

## **REA DOD 7 JET SYSTEM**

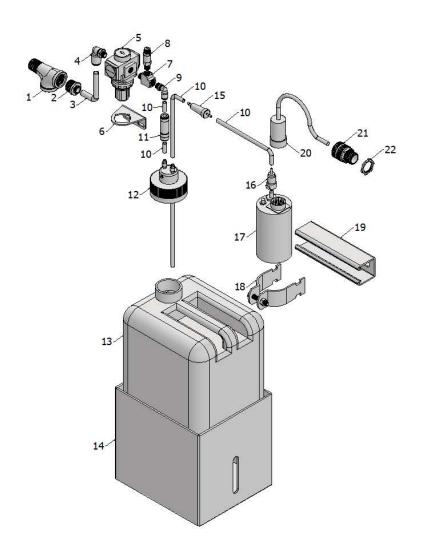
**LAST UPDATED DEC 2022** 

Manufacturer Contact: Rea Elektronik - 440-232-0555 - www.reajetus.com - info@reajetus.com

TABLE OF CONTENT	TS	
1 Installation:	Parts Breakout	1-1
	Example Photos of Installed System (XL-Saw & Websaw)	1-2
	Wiring Diagrams (Cable, XL-Saw, & Websaw)	1-3
	Additional Setup	1-4
2 Maintenance:	Replacing the Ink Bottle	2-1
	Basic & Advanced Cleaning Procedure	2-2
	Cap Rebuild Instructions	2-3
3 Troubleshooting:	Text is Blurry or Light	3-1
	Text is Missing a Line	
	No Print is Visible	

## **GENERAL PRECAUTIONS AND SAFETY NOTES**

- Disconnect print head cable with during software updates, or while troubleshooting output modules!
- Use approved acetone ink and cleaner only. Handle with care. Review product MSDS sheet before handling. Do not store in direct sunlight.
- Never supply more than 10lbs of pressure to the print head. Always use a pressure relief valve. Part number is on installation break out sheet. Additional air pressure will not clean out the print head, it will permanently damage the jets.
- Do not stick anything into the jets, not even a brush, it will severely damage the print head.
- Never let air in the ink lines or print head, it will cause costly repairs! Never run ink bottle completely
  empty, air will be pulled into the line. Replace jug before level drops below pick up tube.
   Fully bleed line of air when reinstalling ink supply to print head.
- When replacing ink jug, replace filter and hose! Never run a print head without a filter!
- Take great caution not to cross ink and supply lines at the bottle. Always use a check valve on the supply line. Part number is on installation break out sheet.
- Clean cap if it does not spin freely. Stuck caps can result in unnecessary removal of the ink and supply lines. See cleaning instructions under maintenance section.
- Do not dilute ink with WD-40 or any other substance.



### MG-0001 REA Installation Kit for Websaw

(SPF0-001, SPPS-004, SPT0-002, SPPL-002, PE-0003-1, PE-0003-2, SPF0-007, SPFC-004, SPPL-001, MD-0012, SPFC-003, MD-0008, MI-0001, F38-01, MD-0009, MD-0010, MA-0002, HM-0003, SRU0-001, EC-0008, SERS-002, SERC-004, EO-0004, EF-0001, SRU0-001, EG-0017, MFR-0016, MFR-0017, EC-0001, EC-0002)

#### MD-0007 Install Kit

(MD-0008,MD-0009,MD-0010,MD-0012, SPFC-003)

### MD-0018 Ink Cap Rebuild Kit

(MD-0016, MD-0017, MD-0012, MD-0020

### MD-0019 REA Refresh

(MD-0018, MD-0009, MD-0012, MD-0010, SPFC-003)

### PE-0003-3 Regulator Kit

(PE-0003-1,PE-0003-2, SPPL-002, SPPL-001,SPF0-007,SPFC-004)

#	DESCRIPTION	PART NUMBER
1	Street Tee 1/2" NPT M-F-F	SPF0-001
2	Push to Connect	SPPS-004
	1/2" NPT to 3/8" Tube	
3	Tube 3/8"	SPT0-002
4	Push to Connect	SPPL-002
	1/8" NPT to 3/8" Tube 90	
5	Regulator	PE-0003-1
	(Preset for 10 PSI @ 65 PSI)	
6	Regulator Mount	PE-0003-2
7	Tee 1/8" NPT M-F-F	SPF0-007
8	Blow Off Valve (10 PSI)	SPFC-004
9	Push to Connect	SPPL-001
	1/8" NPT to 1/4" Tube 90	
10	Tube 1/4"	MD-0012 (REA# PL4)
11	Check Valve (1/4" Push to Connect)	SPFC-003
12	Ink Cap (5L)	MD-0008 (REA# 050.070.013)
	Cap Gasket	MD-0016 (REA# 050.070.034)
	Cap Tube Adapter	MD-0017 (REA# 050.070.022)
	Screw for Cap M3-0.5 x 6mm	MD-0020
13	Ink – Black (5L)	MI-0001 (REA# 2600-357 5L)
	Cleaner (5L)	MI-0002 (REA# 0060-05L)
14	Ink Box 11g Stainless	F38-01
15	Filter	MD-0009 (REA# 050.070.012)
16	Tube Side Coupling (Metal)	MD-0010 (REA# 050.070.042)

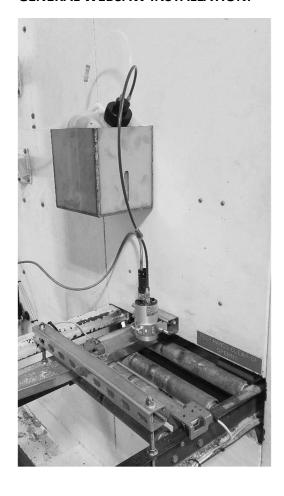
#	DESCRIPTION	PART NUMBER
	Head Side Coupling	MD-0011 (REA# 050.330.110)
	O Ring for Coupling	MD-0014 (REA# 050.330.121)
17	Print Head DOD 7 Jet (130)	MA-0002 (REA# 053.322.130)
	Screws for Print Head Plate M2-0.4 x 6mm	MD-0015
18	Print Head Clamp	HM-0003
19	Uni-strut Mount 6"	SRU0-001
20	Print Cable	EC-0008
	Cable Head Side Connector	MD-0014 (REA# 050.850.219)
21	Strain Relief	SERS-002
22	Strain Relief Nut	SERC-004
	Resistor Pack	EO-0004
	Output Module	EF-0001
	XL-Saw Print Guard	F58-01
	Websaw Uni-strut Guard 18"	SRU0-001 / SFA0-004
	Keyence Through Beam Set	EG-0017
	Through Beam Mount A (Tail)	MFR-0016
	Through Beam Mount B (Fence)	MFR-0017
	Sensor Cable (90 Degree)	EC-0001
	Sensor Cable (Straight)	EC-0002

## **GENERAL XL-SAW INSTALLATION:**



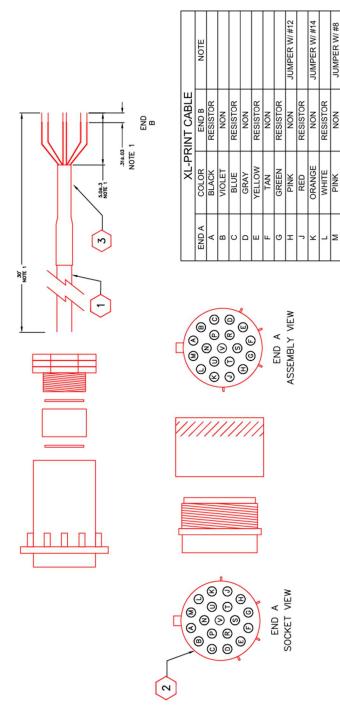


# **GENERAL WEBSAW INSTALLATION:**









MATERI/ PART # Multicable # L8022-12CSF REA # 050.850.219	ST	DESCRIPTION	12 Conductor, 22 Guage Shielded	REA-JET 19 Pin Connector for SK-7	SHRINK TUBE, BLACK	
≥	MATERIAL LIST	TEM PART #				

JUMPER W/#10

RESISTOR

BROWN

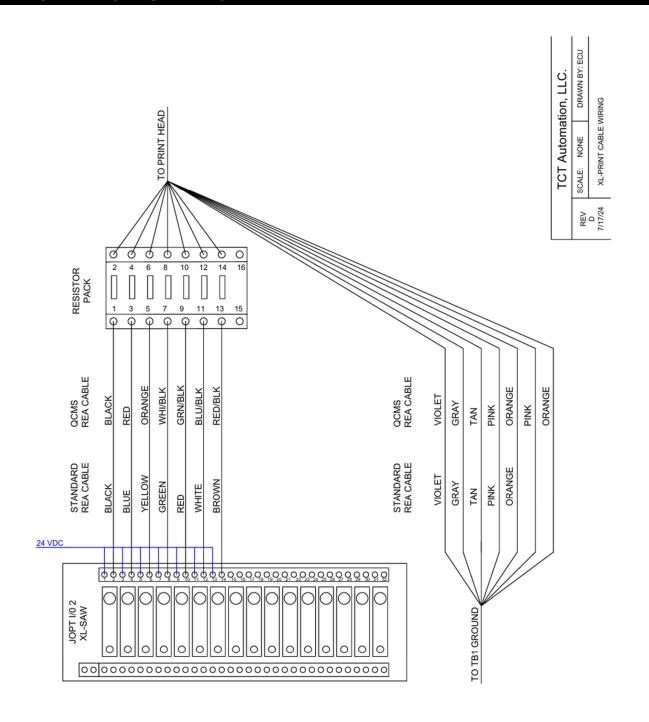
zac

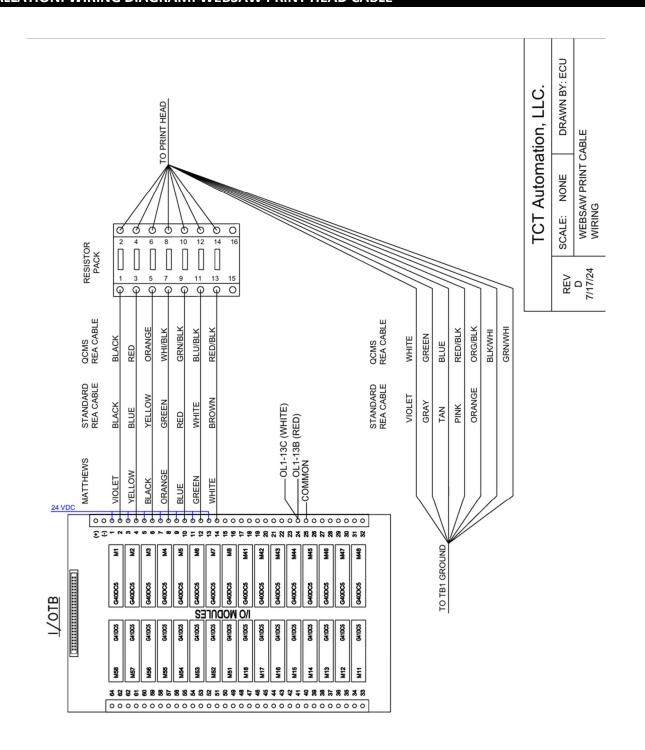
NON

NOTES:

 VENDOR SHALL SUPPLY END B SQUARE CUT. INSTALLER SHALL CUT TO FINISHED LENGTH (STRIP & TIN PRIOR TO INSTALLATION)

TCT Automation, LLC.	DRAWN BY: ECU	CABLE
TCT Automa	SCALE: NONE	EC-0008 XL-PRINT CABLE
	REV	D 7/17/24





**DRAWN BY: ECU** 

SCALE: NONE

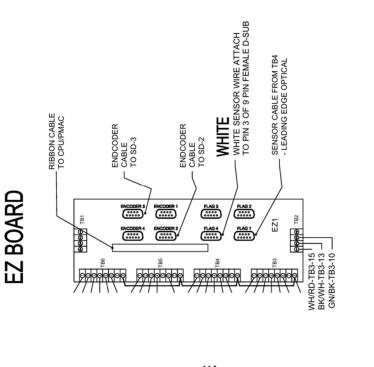
WEBSAW PRINT SENSOR CABLE WIRING

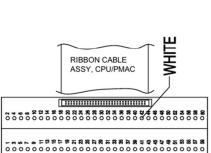
REV D 7/17/24

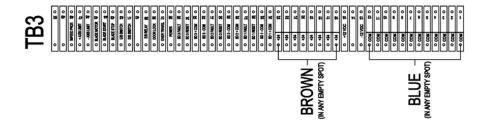
TCT Automation, LLC.

NOTE: BLACK NOT USED

60TB

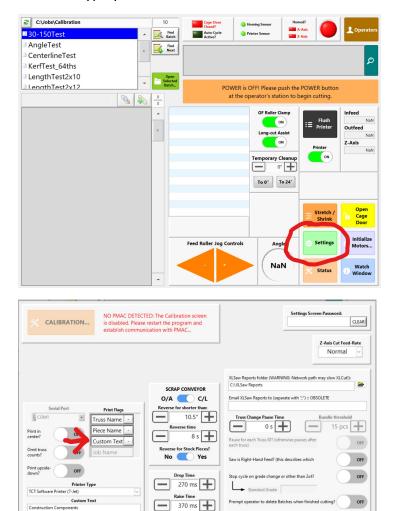






INSTALLATION: SETUP 1-4

Additional text can be added. Go to "Settings" on the operator screen, select "Custom Text" in the drop down, and then type your custom text in the box below.



## **MAITENANCE: REPLACING THE INK BOTTLE**

SAVE CHANGES

2-1

Turn off air supply at main regulator. Bleed off system air using dump valve or air chuck. For saws equipped with check valve, the air bottle will still be pressurized at 10 PSI. Slowly remove ink cap to let pressure out of the bottle. Ink bottle will not lift from stainless housing until it is deflated. Secure cap back to old bottle and lift and set aside. Put new still sealed bottle into the housing, remove seal and lid after the bottle is in place. Transfer pickup cap to the new bottle and tighten. Confirm there are no air bubbles in the line. Bleed line as necessary.

Do not contaminate the inside of cap or pickup stick with dirt or sawdust.

Change your filter with every 1-2 jugs of ink.

Never dilute the ink with any substance.

#### **REA FLUSHING PROCEDURE:** TO BLEED AIR FROM BOTTLE TO PRINTHEAD





Place a scrap piece of ink line into a plastic bottle, grab it with your fingers and then push the quick connect end on the ink line in the bottle. Push the connector on the line in the bottle to release the valve and flush ink into the bottle until the ink line has no visible air bubbles in it.

# **MAITENANCE: BASIC CLEANING PROCEDURES**

2-2

See parts list on (1-1) for supplies to complete below maintenance.

**Every Shift:** Spray off print head jet plate with solvent. Acetone in a squeeze bottle will work.

Do not use WD-40 or Alcohol on print head.

Take caution to keep acetone away from the cable connection and the top of the print head itself.

Do not use compressed air, brushes or any other tool to pick at or disturb the jet plate.

Every 1 – 2 Ink Bottles: Replace ink line and filter. Bleed line and filter of all air bubbles.

When replacing line, inspect o ring in ink line to print head coupling for damage or wear.

#### As Needed:

Remove and clean ink pick up cap when build up prevents cap from spinning freely. See below.

Replace any leaking fittings before air bubbles occur in ink lines.

# **MAITENANCE: ADVANCED CLEANING PROCEDURES**

2-2

**For clogged heads and missing jets:** Never increase air supply to print head to clear clogs. This will cause damage to the internals and jets of the print head, which will require repair by the manufacturer.

Remove ink line and cable from print head. Remove print head from mount. Set print head into a shallow pan of not more than ¼" of acetone to soak. This should soften ink build up. Gently remove the 4 phillips head screws from the base plate. Take caution not to introduce additional debris to print head. Do not set base plate face down. Do not ream holes of base plate or use compressed air, brushes or any other tool to pick at or disturb the jet plate. Repeat the soak process with the jet plate removed. Use squeeze bottle of acetone to gently was away build up. Replace jet plate in the original orientation. It is recommended to use new screws to prevent stripping. See (1-1) for part information. Reinstall print head in the reverse order that it was removed. See below note about orientation. Inspect O-Ring at ink line coupling for damage. Bleed air from ink line as needed before re-installing.

If clog persists, install plain acetone bottle in place of the ink bottle. See part number for 5L bottle of clean acetone on (1-1). Pressurize acetone bottle and flush print head as needed. Flush using small bursts from the flush button. Once all seven jets are flushing clean acetone, reinstall ink bottle taking all steps from (2-1). It will take a considerable amount of flushing to get ink flowing back through the print head. Use this method as a last resort.

**For severely clogged or otherwise damaged print heads:** Return to manufacturer for rebuild, cleaning and recalibration.

**Long term storage of print head:** Flush head with acetone as described above to prevent ink drying inside of the print head.

**Print head orientation:** When replacing print head, take caution to confirm the orientation. Align jets with opening in print guard. If text is upside down or italic, the printhead needs to be repositioned.

## **MAITENANCE: CAP REBUILD INSTRUCTIONS**

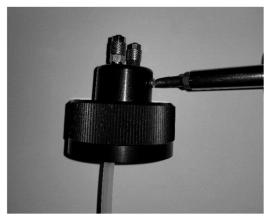
2-3

These caps are 100% repairable! Save money by disassembling, cleaning and repairing with new your existing solid machined aluminum cap.

When the cap gets loaded up with ink and doesn't spin freely, operators have been known to remove the pressure and supply lines to change lids. This can cause costly errors by reinstalling the tubes on the incorrect pickup lines. If the pressure and supply line are incorrectly swapped, it can back feed your machine with ink.

Always use a check valve on the supply line to prevent ink back feed. Part number

MD-0018 Kit Includes: 1 Gasket, 2 Hose Adapters, 1 Pickup Stick with Adapter, 1 M3 x 6mm Screw



Step 1: Remove Set Screw



**Step 3:** Use a 5/16" wrench to remove all three ink line adapters. Use caution not to over tighten on reassembly. Be sure that o-ring is in place around base of adapter.



**Step 2:** Slide inner part through thead side of cap, remove cap seal.



**Step 4:** Clean aluminum inner and outer cap parts with acetone, reassemble by reversing steps.

# TROUBLESHOOTING 3-1

**If the Text is Blurry:** Check that you have between 5-10 psi at the small regulator. Do not go above 10psi it will destroy the diaphragms inside the print head. If this does not resolve the issue, see next step.

If the Text is Blurry (On Websaw Only): Confirm than print delay in the settings scree is about 100ms.

If the Text is Blurry or Missing a Line of Text: Soak the very end of the print head in acetone, then gently wipe away debris with a soft cloth. Do not use a brush. Never poke at jets, it will destroy them. If great care is taken (read REA leaning guide first), the base plate can be removed. Then soak to remove more debris.

If you have a method for pressurizing the bottle (REA cleaner # 0060-05L will accept your ink cap) you can flush cleaner through the print head.

Missing a Line in Text: Hit the flush button and check if all 7 jets are spraying ink. Hit flush button and check if 7 Red Outputs are lighting up on the I/O board. If the head is not spraying all 7, but all 7 light up on the I/O board. Checking the cable for voltage at all 7 pins should be done next. Call a TCT technician to assist with this.

**If Text is Upside Down or Italic:** Adjust the physical printhead in its clamp. May be 180 degrees from proper alignment position.

**No Print at All:** Confirm printer setting is "on" in saw "Settings" window. Confirm there is 5-10psi in the system. Test unit by hitting "Flush" button. It takes longer than expected to fully expel acetone cleaner and begin ink feed.