ANATOL

QUICK LIGHT PRO

LED EXPOSURE SYSTEM



anatol.com

THANK YOU FOR CHOOSING ANATOL SCREEN PRINTING EQUIPMENT

- Thank you for choosing our product. To ensure proper operation, please read this instruction manual carefully.
- When opening the package, please check the machine and documents carefully. In the event of a problem, please contact us immediately.
- The warranty card and documentation should be kept in a dry place.
- Before starting work, carefully read the operating instructions of the machine.
- The machine should be used in accordance with the instructions, taking into account the technical specifications as well as safety guidelines.
- The machine should be cleaned regularly and periodic inspections should be carried out.

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1 PRELIMINARY INFORMATION

Anatol Equipment Manufacturing Co.
1429 S Shields Dr
Waukegan, IL 60085 USA
Phone: +1 847-582-1825
Website: www.anatol.com

Dear Customers,
This technical and operational documentation is an integral part of the Quick Light Pro LED exposure system. The information contained in this documentation is necessary for proper assembly, use and maintenance of the device.

Before starting work, the user should carefully read about the machine's construction, operation, usage and maintenance rules.

There may be minor inaccuracies in this documentation compared to the device that you own. If so, this is due to the continuous development and systematic improvement of our business.

WARNING!!!

Any damage caused as a result of non-compliance with the rules described in this technical documentation is excluded from the manufacturer's warranty liability.

1.1 Safety Instructions

Before installing and using the Quick Light Pro LED exposure system, please read these instructions carefully. Keep this instruction manual close to the equipment to ensure quick access for operators.

- The Quick Light Pro is designed to expose screens for screen printing.
- The equipment may not be used for any other purpose. Any other use of the device is prohibited; for example, as a light source.
- Improper use will void the warranty.
- Children and pets should be kept away from the work area.
- Never leave the equipment unattended while switched on.
- The Quick Light Pro operator must be instructed in the proper use and maintenance of the exposure system.
- When finished using the exposure unit, turn off the power.

2 GENERAL INFORMATION

2.1 Features

- Featuring long-lasting LEDs designed to last up to 50,000 hours
- Digital control for vacuum pump and UV-LED with touch screen
- Sturdy powder coated steel construction
- Flexible and durable vacuum blanket
- Optically clear, strong glass
- Yellow LED inspection strips
- Oil-free vacuum pump
- Rope to allow air movement between the blanket and frame
- Gas springs for easy opening and closing of the cover
- Made in Europe

2.2 Basic Description

1. Body
2. Control panel
3. Cover
4. Lock
5. Gas spring
6. Fan cover
7. Glass
8. LED cover
9. UV LED
10. Pneumatic fitting
11. Pneumatic cable
12. Filter
13. Hinge
14. Vacuum pump
15. Circuit breaker

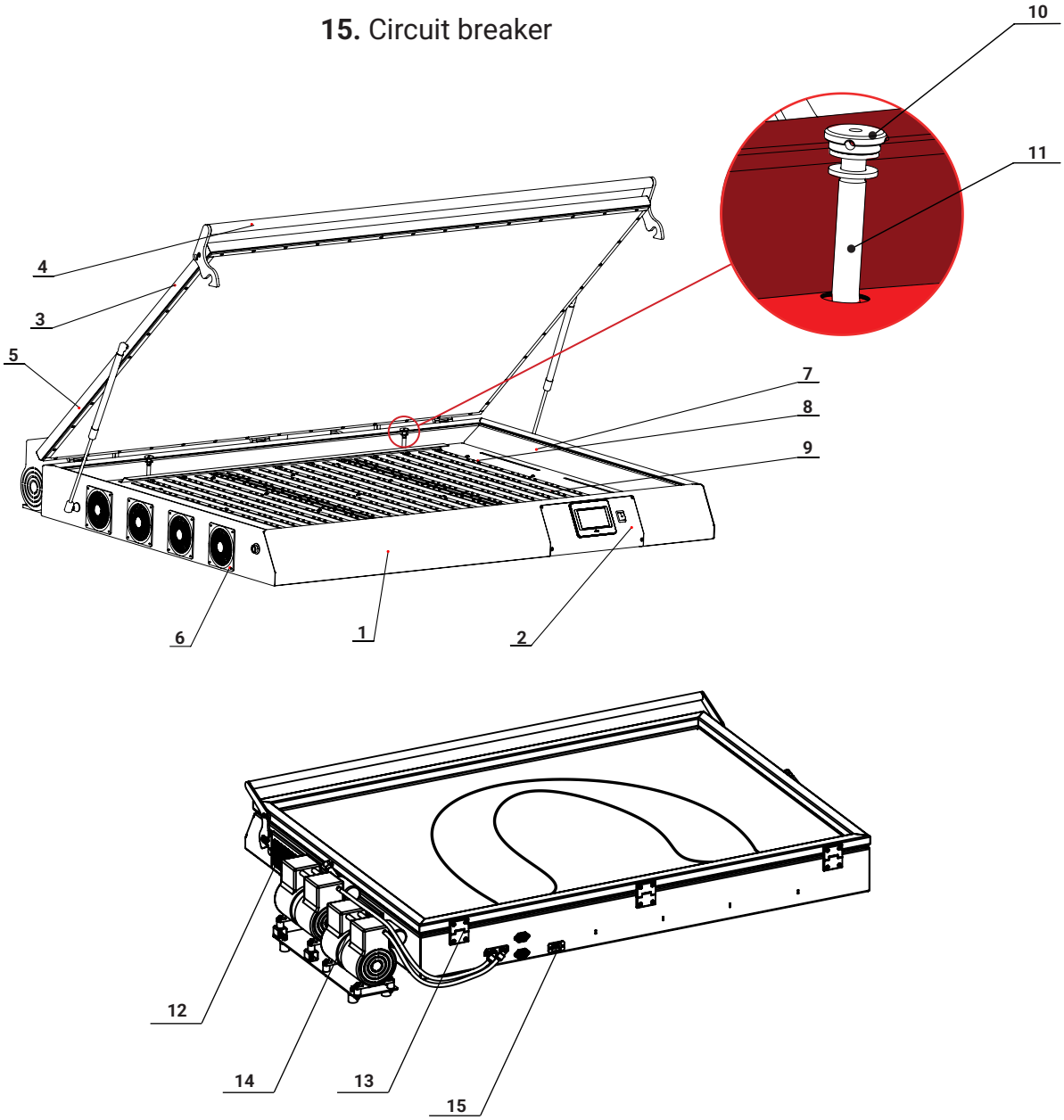


Fig. 2.1 Overall view

2.3 Technical Data

Quick Light Pro Specifications

Model	Vacuum Pump	Max Screen frame Size	Max Size of ARME System	Electrical Requirements
QUICK LIGHT PRO 23X31	140 L/MIN	**23”x 31”** (58cm x 79cm)	**21”x 28”** (53cm x 71cm)	**1 Phase, 110V, 8.2A** **1 Phase, 208-230V, 3A**
QUICK LIGHT PRO 26X36	140 L/MIN	**26”x 36”** (66cm x 91cm)	**26”x 36”** (66cm x 91cm)	**1 Phase, 110V, 9A** **1 Phase, 208-230V, 5A**
QUICK LIGHT PRO 36X48	140 L/MIN X2	**36”x 48”** (91cm x 122cm)	**30”x 45”** (76cm x 114cm) Double **21”x 28”** (2 x 53cm x 71cm)	**1 Phase, 110V, 15A** **1 Phase, 208-230V, 8A**

2.4 Intended Use

The Quick Light Pro UV LED exposure unit exposes screens quickly, evenly and efficiently. It exposes screens in seconds while giving you sharp detail and high resolution half-tones, with even exposure across the whole screen.

It has adjustable legs by default, and it is also possible to install the device on other ANATOL equipment. For example, it can be installed on a cabinet for drying screens, or on a special cart for screens.

2.5 Overall dimensions

Model	A	A1	B	H	H1	H2
QUICK LIGHT PRO 23X31	**48.1”** (1222 mm)	**43.3”** (1100 mm)	**36.3”** (923 mm)	**43.4”** (1104 mm)	**65.8”** (1673 mm)	**33.8”** (860 mm)
QUICK LIGHT PRO 26X36	**54.5”** (1385 mm)	**43.3”** (1100 mm)	**40.6”** (1032 mm)	**43.4”** (1104 mm)	**68.7”** (1747 mm)	**33.8”** (860 mm)
QUICK LIGHT PRO 36X48	**62.8”** (1596 mm)	**55.7”** (1415 mm)	**46.3”** (1176 mm)	**42.8”** (1087 mm)	**71.9”** (1827 mm)	**33.3”** (848 mm)

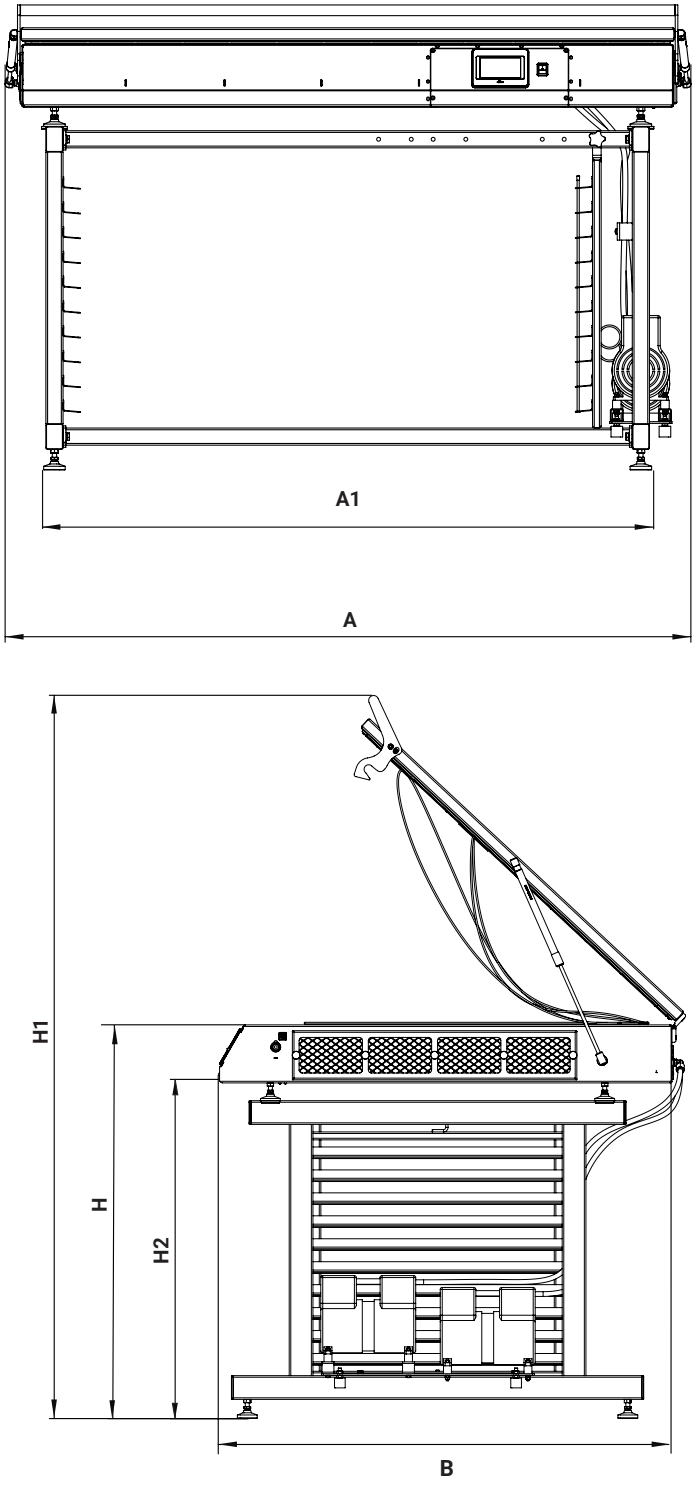


Fig. 2.2 Overall dimensions

3 INSTALLATION

3.1 Transportation and installation

During transportation, care must be taken to eliminate the risk of accidental mechanical damage. Warn the delivery service about the presence of glass to ensure safe transport.

For safety reasons, it is recommended that two people carry the device, or for larger model Quick Light Pros, you should use a jack. During installation, the equipment should be stored in a dry place.

If you purchased the xxx with legs (optional), assemble the legs as shown in **Fig. 3.1**

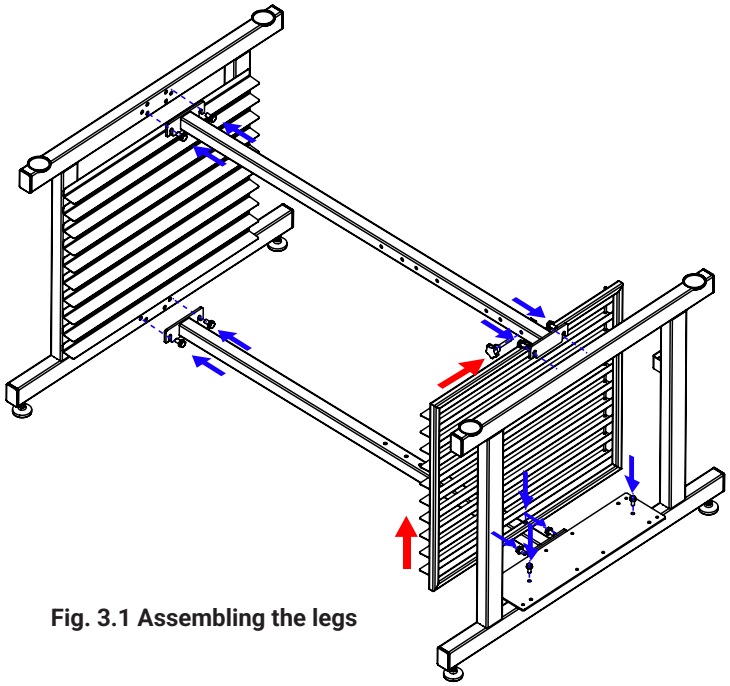


Fig. 3.1 Assembling the legs

Install exposure unit and pump(s) on the legs.

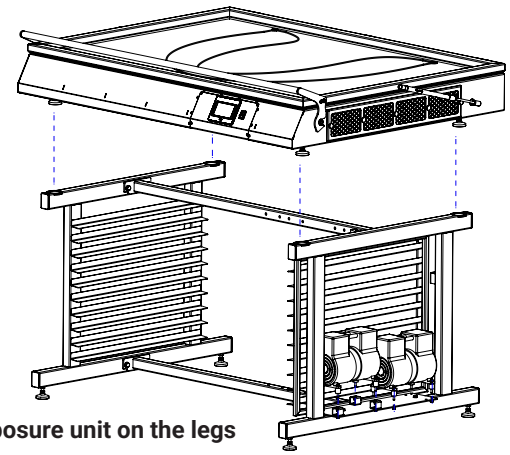


Fig. 3.2 Mounting exposure unit on the legs

FOR SAFETY, THE EXPOSURE UNIT IS DELIVERED WITH THE GAS SPRINGS REMOVED..

WARNING!!!

Gas springs should be installed with the cylinder up and the rod down (**Fig. 3.3**).This affects the smooth opening of the cover and the service life of the gas springs themselves.

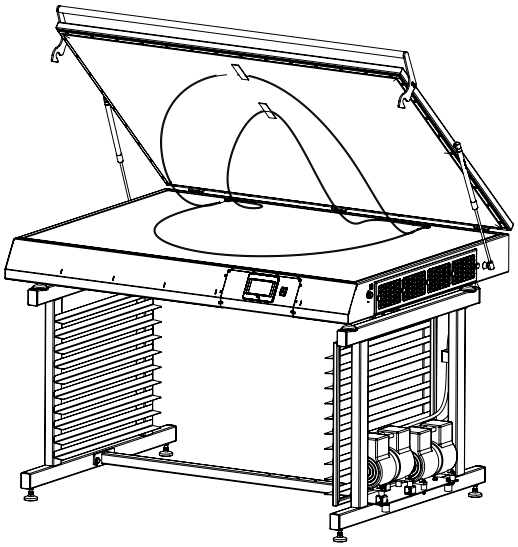


Fig. 3.3. Attaching the gas springs

3.2 Connections

Connect the Quick Light Pro to the electrical outlet and to the vacuum pump. The connection must be made by qualified personnel

1. Power cable

2. Vacuum pump power cable

3. Pneumatic cable connection

4. Vacuum pump

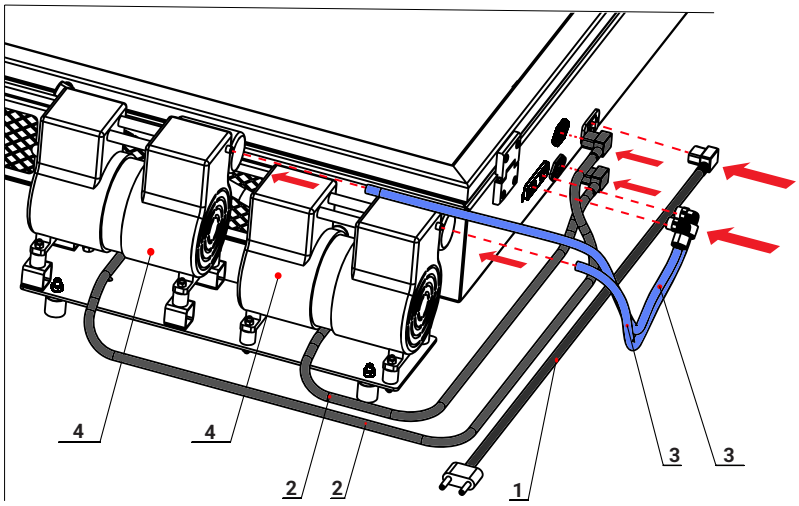


Fig. 3.4 Connections

4 OPERATION

4.1 Preparation for Startup

Make sure the Quick Light Pro is level with the help of the adjustable legs.

Make sure all electrical and pneumatic cables are connected correctly. This connection should only be performed by a person who is familiar with the user manual and qualified for such work.

4.2 Management

1. Main switch

2. Touch display

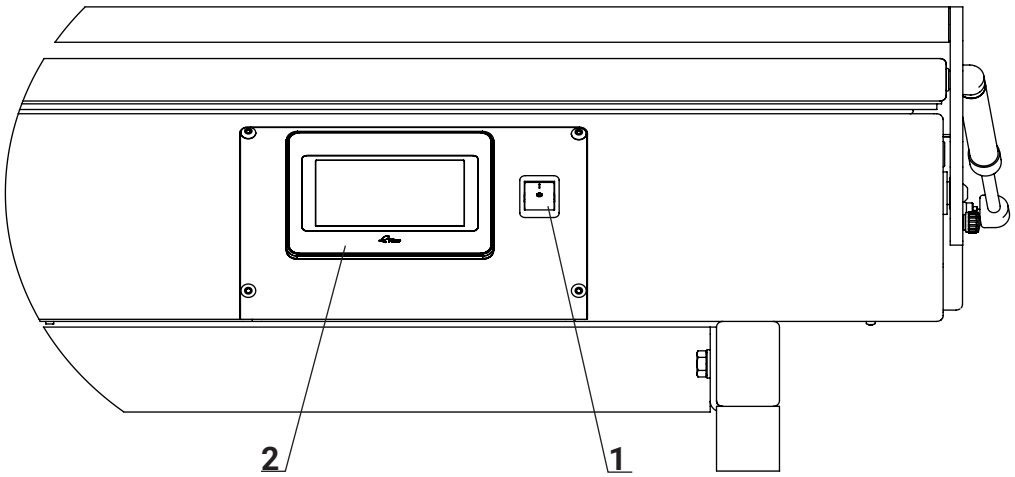


Fig. 4.1 Controls

4.3 Program overview

1. Background Light: LED inspection lights automatically stay lit while vacuum is open. Modify via **SETUP** > **SETTINGS (See Fig. 4.9)**.
2. Programs: Save up to (8) Preset settings. Settings/ changes are automatically saved while user is within desired program **(See Fig. 4.3)**.
3. Vacuum draw-Delay: optimal screen-to-plate threshold. Modify via **VACUUM** > **SET**. The SET operation will identify Draw-Down threshold and assign to selected program **(See Fig. 4.6)**.
4. Exposure Time: Modify via **UV LED** > **PROGRAM** > **KEYPAD (See Fig. 4.4-4.5)**.
5. Test: Test the UV, Vacuum, and Backlights **(See Fig. 4.13)**.
6. Exposure: START or STOP the exposure process.

4.4 Program operation

Main Window (Fig. 4.2)

1. Press the **PROGRAM** icon. This will prompt you to select 1 of 8 profiles to save to **(See Fig.4.3)**.
2. Current date.
3. Press the **VACUUM** icon. This will take you to vacuum draw-down threshold screen.
4. Press the **START** or **STOP** icon. This will start or stop exposure.
5. Press the **UV LED** icon. This will prompt you to select 1 of 8 profiles to save to.
6. Current time.
7. Press the **SETTINGS** icon.This will take you to SETTINGS screen **(See Fig. 4.8)**.
8. EXPOSURE TIME – shows UV light duration of current program.
9. PSI – shows vacuum value of current program.



Fig. 4.2 Main Window

Custom Program:

Press the **PROGRAM** icon (in **Main Window**) **(See Fig. 4.2)** to select one of 8 programs **(Fig. 4.3)**.



Fig. 4.3 Select Program Window

Setting exposure time:

Press the **UV LED** icon (in **Main Window**) **(See Fig. 4.2)** and choose in which program you want to change Exposure Time **(Fig. 4.4)**.



Fig. 4.4 Change Exposure Time Window

A keypad will appear on the screen, please enter the desired time and press **Enter** to save. **(Fig. 4.5)**.



Fig. 4.5 Keypad for entering the exposure time

Example: 0.20 = 20 seconds. ‹ Enter time value M.SS. ‹ Press enter ✓ to save.

Assigning Vacuum Threshold:

Press the **VACUUM** VACUUM icon (in **Main Window**). (**See Fig. 4.2)**. This will take you to vacuum draw-down threshold screen **(Fig. 4.6)**.

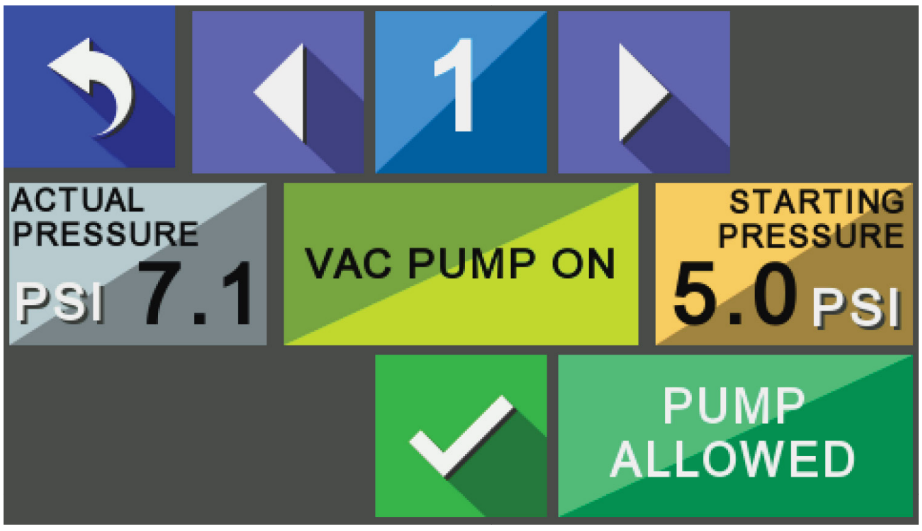


Fig. 4.6 Assigning Vacuum Threshold Window

1. Turn **VAC PUMP ON** VAC PUMP ON icon (in the middle).
2. You will observe the **ACTUAL PRESSURE** increase and eventually stabilize when the optimal pressure is achieved.
3. Once the actual PSI becomes static, press the **SET** ✓ button. This will assign your desired PSI for the selected program profile.

4.5 Automatic mode

Automatic mode Setup:

You can quickly view what mode your Quick Light Pro is currently in by referencing the home screen **(See Fig. 4.7)**. **MANUAL Mode** or **AUTOMATIC Mode**.



Fig. 4.7 Operating Mode of Quick Light Pro

Select your mode by:

1. Selecting the **SETTINGS** icon (in **Main Window**) **(See Fig. 4.2)**
2. Selecting the **SETUP** icon **(Fig. 4.8).**

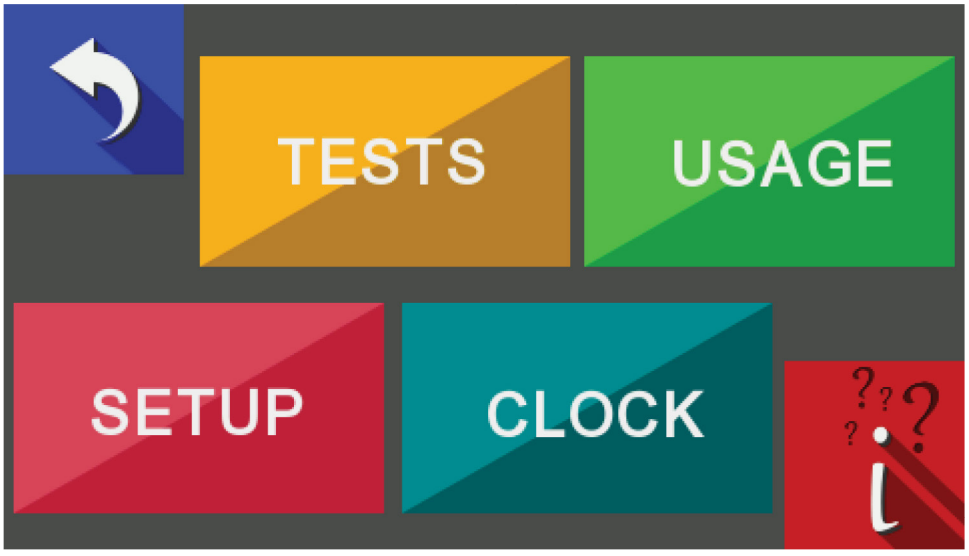


Fig. 4.8 Settings Window

4.6 Exposure unit setup

In **Unit Setup Window (Fig. 4.9)** engage your Exposure mode by pressing **OPERATING MODE** to select between either **MANUAL** or **AUTO.**

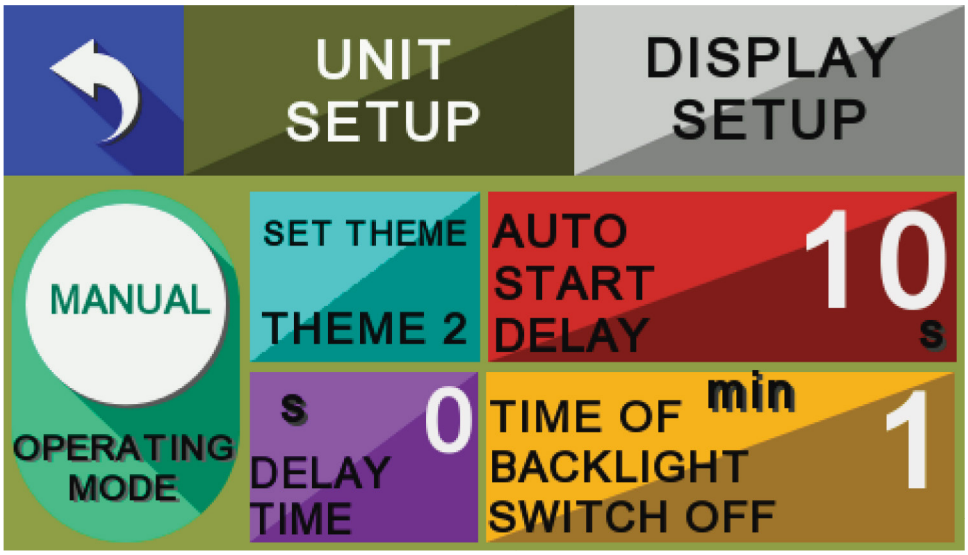


Fig.4.9 Unit Setup Window

1. **BACK** - press to go back to **Settings window.**
2. **DISPLAY SETUP** - press to switch to **Display Setup Window.**
3. **OPERATING MODE** - switch between automatic or manual operation mode.

What is the difference?

- Manual mode: is for slower operations that are not repetitive. Operator must press the start button on the home screen to begin Exposure.
- Automatic Mode: (using program assignments) starts the exposure cycle when vacuum latches are engaged.

4. **SET THEME** - switch between user interface themes.
5. **DELAY TIME** - delay the start of the UV LEDs after vacuum.
6. **AUTO START DELAY** - in Automatic mode, set a delay time between the lid closing and the start of the vacuum.
7. **BACKLIGHT SWITCH OFF TIME** - time after which the screensaver will appear.



Fig. 4.10 Display Setup Window

1. BACK - press to go back to **Settings window.**
2. Unit Setup - by pressing you can switch to **Unit Setup Window.**
3. Language - switch the current language of the user interface. You can choose between English and Polish.
4. Brightness - change brightness of Touchscreen by pressing or button. You an change brightness value in range from 0 to 32.

1. **Operating Mode** – switch between automatic and manual operation mode.
2. **Set Theme** – switch between user interface themes.
3. **Delay time** – delay the start of the UV LEDs after vacuum.
4. **Backlight Switch Off TIME**– time after which the screensaver will appear.
5. **DISPLAY OFF TIME** - change time after which the backlight of touchscreen will turn off.

6. FINISH ALERT - after the end of the exposure, the Finish Alert window will appear **(see Fig. 4.11)**. The Finish Alert window will be displayed until the vacuum is closed. By pressing the Finish Alert button and changing the status to Finish Alert: OFF, you can stop the Finish Alert screen from appearing.



Fig. 4.11 Finish Alert Window

Tests Window

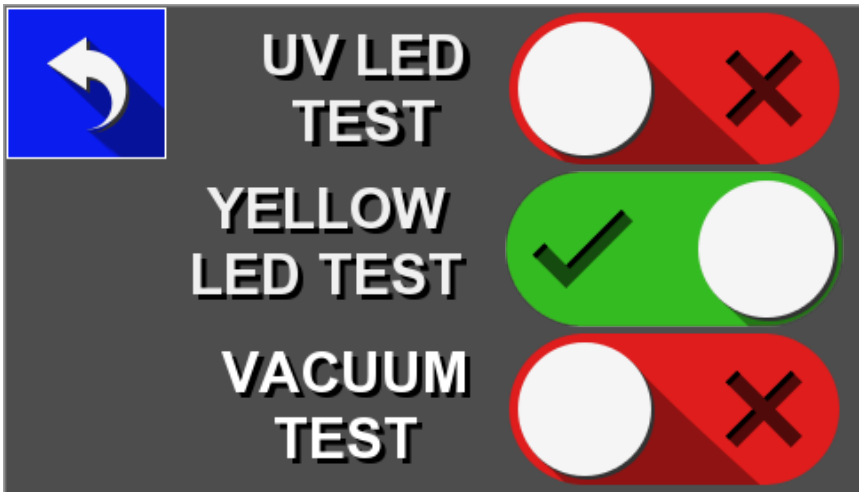


Fig. 4.12 Tests Window

1. **Back** - press to go back to **Settings Window.**
2. **UV LED TEST** - press to turn on or off the UV LED light.
3. **YELLOW LED TEST** - press to turn on or off the Yellow LED light.
4. **VACUUM TEST** - press to turn on or off the Vacuum Pump.

Usage Window

The Exposure Unit lets you view your daily and total cycle count and work time of vacuum and UV LED.

1. **Back** – press to go back to **Settings Window.**
2. **Daily Usage** – press to switch to **Daily Usage Window (Fig. 4.13)**.
3. **Total Usage** – press to switch to **Total Usage Window (Fig. 4.14)**.

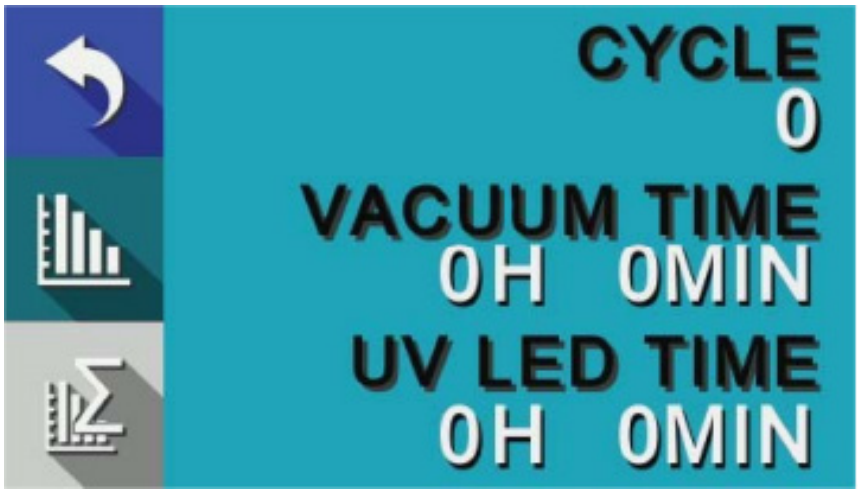


Fig. 4.13 Daily Usage Window

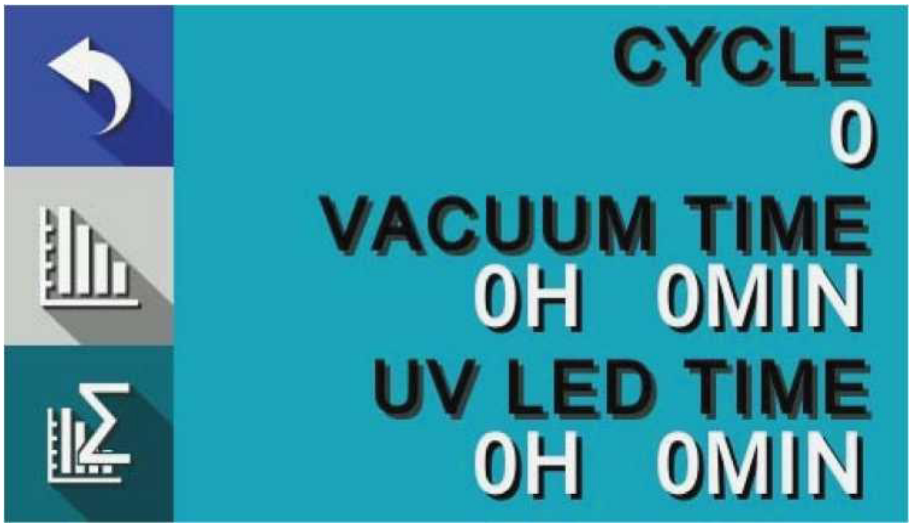


Fig. 4.14 Total Usage Window

Clock Window

The **Clock Window** lets you set the time and date. You can also set the time view to 12 hours or 24 hours **(See Fig. 4.15, 4.16)**.



Fig. 4.15 Current Time Window



Fig. 4.16 Current Date Window

Software Version Window

In the **Software Version Window (Fig. 4.17)** you can see the software version numbers.



Fig. 4.17 Software Version Window

4.7 Safety rules

- Wear safety glasses when working with the device.
- A machine in operation should never be left unattended.
- Keep all hands, tools, hair, jewelry, and articles of clothing away from the Vacuum pump and blanket during operations.
- Never alter the internal wiring of this machine. Only a qualified electrician should perform electrical connections and ensure proper grounding. (See NEC codes)
- Maintenance on this machine should begin only after all power has been shut off at the control panel and at the incoming circuit breaker. Wait five (5) minutes for the electrical power down.

4.8 Troubleshooting

In case of technical problems during the use of the Quick Light Pro LED exposure unit, please contact the Anatol service department. For better analysis of problems and quicker resolution, please report every malfunction.

Experience has shown that most problems are due to improper handling of the machine. Before contacting the Anatol service department, please check the main power line and be sure that it is live, and also make sure that the main switch is in the ON position.

Improper maintenance of the machine and unauthorized interference with the machine's electrical connections can lead to damage to the machine, as well as operator injury.

A technical problem should be reported using the 3 steps described below:

1. Please write down the machine's serial number as written on the nameplate and be ready to provide this number to the service technician.
2. Be prepared to give the full details of the technical problem.
3. Be ready to perform the basic tests as instructed by the service technician.

Contact the Anatol service department by phone or email:

Anatol USA
Phone: +1 847-582-1825
Email: service@anatol.com

Anatol International
Phone: +48 85 731-93-00
Fax: +48 85 730-17-79
Email: speservice@spe.home.pl

5 MAINTENANCE

Turn the Main Switch OFF and disconnect the power cable before cleaning or servicing the device

1. Your Quick Light Pro LED EXPOSURE UNIT System has been designed to require minimum maintenance. Like all mechanical equipment, periodic maintenance will prolong the life of the unit. The glass and the vacuum blanket are of particular importance.

2. The glass should be kept clean using any commercial non-abrasive glass cleaner. Dust particles, emulsions, or threads from screens will cause spots of unexposed areas on your screen.

3. The blanket should be kept clean of dust by periodic vacuuming. The rubber seal should be cleaned with blanket wash. An occasional application of rubber roller rejuvenator will keep the seal pliable.

To clean the filter unscrew the fixing screws (**1**), remove the filter (**2**) and rinse it with detergent under running water. Replace filter insert if necessary.

1. Fixing screw

2. Filter frame

3. Filter insert

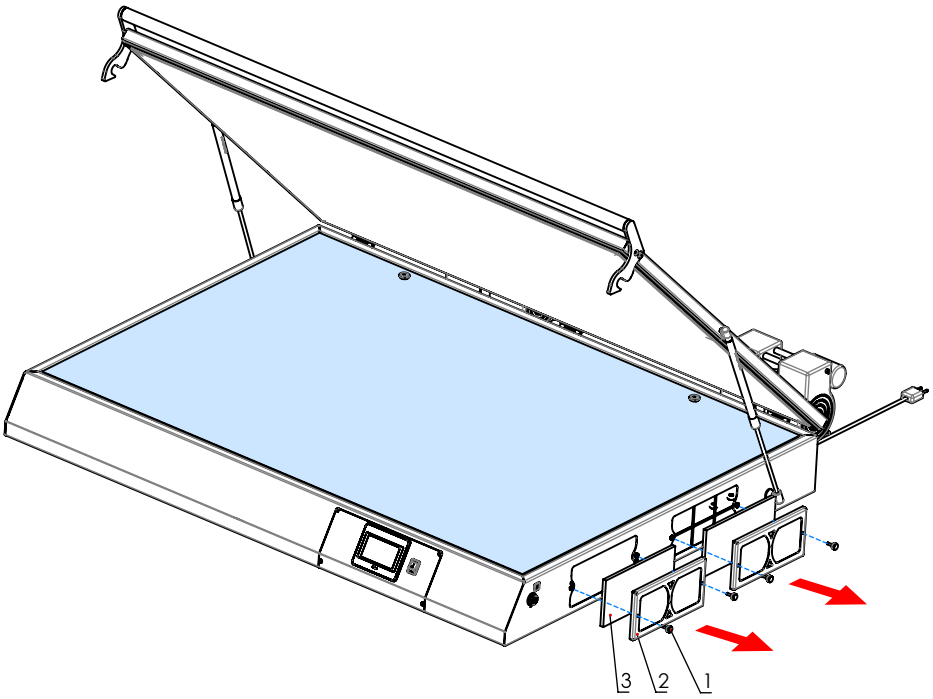


Fig. 5.1 Cleaning filters

Glass replacement or cleaning

Using a plastic spatula (not included), lift the glass from its place of installation. Carefully lift it with your hands as shown in the figure below.

1. Plastic spatula.

2. Glass.

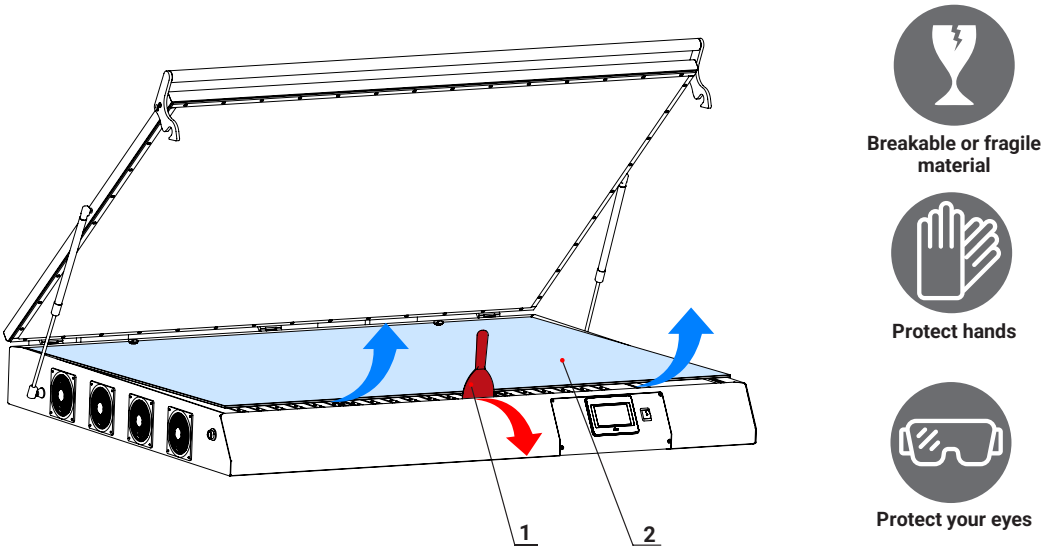


Fig. 5.2 Lifting the glass

Disconnect the air tubes from the fittings fixed to the glass by pulling the tubes downwards

3. Air tubes.

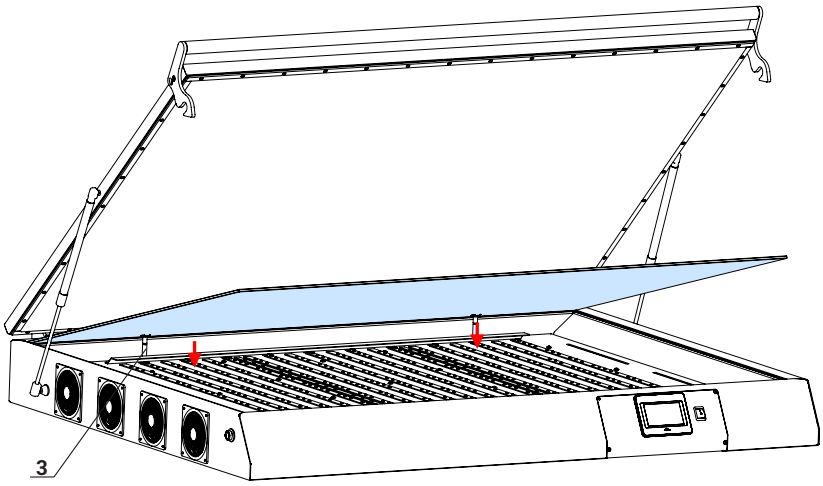


Fig. 5.3 Disconnecting the air tubes

Replacing the LED strip

When the glass is removed, remove the protective covers and disconnect the cables as shown in the image below. The LED bar must be disconnected from the connector by pulling the blue and red cables.

1. Protective cover.

2. LED strip.



Screwdriver

Fig. 5.4 Replacing the LED strip

Opening the electrical panel

Install the Exposure unit in such a way as to allow access to the screws from below. Unscrew the screws, carefully move the electrical panel down and forward



Hex Key

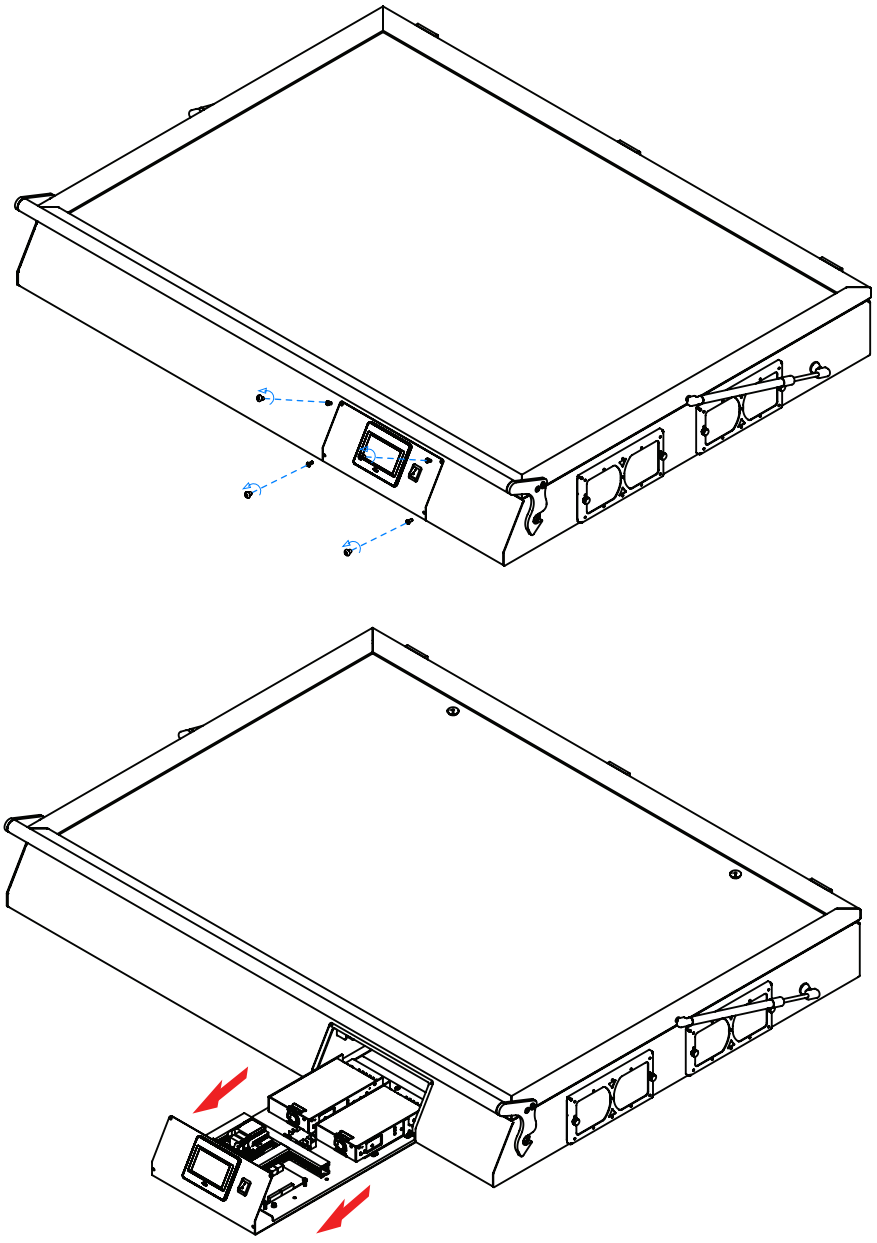


Fig. 5.5 Opening the electrical panel

6 WARRANTY

Disclaimer Or Warranty And Limitation Of Liability

Note: As of the date of this printing, all electrical, air and/or gas specifications listed herein reflect current machine requirements and are deemed correct. This information is in lieu of any other electrical, air and/or gas specifications expressed or implied

ANY POWER REQUIREMENTS LISTED ABOVE INDICATE NEAR ACTUAL PULL LOAD RUNNING POWER CONSUMPTION. THEY DO NOT DICTATE FINAL REQUIRED AMPERAGE RATING OF THE POWER FEED LINES. THESE RATINGS ARE TO BE CALCULATED BY A COMPETENT ELECTRICIAN OR AN ELECTRICAL CONTRACTOR.

Buyer herewith agrees that if shipment of equipment is made on partial basis due to causes beyond Seller's reasonable control, buyer will pay for partial shipment until equipment order has been fully shipped.

Limited Warranty: A Quick Light Pro manufactured or sold by Anatol Equipment Manufacturing Co. is warranted against defects in workmanship and materials for a period of two (2) years from the date of receipt by the customer. If damage occurs during shipping, it is not covered under this warranty and is the Customer's responsibility to file damage claims with the freight forwarder if the situation arises.

Throughout the two (2) year warranty period, Anatol Equipment Manufacturing Co. will supply replacement parts covered under the warranty. However, Customer will be responsible for shipping costs (i.e. UPS, FedEx, USPS, etc).

Warranty Coverage:

1. This warranty covers repair or replacement of parts found by Anatol Equipment to have a defect in materials, workmanship or factory preparation within the terms of the Warranty and subject to the terms laid out in "Limitations of Warranty.

2. Anatol Equipment reserves the right to choose whether to repair, instead of replace, defective parts covered by this Warranty.

Limitations of Warranty:

1. This warranty applies only to the Customer, the original equipment owner (buyer) and it is non-transferable.

2. In the event that a factory technician must be sent in order to diagnose and/or repair, this Warranty does not cover travel expenses relating to said claim and remain solely the responsibility of the Customer. These travel expenses include such things as air fare, sustenance, rental car, hotel, taxi, airport parking, toolbox overweight fee, etc.

3. This warranty does not apply to damage caused by improper use or lack of proper maintenance.

4. Any work performed on or modifications made to this machine by person(s) other than: (a.) an Anatol Equipment service technician, or (b.) persons specifically authorized by Anatol, shall nullify this warranty.

5. Unauthorized changes made to equipment will terminate this Warranty.

6. This Warranty does not apply to defects resulting from the Customer's improper installation.

7. Anatol Equipment does not cover failure of parts or components resulting from misuse, lack of proper maintenance, or lack of "proper" operating conditions.

8. This Warranty does not extend to expendable parts such as but not limited to filters, backup batteries, fuses, belts (conveyor or otherwise), lamps, motor brushes, and glass. Exposure Unit lamps are warrantied for manufacturing defects for 30 days. Breakage of Exposure Unit lamps is not covered under this warranty.

9. Parts not under warranty are covered for 30 days from receipt by the Customer.

10. Pneumatically operated machines must have a clean moisture-free air supply. Failure to provide such air may result in premature failure of some components, air seals, cylinders and valves. Any equipment failure which is determined to have been caused by the lack of a clean moisture-free air supply is not covered under this warranty, and will void the warranty.

Returns:

1. Written authorization must be obtained from the Parts Department at Anatol Equipment before any part will be accepted.

2. Special order items, specialized equipment, and electrical or electronic components are not returnable.

3. Replacement parts are covered for the term of the machinery warranty period; the Customer is responsible for return shipping cost. C.O.D. shipments will not be accepted.

4. Shipping costs for replacement parts are non-refundable to the Customer or distributor.

5. All defective parts must be returned back to Anatol Equipment within 30 days to receive credit. Credit will be determined after parts are inspected and found defective by Anatol technicians.

Limitations of Liability:

The remedies provided within this Warranty are the Customer's sole and exclusive remedies.

Anatol Equipment Manufacturing Co. will not be liable for consequential damages, inconvenience or contingent liabilities for direct, indirect, special, incidental, or (including but not limited to, lost man- hours or profits), whether based on contract, tort or any other legal theory.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES AS THE MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION HEREIN. IN THE EVENT OF DISPUTE, THE ENGLISH VERSION OF THE LIMITED WARRANTY WILL PREVAIL.

7 LIST OF REPLACEMENT PARTS

№	Spare Part	Number	Name
1		4060172	PANEL HMI KINCO GL043
2		4020011	SWITCH C1553AB
3			MAINBOARD PCB-90A
4		4030156	LED BAR UV (Quick Light PRO 23x31 and Quick Light PRO 36x48)
5		4030159	LED BAR YELLOW (Quick Light PRO 23x31 and Quick Light PRO 36x48)
6		4030157	LED BAR UV (Quick Light PRO 26x36)
7		4030160	LED BAR YELLOW (Quick Light PRO 26x36)

№	Spare Part	Number	Name
8		4040028	FAN SUNON 120X120X38 DP200A2123XBT
9		4060264	POWER SUPPLY MEANWELL RSP-500-12
10		4035233	POWER SUPPLY MEANWELL HDR-60-24
11		4010042	CS-003 SCREW TYPE IEC CONNECTOR SOCKET
12		4018654	POWER SOCKET 16A SCHURTER 4798.9000
13		4020057	RELAY RJ2S-CL-D24
14		4020351	CIRCUIT BREAKER LOVATO P1MBUH2PC10, 2 MODULES, 10A

№	Spare Part	Number	Name
15		6000642	XURUI XSSR-DA4840W1
16		2031020	GAS SPRING 540 mm 350N (Quick Light PRO 23x31)
17		2031080	GAS SPRING 540 mm 330N (Quick Light PRO 26x36)
18		2031136	GAS SPRING 590MM X 330N (Quick Light PRO 36x48)
19		4040300	OIL-LESS PISTON VACUUM PUMP (220V)
19		4040301	OIL-LESS PISTON VACUUM PUMP JP-140H(110V)