



# Tahoe

*Automated dishwashing  
chemical installation  
made easy!*

**Beta**

# Scope of Presentation

- This presentation is intended for field personnel with some electrical knowledge, but no experience with dishwashing applications or installation
- The objective is to train the installer to be able to install a Tahoe dispenser on a door-type or conveyor dishwashing machine, and troubleshoot any unusual conditions they may encounter. To train new installers, we recommend using this presentation in conjunction with an actual installation or at least a lab installation followed by a site visits to see typical retail installations.
- Excluded from this presentation is detailed training on electrical safety, which should always be performed prior to attempting any high voltage installations. In brief, however, power to the dishwasher and dispenser should be shut off at the source prior to opening them, and a voltmeter should be used to verify the power's off prior to doing wiring.

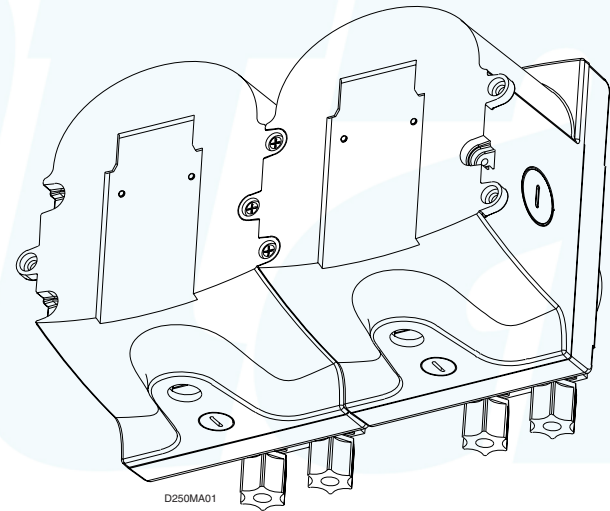
# This presentation consists of the following sections

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- Physical installation: mounting & tubing
- Wiring: power connection, trigger/signal wiring
- Installation schematics
- Programming
- Troubleshooting

# Mounting

- Pick a spot to the pumpbox(s) on the wall over the dish tray counter or behind the washer
- You can either mount the Tahoe using the plastic tabs on the sides of the pumpbox, or via a metal bracket (if included). If using the bracket, just screw it onto the wall near the dishwasher, and slide the Tahoe onto it
- If you're mounting two Tahoe's, connect them via three screws in the back as shown on the right.



# TUBING:

## Chemical Pickup Lance Connection



- Connect tubes to standpipes as shown at left. The standpipes come with nut fittings to connect to standard 1/4" ID detergent and 1/8" ID rinse polyflow transport tubing
- If you want to use color transport tubing, use 1/4" OD blue polyflow 092384, 1/4" OD red polyflow 041771, and 1/4T -1/4T compression fitting rinse tube 1205464, and the detergent standpipe 035623

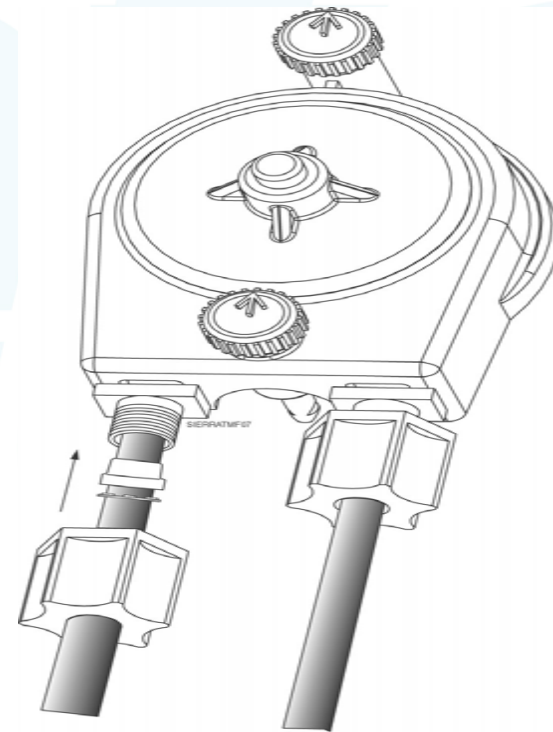
*035623 Detergent 1/4" ID  
18" long CPVC standpipe*

*050572 Rinse 1/8" ID 18"  
long CPVC standpipe*

# TUBING:

## Pump Connection

- The left side of the pump is the suction side which should be connected to the chemical supply
- The right side of the pump is the chemical discharge side which will be connected to injection fittings on the washer
- Loosen tube nuts, insert tubes, and tighten nuts as shown
- Pressing the rocker switch up will prime the pumps



- *Note the black SnapHead pins on the pump aren't twisted into place--you just push them and they click into place*

# TUBING:

## Injection Fittings



Bulkhead Fitting for bowls 035542

*Note: liquid detergent fitting 022031 comes with a 1/4" compression nut fitting. Solid/powder bowls use a 5/8" barb fitting 035542.*



Injection Fitting 051467

- Mount the detergent bulkhead fitting in a 7/8" hole above the water line, just above where the probe will be located. Make sure the area has plenty of water circulation, such as an area near the wash pump strainer inlet so the detergent will get circulated immediately.
- Add rinse injector to rinse line, in a location away from large amounts of steam or moving parts which can induce thermal or physical fatigue on injector plastic over time.
- If using a sanitizer on a low temp machine, an injector with two connections is required, one for the rinse and one for the sanitizer or copper tubing line to the pressure switch. We recommend using a stainless steel injection fitting if installing in a remote location, since they are impervious to thermal and physical fatigue.
- Tubes connect to the detergent bulkhead fitting and rinse injection fitting just like they do to the pump nuts.

*Don't use an old hole if it's in the wrong spot! Making a new hole during installation always takes less time than getting a trouble call and making a new hole on a separate trip*

# WIRING:

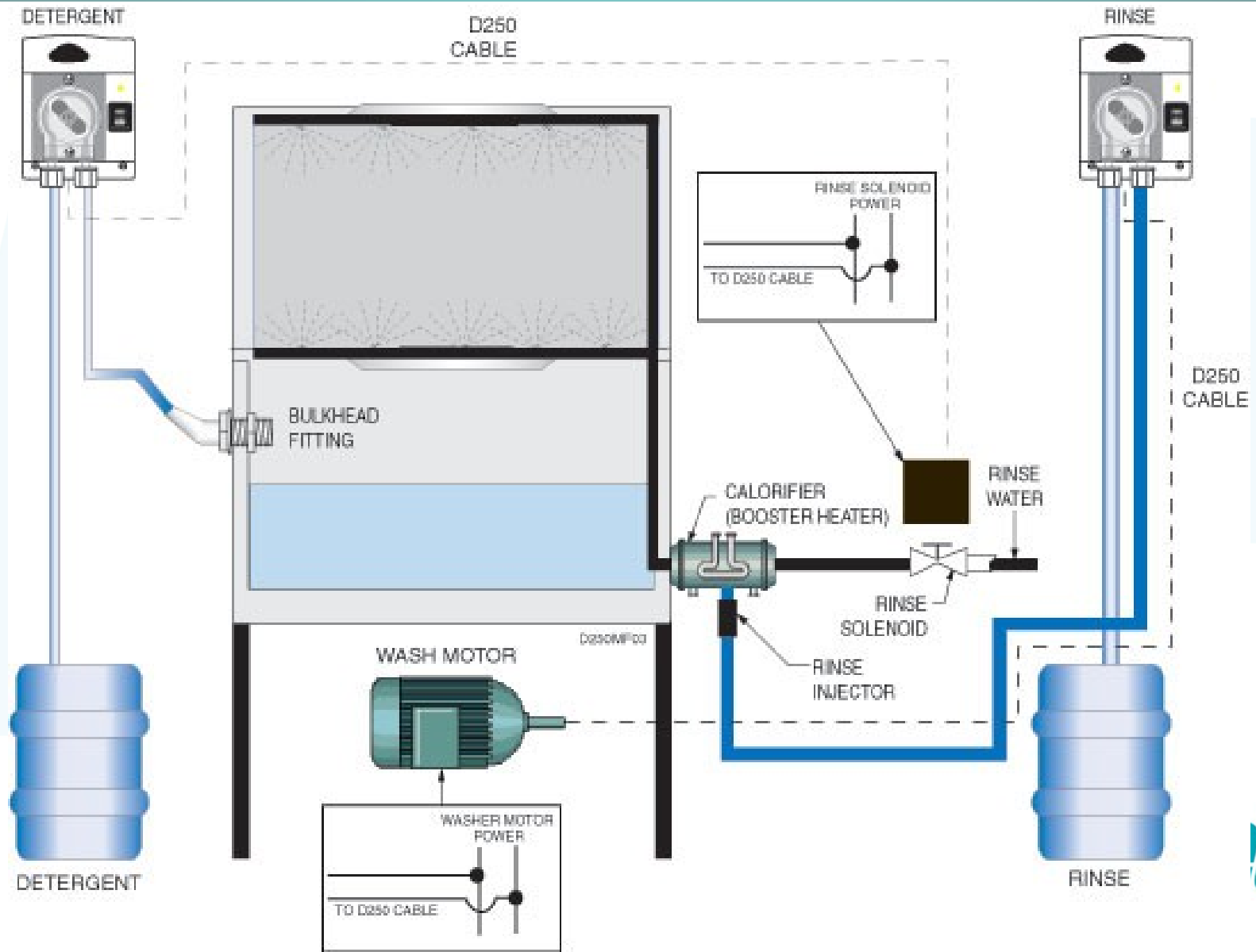
## Trigger Connection

Detergent Power Source	Rinse Power Source	Sanitizer Power Source
Rinse solenoid or washer motor on door machines	Rinse solenoid on door and conveyor machines	Rinse solenoid on door and conveyor machines
Fill valve on conveyor machines		

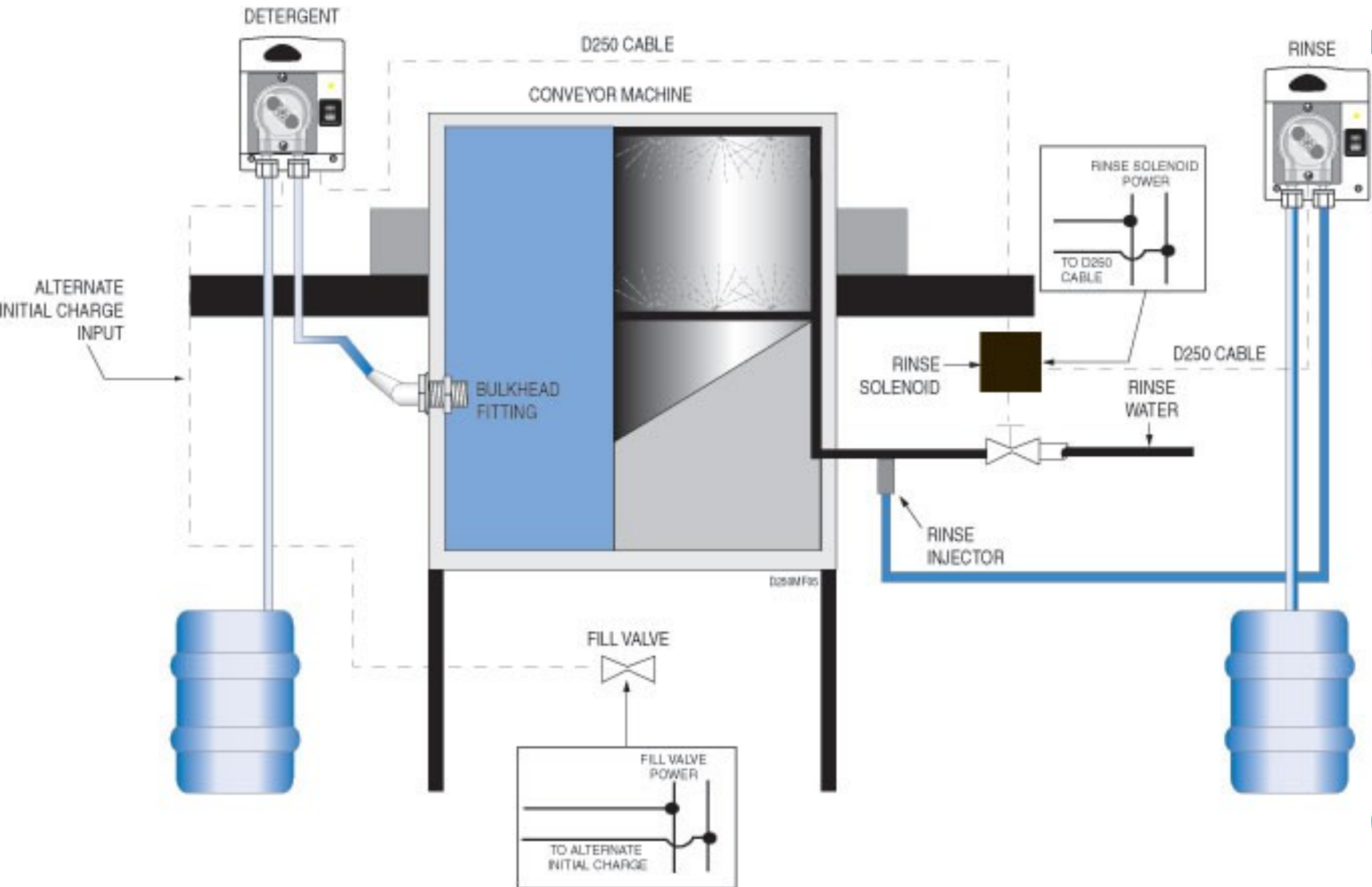
- Tahoe takes power from part of the dishmachine, and runs as programmed when that power is received
- Connect Tahoe wires to 230 VAC power source, typically the wash motor for the detergent pump, and rinse solenoid for the rinse pump and any sanitizer pump
- If power is 90-115 VAC, open pump and connect power to 115 VAC input black and green wires (transformer green and red wires are for 200-230V input).



# Door Machine Installation Schematic

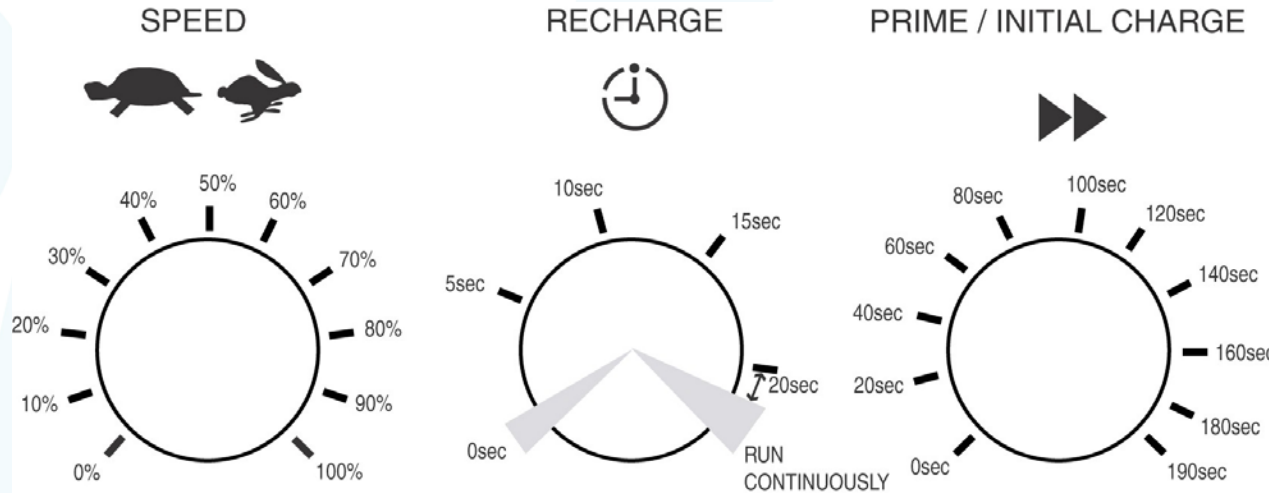


# Conveyor Machine Installation Schematic



# Prime & Program

- Press the rocker switch up to prime the pumps.
- To program a detergent unit, set the recharge switch to about 2 seconds and the initial charge switch to about 8 seconds (for a 20 gallon machine, depending on detergent strength). Leave the speed at 100%.
- To program a rinse or sanitizer unit, set the speed to about 15% (some as low as 5%, others as high as 20%), turn the recharge dial to continuous, and turn the initial charge dial to 0.



*This chart shows the functions of the dials under the Tahoe door*

# Troubleshooting

<u>Problem</u>	<u>Root Cause</u>	<u>Solution</u>
Pump won't prime	<ol style="list-style-type: none"><li>1. No power</li><li>2. Pump disabled</li></ol>	<ol style="list-style-type: none"><li>1. Turn dishmachine power on and put a rack in the dishmachine</li><li>2. Put rocker switch on front of pump in middle "on" position</li></ol>
Pump front falls off pump	SnapHead pins not inserted correctly	Ensure the SnapHead pins are inserted with the arrow pointing straight up or down.
Dial broken and spins around and around	Dials are delicate and can be broken if over-torqued	Usually the dials work even if they've been over-torqued....but you have to carefully check what setting you've chosen



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