

PATRIOT

TB-1175 / 2175

LA method soldering iron

User's manual

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The 2nd edition

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1. Preface

Thank you very much for purchasing [TB-1175/2175] LA method soldering iron unit.
 Please read this instruction manual before using this equipment, and handle it properly.
 Save this manual for future reference.

2. Notes for safety



Read the following precaution before use.

- Never touch this equipment with wet hands to prevent electric shock and so on.
- Pay attention to the risk of fire or burns because the iron tip is heated while the operation.
- DO NOT overhaul or remodeling the equipment to prevent fire, malfunction, electrical shock and so on.
- Before daily work, check the condition of the equipment.
- Turn the power off and unplug when cleaning iron unit or replacing spare parts. Allow sufficient time for the iron tip to cool down.
- Use genuine parts for replacement (iron tip, heater element, heater collar etc.)
- The use of imitation parts may cause malfunction and so on.
- For soldering operation purpose only.

3. How to use

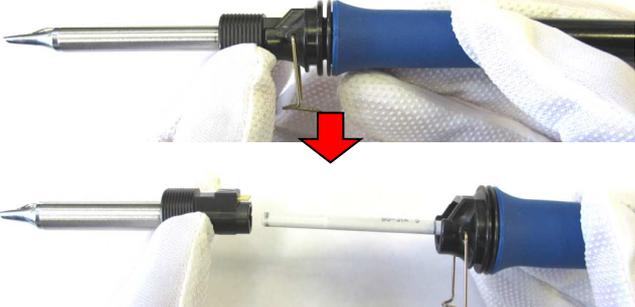
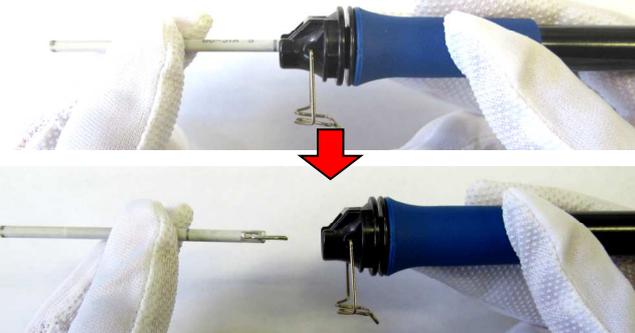
(A) Preparation before use

- The sensor input type of the iron is **[K-Type]**. When connecting to the Patriot controller, make sure to set up the sensor input type of controller **[K-Type]** as well.
- Proper soldering operation could NOT perform under the condition of 2 different sensor input types between the iron and the connector. (* Refer to Paragraph.7 in this manual or the manual of each Patriot controller you use).
- Confirm the input voltage of iron and that of controller is the same to avoid the damage of heater element.

(B) Name of body

No.	Name	Model No.	
		100VAC	220VAC
		TB-1175	TB-2175
①	Iron Tip	BK7 series or BK11 series	
②	Heater Element	CE-100-175	CE-220-175
③	Iron Grip	TB-1175GP	

4. How to replace a tip and a heater

	<p>① Turn off the power and wait until the iron tip cools down to the safe temperature.</p> <p>② Unlock the lock-wire.</p>
	<p>③ After confirming the iron tip becomes cool enough, hold the plastic area of iron tip and pull straight it out from the iron grip.</p> <p>Do NOT use any tools in order to pull out the tip.</p> <p>* To replace iron tip only → Proceed to ⑥</p> <p>* To replace both of iron tip and heater → Proceed to ④</p>
	<p>④ Hold the heater element and pull straight it out from the iron grip.</p>
	<p>⑤ Insert a new heater element into the terminal hole securely.</p> <p>There is no polarity, you can insert it any direction.</p> <p>Align the edge of iron unit and the silver-colored-line on the heater.</p>
	<p>⑥ Insert a new iron tip into the iron grip</p> <p>Align each point of arrow-mark on the tip and grip.</p>
	<p>⑦ Finally, fasten the lock-wire.</p>

5. Specifications

Model No	TB-1175	TB-2175
Heater voltage	100VAC	220VAC
Heater out put	175V	
Iron tip	BK7 series or BK11 series	
Heater element	Alumina Ceramic	
Leak voltage	$\leq 2.0\text{mV}$ (Initial value)	
Ground resistance	$\leq 2.0\Omega$ (Initial value)	
Cord	EP rubber cord : 1.2m	

6. Trouble shooting & Guarantee

(A) Trouble shooting

Phenomena	Confirmation points	Measures
Iron tip is not heated	①The iron unit and the controller are connected properly.	Lock the connector of iron unit.
	②The heater element is consumed. (check the conduction)	Exchange heater element
Abnormal indication of temperature (rapid-rise / error etc.)	①Deterioration or Open of sensor wire at the iron tip	Exchange iron tip
	②The iron tip and the iron unit are connected properly.	Fasten the iron tip to iron unit with lock-wire.

(B) Guarantee

Our products are shipped after severe factory test & inspection. However, if you find malfunctions or defects in workmanship or transportation, please contact with your dealer or us.

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

(C) After-Sales Service

In case the products you purchased do not operate properly, read this manual again.

If the troubles are still not resolved, please contact with your dealer or us.

7. Set-up the controller sensor type

The sensor type of this soldering iron is **[K-type]**. When connecting to the Patriot controller, please make sure the sensor type of controller is also **[K-type]**.

*** HOW TO SET /CHANGE THE SENSOR TYPE ***

e.g. M12 Controller (For other controllers, please refer to each manual attached when purchased.)

I : At the operation mode, press \bigcirc key for approx. 3 seconds with pressing ∇ key.

4E24 is indicated at PV screen.

II : In order to set **[K-type]**, indicate **E** **L** at SV screen by pushing Δ key and ∇ key.

Push \bigcirc key 7-times to return to the operation mode again.

