#### General safety rules

Soldering can be dangerous if safe operating procedures are not followed. As with all tools, there are certain hazards involved with the use of this product. Treating the iron with respect and caution will considerably reduce the possibility of personal injury. If normal safety precautions are overlooked or ignored injury to the operator may result: safety equipment may reduce your potential for injury but even this will not make up for poor judgment, carelessness or inattention. Read these instructions before operating this soldering iron as they explain the tool's applications and limitations.

Remember: your personal safety is your responsibility.

### Warning Failure to follow these rules may result in serious personal injury

This product is designed for soldering operations only and Should not be modified for use in any other application.

Irons should not be left switch on and unused for prolonged Periods of time as overheating may cause damage the heating Element.

- 1. Make sure this iron is earthed and fitted with an approved 3-pin plug.
- Do not use in a dangerous environment in the vicinity of flammable liquids or materials. Never use a soldering iron in the rain, wet areas or when your hands are wet with water or other liquids. Using an electrical appliance under these conditions seriously increases the possibility of electric shock.
- Unauthorized people especially children should be kept clear of the work area. Never leave a soldering iron unattended, unless it has been unplugged and allowed to cool down.
- Do not use this tool for work beyond its approved capacity. Do not apply excessive pressure or otherwise force the iron. Do not drop or treat it roughly. Mishandling can weaken insulation and other safety features.
- Never lift the iron or hang the iron on hooks or nails by its cable as this may cause a short or damage the cable.
- 7. Always use an iron of the correct capacity and wattage for the job in hand, and only for the purpose for which it was designed. Do not attempt to adapt or modify a soldering iron for an alternative purpose or to gain

- a greater working capacity than that for which it was intended.
- 8. Dress appropriately. Wear protective hair covering to contain long hair.
- Wear safety glasses. Everyday glasses only have impact resistant lenses, they are not safety glasses.
- 10. Always maintain a good firm foothold. Keep well balanced and keep the work and floor areas clean.
- 11. Prior to operation, carefully inspect the iron for any sign of damage. If any part of the iron is broken or showing any sign of damage, including the casing and the cable, the iron should not be used and should be replace with a new one. There are no user serviceable parts other than replacement soldering tips.
- 12. Turn off the power supply switch and unplug the iron if you are leaving the tool unattended, vacating the work area or in the event of an electrical failure.
- Drugs, alcohol, medication. Do not operate the iron while under the influence of drugs, alcohol or any medication.
- 14. Warning: always solder in a well-ventilated areas.

#### Safe use of power supply

#### Voltage

The standard voltage throughout all European union countries is now 230 volts. Safety and performance will not be affected on equipment currently rated at 240 volts. Ensure that the applied voltage is the same as that specified on the nameplate of the iron.

#### **Plugs**

To eliminate the possibility of an electric shock your soldering iron has been fitted with a BS approved plug which incorporates a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an approved BS1362 fuse of the same rating must be used.

If a plug is to be replaced you must ensure that it is fitted correctly with a correctly rated fuse. The iron must be earthed. If you are in any doubt you should ask a qualified electrician to fit it for you.

#### Use of RCD

When using an electrical tool (particularly outdoors), we recommend the use of a residual current device (circuit breaker or RCD, product code FPP RCD) for enhanced protection.

#### **Operating instructions**

Before using the soldering iron please carry out the following checks:

- Check that voltage given on the nameplate is the same as the source of current.
- 2. Before switching on make sure the soldering tip is properly in position and that the clamp screw is tight.
- 3. Connect to an appropriate 240v mains outlet socket and switch the socket on (if applicable).
- 4. Soldering tips must only be removed when the soldering iron is cool and disconnected from the mains supply. Loosen the clamping screw and remove the soldering tip carefully, without using unnecessary force. Insert the new bit fully into the iron and tighten the retaining screw.
- Do not heat up the soldering iron without the soldering tip fitted.
- After use let the soldering iron cool down in the air (do not attempt to cool down using water or any other liquid).
- Always place the iron on to its metal holder for safe storage when in use. Irons should not be left switch on and unused for prolonged periods of time.
- 8. The soldering iron is fitted with a special high quality cable that is resistant against short-time contacts with hot metal parts. If the power cable is damaged the iron should not be used, the cable should be cut as close to the handle as possible and the iron disposed of in line with local recycling guidelines. The power cable cannot be replaced due to the internal construction of the soldering iron.

#### **Operating limitations**

These iron are designed for domestic use and are not suited to continuous use in industrial environments. Irons should not be left switch on and unused for prolonged periods of time as overheating may cause damage the heating element.

Faithfull soldering irons are ideally suited for most domestic applications and are available in the following wattages.

**FPP SI25** 25 watt soldering iron for general electrical repairs in the home and hobby workshop.

**FPP SI40** 40 watt medium-duty soldering iron for soldering tasks where more power is required.

**FPP SI80** 80 watt heavy-duty soldering iron for small metal jointing repairs such as battery connections.

Large soldering irons have more power (or watts) available to replace the heat that is drained from the iron during use. The larger the item being soldered, the greater the need for the volume of heat and the higher the power or wattage required.

#### **CAUTION**

- Always use an appropriate soldering stand and any other soldering aids that help to avoid burns to users or property.
- Always check that the soldering tip is secured firmly in place before switching on. The soldering tip must be pushed fully into the heating unit, and its clamping screw tightly fastened.
- Always allow the soldering iron to cool down naturally after use.

#### **SOLDER AND FLUXES**

#### 1. FLUXES

Soldering alloys (soft soldering) are produced in a wire form only for the D.I.Y. market.

There are two types of soldering wire:

- Soldering wire without flux
- Soldering wire with flux core

Flux is used to remove the oxide coat from the surfaces prior to soldering, as well as preventing the formation of oxide during soldering.

Fluxes are available in paste and liquid form.

After soldering remove excess paste and liquid fluxes with a brush or cloth. Resin fluxes (rosin) should not be removed.

<u>Tin solder paste:</u> Cold material to be spread on surfaces to be jointed.

Tin paste: Replaces tin wire and flux.

Tip cleaning blocks: Used for cleaning soldering tips.

Paste flux: Flux supplied in paste form.

Liquid flux: For use on delicate-to-reach points.

#### 3. SOLDERING

Soldering is a process for joining two metals by the application of molten material. Nearly all metals and metal alloys, brass, copper, iron etc; can be soldered. There are two types of soldering, hard soldering and soft soldering.

The surfaces to be soldered should be kept clean and free from oil and dirt. Never use household detergents since they often contain silicon. The oxide coating can be removed by either using the corrosion method or mechanically with emery paper, filing or scraping. If the corrosion method is used, avoid using hydrochloric, sulphuric or nitric acid. Citric acid, at a 10% dilution ratio, is recommended. When cleaning is finished, do not touch surfaces to be soldered.

The correct temperature is attained when tin deposited on the tips forms a coat. The formation of small clots means the correct temperature has not been attained. If tin 'pearls' are formed, the tip is not properly clean.

Replacement tips are available from your local Faithfull stockiest or online from www.faithfulltools.com

FPP SITIP25W Replacement tip for the FPP SI25 25 watt soldering iron. FPP SITIP40W Replacement tip for the FPP SI40 40 watt soldering iron. FPP SITIP80W Replacement tip for the FPP SI80 80 watt soldering iron.

Please retain these instructions for future reference.



# Soldering Irons



## **Instruction Manual**

For your own safety, please ensure you have read these instructions before use and have fully understood all the safety guidelines.