

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

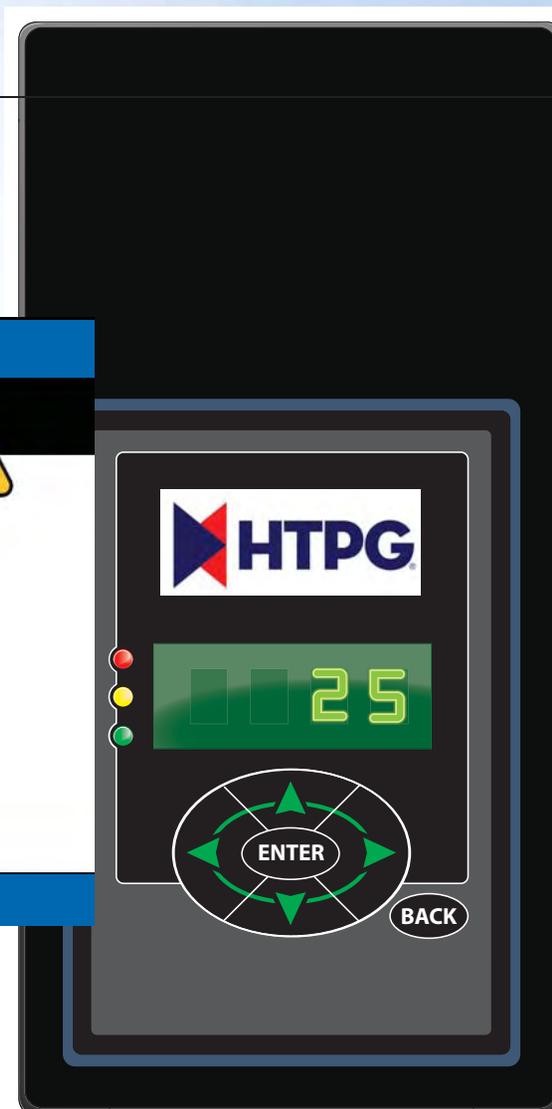
System Mode: Defrost
 Room Temp: -7.8 F
 Coil Temp: -19.6 F
 Compressor Relay: Off
 Evaporator Fan Relay: On
 Aux Relay: Off

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 %

All Clear

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

Surveillant Demand Defrost Evaporator Control					
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System Mode Defrost	Room Temp -7.8 F	Coil Temp -19.6 F	Compressor Relay Off	Evaporator Fan Relay On	Aux Relay Relay Off
Defrost Relay Off	Door Sw Closed	Dgt Input2 Disabled	Dgt Input3 Disabled	T4 Coil Temp -19.7 F	All Clear
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

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.

Surveillant Demand Defrost Evaporator Control

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

Alert Notifications

Email Server: Basic (Port 25)
 User Name:
 Password:
 Address for Alerts:
 Alerts Subject:

Dynamic DNS

Provider: DynDNS.org
 Host Name:
 DDNS Type: Custom
 User Name:
 Password:
 Update Interval: 0

Location Settings

Business Name: KE2 Therm Solutions
 Phone Number: (888) 337 3358
 Location: (Set Location)

Log Key Activation

Current Key: HPHY-F9BY-GVHY
 Time Remaining: 181 Days 22 Hrs
 Activation Key:

Firmware

Bootloader: 20302V3.0

Controller

Logs

Alarms

Navigation: Home Page | Settings | Network | Setpoints | Save | Login

Callouts:

- Customer information is displayed
- Customer may input their company information
- User defines controller location for future access and alarm notifications
- For help in setting up an email account see bulletin Q.5.3 Establishing Gmail.
- 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.
- Update firmware. Refer to Q.5.6 KE2 Bootloader Guide.
- Remotely reboots the controller.
- Removes all data stored by controller. Do not use unless instructed to by KE2 Therm.
- Resets controller's alarms and alarm conditions for 60 minutes.
- Basic (Port 25) Advanced (Port 465)
- Clicking Activate starts the data logging key.
- Unlocks 30 days of operation history of 17 variables. See Q.5.13.
- Required to make changes to Settings page. See page 4.
- Greyed out functions require user to Login or may not currently be applicable.

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, Network 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.

Surveillant Demand Defrost Evaporator Control

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

Controller #1
Controller Name: Evaporator Bond State: Group 1
Mac Address: 00:04:A3:77:2A:A3
IP Address: 10.1.0.40

Controller #2
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller #3
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller #4
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller #5
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller #6
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller #7
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller #8
Controller Name: Bond State:
Mac Address: 00:00:00:00:00:00
IP Address: 0.0.0.0

Controller Network
Subnet Mask: 255.255.0.0
Gateway: 10.10.255.254
Primary DNS: 10.10.255.254

Discover Clear Bond/Unbond Save/Group

Home Page Settings Network Setpoints Login

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.

The screenshot displays the control interface for a 'Surveillant Demand Defrost Evaporator Control'. The interface is divided into several sections: Refrigeration, Defrost, Digital Inputs, Sensor Offsets, PID, Expansion Valve, Bonded Controllers, Alarms, and Manual Control. A navigation bar at the bottom includes Home Page, Settings, Network, Setpoints, Graphs, Restore, and Login.

Annotations and Callouts:

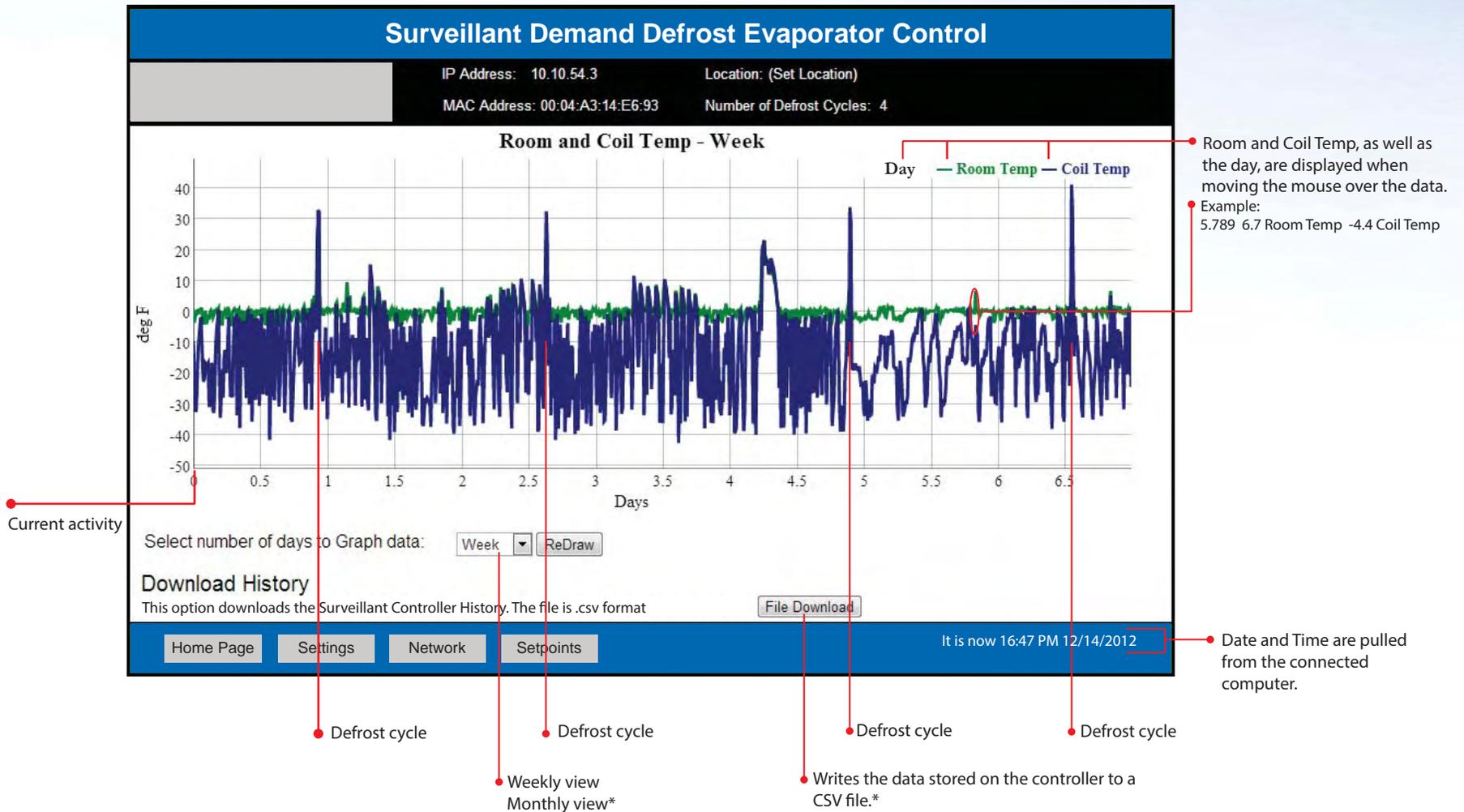
- Left Side (Refrigeration):**
 - R-404A, R-507, R-407A, R-422A, R-422D, R-134a, R-22, R-717, R-438A, R-408A, R-409A, R-407F, R-410A, R-744
 - Managed Permanent On w/Compressor
 - Fahrenheit Celsius
 - Warmest Air Average Air
 - Mechanical (default) KE2, SER/SEI 1- 20, SER B - L, SEI30, SEI50, SEH, ETS 12 - 50, ETS 100, ETS 250/400, Carel, Custom
- Top Right (Digital Inputs):**
 - Electric Air, Hot Gas - Comp On, Hot Gas - Comp Off
 - Disabled 2nd Temp, Door Switch, Ext Alarm, Defrost Interlock*, Syst Off, Light Switch**
 - * DI 2 & 3 only, ** DI 3 only
 - Active when Open (i.e. door open), Active when Closed
- Bottom (Manual Control):**
 - Off On, Shared Not Shared, Pulse Permanent, Synchronized Independent, Demand Schedule Runtime
- Right Side (Manual Control):**
 - 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.

Interface Elements:

- Refrigeration:** Room Temp: -10.0 F (Gold box), 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, Multi Air Temp Ctrl: Warmest Air
- Defrost:** Defrost Type: Electric (Gold box), Defrost Term Temp: 50.0 F, Defrost Parameter: [Empty], 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: [Empty], Defrost Pmp Dwn Time: 0 min, First Defrost Delay: [Empty], Comp Run Time: [Empty]
- Digital Inputs:** Dig In 1 Mode: Door Switch, Dig In 1 State: Closed, Dig In 2 Mode: Disabled, Dig In 2 State: Closed, Dig In 3 Mode: Disabled, Dig In 3 State: Closed
- Sensor Offsets:** Air Temp Offset: 0.0 F, Coil Temp Offset: 0.0 F, Suct Pressure Offset: 0.0 psi, Suct Temp Offset: 0.0 F, Aux Temp Offset: 0.0 F
- PID:** Proportional: [Empty], Integral: [Empty], Derivative: [Empty], Aux Relay Mode: Alarm Re
- Expansion Valve:** Valve Type: KE2 (Gold box), Superheat: 8.0 F, Max Oper Press: 150.0 psi, Motor Step Rate: 200, Max Valve Steps: 1300
- Bonded Controllers:** Multi Evap Cool: Synchronized, Multi Evap Defrost: Synchronized, Multi Evap Sensor: Shared
- Alarms:** 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, Door Alarm Delay: 30 min
- Manual Control:** Current Mode: Defrost, Go To: Drain

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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