

HTPG *Surveillant* Demand Defrost Evaporator Control Overview

Accessing the web page of a Surveillant Demand Defrost Evaporator Control reveals a great deal of information about the system performance, setpoints and allows for quick adjustments. While this information is also available using the user interface of the controller, when networked, the controller's information can be accessed, reviewed, and changed from anywhere there is network access.

Surveillant Demand Defrost Evaporator Control

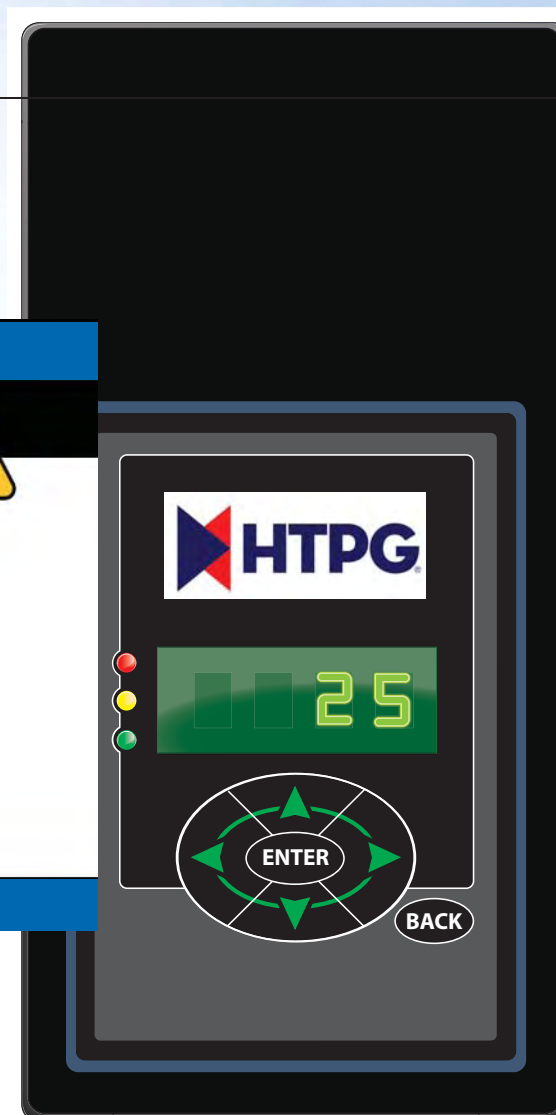
IP Address: 10.1.0.40 Location: (Set Location)
 MAC Address: 00:04:A3:77:2A:A3

System Mode: Defrost Room Temp: -7.8 F Coil Temp: -19.6 F Compressor Relay Off Evaporator Fan Relay On Aux Relay Relay Off All Clear

Defrost Relay Off Door Sw Closed Dgt Input2 Disabled Dgt Input3 Disabled T4 Coil Temp -19.7 F

Superheat 8.3 F Suction Press 9.3 psig T1 Suction Temp -22.5 F Saturation Temp -30.8 F Valve Position 0.0 %

Home Page Settings Network Setpoints Graphs Active users 1



Home Page

What the screen shows: Displays real time system information, and shows the interaction of multiple system conditions
This screen looks at the system conditions, and can help with diagnostics, system performance, or just offer peace of mind that the system is running properly.

For each parameter:
First line is function
Second line is the current system performance

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Home Page Settings Network Setpoints Graphs Active users 1					

System alarms and messages are displayed.

See page 3

See page 5

See page 6

See page 7

Displays number of users currently viewing this specific controller's webpage.

Settings

What the screen shows: The Settings page contains controller configuration for email and web access. It also allows installers to customize the MasterView with their company information. The Settings page includes the buttons to update the controller, reset power to the controller, send a test e-mail, clear data collected, and clear alarms. If the optional Data key was purchased, it is activated on this screen.

The screenshot displays the 'Settings' page for a 'Surveillant Demand Defrost Evaporator Control'. The page is divided into several sections: 'Alert Notifications', 'Dynamic DNS', 'Location Settings', 'Log Key Activation', 'Firmware', 'Controller', 'Logs', and 'Alarms'. A navigation bar at the bottom includes 'Home Page', 'Settings', 'Network', 'Setpoints', 'Save', and 'Login'. Callout lines with red and blue dots point to specific elements, providing detailed instructions and warnings.

Annotations:

- Customer information is displayed (points to IP Address: 10.1.0.40, MAC Address: 00:04:A3:77:2A:A3)
- Customer may input their company information (points to Business Name: KE2 Therm Solutions, Phone Number: (888) 337 3358)
- User defines controller location for future access and alarm notifications (points to Location: (Set Location))
- For help in setting up an email account see bulletin Q.5.3 Establishing Gmail. (points to Alert Notifications section)
- Use to verify proper email configuration. (points to Test Email button)
- Used for installations where only dynamic IP addresses are available. Should only be used on applications of 2 controllers or less. Provides a domain name to a dynamic IP address i.e. XYZ123.dyndns.org. (points to Dynamic DNS section)
- Basic (Port 25) Advanced (Port 465) (points to dropdown menu)
- Clicking Activate starts the data logging key. (points to Activate button)
- Unlocks 30 days of operation history of 17 variables. See Q.5.13. (points to Log Key Activation section)
- Required to make changes to Settings page. See page 4. (points to Login button)
- Update firmware. Refer to Q.5.6 KE2 Bootloader Guide. (points to Bootloader button)
- Remotely reboots the controller. (points to Reset button)
- Removes all data stored by controller. Do not use unless instructed to by KE2 Therm. (points to Clear button in Logs section)
- Resets controller's alarms and alarm conditions for 60 minutes. (points to Clear button in Alarms section)

Login

What the screen shows: The Login feature prevents unauthorized access to the controller.

The user must enter the password to make changes to the Settings page, Network page, and Setpoints page.

Surveillant Demand Defrost Evaporator Control

IP Address: 10.1.0.81 Location: Washington, Mo

MAC Address: 00:04:A3:14:E0:F5

Password

Home Page Settings Network Setpoints Submit

• 2222 is the password which allows the user to make changes to the Settings page, Newtwork page and Setpoints page.

Network Setup

What the screen shows: Enables the user to Bond the KE2 Evap for multiple evaporator applications, and provides setup for adding controllers to an existing network.

IP Address may be changed to match the onsite network. Typically the subnet mask, gateway and primary DNS should also be changed. (Reset is required to "set" the IP.

Network settings may be changed to match customer's environment.

Discover finds all of the KE2 Evap controllers located on the network. The information then populates the appropriate spaces on the page.

Once discovered, Bond creates a link between controllers that coordinates the refrigeration and defrost cycles. When bonding, user should review Multi-evap Setpoints.

Select the controllers the user wants to bond. Group 1 = will be bonded blank = not bonded

Clears all fields

Saves bonded grouping. Controllers must be Grouped before they are bonded.

Prevents unauthorized access to the controller. User must enter password to make changes to the Network Setup page.

! Network information may only be changed while the controller is not bonded.

Setpoints

What the screen shows: Allows the user to setup the controller, and to customize the controller to meet specific application needs. The three primary setpoints – Room Temp, Defrost Type and Valve Type are in the gold boxes. Only these three are necessary for the controller to begin normal operation.

IN YELLOW: Three setpoints needed for the controller to begin system operation.

Electric
Air
Hot Gas - Comp On
Hot Gas - Comp Off

The screenshot displays the 'Surveillant Demand Defrost Evaporator Control' interface. At the top, it shows the IP Address (10.1.0.40) and MAC Address (00:04:A3:77:2A:A3). The interface is divided into several sections:

- Refrigeration:** Includes Room Temp (set to -10.0 F), Refrigerant (R-404A), Min Comp Runtime (2 min), Min Comp Offtime (5 min), Air Temp Diff (1.0 F), 2nd Room Temp (-50.0 F), Aux Temp 1 (T1 Suction Temp), Aux Temp 4 (T4 Coil Temp), Refrig Fan Mode (On w/Compr), DAC Fan (0.0%), Temp Units (Fahrenheit), and Multi Air Temp Ctrl (Warmest Air).
- Expansion Valve:** Includes Valve Type (KE2), Superheat (8.0 F), Max Oper Press (150.0 psi), Motor Step Rate (200), and Max Valve Steps (1300).
- Defrost:** Includes Defrost Type (Electric), Defrost Term Temp (50.0 F), Defrost Parameter, Drain Time (2 min), Fan Delay Temp (20.0 F), Max Fan Delay Time (2 min), Defrost Fan State (Off), Defrost Mode (Demand), Electric Defrost Mode (Pulse), Defrost Per Day, Defrost Pmp Dwn Time (0 min), First Defrost Delay, and Comp Run Time.
- Bonded Controllers:** Includes Multi Evap Cool (Synchronized), Multi Evap Defrost (Synchronized), and Multi Evap Sensor (Shared).
- Digital Inputs:** Includes Dig In 1 Mode (Door Switch), Dig In 1 State (Closed), Dig In 2 Mode (Disabled), Dig In 2 State (Closed), and Dig In 3 Mode (Disabled), Dig In 3 State (Closed).
- Sensor Offsets:** Includes Air Temp Offset (0.0 F), Coil Temp Offset (0.0 F), Suct Pressure Offset (0.0 psi), Suct Temp Offset (0.0 F), and Aux Temp Offset (0.0 F).
- PID:** Includes Proportional, Integral, and Derivative settings.
- Alarms:** Includes Hi Temp Alarm Offset (10.0 F), Hi Temp Alarm Delay (60 min), Low Temp Alarm Offset (4.0 F), Low Temp Alarm Delay (10 min), and Door Alarm Delay (30 min).
- Manual Control:** Includes Current Mode (Defrost) and a Go To button (Drain).

Navigation buttons at the bottom include Home Page, Settings, Network, Setpoints, Graphs, Restore, and Login.

- R-404A
- R-507
- R-407A
- R-407C
- R-422A
- R-422D
- R-134a
- R-22
- R-717
- R-438A
- R-408A
- R-409A
- R-407F
- R-410A
- R-744

- Managed
- Permanent
- On w/Compressor
- Fahrenheit
- Celsius
- Warmest Air
- Average Air

- Mechanical (default)
- KE2
- SER/SEI 1- 20
- SER B - L
- SEI30
- SEI50
- SEH
- ETS 12 - 50
- ETS 100
- ETS 250/400
- Carel
- Custom

- Disabled
- 2nd Temp
- Door Switch
- Ext Alarm
- Defrost Interlock*
- Defrost Lockout*
- Syst Off
- Light Switch**
- * DI 2 & 3 only
- ** DI 3 only

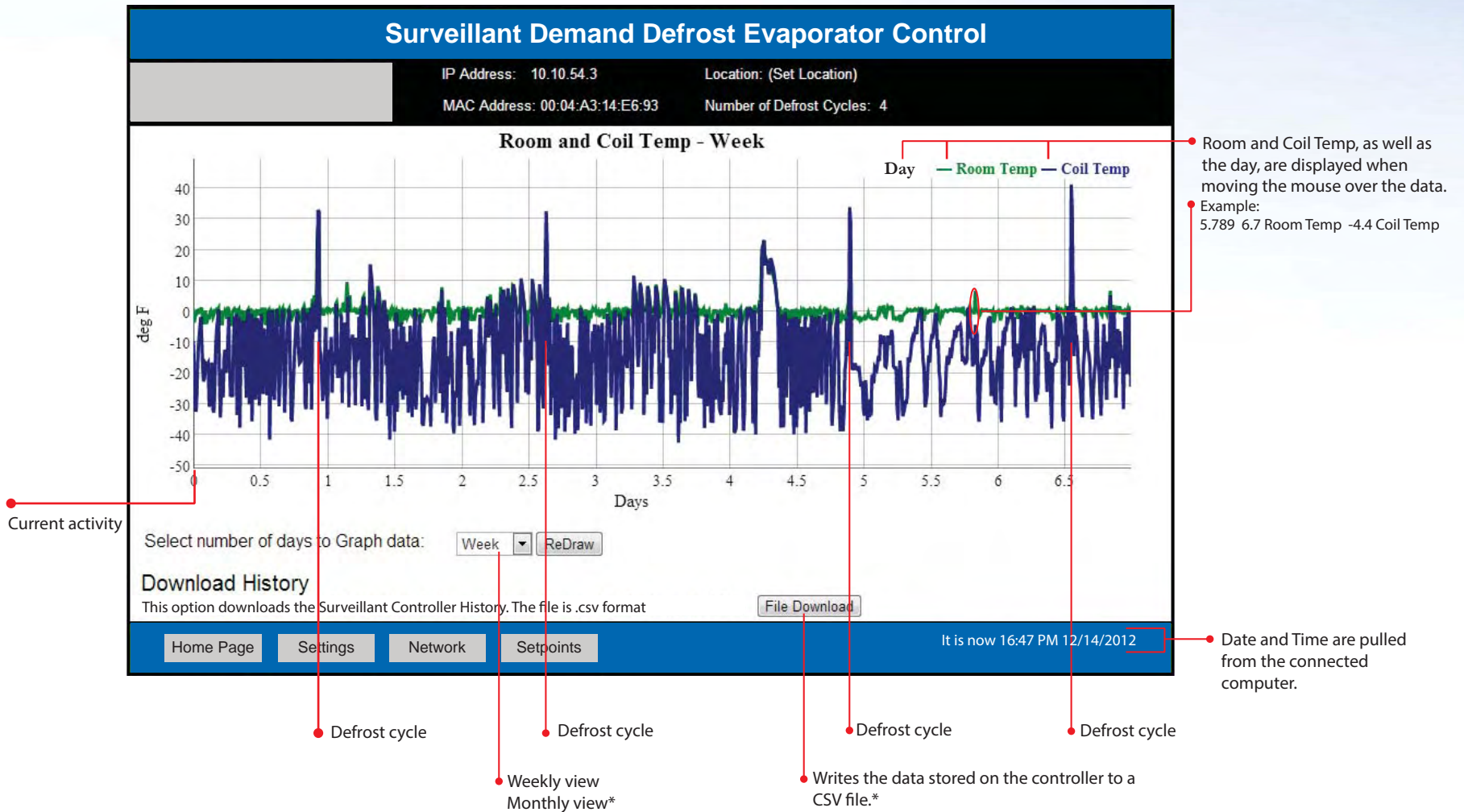
Active when Open (i.e. door open)
Active when Closed

- Off
- On
- Shared
- Not Shared
- Pulse
- Permanent
- Synchronized
- Independent
- Demand
- Schedule
- Runtime

While viewing the Setpoints page, the Manual Control information will not automatically update. This prevents losing setpoint changes. If manual control is necessary, refresh the page before going to the next system mode.

Graphing Snapshot

What the screen shows: The Graphing Snapshot shows the past seven days of Room Temp and Coil Temp readings, as well as the number and duration of defrost cycles. It is an essential tool for system analysis and troubleshooting. The experts at KE2 Technical Support can help troubleshoot your system using this information.



* Requires Data Key activation after 6 month free trial.



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