



## AutoJet AccuCoat HD15 In Line Heater Owner's Manual

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### AccuCoat HD15 In Line Heater Owner's Manual



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## PREFACE

### Important

The AccuCoat HD15 In-Line Heater and all components are produced, tested and checked at the factory. The system can be dangerous if used incorrectly. Read this manual carefully and read any safety instructions. Operators must always follow the general safety instructions in the working area and aim to prevent accidents. The manufacturer reserves the right to make changes in standard construction without prior notification. Images and diagrams in this manual may not be exact representations of your system configuration.

### HOW TO USE THIS MANUAL

This manual is intended to be a source of information for the operators and technicians who may be installing, interacting with, or servicing/maintaining Spraying Systems Co. systems and components. This manual contains important safety warnings, installation instructions, operating instructions, troubleshooting, and maintenance information. ® **ICONS**



**WARNING:** The user can be seriously injured, damage their health, and/or damage the system.



**CAUTION:** Product, process, or environment can be damaged or be in danger if the instructions are not followed correctly.



**ATTENTION:** Supplementary information for the user draws attention to possible problems.

## SAFETY

### GENERAL SAFETY INFORMATION

#### READ AND FOLLOW INSTRUCTIONS

All safety-related and operating instructions should be read before the system is operated. Follow all operating instructions.

#### SERVICING

Do not attempt to service this system unless you have been trained or authorized to conduct repairs. Only authorized and qualified service personnel should attempt to service this system. Service by unauthorized personnel will void any warranties.



**WARNING:** Before performing any maintenance, make sure all components are completely cool, electrical power is off, and any air/liquid pressure is bled from the system.

#### REPLACEMENT PARTS

This system has been designed with components that work together to provide the best system performance. When replacement parts are required, only Spraying Systems Co.

recommended components should be used to maintain proper system operation, electrical, and pneumatic safety. The use of any unauthorized replacement parts will void any warranties.

#### UNINTENDED USE

Use of Spraying Systems Co.

equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property. Examples of intended use of equipment would be:

- Using incompatible materials
- Making unauthorized modifications
- Removing or bypassing safety guards or interlocks
- Using incompatible or damaged parts
- Using unapproved auxiliary equipment
- Operating equipment in excess of maximum ratings

## **REGULATIONS AND APPROVALS**

Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Spraying Systems Co. equipment will be voided if instructions for installation, operation, and service are not followed. All phases of equipment installation must comply with federal, state, and local codes.

## **PERSONAL PROTECTIVE EQUIPMENT**

Spraying Systems Co. strongly recommends the use of appropriate safety equipment when working in potentially hazardous environments and chemicals. This safety equipment includes, but is not limited to, the following:

- Protective hat
- Safety glasses or face shield
- Chemical-resistant safety gloves and apron
- Long sleeve shirt and long pants

Users of this product should never place themselves in the path of the resulting spray. Users should consult and follow the recommendations of the Safety Data Sheet (SDS) of any chemical or fluid sprayed using this system.

## **PRESSURIZED SYSTEMS**

It is important to recognize proper safety precautions when using a pressurized spray system. When dealing with pressure applications, the system pressure should never exceed the lowest-rated component. Always know your system and all component capabilities, maximum pressures, and flow rates.



**WARNING:** Fluids under pressure can penetrate the skin and cause severe injury.



**ATTENTION:** Always remember to carefully read the chemical manufacturer's labels, and follow SDS, and all directions.

## **WARNING OF SHOCK HAZARD**

To reduce the risk of electric shock, do not open the cover on the electrical control panel. For service contact Spraying Systems Co.

at 1-866-321-2250.



**WARNING:** Plug panels into A GFCI outlet.



**WARNING:** To prevent injury, avoid contact with potentially hot parts. Components can cause severe burns. Do not aim the spray at any person or part of the body. Do not place any part of your body in the spray pattern.

## **CHEMICAL COMPONENTS**

The use of any chemicals requires careful control of all worker safety.

Spraying Systems Co.

does not manufacture or supply any of the chemical components used in this equipment and is not responsible for their effects. Because of the large number of chemicals that could be used and their different chemical reactions, the buyer and user of this equipment should determine the compatibility of the materials used and any of the potential hazards involved.

## **WATER AND MOISTURE**

The control panels are rated NEMA 4 unless otherwise specified. The rating is only with the door closed and properly locked. Being NEMA 4 rated, the control panels can withstand streams of water directed at them; however, we suggest avoiding spraying on the unit externally if possible.

### **UNPACKING THE SYSTEM**

components come carefully packaged to protect them from damage. Use caution when opening the crate. The crate will contain all parts needed to install the unit. Parts of the unit may be wrapped in bubble wrap. Remove all of the packaging material wrapping the system.



**CAUTION:** The packaging may contain exposed cables, hoses, or other components. Always exercise caution when opening boxes to avoid accidental damage or the slicing of various components. Once unpacked and removed from the crate, the system is ready for installation and connection.

## **ACCUCOAT HD15 OVERVIEW**

### **PRODUCT FEATURES**

The AccuCoat HD15 In-Line Heater is an add-on unit that can be paired with many of the Precision Spray Controllers offered by Spraying Systems Co. such as AutoJet Technologies 1750+ and 2150+ spray control panels to provide heat to your spray application. The HD15 comes available in a threaded version with push-tube fittings or a sanitary version with clamp-style connections. All wetted parts are constructed of 316 stainless steel and VITON® seals. The in-line construction allows heating to be achieved only on-demand for optimal response and energy efficiency. The heater is made with food contact materials to ensure food safety. It can be used with light oils, sugars, syrups or release agents to help achieve consistently, uniform coverage, minimize clogging problems, and ensure the proper volume of coating to the target. The system should not be used with fluids that solidify at room temperature.



**WARNING:** Do not enable heating without fluid in the system.

### **SYSTEM USAGE**

The HD15 heater can be used to feed the nozzle directly or use a liquid recirculating system through a nozzle or outlet bypass. The system is designed for optimum performance using the recirculation feature of the AutoJet SCS Series Pump System or Coating Supply Unit. This will ensure consistent temperatures and uniform spray. Heating capabilities are a factor of the heater, flow rate, and the properties of the fluid (specific heat Cp, density, inlet temperature, etc.).

### **RESPONSE LIGHT**

Light is illuminated when power is being provided to the heater. The temperature controller utilizes a PID control loop to control the heater. This means that during the course of operation the light (indicating power to the heater) will vary from fully on, blinking quickly, intermittent pulses, or off for a duration of time even when the system is heating.

## **SPECIFICATIONS**

### **CONTROL PANEL SPECIFICATIONS**

- The maximum temperature controller setting is 130°F (54°C).
- Power required 120 Vac/60 Hz., 1 ph., 15 A., 1.5 kW +/- manufacturer's tolerances, into a grounded GFCI outlet
- NEMA 4 stainless steel proof (Non-Ex).
- Power OFF/ON/START illuminated switch – When started, the switch will turn to ON and illuminate the control panel. (If power is interrupted, restart the system again.)
- Power cord – 9' 10" (3 m) length.
- Ambient temperature ratings for electric control panel: – 32°F Minimum (5°C)/103°F Maximum (40°C) – Liquid must not solidify at room temperature

## HEATING UNIT SPECIFICATIONS

- 1.5 kW heater with built-in K-type thermocouple.
- Helically grooved thermowell.
- Two RTD temperature sensors for process control and high limit.
- Watlow temperature controller that displays the current/setpoint temperature.

### HEATER CONTROL PANELS USED IN KITS:

Threaded – 04CHICP1K5301W0—120VAC/1Ph/60Hz, 15A – 04CHICP1K5301W5—230VAC/1Ph/50Hz, 8A  
Sanitary – 04CHIE115401W0—120VAC/Ph/60Hz, 15A – 4CHIE11K5401W5—230VAC/1Ph/50Hz, 8A

### STANDARD ENVIRONMENTAL SPECIFICATIONS:

- To be installed indoors.
- Max. humidity: 90%
- Not explosion proof (Non-Ex)
- NEMA 4
- Height above sea level: < 3,280 ft.

## CONSTRUCTION DETAILS

- **Liquid Connections:**
  - Threaded: Liquid inlet/outlet: 1/2" NPT
  - Sanitary: Liquid inlet/outlet: 3/4" Tri-Clamp sanitary connection
- **Dimensions:**
  - Width: 15" (381 mm)
  - Depth: 8" (203.2 mm)
  - Height: 20" (508 mm)
  - Weight: < 40 lb. (18.1 kg)

**Note:** An area of 24" (609.6 mm) around the unit should be kept free for maintenance purposes.

### OPERATING PARAMETERS

- Pressure: 100 psi (7 bar) Maximum capable.
- Flow Rate: 0.5 GPM (1.9 pm/min.) maximum suggested.

#### Heating Example 1:

Heating vegetable oil ( $C_p=0.40$  Btu/lb.  $^{\circ}\text{F}$  (1.67 KJ/Kg  $^{\circ}\text{K}$ )) without recirculation at a flow rate of 0.5 GPM (1.9 l/min.).

Temperature Increase: 50 $^{\circ}\text{F}$  (27.8 $^{\circ}\text{C}$ ) (Heating from 70 $^{\circ}\text{F}$  to 120 $^{\circ}\text{F}$  (21 $^{\circ}\text{C}$  to 49 $^{\circ}\text{C}$ ))

#### Heating Example 2:

Heating water ( $C_p=1.0$  Btu/lb $^{\circ}\text{F}$  (4.19 KJ/Kg  $^{\circ}\text{K}$ )) without recirculation at a flow rate of 0.25 GPM (0.95 l/min.).

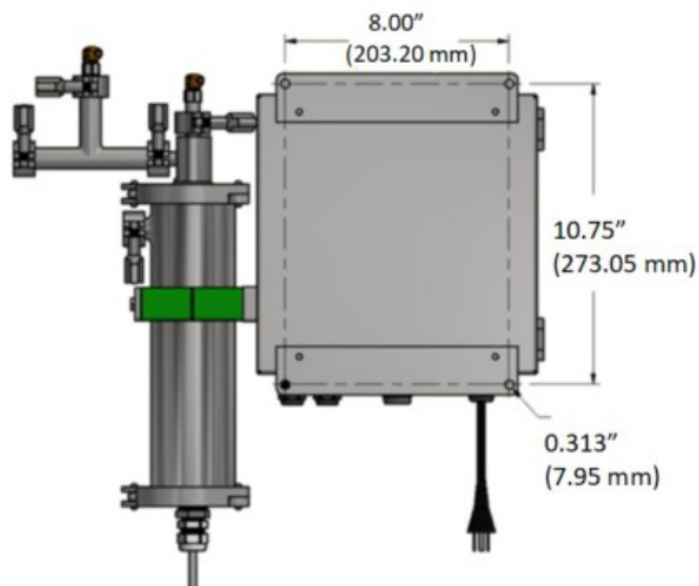
Temperature Increase: 35 $^{\circ}\text{F}$  (27.2 $^{\circ}\text{C}$ ) (Heating from 70 $^{\circ}\text{F}$  to 105 $^{\circ}\text{F}$  (21 $^{\circ}\text{C}$  to 41 $^{\circ}\text{C}$ ))

**Note:** Even though the flow rate is lower, the specific heat is significantly higher so the temperature increase is lower than in example 2.

## SYSTEM MOUNTING

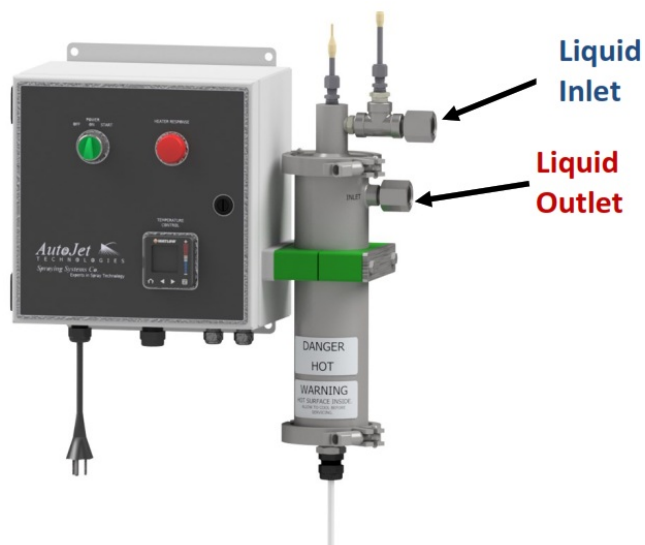
The HD15 In-Line Heater should be mounted in a convenient location near the spray application. A properly grounded power outlet must be easily accessible. Install wall anchors that are designed to support at least 50 lbs.

(22.68 kg) according to the anchor manufacturers' specifications.



### LIQUID CONNECTIONS

The liquid connections have stainless steel 1/2" NPT ports for both the inlet/outlet connections (or 3/4" inlet/outlet Tri-Clamp sanitary connection). Push connect fittings and tubing will be supplied separately with the system. The fluid supply connects to the HD15 inlet. The outlet connects to the spray nozzle (s) or liquid distribution manifold.



### SPRAY CONTROL PANEL OPTIONS

Spray control modules pair with the optional variable spray mount and provides the means to set operating parameters and control the functioning of the automatic spray nozzles. Autonet offers three updated panel models to choose from. The controllers are designed to run electric actuated spray nozzles. ®

| Features                      | Autonet 1000+                | Autonet 1750+                | Autonet 2150+            |
|-------------------------------|------------------------------|------------------------------|--------------------------|
| HMI Touch Screen              | 4.3"                         | 4.3"                         | 7"                       |
| Power Input                   | 110-240 VAC, 50/60, 1Ph., 3A | 110-240 VAC, 50/60 1 ph., 5A | 120 VAC, 50/60, 1Ph., 8A |
| Washdown Closure              | ✓                            | ✓                            | ✓                        |
| Recipes                       | ✓                            | ✓                            | ✓                        |
| Trigger Input                 | ✓                            |                              | ✓                        |
| Global Compatibility, multi-  | ✓                            | ✓                            | ✓                        |
| Stainless Steel Control Panel | ✓                            | ✓                            | ✓                        |
| Power On/Off Switch           | ✓                            | ✓                            | ✓                        |
| Level Switch                  | ✓                            | ✓                            | ✓                        |
| Dual Channel                  | ✓                            | ✗                            | ✓                        |
| HMI Wi-Fi Access              | ✗                            | ✓                            | ✓                        |
| 2300 Series Controls          | ✗                            | ✓                            | ✓                        |
| Precision Spray Control       | ✗                            | ✓                            | ✓                        |
| Encoder Input                 | ✗                            | ✗                            | ✓                        |
| Flow Monitoring               | ✗                            | ✗                            | ✓                        |
| Pressure Input Sensor         | ✗                            | ✗                            | ✓                        |
| Flow Monitoring               | ✗                            | ✗                            | ✓                        |
| Ethernet IP                   | ✗                            | ✗                            | ✓                        |
| High Capacity                 | ✗                            | ✗                            | ✓                        |

**Note:** Controllers are not included with this system package. These are suggested controllers to use with this AutoJet® InLine Heater.

## SYSTEM START-UP AND OPERATION

For optimum performance, a recirculating system is required, such as that of the AutoJet ® SCS Series Pump System or Coating Supply Unit. This will result in a more consistent temperature and flow rate which will produce more consistent spray patterns. While it is suggested to use a recirculating system, the AccuCoat HD15 In-Line Heater can also be used to feed the nozzle directly. This works best for applications that have a consistent, continuous spray with minimal interruptions.

### SYSTEM OPERATION

#### OPERATION WITH A RECIRCULATING SYSTEM

Once the fluid is recirculating and the system has reached the desired temperature, use the system as normal. Follow the spray controller manual for adjusting and controlling all aspects of the application aside from heating. It is suggested that should the system need to be turned off for any duration of time, the heater should be powered

off then the fluid should continue to be recirculated for several minutes. This will dissipate the heat that the mass of the heater assembly contains, preventing the temperature of the stationary fluid inside the heater assembly from climbing above the desired setpoint. This is especially important for fluids that may break down or become damaged at higher temperatures.



**CAUTION:** The heater should never be enabled when the system does not contain fluid.

#### **OPERATION WHEN FEEDING THE NOZZLE DIRECTLY**

Once the system has reached the desired temperature, use the AccuCoat HD15 In-Line Heater as normal. Follow the spray controller manual for adjusting and controlling all aspects of the spray application aside from heating. During the course of any spray operation, it is common for there to be short periods when the system is not being used to spray. When feeding the nozzle directly without recirculation, it is normal that the temperature of the stationary fluid inside the heater assembly to rise above the setpoint. However, once spray resumes the temperature will quickly return to normal. It is suggested that should the system need to be turned off for any duration of time, the heater should be powered off, and then the fluid should continue to pass through the system for several minutes. This will dissipate the heat that the mass of the heater assembly contains, preventing the temperature of the stationary fluid inside the heater assembly from climbing above the desired setpoint. This is especially important for fluids that may break down or become damaged at higher temperatures. Once the system has reached the desired temperature, use the AccuCoat HD15 In-Line Heater as normal. Follow the spray controller manual for adjusting and controlling all aspects of the spray application aside from heating. During the course of any spray operation, it is common for there to be short periods when the system is not being used to spray. When feeding the nozzle directly without recirculation, it is normal that the temperature of the stationary fluid inside the heater assembly rise above the setpoint. However, once the spray resumes the temperature will quickly return to normal. It is suggested that should the system need to be turned off for any duration of time, the heater should be powered off, and then the fluid should continue to pass through the system for several minutes. This will dissipate the heat that the mass of the heater assembly contains, preventing the temperature of the stationary fluid inside the heater assembly from climbing above the desired setpoint. This is especially important for fluids that may break down or become damaged at higher temperatures.

#### **SYSTEM START-UP**

Before starting the system, make sure all fluid and electrical connections have been made and are secure.

#### **START-UP WITH A RECIRCULATING SYSTEM**

1. To begin using the system, power up the HD15 In-Line Heater by turning the green “POWER OFF/ON/START” switch to “START.”
2. The switch will turn “ON” and become illuminated.
3. Prime and begin recirculating fluid through the system per the instruction manual of the spray controller (AutoJet SCS Series Pump System or Coating Supply Unit).
4. Adjust the temperature setpoint to the desired value.
5. The system utilizes a ramping function to minimize severe over-shooting of the temperature setpoint. Every time the system is powered on or the temperature setpoint changes, a controlled ramp rate from the current temperature to the temperature setpoint takes place. This allows the system to achieve its temperature in a steady manner.



***Spraying Systems Co.***<sup>®</sup>  
Experts in Spray Technology

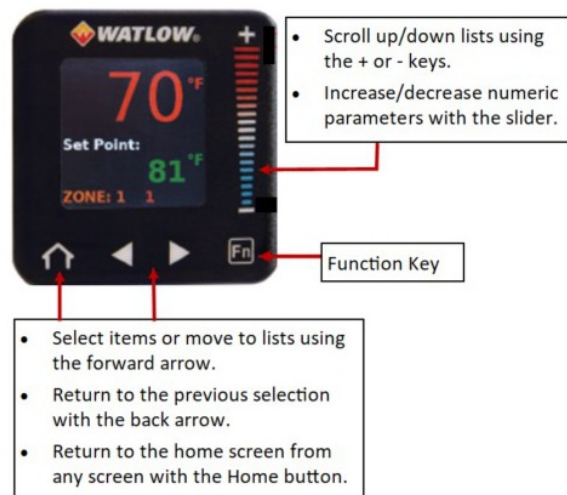
1. During the ramp cycle, the temperature controller will alternate the display between the normal state and the ramping notification. The ramping notification displays “Attn” in the lower display and “rP1” in the upper display (“Attention; Ramping”).
2. The indicator will become illuminated when power is provided to the heater. The temperature controller utilizes



- a PID control loop to control the heater. This means that during the course of operation the light (indicating power to the heater) will vary from fully on, blinking quickly, intermittent pulses, or even off for a duration of time even when the system is heating.
3. Depending on the fluid being heated and the flow rate, it may take several minutes for the displayed current temperature to begin to rise.
  4. Once the system has reached the desired temperature, the system is ready to spray.

### USING THE WATLOW CONTROL PANEL

The HD15 Heater utilizes an EZ-Zone\ series Watlow temperature controller. The figure below shows the key buttons and displays of the controller. For ore detail, reference the complete manual for the Watlow Temperature Controller.



### MOUNTING TO PANEL

1. Make the panel cutout using the measurements in figure 1.
2. Remove the green terminal connectors and the mounting collar assembly.
3. Insert the controller into the panel cutout from the front.
4. Orient the collar base so the flat side faces the front and the screw openings are on the sides (see figure 2), then slide the base over the back of the controller.
5. Slide the mounting bracket over the controller with the screws aligned to the collar base. Push the bracket gently but firmly until the hooks snap into the slots in the case.
6. Tighten the two #6-19 x 1.5" screws with a Phillips screwdriver until the device is flush to the panel (3 to 4" lbs. torque).
7. Reinstall the terminal connectors to their original locations. (Or first, connect field wiring as indicated in this guide and then reinstall the connectors).



Figure 1



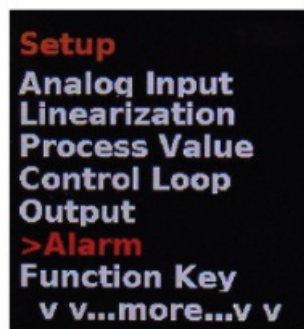
Figure 2

## SET UP ALARM TYPES/SIDES

### Alarm Types:

- process: alarm set points are set directly
- deviation: alarm set points are relative to the control loop's set point.
- Off: no alarm occurs

### Alarm Sides:



### Alarm Types

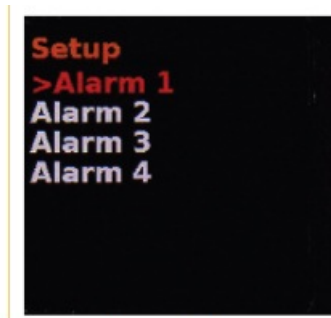
Alarm sides allow you to set a high alarm, a low alarm, or both.

- high: alarm when the process is above the high alarm set point.
- low: alarm when the process is below the low alarm set point.
- both: high and low alarms are active.

## SETTING UP ALARM TYPE

1. From Home, tap the forward arrow to go to Operations, then scroll to and select Setup.
2. Scroll to and select Alarm.
3. Scroll to and select Alarm 1, 2, 3, or 4.
4. Scroll to and select Alarm Type.
5. Scroll to and select the type: process, deviation, or off

## SETTING UP ALARM TYPE



Alarm Sides

1. From Home, tap the forward arrow to go to Operations, then scroll to and select Setup.
2. Scroll to and select Alarm.
3. Scroll to and select Alarm 1, 2, 3, or 4.
4. Scroll to and select Alarm Type.
5. Scroll to and select the type: process, deviation, or off

### SETTING UP ALARM SIDES

1. Use the back arrow to return to Alarm 1, 2, 3, or 4.
2. Scroll to and select Alarm Sides.
3. Scroll to and select the desired sides option: high, low, or both.
4. Use the back arrow to return to the Alarm list.
5. Scroll to the Alarm High Set Point or Alarm Low Set Point, as necessary for your side selection.

#### -Repeat steps for remaining alarms

- During normal operation, the temperature controller will display the current temperature in the Upper Display and the current temperature setpoint in the lower display. Use the Up and Down Arrows to adjust the temperature setpoint.

### RAMPING

- The system utilizes a ramping function to minimize over-shooting the temperature setpoint. Every time the system is powered on or the temperature setpoint is changed, a controlled ramp rate from the current temperature to the temperature setpoint takes place. This allows the system to achieve its temperature in a steady manner.
- During the ramp cycle, the temperature controller will alternate the display between the normal state and the ramping notification. The ramping notification displays “Attn” in the lower display and “rP1” in the upper display (“Attention; Ramping”).
- The temperature controller accomplishes the ramping cycle by setting an “internal setpoint” that takes precedence over the main setpoint when ramping. At the start of the ramp cycle, the “internal setpoint” is then set equal to the current temperature and increased by 1°F every 15 seconds (4°F per minute) until the “internal setpoint” is equal to the actual setpoint. Please note that though the ramping cycle has been completed, it still may take a few moments for the fluid to reach the setpoint.

- Press the “RIGHT ARROW” to display the Operations menu. Press the “LEFT ARROW” at any time to return to the main display
- Use the numeric slide or the +/- keys to toggle between menu items
- Use RIGHT ARROW to select the menu item
- Press the HOME button at any time to return to the Home screen.

- Press the “FN Button” to effectively pause the heating operation. Press the “FN Button” again to resume normal operation.

– This heater pause is achieved by changing the control mode to Manual and locking the heater output at 0%. This can be seen by cycling to the heater power display as described above.

**AUTOTUNE**—The temperature controller has been enabled with an Autotune function.

The Autotune function is an automatic sequence that optimizes the heating PID parameters to the specific system and fluid. During this sequence, the controller learns how the system reacts and adjusts the control loop to result in a better heater response.



- The system response is dependent on many things. Including:
  - Fluid type
  - Flow rate
  - Ambient temperature
  - overall system configuration.
- Before enabling the Autotune sequence, make sure the system is operating as it normally would during the spray application.


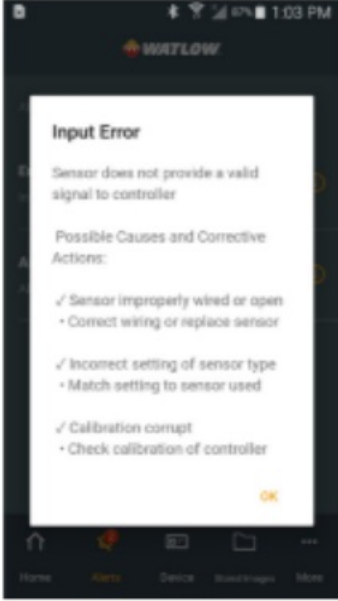
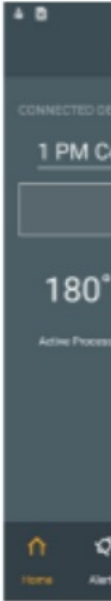
**Note:** If the fluid being heated is extremely temperature sensitive, before enabling the Autotune sequence it is suggested to lower the temperature setpoint below the maximum fluid temperature.


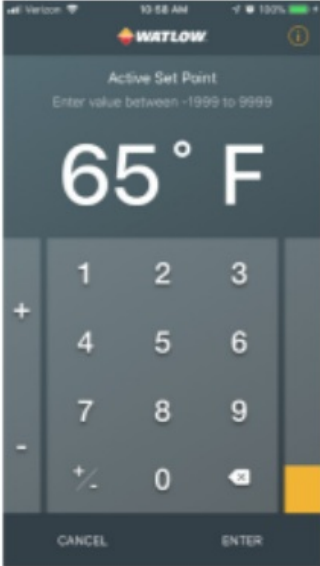
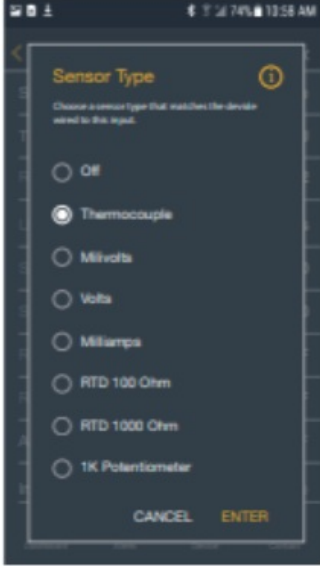
- During the Autotune sequence, the temperature controller will intentionally overshoot the temperature setpoint and then drop below the setpoint. This may happen several times.
- During the Autotune sequence, the display will flash **Attn** and **tUn I**. Once the Autotune is completed, the display will return to its normal state.
- Allow the controller to complete the full Autotune sequence before adjusting the temperature or turning off the controller.



Watlow's EZ-LINK™ mobile app allows users to easily set up and monitor Watlow® PM PLUS™ and EZ-ZONE® PM controllers via Bluetooth® wireless technology. The app is available free of charge from the app stores for phones and tablets and provides access to the controller's parameters with fully spelled out names in plain text with help topics that explain each parameter and option. The EZ-LINK mobile app provides many other benefits to

the user including password protection, alarm and error indicators, connection to Watlow for feedback and support and accessing device information such as firmware version, part number, and serial number.

|   |  |   |
|---|--|---|
|  |  |  |
| Provides access to controller's home page parameters                              | Decodes alarms, errors and messages  | Save ar   |

|  |  |  |
|--|--|--|
|  |  |  |
| Readable text for easy setup   | Easy operation   | Help with each parameter   |

**TROUBLESHOOTING**

If these troubleshooting steps are followed and the system still does not function please contact your local Sales Engineer by calling 1-800-95-SPRAY (1-800-957-7729) or call corporate support toll-free at 1-866-321-2250.

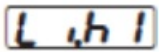
1. **THE CONTROLLER WILL NOT POWER UP – THE MAIN POWER INDICATOR SWITCH DOES NOT ILLUMINATE.**
- a. Check to ensure the power cord is plugged into the controller and power outlet and the power switch has been turned to “START” and is in the “on” position.

b. Check the fuse on the internal power rail. To do this follow these steps:

- Unplug the system.
- Check the panel for any loose wires.
- Locate the 2 Amp MDA fuse holder on the top rail on the left-hand side and lift up on the tab on the top of the fuse holder exposing the fuse.
- Due to the type of fuse used, have a qualified electrical technician test the fuse and replace if necessary (see spare parts list).
- Replace the faceplate to its original position.

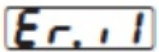
## **2. THE CONTROLLER POWERS UP, YET THE HEAT DOES NOT TURN ON – THE HEATER RESPONSE INDICATOR DOES NOT ILLUMINATE/FLASH.**

- a. Check to ensure the power cord is plugged into the controller and power outlet. Turn the power switch to “START” and the “ON” position, and is illuminated.
- b. Check temperature controller for error messages. The most common error codes are listed below, see the temperature controller manual for details.



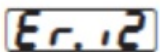
**The high limit has been tripped.**

1. Allow the system to cool.
2. Ensure fluid is present in the system
3. Press the blue reset key on the temperature controller.
4. If the system continues to trip the high limit, contact your local Sales Engineer by calling 1-800-95-SPRAY (1-800-957-7729).



**– Error, Input 1. Process temperature RTD.**

1. Unplug the system.
2. Check the panel for any loose wires (See electrical drawings for RTD connections).



**– Error, Input 2. High Limit temperature thermocouple.**

1. Unplug the system.
2. Check the panel for any loose wires (See electrical drawings for thermocouple connections).

## **THE CONTROLLER POWERS UP, HEATER RESPONSE INDICATOR ILLUMINATES, YET THE SYSTEM DOES NOT HEAT.**

Check to ensure the power cord is plugged into the controller and the power outlet and power switch have been turned to “START”, are in the “ON” position, and are illuminated. Check the fuse on the internal power rail. To do this follow these steps:

1. Unplug the system.
2. Check the panel for any loose wires.
3. Locate the 15 Amp Class CC fuse holder on the top rail on the left-hand side and lift up on the tab on the top of the fuse holder exposing the fuse.

4. Test the fuse and replace if necessary (see spare parts list).
5. Replace the faceplate with its original position.

## REFERENCE MATERIALS

### DRAWINGS

|                       |                                      |
|-----------------------|--------------------------------------|
| 04CHICP1K5301W0       | HD15 Main Assembly (Threaded)        |
| 04CHICP1K5301W0_SU01  | HD15 Control Box (Threaded)          |
| 04CHICP1K5301W0_SU01E | HD15 Electrical Drawing (Threaded)   |
| 04CHICP1K5301W0_SU02  | HD15 Heater Unit Assembly (Threaded) |
| 04CHIE11K5401W0       | HD15 Main Assembly (Sanitary)        |
| 04CHIE11K5401W0_SU01  | HD15 Control Box (Sanitary)          |
| 04CHIE11K5401W0_SU01E | HD15 Electrical Drawing (Sanitary)   |
| 04CHIE11K5401W0_SU02  | HD15 Heater Unit Assembly (Sanitary) |

### MANUALS

Please reference your Spray Controller Manual

**IA00PM6C1CHALCJ:** Temperature Controller Manual

## SUGGESTED SYSTEM MAINTENANCE

**Note:** Any long-term shut-down requires that all liquid lines, liquid components, pumps, spray nozzles be flushed and cleaned thoroughly.

|           | Monthly Maintenance   |
|-----------|---|
| Pneumatic | Check all pneumatic connections for leaks and tighten them.   |
| Liquid    | Check all liquid connections for leaks and repair.<br>Check all tubes and/or hoses for leaks and repair.<br>Check liquid components for leaks and repair. |
| Electric  | Check the control panel for loose or corroded wires.  |

## SPARE PARTS LIST

### THREADED—04CHICP1K5301W0

| Part Number                     | Description   |
|---------------------------------|---|
| FU0071385K517                   | Fuse, 2 Amp MDA Style                                 |
| FU00LPCC15                      | Fuse, 15 Amp Class CC                                 |
| IA00PM6C1CHALCJ                 | Temperature Controller                                |
| FRMM5044K17                     | 3" Tri-Clamp Gasket                                   |
| CL004322K155                    | 3" Tri-Clamp Clamp                                    |
| HT00EM75975                     | 1.5 kW Heater   |
| OR005577K144                    | O-Ring  |
| TE00R1T185L483 + PL00SSLK14-14  | 4.125" RTD Temperature Sensor and Compression fitting |
| TE00R1T18500515 + PL00SSLK14-14 | 5" RTD Temperature Sensor and Compression fitting     |

**Please contact your local Spraying Systems Co.® sales office to purchase replacement parts.**

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**Documents / Resources**





[AutoJet AccuCoat HD15 In Line Heater](#) [pdf] Owner's Manual  
AccuCoat HD15, In Line Heater, AccuCoat HD15 In Line Heater, Heater

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