



# KE2 Temp + Air Defrost

For Medium Temperature Applications with Air Defrost  
Condensed Quick Start Guide PN 20611



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## Complete Instructions Locations

Visit: <http://ke2therm.com/product/ke2-temp-defrost/>  
and click the **Link to Literature** button

— OR —

QR code:  
**KE2 Temp Literature**



**YouTube**  
**KE2 Temp Videos**



## What's in the Kit

The following parts are included:

- A** (1) KE2 Temp + Air Defrost controller
- B** (1) temperature sensor - 45"
- C** (1) sensor ziptie
- D** (1) liquid tight cord grip
- E** (4) self-tapping mounting screws
- F** (2) screws for high voltage shield
- G** (1) programming sticker
- H** (1) high voltage shield

**Programming**

- Press & hold ENTER button to access setpoint menu
- Use arrow buttons to select function
- tS = Temperature Setpoint
- dIF = Differential
- CSH = Max Compressor Starts/Hr
- dPd = Defrost Per Day
- dFt = Defrost Time
- HAO = High Alarm Offset
- LAO = Low Alarm Offset
- tAd = Temp Alarm Delay
- Adr = Mod Bus Address
- Unt = Units for temp display
- Press ENTER, use arrows to change value
- Press & hold ENTER button to confirm changes

**Alarms**

- When amber LED is lit:
  - SSA = Shorted Sensor Alarm
  - OSA = Open Sensor Alarm
  - HtA = High Temp Alarm
  - LtA = Low Temp Alarm

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## Supplies List

The accessories required for the controller to work are supplied. However, some truck stock items may be needed. See the following list.

- conduit to go between the controller & evaporator
- (2) conduit connectors (straight or elbow as required)
- (4) high voltage wires (matched to the load of the liquid line solenoid/compressor and the controller.)
- wire labeling (numbers, colors, etc.)
- additional wire ties
- 18 gauge twisted shielded pair (if extending sensor wires)
- Cat5e or cable rated for RS-485 communication (if adding communication)
- foam insulation (if running wires outside the space)
- silicone (for sealing any box penetrations)

## Controller Navigation

- INDICATOR LIGHTS:**
- Red blinking – Real Time Clock battery needs to be replaced
  - Yellow light – non-critical alarm (system running)
  - Green light – Liquid Line Solenoid (LLS) relay energized
  - Green blinking – waiting on minimum run or off timer to start/stop refrigeration

- Access Setpoint mode by pressing and holding **ENTER** until tS (temperature setpoint) displays on the screen.
- Use **▲** and **▼** to scroll through available setpoints.
- Press **ENTER** to view the current setting.
- Use **▲** and **▼** to change the setpoint  
Press **ENTER** to move between the digits to accelerate the changes.
- Press and hold **ENTER** to confirm each setpoint change.
- Press **BACK** to escape.

### Setpoints

- ▲ **tS** = Temperature Setpoint
- ▲ **dIF** = Differential
- ▲ **CSH** = Compressor Starts/Hour, Maximum
- ▲ **dPd** = Defrost Per Day
- ▼ **dFt** = Defrost Time
- ▼ **HAO** = High Alarm Offset
- ▼ **LAO** = Low Alarm Offset
- ▼ **tAd** = Temp Alarm Delay
- ▼ **Adr** = Mod Bus Address
- ▼ **Unt** = Units for temp display (FAH or CEL)

Only visible if CUS (custom) is selected for dPd (Defrost per day)

- ▲ tOd
- ▲ d1
- ▲ d2
- ▲ d3
- ▲ d4
- ▲ d5
- ▲ d6
- ▲ d7
- ▲ d8
- ▲ d9
- ▲ d10
- ▲ d11
- ▲ d12

### Alarms - When amber LED is lit:

- ▲ **SSA** = Shorted Sensor Alarm
- ▲ **OSA** = Open Sensor Alarm
- ▲ **HtA** = High Temp Alarm
- ▲ **LtA** = Low Temp Alarm

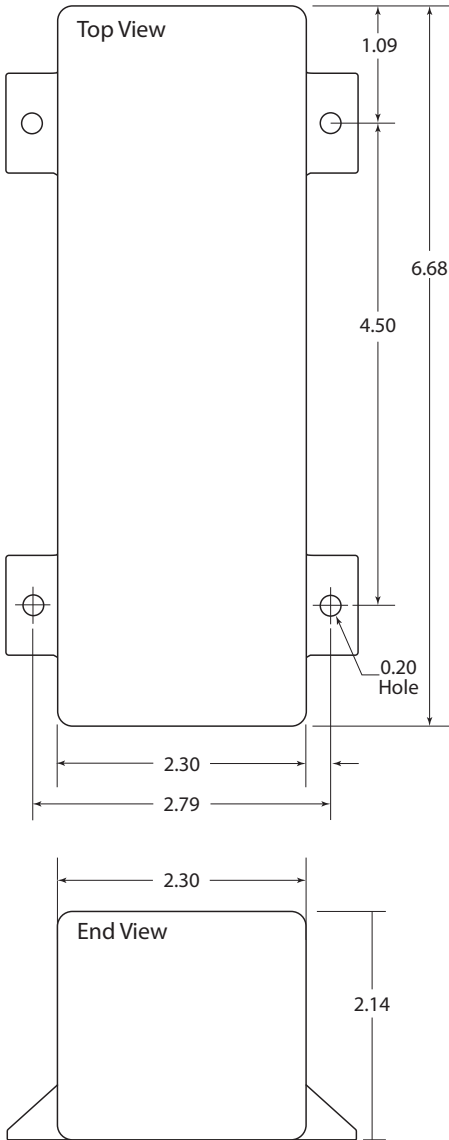
## Basic Setpoints

Setpoint	Description	Minimum	Default	Maximum
tS	Temperature Setpoint	-50°F (-45°C)	35°F	100°F (38°C)
dIF	Differential	1°F (1K)	2°F	30°F (17K)
CSH	Max. Comp. Starts/Hr.	5 (Off)*	6	10
dPd	Defrost Per Day	0	6	12, CUS**
dFt	Defrost Time	0 min	15 min	720 min
HAO	High Alarm Offset	1°F (1K)	5°F	10°F (6K)
LAO	Low Alarm Offset	1°F (1K)	3°F	10°F (6K)
tAd	Temp Alarm Delay	1 min	90 min	180 min
Adr	Mod Bus Address	1	1	247
Unt	Units for temp display	FAH	FAH	CEL

\*Selecting fewer than 5 compressor starts per hour results in the starts per hour feature being turned off. The compressor will then function on temperature only.

\*\* Selecting CUS (custom) unlocks additional Setpoints. See Advanced Setpoints table.

**Dimensions - Inches**



**Wiring Diagram**

