

# Crystal Fire® Plus: Complete Troubleshooting Guide

For Crystal Fire® Plus burners that are exhibiting nuisance shutdowns, please follow this troubleshooting guide. A nuisance shutdown can be defined as any shutdown that is not initiated by the user. This can occur immediately upon startup or after approximately 20-30 minutes.

1. When lighting the burner, ensure that the control knob is being fully depressed until it cannot move further. Partial engagement of the internal components due to a partially depressed knob can cause nuisance shutdowns.
2. Ensure that there is no media within the wind guard. See Image 1. If there is media present inside the wind guard, carefully remove it from the wind guard opening. Media can be present on the back cover of the wind guard.
3. Verify which version of the wind guard is installed on the burner. See Image 2.

If wind guard has one rivet on each side (Type A), continue with Step 3a. If wind guard has two rivets on each side (Type B), continue to Step 4.

- a. Is there a sheet metal riser clip installed under the wind guard? See Image 3. If yes, continue to Step 3b. If no, one must be sent out and installed. (P/N: 10316)
- b. Ensure that the clip is not covering any ports on the burner surface.
- c. Verify that the wind guard components are properly aligned to allow for a small gap at the front of the wind guard (~1/8"– 3/16"). See Image 4.



Image 1

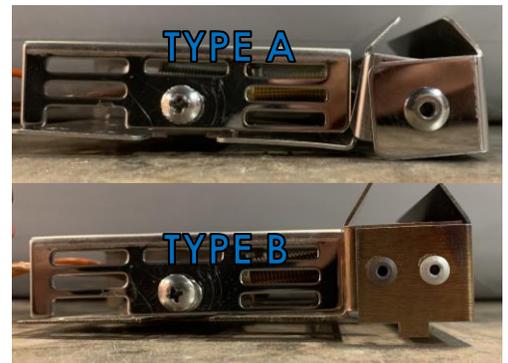


Image 2



Image 3

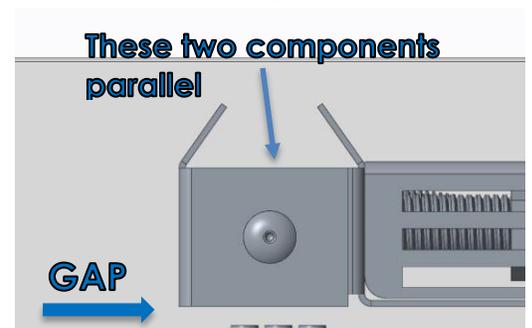


Image 4

4. Verify that wind guard is properly positioned on burner surface. Wind guard assembly should be parallel to wind fins on linear burners. See Image 5.
5. Check the entire length of the thermocouple for severe kinks or breakage. See Image 6. If damage has occurred to the thermocouple, a replacement assembly must be sent out. (P/N: VCSV-WG)
6. Ensure that the thermocouple is properly tightened. A properly tightened thermocouple will have one thread exposed from the body of the control valve. See Image 7.
7. Verify that thermocouple is not contacting the wind guard in any location. The tip of the thermocouple should be centered in the hole of the wind guard. See Image 8.

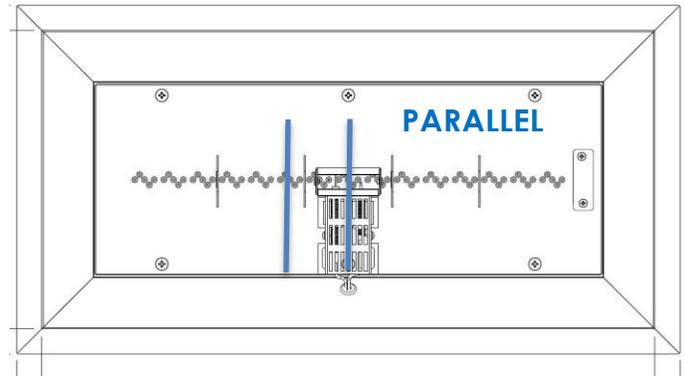


Image 5

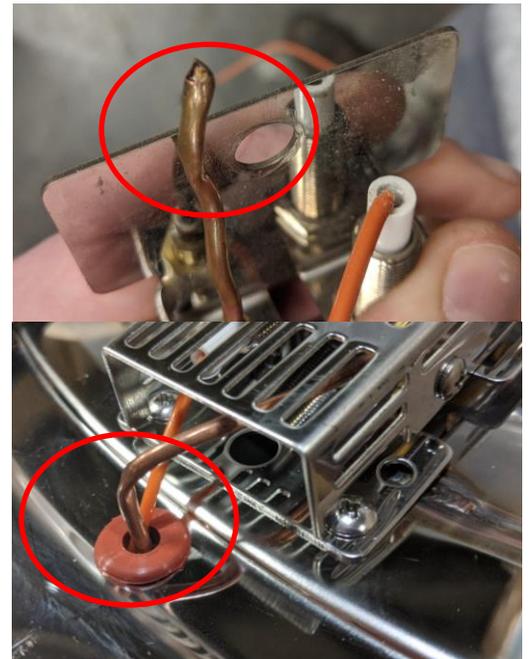


Image 6

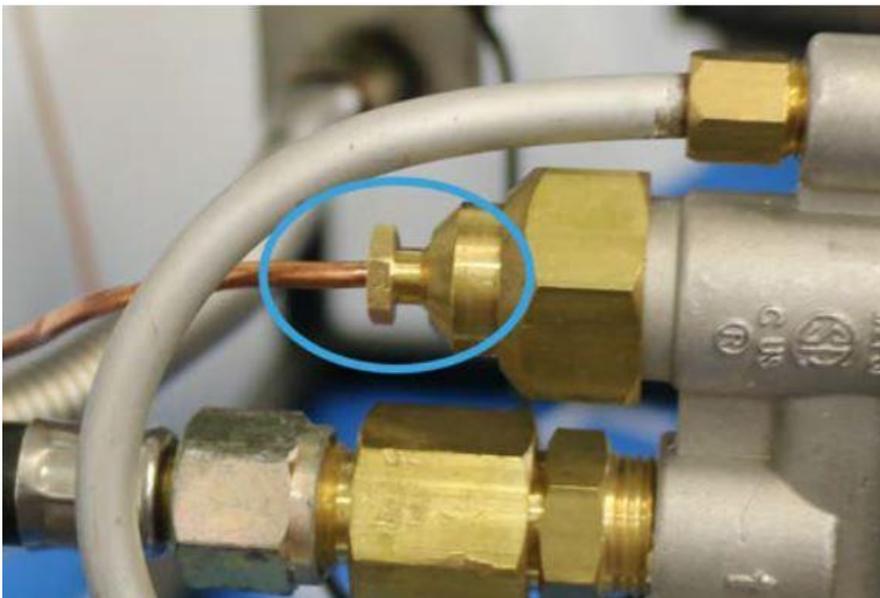


Image 7

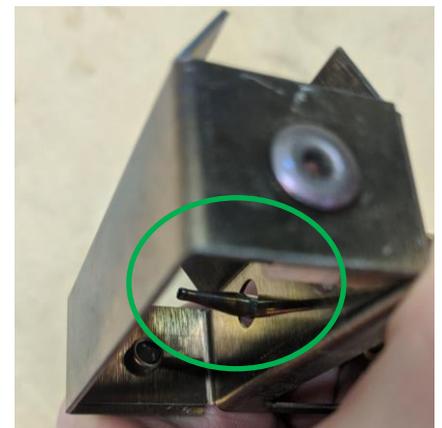


Image 8

8. Ensure burner is operating on the correct fuel type. Burners are set up standard for LP gas operation. Conversion to natural gas operation requires both the valve and burner orifice to change as well as closing the air shutter. See Image 9.
9. If Steps 1-7 have been completed and burner still shuts down after 20-30 minutes, check the outer surface of the LP tank after the burner shuts down. If there is frost on the tank, the overfill protection device of the tank has likely activated and caused the shutdown. See Image 10. This issue would be especially applicable to CFP1242 and CFP30 burners, which are larger burners.

This can be verified by listening to control valve. If the flame goes out and is followed by an audible click at the valve, this means that the LP tank caused the shutdown. If the flame goes out at the exact same time as the click at the valve, the system is still not receiving an adequate signal from the thermocouple. Follow the link or QR code below for a video demonstrating the "click".

<https://www.youtube.com/watch?v=TIAwr5SMKpQ>

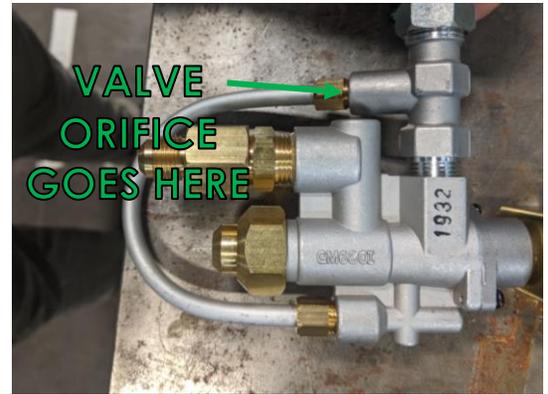


Image 9



Image 10