Year of Manufacture: 20____

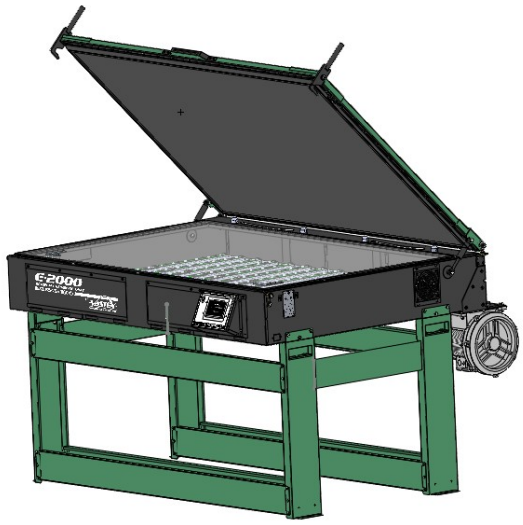
Doc. # 01-04-033D
Dated: May 12, 2025
Original Instructions

SCREEN PRINTING EQUIPMENT

E-2000 Exposing Units

Assembly and Operation Instructions

E2-2536



E2-5236

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Purchasing & Product Info:
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Tech Support:
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Warranty
A copy of the warranty is also available at:
https://www.vastex.com/Library.php

Contents

Electrical Drawing #: _____ Revision: _____

Serial Number: VTX_____ Date: ___/___/_____

(Please log your machine's serial number and date of purchase for future reference.)

Introduction

Vastex Exposing Units

(UV Exposure Systems)

Thank you for purchasing your printing equipment form Vastex International Inc.

Vastex has been designing and building printing equipment since 1960. We have knowledge and experience, and are proud to supply the printing industry with quality equipment at an affordable price. You can be confident your purchase will give you years of trouble free service.

Machine Specifications & Part Numbers

	E2-2536	E2-5236
Overall Size (lid closed) Width x Depth x Height	32.75” x 37.75” x 14” (83 x 88 x 36 cm)	65.3” x 53.3” x 44.5” (166 x 125 x 113 cm)
Weight	210 lbs (95.5 kg)	345 lbs (156.8 kg)
Screen Capacity	25" x 36"	52” x 36”
Power Requirements	120v: 60Hz @ 3.5 Amps 240v: 50/60Hz @ 2 Amps	120v: 60Hz @ 10 Amps 240v: 50/60Hz @ 5 Amps
Vacuum Pump	1/4 HP Rocking Piston Pump *(120/240V* *P/N: 04-02-060)*	61 CFM Ring Blower *(120/240V* *P/N: 04-02-085)*
Control Board	PCB *P/N 04-01-135*	PCB *P/N 04-01-135*
Glass P/N	*P/N: 04-08-061*	*P/N: 04-08-063*
Light Source	*LED BAR* *P/N: 04-08-054*	*LED BAR* *P/N: 04-08-054*
Power Supply	*P/N: 04-08-055*	*P/N: 04-08-055*
Vacuum Blanket	*P/N: EUB-2536*	*P/N: EUB-5236*
Lid Seal	*P/N: 04-08-039*	*P/N: 04-08-039*
Floor Model/ Tabletop	Standard: Floor Model	Standard: Floor Model
Warranty	3 Years; Manufacturer Defects	3 Years; Manufacturer Defects

Essential Characteristics of tools which may be fitted to this machinery:
This equipment is not designed to be used with any additional attachments or tools, other than as specifically listed in this manual.

Safety

Intended Use:

This equipment is intended for the purpose of exposing screens and films with UV light in conjunction with UV sensitive emulsions.

Safety:

- The operator should read and understand this manual before operating this equipment. Store manual and safety information near equipment for easy access to operators.
- Never leave equipment unattended while in operation.
- Children and pets must be kept clear of the work area.
- Do not store any objects on top of the exposing unit.
- Unplug power cord before removing glass or entering control box.
- Do not operate if any guard or cover has been removed.
- Do not operate if power cord is damaged.
- Safe Operating Temperature (Ambient): 55°F-100°F (13°C-38°C)
- Do not attempt to defeat safety interlocks.
- Noise and Vibration: This noise level produced by this equipment does not exceed 70 dB(A).

**** WARNING HANDLE GLASS WITH CARE ****

- **Wear gloves when handling the glass**
- **Lay glass only on a flat protected surface**

General Information

- Exposing Unit must be on a flat surface to eliminate stress on the glass.
- Caution! Screens must be free of sharp edges. All surfaces coming in contact with vacuum blanket should be rounded and smooth.
- UV Lights are used in this machine. The lights should Not Be viewed during operation without eye protection.
- Keep the lid in the raised position when not in use. It will increase the life of lifting cylinders and the rubber blanket.

Tools Required

- Philips Head Screw Driver
- 7/16”, 9/16" & 5/8” Wrenches
- **OR METRIC:** 11mm, 15mm, 16mm

Assembly

Getting started:

Your Exposing Unit has been fully assembled and tested in our factory. Both lid lifting cylinders have been removed from their upper mounting stud and secured to the side of the cabinet. Be careful not to damage the rubber vacuum blanket when removing the Exposing Unit from it's crating.

It is best to keep the lid locked closed when lifting the exposing unit. Carefully remove the unit from its crate and place it on a suitable surface. It is important that the surface be flat, an uneven surface can put stress on the glass causing it to crack.

Placing the equipment into service and operating the equipment:

To place equipment into service, follow steps 1-4 on Page 5

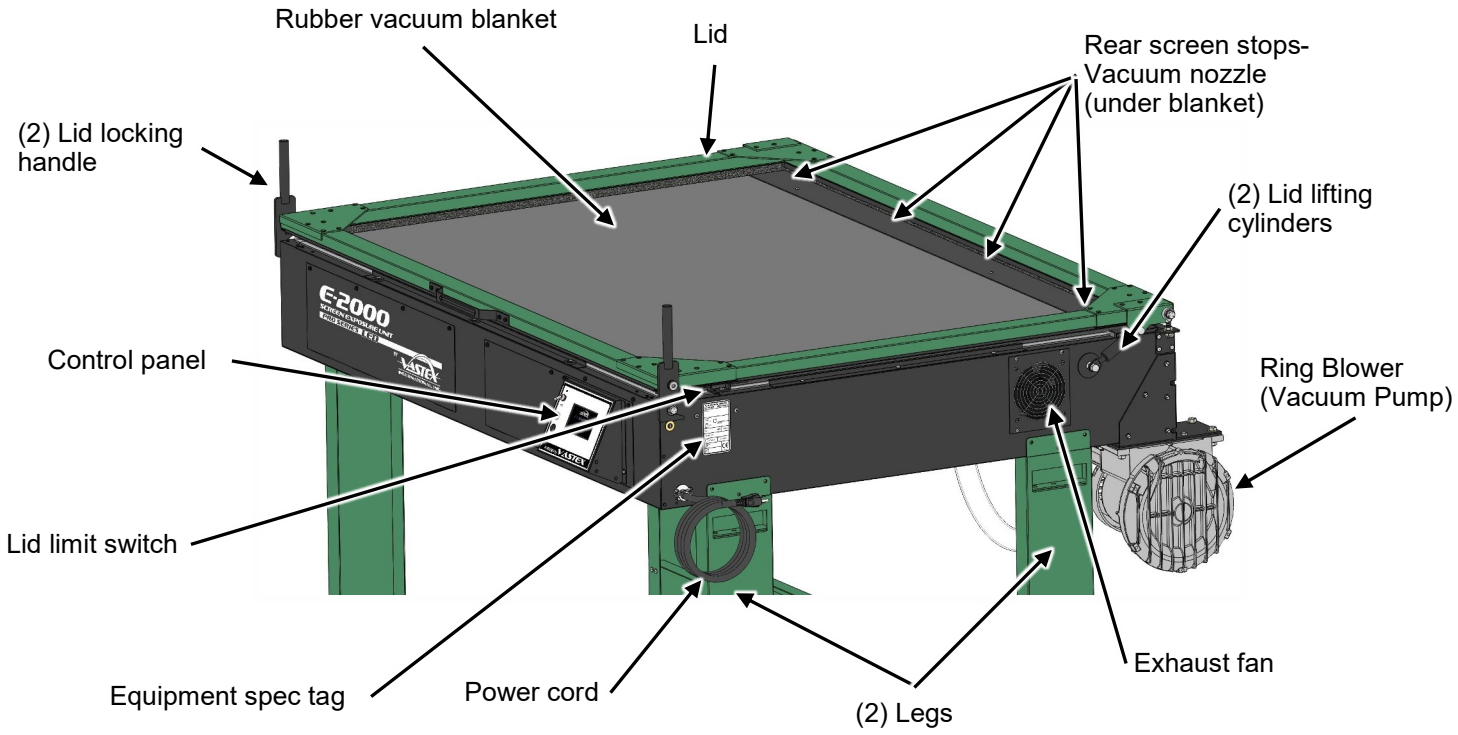
To operate your exposure unit, follow the instructions on Pages 6-8

For troubleshooting and maintenance instructions see pages 9-12.

Stability during use, transportation, assembling, dismantling when out of service, testing, and foreseeable breakdowns:

This equipment is designed to be stable under all foreseeable conditions if the instructions provided herein are followed. Do not place the unit into positions not shown in this manual (e.g., on their sides) and do not operate with any parts removed unless necessary for troubleshooting.

Safe transport, handling, storage: when the equipment is transported, it should moved by two or more people. No other special precautions are required. Refer to page 2 for unit masses.

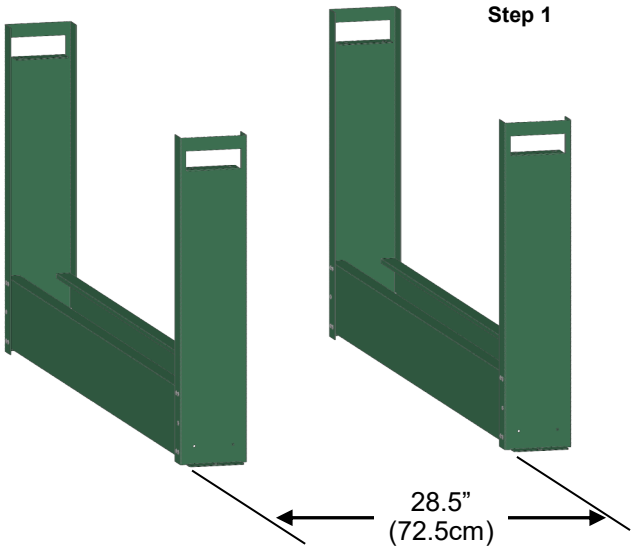


E2-5236 shown
Components may be located elsewhere on other models.

Assembly Cont'd

1) Install legs, if included. Place Legs on a clear spot on the floor, 28.5" (72.5cm) apart as shown in picture 1.

Step 1

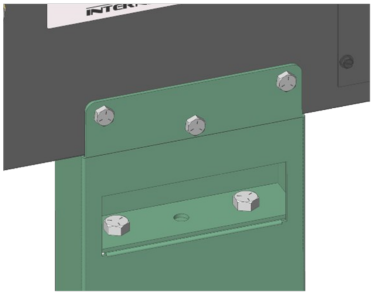


2) Lock lid handles as shown. Carefully lower the exposing unit down onto the legs. Two people are required to do this as caution must be taken to not damage the machine's glass or rubber blanket.

Step 2

3) Legs are installed with (8) 3/8" bolts and (8) 3/8" serrated nuts. Use (2) 9/16" open end wrenches and tighten all bolts well.

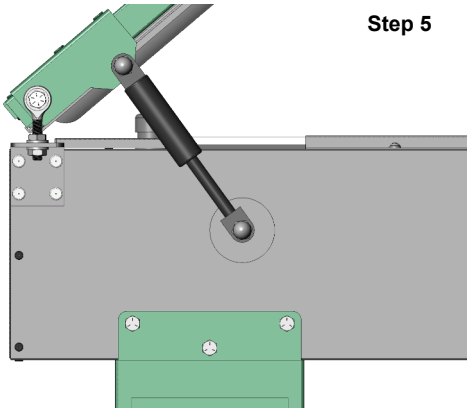
Step 3



4) Install Lid Lifting Cylinders

Remove the acorn nut from the upper cylinder mounting studs located on both sides of the lid. Unlock and carefully lift lid far enough to slide lifting cylinders onto studs. Replace acorn nuts onto stud. Snug only with a 5/8" wrench. Do not over tighten!

Step 5



Operation

Overview:

Your Exposing Unit is equipped with UV Lights, a vacuum pump, and touchscreen controls to digitally set vacuum and exposure times.

The vacuum pump draws the air out from between the blanket and glass. This flattens the coated screen and positive to the glass making for a sharper exposed image.

Sequence of Operation

1) Raise the exposing unit lid and wipe the glass surface clean with a lint free rag.
2) Position the screen with positive attached, onto the glass and against the two back screen stops.

Do not position any screen outside screen area indicated by the blue tape. Damage to vacuum blanket can result.

3) Lay the small string attached to the rear of the exposing unit over the edge of the screen to assist in achieving a good vacuum in the center of the screen.
4) Lower the lid and lock closed with both handles.
5) Turn on the power switch.
6) Set the Vacuum Time. (See Touchscreen Controls).
7) Set Exposure Time. (See Touchscreen Controls).
8) Start Exposure Cycle. The vacuum pump will start. After the vacuum timer has reached preset time the UV lights will start. After the exposing time has expired, the lights and vacuum pump will automatically shut off. The screen is now exposed.
9) Unlock the lid to break the vacuum and remove the screen.

Tips

Vacuum Time: (for each size screen)

Lock lid and set vacuum time to 90 Seconds. Start cycle and record the time it takes to flatten the blanket to a size larger than your positive. If unsure, wait until blanket is flat to within 2” (5cm) of frame.

Exposure Time:

A full and complete exposure will be effected by several variables listed by importance.

1) Type and brand of emulsion
2) Thickness of stencil (qty. of coats or capillary film thickness)
3) Mesh color
4) Humidity

For this reason the only proper way to determine the correct time for a full and complete exposure is to use a “Exposure Calculator”. Several types of calculators are available, contact your supplier to determine which is best for you.

Approximate setting for single part or “Pure Photopolymer” is: 10 – 30 seconds. (LED)

Approximate setting for “Dual Cure”: 60 – 300 Seconds. (LED)

Operation Cont'd

Touchscreen Controls

Set your exposure cycle by selecting either ENTER TIME or SELECT PRESET on the home screen. Your machine has the ability to save and recall up to 10 presets, storing vacuum and exposure times. Selecting ENTER TIME by default will set the vacuum time to 10 seconds and the exposure time to 10 seconds. These settings can be changed and saved away in a preset.

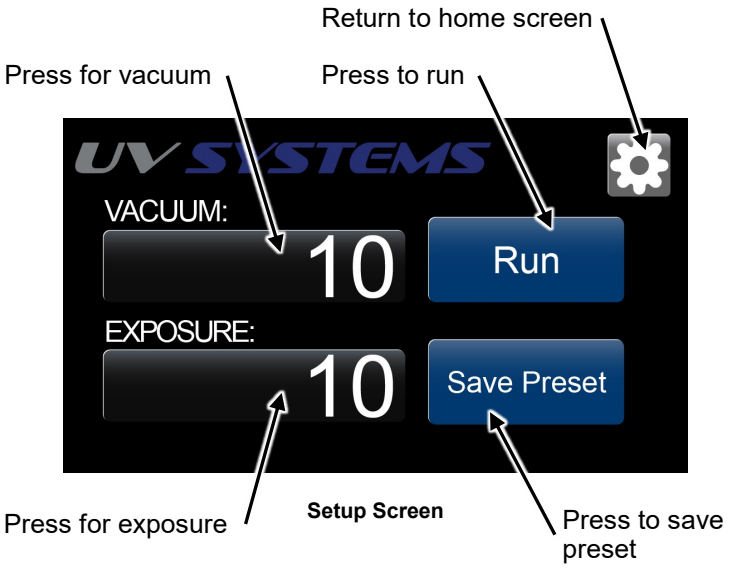
Home Screen

Setting the vacuum time:

1) From the setup screen, press the number under the label VACUUM.
2) Enter a time from 0-999 seconds.
3) Press DELETE enough times to enter the desired time.
4) Press ENTER to confirm selection.

Setting the exposure time:

1) From the setup screen press the number under the label EXPOSURE .
2) Enter a time from 0-999 seconds.
3) Press DELETE enough times to enter the desired time.
4) Press ENTER to confirm selection.

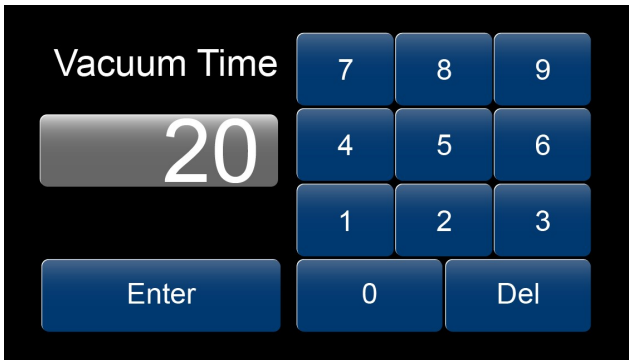


Setup Screen

Running an exposure cycle:

1) From the setup screen, select RUN to start the exposure cycle.
2) The remaining vacuum and exposing time are shown on the run screen.

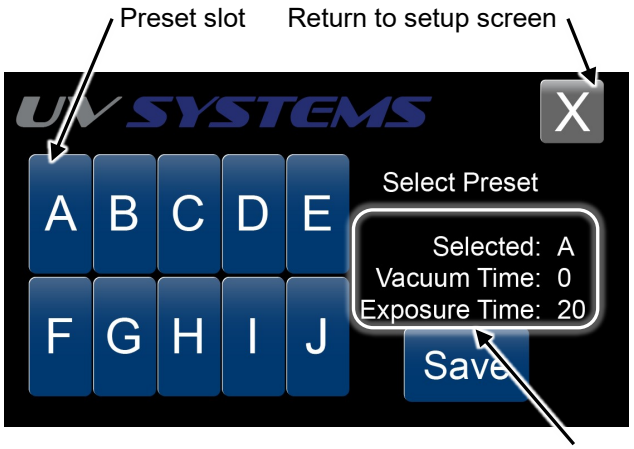
   To end the cycle at any time, select CANCEL. Pressing CANCEL will return to the setup screen.
3) After completing a cycle, EXPOSURE COMPLETE will be displayed. Press OK to return to the setup screen.



Vacuum/Exposure Screen

Run Screen

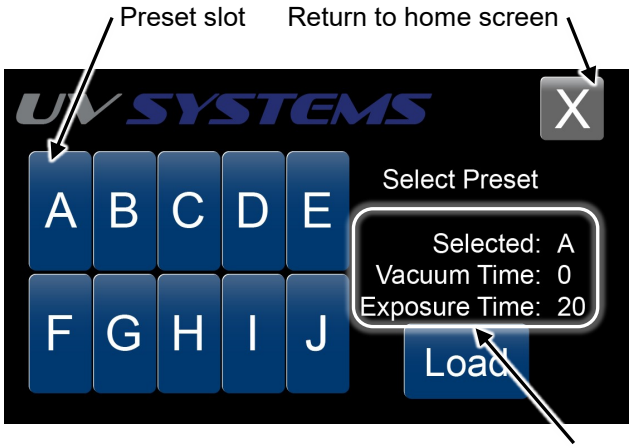
Operation Cont'd



Save Preset Screen

Saving settings as a preset:

1) On the setup screen, select SAVE PRESET.
2) Select a letter to save the preset to.
   Settings currently stored to the letter selected will be shown on the right. Confirm all settings before overwriting a preset.
3) To cancel saving a preset, press the X in the upper right corner.



Load Preset Screen

Loading a saved preset:

1) From the home screen, choose SELECT PRESET.
2) Select the desired preset.
   Settings saved in the preset are shown on the right side.
3) Select LOAD to load the desired preset.
4) To return to the home screen, select the X in the upper right corner.

Error messages:

Your exposing unit could prompt you with several warnings and error messages if triggered.

WAITING FOR CLOSED LID

The lid is in the upright position when Run was selected. Press CANCEL. Lower and lock the lid before pressing RUN to remove the warning.

EXPOSURE INCOMPLETE: LID WAS OPENED

The lid was opened before the exposure cycle completed. The lid must remain closed for the duration of the exposure cycle. If the error occurs during the exposing part of the cycle, it is recommended to restart the exposure with a fresh screen.

EXPOSURE INCOMPLETE: POWER FAILURE

A power failure occurred during an exposure cycle. Loss of power to the unit or from the power supply will trigger this error. If the error occurs during the exposing part of the cycle, it is recommended to restart the exposure with a fresh screen.

Maintenance

Do Not allow objects to contact the UV lights.

Wear gloves when handling the glass. Glass is tempered and although strong, can shatter if the edges are subjected to an impact.

Glass Removal / Installation

There are three glass retainers. One on each side to square the glass to the rear seal and one in the front with special cams. The cams are used to gently push the glass back against the rear seal.

1) Remove the cams and front retainer. Slide the glass towards the front to remove. Carefully set glass on a flat, protected surface. The cams are used to gently push the glass back against the rear seal.

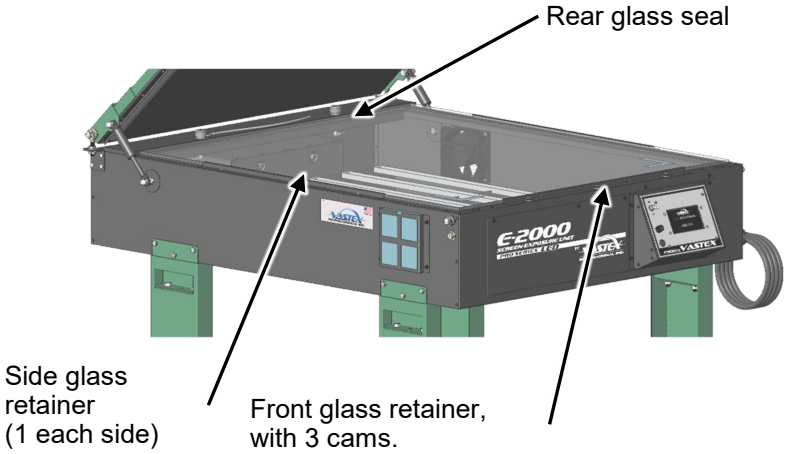
2) It is important to keep the inside of the cabinet clean. Vacuum out any loose debris from inside the cabinet. Refer to the replacing a light bar if needed.

3) **Reinstalling the glass.**

   Before installing the glass, switch the vacuum pump on and off to verify it is functioning properly. Clean both sides of the glass with glass cleaner and a lint free rag. Vacuum inside of cabinet. Position the glass seal side down, blue tape towards the front, on the front edge of the cabinet, and between the side retainers. Slide glass back until it contacts and it seated squarely against the back seal. Place the front glass retainer and the three cams against the glass front. Install the screws but only snug the screws. Using a 1/4" flat screw driver in the cam slots, rotate each cam to push the glass back. Do not over tighten the cams but apply enough pressure to make a seal. Now tighten the center screws. If the vacuum leaks, go back and tighten the cams a bit more.

4) Inspection of LED light bars should be conducted monthly. See page 11, Step 1, for instructions.

   Inspection of UV Black bulbs should be conducted bi-monthly. See page 12, Step 1, for instructions



Note: The glass must be tight against the back glass seal in order to make a good vacuum. Special cams help to apply pressure. Do not over tighten.

Troubleshooting

Loss of Vacuum

This can be caused by several problems. Check the following items in order listed.

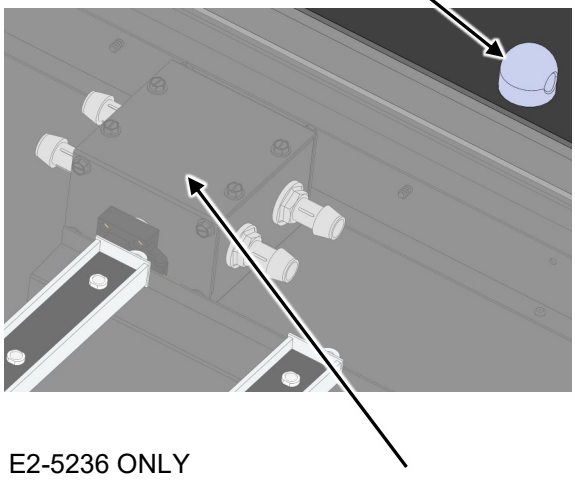
1) Verify that vacuum pump is running.
2) Examine the rubber blanket for holes or cuts.
3) Check that the holes in the screen stop nozzles are not blocked. Turn on the pump and verify that there is vacuum through the right stop (Check for vacuum on all nozzles of the E2-5236).
4) Check that the clear tube attached to the vacuum pump under the light box. This is the vacuum pump exhaust tube.
5) (E2-5236 Only) Verify that the four tubes attached between the vacuum manifold and the nozzles are connected and are not pinched.
6) Verify that the back glass seal is not damaged. If it is not try tightening the front cams just slightly. If this does not work, pull the glass away and inspect the seal, then reseat the glass squarely against the back seal and retighten the front cams.
7) There is a foam seal around the perimeter of the lid between the rubber blanket and lid frame. With the lid locked down, check that the lid seal and blanket is contacting the glass at all four sides. If this seal is not contacting the glass it will be necessary to adjust the lid lower. *Proceed as follows (pictures below for reference).*

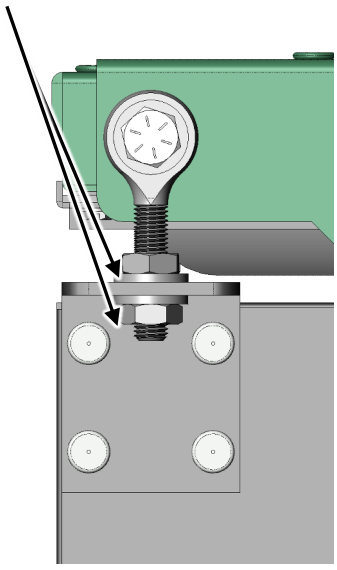
a) Remove both Lid Lifting Cylinders from their upper mounting stud. Carefully lower the lid.

b) **Rear Seal Adjustment**. **Start with the lid down and locked.** Using a 1/2" wrench, loosen the top nut 1/2 turn then tighten the bottom nut 1/2 turn. This will adjust the lid down .025". Do this to both sides until vacuum seal is achieved

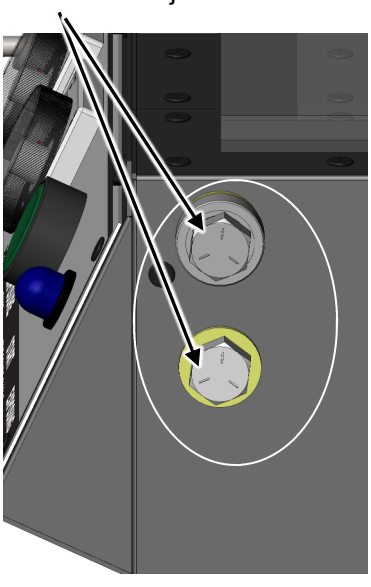
c) **Front Lid Adjustment.** Using a 9/16 wrench, loosen (2) bolts at each front corner about 1/8 of a turn. Using a piece of wood and a hammer, tap on the top bolt head slightly to move the bearing down. Be careful to avoid moving it too much. For reference, measure from the top of the bearing to the bottom of the lid when closed, do not adjust more than 1/16 of an inch. Retighten all fasteners.

Contact Vastex for technical support if these steps fail to resolve the problem.





Rear Lid Adjustment



Front Lid Adjustment (All models)

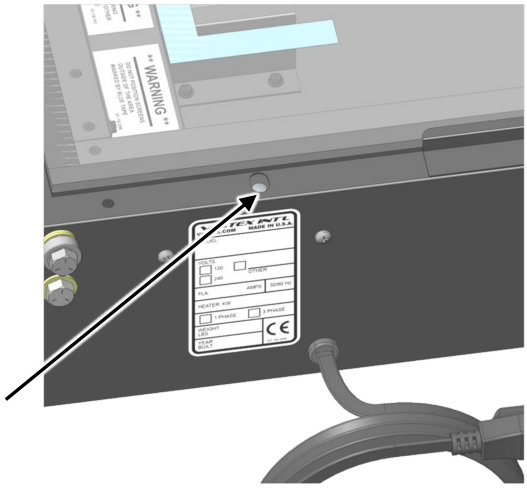
Troubleshooting Cont'd

Light Bar Replacement / Installation

Note:

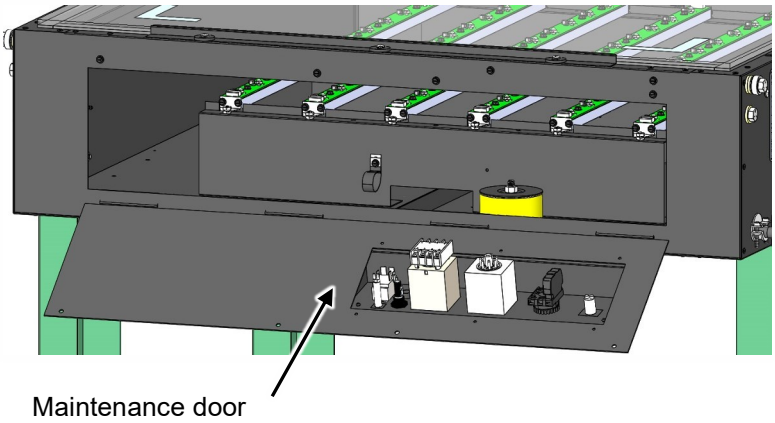
It is important to wear dark shaded and UV rated eye protection while testing any UV Lights.

Do Not allow objects to contact the UV lights.



Step 1

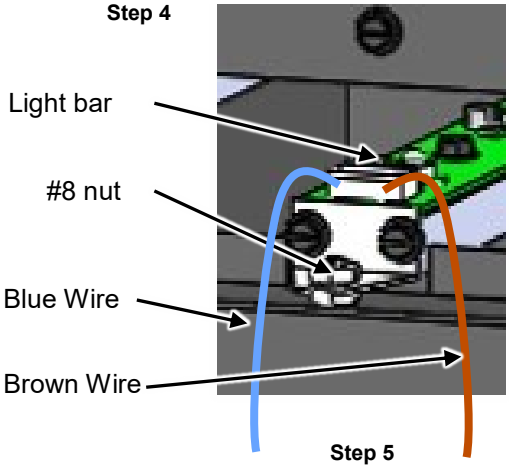
1) Inspection of LED light Bars. Lift the lid and override the safety switch on the left side of the cabinet by depressing with your finger or a pencil. Put your sunglasses on and press the green start button. With the lid up view if ALL lights are working. If not, proceed to step 2. Contact factory for replacement light bar.



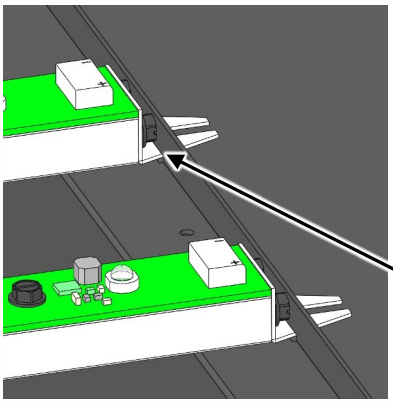
Step 4

It may be possible to expose screens with LED lights out, but a repair is needed to ensure optimal performance.

2) Unplug main power cord.
3) Remove exposing unit glass, see Maintenance section for glass removal.
4) Open the maintenance door in the front of the unit by removing the (4) #8 sheet metal screws with a 1/4" driver.
5) Disconnect the defective light bar by simply removing the blue and brown wires, then remove the top, #8 nut holding down the light bar.
6) Installing the new light bar. Seat the light bar in its corresponding slot. Re insert the blue and brown wires just as they were in the defective light bar.
7) Test the new light bar. See above section 1.
8) Secure the bar with the #8 nut.
9) Close the maintenance door and replace the #8 sheet metal screws.



Step 5



Step 6