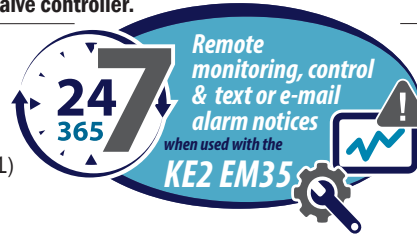




KE2 Temp + Valve Control (kit pn 21301)

For Temp, Air Defrost, and Electronic Valve Control
Condensed Quick Start



What's in the KE2 Temp + Valve kit, pn 21301:



- A** (1) KE2 Temp + Valve controller (pn21393 - controller only)
- B** (1) 10' pressure transducer
- C** (1) temperature sensor - 45'
- D** (1) temperature sensor - 10'
- E** (4) self-tapping mounting screws
- F** (1) sensor ziptie
- G** (1) screwdriver
- H** (2) screws for high voltage shield

Supplies List

Truck stock items are required to install the controller:

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

Complete Instructions

Please visit:
<http://ke2therm.com/product/ke2-temp-valve-control/>
scroll down the page and click **Link to Literature**

— OR —

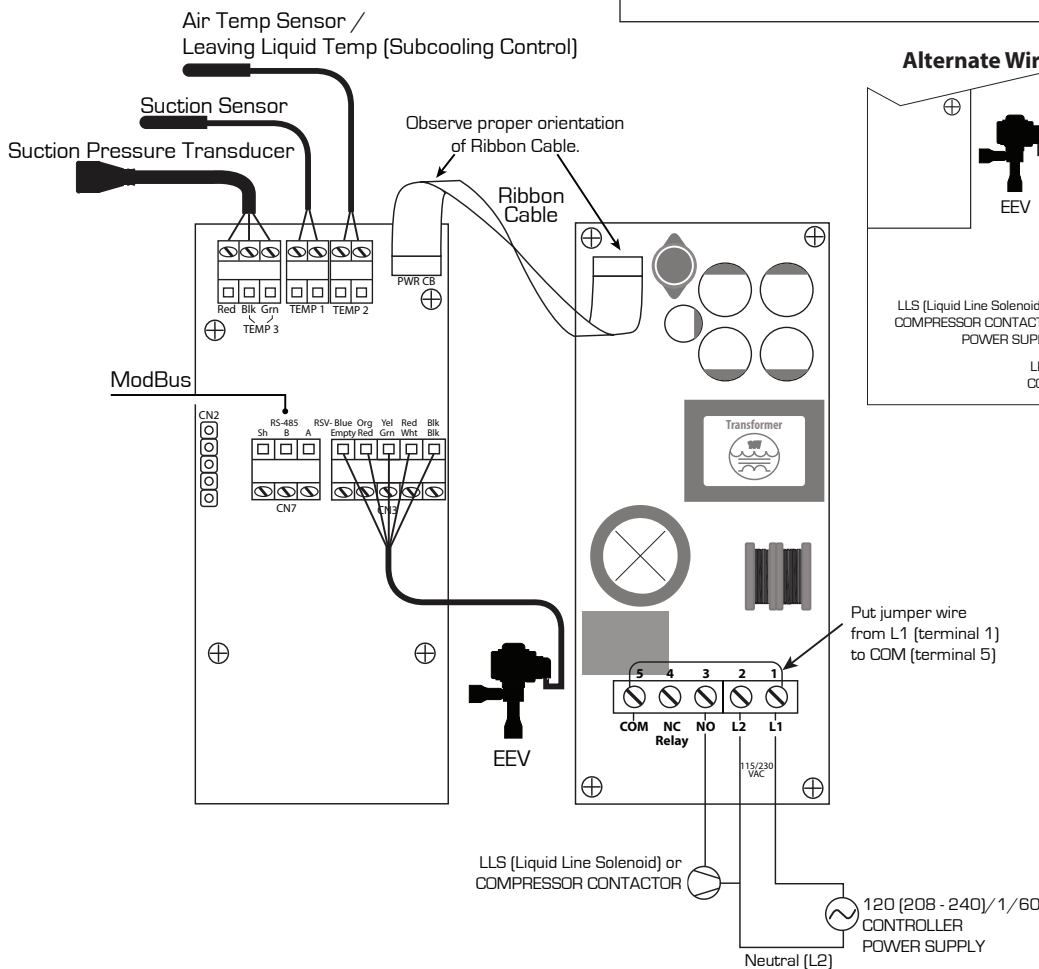
use this QR code.
KE2 Temp + Valve Literature



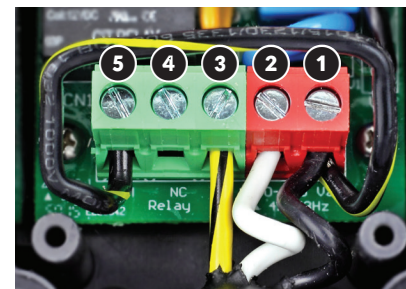
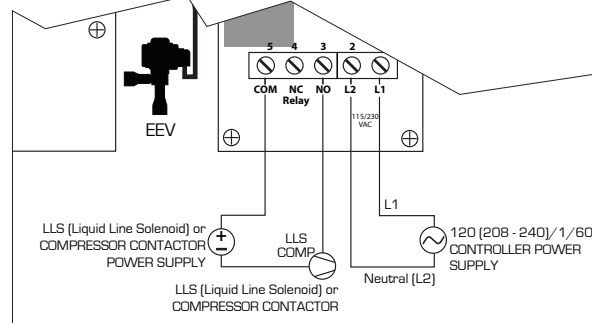
KE2 Temp + Valve Videos



Wiring Diagram



Alternate Wiring Method



Put jumper wire from L1 (terminal 1) to COM (terminal 5)



KE2 Temp + Valve Control (kit pn 21301)

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Basic Menu: "Out of Box" or if Superheat (SHt)

Setpoint	Description	Range	Default
CtL	Control Type - EEV+Temp, EEV Only, EEPR, EHGBP, Subcool	SHt, SH, EPr, HGB, SUB	SHt
Edt (Expansion device type)	Valve Type: Mechanical (tHr), KE2-HSV (HS), KE2-RSV (rS), SEI, SER, Carel (CrL), Custom (CUS)	tHr, HS, rS, SEI, SER, CrL, CUS*	rS
Only if CUS is used for Edt (valve type)	Sr	Step Rate	30 - 400
	SFS	Steps Full Stroke	200 - 6400
	Ub	Motor Type	Uni-(unipolar), bi (bipolar)
Only if inP (input) is Pt under Advanced Menu	rFG	Refrigerant Type	See list in Q.3.49
			404
SSP	Superheat Setpoint**	5°F (2.8K) to 50°F (28K)	8°F (4.4K)
tS	Temperature Setpoint	-50°F (-45°C) to 100°F (38°C)	35°F (9.7°C)
AdF	Air Temperature Differential	1°F (0.5K) to 30°F (17K)	2°F (1.1K)
CSH	Compressor Starts/Hour Maximum	5 (Off)*** to 10	6
dPd	Defrost Per Day	0 to 12, CUS*	4
Only if dPd (Defrosts per Day) is CUS	tOd	Time of Day	00:00 to 23:59
	d1 to d12	Start time of Defrost #1 - #12	00 - 23
dFt	Defrost Time	6 min to 720 min	45 min

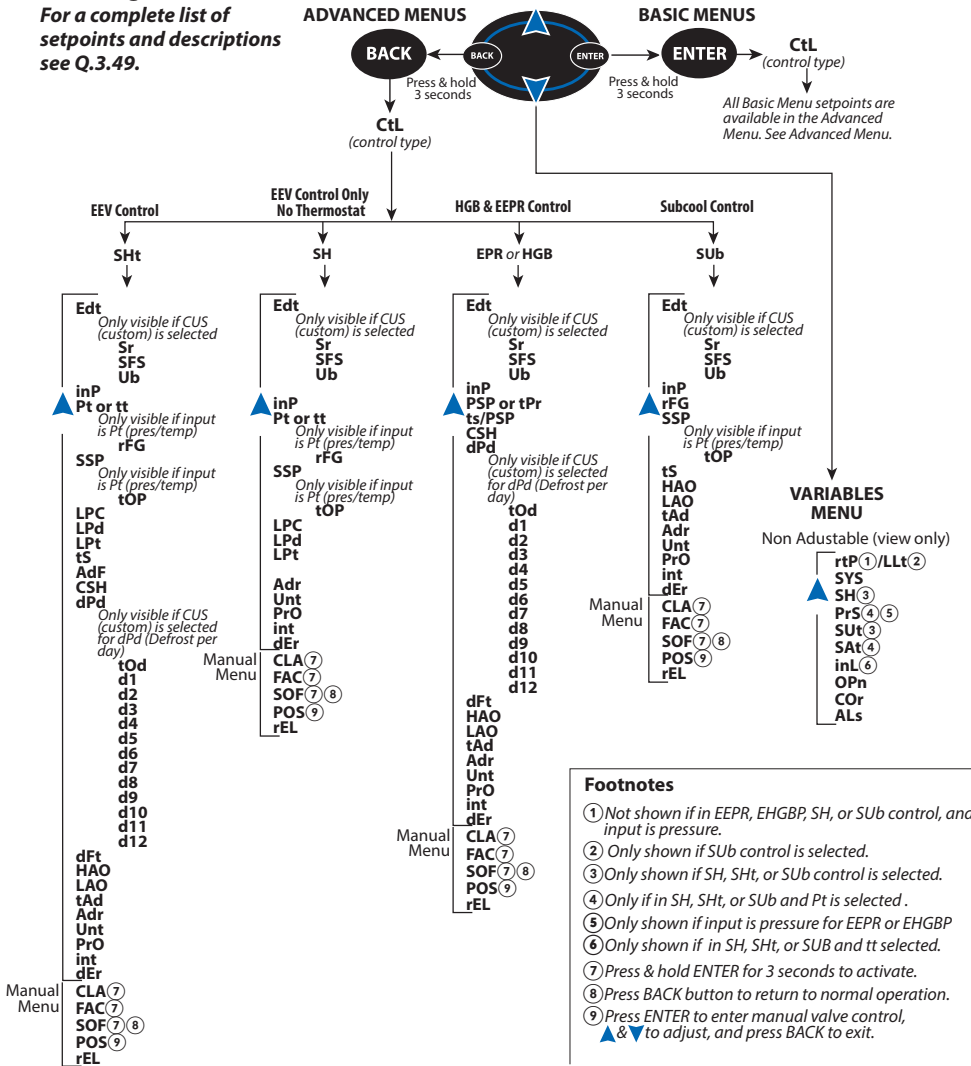
* Selecting CUS (custom) unlocks additional Setpoints.

** Min. superheat in Subcool control.

*** 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.

Accessing the Menus

For a complete list of setpoints and descriptions see Q.3.49.



Footnotes

- Not shown if in EEPR, EHGBP, SH, or SUB control, and input is pressure.
- Only shown if SUB control is selected.
- Only shown if SH, SHt, or SUB control is selected.
- Only if in SH, SHt, or SUB and Pt is selected.
- Only shown if input is pressure for EEPR or EHGBP
- Only shown if in SH, SHt, or SUB and tt selected.
- Press & hold ENTER for 3 seconds to activate.
- Press BACK button to return to normal operation.
- Press ENTER to enter manual valve control, ▲ & ▼ to adjust, and press BACK to exit.

Controller Navigation

The display will show room temp (rtp), suction pressure (PrS) or leaving liquid temp (LLT) depending on control type and setup.

Indicator lights

- Red light** - critical alarm (system is NOT running)
- Yellow light** - non-critical alarm (system running)
- Green light** - compressor on
- Green blinking** - compressor waiting on timer to start/stop

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

Service Call Saver- Post Defrost Indicator

The display will switch between room temp and dEF after a defrost. The controller will refrigerate as normal, and dEF will clear automatically.

Alarm List

	Alarms	Description
CRITICAL System is off - Red LED	iSA	Inlet Sensor Alarm
	PSA	Pressure Sensor Alarm
	SSA	Suction Temperature Sensor Alarm
NON-CRITICAL System is still running, and trying to maintain cooling - Amber LED	ASA	Room (Air) Sensor Alarm
	HPA	High Pressure Alarm
	HSH	High Superheat Alarm
	HtA	High Temperature Alarm
	LPA	Low Pressure Alarm
	LSA	Leaving Liq. Temperature Sensor Alarm
	LSH	Low Superheat Alarm
	LtA	Low Temperature Alarm
	Pdt	Pump Down Timeout Alarm
	PF	Power Failure
SCC	Short Cycle Compressor Alarm	

Refrigerant List

Refrigerant	Abbreviation	Refrigerant	Abbreviation
R-22	R22	R-448A	448
R-134a	134	R-449A	449
R-404A	404	R-450A	450
R-407A	40A	R-438A	438
R-407C	40C	R-408A	408
R-410A	410	R-409A	409
R-717	717	R-407F	407
R-422A	42A	R-744	744
R-422D	42d	R-513A	513
R-507	507	R-458A	458