

## DSS soldering iron series User's Guide

Thank you for purchasing DSS series soldering irons. Please read this guide before use, and keep it after read.

DSS-140A/240A



DSS-140B/240B

DSS-165



DSS-1100/2100



### CAUTION

- Do NOT touch the soldering irons with wet hands to prevent electrical accidents such as an electrical shock. .
- Do NOT touch the iron tip and the heater anytime when the power is on. Keep them away from flammable materials.
- Keep the soldering iron unplugged after the operation.
- Do NOT take a part or modify the soldering iron except for replacement or maintenance. Otherwise, it may cause a fire, a failure or an electric shock.
- When the replacement of the parts is needed, unplug the soldering iron and make sure it cooled down.
- For the replacement of the parts, use the genuine parts only. Otherwise, it may cause a failure or an accident.
- Do NOT use the soldering iron for anything other than the regular soldering operation.

### SPECIFICATIONS

#### ◆ 2 PIN PLUG ( TYPE A or C )

※ Weight and Length exclude a power cord.

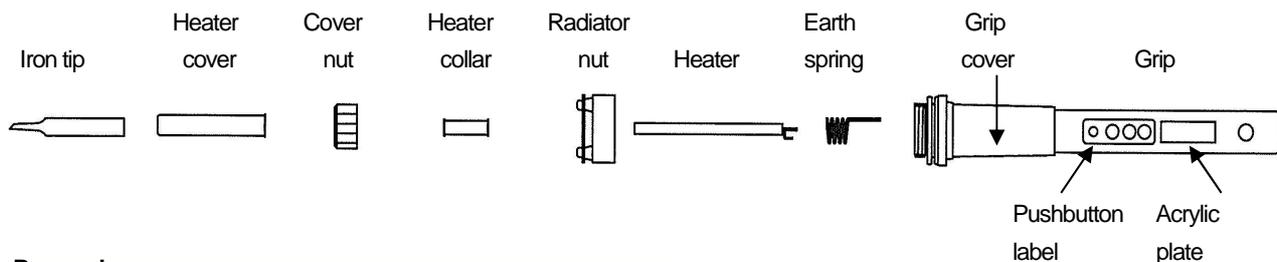
Model No.	Power consumption	Input voltage	Insulation resistance	Leak voltage	Earth line resistance	Standard iron tip	Weight	Total Length	Control Method	Temp. range
DSS-140A	40W	100VAC	20MΩ ≤	/	/	SG7-2C	94 g	270 mm	0 volt Switch P-control	50~500°C
DSS-140B						SG10-8BC	106 g	274 mm		
DSS-165	SGP10-8BC					103 g	300 mm			
DSS-1100	100W					SG12-10BC	140 g	300 mm		
DSS-240A	40W	220VAC				SG7-2C	94 g	270 mm		
DSS-240B						SG10-8BC	106 g	274 mm		
DSS-2100	100W					SG12-10BC	140 g	300 mm		

#### ◆ 3 PIN PLUG ( TYPE B or I )

※ Weight and Length exclude a power cord.

Model No.	Power consumption	Input voltage	Insulation resistance	Leak voltage	Earth line resistance	Standard iron tip	Weight	Total Length	Control Method	Temp. range
DSS-140A	40W	100VAC	/	≤2.0mV (default)	≤2.0Ω (default)	SG7-2C	94 g	270 mm	0 volt Switch P-control	50~500°C
DSS-140B						SG10-8BC	106 g	274 mm		
DSS-165	65W					SGP10-8BC	103 g	300 mm		
DSS-1100	100W					SG12-10BC	140 g	300 mm		
DSS-240A	40W	220VAC				SG7-2C	94 g	270 mm		
DSS-240B						SG10-8BC	106 g	274 mm		
DSS-2100	100W					SG12-10BC	140 g	300 mm		

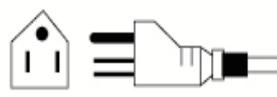
## STRUCTURE



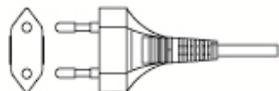
### Power plug



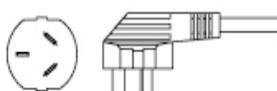
Type A 100V



Type B 100V



Type C 220V



Type I 220V

## REPLACEMENT PARTS

Model No.	Power consumption	Input voltage	Heater element	Iron tip series	Heater cover	Cover nut	Heater collar	Radiator nut	Earth spring					
DSS-140A-2 pin plug	40W	100VAC	CES-100-40E	SG7	HCL-7	CN-7	SUC-10	NA-11D	-					
DSS-140A-3 pin plug									ECS-5					
DSS-240A-2 pin plug									220VAC	CES-220-40E	-			
DSS-240A-3 pin plug											ECS-5			
DSS-140B-2 pin plug		100VAC	CES-100-40E						SG10	HC-10	CN-10	SUC-10	NA-20D	-
DSS-140B-3 pin plug														ECS-5
DSS-240B-2 pin plug		220VAC	CES-220-40E											-
DSS-240B-3 pin plug														ECS-5
DSS-165-2 pin plug	65W	100VAC	CES-100-65E	SGP10	HC-10	CN-10	SUCP-10	NA-20D						-
DSS-165-3 pin plug														ECS-5
DSS-1100-2 pin plug	100W	100VAC	CES-100-100E	SG12	HC-12	CN-12	SUC-12	NA-30D						-
DSS-1100-3 pin plug														ECS-5
DSS-2100-2 pin plug		220VAC	CES-220-100E						-					
DSS-2100-3 pin plug									ECS-5					

※ Common parts

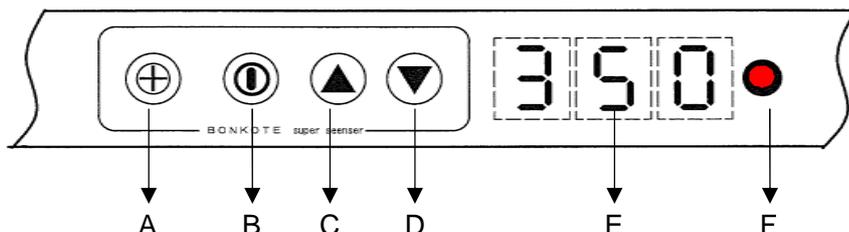
Grip cover: GC-R

Pushbutton label: SD-STR

Grip: GK-DS

Acrylic plate: DS-AK

## CONTROL PANEL



- A Temperature control dial
- B Power button
- C Temperature UP button
- D Temperature DOWN button
- E Digital display
- F LED lamp



: ON Suitable temp. for work



: OFF Drop in temperature / Stand-by / Power off



: Flashing Rise in temperature

## HOW TO USE

1. Confirm each input voltage of the soldering iron and the power source is the same. Insert the power plug into the outlet.  
「---」 is indicated on the display and the power is being delivered to the iron. The soldering iron becomes Stand-by mode.
2. Press and hold  button more than 3 seconds.  
Default temperature  is indicated on the display, and the power has been delivered to the heater in the iron.  
Once  is indicated, release  button.
3. When LED lamp change to  from , you can start working.  
In addition to check LED lamp, below chart shows you each wait time which stabilizes the irons.

**DSS-1100 and DSS-2100 is slower to rise the temperature than others. Please follow below wait time rather than check LED lamp.**

SET TEMP.	250°C	350°C	450°C
IRONS			
DSS-140A / 240A	35 sec.	60 sec.	100 sec.
DSS-140B / 240B	40	75	140
DSS-165	40	75	140
<b>DSS-1100 / 2100</b>	<b>150</b>	<b>180</b>	<b>210</b>

4. After work, press and hold  button more than 3 seconds until 「---」 is indicated on the display, and then the LED lamp changes to . Check the display and release the button.  
The latest set temperature should be applied whenever restarting the iron.

## HOW TO CHANGE SET TEMP.

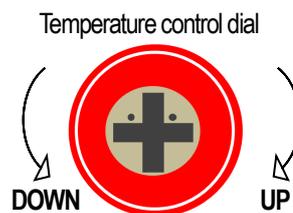
You can change the preset temperature by a long push or a short push of  or  buttons.  
The short push changes the temperature by a single degree, and the long push changes it by 10 degrees at a time.  
LED lamp shows the temperature status as follows after changing the set temperature drastically.

- Increase the temperature:  →  →  (2<sup>nd</sup> Lighting is appropriate to work)
- Decrease the temperature:  →  →  (2<sup>nd</sup> Lighting is appropriate to work).

## TEMP. CONTROL DIAL

Using  dial, you can allow to correct the temperature discrepancy between the set temperature and the tip temperature.  
Be sure not to over-twist  dial.

- ※ The rotation angle from the initial position is 120 degrees maximum to left and right
- ※ Use a precision Philips screwdriver
- ※ Clockwise: Rise the tip temperature
- ※ Counterclockwise: Drop the tip temperature



## MEASUREIING TIP TEMPERATURE

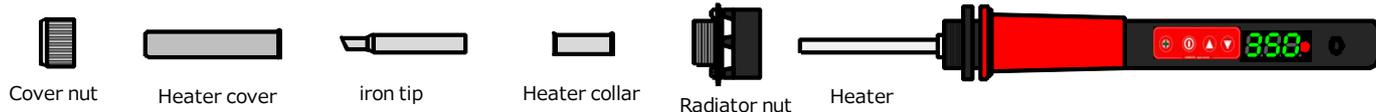
When you measure the tip temperature by a thermometer, do it in 5 minutes after the LED lamp changes to  so that you can obtain more precise value.

## LOCK FUNCTION

Press and hold   buttons simultaneously more than 3 seconds to lock or unlock the set temperature.

## HOW TO REPLACE IRON TIP AND HEATER

※ Before the replacement, pull out the plug of iron and wait until the iron tip cools down.



### IRON TIP

1. Disassemble cover nut, heater cover and iron tip.
2. Replace the iron tip, and then assemble those parts in reverse order.

### HEATER

1. Disassemble cover nut, heater cover, iron tip, heater collar and radiator nut.
2. Pull out the heater (both of heater terminals and temperature sensor terminals together) from the connector.

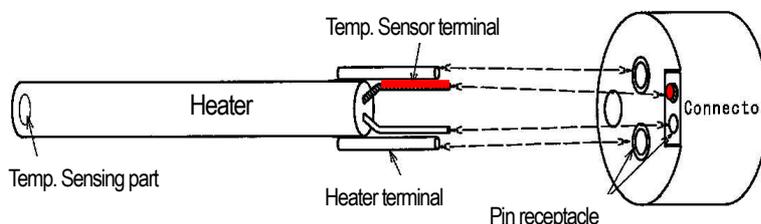
※ **Make sure the connector must NOT come out from the grip when pulling heater out.**

3. Replace the heater as follows:

Insert the temperature sensor terminals and the heater terminals into the pin receptacles as shown right.

※ **Be sure to align the red colored sensor terminals with the red marked pin receptacles.**

4. Assemble the parts in reverse order.



## TROUBLE SHOOTING

Symptom	Check	Probable cause	Measure
No electricity	「---」* is NOT shown on the display.	Power cord disconnection or defect of circuit board.	Repairing
Soldering iron does NOT heat	「Er1」* is shown on the display.	Temperature sensor is OPEN.	Replacing a heater
	「Er3」* is shown on the display.	Heater is OPEN.	
Tip temperature does NOT reach the set temperature.	Implement of temperature compensation.	Temperature compensation has not implemented.	Implement temperature compensation
After replacement of a heater, the soldering iron does NOT heat	「Er2」* is shown on the display.	Opposite polarity of temperature sensor terminal.	Correct the polarity.
Set temperature cannot be adjusted.	「350」* is shown on the display.	Set temperature must be locked.	Release the lock function.

\* 「---」 Power is delivering.

\* 「Er1」 「Er2」 「Er3」 Error

\* 「350」 Set temperature

## GUARANTEE

Our products are shipped after severe factory test and inspection.

However, if you find malfunctions or defects due to problems in workmanship or transportation, please contact your dealer or us.

The guarantee period of your products is in one year after your purchase, except for replacement parts.

## AFTER SALES SERVICE

When your system does not operate properly, read this manual again to check.

If still troubles are not solved, please contact your dealer or us.

### ■ JAPAN BONKOTE CO., LTD.

600-14 Kasahara-cho, Mito-shi,

Ibaraki 310-0852 JAPAN

Tel: +81-29-241-2725 Fax: +81-29-241-2726

URL <http://bonkote.co.jp>

E-mail [info@bonkote.co.jp](mailto:info@bonkote.co.jp)



ISO9001 ISO14001