



OPERATORS MANUAL FOR Mi-T-M®  
***WPH-0075-0M10***  
pH control system



**CAUTION  
RISK OF INJURY!**

**READ MANUAL BEFORE OPERATING!**

This manual is important and must remain with the unit when you sell it!

# Contents

<b>INTRODUCTION</b> .....	<b>3</b>
<b>SPECIFICATIONS</b> .....	<b>4</b>
<b>IMPORTANT SAFETY WARNINGS</b> .....	<b>5</b>
RISK OF ELECTRIC SHOCK OR ELECTROCUTION.....	5
RISK OF EXPLOSION OR FIRE .....	6
RISK OF BURSTING .....	6
RISK OF BURNS .....	6
RISK FROM MOVING PARTS.....	6
RISK OF BODILY INJURY .....	7
<b>INSTALLATION</b> .....	<b>9</b>
PLUMBING INSTALLATION .....	9
PH PROBE INSTALLATION .....	9
ELECTRICAL HOOKUP .....	10
CALIBRATION .....	10
PH PUMP CONTROLLER OPERATION .....	11
<b>WHP-0075-0M10</b> .....	<b>13</b>
<b>CHEMICAL INJECTION PLUMBING</b> .....	<b>14</b>
<b>FLOWSWITCH PLUMBING</b> .....	<b>15</b>
<b>INLINE MIXER PLUMBING</b> .....	<b>16</b>
<b>PH PROBE PLUMBING</b> .....	<b>17</b>
<b>CONTROL BOX ASSEMBLY</b> .....	<b>18</b>
<b>PUMP (3-0299)</b> .....	<b>20</b>
<b>WIRING SCHEMATIC</b> .....	<b>22</b>
<b>WIRING DIAGRAM</b> .....	<b>23</b>

## **WARNING**

This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## INTRODUCTION

Congratulations on the purchase of your new Mi-T-M pH control system! You can be assured your Mi-T-M pH control system was constructed and designed with quality and performance in mind. Each component has been rigorously tested to ensure the highest level of acceptance.

This operator's manual was compiled for your benefit. By reading and following the simple safety, installation, operation, maintenance and troubleshooting steps described in this manual, you will receive years of trouble free operation from your new Mi-T-M pH control system. The contents of this manual are based on the latest product information available at the time of publication. Mi-T-M reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

### **! IMPORTANT !**

**These paragraphs are surrounded by a "SAFETY ALERT BOX". This box is used to designate and emphasize Safety Warnings that must be followed when operating this pH control system. Accompanying the Safety Warnings are "signal words" which designate the degree or level of hazard seriousness. The "signal words" used in this manual are as follows:**

***DANGER:*** Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

***WARNING:*** Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

***CAUTION:*** Indicates a potentially hazardous situation which, if not avoided **MAY** result in minor or moderate injury.

The symbol set to the left of this paragraph is a "Safety Alert Symbol". This symbol is used to call attention to items or procedures that could be dangerous to you or other persons using this equipment.



**ALWAYS PROVIDE A COPY OF THIS MANUAL TO ANYONE USING THIS EQUIPMENT. READ ALL INSTRUCTIONS BEFORE OPERATING THIS pH CONTROL SYSTEM AND ESPECIALLY POINT OUT THE "SAFETY WARNINGS" TO PREVENT THE POSSIBILITY OF PERSONAL INJURY TO THE OPERATOR.**

Once the unit has been uncrated, immediately write in the serial number of your unit in the space provided below.

**SERIAL NUMBER** \_\_\_\_\_

Inspect for signs of obvious or concealed freight damage. If damage does exist, file a claim with the transportation company immediately. Be sure that all damaged parts are replaced and that the mechanical and electrical problems are corrected prior to operation of the unit. If you require service, contact Mi-T-M Customer Service.

CUSTOMER SERVICE

CALL OUR TOLL-FREE NUMBER

for the Sales or Service Center nearest you!

800-553-9053

Please have the following information available for all service calls:

1. Model Number
2. Serial Number
3. Date and Place of Purchase

## PACKAGE CONENTS

Carefully unpack your new Mi-T-M pH control system. Check the contents against the packing list. Contact the freight line if a damage claim is required on any component. The following items are the basic equipment sent with your pH control system.

1. Main control box with plug.
2. Chemical feed/pickup tubes.
3. Chemical feed strainer.
4. Plumbing assembly (1) with gate valve, pressure guage, and chemical injection check valve.
5. Plumbing assembly (2) with in-line static mixer and unions.
6. Pipe section with flow meter.
7. Plumbing section (3) for pH probe and flow switch (4).
8. pH probe.
9. Wiring diagram
10. This manual

## SPECIFICATIONS

<b>ELECTRICAL:</b>	120 vac supply 1.8 amp draw
<b>WASTE STREAM FLOW:</b>	10 to 40 GPM
<b>CHEMICAL FEED RATE:</b>	Up to 3/4 gallon per hour. Please note this is with chemicals having a viscosity similar to water. You may also substitute a pump with a higher chemical feed rate.
<b>PRESSURE:</b>	System is rated to handle up to 17 psi of back pressure in the waste stream line.
<b>TEMPERATURE:</b>	Up to 95 degrees F.
<b>CHEMICAL COMPATIBILITY:</b>	All plumbing and flexible tubes are PVC. Please verify the chemicals you are using will be compatible with PVC.
<b>PLUMBING SIZE:</b>	All hard plumbing is 1-1/2" ID



# IMPORTANT SAFETY WARNINGS



**WARNING:** When using this product, basic precautions should always be observed, including the following:






HAZARD	POTENTIAL CONSEQUENCE	PREVENTION
<p><b>RISK OF ELECTRIC SHOCK OR ELECTROCUTION</b></p> 	<p>Serious injury or death could occur if the pH control system is not properly grounded. Your pH control system is powered by electricity and may cause electric shock or electrocution if not installed properly.</p> <p>Electrical shock may occur if pH control system is not operated properly.</p> <p>Serious injury or death may occur if electrical repairs are attempted by unqualified persons.</p>	<p>Installation of this unit, including all electrical connections, must comply with all local, state and national codes.</p> <p>This product must be grounded. Connect to a GFCI circuit breaker when available. If the unit should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. Do not ground to a gas supply line.</p> <p>Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the system is properly grounded.</p> <p>Always be certain the unit is receiving proper voltage (+/- 5% of the voltage listed on the nameplate). Before installing electrical connections, be certain the power switches are in the "OFF" position.</p> <p>Keep all connections dry and off the ground.</p> <p>Do not touch pump, pump motor, discharge piping or water when the unit is connected to the power supply; regardless of whether the unit is operating correctly or experiencing an operation failure.</p> <p>DO NOT allow metal components of the pH control system to come in contact with live electrical components.</p> <p>Never operate the pH control system with safety guards/covers removed or damaged. Ensure all electrical covers are securely in place when unit is operating.</p> <p>Any electrical wiring or repairs performed on this pH control system should be done by Authorized Service Personnel in accordance with National and Local electrical codes.</p> <p>Before opening any electrical enclosure, always shut off the pH control system and drain the water. Disconnect the pH control system from the power source. If the power disconnect is not in sight, lock it in the open position and tag it to prevent power usage. (Never assume the pH control system is safe to work on just because it is not operating, it could restart at any time! Always disconnect from the power source.) Allow the pH control system to cool down. Service in a clean, dry, flat area.</p>



## IMPORTANT SAFETY WARNINGS

READ ALL SAFETY WARNINGS BEFORE USING pH CONTROL SYSTEM




HAZARD	POTENTIAL CONSEQUENCE	PREVENTION
<p><b>RISK OF EXPLOSION OR FIRE</b></p>  	<p>Serious injury or death could occur from an explosion or fire caused by a system electric spark.</p>	<p>This unit must be placed in an area that is well ventilated, free of flammable vapors, combustible dust, gases or other combustible materials.</p>
<p><b>RISK OF BURSTING</b></p> 	<p>Serious injury or death could occur from bursting caused by excessive pressure in the system.</p> <p>Serious injury may occur if attempting to start the pH control system when the pump is frozen.</p>	<p>Do not use this pH control system to pump flammable material! An explosion could occur from a gas vapor buildup inside the system.</p> <p>In freezing temperatures, the unit must always be warm enough to ensure there is no ice formation in the pump. Do not start the pH control system if it has been in a freezing environment without first allowing the pump to thaw.</p>
<p><b>RISK OF BURNS</b></p> 	<p>Serious injury may occur from touching the electrical motor. This area can remain hot for some time after the pH is shutdown.</p>	<p>Never allow any part of your body to contact the electrical motor until cooled.</p>
<p><b>RISK FROM MOVING PARTS</b></p> 	<p>Serious injury may occur to the operator from moving parts on the pH control system.</p>	<p>Do not operate the unit without all protective covers in place.</p> <p>Follow the maintenance instructions specified in the manual.</p>



## IMPORTANT SAFETY WARNINGS

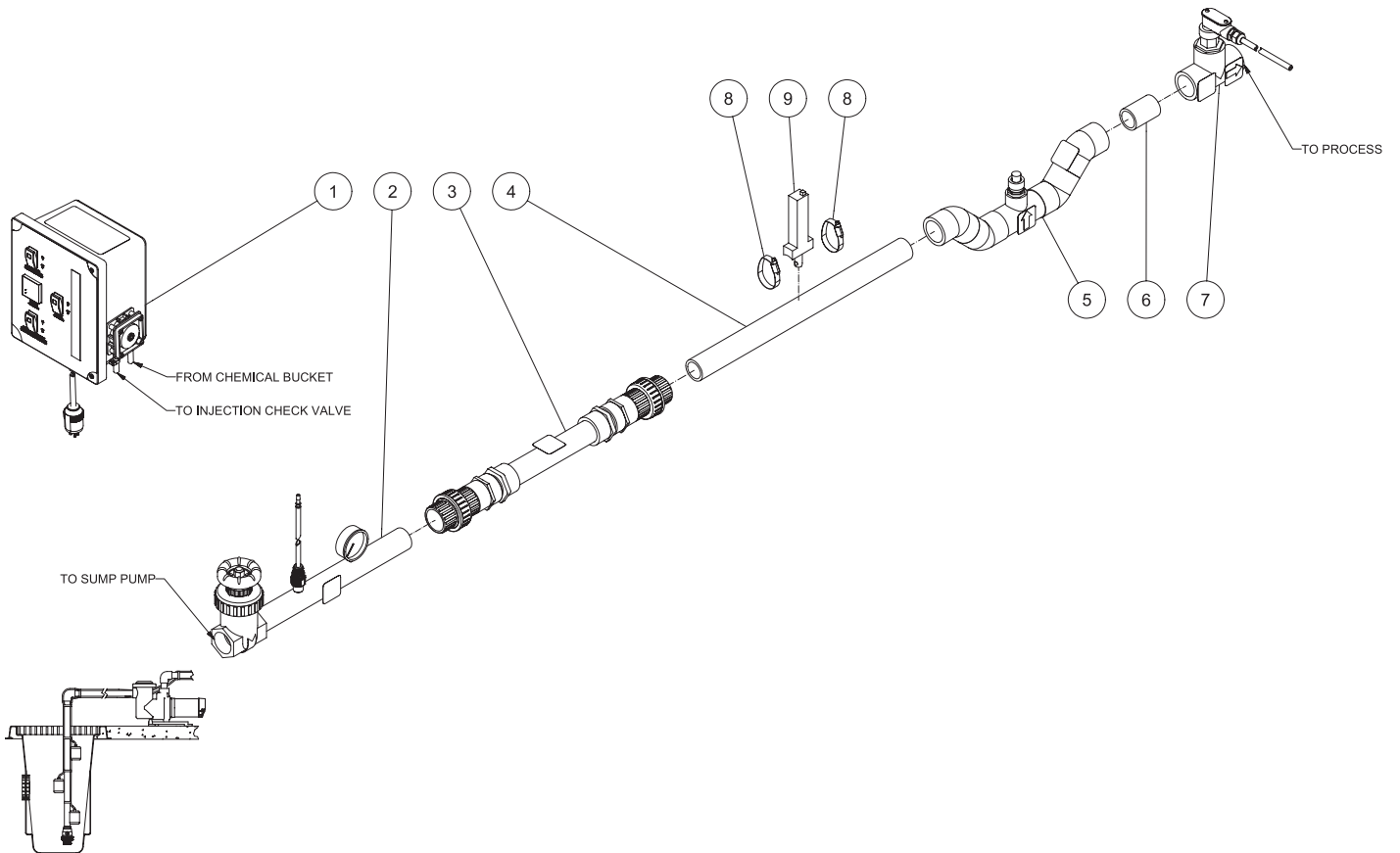
READ ALL SAFETY WARNINGS BEFORE USING pH CONTROL SYSTEM



HAZARD	POTENTIAL CONSEQUENCE	PREVENTION
<p><b>RISK OF BODILY INJURY</b></p> 	<p>Injury may occur from the pH control system.</p>	<p>DO NOT DRINK THE WATER IN THE pH CONTROL SYSTEM!! This is non-potable water and is not suitable for consumption.</p> <p>DO NOT allow children to operate this unit.</p> <p>DO NOT overreach or stand on unstable support.</p> <p>Wet surfaces can be slippery, wear protective foot gear and keep good footing and balance at all times.</p> <p>Know how to stop the pH control system. Be thoroughly familiar with controls.</p> <p>Before servicing, ALWAYS shut off the pH control system.</p>

**!SAVE THESE INSTRUCTIONS!**

## FEATURES VIEW WPH-0075-0M10



### FEATURES DESCRIPTION WPH-0075-0M10

1. Control Box Assembly
2. Chemical Injection Plumbing
3. Inline Mixer Plumbing
4. Pipe
5. pH Probe Plumbing
6. Pipe
7. Flowswitch Plumbing
8. Worm Clamp
9. Flow Meter



# INSTALLATION

## PLUMBING INSTALLATION:

Your plumbing assemblies should be in two segments that need to be connected at a union. Screw the two union halves together. Make sure the gate valve handle, flow meter, pH probe rubber stopper, and flow switch are all in the upright position. The stream flow should be in the direction of going from the gate valve to the flow switch.

**IMPORTANT: THIS SYSTEM IS NOT DESIGNED FOR VACUUM FLOW. THE WASTE STREAM PUMP SHOULD BE "PUSHING" THE FLUID THROUGH THE PLUMBING ASSEMBLIES. DO NOT TRY TO "SUCK" THE WASTE STREAM THROUGH THE PH PLUMBING ASSEMBLIES.**

Once you have located the spot in your waste stream to install the plumbing assemblies, you may cut the existing piping of the waste stream to insert the new plumbing assemblies.

**NOTE: MAKE SURE THE LINE IS EMPTY OF FLUIDS AND PRESSURE BEFORE CUTTING INTO IT.**

The gate valve at the beginning of the plumbing assembly is used for flow and pressure control. The flow switch operates between 10 gpm and 40 gpm. The peristaltic pump will inject chemicals into a stream that has a pressure up to 17 psi. Use the gate valve to make sure you are within these parameters for your system to function properly. The peristaltic pump included with your control box will pump chemicals at a feed rate up to 0.75 gallons per hour. If a higher chemical injection rate is required, consult with factory. A higher volume pump is available.

Your control box comes with 4 mounting screws and brackets. Locate a spot to mount it now that you have your plumbing installed.

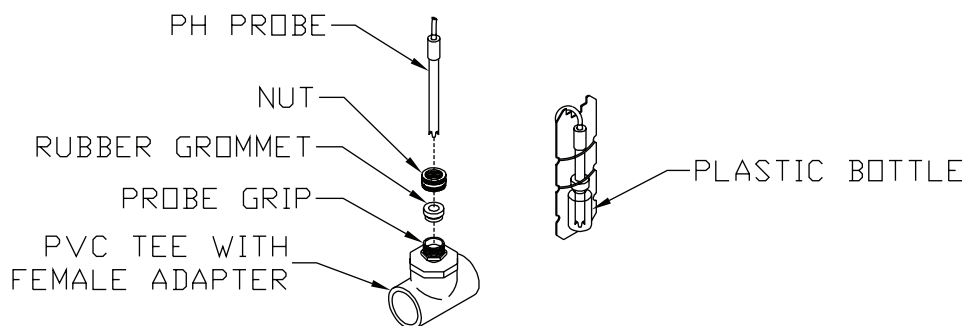
## PH PROBE INSTALLATION:

The next item of installation after you have plumbed everything is to install the pH probe. Make sure your waste stream has some water in it. If you need to run your pump briefly, do so. You have an aluminum strain relief with a rubber stopper in it. **MAKE SURE THE PRESSURE IS OUT OF THE PLUMBING LINE.** Remove the nut on the strain relief. Then, remove the rubber stopper and metal washer that retains the stopper. Replace the aluminum nut onto the strain relief base. **DO NOT** tighten yet. Insert the probe through the nut, and into the plumbing line. Your probe should be inserted so the tip of it is approximately at the center of the plumbing line. Now you may tighten the nut to seal the probe in.

**NOTE: DO NOT OVERTIGHTEN: YOU CAN SHATTER THE GLASS PROBE.**

Next, connect the BNC connector on the probe to the BNC connector on the bottom of the main control box. When properly installed, your plumbing for the pH probe should form a "valley" by the use of several 45 degree angle elbows. This valley is designed to retain water when the system is not moving water so that your pH probe does not dry out. You are finished with the probe installation. Make sure to save the plastic bottle with liquid from the end of the pH probe to be used in case of winter storage.

## PH SENSOR PROBE



# INSTALLATION

## ELECTRICAL HOOKUP:

**NOTE: THERE ARE 2 TYPES OF ELECTRICAL POWER ON THE INTERNAL TERMINAL STRIP:**

1. 120 VAC
2. 12 VDC

You are now ready to plug in the WPH control box. Make sure all switches are in the "OFF" position before plugging the unit in. A standard 120 VAC, 15 amp, GFCI outlet will suffice for this system. After plugging in the cord, turn on the top left rocker switch. This is the main power control. The red light should be illuminated. When this switch is in the OFF position, nothing else in the control box will function. If the light is on, turn on the second switch. This will turn on the external pH meter. The lights should be on showing a pH value and a set point. The pH value should be indicative of the pH value of the stream the probe is in. Your meter has been calibrated at the factory, and should be ready to go.

**NOTE: PH PROBES DO WEAR OUT. YOU SHOULD RECALIBRATE THE EXTERNAL METER ON A MONTHLY BASIS. YOU SHOULD ALWAYS RECALIBRATE THE EXTERNAL METER WHEN A PH PROBE HAS BEEN REPLACED. BELOW ARE CALIBRATION INSTRUCTIONS FOR THE EXTERNAL PH METER.**

## CALIBRATION:

How to calibrate external pH meter:

The front panel has two adjustments labeled "CAL" and "SLOPE", always adjust the CAL first.

1. Always make sure the pH probe is connected to the meter.
2. Place the probe in a #7 buffer solution. Adjust the "CAL" reading for a pH of 7.00

**NOTE: THERE IS A LIMITED SHELF LIFE ON BUFFER SOLUTIONS. PLEASE MAKE SURE THE BUFFER IS ACTIVE. IN LIEU OF USING BUFFER SOLUTIONS, YOU MAY USE PART #RC-1003-0001, WHICH IS AN ELECTRONIC CALIBRATOR.**

3. Remove and rinse the probe in tap water.
4. Place the probe in a #4 or #10 buffer, depending on the instrument usage (Acid or Base). Adjust the "SLOPE" to a reading of 4.0 or 10.0 pH.
5. Calibration complete.



# INSTALLATION

With your calibration complete, verify the set point of the external pH meter. It should always be at zero. If it is not, you can adjust it down by pushing the down arrow key until it does read “0.00”. This is very different than most systems. It is critical to have the external meter set to 0, as the pH reading coming from this meter is sent to the internal controller for pump speed and set point control.

The bottom switch on the main control box is for the peristaltic pump. Leave this in the OFF position until you have completed the setup of your internal pH pump controller.

## pH PUMP CONTROLLER OPERATION:

It is now time to set up the internal pH controller for your scenario.



**WARNING: YOU WILL NEED TO LEAVE THE POWER ON WHEN DOING THIS. BE EXTREMELY CAUTIOUS! A QUALIFIED ELECTRICIAN SHOULD BE HANDLING THIS. WORK MUST BE DONE ON THE INSIDE OF THE CONTROL BOX WHILE THE POWER IS ON. ELECTROCUTION CAN OCCUR!**



Leave the main power switch (top left) and external pH meter switch on the outside of the control box in the ON position. Open the control box. After opening the control box, you will see a DC power supply in the top right corner. There should be a little green light on which indicates DC power is OK. If this is not on, turn the main switch to the control box off and then on again. If you still do not see the green indicator light on, consult with factory.

Your WPH-0075-0M10 pH control system comes equipped with an internal DC signal pump speed controller. This is the component used for pH set point, minimum pump speed (0 to 250), pump speed ramping, and selection of acidic or basic waste stream.

The pH pump controller is located at the top left of the control box. The green background lighting should be glowing, and black lettering should be legible. Please see Figure 1 for button locations on this controller.

pump controller 051407

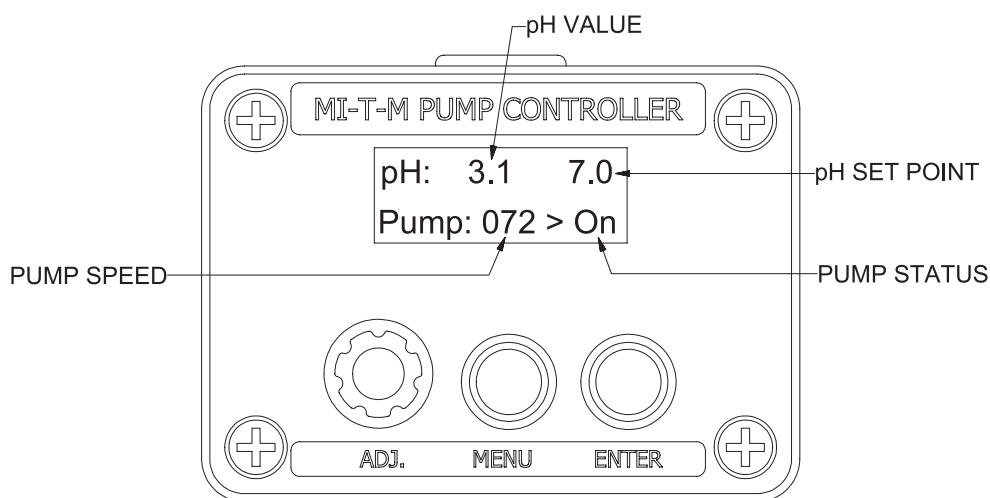


Figure 1

Figure 1 shows a layout of the dials and readout of the internal pH pump controller. There is one rotating knob on the left used for adjustment, the black push button in the middle is used for menu control, and the black push button on the right is used for entering/setting desired values.

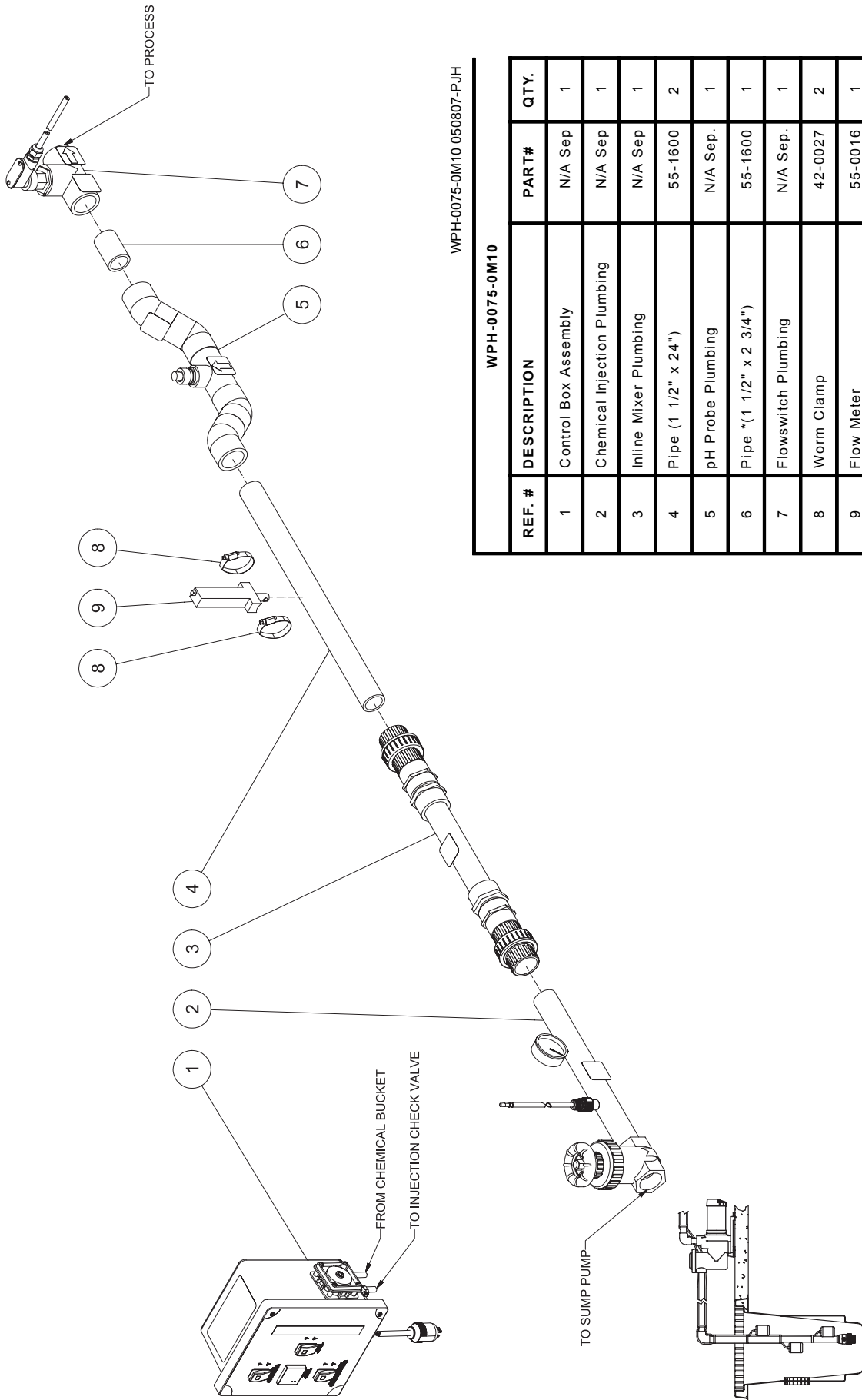
## INSTALLATION

To begin programming the controller, push the menu button once. This will bring up the “pH setpoint” menu. It has been pre-set to 7 at the factory. If you desire a different value, push the far right button. Adjust the rotating knob to your desired setpoint, and then push the far right button again. This will lock your value in. If you are finished with control settings, the controller will revert back to the main screen on its own. If you wish to adjust another setpoint, push the middle (menu) button again. The next menu to appear is the “pump minimum speed” menu. Typically, this is the value on a scale of 0 to 250 that will keep your pump running at minimal speed as your waste stream nears the setpoint. Generally, a value of 70 to 90 should work here. If you need to adjust this, push the far right (Set) button. While this screen is active, turn the rotating knob until you have reached a desired value. Press the set button again to activate the new setpoint.

To move on to the next menu, push the menu button. You will now see a “calibrate pH” menu. This value is fixed. The pH value is directly related to the signal received from the external meter. This has been fixed at the factory. Push the menu button again. You will now have the pump factor screen in front of you. Values for the pump factor range from 1 to 8. This factor is a ramping speed factor. The higher the value, the quicker your pump will respond to changes in the pH value. A value of 1 will take longer to speed up and slow down when you detract from, or near your setpoint. Setting this at 8 can create up and down swings in your pH value. Start out at 4 or 5 and see how it works. The final menu is the “Acid/Base” menu. This describes your waste stream. If you have an acidic stream, choose “acidic” by turning the adjustment knob to the left after you have pushed the setpoint button. When it reads “Acid,” push the setpoint button again. The opposite applies for a basic waste stream. The knob is turned to the right instead of to the left. This was the final menu. Again, the display will return to the main screen in just a few seconds after the final setpoint was entered.

After completion of the controller setup, your system is ready for operation. You may now turn on the pump switch. All conditions must be right for the chemicals to be pumping. Your setpoints are accurate, there is a minimum of 10 gpm of water flowing through the line, and all switches are on. You may continue to leave the main control box lid open to observe how the system is reacting. If all is satisfactory, close the cover. You may need to make minor adjustments on the setpoint menu.

# WHP-0075-0M10

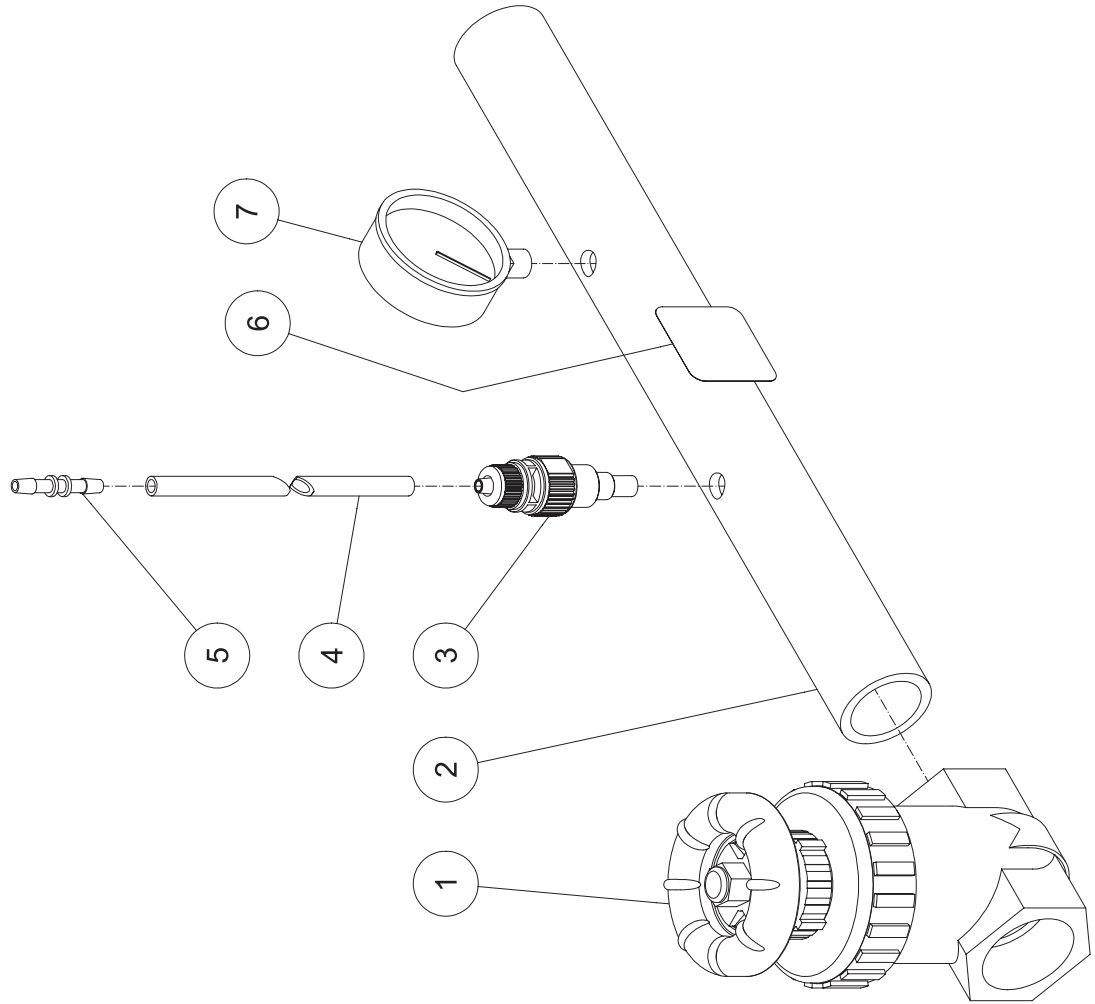
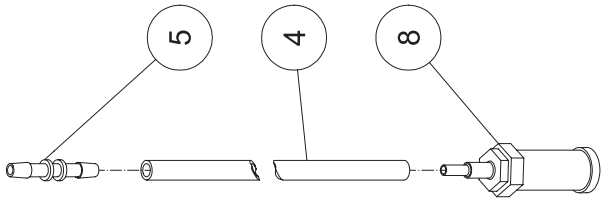


WPH-0075-0M10 050807-PJH

WPH-0075-0M10			
REF. #	DESCRIPTION	PART#	QTY.
1	Control Box Assembly	N/A Sep	1
2	Chemical Injection Plumbing	N/A Sep	1
3	Inline Mixer Plumbing	N/A Sep	1
4	Pipe (1 1/2" x 24")	55-1600	2
5	pH Probe Plumbing	N/A Sep.	1
6	Pipe *(1 1/2" x 2 3/4")	55-1600	1
7	Flowswitch Plumbing	N/A Sep.	1
8	Worm Clamp	42-0027	2
9	Flow Meter	55-0016	1
10	Decal Set	34-9043	1
*Must Order in One Foot Lengths			

WPH-0075-0M10-050807

# CHEMICAL INJECTION PLUMBING

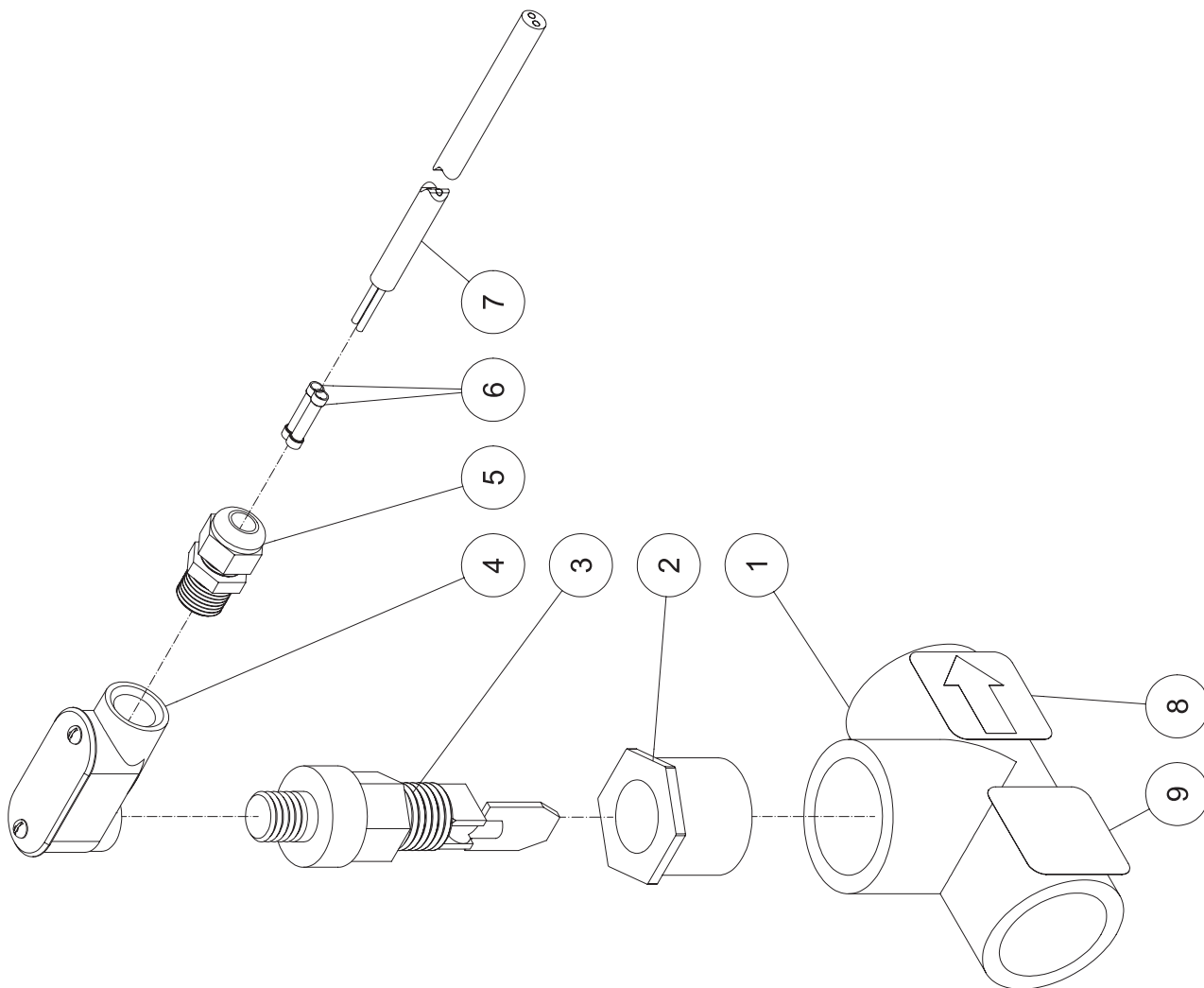


CHEMICAL INJECTION PLUMBING-WPH-0075-0M10 041307-PJH

CHEMICAL INJECTION PLUMBING			
REF. #	DESCRIPTION	PART#	QTY.
1	Gate Valve	55-1671	1
2	Pipe (1 1/2 x 18") *(Two Feet Required)	55-1600	1
3	Check Valve	22-0418	1
4	Hose *(Eight Feet Required)	15-0226	2
5	Hose Mender	55-0022	2
6	Decal	34-0966	1
7	Pressure Gauge	22-0280	1
8	Strainer	19-0056	1
9	Cable Tie	33-0022	5

\*Must Order in One Foot Lengths

# FLOWSWITCH PLUMBING

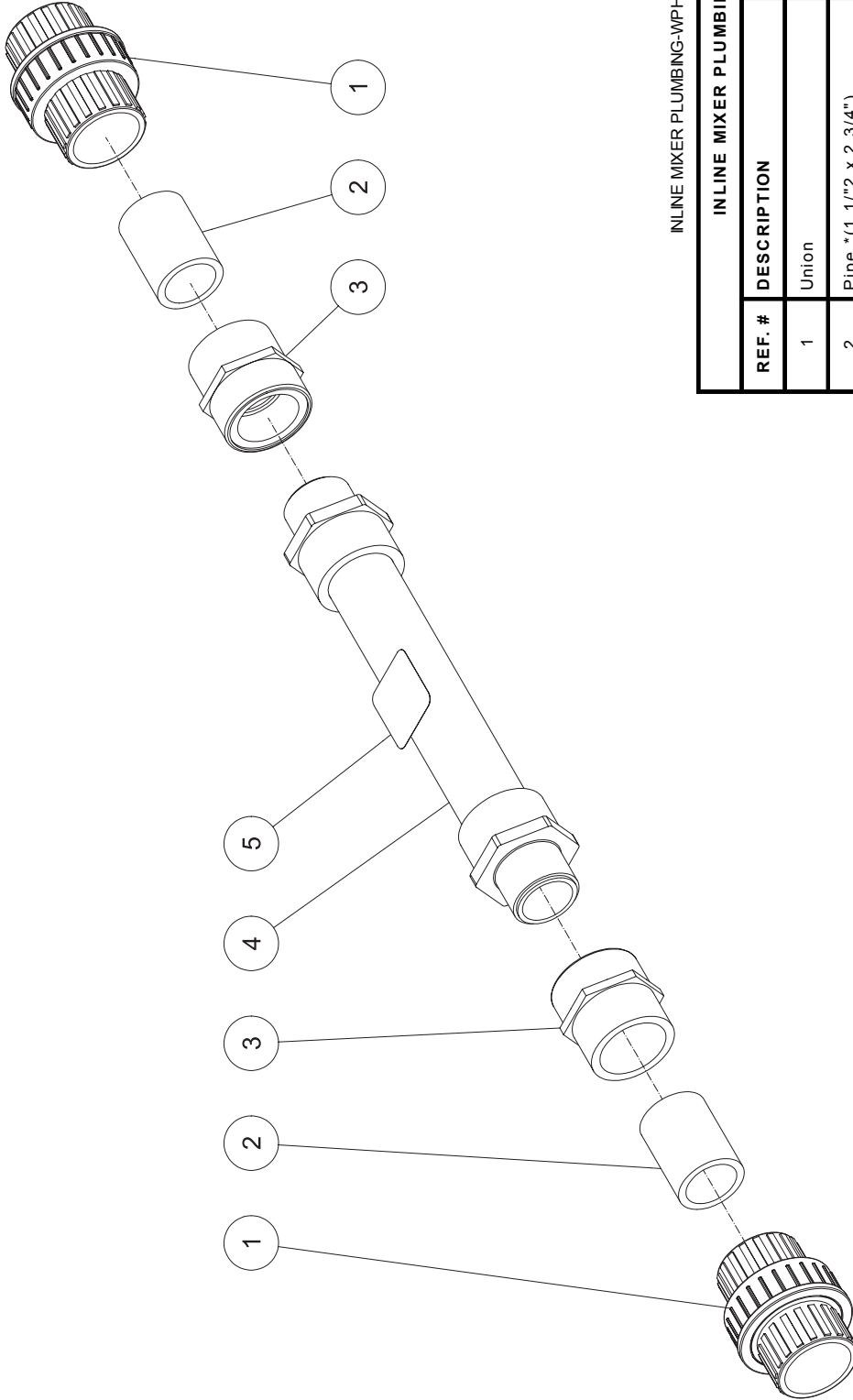


FLOWSWITCH PLUMBING WPH-0075-0M10-022007-PJH

FLOWSWITCH PLUMBING WPH-0075-0M10-042007-PJH

FLOWSWITCH PLUMBING			
REF. #	DESCRIPTION	PART #	QTY.
1	Tee	55-1601	1
2	Reducer	55-1629	1
3	Flow Switch	32-0641	1
4	Elbow	32-0642	1
5	Strain Relief	32-0437	1
6	Connector	32-0122	2
7	Cord *(Fifteen Feet Required)	32-0075	1
8	Decal-Arrow	34-0883	1
9	Decal-4	34-0969	1
*Must Order in One Foot Lengths			

# INLINE MIXER PLUMBING



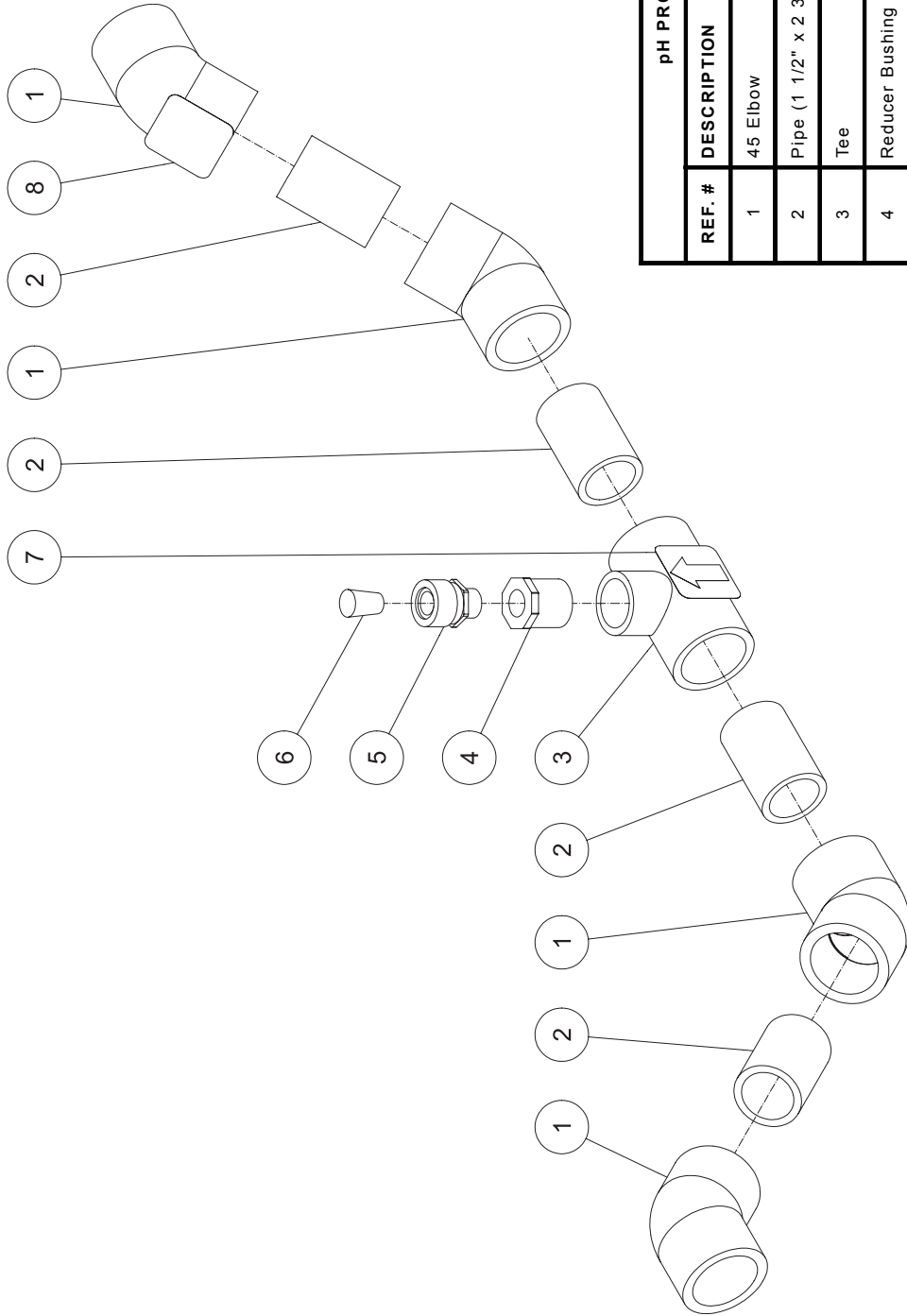
INLINE MIXER PLUMBING-WPH-0075-0M10-041307-PJH

INLINE MIXER PLUMBING				
REF. #	DESCRIPTION	PART#	QTY.	
1	Union	55-1645	2	
2	Pipe * (1 1/2 x 2 3/4")	55-1600	1	
3	Female Adapter	55-1621	2	
4	Static Mixer	55-1684	1	
5	Decal-2	34-0967	1	
*Must Order in One Foot Lengths				

INLINE MIXER PLUMBING-WPH-0075-0M10-041307-PJH



# pH PROBE PLUMBING

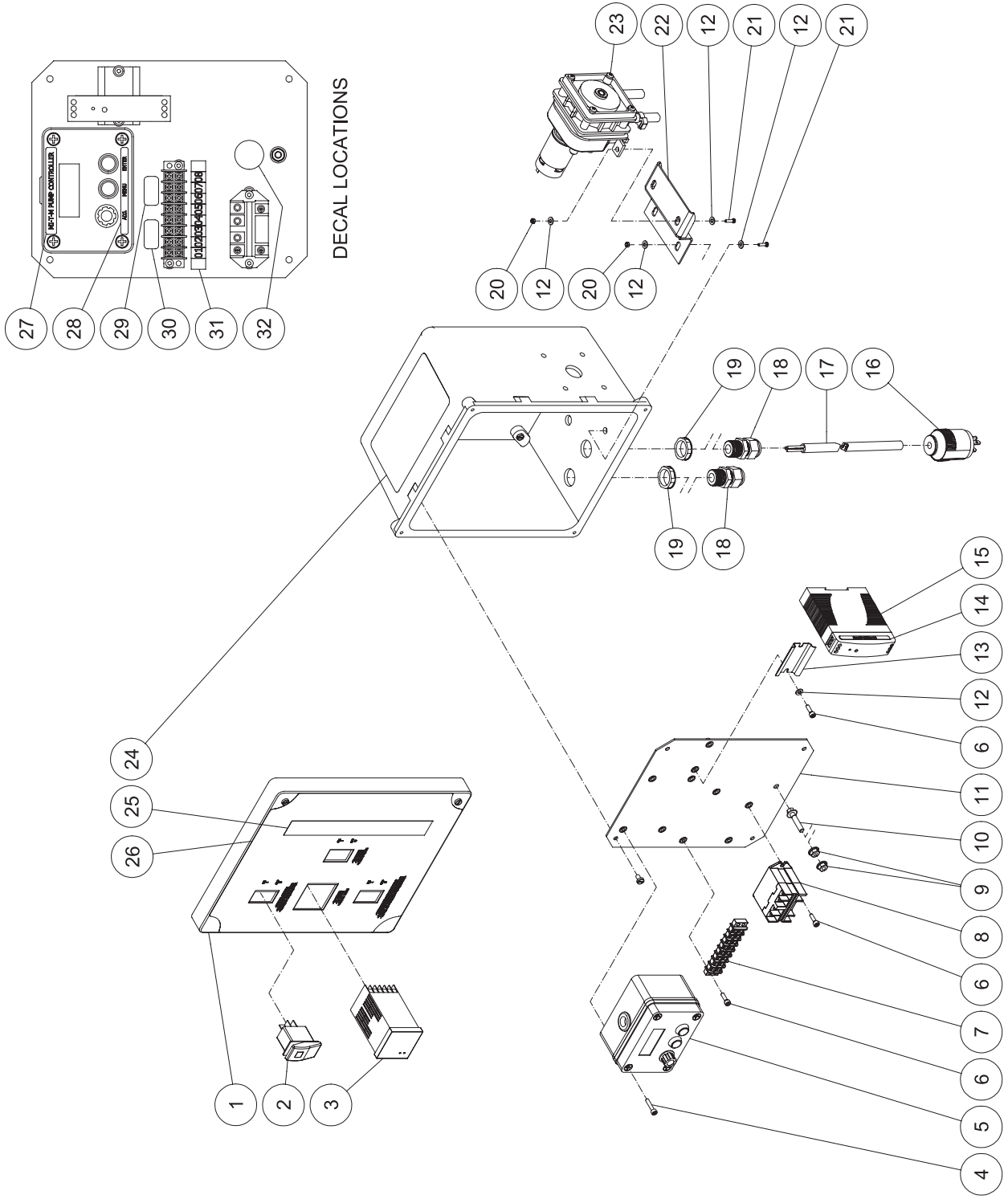


pH PROBE PLUMBING WPH-0075-0M10-041307-PJH

pH PROBE PLUMBING-WPH-0075-0M10

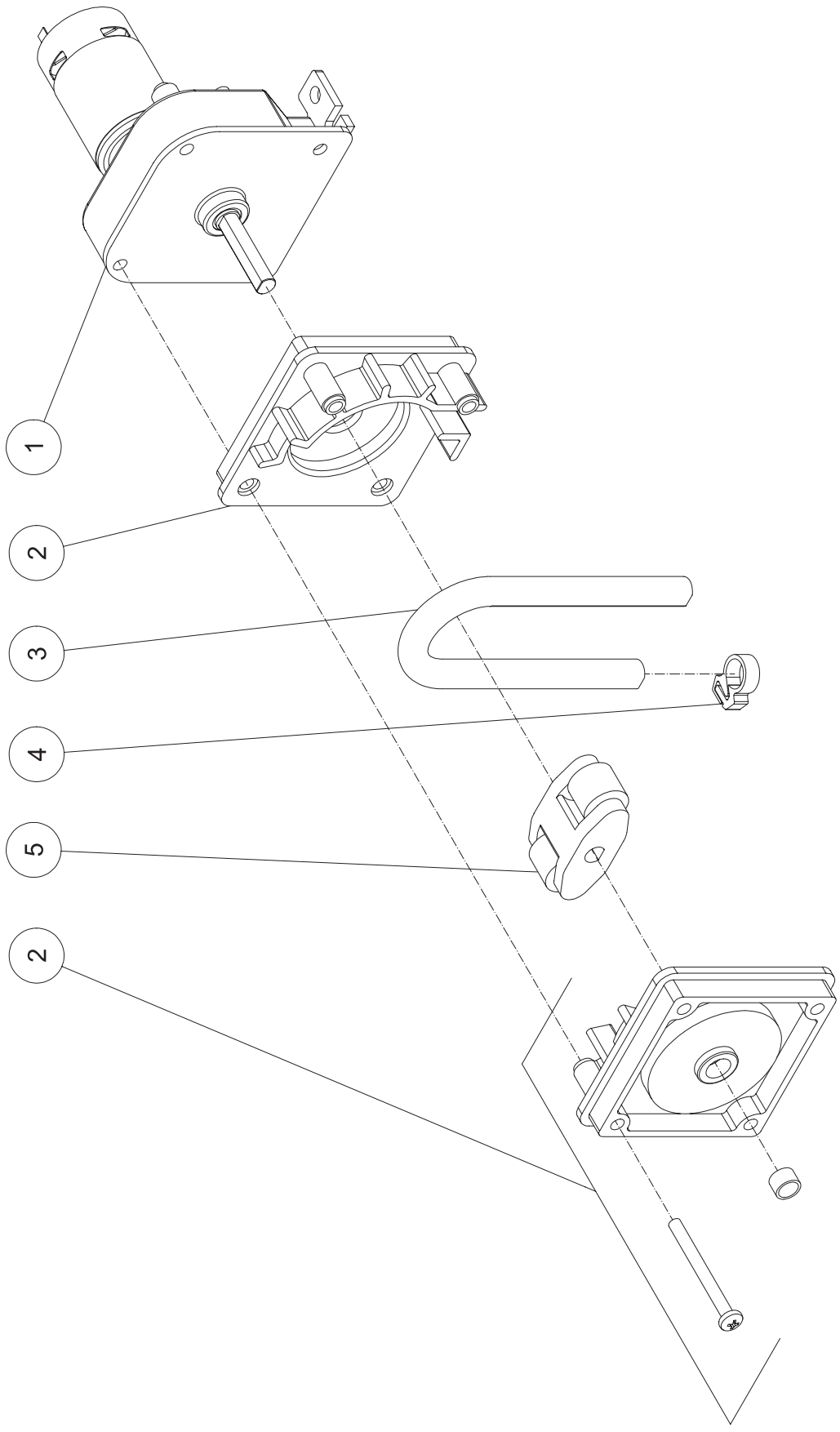
pH PROBE PLUMBING			
REF. #	DESCRIPTION	PART #	QTY.
1	45 Elbow	55-1612	4
2	Pipe (1 1/2" x 2 3/4")	55-1600	1
3	Tee	55-1603	1
4	Reducer Bushing	55-1229	1
5	Strain Relief	32-0550	1
6	Plug Silicone	32-0559	1
7	Decal- Arrow	34-0883	1
8	Decal-3	34-0968	1
9	pH Probe (not shown)	32-0538	1
*Must Order in One Foot Lengths			

# CONTROL BOX ASSEMBLY



CONTROL BOX ASSEMBLY							
REF. #	DESCRIPTION	PART#	QTY.	REF. #	DESCRIPTION	PART#	QTY.
1	Electric Box	32-079901	1	22	Pump Bracket	20-0971A01	1
2	Rocker Switch	32-0669	3	23	Modified Pump	3-0299	1
3	pH Controller	32-0952	1	24	Decal-Warning Risk of Elect.	34-0884	2
4	Screw	37-8930	4	25	Decal-Mi-T-M Stripe w/Logo	34-0185	1
5	pH Controller	32-0950	1	26	Decal-Control Box	34-1957	1
6	Screw	37-8835	6	27	Decal-Mi-T-M Pump Controller	34-1954	1
7	Terminal Strip	32-0436	1	28	Decal-Pump Control Knobs	34-1955	1
8	Relay	32-0633	1	29	Decal-12V DC	34-1959	1
9	Serrated Flange Nut	30-3022	2	30	Decal-115V	34-0897	1
10	Serrated Flange Nut	27-8898	1	31	Decal-1-8 Terminal Strip	34-1953	1
11	Electrical Box Panel	20-0972A06	1	32	Decal-Ground Pictorial	34-0889	1
12	Washer	28-0010	10	33	Wire-16 GA Green *(One Foot Required)	32-0248	1
13	Din Rail *(One Foot Required)	32-0316	1	34	Wire-16 GA Red *(One Foot Required)	32-0092	1
14	Pump Control Knobs Decal	34-1956	1	35	Wire-16 GA Black *(Three Feet Required)	32-0256	1
15	DC Power Supply	32-0951	1	36	Wire-16 GA White *(Three Feet Required)	32-0094	1
16	Plug	32-0026	1	37	Terminal 14 GA	32-0492	5
17	Cord *(Fifteen Feet Required)	32-0074	1	38	Terminal 10 GA	32-0451	4
18	Strain Relief	32-0437	2	39	Terminal 14 GA	32-0006	2
19	Locknut	32-0108	2	40	Terminal 16 GA	32-0494	23
20	Locknut	30-9518	4	41	Terminal 18 GA	32-0493	2
21	Bolt	27-2771	4	*Must Order in One Foot Lengths			

**PUMP (3-0299)**

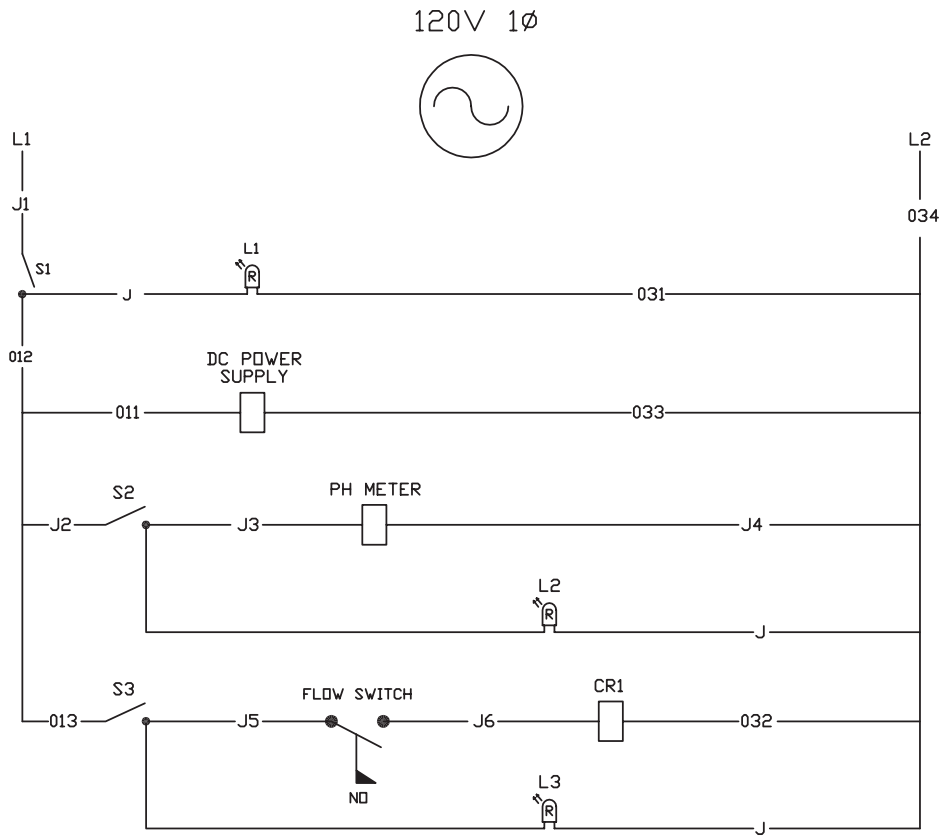


PUM03-0299-041107-PJH

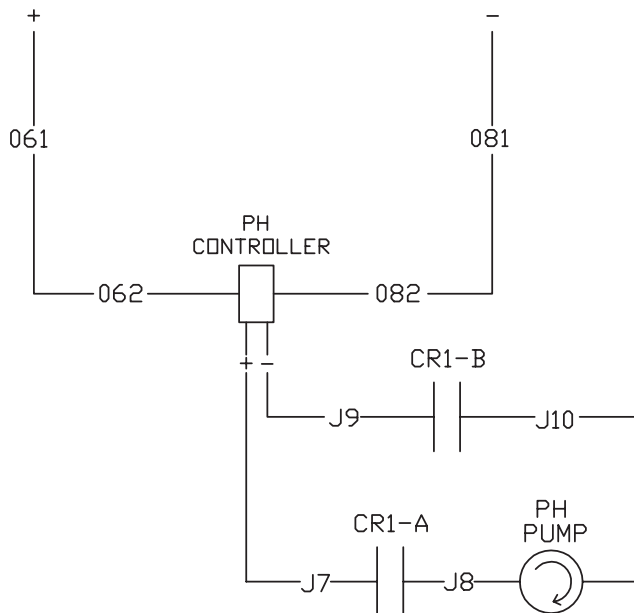
03-0299-041107-PJH

<b>Pump</b>			
<b>REF. #</b>	<b>DESCRIPTION</b>	<b>PART#</b>	<b>QTY.</b>
1	Motor	2-0168	1
2	Modified Pump Base and Cap	45-1290	1
3	Replacement Tube(3-0182)	15-0205	1
4	Replacement Clamp (3-0182)	42-0028	1
5	Roller Assembly	46-1289	1
*Must Order in One Foot Lengths			

# LADDER DIAGRAM

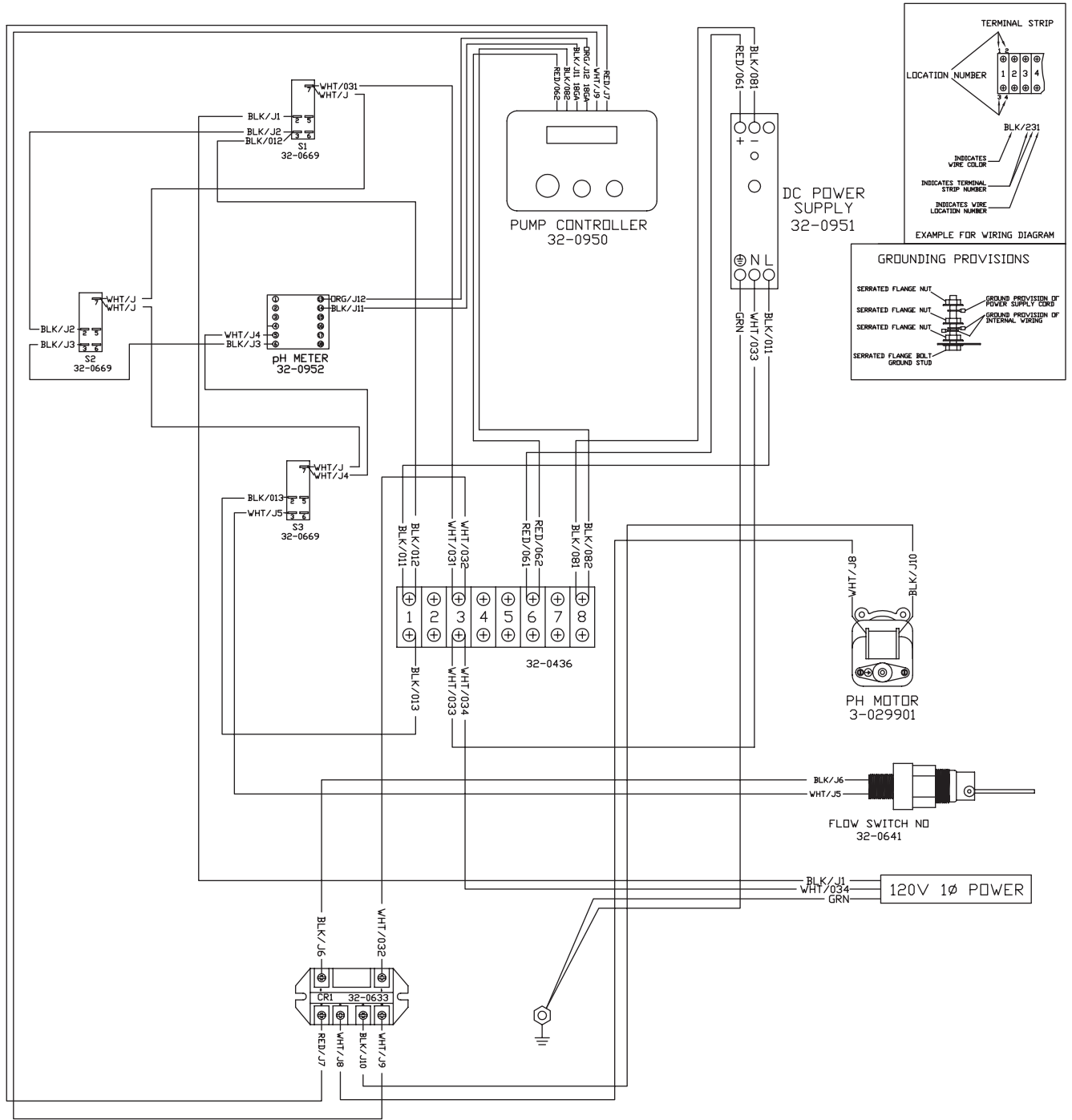


## 12V DC DC POWER SUPPLY OUT



# WIRING DIAGRAM

WIRING DIAGRAM- WPH-0075-0M10-043007-FJH





## STATEMENT OF WARRANTY

Mi-T-M warrants all parts (except those referred to below) of your new WPH pH control system to be free from defects in materials and workmanship for one year from the date of original purchase.

Defective parts not subject to normal wear and tear will be repaired or replaced at Mi-T-M's option during the warranty period. In any event, reimbursement is limited to the purchase price paid.

### EXCLUSIONS

1. The motor is covered under separate warranty by its respective manufacturer and is subject to the terms set forth therein.
2. Normal wear parts:

Seals	Filters	Gaskets
O-rings	Packings	Pistons
Valve Assembly	Brushes	Filtering Media
Sensors		
3. Parts damaged due to:
  - normal wear, misapplication, modifications/alterations, abuse,
  - operation at other than recommended speeds, pressures or temperature,
  - the use of caustic liquids,
  - chloride corrosion or chemical deterioration,
  - fluctuations in electrical or water supply,
  - operating unit in an abrasive, corrosive or freezing environment.
4. Parts damaged by failure to follow recommended:
  - installation, operating and maintenance procedures.
5. This warranty does not cover the cost of:
  - normal maintenance or adjustments,
  - labor charges,
  - transportation charges to Service Center,
  - freight damage.
6. The use of other than genuine Mi-T-M parts will void warranty. Parts returned, prepaid to Mi-T-M's factory or to an Authorized Service Center will be inspected and replaced free of charge if found to be defective and subject to warranty. There are no warranties which extend beyond the description of the face hereof. Under no circumstances shall Mi-T-M bear any responsibility for loss of use of the unit, loss of time or rental, inconvenience, commercial loss or consequential damages.





Manufactured by Mi-T-M  
8650 Enterprise Drive, Peosta IA 52068  
563-556-7484/ Fax 563-556-1235