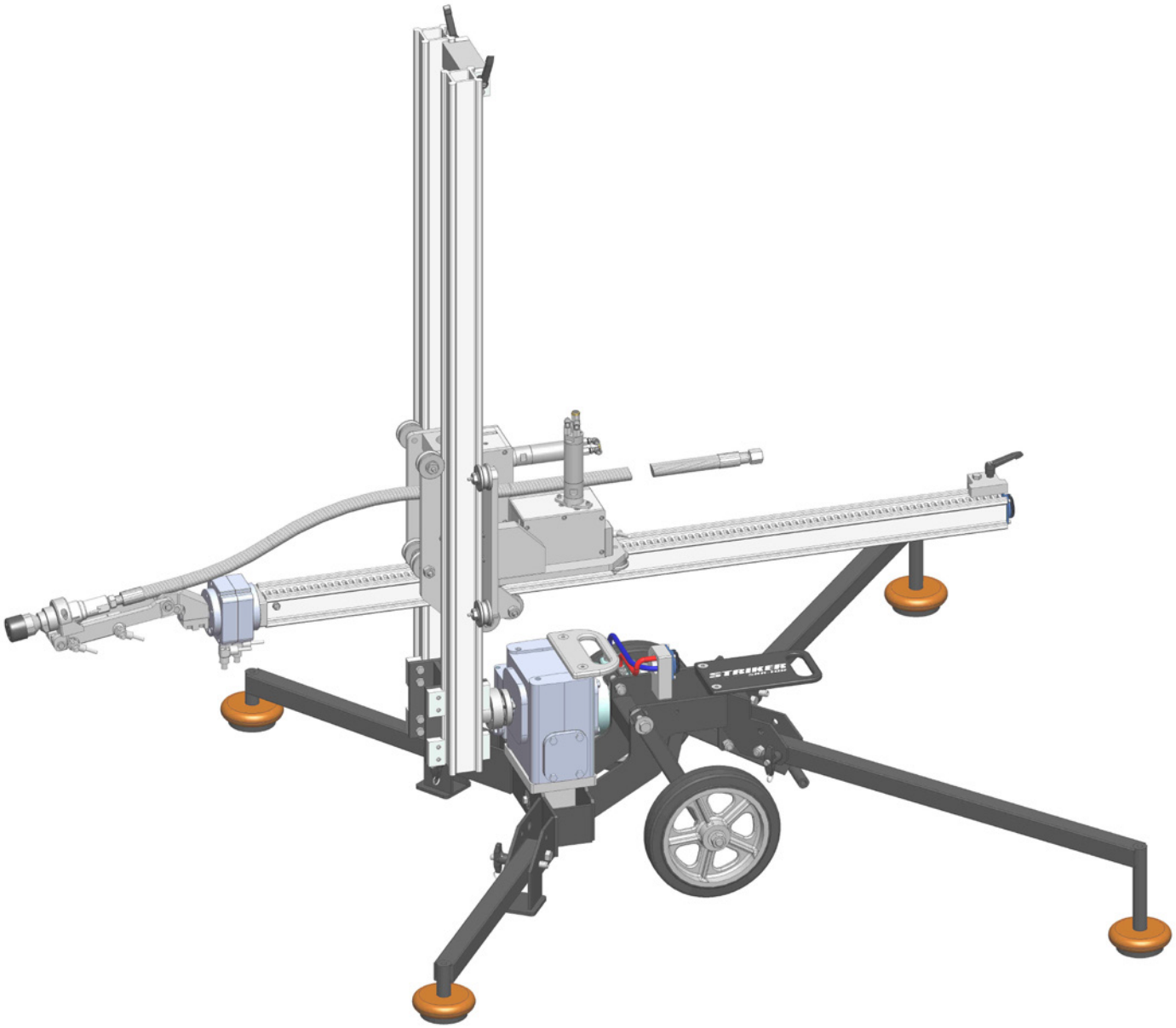
StoneAge®
ENGINEERING THE POWER OF WATER

STRIKER™ (SKR-100)
QUICK START MANUAL



REV A
(06/2015)

TABLE OF CONTENTS

MANUFACTURER'S INFORMATION

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www.stoneagetools.com

This manual must be used in accordance with all applicable national laws. The manual shall be regarded as a part of the machine and shall be kept for reference until the final dismantling of the machine, as defined by applicable national law(s).

OPERATOR TRAINING

Managers, Supervisors, and Operators MUST be trained in Health and Safety Awareness of High-pressure Water Jetting and hold a copy the Water Jetting Association (WJA) Code of Practice, or equivalent (see www.waterjetting.org.uk).

Operators MUST be trained to identify and understand all applicable standards for the equipment supplied. Operators should be trained in manual handling techniques to prevent bodily injury.

Operators MUST read, understand, and follow the Operational and Training Requirements (Section 7.0) of WJTA-IMCA's Recommended Practices For The Use Of High-pressure Waterjetting Equipment, or equivalent.

Operators MUST read, understand and follow the Warnings, Safety Information, Assembly, Installation, Connection, Operation, Transport, Handling, Storage, and Maintenance Instructions detailed in this manual.

StoneAge has designed and manufactured this equipment considering all hazards associated with its operation. StoneAge assessed these risks and incorporated safety features in the design. StoneAge **WILL NOT** accept responsibility for the results of misuse.

IT IS THE RESPONSIBILTY OF THE INSTALLER/OPERATOR to conduct a job specific risk assessment prior to use. Job specific risk assessment MUST be repeated for each different set up, material, and location.

The risk assessment MUST conform to the Health and Safety at Work Act 1974 and other relevant Health and Safety legislation.

The risk assessment MUST consider potential material or substance hazards including:

- Aerosols
- Biological and microbiological (viral or bacterial) agents
- Combustible materials
- Dusts
- Explosion
- Fibers
- Flammable substances
- Fluids
- Fumes
- Gases
- Mists
- Oxidizing Agents

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

Use of Personal Protective Equipment (PPE) is dependent on the working pressure of water and the cleaning application. Managers, Supervisors, and Operators MUST carry out a job specific risk assessment to define the exact requirements for PPE. See Protective Equipment for Personnel (Section 6) of WJTA-IMCA's Recommended Practices For The Use Of High-pressure Waterjetting Equipment for additional information.

Hygiene - Operators are advised to wash thoroughly after all waterjetting operations to remove any waterblast residue which may contain traces of harmful substances.

First aid provision - users MUST be provided with suitable first aid facilities at the operation site.

PPE may include:

- **Eye protection:** Full face visor
- **Foot protection:** Kevlar® brand or steel toe capped, waterproof, non-slip safety boots
- **Hand protection:** Waterproof gloves
- **Ear protection:** Ear protection for a minimum of 85 dBA
- **Head protection:** Hard hat that accepts a full face visor and ear protection
- **Body protection:** Multi-layer waterproof clothing approved for waterjetting
- **Hose protection:** Hose shroud
- **Respiratory protection:** May be required; refer to job specific risk assessment

⚠WARNING

Operations with this equipment can be potentially hazardous. Caution MUST be exercised prior to and during machine and water jet tool use. Please read and follow all of these instructions, in addition to the guidelines in the WJTA Recommended Practices handbook, available online at www.wjta.org. Deviating from safety instructions and recommended practices can lead to severe injury and/or death.

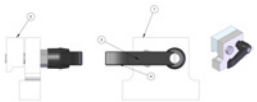
- Do not exceed the maximum operating pressure specified for any component in a system.
- The immediate work area MUST be marked off to keep out untrained persons.
- Inspect the equipment for visible signs of deterioration, damage, and improper assembly. Do not operate if damaged, until repaired.
- Make sure all threaded connections are tight and free of leaks.
- Users of the SKR-100 MUST be trained and/or experienced in the use and application of high-pressure technology and cleaning, as well as all associated safety measures, according to the WJTA Recommended Practices for the use of High-pressure Waterjetting Equipment.
- The Control Box should be located in a safe location where the Operator has good visibility of the placement of the tool. The SKR-100 and Control Box MUST be supervised at all times and should never be left unattended.
- Test the Control Box before operating the SKR-100 Hose Tractor with high-pressure water to verify the control valves move the hose in the intended direction, and that the dump valve and hose clamp are working properly.
- Always de-energize the system before opening the door to service or replace any parts. Failure to do so can result in severe injury and/or death.
- When moving the SKR-100 lift with care to prevent bodily injury.

PRE-RUN SAFETY CHECK

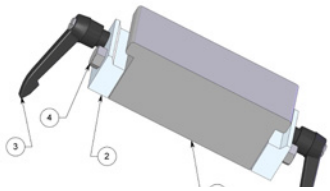
Refer to WJTA-IMCA's, Recommended Practices For The Use Of High-pressure Waterjetting Equipment and/or The Water Jetting Association's, WJA Code of Practice for additional safety information.

- Complete a job specific risk assessment and act on the resulting actions.
- Adhere to all site specific safety procedures.
- Ensure the waterblasting zone is properly barricaded and that warning signs are posted.
- Ensure the work place is free of unnecessary objects (e.g. loose parts, hoses, tools).
- Ensure all Operators are using the correct Personal Protective Equipment (PPE).
- Check that the air hoses are properly connected and tight.
- Check all hoses and accessories for damage prior to use. Do not use damaged items. Only high quality hoses intended for waterblast applications should be used as high-pressure hoses.
- Check all high-pressure threaded connections for tightness.
- Test the Control Box before operating the SKR-100 with high-pressure water to verify the control valves move the Wrist and Tool in the intended directions.
- Ensure that Operators never connect, disconnect, or tighten hoses, adaptors, or accessories with the high-pressure water pump unit running.
- Ensure no personnel are in the hydroblasting zone.

SKR-100 AND CONTROL BOX SYSTEM ASSEMBLY



BU 152 RAIL STOP



TIE STOP ASSEMBLY

SKR-100 SET-UP - LEG ASSEMBLIES

1. Mount the Long and Short Legs to the Cart as shown in **(Figure 1)**

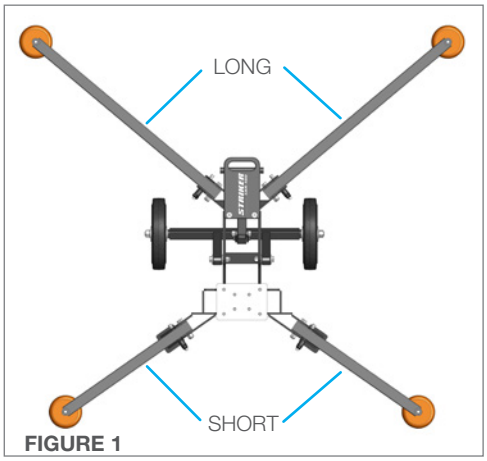


FIGURE 1

2. Install the supplied 1/2" Bolt and Lock Nut as shown in **(Figure 2).** Insert Quick Release Pins where shown after bolts are tightened and range of motion is tested.

FIGURE 2

3. Tighten all the way with two 3/4" Wrenches, then back out approximately 1/2 turn to allow leg to pivot. **(Figure 3)**


FIGURE 3

4. Test the Leg Assembly by lifting up and down to ensure it moves freely. **(Figure 4)** Repeat 2 through 4 for the remaining 3 Leg Assemblies.

****Verify Long and Short Legs are in the appropriate positions based on (Figure 1).**


FIGURE 4

5. Place the Gearbox Assembly on the Mounting plate as shown in **(Figure 5)**. Install Wedge Bolt through Cart Weldment and Gearbox Mount. Tighten Wedge Bolt until secure.

****NOTE: Orient Wedge Bolt flats as shown in (Figure 5).**

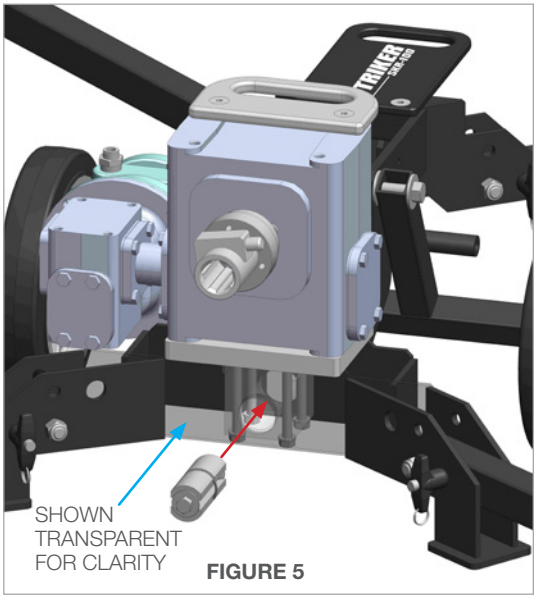


FIGURE 5

6. Install the Vertical Rail Assembly by aligning the splines and depressing the spring pin on the spline coupling. **(Figure 6)** Make sure the spring pin is fully engaged. Proper placement of Hub Pin between Rail Clamps is shown below. **(Figure 7)**

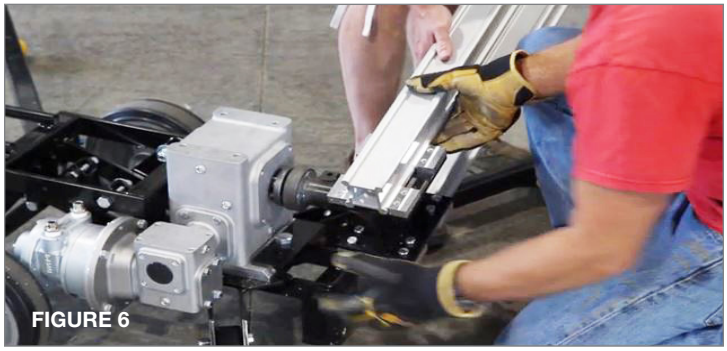


FIGURE 6

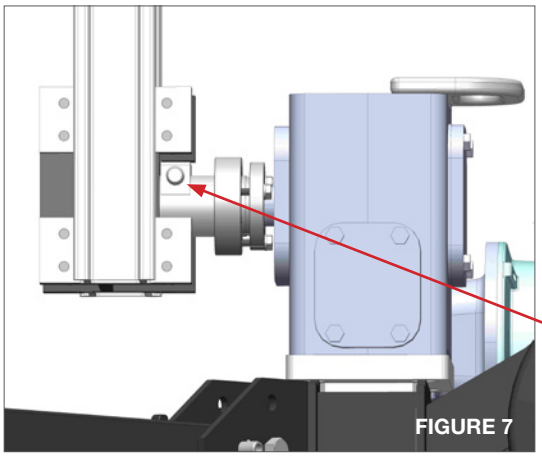


FIGURE 7

HUB PIN BETWEEN RAIL CLAMPS, SHOWN HERE WITH RAILS IN VERTICAL POSITION.

7. Positioning the Vertical Rail Assembly in the horizontal position makes it easier to install the Carriage Assembly. **(Figure 8)**


FIGURE 8

1. Slide the Carriage down the rails to about mid-way **(Figures 1,2)** and engage the drive gear by releasing the lever, engaging the gear into the slots and the rail, and tightening the lever.

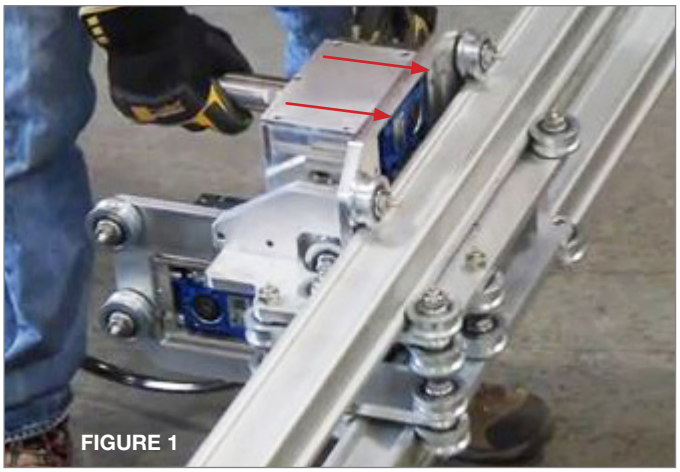


FIGURE 1

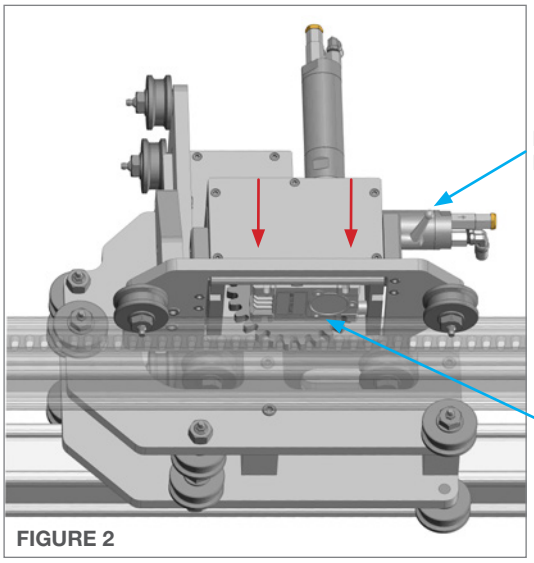


FIGURE 2

2. Install Horizontal Rail Assembly with Wrist through Carriage Assembly. **(Figure 3,4).** The Rotary Wrist Actuator has 270 Degrees of motion. The Horizontal Rail is slotted on top and bottom to allow the center of rotation point to upward or downward.

FIGURE 3

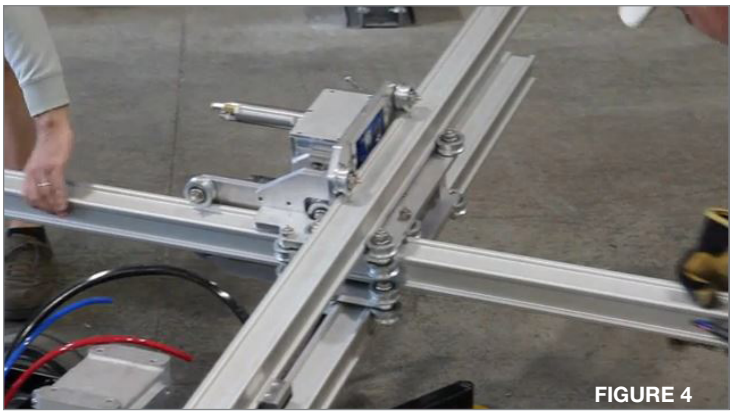


FIGURE 4

5. Install Socket Mount Plate from the Carriage Assembly to the Cart. **(Figure 5)**. Make sure Spring Pin is fully engaged. **(Figure 6)**.

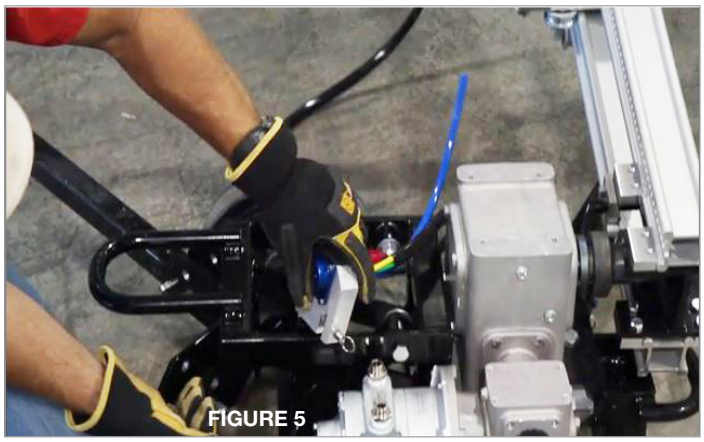


FIGURE 5

SPRING PIN

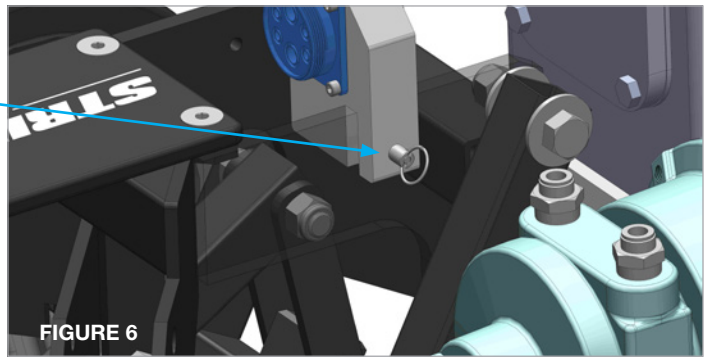


FIGURE 6

6. Install Red and Blue tubing to air motor as shown in **(Figure 7)**. Check the orientation as shown in **(Figure 8)**.

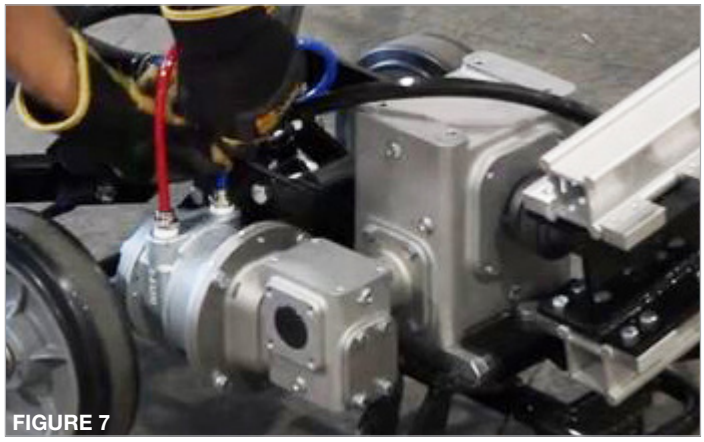


FIGURE 7

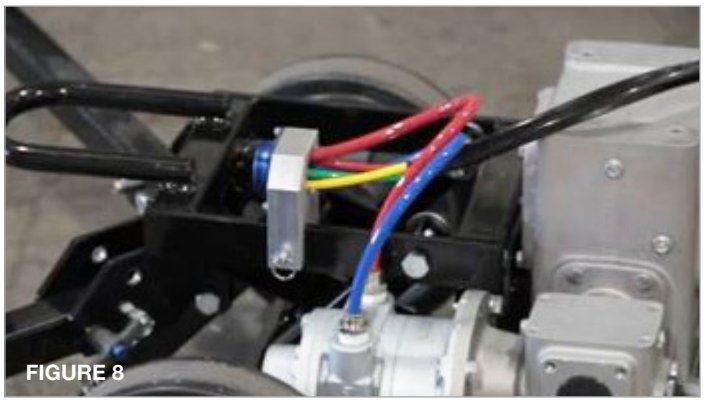


FIGURE 8

SKR-100 SET-UP - RAIL STOPS

1. Install the Tie Rail Stop to the end of the Vertical Rail Assembly. **(Figure 1)**

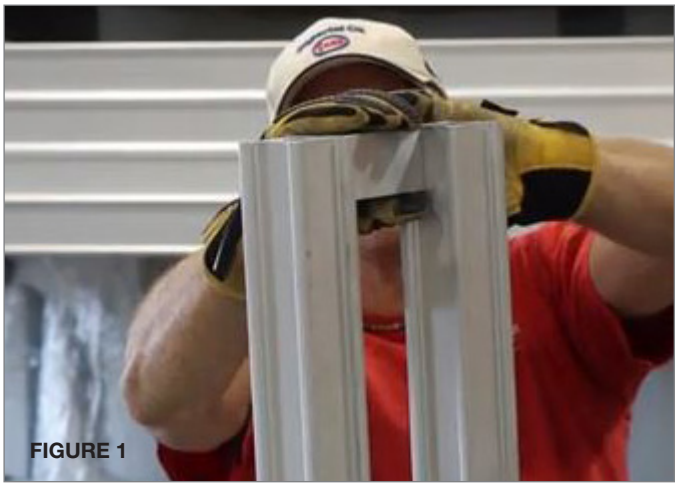


FIGURE 1

2. Orient the Release Levers so they face away from Carriage Assembly to keep them from being broken off by the carriage during operation. **(Figure 2).**

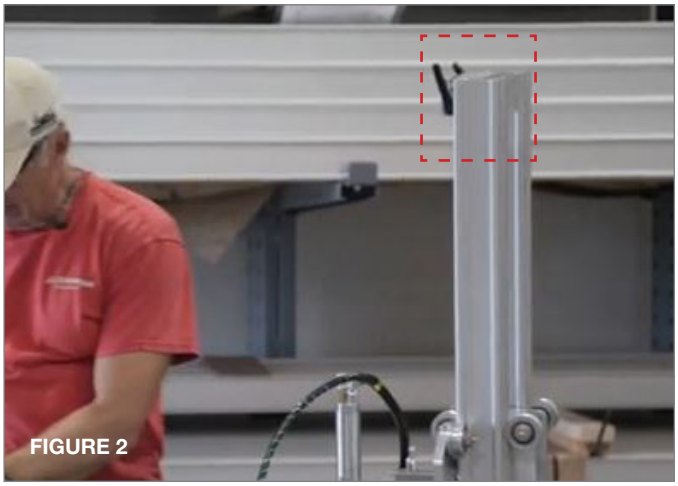


FIGURE 2

3. Install the Rail Stop on the end of the Wrist Rail Assembly and orient the Release Lever away from the Carriage Assembly. **(Figure 3)**

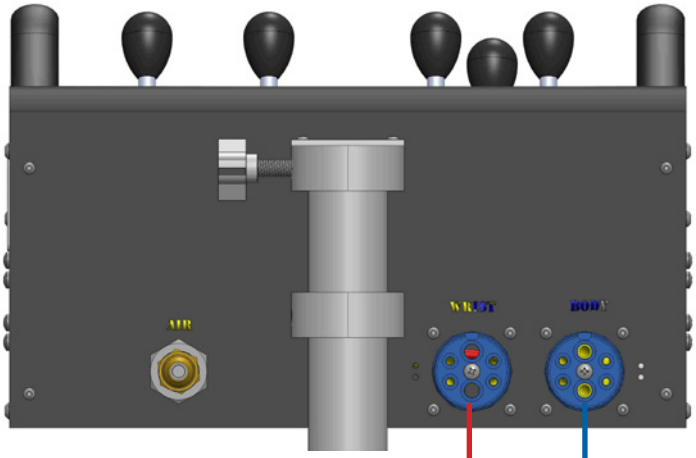

FIGURE 3

PNEUMATIC SUPPLY LINE CONNECTIONS

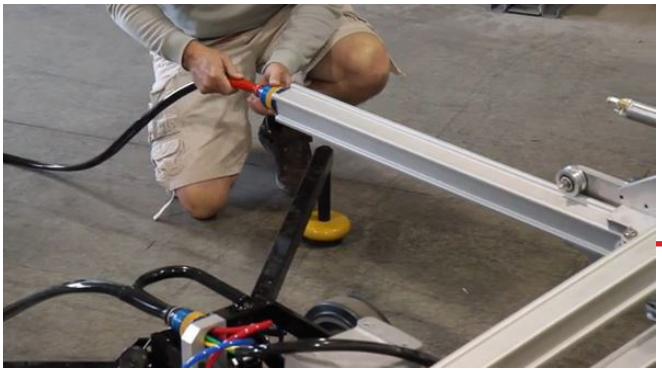
1. Remove the dust caps from both plugs on the Control Box and the SKR-100.
2. Connect the SKR-100 to the Control Box by plugging the red umbilical into the plug marked “Wrist” and the blue umbilical into the plug marked “Body”. Verify the Control Box rotates, flexes, raises, and lowers, the wrist and rotates the assembly left and right correctly.
3. Familiarize yourself with the Control Box functions by hooking up to air, before operating the SKR-100 with high pressure water.

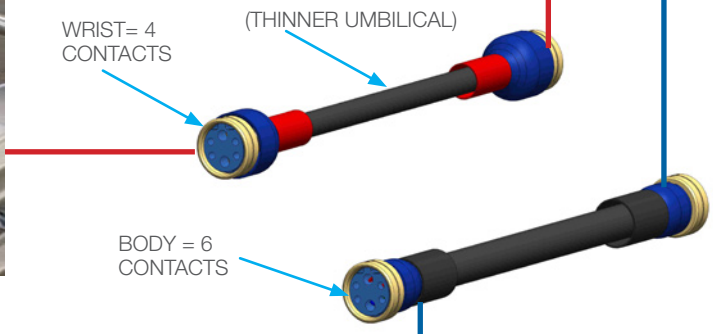
BODY = 6 CONTACTS

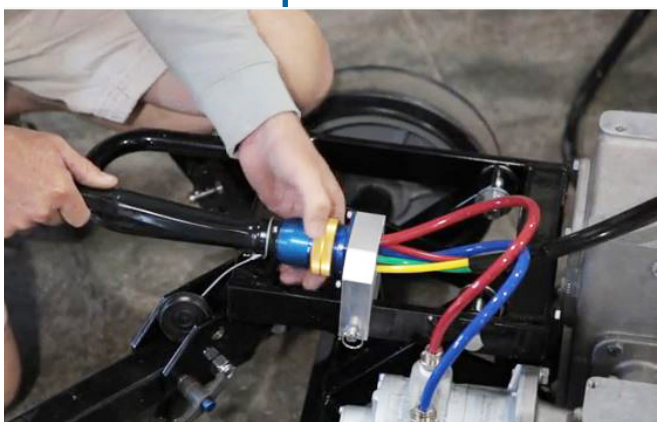
WRIST= 4 CONTACTS



REAR VIEW







SKR-100 SET-UP - TOOL AND HIGH PRESSURE HOSE

1. Insert the High Pressure Hose. **(Figure 1)**
   See Detail **(Figure 2)**

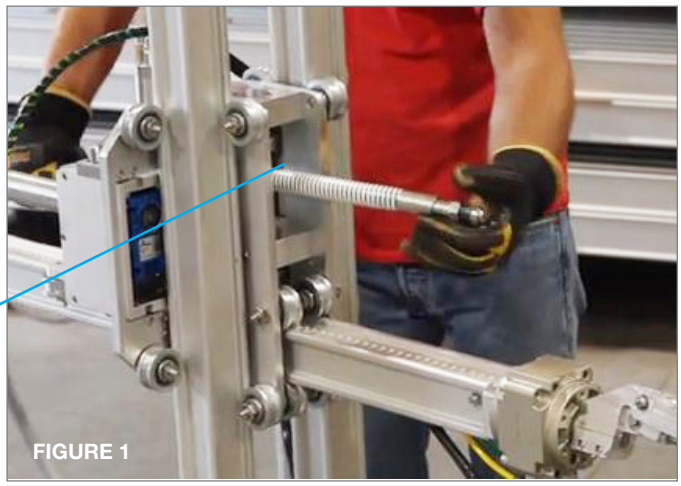


FIGURE 1

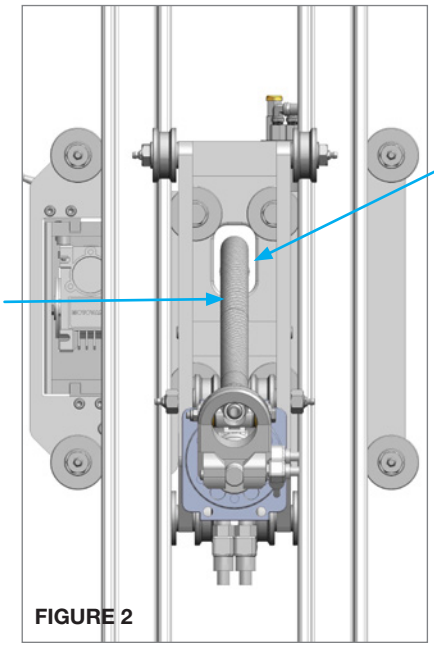


FIGURE 2

2. Fasten High Pressure Hose to Tool **(Figure 3)**. The hose end is a 9/16" medium pressure connection, with a modified gland nut and standard collar.

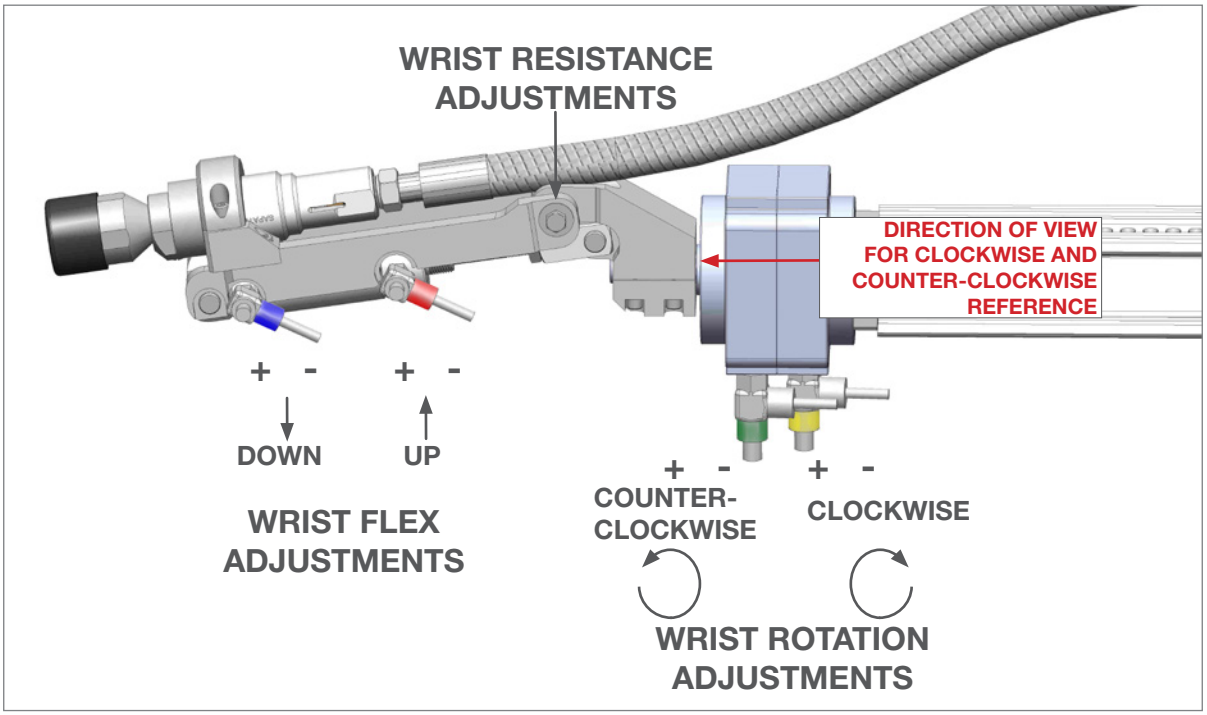

FIGURE 3

3. Tighten Tool and High Pressure Hose Connection **(Figure 4).**
4. Tighten Wrist Clamp to Tool **(Figure 5).**

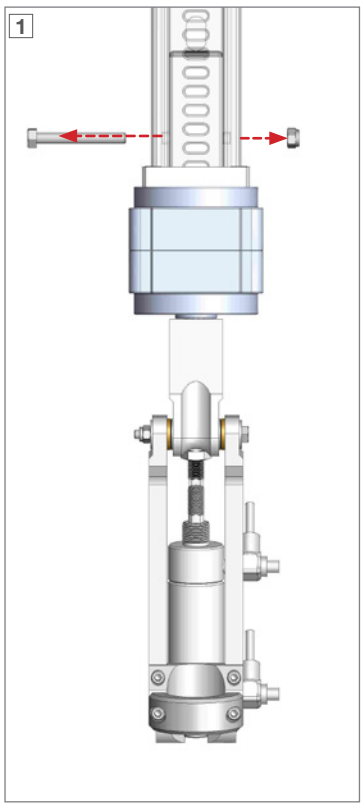

FIGURE 4

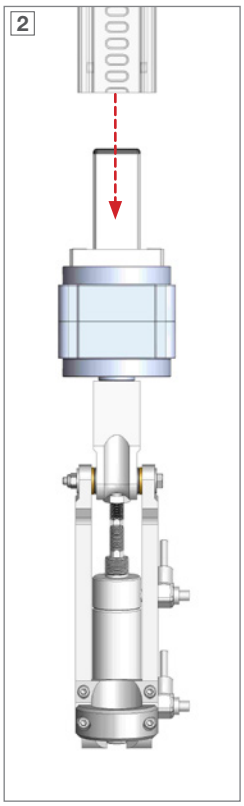

FIGURE 5

WRIST SPEED CONTROL ADJUSTMENTS

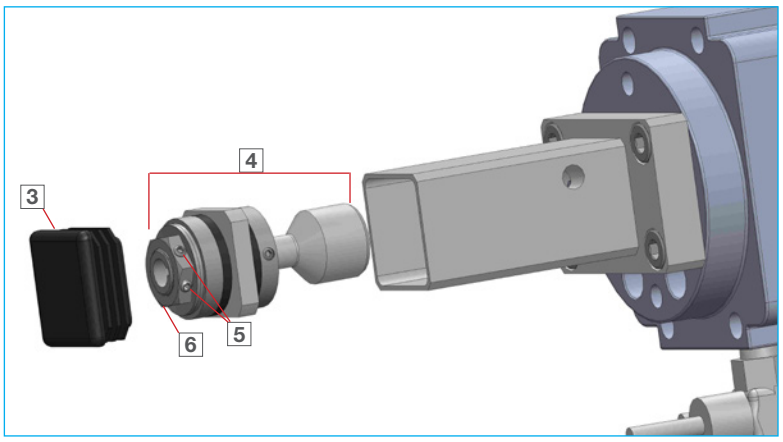


WRIST RESISTANCE ADJUSTMENTS



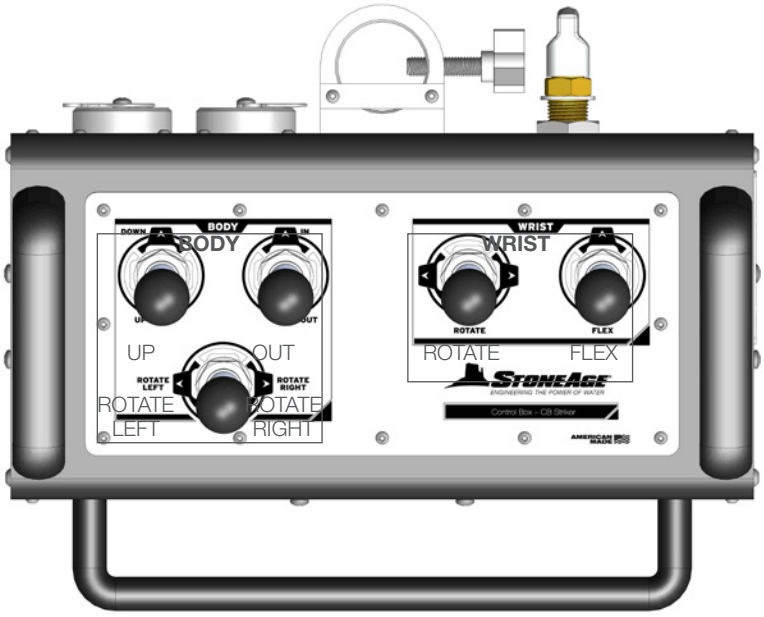


1. Remove Bolt and Lock Nut From the Rail and Wrist Assembly.
2. Pull the Wrist Assembly free of the Rail.
3. Remove the black plastic end cap from the end of the Wrist Assembly.
4. Remove the Friction Torque Limiter and Shaft
5. Loosen set screws.
6. Adjust nut to the left for less resistance and tighten to the right for increased resistance.

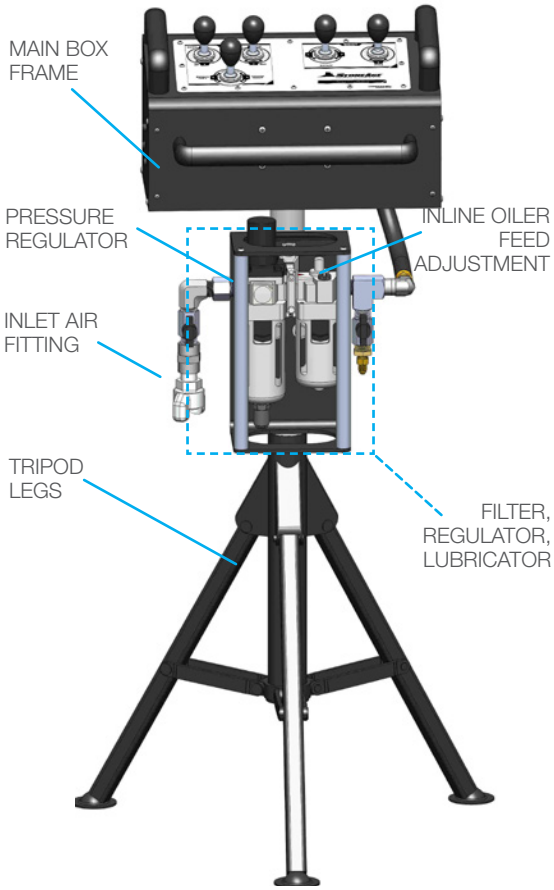


CONTROL BOX - OVERVIEW

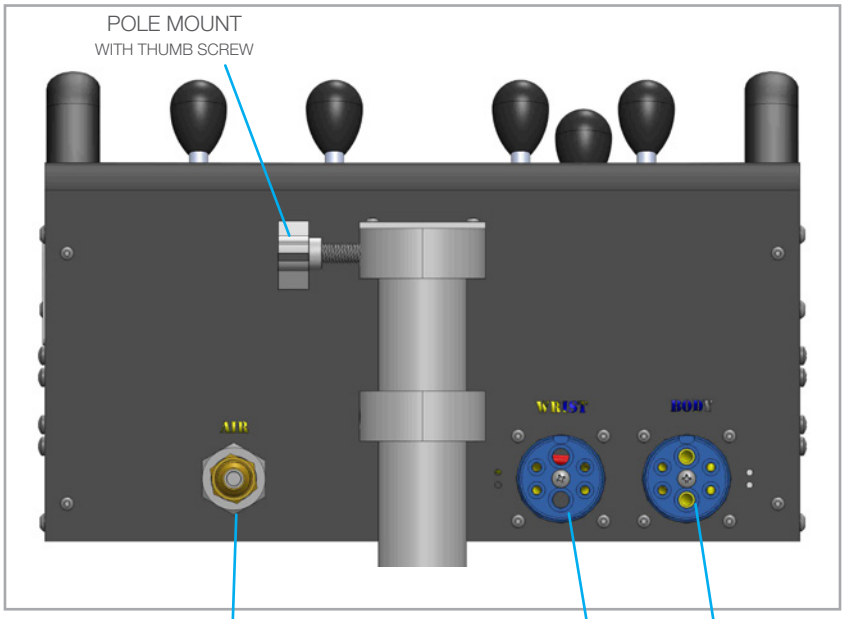
CONTROL BOX
TOP VIEW



CONTROL BOX
FRONT VIEW



CONTROL BOX
REAR VIEW

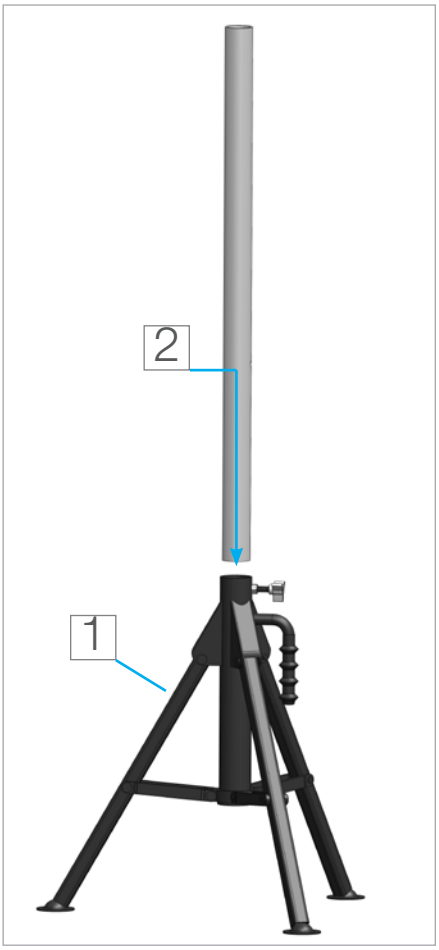


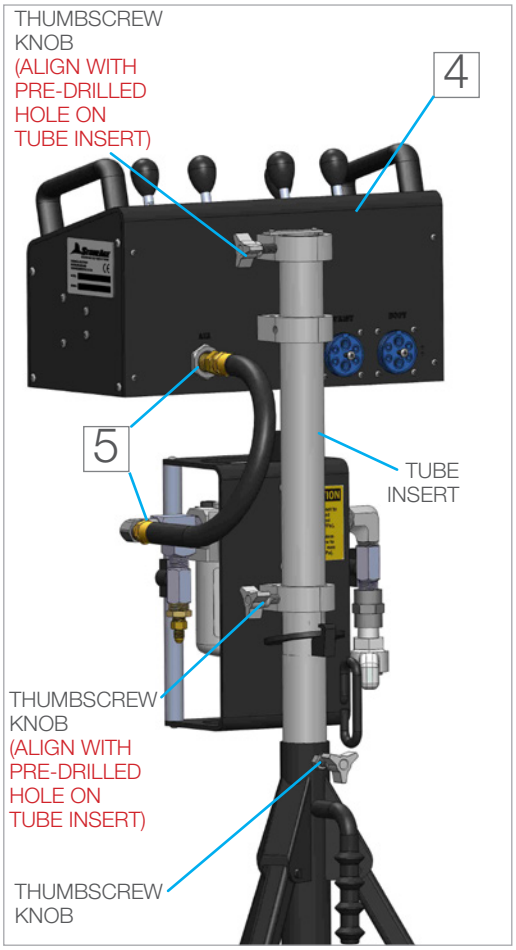
ASSEMBLE CONTROL BOX, FRL, AND TRIPOD BASE

1. Setup the tripod base in a location with good visibility to the bundle face, but at a safe distance away from waterblast zone.
2. Slide the vertical tube into the tripod base. Secure with the supplied thumbscrew knob. Note: The vertical tube has a hole through one wall that the thumbscrew must engage.
3. Slide the Filter, Regulator, Lubricator (FRL) assembly over the vertical tube down to the tripod base. Secure with the supplied thumbscrew knob.

   Note: The vertical tube has a hole through one wall that the thumbscrew must engage.

4. Slide the Control Box over the vertical tube. The Control Box has a stop that keeps it located at the top of the vertical tube. Secure with the supplied thumbscrew knob.
5. Install the short 1/2 in. (1.3 cm) I.D. hose between the FRL and the Control Box.

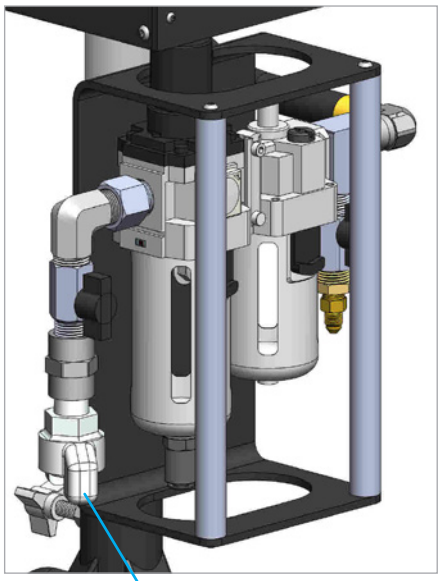




CONTROL BOX AIR SUPPLY FITTING

AIR SUPPLY AND LUBRICATOR SETTING

1. The Control Box is supplied with a twist claw style inlet coupling (Chicago style) located on the side of the FRL Assembly. Connect a compatible compressed air line (not included) according to the Manufacturer's instructions. If another pneumatic connection is preferred, this fitting can be removed and any male 1/2 in (1.3 cm) NPT fitting may be used.
2. Using the regulator adjust the operating pressure to **80 psi (0.55 MPa)** for the application.



AIR SUPPLY FITTING

A universal **AIR SUPPLY FITTING** (Chicago style) is located on the back of the Control Box. Connect a compatible compressed air line (not included) according to the manufacturer's instructions. If another pneumatic connection is preferred, this fitting can be removed and any male ½ in NPT fitting may be used.

⚠WARNING

Minimum operating pressure is 80 psi (0.55 MPa). Never exceed 140 psi (0.97 MPa) supply pressure. Exceeding 140 psi supply pressure may result in injury to the Operator and/or damage to the equipment.

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