



DIVERSITECH
Air Pollution Solutions

Operation & Maintenance Manual

SOLDER VAC II



READ AND SAVE THESE INSTRUCTIONS

Visit our Website for more information on this product

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SECTION 1 - SAFETY PRECAUTIONS OF SOLDER SMOKE & FUME COLLECTION



READ
BEFORE
USE

This manual contains specific cautionary statements related to worker safety. To protect yourself and others, read this manual thoroughly and follow as directed before use. Familiarize yourself with the way in which filters are removed, installed, and serviced. All filters must be in place whenever this machine is in operation.



DO
NOT
USE

- Do not use any two-wire electrical prong adapters to defeat the three-pronged plug on the end of the cord.
- Do not substitute any other filters (particulate or chemical) for those supplied, as this will alter the unit efficiency.

1.1 Symbols

This manual uses several symbols to highlight specific hazards. Be familiar with these symbols and when you see them in this manual, read adjoining warning text to avoid the hazard.



WARNING!
DANGER!



ELECTRIC
SHOCK



HOT
PARTS

1.2 Users Responsibility

- Improper use can be hazardous. Unit weights 48 lbs, care should be taken when transporting.
- All users must carefully read and understand this instruction manual prior to use
- No objects, such as tools, should be placed on or hung from the fume extractor arm.
- For maintenance of any and all components, power switch must be off and the power source disconnected
- It is your responsibility to follow all applicable ANSI, OSHA, UL, CSA, National & Local Fire Codes, and other regulatory guidelines covering the safe use of equipment that extracts fumes, collects dusts, and exhausts filtered air either indoors or outdoors.
- Before use, inspect the unit for damage and verify it is working properly.
- Only qualified persons should install, operate, maintain, or repair this unit.
- Do not modify or repair the unit with parts or accessories not supplied by the manufacturer.

1.3 Fume Extraction Hazards

- Breathing smoke, produced in applications such as solder fumes, flux, waxing fumes and solvent vapors are hazardous to user's health. Proper ventilation or use of well maintained equipment helps the user avoid these hazards.
- Breathable contaminants may not be visible or have an odor.
- Stop operation and leave the area immediately if 1) breathing becomes difficult, 2) experience dizziness, impaired vision, 4) or eye/nose/mouth irritation.

SECTION 2 - SPECIFICATIONS

2.1 Technical Specifications

Model	Motor (H.P.)	Power		Airflow (CFM)	Cord Length (ft.)	Noise @5ft. (dB)
		Phase (hz)	@120V (amps)			
SOLDER-VAC2	0.5	1P/60Hz	1.6	300	6	52

SECTION 3 - PRE-INSTALLATION

3.1 To Setup or Install Safely



- Do not place unit near flammables or combustible surface.

3.2 Un-Packaging

1. Upon receipt, inspect unit for either visible or concealed damage. Damage should be immediately reported to the transport company.
2. Remove packing material.
3. Avoid tipping or inverting during handling.
4. The item serial number, model, and electrical ratings are listed on the nameplate. Record this information in the Maintenance Record provided in **APPENDIX 1: Maintenance Record**, or your own preventative maintenance system.

3.3 System Components

1. Standard Filters
2. Blower Assembly: The blower is factory balanced and tested to ensure quiet, vibration-free operation. The blower in the unit features a motor mounting system designed to reduce vibration and noise.
3. Control Panel: Designed for easy monitoring, features include on/off switch, visual system pressure indicator (optional), 120 volt fuse

3.4 Assembly

- Please follow guidelines in **APPENDIX 2: Installation Instructions**.

SECTION 4 - OPERATION

4.1 To Operate Safely



- Read and understand **SECTION 1: Safety Precautions** and **SECTION 4: Operation** before use
- Read and understand all Material Safety Data Sheets and Manufacturer's instructions of all process materials, consumables, and equipment used in conjunction with this equipment.
- Keep away from all mechanical moving parts including motor, gears, and other pinch points.
- THE APPLIANCE CAN NOT BE USED IN EXPLOSIVE ENVIRONMENT.

4.2 Pre Start-Up Checklist

- Confirm all internal components are present and are adequately supported and installed.
- Visually inspect the hoses for damage.
- Ensure labels and serial numbers are present for future identification.
- Verify that power supply is compatible with equipment.
- Check that the unit is plugged into a grounded receptacle.
- Ensure that unit-mounted casters are tight and secure before manoeuvring the system.

4.3 Principles of Operation

The Solder Vac II is c/w a 3-stage filter series capturing general particulate, microscopic particles, and reacting with toxic or nuisance gases. The air is drawn in through the inlet collar or capture arm located at top of unit (2 inlets are included, 1 capped with red cap is simultaneous 2-station operation is required). The air then passes through the filters. Powered by a 120-volt motor/blower assembly, the clean air is then released through the bottom discharge grille into the room.

As the unit cleans the air, the filters are removing the particles of dust and dirt in the air stream. As the filters accumulate dirt (both visible and microscopic), a restriction on the blower/motor is created. As the restriction becomes greater, the air capacity delivered by the blower decreases rendering the unit less effective.

NOTE: IT IS VERY IMPORTANT TO CHANGE FILTERS ON A REGULAR BASIS.

4.4 Start-Up

- Plug Power Cordset supplied in drawer to a grounded 120-volt wall outlet.
- After 10seconds, Press red POWER button on unit's control panel & ensure unit is powered.
- "System ON" LED illuminates, indicates unit is operating.
- Press POWER button again to switch unit OFF.
- You are now ready to operate.
- You can connect remote foot pedal (O-SV2-FPRS to the remote socket on the control panel to start unit remotely.
- "System ON" LED is OFF (indicates unit NOT operating).
- "Remote/Standby" LED flashes (indicating unit is in REMOTE WAITING MODE).

SECTION 5 - MAINTENANCE & TROUBLESHOOTING

5.1 To Maintain this Product Safely



- Read and understand **SECTION 1: Safety Precautions** and **SECTION 4: Operation** before maintenance.
- Do not breathe the dust collected from product while performing maintenance on this product.



- Keep away from all mechanical moving parts including motor, gears, and other pinch points while operating.



- Operating this unit causes some parts to heat to a point that will burn bare hands. Before maintenance allow parts to cool, or use proper tools and personal protection equipment during maintenance.
- Suction machine must be turned off when performing any maintenance.

5.2 Tools Required



EYE
PROTECTION



RESPIRATOR



GLOVES



WASTE
CONTAINER

5.3 Routine Maintenance Schedule

Proper maintenance is critical to extend the life of the filtration system. The information below outlines basic maintenance procedures ensuring trouble-free operation for years to come. The purifier is designed to allow quick access to the filters, blower/motor and control panel assembly.

Frequency	Manual Reference
Pre-Use	
<ul style="list-style-type: none"> Perform pre-use inspection to ensure operating correctly. 	4.3
General Filter Maintenance	
<p>It is difficult to predetermine a specific maintenance schedule as the rate of dust loading and chemical filter consumption will vary in each application. Periodic inspection of filters and pressure gauge during the first few months of operation should help establish an appropriate replacement schedule.</p>	
Particular Filter Replacement	
<ol style="list-style-type: none"> Open top with appropriate tool (Phillips screw driver) to avoid stripping of screws. Carefully pull up filters, carefully drop clean filters gently into place If encountering difficulties, confirm there are no obstructions in filter track HEPA filters should be installed with gaskets facing down on filter tracking Utmost care must be taken not to damage the exposed portions of the HEPA filter. Do not bend aluminium separators as this will obstruct airflow 	
Chemical Filter Tray (S-SV2-0003, S-SV2-0004) Maintenance	
<p>It is essential that the chemical filter be replaced approximately once every twelve months OR immediately following any detection of Rhodium or any other odor on the discharge of the system. After an operating period of twelve months (or when the filters are consumed), call Diversitech to purchase a new set of chemical filtration assemblies (Part No: S-SV2-0003 or S-SV2-0004) prior to removal of existing one.</p> <p>To Replace Your Odor Filter:</p> <ol style="list-style-type: none"> Ensure that the unit is unplugged, open door with appropriate tool to avoid stripping of screws. Pull out the existing S-SV2-0003 or S-SV2-0004, remove new S-SV2-0003 or S-SV2-0004 from the box that it was shipped in. Reinsert new filter back into the system (ensre airflow arrows are pointing up). Return door to the closed position and verify that an airtight seal is maintained. <p>To Refill Existing S-SV2-0003 or S-SV2-0004 Filter Cell with New Odor Filters:</p> <ol style="list-style-type: none"> Pull out existing S-SV2-0003 (or S-SV2-0004) filter. Unscrew the two (2) top panel covers and lift off cover. Pour out used odor filter(this procedure may be dusty, therefore a dust mask is recommended). Refill container with fresh odor filters. Replace the 2 panel covers and re-insert into unit. <p>IMPORTANT: Filter disposal is the responsibility of the end-user. Please contact local authorities.</p> <p>Resetting "Service Filter(s)" Alert:</p> <ol style="list-style-type: none"> Ensure filter access door is closed. Plug power back to the unit. Press & hold SPEED UP & DN simultaneously until unit beeps. Hold for 10+ seconds, when panel is beeping continuously, release buttons. You are now in RESET MENU, in this condition, "System ON" LED is flashing quickly. Press SPEED DN (2 Times) until "Service Filter(s)" LED is flashing. Press & HOLD POWER button while "Service Filter(s)" LED is flashing & unit is beeping continuously. Release, when LED stops flashing & stops beeping. 	

5.4 Blower Maintenance

WARNING: Before you begin, switch unit off and unplug power cord from power outlet.

The motor is equipped with electric motor grade double shielded ball bearings and a special lubricant, assuring long life and quiet operation. No extra motor maintenance is required.

5.5 Annual General Inspection

The sealing integrity of the Solder Vac II is essential. Every 12 months, verify that all gaskets are in proper condition. Should the door gaskets adhere to the unit when opening a door, lubricate its surface with a transparent grease or petroleum jelly. Should the unit be relocated continuously for optimum efficiency, ensure all casters are tightly fastened.

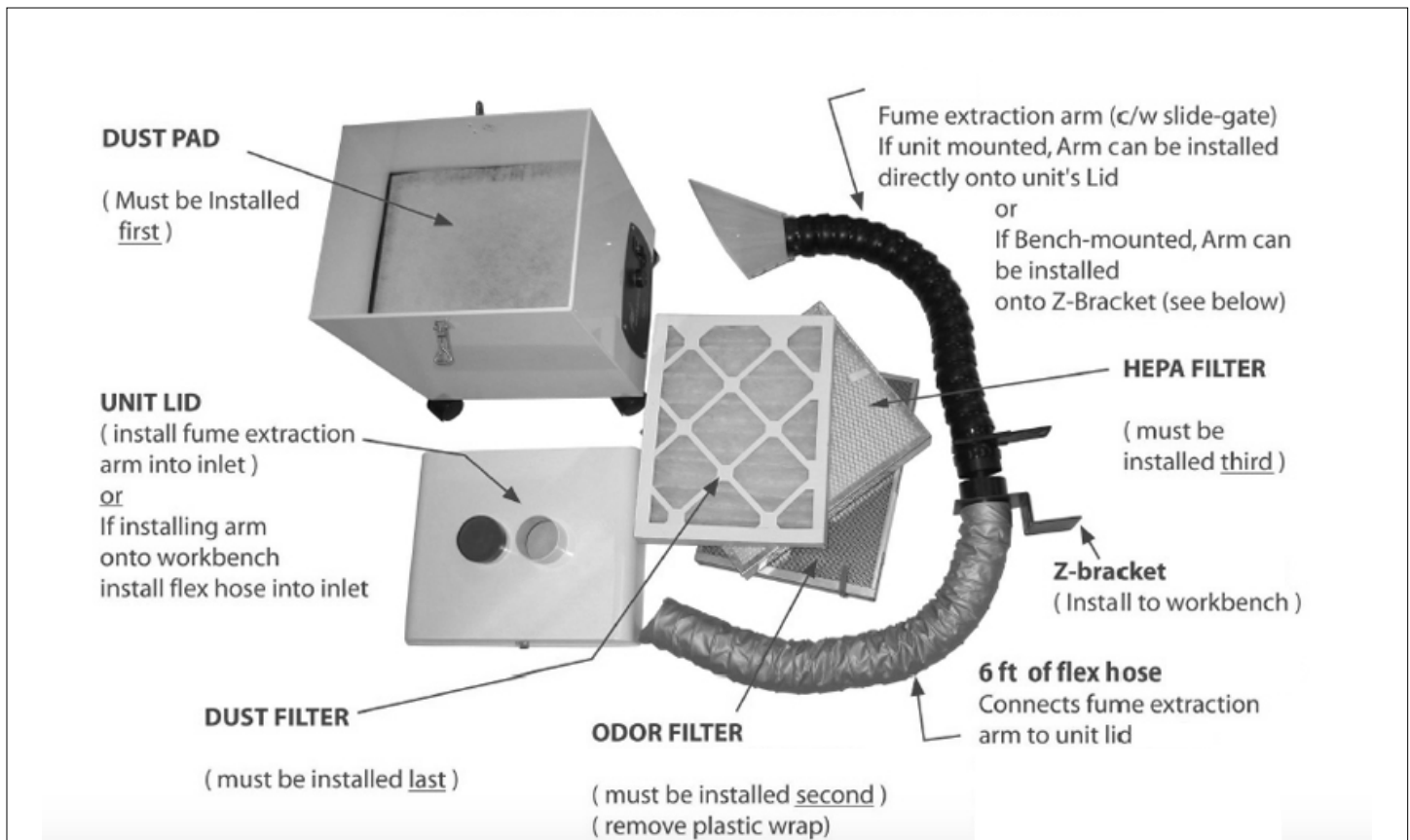
5.6 Troubleshooting Procedure

Given that most of the malfunctions occur for improper use of the system, the table below shows the some possible malfunctions that may occur, and the measures to be taken to address them.

Symptoms	Possible Cause	Suggested Solution
Unit will not start	<ul style="list-style-type: none">o Faulty Power supplyo Return or supply grille blockedo HEPA filter improperly installedo Blown fuseo Unit not plugged into receptacle	<ul style="list-style-type: none">o Check breaker boxo Remove obstructiono See Section 8.2o Replace fuseo Plug unit in
Excessive noise	<ul style="list-style-type: none">o Blower wheel contacting coneo Fan isolators loose or off	<ul style="list-style-type: none">o Realign/replace wheelo Replace isolator
Insufficient airflow	<ul style="list-style-type: none">o Obstruction in systemo Clogged filters	<ul style="list-style-type: none">o Remove obstructiono Replace filters
Service Filters LED ON	Filters need replacement	Replace Filters, reset microprocessor
Excessive airflow	Filters not in place	Install filters

APPENDIX 2 - INSTALLATION

2.1 Unpack capture arm, hood, and base



ITEM NUMBER	DESCRIPTION
S-SV2-0001	Pleated Prefilter, MERV 10, SolderVAC2, 6-Pack
S-SV2-0002	HEPA Primary Filter, MERV 17, SolderVAC2
S-SV2-0003	2" Deep refillable adsorption module with activated carbon - SolderVAC2
S-SV2-0004	4" Deep refillable adsorption module with activated carbon - SolderVAC2

LIMITED EQUIPMENT WARRANTY

For a period of 2 years from the date of purchase, all Diversitech products are warranted to be free from defects in material, workmanship, and construction, when used in accordance with installation, maintenance instructions, and expressly stated proper use application(s). Diversitech Inc. will repair or replace, at our option, any defective parts which fail during the warranty period. This warranty is limited to replacement parts ONLY, and does not cover personal liability, property loss, normal wear; and does not cover losses resulting from (or due to) improper installation, inadequate maintenance, misapplication, misuse, or use above rated capacities.

FREIGHT CLAIMS

Shipments must be inspected upon arrival. All Diversitech units are sold ex-plant. Therefore, it is the receiver's responsibility to file any freight claims with the carrier for obvious or concealed damages. Damaged shipments must be refused at time of receipt, by consignee.

RETURN MATERIAL POLICY

Prior to the return of material, for whatever reason, a return manufacturing authorization number (RMA#) is required from the Diversitech customer service department. This procedure is necessary for proper control and handling of returned materials. Call 1-800-361-3733 or email support@diversitech.ca to obtain an RMA.

All material must be returned prepaid. Credit will be given for returns for warranty repair or replacement. Freight collect shipments, or freight without an RMA, will not be accepted. It is the shipper's responsibility to ensure that material being returned to Diversitech is adequately packaged for shipment to preclude damages.



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