

Model 1200

Temperature Probe Removal and Replacement Procedure



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1200 Temperature Probe Removal and Replacement Procedure

1. Turn off the main power on the 1200 system.



2. Remove the top/rear panel screws using the Torx drive provided.



3. Remove the retaining strap that holds the probe cables.



4. Remove the foam insulation from the RTD 2 location.



5. Remove the foam insulation from the RTD 3 location.



6. Using a 9/16" wrench, remove the nut that secures the RTD 2 temperature probe.



7. Uncoil the RTD 2's Temp probe cable.



8. Feed through the cable towards the chamber side of the system.



9. Slide the nut washer and retaining grommet back away from the temperature probe.



10. Open the chamber door and slide the RTD 3 temperature probe out of the retaining clamp.



11. Pull out the retaining grommet at the top of the chamber.



12. Uncoil RTD 3's cable and slide it towards the chamber side of the system.



13. Remove the chamber insulation plug.



14. Feed the probe cable out through the chamber side port.



15. At the back of the system remove RTD 0's temperature probe cable.



16. Uncoil and slide out the probe cable.



17. Using a pair of needle nose pliers, remove the retaining clip that holds RTD 1's temperature probe cable.



18. Carefully pull out the RTD 1 temperature probe.



19. Uncoil and slide out the RTD 1 probe cable.



20. Take all four temp probes and align all the tips together.



21. Use rubber bands or o-rings to bundle the probes together and slide your calibration temperature probe along side of the probes.



22. Slide some sort of nonconductive support with the probes to hold the probes away from the bottom of the calibration source.



- 23. Insert the probes into the calibration unit.
- 24. Next, follow the calibration procedure in your operation and maintenance manual, in section 4. **Temperature Calibration 4.2.1**
- 25. After the calibration is done, installation of the probes is required.



26. Before installation of RTD 0 a small amount of thermal grease should be applied in the probe channel.



27. Slide the syringe in the channel until it touches the back, then squeeze a small amount of thermal grease and remove the syringe.



28. Do the same procedure for RTD 1.



29. Slide the RTD 1 probe under the transducer cable.



30. Feed the probe cable through the center panel and behind the vertical support.



31. Slide the probe cable behind the pump outlet hose.



32. Push the probe cable in the channel until it bottoms out.



33. Replace the retaining clip to secure the probe cable.



34. Take the probe cable in both hands and make a loop about four inches in diameter.



35. Flip the loop away from top to bottom to achieve a coiled cable.



36. Take the Velcro strap and pull it around the looped cable to secure it in a bundle.



37. The cable should look about like what is pictured in the photo above.



- 38. Lay the coiled cable back over where the Velcro cable wrap is on the power supply.
- 39. Slide RTD 0 under the transducer cable.



40. Pull the probe cable through the center panel and behind the vertical support.



41. Slide the probe cable in the channel until it bottoms out.



42. Fold the probe cable down and push it in the canal in the foam to secure it.



43. Push the cable behind the pump outlet tube.



44. Now using the same procedure as before coil the RTD 0's cable and use the Velcro strap to secure it.



45. Lay the coiled cable back on top of RTD 1's coil over the power supply.



46. Take RTD 2 and slide the retaining grommet until it meets the temp probe, then slide the nut and washer up to meet the retaining grommet.



47. Push the probe tip in the fitting and turn the nut until it seats, then tighten to 1/4 turn past finger tight.



48. Loop the probe cable back and push the cable in the canal in the foam to secure it.



49. Holding the probe cable with one finger, place the foam insulation in the cavity.



50. Make sure the foam insulation is flush with the top of the chamber foam.



51. Pull the RTD 2 cable through the grommet in the center panel.



52. Using the same procedure as before, coil RTD 2's cable and use the Velcro strap to hold the bundle together. Place it over the last bundle at the power supply location.



53. Pull the RTD 3 probe cable back through the chamber port hole.



54. Now feed the cable back through the top of the chamber.



55. Leave about a four to five inch loop of cable inside the chamber and feed the probe through the cable clamp at the rear of the chamber.



56. Push the retaining grommet until it seats against the top of the chamber.



57. The final loop should look like the photo above.



58. Feed the cable along the side of the chamber foam and the center panel and pull it through.



59. Holding the cable with one finger, place the foam insulation in the cavity.



60. Make sure the foam insulation is flush with the top of the chamber foam.



61. Coil the cable the same as before using the Velcro strap to hold the bundle together.



62. Lay the last bundle on top of the other three.



63. Using the Velcro strap on top of the power supply, secure all four probe cables.



64. Put the cover back on using the Torx head screws.

Please Call 1-800-872-7728, Fax 1-505-266-6203, or E-mail support@thunderscientific.com should you have any questions.