



JOVY SYSTEMS®

*i*Solder-40



## User Manual

*Rev. 1.00*

Thank you for purchasing Jovy systems **iSolder-40** soldering station.

Please read this manual before operating the **iSolder-40**.

*Keep the manual in accessible place for future reference*

## User Manual

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## Warnings and precautions



- The tip temperature can be > 400°C. Please note; ignoring the precautions may lead to injury to users or damage the *i*Solder-40
- *Do not touch or change the tip while operating the *i*Solder-40.*
  - *Do not use the *i*Solder-40 near flammable items*
  - *Do not use the solder station for any function other than De-soldering or soldering the electronic/electrical components. (Do not use it with wood, wax, plastic, etc...)*
  - *Use only tips and parts supplied by JOVY Systems®.*
  - *Make sure that the tip does not touch any object while in operating mode. It negatively affects the tip sensitivity.*
  - *Use in a well-ventilated work space and preferably use a smoke absorber appliance.*
  - *Do not use the equipment or the hand piece with wet hands.*
  - *Connect only to properly grounded outlets to prevent risk of electric shock or equipment malfunction.*
  - *Always place hand-piece back into the holder to prevent accidental burning of oneself or surrounding objects.*
  - *The *i*Solder-40 is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities. As well, persons with lack of experience and knowledge, unless they have been given supervision or training concerning use of the soldering station by a person responsible for their safety.*

### Safety precautions:

- Use the protective pad to exchange the tip and do not expose or touch the tip by your skin.
- Keep a distance from the working space during the rework process, reworking process might produce unwanted smoke toward your eyes and lungs.



## Specifications

### Power supply technical specifications:

|                                |                           |
|--------------------------------|---------------------------|
| Ambient Operating Temperature  | 20 - 40°C                 |
| Maximum Enclosure Temperature  | 53°C                      |
| Input Line voltage             | 115VAC/60Hz – 230VAC/50Hz |
| Output voltage                 | 24VAC                     |
| Power Consumption              | 100 Watts max.            |
| Dimensions (L*W*H) mm.         | 188 x 144 x 120           |
| Power chord length (Plug type) | 1.8 meters                |

### Hand piece technical specifications:

|                          |            |
|--------------------------|------------|
| Tip-to-Ground Potential  | < 2 mV     |
| Tip-to-Ground Resistance | < 2 Ohm    |
| Hand piece cord Length   | 1.5 meters |
| Hand piece Length        | 158 mm     |

## ***i*Solder-40 is ESD Safe Equipment**





## Initial set-up

Packing list:

| Item              | Code   | Quantity |
|-------------------|--------|----------|
| Solder Station    | JV-SSS | 1        |
| Main tip          | JV-ST1 | 1        |
| Hand piece holder | JV-SS2 | 1        |
| Cleaning sponge   | JV-SS3 | 1        |
| Protective Pad    | JV-SS6 | 1        |
| Power cord        | JV-SS7 | 1        |



## How to use:

- 1- Unpack the *i*Solder-40 and select the proper voltage range from the voltage selector (110VAC/60Hz or 220VAC/50Hz).



- 2- Place and arrange the *i*Solder-40 with all other parts in a convenient location in your workspace.
- 3- Insert the desired tip into the hand piece to end – fastening click heard – by using the protective pad, steps as shown in figure 1 and 2. (For more information about tips see tip care and selection page 11)

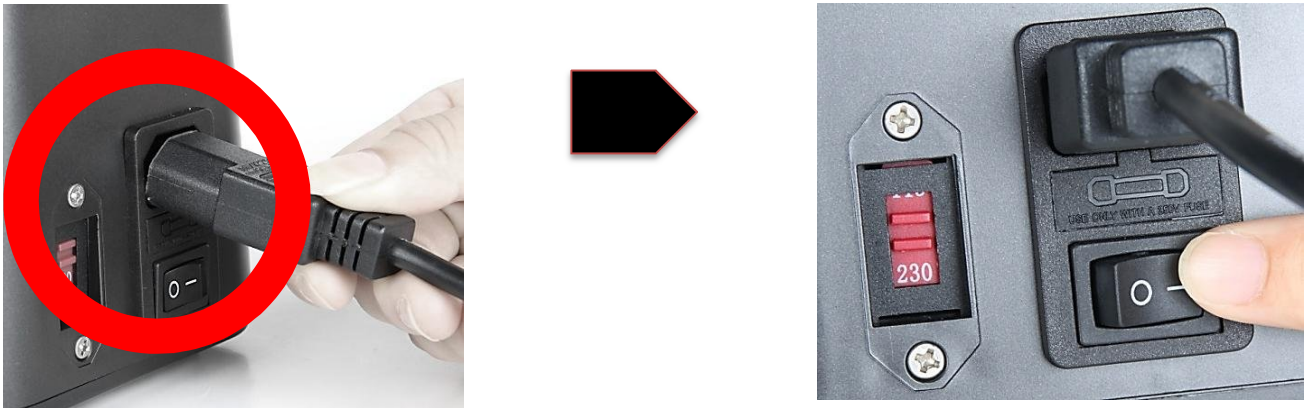


**Figure 1**



**Figure 2**

4- Plug the power cord into electricity supply and switch on the *i*Solder-40.



5- If the tip is inserted correctly a green led indicator will start flashing – Heating up mode. If the tip inserted wrongly the led color will be red.

6- Wait for the led indicator light to become green and start using the solder station for soldering process.







# Operating modes Guideline

Recognize the operating mode and solder station status by the led indicator color and state.

## Attention!

When the tip is disconnected from the hand piece, the controller gives a continuous red light indication on the led indicator.

When the controller is active and sensing, the fast flashing Green Led will be seen from time to time.

### 1) Heating up mode

When the tip is fully inserted into the hand piece, the *i*Solder-40 controller starts to detect the tip.

*The indicator of this state is a flashing green led.*

### 2) Operating mode

When the tip is ready to be used the green led stop flashing and becomes steady green.

*The indicator of this state is a steady green led.*

### 3) Sleep mode

When the *i*Solder-40 controller senses no usage for 5 minutes, the *i*Solder-40 starts the sleep mode for saving power.

*The indicator of this mode is a flashing red led (short on; short off).*

To get out from sleep mode and turn to operating mode, move the hand piece from the holder and wait until the iControl automatically senses and update the status from Sleep to Operating mode.

### 4) Power saving mode\*

After 10 minutes in the sleep mode, the *i*Solder-40 will turn to the power saving mode, where no power is delivered to the tip at all and the tip temperature drops down to room temperature.

The power saving mode is a safety mode where the device can get out of it by moving the hand piece to left or right direction.

Also to shift from operating mode switch Off/On the *i*Solder-40

*The indication of this state is a flashing red led (short on; short off).*

\*The difference between the sleep mode led color indicator and the auto shut-down mode led color indicator is the speed of flashing.

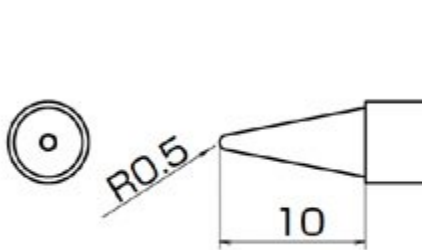
For sleep mode the led red flash speed is Off/on in seconds is 1/1.

For standby mode the led flash speed is Off/on in seconds is 5/1.

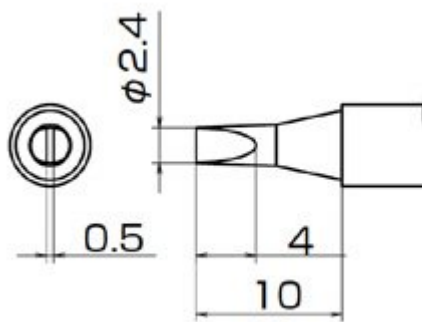


## Tip care and selection

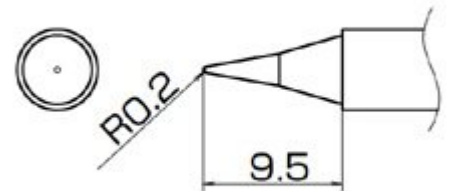
Available tips for *iSolder-40*:



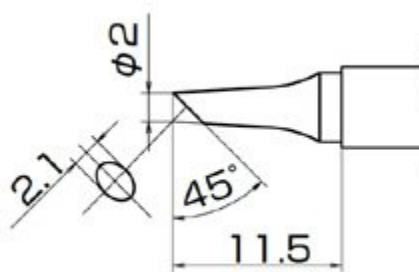
JV-TP1



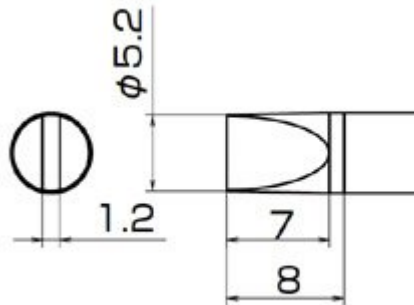
JV-TP2



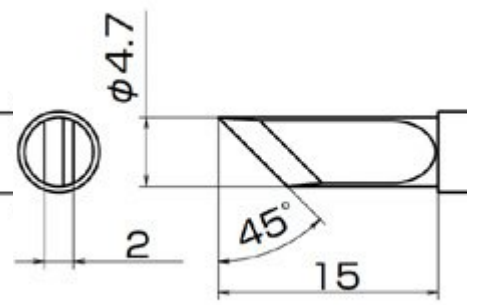
JV-TP3



JV-TP4

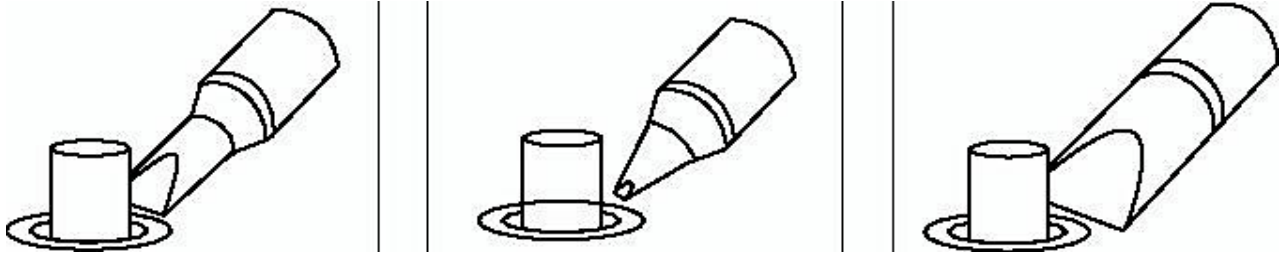


JV-TP5



JV-TP6

### Guide for tip selection:



Good

Too light

Too heavy

The ideal tip choice is the tip which its active area should cover completely the solder area. The best percentage of soldering area to tip active area is 2:1.

### Tip care guide for longer life time:

- Clean the tip by wiping it with a wet sponge and slightly drag it out after each use.
- Never use excessive mechanical force for the tip when soldering.
- Soldering tip oxidation should quickly be cleaned and removed; it negatively affects the tip sensitivity.
- Use the wire mesh to remove bulk solder materials remaining over the tip after each usage.



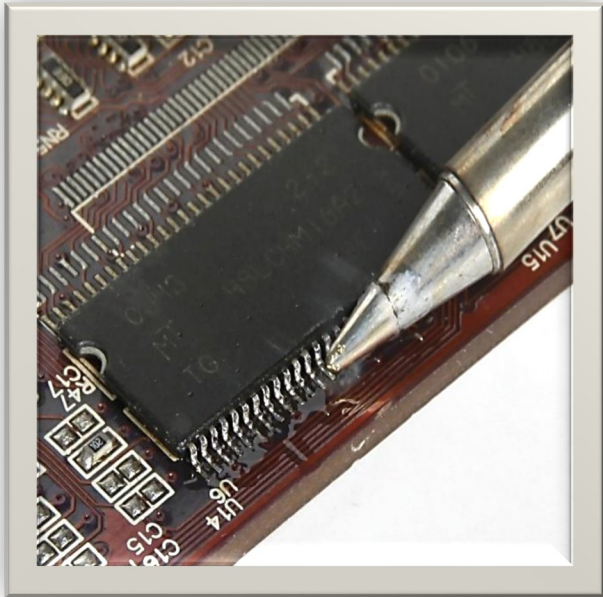
## Hints and Tricks

- Tip oxidation removal:  
Firstly, clean the tip using a wet sponge then clean with wire brush. Secondly, use a tip re-activator chemical to remove hard residues and oxidation, and finally re-tinning using solder wire (flux cored).
- Make sure that the tip type is compatible to the application – as explained above in tip selection section – with the solder material mass to avoid process failure, tip damage and oxidation.
- Apply the tip to small part of solder wire before you start soldering or de-soldering.
- Wet the sponge by distilled water.

*Note: Sulfur and other minerals in Tap-water cause fast tip oxidation.*

- Keeping the tip clean and shine, enhances the sensitivity and performance of the tip.

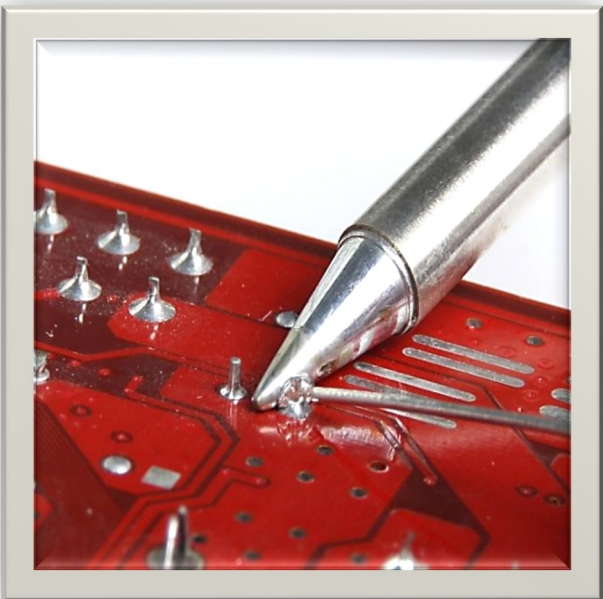
## Sample applications for the *i*Solder-40 main tip



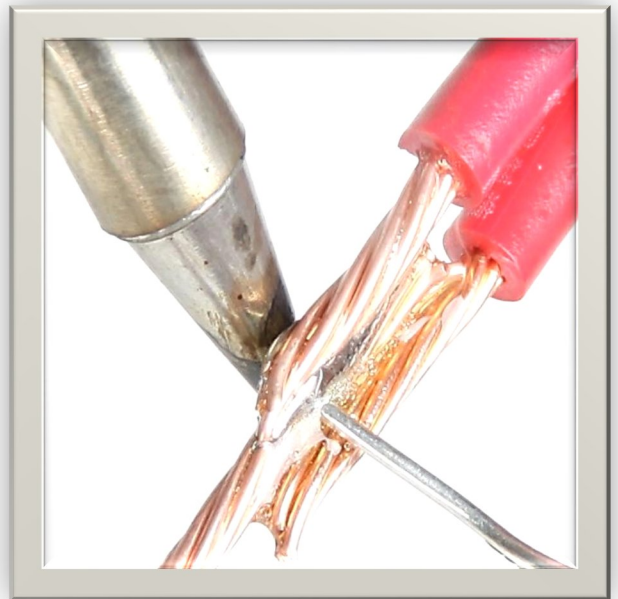
SMT



Any type of soldering material



THT



Heavy junctions



## Warranty

Please visit Jovy systems web page ([www.Jovy-systems.com/contact](http://www.Jovy-systems.com/contact)) on support form tab, fill in subject with product registration and make sure you write the *i*Solder-40 serial number.

You may also contact the local representative or distributor for Jovy systems® for pricing and availability.

Jovy Systems® warrants the *i*Solder-40 against any manufacturing defects for one (1) year from the date of purchase by the original owner. If the product defected within the warranty period, it will be repaired or replaced free of charge.

This warranty excludes normal maintenance and shall not apply to any opened, misused, abused, altered or damaged items.

The warranty period will start from the date of purchase. If the date of purchase cannot be substantiated the date of manufacture will be used as the start of the warranty period.