

TEMPCO®

USER MANUAL

Installation & Operating Manual: TEC95040

Digital Wood Pellet BBQ Grill Controller



INTRODUCTION:

Thank you for purchasing Tempco's TEC95040 Digital Wood Pellet BBQ Grill Controller. The TEC95040 can be used as a replacement for the original control or as an upgrade for your existing control.

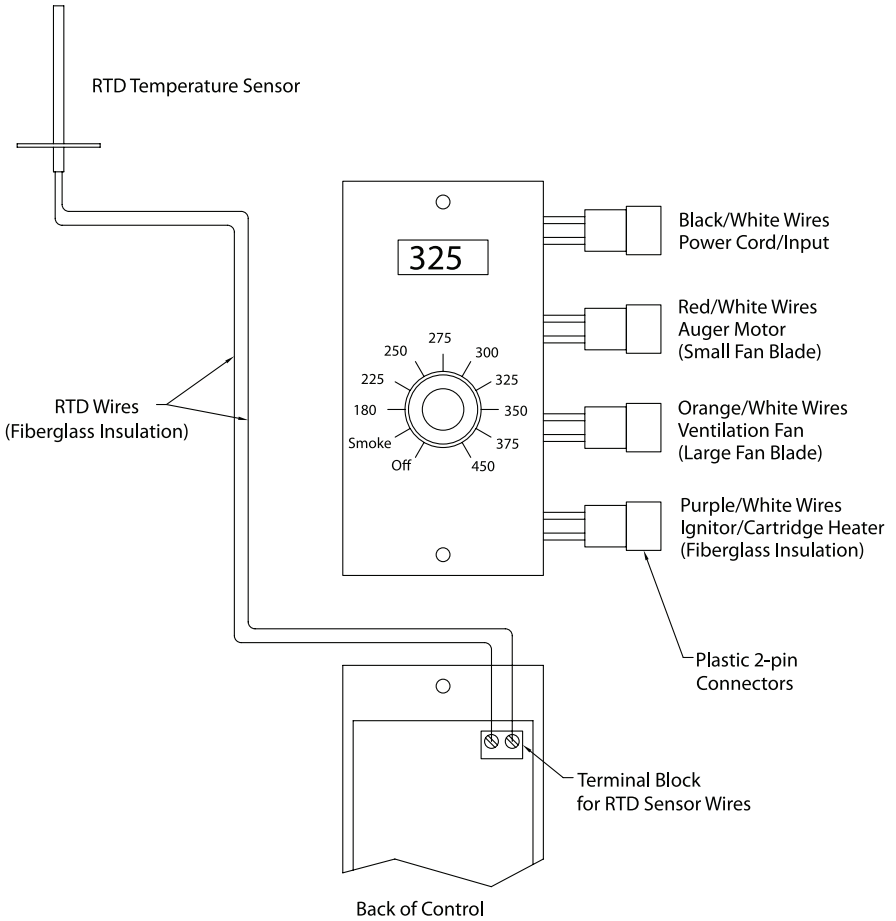
The TEC95040 is compatible with the following wood pellet grill companies:

- Traeger Company
- Royall
- BLAZ'N
- IPT Sink

DESIGN FEATURES:

- Temperature Display: Large 3 digit
- Temperature Setpoints: 9 setpoints 180° to 450°F
- Smoke Setting: Adjustable pellet feed rate
- Automatic pellet ignition cycle
- Power: 120VAC
- Fuse: 3A/250VAC, fast blow, 10mm long
- Spare fuse attached to fuseholder on PCB
- 2-pin connectors for:
 - Power Input
 - Output: Auger motor
 - Output: Ignitor/Cartridge heater
 - Output: Ventilation/Draft fan
- 2 Terminal, screw clamp wiring block for the RTD Temperature Sensor

General Wiring Diagram

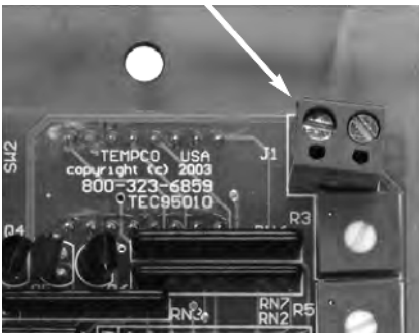


INSTALLATION:

WARNING: Verify that the controller's Selector Switch is turned to the **OFF** position and the line cord plug is disconnected from the outlet, before removing or installing the new Wood Pellet BBQ Grill Controller. When the dial is turned to the **OFF** position, High Voltage Electricity is still present on the control. Failure to heed this warning could result in bodily harm.

Removing the Current Controller

1. **Make sure the grill is unplugged from the outlet before proceeding.**
2. Gain access to the controller wiring harness below the pellet hopper. Sometimes, there is a protective panel below the hopper. Remove and set aside.
3. Disconnect all four 2-pin plastic electrical connectors by pulling them apart.
4. Remove the controller from the grill by unscrewing the two faceplate screws. Save the screws for mounting your new TEC95040 Controller.
5. Gently pull the control out of the panel cutout, being careful of the Printed Circuit Board and wiring harness.
6. If the existing controller is a digital model, the RTD temperature sensor wiring must be disconnected from the control board.

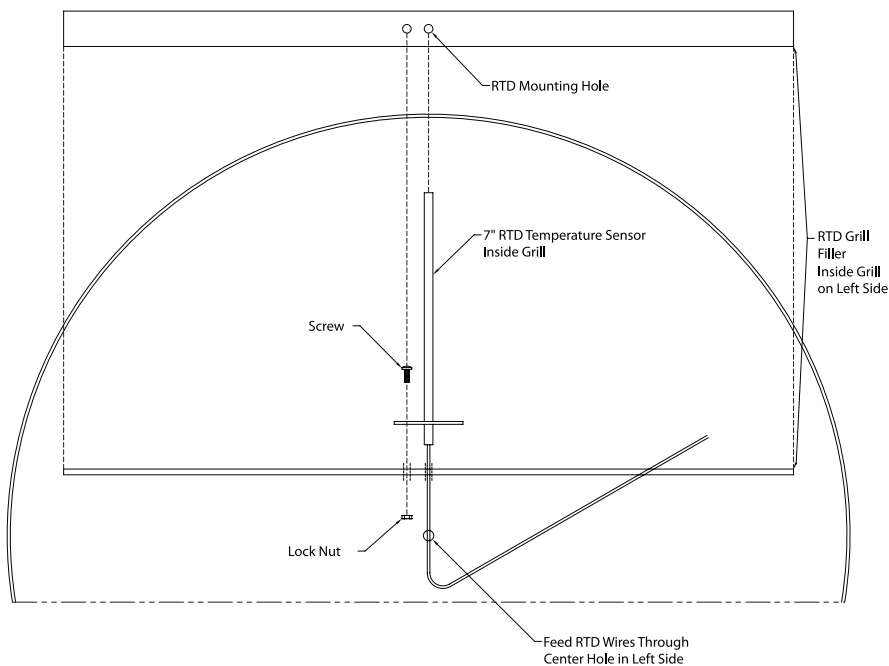


Using a very small flat blade screwdriver, remove the RTD Temperature Sensor wires from the terminal block at the upper right of the Printed Circuit Board.

Installing the RTD Temperature Sensor

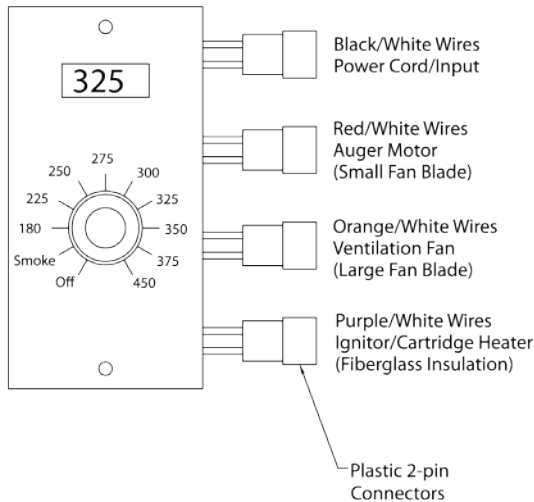
It is recommended when replacing an existing Digital Controller, the RTD (Resistive Temperature Detector) Temperature Sensor also be replaced to avoid further potential problems.

1. Open the grill cover and remove the Porcelain Grill and Drip Pan to provide access to the left side of the grill where the RTD Temp Sensor is located.
2. If the existing Temp Sensor is being replaced, remove the screw and nut and carefully pull out the sensor and wiring. Save the screw and nut.
3. For a new installation, locate the two pre-punched RTD Temperature Sensor mounting holes on the left side of the grill. Refer to the drawing.
4. Feed the wires carefully through the hole, followed by the sensor stem so it's standing upright.
5. Using an 8-32 or 10-32 x 1/2" screw and nut (not supplied), secure the sensor.
6. Run the sensor lead wires down between the pellet hopper and the grill and up and through the controller cutout.



Installing the TEC95040 Digital Wood Pellet BBQ Grill Controller

1. Turn the controller over and locate the 2-pin terminal block in the upper right, as shown in the photo.
2. Outside the control cutout, using a very small flat blade screwdriver, connect the RTD temp sensor wires. Polarity does not matter.
3. Feed the wire harness and connected RTD wires back through the panel cutout, being careful with the Printed Circuit board.
4. Using the previously saved mounting screws, secure the controller.
5. Working under the pellet hopper, plug in all four 2-pin wiring connectors as follows, refer to the wire diagram.



6. Re-install the access panel under the Pellet Hopper if it was removed. Replace the Porcelain Grill and Drip Pan.

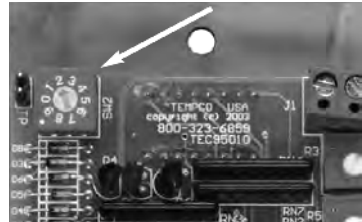
OPERATION:

1. Verify the Selector Switch is in the **OFF** position and plug the grill into a properly grounded electrical output.
2. Turn the Selector Switch to **Smoke** or any of the nine temperature settings.
3. The ventilation/draft fan and the auger pellet feed motor turns on.
4. The ignitor/cartridge heater will turn on to ignite the wood pellets in the fire pot. After four minutes, the ignitor/cartridge heater will turn off.
5. Set the Selector Switch to your cook temperature and enjoy.

Adjusting the Smoke Pellet Feed Rate

Sometimes due to environmental conditions or personal tastes, the **Smoke** pellet feed rate requires adjustment to raise or lower the temperature at the Smoke setting.

1. The small selector switch on the PCB adjusts the Smoke pellet feed rate.
2. The factory default is position 2. It is recommended that the setting not be set to over 5.



3. Smoke Selector Switch Setting for Pellet Feed Rate

Switch position 0: Auger on for 15 seconds, off for 45 seconds

Switch position 1: Auger on for 15 seconds, off for 55 seconds

Switch position 2: Auger on for 15 seconds, off for 65 seconds

Switch position 3: Auger on for 15 seconds, off for 75 seconds

Switch position 4: Auger on for 15 seconds, off for 85 seconds

Switch position 5: Auger on for 15 seconds, off for 95 seconds

4. **Be careful that the switch position selected feeds enough pellets, so that the fire does not go out.**

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