

Operating Guide

for
eAutoFresh™

- Starting the refrigeration unit
- Activating the eAutoFresh option
- User mode
- Test and Cal mode
- Delay mode
- Gas Limit mode




STARTING THE REFRIGERATION UNIT

Caution: Check that the unit circuit breaker(s) (CB-1 & CB-2) and the start-stop (ST) switch are in the OFF (“O”) position before connecting to any electrical power source.





1. Check power source for the proper voltage.
2. Connect the refrigeration unit power plug and energize the power source.
3. Place refrigeration unit circuit breaker CB-1 (& CB-2, if equipped) in position “I” (ON).
4. Start the refrigeration unit by placing the START-STOP (ST) switch in position “I” (ON).

Note: To stop the unit, place the START-STOP switch in position “O” (OFF) also place the unit circuit breaker CB-1 (& CB-2, if equipped) in position “O” (OFF).





USER MODE

USER 	In the USER mode, the operator can select the fresh air vent opening, either in cubic feet or cubic meters. Press the ENTER key to activate the selection mode.
FLO  	When “FLO” appears in the left hand window, use the UP or DOWN arrow key to scroll to the desired opening. The range is from 0 to 220 CM (0 to 129 CF) in increments of 5 and 3 respectively. Press the ENTER key to set the value.

ACTIVATING THE eAutoFresh OPTION

	1. Press the CODE SELECT key.
	2. Press the UP or DOWN arrow key to select code Cd43.
	3. Press the ENTER key to activate the drop down sub-menus. The user may choose one of the following options: OFF, USER, TEST, DELAY or GAS LIMIT mode of operation.
	4. Press the UP or DOWN arrow key to scroll to the desired mode of operation and then press the ENTER key.

TEST & CALIBRATION MODE

TEST  	Within TEST mode there are two options available, TEST and CAL. Use the UP or DOWN arrow key to select the desired option. Press the ENTER key to activate the test procedure.
	Pressing the ENTER key again will cause the vent to fully open and return to the closed position. After completion of the TEST, the unit will return to the previous mode of operation .
CAL 	With “CAL” mode displayed, press the ENTER key and hold for 5 seconds. The microprocessor will recalibrate the CO ₂ sensor, provided the sensor is within the calibration range. If the sensor is outside the calibration range, the controller will flash “NOCAL”.

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DELAY MODE	
<p>DELAY</p> <p>ENTER</p>	In delay mode the operator can select the amount of time to delay and the return temperature offset. When either parameter is reached the fresh air vent will open to the desired FLO rate setting. When "DELAY" appears in the left window, press the ENTER key to activate the sub-menus.
<p>tim</p> <p>↑ ↓</p> <p>ENTER</p>	When "tim" appears in the left hand window select the amount of time for the delay by using the UP or DOWN arrow key. The range is from 1 to 72 hours in 1 hour increments. Press the ENTER key to set the value and move to the "FLO" rate.
<p>FLO</p> <p>↑ ↓</p> <p>ENTER</p>	Use the UP or DOWN arrow key to scroll to the desired "FLO" rate. The range is from 0 to 220CM (0 to 129CF) in increments of 5 and 3 respectively. Press the ENTER key to set the value and move to the return temperature offset.
<p>rtn</p> <p>↑ ↓</p> <p>ENTER</p>	Use the UP or DOWN arrow key to scroll to the desired "rtn" rate. The range of offset is from 0.6°C to 2.8°C (1.0°F to 2.8°F) in 0.1° increments. Press the ENTER key to set the value.

GAS LIMIT MODE	
<p>ENTER</p>	In the "GASLIM" mode, the operator can select the CO ₂ and O ₂ control values. Press the ENTER key to activate the selection mode.
<p>CO2LM</p> <p>↑ ↓</p> <p>ENTER</p>	When "CO2LM" appears in the left window, use the UP or DOWN arrow key to scroll to the desired CO ₂ maximum setting. The range is from 0 to 19% in increments of 1. Press the ENTER key to set the value and move to the O ₂ minimum setting.
<p>O2LM</p> <p>↑ ↓</p> <p>ENTER</p>	Use the UP or DOWN arrow key to scroll to the desired O ₂ minimum setting. The range is from 2 to 20% in increments of 1. Press the ENTER key to set the value and move to the FLO rate.
<p>FLO</p> <p>↑ ↓</p> <p>ENTER</p>	Use the UP or DOWN arrow key to scroll to the desired "FLO" rate. The range is from 0 to 220CM (0 to 129CF) in increments of 5 and 3 respectively. Press the ENTER key to set the value.

SUGGESTED TRANSPORT CONDITIONS¹

Cargo	Maximum CO ₂ Setting	Minimum O ₂ Balance ²
Apple	2	19
Apricot	5	16
Artichoke	3	18
Asparagus	10	11
Avocado (hass & fuerte)	10	11
Banana	4	17
Bean, Snap	6	15
Blackberry/Blueberry	19	2
Broccoli	10	11
Brussels sprouts	6	15
Cabbage	5	16
Cantaloupe	17	4
Cauliflower/Celery	4	17
Cherimoya	10	11
Cherry	15	6
Corn, Sweet	10	11
Cranberry	2	19
Durian	14	7
Fig	17	4
Grape	5	16
Grapefruit	10	11
Kaki (Persimmon)	7	14
Kiwifruit	5	16
Lemon/Lime	10	11
Lychee	4	17
Mango	5	16
Mushroom	15	6
Onion/Orange	5	16
Papaya	7	14
Peach and Nectarine	5	16
Pepper, Chilli	15	6
Pepper, Sweet	4	17
Pineapple	9	12
Plum	5	16
Pomegranate	9	12
Rambutan	11	10
Raspberry	19	2
Snow Peas	3	18
Strawberry	19	2
Sweetsop	5	16
Tomato (Mature-Green)	2	19
Tomato (Ripe)	4	17

¹The transport conditions suggested in this guide are based on the best available information for the specific commodity. Because optimum atmosphere may vary depending on many factors, the suggested conditions are merely guidelines. Adjust if experience suggest otherwise. For general post harvest recommendations, please refer to UC Davis Postharvest Technology department (<http://postharvest.usdavis.edu>)

² O₂ level results from setting the desired CO₂ based on a 21% combination and 1 to 1 ratio.