OPERATING MANUAL for FRL (FILTER, REGULATOR, LUBRICATOR)

A. Installation

Mounting: Before installation, please make sure all the components are clean and free of dust and to avoid particulate entering into the system. Make sure that the service pressure does not exceed 150 PSI.

Direction of air flow: Make sure the direction of air flow is connected properly. Connect the inlet air to the “IN” direction (the end marked with ►).

Connection of FRL Units: The FRL’s are of modular design and are pre-assembled. It utilizes spacers and brackets to make mounting and connection of different configurations. If there is a need to rearrange or re-assemble the FRL units use the following procedures:

1. Put the FRL units to be joined together side by side, insert a proper size spacer (with gaskets pre-installed) in between the units. Align and butt the units together. Join and fasten the units together using the front and back special purpose mounting brackets. Tighten the screws on the front and back brackets until the units are aligned and tightly joined together.
2. When the FRL units are used independently, remove the screws on the mounting bracket and separate the FRL units.

B. Pressure Regulator:

Pressure adjustment - Turning of the handle of the regulator clockwise will increase the secondary pressure; turning counterclockwise will decrease the pressure.
Before turning the handle, pull the handle up to unlock the turning mechanism, then turn it; after completing the pressure adjustment, push the handle down to lock the turning mechanism. To achieve more accurate pressure setting, low the pressure to 10 % below the desired pressure set point, then turn the handle clockwise gradually to increase the pressure until the desired pressure setting is attained.

C. Filter:

Clean or replace the filter element when there is a significant drop in pressure between the inlet and outlet or when the air flow of the outlet port is evidently reduced.

To change the filter element: Make sure the unit is shut off and depressurized. Remove the bowl guard (if equipped) and remove the filter bowl. Remove the filter element by unscrewing the filter screw or unscrew the filter element. Reverse the procedure to re-install the filter element.

Drain Filter Bowl: The filter drain discharge is divided into three types: Manual Drain, Semi-Auto Drain, Auto Drain.
1. Manual Drain: Drain the filter bowl before it reaches the baffle plate by pressing the drain button located at the bottom of the filter bowl.
2. Semi-Auto Drain: Drain the filter bowl by releasing the pressure inside the filter bowl. The drain button will open automatically when the pressure into the filter bowl reaches atmospheric pressure and will close when the filter is pressurized.
3. Auto-Auto Drain: The filter bowl will drain itself automatically.

D. Lubricator:

Caution: DO NOT USE SYNTHETIC OIL or ORGANIC SOLVENT. THE BOWL IS NOT COMPITABLE WITH SYNTHETIC OIL or ORGANIC SOLVENT!

Method of lubrication and oil volume regulation:
To add oil to lubricator: Make sure the unit is shut off and depressurized. Remove the oil addition port on the top of the lubricator with an Allen wrench. Add oil through the oil addition port to no higher than 80% of the bowl capacity. Use JIS K2213 turbine oil ISO32 or its equivalent.
To adjust oil flow: Turn the oil flow dial to adjust oil flow rate – turn the oil flow dial counterclockwise to increase oil flow, and turn clockwise to decrease oil flow.
To remove the lubricator bowl: Make sure the unit is shut off and depressurized. Remove the bowl guard (if equipped) and remove the lubricator bowl. Reverse the procedure to re-install the filter element.

Maintenance:

Check the operation of the FRL unit monthly to make sure it is in good operating conditions. Increase or decrease frequency depending on the usage.

Drain the filter bowl or replace the filter if necessary.

Add lubricating oil to the lubricator if necessary

Never put synthetic oil or organic solvent into the Filter or Lubricator Bowl – they are not compatible!

Make sure that the service pressure does not exceed 150 PSI

Refer to the catalog for other details.

STC AB Series Lubricator Operating Procedure

To add oil to the Lubricator:

1. Make sure the lubricator is depressurized.
2. Unscrew the metal screw and add oil through the opening to 80% of the bowl capacity.
3. Reinstall the metal screw.

To adjust oil flow:

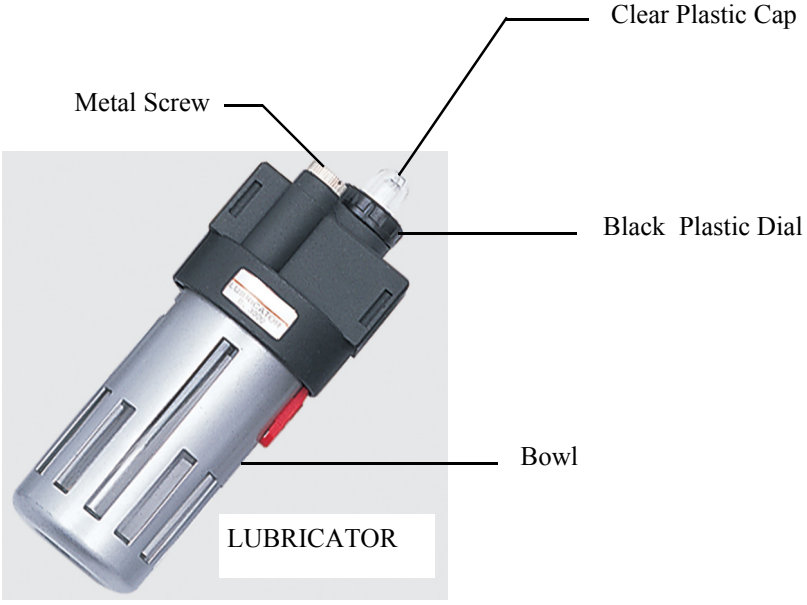
1. Make sure the lubricator is installed properly and is pressurized and is turned on.
2. Turn the black plastic dial clockwise until the desire oil flow is achieved. (Do not turn the black plastic dial in a counter-clockwise direction it may damage the oil flow adjustment pin.)

To calibrate the flow control dial:

1. Make sure the lubricator is depressurized.
2. Set the black plastic dial to the zero mark.
3. Tighten or loosen the clear plastic cap until there is no oil flow when the lubricator is pressurized and is turned on.

To replace the flow control pin:

1. Make sure the lubricator is depressurized.
2. Unscrew the clear plastic cap from the lubricator by turning it counterclockwise.
3. Remove the flow adjustment assembly (the black plastic dial, the cap and the funnel).
4. Remove the brass pin and insert a new pin (make sure the spring is still inside the well).
5. Reinstall the flow adjustment assembly by placing the black plastic dial and the clear plastic cap back on and tighten the dial and cap with fingers.



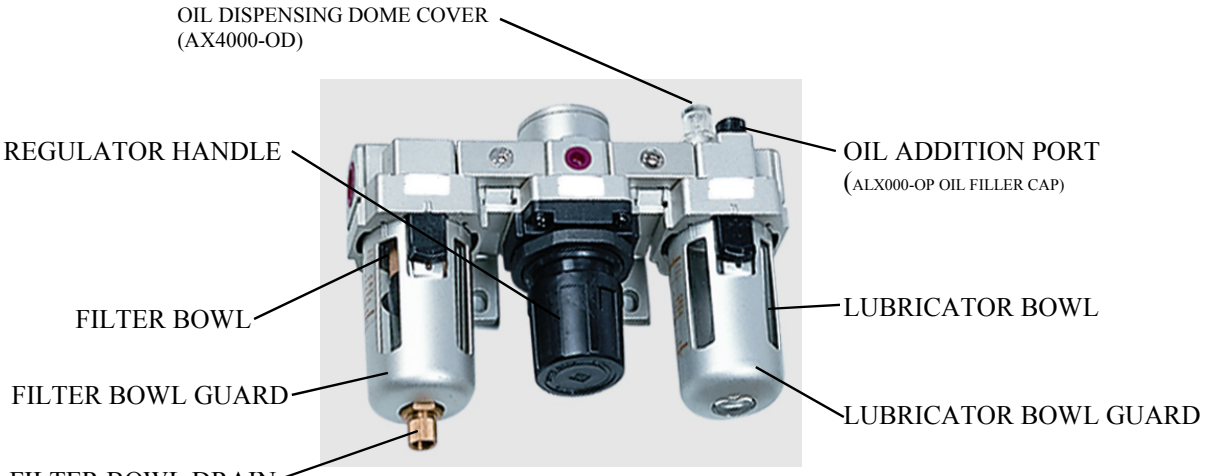
Flow Adjustment Assembly


CAP


FUNNEL


DIAL


PIN/SPRING



FILTER | REGULATOR | LUBRICATOR

STACKING REGULATOR AND FILTER UNIT

PRESSURE REGULATOR UNIT

FILTER UNIT

LUBRICATOR UNIT

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