1)
Dimensions	68 (W) × 140 (H) × 38 (D) mm
Weight	125 g

\* The temperature sensor (No. 191-212 or No. 191-212C) can only be used to measure temperature below 500°C. To measure higher temperature, use an applicable temperature probe.  
\* Dimensions exclude protrusions.  
\* Weight excludes battery.



Interface Card (USB type, with cable) No. B5210



Interface Card (RS232C type, with cable) No. B5211



Interface Card (LAN type) No. B5212