



SchwankAir

infrasave
air curtains

500 Series Drive-Thru Window Air Curtain 208V ~ 60Hz 12A

Installation, Operation and Maintenance Instructions

IMPORTANT INSTRUCTIONS...Read all instructions before installing or using this heater... SAVE THESE INSTRUCTIONS

IMPORTANT INSTRUCTIONS

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read all instructions before installing or using this appliance.
2. This appliance is hot when in use; to avoid burns, do not let bare skin touch hot surfaces; keep combustible materials such as paper, clothes, bedding, curtains, etc. at least 40 inches [1m] from the heater.
3. Extreme caution is necessary when the unit is used by or near children or invalids and whenever it is left operating and unattended.
4. Do not use outdoors.
5. Do not operate any heater after it malfunctions; disconnect at service panel. Call a competent electrical technician to investigate and service.
6. Do not insert or allow foreign objects to enter the return or discharge grilles as this may cause an electrical shock, fire or damage to the appliance.
7. To prevent possible fire, do not block return and discharge air grilles in any manner.
8. Do not use where flammable vapors or liquids are store.
9. Use this appliance only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock or injury to persons and property.

WARNING... Risk of fire. Do not use as a household or residential heater

Figure 1: 500 Series General Assembly Drawing

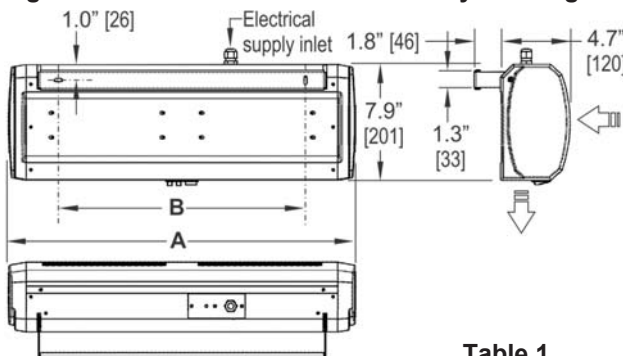


Table 1

Model	A Inches [mm]	B Inches [mm]	208V Electrical Input (W)	Weight lb [kg]	208V Heat Output (kW)
524EH	23.6 [600]	16.73 [425]	2360	10 [4.5]	2.25 / 1.125
532EH	31.5 [800]	24.6 [625]	4630	12 [5.5]	4.50 / 2.25

Carton Contents

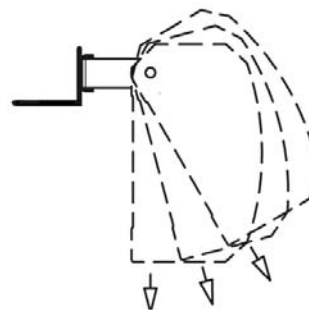
Remove from carton and check contents include:

- Drive-Thru Window Air Curtain
- Mounting bracket [MB] c/w fixing hardware
- Angled mounting base [AMB] c/w fixing hardware
- Plastic electrical box connector

For warranty purposes please retain your receipt as proof of purchase.

Installation

The air curtain is designed for indoor use, surface mounted horizontally at a discharge height at the top of the sliding window. Multiple units mounted side by side may be used for wider openings. The air curtain must be mounted directly to the Mounting Bracket [MB], with the option to use the Angled Mounting Base [AMB] in combination with the Mounting Bracket. The unit must not be located immediately below an electrical outlet. **DO NOT INSTALL BOTTOM OF HEATER LESS THAN 21.6 inches [550mm] ABOVE A COUNTER.**



1. Use AMB as a template to mark & drill mounting holes
2. Attach MB to AMB
3. Attach AMB & MB to header
4. Attach unit to MB
5. Connect electrical

Figure 2: Window Header Mounting Options

Locate mounting hardware as necessary considering the design of the window header and unit weight (see Table 1). Using the AMB as a template, determine an optimum location for the unit. Place the AMB on the target location, mark position of the fixing holes to be drilled. Using suitable fixing hardware, install the AMB and MB into position as required. Some internal header components may have to be moved before any drilling is conducted; it may be necessary to drill up from the header due to design configuration of the window clearance.



Conforms to:
CAN CSA-C22.2 no.46-13
& UL 2021(Ed.3): 2013

IM050417
500 Series Drive-Thru Window Air Curtain Manual
April 1, 2017
RL: 1A

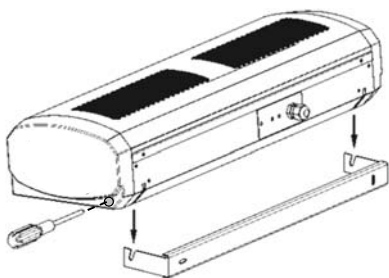


Figure 3: Mounting Bracket Alignment

Align and position mounting bracket into the two slots on the rear plate of the unit (refer to Figure 3). Ensure the serrated lock washer, at each end of the air curtain, is positioned between the mounting bracket and the internal bracket (see Figure 4). Tilt and point the air curtain to the preferred direction and firmly tighten both fixing screws using a Philips No. 2 screwdriver via access hole in each end cap.

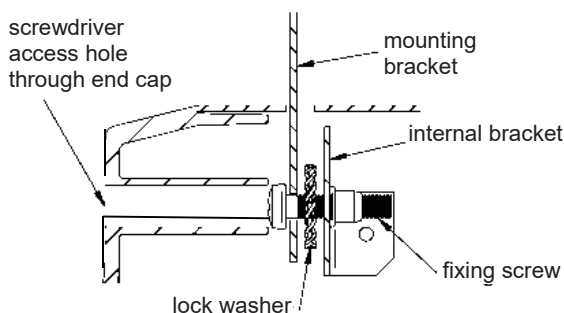


Figure 4: Cross Section of Mounting Bracket

Electrical Connection

All electrical wiring and connections must be carried out by a competent qualified electrician in accordance with the latest local and/or national electrical codes and regulations.

Ensure that supply wires, circuit breakers and other electrical installation equipment are correctly sized for the model being installed, see Table 1. For each unit, a single phase local isolator switch with a contact separation on both poles of at least 1/8" [3mm] must be fitted to the supply wiring (the isolator must be located within easy access). The unit should be connected to a 208V AC/1ph/ 60Hz electrical supply and must be grounded. Remove the two outer pan head Philips screws on top of the unit and release the power connector plate. Fit the box connector to the power connector plate. Insert electrical supply cable (see Figure 5) and tighten box connector to the cable.

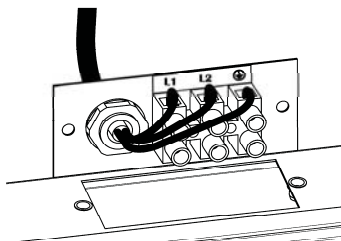


Figure 5: Electrical Connection

Connect each of the wires as follows:

- Live wire to terminal marked L or L1
- Live wire to terminal marked N or L2
- Ground wire to terminal marked E or $\perp$

Position the electrical supply cables as they come out of the terminal block as shown in Figure 5. Ensure only sufficient wire is pulled through to enable connection to the terminal block and avoid excess cable coming into contact with any moving parts. Carefully insert all cables through the rectangular hole in the top of the unit and reinstall the power connector plate. Ensure the electrical supply cable is correctly and sufficiently secured by the plastic box connector.

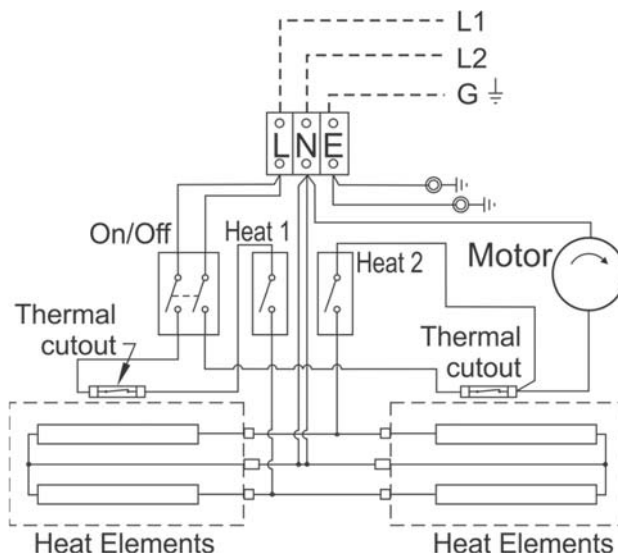


Figure 6: 500 Series Wiring Diagram

Remove Protective Film

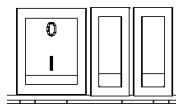
The air curtain panels are coated in an easy to peel protective film. **Please ensure all the protective film is removed before the unit is put into service.**

Train & Hand-Off

Before leaving site it is important that these instructions are presented to the end user or their representative and the operation and maintenance of the air curtain is fully explained and understood. **END USER: KEEP THESE INSTRUCTIONS IN A SAFE PLACE.**

Operation

Control of the air curtain is achieved by using the three integral switches mounted adjacent to the discharge grille.



Switch	Action
I	Fan On
I + Middle	Fan + Half Heat
I + Middle + End	Fan + Full Heat

Thermal Safety Cutouts

If the air curtain exceeds normal operating temperature the thermal safety cutouts will operate and isolate electrical supply to the heating elements. It is recommended that only competent qualified persons service the air curtain. To reset the thermal safety cutouts, disconnect electrical supply to the air curtain, determine and resolve the cause of the fault. Allow the air curtain sufficient time to cool before restoring supply. If the fault persists arrange for a competent technician to investigate and service. To avoid a hazard due to inadvertent resetting of the thermal cutout, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

Service & Maintenance

Always disconnect and isolate the main electrical supply before installing, maintaining or repairing this equipment. All maintenance/repairs should only be carried out by a competent electrician or Schwank/Infrasave appointed technician.

To ensure the air curtain operates efficiently, the air inlet and outlet grilles, fan impellers, housings and motors must be kept free of dust and debris. Weekly vacuum and clean any build-up of dirt and debris within the air curtain (please note that the motor is permanently lubricated and require no additional lubrication). Once the air curtain has been cleaned check all electrical connections to the unit ensuring they are tight and have not become loose. If the outer casing requires cleaning this should be carefully done using a damp soft cloth. Do not use solvents or abrasive materials. Reinstall the electrical supply and fully function test the air curtain to ensure correct operation.

Warranty

The Manufacturer warrants that this product is free from defects in material or workmanship under normal use and service subject to the terms of this document.

ONE YEAR WARRANTY

Subject to the conditions and limitations stated herein, during the term of this limited warranty, we will supply any component part (at our option a new or repaired component part) of the heater as defined below, which the Manufacturer's examination determines to be defective in workmanship or material for a period of one (1) year from the date of installation, unless otherwise specified below. This warranty applies to the heater's original owner, and subsequent transferees and only if the unit is installed, operated, and maintained in accordance with the printed instructions accompanying the unit and in compliance with all applicable installation codes and good trade practices.

WHAT IS NOT COVERED

The Manufacturer shall not be responsible for any expenses, including service, labor, diagnosis, analysis, material or transportation charges incurred during removal or reinstallation of this product, or any of its components or parts. All labor or service charges shall be paid by the owner. This warranty does not cover products improperly installed, misused, exposed to or damaged by negligence, accident, corrosive or contaminating atmosphere, water, excessive thermal shock, impact, abrasion, normal wear due to use, alteration or operation contrary to the owner's manual or if the serial number has been altered, defaced or removed. This warranty shall not apply if the electrical input to the product varies by more than $\pm 10\%$ of the rated input on the rating plate. The Manufacturer shall not be liable for any default or delay in performance by its warranty caused by any contingency beyond its control, including war, government restrictions, or restraints, strikes, fire, flood, acts of God, or short or reduced supply of raw materials or products.

Care has been taken in compiling these instructions to ensure they are correct, although Schwank/Infrasave disclaims all liability for damage resulting from any inaccuracies and/or deficiencies in this documentation. Schwank/Infrasave retains the right to change the specifications stated in these instructions.

LIMITATIONS AND EXCLUSIONS

This document contains all warranties made by the Manufacturer and may not be varied, altered or extended by any person. There are no promises, or agreements extending from the Manufacturer other than the statements contained herein. THIS WARRANTY IS IN LIEU OF ALL WARRANTIES EXPRESSED OR IMPLIED, TO THE EXTENT AUTHORIZED BY THE LAWS OF THE JURISDICTION, INCLUDING SPECIFICALLY THE WARRANTIES OR MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.

It is understood and agreed that the Manufacturer's obligation hereunder is limited to repairing or replacing parts determined to be defective as stated above. In no event shall the Manufacturer be responsible for any alleged personal injuries or other special, incidental or consequential damages. As to property damages, contract, tort or other claim the Manufacturer's responsibility shall not exceed the purchase price paid for the product.

All replacement parts will be warranted for the unused portion of the warranty coverage period remaining on the applicable unit.

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Installation Pictorial



1 Contents



2 – 3 Position AMB at center of header



4 Drill AMB mounting holes



5 Attach MB to AMB



6 Hang unit on MB



7 Secure unit to MB



8 Electrical connection



9 Installed unit