

Welcome –

To a new era in solid fuel heating. You have chosen to improve your household comfort and increase the efficiency of your heating dollars.

The Coal-trol Digital™ system has been specifically developed to improve the performance and convenience of your anthracite coal stove. A new type of digital thermostat and solid-state control module make this possible.

An investment of a small amount of time to review this manual will ensure proper performance of your Coal-Trol Digital™ system.

Introduction

This manual contains operating instructions for the Coal-trol Digital™ Model TS2 Thermostat when used with a model CM2 Control Module. This equipment has been factory supplied by your stove manufacturer.

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Coal-trol Digital Feature Overview

The Coal-trol Digital is a complete control system designed for automatically fed stoker stoves and furnaces utilizing anthracite fuel. The stove-mounted Control Module and the wall-mounted Coal-trol Thermostat work together to supervise all stove operations and typically maintain room temperature to within $\pm 1^{\circ}\text{F}$ of the desired setting.

The Control Module controls the coal feed rate, combustion blower fan, convection blower fan, and fire igniter accessory, when installed.

All connections to stove blowers, motors, and safety interlocks are done through standard 120VAC cord receptacles or plug connectors on some configurations.

The Coal-trol Thermostat may be located up to 100 ft. from the Control Module. Proper temperature control only requires that the heat generated by the stove be readily communicated to the thermostat.

Fuel feed is continuously adjusted to maintain room temperature as set on the Coal-trol thermostat. The convection blower is automatically started and speed adjusted according to amount of fuel fed into the stove.

Two temperature setbacks automatically change the temperature at prescribed times set by the user on a 24 hour time cycle.

A room high temperature limit shuts off the stove if feeder failure occurs.

Manual speed setting of the convection blower is provided for occasions when reduced fan noise is desired.

A fuel feed mode assists in starting a fire by feeding fuel for 10 minutes at a 100% rate.

All settings, except for time of day clock, are maintained during power loss without batteries.

Power loss ride-through allows the thermostat to continue stove operation if power is restored within 2 hours.

Test Mode sequences all motors and blowers to assist in installation and troubleshooting.

The Coal-trol Digital TS2 Thermostat features an LCD display, one LED indicator, and 3 pushbuttons for indication and control of all settings.

User initiated fire start and fire stop controlled from the Thermostat. (Additional hardware required).

Safety Information

Read and pay careful attention before proceeding!

ATTENTION - Please follow all manufacturers instructions that came with your stove or furnace. The Coal-Trol Digital is designed to complement and enhance the safe operation of your appliance. Specifically, the Coal-Trol Digital control system has been designed for use with appliances tested to ANSI Standard Designation: E1509-95, Standard Specification for Room Heaters, Pellet Fuel-Burning Type and/or UL1482, Room Heaters, Solid Fuel Type.

Use of the Coal-trol Digital™ on appliances not permanently marked with one of the above designations voids all warranties and may be unsafe. Contact us or your stove manufacturer if you are not sure that your stove/furnace is built in compliance with these safety standards.

WARNING - The Coal-trol Digital™ is capable of regulating a coal fire smaller than required to maintain proper chimney draft. Follow all manufacturers recommendations for minimum draft pressures and temperature. The use of mechanical means such as a draft inducer fan may be required to ensure proper draft at low fire. Installation of a carbon monoxide detector (not-included) is highly recommended.

***Please Keep reading...* Additional Safety Information:**

THIS PRODUCT HAS A GROUNDING TYPE PLUG AND REQUIRES A GROUNDING TYPE OUTLET. IF THE PLUG DOES NOT FIT, CONTACT A QUALIFIED ELECTRICIAN. DO NOT MODIFY THE PLUG IN ANY WAY.

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT CONNECT TO A CIRCUIT AT MORE THAN 150 VOLTS TO GROUND.

RISK OF ELECTRICAL SHOCK: THE CONTROL MODULE AND THERMOSTAT HAS NO SERVICEABLE PARTS INSIDE. SEE WARRANTY FOR SERVICE.

WARNING: BYPASS OF MECHANICAL VENT SPILLAGE SWITCH (FUME SWITCH) OR BONNET TEMPERATURE LIMIT, IF INSTALLED IS DANGEROUS. OPERATION MAY CAUSE SERIOUS INJURY OR DEATH, DUE TO CO POISONING OR FIRE.

FOR INDOOR USE ONLY.

For Service or Repair

Contact your dealer, or our company.

Phone: (315) 299-3589

Email: coaltrol@automationcorrect.com

Web: www.coaltroidigital.com

Coal-trol Digital™ Limited Warranty

THREE-YEAR WARRANTY - Automation Correct LLC (us) warrants TS2 Thermostat and Control Module to be free from defects in material and workmanship. If a defect is found within three years from the date of original installation of the product (whether or not actual use begins on that date) Automation Correct LLC will provide a new or remanufactured part, at our sole option, to replace any defective part, without charge for the part itself.

This warranty does not include labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts.

Warranty Conditions:

1. Warranties only apply to products in their original installation location.
2. Installation, use, care, and maintenance must be normal and in accordance with the instructions contained in the Operation Manual, Installation Manual and Automation Correct LLC's Service Information.
3. Defective parts must be returned to us or an authorized dealer for credit.
4. All work is performed during normal business hours.
5. This warranty applies only to residential use.

LIMITATIONS OF WARRANTIES - All implied warranties (including implied warranties of merchantability and fitness for a particular purpose) are hereby limited in duration to the period for which the LIMITED WARRANTY is given and applies. Some states do not allow limitations on how long an implied warranty lasts, so the above may not apply to you. The expressed warranties made in this warranty are exclusive and may not be altered, enlarged, or changed by any distributor, dealer, or other person whatsoever.

Automation Correct LLC will not be responsible for:

1. Damage or repairs as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
2. Failure to operate due to voltage conditions, blown fuses, open circuit breakers or other conditions beyond the control of Automation Correct LLC.
3. Parts not supplied or designated by us, or damages resulting from their use.
4. Automation Correct LLC products installed outside the 50 US states or Canada.
5. Cost of heating fuel of any kind whatsoever including electricity.
6. Any special indirect or consequential property or commercial damage of any nature whatsoever. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you also may have other rights, which vary from state to state.

Locating the Thermostat

The room temperature sensor is located in the Thermostat. For proper operation, the sensor must be exposed to the heat produced by the stove. The preferred mounting locations include: An inside wall, away from the direct air stream of the convection blower, and away from radiant heat produced by the stove. The Thermostat does not have to be within the same room as the stove if air readily circulates to the location of the Thermostat.

Connect the Motor Cords to the Control Module

On Coal-trol systems with plug cords, match the color coded power cords with the corresponding plug cords. On other models, identify the appliance motors and plug into the corresponding outlets on the Control Module. NOTE: A qualified HVAC Technician should be used to adapt the appliance to the control module. For more information see our website.

Connect Thermostat to Control Module

Connect the Thermostat cable to the THERMOSTAT connector on the Control Module and the Connector on the rear of the TS2 Thermostat. Push connectors in until you hear it click.

25 ft. Thermostat Cord



The provided 25 ft. cord may be extended up to 100 ft. with an eight pin, RJ45 to RJ45 coupler and/or standard computer network cable. The cable must be a 'through' type, not a crossover type. Note: The Coal-trol thermostat and Power Module cannot be connected to computer networks through this cable.

Power On/Off





Power to the Coal-trol system is controlled by the On/Off switch on the Control Module. When illuminated the control is on. Power to the thermostat is always on when the control module is plugged in and has power.

Operating Controls of the Thermostat

Purpose of the Buttons and Lights



Coal-trol Digital™ Model TS2 Thermostat

	<p>MENU button - Each press will display next OPERATION menu setting. Pressing and holding will enable access to SETUP and EXTENDED menu options.</p>
	<p>DOWN button - Each press will decrease a setting. Press and hold to decrease fast. Also used to enable a selected setting.</p>
	<p>UP button - Each press will increase a setting. Press and hold to increase fast. Also used to enable a selected setting.</p>
	<p>STATUS Light - When On indicates a startup, manual setting, or over temperature condition.</p>

