

# ASSEMBLY GUIDE Complete PRO II



Assembly - Parts

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#### CONSIDERATIONS BEFORE BEGINNING ASSEMBLY

Before beginning assembly, consider how you will want to configure your pump station. The pump station comes configured for a right-facing pump installation. If you need to change the direction of the pump, be sure to begin with the "changing the direction of the pump" instructions (p.4).

#### Step 1 – Preparing the enclosure for irrigation system access knockouts



- Using a hammer and pliers, remove the appropriate discharge knockout from the CP unit – concentrating on the two metal tabs.
- 2. Orient the enclosure to match to the irrigation inlet.



 a) If using a bottom knockout – place Universal Pro Enclosure so irrigation inlet pipe enters the enclosure through bottom knockout hole. Remove the PVC female cam x slip fitting from the hose assembly and glue the slip fitting to inlet pipe. Hose will pair to irrigation inlet inside the enclosure.



b). If using a side knockout – place Universal Pro Enclosure so irrigation inlet pipe aligns with side knockout. Remove the PVC female cam x slip fitting from the hose assembly and glue the slip fitting to inlet pipe. Hose will feed through the sidewall to pair with irrigation inlet pipe.

#### Step 2 – Setting and finalizing the pump



- 1. Remove the packing board from bottom of the pump.
- 2. Set the pump into the pump enclosure with the suction fittings facing the suction pass-through panel
- 3. Push the threaded end of the suction fitting through the suction pass-through panel to connect to water source. We recommend threading this fitting to a valve for isolation purposes.

Suction pass-through panel

### Step 2 – Setting and finalizing the pump (Continued)



- 4. Locate the sensor wire and boot inside the electrical outlet assembly.
- 5. Connect the quick disconnect fittings, closest to the rubber boot, to the pressure sensor. Cover this connection with the boot by sliding it into place.
- 6. Connect the remaining quick disconnect fittings over the spade terminals of the temperature sensor.



- Attach the female end of the discharge hose assembly to the 90° elbow of the discharge assembly and the male end to the irrigation inlet fitting.
- 8. Plug the electrical cord into the electrical outlet.

#### Step 3 – Wiring the pump control to the irrigation controller



- 1. The pump control is prewired to the electrical outlet assembly.
- 2. To wire the pump control to your irrigation controller, refer to the wiring diagram inside the control panel.



A Wire motor for correct voltage. See "Motor & Electrical" section of this manual and motor nameplate.

A Ground motor before connecting to power supply.

A Meet National Electrical Code, Canadian Electrical Code, and local codes for all wiring.

A Follow wiring instructions in this manual when connecting motor to power.

### Changing the direction of the pump

To meet your installation requirements, you can change the side through which the electrical and suction enter the enclosure.

A Use caution. Some edges may be sharp!

#### Step 1 – Remove the suction pass-through panel



1. Remove the nuts and bolts holding the suction pass-through panel in place and slide the suction pass-through panel up and out of the enclosure. Set the panel aside.

#### **Step 2 – Remove the electrical assembly**



1. Remove the screws on the front of the pump control box to remove the front cover.



- 2. Remove the time delay device (if supplied) by gently rocking and pulling from the socket.
- 3. Loosen all connected wires from the relay, ground screw and time delay socket.
- 4. Unscrew the chase nipple on the inside bottom of the pump control box and SLB to disconnect the SLB from the box. Use 1" box wrench to loosen the chase nipple.

### Step 2 – Remove the electrical assembly (Continued)



- 5. Using a screwdriver, remove the cover plate from the SLB.
- 6. Out of the bottom, pull the wires from the pump control box through the chase nipple and SLB.
- 7. On the outside of the pump enclosure, unscrew the SLB from the pipe nipple on the electrical outlet assembly. Pliers may be needed.
- 8. Feed the outlet assembly, wires and pipe nipple through the round hole on the electrical pass-through panel, to the inside of the enclosure.



- 9. On the bottom of the enclosure, remove the 4 nuts and bolts holding the control box brace in place.
- 10. Remove the 6 bolts that hold the electrical pass-through panel in place, 4 are shared with the control box brace.
- 11. With the control box still attached, remove the outside braces. Slide the electrical pass-through up and out of the enclosure.

#### Step 3 – Replacing the suction pass-through panel



1. Slide the suction pass-through panel into place on the opposite side of the enclosure, ensuring that the suction hole is aligned to the pump suction height. Replace the nuts and bolts to secure the suction pass-through panel.

#### Step 4 – Reconnecting the electrical assembly on the opposite side



 Holding the pump control box brace, with pump control attached, place on the outside of the enclosure and secure the nuts and bolts into place.

#### Step 4 – Reconnecting the electrical assembly on the opposite side (Continued)



- 2. With the electrical outlet assembly on the inside, feed the outlet assembly wires and pipe nipple through the round hole on the electrical pass-through panel of the enclosure.
- 3. On the outside of the pump enclosure, thread the wiring through the round opening on the end of the SLB. Screw the SLB to the pipe nipple on the electrical outlet assembly. Ensure that the other round opening is facing up, toward the control box, and the uncovered access is facing down.



- 4. Screw the chase nipple through the knockout hole on the bottom of the pump control box and into the SLB to secure the SLB to the bottom of the pump control box. Use 1" box wrench to tighten the chase nipple on the SLB.
- 5. Thread the wiring from the SLB into the pump control box, passing through top SLB hole and chase nipple. Replace SLB cover plate.
- 6. Rewire the control panel using the instructions found on the inside of the box lid. Replace time delay device (if supplied).

Step 5 – Changing the pump direction



Remove Forward Plug

1. Remove front plug at the top of the pump.



2. Using a pipe wrench, remove top discharge assembly from top of pump.

### Step 5 – Changing the Pump Direction (Continued)



Pressure Gauge and Pressure Sensor

- 3. Use a wrench to remove the pressure gauge and sensor assembly from back-side opening.
- 4. Relocate the gauge and pressure sensor assembly to the opposite (now front facing) side of the pump, ending parallel to pump motor.



#### Discharge Fittings

- 5. Reinstall the discharge assembly in the top discharge port.
- 6. In most cases, the open end of 90 elbow should be pointing to the back of the pump.

Note: Pipe dope or Teflon tape is needed at each connection point. Fully tighten each connection with a pipe wrench.



#### Final Appearance

7. The installation of pump fittings should be complete and appear as pictured.