

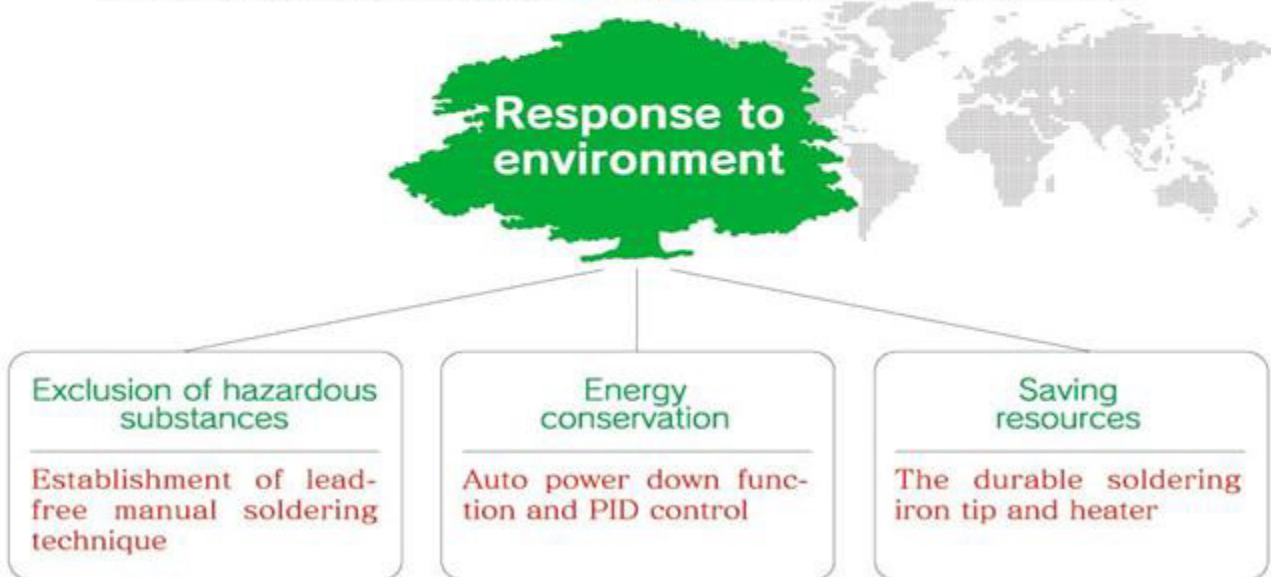
# BONKOTE<sup>®</sup>

LA Soldering irons



## We are tackling with environmental problems squarely!!

We are answering to the customer's need for lead-free soldering and product itself is fully aware of the environment conservation.



## Innovative quality control system for lead-free manual soldering.

Prevention is better than a cure. To minimize defective soldering, the find and fix approach is not effective anymore, especially in lead-free soldering. In quality management for lead-free soldering, a proactive approach is essential.



We propose an innovative quality control system that scientifically monitors the whole process of the manual soldering operation, which prevents defective soldering with the data that is based on scientific evidence. This gives us the insight of knowing where to focus our attention for better soldering operations. As a result, this application enables the company to save a lot of cost in quality control activities while improving the lead-free soldering process.

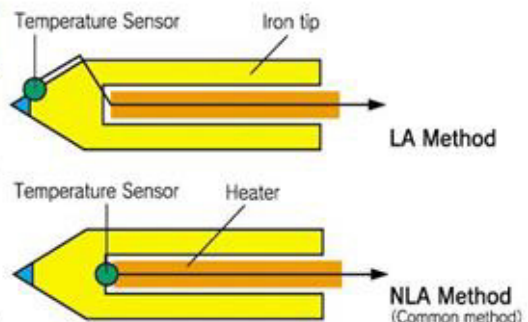
## The main feature of BONKOTE products

The most distinctive feature of our soldering iron is the LA (Load application temperature control) method. The LA method enables us to monitor the temperature of iron tip in real

time. Therefore, it is possible to check the temperature of the iron tip not only before the operation but during soldering.

We have both two-core power supply cord and three-core power supply cord, because the mainstream of the soldering iron standard has been turning into 「MIL-STD-2000」(set a limit to Earth line resistance and Leak voltage) from 「JIS C-9211」(set a limit to insulation resistance and Leak electric current) recently. The importance of installing an Earth line has begun to be aware of.

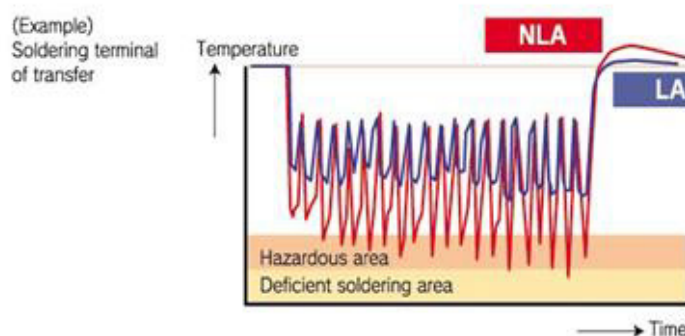
## The difference between LA method and NLA (non-LA) method



In LA method, a thermal sensor is attached to the iron tip's surface, and this enables to indicate and control the temperature of base material and iron tip.

In NLA method, which is still widely used, temperature sensor is installed between heater and iron tip. As the sensor is located near the heater, rapid temperature change of the heater affects the sensor, and as it is far from iron tip it is difficult to detect the temperature change of iron tip accurately. Compared to this, the sensor of LA method being attached near the iron tip, can detect the actual temperature change in soldering accurately and in real-time. Together with its controller temperature display and alarm function for abnormal temperature, dynamic temperature management is achieved.

**LA**(Temperature control during loading) : **Load Application** temperature control method.



The left figures compare display data of controller temperature and temperature of iron tip between LA method soldering iron and NLA method soldering iron of same power. The display data and iron tip temperature in LA method fluctuates in real time. Compared to this, in

NLA method data shows little change and looks stable. But measured by sensor attached to the head of soldering iron, the data shows the same fluctuation. This is the reality of iron tip, and soldering improves greatly by becoming familiar with this temperature change.

**Iron tip temperature changes greatly while soldering. But, this is the reality**

**We have made invisible temperature into visible**

# To extend iron tip life

**“ Using the set temperature as low as possible while soldering.”**

This is one of the way to extend the tip life※1

BONKOTE soldering iron “TB-1175/2175” can make it possible to do it.

First, since they are BONKOTE original **LA method** (refer to page 2 for the details) soldering irons, the tip temperature can **recover rapidly and its drop is small**.

Moreover, since we can **measure the accurate tip temperature in real time**, there is no need to increase the set temperature unnecessarily.

In general, it is said that the tip life increases double when the set temperature lowers by 30°C.

According to the tip life test we performed※2, the tip life of BK7-2C was **17,600 points at 400°C**.

On the basis of this result, we can estimate the tip life **35,200 points at 370°C**, and it will extend to

**70,400 points at 340°C**.

Please refer to below line graph.

※1

It means by how many times a solder is applied until the copper core is hollowed out.



※2

Test condition:

Soldering station: M12-TB-1175-BK7-2C

Set temperature: 400°C

Soldered object: Universal circuit board

Solder wire: φ0.8 rosin lead-free

Sn: 96.5%, Ag: 3.0%, Cu: 0.5%

Flux content ratio: 4%

Test method:

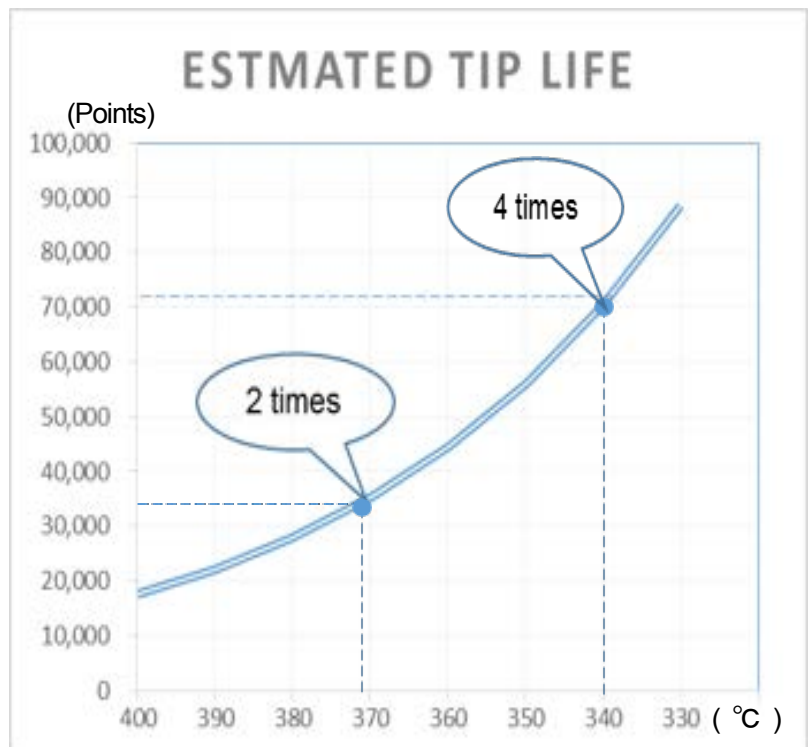
Solder wire feed amount: about 10 mm/3 sec.

Interval:

Feed 3 sec. with intervals of 2 sec.

Cleaning:

Once at intervals of 5 times with a water-absorbed sponge.



Setting temp.(°C)	400	390	380	370	360	350	340	330	320
Point	17,600	22,100	27,900	35,200	44,300	55,800	70,400	88,700	111,700

## Low voltage &amp; Multi use soldering iron controller

## MR3 / MR4

=== SAIKY series are committed to High Power, Safety and Excellent quality.===



MR3



## LA method soldering iron

Temp.control by sensor on tip surface

## 24V low voltage output

Safety use

Multi use (tip:  $\phi 5$ .  $\phi 7$ .  $\phi 11$ )

Light &amp; Heavy load

## High Power

Powerful 90W &amp; 175W

## Easy to Handle

ONE-TOUCH tip replacement

## ■ Specifications (controller)

Model No.	MR3	MR4
Input voltage	100V	220V
	$\pm 10\%$ 50/60 Hz	
Temperature range	50 ~ 450 °C	
Power cord	3 pin plug cord	
Dimension (W. D. H.)	87 x 165 x 94 (mm)	
Weight	1900 g	
Temp. control method	PID control	
Temperature display	Set temperature and Actual tip temperature	
Error display	Over scale Sensor break	
Alarm function	Yes	Yes
Material (case)	ESD resin	ESD resin
Power consumption	10 W	10 W
Fuse	2 A	1 A
Output voltage	24V	

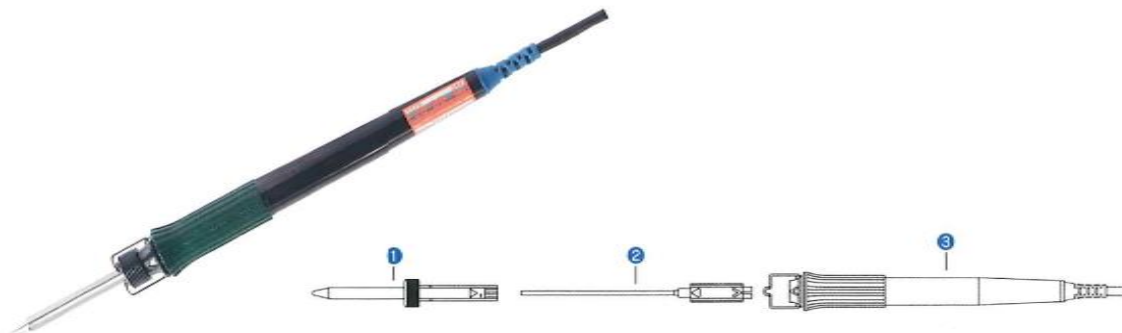
## ■ Specifications (soldering iron)

Model No.	JS-90	JS-175
Input voltage	24V	
Heater output	90W	175W
Iron tip	BK5 series	BK7 series BK11 series
Iron stand	BON-12	BON-14

# LA method soldering iron JS-90

## Feature

Even small size but high power ! JS-90 soldering iron can apply to various soldering works.



## Specifications

Model No.	JS-90
Voltage / Wattage	24V / 90W
Applicable iron tip	BK5 series
Standard iron tip	BK5-2C
Iron stand	BON-12
length (attached std.tip)	206 mm
Weight (attached std.tip)	25 g
Heater	CEA-24-90
Applicable controller	SAIKY controllers
Leak voltage	≦ 2.0 mV (default)
Ground line resistance	≦ 2.0 Ω (default)

## Replacement parts

	Parts name	Model No.
1	Iron tip series	BK5 series
2	Heater	CEA-24-90
3	Grip	JS-90GP

## BK5 series

B型	C型	CR型	D型
<b>BK5-2B</b> φ3mm 	<b>BK5-1C</b> カット面 	<b>BK5-0.5CRL</b> φ1mm 	<b>BK5-2D</b> φ3mm 
<b>BK5-2BL</b> φ2mm 	<b>BK5-1CL</b> カット面 	<b>BK5-1CR</b> φ3mm 	<b>BK5-3D</b> φ3mm 
<b>BK5-5B</b> φ3mm 	<b>BK5-1.3C</b> カット面 	<b>BK5-1CRL</b> φ2mm 	<b>BK5-4D</b> φ3mm 
<b>BK5-5BS</b> φ3mm 	<b>BK5-2C</b> カット面 	<b>BK5-2CR</b> φ3mm 	<b>CDT型</b> <b>BK5-2CDT</b> ※先部のみ交換可能 
	<b>BK5-3C</b> カット面 	<b>BK5-3CR</b> φ4mm 	<b>KF型</b> <b>BK5-KF</b> エッジ面 
	<b>BK5-4C</b> カット面 		<b>BK5-KFS</b> エッジ面 

Standard iron tip



BK5 series

※ solder wetting

# LA method soldering iron JS-175

## Feature

With newly developed heater elements, compact yet high power.

Wide range of soldering iron tips in 2 different sizes,  $\phi 7$  mm and 11 mm, is able to achieve multiple soldering works.



## Specifications

Model No.	JS-175
Voltage / Wattage	24V / 175W
Applicable iron tip	BK7 / BK11 series
Standard iron tip	BK7-2C
Iron stand	BON-14
length (attached std.tip)	228 mm
Weight (attached std.tip)	31 g
Heater	CE-24-175
Applicable controller	SAIKY controllers
Leak voltage	$\leq 2.0$ mV (default)
Ground line resistance	$\leq 2.0 \Omega$ (default)

## Replacement parts

	Parts name	Model No.
1	Iron tip series	BK7 / BK11 series
2	Heater	CE-24-175
3	Grip	JS-175GP

## Easy

Comfortable and easy to handle with a light weight flexible cable.

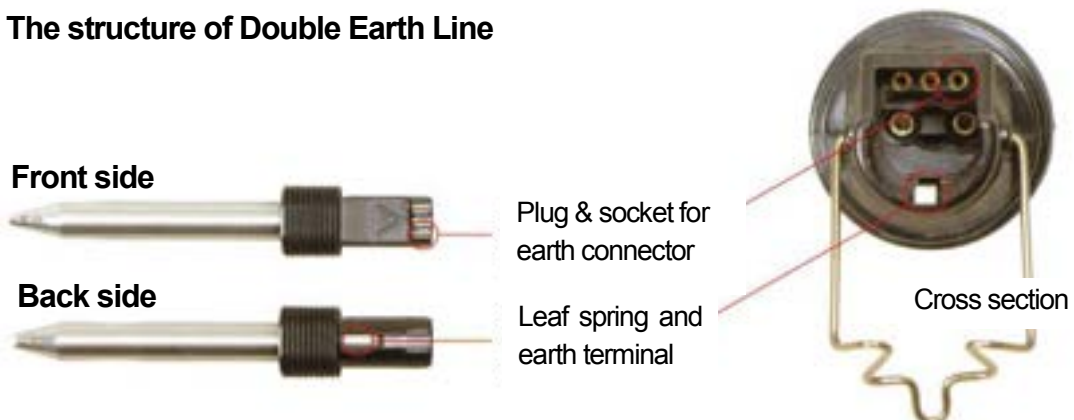
Just pull out and push in. Simple and Quick replacement of iron tips.

## Safety design

Double earth line secure one earth line in case of disconnection of the other.

Secured earth lines protect your products from the electrical breakdown.

### ● The structure of Double Earth Line



## Replacement Iron Tip

### BK7 series

B型	CR型	KF型
BK7-0.2BL φ2mm	BK7-0.5CRL φ1mm	BK7-KF エッジ型
BK7-2B φ3mm	BK7-1CR φ2mm	BK7-1.2KF エッジ型
BK7-2BL φ3mm	BK7-2CR φ3mm	
BK7-7B φ3mm	BK7-3CR φ4mm	
	BK7-4CR φ5mm	
C型	D型	CDT型
BK7-1C カット型	BK7-0.8DL φ3mm	BK7-2CDT ※先端および溝内
BK7-1CL カット型	BK7-1.2DL φ3mm	BK7-2.7CDT ※先端および溝内
BK7-1.5C カット型	BK7-2D φ3mm	BK7-3.5CDT ※先端および溝内
<b>BK7-2C カット型</b>	BK7-2.4D φ3mm	
BK7-2CL カット型	BK7-3.2D φ3mm	
BK7-3C カット型	BK7-4D φ3mm	
BK7-3CL カット型	BK7-3D1 φ8mm	
BK7-4C カット型		
BK7-5C カット型		

### BK11 series

C型	CR型	D型	KF型
BK11-2C カット型	BK11-3CR φ4mm	BK11-5.2D φ5mm	BK11-KF エッジ型
BK11-3C カット型	BK11-5CR φ6mm	BK11-9D φ9mm	
BK11-4C カット型			
BK11-5C カット型			
BK11-6C カット型			
BK11-8C カット型			



Type CDT iron tip can improve thru-hole operation by holing terminals

※ solder wetting

Standard iron tip



BK7 series



BK11 series



# LA method Temperature controller M12 / MW12

M12

MW12



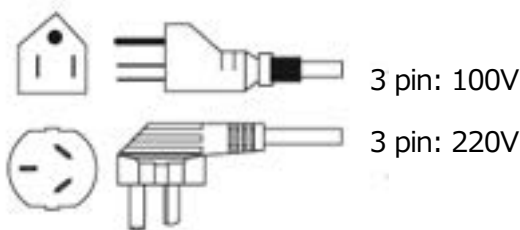
## Features

- Set temperature and actual temperature of iron tip are constantly indicated on the display.
- Warning alarm / Auto power down / Auto power off functions are equipped.
- Auto PID control function maintains the optimum temperature.
- Temperature recovery speed is adjustable.

## Specifications

Model No.	M12	MW12
Input voltage	100V ~ 240V	
Temperature range	0 ~ 500°C	
Plug type	3 pin plug	
Dimension (W. D. H.)	97 x 130 x 73 mm	95 x 130 x 130 mm
Weight	≤ 750 g	≤ 1250 g
Temp. control method	PID control (Auto tuning)	
Temperature display	Both of set temperature and actual temperature	
Error display	Over scale	Sensor break
Alarm function	Yes	Yes
Material (case)	Steel	Steel
Power consumption	≤ 10VA	≤ 20VA
Fuse	3.0A	3.0A x 2 pcs
Iron stand	★ included	Option

Plug Type



## Alarm Function

When the iron tip temperature exceeds the set temperature, the warning alarm starts working.  
Alarm setting temperature is adjustable.

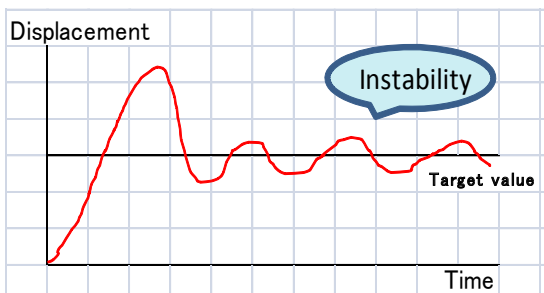
## Lock Function

There are two types of locking methods.  
One is for the set temperature, and the other for whole set items including temperature.  
Only authorized people can change the setting.

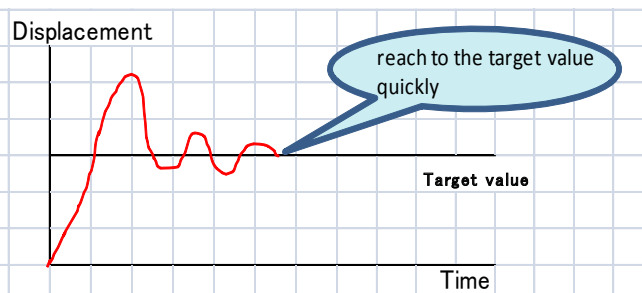
## PID control

Better temperature control result is achieved as opposed to that of ON/OFF control.  
 PID control reduces temperature instability, and increases recovery time of temperature.  
 Auto tuning function is equipped.

### ◆ ON/OFF control



### ◆ PID control



## Auto power down / Auto power off Function

The function prevents the iron tip from overheating while it is not used for a certain period of time.  
 The durability of iron tip will be improved by preventing from oxidation, carbonization and erosion.



## Applicable soldering iron units

Model No.	100V	TB-118	TB-140JB	-	TB-150	-	TB-165	TB-170J	TB-195J	TB-1100	TB-1175
	220V	-	-	TB-240	-	TB-255J	-	-	TB-295J	TB-2100	TB-2175
Out put		18W	40W	40W	50W	55W	65W	70W	95W	100W	175W
Iron tip series	BN5	BJ6	BN7	BN7	BJ7	BNP10	BJ7	BJ11	BN12	BK7	
			BN10	BN10	BJ8		BJ8				BJ13
Iron Stand		BON-11								BON-3	BON-14

# LA method soldering iron TB-1175 / TB-2175



M12 Controller

TB-2175/ TB-1175  
Soldering iron unit

BON-14  
Iron stand

**A PATRIOT Controller is necessary to operate TB-2175 or TB-1175 soldering iron unit.**

- ◆ P/N: M12-TB-2175(1175)-BKxx-xx (please select iron tip you like) Patriot Soldering Station
- ◆ P/N: TB-2175(1175) -BKxx-xx (please select iron tip you like) Soldering iron unit
- ◆ P/N: BON-14 An Iron stand comes standard with a Patriot soldering Station.

◆ **TB-2175 / 1175 SPECIFICATION**

	TB-1175	TB-2175
Voltage / Wattage	100V - 175W	220V - 175W
Applicable iron tip	BK7 series / BK11 series	
Standard iron tip	BK7-2C	
Length (attached BK7 tip)	228 mm	
Length (attached BK11 tip)	233 mm	
Weight (attached BK7 tip)	31 g	
Weight (attached BK11 tip)	44 g	
Leak voltage	≤ 2.0 mV (default)	
Ground resistance	≤ 2.0Ω (default)	
Iron stand	BON-14	
Applicable controller	M12	

**High Power**

- \* With newly developed heater elements, compact yet high power.
- \* Powerful thermal-recovery helps heavy load operation easily. e.g. multilayer board, heatsink
- \* Quick thermal-recovery makes soldered objects safe and iron tip's life longer.

## Multi task

\* Wide range of soldering iron tips in 2 different sizes, TB-2175/1175 is able to achieve multiple soldering operations.

### ● BK7 tip series attached



With a wide variety of tip lineup, it covers accurate chip repair to huge parts soldering operation.

### ● BK11 tip series attached



Overwhelming heat capacity is useful for heavy duty such as huge transformer or chassis.

## Easy

\* Comfortable and easy to handle with light weight flexible cable.  
 \* Just pull out and push in. Simple and Quick replacement of iron tips.



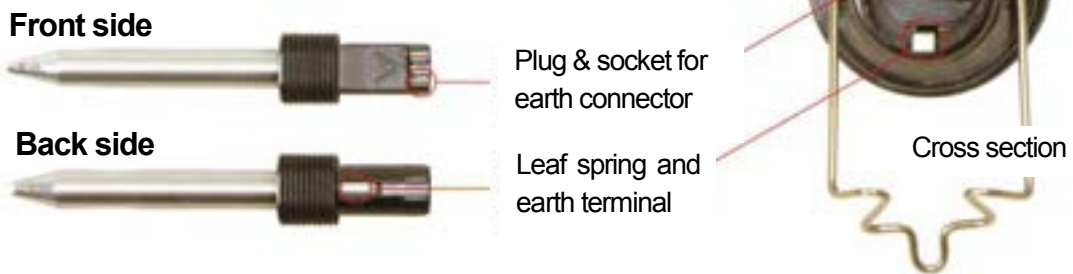
## Economical

\* TB-2175/1175 is applicable to our existing Patriot controllers. (There are some exceptions.)  
 \* Replacement parts are 2 parts only. : Heater element and Iron tip.  
 \* Tip life of BK series is longer, and it can reduce the parts cost.

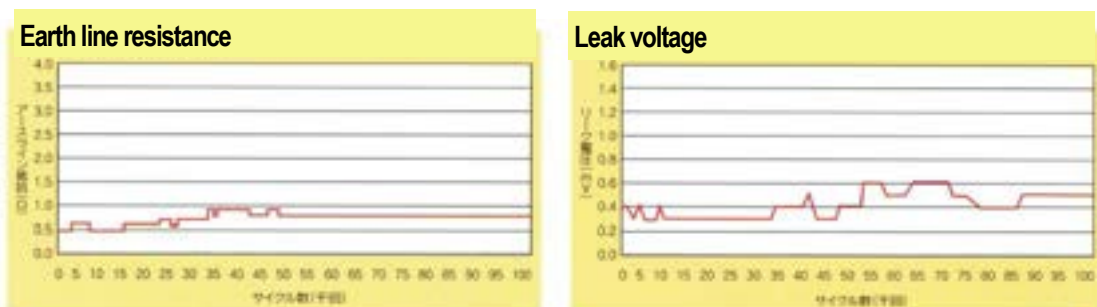
## Safety design

\* Double earth line secure one earth line in case of disconnection of the other.  
 \* Secured earth lines protect your products from the electrical breakdown.



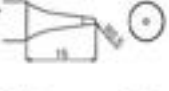













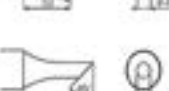



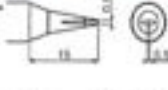


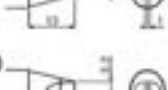
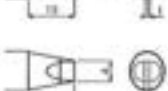





### ● The structure of Double Earth Line















### ● Aged deterioration test data



## BK7 series $\phi 7.0$ mm

<b>B型</b> BK7-0.2BL $\phi 2$ mm  BK7-2B $\phi 3$ mm  BK7-2BL $\phi 3$ mm  BK7-7B $\phi 3$ mm 	<b>CR型</b> BK7-0.5CRL $\phi 1$ mm  BK7-1CR $\phi 2$ mm  BK7-2CR $\phi 3$ mm  BK7-3CR $\phi 4$ mm  BK7-4CR $\phi 5$ mm 	<b>KF型</b> BK7-KF エッジ型  BK7-1.2KF エッジ型 
<b>C型</b> BK7-1C カット面  BK7-1CL カット面  BK7-1.5C カット面  <b>BK7-2C カット面</b>  BK7-2CL カット面  BK7-3C カット面  BK7-3CL カット面  BK7-4C カット面  BK7-5C カット面 	<b>D型</b> BK7-0.8DL $\phi 3$ mm  BK7-1.2DL $\phi 3$ mm  BK7-2D $\phi 3$ mm  BK7-2.4D $\phi 3$ mm  BK7-3.2D $\phi 3$ mm  BK7-4D $\phi 3$ mm  BK7-3D1 $\phi 5$ mm 	<b>CDT型</b> BK7-2CDT ※先端および溝内  BK7-2.7CDT ※先端および溝内  BK7-3.5CDT ※先端および溝内 

## BK11 series $\phi 11.0$ mm

<b>C型</b> BK11-2C カット面  BK11-3C カット面  BK11-4C カット面  BK11-5C カット面  BK11-6C カット面  BK11-8C カット面 	<b>CR型</b> BK11-3CR $\phi 4$ mm  BK11-5CR $\phi 5$ mm 	<b>D型</b> BK11-5.2D $\phi 5$ mm  BK11-9D $\phi 9$ mm 
<b>KF型</b> BK11-KF エッジ型  		



Type CDT iron tip can improve thru-hole operation by holding terminals.

※ solder wetting

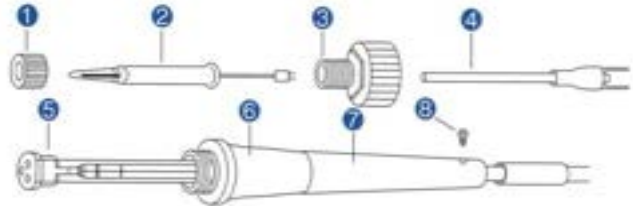
Standard iron tip



# LA method soldering iron TB-118

## Feature

TB-118 is the most applicable to modify fine components. It is the smallest model in our product lineup and pursued usability for soldering work with small heat loss.



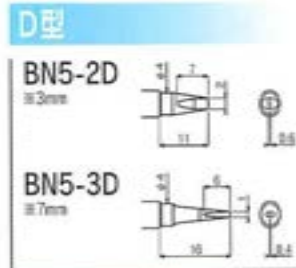
## Specifications

Model No.	TB-118
Voltage / Wattage	100V / 18W
Applicable iron tip	BN5 series
Standard iron tip	BN5-2B
Iron stand	BON-11
Length (attached std.tip)	158 mm
Weight (attached std.tip)	32 g
Heater	KPCE-100-18
Applicable controller	Patriot series controllers
Leak voltage	≦ 2.0mV (default)
Ground line resistance	≦ 2.0Ω (default)

## Replacement parts

	Parts name	Model No.
1	Cover nut	CN-5
2	Iron tip series	BN5 series
3	Radiator nut	NA-42
4	Heater	KPCE-100-18
5	Connector with pin	RC-113
6	Grip cover	MK-51K
7	Grip case	
8	Set bolt	PB-3

## BN5 series



※ solder wetting

BN5 series

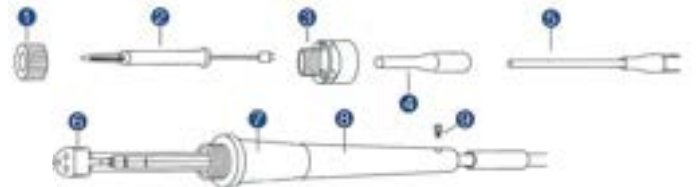


Standard iron tip

# LA method soldering iron TB-150 / TB-240

## Feature

This is a long-seller model, and also suitable for various soldering operations.  
You can choose your favorite iron tip from two different sizes. (  $\phi 7\text{mm}$ ,  $\phi 10\text{mm}$  )



## Specifications

Model No.	TB-150	TB-240
Voltage / Wattage	100V / 50W	220V / 40W
Applicable iron tip	BN7 / BN10 series	
Standard iron tip	BN7-2C	
Iron stand	BON-11	
Length (attached std.tip)	219 mm	
Weight (attached std.tip)	66 g	
Heater	CE-100-50	CE-220-40
Applicable controller	Patriot series controllers	
Leak voltage	$\leq 2.0\text{mV}$ (default)	
Ground line resistance	$\leq 2.0\Omega$ (default)	

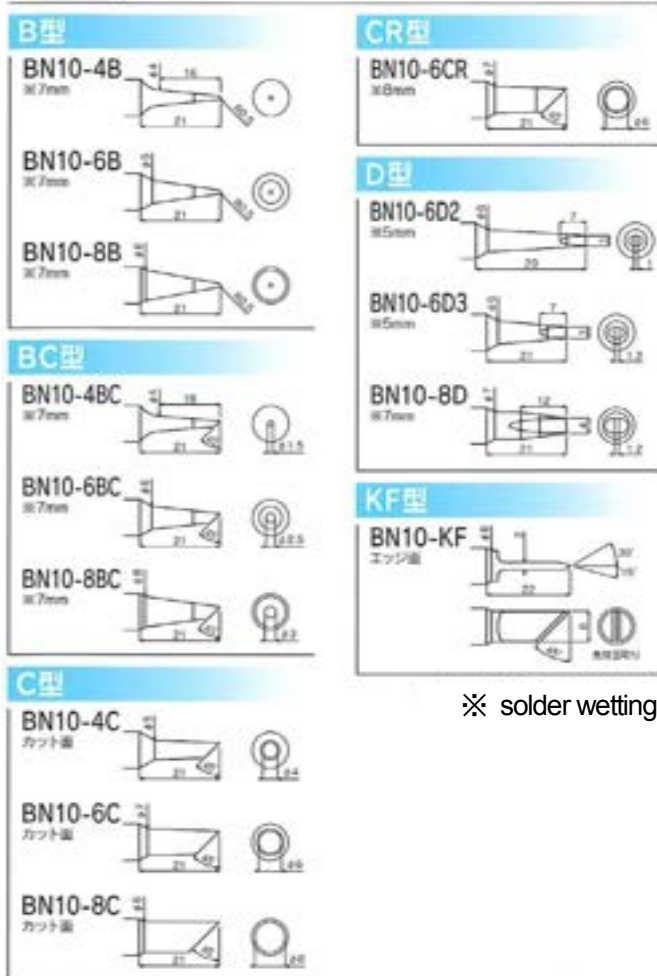
## Replacement parts

Parts name		Model No.	
1	Cover nut	CN-7	CN-10
2	Iron tip series	BN7 series	BN10 series
3	Radiator nut	NA-50	
4	Earth collar	EC-10	
5	Heater	100V	CE-100-50
		220V	CE-220-40
6	Connector with pin	RC-111	
7	Grip cover	GK-73	
8	Grip case		
9	Set bolt	PB-4	

## BN7 series

B型	C型	CR型	KF型
<b>BN7-0.2B</b> $\approx 5\text{mm}$ 	<b>BN7-0.8C</b> カット面 	<b>BN7-2CR</b> $\approx 3\text{mm}$ 	<b>BN7-KF</b> エッジ面 
<b>BN7-2B</b> $\approx 5\text{mm}$ 	<b>BN7-1C</b> カット面 	<b>BN7-3CR</b> $\approx 4\text{mm}$ 	<b>BN7-KFS</b> エッジ面 
<b>BN7-5B</b> $\approx 5\text{mm}$ 	<b>BN7-1.3C</b> カット面 	<b>BN7-4CR</b> $\approx 5\text{mm}$ 	<b>BN7-KFIT2</b> エッジ面 
<b>BC型</b> <b>BN7-5BC</b> $\approx 5\text{mm}$ 	<b>BN7-2C</b> カット面 	<b>D型</b> <b>BN7-3D1</b> $\approx 3\text{mm}$ 	
	<b>BN7-3C</b> カット面 	<b>BN7-5D</b> $\approx 5\text{mm}$ 	
	<b>BN7-4C</b> カット面 	<b>BN7-5D1</b> $\approx 5\text{mm}$ 	
	<b>BN7-5C</b> カット面 		

BN10 series



※ solder wetting

NOTE:

When you change an iron tip series, be sure to change a related cover nut accordingly.

Standard iron tip

BN7 series

BN10 series

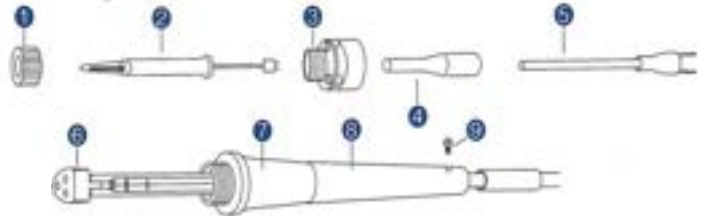




# LA method soldering iron TB-165

## Feature

This is an upgrading model of TB-150 / TB-240 soldering iron. Suitable for work which needs large heat conduction such like terminal parts of large thermal capacity, and continuous work with a large heat loss.



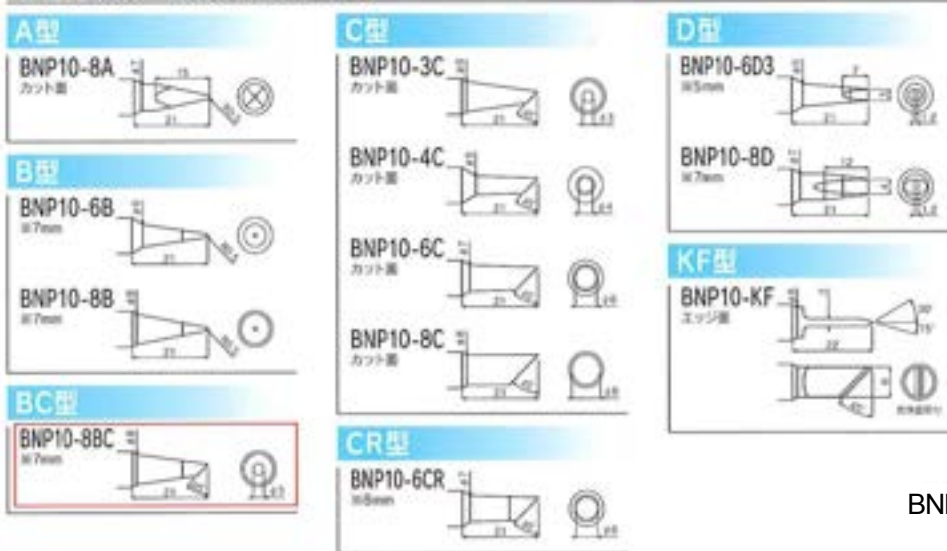
## Specifications

Model No.	TB-165
Voltage / Wattage	100V / 65W
Applicable iron tip	BNP10 / BN11 series
Standard iron tip	BNP10-8BC
Iron stand	BON-11
Length (attached std.tip)	222 mm
Weight (attached std.tip)	78 g
Heater	FCE-100-65
Applicable controller	Patriot series controllers
Leak voltage	≤ 2.0mV (default)
Ground line resistance	≤ 2.0Ω (default)

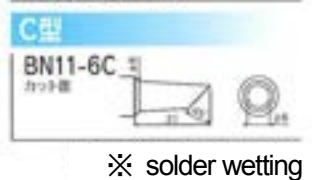
## Replacement parts

Parts name		Model No.	
1	Cover nut	CN-10	CN-11
2	Iron tip series	BNP10 series	BN11 series
3	Radiator nut	NA-50	
4	Earth collar	EC-20	
5	Heater	100V	FCE-100-65
6	Connector with pin	RC-111	
7	Grip cover	GK-73	
8	Grip case		
9	Set bolt	PB-4	

### BNP10 series



### BN11 series



#### NOTE:

When you change an iron tip series, be sure to change a related cover nut accordingly.

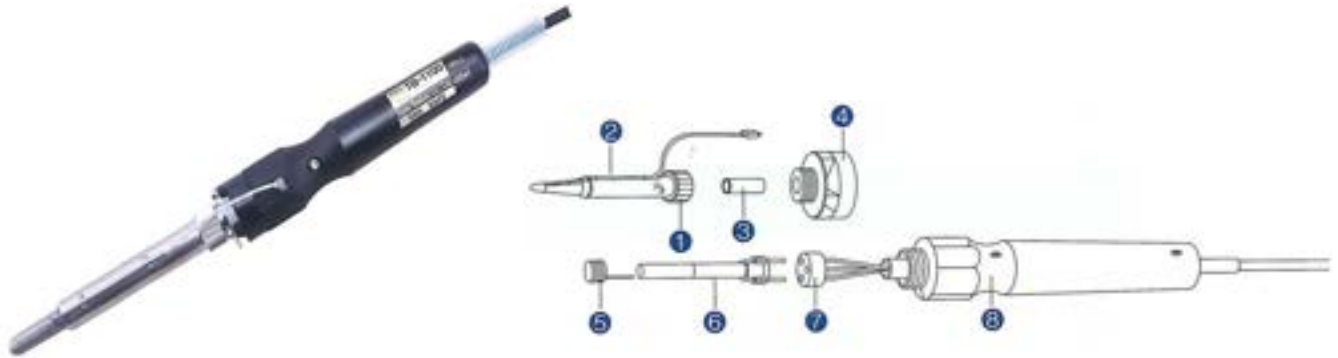
Standard iron tip



# LA method soldering iron TB-1100 / TB-2100

## Feature

This model is applicable to large-sized transformer terminals or chassis which require large heat amount. It shows great performance in heavy burden consecutive soldering operations.



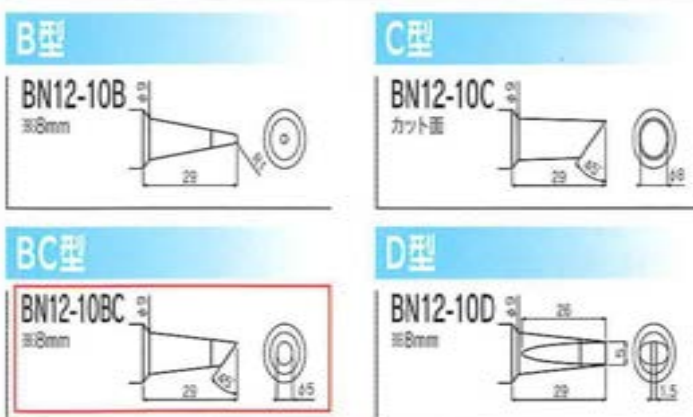
## Specifications

Model No.	TB-1100	TB-2100
Voltage / Wattage	100V / 100W	220V / 100W
Applicable iron tip	BN12 series	
Standard iron tip	BN12-10BC	
Iron stand	BON-3	
Length (attached std.tip)	263 mm	
Weight (attached std.tip)	152 g	
Heater	CE-100-100	CE-220-100
Applicable controller	Patriot series controllers	
Leak voltage	≤ 2.0mV (default)	
Ground line resistance	≤ 2.0Ω (default)	

## Replacement parts

	Parts name	Model No.	
1	Cover nut	CN-12 integrated with iron tip	
2	Iron tip series	BN12 series integrated with cover nut	
3	Heater collar	SUC-12	
4	Radiator nut	NA-30	
5	Earth spring	ECS-5	
6	Heater	100V	CE-100-100
		220V	CE-220-100
7	Connector with pin	RC-108	
8	Grip case	BSK-201	

## BN12 series



※ solder wetting

BN12 series

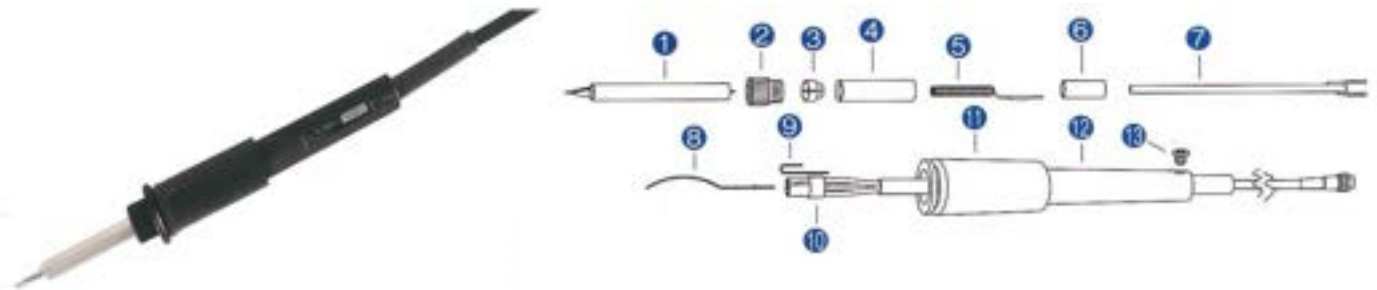


Standard iron tip

# LA method soldering iron TB-140JB

## Feature

TB-140JB is a standard model of small sized soldering irons, and optimum for precise soldering work.



## Specifications

Model No.	TB-140JB
Voltage / Wattage	100V / 40W
Applicable iron tip	BJ6 series
Standard iron tip	BJ6-2C
Iron stand	BON-11
Length (attached std.tip)	154 mm
Weight (attached std.tip)	25 g
Heater	JCE-100-40
Applicable controller	Patriot series controllers
Leak voltage	≤ 2.0mV (default)
Ground line resistance	≤ 2.0Ω (default)

## Replacement parts

	Parts name	Model No.
1	Iron tip series	BJ6 series
2	Hold bolt	CNJ-6
3	Tip holder	TH-04
4	Earth pipe	EPJ-2
5	Sensor coil	JSC-14
6	Terminal cover	TC-5
7	Heater	JCE-100-40
8	Relay sensor	CSP-02
9	U pin	UP-03
10	Connector	RC-202
11	Grip cover	MK-60
12	Grip case	
13	Set bolt	PB-4

## BJ6 series

**B型**

BJ6-2B  
φ4mm

BJ6-4B  
φ4mm

**CR型**

BJ6-2CR  
φ3mm

**KF型**

BJ6-KF  
エッジ型

**C型**

BJ6-1C  
カット型

**BJ6-2C**  
カット型

BJ6-3C  
カット型

BJ6-4C  
カット型

**D型**

BJ6-0.8D  
φ4mm

BJ6-1.6D  
φ4mm

BJ6-2D  
φ4mm

BJ6-3D  
φ4mm

※ solder wetting

Standard iron tip

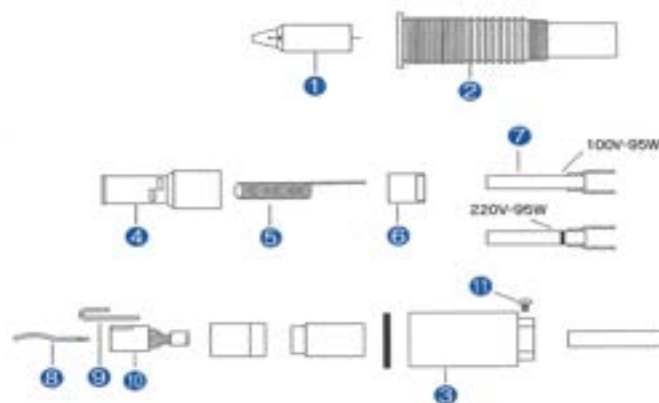
BJ6 series



# LA method soldering iron TB-195J / TB-295J

## Feature

The most suitable model to a large sized components absorbing large heat. With BJ13 series iron tips, they enable to reduce the soldering temperature, and continuous operation even heavy load condition.



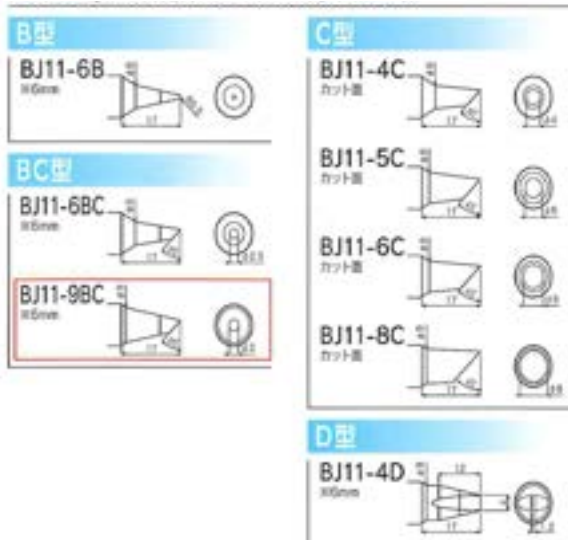
## Specifications

Model No.	TB-195J	TB-295J
Voltage / Wattage	100V / 95W	220V / 95W
Applicable iron tip	BJ11 / BJ13 series	
Standard iron tip	BJ11-9BC	
Iron stand	BON-11	
Length (attached std.tip)	255 mm	
Weight (attached std.tip)	122 g	
Heater	JCE-100-95	JCE-220-95
Applicable controller	Patriot series controllers	
Leak voltage	≤ 2.0mV (default)	
Ground line resistance	≤ 2.0Ω (default)	

## Replacement parts

	Parts name	Model No.
1	Iron tip series	BJ11 / BJ13 series
2	Grip A	JK-70A
3	Grip B	JK-70B
4	Hold pipe	KTP-11
5	Sensor coil	JSC-03
6	Terminal cover	TCV-11
7	Heater	JCE-100-95   JCE-220-95
8	Relay sensor	CSP-03
9	U pin	UP-04
10	Connector	RC-203
11	Set bolt	PB-4

### BJ11 series



### BJ13 series



※ solder wetting

BJ11 series BJ13 series

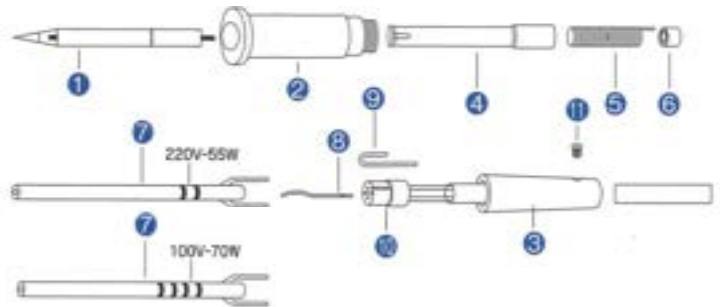


Standard iron tip

# LA method soldering iron TB-170J / TB-255J

## Feature

Those are the most popular model among LA-type soldering iron. They enable cover various soldering works and exchange the tips by one action (inserting/removing work). Three different size (7 mm / 8 mm / 10 mm) of iron tips are available.



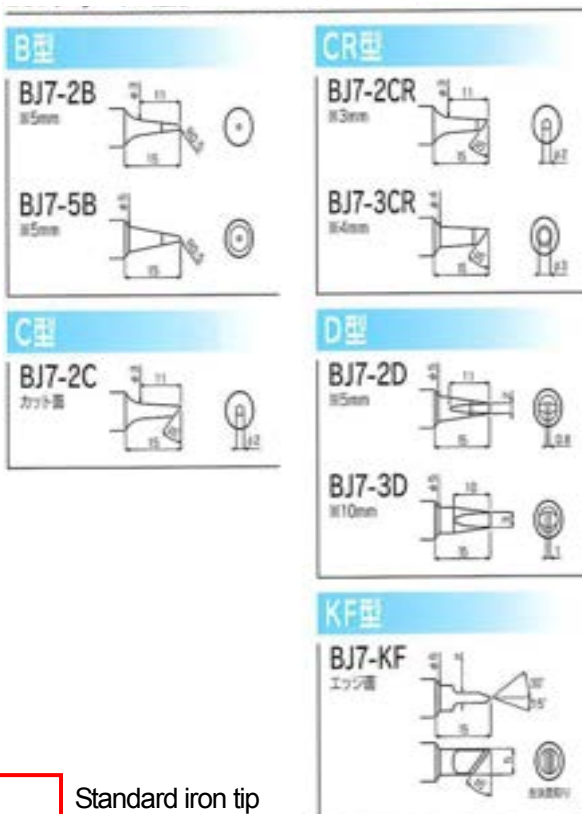
## Specifications

Model No.	TB-170J	TB-255J
Voltage / Wattage	100V / 70W	220V / 55W
Applicable iron tip	BJ7 / BJ8 / BJ10 series	
Standard iron tip	BJ8-2C	
Iron stand	BON-11	
Length (attached std.tip)	203 mm	
Weight (attached std.tip)	57 g	
Heater	JCE-100-70	JCE-220-55
Applicable controller	Patriot series controllers	
Leak voltage	≤ 2.0mV (default)	
Ground line resistance	≤ 2.0Ω (default)	

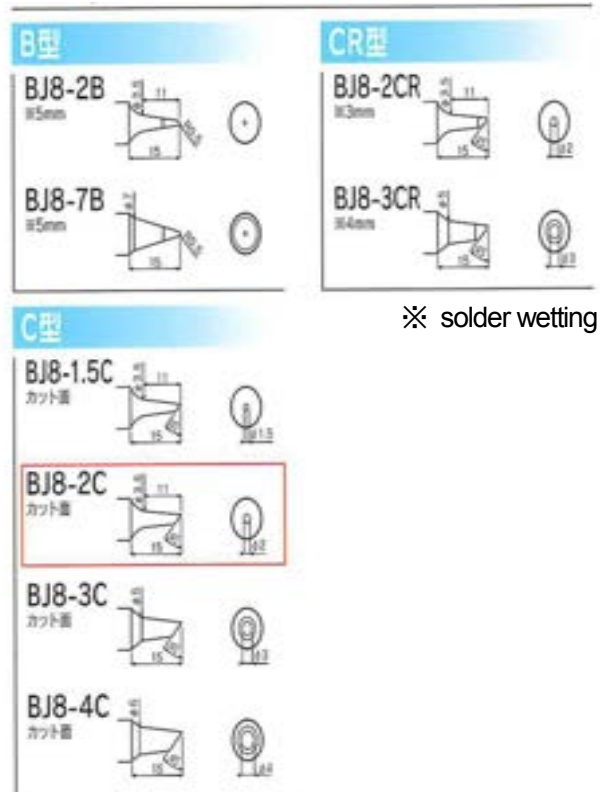
## Replacement parts

	Parts name	Model No.
1	Iron tip series	BJ7 / BJ8 / BJ10 series
2	Grip A	JK-61A
3	Grip B	JK-61B
4	Hold pipe	KTP-7
5	Sensor coil	JSC-02
6	Terminal cover	TCV-7
7	Heater	JCE-100-70   JCE-220-55
8	Relay sensor	CSP-02
9	U pin	UP-03
10	Connector	RC-202
11	Set bolt	PB-4

### BJ7 series



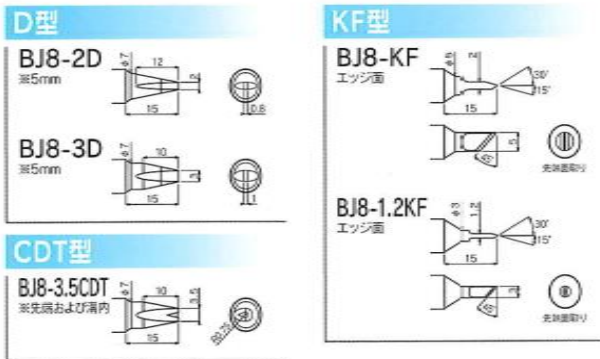
### BJ8 series



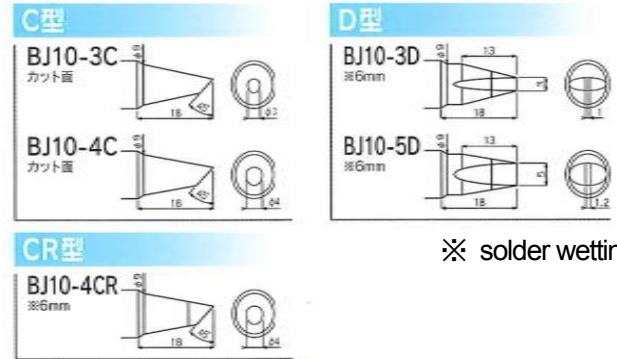
※ solder wetting

Standard iron tip

### BJ8 series



### BJ10 series



※ solder wetting



CDT type iron tip can improve the thru-hole soldering work by holding a terminal.

BJ7 / BJ8 / BJ10 series



# QSS-4000 Temperature Management System

## Features

- ◆ Centralized temperature management by PC.
- ◆ Alarm and display of upper/lower limit
- ◆ Recovery speed adjustment function equipped
- ◆ Digital display of actual and set temperature
- ◆ PID value by auto tuning

QSS-4000 applicable  
**M50 controller**



## Specifications (controller)

Model No.	M50	MW50
Input voltage	100V ~ 240V	
Temperature range	0 ~ 500 °C	
Plug type	3-pin plug	
Dimension (W.D.H)	97 x 130 x 73 mm	95 x 130 x 130 mm
Weight	≤ 800 g	≤ 1300 g
Temp. control method	PID control	
Temperature display	Set temperature and Actual tip temperature	
Error display	Over scale and Sensor break	
Alarm function	Yes	Yes
Case material	Steel	Steel
Power consumption	≤ 10VA	≤ 20VA
Fuse	3.0A	3.0A x 2 pcs
Iron stand	★ included	Option

QSS-4000 applicable  
**MW50 controller**



★ Soldering station (controller + iron unit)

## Applicable soldering iron units

Model No.	100V	TB-118	TB-140JB	-	TB-150	-	TB-165	TB-170J	TB-195J	TB-1100	TB-1175
	220V	-	-	TB-240	-	TB-255J	-	-	TB-295J	TB-2100	TB-2175
Out put		18W	40W	40W	50W	55W	65W	70W	95W	100W	175W
Iron tip series	BN5	BJ6	BN7	BN7	BJ7	BNP10	BJ7	BJ11	BN12	BK7	
			BN10	BN10	BJ8	BN11	BJ8	BJ13			BK11
Iron Stand	BON-11									BON-3	BON-14

QSS-4000 Temperature Management System is designed to centralize and control up to 16 units of soldering iron by one PC, which enable to set up each soldering iron temperature, or to warn any errors.

This system can collect the soldering logging data just like collecting flow / re-flow data, so that it can monitor whole process of the manual soldering operation.

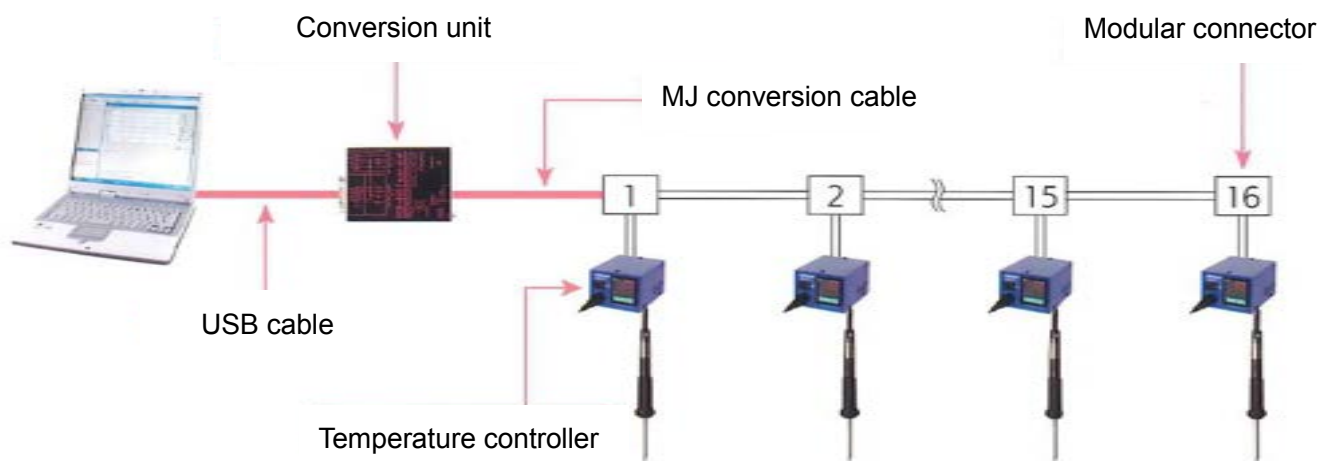
Operators can monitor the temperature of the soldering irons through the office computers.

As a result, it can give a sense of security to the manager and inspire operators with better soldering.

## Advantages of QSS-4000 (Quality improvement and Cost reduction)

- ◇ Analysis of a correlation between iron tips and objects can provide suitable soldering conditions.
- ◇ Alarm function can find and prevent soldering defects in advance.
- ◇ Working histories of defective items are available.
- ◇ The working histories submitted to customers can obtain big trust from them.
- ◇ The tip temperature management by PC decreases its checking time.
- ◇ Accordance with ISO 9001 certification process.

## System structure



## Required accessories:

QSS-4000 software	1
Conversion unit with USB cable and MJ conversion cable	1
★ Modular distribution connector	(the number of connection) - 1
★ Communication cable	(the number of connection) x 2 - 1

※ Modular distribution connectors and communication cables are necessary for 2 or more units.

※ ★marked items can be prepared by customers own.

## Specification of computer

CPU	Intel processor Pentium III 800MHz and later
OS	Windows 7 / 8 / 10
PC memory	Guaranteed performance by OS.
Communication port	USB serial port selected in COM1 ~ COM8
Applicable controller and iron unit	M50 / MW50 and TB series iron unit
Connectable controllers	Up to 16 units



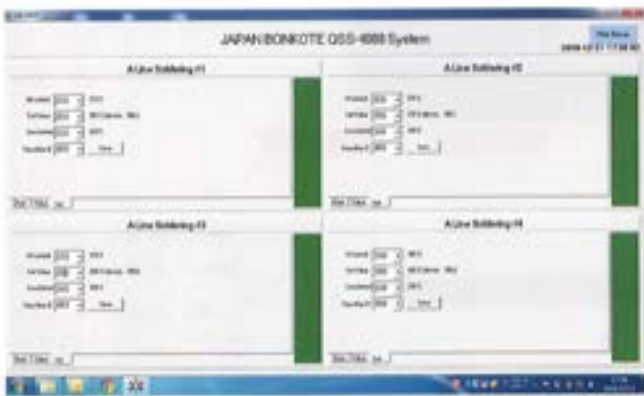
## 16 Channels display



- ① Up to 16 units of soldering iron data can be monitored by one PC.
- ② Set temp. (SV) and Actual tip temp. (PV) can be monitored.
- ③ In case of sensor disconnection or temperature error, the temperature status bars changed to blue to alert us.
- ④ The temperature status bar changes its color while the power is off.
- ⑤ By changing a tab, every 2 channels display is available.



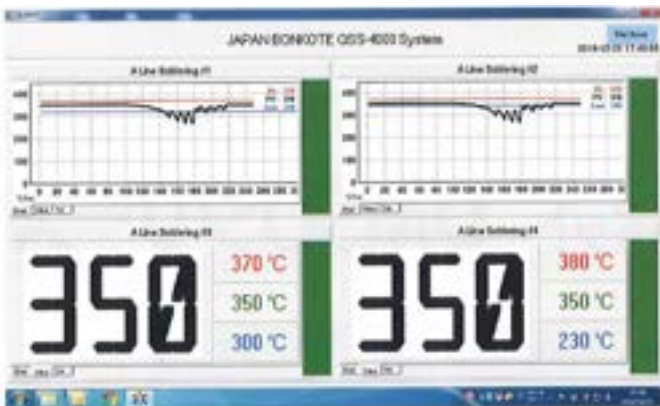
## Channel display



- ① Each set value can be monitored one by one.
- ② Upper and lower limit temperature are amendable in this display.



## Chart display



- ① Connected soldering irons' temperature can be monitored one by one.
- ② The temperature change can be graphed at Chart tab. At Value tab, numerical number shows the temperature change.



# Resin Calking

## ■ Key point for Resin calking

The important point of resin calking is **accuracy of surface temperature** of the heating parts.

To maintain the quality of base materials, **precise temperature control** is required.

## ■ Sensing on the head of iron tip

A temperature sensor is equipped on the head of iron tip.

It helps feedback against the temperature deviation smoothly, so that we can perform resin calking under stable temperature.

## ■ Teflon coating finish

To prevent stringing of resin, a Teflon work is applied on the surface of the iron tip (5~6 mm from the point of tip). It can support continuous soldering operation.

### LA type soldering iron tip

Controller: M12 / M50

Soldering iron: TB-150 / TB-240

Iron tip: BNJT7 series



### NLA type soldering iron tip

Soldering iron: DSS-140A / 240A

Iron tip: JT7 series



Flat shape		Dome shape		Flat shape		Dome shape	
BNJT7-2F テフロンコート		BNJT7-2R テフロンコート		JT7-2F テフロンコート		JT7-2R テフロンコート	
BNJT7-3F テフロンコート		BNJT7-3R テフロンコート		JT7-3F テフロンコート		JT7-3R テフロンコート	
BNJT7-4F テフロンコート		BNJT7-4R テフロンコート		JT7-4F テフロンコート		JT7-4R テフロンコート	
BNJT7-5F テフロンコート		BNJT7-5R テフロンコート		JT7-5F テフロンコート		JT7-5R テフロンコート	

※ Teflon coated pin parts are on sale.



## ■ Support stand: SRM-20

For resin calking purpose

For removing modules (e.g. IC) purpose

For soldering purpose

Support stand	Dimension (W x D x H) mm	Weight
P/N: SRM-20	161 x 241 x 455 (without a vertical handle)	3.6 kg



# DSS series soldering iron

## Built-in thermoregulator & Digital display

### ■ Feature

- Easy to set and compensate temperatures by push-buttons.
- ON / OFF control is available while connecting power source.
- Easy reading by digital display.
- LED lamp shows iron tip temperatures.

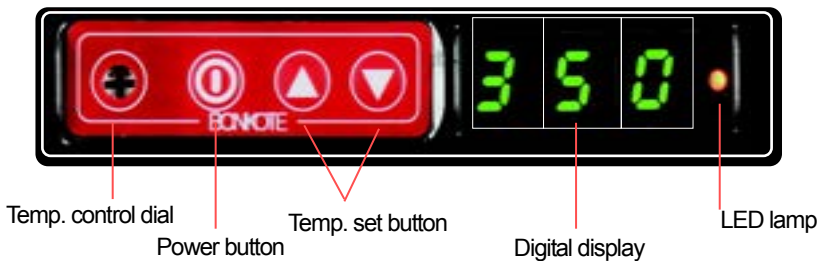
※ 100V version is also available

### ■ Specifications

Model No.	DSS-240A	DSS-240B	DSS-2100
Voltage / Wattage	220V / 40W	220V / 40W	220V / 100W
Temperature range	50°C ~ 500°C		
Applicable iron tip	SG7 series	SG10 series	SG12 series
Standard iron tip	SG7-2C	SG10-8BC	SG12-10BC
Length (with tip)	270 mm	274 mm	300 mm
Weight (with tip)	94 g	106 g	140 g
Plug cord	2 pin or 3 pin (grounded)		
Cord length	1.5 m		
Insulation resistance	20MΩ ≤		
Leak voltage	≤ 2.0 mV		
Earth line resistance	≤ 2.0 Ω		
Iron stand	BON-11		



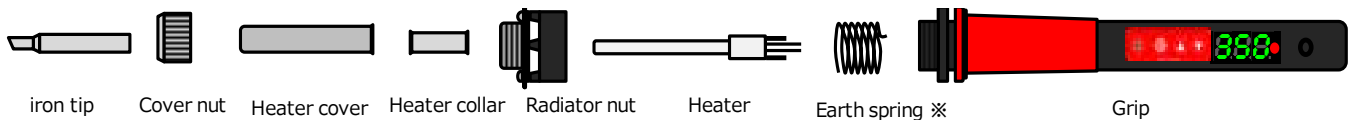
### ■ Control panel



LED lamp status:

- \* Flashing: Rise in temperature
- \* ON : Suitable temperature for work
- \* OFF : Drop in temperature e.g. over shooting

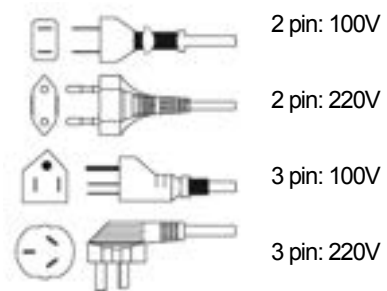
### ■ Structure



### ■ Replacement parts

Model No.	DSS-240A	DSS-240B	DSS-2100
Iron tip series	SG7	SG-10	SG12
Cover nut	CN-7	CN-10	CN-12
Heater cover	HCL-7	HC-10	HC-12
Heater collar	SUC-10		SUC-12
Radiator nut	NA-11D		NA-30D
Heater	CES-220-40E		CES-220-100E
Earth spring ※	ECS-5 ※ For ground spec, only		

★ Refer to page 28 ~ 29 for iron tip series.



# SR series soldering iron & H-17

## Feature

A simple model without thermoregulator. You can start using just by plugging to power supply. H-17 is recommended for temperature adjustment.



H-17: Heat controller



SRL-1072FP, 1082, 100A  
SRL- 1172FP, 1182, 110A  
SRL-2282, 220A

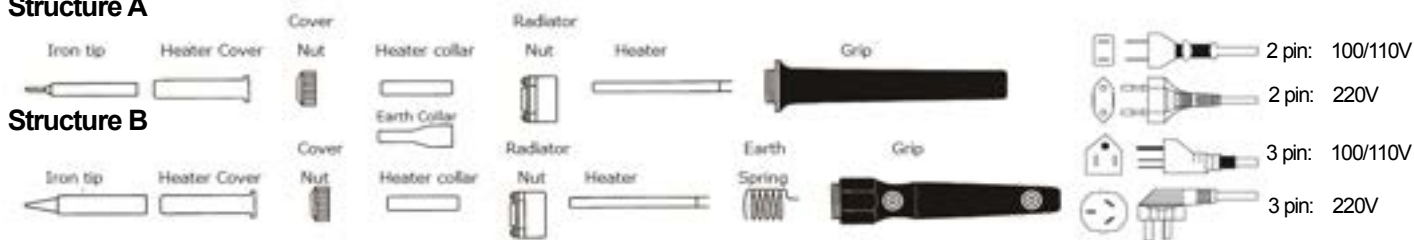
Applicable for 2 core wire, 100V spec only  
Capacity range:  $\leq 200\text{W}$   
Control range: 60 ~ 100%  
Size: 49(W) x 45(D) x 70(H) mm  
Weight: 80 g

## Specifications

Structure	Model No. / Input voltage			Power consumption	Average temp.	Insulation resistance	Leak voltage	Earth line resistance	Total length	Weight
	100V	110V	220V							
A	SR-1032	SR-1132	SR-2232	18W	400°C	$50\text{M}\Omega \leq$	$\leq 2.0\text{mV}$ (default)	$\leq 2.0\Omega$ (default)	195mm	60 ~ 62 g
	SR-1052F	SR-1152F	SR-2252F	25W	400°C					62 ~ 65g
	SR-1062F	SR-1162F	SR-2262F	30W	470°C				213mm	80 ~ 82 g
	SR-1072	-	SR-2272	40W	550°C					
B	SR-1072FP	SR-1172FP	-	65W	600°C	$50\text{M}\Omega \leq$	$\leq 2.0\text{mV}$ (default)	$\leq 2.0\Omega$ (default)	235mm	125 ~ 127 g
	SR-1082	SR-1182	SR-2282	60W	500°C				260mm	165 ~ 167 g
	SR-100A	SR-110A	SR-220A	100W	600°C					

## Structure and Replacement parts

### Structure A



### Structure B



Model No.			Heater			Standard iron tip	Heater cover	Cover nut	Heater collar	Radiator nut	Earth collar Earth spring
100V	110V	220V	100V	110V	220V						
SR-1032	SR-1132	SR-2232	CE-100-18	CE-110-18	CE-220-18	SG6-2C	HC-6	CN-6	SUC-7	NA-11 or NA-20*	EC-10 Earth collar
SR-1052F	SR-1152F	SR-2252F	CE-100-25	CE-110-25	CE-220-25	SG7-2C	HC-7	CN-7			
SR-1062F	SR-1162F	SR-2262F	CE-100-30	CE-110-30	CE-220-30	SG10-8BC	HC-10	CN-10			
SR-1072	-	SR-2272	CE-100-40	-	CE-220-40						
SR-1072FP	SR-1172FP	-	CE-100-65	CE-110-65	-	SGP10-8BC	HC-10	CN-10	SUCP-10	NA-20	ECS-5 Earth spring
SR-1082	SR-1182	SR-2282	CE-100-60	CE-110-60	CE-220-60	SG12-10BC	HC-12	CN-12	SUC-12	NA-30	
SR-100A	SR-110A	SR-220A	CE-100-100	CE-110-100	CE-220-100						

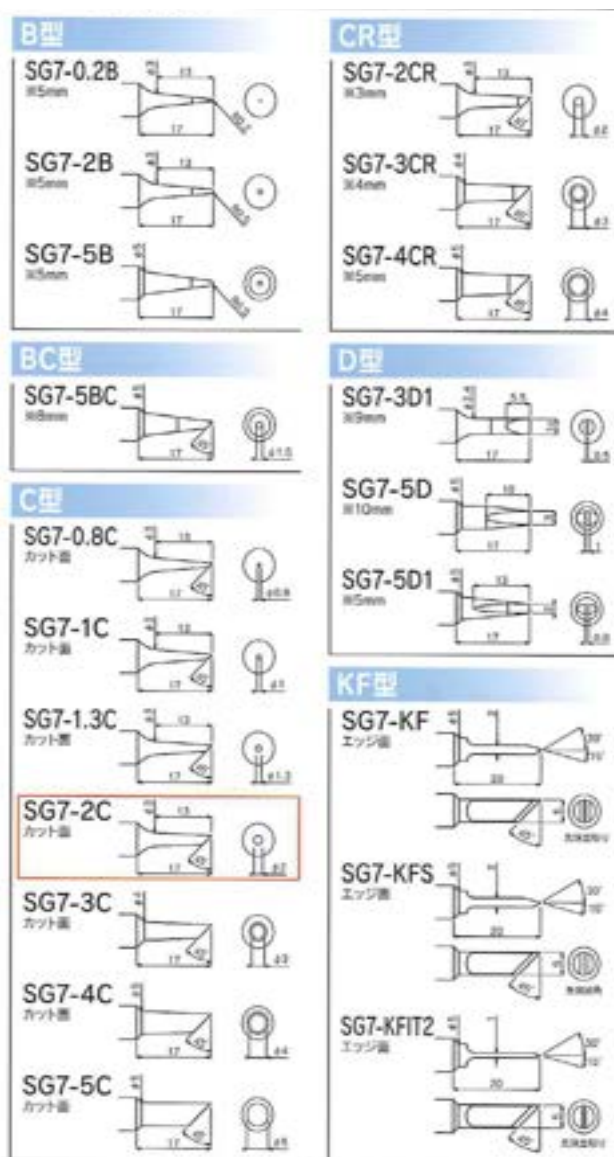
※ Radiator nut for earth specification irons is NA-20 or NA30.

# SG series iron tips

SG6 series for:  
SR-1032/SR-1132/SR-2232



SG7 series for:  
SR-1052F/SR-1152F/SR-2252F  
DSS-140A/DSS-240A



※ solder wetting

Standard iron tip

## Description:

**SG7-2C**

SG . . . Type of the tip

7 . . . Diameter  $\phi 7$  (in this example)

C . . . Shape of the tip



SG10 series for:

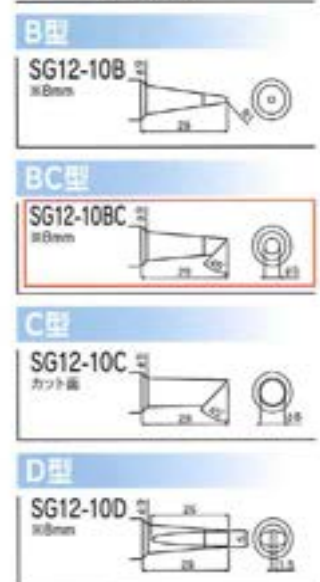
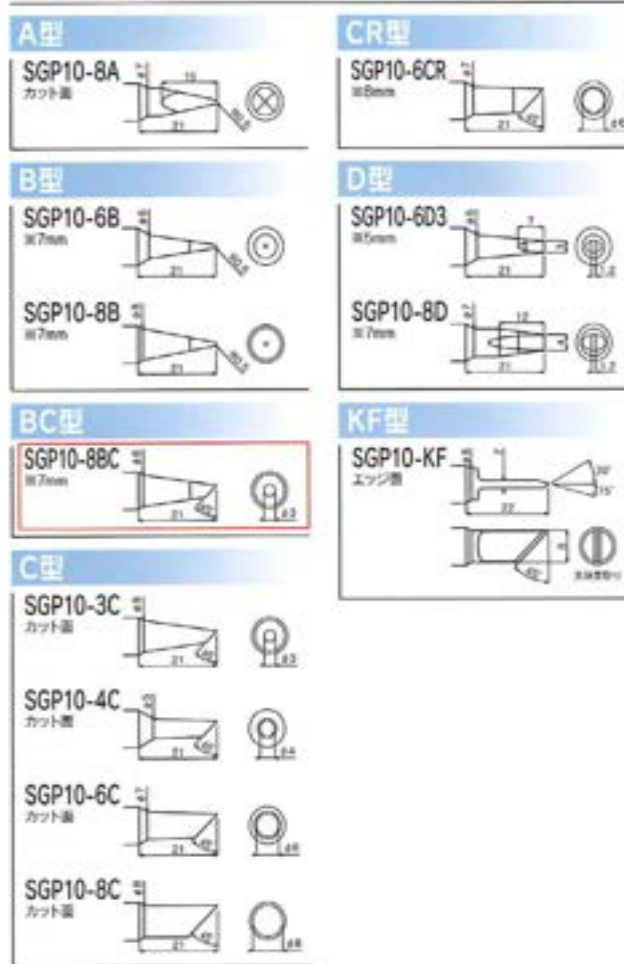
SR-1062F/SR-1162F/SR-2262F  
SR-1072/SR-2272  
DSS-140B/DSS-240B

SGP10 series for:

SR(L)-1072FP/SR(L)-1172FP  
DSS-165

SG12 series for:

SR(L)-1082/SR(L)-1182  
SR(L)-2282/SR(L)-100A  
SR(L)-110A/SR(L)-220A  
DSS-1100/DSS-2100



※ solder wetting

Standard iron tip

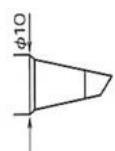
**Description:**

**SGP10-8BC**

SGP . . . Type of the tip

10 . . . Diameter  $\phi 10$  (in this example)

BC . . . Shape of the tip



※ **BONPEN series are empty containers. Nothing is filled in a cartridge when factory shipment.**

※ **Follow the safety guidance provided from each solution manufacturers.**

### ■ Specifications

Excellent for fine and accurate applicatoin of flux.  
 No flux evaporation.  
 Flux density can be kept constant.  
 Refillable, economical and hand pen-type container.



### ■ Purpose

Apply flux to base materials before soldering work.  
 Effective for alcohol cleaning, adhesive quickening materials.  
 Remove oxidation film and improve solderability.

#### BON-102 series

Brush type	
<b>BON-102</b>	Thin
<b>BON-102T</b>	Thick
<b>BON-102D</b>	Flat
<b>BON-102S</b>	Ultra fine

Felt type	
<b>BON-102B</b>	Thin
<b>BON-102F</b>	Flat
<b>BON-102K</b>	Knife

#### BR-102 series (replacement tip with cap)

Brush type		
<b>BR-102</b>		For fine and precise point application
<b>BR-102T</b>		For fine point to large space application
<b>BR-102D</b>		For large space application
<b>BR-102S</b>		Extra fine and precise point application

Felt type		
<b>BR-102B</b>		For lubricator application
<b>BR-102F</b>		For large space application
<b>BR-102K</b>		For point, line and large space application

#### CA-102 (replacement cartridge)

Cartridge	
<b>CA-102</b>	

■ 5 pcs is packed.

## For applying fluoric lubricant



- ✧ Flat type series, BON-102B, 102F and 102K, are suitable for fine point application such as micro motor or orating axis.
- ✧ Flat type pen tip is harder and more durable than brush type pen tip. They are suitable for pin-point application.
- ✧ Various shapes of pen tip are available.

## Example of BONPEN usage



Adhesive quickening material



Flux prevention material



Alcohol cleaning

## Trial kit BON-102A



- ✧ **7** kinds of BONPEN are packed.



### Feature

- Small, Light and Portable solder pot
- Good enough for a space-saving workplace
- 2 different size of mini pots are available
- Small amount of solder is enough.

### Control panel

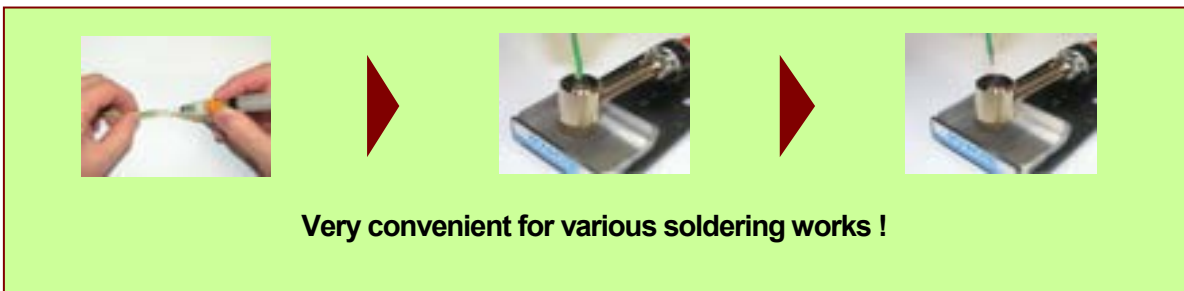


- Temp. UP
- Power ON/OFF
- Temp. DOWN
- Temp. control



DMSD-2100-30

### How to pre-tinning



### Specifications

※ 100V version is also available.

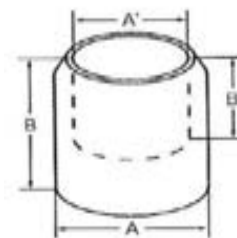
Model No.	Volt. / Watt.	Pot	Heater	Weight	Dimension (W x L x H) mm
DMSD-240-10	220V / 40W	SG10-DP10	CES-220-40E	465 g	80 x 285 x 60
DMSD-2100-30	220V / 100W	SG12-DP30	CES-220-100E	620 g	80 x 285 x 67

※ Weight and Length excludes solder and a power cord.

### Mini solder pot

(mm)

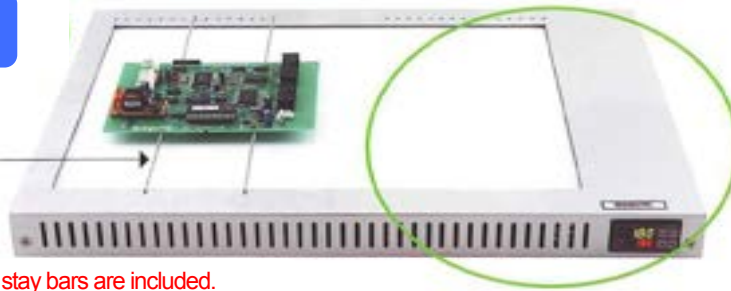
Pot No.	Outer diameter		Inner diameter		Thickness
	A	B	A*	B*	
DP-10	15	24	10	10	2.5
DP-30	35	39	30	18	2.5



# Far Infrared method Pre-heater

## PHN-3040

Stay bar

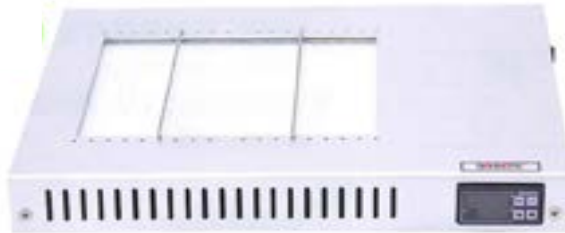


- ※ 2 pcs of stay bars are included.
- ※ Extra stay bars are also available to order.



The optional stay bars help different size of materials heat up at the same time.

## PHN-1520

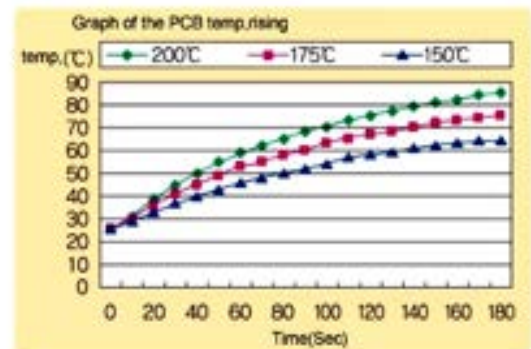


## Features

- Far infrared heater can heat the whole of the objects uniformly.
- It is very helpful for lead-free soldering work.
- The temperature rise characteristics of objects is adjustable.
- By changing the positions of the stay bars, various size of objects can be heated.

## Preheating for

- PCB which mounts patterns with large heat loss.
- Through-hole mounting on a multilayer board.
- Objects that detest rapid temperature change
- Assistance of detaching parts while repairing.
- Flow / Reflow soldering.
- Drying pre-flux



As for the preheated board, the temp. drop of the iron tip is small, and the heat rise of the object is quick. Soldering of through holes is easy.

## Specifications

Model No.	PHN-1520	PHN-3040
Input voltage	100V	
Power cord	L=1.5 m 3pin plug cord	L=2.0m 3pin plug cord
Heating method	Far Infrared radiation method (Ceramic heater)	
Temp. range	Room temperature ~ 200°C	
Temp. control method	PID control	
Environment of usage	Temp.: 0~40°C Humidity: 35~85%RH	
Dimension (W. D. H.)	325 x 214 x 40 mm	485 x 330 x 40 mm
Panel size (W.D.)	180 x 125 mm	380 x 270 mm
Weight	1.9 kg	4.8 kg
Power consumption	500W	1000W
Fuse	5A	10A

## Heater Lid (optional accessory)



MATERIAL: STAINLESS (Lid part)  
DIMENSION: 343 x 283 x 40 cm

The lid makes temperature of objects can rise higher and faster.

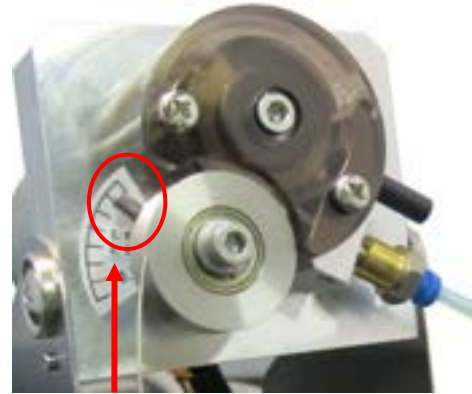
In addition, power consumption and CO<sup>2</sup> emission can be reduced.

This is detachable.

## BON-8103 / BON-8203

## Extra fine solder wire

Applicable Solder Wire:  $\phi$  0.3~0.8 mm



Set the lever to your desired position.

### ■ Features

By making V-groove just before soldering, it prevents deterioration of flux and solder ball scattering.

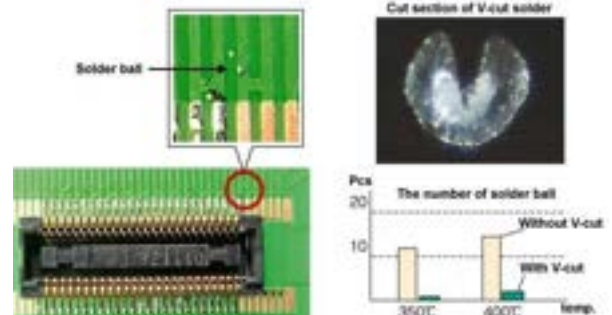
In addition, the oozing flux from the V-groove improves the solderability.

Using the V-cut machine and BONKOTE LA type soldering iron together at the same time, the prevention of solder ball scattering enable to obtain its effect more.

Solder wires from 0.3 ~0.8 mm diameter are usable by adjusting the lever.

### ■ Specifications

Model No.	BON-8103	BON-8203
Input voltage	100V	220V
Cord plug	3 pin	BS1363
Applicable solder diameter	$\phi$ 0.3 ~ 0.8 mm	
Frequency	50 / 60 Hz	
Solder wire feeding	37 / 44 mm per sec.	
Operation method	Foot switch	
Dimension (W. D. H.)	70 x 104x 160 mm	
Weight	1390 g	



### ■ Introduction

Higher temperature is required in high density lead free soldering.

When apply solder to the iron tip, the flux inside solder will be vaporized and scattered.

Scattered solder balls cause short circuit.

V-groove on the solder wire can avoid these matters.

Please make V-groove just before use for optimum performance.

## BON-8110T TIMER equipped model

### ■ Features

Timer function: ( 0.1 ~ 10.0 sec. )

Timer ON / OFF switch is equipped.

Using with GU series ( page 35 ), a fixed amount wire can be fed.



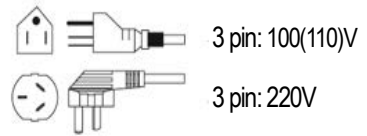
# BON-6002 / BON-6202

Applicable Solder Wire:  $\phi$  0.6~1.6 mm



Cross section of solder wire with V-groove.

Plug type



## ■ Features

By making V-groove just before soldering, it prevents deterioration of flux and solder ball scattering.

In addition, the oozing flux from the V-groove improves the solderability.

Using the V-cut machine and BONKOTE LA type soldering iron together at the same time, the prevention of solder ball scattering enable to obtaine its effect more.

Solder wires from 0.6 ~1.6 mm diameter are usable by exchanging the guide pulley.

## ■ Specifications

Model No	BON-6002	BON-6202
Input voltage	100V / 110V	220V
Cord plug	3 pin	3 pin
Applicable solder diameter	$\phi$ 0.6~ 1.6 mm	
Frequency	50 / 60 Hz	
Solder wire feeding	40 / 48 mm per sec.	
Operation method	Foot switch	
Dimension (W. D. H.)	142 x 122 x 160 mm	
Weight	1950 g	

Solder wire diameter	Guide pulley	Extracting needle (spring shaft)	V-blade
0.6 mm	GP-06	TN-05	VE-1
0.65 mm	GP-065		
0.8 mm	GP-08		
1.0 mm	GP-10	TN-08	
1.2 mm	GP-12		
1.6 mm	GP-16		

NOTE: When order, be sure to specify the Guide pulley. e.g. BON-6002-GP-10

# SOLDER WIRE FEEDER

## ■ Features

Attachment unit with V-solder, BON-8103 or BON-8110T.

It can attach JS-175 / JS-90 soldering iron.

Applicable solder wire:  $\phi$  0.8 /  $\phi$  1.0 /  $\phi$  1.2.

Using with BON-8110T, a fixed amount wire can be fed.

Model No.	GU-08	GU-10	GU-12
Wire diameter	$\phi$ 0.8	$\phi$ 1.0	$\phi$ 1.2

※ Contact us for  $\phi$  1.6 soldering wire.



GU + JS-175

# Measurement Instrument

## MCA-700II

### ■ Features

Iron tip temperature, Leak voltage and Earth line resistance can be measured. No necessary to calculate, but read the digital indicating. The sensor and the LR pin are replaceable with ease. MCA-700 II allows you to perform the quality control which meets ISO-9000, QS-9000 and MIL STD.



### ■ Specifications

Input voltage	100V, 120V, 220V	
Dimension (W. D. H.)	180 x 140 x 70 mm	
Weight	1380g	
Temperature	Indication range	Accuracy
	0~600°C / 32~999°F	±4°C / ±6°F
Leak voltage	0~99.9 mV	±( 3% rdg + 0.3 mV )
Earth line resistance	0~99.9 Ω	±( 4% rdg + 0.3 Ω )
Plug type	3 pin plug cord	

### ■ Excerpt from MIL-STD-2000A

- Power supply of the soldering iron shall use 3-core cable.
- Leak voltage must not exceed 2mV(RMS).
- Earth line resistance must not exceed 5 Ω
- ※ Temperature sensor, SC-006, and LR pin, LR-01, are consumable itmes.  
We recommend early replacement of those parts when deteriorations appear.  
(e.g. spread of solder, oxidation, strong dirt)
- ◆ The price includes “ Initial calibration “ “ SAT-1 and MTU-1 “.
- ◆ Regular calibration is chargeable.
- ◆ When order, specify the voltage ( e.g. MCA-700 II -220V)

#### ◆ Temperature measurement



#### ◆ Leak voltage/Earth line resistance



## MCA-900II

### ■ Features

Since the heat loss of the sensor is small, MCA-900 II can measure the iron tip temperature accurately. This is a handy type, it can be used for many kinds of work. Three kinds of thermal sensors are available for various purpose.

### ■ Specifications

Resolution	0.1°C ( 0~199.9°C ) / 1°C ( All range of measurement )
Measurement range	0~1000°C
Detection edge	Type K
Accuracy	±(3% rdg + 2°C) (23°C±5°C body only)
Display	3.5 digits LCD display
Power supply	DC9V (Dry cell 006P x 1 pc)
Battery life	Consecutive 250 hrs. (alkaline battery)
Environment of usage	0~40°C / ≤80%RH
Dimension (W. D. H.)	80 x 48 x 156 mm ( body only )
Weight	305 g

- ◆ The price does NOT include “ Initial calibration”.
- ◆ Regular calibration is chargeable.
- ◆ “ Initial calibration “ and all sensors are option.



How to measure:

- Wipe the iron tip lightly with a cleaner.
- Put some amount of solder on the tip.
- White smoke will rise from the tip.
- Touch the tip to the center of SC-006 when white smoke disappear.



Temperature sensor unit SAT-1



Surface sensor SC-008



Dipping sensor SC-007

# Fine Cleaner (solder residue remover)

ESD SAFE

PB FREE

## ! ATTENTION !

How do you clean up your iron tip ?

Do you still use a sponge absorbing water ?

Iron tip is damaged with the thermal shock whenever you clean up with watered sponge because the temperature of the iron tip drops by 50 to 100°C instangly.

Soldering quality is unstable if you use the iron tip with low temperature before temperature recovering.

**B-500**

**B-250**



## ! Features !

- **Making iron tips life longer:**  
Thermal shock to the iron tip is quite small, only 2 to 3°C drop.
- **Continuous Operation:**  
You don't have to wait for the temperature recovery.
- **No scars or scratches to the iron tip:**  
Heatproof rubber does not hurt the surface of the iron tip.
- **Easy disposal:**  
Easy to collect and dispose the solder residue



Model No.	Diameter of hole	Outer Dimension	Weight	Material
B-500	Φ50	Φ87×30H	185g	Heatproof rubber
B-250	Φ25	Φ50×22H	65g	Heatproof rubber



Fine cleaner consists of a rubber part and a magnet.



You can attach a magnet at the bottom of the cleaner body in



For small or nomal amount of solder residues, rub the tip on the edge of rubber to remove them.



For carbides or more heavy amount of residues, use the metal clip to remove them.

# BONKOTE<sup>®</sup>

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ISO9001 ISO14001

■ BONKOTE Shop