



Mata™

Solid Waste Interceptor Installation Instructions

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DOCUMENT

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About These Instructions

This manual contains an Installation Overview and a set of Installation Steps. It is not intended to replace installer training or requirements and instructions detailed in your engineering plans. Check to be sure all instructions and items supplied comply with your state and local regulations. If you discover any inconsistencies between your engineering plans and the instructions in this manual, contact your engineer or your dealer.

Installation Overview is a simple overview of the installation steps. It is intended as a summary only, to provide the suggested order of operations for installing a Mata unit – it does not provide complete instructions.

Installation Steps provide general instructions for each installation step.

Before You Begin

Before beginning, read these instructions and any documents referenced in them, and confirm the instructions for the product is the most current available. Check the WaiHome Document Library at www.waihome.com to be sure your documents are current.

Please note that you must perform the installation according to the current manual or the system's warranty will be void. If you are not an authorized Mata installer, contact WaiHome for training and authorization before installing this system. WaiHome can provide technical support, training, and replacement components.

Be sure all of the necessary components are present before beginning the installation. Contact your WaiHome at www.waihome.com if any components are missing or damaged.

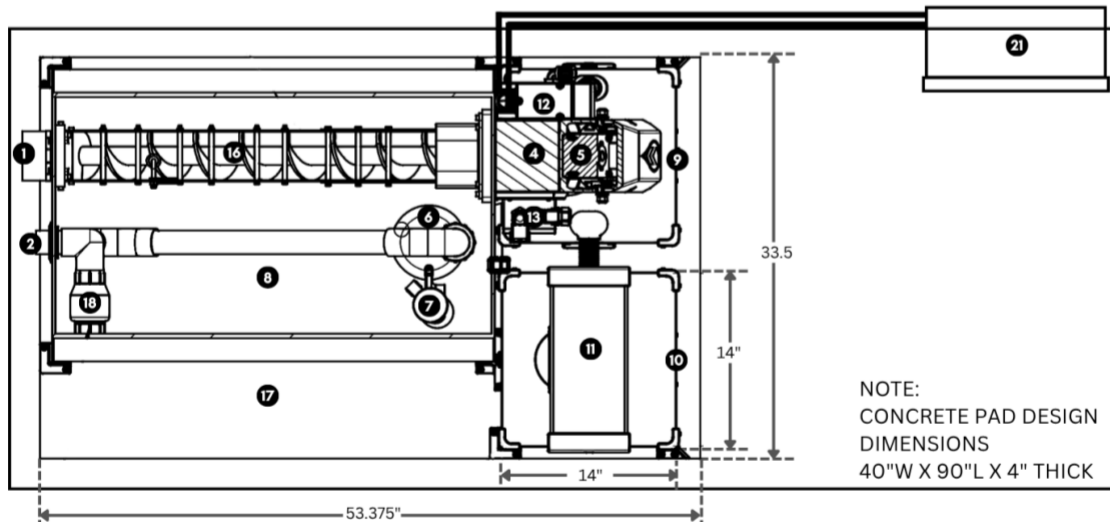
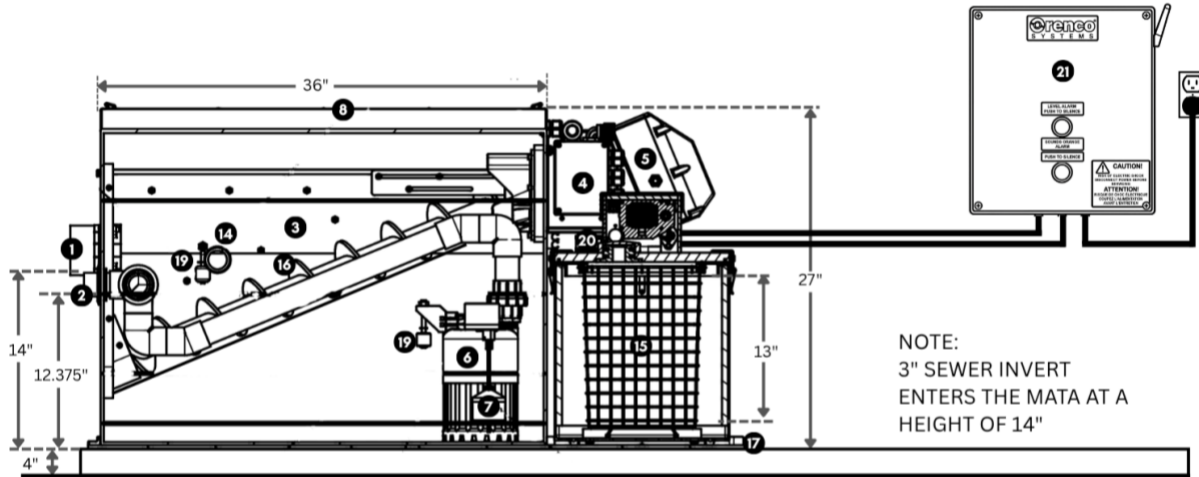


Note — All pipe diameters provided are US nominal PVC pipe sizes. If you're using metric pipe, you will need adapters to connect to the US fittings supplied.



Standard Unit Components

- | | | |
|----------------------|---------------------------------|--------------------------------|
| 1 3" SEWER IN | 8 SEPARATION TANK | 15 SOLIDS BAG |
| 2 1.5" DISPOSAL PIPE | 9 SOLIDS BIN (FILLING POSITION) | 16 AUGER |
| 3 AUGER SCREEN | 10 SOLIDS BIN (AGING POSITION) | 17 BASE PLATE |
| 4 DIVERSION FITTING | 11 HEATING LOOP | 18 ONE WAY GRAVITY DRAIN VALVE |
| 5 AUGER MOTOR | 12 OUTLET VENT SUB-ASSEMBLY | 19 EMERGENCY FLOATS |
| 6 PUMP | 13 JUNCTION BOX | 20 COLLAR |
| 7 FLOAT SWITCH | 14 SCREEN OVERFLOW | 21 CONTROL BOX |





Installation Overview

Step 1. Review the site plan. If there is no site plan, draw up a plan including locations and distances.

Step 2. Lay a concrete foundation for the Mata unit.

Step 3. Set the Mata unit.

Step 4. Install antibuoyancy fasteners on the Mata unit (if needed).

Step 5. Connect all of the transport line(s) between the sewer, Mata unit, and final discharge.

Step 6. Connect the air vent to the Mata unit.

Step 7. Mount the control panel for the Mata unit.

Step 8. Route and connect the wiring between the panel and Mata unit.



Key Point — This step should be performed by a licensed or qualified electrician.

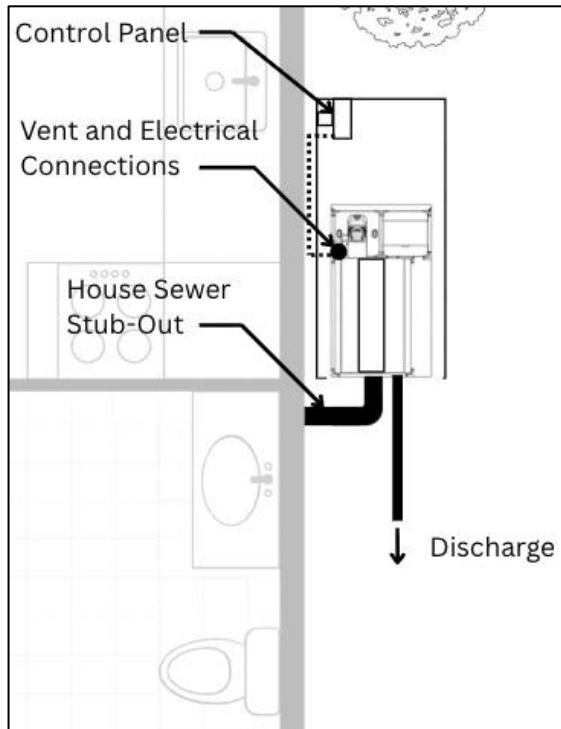
Step 9. Perform an operational test of the Mata, including auger, float switches, pump, fans, and heater.

Step 10. Set Wifi Connection.

Step 11. Set Solids Change Frequency and Other Parameters.

Step 12. Insert new solids bags and perform a mock solids bin change.

Installation Steps



Step 1. Review or Sketch Site Plans

Check the site plan for the specifics of your installation.

Step 1a. If there is a detailed plan, make sure the plan accurately reflects conditions at the site. If it doesn't, contact the system designer before scheduling the installation.

Step 1b. If there is no detailed plan, contact your local dealer for assistance and then sketch a site plan that is consistent with the designer's specifications.



Key Points

- Sketch the exact positions of the system components, pipes, electrical conduits, etc. Account for current and likely future landscape features in the sketch.

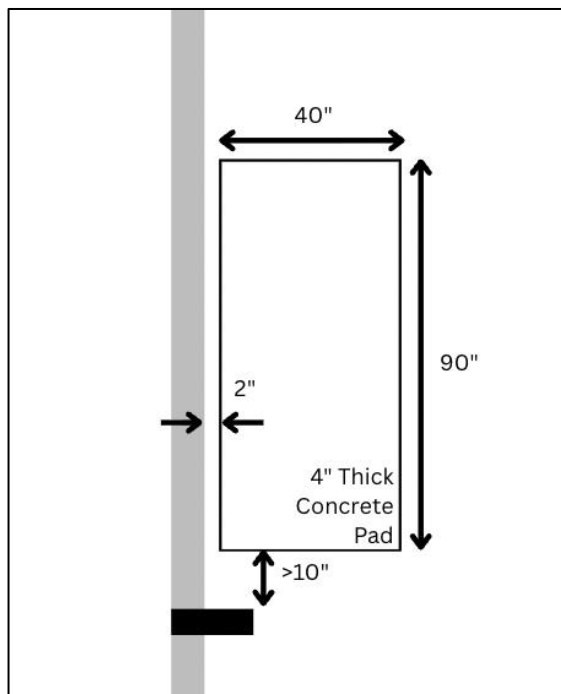
Step 2. Lay Concrete Foundation

Lay the foundation. Stay aware of the elevations, offsets, and grade requirements for the Mata unit before and during foundation installation.

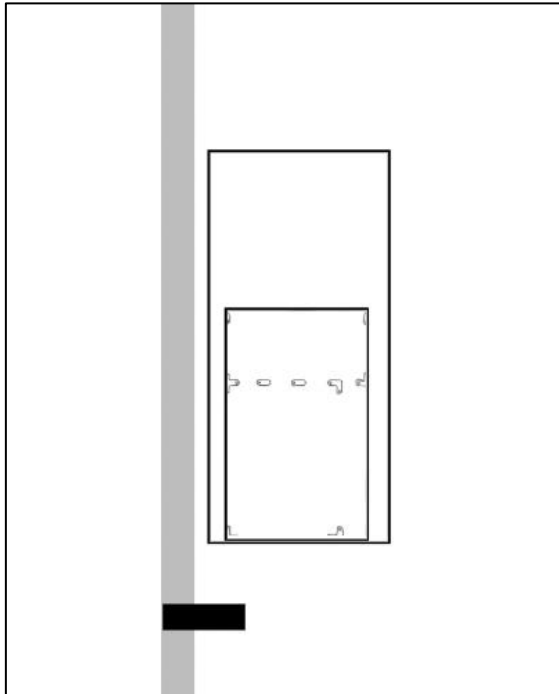


Key Points

- The foundation should be laid flat (0% grade)
- A fall of 1/4in per ft (2%) is required from the sewer to the unit's invert of inlet and 1/8in per ft (1%) from the unit's invert of outlet to the disposal system.
- The unit's invert of inlet is 14in from the unit's base.
- The unit's outlet is 12.375in from the unit's base.
- Standard unit height is 27in
- Unit requires 6in of space between the unit and the building for unimpeded maintenance (2in between concrete pad and building when pad is 40" wide)
- The unit requires at least 10in of space between the stub-out and the back of the unit.



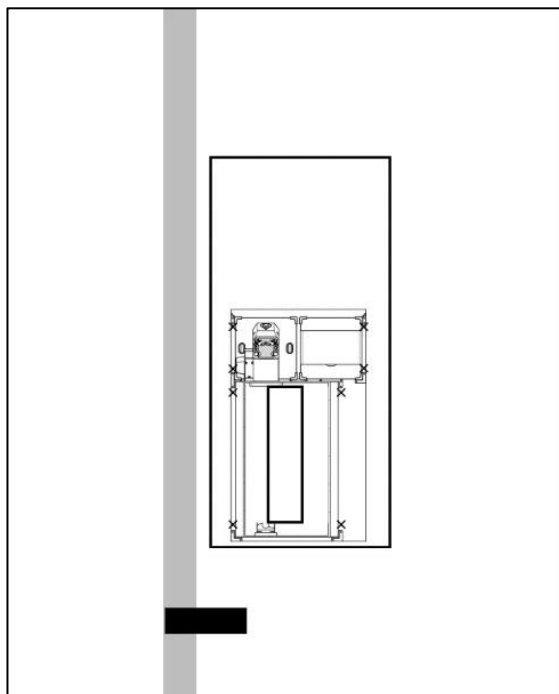
Step 3. Set the Mata Unit



Step 3a. Place the 33.5" x 54" base plate centered at the end of the concrete pad closes to the sewer stub-out.

Step 3b. Place Mata separation tank and solids chambers within the guides of the baseplate.

Step 4. Install Anti-Buoyancy Kit



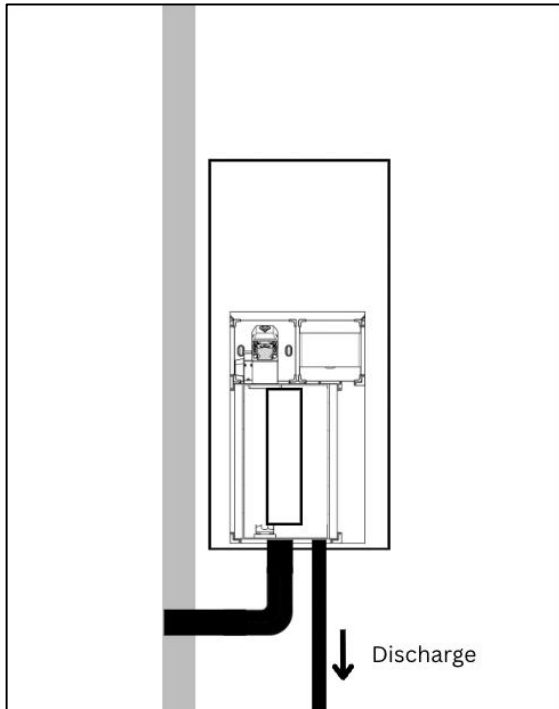
Determine if anti-buoyancy measures are necessary for the installation. WaiHome offers anti-buoyancy hardware kits that can be used with Mata.

- If you are unsure whether to install an anti-buoyancy kit or not, consult the system designer or an engineer.
- Antibuoyancy kits are required if there is a potential for surface waters to be present around the Mata at any time.

Step 4a. Use a 12mm masonry bit to drill through the 8 mounting holes in the base plate to a depth of 2.5". Mounting holes should be placed ½" inside alignment brackets and 1" from the Mata per diagram.

Step 4b. Install a 5/16" X 4-3/16" expansion concrete anchor in each hole.

Step 4c. Connect and tighten two 1" straps over both the separation tank and the solids chambers.



Step 5. Connect Transport Lines

Step 5a. Dry fit the 3in transport line and any fittings between the house sewer and the Mata unit.

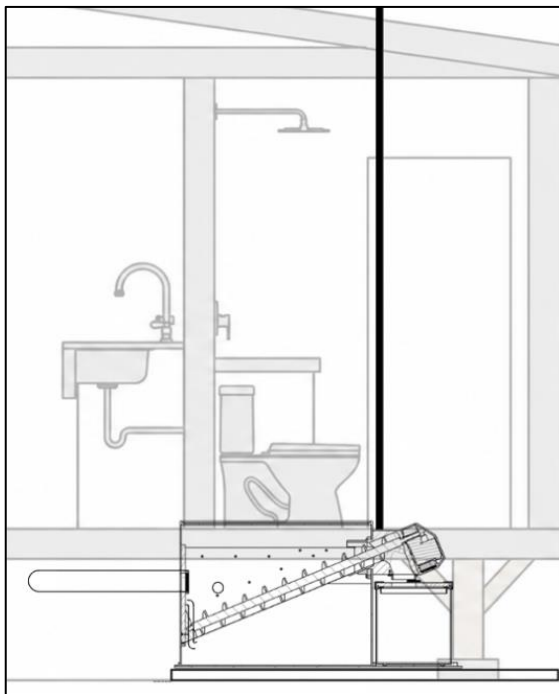
Step 5b. Dry fit the transport line and any fittings between the outlet of the Mata unit and the final discharge transport line.



Key Points

- Confirm there is a minimum fall of 1/4in per ft (2%) from the sewers invert at the house to the unit's invert of inlet
- Confirm there is a minimum fall of 1/8in per ft (1%) from the unit's invert of outlet to the disposal system.

Step 5c. Glue all of the transport line pieces in place.



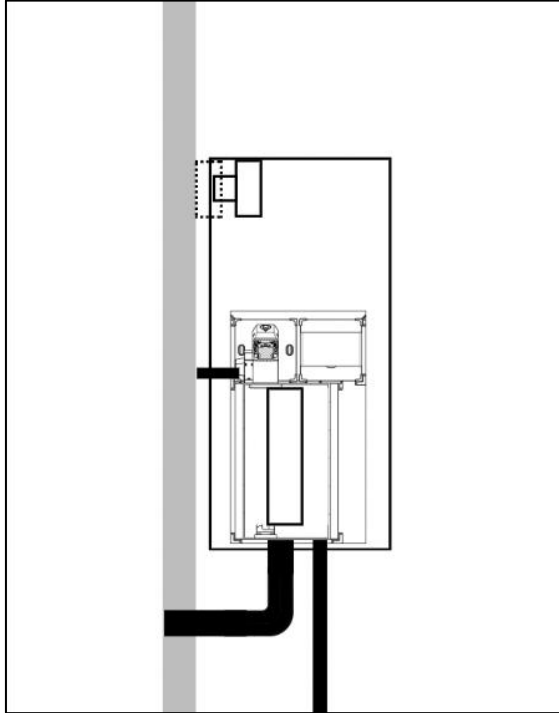
Step 6. Connect the Air Vent

Use 1in PVC pipe to plumb the air vent to the 1in vent fitting on the outlet side of the Mata unit.



Key Points

- Make sure that:
 - The vent line is sloped back a minimum of 1/4in per ft to drain condensation back into the unit.
 - There are no "bellies" in the line that can collect water.
 - The vent's top is away from any windows or commonly used spaces.



Step 7. Mount Control Panel

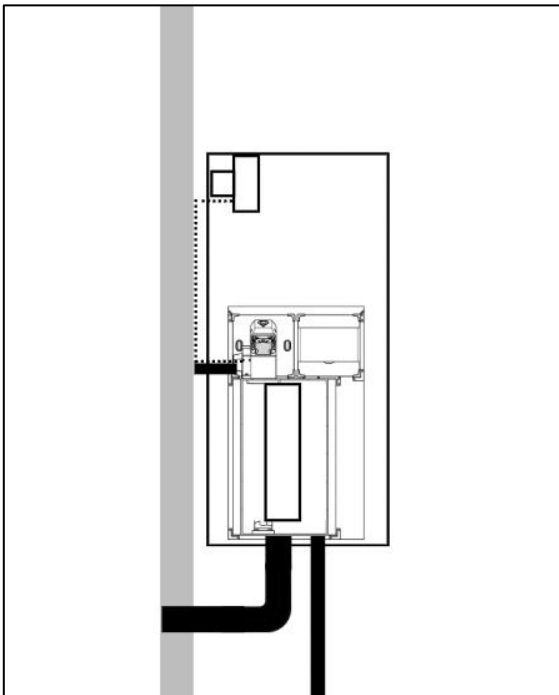
Mount panel using the instructions that came with it.

- The panel may either be mounted on an exterior wall or on a 4x4in post secured to the concrete pad with a post base



Key Points

- DO NOT mount the control panel on an exterior wall other than a garage or shop wall! The motor contactor makes a sound while engaging and disengaging that can be disruptive to residents.
- If using a 4x4in post, mount to the concrete base using four ¼" x 2-1/4" tapcon screws.
- Use exterior hardware to prevent corrosion.
- Follow all applicable regulations for placement of the control panel.
- Mount the panel within sight of the tank in a service-friendly location



Step 8. Connect Component and Power Cables

Connect the two component cables leaving the control panel to the two cables leaving the Mata unit. The cables with black plugs connect to each other and the cables with grey plugs connect to each other. Plug the power cable leaving the control box into a dedicated 20A 120V outlet.



Key Points

- This step should be performed by a licensed or qualified electrician.
- Installation instructions, schematics, and wiring diagrams specific to the panel and float switch configuration are included with each panel. Contact WaiHome if any of these are missing.
- Follow all applicable regulations and electric codes.

Step 9. Perform Mata Operational Test



Step 9a. Remove lid from separation chamber with Philips screwdriver.

Step 9b. Turn on 4x circuit breakers in low right corner.

- Verify the LOGO! PLC in the control box turns on.
- Verify the fan in the dehydrator and air filter turn on.

Step 9c. Test the heater.

- Toggle the heater “AUTO/OFF/MAN” switch to “MAN”
- Verify hot air leaves the dehydrator.
- Return the “AUTO/OFF/MAN” switch to “AUTO”.

Step 9d. Test the pump and auger.

- Toggle the pump “AUTO/OFF/MAN” switch to “MAN”
- Verify the pump and auger run.
- Return the “AUTO/OFF/MAN” switch to “AUTO”.

Step 9e. Test the disposal float switch and disposal system.

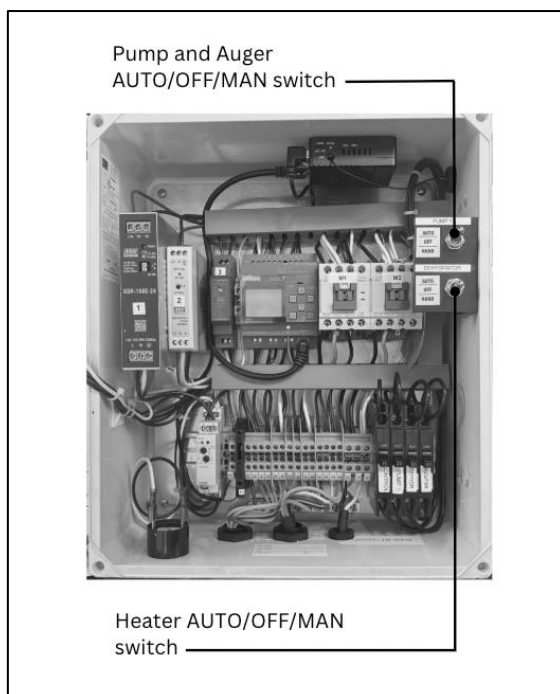
- Run water to the tank until the float switch engages and the pump turns on.
- Verify the pump runs until the float reaches its low level condition and shuts off.
- Verify no leaks are observed in the disposal system.

Step 9f. Test the high level alarm float switch.

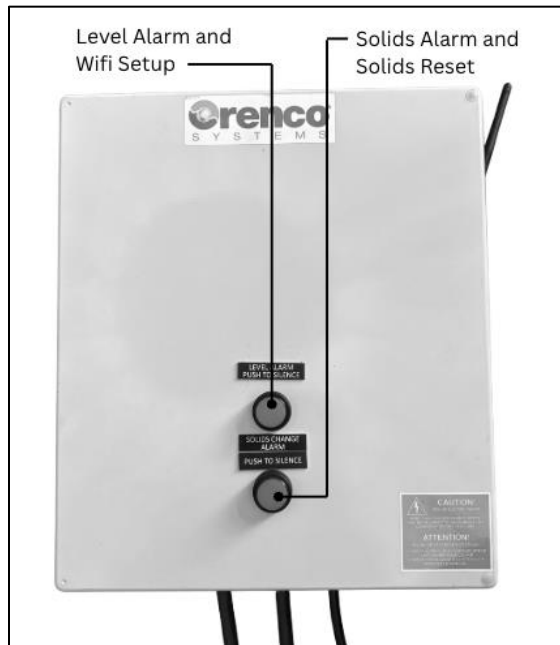
- Toggle the pump “AUTO/OFF/MAN” switch to “OFF”
- Run water to the tank until the emergency float switch engages and the alarm turns on.
- Press red lit button on the front of the control panel to silence the alarm.
- Observe gravity flow through the unit to the disposal system.
- Verify the water level does not rise above the level of the disposal line.
- Turn off water to the tank and return the “AUTO/OFF/MAN” switch to “AUTO”.

Step 9g. Close and secure the control panel.

Step 9h. Close and screw down the lid of the Mata unit.



Step 10. Set Wifi Connection



- Hold the Level Alarm / Wifi Setup button down for at least 5 seconds.
- In your cell phone settings, connect to the wifi network: WaiHome-Setup-sm-...
- Password is "waihome-setup"
- Once connected, go to your browser and enter "http://192.168.4.1:1880/setup"
- Input the household's wifi username and password and click submit.
- Confirm with WaiHome that the unit is now connected to the server.



Key Points

- An extender may be necessary to boost your wifi signal to within reach of the Mata unit.
- This uplink allows WaiHome to monitor your unit and anticipate any required maintenance.

Step 11. Set Solids Change Frequency and Other Parameters

Users	Estimated Fill Cycle Time (Days)
1	60
2	30
3	20
4	14
5	10
6	7

See Maintenance Manual for procedure on changing PLC parameters inside control box. These parameters may be tuned for optimal operation of your Mata:

- TimeBased: Initially ON, set to alert homeowner weekly to emptying solids. Once usage patterns are established, may be turned OFF to alert homeowner based on water usage rate.
- DayCounter: If TimeBased is ON, controls solid emptying alert frequency. Initially set to 7 days.
- MaxSolidsCnt: If TimeBased is OFF, controls solids alert frequency based on # of pump cycles.
- HeatCount: Sets the number of pump cycles between heat events. Reduce for drier solids.
- HeatTime: Length of a heat cycle. Increase for drier solids.
- Location: Sets sunrise/sunset times to prevent alarms during the night.



Key Points

Conservative settings for solids collection will prevent backups and unwanted maintenance.

Step 12. New Bags and Mock Solids Change

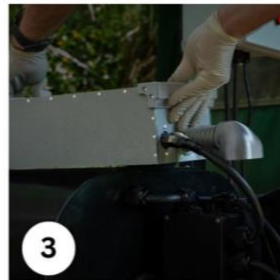
Go through a mock solids change following the procedure below to familiarize yourself with the system and make sure there are fresh solids bags in both bins.



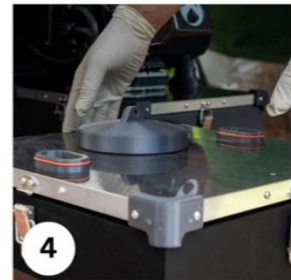
1
Press and hold Solids Change button until it beeps to start change.



2
Lift heating loop off the top of the solids bin in the aging position.



3
Place loop on top of the Mata unit out of the way.



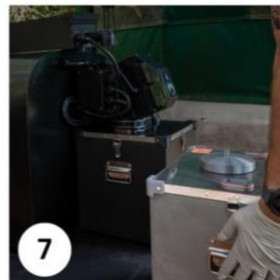
4
Unlatch the lid of the aging bin and remove it.



5
Withdraw the bag of aged solids and dispose of them.



6
Insert new solids bag and fold top of the bag over the basket lip.



7
Replace lid and move the now empty bin to the side.



8
Unlatch collar from the neck of the full bin.



9
Remove vent and slide full bin into aging position.



10
Remove bin cap from the now empty bin and place it on the full bin.



11
Move empty bin into the filling position and reattach collar, vents, and heating loop.



12
Press and hold Solids Change button until it beeps to end change.