Instructions For Use

These instructions should be carefully followed each time the soldering iron is used.

1. a. Select appropriate heads (15mm or 22mm).
    b. Slide the heads onto the shaft until they bottom out. Fit the special head-retaining spring so that it clips onto the metal tube protruding from the head and also onto the element shaft. (See Figure 2) It is important that the heads do not slide easily off the shaft. If necessary, adjust the springs with pliers to tighten the grip.
    c. Align heads (whilst cold) around a pipe, to ensure good all round contact.
    d. Place the soldering iron in the safety stand. Switch ON at mains. Allow 5 minutes to attain working temperature.

2. Using wire-wool, clean the surfaces to be joined and apply a plumbers soldering flux (RS stock no. 684-850) to the cleaned surfaces. Support the work as necessary.

3. i For Integral Solder Ring Fittings ("Yorkshire" type)
   a. Close heads of soldering iron around the pipe beside the fitting. (Position of the heads should be as close as possible to edge of the fitting.) Grip tool firmly.
   b. Watch for molten solder to appear at the outer edge of the fitting. When it does, the joint is made. Remove the soldering iron. Apply the soldering iron to the pipe beside the second joint and proceed as before.

3. ii End Feed Capillary Fittings
   a. Close heads of soldering iron around the pipe beside the fitting. (Position of the heads should be as close as possible to the edge of the fitting whilst allowing room to apply solder.) Apply plumbing solder (RS stock no. 684-838 or 684-844) to outer edge of fitting.
   b. When solder starts to flow, it will be drawn into the fitting and the joint is made. Remove the soldering iron. Apply the soldering iron to the pipe beside the second joint and proceed as before.

4. Turn off after use. After the heads have cooled remove them from the elements. Clean the heads and the element shaft by careful use of a nylon scouring pad. Do not store the heads on the element shaft. Should the heads prove difficult to remove, grip the element in one pair of pliers whilst moving the head with another.

NOTE: The surface finish of the heads is important to the thermal efficiency of the tool. Excessive flux, other burnt-on deposits, or mechanical misuse, can degrade this finish and should be avoided.

Typical Joint Times

The soldering iron does not make joints quicker than a blow-lamp. It will make perfect joints, in complete safety if the instructions are properly followed. Joint times will vary according to the size of the pipe and the condition of the heads.

The following table shows average joint times:

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>1st Joint</th>
<th>2nd Joint</th>
<th>3rd Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>15mm</td>
<td>34-40 sec.</td>
<td>10-20 sec.</td>
<td>10-20 sec.</td>
</tr>
<tr>
<td>22mm</td>
<td>40 sec.</td>
<td>20 sec.</td>
<td>10 sec.</td>
</tr>
</tbody>
</table>

IMPORTANT

Some measure of oxidation will occur on all metals that reach temperatures attained by this tool. The closely tolerated fit between head and element shaft will mean that sticking or "seizing" can occur in some instances. To prevent the possibility of seizing, a thin film of WD 40 has already been applied to the element shaft and to the inside of the head sleeve. It is recommended that a similar process be carried out after cleaning and before each use only if difficulty is being encountered in removing heads. If a head is frozen on and cannot be removed easily, an application of WD 40 (RS stock nos. 496-164, 496-170 and 496-186) by spray will effect an instant remedy. Some boiling of the WD40 will occur when heating. This is no cause for concern.

WARNING: ALL OF THESE OPERATIONS SHOULD BE CARRIED OUT WHEN THE TOOL IS COLD ALWAYS STORE THE SOLDERING IRON WITH HEADS REMOVED.

Element Replacement

Elements are supplied in pairs complete with all necessary wiring.

1. Disconnect soldering iron from the power source and allow to cool naturally.
2. Carefully remove heads following guidelines given above.
3. Remove the 6 element retaining screws (3 per element) on the element positioning guides.
4. With the main case retaining screws facing upwards, remove the 4 left-half case retaining screws and carefully lift off the case.
5. Disconnect the green/yellow wire from the earth connection in the soldering iron handle.
6. Disconnect the brown wire and the blue wire from the live/neutral connection at the top of the soldering iron handle.
7. Disconnect the brown wire and the blue wire from the "in-line" connection in the centre of the soldering iron.
8. Remove the elements and associated wiring from the soldering iron.
9. Carefully feed the new element wires and elements into the case housing. Ensure the elements are pushed fully home.
10. Re-tighten the 6 element retaining screws (3 per element) in the element positioning guides.
11. Following the wiring diagram in Figure 3, connect up the element wires.
12. Check all connections in accordance with the wiring diagram and ensure all terminal screws are adequately secured.
13. Replace case-half, ensuring no wires are trapped.
14. Re-tighten the 4 left-half case retaining screws.
15. Replace the appropriate heads.
16. The iron is now ready for use.

Safety Notes:
1. **Warning:** The heads reach a working temperature of around 520°C. **Do not touch** the elements or heads after switching on.
2. Allow heads to cool naturally after use.
3. Always replace soldering iron into safety stand when not in use.
4. Always check the fit between the heads and elements before switching on. Loose fitting heads are dangerous.
5. Replacement elements are each rated at 120 volts and must be **wired in series** as shown.

![Figure 3](image-url)