

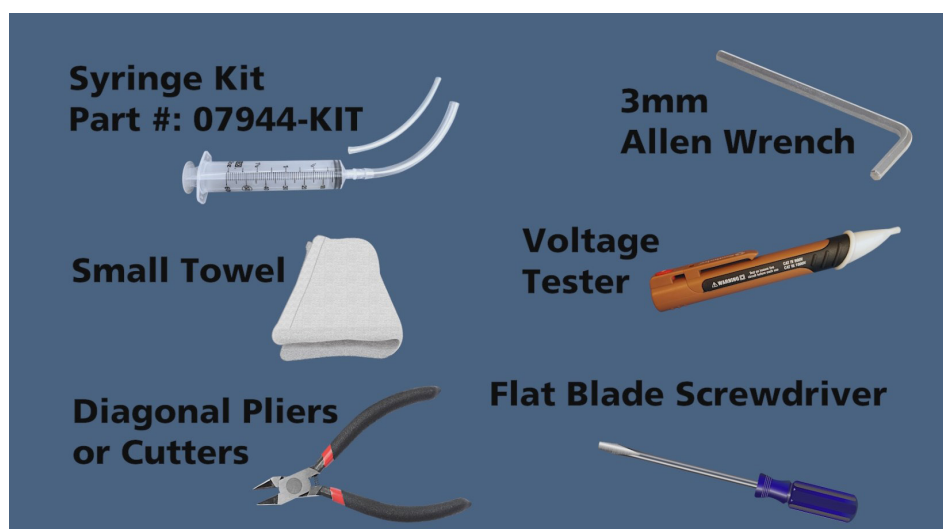


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

How to troubleshoot the **e128 Medicator**. It's best to perform troubleshooting in a clean area, but if your Etatron is installed, cover your chemical bucket so you don't lose any parts.

To start you will need:



- A syringe (Syringe Kit Part #: 07944-KIT)
- 3mm Allen wrench
- Diagonal pliers or cutters
- Voltage tester
- Small towel
- Flat blade screw driver



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## e128 Medicator Troubleshooting Instructions

### The key areas in troubleshooting are:

1. **PART 1** - All the e128 LEDs are off and the pump is not stroking (**Page 2**)
2. **PART 2** - The e128 has LEDs lit, but there is no function from the controls (**Page 2**)
3. **PART 3** - The e128 is stroking, but not drawing chemistry (**Page 3**)
  - a. Check to see if you removed the transit washers and inspect your tubing connections (**Page 4**)
  - b. Inspect the Foot Filter (**Page 13**)
  - c. Retighten the Pump Head (**Page 20**)
  - d. Release air lock from the Pump Head (**Page 20**)
4. **PART 4** - The e128 draws chemistry, but does not inject (**Page 22**)
  - a. Check the Air Bleed Valve (**Page 22**)
  - b. Inspect the Foot Filter (**Page 23**)
  - c. Release air lock from the Pump Head (**Page 29**)
  - d. Retighten the Pump Head (**Page 31**)
  - e. Inspect the condition of the Discharge and Injection Valves, and Tubing Connections (**Page 31**)
5. **PART 5** - Alarm LED on the e128 is Green (**Page 37**)
  - a. Replace or refill your chemical bucket or stock tank (**Page 37**)
  - b. Inspect the suction valve, foot filter, and the PVC suction tube's connections and condition (**Page 37**)
  - c. Tighten the pump head (**Page 47**)
6. **PART 6** - Alarm LED on the e128 is Red (**Page 48**)
  - a. Assess the pressure of the installation (**Page 48**)
  - b. Inspect the injection and discharge valves, tubing connections, and the tube's condition (**Page 48**)
7. **PART 7** - The e128 does not run in either program - 1 Pulse per Gallon or 1 Pulse per 10-Gallons (**Page 54**)



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

**PART 1** - All the e128 LEDs are off and the pump is not stroking.



### CHECK THE POWER SUPPLY

**Step 1:** Check if the breaker is OFF. If it is ON, test the outlet with a voltage tester.



**Step 2:** If the voltage is good, plug the e128 Medicator into another outlet to confirm it works.

**NOTE:** If your outlet is activated by a light switch, check to make sure it is in the correct position.

**PART 2** - The e128 has LEDs lit, but there is no function from the controls.



### RESET THE CONTROLS

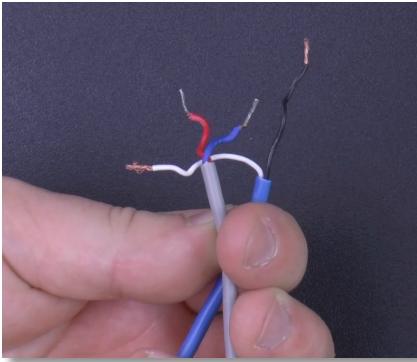
**Step 3:** Run a few gallons of fresh water through the supply line. Due to the water meter connected to the e128 via dry contact, the water meter closes the contact to operate the e128.

Running fresh water cycles the water meter, which opens the contact. This should release the e128 controls and allow the proper functioning.

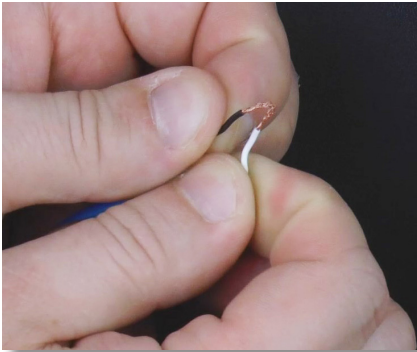


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting



**Step 4:** If the running of fresh water does not release the e128 controls, disconnect the water meter lead wires from the blue e128 lead wires.



**Step 5:** Touch the e128 lead wires together to verify if the interface works.

**NOTE:** The e128 controls should now function properly. If not, please call Dilution Solutions for assistance at **1-800-451-6628**.

**PART 3** - The e128 is stroking, but not drawing chemistry.

- a. Check to see if you removed the transit washers and inspect your tubing connections
- b. Inspect the Foot Filter
- c. Retighten the Pump Head
- d. Release air lock from the Pump Head

**NOTE:** If any of the following sections from **PART 3** allow for the e128 to draw chemistry, you can continue to **PART 4**.





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## e128 Medicator Troubleshooting Instructions

### a. If the e128 is stroking but not drawing chemistry, check to see if you removed the transit washers and inspect the tubing connections

There are two (2) black shipping discs or transit washers in the pump head:

- One is in the Discharge Valve and the other is in the Suction Valve.



**Step 6:** To check the discharge valve, loosen the discharge valve tube nut and lift the discharge tube, tube nut, collar and nozzle attached.



**Step 7:** If the transit washer is there beneath the nozzle, please remove and discard the transit washer now.

You may need to use a flat blade screw driver to remove.

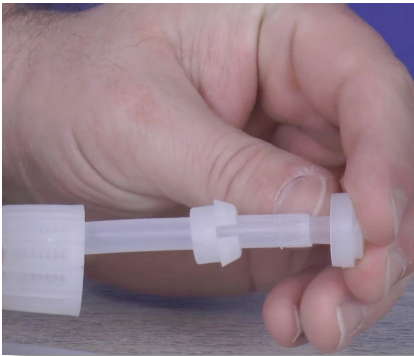


**Step 8:** Make sure not to lose the o-ring directly below the transit washer.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 9:** With the rigid discharge tube disconnected, please inspect the tubing connections. Remove the nozzle, and collar from the tube. Set aside and make sure not to lose them.



**Step 10:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.

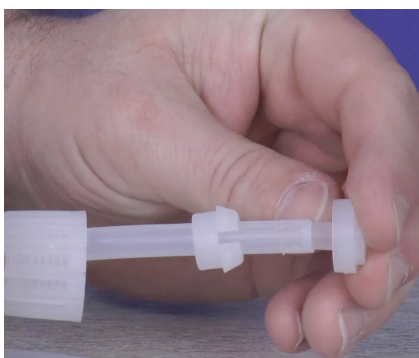


**Step 11:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 12:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.



**Step 13:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together. This should form a ferrule connection.



**Step 14:** Reattach the tube, and tube connections onto the discharge valve by hand tightening the tube nut. Do not cross thread nor overtighten.



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## e128 Medicator Troubleshooting Instructions



**Step 15:** If the tube nut is not securing recheck the ferrule connection.

Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



**Step 16:** locate the Suction Valve at the bottom of the Pump Head.

Loosen the Suction Valve tube nut and disconnect the PVC Suction tube, tube nut, collar, and nozzle attached.

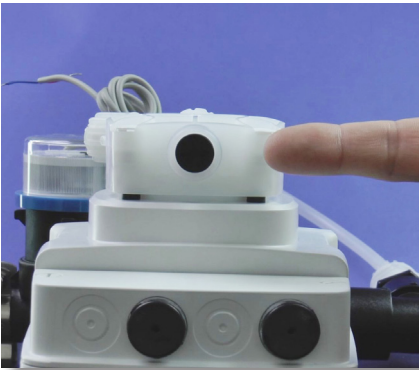


**Step 17:** Check to see if the black transit washer is stuck to the nozzle and remove.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 18:** If not, see if it is at the bottom of the suction valve.

You may need to use a flat blade screw driver to remove. Make sure not to lose the o-ring directly above the transit washer.



**Step 19:** With the PVC Suction Tube disconnected, inspect the tubing connections.

Remove the nozzle, and collar from the tube and set aside. Do not lose them.



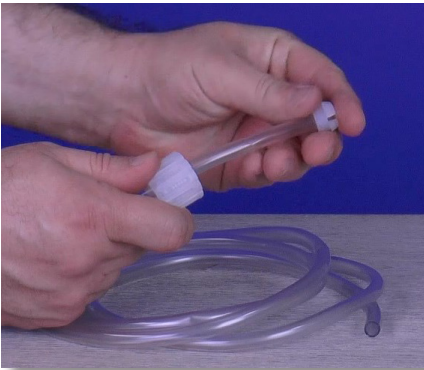
**Step 20:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers or cutters to cut the flared portion off.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 21:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 22:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.

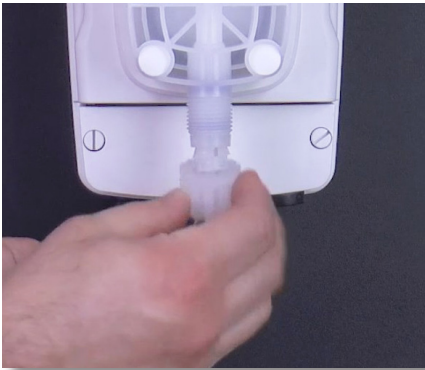


**Step 23:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together. This should form a ferrule connection.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

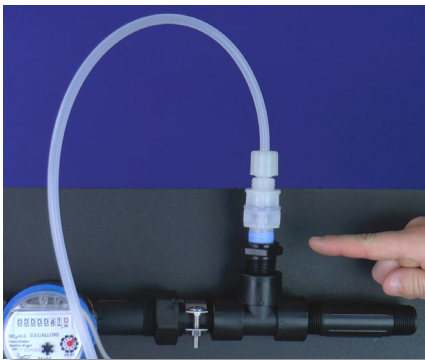
## e128 Medicator Troubleshooting Instructions



**Step 24:** Reattach the tube, and tube connections onto the suction valve by hand tightening the tube nut. Do not cross thread nor overtighten.



**Step 25:** If the tube nut is not securing recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



**Once you have checked for the two transit washers, continue inspecting the tubing connections**

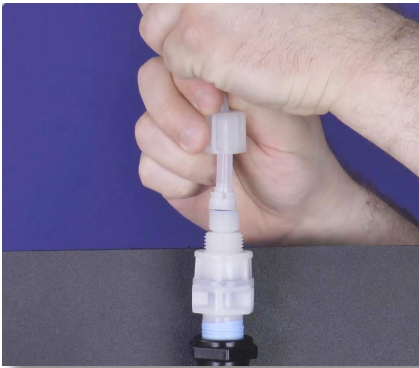
**Step 26:** Locate the injection valve on the supply line. The rigid discharge tubing should still be connected to the injection valve.





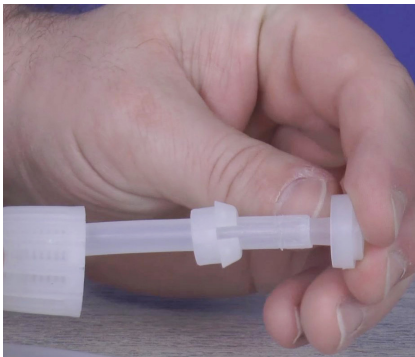
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 27:** Loosen the injection valve tube nut and disconnect the discharge tubing along with the tube nut, collar, and nozzle attached.

**NOTE:** Be careful of any chemical splash up.



**Step 28:** Remove the nozzle and collar from the tube and set aside. Do not lose them.



**Step 29:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.

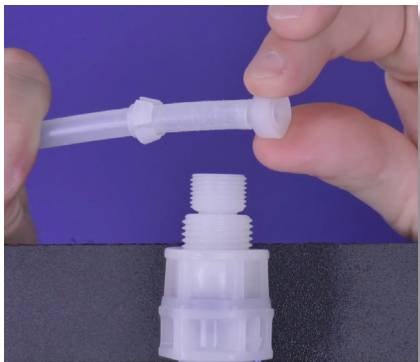


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 30:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 31:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.



**Step 32:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together. This should form a ferrule connection.

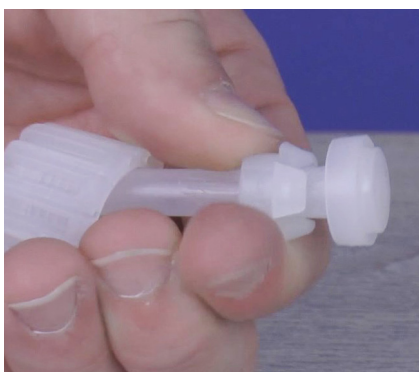


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 33:** Reattach the tube, and tube connections onto the injection valve by hand tightening the tube nut. Do not cross thread nor overtighten.



**Step 34:** If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.

### b. If the e128 is stroking but not drawing chemistry, inspect the foot filter



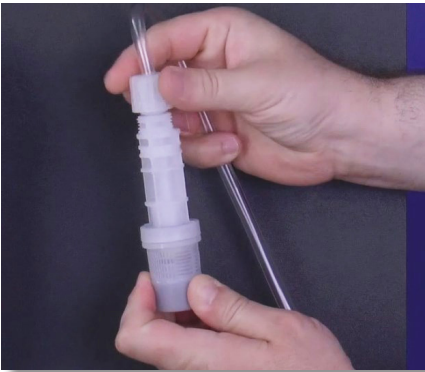
**Step 35:** Inspect the foot filter by taking it out of the chemical bucket or stock tank.

**NOTE:** Be careful of any chemical splash up.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 36:** Loosen the foot filter tube nut and disconnect the PVC suction tubing, tube nut, collar, and nozzle attached.

Let the tubing hang from the pump head while you inspect the foot filter.



**Step 37:** Shake the foot filter back and forth. You should hear a ceramic ball moving freely inside. If not, separate the foot filter into three (3) pieces by popping the filter basket from the filter body.



**Step 38:** The filter seat may stick to the filter body. Make sure it rests in the filter basket instead, to avoid losing the ceramic ball.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 39:** Set the filter body aside and locate the ceramic ball in the filter seat.



**NOTE:** If there is no ceramic ball, call **Dilution Solutions** @ **1-800-451-6628** for assistance.



**Step 40:** Pull the filter seat out of the filter basket and set the filter basket aside.



**Step 41:** Pour the ceramic ball out of the filter seat and into your hand. Set the filter seat down and use the small towel to wipe the ceramic ball clean. Do not misplace it.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 42:** While holding onto the ceramic ball, inspect the two blue o-rings in the grooves of the filter seat and make sure they are not damaged.



**Step 43:** Put the ceramic ball back into the filter seat and set the filter seat aside.



**Step 44:** Grab the filter body and inspect to make sure the small blue o-ring on the top of the filter body is not damaged.

**NOTE:** If any o-ring is damaged, switch out the current foot filter with a new one or call **Dilution Solutions** at **1-800-451-6628** for assistance.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

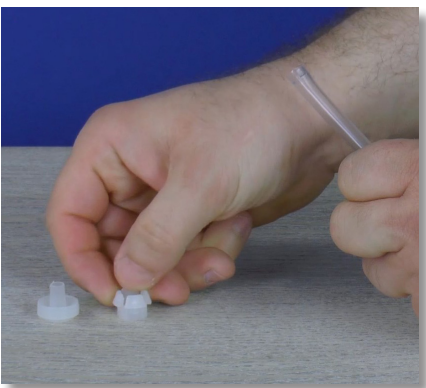


**Step 45:** Set the filter body down, grab the filter basket and put the filter seat back into the filter basket.



**Step 46:** Insert the filter basket into the filter body and forcefully pop them together. This may take a couple of tries, please be sure not to misplace the ceramic ball.

Pull on the two sections to make sure they are connected securely and shake the foot filter back and forth once more, verifying the ceramic ball is moving freely. Set the foot filter aside.



**Step 47:** Grab the PVC suction tubing hanging down from the suction valve. Remove the nozzle and collar from the tube and set aside. Do not lose them.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 48:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.



**Step 49:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 50:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible. Pull the tube nut toward the nozzle to compress the collar and nozzle tight together. This should form a ferrule connection.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 51:** Grab the foot filter and reattach the tube, and tube connections onto the foot filter by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



**Step 52:** Always be mindful of the orientation for the tubing connections.

First is the tube nut, followed by the collar and nozzle. Make sure the collar's crown is pointing away from the tube nut.

This is key because without the proper orientation, it can allow air into the system causing the e128 to not operate correctly.



**Step 53:** Place the foot filter back into the chemical bucket or stock tank, making sure it is sitting vertically.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

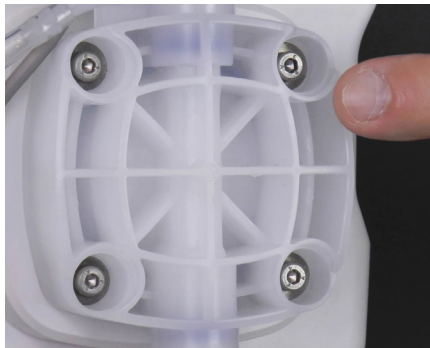
## e128 Medicator Troubleshooting Instructions

### c. If the e128 is stroking but not drawing chemistry, retighten the pump head



**Step 54:** Over time the pump Head may work itself loose from the pump. To check this, remove the four white caps on the pump head.

This can be done with your finger or a flat blade screw driver. Set the white caps aside and do not lose them.



**Step 55:** Underneath the white caps are four screws. Using the Allen wrench, tighten the four (4) screws about 1/8 turn each. Reinsert the four white caps back over the screws.

### d. If the e128 is stroking but not drawing chemistry, release air lock from the pump head

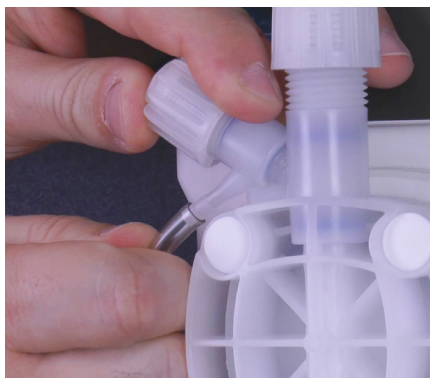


**Step 56:** Locate the air bleed valve on the upper left portion of the pump head and open it by turning the valve counter clockwise.

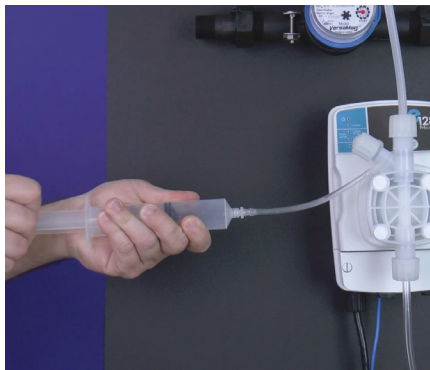


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 57:** Remove the bleed-off tubing from the air bleed barb and set aside.



**Step 58:** Using the syringe kit, slide the syringe onto the air bleed barb and draw the plunger back. Chemistry should enter the syringe. Eject the chemistry from the syringe into the chemical bucket.

**NOTE:** If no chemistry enters the syringe, call **Dilution Solutions** at **1-800-451-6628** for assistance.

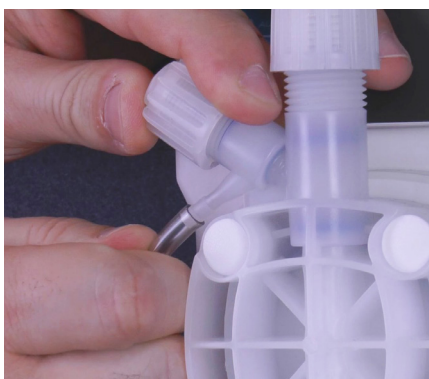


**Step 59:** Now close the air bleed valve by turning it clockwise.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 60:** Slide the bleed-off tubing back onto the air bleed barb.

Start the **e128** and run a few gallons of water through. The **e128** should now be drawing the chemistry.

### **PART 4** - The e128 draws chemistry, but does not inject

- Check the Air Bleed Valve
- Inspect the Foot Filter
- Release air lock from the Pump Head
- Retighten the Pump Head
- Inspect the Discharge and Injection Valves, Tubing Connections, and the Tube's Condition

**NOTE:** If any of the following sections from **PART 4** allow for the **e128** to draw chemistry, you can continue to **PART 5**.

#### **a. If the e128 draws chemistry but does not inject, check the air bleed valve**



**Step 61:** It may have been left open after priming. If so, please close the air bleed valve now.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

### b. If the e128 draws chemistry but does not inject, inspect the foot filter



**Step 62:** Inspect the foot filter by taking it out of the chemical bucket or stock tank.

**NOTE:** Be careful of any chemical splash up.



**Step 63:** Loosen the foot filter tube nut and disconnect the PVC suction tubing, tube nut, collar, and nozzle attached.



**Step 64:** Let the tubing hang from the pump head while you inspect the foot filter. Shake it back and forth. You should hear a ceramic ball moving freely inside.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 65:** If not, separate the foot filter into three (3) pieces by popping the filter basket from the filter body.

The filter seat may stick to the filter body. Make sure it rests in the filter basket instead, to avoid losing the ceramic ball.



**Step 66:** Set the filter body aside and locate the ceramic ball in the filter seat.



**NOTE:** If there is no ceramic ball, call **Dilution Solutions** @ **1-800-451-6628** for assistance.



**Step 67:** Pull the filter seat out of the filter basket and set the filter basket aside.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 68:** Pour the ceramic ball out of the filter seat and into your hand. Set the filter seat down and use the small towel to wipe the ceramic ball clean. Do not misplace it.



**Step 69:** While holding onto the ceramic ball, inspect the two blue o-rings in the grooves of the filter seat and make sure they are not damaged.



**Step 70:** Put the ceramic ball back into the filter seat and set the filter seat aside.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 71:** Grab the filter body and inspect to make sure the small blue o-ring on the top of the filter body is not damaged.

**NOTE:** If any o-ring is damaged, switch out the current foot filter with a new one or call **Dilution Solutions** at **1-800-451-6628** for assistance.



**Step 72:** Set the filter body down, grab the filter basket and put the filter seat back into the filter basket.



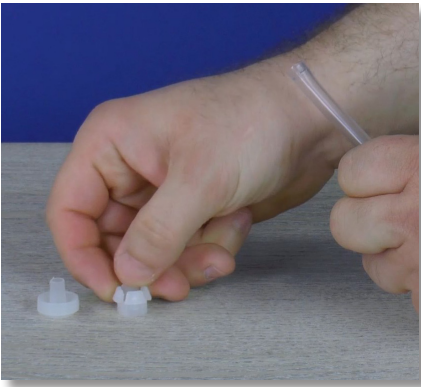
**Step 73:** Insert the filter basket into the filter body and forcefully pop them together. This may take a couple of tries, please be sure not to misplace the ceramic ball.

Pull on the two sections to make sure they are connected securely and shake the foot filter back and forth once more, verifying the ceramic ball is moving freely. Set the foot filter aside.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 74:** Grab the PVC suction tubing hanging down from the suction valve. Remove the nozzle and collar from the tube and set aside. Do not lose them.



**Step 75:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.



**Step 76:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 77:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.



**Step 78:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



**Step 79:** Grab the foot filter and reattach the tube, and tube connections onto the foot filter by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 80:** Always be mindful of the orientation for the tubing connections. First is the tube nut, followed by the collar and nozzle. Make sure the collar's crown is pointing away from the tube nut.

This is key because without the proper orientation, it can allow air into the system causing the **e128** to not operate correctly.



**Step 81:** Place the foot filter back into the chemical bucket or stock tank, making sure it is sitting vertically.

### c. If the e128 draws chemistry but does not inject, release air lock from the pump head



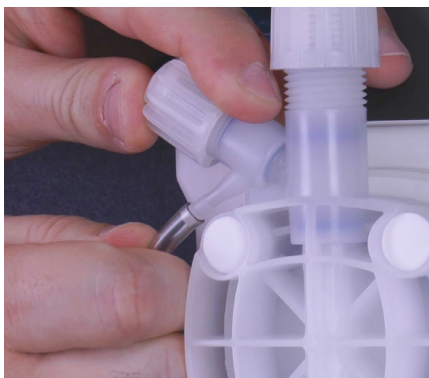
**Step 82:** Locate the air bleed valve on the upper left portion of the pump head and open it by turning the valve counter clockwise.



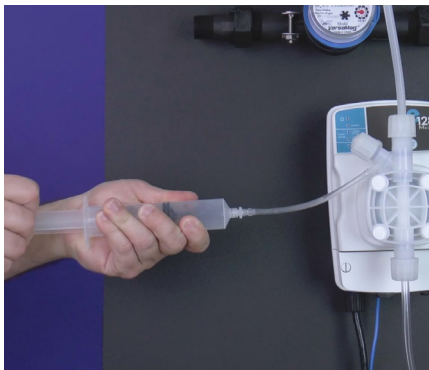


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 83:** Remove the bleed-off tubing from the air bleed barb and set aside.



**Step 84:** Using the syringe kit, slide the syringe onto the air bleed barb and draw the plunger back. Chemistry should enter the syringe.

**NOTE:** If no chemistry enters the syringe, call **Dilution Solutions** at **1-800-451-6628** for assistance.



**Step 85:** Eject the chemistry from the syringe into the chemical bucket.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 86:** Now close the air bleed valve by turning it clockwise, and slide the bleed-off tubing back onto the air bleed barb.

Start the **e128** and run a few gallons of water through.

### d. If the e128 draws chemistry but does not inject, retighten the pump head



**Step 87:** Over time the pump head may work itself loose from the pump. To check this, remove the four white caps on the pump head.

Underneath the white caps are four screws. Using the Allen wrench, tighten the four (4) screws about 1/8 turn each. Reinsert the four white caps back over the screws.

### e. If the e128 draws chemistry but does not inject, inspect the condition of the discharge and injection valves, and tubing connections and condition



#### INSPECT THE DISCHARGE VALVE

**Step 88:** Start with the discharge valve at the top of the pump head. Loosen the discharge valve tube nut and lift the discharge tube, tube nut, collar and nozzle attached.

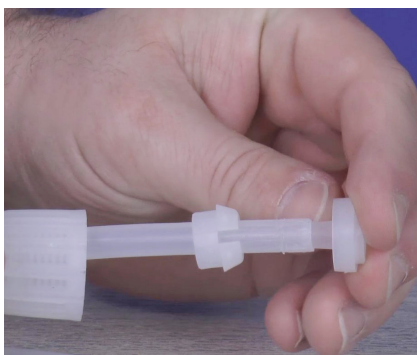
**NOTE:** Check to see if the black transit washer is at the top of the discharge valve or stuck to the nozzle. If so, remove and discard.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

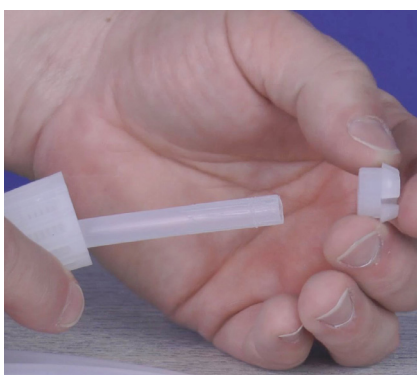
## e128 Medicator Troubleshooting Instructions



**Step 89:** Inspect your tubing connections by removing the nozzle, and collar from the tube and set aside. Do not lose them.



**Step 90:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.

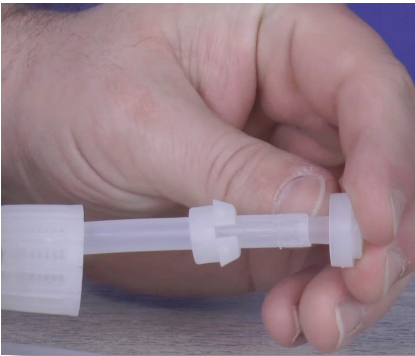


**Step 91:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



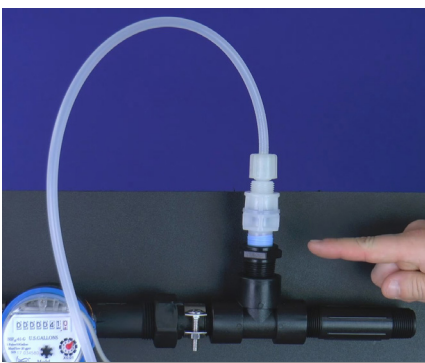
**Step 92:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.

Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



**Step 93:** Reattach the tube, and tube connections onto the discharge valve by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



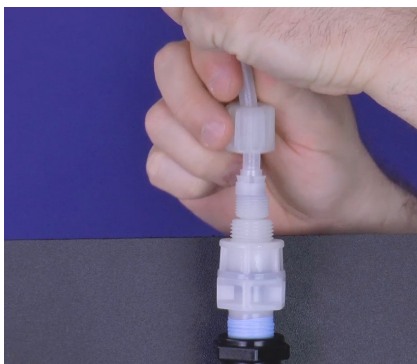
### INSPECT THE INJECTION VALVE

**Step 94:** Locate the injection valve on the supply line. The rigid discharge tubing should still be connected to the injection valve. Loosen the injection valve tube nut.



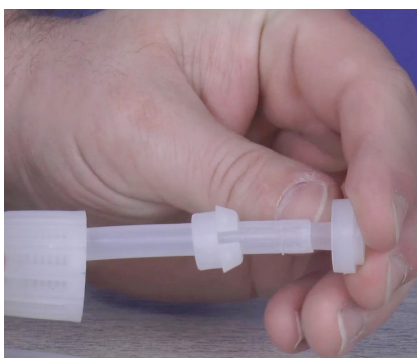
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 95:** Disconnect the discharge tubing along with the tube nut, collar, and nozzle attached.

**NOTE:** Be careful of any chemical splash up.



**Step 96:** Remove the nozzle and collar from the tube and set aside. Do not lose them.



**Step 97:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

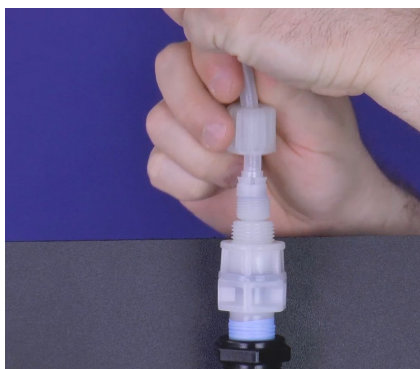


**Step 98:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 99:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.

Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



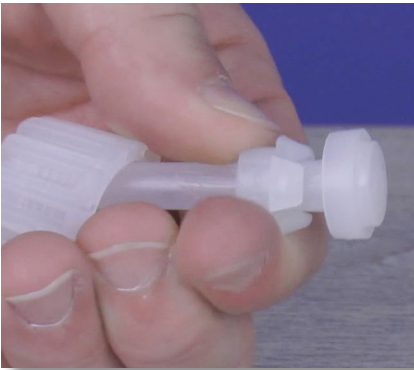
**Step 100:** Reattach the tube, and tube connections onto the injection valve by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



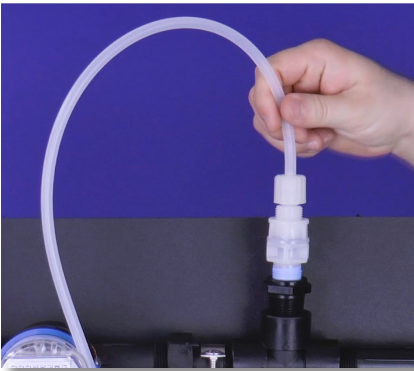
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 101:** Always be mindful of the orientation for the tubing connections. First is the tube nut, followed by the collar and nozzle.

Make sure the collar's crown is pointing away from the tube nut. This is key because without the proper orientation, it can allow air into the system causing the **e128** to not operate correctly.



### INSPECT THE RIGID POLYETHYLENE TUBE

**Step 102:** To finish up, check the condition of the rigid discharge tube. If the tube is cracked, old, or broken replace now.

The **e128** should now be properly injecting.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

### **PART 5 - The Alarm LED on the e128 is Green**

If the alarm LED is green, this means the suction or underload alarm is triggered. The **e128** senses there is a problem with the suction, and strokes about ten (10) times. The LED turns green, and the pump stops.

#### **If the alarm LED on the e128 is Green:**

- a. Replace or refill your chemical bucket or stock tank
- b. Inspect the suction valve, foot filter, and the PVC suction tube's connections and condition
- c. Retighten the pump head

**NOTE:** If any of the following sections from Part 5 allow for the green LED alarm on the **e128** to turn off, you can continue to **PART 6**.

#### **a. If the alarm LED on the e128 is Green, replace or fill your chemical bucket or stock tank**



**Step 103:** If the chemical bucket or stock tank is empty, replace or refill your chemical bucket or stock tank now.

Once the chemical bucket or stock tank is replaced or refilled, go through the priming process from the initial installation again.

#### **b. If the alarm LED on the e128 is Green, inspect the suction valve, foot filter, and the PVC suction tube's connections and condition**

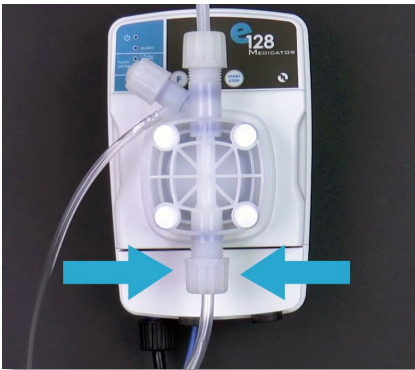
If the alarm LED on the e128 is Green, and the chemical bucket or stock tank is **NOT** empty, inspect:

- The Suction Valve
- The Foot Filter
- The PVC Suction Tube's connections and condition



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



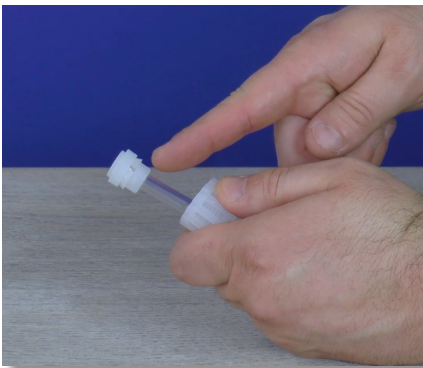
### INSPECT THE SUCTION VALVE

**Step 104:** First, locate the suction valve at the bottom of the pump head.



**Step 105:** . Loosen the suction valve tube nut and disconnect the PVC suction tube, tube nut, collar, and nozzle attached.

**NOTE:** Check to see if the black transit washer is at the bottom of the suction valve or stuck to the nozzle. If so, remove and discard.



**Step 106:** . Remove the nozzle, and collar from the tube and set aside. Do not lose them.

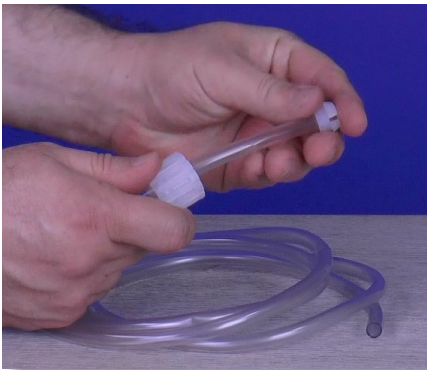


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 107:** . Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.



**Step 108:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 109:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.

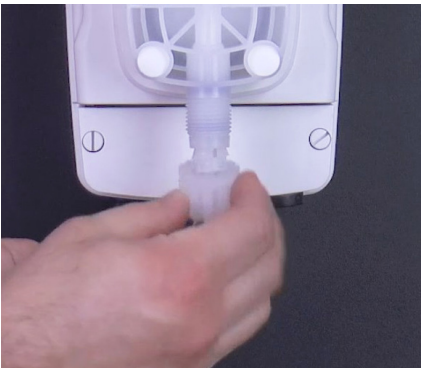


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 110:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



**Step 111:** Reattach the tube, and tube connections onto the suction valve by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



### INSPECT THE FOOT FILTER

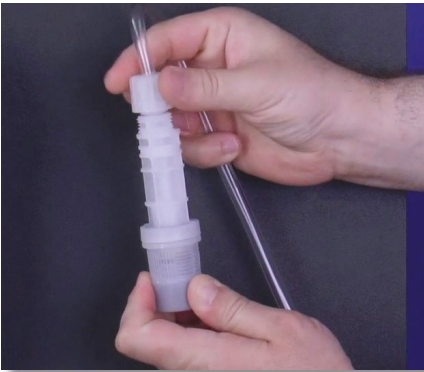
**Step 112:** Take the foot filter out of the chemical bucket or stock tank.

**NOTE:** Be careful of any chemical splash up.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 113:** Loosen the foot filter tube nut and disconnect the PVC suction tubing, tube nut, collar, and nozzle attached.



**Step 114:** Let the tubing hang from the pump head while you inspect the foot filter. Shake it back and forth. You should hear a ceramic ball moving freely inside.



**Step 115:** If not, separate the foot filter into three (3) pieces by popping the filter basket from the filter body.

The filter seat may stick to the filter body. Make sure it rests in the filter basket instead, to avoid losing the ceramic ball.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 116:** Set the filter body aside and locate the ceramic ball in the filter seat.



**NOTE:** If there is no ceramic ball, call **Dilution Solutions** @ **1-800-451-6628** for assistance.



**Step 117:** Pull the filter seat out of the filter basket and set the filter basket aside.



**Step 118:** Pour the ceramic ball out of the filter seat and into your hand. Set the filter seat down and use the small towel to wipe the ceramic ball clean. Do not misplace it.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 119:** While holding onto the ceramic ball, inspect the two blue o-rings in the grooves of the filter seat and make sure they are not damaged. Put the ceramic ball back into the filter seat and set the filter seat aside.



**Step 120:** Grab the filter body and inspect to make sure the small blue o-ring on the top of the filter body is not damaged.

**NOTE:** If any o-ring is damaged, switch out the current foot filter with a new one or call **Dilution Solutions** at **1-800-451-6628** for assistance.



**Step 121:** Set the filter body down, grab the filter basket and put the filter seat back into the filter basket.



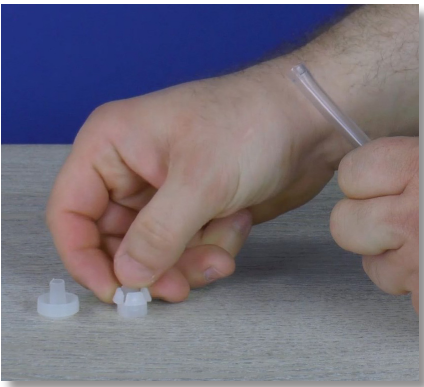
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 122:** Insert the filter basket into the filter body and forcefully pop them together. This may take a couple of tries, please be sure not to misplace the ceramic ball.

Pull on the two sections to make sure they are connected securely and shake the foot filter back and forth once more, verifying the ceramic ball is moving freely. Set the foot filter aside.



### INSPECT THE PVC SUCTION TUBE

**Step 123:** Grab the PVC suction tubing hanging down from the suction valve. Remove the nozzle and collar from the tube and set aside. Do not lose them.



**Step 124:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 125:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 126:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.

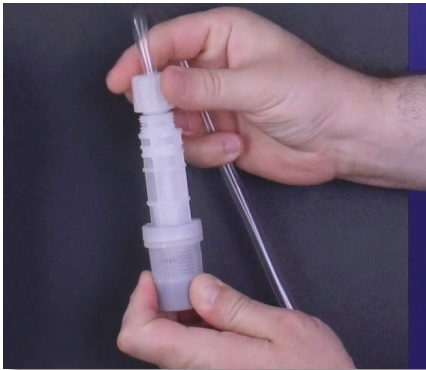


**Step 127:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 128:** Grab the foot filter and reattach the tube, and tube connections onto the foot filter by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



**Step 129:** Always be mindful of the orientation for the tubing connections. First is the tube nut, followed by the collar and nozzle.

Make sure the collar's crown is pointing away from the tube nut. This is key because without the proper orientation, it can allow air into the system causing the **e128** to not operate correctly.



**Step 130:** To finish up, look at the PVC suction's tube condition. If the tube is cracked, rigid, or looks really old replace it now.

Place the foot filter back into the chemical bucket or stock tank, making sure it is sitting vertically.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

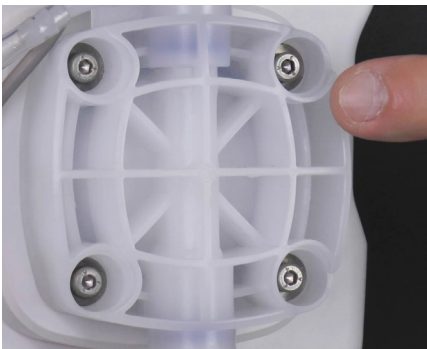
### c. If the alarm LED on the e128 is Green, retighten the pump head



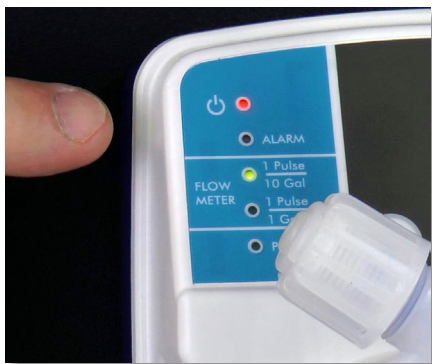
Over time the pump head may work itself loose from the pump.

**Step 131:** To check this, remove the four white caps on the pump head. This can be done with your finger or a flat blade screw driver.

Set the white caps aside and do not lose them.



**Step 132:** Underneath the white caps are four screws. Using the Allen Wrench, tighten the four (4) screws about 1/8 turn each. Reinsert the four white caps back over the screws.



**Step 133:** The Green e128 suction or underload **ALARM** should now turn off.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

### **PART 6** - Alarm LED on the e128 is Red

If the alarm LED is red, this means the discharge or overload alarm is triggered. The **e128** senses there is a problem with the discharge, and strokes about ten (10) times. The LED turns red, and the pump stops.

This cause is typically from when the pressure in the supply line exceeds the capacity of the e128, in this case 101 psi.

#### **If the Alarm LED on the e128 is Red, you need to:**

- a. Assess the pressure of the installation
- b. Inspect the injection and discharge valves, tubing connections, and the tube's condition.

**NOTE:** If any of the following sections from **Part 6** allow for the red LED alarm on the **e128** to turn off, you can continue to **PART 7**.

#### **a. If the Alarm LED on the e128 is Red, assess the pressure of the installation**



**Step 134:** Assess if the pressure of the installation is too high by using a pressure gauge.

#### **b. If the Alarm LED on the e128 is Red, inspect the injection and discharge valves, tubing connections, and condition**



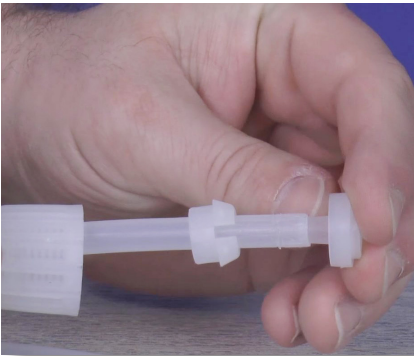
#### **INSPECT THE DISCHARGE VALVE**

**Step 135:** Start with the discharge valve at the top of the pump head. Loosen the discharge valve tube nut and lift the discharge tube, tube nut, collar and nozzle attached.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions

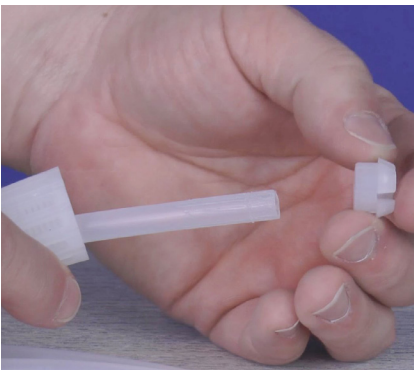


**Step 136:** Inspect your tubing connections by removing the nozzle, and collar from the tube and set aside. Do not lose them.

**NOTE:** Check to see if the black transit washer is at the top of the discharge valve or stuck to the nozzle. If so, remove and discard.



**Step 137:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.

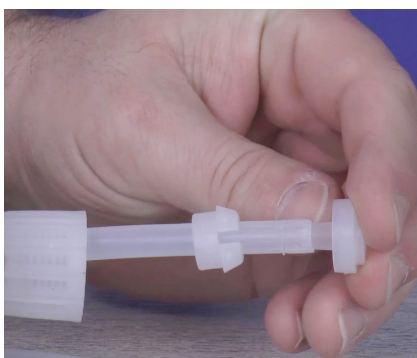


**Step 138:** Slide your collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 139:** Slide your nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.



**Step 140:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



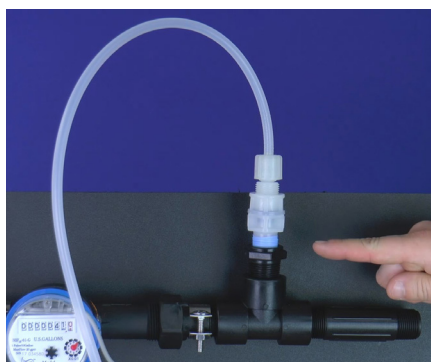
**Step 141:** Reattach the tube, and tube connections onto the discharge valve by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



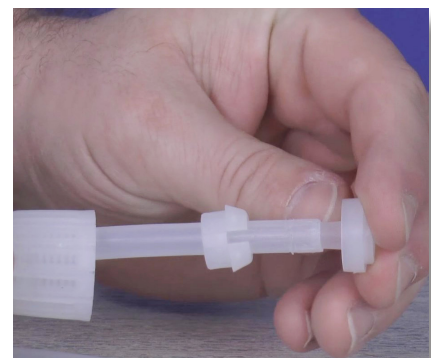
### INSPECT THE INJECTION VALVE

**Step 142:** Locate the injection valve on the supply line. The rigid discharge tubing should still be connected to the injection valve.



**Step 143:** Loosen the injection valve tube nut and disconnect the discharge tubing along with the tube nut, collar, and nozzle attached.

**NOTE:** Be careful of any chemical splash up.



**Step 144:** Remove the nozzle and collar from the tube and set aside. Do not lose them.





Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

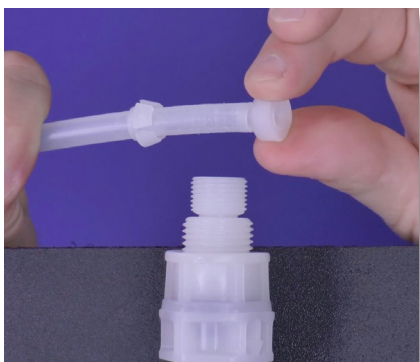
## e128 Medicator Troubleshooting Instructions



**Step 145:** Look at the end of the tube. If the tube's end is flared, use the diagonal pliers to cut the flared portion off.



**Step 146:** Slide the collar back onto the tube, and make sure the collar's crown is pointing away from the tube nut.



**Step 147:** Slide the nozzle back into the tube's opening. Push the collar and nozzle together as close as possible.

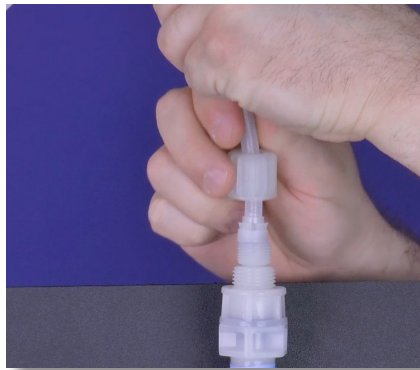


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Mediator Troubleshooting Instructions



**Step 148:** Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



**Step 149:** Reattach the tube, and tube connections onto the injection valve by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.



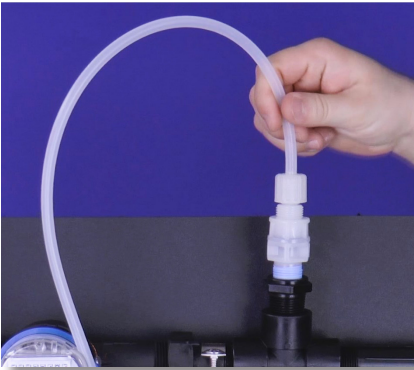
**Step 150:** Always be mindful of the orientation for the tubing connections. First is the tube nut, followed by the collar and nozzle.

Make sure the collar's crown is pointing away from the tube nut. This is key because without the proper orientation, it can allow air into the system causing the e128 to not operate correctly.

# e128 MEDICATOR

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



### INSPECT THE RIGID DISCHARGE TUBE

**Step 151:** To finish up, look at the Rigid Discharge Tube's condition. If the tube is cracked, old, or broken replace now.



**PLEASE NOTE:** If the underload alarm LED is still red, it may be disabled.

**Step 152:** To check this, try to run the pump in standby mode. If it does run, the alarm is disabled. Please call **Dilution Solutions** at **1-800-451-6628** for assistance.

The Red e128 Overload Alarm should now turn off.

**PART 7** - The e128 does not run in either program - 1 Pulse per Gallon or 1 Pulse per 10-Gallons

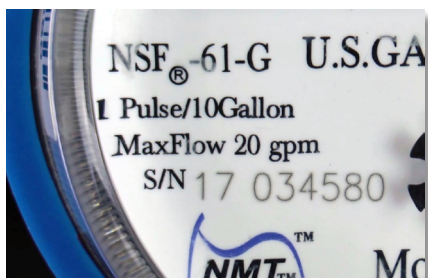
If the e128 does not run in either program check the water meter interface and inspect the connection to the **e128**.

*(Not all water meters are created equal. Sometimes they send too many signals, or send signals too rapidly. In both cases, the **e128** strokes too many times and sounds like a machine gun.)*

# e128 MEDICATOR

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 153:** First, check the water meter interface to see if the dial matches your desired program.



**Step 154:** Confirm the same program is set on the e128.

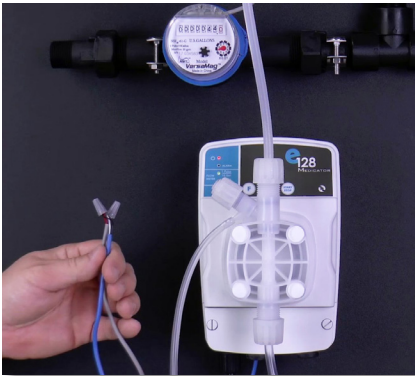


**Step 155:** If not, change the e128 program or replace the water meter, so the programs match.

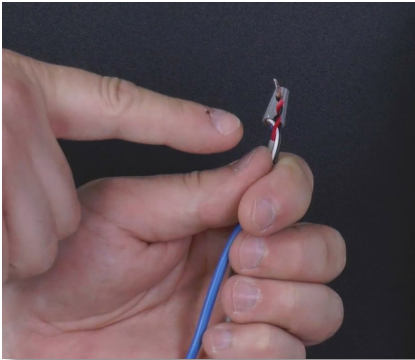


Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

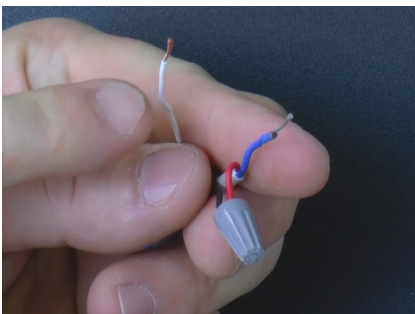
## e128 Medicator Troubleshooting Instructions



**Step 156:** If the issue continues, inspect the connection to the water meter to see if it is loose or disconnected.



**Step 157:** The water meter makes the pump run and if a connection is loose or disconnected by mistake between the pump and water meter, the **e128** will not operate.



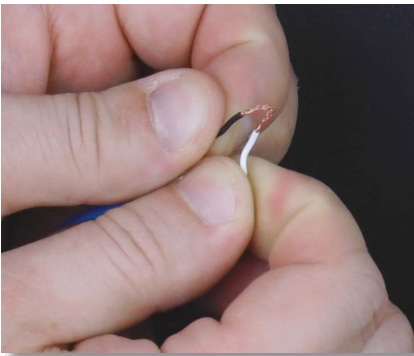
**Step 158:** If the connection is fine, disconnect the water meter and **e128** lead wires from each other.



# e128 MEDICATOR

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 159:** Now test the **e128** individually.

To do this, touch the lead wires of the **e128** together. This simulates the signal from the water meter, closes the contact, and tells the pump to stroke.

Do this in both the 1 Pulse Per Gallon and 1 Pulse Per 10-Gallons programs.



**Step 160:** Switch programs by putting the pump in standby mode and press the '**F**' or **Function** button.



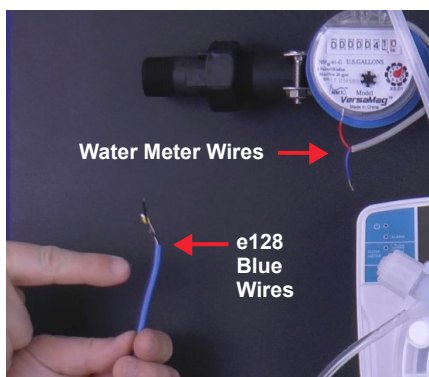
**Step 161:** If the **e128** works individually, it is time to test the water meter.

Do this by running fresh water through the supply line and look to see if the dial moves.

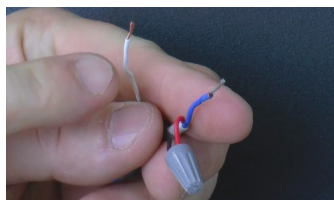
# e128 MEDICATOR

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

## e128 Medicator Troubleshooting Instructions



**Step 162:** If so, reconnect the **e128** lead wires back to the water meter lead wires.



**NOTE:** Polarity typically does not matter, but if it does, the **e128** white wire is positive. Use wire nuts if necessary.



**Step 163:** To finish up, run the **e128 Medicator** through both programs or at least through your desired setting to make sure it is working correctly.

The **e128 Medicator** should now run correctly through the 1 Pulse Per 1 Gallon or 1 Pulse Per 10-Gallons programs.

We hope this video has been helpful with troubleshooting your **e128 Medicator** pump.

For more information, please call us at **1-800-451-6628**  
or visit us online at **[www.dilutionsolutions.com](http://www.dilutionsolutions.com)**.

To see other videos, check out our **YouTube channel**.

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