

Conversion of primary voltage smart touch

In the case of the smart touch operator there is very little to do when changing the voltage and or phase of the operator.

A. Single to three phase

1. Acquire a three-phase electric motor.
2. Open the single phase motor J box and remove the motor leads as well as the t-stat leads, loosen the cord grip and pull all of the wires out of the J box.
3. Remove the old motor by loosening the two 3/8 x 1" bolts that are at the corners of the endhead (it might help to remove the hydraulic hoses at the QD's).
4. Confirm the voltage and phase of the incoming line to the operator, that it is three-phase.
5. Connect the pump pack to the three-phase electric motor and remount it onto the chassis of the operator.
6. Open the motor J box and add the cord grip with the incoming motor leads and t-stat leads.
7. Wire the motor for the correct voltage as per the motor's nameplate data. (note that there were two of the motor leads previously used, and now we will use all three - the motor leads are attached to the motor contactor at the terminals T1, T2, and T3) The motor leads are numbered #1, #2, and #3. The #3 motor wire will now be used.
8. Add the #3 motor wire to the T3 terminal of the motor contactor, the #3 wire may be tucked away out of use, locate and use it.
9. Connect the t-stat leads coming out of the motor to the t-stat wires of the smart touch controller.
10. Add a blue L3 wire to the disconnect switch, and also from the disconnect switch to the motor contactor L3 terminal, as we will now employ all three of the line terminals.
11. Confirm that the primary lead of the transformer is correct if not choose the correct colored to match the incoming line voltage, attach the correct leads to the terminals L1 and L2 respectively.
12. If there was a change made to the transformer be sure to cap off the remaining three unused leads of the transformer.
13. Once completed energize the operator confirm the output voltage of the smart touch power board at the common buss (neg.) and the +24 terminals. Confirm the motor rotates in the correct direction, if not switch any of the two incoming line leads.

B. Three phase to single

1. Repeat section "A" steps 1 through 5.
2. Wire the motor for the correct voltage as per the motors nameplate data. Here you will note that all three of the motor wire leads were used and now we will only be using leads marked one and two, as well as the t-stat leads.
3. After wiring the motor correctly connect the t-stat leads.
4. In the control panel we can now remove the blue L3 lead at the disconnect switch, also from the disconnect switch to the L3 terminal of the motor contactor. The lead that is attached to the motor contactor T3 terminal can also be removed, as it will no longer be used.
5. Confirm that the incoming line voltage matches the correct primary transformer tap. Confirm that the transformer primary leads are attached to terminals L1 and L2 respectively.

6. In the rare case where a single-phase electric motor rotates backwards simply switch the electric motor leads T5 and T8.