

Instruction Sheet 7195700 Rev. 1

Application Qualified Installation of 195700 (120V) and 195701 (230V) Bypass Assembly, and 195008 Bypass Thermocouple Probe Kit

Model 740 and 7400 Series Storage Systems

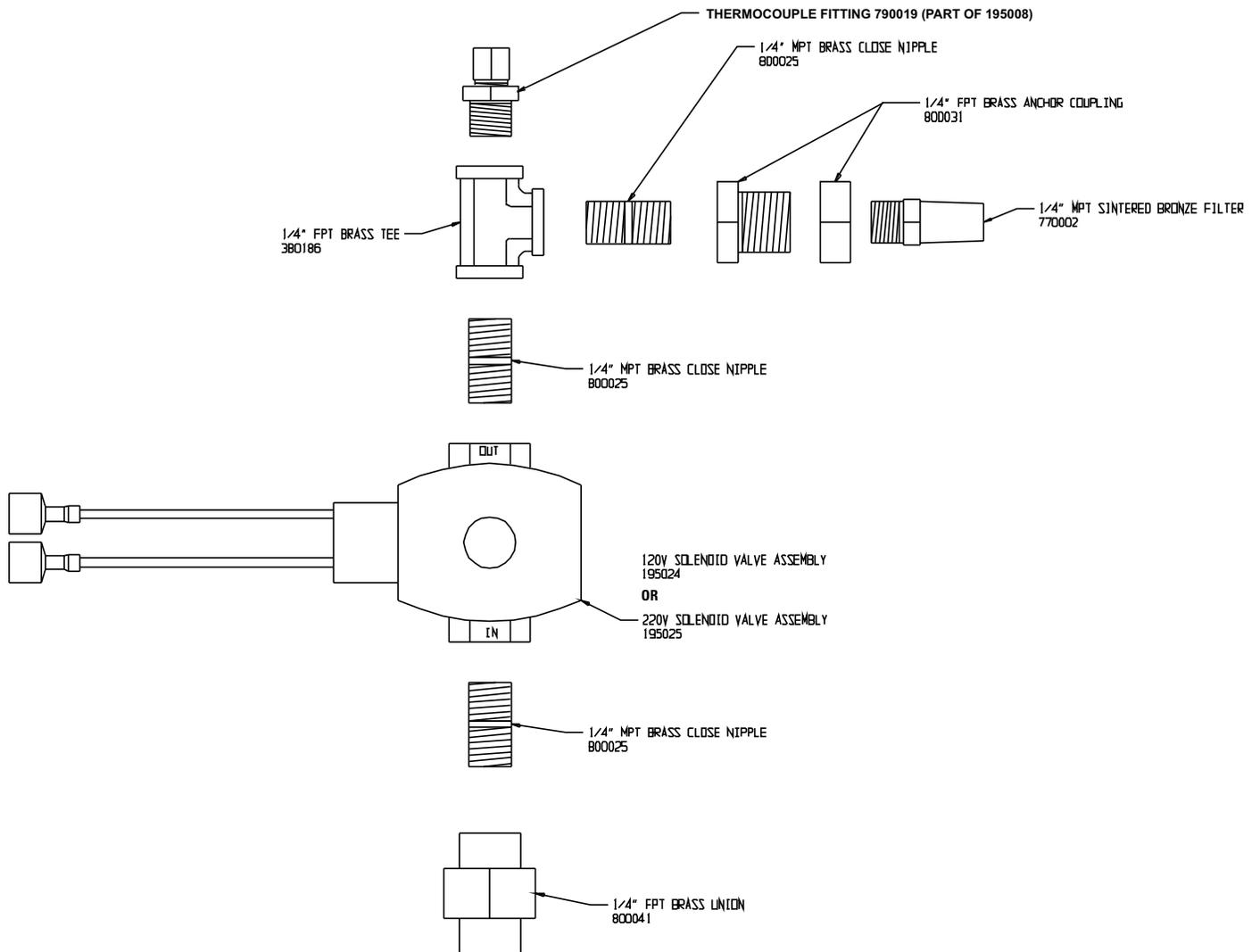


Figure 1. 195019 or 195022 Bypass Assembly

Installation

Caution The following procedure should be performed by qualified service personnel only. ▲

Caution Read and understand each step before proceeding. Not all of the steps are required for installing only the 195008 bypass thermocouple probe kit. ▲

1. Ensure that the unit power switch is in the OFF position and the LN2 source shut off valve is in the CLOSE position.
2. Disconnect the line cord from the power source, and the transfer hose from the brass 90° ell fitting on the rear of the unit.
3. For Models 740, 741, 7400 and 7401, remove the fourteen (14) screws holding the rear cover plate to the back panel. For all other models, remove the twelve (12) screws holding each of the electrical and solenoid cover plates to the back panel.
4. Remove the brass 90° ell fitting and brass nut from the solenoid mounting plate on the back right side of the unit (Figure 2).
5. Remove the six (6) screws holding the plastic solenoid mounting plate to the back panel and the two (2) dummy screws directly below it.
6. Remove the screws holding the back panel to the exterior wrap per the following table:

Models 740, 741, 7400, 7401	sixteen (16) screws
Models 742, 743, 7402, 7403	eighteen (18) screws
Models 744, 745, 7404, 7405	twenty (20) screws
Models 746, 747, 7406, 7407	twenty-two (22) screws

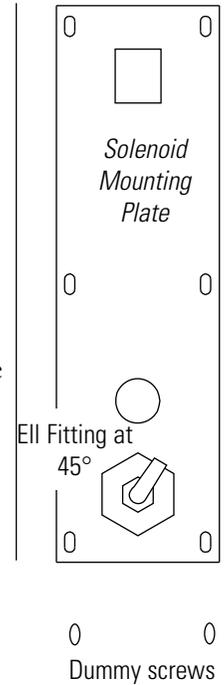


Figure 2.
Mounting Plate
w/o Bypass Assy

Installation (continued)

7. Remove the screw holding the main-board-to-display harness cable clamp to the back panel.

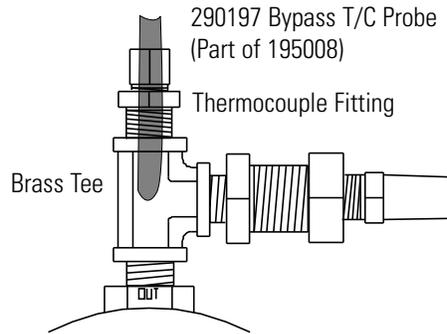


Figure 3. Probe Location

Caution Do not use pipe sealant or sealing tape on the threads of any parts used in the installation of the bypass assembly. Do not over-tighten fittings. ▲

Caution Never re-use an old thermocouple fitting with a new bypass probe. Instead replace it with the new thermocouple fitting provided. ▲

8. Install the thermocouple fitting to the top of the bypass assembly (see Figure 3).
9. Approximate the depth that the bypass probe will need to be inserted into the thermocouple fitting in order for the tip to be roughly centered in the brass tee (see Figure 3). Insert the bypass probe into the thermocouple fitting with the exposed part of the probe pointing towards the bypass solenoid and tighten the thermocouple fitting nut.
9. Remove the brass cap from the original plumbing assembly and discard.
10. Separate the brass union on the bypass assembly (refer to Figure 1) and install the separated piece to the original plumbing assembly where the brass cap was removed.
11. Connect the bypass assembly to the separated piece of the brass union.

12. Remove the brass nut from the bypass assembly, and test-fit the plastic solenoid mounting plate to ensure proper spacing between the original plumbing assembly and the sintered bronze filter (square and upper round holes). See Figure 4.
13. Route the metal sheath of the bypass probe behind the main-board-to-display harness. Note the polarity of the male thermocouple plug and insert it into the bypass socket of the microprocessor board (see Figure 5).

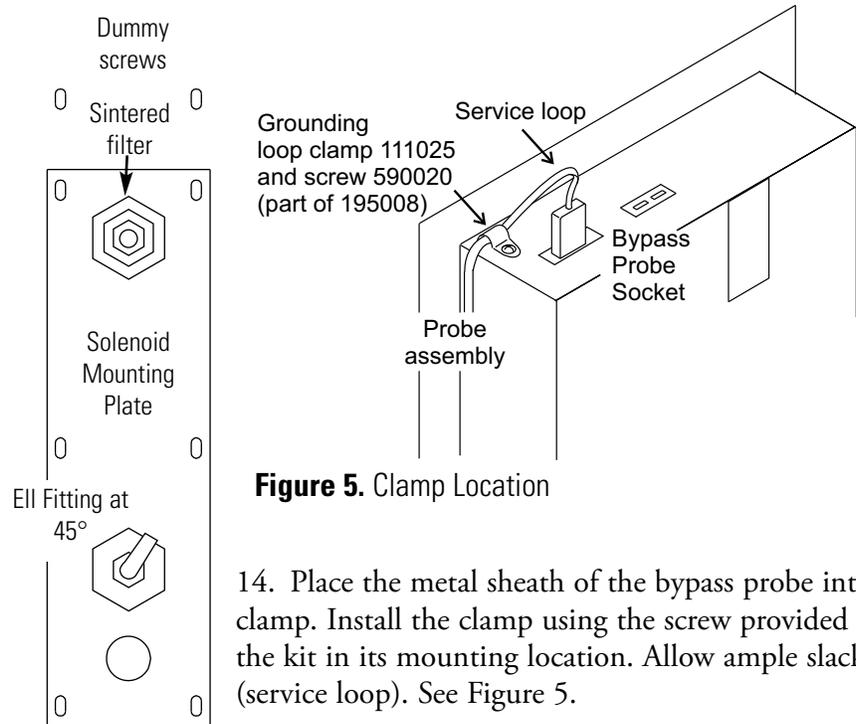


Figure 5. Clamp Location

14. Place the metal sheath of the bypass probe into the clamp. Install the clamp using the screw provided with the kit in its mounting location. Allow ample slack (service loop). See Figure 5.
15. Connect the terminals of the bypass assembly solenoid to the terminals of the red and black wire pair of the existing wiring harness.
16. Secure the main-board-to-display harness cable clamp to the back panel with the screw.
17. Install the back panel to the exterior wrap.
18. Install the two (2) dummy screws in the upper pair of tapped holes (Figure 4).
19. Insert the bypass assembly filter and the original plumbing assembly through the plastic solenoid mounting plate. Note new mounting location of the plastic solenoid mounting plate. Secure it to the back panel.

20. Install the bypass assembly brass nut.
21. Install the brass nut and brass 90° ell fitting to the mounting plate.
22. Locate the DIP switches on the right side of the microprocessor board (see Figure 6).

Normal DIP switch settings are 1-2-3 = UP-UP-UP.

Bypass DIP switch settings are 1-2-3 = DN-UP-UP, where 1 is denoted by a • on the switch body.

23. Reconnect the transfer hose to the 90° ell fitting on the rear of the unit, and the line cord to the appropriate power source.
24. Place the LN2 source shutoff valve in the OPEN position and the unit power switch in the ON position. Check for proper bypass assembly operation, and any system alarms and leaks as the tank fills with LN2.
25. Install the cover plate(s) to the back panel using the screws removed previously.

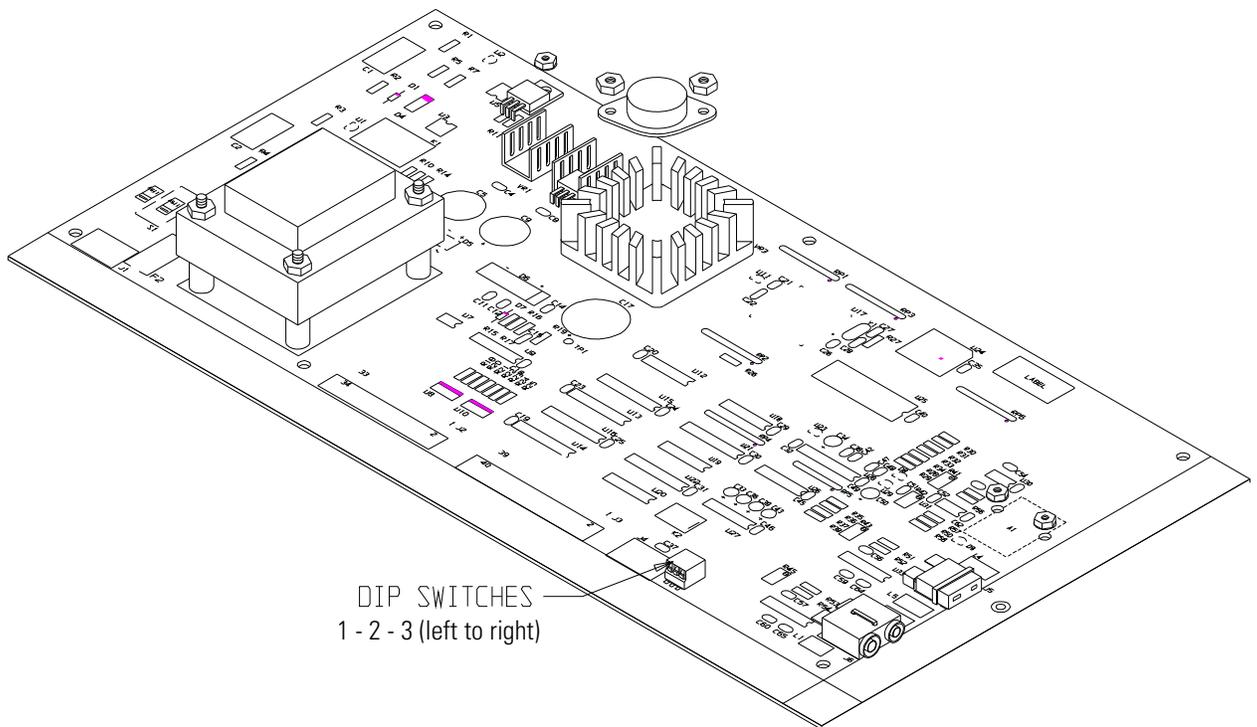


Figure 6. DIP Switch Location

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Rev	ECR/ECN	Date	Description	By
1	26806/SI-10941	9/26/11	Updates	CCS
0	19958	3/28/01	Original	CCS