



Soldering Solutions

User Manual for
Soldering Stations



TABLE OF CONTENTS

| | |
|---------------------------------|-------|
| TABLE OF CONTENTS | 2 |
| INTRODUCTION | 3 |
| PRODUCT CONTENTS | 4 |
| SAFETY | 5-6 |
| Safety - Personal | 5 |
| Safety - Workspace | 5 |
| Safety - Device | 6 |
| SET-UP & OPERATION | 7-10 |
| Selecting a Location | 7 |
| Assembly of Soldering Station | 7-8 |
| Proper Use of Soldering Station | 9-10 |
| MAINTENANCE & CARE | 11 |
| ACCESSORIES | 12 |
| TROUBLE SHOOTING | 13-14 |
| REPLACEMENT PARTS | 15 |
| WARRANTY & SERVICE DETAILS | 16 |

Company Information

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INTRODUCTION

American Beauty has been a fixture in the soldering tool marketplace since 1894. Our tools are a throw-back to a time when people took pride in the tools they used and companies took pride in the tools they manufactured. Today, American Beauty® tools are routinely chosen to tackle the most challenging soldering, brazing and thermal management applications with a diverse line of soldering irons and stations, solder pots, resistance soldering systems and accessories.

Your American Beauty Industrial Grade Soldering Station has been manufactured to stand-up to the rigors of today's demanding production environment. They are designed and produced to provide the same high performance expected from our entire line of Industrial Pencil-Style Irons while offering tighter temperature control to meet the needs of more sensitive soldering applications. All of our American Beauty soldering stations contain a compression wound nichrome wire heating element made from the highest quality materials for improved reliability during operation. And, all of our elements and irons are wound and assembled right here in the USA.

With this type of tool, the operator plays an essential role in achieving quality end-results, avoiding injury and ensuring a long product lifespan. Please ensure that you take the time to read this manual carefully. It contains all the information required to understand how to properly set-up, operate & maintain this American Beauty equipment. Additionally, please feel free to visit our full-service website (www.americanbeautytools.com) for links to instructional videos, product specifications, a technical blog, an on-line shopping cart and much more.

The following video demonstrates how to quickly get started using your soldering station.



www.americanbeautytools.com/v/ss/quickstart

PRODUCT CONTENTS

Each Industrial Grade Soldering Station comes equipped with the following components in each box:

| Item | Description | Quantity |
|------|---|----------|
| 1 | Control Unit with Iron (attached) | 1 |
| 2 | Soldering Iron Stand | 1 |
| 3 | Soldering Iron Tips (including tip in iron) | 3 |



The customer related differences in each system lie within the capacity of the iron also know as wattage and the size of the soldering iron tips supplied. The chart below is used to illustrate these differences for the user:

| Model # | Wattage | Tips Included |
|---------|---------|---------------|
| V36GL3 | 60 Watt | 704, 709, 724 |
| V36GM3 | 40 Watt | 610, 625, 643 |
| V37GS3 | 20 Watt | 501, 505, 510 |

Soldering irons are extremely hot. Operators of this product should be made aware of and fully understand all of the warnings as they relate to the operation or use of this device. Failure to observe the following safety instruction could result in serious injury.

Safety - Personal

- Only use the soldering station for its intended use.
- Always wear Personal Protective Equipment (PPE) when operating your soldering station. This includes safety glasses, protective gloves, and sleeves (if necessary) to cover your body.
- Do not operate the soldering station while under the influence of alcohol or drugs.

Safety - Workspace

- Always operate the soldering station in a well ventilated area. Some solders and fluxes release fumes that can be harmful. Proper attention should be given to these materials and the ventilation required to exhaust these fumes.
- Do not operate the soldering station in the presence of water and/or combustible & heat sensitive materials.
- Never leave an soldering station unattended unless it is unplugged and completely cooled down.
- Be sure to properly label work area when in use to identify the dangers of a hot soldering station.

Safety - Device

- Most American Beauty Industrial Grade Soldering Stations are available in both a low voltage (110-120VAC) and high voltage (220-240VAC) version. Please consult your cord label to determine what version you have purchased and ensure your solder station is properly plugged in to the appropriate outlet.
- The tip temperature of your iron can reach in excess of 900°F. Mishandling of your iron can result in a serious burn or fire.
- Do not touch any metal parts of the iron while in operation.
- Do not use the iron for any application other than it's intended use.
- Do not leave a hot iron unattended.
- Soldering will produce smoke. Make sure the soldering location selected is well ventilated.
- Always store the iron in the holder when not in use.
- Let the iron cool to room temperature prior to storage or before changing tips.
- Always make sure the unit has been properly turned off when finished using.
- Turn unit OFF and unplug device prior to moving unit.
- Never attempt to perform repair, replacement, diagnostics, or routine maintenance while unit is plugged in.
- Repairs should only be performed by a qualified technician familiar with the product.
- Do not modify the soldering station or use it with damaged parts.

Selecting a Location

Choosing a good location to station your Industrial Grade Soldering Station is the first step to operating your soldering station safely and efficiently. To assist with this, we have created a checklist of considerations to guide you in selecting a location for your soldering station.

- Area is well ventilated
- Surface is both flat and level
- Surface is both chemically and thermally resistant
- Area is away from high volume foot traffic zones
- Area is free from excess clutter
- Workspace is not in the direct path of airflow from AC or furnace vent
- Workspace is preferably on an inside wall, or at-least away from windows
- Workspace has access to a properly grounded outlet whose output voltage matches that of your tool. (110-120VAC or 220-240VAC)
- Workspace has adequate space that allows the power cord to hang freely

Following these basic steps should ensure a suitably safe and efficient location for the operation of your soldering station.

Assembly of Soldering Station

The V36G-series requires some minor assembly of the soldering iron stand and attaching the stand to the unit. All of this can be accomplished with a standard phillips screwdriver. See next page.

The following graphics illustrate the correct assembly of the soldering iron tray:



Attach the tray to the unit:



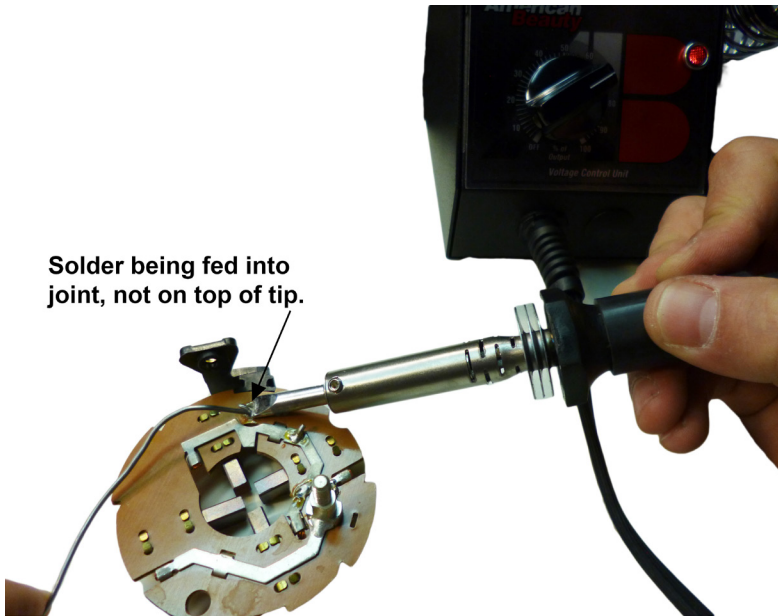
Proper Use of Soldering Station

1. When installing a soldering tip into your iron please ensure the tip is fully seated in the iron. **This will help prevent premature burnout of the heating element.**
2. Plug the station into an approved 3-wire (grounded) outlet while iron is resting in iron stand. Turn the dial clockwise to turn the unit 'ON'. The LED indicator light will be lit at this time.



3. The soldering station will have output ratings ranging from 30% to 100% surrounding the dial. Turn the dial to the desired setting at this time. These ratings are there to help identify, note, and repeat the proper setting for your application.
4. The proper setting will be application dependent and determined through trial and error or by measuring tip temperature using an external device.
5. Place the tip of your soldering iron on the base metals to be soldered to bring them to temperature. **Note:** The base metals to be soldered should be clean and free of coatings, oils, or contaminants.
6. Once the base metals have been heated to temperature, begin applying the appropriate solder for the application.

SET-UP & OPERATION



7. When finished, wipe the tip clean using a moist sponge and "tin" the tip by applying fresh solder to it.
8. Turn unit "OFF", unplug, and allow iron to cool to room temperature prior to storing.

PROPOSITION 65 WARNING: American Beauty tools & accessories are lead-free & RoHS Compliant. However, use of this product with lead-bearing solders (or any other chemicals found on the current Proposition 65 List) could expose the user to chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Solder Iron Tip

- While using the soldering iron, it is important to clean the tip regularly using a moist sponge or brass sponge to remove impurities and reduce oxidation.
- Avoid leaving the iron on for long periods of time (more than 1hr) without using it. This will cause your tip to become oxidized creating a "dry" tip that will lose heat conductivity and prevent solder from wetting to the tip surface.
- Periodically, after the iron and tip have cooled to room temperature, the tip should be removed from the iron and the shaft cleaned using an emery pad. This will help prevent the tip from seizing in the iron due to the excessive build-up of oxides and contaminants.

Note: Do not take a file to your American Beauty Paragon tip to clean it. Using a file on your soldering iron tip will lead to the removal of it's iron plating which will significantly degrade the life of the tip.

Soldering Iron

- Periodically cycle the set screws of your iron. This will help ensure they do not seize over time.
- When cleaning the shaft of your soldering iron tip, you should also take the time to clean the bore (the cavity in which the tip sits) of your iron using a wire brush.

Why not let us show you how to perform basic maintenance on your soldering irons.



www.americanbeautytools.com/v/ss/maintenance

Brass Sponge Solder Tip Cleaner & Tip Tiner

Model CS-BS1



Model CS-TT1



Solder & Fluxes

Solder, Models
CS-PBF1 & CS-PBF2



Flux, Models
CS-FX1, CS-FX2, CS-FX3



Desoldering Braid

Single 5 ft Bobbins: 484-1G, 2G, 3G, 4G, 5G

Sleeve of 25 Bobbins: 484-1,2,3,4,5

Thumb Wheel Dispenser: 485-8C



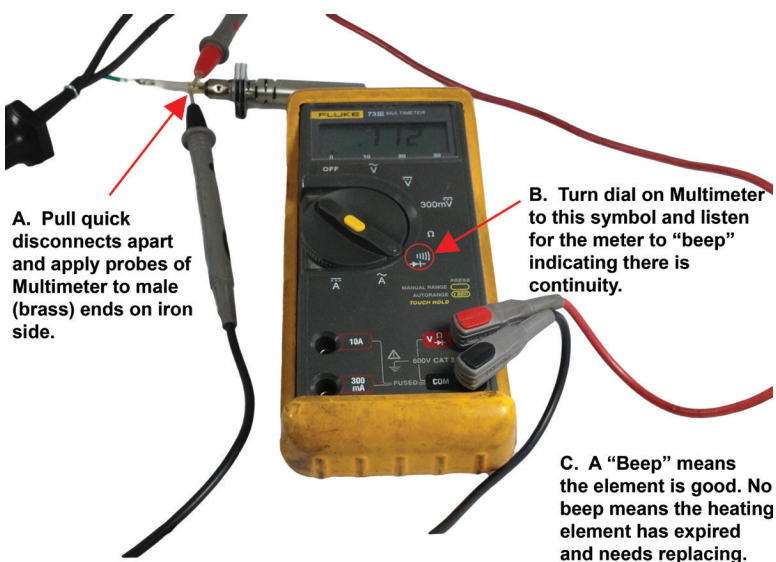
TROUBLE SHOOTING

| Problem Description | Solution |
|---|---|
| Soldering iron produces NO heat. | <ol style="list-style-type: none"> 1. Is the power cord connected? <ul style="list-style-type: none"> • Connect power cord to outlet 2. Is the GCFI tripped on your outlet? <ul style="list-style-type: none"> • Unplug your iron, reset the GCFI, and reconnect the power cord. 3. Determine if the heating element needs replacing. (Pg. 14) <ul style="list-style-type: none"> • Replace Heating Element with the appropriate model for your soldering iron. (Pg. 15) |
| Soldering iron temperature is not controllable or only runs at maximum setting. | Replace Voltage Controller. (Pg. 15) |
| Soldering tip cannot be removed. | Tips seize from oxidation build-up on both the shank of the iron tip & inside walls of the soldering iron. Both the tip and heating element will need to be replaced. (Pg. 15) |
| Soldering iron no longer seems to reach the same top temperatures. | <p>American Beauty soldering irons are 'full-output' irons, meaning they either operate at maximum potential or they completely expire. 'Less' heat is almost always a result of poor cleanliness.</p> <ul style="list-style-type: none"> • Clean the oxidation from both the shank of the iron tip & inside walls of the soldering iron. |

Warning: Disconnect the power cord prior to performing any service or diagnostics on your Industrial Grade Solder Station. Failure to do so could cause serious harm and electric shock. Service to your solder station should be performed by qualified personnel to avoid injury or damage.

Determining if the Heating Element has Expired and Needs to be Replaced

1. Disconnect the handle from the body of the iron. This is accomplished by loosening the set screw in the handle until the iron is loose in the handle.
2. Slide the handle down on the cord and remove the cloth tape.
3. Perform Continuity Test (See instructional picture below).



Replacement Parts List

American Beauty offers a full line of replacement parts for your Industrial Grade Soldering Station. Repairs are straight forward, however for those wanting the work done for them, please see our website www.americanbeautytools.com/repair to take advantage of our Repair and Refurbish program.

| Replacement Heating Elements | |
|------------------------------|----------------------------|
| Model # | Replacement Element Part # |
| V36GL3 | 9012-60 |
| V36GM3 | 9010-40 |
| V36GS3 | 9014-20 |

| Replacement Voltage Controller | |
|--------------------------------|--------------------|
| Model # | Replacement Part # |
| All | V3-8058 |

| Replacement Tips | | | |
|------------------|--------|--------|--------|
| Type | V36GL3 | V36GL3 | V36GL3 |
| Chisel | 501 | 643 | 704 |
| Diamond | 505 | 610 | 709 |
| Screwdriver | 507 | 618 | 720 |
| Conical | 510 | 625 | 724 |
| Alt. Chisel | 502 | 605 | 706 |

Warranty Details

American Beauty tools are warrantied to be free from defects in material and workmanship as outlined below. No warranty is made with respect to products which have been altered, subjected to abuse or improperly used.

Consumable Parts - NOT COVERED

Items include such parts as Soldering Iron Tips, Desoldering Braid, Resistance Soldering Elements and Electrodes, etc.

Serviceable Parts - 90-DAY PERIOD

Items include such parts as are Heating Elements, Thermostats, Voltage Controllers, Cord-sets, etc. It is the customer's responsibility to make themselves aware of proper operating parameters, that when not followed, can greatly reduce the life-span of this type of part.

Standard American Beauty Products - 3-YR PERIOD

These items include all American Beauty soldering tools that don't fall into the two categories highlighted above.

Complete warranty details can be located on our company website at **www.americanbeautytools.com/warranty**

Repair Service

Eventually even the toughest soldering tools require minor repair work. We have expanded our internal repair department and reassigned our most experienced technicians to work on repairs. We implemented customized software to ensure accurate and timely processing of all returned products. Save yourself unnecessary downtime and aggravation by taking advantage of American Beauty's world-class repair and refurbishment service. Contact us today to make arrangements, or visit **www.americanbeautytools.com/repair**