

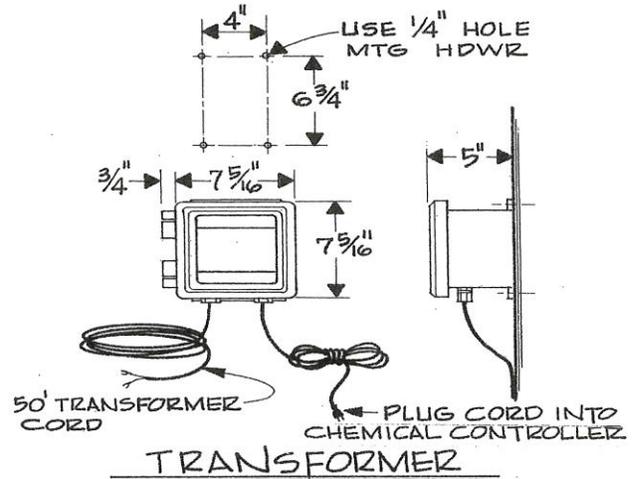
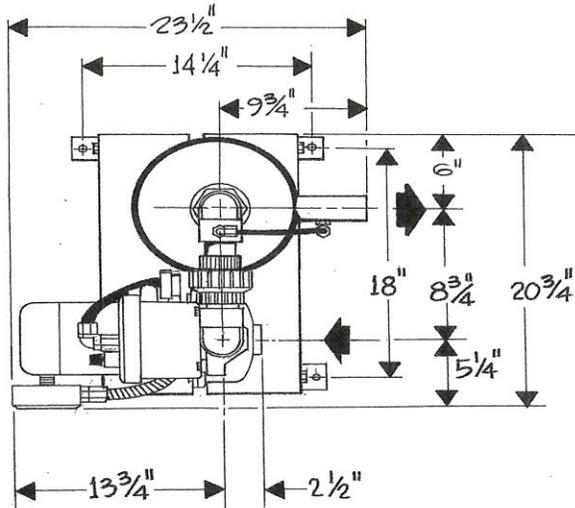
Installation and Operating Instructions



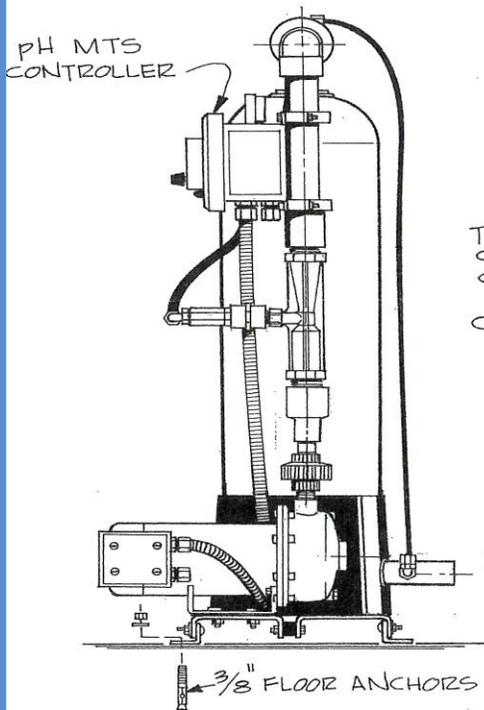
pH-MTS Carbon Dioxide Feed
Systems

Eko³systems

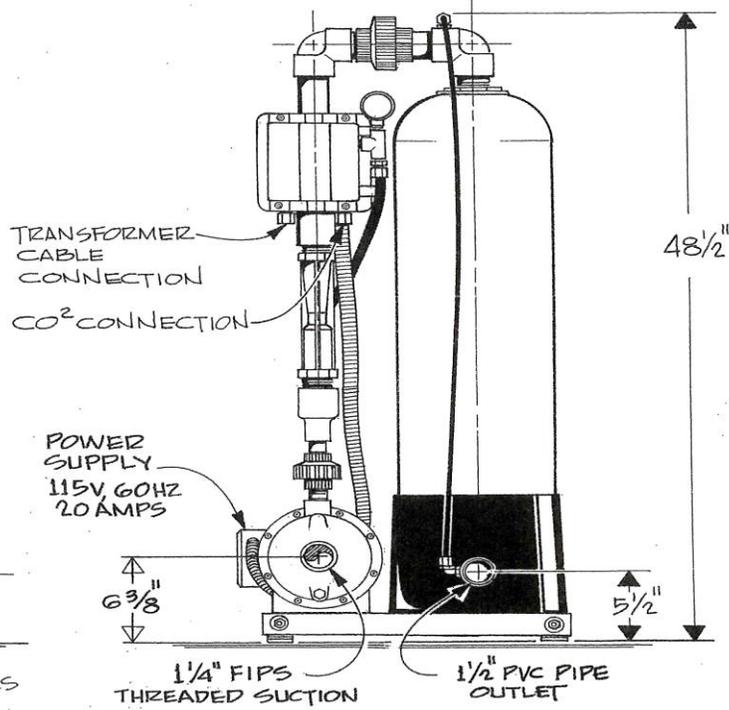
Specifications



PLAN



SIDE ELEVATION



REAR ELEVATION

Specifications

The cryogenic carbon dioxide feed system specified under this section shall be capable of feeding carbon dioxide gas (CO₂) into the recirculation system of a swimming pool for the purpose of adjusting the pH range of the water to preset limits. The specified system shall work in concert with an automatic water chemistry control device.

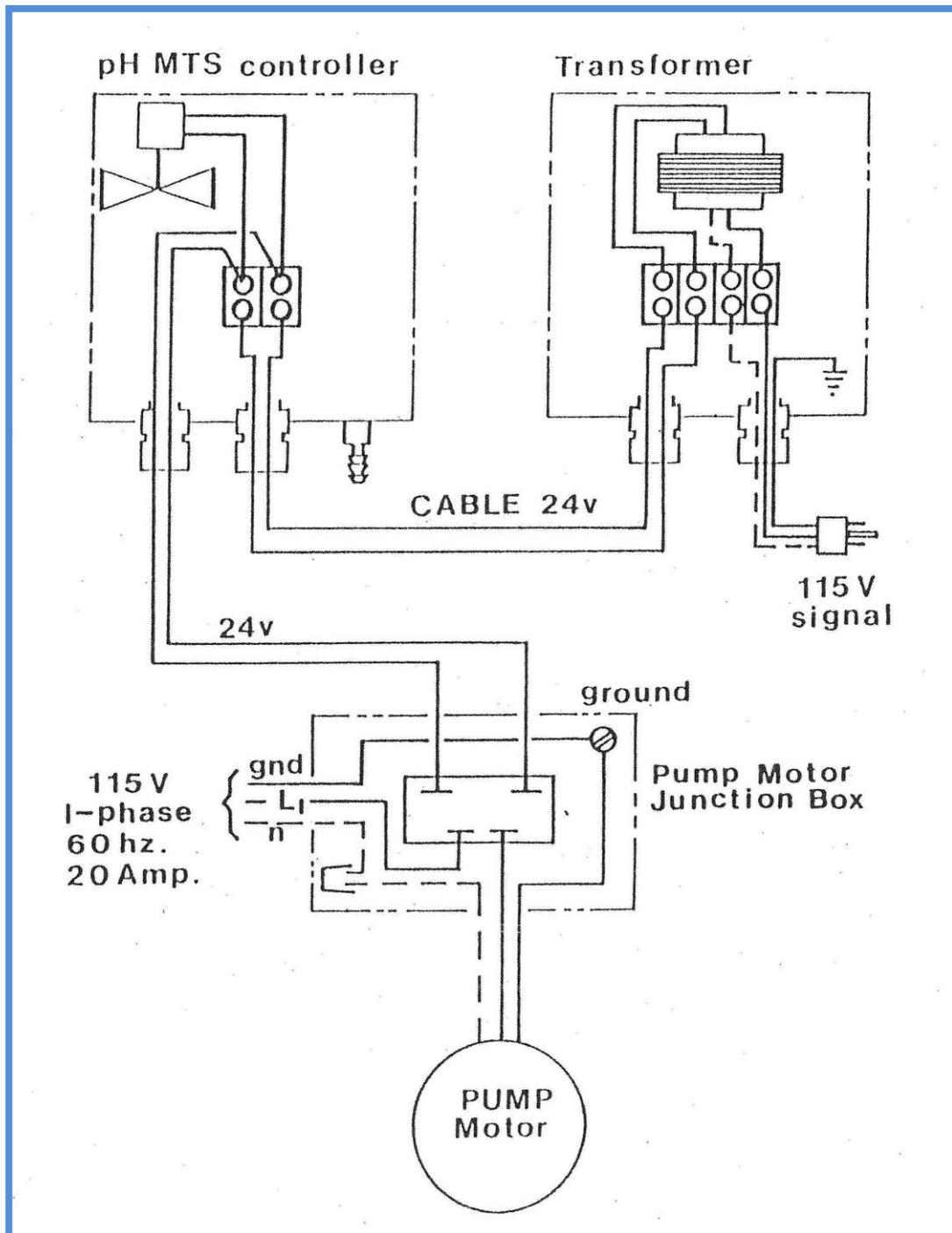
pH-MTS Components:

1. Feed Rate Capacity of 0 to 170 SCFH of Co2.
2. Feed Control System and Transformer console.
3. CO2 600 pound capacity double wall storage tank.

Operating Instructions

1. **Warning:** The cryogenic, carbon dioxide, storage tank must **not** be allowed to run completely out of gas. The tank must be refilled when it is 75% empty. Failure to fill the tank at this time will result in failure of the tank-heating element.
2. The regulated pressure of the CO₂ gas feed at the cryogenic storage tank must be set between twenty (20) and thirty (30) psi, maximum.
3. CO₂ gas will periodically vent from the cryogenic storage tank to the atmosphere. Do not be alarmed if and when this episode takes place. On extremely hot days the cryogenic tank heating element may be unplugged to minimize the venting.
4. Operation of the pH-MTS CO₂ Feed System is automatically controlled by the water chemistry control system. As pH rises the water chemistry controller will call for the reduction of pH by turning on the pH-MTS booster pump and opening the electric solenoid valve within the control box of the pH-MTS system. CO₂, a mild acid, will be fed through a mass transfer system into a contact tank with the result being a reduction in the pH of the swimming water.
5. The feed rate of CO₂ at the pH-MTS feed system is to be set between 60 and 160 SCFH (Standard Cubic Feet Per Hour). The higher the feed rate the better. The compound, pressure/vacuum gauge supplied with the system must indicate zero (0) pressure or a slight vacuum. Set the feed rate of carbon dioxide at the maximum sustainable, while maintaining the zero to slight vacuum reading at the compound gauge. All feed rate settings must be made while the system is in operation.

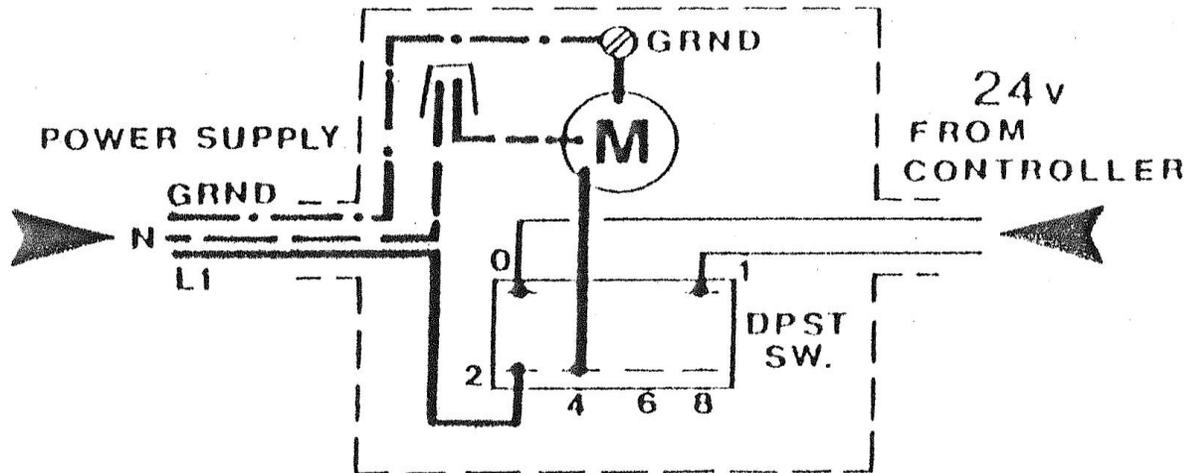
Electrical Diagrams



Electrical Diagrams

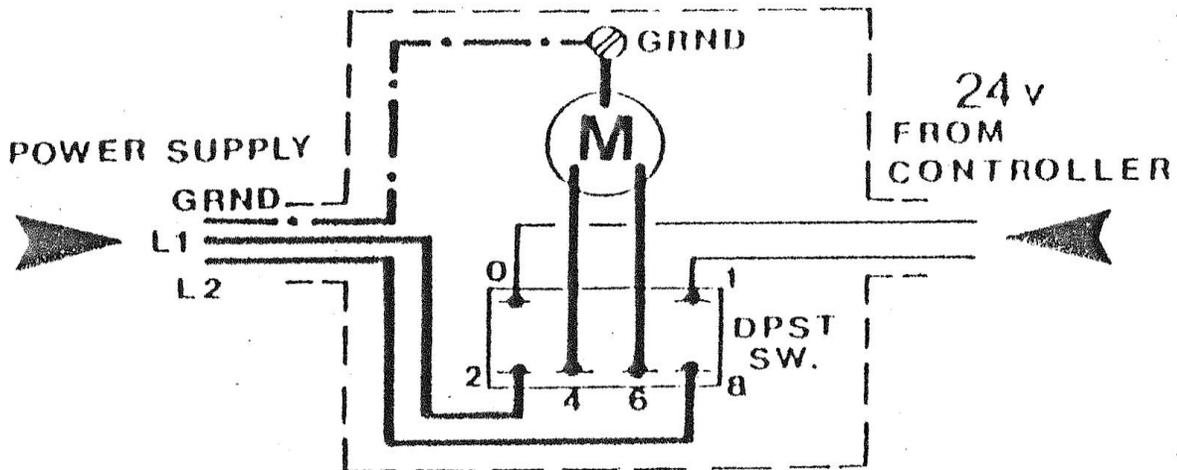
115 v

1-PH, 60 HZ



230v

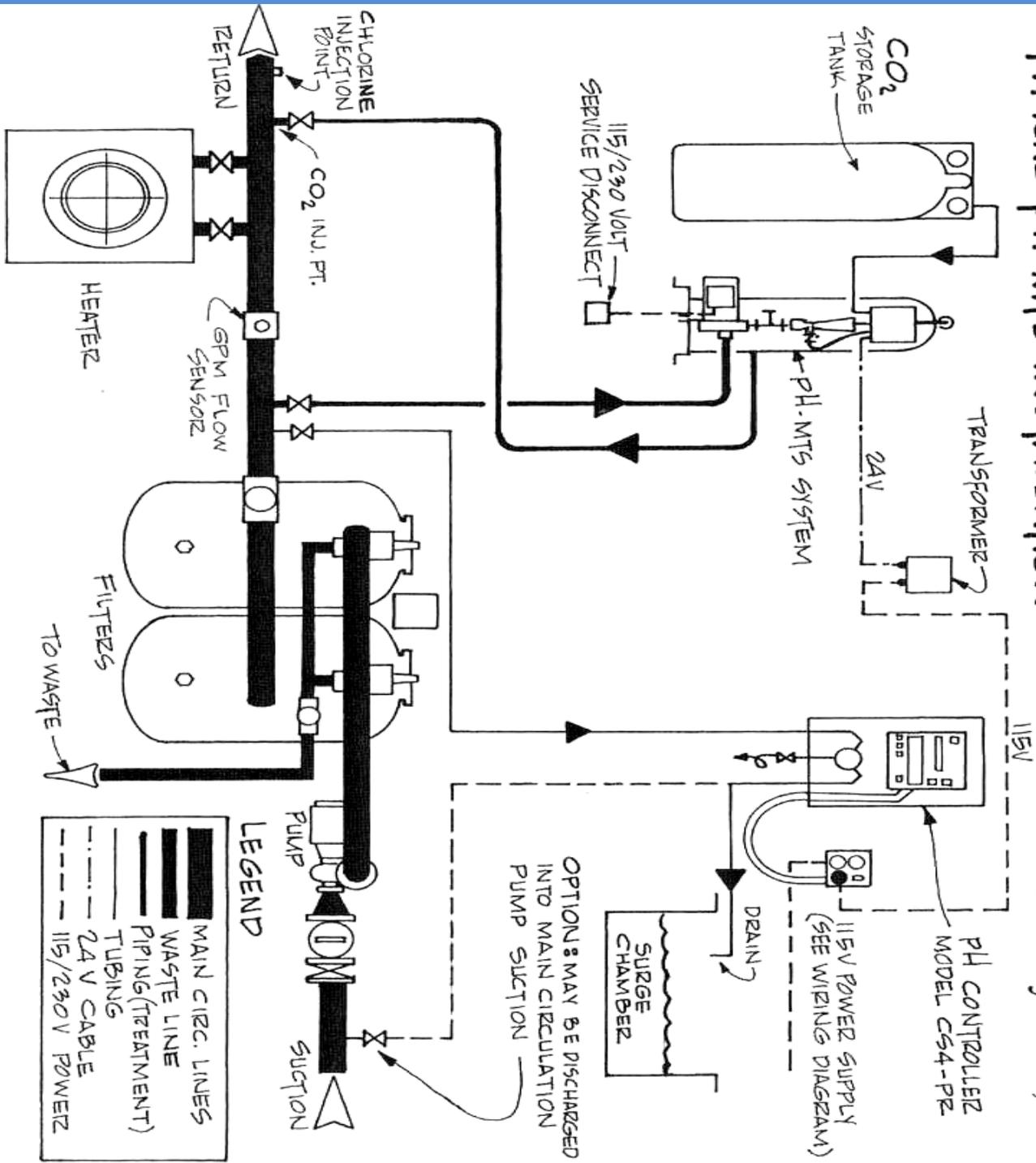
1-PH, 60 HZ



Typical Installation

TYPICAL PH-MTS INSTALLATION

Eko³ Systems, Inc.



Warranty

Eko³ Systems, Inc. (“Eko³”) warrants equipment of its manufacture and bearing its identification to be free of defects and workmanship and material. Eko³'s liability under this warranty extends for a period of one (1) year from the date of installation.

Eko³ disclaims all liability for damage during transportation, for consequential damage of whatever nature, for damage due to handling, installation or improper operation, and for determined suitability for the use intended by purchaser (“owner”). Eko³ makes no warranties, either expressed or implied, other than those stated above.



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