Installation, Service, and User Instructions

Maestro™

Grossing Station / MB1000 / MG1000 series

DISCLAIMER

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TRADEMARKS

Maestro™ Is a registered trademark of Mopec

Ensemble Pegboard™ Is a registered trademark of Mopec

BETTER BY DESIGN™ Is a registered trademark of Mopec

Owner’s Record

Model No.: _____

Serial No.: _____

Voltage: _____

Dealers Name: _____

Dealers Address: _____

Date of Purchase: _____

Document Revisions

Date	Version Number	Document Changes
07-07-2021	1.0	Initial draft
07-20-2022	2.0	Update the HVAC / Ventilation diagram
2-17-2023	3.0	Updated manual for new PLC controls
5-4-2023	4.0	Updated Power Requirements & Rough-in Specs
1-1-2024	5.0	Add Specifications for the new filters, update Rough-in, & update product images

Table of Contents

1 PREFACE

1.1 Description of the User

The Mopec Maestro is a Pathology Workstation and is available in several different sizes, elevating and non-elevating, with over 30 modification options, and a growing inventory of workstation accessories, the Mopec Maestro is built to be customizable to your laboratory needs and individual preferences.

1.2 Notations Used in This Manual

- **Width (W)** refers to the left-to-right measurements as you face the Maestro.
- **Height (H**) refers to the top-to-bottom measurement.
- **Depth (D)** refers to either the measurement of the station from the front of the work surface to the rear of the station or the depth of the sink.
- **(REF)** references a section of the manual for more information.

1.3 Models covered in this Manual M(xxxxxxx)

- MB1048R Maestro 48” (1.2m) long, Right-hand sink
- MB1048L Maestro 48” (1.2m) long, Left-hand sink
- MB1054R Maestro 54” (1.3m) long, Right-hand sink
- MB1054L Maestro 54” (1.3m) long, Left-hand sink
- MB1060R Maestro 60” (1.5m) long, Right-hand sink
- MB1060L Maestro 60” (1.5m) long, Left-hand sink
- MB1066R Maestro 66” (1.6m) long, Right-hand sink
- MB1066L Maestro 66” (1.6m) long, Left-hand sink
- MB1072R Maestro 72” (1.8m) long, Right-hand sink
- MB1072L Maestro 72” (1.8m) long, Left-hand sink
- MG1072R Maestro 72” (1.8m) long, Downdraft Right-hand sink
- MG1072L Maestro 72” (1.8m) long, Downdraft Left-hand sink
- MB1084C Maestro 84” (2.1m) long, Center sink
- MB1096C Maestro 96” (2.4m) long, Center sink

1.4 Explanation of Safety Warnings

This manual employs the following symbols to call attention to warnings, cautions and notices.

⚠ WARNING **Warning** is used to indicate the presence of a hazard that CAN cause severe injury or death if ignored.

⚠ CAUTION **Caution** is used to indicate the presence of a hazard that Will or CAN cause personal injury or property damage if the warning is ignored.

NOTICE **Notice** is used to notify people of installation, operation, or maintenance information that is important but not hazard-related.

The **Garbage Disposal** has rotating parts. Never put your hands or fingers inside the garbage disposal. Avoid contact with the grinding chamber and rotating blades. Failure to do so may result in personal injury, property damage, or electrical hazards.

WARNING Hazardous Voltage Inside. Disconnect power before servicing. Service by trained personnel only. Consult manual.

On (Power). Standard: IEC 60417 — Graphical Symbol for Use on Equipment.

Off (Power). Standard: IEC 60417 — Graphical Symbol for Use on Equipment.

Earth (Ground) Terminal. Standard: IEC 60417 — Graphical Symbol for Use on Equipment

1.5 Obtaining Instructions

Instructions are typically supplied digitally and stored on a USB type flash drive that is zip tied to the main faucet spout. The manual can also be obtained by pressing the Manual button on the Actions home screen and scanning with a smart phone the 3D embedded barcode (Reference section 6.1.9). At any time the most current revision of this manual can be downloaded from the company website list in section 1.5.1

1.5.1 Internet

The latest version of the documentation is available at the following address: http://www.mopec.com

1.5.2 Ordering Documentation

Documentation, user instructions, and technical information can be ordered by calling Mopec at **800-362-8491**.

1.5.3 Documentation Feedback

If you are reading Mopec product documentation on the internet, any comments can be submitted on the support website. Comments can also be sent to customerservice@mopec.com

We appreciate your comments.

2 Description of the product

2.1 Purpose of the Product

The Mopec Maestro™ is the most advanced pathology workstation on the market today and is designed with the special needs of the user in mind. Careful consideration is given to the functional requirements and workflow patterns, as well as the need for maximum space utilization and sanitation.

The Maestro™ offers a host of comfort and convenience features:
an adjustable height worksurface, a well-lighted work area, hand-free or manual controls for water, disposal, and efficient exhaust options.

2.2 Process Overview

The Maestro is for grossing study and is not intended to be used as a medical device where tissue comes into contact with a patient. The actual grossing process is defined by each facility and is not the responsibility of Mopec.

2.3 Technical Data

The Maestro products are designed and manufactured under the guidelines:

- **ISO 9001:2015 with Design –** Mopec facility located at 800 Tech Row, Madison Heights MI USA.

2.4 Operating Specifications for the unit

- Temperature range: 70.0±10.0°F or 21.0±6.0°C
- Relative humidity range: RH 35%-75%
- Elevation Range: 0-2000m
- Domestic Electrical Specification: 115v/1ph/60hz on (1) 15a dedicated circuit
  - Full Load FLA= 7.2A Nominal= 3.2A
- Export Electrical Specification: 220v/1ph/60hz on (1) 10a dedicated circuit
- IEC320 C13 Hospital-Grade Power Cord with three prongs UL Listed: 14AWG, 6’ in length 15A @ 115v/ 10A @ 220v or equivalent must be used to power the unit.
- Water Supply Range: 50 -100 psi, 6GPM min, 45 -120°F (7-48°C)
- Maximum worksurface load: 200lbs or 91kg
- Ingress protection (IP) rating: IP40
- Workstation Configuration weight: Range from 696-1220lbs (315-553Kg)
- Height of Unit: 75” (1.9m) at lowest height position & 87” (2.2m) at highest elevated position.

2.5 Product Compliance

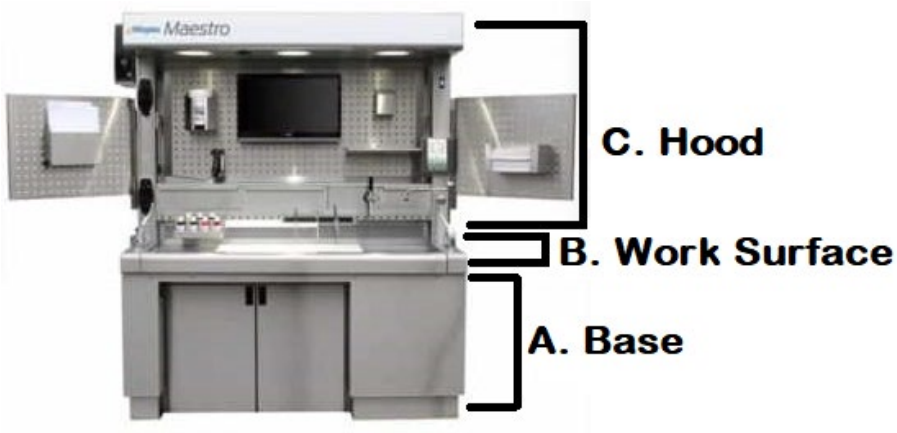
The Maestro products are designed, and manufactured under the guidelines:

- **TÜV Rheinland®** Certified IEC 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use.

- **EN 61010-1:2010** Safety requirements for electrical equipment for measurement control and laboratory use.

2.6 Product elements

The Maestro is constructed as one assembled workstation with 3 main elements in its construction:



A. Base

The base constitutes the framework, cabinetry, and elevation system and control. It also contains rough-in utility connections for electrical, plumbing & seismic anchoring.

- Base Controls (a.)
  - Elevation Switch – adjusts the unit up/down in height.
  - Foot pedal switch (if equipped) – turns the sink faucet mixing valve on/off.

B. Work Surface

The work surface is what determines the sink location and associated plumbing fixtures. It also contains the FAS system, grid plates, and cutting board surfaces.

- Work Surface Controls (b.)
  - Faucet Mixing Valve
  - Hand spray/End rinse (if equipped)

C. Hood

The hood or backsplash is the conduit for ventilation. Both in-house (supplied by the facility) and recirculating (supplied and powered by the workstation) are constructed into the hood. It also contains the airflow monitoring system, user interface panel, electrical outlets, and peg board mounting for numerous accessories available for the workstation.

- Hood Controls (c.)
  - Main Power Switch – Powers the unit on/off
  - Touch Screen – interface for Microprocessor controlled features on the unit
  - Disposal Switch – powers the disposal unit on/off
  - Hands-free Infrared Faucet Switch – Infrared motion sensor for faucet

2.7 Warranty Statement

Products manufactured by Mopec will be free from defects in material and workmanship and conform to Mopec's description or specifications. If a warranty claim is made within one (1) year from the date of shipment or the date of installation (if installation is provided by Mopec), the defective or nonconforming Product or Part thereof will be repaired or (at Mopec's option) replaced free of charge, FCA Mopec's dock. All warranty claims must be in writing and received by Mopec within the warranty period. The warranty is not transferable (other than to customers of Mopec's authorized Distributors), and will not apply unless the Equipment has been properly installed, maintained, and operated in accordance with all instructions; and does not apply to defects, nonconformities, or other failure due to Equipment misuse, abuse, modifications, or other causes outside Mopec's control. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE WARRANTY AS SET FORTH HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. To the extent that Mopec is acting as a supplier of Products manufactured by a third party, the Products will be warranted only to the extent that they are warranted by their manufacturers and Buyer (or its customer) agrees to look solely to the Product manufacturer for all warranty claims. For shipments outside the United States or Canada, as to any defective or non-conforming part, the part will be replaced upon return of the part to Mopec. Mopec will owe no obligation to perform any repair or to install any replacement part.

3 Installation

Notice: If you have purchased installation from Mopec your installer will cover section 3

3.1 How to unpackage your workstation

3.1.1 Check for freight damage:

- If the unit has sustained damage during transit or unloading from the carrier now is the time to file a freight claim.

NOTICE Many large institutions use their own carriers. A freight claim would be filed with that provider.

- Check for damage to the skid that would result in an unsupported or twisted station.
- Check that the sides of the crate have not been punctured or smashed.
- Check that the top of the crate has not sustained damage or has evidence of being placed upside down.
- Take photographs of any damage and contact Mopec or your private freight carrier if applicable.

3.1.2 Uncrating Contents:

- Remove the top boards from the crate. Place in a dumpster or out of the way to dispose of later. Watch for staples, nails, and slivers of wood.
- Remove the sideboards, end boards, and plywood from the crate.
- Remove the corner posts of the crate. Pull downward and then sideways to break away from the base.
- Remove all the bracing at the bottom of the skid. Note the small 2”x 4” (5cm x 10cm) blocks nailed to prevent the unit from moving.
- Carefully cut the plastic wrap so the unit is not scratched, and the components are not damaged.
- Unwrap the plastic wrap and foam from the unit.
- Cut and remove the metal banding material securing the unit.
- Look the unit over for hidden damage. If found, take photos, and contact Mopec.
- Remove any optional equipment from the sink, under the sink, or behind the doors (if so equipped).
- Ensure all plumbing and wiring are secured and up and out of the way before moving the unit.

3.1.3 Removing Unit from Skid;

- Ensure there is plenty of room to work around the unit.
- Tip the unit forward to retract the back leveling feet to allow the unit to slide on the crate floor.
- Tip the unit back to retract the front leveling feet to allow the unit to slide on the crate floor.
- Slide the unit back a little more than half off the skid, and tilt back until the bottom edge is resting on the floor. Tip the unit back a little farther so the skid can be pulled out from under the unit.
- Then gently put the unit upright on its base, making sure not to drop the unit.

3.1.4 Transporting Unit to the final location

- Place the Unit on a. (4) corner dollies or b. (2) skid dollies on each end. If available, one can use c. (2) crank up furniture or Piano Mover style dollies on each end of the station.

a.  b.  c. 

- Wheel the unit to the desired location, and pay close attention to the dollies when going over thresholds or entering and exiting elevators.
- Pay attention to door frames with magnetic contacts and door closure devices. Watch for low-hanging signs in hallways and door arches.

3.1.5 Placing unit into position

- Before you unload the equipment check that the utilities have been prepared in accordance with the Mopec rough-in drawing for your model workstation.
- Check the floor condition is clean dry and as level as possible. Masonite boards can be used to protect softer styles of flooring.
- The unit has leveling feet with non-marring skids and will slide on other hard smooth surfaces.
- Remove the unit from the dollies and set it on the Masonite boards.
- Tip the unit forward to lower the back leveling feet so the bottom of the foot is approximately ¼ inch below the frame. This allows the unit to have air-flow in case of a water spill.
- Tip the unit back to lower the front leveling feet so the bottom of the foot is approximately ¼ inch below the frame.
- Slide the unit back to the desired distance, if different than the approval drawing.
- The back feet should drop off the Masonite board near the installation location.

NOTICE Do not slide the unit on soft vinyl flooring, it will tear the flooring. If the unit must be adjusted, it will have to be moved one end at a time on soft vinyl flooring. The unit will slide on other hard smooth surfaces.

- Confirm the distance of the unit from the wall is 3” (7.62cm) or more.
- Level the unit using retractable leveling feet on the bottom of station.

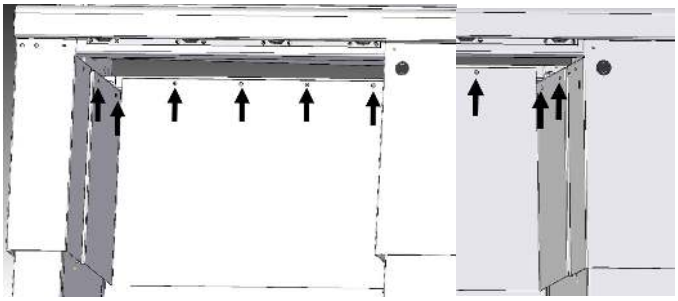
3.1.6 Electrical Connection

- The 15amp dedicated circuit electrical system should then be tested per local codes or guidelines at this time and before the unit is plugged in supplying power.
  - The workstation receives powered by a rear mounted IEC 15amp three prong connector. These plugs are recognized globally and make it simple to use in global marketplace by simply changing the power supply cord
    - 115VAC/1ph/60hz on a dedicated 15amp circuit for Domestic units
      - Full Load FLA= 7.2A Nominal= 3.2A
    - 220VAC/1ph/60hz on a dedicated 10amp circuit for Export units

3.1.7 Plumbing Connection;

NOTICE Do not use a powered screw gun to remove or install the screws. A screw gun can damage the PEM nut in the sheet metal.

- Plumbing connections are to be made by a licensed professional plumber.
- The inner knee space skirting will have to be removed to access the connections for electrical and plumbing. Unless otherwise accessible from the end or the back of the unit.



- Check that the internal flexible drain line is present and still connected to the P-Trap assembly free from any obstruction. The unit is shipped fully lowered in elevation so the flex line will appear flattened out.

Lowered

Raised

- With the plumbing bracket mounted to the factory location on the frame (as shown in the image above) the facility drain line can be connected either via a flexible line with hose clamps or hard plumbed per your local codes and regulations. The unit is designed to drain properly in this configuration if roughed in per the drawing.

  NOTE: The P-Trap bracket is designed to be adjustable up and down with the slotted design of the bracket. Completely removing the bracket from the base will break the seal of the yellow sticker and void the unit's warranty. These grossing stations are designed to elevate and have a designed length of hose to ensure proper drainage and function while in service.

⚠**CAUTION** Elevating units must retain the factory flexible line connection from the disposal to the P-Trap. A hard connection will cause damage to the unit or the facility's plumbing or both.

- HOT and COLD water lines should be connected directly to the factory-supplied water strainers. Especially in new construction, these strainers are your only protection from site debris damaging seals and valves in your new workstation.

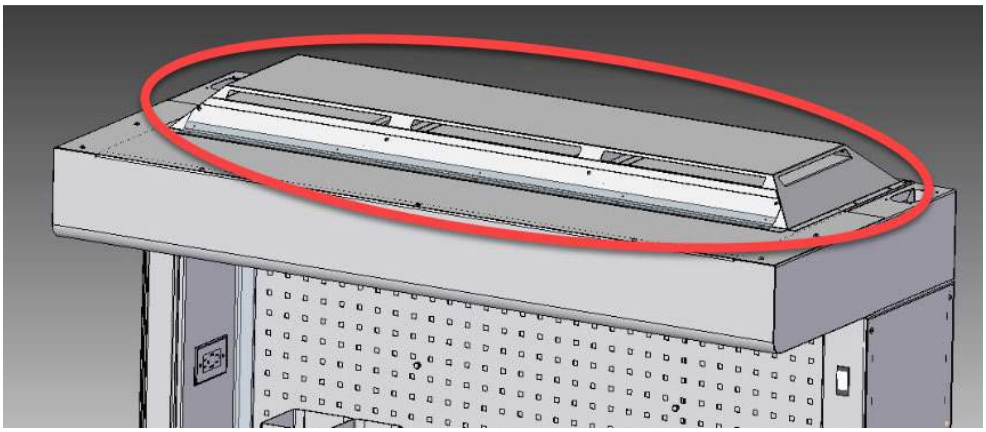
- Water strainers supplied have a ½" NPT female thread. Plan final connections to HOT and COLD water lines accordingly. Be sure to use a backup wrench on the strainer when tightening the connections.

3.1.8 **Ventilation connection** (in-house ventilation)

NOTICE A standard unit is supplied with (2) 8" (20.32cm) diameter vent duct connections – see your approval drawing and rough-in drawing for more information.

- At this point, the unit should still be in its lowest elevation position, if not, please lower it to the lowest position to properly size the flexible ducts to the facility connection.
- Locate the (2) 8" (20.32cm) diameter flexible vent ducts and (4) hose clamps shipped with the unit. These are typically shipped in the knee space on the skid. Otherwise check in the sink.
- Slide the vent duct and clamp over the duct stubs on the top of the unit.
- Connect the opposing end to the facility vent stubs. With the unit still in its lowest elevation, the excess flexible duct may be trimmed to fit. This will optimize flow performance throughout the elevation range by reducing the chance of any bunching or kinking due to excess material.
- Tighten all hose clamps on the ducts.

3.1.9 **Recirculating Ventilation** (if equipped)



- No external ductwork is connected if the unit is equipped with recirculating ventilation unit.
- Recirculation filters are loaded into the top of the unit. Check that all packaging and wrap are removed from filters before use.
- Be sure to set your filter timer (**REF 6.2.8**) when installing new filters (**REF 7.1.1**).

3.2 Decommissioning the Unit

3.2.1 Decontaminate the unit.

- Decontaminate the workstation per your standard processes.
- Determine if drainage from the unit is classified as a biohazard. This will depend on your local ordinances.
- The disposal unit, the drain line, and P-trap may contain fluids when disconnected.

3.3 How to Store the Product

3.3.1 Storage in place

- Adjust the elevation to its lowest position for long-term storage.
- Turn off the water supply to the unit. Open and drain all lines including hand spray.
    - If the temperature could drop below freezing it is advisable to pour RV antifreeze down the drain lines, especially the disposal unit.
- Disconnect the ventilation ducts and tape off the opening to prevent dust and debris from entering.
- Disconnect power to the unit.
- Wipe WD40 on all stainless surfaces to protect from transfer rust.
- Cover or drape the unit with a tarp.

3.3.2 Storage on a skid

- Follow the steps in 3.3.1 to prep the unit.
- Lift the unit one end at a time and walk the station side to side onto a skid.
- Strap the unit down across the worksurface and pull it down towards the skid. Be sure to put padding on the edges of the work surface where the straps contact the sheet metal.

3.4 Disposal and Recycling

Disposal of the unit is ultimately up to local codes and guidelines. The following section breaks down the materials of construction for recycling purposes.

3.4.1 Stainless Steel

- The Hood is made entirely of 304 stainless steel. Remove all electronics and recycle them appropriately.
- The worksurface is also 304 stainless steel.
    - Remove the faucets and fixtures as these are typically chrome-plated brass in construction.
- The lower skirting is 304 stainless steel along with the frame cross connectors.

3.4.2 Ferrous Steel

- The only ferrous steel used on the Maestro is in the lower frame weldment where the linear actuators mount.
- If equipped with a magnetic tool bar this will also be made from steel.

3.4.3 Aluminum

- The elevation guideposts are made from aluminum and located in the frame ends.
- If the unit is equipped with a monitor and keyboard arm accessories those are also made of aluminum.

3.4.4 Plastic

- The cutting board and formalin dispense tank lid are made of thick HDPE.
- The waterlines, fittings, flexible vent ducts, and collection carboys are typically made of thermoplastics like polypropylene, vinyl, and polyvinyl chloride and should be recycled accordingly.

3.4.5 Electronics

- The unit has internal circuitry, circuit boards, a touch screen, LED lighting, and actuators that should be recycled as electronic components.

4 Quick Start Guide

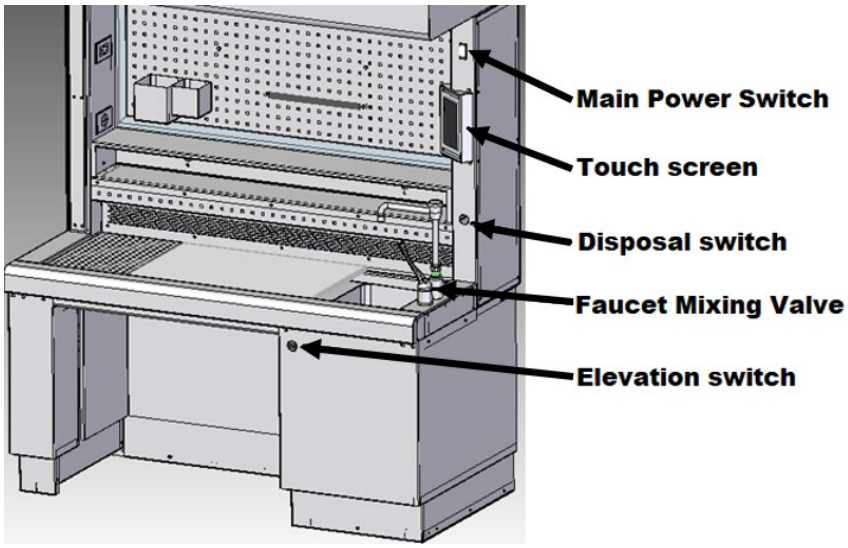
4.1 Startup

The following section explains how to start the Maestro and some of its standard functions.

⚠ **CAUTION** The unit must be installed per factory recommendations in section 3.1 of the user manual.

4.1.1 Powering On

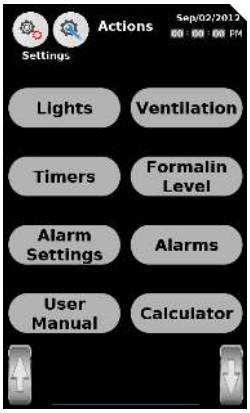
- The unit is powered on by the main power switch located on the sink side column in the Hood section.

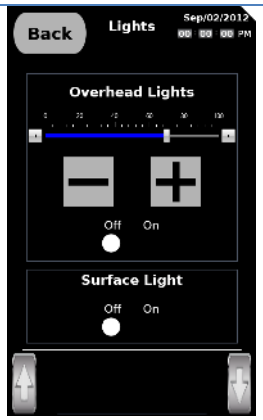


- After the unit is switched on the touchscreen controller will start to boot up. While the system microprocessor boots up you will see the startup screen saver and may see the screen flash.
- The Maestro will land on its home page after all processes have finished loading.

4.1.2 Operating Touch Screen

- With the unit turned on the main *Actions* page will show. This page has buttons for lighting, ventilation, timers, and alarm history.
- Selecting one of these buttons with a light finger touch will open the page corresponding to the button.
    - An illustrated example of when the user presses the “Lights” button is shown below.

a. **Actions Screen** 

b. **Lights screen** 

4.1.3 Elevation

- The elevation of the unit is adjustable from the Elevation **(</>)** button located on the front corner of the sink The unit has 12" (30.48cm) of elevation, select the best position for sitting or standing. Stand clear and check for obstructions surrounding (and under) the Maestro when raising and lowering the unit.

4.1.4 Faucet Operation

- The faucet is controlled by the faucet mixing valve lever. Pulling the lever up and away from the sink turns the water on. Pushing the lever forward and backward from that position will adjust the Hot and Cold-water mix.
- On units equipped with a Foot Pedal control, the Faucet will turn on and stay on with a foot pedal push. To turn it off simply press the foot pedal again.

NOTICE The ON time of a foot pedal push is controlled by the Water Timer function on the Timer screen. See section 5 of the user manual for instructions on how to adjust this feature.

4.1.5 Garbage Disposal

- The garbage disposal or disposer is operated via a push-button air switch located on the sink side column (see 4.1.1 image). The disposal will start and stay on with a button push. To turn it off, simply press the button again.

NOTICE Standard Maestro units utilize a dry ½ hp disposer unit. You must run the water to assist in flushing the contents down the drain. Never put hands or tools into the disposer while under power.

4.1.6 Power outlets

- The unit is equipped with 15amp power outlets intended for small appliances on the back shelf. These outlets cycle on/off with the unit power switch and are protected by the main GFCI circuit located in the top inside panel of the hood.
- The power outlet located on the opposite end side panel remains powered as long as the unit has facility power. This is typically used to power computers or other devices that should not power cycle with the main switch.

4.2 Powering down

4.2.1 Shut down

- Use the main power switch to shut down the unit. This will power down the internal circuitry including the power outlets on the hood backsplash.
- Most units are connected to central facility-powered HVAC ventilation and are controlled separately.

NOTICE The auxiliary outlet located on the side panel for computer power does remain powered. To power down this outlet, utilize the facility breaker or unplug the unit's power cord if equipped.

⚠ **CAUTION** Powering down the unit will also stop recirculating fans if equipped, making sure the work surface is clear of open tissues and laboratory chemicals.

5 Factory Options & Accessories

5.1 Standard Features

5.1.1 The Maestro is equipped with the following standard features.

- Dimensions: 60" L x 32" W x 75" H & 87” elevated (1.5m L x 0.8m W x 1.9m H elevated 2.2)
- Stainless steel construction
- 10” (25.4cm) deep sink located on the right or left side (as configured)
- Backdraft ventilation
- In-house ventilation duct stubs with (2x) 8" (20.32cm) round flex ducts
- Touch screen control panel and alert system
- On-Demand FAS system
- Seismic anchoring points
- Integrated hood-mounted camera cut-out and cover plate
- Faucet mixing-flow control
- Side/column accessory mounts
- (4) Power outlets rated at 15amps: (2 G.F.C.I. receptacles, 2 with USB power)
- One (1) perforated grid plate
- One (1) sliding work surface cutting board, white
- Two (2) wire ports for cord management
- 1/2 Hp. Disposal (dry)
- Magnetic instrument bar
- One (1) large and one (1) small organizer bin
- Ensemble Pegboard™ System
- C-Fold Paper Towel Dispenser
- Single Shelf
- Replaceable ventilation filter mount in the from grill

5.1.2 Customization (CUST) & Modification (MOD)

- If your base unit has a feature customized the Model No. will show a “**CUST**” suffix
- If your base unit has a feature removed Model No. may show a “**MOD**” suffix

5.2 Factory Configured Options

Factory-configured options are integrated or built into the unit and should be ordered when built. Although not recommended some options can be retrofitted in the field but will require a factory-trained technician. This could also require the unit to undergo inspection per local guidelines or electrical safety codes.

5.2.1 Available Factory Options

- MB1008 MAESTRO, LEXAN SIDE SHIELDS
- MB1039 MAESTRO, RECIRCULATING BOX, 60IN (1.5m) UNITS

- MB1039-048 MAESTRO, RECIRCULATING BOX, 48IN (1.2m) UNITS
- MB1039-054 MAESTRO, RECIRCULATING BOX, 54IN (1.3m) UNITS
- MB1039-066 MAESTRO, RECIRCULATING BOX, 66IN (1.6m) UNITS
- MB1039-072 MAESTRO, RECIRCULATING BOX, 72IN (1.8m) UNITS
- MB1039-084 MAESTRO, RECIRCULATING BOX, 84IN (2.1m) UNITS
- MB1039-096 MAESTRO, RECIRCULATING BOX, 96IN (2.4m)UNITS
- MB1040 MAESTRO, FORMALIN DISPENSE
- MB1041 MAESTRO, FORMALIN COLLECTION
- MB1012 MAESTRO, END RINSE
- MB1046 MAESTRO, FAUCET, FOOT PEDAL, PNEUMATIC
- MB1047 MAESTRO, FAUCET, INFRARED
- MB1020 MAESTRO, AUX SIDE VENTILATION PORT
- MB1021 MAESTRO, GARBAGE DISPOSAL, 1 H.P. WITH WATERJET
- MB1022 MAESTRO, BMS SYSTEM
- MB1023 MAESTRO, CABINET DOORS
- MB1023-048 MAESTRO, CABINET DOORS, 48IN (1.2m)
- MB1023-054 MAESTRO, CABINET DOORS, 54IN (1.3m)
- MB1023-066 MAESTRO, 66IN DOORS (1.6m)
- MB1023-072 MAESTRO, 72IN DOORS (1.8m)
- MB1023-084 MAESTRO, CABINET DOORS, 84IN (2.1m)
- MB1023-096 MAESTRO, CABINET DOORS, 96IN (2.4m)
- MB1024 MAESTRO, GARBAGE DISPOSAL, 1/2 H.P.
- MB1024C MAESTRO, GARBAGE DISPOSAL, 1/2 H.P. (CANADA UL-APPROVED)
- MB1026 SAFETY SPLASH SHIELD
- MB1029 MAESTRO, 2X Quick Coupler Base Magnifier
- MB1030 MAESTRO, LEG FRAME, 60IN (1.5m)
- MB1030-048 MAESTRO, LEG FRAME, 48IN (1.2m)
- MB1030-054 MAESTRO, LEG FRAME, 54IN (1.3m)
- MB1030-066 MAESTRO, LEG FRAME, 66IN (1.6m)
- MB1030-072 MAESTRO, LEG FRAME, 72IN (1.8m)
- MB1030-084 MAESTRO, LEG FRAME, 84IN (2.1m)
- MB1030-096 MAESTRO, LEG FRAME, 96IN (2.4m)
- MB1031 MAESTRO, RED GFCI, AND USB OUTLETS
- MB1032L MAESTRO, HAND SPRAY, FOR LEFT HAND UNITS
- MB1032R MAESTRO, HAND SPRAY, FOR RIGHT HAND UNITS
- MB1043 MAESTRO, FORMALIN DISPENSE & COLLECTION
- MB1036L MAESTRO, HANDSPRAY & END RINSE, LEFT HAND
- MB1036R MAESTRO, HANDSPRAY & END RINSE, RIGHT HAND
- MB1037 MAESTRO, FORMALIN DISPENSING TAP

5.2.2 Customization (CUST)

- If your factory "Option" has been customized the Model No. will show a "**CUST**" suffix

5.2.3 New Options

- As New factory-built options become available they will be posted on www.mopec.com

5.3 Accessories

Accessories are features and tools that can be added to the Maestro at any time by the user or supporting staff.

5.3.1 Standard Accessories shipped with your Maestro.

- AX052 Perforated Grid Plate
- AX064 Cutting board (White)
- AX015 Magnetic tool bar
- AX008 Small organizing bin
- AX010 Large organizing bin

5.3.2 Available Accessories

- AX001 PEGBOARD, MONITOR MOUNT
- AX002 PEGBOARD, REQUISITION HOLDER
- AX003 PEGBOARD, TICKET HOLDER
- AX004 PEGBOARD, MARKING DYE HOLDER
- AX006 PEGBOARD, 14" (35.56cm) SHELF
- AX008 PEGBOARD, SMALL BIN
- AX010 PEGBOARD, LARGE BIN
- AX011 PEGBOARD, C-FOLD GLOVE/PAPER TOWEL BIN
- AX012 PEGBOARD, DOUBLE C-FOLD GLOVE/PAPER TOWEL BIN
- AX013 PEGBOARD, TRIPLE C-FOLD GLOVE/PAPER TOWEL BIN
- AX014 PEGBOARD, QUAD C-FOLD GLOVE/PAPER TOWEL BIN
- AX015 PEGBOARD, MAGNETIC TOOLBAR
- AX016 PEGBOARD, ARTICULATING MONITOR MOUNT
- AX017 PEGBOARD, BARCODE HOLSTER
- AX018 PEGBOARD, FACE SHIELD HOLSTER
- AX019 PEGBOARD, GLASSES HOLSTER
- AX020 PEGBOARD, WIPE DISPENSER
- AX021 PEGBOARD, CABLE MANAGEMENT
- AX031L COLUMN, PEG BOARD LEFT WING,
- AX031R COLUMN, PEG BOARD RIGHT WING,
- AX032 COLUMN, KEYBOARD ARM
- AX033 CPU MOUNT
- AX034 COLUMN, MONITOR ARM

- AX039 HITCH, WRITING LEDGE
- AX044 VIDEO-EDITING PC WORKSTATION; WINDOWS 10
- AX045 PATHCAM, 21" (53cm) PC MONITOR, TOUCHSCREEN
- AX047 PATHCAM, HANDS-FREE, FOOT PEDAL, COMMAND FEATURE
- AX048 PATHCAM, HANDS-FREE, VOICE COMMAND FEATURE
- AX049 MAESTRO, LIGHT BAR
- AX052 MAESTRO, GRID PLATE
- AX055 MAESTRO, HITCH MOUNT
- AX060L MAESTRO, VENTED TRASH CAN ON WHEELS, LEFT
- AX060R MAESTRO, VENTED TRASH CAN ON WHEELS, RIGHT
- AX064 MAESTRO, DISSECTION BOARD, WHITE
- AX065 MAESTRO, DISSECTION BOARD, WHITE W/ 3" (7.62cm)LEGS
- AX066 MAESTRO, DISSECTION BOARD, LIGHT BLUE
- AX067 MAESTRO, DISSECTION BOARD, LIGHT BLUE W/ 3" (7.62cm) LEGS
- AX068 MAESTRO, DISSECTION BOARD, DARK BLUE
- AX069 MAESTRO, DISSECTION BOARD, DARK BLUE W/ 3" (7.62cm) LEGS
- AX070 COLUMN, MONITOR/KEYBOARD MOUNT
- AX071 DICTATION STAND, 7"x5"x8" (17x12x20cm), SS
- AX072 MAESTRO, PEGBOARD, 7IN (17cm) SHELF
- AX073L MAESTRO, CASSETTE LABELING SHELF, LEFT SIDE
- AX073R MAESTRO, CASSETTE LABELING SHELF, RIGHT SIDE
- AX074 MAESTRO, CAMERA STAND
- AX081 SINGLE GOOSENECK LED TASK LIGHT (SHELF MOUNT)
- AX082 DUAL GOOSENECK-LED TASK LIGHT
- AX096 MAESTRO, SMALL DRAWER
- AX097 MAESTRO, SMALL INSTRUMENT DRAWER
- AX098 MAESTRO, LARGE DRAWER
- AX099 MAESTRO, LARGE DRAWER, DYE HOLDER
- AX100 MAESTRO, KEYBOARD DRAWER, CENTER
- AX110 MAESTRO, RECIRCULATING TO IN-HOUSE KIT
- AX111 MAESTRO LITE, EXHAUST DAMPING KIT, 8IN DUCT
- AX112 MAESTRO, VIRTUS CAMERA HOOD
- AX113 MOPEC CORNER DOLLY, SET OF 4
- AX114 MAESTRO, MILESTONE CAMERA
- AX115 MAESTRO, HITCH MOUNT, KEYBOARD
- AX120 AUTOPSY SAW HOLDER
- AX122 PATHCAM, HD SYSTEM + SOFTWARE (FOR LIVE STREAMING/TEACHING USE)
- AX123 PATHCAM-5K + SOFTWARE (FOR GROSSING STATION USE)
- AX131 PATHCAM, CAMERA MOUNT: MAESTRO HOOD
- AX133 PATHCAM, MICROSCOPE-CAMERA MOUNT: MAESTRO

5.3.3 Customization (CUST)

- If your factory “Accessory” has been customized the Model No. will show a “**CUST**” suffix.

5.3.4 New Accessories

- New Maestro Accessories are developed every day! To make a suggestion for a new accessory or to check on our latest go to www.mopec.com for more information.

6 OPERATION/USE

6.1 How to Use the Touch Screen

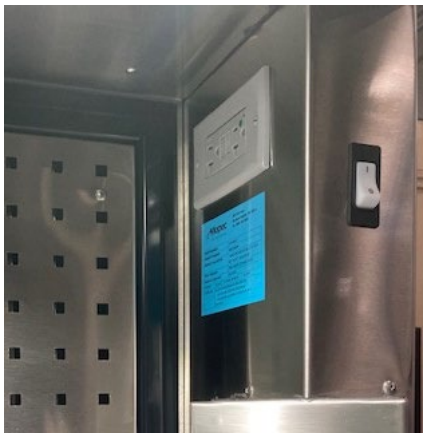
6.1.1 Understanding the Maestro Operational Interface

Mopec designed the Maestro to be highly customizable in its construction to meet all types of process flows and procedural preferences in the pathology lab. The touchscreen display allows for variable user interface controls to support the many configurations available on the Maestro.

⚠ **CAUTION** The Maestro is equipped with a "Touch" Screen, pressing excessively hard on the screen may result in damage.

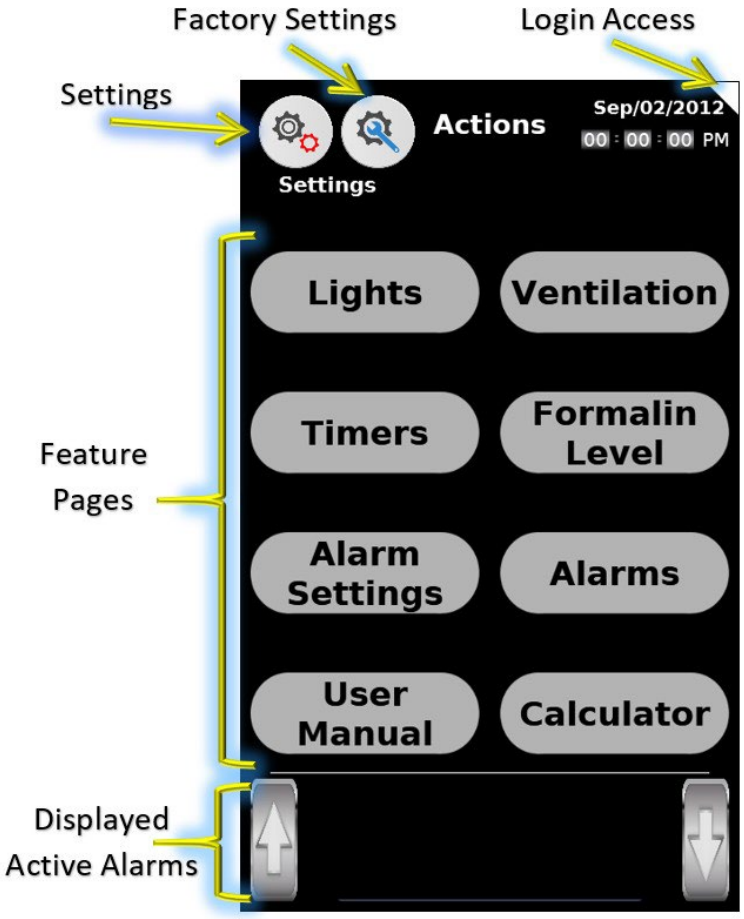
6.1.2 Startup

Turn on the Maestro from the **Power Switch** located on the hood column above the sink side of the unit.



- The Maestro's **Actions** screen is the main page when the unit is powered on.
- An SD Absence alarm will appear once the unit is powered up. Pressing ignore will boot up the equipment for use. If the owner chooses, a Micro-SD card can be inserted in the PLC to eliminate the popup in future power ON events. The Micro-SD card, if installed records a history of alarms and does not store any patient record data.

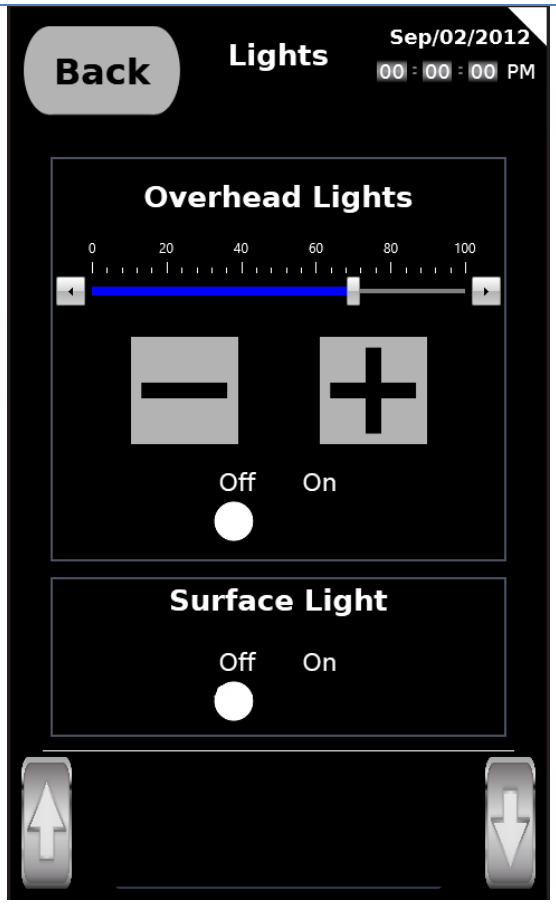
- The Maestro's **Actions** screen is the main page when the unit is powered on.



The Maestro's Actions page is the home screen where the user can quickly navigate to any feature installed on the grossing station. The Actions page is set up in a manner that categorizes the main features into easily accessible buttons. Starting at the top of the screen there are two icons in the upper left. "Settings" (meshed gears) and "Factory Settings" (wrench with gear) icons. The upper right corner displays the current date/time & the button for Logins. The middle of the screen has feature buttons for the Lights, Ventilation, Timers, Formalin Level, Alarms, User Manual, and Calculator. The lowest section of the screen displays active alarms & arrows for scrolling up or down. The user can press any one of the displayed buttons on the action screen to be taken to that specific feature of the controls.

6.1.3 Lights Button

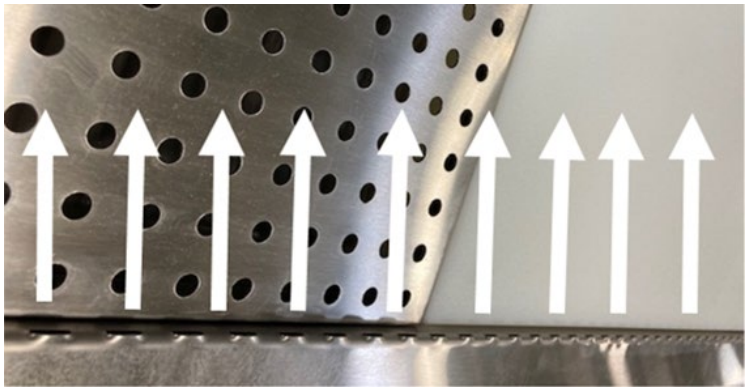
Once the operator selects the Lights Button, the screen will switch to the lighting page. This is where the operator can adjust and turn on any installed lights. Lighting options that weren't configured with your Maestro's purchase will show display text saying, "Not Installed". This is to notify the user that the specific unit doesn't have that specific feature. **NOTE:** Many options can be installed in the field and can be upgraded; Contact your sale rep. for more information on adding additional features. The lighting screen consists of overhead lighting and surface lights. Overhead lights can be dimmed to the user's liking and surface lights can be turned on and off to increase visibility on the work surface. To turn a specific light on/off press near the ON/OFF toggle notification to turn the light on. The plus & minus buttons as well as the slider bar are to increase or decrease the dimming of the overhead lighting.



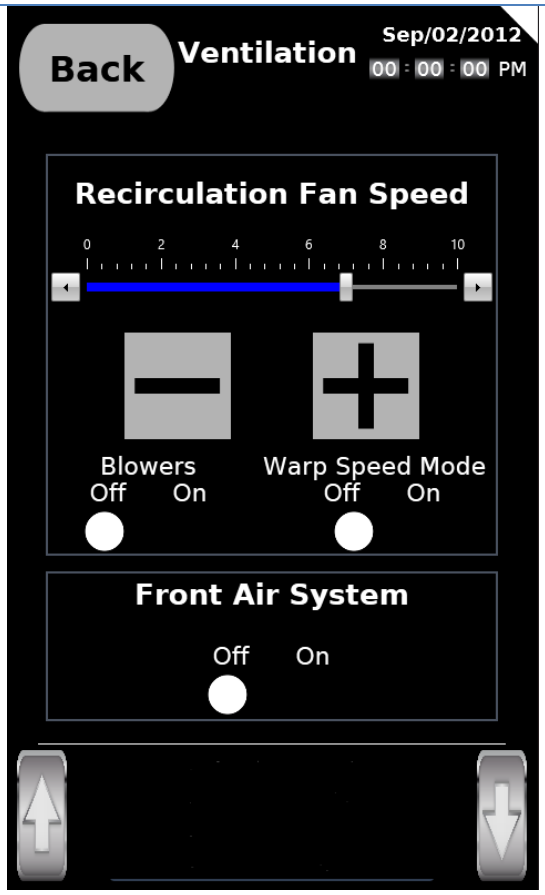
6.1.4 Ventilation Button

When the ventilation button is pressed, the user is taken to the ventilation screen. This screen features the Recirculation fan and Front Air System (FAS) On and Off toggles. If the units weren't configured with one or all these features, it will display "Not Installed". The patented FAS system is a key safety feature on Mopec laboratory equipment. The principle of operation is simple and safe. The FAS uses a series of fans to provide supplemental airflow at the front edge of the workstation directed at the backdraft vent. This helps push and pull any outgassed fumes from the worksurface and safely away from the user.

FAS Fans under front edge



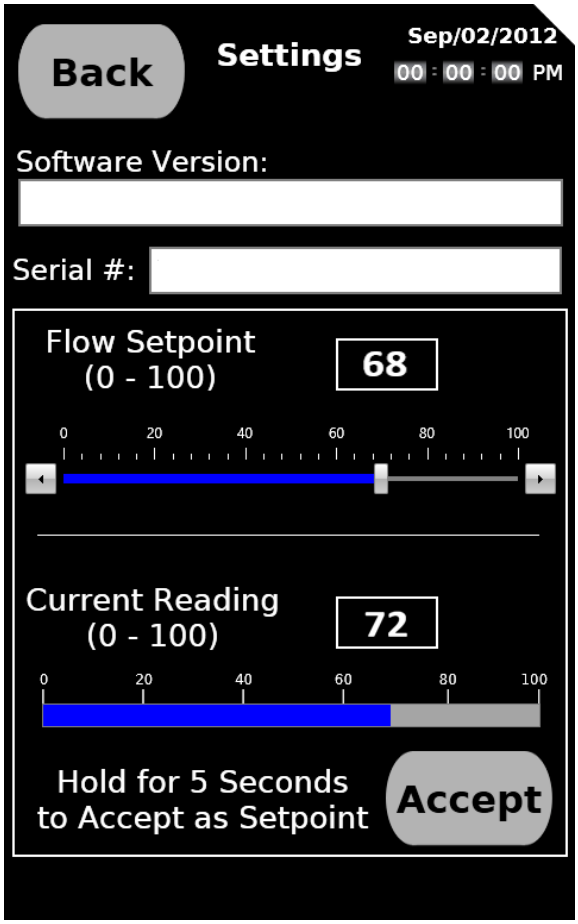
FAS ports on the inside edge direct flow across the surface



A flow sensor is a standard feature on all Maestros. The flow sensor is integrated into the Maestro hood to provide a method to alarm if airflow in the facility has been impeded or adjusted below a set threshold. This setting is only intended to provide an alert. Most Grossing stations are tested and calibrated for air flow by a local HVAC provider annually. This is a perfect time to adjust the Flow sensor setting against a calibrated setpoint.

NOTE: Flow sensor is not a calibrated volumetric air flow device.

- Touch the Login Access button at the top right of the Action Screen. At the login screen select the user drop-down icon then select *Manager.* Select access with passcode "**8 1 0 8 1 0**". Press OK. This Logs into the Manager setting mode where the Airflow alarm setpoint and alarm triggers can be set.
- Return to the Actions screen and select the Settings button on the upper left to set the flow setpoint.
- With the facility HVAC running you will see the Current Reading, scaled from 0-100. This indicates your current flow setting while the HVAC is running.
- Taking into consideration any variance between the current reading and calibrated setting, set your alarm threshold. Most facilities' actual airflow will vary based on door opening time and frequency to a lab, so it is advisable to set the threshold at least 10% lower than the nominal airflow value.
- If the Current Reading air flow drops below the set Alarm Threshold it will trigger an alarm notification.



NOTICE The Recirculation option is intended for facilities that do not have available HVAC exhaust flow available for temporary use or in limited-use environments.

The backdraft air is pulled through the hood by variable-speed blowers and cycled through filters in an effort to remove particulates and fumes before exhausting back into the room at the top of the unit. On the ventilation screen the Recirculation Fan speed can be turned on/off and & increased and decreased with the use of the buttons. Warp Speed Mode can be selected when enabled by Manager level access to increase the recirculation Fan speed.

⚠ **CAUTION** Variable recirculating blowers are loud and operate between 65-82 decibels (dBa). Long-term noise exposure requires hearing protection.

The filter timer function is intended to set a reminder and alert the user(s) when it is time to replace the filters in the system.

- On the Action Page press the Timers Button. The Air Filter timer will then be displayed.
- Pressing the displayed time to the right of the “Air Filter Timer” will allow the user to select a time duration per your specific laboratory conditions (REF 7.1.2) to be alerted to when to replace the filters. Note the time will then count down from this set time when the unit is turned on.

- To confirm the set time interval and reset the time remaining press and hold the Reset button displayed on the Timers screen. Confirm the Time remaining changed to the above set time interval.

NOTICE If facility ventilation remains on while the unit is **OFF** it is recommended to change pre-filters every 90 days as the filter timer is not active without power.

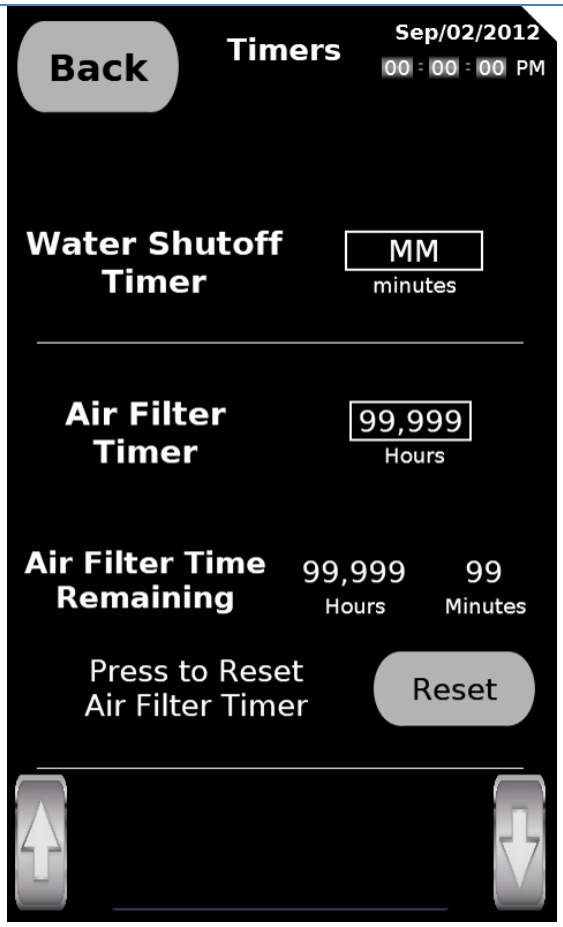
6.1.5 Date and Time Adjustment

To change the Date and Time you must be logged in as a manager (reference 6.1.4) and. Once logged in press and hold either the date or time on the display. A popup will come that will allow you to make the indicated change. Pressing OK when complete will make the change and exit out of the popup.

6.1.6 Timers Button

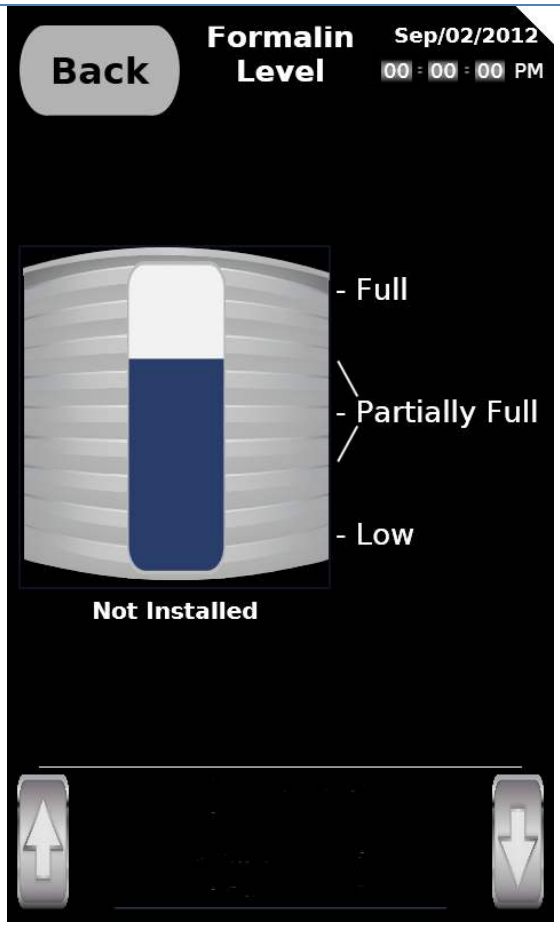
The Timers page has two displayed timers and one countdown timer. The timers include the optional Water timer and Air Filter Timer (REF6.1.4) with a correlated countdown timer. If an option isn't equipped on the unit the timers will display Not Equipped, telling the user that the unit being used doesn't have the option when it was purchased. The water timer is used in conjunction with the foot pedal option or Infrared sensor option. It controls the amount of time the water solenoid is to stay on after the first tap of the foot pedal or Infrared sensors input. This can be set as a safety timeout, or it can be used to dispense a given amount of water per laboratory process.

- To adjust the Water Shutoff Timer, press the time near Water Shutoff Timer.
- Adjust the time to the desired functional ok time needed and press OK to confirm your intended choice.

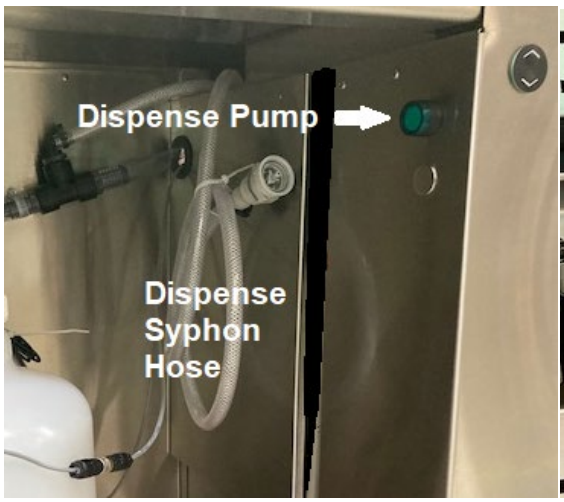


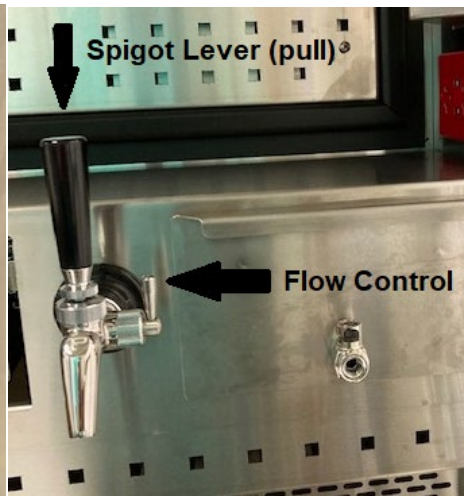
6.1.7 Formalin Tank level Button

From the Action page, the button labeled Formalin Tank Level will either be grayed out notifying you the Maestro grossing station you are using doesn't have a Formalin Dispensing option; Or it will be illuminated which will bring you to the formalin level observation screen. This screen will also show when the dispense pump button is pressed. This screen can aid users by visually seeing the amount of formalin in the dispensing system. The Formalin Dispense system on a Maestro utilizes a siphon hose and a transfer pump to fill up a reservoir tank located in the hood of the unit. This enables a very controllable gravity-fed dispense from a simple lever pull on the spigot.



- The Syphon Hose is intended to be connected to your formalin supply container (cut factory zip tie to uncoil hose). Most cubitainers utilize a quick disconnect. Insert the connector and pull to make sure it's latched.
- If you are pumping from a formalin barrel remove the supplied quick disconnect fitting and directly insert the end of the siphon hose into the barrel. Watch for bag liners, do not suck them up in the hose.





- To start pumping simply hold down the green Dispense Pump button located just inside the knee panel. The system is equipped with level sensors and will turn off the pump when full. The user can visually see if the tank is Low, Partially Full, or Full by viewing the tank Level Screen.
    - An empty system will typically transfer 5 gallons when filling.
- Once full the system will automatically stop filling the container to prevent spilling. It will also visually show a full container status to notify that the stem is ready for use at its maximum capacity.
- To dispense pull the spigot handle. The spigot also has a flow control on the side. Adjust this to your desired flower rate. With a gravity-fed system, the flow will be the fastest when full and the slowest when empty.

6.1.8 Alarm Settings Button

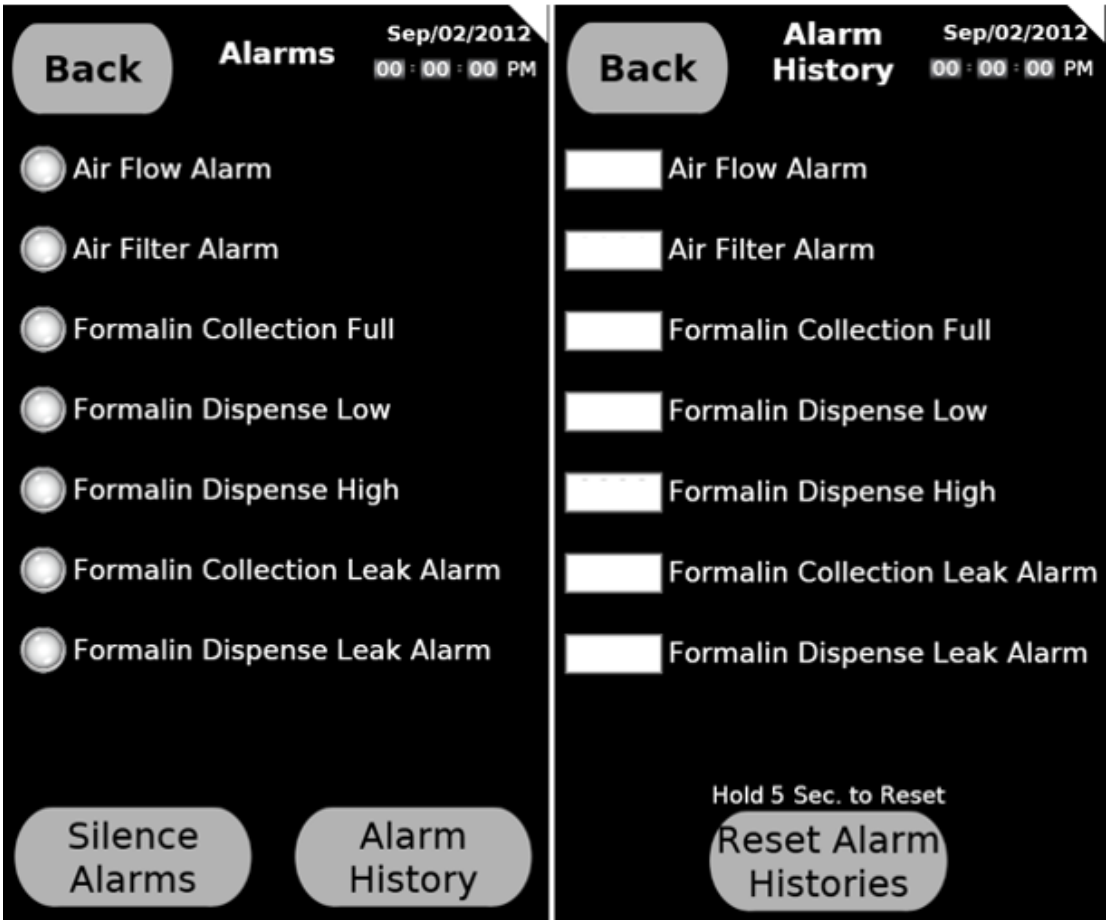
Once the operator selects the Alarm settings from the Actions home page the screen will go to the Alarm Settings Page. This page contains user selections for alarm notifications. The scrolling bar to the right will allow users to page up and down to see the full list. There are a total of eight features that have alarm functionality. Each feature has the ability for a visual, audible, BMS notification, or the ability to mute the alarm with a selectable duration. Visual notifications will be displayed at the bottom of the screen. Audible notifications alert users by emitting an audible alarm. The BMS (Building Management System) connection, is a simple output signal intended to be connected to a hospital remote management system. The last selectable option is the ability to mute a given alarm with an indicated mute duration. By selecting a time interval, the user can set a given interval of time to be muted. Different facilities have different requirements for alarms. Having the option to configure these settings to your specific organization's needs makes it easy to do on the Alarm Settings Page.

6.1.9 Alarms Button

Once the operator selects the Alarms button on the home page you will be presented with a screen showing all the possible alarm conditions. This screen helps notify the user of what function has an active alarm. Near each alarm feature title, there is a gray notification light when the function doesn't have an active alarm. When an alarm is triggered, that LED will turn on by emitting a green LED light. This is an indication that the function has an active alarm and needs to be looked at.

- The *Air flow Alarm* indicates that the current set alarm threshold is below the observed HVAC flow value.
- The *Air Filter Alarm* indicates that the air filter timer has expired, and that it is time to replace the filters.
- *Formalin Collection Full* indicates that the collection container underneath the unit is full and needs to be disposed of per lab procedure.
- *Formalin Dispense low and high* indicated the condition of the Dispensing container.
- The *Formalin Collect Leak Alarm* indicates the leak sensor located in the collection area has observed a fluid leak.
- *Formalin Dispense Leak Alarm* indicates that the leak sensor located in the dispensing area has observed a fluid leak.

You can silence any active alarm by pressing the Silence Alarms button. This mutes that alarms for the duration active in the Alarms Setting page. The Alarm History button at the bottom of the page will take users to the Alarm History page. This page displays incrementing counters of all observed Alarms triggered on the unit. The history can be reset back to zero by holding the reset button at the bottom of the page.



6.1.10 User Manual Button

The User Manual Button takes the users to a screen with a 3D barcode with the Mopec logo. If users scan the barcode with a smartphone, it will provide a link to a web address having the latest Maestro product manual. This can be a great feature to look up how a specific feature functions.

6.1.11 Calculator Button

The Calculator button on the home screen will take operators to a basic calculator screen. This can be helpful for basic math functions. By providing two inputs the Results box will give the calculated value depending on which mathematical function is selected on the right side. Two numbers can be added, subtracted, multiplied, or divided and the result will be mathematically calculated in the results box.

6.1.12 Log-in Credentials

Maestro units have 3 tiers of user credentials. They include *Operator*, *Manager*, and *Factory* logins. The *Operator* is the default login and will always appear once a unit is restarted. As an *Operator*, the users will be able to use all functions of the unit. Manager login is predominantly used to set alarm functionality. When the units are first installed the lab Manager will have to log in using the *Manager* credentials to set the Airflow alarm set point (Section 6.1.4) and alarm notifications preferences. Each facility will have its procedural preferences. Reference section (Section 6.1.7) for the different alarm setting functionality and how to enable and disable the various types. The *Manager* login also can unlock

a mode called *Warp Mode* if the recirculation option is installed. This will allow the unit's fans to run at the full-duty cycle of the fans which requires hearing protection.

NOTICE: When a *Manager* level alarm setting is changed, they will also appear for all user types.

The Factory login is only to be used at the Mopec manufacturing facility to configure units during the manufacturing process or by Mopec service technicians in the field. Below are the login credentials for the Operator and the Manager.

Credentials and Passwords.

Operator, Password = 000000

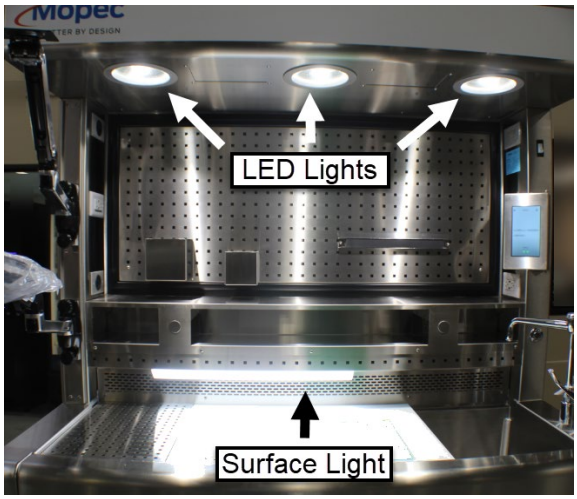
Manager, Password = 810810

6.2 How to Use Maestro Standard Features & Options

6.2.1 Lighting (standard)

The Maestro has recessed LED lights integrated into the hood, and a few supplemental light options are available.

- The overhead LED dimmer is adjustable by touching the *Lights* button on the action screen. The blue bar on left indicates the brightness level and the up/down arrows adjust the setting.
- Optional Surface lighting ON/OFF operations will show on the *Lights* screen as well if equipped.



6.2.2 ELEVATION (standard)

The Maestro is equipped with an elevation system with approximately 12” (30.4cm) of travel. This system is controlled though the up/down switch located on the front sink side of the workstation. Simply press the up icon on the button to raise the worksurface and the down icon to lower the station to the desired height.

⚠ **CAUTION** Risk of Pinching or Crushing Hazard. Ensure that hands, fingers, and other body parts are clear of moving parts and mechanisms during operation and adjustment of the elevating workstation. Failure to do so may result in serious injury or amputation.

The Maestro skirting is designed to limit the number of pinch points. The upper skirting overlaps the lower skirting which helps promote a safe workspace while elevating and lowering the workstation. Prior to elevating the workstation verify the upper perimeter is free and clear of any obstructions. Objects below the orange highlighted surfaces can be pinched or crushed during adjustments in elevation. Ensure there are no objects near these surfaces when raising and lowering the workstation.

⚠ **Keep all objects clear of highlighted areas when adjusting elevation.**

6.2.3 Faucet Controls (standard)

The Maestro utilizes a mixing valve to control flow and hot/cold temperature mix. Operation is much like any residential or commercial faucet; rotate the lever up to start the flow and push or pull the lever to mix the hot and cold.

NOTICE If your Maestro is optioned with a foot pedal or infrared-activated solenoid valve the mixing valve settings still apply, but nothing will flow out of the faucet until one of the other user inputs is activated.

6.2.4 Foot Pedal (Faucet) Option

The Foot Pedal option controls the on/off of mixed water to the Faucet.

Foot Pedal

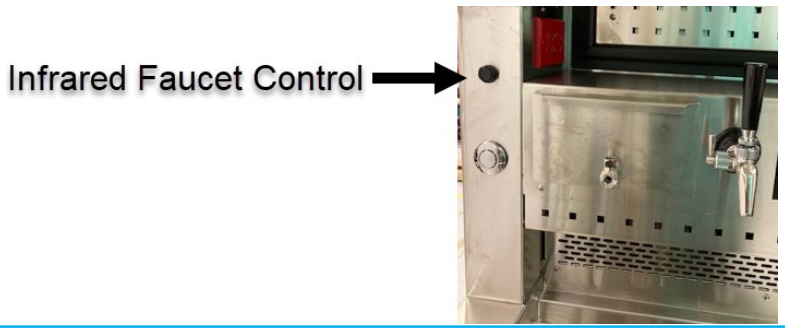
Hot/Cold Mixing Valve

- The foot pedal is mounted to a floor plate that can be positioned within reach by the user.
- A single tap of the pedal turns the hot/cold mixed water on.
- Tap the pedal a second time to turn it off.
- Reference section 6.1.5 to adjust the water timer valve interval.

NOTICE The foot pedal controls a solenoid valve that is between the Mixing Valve and the Faucet, if the mixing valve lever is NOT lifted into an open position water will NOT flow when you tap the foot pedal.

6.2.5 Infrared Faucet control “Hands-Free” Option

The hands-free faucet is controlled by an infrared switch located on the hood column near the disposal switch.

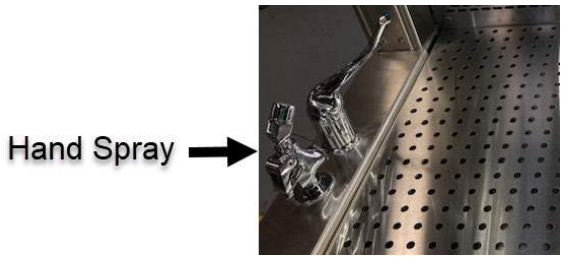


- If you wave your hand near the IR sensor, the system will turn on the water solenoid to the faucet.
- Mixed water is still controlled by the hot/cold mixing lever, and it must be rotated up and on for water to flow.
- The water will flow for the time set on the Water Shutoff Timer function mentioned in section 6.1.5.

6.2.6 Hand Spray Option

The hand spray option is installed opposite the sink and is intended to spray down the grid plate and cutting board surfaces.

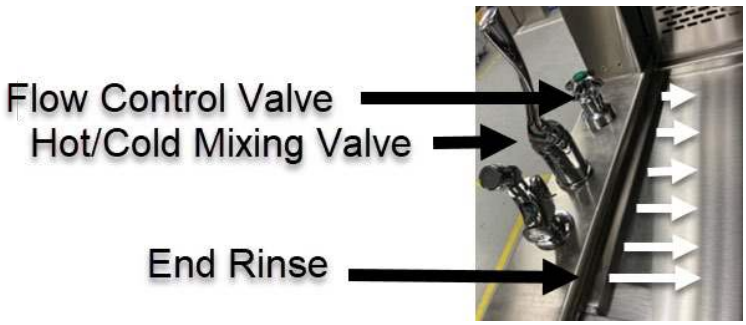
- The hand spray option comes with a hot/cold mixing valve that must be rotated up and on for it to work.
- Simply squeeze the hand spray trigger to spray mixed water. The flow rate can be adjusted by both the trigger and the mixing valve.



6.2.7 End Rinse Option

The End Rinse option is installed opposite the sink and utilizes the hand spray hot/cold mixing valve but has a separate flow control valve.

- Adjust the hot/cold Mixing Valve to the desired mixture. It is recommended to open the mixing valve up all the way. Flow can be adjusted separately at both the hand spray and end rinse control knob.
- Adjust the End Rinse Control Knob to the desired flow.
- Use the Mixing valve lever to turn the end rinse on and off.

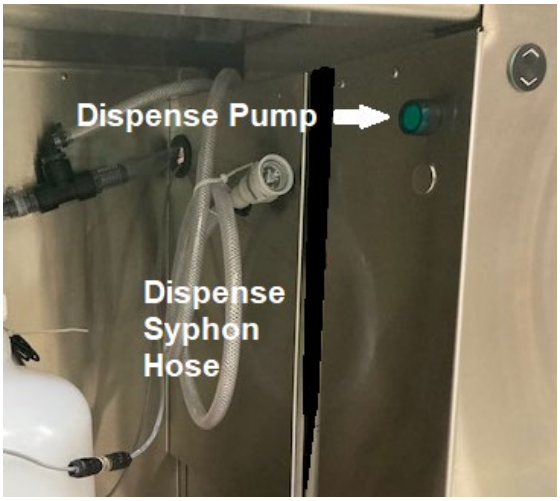


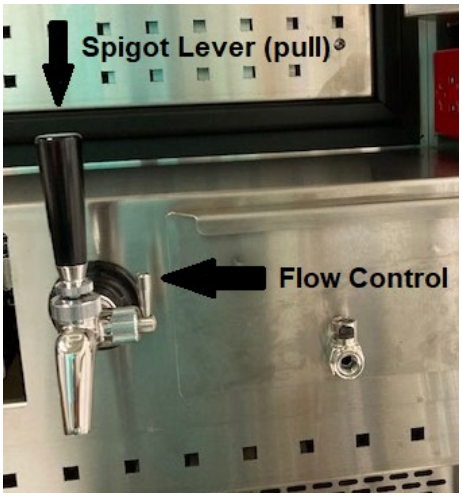
6.2.8 Formalin Dispensing Option

The Formalin Dispense system on a Maestro utilizes a siphon hose and a transfer pump to fill up a reservoir tank located in the hood of the unit. This enables a very controllable gravity-fed dispense from a simple lever pull on the spigot.

- The Syphon Hose is intended to be connected to your formalin supply container (cut factory zip tie to uncoil hose). Mopec cubitainers utilize a quick disconnect. Insert the connector and pull to make sure it is latched.

- If you are pumping from a formalin barrel remove the supplied quick disconnect fitting and directly insert the end of the siphon hose into the barrel. Watch for bag liners, do not suck them up in the hose.





- To start pumping simply hold down the green Dispense Pump button located just inside the knee panel. The HMI screen will show the Formalin Level Screen as it's being filled and shows the status of the tank level. The formalin dispensing tank has built-in level sensors that indicate the fluid level and are indicated visually on the screen. When the tank reaches full capacity, the pump will automatically shut off and the display will visually show the tank at capacity on the screen.
  - An empty system will typically transfer 5 gallons when filling.
- An alarm will alert users when the tank becomes low.
- Mopec recommends refilling the dispensing tank after usage to reduce the crystallization buildup on the float level sensor.
- To dispense pull the spigot handle. The spigot also has a flow control on the side. Adjust this to your desired flower rate. With a gravity-fed system, the flow will be the fastest when full and the slowest when empty.

6.2.9 Formalin Collection Option

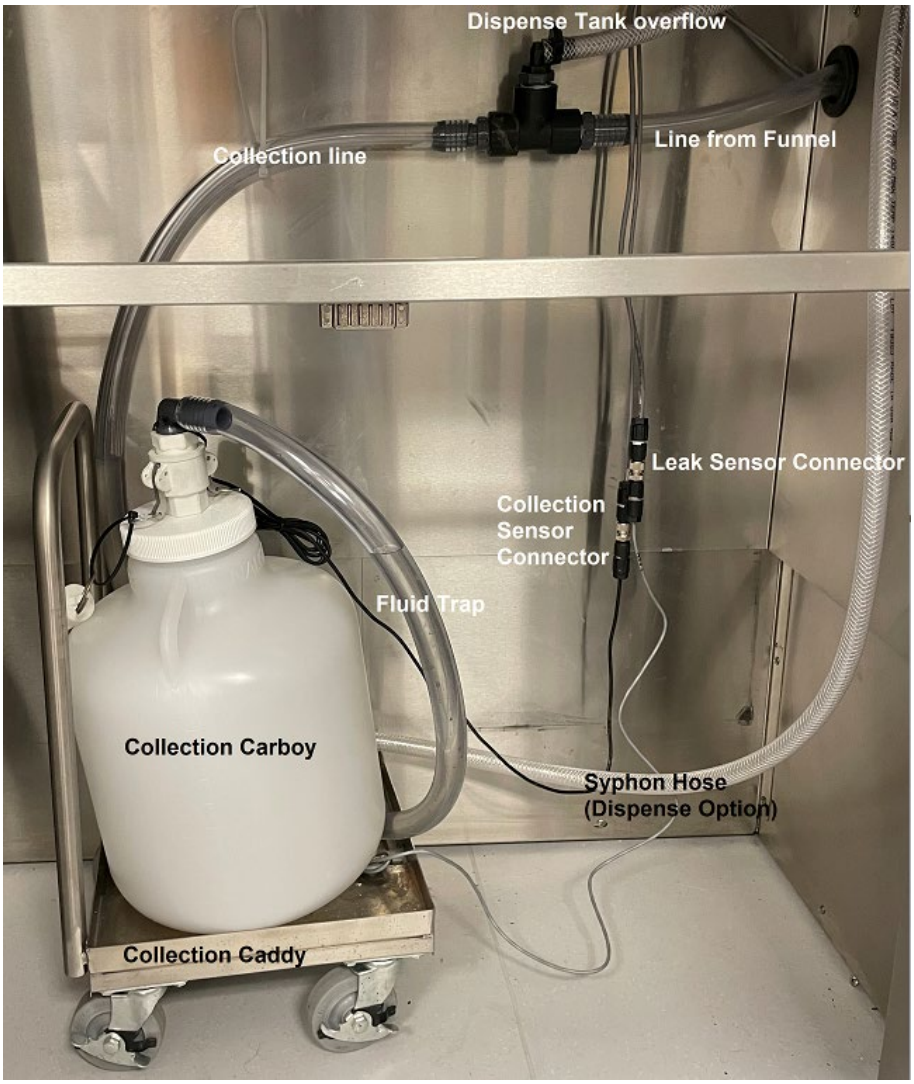
The Formalin Collection system is also a gravity system that drains from the collection funnel down to a carboy located on a dolly in the knee space. This will be behind the cabinet doors if your Maestro has that option.

- Pour off formalin waste into the collection funnel, located in the back corner of the sink.

NOTICE The funnel is necked down to help prevent solids from plugging into the collection line. If desired Mopec does offer screens (**BA077**) for the funnel to help collect solids.

BA077

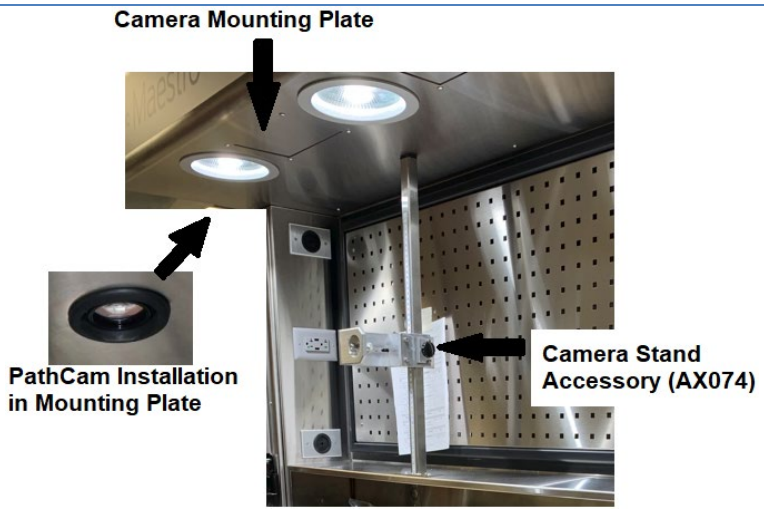
- The system will drain down and into the collection carboy. The carboy cap is equipped with a sensor and will indicate via an alarm message when the system is full.
- The drain hose is supplied long enough to allow the collection dolly to be pulled out from under the knee space before disconnecting. This will create a small fluid trap if left at the factory cut length on the collection line.
    - If your preference is to eliminate the fluid trap simply trim the line back short enough that the fluid drains completely into the carboy. You will have to bend down into the knee space to disconnect now.



- Unscrew the carboy cap and remove the carboy for disposal. If you prefer to wheel the collection caddy to the disposal site, you will have to disconnect the fitting and unscrew both the leak and collection sensors shown above.

6.2.10 Integrated Camera System Options

The Maestro is designed to utilize the PathCam camera system but will also accept other popular pathology camera systems. The Maestro has two (2) standard camera mounting locations on the underside of the hood canopy.



- The PathCam system is available factory installed and as an accessory on existing stations. The camera itself is mounted to the back side of the plate and only the lens protrudes out of the canopy.

NOTICE Other manufactured systems protrude further down out of the canopy to maintain their recommended fixed focal distance from the cutting board.

- Traditional Camera Stands, like the **AX074** Accessory shown above, are available for mounting handheld point-and-shoot type cameras.
- PathCam Camera Systems are covered in their own product specification and user manual. See www.mopec.com for the latest information.

6.2.11 BMS (Building Management System) Connection

Mopec BMS (Building Management System) connection, option MB1022, is a simple output signal intended to be connected to a hospital remote management system. The function is a dry contact relay output that is triggered by an alert condition on the Maestro.

- This signal informs the hospital's management system that the station has an alert condition.
- The BMS signal wires can be run from the facility to the station and connected to the Alarm relay signal output.

6.3 What to Do in Emergency and Exceptional Situations

First, follow your laboratory safety procedures. Reference the below protocol for unit situations.

- Suspected electrical issue.
  - Turn off the main power switch.
    - Any faucets or fixtures that are controlled by solenoids will close automatically.
  - Turn off the unit's facility breaker if further electrical issues are detected.
- Suspected plumbing issue.
  - Turn off all water fixtures, typically the mixing valve levers will do this.
  - Turn off the End Rinse or Foot pedal if the leak continues.

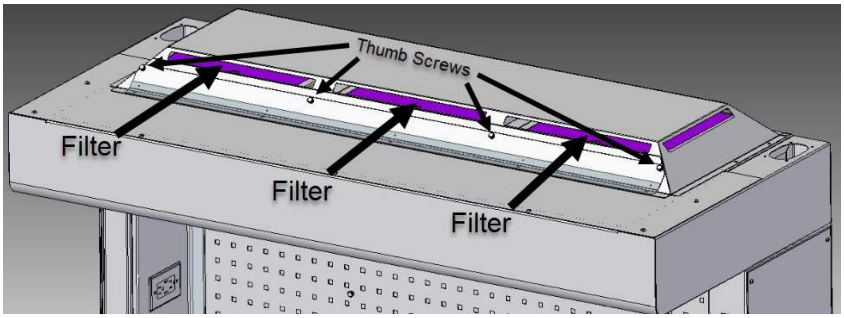
- Turn off the facility water supply to the unit if further plumbing issues are detected.

- Air Flow Alert
  - Check for facility flow, and alert laboratory management.

7 MAINTENANCE

7.1 How to Maintain the Product

7.1.1 **Changing Filters -** Recirculating equipped units only (MB1009 option)



- Filter change frequency is based on laboratory HVAC settings and Formalin fume exposure and therefore variable in life. Even without use, once a filter has been installed it should be changed at least once per year. Failure to replace filters increases the risk that your recirculating unit will not provide appropriate protection from hazardous materials.
- To change the filters in your station, you will need to remove the thumb screws that hold the door closed.
- The filter door may now be opened. It is hinged at the bottom and may need minor prying to open if operated in a dusty environment.
- Depending on your model the recirculating unit may have 3-6 filters.

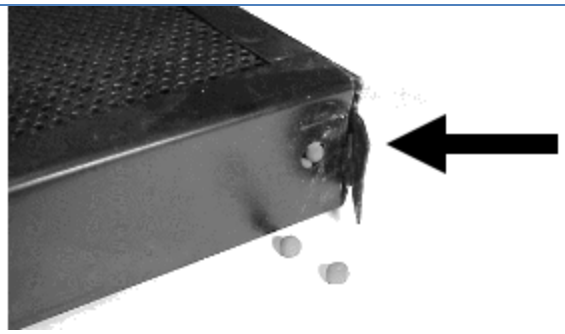
NOTICE Use latex or nitrile gloves when removing the filters. All replacement filters will use a Mopec **BF035 Potassium Permanganate Filter** in each slot.

- Install the new filters with the white side down and black mesh up top.
- Close the filter door and tighten the thumb screws.
- After a filter change the station should be checked that the ventilation isn't impeded. A reduction in flow indicates an improper filter installation and the steps above will require repeating.

7.1.2 Checking Filters

Filter life is dependent on the amount and concentration of formalin fumes passing through it. This section describes how to check a filter so that a proper filter life can be predicted and planned in a lab.

- The potassium permanganate ($KMnO_4$) filters change color from bright purple to dark brown with the amount of exposure. To check this please remove a used filter per section 7.1.1 above.
- Pry open the corner of the filter and dump out some pellets for examination.



- To determine if the potassium permanganate has been exhausted remove a pellet and cut it in half.
- With the pellet on a white paper towel add a few drops of water to the pellet. The water running off the pellet should be purple and then turn a deep iodine color.
- The filter should be considered 80% used when the purple color diminishes from the core of the pellet and 100% depleted if there is no color present.

NOTICE use this pellet examination method only in typical laboratory conditions. Highly concentrated solutions or excessive formalin pouring operations will prematurely deplete the pellets and give a false sense of filter life.

7.1.3 Health Hazard information & Disposing of Filters

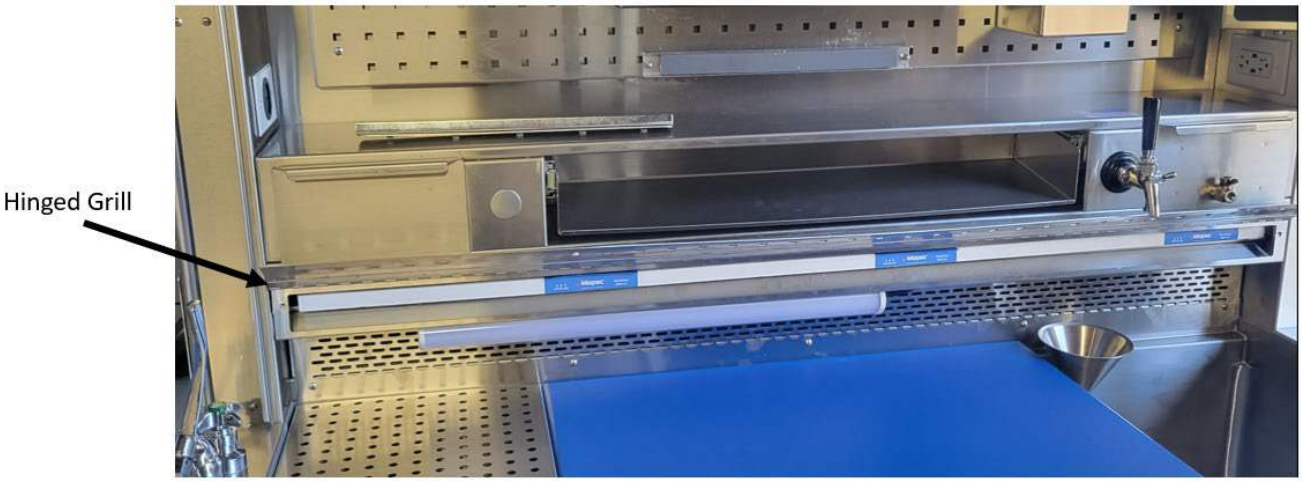
Health Hazard Data - Alumina Permanganate Filter Media

- Effects of Exposure – The filter media is non-toxic upon oral, skin, and inhalation exposure and is non-irritant to the skin. Breathing dust may cause sneezing. The skin may feel dry after contact. The filter media is an eye irritant.
- Emergency Treatment – Flush eyes with large quantities of water and seek medical attention.

Filter Disposal - Dispose of contaminated filters per your facility, state, and federal procedures for hazardous materials disposal. See the SDS for the chemicals exposed to the filters for further directions.

7.1.4 Changing the in-duct filters on 2024 Maestros.

- The Filter is seated inside the front grill. Remove all accessories from the hinged grill. Accessories on the upper pegboard are not required to be removed in this process and may stay attached. On either side of the hinged grill will be two thumb screws that are to be removed by hand. Once the fasteners are removed the hinge can be lifted giving access to the filter carrier. Pull the filter out and dispose of the used filter. Vacuum any debris in the filter carrier with a vacuum attachment and replace it with a new filter.



The new filter will side in and rest behind the grill. Once installed close the filter hinge and re-install the two thumb screws on each end. The filter change interval will vary depending on cleanliness of the incoming air. The best practice is to change filters quarterly. Please see section **10.1.2** for replacement filters.

⚠ **CAUTION** clogged or neglected in-duct filters will negatively affect performance of the ventilation and does require an established interval for replacement.

7.1.5 Resetting/Leveling the Elevation System

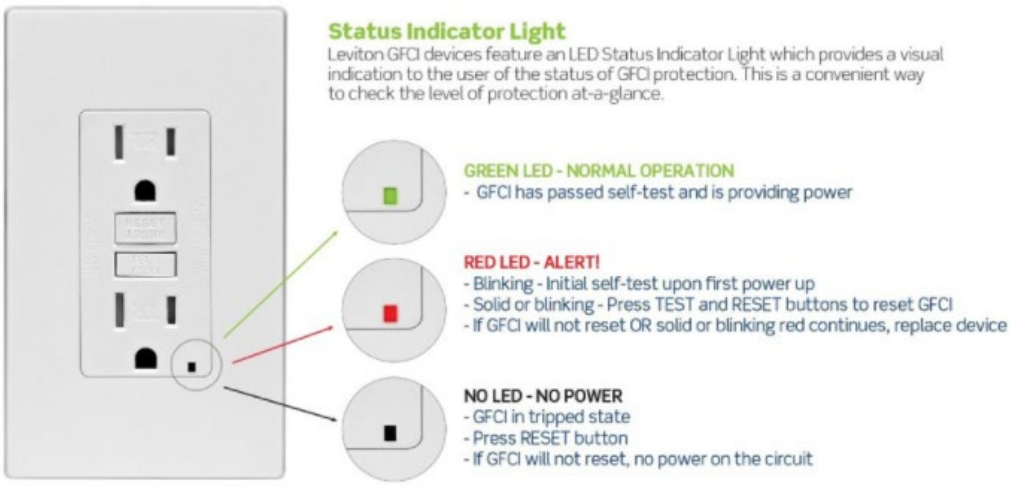
Should your station become unlevel for any reason follow the steps below to reset the elevation system. An unlevel elevation system can cause objects to roll off the worksurface or cause fluids to not drain properly.

- Press and **hold** both the up/down arrows at the same time.

- While holding both buttons, the unit will then move to the lowest position and synchronize and level out.
- Continue to hold for another 3 seconds and then release both buttons.
- Adjust the unit up and down and confirm the unit has remained level. Repeat the reset procedure multiple times if you suspect it has not fully leveled out.
- Verifying the unit is level at all heights confirms the unit is elevating properly.

7.1.6 Resetting the Main GFCI

Should the unit trip the Main GFCI; the controls, touch screen, and auxiliary power outlets will no longer be powered. First, check that your unit has tripped by referencing the image below.



NOTICE The GFCI will only reset if power is supplied to the station. Check that your Main Power switch is on and that your facility's circuit breaker is not tripped.

- Press the TEST and RESET buttons on the GFCI and confirm operation or status lights per the diagram above.
- If the GFCI has reset and shows a green light the unit is ready to operate.
- If the GFCI fails, there may still be a ground fault in the system or the GFCI unit may need to be replaced. See the section on Troubleshooting (8.0) or call Mopec Service (7.3)

7.1.7 Resetting the Auxiliary GFCI

The Maestro is equipped with an auxiliary 15amp GFCI power outlet for uninterrupted supply on a computer system or other auxiliary devices plugged into the side panel. For this, the unit only needs power supplied to the unit from the facility and operates independently from the Main power switch. The reset procedure is the same as in section 7.1.3 above.

7.2 Stainless Steel Maintenance & Cleaning

7.2.1 Disinfecting Stainless steel

All stainless steel surfaces can be cleaned with soap and water to remove tissue and debris. The unit is to unit is to ONLY BE WIPED DOWN & not Sprayed(worksurface/sink is only part of station that can be sprayed). The stainless steel surfaces can be disinfected with a non-caustic disinfectant.

- Always wipe in the direction of the stainless steel grain.
    - We suggest using BE045 Path Cloud or BE047 Bench Wipe for cleaning purposes.
- Most disinfectants must be followed up with a water rinse to remove the salts that remain after these products dry. Always follow up a disinfection cleaning with a thorough rinse of water.
- DO NOT USE a straight bleach solution to clean your unit. Bleach will eventually erode stainless steel if not thoroughly rinsed.
    - Erosion from chlorine bleach is detectable and will void the warranty.

- If your process must use chlorine bleach it must not exceed 10% and must be rinsed immediately after disinfection to avoid damage to the metal.

7.2.2 Stainless Care and Maintenance

To maintain your Stainless steel product, follow these steps:

- Rinse the surfaces with water frequently.
- Do not touch the surfaces with oily hands.
- Always use soft abrasive fine grit pads to clean grime in the direction of the metal grain.
- Once clean, condition your stainless surfaces with WD40 lubricant or Stainless steel polish.

7.2.3 Use of DECAL

When a Decal solution is used a brown rust ring along with a milky white substance can deposit on the surface. Decal is very harsh, even the fumes can cause staining on stainless steel. Consider placing the Decal container you currently use inside a plastic base that will help catch drips that might occur.

- Clean and rinse your station after every use of the Decal solution.

7.2.4 Rust and Oxidation Formation

Rust can and will occur on stainless steel if it is not maintained properly. The most common cause of rust is from using a ferrous material on or near the unit. This is referred to as "transfer rust". Salts from cleaners or disinfectants can extract ferrous materials and deposit or transfer them to stainless steel. Always rinse all disinfectants before they dry. Decal solutions and fumes are very aggressive and can deposit rust if not cleaned. Formalin use has not been shown to cause rust but it does contain salts and therefore can deposit rust.

There are a few ways to remove rust should you develop it.

- Vinegar – Pour White Vinegar on the rust and let it soak for 5 minutes. Scrub with a soft brush (like a toothbrush) Rinse with water and wipe dry.
- Lemon Juice & Baking Soda – Mix equal parts of each into a paste and spread over the affected area. Let it set for 30 minutes before washing away with a damp sponge. Repeat as necessary.
- Rust Remover – as a last resort try a chemical cleaner like Magica Rust Remover Magica Rust Remover | Best Rust Removal Products, and follow the instructions.

7.2.5 Scratch Repair

A surface scratch can be repaired using the following technique. Completely removing the scratch will depend on how severe it is.

- Use 120 grit emery cloth or paper and firm pressure to sand the scratch.
- Sanding must always go in the direction of the grain. Sand in a perfectly straight line, avoiding the natural tendency to sand in an arc. Sand the surface until the scratch is gone.
- Polish using a very fine grade of 3M scotch-brite pads. Use the same motions as with sanding. Polish the surface until the original finish is restored.

7.2.6 Fingerprints and solvent cleaning

The most common surface contaminants that occur from normal use are fingerprints and mild stains. These usually affect only appearance and do not affect corrosion resistance. They can easily be removed by a variety of simple cleaning methods.

- Fingerprints can be removed with a common glass cleaner or by gently rubbing with a paste of soda ash (sodium carbonate) and water which would be applied with a soft cloth. It is best to follow with a warm water rinse.

7.3 Mopec Service

PLEASE have the following information available BEFORE you call from your station ID tag or original order or quote. Reference the ID tag located near the Power Switch under the GFCI outlet. Older units may have this ID tag in the knee space on the sink side.

Product Model Number: *Example: MB1060*

Product Serial Number: *Example MB1060RG19001(older stations)* MB1060-0-140203-001 (newer stations)

Call 1-800-362-8491 and follow the prompts. Or email us at customerservice@mopec.com

8 TROUBLESHOOTING AND REPAIR

8.1 How to Identify and Solve Problems

WARNING: The troubleshooting section is for reference only. Repairs are be made by licensed electrician or plumbing professional and shall follow proper facility safety protocols and a Lock out tag out Procedure.

Error / Issue / Failure	Cause	Solution
Power up Failure		
My Station does not turn “ON”	G.F.C.I. has been tripped	Reset G.F.C.I. There are two per station. One is above the shelf, and one in the “Cord Wrap” area on the side of the machine. ***NOTE: The station must have the main power “ON” to reset GFCI.***
	The facility breaker has been tripped	Reset facility breaker
	Power system short	Check connections at the wire whip or power cord and plug the connector. Disconnect power check circuits & harness connections **(REF 9.2)**
Elevation Failures		
My Station does not elevate	Station not turned “ON”	Turn station “ON” at main power switch
	G.F.C.I. has been tripped	Reset G.F.C.I. (station power must be “ON”)
	Elevation system needs to be reset	Reset elevation system (**REF 7.1.4**)
	Damage to Elevation system	Replace linear actuator control box & button
	Actuator unplugged	Check that all actuators are connected to the control box.
Station tilting towards side, front or back	Station not leveled correctly	Check leveling feet Check for obstructions limiting travel in and around the station
	Station elevation system sagging or drifting	Check for excessive weight on the unit in the direction of the tilt Reset elevation system (**REF 7.1.4**) Replace linear actuator nearest tilt (operate in lowest position pending service)

Water Fixture Failures		
My station's faucets do not work	Facility water turned "OFF"	Turn "ON" facility water supply
	Mixing valve (pressure/temp control turned "OFF"	Turn mixing valve "ON"
	Water system plugged	Check Y Strainers for debris. Check for kinked supply lines. Check backflow prevention devices **(REF 8.2.5)**
	Units equipped with a proximity sensor or foot pedal option utilize an electric solenoid to turn the water ON.	1. Water timer must be set to a desired interval in minutes **(REF 6.1.5)** 2. The mixing valve must be opened. 3. Press the foot pedal or activate the proximity sensor to open the water valve. 4. Flow will then be turned off when the water timer lapses/foot pedal is pressed/ or the proximity sensor is deactivated.
My foot pedal will not cause water to dispense	Mixing valve (pressure/temp control turned "OFF"	Turn mixing valve "ON" and leave "ON"
	Water timer set to "0" minutes	Set water timer to 1 minute or above **(REF 6.1.5)**
	Foot pedal air hose Disconnected from Air switch	1. The air switch is accessible in the electrical panel at the bottom. Access the air hose connection and locking ring from the rear of the unit or by removing the upper skirting and reaching under and behind the electrical panel. 2. Remove the locking ring on the back and pull the switch inside the electrical cabinet. 3. Test the continuity of the switch, check for air leaks, and check that the hose is connected and fully seated. Use the pedal to test the opening and closing of the mechanical switch. Replace if inoperable. Reinstall components in reverse order. **4. (REF 8.2.4.2)**
	Hand spray hose kinked	Un-kink hand spray hose

My hand rinse or end rinse are not working		Check in lower skirting for interference
	Mixing valve “OFF”	Turn mixing valve “ON”
	Gate valve for end rinse “OFF”	Turn gate valve “ON”
	Water system plugged	Check Y Strainers for debris. Check for kinked supply lines. Check backflow prevention devices **(REF 8.2.5)** Clean end rinse orifice with small pick to dislodge debris.
Station is leaking water	Leak at facility connection	Check strainer drain plug Check flex lines from strainer. Check drain line connection. Check P-trap to facility connection
	Leak internal to station	Shut off all mixing valves and turn off hot/cold separately to isolate leak circuit **(REF 9.3)** Service water lines & connections **(REF 9.3)**
LIGHTING		
No lights will come on	G.F.C.I. has been tripped	Reset G.F.C.I. (station power must be “ON”)
Individual 7” overhead light not working	Bad Light driver or loose connection at driver	Check for loose connection at driver, replace if necessary
	LED failure	Replace LED light
Surface light not working	Surface light not turned “ON” in touch screen	Turn surface light “ON” in touch screen Lighting menu screen
	Power supply issue	Check connections at harness for LED Check connections at distribution blocks/DIN Check DC power supply function/output
	LED failure	Replace fixture
Shelf-mounted task light not working	Power switch in light base not turned “ON”	Turn power switch in light base “ON”
	LED failure	Replace fixture
Hanging task light not working	Power switch in light head not turned “ON”	Turn power switch on back of light head “ON”
	LED failure	Replace LED light head

Lights are too dim or bright	Brightness set too dim.	Adjust brightness to user preference in Light menu on the touch screen
	LED driver issue	Check connections in hood at driver. Check driver output. Replace driver
GARBAGE DISPOSAL		
Garbage Disposal/Garburator not working	Disposal is jammed	turn off facility breaker and remove jam **(REF 8.2.3)**
	Facility breaker is tripped	Reset facility breaker
	Breaker on disposal itself is tripped	Press reset button (**REF 8.2.3)**
	Air hose disconnected from button to air switch	Reconnect hose to both button and switch
	Disposal has locked up/failed	Replace disposal
FORMALIN DISPENSING/TRANSFER PUMP SYSTEM		
Pump shuts off when I press the green button	User not pressing and holding button to transfer formalin	Press and hold green button to transfer formalin
	System/internal storage tank is full. Pump Is automatic turned off to prevent overflow	Dispense formalin inside internal storage tank and refill as needed.
Pump will not transfer any more formalin/stops while pumping	System/internal storage tank is full	Use formalin inside internal storage tank
Pump will not pump fluid	Pump is clogged	Clean out salt deposits in pump. Replace pump if damaged
	Internal float switch stuck or bad	Clean salt deposits on float switch or replace internal float switch
	Green Button is bad	Replace green button
Alarm Screen Say “Formalin Dispense Low” at bottom of screen	Internal Formalin storage Tank is low	Add formalin to internal tank using transfer pump

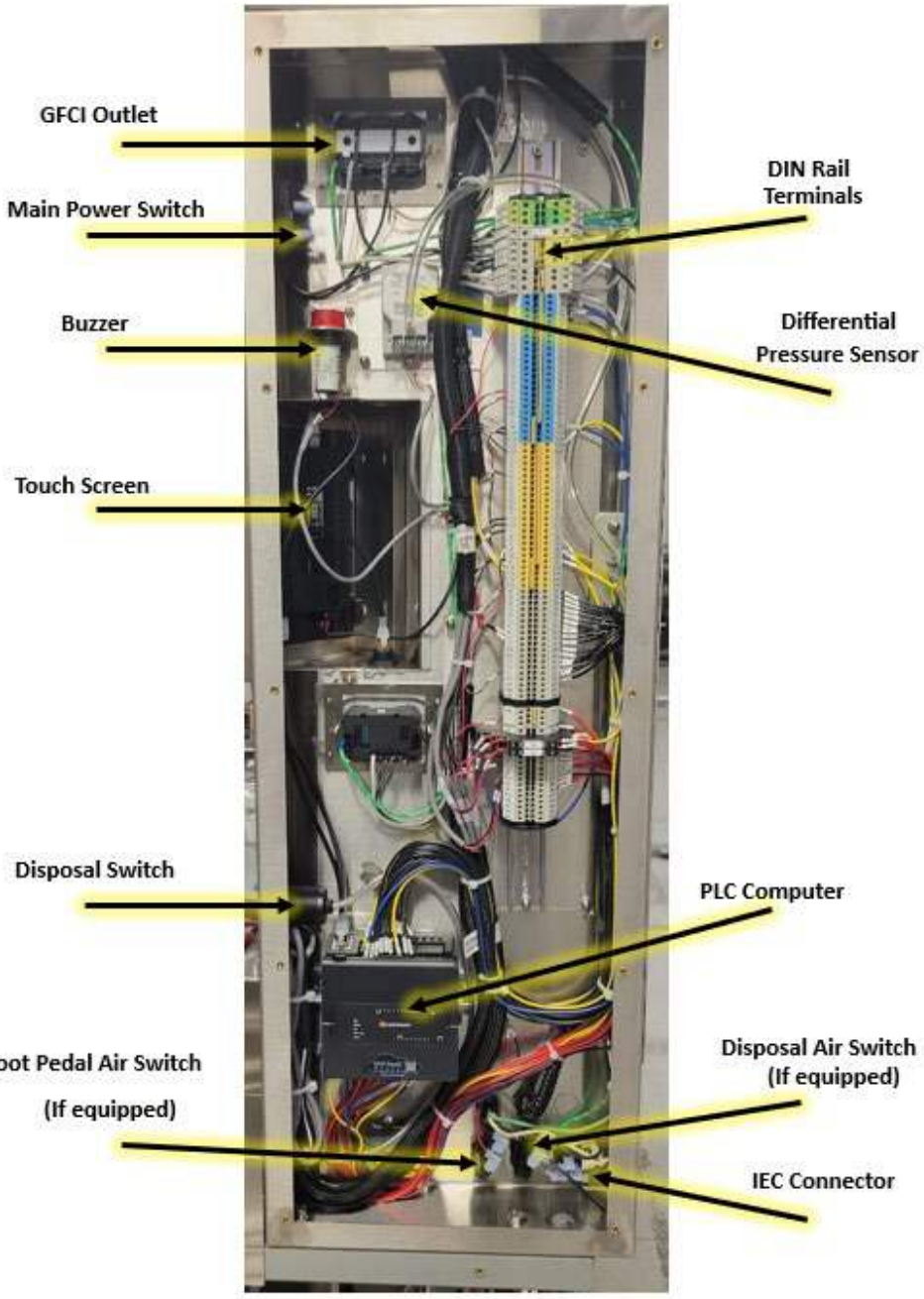
Formalin Dispensing Leak alarm is present (sensor #1, inside station, beneath formalin storage tank)	There is a formalin leak or sensor is faulty	Repair leak & clean sensor of fluid or replace faulty sensor
FORMALIN COLLECTION SYSTEM		
Formalin Collection Full alarm	Formalin collection Jug/Carboy is full	Empty formalin Jug/Carboy
	Float switch disconnected	Plug float switch into station. Check wires in connector are not pulled out
	Float switch “bulb” is stuck in the “full” (up) position	Unscrew cap on Jug/Carboy and make sure metal “bulb” on float switch can move up and down the rod without getting stuck. Or replace float switch. Keeping the system full reduces the
		Keeping the system full helps eliminate buildup on the float sensors.
Formalin Collection Leak alarm is present (sensor #2 (sensor #2, located in formalin collection cart)	Sensor disconnected	Plug sensor into station. Check wires in connector are not pulled out
	There is an active leak/spill in the bottom of the cart	Repair leak & clean sensor of fluid or replace faulty sensor
Alarm Buzzer Notification		
Alarm buzzer is ON	Check alarm screen at the bottom of the screen for alarm identification or Press the Alarms button on the Action page.	Identify alarm cause and correct the alarm condition.
	Press Alarm Setting button on the Actions page	Identify alarm cause and correct the alarm condition. Verify which alarm condition has audible notification and set them according to Laboratory preferences.

8.2 How to Repair Product Components

8.2.1 Electrical Panel Service

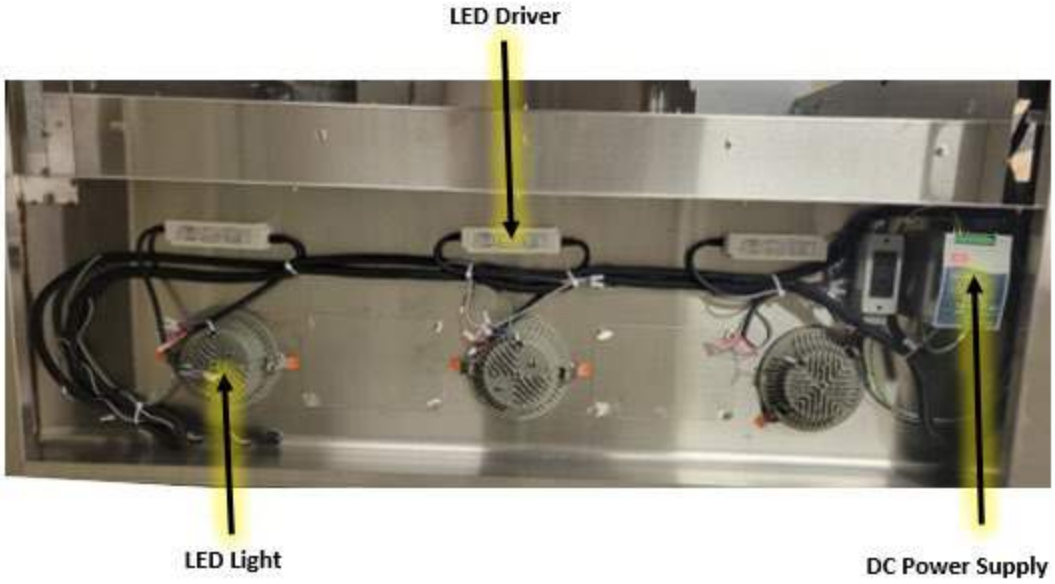
The Maestro has an electrical service panel located on the sink side of the unit. This panel is where all the power is distributed to the Maestro. Use a Phillips screwdriver to remove the 10 fasteners.

NOTICE It is important to leave 10 inches of clearance to access this panel as it houses the PLC, HMI, Electrical DIN rail, and relays that may need service.



8.2.2 Lighting/Power Supply Panel Service

The top of the hood houses the DC power supply and LED lighting components. To service components in the hood, use a Phillips screwdriver to remove the top cover.



8.2.3 Garbage Disposal Jams

The most common disposal failure is a Jam. Turn off the power to the station and check the disposal with a piece of wood, like a broom handle. Attempt to rotate the rotor both clockwise and counterclockwise to confirm the motor is not locked up. If there was debris locking the rotor is it possible it tripped a breaker, see section 8.2.1.2

8.2.4 Checking Disposal Breakers

The garbage disposal on a Maestro is wired into one leg of the multi-branch circuit. Meaning the rest of the unit can operate unaffected by a disposal jam and a tripped breaker.

- Check the Facility breaker that powers the station, it is quite possible a jam could trip it.
- Check the breaker that is built into the side of the disposal housing and press it to reset. Access to this button may require the removal of the base skirting panels. To reset insert a plastic pen into the hole of the front of the unit to depress the reset button. If the disposal will not reset you may need to replace the disposal or check the airline, see sections 8.2.1.3 & 8.2.1.4

8.2.4.1 Replacing Garbage Disposal

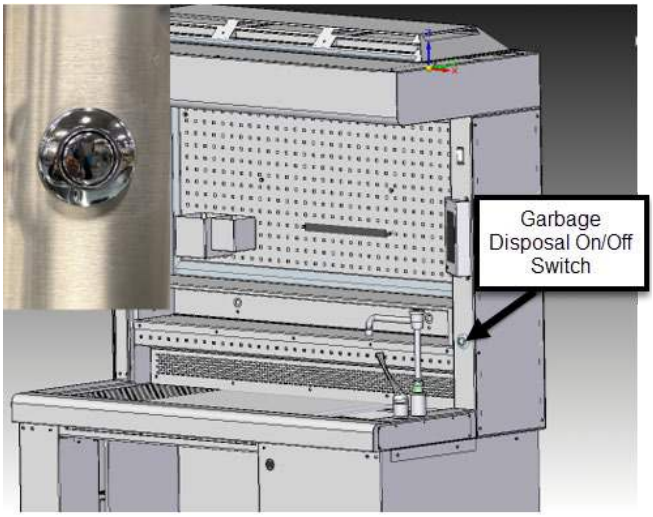
- Standard Models use a ½ HP disposal Mopec part PP1029 – (Moen GX50C)
  - https://manualzz.com/doc/51091831/moen-gx50c-specifications-sheet
  - Disconnect the power cord, loosen the hose clamp, and disconnect the flexible drain line. Lastly, remove the lock ring at the disposal. Reference Moen GX50C specification for more information.
- MB1021 Optioned Models use a 1 HP disposal Mopec part PP0944 – (Moen GX100C)
  - https://manualzz.com/doc/53171928/moen-gx100c-gx-series-1-hp-continuous-feed-garbage-dispos
  - The MB1021 option includes a water injection feature. Disconnect the water injection line by loosening the hose clamp at the disposal inlet.

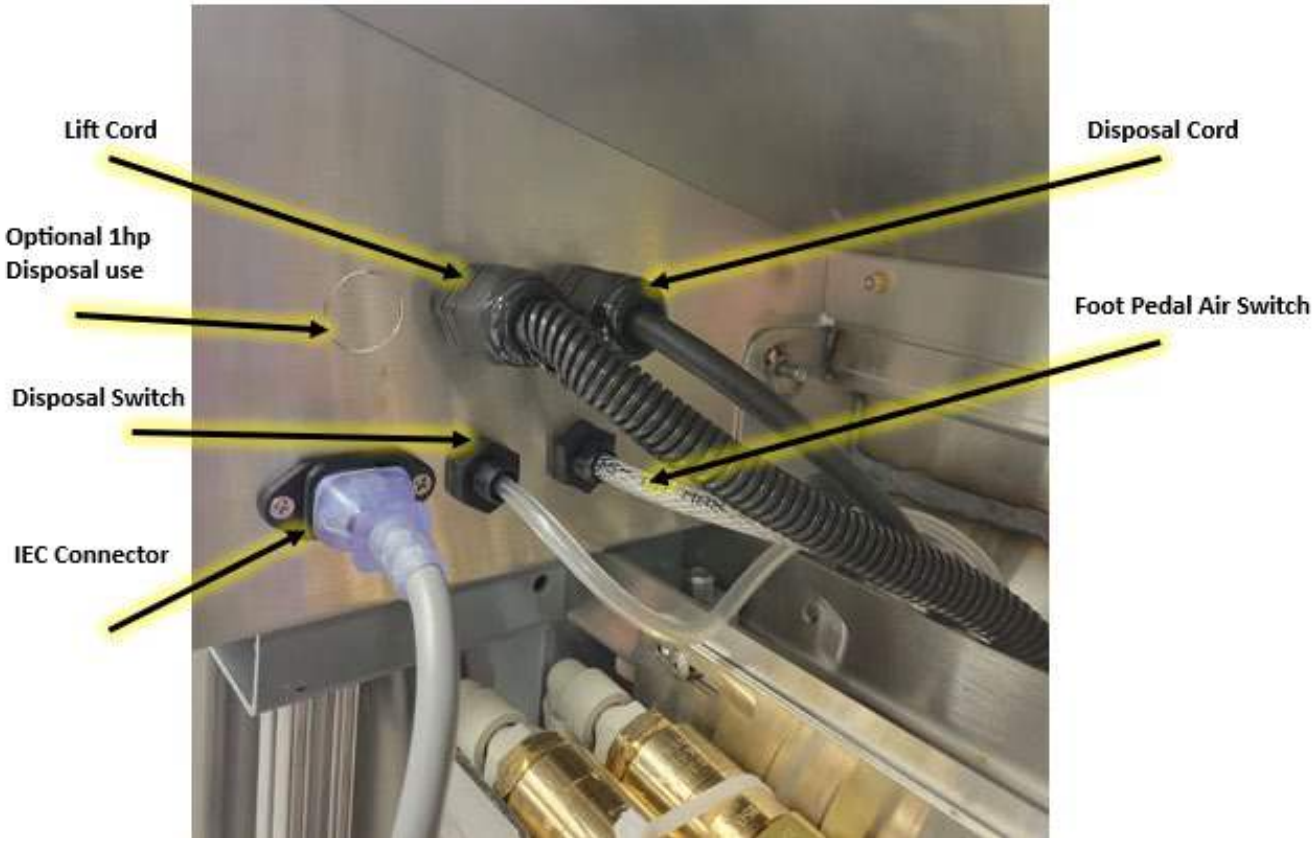
NOTICE If the above links don't work try https://www.moen.com/ and enter the Moen model number.

8.2.4.2 Garbage Disposal Air Switch service

The garbage disposal is operated via an air switch. This is a safety device that enables the disposal to be turned on with an air pulse versus running electricity.

- Check that the air switch is functioning properly. Make sure it pushes in completely and does not stick due to debris or grim buildup. Verify the air line connection at the push button and the switch.





- Check the airline connection to the switch has not become dislodged or completely disconnected due to shipping and handling or service in the area. The airline is located on the back of the unit behind the sink.

NOTICE The foot pedal is also operated via an airline take note of which one you are inspecting.

8.2.5 Faucet, Hand Spray & End Rinse Service panel

The water fixtures can be serviced on the Maestro by removing the small rectangular service panel on each side cap of the work surface. Use a Phillips screwdriver to remove all (5) screws. You now will have access to remove the fixtures and disconnect the quick connect PEX water lines that run through the frame to the upper/lower skirting.

8.2.6 Backflow prevention and Service

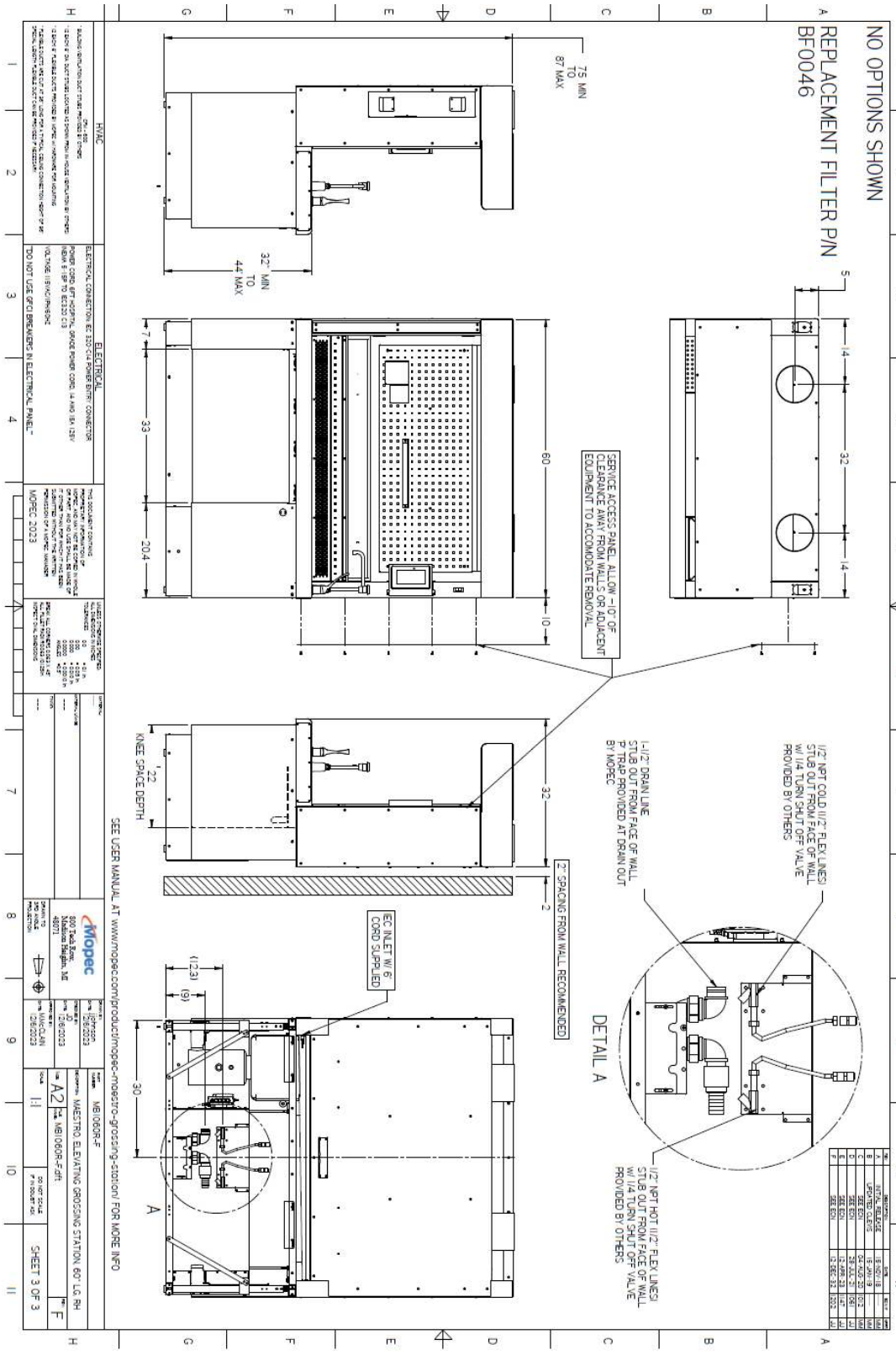
The Maestro utilizes two types of products for backflow prevention.

- Atmospheric Vacuum Breaker equipped faucets – Chicago Faucets #GN8BVBJKABCP
  - 8" (20cm) rigid/swing gooseneck spout with atmospheric vacuum breaker | Chicago Faucets
- In-line Dual Check valve backflow preventer. Used on hand sprays, end rinses & water injected disposal units.
  - LF7 - Watts

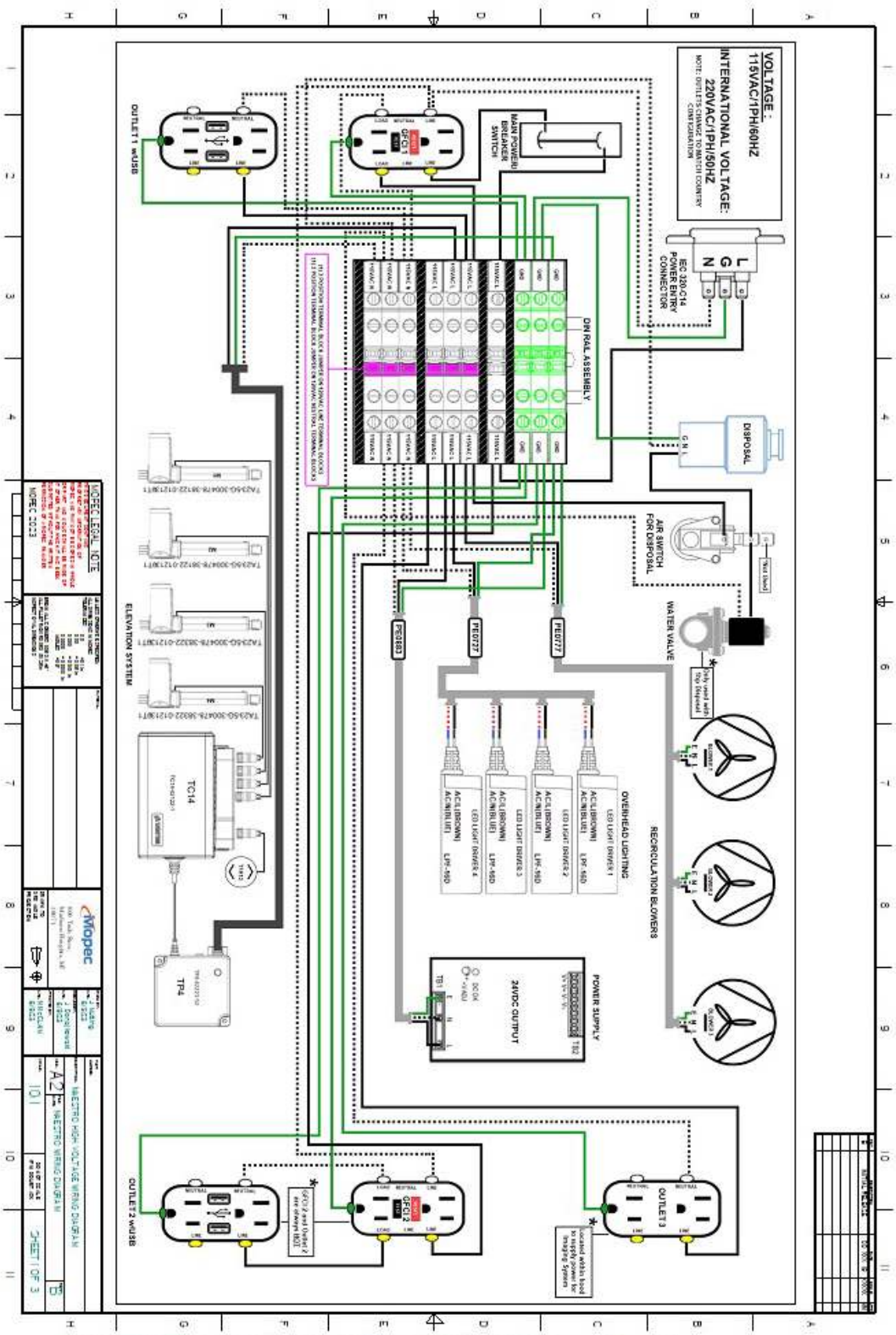
Consult the manufacturer's recommendation for testing and service intervals and your local ordinances.

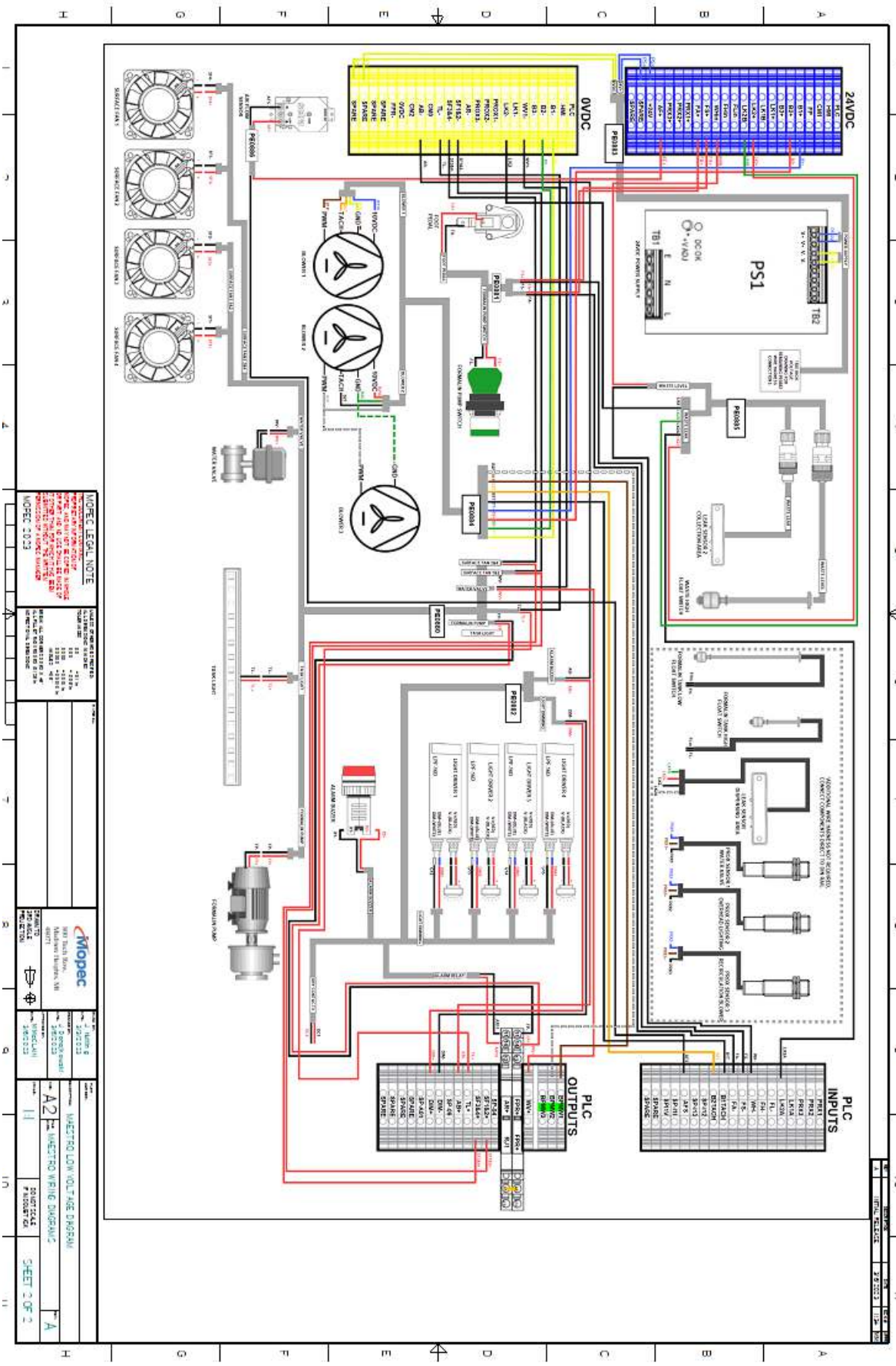
9 Documentation

9.1 Sample Rough in Drawing

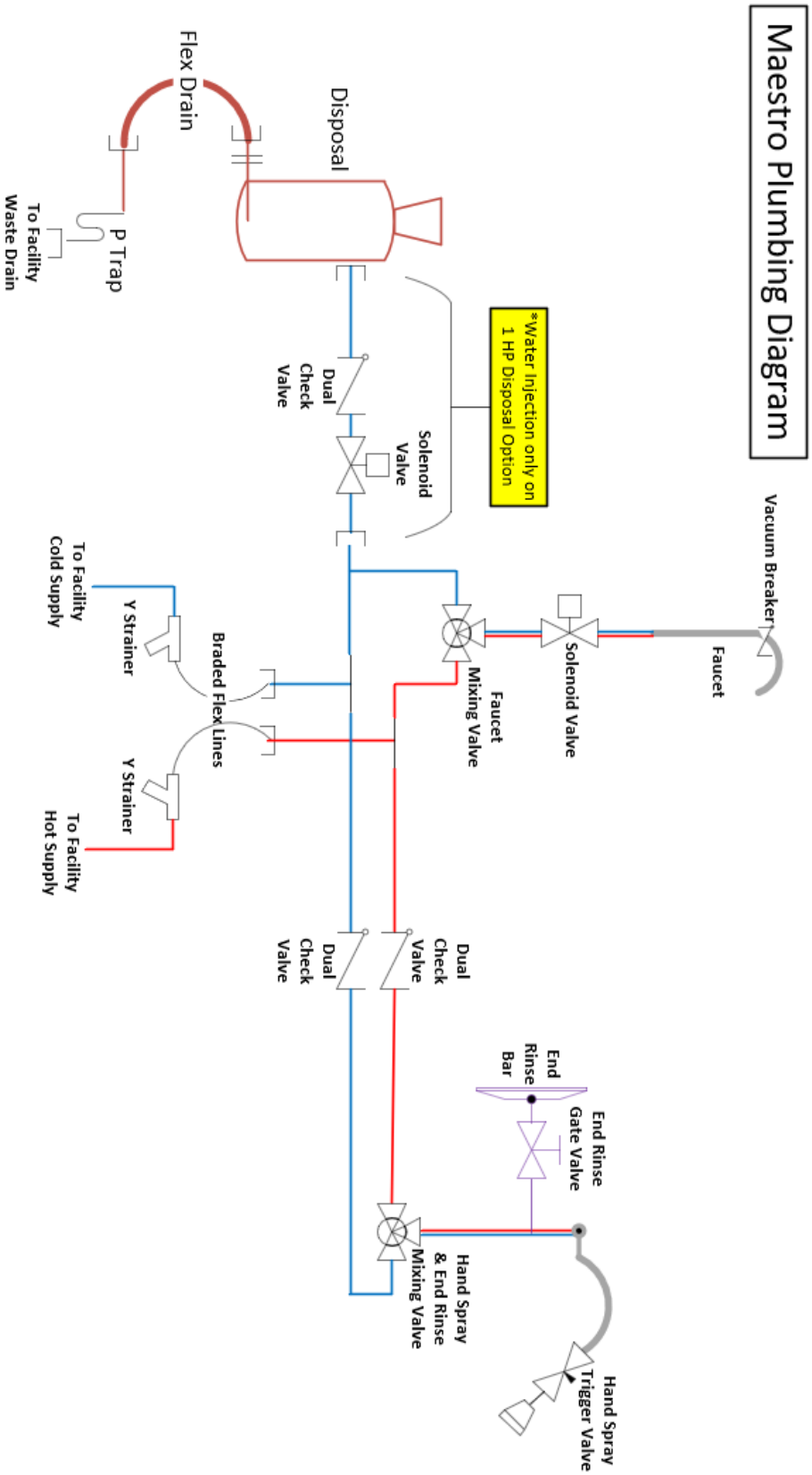


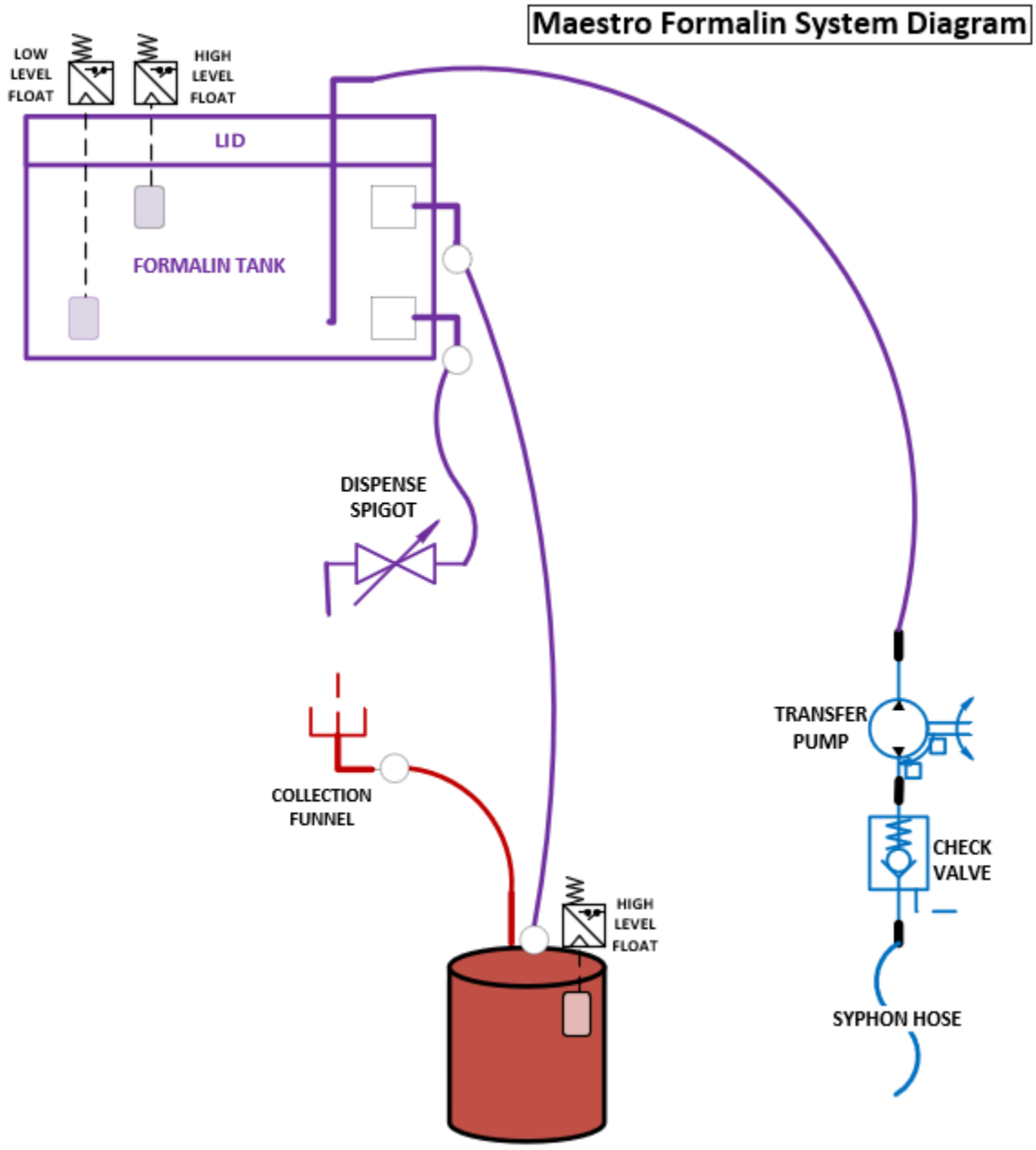
9.2 Electrical diagrams




24VDC
0VDC
PS1
PLC INPUTS
PLC OUTPUTS
MAESTRO LOW VOLTAGE DIAGRAM
MAESTRO WIRING DIAGRAM
SHEET 1 OF 2
MOPEC LEGAL NOTE

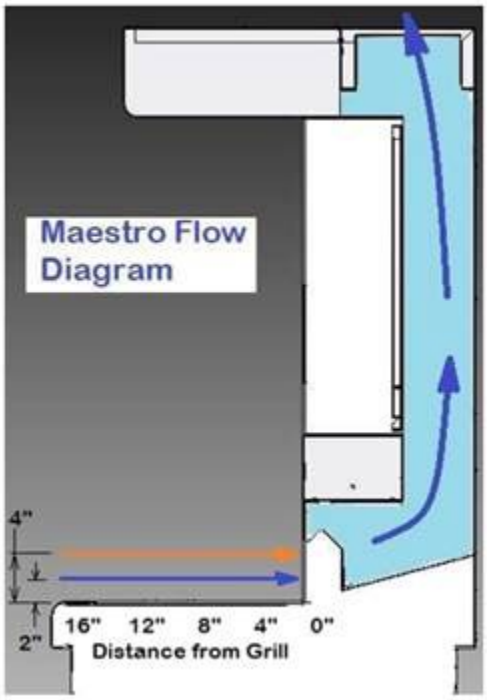
9.3 Plumbing diagrams




Maestro Formalin System Diagram
LOW LEVEL FLOAT
HIGH LEVEL FLOAT
LID
FORMALIN TANK
DISPENSE SPIGOT
COLLECTION FUNNEL
HIGH LEVEL FLOAT
TRANSFER PUMP
CHECK VALVE
SYPHON HOSE

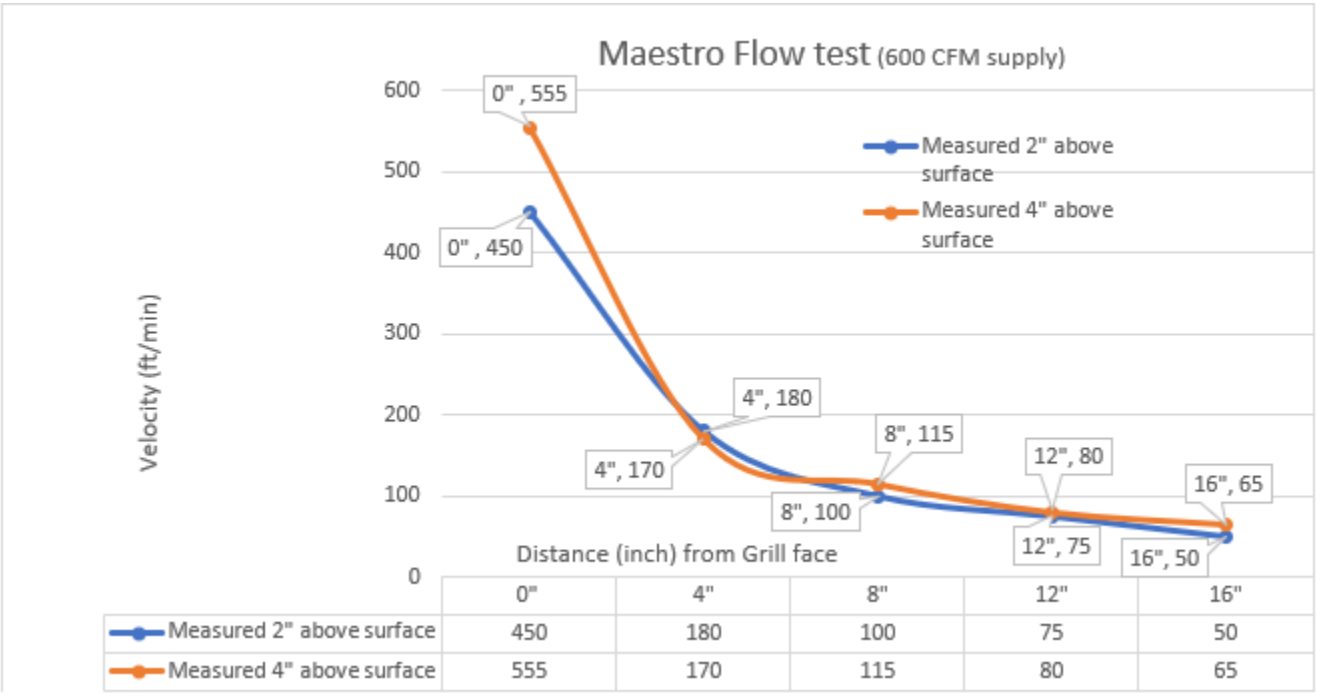
9.4 HVAC / Ventilation diagram

The following is a graphic representation of airflow on an in-house ventilated Maestro.



MAESTRO STANDARD PRODUCT DIMENSIONS					
W	48in	54in	60in	66in	72in

EXHAUST REQUIREMENTS: TOTAL CFM = 10 X W W= OVERALL WIDTH OF UNIT



	0"	4"	8"	12"	16"
Measured 2" above surface	450	180	100	75	50
Measured 4" above surface	555	170	115	80	65

10 Appendices

10.1 Spare Parts & Consumables

10.1.1 Spare Parts

General Part Description	Mopec #	OEM #	Use(s)
Casters, 3” (7.62cm) Swivel Brake	PD0003	Colson 1-03056-441 W/BRK3	Formalin collection caddy, ventilated trash can
Leveling Foot	PL0041	McMaster 23015T66	Machine base
Screw 8-32 Truss ½” lg.	PB0039	McMaster 91770A194	Various
Plumbing Part Description	**Mopec #**	**OEM #**	**Use(s)**
Collection Carboy	PM0141	US plastics #73003	Formalin collection
Collection Cap assembly	5850	n/a – custom to Mopec	Formalin collection
Collection tubing (¾” Vinyl)	PP0045	McMaster 5233K71	Formalin collection
Disposal ½ HP	PP1029	Moen GX50C	Garbage disposal
Disposal 1 HP	PP0944	Moen GX100C	Garbage disposal
Disposal Button assembly	PP1027	Moen AS-4201-CH	Garbage disposal
Disposal Air Switch controller	PP1028	Moen ARC-4200	Garbage disposal
Water Solenoid Assembly (3/8”)	PP1023	Parker C11123P3	Foot pedal, 1 HP disposal, Hands Free
Foot Pedal and Air Switch	PE0374	Linemaster #41DH12	Foot pedal
Funnel, SS small	PM0159	US plastics 85151	Formalin collection
Quick Disconnect (¾” tube)	PP0606	Colder 96400	Formalin collection
Dispense Spigot	PP1048	Perlick 650SS	Formalin dispensing
Blue Flexible Drain Hose 1-1/2” (3.81cm)	PP0614	Haviland PA00313-HSCS50	Disposal drain hose
Lever, Mixing Valve	PP0079	Delta 24T0003	Faucet & Hand spray mixing valve
Electrical Part Description	**Mopec #**	**OEM #**	**Use(s)**
Touch Screen	PE0873	USL-070-B05-N	Display
Main PLC	PE0874	USC-B5-TA30	Programable Logic Controller
24 VDC Buzzer	PE0587	ECX2071-24R	Alarm Buzzer
Water Solenoid Coil (24vdc)	PP1021	Parker C111P9	Foot pedal, 1 HP disposal, Hands Free
Transfer Pump (24vdc)	PE0769	SHURflo 2088-474-144	Formalin dispensing

Pump Button, Green	PE0770	Automation Direct GCX3202-24L	Formalin dispensing
Float Sensor, 6.5” lg. (16.51cm)	PE0285	n/a – custom to Mopec	Formalin Collection Sensor
Float Sensor, 18” lg. (45.72cm)	PE0768	n/a – custom to Mopec	Formalin dispensing
Leak Sensor	PE0805	n/a – custom to Mopec	Formalin dispensing
LED Light fixture, 7” (17.78)	PE0719	n/a – custom to Mopec	Lighting Hood
LED Driver	PE0591	TRC MeanWell LPF-16D-36	Lighting Hood
Airflow Sensor	PE0598	n/a – custom to Mopec	Ventilation Hood
Airflow Signal Controller	PE0597	Setra 2641R25WD11T1C	Ventilation Hood
Power Supply, 24VDC 480W	PE0745	Automation Direct PSB24-480	Ventilation Hood
Fan, FAS	PE0750	DigiKey 08025SA-24N-ET-00-ND	Ventilation Worksurface

10.1.2 Consumables

Part Description	Mopec #	Use(s)
Filter, Potassium Permanganate	BF035	Recirculating Ventilation system (multiple required check unit)
Mopec 48” Maestro MERV 8 Filter	BF045	In-grill ventilation filter for 48 or 96” units built with filters in the front of the unit.
Mopec 54” Maestro MERV 8 Filter	BF048	In-grill ventilation filter for 56” units built with filters in the front of the unit.
Mopec 60” Maestro MERV 8 Filter	BF046	In-grill ventilation filter for 60” units built with filters in the front of the unit.
Mopec 66” Maestro MERV 8 Filter	BF049	In-grill ventilation filter for 60” units built with filters in the front of the unit.
Mopec 72” Maestro MERV 8 Filter	BF047	In-grill ventilation filter for 72” units built with filters in the front of the unit.
Cleaning and Disinfecting Kit	BE125	Cleaning and disinfection of your Maestro
Formalin Adsorbent pad MEDIUM	BE094	Fume reduction pad
SaniPath Disinfecting Wipes	BE036	Disinfection wipes
SaniPath Disinfecting Spray	BE047	Disinfection spray cleaner
ClearSteel Stainless Spray	BE048	Stainless steel cleaner and polish spray

SaniPath Disinfectant Foam Spray	BE045	Disinfectant foaming spray
ClearSteel Stainless Wipes	BE039	Stainless steel cleaner and polishing wipes
Mopec Prefilled Formalin Cube – 2.5/5 Gallons (9.46/18.92L)	BG520/ BG525	Formalin Containers are filled with a 10% neutral buffered formalin used as a general-purpose fixative for tissues.

11 GLOSSARY

Term	Meaning
Maestro	Trademarked name of Mopec's flagship grossing workstation
FAS	Acronym for the Patented technology, **Front Air System**, where an extra burst of air is blown across the front of the worksurface to help protect the user from dangerous outgassed fumes of the tissue sample they are dissecting
Grossing	Gross examination process by which pathology specimens are inspected with the bare eye to obtain diagnostic information while being processed for further microscopic examination.
Pathology	The science of the causes and effects of diseases, especially the branch of medicine that deals with the laboratory examination of samples of body tissue for diagnostic or forensic purposes
Decal	Refers to decalcification agents used as a technique for removing minerals from bone or other calcified tissue. Typically strong acids, weak acids or ethylenediaminetetracetic acids(EDTA).
Garborator	Alternate term for Garbage Disposal
GFCI	Acronym for Ground Fault Circuit Interrupt. Safety device that senses the slightest amount of current across the hot input side and the neutral side of the output on a power outlet in an effort to protect a user from electrical shock.
VOC	Acronym for Volatile Organic Compounds, an organic chemical compounds that evaporate easily at room temperature.
Cubitainer	A semirigid cubical plastic container typically used within a cardboard box. Commonly used to store Formalin.