

INSTRUCTION MANUAL

LAWSON PRE-TREAT ZOOM-PRO



LAWSON
SCREEN & DIGITAL PRODUCTS, INC.

5110 Penrose St. | St. Louis, MO 63115
314.382.9300 | golawson.com

Lawson Pre-Treat Zoom Pro v. 2.0 August 2020



To insure successful performance of your Zoom-Pro, please read this entire manual thoroughly. If you have any questions or do not understand certain content, please call for clarification and additional information.

Like ink jet printing, your Zoom-Pro will require some preventive maintenance and a complete understanding of its operations and control systems to provide optimum performance. This manual is offered to help you get the best possible performance and results from this equipment.

The Lawson Zoom-Pro has been designed to work in conjunction with any brand direct-to-garment printer. To achieve optimum printing results, the proper amount of pre-treat solution needs to be deposited on your printing surface on a consistent basis. The amount of required solution depends on your printer, garment, artwork and shop environment.

Your comments and suggestions are always welcome.

Office hours are 8:00 am – 5:00 pm (CST)

Zoom-Pro #1618

Manufactured by: **Lawson Screen & Digital Products, Inc.**
5110 Penrose St., St. Louis, MO 63115

Service Telephone: **314-382-9300**

Serial Number: _____

(Please fill-in for future reference) Refer to this serial number when speaking the Service Department. It contains valuable information related to this piece of equipment.

Important Notes:

Always Disconnect the Power from the outlet while performing service on this unit!

Do Not operate this machine without reading this entire instruction manual first! Do Not start adjusting the unit until its entire function and operation is fully understood. If you have any questions, please call prior to operation.

Remember, even though the Zoom-Pro is shipped fully assembled and is easy to set-up and operate, if you want special and/or individualized instruction, feel free to call and arrange for special training at our St. Louis factory, or at your facility (additional expense), or via Facetime or Zoom.

It is critically important the spray nozzle always be kept clean and daily maintenance is performed. If the pre-treat solution is allowed to dry in the nozzle, the nozzle will become clogged and damaged - the nozzle, spray head, pump and filters are not covered by the parts warranty, as these are items that only fail because they become sticky and clogged, because of pre-treat solution and/or maintenance issues. Remember, you are basically spraying "glue", so daily cleaning and maintenance is critical.

This machine is designed for the industrial/commercial user – it is not designed for hobby use, or for retail consumer usage - the machine is for Industrial Use Only.

This manual is meant to serve as a general instructional guide and reference manual for the Zoom-Pro. Design details are subject to change without notice and the manufacturer assumes no obligation regarding changes to the unit, suitability for your application, herein described.

All the information contained herein is proprietary to the Lawson Zoom-Pro. This publication may not be reproduced, copied, or transmitted in any way without written permission from Lawson Screen & Digital Products, St. Louis Missouri. Copyright 2018.

Getting Started

1. The Zoom-Pro will need 120 volts, 5 amps to operate.
2. Two pre-treat solution/waste collecting buckets are provided and need to be installed at the rear of the unit to collect the overspray fluid.
3. Distilled or Deionized water is the only water to be used to clean the fluid circuit and tip. Never use “tap water”. Tap water contains a variety of minerals which form deposits that can be harmful to various spray components and especially the spray tip.
4. The Zoom-Pro has a place for two one-gallon containers. Some production people will use both container spaces for the same pre-treat solutions allowing over 250 shirts to be pre-treated before having to stop and refill the containers. Some will use the space to hold two different styles of pre-treat. **The most popular configuration** is for a gallon of pre-treat and a gallon of distilled water to clean the system after use.
5. Set the spraying parameters via the Setting Menu page on your touch screen.
6. To establish desirable spray results, a gram scale and a container will be needed. Figuring out how much fluid is on the garment is easy. Place the dry garment in the container, tare the scale (it will read zero), spray the garment, and then weigh the pre-treated garment. Now you know the amount of pre-treat solution that is on the garment, based on your speed setting.
7. When ready, to spray the garment, simply push the **START** button (or foot pedal) and the spray head will come forward, reverse directions, and spray the garment. Note: After the drawer is extended, the drawer will automatically close at the start of the spray cycle. After the spraying cycle is completed, the drawer will automatically open to remove the sprayed garment and load the next garment. When you are finished spraying garments and want to close the drawer, you will manually push the “Platen In/Out” Arrows on the color touch control panel for the drawer to close.
8. Clean the unit at the end of the day. **This is a critical task! Skipping this task will result in your nozzle/tip (and possibly the fluid pump) not working the next time.** If you spray the unit one time, or a hundred times, the same cleaning procedure must take place. Remember, the pre-treat solution that coats the fabric will also coat your spray tip, spray head and fluid pump. And a tip with a dried film solution will clog. It is very important to read and follow the daily maintenance procedures. **Note: After the cleaning procedures have been achieved, remove the quick exchange cap and soak the tip in distilled water so as to prevent the tip from clogging due to any partials that could have been left in the tip by not cleaning the tip correctly.**

Understanding the Basics of Spraying:

1. The Lawson Zoom-Pro is designed to spray a fabric with pre-treat solution prior to printing the fabric. The amount of pre-treat solution deposited onto the fabric (measured in grams) is determined by many factors. **It is important to understand the principles of spraying the fabric so that the process does not become frustrating when you are trying to maintain consistency of the deposited fluid.** The amount of pre-treat fluid deposited on the fabric is controlled by: 1) the travel speed of the spray nozzle, 2) the design of the spray tip, and 3) the distance of the tip to the fabric.
2. Lawson can provide many different types of spray tips for a variety of special purposes. Generally speaking, the standard tip provided with your Lawson Zoom-Pro will be sufficient for the vast majority of applications. If you feel you can benefit from one of our specialty tips, give us a call and we can discuss your requirements.
3. The Zoom-Pro also has different size platens available. Although the standard 16" x 20" Adult Platen that came with your unit is the most popular, we also offer a child and youth platen. We can provide custom platens for specialty purposes.
4. The Zoom-Pro features the Lawson quick exchange tip/cap system. This is an exclusive Lawson feature pioneered for the pre-treat industry. It does not matter which way you install the tip into the holder because the holder will locate the tip in the correct spraying position. This feature also allows the operator, after cleaning the system, to soak the tip in water so as to prevent the tip from clogging due to any particles that could have been left in the tip by not cleaning it correctly.
5. Adjusting the **length of the spray** is accomplished by changing the settings on your color touch screen. The spray always starts after the nozzle/tip travels to the forward position and reverses the travel position. The START Position refers to how many inches down from the edge of the platen you want to start spraying. This is not an "exact" measurement, so you may have to determine what is best for your application - 4" is a popular number to use. **Note: Radical changing of the spray speed can effect the start and stop position of the spray.**
6. If there are excessive drips (3 or more) at the end of the spray cycle, most likely the tip is not clean. The dripping is a sign of debris in the tip trapping the free flow of the fluid.

Maintenance:

It is critical that the unit is cleaned on a daily basis, immediately after use. Most pre-treat fluids in simple terms are glue and salt water. If the glue is not cleaned at the end of the production day, the unit will not perform correctly and there is no warranty on parts that become coated with glue (tip, spray head, pump).

1. It is critical that distilled water flushes the system to rid the pre-treat fluid from the fluid valve (spray head) and the spray tip. Cycle the unit till the fluid lines are visually cleared of pre-treat. This might take 10-15 seconds. This step cannot be over-stated on how important it is to insure the successful consistent spraying. You can cycle the system as in spraying a garment or use the purge button with a container under the tip to contain the flushing fluid.
2. Remove the tip and soak it in distilled water (or Lawson's Magic Clean) at the end of production day. This procedure will help prevent the pre-treat from clogging the tip in case the tip was not cleaned properly.
3. The tip should be cleaned with a soft bristle tooth brush to clean the outside and inside of the tip. This will help remove any lingering salt deposits that could form on the tip to prevent staining and tarnishing effects on the tip. To clear a blockage on the tip's opening, a soft bristle toothbrush, and compressed air pressure are the best ways to clear the blockage - use Lawson Dust-Off aerosol can (#400-323-1-EA).
NOTE: Any hard item such as a needle will most likely score the metal opening and ruin the spray nozzle.
4. At least once a week clean the slip-on fluid filter; replace as necessary.
5. The surfaces must be cleaned after each use. Without cleaning, the pre-treat fluid will cause corrosion to the unit. Also, without cleaning on a regular basis, the unit will become so caked and sticky it is a monumental task to clean. To clean the inside of the unit, a sponge and hot soapy water is all that is needed. Be sure to clean all the surfaces and then dry the unit.
6. Depending on your usage, use Lawson's Magic Clean (part #497-117-1G) at least weekly; for heavy users, use Magic Clean every few days. Simply insert the fluid hose in your container of Magic Clean and then purge (purge for 10 - 15 seconds). Use goggles when using Magic Clean and avoid eye contact.

Suggested Replacement Parts

Spray Tips

The quantity of spray tips that you stock depends on three factors: 1) frequency of use, 2) proper flushing/purging of the machine, and 3) performance of the recommended maintenance. No matter what, having at least one spare spray tip is important. Just like the spare tire for your automobile: you never know when you need it and when you do it is a lifesaver. **WENL (standard tip) - Part #945-501-2; other various spray tips available.**

Slip-On Tube Filter

This inexpensive filter removes debris and larger mass particulates from the pre-treat solution that helps keep the internal fluid lines free from blockages. It is suggested that four (4) of these filters be kept on-hand.

Part #945-507-8

Electric Spray Valve (spray head)

Keeping a spare fluid valve is an easy way to help ensure your Zoom-Pro remains up and running. For those running production or who cannot afford to be down you should always keep a spare fluid valve on-hand. It is an inexpensive “insurance policy.”

Part #945-307-8-EA

Electric Fluid Pump

Keeping a spare fluid pump is not a requirement, but if you need to clean the pump ever (remember you are spraying glue) you can install the spare pump and then clean the original pump without delaying production.

Part #945-515-0-EA



This is the home screen. The home screen is essentially a “display” screen of the spray parameters that have been set.

So this screen is basically showing what you are doing.

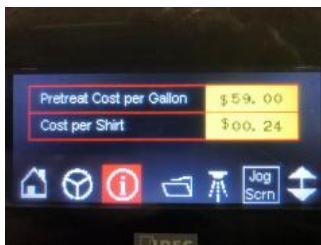


Select your spray orientation. The most popular orientation is with the collar of the shirt towards the operator.



In the settings menu, you can select from a variety of icons - including orientation of the spray pattern.

You will use this menu a lot to access the fluid and spray area parameters.



This is the information display screen.

After you input your cost of pre-treat solution, this screens shows you the estimated cost of pre-treat per shirt, based on the spray length and speed of the unit. Note: this is only a general estimate and not a perfect algorithm.



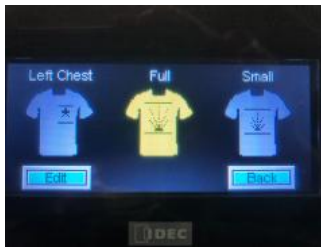
These are your presets. You can scroll up and down and create new presets via this portion of the software.



This screen is used to purge and clean the system.



Select your spray fluid that you want to use.



Quick select options.



This is where you can edit and change the size of the spray area and spray speeds.

Note: the "left chest" is a specialized option, but you can use and still control the size of the spray area.



This is where you edit and set your spray size area and spray speed - used for the quick select feature.



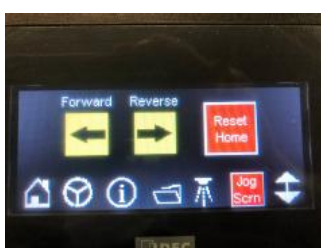
This photo shows the basic entry screen - in this example for numeric input. You must press "ENT" to save the input you selected.



Make sure you select the di water (same as distilled water) when purging the unit.

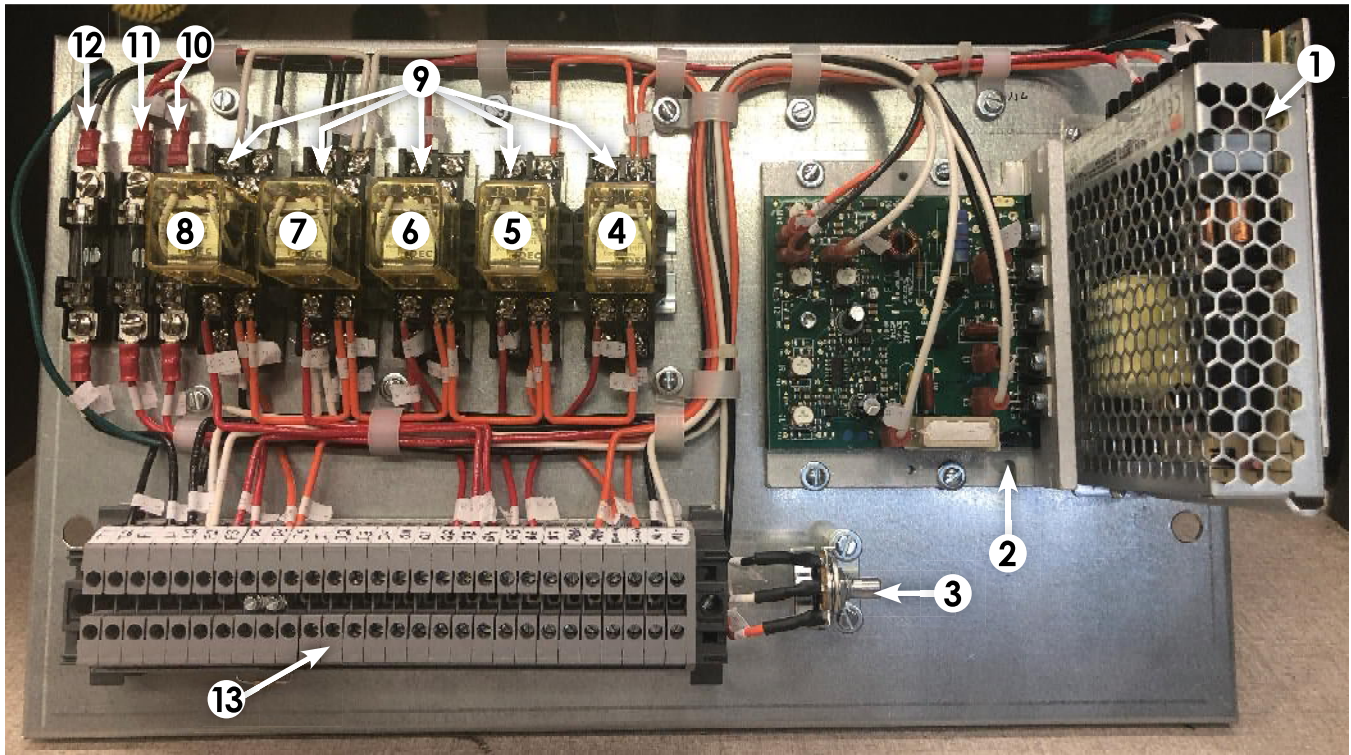


Select your purge time - 10 seconds is a common setting.



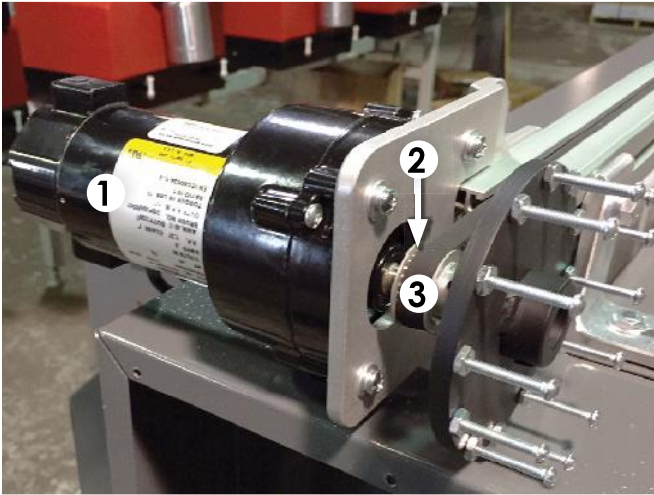
This screen is only used to see the movement of the spray head...Do not use except for troubleshooting purposes.

Electrical Panel - Parts Identification Photo

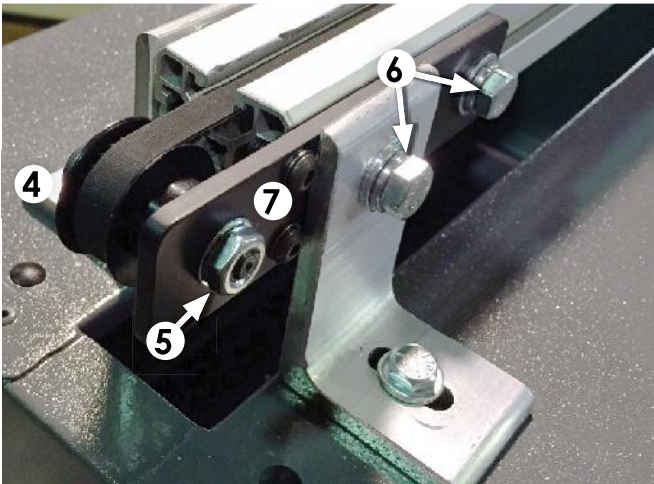


#	Description	Part #
1	DC Power Supply/Transformer	945-309-5-EA
2	DC Motor Controller	945-304-0-EA
3	5K Speed Dot - Spray Speed Control	945-311-0-EA
4	24v DC Relay - Head Motor Enable	945-920-0-EA
5	24v DC Relay - Head Motor Direction	945-920-0-EA
6	24v DC Relay - Activate Dump	945-920-0-EA
7	24v DC Relay - Motor Reverse	945-920-0-EA
8	24v DC Relay - Motor Forward	945-920-0-EA
9	Relay Base	945-308-9-EA
10	3 Amp Fuse - Spray Pump	945-310-5-EA
11	3 Amp Fuse - DC Power	945-310-5-EA
12	3 Amp Fuse - Motor Controller	945-310-5-EA
13	Terminal Strip	945-310-5-EA

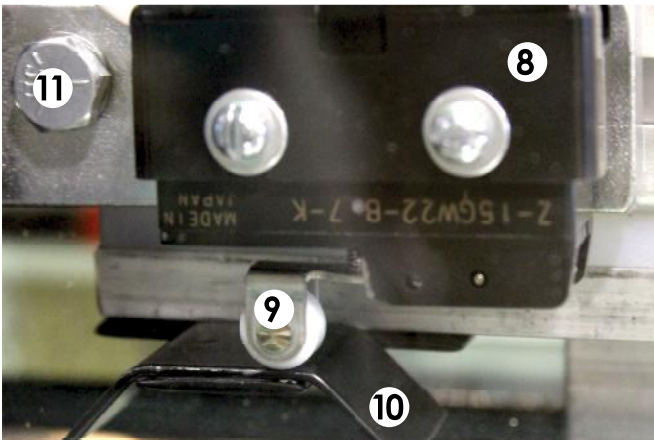
Motor Head Drive #42015 (new photo available soon)



#	Description	Part #
1	Head Motor	945-602-6
2	Head Motor Pulley	945-601-5
3	Drive Belt	945-602-4

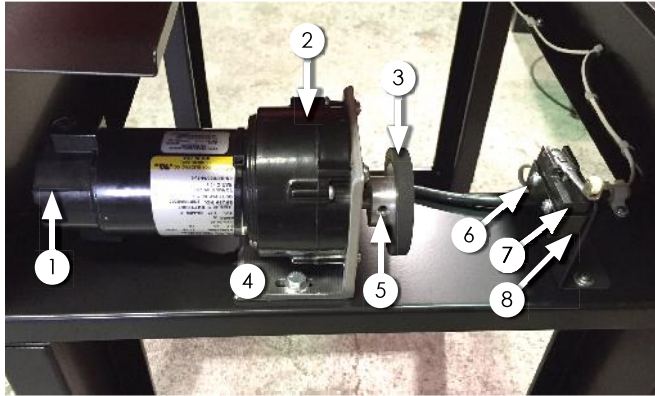


#	Description	Part #
4	Idler Pulley	945-601-0
5	Idler Pulley Bolt	923-817-2
6	Belt Tension Bolts	-
7	Idler Tension Plate	945-922-8



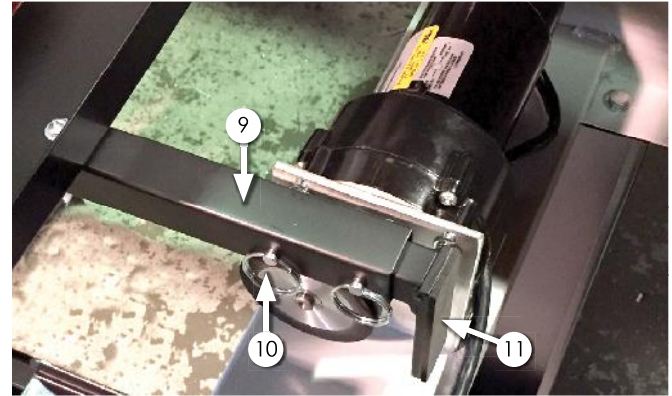
#	Description	Part #
8	Electric Limit Switch	945-602-6
9	Limit Switch Contact Roller	945-601-5
10	Limit Switch Ramp	945-602-4
11	Factory Set Bolt DO NOT ADJUST	945-923-7

DRAWER MOTOR (SIDE VIEW)



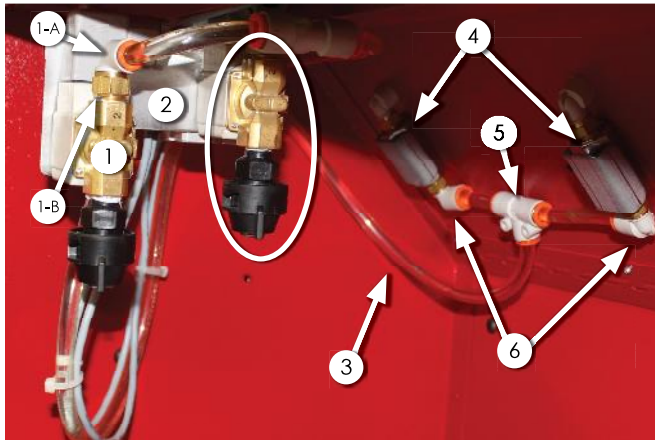
	Description	Part #
1	Brushes-Pair	945-602-7
2	Motor	945-602-6
3	Drive Wheel	945-603-0
4	Motor Bracket	945-603-5
5	Set Screw	-----
6	Cover	945-306-8
7	Limit Switch	945-306-7
8	Micro Bracket-Out	945-603-7

DRAWER MOTOR (TOP VIEW)

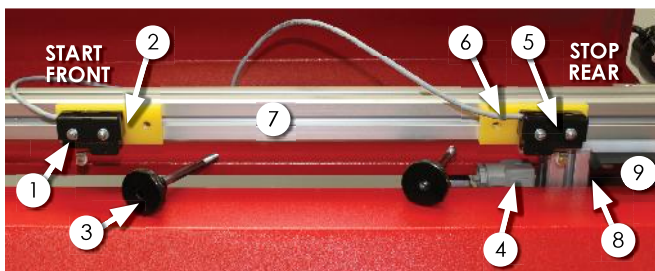


	Description	Part #
9	Tube	945-604-2
10	Pull Pin	945-604-5
11	Stop	945-604-0

SPRAY HEAD #101

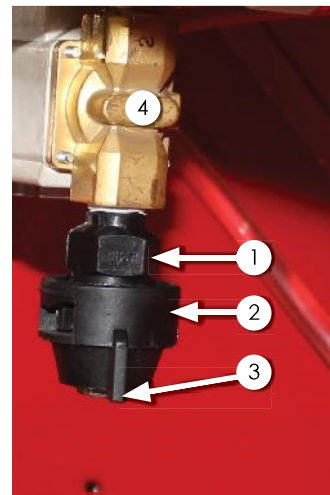
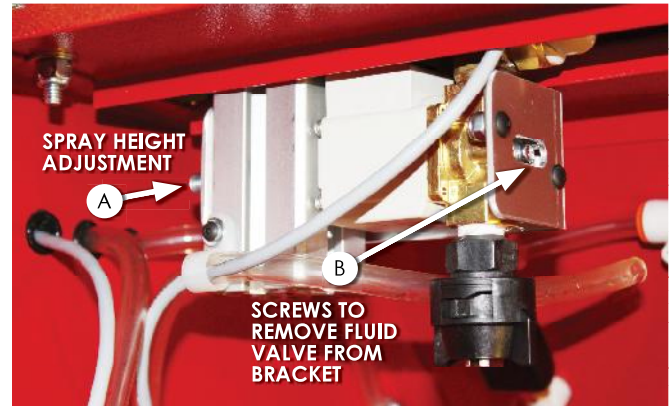


	Description	Part #
1-A	Air Fitting	945-511-2
1-B	Brass Fitting	945-932-4
2	Fluid Electric Spray Valve	945-307-8
3	Hose from Mechanical Valve to Pump	945-514-2
4	On/Off Mechanical Valve	945-520-0
5	Plastic T Fitting	945-932-8
6	Fitting	945-932-7



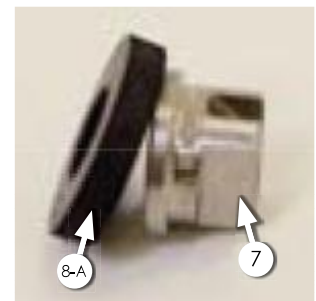
	Description	Part #
4	Fluid Electric Valve	945-307-8
5-A	Switch Cover (not shown)	945-306-8
7	Head Rail	8C216001
8	Head Height Adjustment Bolt	XXX
9	Carriage Slider	945-755-6

SPRAY HEAD MOUNTING BRACKET



SPRAY TIP

SPRAY HEAD (enlarged photo)

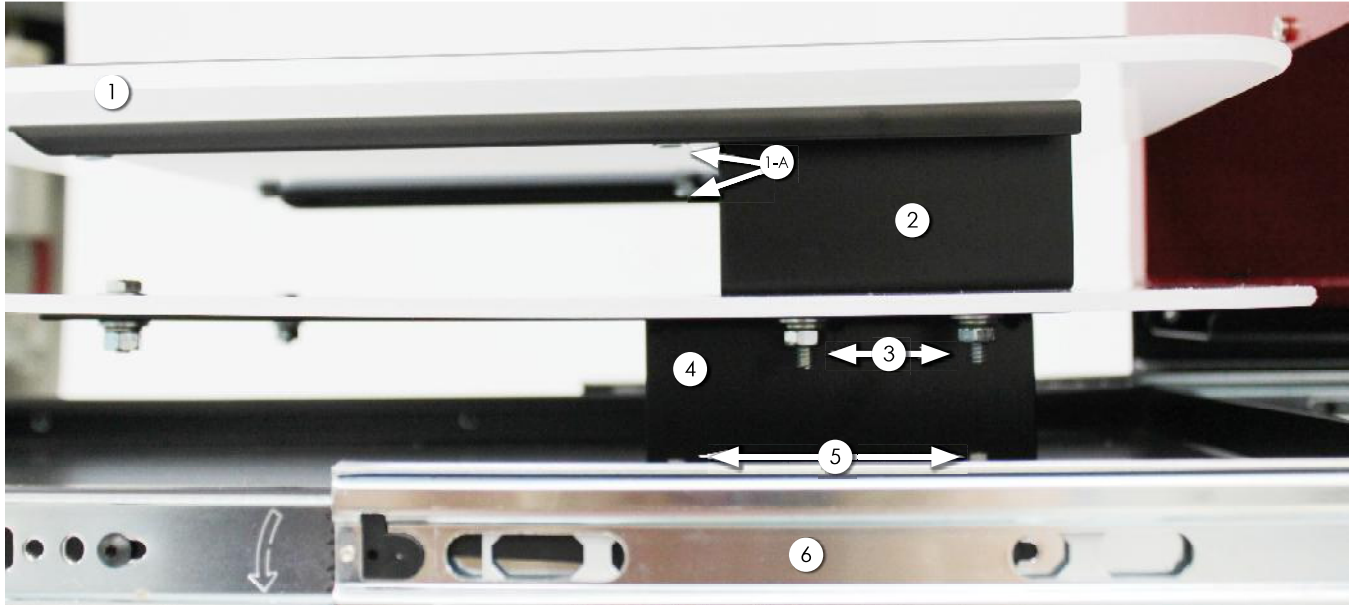


	Description	Part #
1	Quick Body	945-512-0
2	Quick Exchange Cap	945-512-3
3	Spray Tip: WENL*	945-501-2
4	Fluid Electric Valve	945-307-8

*Subject To Change

	Description	Part #
7	Spray Tip	XXX
8-A	Cap/Tip Gasket	945-540-1

PLATEN and DRAWER - Zoom, XL, AE and Pro Versions



	Description	Part #
1	Standard Platen 16"w x 20"l	945-711-2
1-A	Platen Attachment Flat Screw	945-710-6
2	Top Platen Stand	945-712-4
3	Top Platen Stand Bolts	945-712-7
4	Bottom Platen Stand	945-712-5
5	Bottom Platen Stand Bolts	945-712-8
6	Drawer Slide #28	945-712-9B



This photo shows dried pre-treat solution being peeled up from the inside of the spray chamber. It is important to clean your unit to protect your investment.



Leveling Leg Adjustment Bolts

Warranty/Service Information Highlights

Please thoroughly read the entire instruction manual prior to operating this piece of equipment. Please call if you have any questions regarding the operation and maintenance of your equipment. Lawson's Service Department is here to help!

NOTE: this "Warranty/Service Info. Highlights" is a supplement, and does not supersede Lawson's standard warranty policies, terms and conditions.

Service Hotline - 314-382-9300 (Mon. - Fri. 8:00 am - 5:00 pm - Central Standard Time)

After Hours/24 Hour Service Pager - 314-382-9865 and press option #6

1. Your Warranty is a Parts Warranty and excludes the Nozzle/Tip, Filter, Spray Head and Pump. The warranty does not include installation, site training, maintenance, repairs or general labor. These services are available at an additional charge on an "as needed" basis.
2. Replacement parts may be sent prior to receiving the original parts back for evaluation. Payment via credit card for the part must be paid prior to shipment. If the part is a warranty item, credit will be issued to the credit card used within 5 days. Warranty parts must be received within 15 days of the replacement part being sent, returned F.O.B. to Lawson, St. Louis, Mo.
3. Lawson will pay for standard, ground UPS on warranty parts shipped within the United States. We do not pay for Air Shipments! If air shipment is desired, these charges must be paid by your company. It is the customer's responsibility to return the part to Lawson.

Payment terms are Credit Card only: We accept Master Charge and Visa for payment.

4. Lawson's warranty is to the original owner for the specified period. It is based on a single eight (8) hour shift, five (5) days per/week operating schedule.