

Hand-Type Thermal Deposition Machine

(Soldering iron with built-in temperature controller)

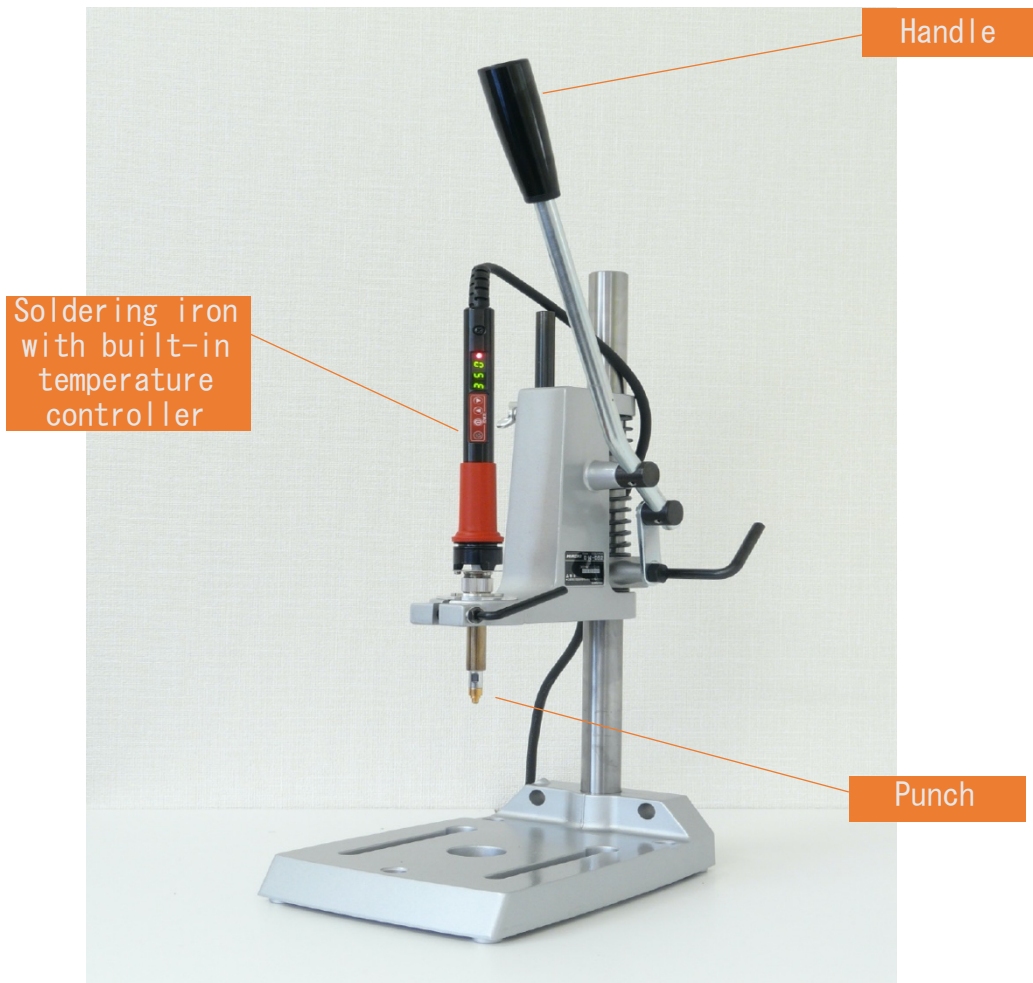
Operation Manual



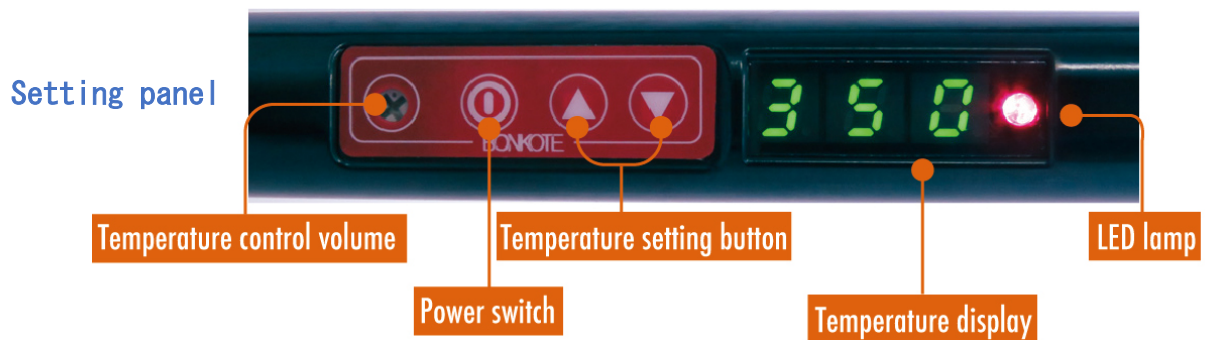
Tokai Metal Industry Co., Ltd.
Tokai Bussan Co., Ltd.

Parts Name

○ Drill Stand

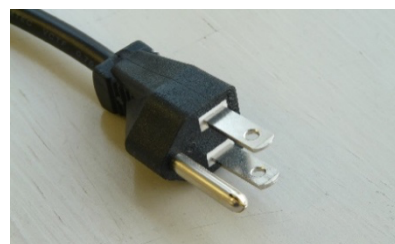


○ Soldering iron with built-in temperature controller

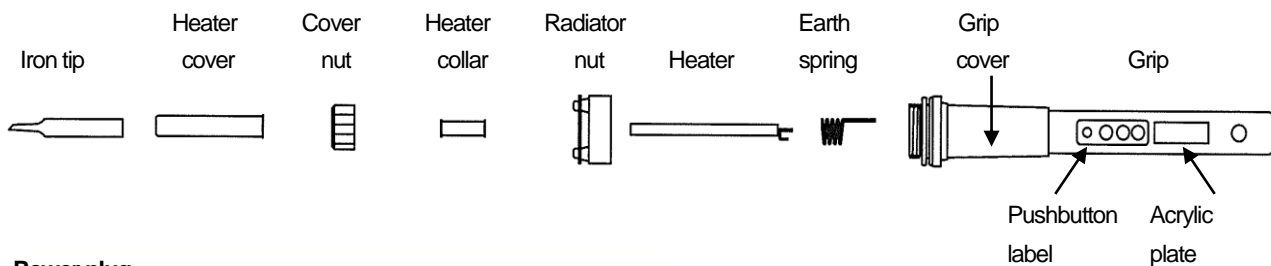


Insert the soldering iron with built-in temperature controller into the outlet.

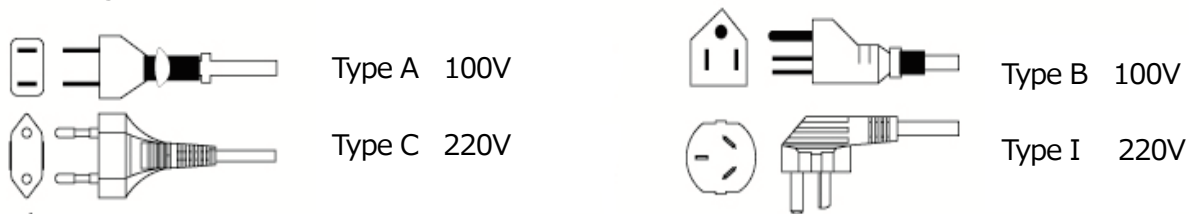
※3 cores ⇔ 2 cores conversion plug may be required.



STRUCTURE



Power plug



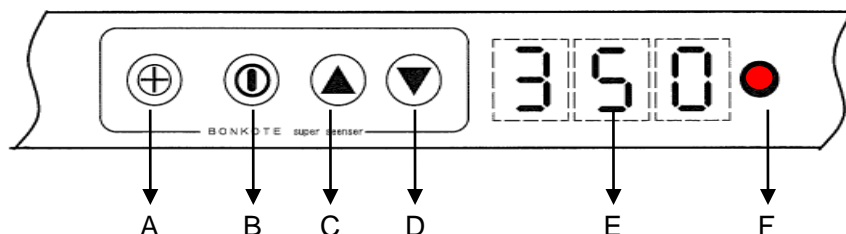
REPLACEMENT PARTS

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			-				
DSS-140A-3 pin plug									ECS-5				
DSS-240A-2 pin plug									-				
DSS-240A-3 pin plug									ECS-5				
DSS-140B-2 pin plug		100VAC	CES-100-40E	SG10	HC-10	CN-10			-				
DSS-140B-3 pin plug									ECS-5				
DSS-240B-2 pin plug									-				
DSS-240B-3 pin plug									ECS-5				
DSS-165-2 pin plug	65W	100VAC	CES-100-65E	SGP10					-				
DSS-165-3 pin plug									ECS-5				
DSS-1100-2 pin plug	100W	100VAC	CES-100-100E	SG12	HC-12	CN-12			-				
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
DSS-1100 / 2100	150	180	210



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.

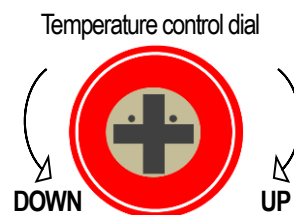
You can change the preset temperature by a long push or a short push of  or  buttons.
The short push changes the temperature by a single degree, and the long push changes it by 10 degrees at a time.
LED lamp shows the temperature status as follows after changing the set temperature drastically.

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

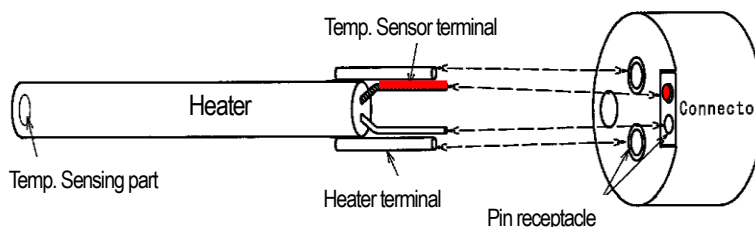
※ **Make sure the connector must NOT come out from the grip when pulling heater out.**

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

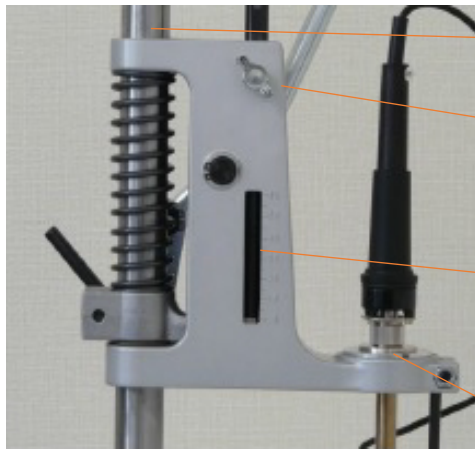
Our products are shipped after severe factory test and inspection.

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.

Preparation for insertion work

ODrill Stand How to Adjust the Stroke

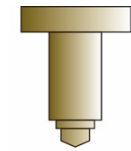


Stopping Bar

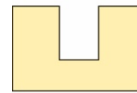
Bolt

Scale

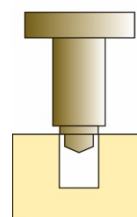
Head



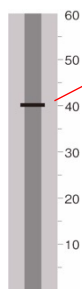
① Unfasten the bolt and put down the punch until the position of inserting.



② While the punch is getting down, fasten the bolt, and fix the inserting stroke.



Scale Enlargement



Ring

Indicating 40mm going down.

★In order to exchange the punch part, please do it after its complete cool down.

Thread id reverse torision. (Threud comes loose by clockwise rotation)

Press In

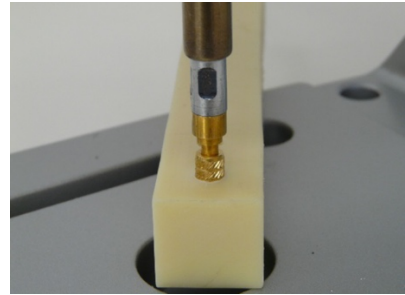
- ① Prepare Hand-Type Thermal Deposition Machine, and warm it after the setting of punch temperature.



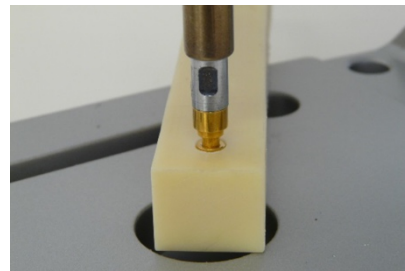
- ② Place the insert nut at the opponent resin.



- ③ Start press in by lowering the handle.



- ④ Press in till the predetermined position, and raise the handle slowly.



- ⑤ Complete.

