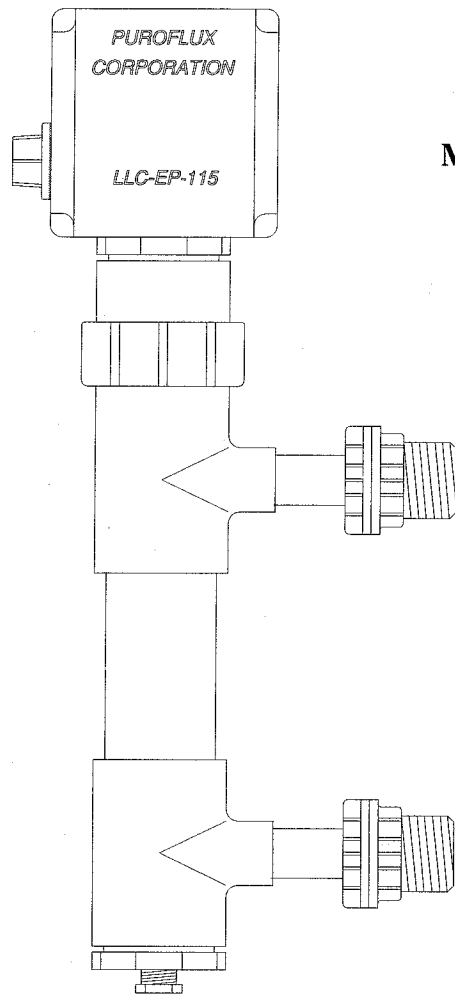


***PUROFLUX***  
CORPORATION

LIQUID LEVEL CONTROLLER

HIGH RELIABILITY - HIGH EFFICIENCY - WATER SAVING



**MODEL LLC-EP-115**

The PUROFLUX Liquid Level Controller (LLC-EP) is a simple and reliable method to accurately control water levels in cooling towers, evaporative condensers, fluid coolers or process tanks. The LLC-EP eliminates equipment flooding and reduces water usage from unnecessary overflows.

The LLC is mounted on the outside of a reservoir where the internal disturbance has no effect on the probes. Mounting the LLC externally provides for ease of inspection and eliminates any exposure to a wet environment. The LLC can be easily serviced without shutting down equipment and can be installed with hand tools.

The LLC is constructed of quality components: long life controller - 30,000,000 cycles, 304 stainless steel probes, safety shielded, PVC probe chamber and connection hub, and a NEMA 4X control enclosure.

**LIQUID LEVEL CONTROLLER: Model LLC-EP-115**

**SPECIFICATIONS:**

**ENCLOSURE: NEMA 4X**

- Glass Filled Polycarbonate Construction
- Full Gasket Cover
- 1/2" Electrical Conduit Connection
- Base Plate and Connection Lug

**CONTROLLER RELAY: 8 PIN PLUG IN TYPE**

- Input Power - 115 Vac.
- Output - Spdt Relay
- Maximum Switch - Loading 10 Amps Resistive
- Probe Voltage - 24 Vac.
- Probe Sensitivity - 4.7 to 100k Adjustable
- Function Indicator - Led
- Mechanical Life - 30,000,000 Cycles
- Listings - UR/CSA

**CONTROLLER BASE:**

- Panel Mount 8 Pin Type
- Listings - UR/CSA

**PROBES:**

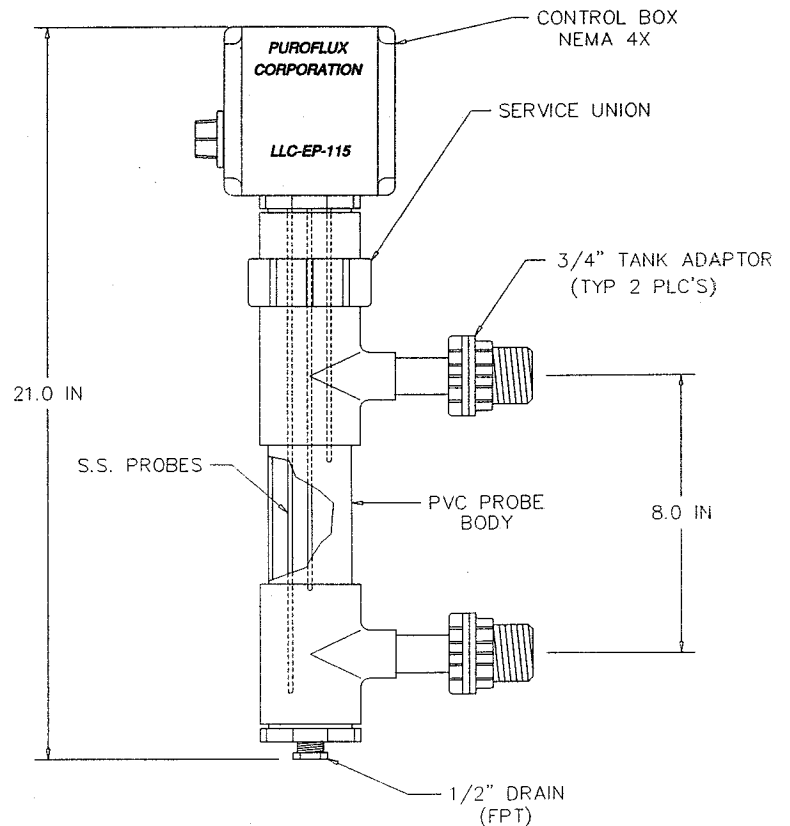
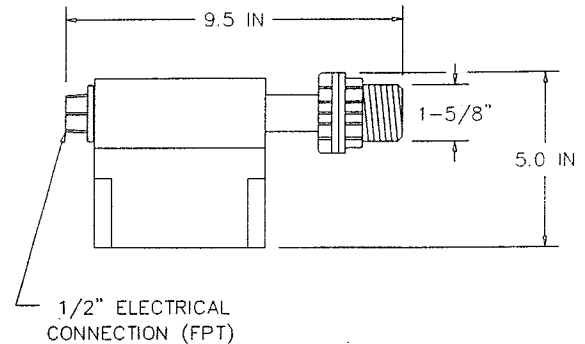
- 1/4" Dia., Stainless Steel, with Plastic Shield
- (1) Common Probe - Long
- (1) Start Probe - Medium
- (1) Stop Probe - Short
- (1) Low Alarm - (Optional)

**PROBE HOUSING:**

- (1) 2" Dia. x 15" Sch. 40 PVC Body
- (2) 3/4" Sch. 80 Tank Adapter Mounting
- (Optional) Clear Puriglass Body

**VALVE:**

- Solid Brass Connection
- Waterproof Solenoid Coil
- Slow Opening and Closing
- Manual Operation
- Adjustable Flow Control
- Manual Shut off



# LIQUID LEVEL CONTROLLER: Model LLC-EP-115

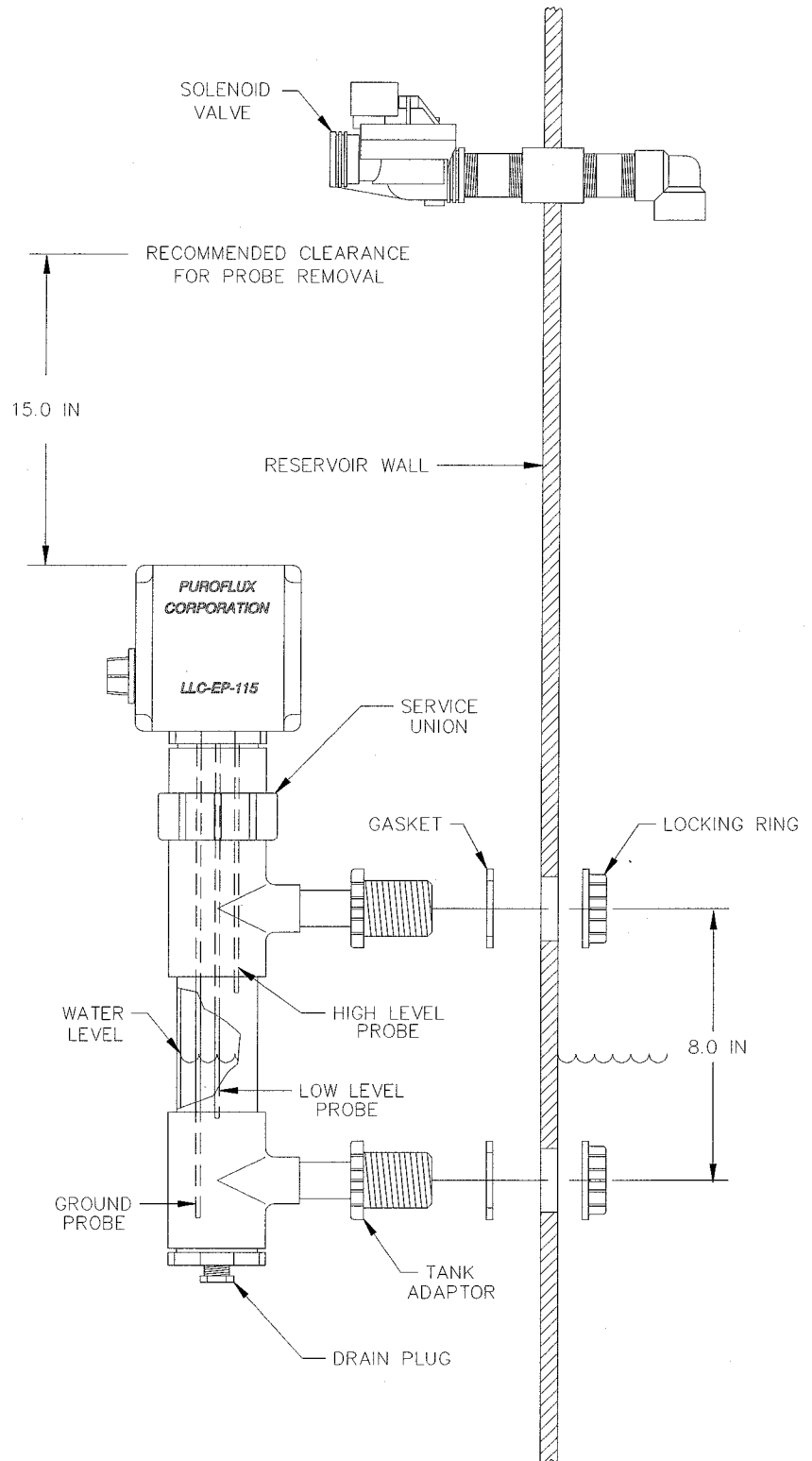
## STANDARD INSTALLATION:

To install, locate desired water level, measure 4" above and below this point (8" spread)\*. Mark center line points on the reservoir wall where the LLC tank adaptors will penetrate. Make sure that the center line marks are perpendicular to the water line. Position the LLC housing beside marks to insure that the center lines of the tank adaptors line up with the center line marks on the reservoir. Verify that the locations of center line do not have any obstructions on the interior of the reservoir. Bore a 1 3/4" dia. hole at each center mark. Note: a hole saw or chassis punch can be used for making the penetrations. Clean all burrs and dirt from area around the holes. Insert the tank adaptors, with gaskets on the outside of the reservoir wall into the new holes. Make sure that probe housing is in the vertical position. Install the lock nuts on the tank adaptor from the inside of the reservoir and tighten. **CAUTION DO NOT OVER TIGHTEN!**

Install a solenoid valve in the supply water line. Complete all necessary plumbing to and from the solenoid valve. Wire in the LLC and valve following the wiring diagram provided (120V/1 $\phi$ /60HZ). Note: leave enough extra flex conduit so the unit probe assembly can be removed for inspection.

For areas that require freeze protection use only self regulation heat tape and then insulation on probe housing, solenoid valve, and supply water line. Always follow all local ordinance and codes that apply to the application and installation of equipment.

\* Optional shorter/longer LLC body and probe assemblies are available.



## LIQUID LEVEL CONTROLLER: Model LLC-EP-115

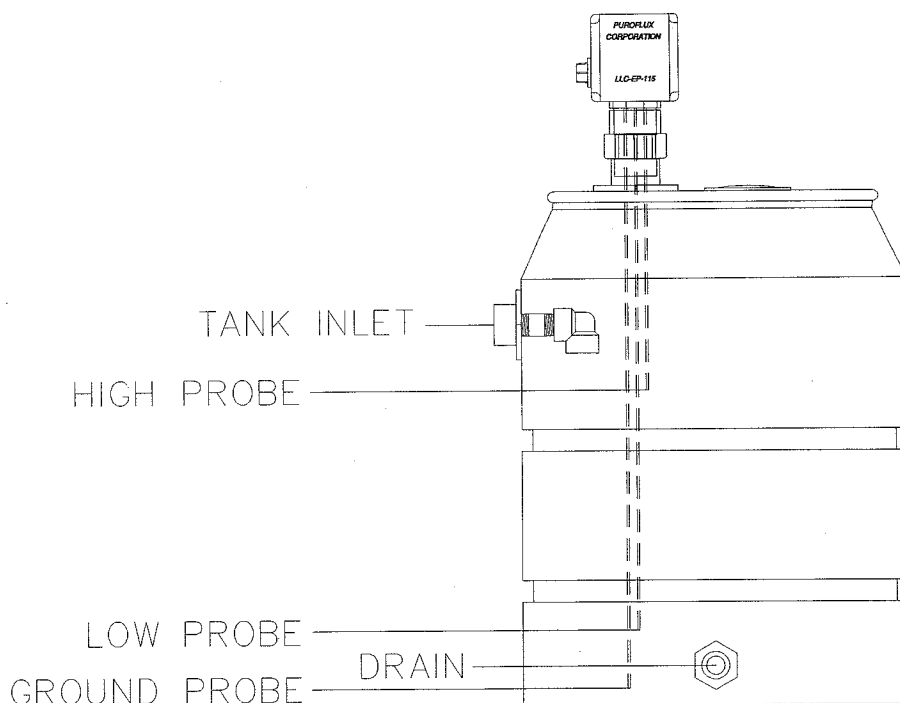
### HOLDING TANK/RESERVOIR INSTALLATION:

The LLC for open non pressurized tanks/reservoirs is designed to monitor water levels for pump-up or pump-down applications. The LLC is supplied with the controller housing and the mounting union only. The probes are designed to hang down into the tank. The LLC can be installed using a 2" tank adaptor or a 2" male adaptor threaded into a coupling in the tank or glued into a 1-1/2" PVC pipe.

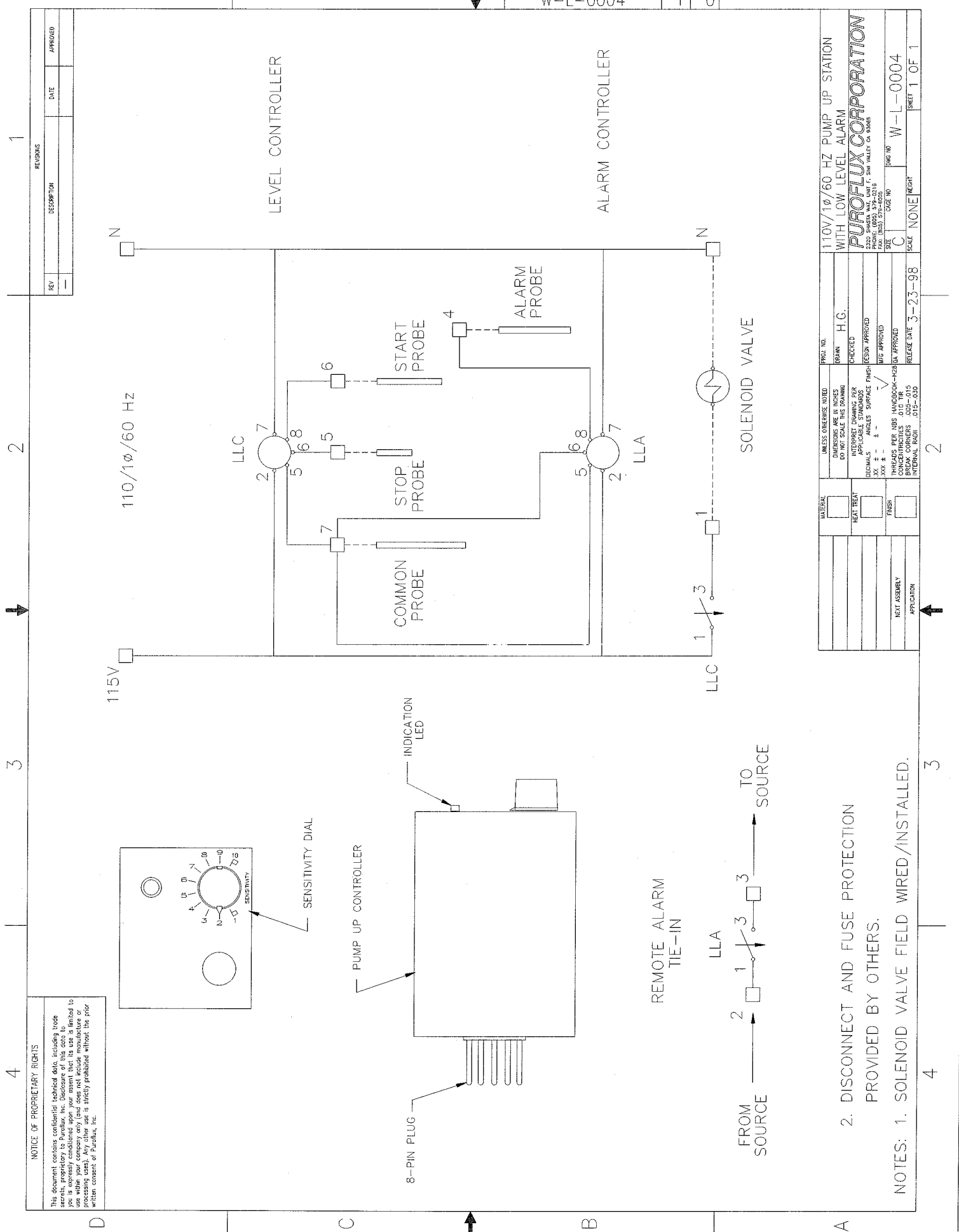
To install, locate the desired location in tank/reservoir top. For installations utilizing an existing tank penetration use the required fittings necessary to adapt the LLC controller to the tank fitting. If the installation requires a penetration be put into the tank/reservoir, mark a center point on the tank/reservoir top where the LLC will penetrate. Make sure that the LLC is perpendicular to the water line. Verify that the location of the LLC does not have any obstructions on the interior of the tank/reservoir. Cut a hole at the center mark for the desired adaptor fitting to be installed. Note: a hole saw or chassis punch can be used for making the penetrations. Clean all burrs and dirt from area around the holes. Insert the LLC into the new tank fitting, make sure that probes are in the vertical position and secure in place.

The probes can be cut to the desired length at the factory if the water levels are known. If the water levels are not known, the probes can be furnished long and can be cut in the field. The probe lengths are going to depend on the type and size of the tank, location of inlet, outlet, overflow and drain. Wire in the LLC and valve following the wiring diagram provided (120V/1 $\phi$ /60HZ). Note: leave enough extra flex conduit or have a junction box so the unit probe assembly can be removed for inspection.

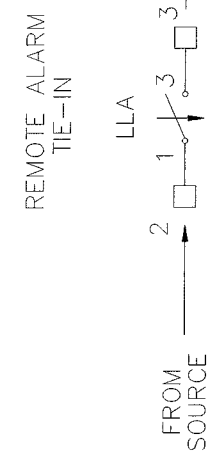
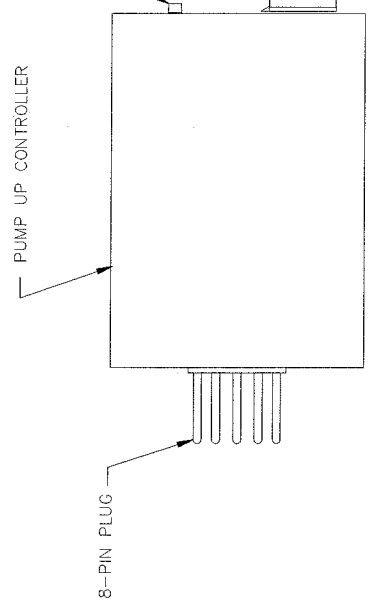
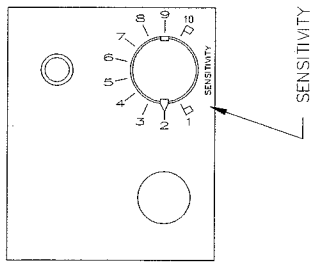
For areas that require freeze protection use only self regulation heat tape and then insulation on probe housing, solenoid valve, and supply water line. Always follow all local ordinance and codes that apply to the application and installation of equipment.







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110V/1Ø/60 HZ PUMP UP STATION WITH LOW LEVEL ALARM	
PURIFLUX CORPORATION	
PAGE (RHS) 579-0216 1.500 WALL ST. CA 94065	
DATE	3-23-98
DWG NO	W-L-0004
SCALE	NONE
SHEET	1 OF 1

UNLESS OTHERWISE NOTED	
DIMENSIONS ARE IN INCHES	DO NOT SCALE THIS DRAWING
INTERPRET DRAWING PER APPLICABLE STANDARDS	CHECKED PERSON APPROVED
SYMBOLS	ANGLES SURFACE FINISH
XXX ±	±
XXX ±	±
THREADS PER NBS HANDBOOK-H2B	Ø 10 TIR
CONCENTRICITIES	Ø 0.015
INTERNAL RADI	Ø 0.15-0.20
MATERIAL	
HEAT TREAT	
FINISH	
NEXT ASSEMBLY	
APPLICATION	

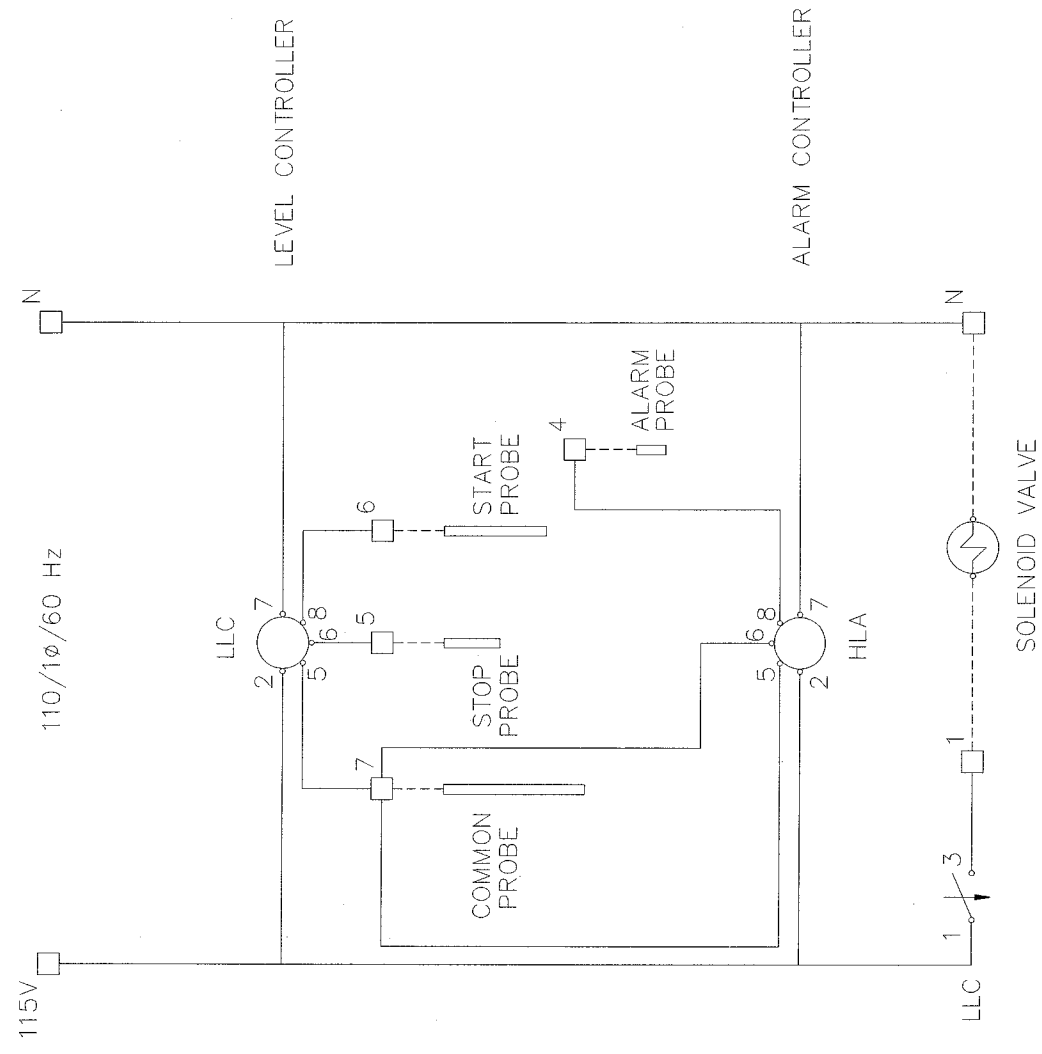
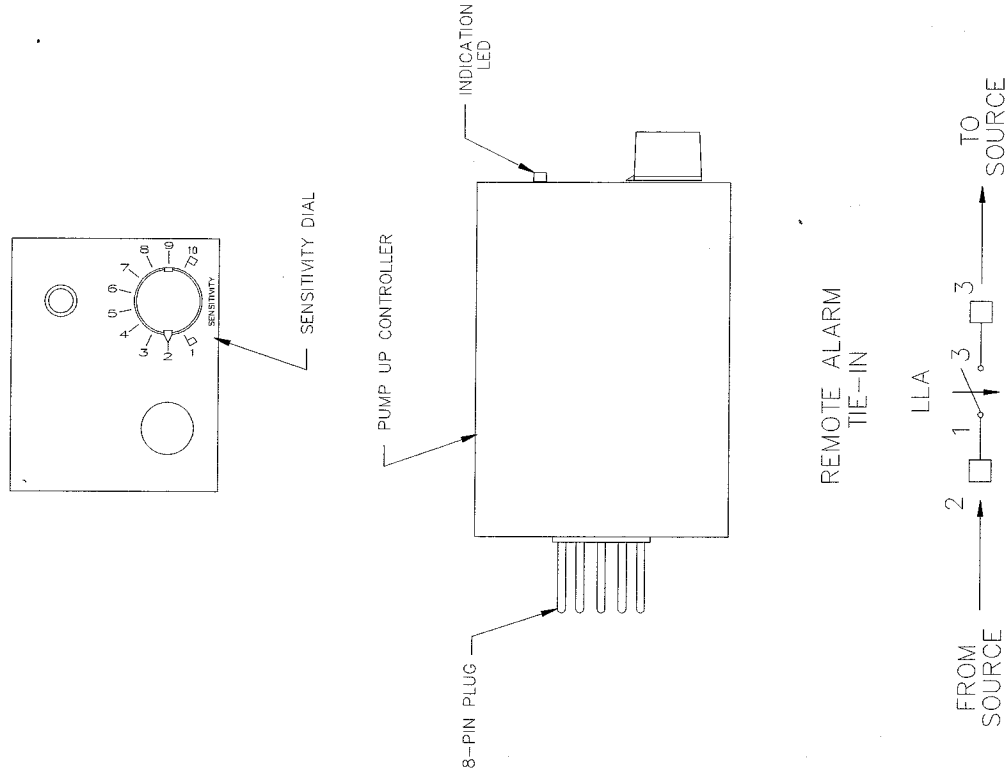
2. DISCONNECT AND FUSE PROTECTION PROVIDED BY OTHERS.

NOTES: 1. SOLENOID VALVE FIELD WIRED/INSTALLED.



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REV	DESCRIPTION	DATE	APPROVED
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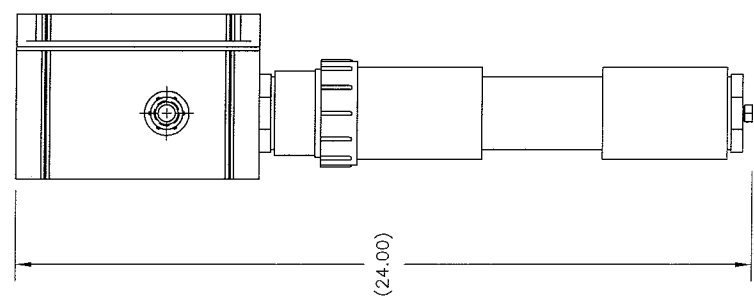
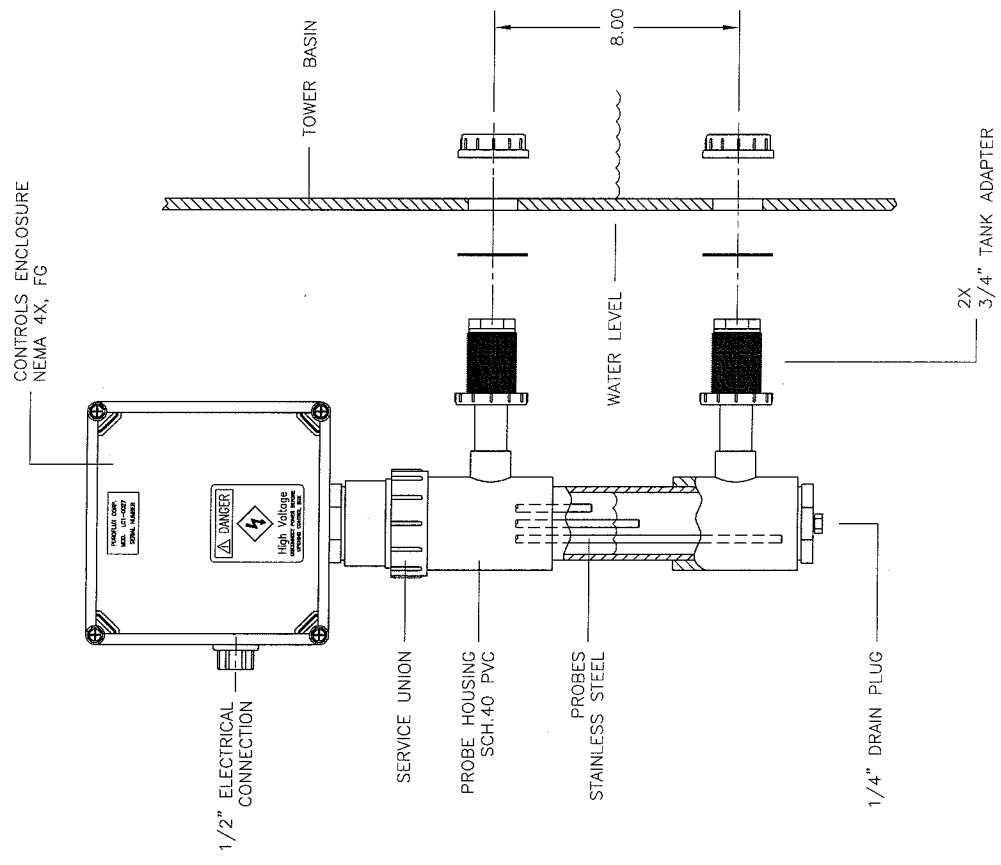
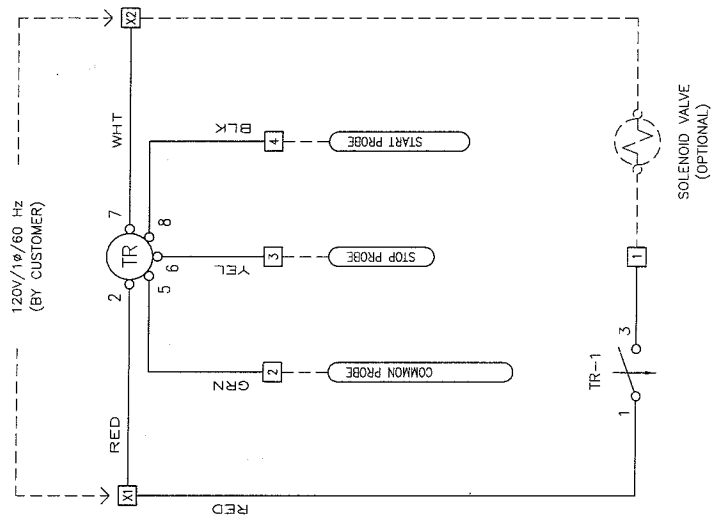
110V/1φ/60 HZ PUMP UP STATION WITH HIGH LEVEL ALARM		PROJ. NO.	DRANK	H.G.
PURIFLUX CORPORATION		UNLESS OTHERWISE NOTED	CHECKED	
2320 SANTA ANITA UNIT F, SMI VALLEY CA 93305		INTERPRET DRAWING PER		
SIZE C		APPLICABLE STANDARDS	FINISH	
SCALE NONE		DECIMALS	ANGLES SURFACE FINISH	
SHEET 1 OF 1		XXX	XXX	
DWG NO W-L-0006		THREADS PER AISI HANDBOOK-H28	DA APPROVED	
RELEASE DATE 3-23-98		BREAK CORNERS 000-015		
		INTERVAL 1/32"		

2. DISCONNECT AND FUSE PROTECTION PROVIDED BY OTHERS.
- NOTES: 1. SOLENOID VALVE FIELD WIRED/INSTALLED.



REV	DESCRIPTION	DATE	APPROVED

WIRING SCHEMATIC



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<b>LIQUID LEVEL CONTROLLER</b> 115 VOLT - PVC HOUSING - NEMA 4X ENCLOSURE	
331 SCIENCE BLVD MOOREPARK CA 93021 PHONE (605) 579-0216 FAX (605) 579-6005	
PROJECT NO. DRAWN: K. CARTER CHECKED: _____ DESIGNED: _____ TESTER APPROVED: _____ MFG APPROVED: _____ QA APPROVED: _____ RELEASE DATE: 09-20-00	Puroflux CORPORATION DWG. NO. LC1-0013 SHEET 1 OF 1
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES DO NOT SCALE THIS DRAWING INTERPRET DRAWING PER APPLICABLE STANDARDS DECAH: _____ XXX ± = _____ .XXX ± = _____ THREADS PER NIS HANDBOOK-H2B CONCENTRICITIES .010 TIR INTERNAL RADIUS .015-.020	SIZE: C SCALE: NONE RELEASE DATE: 09-20-00
MATERIAL: HEAT TREAT FINISH: HEAT ASSEMBLY APPLICATION:	SIZE: C SCALE: NONE RELEASE DATE: 09-20-00