

Quadra-Fire SRV230-0900

Quadra-Fire Snap Disc SRV230-0900 Instruction Manual

For CB1200 Pellet Stoves and CB1200I Pellet Inserts

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Quadra-Fire Snap Disc, part number SRV230-0900. This component is specifically designed for use in Quadra-Fire CB1200 Pellet Stoves and CB1200I Pellet Inserts. Please read these instructions carefully before proceeding with any installation or service.

2. SAFETY INFORMATION

- **Electrical Hazard:** Always disconnect power to the appliance before installing, servicing, or replacing any electrical components. Failure to do so can result in serious injury or death.
- **Professional Installation Recommended:** Installation of this component should ideally be performed by a qualified technician familiar with pellet stove electrical systems.
- **Use Original Parts:** Only use genuine Quadra-Fire replacement parts to ensure proper function and safety.
- **Hot Surfaces:** Pellet stoves and their components can become extremely hot. Allow the stove to cool completely before performing any work.

3. PRODUCT OVERVIEW

The Quadra-Fire Snap Disc SRV230-0900 is a critical safety component, functioning as a high-limit switch. It is designed to monitor temperatures within your pellet stove and interrupt power to certain components if an unsafe temperature is reached, preventing overheating and potential damage. This particular snap disc is rated at 200 degrees Fahrenheit (200 Open/40D), meaning it opens the circuit when the temperature reaches 200°F and closes it when the temperature drops by 40°F.



Figure 1: Quadra-Fire Snap Disc SRV230-0900. This image shows the snap disc, a round metal component with a brown plastic body and two metal spade terminals for electrical connection.

4. SPECIFICATIONS

Specification	Value
Model	SRV230-0900
Brand	Quadra-Fire
Operation Mode	Automatic
Contact Type	Normally Open
Switch Type	Limit Switch
Actuator Type	Snap Action
Lower Temperature Rating	199 Degrees Fahrenheit
Number of Positions	200 (Open/40D)

Material	Metal, Copper (Contact Material)
Mounting Type	Snap In Mount
Connector Type	Snap in

5. SETUP AND INSTALLATION

This snap disc is a direct replacement part for Quadra-Fire CB1200 Pellet Stoves and CB1200I Pellet Inserts. Refer to your stove's specific service manual for the exact location and procedure for replacing the high-limit snap disc. The following steps are general guidelines:

1. **Disconnect Power:** Ensure the pellet stove is completely unplugged from its power source and has cooled down.
2. **Locate the Existing Snap Disc:** Consult your stove's diagram to find the high-limit snap disc. It is typically mounted on a surface that monitors exhaust or combustion blower temperatures.
3. **Remove Old Component:** Carefully disconnect the electrical wires from the old snap disc. Note their orientation if necessary. Unscrew or unclip the old snap disc from its mounting location.
4. **Install New Snap Disc:** Mount the new Quadra-Fire SRV230-0900 snap disc in the same location, ensuring it is securely fastened.
5. **Connect Wiring:** Reconnect the electrical wires to the terminals of the new snap disc. Ensure connections are secure and correct.
6. **Test Operation:** Once installed, restore power to the stove and perform a test run according to your stove's operating instructions to confirm proper function and safety shutdown.

Note: Incorrect installation can lead to stove malfunction or safety hazards. If you are unsure about any step, contact a certified Quadra-Fire service technician.

6. OPERATING PRINCIPLES

The SRV230-0900 snap disc operates as a normally open (NO) switch. In normal operating conditions, below 200°F, the switch contacts remain open, allowing the stove's control board to operate normally. If the temperature at the snap disc's location reaches or exceeds 200°F, the bimetallic disc inside the switch will 'snap' closed, completing a circuit. This action typically signals the stove's control system to initiate a safety shutdown, such as turning off the auger motor to stop fuel delivery, thereby preventing further temperature increase. Once the temperature drops to approximately 160°F (200°F - 40°F differential), the disc will 'snap' open again, resetting the circuit. This automatic reset feature is crucial for safety, but repeated activation indicates an underlying issue that needs investigation.

7. MAINTENANCE

The snap disc itself is a sealed unit and does not require routine maintenance such as cleaning or lubrication. However, periodic inspection of its condition and surrounding area is recommended:

- **Visual Inspection:** During routine stove cleaning or service, visually inspect the snap disc and its wiring for any signs of damage, corrosion, or loose connections.
- **Functionality Check:** If your stove is frequently entering a high-limit shutdown state, it indicates that the snap disc is functioning as designed, but there is an underlying problem with the stove's operation (e.g., restricted airflow, dirty exhaust, faulty combustion blower). Address the root cause rather than bypassing the safety switch.

- **Replacement:** If the snap disc appears physically damaged, or if diagnostic tests indicate it is not functioning correctly (e.g., not opening/closing at the specified temperatures), it should be replaced immediately with an original Quadra-Fire SRV230-0900 part.

8. TROUBLESHOOTING

If your pellet stove is experiencing issues related to temperature control or unexpected shutdowns, the snap disc may be involved. Here are some troubleshooting steps:

- **Stove Shuts Down Unexpectedly:** If the stove frequently shuts down and displays a high-limit error (if applicable), the snap disc is likely activating. This means the stove is overheating. Investigate common causes of overheating such as:
 - Restricted airflow (dirty exhaust vent, blocked air intake).
 - Malfunctioning combustion blower.
 - Over-firing due to incorrect fuel feed settings.
 - Accumulated ash or debris in the heat exchanger.
- **Stove Does Not Start or Stay Running:** If the snap disc is faulty and stuck in the 'open' position, it may prevent the stove from starting or continuing to run, as the control board may interpret this as an unsafe condition.
- **Testing the Snap Disc:** A qualified technician can test the snap disc using a multimeter and a heat source to verify its opening and closing temperatures. Do not attempt this without proper knowledge and safety equipment.

***Warning:** Never bypass or tamper with safety devices like the high-limit snap disc. Doing so can create a fire hazard and void your stove's warranty.*

9. WARRANTY AND SUPPORT

For specific warranty information regarding the Quadra-Fire Snap Disc SRV230-0900, please refer to the warranty documentation provided with your original Quadra-Fire pellet stove or contact your authorized Quadra-Fire dealer. As a replacement part, its warranty may be subject to the terms of the original stove's warranty or a separate parts warranty.

For technical support, replacement parts, or service, please contact your local authorized Quadra-Fire dealer or visit the official Quadra-Fire website for dealer locators and contact information.