Introduction
The KE2 Low Temp + Defrost controller simplifies refrigeration control by combining the functions of a thermostat and defrost timer, making it ideal for medium and low temp applications. The KE2 Low Temp eliminates complexity, simplifying programming, and reducing unnecessary wiring.

The KE2 Low Temp's robust design provides versatility for a wide range of medium and low temperature applications. When applied to medium temperature applications with air defrost, the built-in defrost clock may be used to perform time-initiated and time-terminated defrost cycles, in addition to standard time-initiated and temperature-terminated defrost cycles.

In low temperature applications, the KE2 Low Temp provides an easy-to-understand thermostat that eliminates end user frustration with the overly complicated options available today. The KE2 Low Temp is set up to provide the best system operation and an intuitive user interface.

The controller's single-pole-double-throw relays control the refrigeration and defrost cycles.

Controls
- Temperature
- Fans
- Heaters
- Compressor

Remote Monitoring, Control, Alarm Notifications
The KE2 Low Temp includes RS-485 Modbus communications, and can now be accessed remotely using the KE2 Local Area Dashboard and Alarms (KE2 LDA). See page 2 & 3 for further details.

Service Call Saver - Post Defrost Indicator
To eliminate unnecessary service calls, the KE2 Low Temp + Defrost alerts the user when it is coming out of a defrost cycle using the onboard display. The display alternates between dEF and the actual temperature measured by the air sensor. This continues until the temperature has reached setpoint, or for the amount of time set by dFt (Defrost Time) whichever is shorter.

Features
- Digital thermostat
- Energy saving fan cycling per Title 24
- Regulates the amount of defrost heat to reduce steaming
- Optional Door Switch with all the necessary time delays
- Off time or electric defrost on pre-defined schedule or custom defrost interval
- Compressor protection - Maximum starts per hour
- Manual defrost
- 1st defrost 2 hrs after start up
- Visual and AudibleAlarming - High temp/Low temp/Sensors/Door/Power Failure (PF)
- PC/tablet/smartphone interface, e-mail alarm alerts, remote access with KE2 LDA

Hardware
- 3 Relays for solenoid / compressor, heaters, fans
- 4 digit 7-segment display
- 4-button user interface
- Modbus terminals
- Audible “buzzer”

The space & coil temperature sensors are supplied with 10 ft. leads, and function to control the space temperature of the room, and defrost termination, respectively.
KE2 Low Temp Navigation

Connecting to the KE2 Low Temp with the KE2 LDA
The KE2 LDA is a simple, multi-functional, communication device designed for smaller installations, of up to 10 controllers. For KE2 Therm’s Ethernet or Serial-ModBus devices, the KE2 LDA provides the ability to:
- Serve as a Permanent WiFi Service Tool
- Display a Local Area Dashboard showing controllers connected to the customer’s network
- Connect controllers to KE2 SmartAccess customer portal without requiring controller upgrades
- Send Email Alarms for all connected controllers to multiple email recipients
- View Serial devices in a webpage, make changes to setpoints, and receive alerts via email or text message
Accessing the KE2 Low Temp on a Local Area Network
When the KE2 Low Temp is connected to the same network as the KE2 LDA communication device, the device will find the controller, and provide immediate local network communication. More information on the KE2 LDA is found in bulletin Q.5.42.

Accessing the KE2 Low Temp on the Internet
When used with the KE2 LDA, the KE2 Low Temp can be accessed remotely through the KE2 Smart Access portal, anywhere internet service is available. So, there's no need to worry about your refrigerated products overnight, during holidays, or vacations. Just go online and see, or setup the email/text alarm alerts feature, for instant notification of system issues. More information on KE2 Smart Access is found in bulletin Q.1.34 and A.1.76.

Service View Webpage
From the Service View you can monitor temperatures, relay status and alarms, as well as make changes to setpoints, and manually control the system.
What is Title 24 Compliant?

Title 24 Compliant insures that evaporator fans, served by a single compressor, and operating without variable capacity controls, will reduce their airflow 40% for at least 75% of the time when compressor is not running.

To set the controller for Title 24 compliance see bulletin Q.1.29.