KOLPAK®

Protecting Your Future

ArcticFox Deluxe Display

Original Instructions
Installation, Operation and Maintenance Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.



WELBILT®

Part Number: 500002385-3 12/20

Safety Notices

⚠ DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This applies to the most extreme situations.

⚠ Warning

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

Notice

Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

⚠ Caution

Indicates a situation that, if not avoided, could damage the refrigeration system or result in minor injury.

NOTE: Indicates useful, extra information about the procedure you are performing.

⚠ Warning

Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, injury or

⚠ Caution

Installation and maintenance/servicing are to be performed only by trained and qualified personnel familiar with commercial refrigeration systems.

⚠ Caution

Ensure that all field wiring conforms to the equipment requirements and all applicable local

⚠ Caution

Disconnect all power sources before servicing the refrigeration equipment.

⚠ Caution

Sheet metal and coil surfaces have sharp edges. Use appropriate protective gloves to prevent

⚠ Caution

Use appropriate eye protection during installation and servicing.

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Section 1
General Information

Receiving Inspection

- Check the shipment carefully and compare to the bill of lading.
- Account for all items listed and inspect each container for damage.
- Carefully inspect for any concealed damage.
- Report any shortages or damages to the carrier, note on the bill of lading, and file a freight claim.
- Damaged material cannot be returned to the manufacturer without prior approval.
- A Return Material Authorization (RMA) must be obtained. Contact a sales representative at 800-826- 7036.

Warranty Information

For information regarding warranty guidelines, claim form, product registration, warranty verification, or locating a service provider please visit our website at www.kolpak.com or call 800-225-9916.

Section 2
Specifications

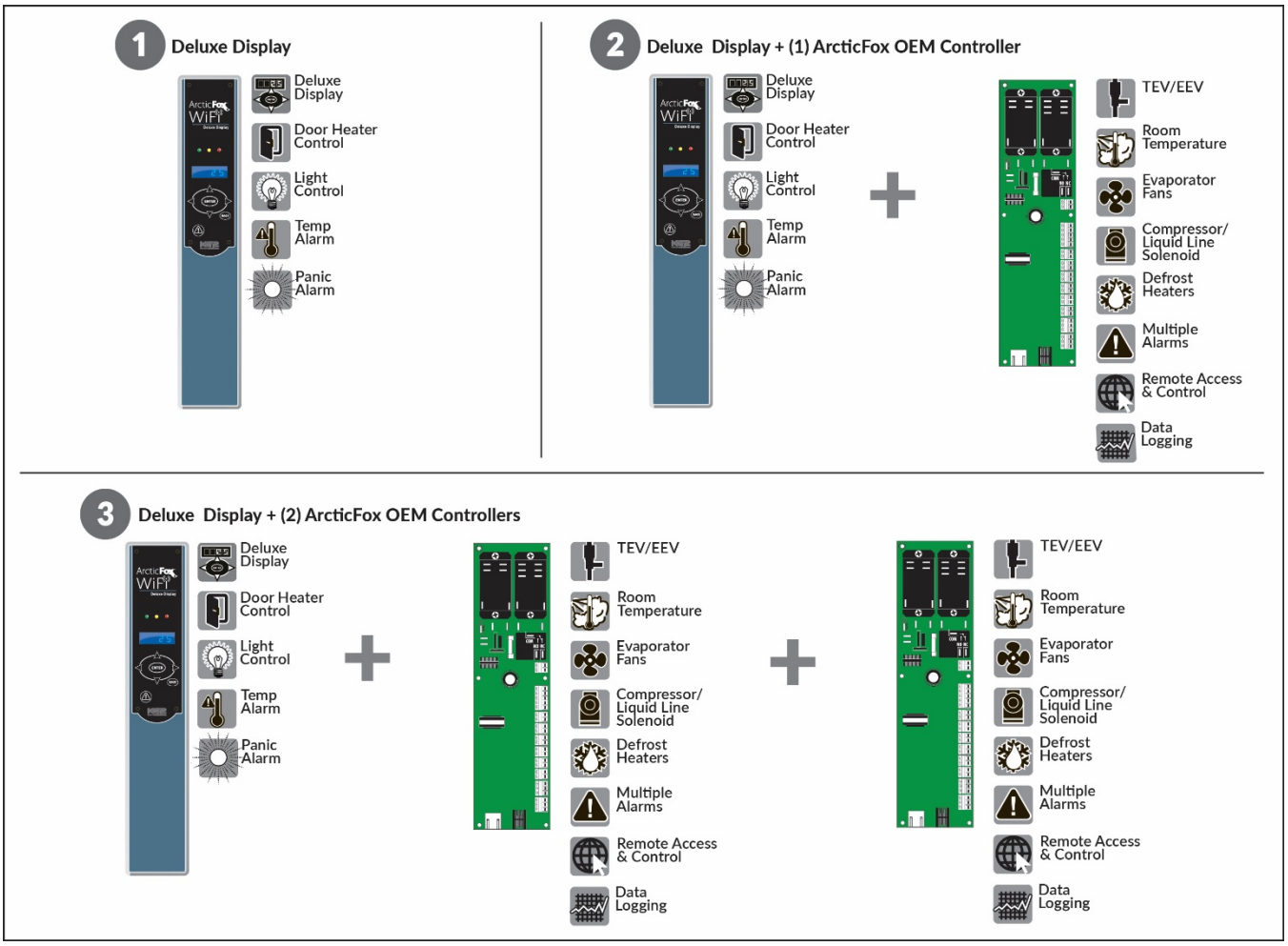
Controller	
Input Voltage:	120 V or 208 V-240 V
Ambient Temp:	-40°F to 140°F (-40°C to 60°C)
Operating Temp:	-40°F to 140°F (-40°C to 60°C)
Operating Humidity Range:	0%-95%, non-condensable
Temperature/Digital Inputs:	(3) multi-use (temp sensor or digital input)
	(1) Designated as digital input for door switch
Input:	(1) Designated for panic button
Relays Outputs:	Door heater relay – Max 3A @ 120 VAC
	Lights relay – Max 5A @ 120/240 VAC
	Alarm Relay – Max 5A @ 120/240 VAC
Communication:	(1) RJ-11connection for RS-485 serial communication to the ArcticFox OEM controller
Buzzer:	95dB
Battery Backup:	9 VDC, rechargeable battery

Temperature Sensor	
Sensor Specs:	-60°F to 150°F (-51°C to 65°C) Moisture resistant package; Stainless steel housing 2KΩ @ 77°F

Accessories

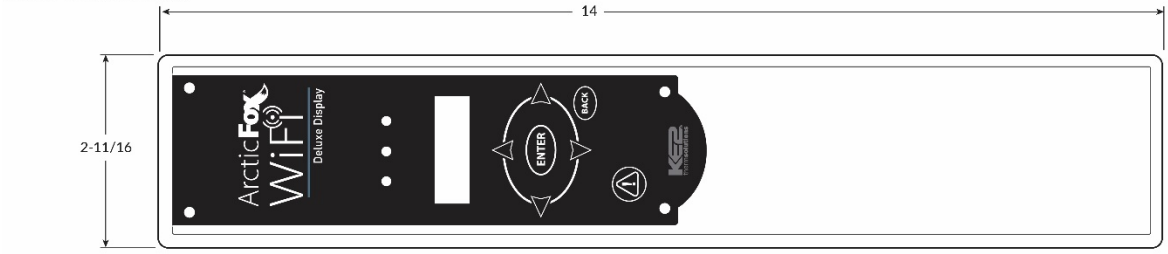
Remote Displays	
21782	Deluxe Display junction box
21320	Deluxe Display less junction box
21786	Deluxe Display cable – 25 ft
21781	Replacement 9V rechargeable battery
21375	1A 250V slow blow- 5mm x 20mm fuse – TSC1A250-1A

Combinations Of Control

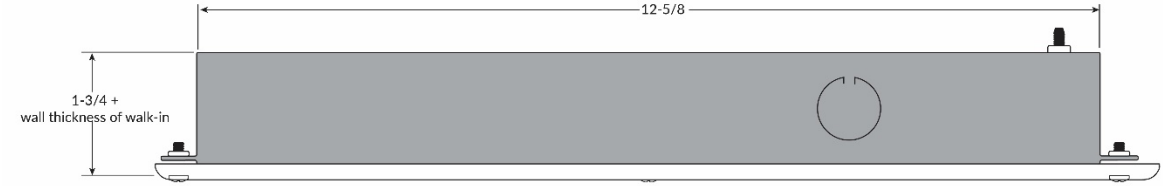


Dimensions - Inches

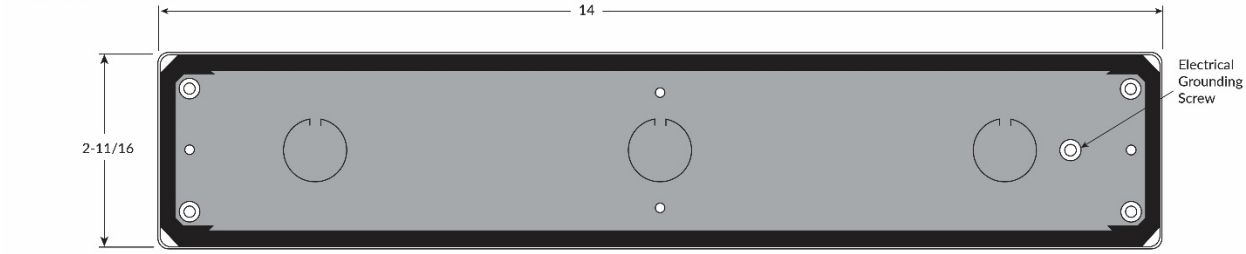
FRONT OF ENCLOSURE



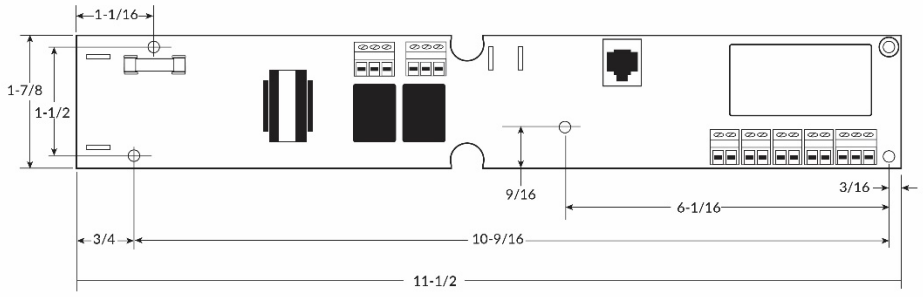
SIDE OF ENCLOSURE



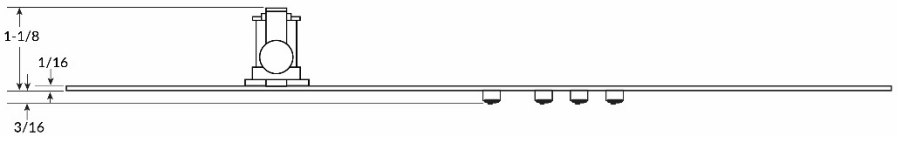
BACK OF ENCLOSURE



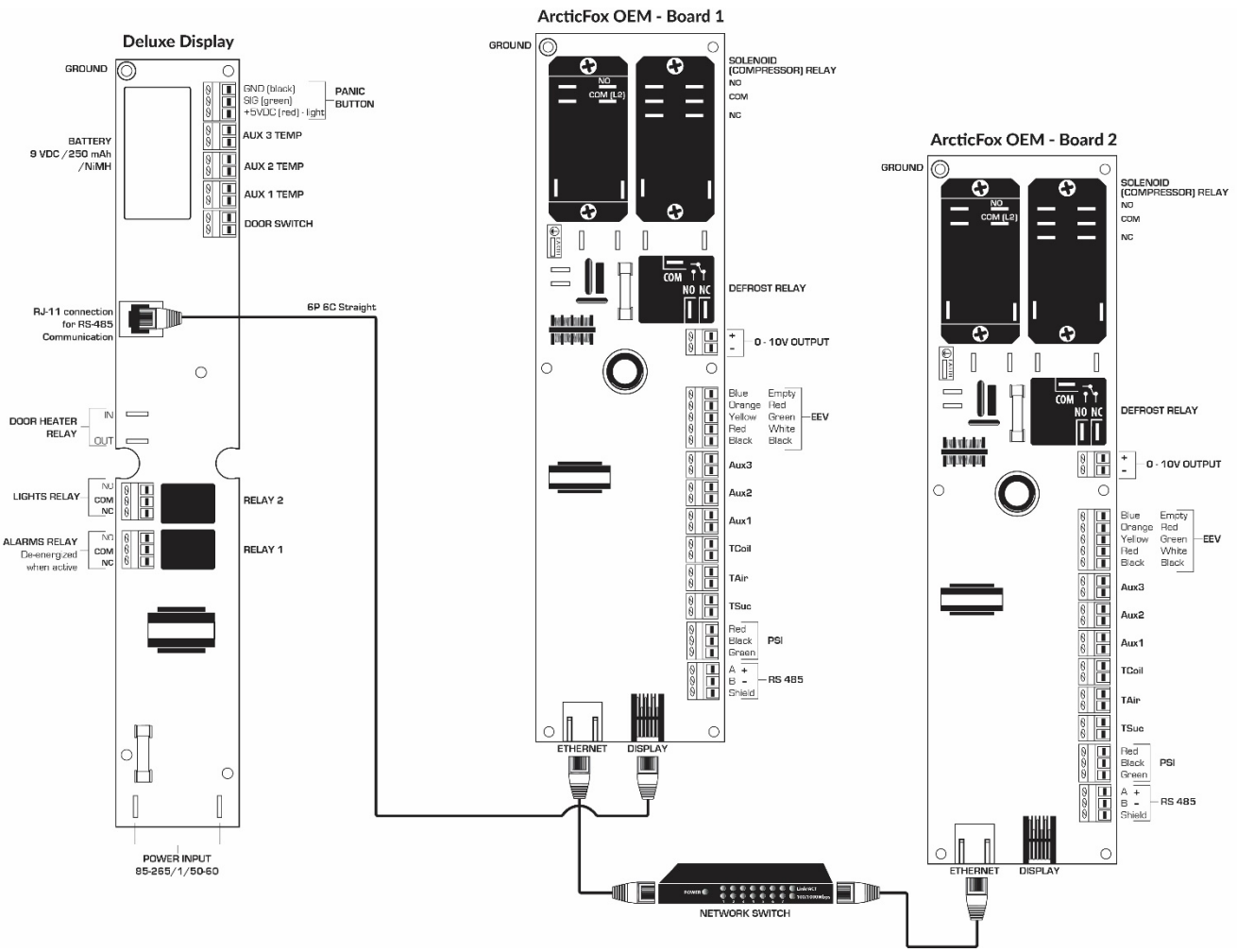
BACK OF BOARD



SIDE OF BOARD
Only the highest and lowest features depicted



Connecting The Controllers



Deluxe Display – Stand Alone – Alarms & Variables Menu

ACCESS THE ALARMS MENU. *Use the ▲ or ▼ to scroll through the Alarms & Variables menu. Note: Alarms will display first, if no alarms are active only the Variables are displayed.*

NAME	DESCRIPTION
ROOMTEMP2 SENSOR ALARM	Temp 2 input is shorted or open
ROOMTEMP3 SENSOR ALARM	Temp 3 input is shorted or open
MONITOR TEMP2 SENSOR ALARM	Temp 2 input is shorted or open
HIGH MONITOR TEMP2 ALARM	Temp 2 input is above High Temp Alarm Offset for longer than High Temp Alarm Delay.
LOW MONITOR TEMP2 ALARM	Temp 2 below Low Temp Alarm Offset for longer than Low Temp Alarm Delay.
MONITOR TEMP3 SENSOR ALARM	Temp 3 input is shorted or open
HIGH MONITOR TEMP3 ALARM	Temp 3 input is above High Temp Alarm Offset for longer than High Temp Alarm Delay.
LOW MONITOR TEMP3 ALARM	Temp 3 below Low Temp Alarm Offset for longer than Low Temp Alarm Delay.
DOOR OPEN ALARM	Door has been open longer than Door Alarm Delay
DOOR TEMP SENSOR ALARM	Temp1 input is shorted or open
LOW DOOR TEMP ALARM	Door Temp is below Low Door Alarm Offset for longer than Door Temp Alarm Delay
HIGH DOOR TEMP ALARM	Door Temp is above High Door Alarm Offset for longer than Door Temp Alarm Delay
EXTERNAL ALARM 1, 2, OR 3	If input is selected as external alarm, and alarm becomes active
TEMP 2 READING	*Toggle between Temp2 and value read by controller, if 'DOOR SWITCH' selected, 'T2 DOOR CLOSED, TS DOOR OPEN' if 'EXTERNAL ALARM' selected, 'T2 EXT ALARM ACTIVE, T2 NO EXT ALARM* The range is -87.7 to 183.0 degrees F. If there is a sensor failure, value will read 888.8. Will report T2 DOOR CLOSED if reads that door is closed, T2 DOOR OPEN if reads that door is open. Will report T2 EXT ALARM ACTIVE if reads that alarm is active, T2 NO EXT ALARM if reads alarm is inactive
TEMP 3 READING	*Toggle between TEMP3 and value read by controller. if 'DOOR SWITCH' selected, 'T3 DOOR CLOSED, T3 DOOR OPEN' if* *'EXTERNAL ALARM' selected, 'T3 EXT ALARM ACTIVE, T3 NO EXT ALARM* The range is -87.7 to 183.0 deg F. If there is a sensor failure, value will read 888.8. Will report T3 DOOR CLOSED if reads that door is closed, T3 DOOR OPEN if reads that do CTIVE if reads that alarm is active, T3 NO EXT ALARM if reads alarm is inactive
DOOR TEMP READING	*Toggle between TEMP1 and value read by controller. if 'DOOR SWITCH' selected, 'T1 DOOR CLOSED, T1 DOOR OPEN' if* *'EXTERNAL ALARM' selected, 'T1 EXT ALARM ACTIVE, T1 NO EXT ALARM* The range is -87.7 to 183.0 deg F. If there is a sensor failure, value will read D888. Will report T1 DOOR CLOSED if reads that door is closed, T1 DOOR OPEN if reads that do CTIVE if reads that alarm is active, T1 NO EXT ALARM if reads alarm is inactive
DOOR SWITCH STATE	*DOOR CLOSED, DOOR OPEN, DOOR SWITCH DISABLED* Will report DOOR CLOSED if reads r is open, DOOR SWITCH DISABLED if door switch function is disabled

Deluxe Display – Stand Alone – Setpoints Menu

1. ACCESS THE SETPOINTS MENU. *Press and hold* ENTER *and* BACK *for 3 seconds to access Setpoint mode.*

2. *AUX1 Function is displayed. Use the* ▲ *or* ▼ *to scroll through the Setpoints menu. (Press* ENTER *to display the current value of a Setpoint). To change the value, press and hold* ENTER *for 3 seconds.*

3. SELECT PARAMETER TO ADJUST *If the yellow and red LEDs start blinking the setpoint has selectable options, use the* ▲ *or* ▼ *to scroll through the options. When the value is a number, a digit starts blinking. Use the* ▲ *or* ▼ *to change the value of the digit, use the* ◀ *or* ▶ *to move to the next digit.*

4. *Press and hold* ENTER *for 3 seconds to save the change. Press* BACK *to return to the Setpoint menu. Repeat steps to change additional Setpoints, or press* BACK *three times to return to the default display.*

NAME	Min	Max	Default	DESCRIPTION
AUX1 FUNCTION	DISABLED	EXTERNAL ALARM	DISABLED	DISABLE/DOOR TEMP/DOOR SWITCH/EXTERNAL ALARM
AUX1 SWITCH STATE	OPEN	CLOSED	OPEN	State of input for door to be open or external alarm to be active
DOOR TEMP	-10.0°F	100.0°F	35.0°F	Temperature where heaters are turned on
DOOR TEMP DIFF	0.1°F	10.0°F	3.0°F	Temperature offset above 'DOOR TEMP' to turn door heaters off
HI DOOR ALR OFST	0.1°F	100.0°F	100.0°F	Temperature offset above 'DOOR TEMP' for high door temperature alarm
LO DOOR ALR OFST	0.1°F	20.0°F	5.0.1°F	Temperature offset below 'DOOR TEMP' for low door temperature alarm
DOOR TEMP ALR DLY	1 min	1440 min	15 min	Delay time when door temperature is out of range before setting alarm
DOOR SWTCH STATE	DISABLED	CLOSED	OPEN	State of input for door to be open or disable function (disabled, open or closed)
DOOR ALARM DELAY	0 min	1440 min	30 min	Time for door to be open before setting door open alarm
LIGHTS OFF DELAY	0 min	60 min	10 min	Time after door closes that lights relay is de-energized
AUX2 FUNCTION	DISABLED	EXTERNAL ALARM	DISABLED	DISABLE/ROOM TEMP/MONITOR TEMP/DOOR SWITCH/EXTERNAL ALARM
AUX2 SIWTCH STATE	OPEN	CLOSED	OPEN	State of input for door to be open or external alarm to be active
AUX3 FUNCTION	DISABLED	EXTERNAL ALARM	DISABLED	DISABLE/ROOM TEMP/MONITOR TEMP/DOOR SWITCH/EXTERNAL ALARM
AUX3 SWTCH STATE	OPEN	CLOSED	OPEN	
MON TMP2 HI ALRM	-60.0°F	90.0°F	35.0°F	If monitor temp2 is above this set point for some time, set high temp2 alarm
MON TMP2 LO ALRM	-60.0°F	90.0°F	-10.0°F	If monitor temp2 is below this set point for some time, set low temp2 alarm
MON TMP2 AL DLY	1 min	1440 min	15 min	Delay time when monitor temp2 is out of range before setting temp2 alarm
MON TMP3 HI ALRM	-60.0°F	90.0°F	35.0°F	If monitor temp2 is above this set point for some time, set high temp2 alarm
MON TMP3 LO ALRM	-60.0°F	90.0°F	-10.0°F	If monitor temp3 is below this set point for some time, set low temp2 alarm
MON TMP3 AL DLY	1 min	1440 min	15 min	Delay time when monitor temp3 is out of range before setting temp3 alarm
BUZZER MODE	DISABLED	DOOR ALARM ONLY	ENABLED	Function for buzzer DISABLED, ENABLED, DOOR ALARM ONLY
DISP BRIGHTNESS	1	50	18	Dim or brighten display
ADDRESS	1	5	5	Modbus Address
DISP CLEAR ALARM	-	-	-	Press and hold 'ENTER' button for 3 seconds, until display changes, to clear alarms set in Deluxe Display
DISP FACTORY RST	-	-	-	Press and hold 'ENTER' button for 3 seconds, until display changes, to change set points to factory defaults.

ArcticFox OEM Controller – Variables Menu

1. ACCESS THE VARIABLES MENU. *The controllers should be scrolling on the Deluxe Display (Ex. Freezer, -10.2F, Defrost, Cooler 35.0F)*

2. *Use the ▲ or ▼ to display the controller.*

3. *Press ENTER to select desired controller.*

4. *Use the ◄ or ► to scroll through the menus (Setpoints – **Variables** – Manual Menu – Password – Alarms).*

5. *Press ENTER when Variables is displayed. Then use the ▲ or ▼ to scroll through the Variables column. Press BACK once to return to the Variable name. Press BACK three more times to return to the default display.*

NAME	DESCRIPTION
ROOM TEMP	Room Temp as measured by controller
COIL TEMP	Coil Temp as measured by controller
SYSTEM MODE	Current operating status
SUPERHEAT	Superheat as calculated by controller
SUCTION PRESSURE	Suction Pressure as measured by controller
T1 SUCTION PRESSURE	Suction Temp as measured by the controller
SATURATION TEMP	Saturation Temp as calculated by the controller
VALVE % OPEN	Percentage EEV is open
COMPRESSOR RELAY	Current status of LLS/Compressor Relay
DEFROST RELAY	Current status of Defrost Relay
FAN RELAY	Current status of Fan Relay
AUX 1 STATUS	Current status/temperature as measured by controller at Aux Input 1
AUX 2 STATUS	Current status/temperature as measured by controller at Aux Input 2
AUX 3 STATUS	Current status/temperature as measured by controller at Aux Input 3
DISP AUX 1 STATUS	Current status/temperature as measured by Deluxe Display at Aux Input 1
DISP AUX 2 STATUS	Current status/temperature as measured by Deluxe Display at Aux Input 2
DISP AUX 3 STATUS	Current status/temperature as measured by Deluxe Display at Aux Input 3
DISP ALARM RELAY	Current status of Deluxe Display Alarm Relay
DISP LIGHT RELAY	Current status of Deluxe Display Light Relay
DISP HEATER RELAY	Current status of Deluxe Display Heater Relay
DISP DOOR SWITCH	Current status of Deluxe Display Door Switch
IP OCTET 1	First 3 digits of IP Address
IP OCTET 2	Second 3 digits of IP Address
IP OCTET 3	Third 3 digits of IP Address
IP OCTET 4	Fourth 3 digits of IP Address
SUBNET MASK OCTET 1	First 3 digits of Subnet Mast
SUBNET MASK OCTET 2	Second 3 digits of Subnet Mast
SUBNET MASK OCTET 3	Third 3 digits of Subnet Mast
SUBNET MASK OCTET 4	Fourth 3 digits of Subnet Mast
FIRMWARE VERSION	Current version of firmware on controller

ArcticFox OEM Controller – Setpoints Menu

1. ACCESS THE SETPOINTS MENU. *The controllers should be scrolling on the Deluxe Display (Ex. Freezer, -10.2F, Defrost, Cooler 35.0F)*

2. *Use the ▲ or ▼ until desired controller is displayed.*

3. *Press ENTER to select desired controller.*

4. *Use the ◄ or ► to scroll through the menus (**Setpoints** – Variables – Manual Menu – Password – Alarms). Press ENTER when Setpoints is displayed. If you are already logged in, go to step* **6.**

5. *If you are not logged in,* 0 0 0 0 *is displayed prompting you for the password. To enter the password (default is 2222), use the ▲ or ▼ to change the value of the digit, use the ◄ or ► to move to the next digit. When the password is entered, press ENTER and hold ENTER for 3 seconds.*

6. *Then, use the ▲ or ▼ to scroll through the Setpoints list. (Press to display the current value of a Setpoint). To change the value, press and hold ENTER for 3 seconds.*

7. SELECT PARAMETER TO ADJUST *You will return to the Setpoint. If the yellow and red LEDs start blinking, the setpoint has selectable options, use the ▲ or ▼ to scroll through the options. When the value is a number, a digit starts blinking. Use the ▲ or ▼ to change the value of the digit, use the ◄ or ► to move to the next digit.*

8. *Press and hold ENTER for 3 seconds to save the change.*

9. *Press BACK to return to the Setpoint menu. Repeat steps to change additional Setpoints, or press BACK three times to return to the default display.*

NAME	Min	Max	Default	DESCRIPTION
ROOM TEMP	-50.0°F	90.0°F	0.0°F	Room Temp to be maintained
DEFROST TYPE	N/A	N/A	ELEC	Type of Defrost for Evap: ELEC for Electric/Air for off time/HOT GAS COMP ON for hot gas, comp is on/HOT GAS COMP OFF for hot gas, comp is off
VALVE TYPE	N/A	N/A	MECHANICAL	Type of valve used on system; mechanical, pre-configured electric, custom EEV configuration
MOTOR TYPE	UNIPOLAR	BIPOLAR	BIPOLAR	UNIPOLAR if unipolar stepper is used, BIPOLAR if bipolar stepper is used. Only available if VALVE TYPE = CUSTOM
MOTOR STEP RATE	30	400	30	Number of steps per second. Only available if VALVE TYPE = CUSTOM
MAX VALVE STEPS	200	6400	500	Number of steps for full stroke of valve. Only available if VALVE TYPE = CUSTOM
SUPERHEAT	5.0°F	30.0°F	8.0°F	Target superheat. Only available if VALVE TYPE is any electric valve
MAX OPERATING PRES	10.0 PSI	150.0 PSI	150.0 PSI	Max Operating Pressure. Max is 300 when R-410a is selected. Max is 500 when R-744 is selected Only available if VALVE TYPE is any electric valve
REFRIGERANT	N/A	N/A	R-404a	Type of refrigerant used: See table on following page
FAN SPEED	-100.0%	100.0%	0.0%	Fans speed %
MIN COMP RUN TIME	0 Min	15 Min	2 Min	Minimum compressor run time
MIN COMP OFF TIME	0 Min	15 Min	5 Min	Minimum compressor off time
REFRIG FAN MODE	MANAGED, PERMANENT, ON W/ COMPRESSOR, TITLE 24		ON W/ COMPRESSOR	MANAGED = manage fans during refrig cycle; PERMANENT = fans on permanent during refrig cycle; ON W/ COMPRESSOR = manage fan in OFF then on if refrig; TITLE 24 = cycle fans based on Title 24 regulations
DEFROST MODE	DEMAND, SCHEDULE, RUNTIME		DEMAND	Mode to initiate a defrost; DEMAND, SCHEDULE, RUNTIME = Comp Run Time
DEFROSTS / DAY	0	8	5	If DEFROST MODE = SCHEDULE; Number of evenly spaced defrosts per day the controller will initiate. Only available if DEFROST MODE = SCHEDULE
1ST DEFROST DELAY	0 Min	240 Min	120 Min	Delay of 1st defrost of day when DEFROST MODE = SCHEDULE
DEFROST FAN STATE	OFF	ON	OFF	OFF = fans off during defrost; ON = fans on during defrost

NAME	Min	Max	Default	DESCRIPTION
DEFROST TERM TEMP	35.0°F	90.0°F	50.0°F	The temperature the coil sensor(s) must exceed in order to terminate defrost
DEFROST PARAMETER	0	90	30	Coefficient to KE2 Defrost algorithm. Only available if DEFROST MODE = DEMAND
MAX DEFROST TIME	0 Min	90 Min	45 Min	Maximum amount of time the defrost relay is energized. Only available if DEFFROST MODE = SCHEDULE
DRAIN TME	0 Min	15 Min	2 Min	Time to be in drain mode (drip time)
MAX TIME FOR LPCO	0 Min	15 Min	0 Min	LPCO is disable if set to 0 min; Only available if VALVE TYPE is set to any electric valve type
LOW PRESSURE CUT OUT	-5.0 PSIG	138.0 PSIG	8.0 PSIG	Only available if VALVE TYPE is set to any electric valve type and MAX TIME FOR LPCO is greater than 0 min
PRESS DIFF FOR LPCO	1.0 PSIG	50.0 PSIG	15.0 PSIG	Only available if VAVLE TYPE is set to any electric valve type and MAX TIME FOR LPCO is greater than 0 min
COMP RUN TIME	0 Hrs	24 Hrs	6 Hrs	Number of hours of cooling before starting defrost. Only available when DEFROST MODE = RUNTIME
ELECTRIC DEFROST MODE	PULSE	PERMANENT	PULSE	PULSE = utilize advanced defrost algorithm, PERMANENT = Leave defrost relay energized. Only available if DEFROST TYPE = ELEC
FAN DELAY TEMP	-40.0°F	35.0°F	20.0°F	Fan Delay Temperature
MAX FAN DELAY TIME	0 Min	20 Min	2 Min	Max Fan Delay time
PUMP DOWN TIME	0 Min	90 Min	0 Min	Pump Down time
MULTI AIR TEMP CTRL	WARMEST AIR	AVERAGE AIR	WARMEST AIR	WARMEST AIR = use the warmest air temp from bonded controls; AVERAGE AIR = use the average air temp from bonded controls
MULTI EVAP COOL	SYNCHRONIZED	INDEPENDENT	SYNCHRONIZED	*SYNCHRONIZED = synchronize bonded controllers in refrigeration mode; INDEPENDENT = bonded controllers control temperature independently in refrigeration mode*
MULTI EVAP DEFROST	SYNCHRONIZED	INDEPENDENT	SYNCHRONIZED	SYNCHRONIZED = synchronize bonded controllers in defrost mode; INDEPENDENT = bonded controllers defrost independently
MULTI EVAP SENSOR	SHARED	NOT SHARED	SHARED	SHARED = share sensor readings from bonded controllers; NOT SHARED = use local sensor readings only
HIGH TEMP ALARM OFFSET	0.0°F	99.9°F	10.0°F	Number of degrees above ROOM TEMP for a HIGH TEMP ALARM
HIGH TEMP ALARM DELAY	0 Min	120 Min	60 Min	Minutes the room temperature must remain above ROOM TEMP + HIGH TEMP ALARM OFFSET before issuing a HIGH TEMP ALARM
LOW TEMP ALARM OFFSET	0.0°F	20.0°F	4.0°F	Number of degrees below ROOM TEMP for a LOW TEMP ALARM condition
LOW TEMP ALARM DELAY	0 Min	30 Min	10 Min	Minutes the room temperature must remain below ROOM TEMP – LOW TEMP ALARM OFFSET before issuing a LOW TEMP ALARM
DOOR ALARM DELAY	0 Min	180 Min	30 Min	Minutes any door is open and room temperature is 5 deg F above ROOM TEMP + AIR DIFF before issuing an alarm condition
AUX IN 1 MODE	N/A	N/A	DISABLED	See Auxiliary Input Modes table on the following page
AUX IN 1 STATE	OPEN	CLOSED	CLOSED	OPEN = active if input is an open CLOSED = active if input is a short
AUX IN 2 MODE	N/A	N/A	DISABLED	See Auxiliary Input Modes table on the following page
AUX IN 2 STATE	OPEN	CLOSED	CLOSED	OPEN = active if input is an open CLOSED = active if input is a short
AUX IN 3 MODE	N/A	N/A	DISABLED	See Auxiliary Input Modes table on the following page
AUX IN 3 STATE	OPEN	CLOSED	CLOSED	OPEN = active if input is an open CLOSED = active if input is a short
2ND ROOM TEMP	-50.0°F	99.9°F	-50.0°F	If AUX IN (1,2 and/or 3) MODE = 2nd ROOM TEMP; this value becomes the ROOM TEMP set point when the digital input is active

NAME	Min	Max	Default	DESCRIPTION
SUCT PRES OFFSET	-5.0 PSI	5.0 PSI	0.0 PSI	An offset added or subtracted from the suction pressure transducer reading
SUCT TEMP OFFSET	-5.0°F	5.0°F	0.0°F	An offset added or subtracted from the temperature sensor reading
AIR TEMP OFFSET	-5.0°F	5.0°F	0.0°F	An offset added or subtracted from the air temperature sensor reading
COIL TEMP OFFSET	-5.0°F	5.0°F	0.0°F	An offset added or subtracted from the coil temperature sensor reading
AUX1 OFFSET	-5.0°F	5.0°F	0.0°F	When Aux1, Aux2, or Aux3 are used as a temperature sensor, an offset is added or subtracted from sensor reading
AUX2 OFFSET	-5.0°F	5.0°F	0.0°F	
AUX3 OFFSET	-5.0°F	5.0°F	0.0°F	
TEMP UNITS	FAHRENHEIT	CELSIUS	FAHRENHEIT	Unites for temperature's display in deg F for FAHRENHEIT, or deg C for CELSIUS
AIR TEMP DIFF	0.1°F	5.0°F	1.0°F	The number of degrees above ROOM TEMP before the controller will go into REFRIGERATION mode
EXTREME TEMP DIFF	0.0°F	99.9°F	20.0°F	Advanced topic: Call KE2 Therm for assistance
PROPORTIONAL	0	255	3	A coefficient to the valve control algorithm that increase valve responsiveness as the value
INTEGRAL	0	255	5	A coefficient to the valve control algorithm that increase valve responsiveness as the value
DERIVATIVE	0	255	3	Should not be adjusted unless instructed by KE2 Therm

Refrigerants

NAME	SCROLLING TEXT
R-404a	404A
R-507	R507
R-407a	407A
R-407c	407C
R-422a	422A
R-134a	134A
R-22	R22
R-717	R717
R-438a	438A
R-408a	408A
R-409a	409A
R-407f	407F
R-410a	410A
R-744	R744
R-448a	R448A
R-449a	R449A
R-450a	R450A
R-513a	513A
R-452a	452A

Aux Input Modes

NAME	SCROLLING TEXT
DISABLED	Input not used
ROOM TEMP	Temperature input used as another Room Temp
COIL TEMP	Temperature input used as another Coil Temp
MONITOR	Temperature input used for monitoring only
2ND TEMP	Inactive = 2ND ROOM TEMP SP off, Active = WND ROOM TEMP SP on
DOOR SWITCH	Inactive = Door Closed, Active = Door Open
EXT ALARM (1) (2) (3)	Inactive = No alarm, Active = External Alarm is set
SYS OFF	Inactive = Normal operation, Active = system off
DFR INTERLOCK	Inactive = defrost heaters normal control, Active = defrost heaters off
DFR LOCK	Inactive = defrost normal, Active = defrost not allowed

ArcticFox OEM Controller – Manual Menu

1. *Press* ENTER *and Password prompt will appear. Press* ENTER *to display 0 0 0 0. To enter the password (default is 2222), use the* ▲ *or* ▼ *to change the value of the digit, use the* ◀ *or* ▶ *to move to the next digit. When password is entered, press and hold* ENTER *for 3 seconds.*

2. *Select Parameter to adjust by using the* ▲ *or* ▼ *to scroll through the Manual Menu. When desired Parameter Name is displayed, press* ENTER *. Then use the* ▲ *or* ▼ *to move through the Range of options for that Parameter, or if entering a number, use the* ▲ *or* ▼ *to change the value of the digit, use the* ◀ *or* ▶ *to move to the next digit. Press and hold* ENTER *for 3 seconds to save the change.*

NAME	DESCRIPTION
MANUAL CONTROL	Force the controller into the next operating mode
MANUAL VALVE	Manually open or close the EEV in percentage increments
CLEAR ALARMS	Press and hold ENTER for 5 seconds to clear all alarms
MANUAL COMPRESSOR RELAY	Manually energize or deenergize liquid line solenoid / compressor relay
MANUAL DEFROST RELAY	Manually energize or deenergize defrost relay
MANUAL FAN RELAY	Manually energize or deenergize fan relay
FACTORY RESET	Press and hold ENTER for 5 seconds to put all setpoints back to default
WEB PASSWORD RESET	Reset the web password to the factory default
DOD INIT	Turn ArcticFox Smart Access on or off
SMART ACCESS	Turn DHCP Mode on or off
DHCP MODE	Re-initialize OEM defrost algorithm

ArcticFox OEM Controller – Alarms Menu

1. *Use the ◀ or ▶ to move through the Menus (Setpoints – Variables – Manual Menu – Password – **ALARMS**). Press ENTER when Alarms is displayed.*

2. *Use the ▲ or ▼ to scroll through the Alarms list. Press BACK once to return to the Menus.*

3. *Press BACK two more times to return to the default display.*

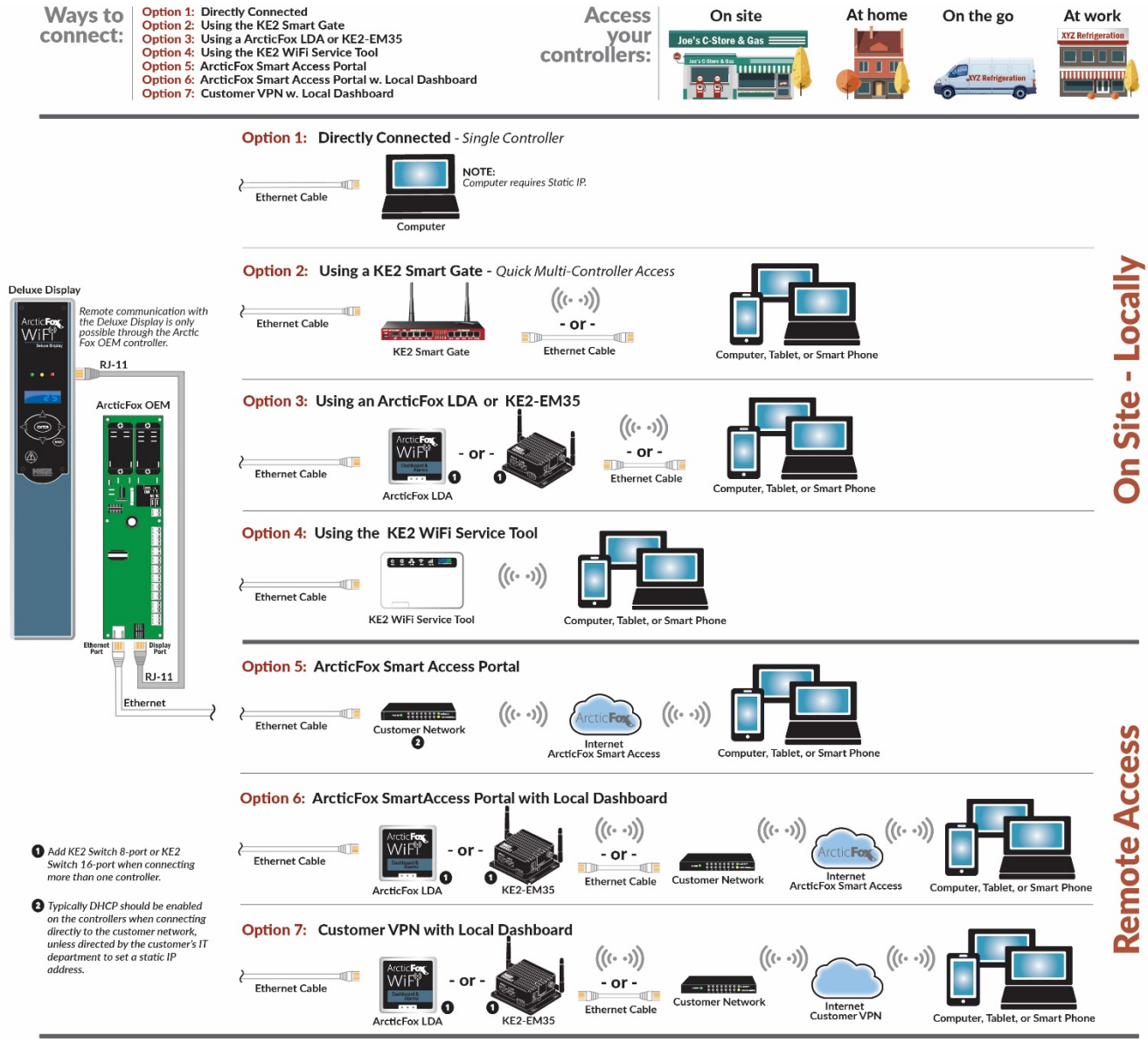
4. *Press ⚠ to silence the alarm. Alarm is silenced for 1 hour while alarm condition is addressed. If system is not corrected by 1 hour alarm will sound again.*

NAME	DESCRIPTION
PRESSURE SENSOR	Suction pressure sensor is shorted, open or pressure out of range
SUCTION TEMP SENSOR	Suction temperature sensor is shorted or open
AIR TEMP SENSOR	Return air temperature sensor is shorted or open
COIL TEMP SENSOR	Coil temperature sensor is shorted or open
HIGH SUPERHEAT	Superheat above upper limit
LOW SUPERHEAT	Superheat below lower limit
HIGH AIR TEMP	Room temperature is above ROOM TEMP + AIR TEMP DIFF + HIGH TEMP ALARM OFFSET for longer than HIGH TEMP ALARM DELAY
LOW AIR TEMP	Room temperature is below ROOM TEMP – LOW TEMP ALARM OFFSET for longer than LOW TEMP ALARM DELAY
EXCESS DEFROST	32 or more defrosts within 48 hours
DEFR TERM ON TIME	Defrost terminated on time instead of temperature for two consecutive cycles
DOOR OPEN ALARM	If any door input from main controller or combo display is open and room temperature is 5°F above ROOM TEMP + AIR TEMP DIFF for DOOR ALARM DELAY time
COMMUNICATION ERROR	ONLY FOR BONDED CONTROLLERS: No communication between controllers for one minute or more
EXTERNAL ALARM 1	If main AUX1 IN MODE = EXT ALARM: the digital input is in an active state
EXTERNAL ALARM 2	If main AUX2 IN MODE = EXT ALARM: the digital input is in an active state
EXTERNAL ALARM 3	If main AUX3 IN MODE = EXT ALARM: the digital input is in an active state
EMAIL FEATURE	Email alert was not confirmed by email server provided after 7 consecutive attempts
DISPLAY AUX2 SENSOR	Set if display AUX2 Function set to one of the temperature inputs and input is shorted or open
PUMPDOWN TIMEOUT	Max time for LPCO pump down exceeded
SHORT COMP CYCLE	Compressor is started an excessive number of times to maintain suction pressure
LOW PRESSURE	Suction pressure dropped below expected point excessive number of times
AUX1 SENSOR	Set if main AUX1 input set to a temperature input and input is shorted or open
AUX2 SENSOR	Set if main AUX2 input set to a temperature input and input is shorted or open
AUX3 SENSOR	Set if main AUX3 input set to a temperature input and input is shorted or open
FLASH MEM ERROR	Internal Controller Alarm
COMP SEQ COMM ERROR	If set to communicate with Compressor Sequencer, but no communication detected
WATCHDOG ERROR	Internal Controller Alarm
HELP – PANIC	Display Panic Button pressed and in panic mode
DOOR TEMP SENSOR	Set if display AUX1 Function set to DOOR TEMP and input is shorted or open
DOOR TEMP HIGH	Display Door temperature is above DOOR TEMP + DOOR TEMP DIFF + HI DOOR ALR OFST for longer than DOOR TMP ALR DLY
DOOR TEMP LOW	Display Door temperature is below DOOR TEMP – LO DOOR ALR OFST for longer than DOOR TMP ALR DLY
HIGH MONITOR TEMP2	Display Monitor2 temperature is above MON TMP2 HI ALRM for longer than MON TMP2 AL DLY
LOW MONITOR TEMP2	Display Monitor2 temperature is below MON TMP2 LO ALRM for longer than MON TMP2 AL DLY

NAME	DESCRIPTION
DISPLAY AUX3 SENSOR	Set if display AUX3 Function set to one of the temperature inputs and input is shorted or open
HIGH MONITOR TEMP3	Display Monitor3 temperature is above MON TMP3 HI ALRM for longer than MON TMP3 AL DLY
LOW MONITOR TEMP3	Display Monitor3 temperature is below MON TMP3 LO ALRM for longer than MON TMP3 AL DLY
DISP EXTERNAL ALARM 1	If display AUX1 FUNCTION = EXT ALARM; the digital input is in an active state
DISP EXTERNAL ALARM 2	If display AUX2 FUNCTION = EXT ALARM; the digital input is in an active state
DISP EXTERNAL ALARM 3	If display AUX3 FUNCTION = EXT ALARM; the digital input is in an active state

Communications

Note: Remote communication with the Deluxe Display is only possible through the OEM Evaporator.



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