Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

22b



4V LITHIUM-ION RECHARGEABLE SOLDERING PEN





Visit our website at: http://www.harborfreight.com Email our technical support at: productsupport@harborfreight.com 58742

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.

Tools required for assembly and service may not be included.

AWARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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WARNING SYMBOLS AND DEFINITIONS		
A	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.	
▲ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.	
AWARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.	
ACAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.	
NOTICE CAUTION	Addresses practices not related to personal injury.	

IMPORTANT SAFETY INFORMATION

General Power Tool Safety Warnings

AWARNING

Read all safety warnings and instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your battery-operated (cordless) power tool.

Work area safety

- Keep work area clean and well lit.
 Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool.

Distractions can cause you to lose control.

Electrical safety

Do not expose power tools to rain or wet conditions.

Water entering a power tool will increase the risk of electric shock.

Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the Switch is in the off-position before connecting to power source, picking up or carrying the tool. Carrying power tools with your finger on the Switch or energizing power tools that have the Switch on invites accidents.

- 4. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from hot parts.
- 6. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.

Power tool use and care

- Do not force the power tool. Use the correct power tool for your application.
 The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the Switch does not turn it on and off.
 Any power tool that cannot be controlled with the Switch is dangerous and must be repaired.
- 3. Disconnect the battery from the power tool before making any adjustments, changing accessories, or storing power tools.

 Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- 6. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

- Recharge only with the cable specified by the manufacturer. A cable that is suitable for one type of battery may create a risk of fire when used with another battery.
- Contains Li-Ion battery. Battery must be recycled or disposed of properly. Do not open, crush, heat above 140°F or incinerate.

Service

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Specific Safety Rules

- Avoid Serious Burns. The Soldering Iron has a maximum temperature of 981° F Do not point the Soldering Iron, or turn yourself toward another person while soldering.
- Do not open Soldering Iron. Do not attempt to open and repair this unit. It must be serviced by a qualified technician.
- To prevent electric shock, always de-energize any circuits or wires to be soldered before making connections and soldering.
- 4. Exposure to soldering fumes can increase the risk of developing certain cancers, such as cancer of the larynx and lung cancer. Also, some diseases that may be linked to exposure to soldering fumes are:
 - · Early onset of Parkinson's Disease
 - · Heart disease
 - Ulcers
 - · Damage to the reproductive organs
 - · Inflammation of the small intestine or stomach
 - · Kidney damage
 - Respiratory diseases such as emphysema, bronchitis, or pneumonia

- Keep head out of fumes. Do not breathe soldering fumes. Use enough ventilation to keep fumes and gases from breathing zone and general area.
- Never lay the Soldering Iron down where the heated parts can contact flammable materials or electrical wires.
- 7. This product is not a toy. Keep it out of reach of children.
- Maintain labels and nameplates on the tool.
 These carry important safety information.
 If unreadable or missing, contact
 Harbor Freight Tools for a replacement.
- Do not leave the tool unattended when the Battery is connected. Turn off the tool, and remove the Battery before leaving.
- 10. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



SAVE THESE INSTRUCTIONS.

Symbology

V	Volts
	Direct Current
Α	Amperes



WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields.



Read the manual before set-up and/or use.



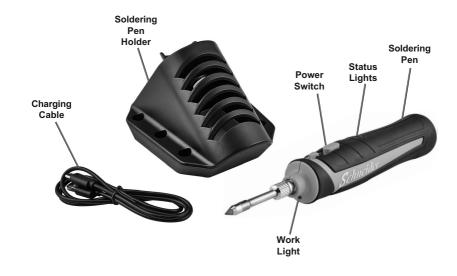
WARNING marking concerning Risk of Electric Shock. Properly connect Charger's power cord to appropriate outlet.

Specifications

Charger Input Rating	5VDC / 2.4A
Battery Rating	3.63V / 2600mAh
Battery Type	Rechargeable Li-Ion
Charging Time	Approximately 2 hours
Use Time	Approximately 50 minutes
Maximum Temperature	981° F
Tip Leak Voltage	0.5μΑ

Setup - Before Use:

Components and Controls



Operating Instructions



Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

<u>Note:</u> For additional information regarding the parts listed in the following pages, refer to *Parts List and Diagram* on page 10.

Workpiece and Work Area Set Up

- Designate a work area that is clean and well-lit.
 The work area must not allow access by children or pets to prevent distraction and injury.
- There must not be objects, such as utility lines, nearby that will present a hazard while working.
- If wires are to be soldered, thoroughly clean or scrape the wires so that only the clean metal is showing, then make the wire splice.
- If other objects are to be soldered, thoroughly clean or scrape the metal surfaces. It may be necessary to apply acid flux (not included) to the metal surfaces before soldering.

Notice: If soldering on printed circuit boards, too much heat can soften the plastic form and loosen the metal eyelet connections. Use minimal heat. Never use acid-core solder on wiring circuits.

Tool Set Up

AWARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Unplug the tool from its electrical outlet before performing any procedure in this section.

<u>Note:</u> Practice soldering on scrap wires and splices prior to actual use.

- Set the Soldering Pen Holder on a fireproof workbench away from all flammable materials.
- 2. Turn Soldering Pen off and let cool.

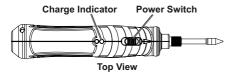
- Install Soldering Tip according to Maintenance and Servicing on page 8.
- Wet Sponge (sold separately) with water and wring out until damp. Place sponge next to Soldering Pen Holder.
- 5. Place Soldering Pen in Soldering Pen Holder until ready to use.



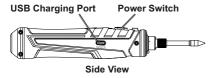
Charging

NOTE: Before using tool for the first time, fully charge the Battery.

 When the Battery runs low the Charge Indicator next to the Power Switch will turn red.



Plug Charging Cable into the USB Charging Port on the side of the tool.



- 3. Plug other end of Charging Cable into a 5VDC/2.4A source.
- 4. Set the Power Switch to "0" (off) position.
- The Charge Indicator will flash green during charging. When fully charged, it will turn steady green. Unplug the USB Charging Cable.

NOTICE: Do not leave the Battery in a discharged state. Charge the Battery every 3 months if the Soldering Pen is not in use. This will keep the Battery from wearing down and add to its life. Do not charge the tool at temperatures below 40° F.

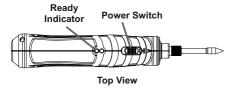
General Operating Instructions

AWARNING

TO PREVENT SERIOUS INJURY: Wear ANSI-approved safety goggles with side shields.

NOTE: Before using tool for the first time, fully charge the Battery.

 Set Power Switch to "I" (on) position and allow Soldering Pen to heat as it rests in Soldering Pen Holder. The Ready Indicator will flash yellow as the tool heats.



- 2. When the Soldering Pen reaches full working temperature:
 - The Ready Indicator will illuminate steady yellow, indicating the Soldering Pen is ready to use.
 - b. The front Work Light will illuminate.

- Clean and tin the Tip by applying a sufficient amount of rosin-core solder to melt over the entire Soldering Tip. Wipe the Tip on the damp sponge until the Tip is clean and shiny.
- Apply solder to the wire splice or metal to be soldered, not the Soldering Tip.
 When the splice or metal is hot enough, it will melt the solder causing it to flow within the splice or between the metal surfaces.
- When the solder has flowed over the entire wire splice or metal surface, move Tip away.
- 6. When not in use, keep Soldering Pen in Soldering Pen Holder.
- 7. After use, clean and tin Tip as explained in step 3.
- To prevent accidents, turn off the tool after use. Let it cool resting in the Soldering Pen Holder. When completely cool, store the tool indoors out of children's reach.

Maintenance and Servicing



Procedures not specifically explained in this manual must be performed only by a qualified technician.

AWARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Make sure that the Switch is in the off-position, and allow it to cool completely before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Inspection, Maintenance, and Cleaning

- BEFORE EACH USE, inspect the general condition of the tool. Check for:
 - · loose hardware
 - · misalignment or binding of moving parts
 - · cracked or broken parts
 - any other condition that may affect its safe operation.

2. **AFTER USE**, store tool in dry, indoor area out of reach of children.

Replacing Tip

To order replacement Soldering Tip, please call 1-888-866-5797 or email productsupport@harborfreight.com. Ask for part number 602685.

Note: Replace the Soldering Tip if it cracks or becomes eroded. Do not file the Tip.

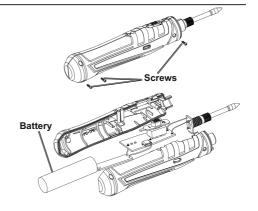
- Turn off Soldering Pen and allow it to cool completely.
- Twist the Soldering Tip counterclockwise and remove it from the Soldering Pen.
- Replace with new Soldering Tip. Screw it into the Soldering Pen securely.



Battery Removal

NOTE: Contains Li-lon battery. Battery must be recycled or disposed of properly. Do not open, crush, heat above 140°F or incinerate.

- Turn off Soldering Pen and allow it to cool completely.
- 2. Remove three screws and open housing.
- 3. Cut wires and remove battery.



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Product's Serial Number Here:

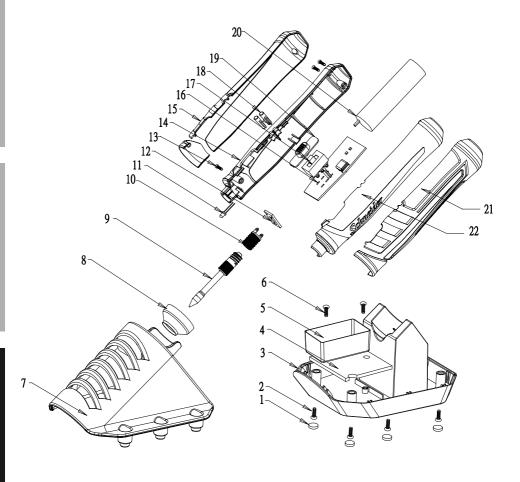
Note: If product has no serial number, record month and year of purchase instead.

<u>Note:</u> Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175445674 when ordering parts.

Parts List and Diagram

Part	Description	Qty
1	Non-Slip Pad	4
2	Screw	4
3	Bottom Housing	1
4	Metal Base	1
5	Metal Box	1
6	Screw	2
7	Top Housing	1
8	Soldering Pen Holder	1
9	Soldering Tip	1
10	Lamp Holder	1
11	LED Work Light	1

Part	Description	Qty
12	PCB	1
13	Screw	3
14	Left Housing	1
	Left Cover	1
	PCBA	1
17	Switch	1
18	Lens	2
19	Switch Cover	1
	Li-Ion Battery	1
21	Right Cover	1
22	Right Housing	1



FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna.
- —Increase the separation between the equipment and receiver.
- —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- —Consult the dealer or an experienced radio/TV technician for help.

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

