

Harman 1-00-05888

Harman PF100 & PF120 Control Board Instruction Manual

Model: 1-00-05888

INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of the Harman PF100 and PF120 Control Board, model 1-00-05888. This control board is a critical component for the proper functioning of your Harman pellet stove, managing various operational parameters.

SAFETY INFORMATION

Always prioritize safety when working with electrical components and heating appliances. Failure to follow these safety guidelines may result in electric shock, fire, or personal injury.

- **Disconnect Power:** Before attempting any installation, maintenance, or troubleshooting, ensure the pellet stove is completely disconnected from its power source. Turn off the circuit breaker supplying power to the stove.
- **Qualified Personnel:** Installation and service should only be performed by a qualified service technician.
- **Static Discharge:** Electronic components are sensitive to static electricity. Discharge any static electricity from your body before handling the control board by touching a grounded metal object.
- **Handle with Care:** Avoid touching the electronic components or circuit traces on the board. Hold the board by its edges.
- **Original Parts:** Use only genuine Harman replacement parts to ensure compatibility and safe operation.

SETUP AND INSTALLATION

This section outlines the steps for replacing or installing the Harman PF100/PF120 Control Board. Ensure all safety precautions are followed before proceeding.



Figure 1: The Harman PF100 & PF120 Control Board (Model 1-00-05888) shown with accompanying control knobs and mounting standoffs.

1. **Power Disconnection:** Verify that the pellet stove is completely unplugged or its circuit breaker is off.
2. **Access the Old Board:** Locate the existing control board within your Harman PF100 or PF120 stove. This typically involves removing a service panel.
3. **Document Connections:** Before disconnecting any wires, take clear photos or make a diagram of all wire connections to the old board. Pay close attention to the orientation and color coding of each wire.
4. **Disconnect Wires:** Carefully disconnect all wires and connectors from the old control board. Note that some connectors may have locking tabs.
5. **Remove Old Board:** Unscrew or unclip the old control board from its mounting points.
6. **Install New Board:** Position the new Harman 1-00-05888 control board in the same location. Secure it using the original screws or clips.

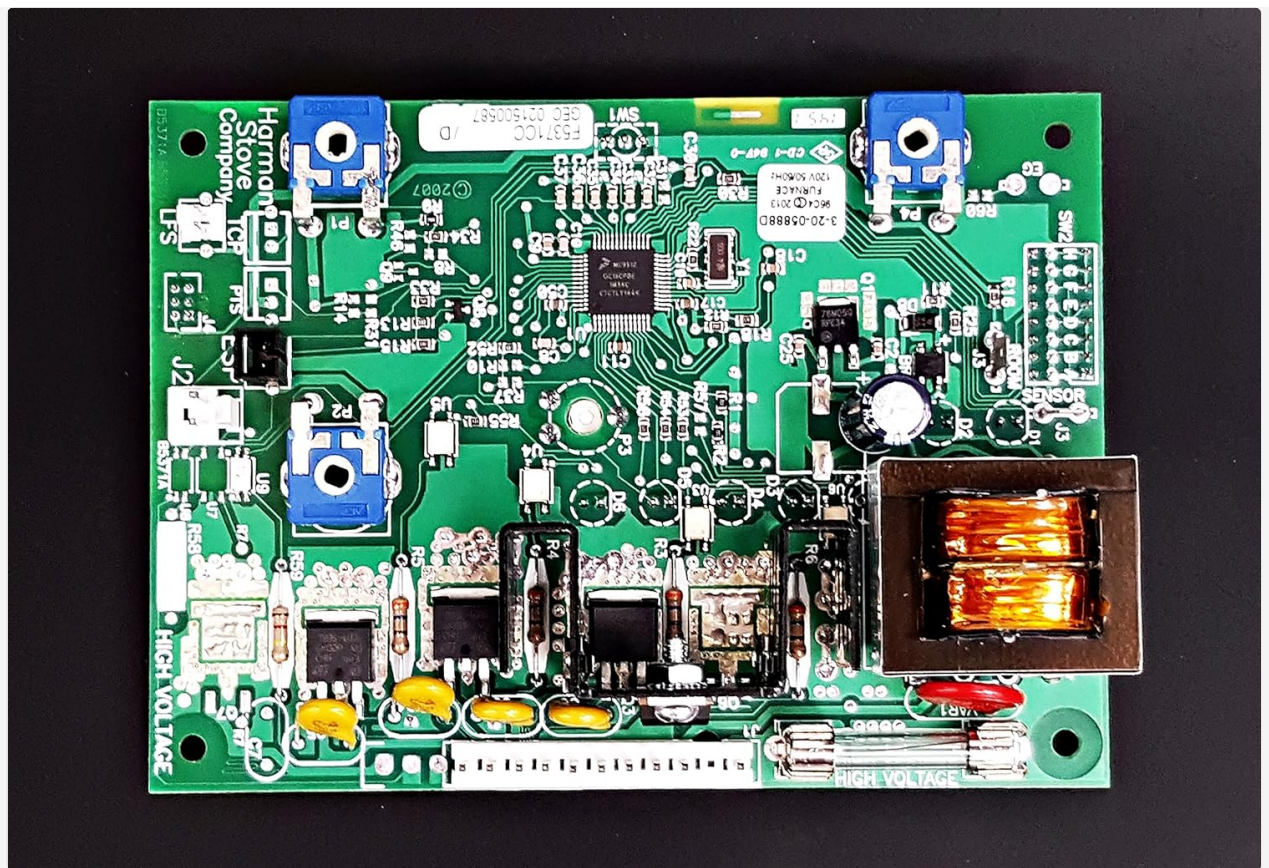


Figure 2: Detailed front view of the control board, highlighting various electronic components and connection terminals for wiring.

7. **Reconnect Wires:** Using your photos or diagrams, carefully reconnect all wires and connectors to the new board. Ensure each connection is secure and correctly oriented.

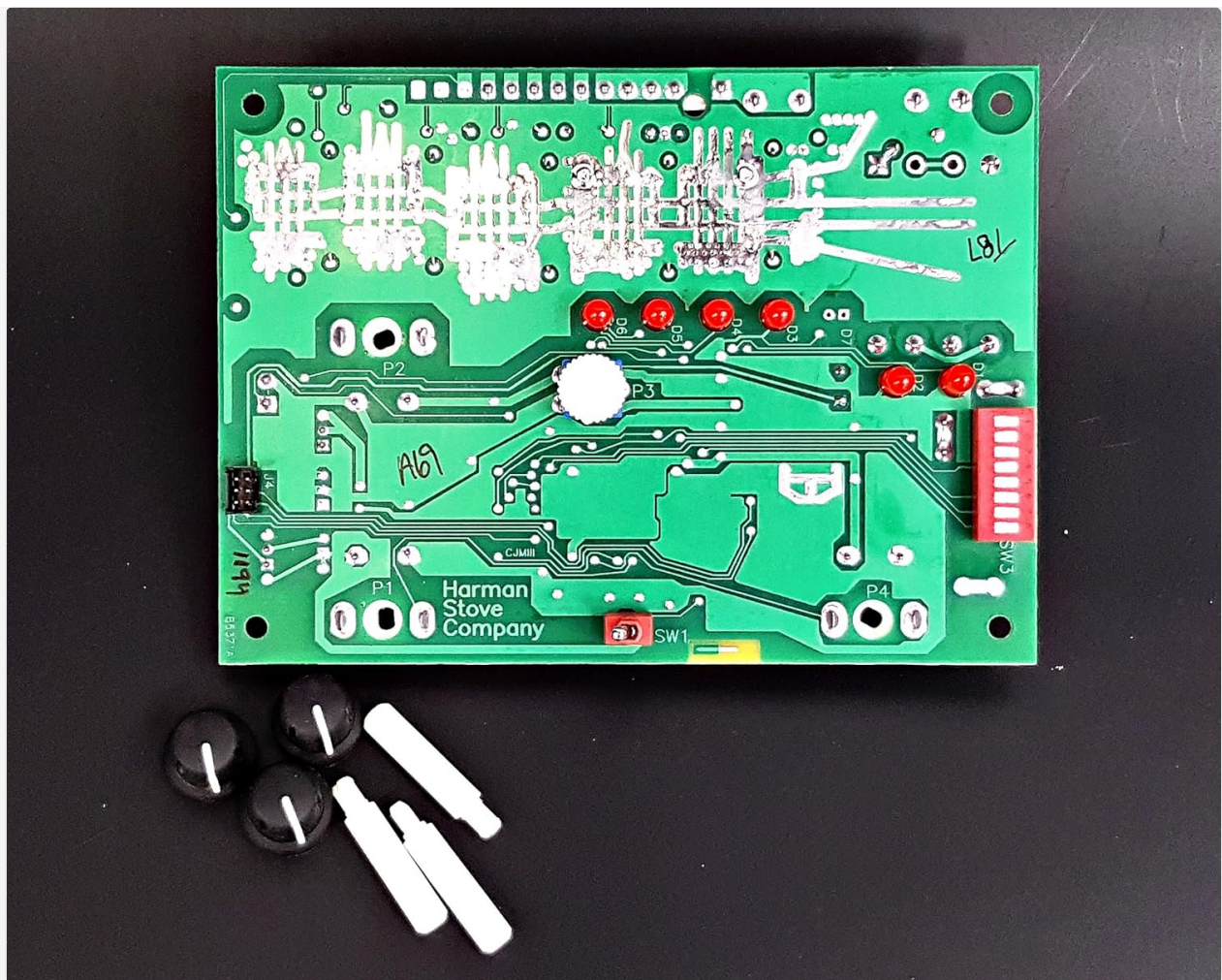


Figure 3: Rear view of the control board, illustrating the solder points and circuit traces. Note the SW3 DIP switch bank on the right side.

8. **Initial Settings:** Some control boards may have adjustable potentiometers (blue components in Figure 2) or DIP switches (red component labeled SW3 in Figure 3) for initial calibration or model-specific settings. Consult your stove's specific manual for correct settings for your PF100 or PF120 model.
9. **Replace Panel:** Once all connections are secure and settings are confirmed, replace any service panels removed earlier.
10. **Restore Power:** Restore power to the pellet stove by plugging it in or turning on the circuit breaker.
11. **Test Operation:** Follow your stove's normal startup procedure to ensure the new control board is functioning correctly.

OPERATING PRINCIPLES

The Harman PF100 & PF120 Control Board is the central processing unit for your pellet stove. It receives input from various sensors (e.g., temperature, vacuum) and user controls, then outputs signals to manage components such as the auger motor, combustion blower, convection blower, and igniter. It regulates fuel feed rate and air supply to maintain desired heat output and efficient combustion.

While the board itself does not have direct user controls beyond initial setup adjustments, its proper function is essential for the stove's automated operation, including startup, shutdown, and temperature regulation. Any changes to the stove's performance should first be addressed by consulting your stove's user manual for operational adjustments, and then by troubleshooting the control board if issues persist.

MAINTENANCE

The Harman PF100 & PF120 Control Board is designed for long-term reliability and typically requires minimal maintenance. However, adhering to general electronic component care can extend its lifespan:

- **Keep Dry:** Ensure the area around the control board remains dry and free from moisture, which can cause short circuits and corrosion.
- **Dust Removal:** Periodically, with power disconnected, gently remove any accumulated dust from the board using compressed air or a soft, dry brush. Avoid using liquids or abrasive materials.
- **Secure Connections:** During routine stove maintenance, visually inspect all wire connections to the control board to ensure they remain tight and free from corrosion.
- **Environmental Control:** Operate the stove within its specified environmental conditions to prevent extreme temperatures or humidity from affecting the board.

TROUBLESHOOTING

If your Harman PF100 or PF120 pellet stove experiences operational issues, the control board may be a contributing factor. Before assuming the board is faulty, ensure all other components and connections are in good working order.

Common Symptoms of a Potentially Faulty Control Board:

- Stove fails to ignite despite a working igniter.
- Auger motor does not feed pellets, or feeds erratically.
- Blowers (combustion or convection) do not operate, or operate at incorrect speeds.
- Inconsistent temperature regulation.
- Error codes displayed on the stove's control panel that point to a general system failure.
- No power to the stove's control panel, even with power supply confirmed.

Troubleshooting Steps:

1. **Verify Power:** Ensure the stove is receiving adequate power and the circuit breaker has not tripped.
2. **Check Connections:** With power disconnected, inspect all wire connections to the control board for looseness, corrosion, or damage.
3. **Inspect Fuses:** The control board may have onboard fuses (visible in Figure 2). With power disconnected, check these fuses for continuity using a multimeter. Replace any blown fuses with the correct type and rating.
4. **Sensor Check:** Ensure all sensors connected to the board (e.g., exhaust temperature sensor, vacuum switch) are clean, properly connected, and functioning according to your stove's service manual.
5. **Component Isolation:** If possible, test individual components (motors, igniter) directly to rule them out as the source of the problem.
6. **Professional Diagnosis:** If basic troubleshooting does not resolve the issue, it is recommended to consult a qualified Harman service technician for diagnosis and repair or replacement of the control board.

SPECIFICATIONS

Feature	Specification
Part Number	1-00-05888
Item Weight	12.3 ounces

Feature	Specification
Package Dimensions	7.28 x 5.47 x 3.74 inches
Compatibility	Harman PF100 & PF120 Pellet Stoves
Date First Available	March 22, 2018

WARRANTY AND SUPPORT

For specific warranty information regarding the Harman PF100 & PF120 Control Board (1-00-05888), please refer to the documentation provided at the time of purchase or contact the original seller or Harman customer support directly. Warranty terms typically cover manufacturing defects for a specified period.

For technical support, service, or to purchase genuine replacement parts, please contact an authorized Harman dealer or service center. Always provide your stove's model and serial number, along with the control board's part number (1-00-05888), when seeking assistance.

