



# DURANOVA START-UP TRAINING AND TROUBLESHOOTING GUIDE

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*April 2019*

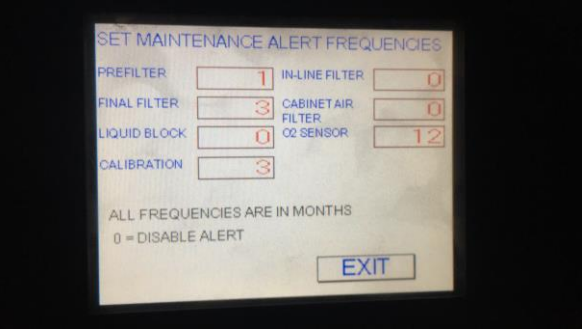
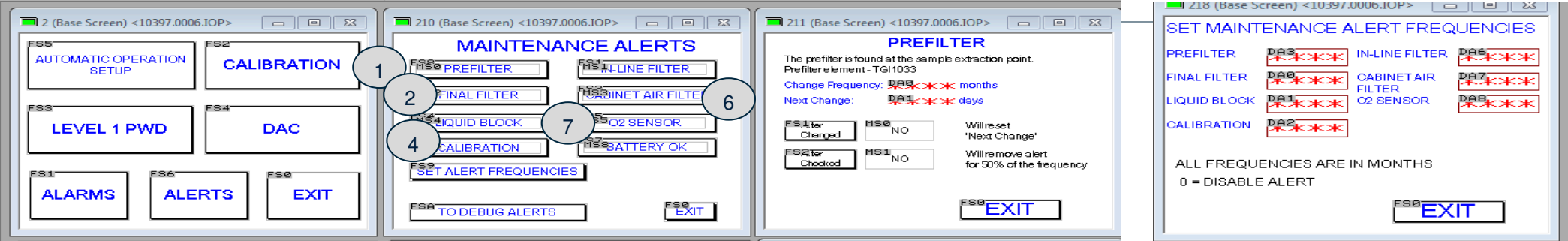
**Grant Freeman**

GM, NOVA Analytical Systems, TGI

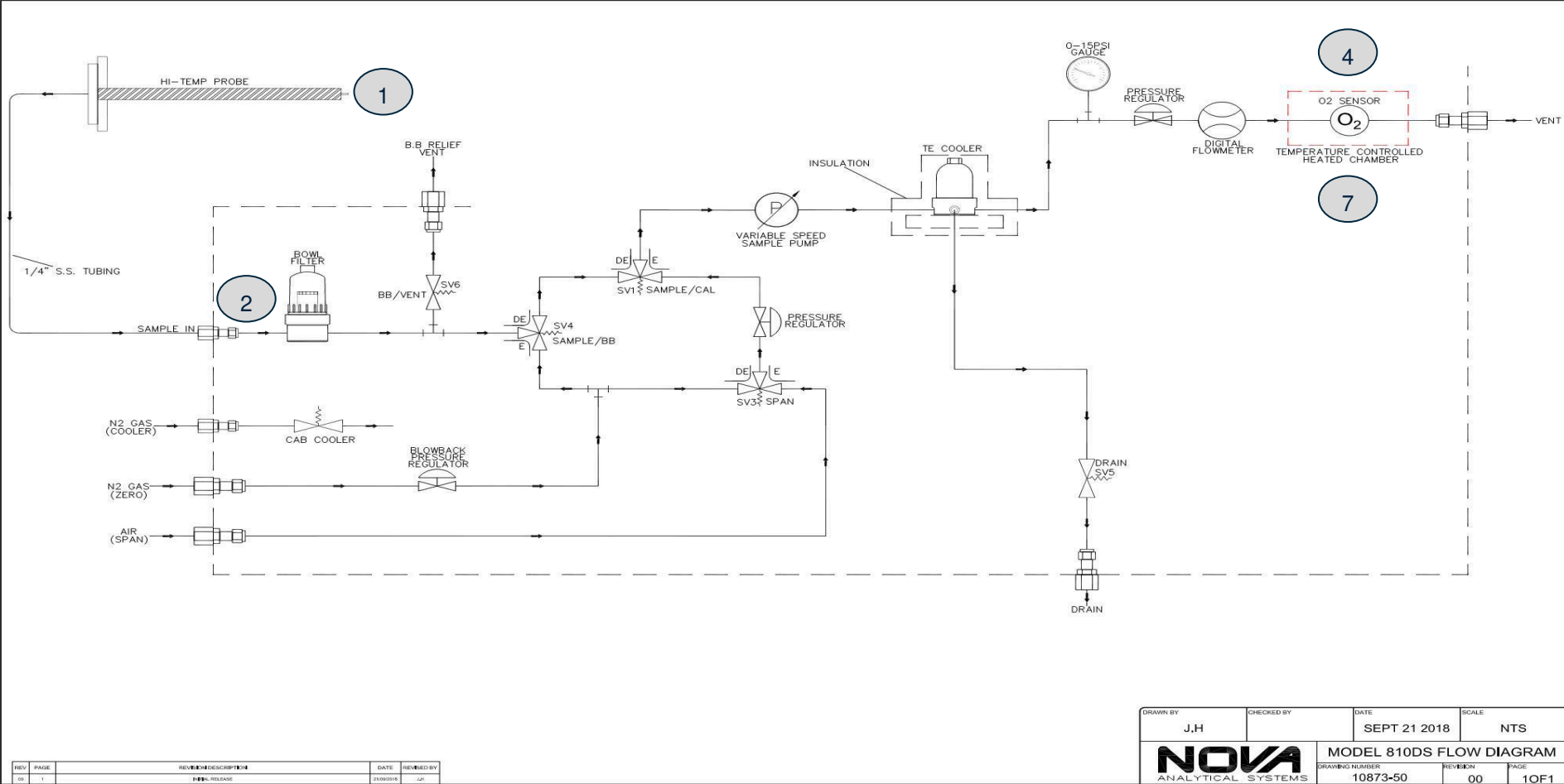
# MAINTENANCE

# MAINTENANCE ALERTS

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TUNE MTC ALERTS BASED ON  
YOUR PROCESS NEEDS



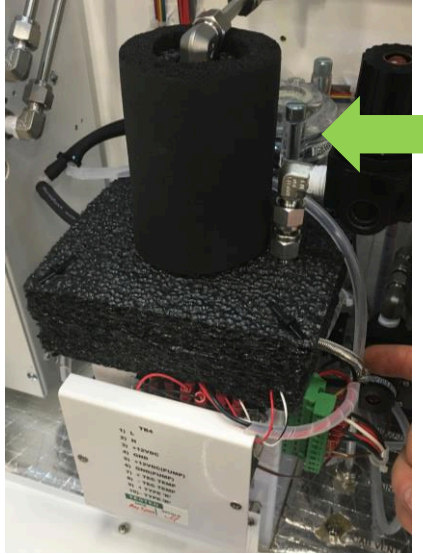
# CHANGING PERISTATIC TUBING



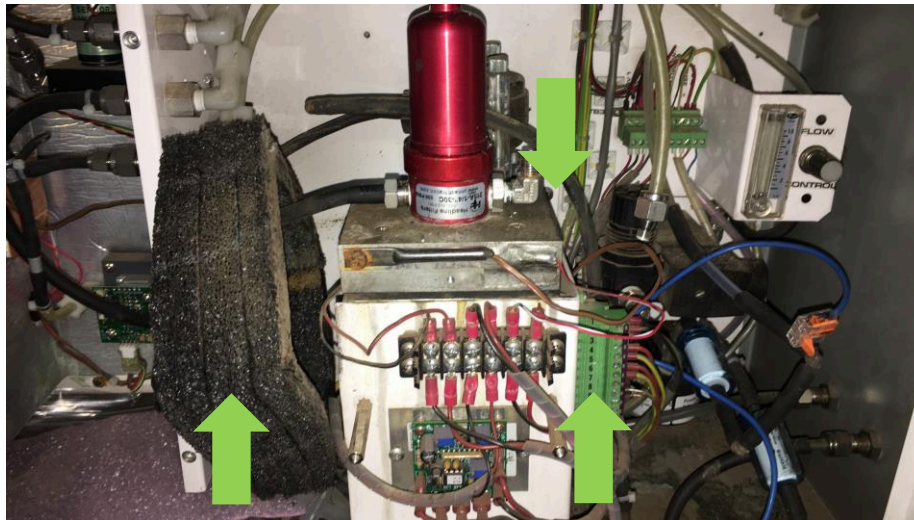
# MAINTENANCE: CHANGING THE PERISTALTIC PUMP TUBING



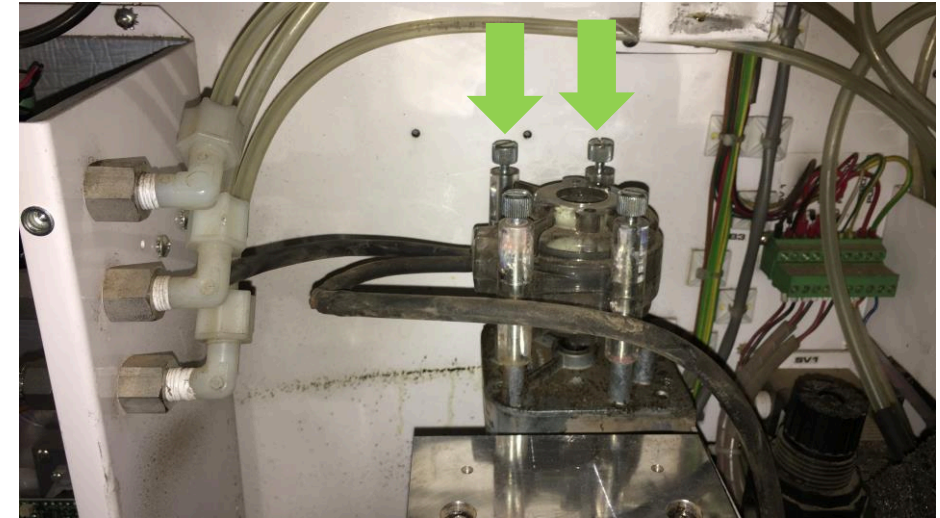
1. TURN OFF POWER. PERISTALTIC PUMP, WHICH REMOVES WATER FROM TEC, IS LOCATED BEHIND MAIN TEC



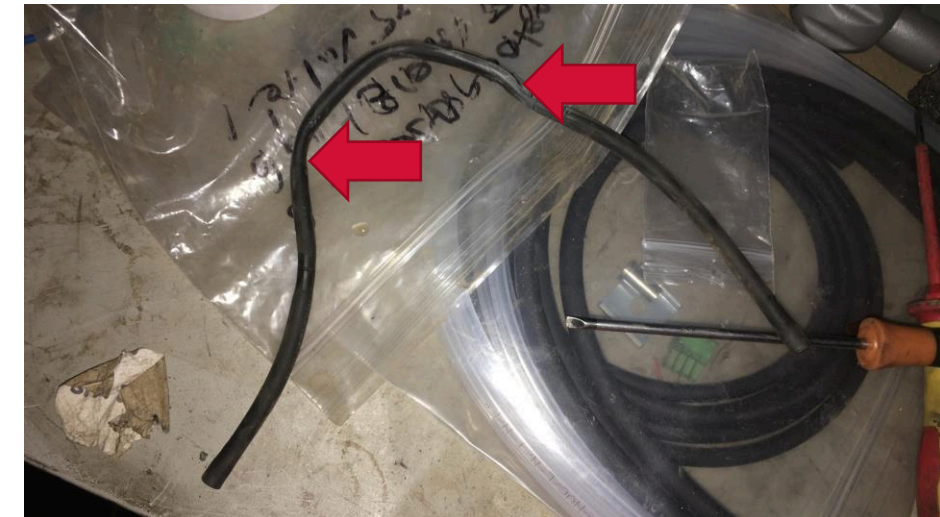
2. REMOVE INSULATION FROM THE TEC BODY TO GAIN ACCESS TO THE TEC MOUNTING BRACKET (2 SCREWS, TB AND SAMPLE TUBING)



3. REMOVE HAND-TIGHT SCREWS TO ALLOW THE PUMP HEAD TO LIFT FROM THE MOTOR



4. PULL PUMP HEAD APART AND REMOVE THE TUBING. NOTICE THE FLATS ON THE TUBING

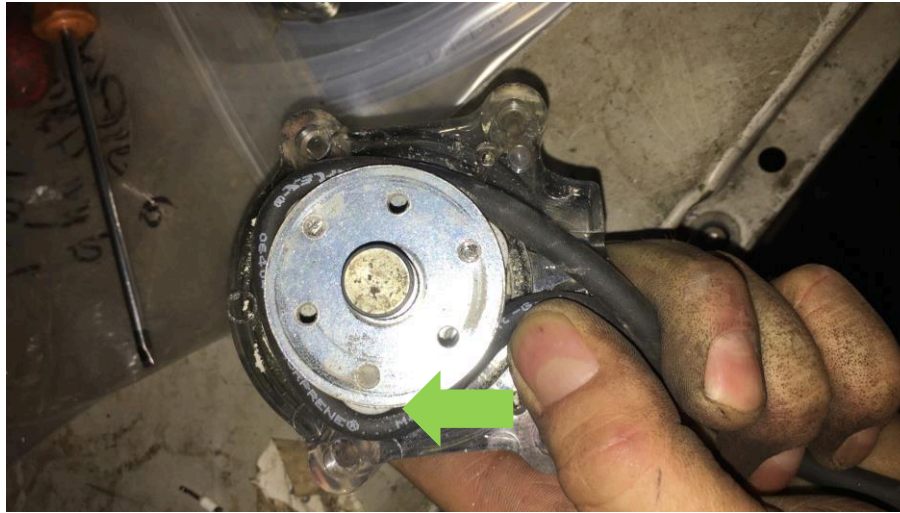




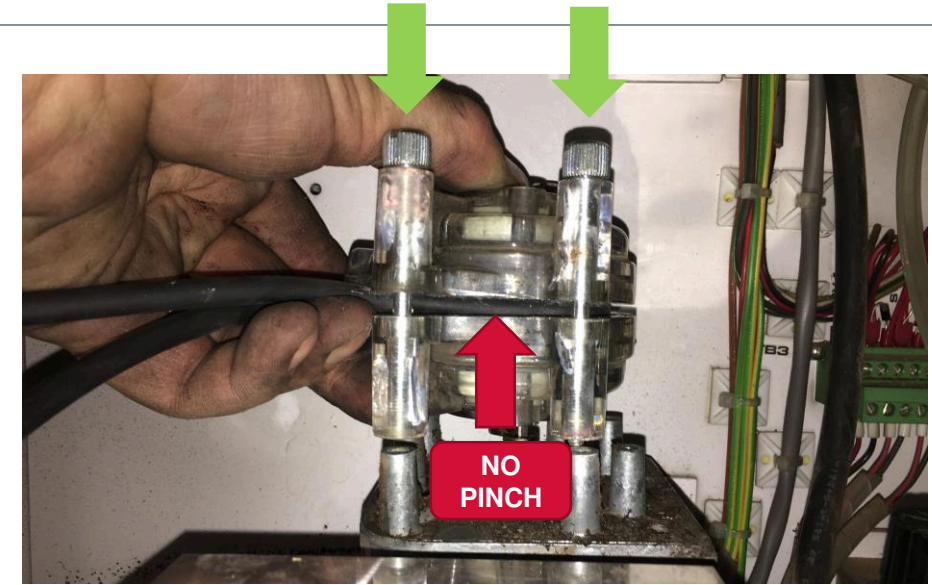
# MAINTENANCE: CHANGING THE PERISTALTIC PUMP TUBING



**1. FEED THE TUBING THROUGH THE TRACK AND OVER THE CAMS**



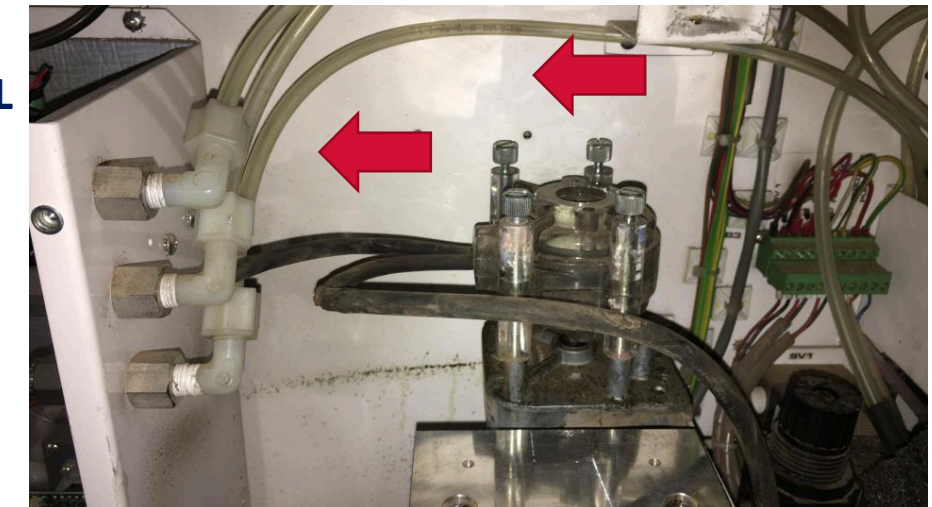
**3. SECURE THE PUMP SCREWS TO THE MOTOR. HAND TIGHT. BE CAREFUL TO NO PINCH THE TUBING OUTSIDE OF THE TRACK**



**2. PULL THE TUBING TIGHT AND BRING TOGETHER THE PUMP HEAD HALVES.**



**4. REINSTALL TEC. REINSTALL INSULATION AND VERIFY PERISTALTIC PUMP ROTATION.**



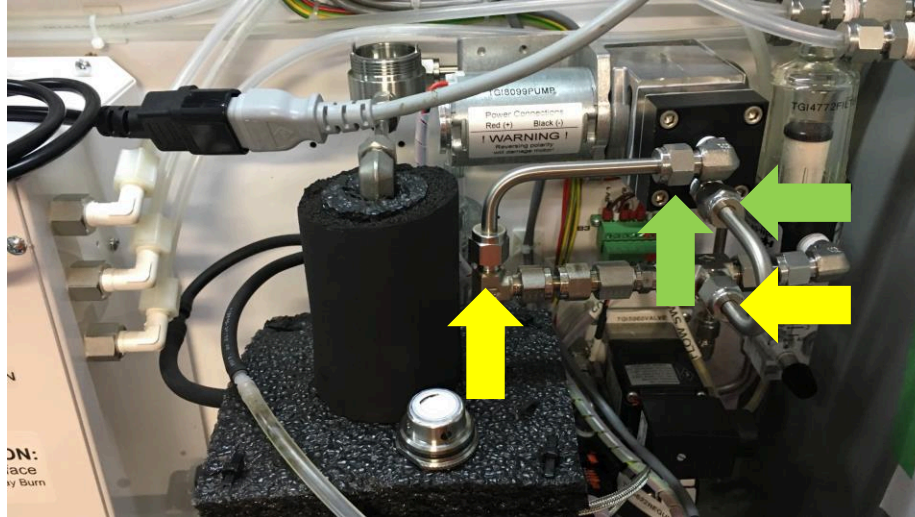
# CHANGING PUMP DIAPHRAGM



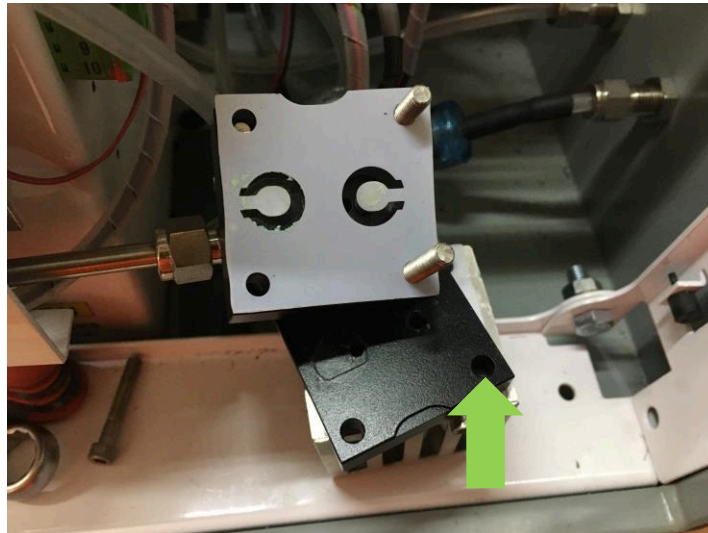
# MAINTENANCE: CHANGING THE PERISTALTIC PUMP TUBING



**1. TURN OFF POWER. DISCONNECT TUBE FITTINGS. YOU MAY HAVE TO REMOVE SECONDARY (YELLOW) TO REMOVE PRIMARY FITTINGS**



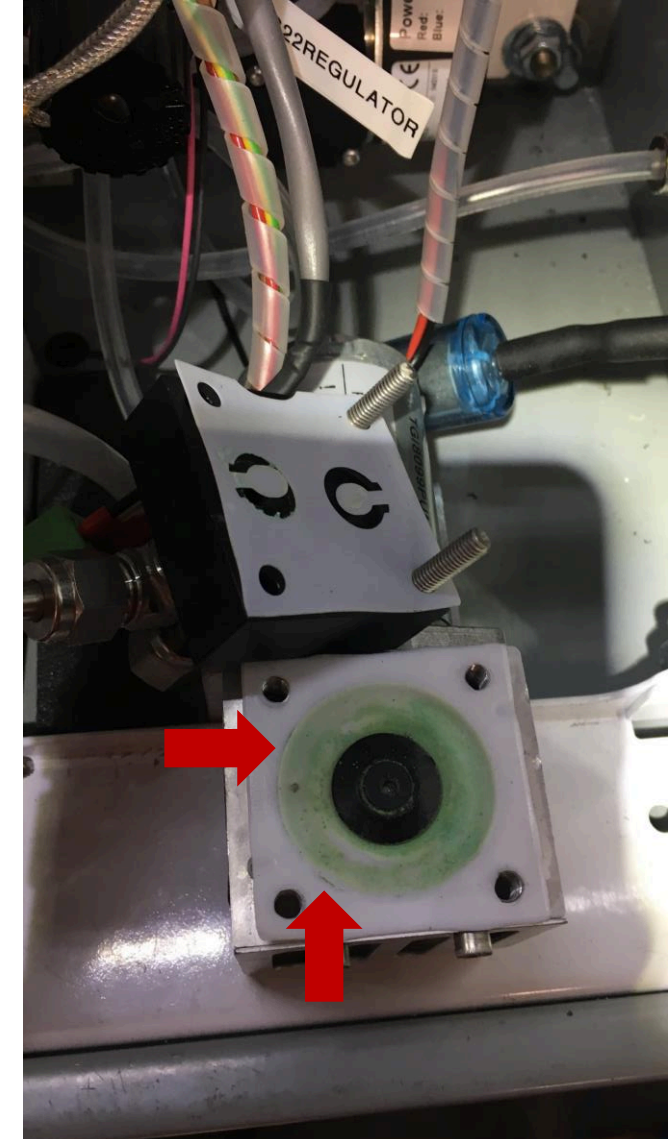
**2. REMOVE PUMP HEAD SCREWS (11/16" HEX)**



**4. EXPOSE DIAPHRAGM. LOOK FOR TEARS IN THE DIAPHRAGM.**

**4. WATCH VIDEO FROM AIR DIMENSIONS ON HOW TO REMOVE AND RE-INSTALL NEW DIAPHRAGM.**

<https://airdimensions.com/service/videos/>



# SPARE PARTS

# MAINTENANCE – CRITICAL SPARE PARTS



## **DESCRIPTION**

Pre-filter Element

\*Small Bowl Filter Element

\*Sample Pump

#10 Relief Valve

Pressure Regulator(2)

\*Replacement Liquid Block Membrane (5 Pk)

Sample/Cal Solenoid Valve SV1 (New)

Flow Meter

Flow Switch

Oxygen Sensor

\*Air Scrubber

Solenoid Valve SV2, SV3 (2)

Heater Pad for Heated Chamber (2)

24 VDC Power Supply

12 VDC Power Supply

Surge Protector

## **PART NO.**

TGI1033FILTER

TGI1047FILTER

TGI8099PUMP

TGI3491VALVE

TGI5622REGULATOR

TGI6454FILTER

TGI8687VALVE

TGI3730FLOWMETER

TGI2327SWITCH

TGI1837SENSOR

TGI1066FILTER

TGI5443VALVE

TGI5889HEATERREL

TGI4261PWRSUPPLY

TGI2772PWRSUPPLY

TGI6176MISC

# MAINTENANCE – SUB ASSEMBLIES

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## **DESCRIPTION**

TEC Cooler Sub  
CO<sub>2</sub> and CH<sub>4</sub> Infrared Detector  
Complete Heated Chamber Assembly  
Touchscreen Display  
Main Microprocessor Board (NGC-01)  
Microprocessor Power Supply (PS01)  
4-20 mA Output Board (420SM2) #1  
4-20 mA Output Board (420SM2) #2  
Alarm Board #1 (SSRC8)  
Alarm Board #2 (SSRC8) (Optional)  
Temperature Controller for Cabinet Heater

## **PART NO.**

TGI63509SUB  
TGI50357SUB  
TGI63224SUB  
TGI4957DISPLAY  
TGI63101SUB  
TGI63100SUB  
TGI63005SUB-1  
TGI63005SUB-2  
TGI63009SUB-1  
TGI63009SUB-2  
TGI5099MISC



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THANK YOU

