# **OWNER'S MANUAL**

# **CAMTHERM® BULK FOOD HOLDING CABINETS**

This owner's manual applies to all variations of the following models:

Low Profile Hot Only

CMBH1826LF CMBH1826LC

Hot / Cold

CMBHC1826LF CMBHC1826LC

Low Profile

with Security Package

Hot Only

CMBH1826LSP

Hot / Cold

CMBHC1826LSP

Tall Profile Hot Only

CMBH1826TSF CMBH1826TBF CMBH1826TSC CMBH1826TBC

Hot / Cold

CMBHC1826TSF CMBHC1826TBF CMBHC1826TSC CMBHC1826TBC

Tall Profile

with Security Package

Hot Only

CMBH1826TSP

Hot / Cold

CMBHC1826TSP

















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# I. Introduction

Congratulations on the purchase of your new Camtherm®. This Owner's Manual provides you with a step-by-step guide to operating and maintaining your new insulated transporter — versatile enough to hold hot or cold food. If you have any further questions, please contact your Cambro Sales Representative, visit www. cambro.com or call our **Customer Service Department at 800.833.3003 (International customers please call 714.848.1555).** 

# II. Safety Instructions and Warnings

**IMPORTANT:** Read all instructions prior to use and save for future reference.

- Not intended for use outdoors.
- Follow all warnings marked on unit.
- Use only type of power supply (voltage, phase, frequency) indicated on the heater unit label.
- Do not use if power cord is frayed or damaged.
- · Connect unit to properly grounded power source.
- Use only manufacturer authorized power cord and replacement parts.
- Warning! Do not use this equipment in wet or damp conditions.
- Warning! Unplug unit prior to cleaning or service.
- Warning! Remove power cord from heater prior to cleaning. Clean with damp cloth only.
- Warning! Do not submerge heater in water and never spray water on or near it.
- Warning! Do not get the thermometer wet in any way.
- Warning! Unplug the power cord before removing the interior louvers for cleaning.
- Warning! Only Cambro Authorized Service Agent or qualified foodservice equipment technician should open
  the inner cover of the heater for servicing.
- Caution! Outer surfaces of the thermoelectric unit may be HOT.
- Any operating problems not identified and corrected by instructions in this manual should be referred to a qualified service personnel (electrician or foodservice equipment technician).

# III. Features at a Glance

# (A) Back View

- 1. Thermoelectric Unit
- 2. Power Cord
- 3. Rear, Wheels (Option for rigid casters or big wheels on Tall carts only)
- 4. Rear Handles
- 5. Control Panel
- 6. Molded-in Bumper



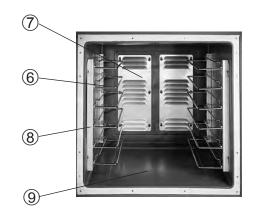




# III. Features at a Glance (continued)

# (B) Front and Internal View

- Solar Powered Door Thermometer (Factory Set at Celsius or Fahrenheit)
- 2. Cabinet Doors
- 3. Door Latches
- 4. Vent Cap, dual position (One per Door)
- 5. Menu Clip (One per Door)
- 6. Adjustable Slide Rails
- 7. Louvers
- 8. Uprights for Slide Rails
- 9. Cabinet Cavity (Single cavity for both low and tall units)





# (C) Camtherm with Security Package

# **LOW PROFILE**

Hot Only CMBH1826SP Hot / Cold CMBHC1826SP Tall Profile Hot Only CMBH1826TSP Hot / Cold CMBHC1826TSP



Locking, stainless steel door latch. Factory assembled for maximum security





Rail assembly attached to unit with security screws.

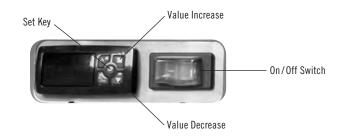
One-piece, welded rail and upright assembly available upon request.

# (D) Control Panels

# **Hot Only Models:**

(Located on the upper section of the TE unit, mounted to the back of the cabinet)

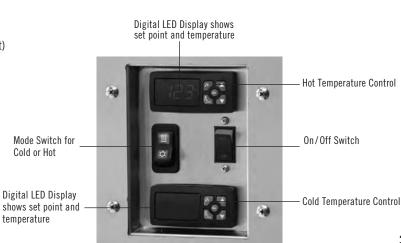
- On/Off Power Switch
- Temperature set-point digital controller
- Hot temperature is factory pre-set to <u>165°F / 73,9°C</u> (Hot Range: 80°F to 170°F / 26,7°C to 76,7°C)



# **Hot & Cold Models:**

(Located on the upper section of the TE unit, mounted to the back of the cabinet)

- On/Off Power Switch
- Mode Switch (for selecting hot or cold operation modes)
- Temperature set-point digital controller
- Cold temperature is factory pre-set to <u>34°F. / 1,1°C</u> (Cold Range: 32.1°F to 40°F / 0,05°C to 4,4°C)
- Hot temperature is factory pre-set to  $\underline{165^{\circ}F/73.9^{\circ}C}$  (Hot Range: 80°F to 170°F / 26,7°C to 76,7°C)



# III. Features at a Glance (continued)

# (E) Data Plate

Located on the lower hinge side of the unit. Please have this information handy if you need to contact customer service.



Sample Data Plate

# IV. Use and Maintenance

# (A) HOT & COLD Camtherm® Cart — Maximizing Performance

**NOTE:** For maximum holding performance and to ensure safe food temperatures, pre-heat or pre-cool the cabinet at least 1 hour before loading with hot or cold food. Refer to reference charts in section IV.(B) for exact time guidelines.

- 1. Press the power switch to the "ON" position. (NOTE: The POWER light will be activated and should be green. A red POWER light indicates a problem exists, go to the troubleshooting guide)
- 2. Hot & Cold units, press the "MODE" switch once to operate in the Cold mode. Press it twice to operate in the Heat mode. (NOTE: as the "MODE" switch is pressed the corresponding HEAT or COOL light will be activated and be a green color. A red HEAT or COOL light indicates a problem exists, go to the troubleshooting guide)
- 3. **If pre-heating**, press the "MODE" switch until the HEAT light is illuminated red. This mode temperature is adjustable 150°F 165°F with the set-point dial.
- 4. If pre-cooling, press the "MODE" switch until the COOL light is illuminated blue. This mode temperature is adjustable 32.1°F to 40°F (0,05°C to 4,4°C).
- 5. The use of lids or covers on food containers inside this cart can increase the length of time your food can stay at safe temperatures when transporting the UN-plugged cart. While the cart is UN-plugged, keep the frequency of opening the doors to a minimum to achieve the best performance.
- 6. Before transporting or relocating cabinet, first ensure door(s) are completely shut and latches are secure. Then turn power off, unplug, and wrap cord.
- 7. Refer to chart in section IV.(B) for recommended recovery times and holding times with the cart unplugged.

# (B) HOT Only Camtherm® Cart — Maximizing Performance

**NOTE:** For maximum holding performance and to ensure safe food temperatures, pre-heat the cabinet at least 1 hour at the required temperature before loading with hot food (MAX 170°F - 76,7°C). Refer to reference charts in section IV.(B) for exact time guidelines.

- 1. Press the power switch to the "ON" position. (The digital control will display current temperature.)
- 2. The use of lids or covers on food containers inside this cart can increase the length of time your food can stay at safe temperatures when transporting the UN-plugged cart. While the cart is UN-plugged, keep the frequency of opening the doors to a minimum to achieve the best performance.
- 3. Before transporting or relocating cabinet, first ensure door(s) are completely shut and latches are secure. Then turn power off, unplug, and wrap cord.
- 4. Refer to chart in section IV.(B) for recommended recovery times and holding times with the cart unplugged.

# (C) SET POINT SETUP:

- Press the Set key once and Set will be displayed.
- · Press the Set key again and set point value will be shown, blinking.
- Use the Up and Down arrows to adjust the set point. (Minimum 80°F / 26,7°C, Maximum 170°F / 76,7°C for hot holding. Minimum 32.1°F / 0,05°C to 40°F / 4,4°C for cold holding.)
- · Press the Set key to save the new set point.
- Press Set and Down arrow keys at the same time to exit.

# LED INDICATORS:

((•)) Indicates an Error or Alarm.

### **DISPLAY MESSAGES**

In normal operation the probe temperature will be displayed. The display blinks when waiting for a parameter to be saved or when there is an error saving a parameter to memory. The following messages can also appear:

ERP1 Probe Error (check wiring or replace probe)

Eri Internal Parameter Error (factory default programming)

ALH High Temperature Alarm

ALL Low Temperature Alarm

ooo Open Probe Error

--- Short Circuited Probe Error



# (B) Reference Charts

# Temperature Maintenance Guidelines - Warm Up, Cool Down, Recovery, Holding/Transport

# ${f Hot}$ — Time & Temperature Performance

	НОТ	PRE-HEAT TIME From ambient (73°F/23°C) to hot	RECOVERY TIME** Time to recover to hot temperature after door is held open for 30 seconds	TRANSPORT TIME**  After reaching hot temperature, amount of time unit can be held passively / unplugged vuntil temperature reaches 140°F (60°C).
	LOW	150°F (65°C)	150°F (65°C)	150°F (65°C)
300	Hot Only Unit	45 minutes	2 minutes	6 hours
	Hot/Cold	45 minutes	2 minutes	6 hours
1 1	TALL			
1	Hot Only Unit	60 minutes	1 minute	4 hours
7	Hot/Cold Unit	60 minutes	1 minute	6 hours

<sup>\*</sup>Pre-heat time based on empty cart.

# **Cold** - Time & Temperature Performance (Hot/Cold Units Only)

	COLD	PRE-CHILL TIME* From ambient to cold	RECOVERY TIME** Time to recover to cold temperature after door is held open for 30 seconds	TRANSPORT TIME** After reaching cold temperature, amount of time unit can be held passively / unplugged until temperature reaches 41°F (5°C).
	LOW	37°F (2,8°C)	37°F (2,8°C)	37°F (2,8°C)
300	Hot/Cold Unit	90 minutes	3 minutes	5 hours
100 100	TALL			
	Hot/Cold Unit	90 minutes	3 minute	4 hours
12 " 15	*Pre-chill time hased	on empty cart		

# **ELECTRICAL**

SPECIFICATIONS	LOW PROFILE - HOT ONLY	LOW PROFILE - HOT AND COLD	TALL PROFILE - HOT ONLY	TALL PROFILE - HOT AND COLD
VOLTS	110V-125V	110V-125V	110V-125V	110V-125V
PLUG TYPE	Nema 5-15P	Nema 5-15P	Nema 5-15P	Nema 5-15P
MAXIMUM AMP DRAW	9.1	10.7	14	14.3
AMPS RUN ON	9	10.1	13.8	13.6
WATTS	1035	1162	1587	1570
HERTZ	50/60	50/60	50/60	50/60

# **HOLDING CAPACITY TALL PROFILE** (Includes 12 rail sets)

# 18" x 26" (45,7 x 66 cm)

# **FULL-SIZE FOOD PANS** 12" x 20" (32,5 x 53 cm)

24	2½" (6,5 cm) Deep
16	4" (10 cm) Deep
12	6" (15 cm) Deep
8	8" (20 cm) Deep

<sup>\*</sup>Requires ten additional rail sets.

# **HOLDING CAPACITY LOW PROFILE** (Includes 6 rail sets)



SHEET PANS	
11* 1	8" x 26" (45,7 x 66 cm)

**FULL-SIZE FOOD PANS** 12" x 20" (32,5 x 53 cm)

8 4" (10 cm) Deep 6 6" (15 cm) Deep	
6 6" (15 cm) Deep	
4 8" (20 cm) Deep	

<sup>\*</sup>Requires five additional rail sets.

<sup>\*\*</sup>Results based on tests with 6 full-size 6" (15,2 cm) deep H-Pans™ filled with 190°F (87,7°C) hot water and covered; tall cart tested with 12 pans.

<sup>\*\*</sup>All results based on tests with 6 full-size 6" (15,2 cm) deep H-Pans™ filled with 34°F (1,1°C) cold water and covered; tall cart tested with 12 pans.

# IV. Use and Maintenance (continued)

# (C) Proper Maintenance

WARNING! IMPORTANT! ALLOW UNITS TO COMPLETELY COOL OR COME UP TO ROOM TEMPERATURE

BEFORE CLEANING. UNPLUG UNIT BEFORE CLEANING.

### **HEATER AND DOOR**

**WARNING!** Completely cool heater unit prior to cleaning or maintenance.

WARNING! Do not submerge heater in water or spray water on it.

WARNING! Do not get the thermometer wet in any way.

WARNING! Unplug heater from grounded power source and from door heater prior to cleaning.

# (i) Cleaning the Inside

- 1. Remove slide rails.
- 2. Remove uprights.
- 3. Remove louvers by lifting up and off the screw holders.

To reinstall, place louvers above the screw holders and pull firmly downward.

**NOTE:** On all Tall units, top louver openings should be facing upwards;

bottom louver openings facing downwards. This is important to note for proper air flow!



# Do not tighten screws that hold the louvers as they are preset.

4. Clean slide rails, uprights, louvers and wipe inside of cabinet with warm, soapy water and a soft plastic brush.

CAUTION! DO NOT USE A METAL BRUSH.

CAUTION! DO NOT STEAM CLEAN OR DIRECT ANY WATER SPRAY INTO THE LOUVERS OR ANY OTHER OPENINGS AS SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT.

CAUTION! AT NO TIME SHOULD THE CABINET BE WASHED OR FLOODED WITH WATER AS SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT IN INJURY AND DAMAGES.

# (ii) Cleaning the Outside

- 1. Wipe down the external cabinet with warm soapy water, and a soft cloth. Be sure door(s) is closed.
- 2. For tough to clean stains use a plastic-safe stain remover such as Ecolab's "Dip it."

Marine Rail is designed for use during service, not transport.

# (iii) Caster Maintenance

Caster maintenance should be performed each time the unit has been cleaned.

- Grease swivel raceway of caster using a lubricant such as Lubriplate #930-AA, Keystone #84EPXLT multi-purpose grease or equivalent. Apply grease using a grease gun with a needle nose adapter or a tube-type applicator such as Sta-lube Moly-graph Assembly Lube (Fig.1). These can be obtained at most auto parts stores.
- 2. Use a light oil such as WD-40 on the hub (Fig.2). Check caster for damage and test caster spin and swivel rotation before returning to service.







Fig.2

# V. Troubleshooting Guide

If you still are experiencing a problem after using the troubleshooting guide, please request a service call.

# To request a service call, contact your local Cambro Representative.

# **Issues and Possible Solutions**

- 1. Moisture shows on the outside of the door or your food is not being maintained at the proper temperature.
  - 1. The door is not sealed properly.
  - 2. Check the door for damage. Replace if needed.
  - 3. Check the latch for proper operation. Replace if needed.
  - 4. Check the gaskets, broken or torn gaskets will cause heat loss and cause the TE unit to run continuously.
  - 5. The TE unit on the cart is not working see below.
  - 6. If the problem persists, Call for Service.

### 2. Temperature gauge is not reading accurately or not at all.

- 1. Temperature gauge could be defective. Replace temperature gauge if needed.
- 2. Probe mounted inside the door is damaged. Replace temperature gauge if needed.
- 3. Probe is pushed into the recess. The best operation is to have the probe slightly protruding beyond the recess it is mounted over. Re-position the probe to improve performance.
- 4. No image on the thermometer readout is usually due to poor lighting. The thermometer is solar powered.
- 5. If the problem persists, Call for Service.

# 3. Thermal Electric unit is not working properly.

- Is there a proper supply of electricity to the unit? Refer to the electrical specifications in this manual or on the TE unit. Check all breakers or fuses & correct as needed.
- 2. Is the Main power switch in the "On" position?
- 3. In the Heat mode or on a Hot-only TE unit, is the temperature set-point at the desired set temperature?
- 4. On the Hot/Cold TE unit, has the mode switch been pressed until the desired Mode is illuminated?
- 5. External fans (Hot/Cold only) must operate to ensure module assemblies proper operation. Loss of these fans can cause the modules to overheat and fail. Make sure all of the external fans are operating. Replace any fans that are not working.
- 6. Internal fans (circulation for the food areas) must operate to keep even temperatures in the food storage areas. Temperatures may not be achieved when these fans are not all working. Remove the internal louver panels to verify proper operation.

# 4. Casters or big wheels do not roll smoothly.

- 1. Check axle; make sure it is not bent. If it is bent, Call for Service.
- 2. Casters or any wheel is making squeaks or other noises, lubricate casters as described in section II (C) Proper Maintenance, (iii) Caster Maintenance (pg 6).
- 3. Replace all damaged casters, this cart could cause harm or injury on faulty wheels.
- 5. Cord becomes damaged and non-working. Call For Service.
  - 1. Do not use the unit with damaged power supply cord, plug body or a missing ground connector!

# VI. Replacement Parts

Please visit www.cambro.com for a complete list of replacement parts. The model number of the Cambro cart or carrier and/or heater is required to determine the correct replacement part. The cart model number can be found on the left side of the cart. Each heater has a label marked with heater serial and model number.

### TO ORDER REPLACEMENT PARTS:

- Call Cambro Customer Service at 800 833 3003 or
- Call International 714 848 1555
- Fax your order to 714 842 3430 or
- · Call your local Cambro Representative or Distributor

# VII. Cambro Warranty and Product Liability

# LIMITED ORIGINAL COMMERCIAL ELECTRICAL EQUIPMENT WARRANTY

Cambro Manufacturing warrants its new product(s) to be free from defects in material and workmanship for a period of one (1) year from the date of shipment from authorized CAMBRO distribution locations.

This Warranty is subject to the following conditions and limitations:

- 1. This warranty is limited to product(s) sold by Cambro Manufacturing to the original user in the continental United States and Canada. For International Warranty Claims contact your local Cambro Representative.
- 2. The Liability of Cambro Manufacturing is limited to the repair or replacement of any part found to be defective. Parts and labor required for preventative maintenance or cleaning are not covered under this warranty.
- 3. Cambro Manufacturing will bear normal charges incurred in the repair or replacement of a warranted piece of equipment within 50 miles (80 kilometers) of an authorized service agency. Time and travel charges in excess of 50 miles (80 kilometers) will be the responsibility of the person or firm requesting the service. All labor to repair and/or service the warranted unit(s) shall be performed during regular working hours. Overtime premium will be charged to the buyer and is NOT covered by this warranty.
- Charges incurred by delays or operating restrictions that hinder the service technician's ability to access or perform service to equipment in question are NOT covered by this warranty. This includes Institutional, Correctional, Military, and marine facilities.
- Cambro Manufacturing will bear no responsibility or liability for any product(s) which have been mishandled, abused, misapplied, misused, subjected to harsh chemical action, damaged by flood, fire, or other acts of nature, field modified by unauthorized personnel or which have altered or missing serial numbers.
- Cambro Manufacturing does not recommend or authorize the use of any product(s) in a non-commercial application, including but not limited to residential use. The use or installation of any product(s) in non-commercial applications renders all warranties, express or implied, including the warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, null and void, including any responsibility for damage, costs and legal actions resulting from use or installation of product(s) in any noncommercial setting.
- 7. Adjustments such as calibrations, leveling, tightening of fasteners or utility connections normally associated with the original installation are the responsibility of the dealer or installer and not that of Cambro Manufacturing. Improper installation includes, but is not limited to, use of inadequate electrical wiring and/or insufficient or improper voltage.
- 8. Replacement part(s) which are replaced in the field by CAMBRO authorized service technicians ONLY will be warranted for the duration of the equipment warranty or 90 days effective from date of installation, whichever is greater. This warranty is for part(s) cost only and does not include freight or labor charges.
- 9. This states the exclusive remedy against Cambro Manufacturing relating to the product(s), whether in contract or in tort or under any other legal theory, and whether arising out of warranties, representations, instructions, installations or defects from any cause. Cambro Manufacturing shall not be liable, under any legal theory, for loss of use, revenue or profit, or for substitute use of or performance, or for incidental, indirect, or special or consequential damages or for any other loss or cost of a similar type.
- 10. THIS WARRANTY AND THE REPRESENTATIONS AND TERMS SET FORTH HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, INCLUDING BUT NOT LIMITED TO, OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR PARTICULAR USE AND CONSTITUTES THE ONLY WARRANTY OF CAMBRO MANUFACTURING WITH RESPECT TO THE PRODUCT(S).

RETURN POLICY: Cambro Manufacturing products cannot be returned without prior written factory authorization (RMA). The restocking charge is 15% plus any costs required to recondition the equipment. No returns accepted after 90 days from date of invoice. Electrical components returned are subject to inspection prior to credit being issued. Electrical components which have been installed by an operator or non-approved service agent are not returnable for credit.



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**Telephone** 714 848 1555 Toll Free 800 854 7631 Customer Service 800 833 3003

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