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"Quality Is Our Standard...Customer Service Is Our Specialty"

# Belding Tank Technologies, Inc.

## BRINE-TEK<sup>®</sup>

Liquid Level Controller

Installation Instructions



# Belding Tank Technologies – Tank Liquid Level Controller Documentation



Controller in NEMA 4X Enclosure with Fill Valve and Pressure Switch



Inside of Belding Level Controller

**Belding Level Controller**  
-CUSTOMER SUPPLIED  
120VAC

**WARNING: To be installed by a licensed electrician only!**  
Do not install in hazardous area or near flammable materials.

**WARNING:**

- Pushing the GREEN START BUTTON (on the cover) will open the valve and start fill for the time entered.
- Pushing the RED STOP BUTTON (on the cover) will close the valve and stop the fill immediately.
- SET PRESSURE SWITCH before operating. With 7 ft. of water in the tank, adjust C and NC contacts to just open.

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**Level Controller, Installation & Hook-Up**  
**Belding Tank Technologies, Inc.**  
200 N. Gooding Street – PO Box 160  
Belding, MI 48809

**Installation and Hook-Up:**

- Mount enclosure on suitable wall (preferably indoors but the enclosure is rated for outdoor service).
- Install solenoid valve on 1" nipple. Arrow on valve points towards the tank (See bottom of the valve).
- Install pressure switch (Barksdale) on 1/2" NPT connection on top of 1" nipple. **Do not over tighten!**
- Connect suitable cable from solenoid valve to Belding Level Controller. Solenoid connector Pin 1 connects to Neutral Terminal. Solenoid connector Pin 2 connects to Valve Terminal in Belding Level Controller. Seal all connections.
- Using your piped in manual bypass or a hose, fill the tank to about 7 ft. with water. Using an ohmmeter, gently ADJUST THE PRESSURE SWITCH by rotating the knurled knob until the C and NC terminals just Open.
- Connect suitable cable and conduit from pressure switch to Belding Level Controller. Pressure switch terminal "C", connects to HOT Terminal. Pressure switch terminal "NC" connects to Pressure Switch Terminal in Belding Level Controller. Seal all connections.
- With ON/OFF switch in OFF (GREEN FLAG/SWITCH DOWN) position, connect Belding Level Controller to 120 VAC circuit.
- Verify all wiring connections. Verify that your Installation meets all Local Electrical and Building Codes and the National Electrical Code.
- Turn on power (RED FLAG/SWITCH UP) to Belding Level Controller and observe operation of the system. When water level falls to about 7 ft., the WHITE PILOT light between the GREEN Start and RED Stop buttons will come on along with the solenoid, opening the fill valve. It will fill for the amount of time entered (20 minutes normal, adjust accordingly) on the TIMER SCREEN and then stop after time is complete or the RED Stop Button is pressed, at which time the WHITE PILOT light will go out and the solenoid will turn off.

**Important Notes:**

- Use padlocks on latches to prevent tampering.
- Only experienced electricians should install or operate.
- Do not over tighten pressure switch!
- Depressing the Start (GREEN Front Panel) button will open the Fill Valve for the amount of time entered on the TIMER SCREEN (20 minutes standard), pressing the UP ARROW will increase the time and pressing the DOWN ARROW will decrease the time. To Stop Filling, push the Stop (RED Front Panel) button or wait for the time to elapse.

Belding Level Controller Installation Instructions

Brine-Tek Liquid Level Controller

April 2020



## Installation and Hook-Up:

1. Mount enclosure on suitable wall (preferably indoors but the enclosure is rated for outdoor service).
2. Install solenoid valve on 1" nipple. Arrow on valve points towards the tank (See bottom of the valve).
3. Install pressure switch (Barksdale) on ½" NPT connection on top of 1" nipple.

### **Do not over tighten!**

4. Connect suitable cable from solenoid valve to Belding Level Controller. Solenoid connector Pin 1 connects to Neutral Terminal. Solenoid connector Pin 2 connects to Valve Terminal in Belding Level Controller. Seal all connections.
5. Using your piped in manual bypass or a hose, fill the tank to about 7 ft. with water. Using an ohmmeter, gently ADJUST THE PRESSURE SWITCH by rotating the knurled knob until the C and NC terminals Just Open.
6. Connect suitable cable and conduit from pressure switch to Belding Level Controller. Pressure switch terminal "C", connects to HOT Terminal. Pressure switch terminal "NC" connects to Pressure Switch Terminal in Belding Level Controller. Seal all connections.
7. With ON/OFF switch in OFF (GREEN FLAG/SWITCH DOWN) position, connect Belding Level Controller to 120 VAC circuit.
8. Verify all wiring connections. Verify that your installation meets all Local Electrical and Building Codes and the National Electrical Code.
9. Turn on power (RED FLAG/SWITCH UP) to Belding Level Controller and observe operation of the system. When water level falls to about 7 ft., the WHITE PILOT light between the GREEN Start and RED Stop buttons will come on along with the solenoid, opening the fill valve. It will fill for the amount of time entered (20 minutes normal, adjust accordingly) on the TIMER SCREEN and then stop after time is complete or the RED Stop Button is pressed, at which time the WHITE PILOT light will go out and the solenoid will turn off.

## Important Notes:

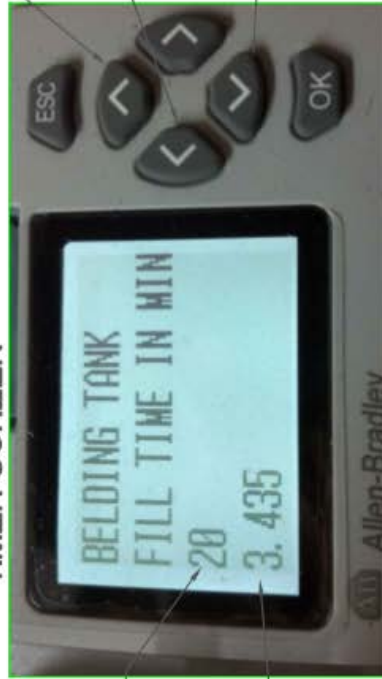
- Use padlocks on latches to prevent tampering.
- Only experienced electricians should install or operate.
- Do not over tighten pressure switch!
- Depressing the Start (GREEN Front Panel) button will open the Fill Valve for the amount of time entered on the TIMER SCREEN (20 minutes standard), pressing the UP ARROW will increase the time and pressing the DOWN ARROW will decrease the time. To Stop Filling, push the Stop (RED Front Panel) button or wait for the time to elapse.

**MAIN SCREEN**



PRESS ARROW KEY TO GET TO TIMER SCREEN

**TIMER SCREEN**



FILL TIME ENTERED IN MINUTES

ELAPSED TIME IN MINUTES

PRESS UP ARROW TO INCREASE TIME

PRESS ARROW KEY TO GET TO MAIN SCREEN

PRESS DOWN ARROW TO DECREASE TIME

**I/O SCREEN**

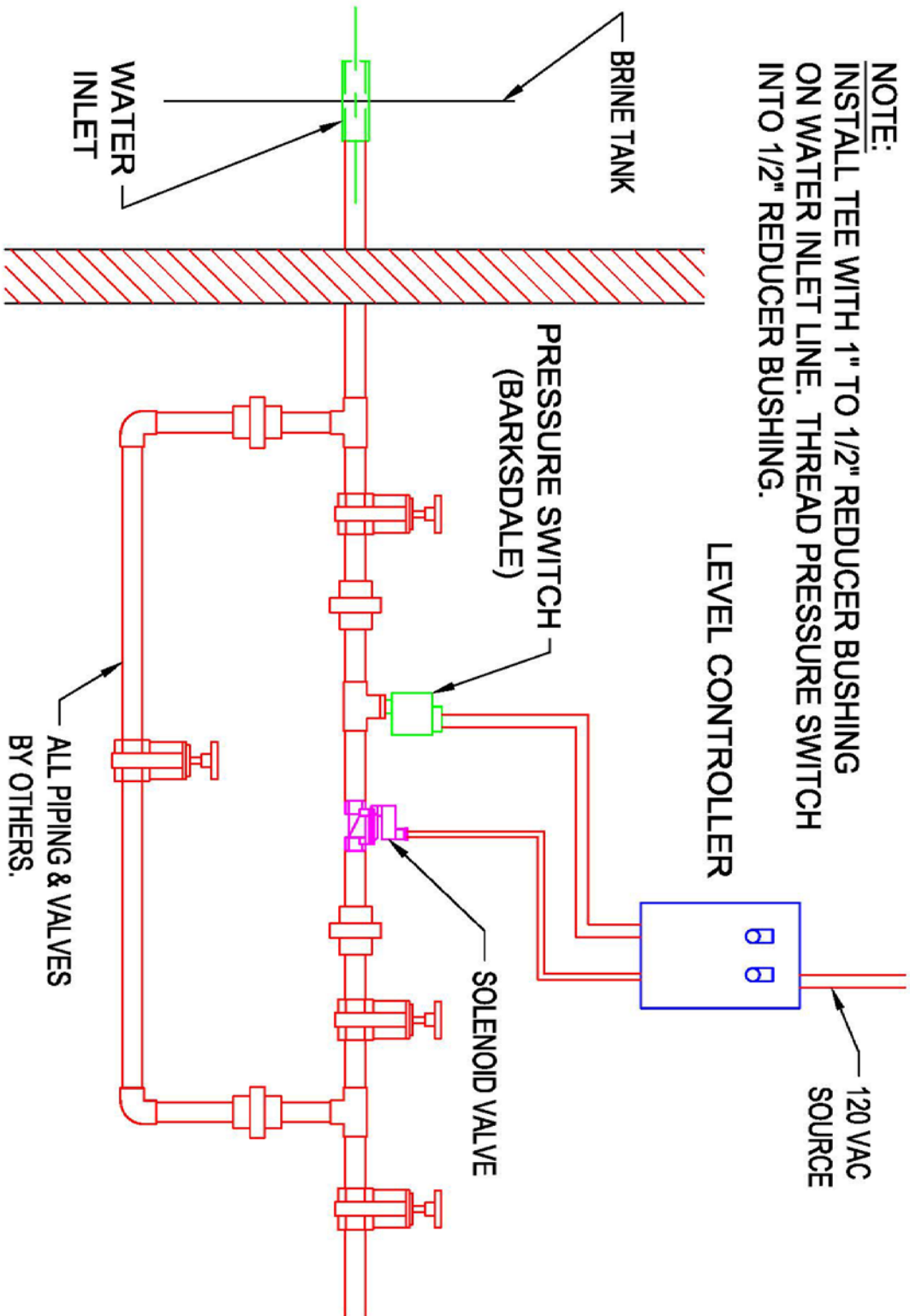


PRESS ESC AND OK AT SAME TIME SCROLL TO I/O STATUS PRESS OK

PRESS ESC KEY TWICE TO RETURN TO MAIN SCREEN

SHOWS INPUT OUTPUT STATUS

**NOTE:**  
INSTALL TEE WITH 1" TO 1/2" REDUCER BUSHING ON WATER INLET LINE. THREAD PRESSURE SWITCH INTO 1/2" REDUCER BUSHING.



**NOTE:**  
INSULATE EXTERIOR PIPING WHEN REQUIRED.

## BRINE LEVEL CONTROL