

8. MAINTENANCE / INSPECTION

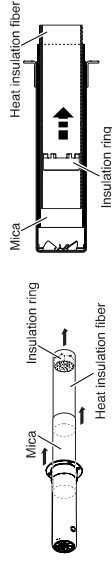
Replacing the heating element is very dangerous. Be sure to turn the power switch OFF and be careful of the following procedure when replacing the heating element.

A. Remove the heating element

1. Remove the 4 screws that attach the heater pipe to the handpiece. Remove the heater pipe.



2. Remove the mica, heat insulation fiber and insulation ring in the heater pipe.



3. Disconnect and remove the heating element.



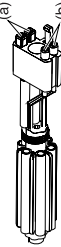
B. Measure the resistance value

- Normal heater resistance value
Connect an ohmmeter across the connector terminals (a).

The correct values are approximately: 14Ω (±10% 100-110V), 17Ω (±10% 120V), 41Ω (±10% 220-240V).

If the resistance value is incorrect, replace the part.

- Normal sensor resistance value
Connect an ohmmeter across the connector terminals (b). If the resistance value is ∞, replace the part.



Refer to the instructions included with the replacement part.

⚠ CAUTION

Handle the heating element with care. Never touch the heating element wire!

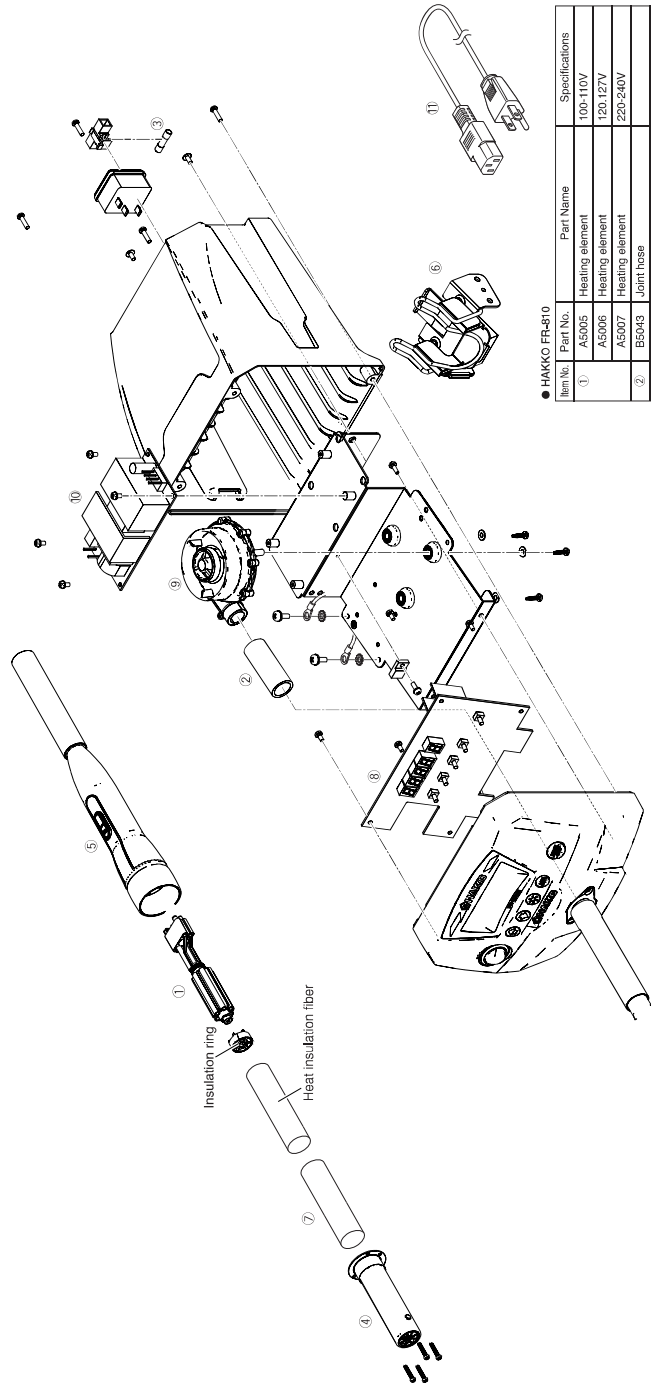
9. TROUBLE SHOOTING GUIDE

⚠ WARNING

Before checking the inside of the HAKKO FR-810 or replacing parts, be sure to disconnect the power plug. Failure to do so may result in electric shock.

- The unit does not operate when the power switch is turned on.
CHECK Is the fuse blown?
ACTION Investigate why the fuse blew and then replace the fuse. If the cause can not be determined, replace the fuse. If the fuse blows again, send the unit in for repair.
- [E-2] is displayed
CHECK Is the sensor broken?
ACTION Measure the resistance value of the sensor. When the resistance value is ∞, replace the heater.
- [E-3] is displayed
CHECK Is the heater broken?
ACTION Measure the resistance value of the heater. The correct values are approximately: 14Ω (±10% 100-110V), 17Ω (±10% 120V), 41Ω (±10% 220-240V). When the resistance value is not within the normal range, replace the heater.
- [E-4] is displayed
ACTION The fan may be broken. Replace the fan with a new one.

10. PARTS LIST

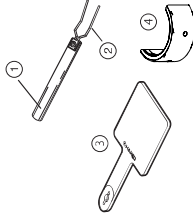


● HAKKO FR-810

| Item No. | Part No. | Part Name | Specifications |
|----------|----------|---|-------------------|
| ① | A5005 | Heating element | 100-110V |
| | A5006 | Heating element | 120-127V |
| | A5007 | Heating element | 220-240V |
| ② | B5043 | Joint hose | |
| ③ | B5044 | Fuse/250V-10A | 100-127V |
| ④ | B5060 | Fuse/250V-5.3A | 220-240V |
| ⑤ | B5046 | Pin | |
| ⑥ | B5048 | Handle with cord assembly | |
| ⑦ | B5049 | Handpiece holder | |
| ⑧ | B5050 | Mica | |
| | B5051 | P.W.B. / 100-127V | |
| | B5051 | P.W.B. / 220-240V | |
| ⑨ | B5052 | Fan | |
| ⑩ | B5053 | Power unit | |
| ⑪ | B5054 | Power cord, 3 wire cord & American plug | U.S.A. |
| | B2421 | Power cord, 3 wire cord but no plug | |
| | B2422 | Power cord, 3 wire cord & BS plug | India |
| | B2424 | Power cord, 3 wire cord & European plug | 220V KTL, 230V CE |
| | B2425 | Power cord, 3 wire cord & BS plug | 230V CE, U.K. |
| | B2426 | Power cord, 3 wire cord & Australian plug | |
| | B2436 | Power cord, 3 wire cord & Chinese plug | China |
| | B3508 | Power cord, 3 wire cord & American plug (B) | |
| | B3550 | Power cord, 3 wire cord & S1 plug | |
| | B3616 | Power cord, 3 wire cord & BR Plug | |

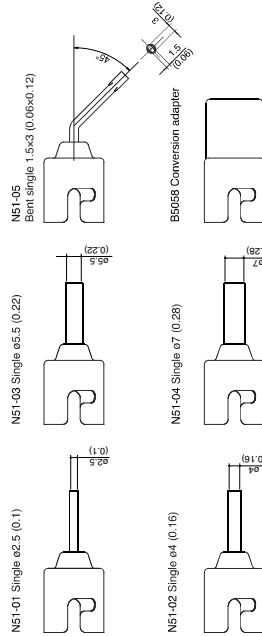
● Optional parts

| Item No. | Part No. | Part Name | Specifications |
|----------|----------|----------------------|-----------------------|
| ① | B5056 | FP pick-up | with pickup wire (SS) |
| ② | B5057 | FP pick-up wire (SS) | |
| ③ | B5200 | Heat resistant pad | |
| ④ | B5059 | adapter | x2 |



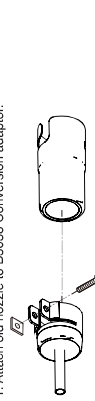
11. OPTIONAL PARTS (Nozzle)

Unit: mm (in.)



How to Use a old nozzle

1. Attach old nozzle to B5058 Conversion adaptor.



2. Attach B5055E (with old nozzle attached) to the heater pipe.

