Fresh Flex FR30
Equipment Manual
H&K Model Number 87195 (-PS)

This manual is for the exclusive use of
licensees and employees of
McDonald's Systems Inc.

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Warnings

CAUTION: This unit contains a flammable refrigerant

This Installation & Operating Manual contains important instructions and safety information. Please read this manual in its entirety before operation unit. Read and understand the information on page 11 of this manual before attempting to install, operate, or service the unit.

Introduction

The **Fresh Flex FR30** is designed to hold all contents at either fresh or frozen temperatures. When in either mode below, both drawers will be held at the following temperatures:

COOLER Mode:	34 – 40°F
FREEZER Mode:	-10 – 10°F

The current cooling mode is indicated by the red LED's on the front backsplash of the unit near the controller display. The controller display indicates the temperature in both drawers. The cooling mode can be changed between COOLER and FREEZER by accessing a switch on the rear of the unit. See page 4 for details.

Power Requirements

All electrically operated appliances must be electrically grounded in accordance with local codes, or in the absence of local codes, with National Electric Code, ANSI/NFPA No. 70-1990.

Power supply: 120V/50-60hz/1ph
Current = 3.5 Amps
Maximum Fuse/Circuit Breaker = 15A

Installation Instructions

Inspection

Upon receipt, examine the equipment carefully for any damage. If damage has occurred, notify the freight carrier and H&K immediately.

Uncrate the Unit

This unit will arrive crated in a skid-mounted carton. **Leave the unit on the skid until ready for installation.**

Caution! The shipping container may have staples, nails, banding under tension and possible wood splinters, which can cause injuries. Wear gloves and eye protection to reduce the risk of injury when uncrating. This unit is very heavy; do not attempt to remove this unit from its packaging without assistance.

After uncrating, remove tape and foam pieces used to secure loose components. Then peel the protective adhesive film from all interior and exterior surfaces.

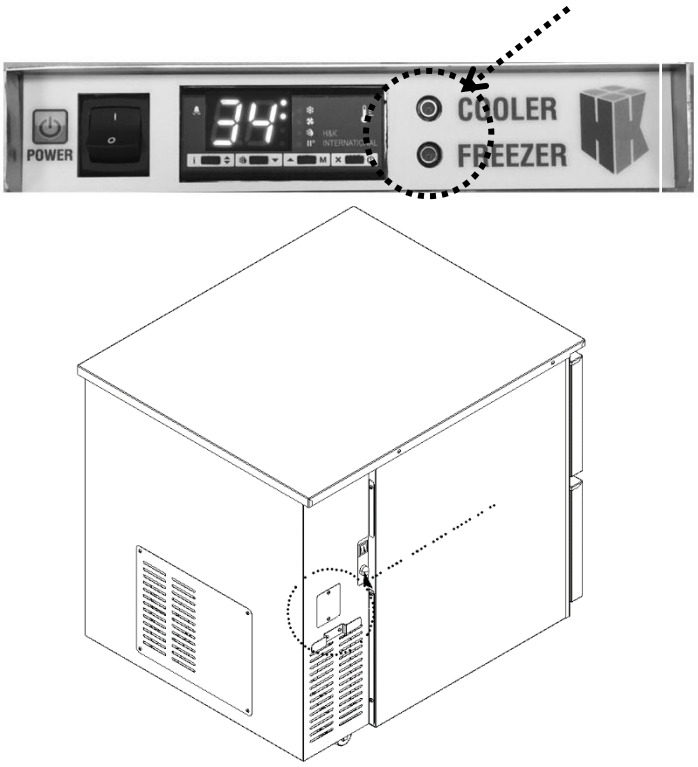
Wash and Sanitize Unit Interior & Drawer Components before Use

Wipe down, sanitize and dry the refrigerator interior using McD Approved KAY Peroxide Multi-Surface Cleaner & Disinfectant Solution (cleaner/sanitizer) -OR- McD Approved Sink Detergent Solution and Sanitizer Solution.

Note! Use only McDonald's approved cleaning and sanitizing agents

Operating Instructions

The Fresh Flex FR30 has been tested and preset at the factory to maintain the correct storage temperatures for either fresh or frozen product. The temperature controller located on the front panel displays the internal temperature of both drawers. The red LED's next to the controller indicate the current cooling mode.



Cooling Mode Setting

To switch cooling modes, locate the access panel on the left rear side of the unit next to the ON/OFF switch. Remove the screws to access the switch. Flipping the switch will change the cooling mode as indicated by the red LED's. Access panel must be replaced after switching cooling mode.

Caution! Switching of cooling modes should **NOT** be performed on a regular basis and should only be used to support menu management and offerings changes. Allow adequate time for the unit to reach proper temperatures and do not load product until controller displays temperatures within the temperature range on page 3 of this manual. Switching of cooling mode should only be performed by trained personnel.

Temperature Setting

To view current set point or if the temperature is not reading within the range specified above, the electronic controller can be adjusted using the following procedure:

Controller			
			
i	**Info / Setpoint button**	M	**Increase / Manual activation button**
	Manual defrost / Decrease button		**Exit / Stand-by button**

Set point ***(Display and modification of desired temperature value)***
Press and hold the "i" button to display the temperature set point value.
While holding the "i" button, use the ▼ and ▲ buttons to set the desired value.
When the desired value is reached, release the "i" button to store the new value.

Loading and Accessing Product

After the unit has met the required product temperature range as indicated on page 3 of this manual, product can be loaded. Please follow the instructions below when loading and accessing product:

- **DO NOT** overload the unit. All refrigeration requires good air circulation to maintain proper operation. All contents must be within the drawers.
- **DO NOT** let plastic bags, packaging, or containers block or obstruct the evaporator air return and supply openings located at the top and bottom of the back wall.
- **DO NOT** leave the drawer open for an extended amount of time. Drawers have self-closing and "bump to close" features to ensure safe product temperatures.
- **DO NOT** Overload the drawers--**Max** Load for the Drawer is (66 lbs., 30kg.)

Cleaning

Exterior Cleaning

The exterior of the unit should be cleaned with McD Approved KAY Peroxide Multi-Surface Cleaner & Disinfectant Solution (cleaner/sanitizer) -OR- McD Approved Sink Detergent Solution and Sanitizer Solution. **Do not use abrasive cleaners to clean the exterior of the cabinet as this might damage the stainless steel finish. Do not use steel wool or any strong chemicals.**

Interior Cleaning

The Stainless Steel interior of the refrigerator can be cleaned using a soft sponge and McD Approved KAY Peroxide Multi-Surface Cleaner & Disinfectant Solution (cleaner/sanitizer) -OR- McD Approved Sink Detergent Solution and Sanitizer Solution. **Do not allow liquid to puddle in the unit.** Wipe the inner liner dry after cleaning.

Caution! Do not use a pressurized spray to clean the unit. Do not spray liquids directly onto the power switch or into any electrical compartment. Doing so may void the warranty and risk serious personal injury.

Preventative Maintenance

> ***Warning!*** Failure to properly perform scheduled preventative maintenance may void manufacturer's warranty.

Drawer Cleaning and Removal (Monthly)

To ensure clean and safe operation of the unit, the drawers must be removed monthly for a thorough cleaning.

1) Remove all product and return to walk in refrigerator/freezer when allowed.
2) Remove any smallwares and/or drawer organizers to be cleaned at the 3-compartment sink.

To Remove Drawers

1) Fully open drawer and press the drawer lock forward on both sides.
2) Grasp both sides of drawer to lift and pull drawer forward and out.
3) Clean the inside and outside of drawer with McD approved Kay Peroxide Multi-Surface Cleaner and Disinfectant solution. Drawers can be cleaned at the 3-compartment sink. *Please See PM Card for Cleaning Details.*
4) Repeat for other drawer.

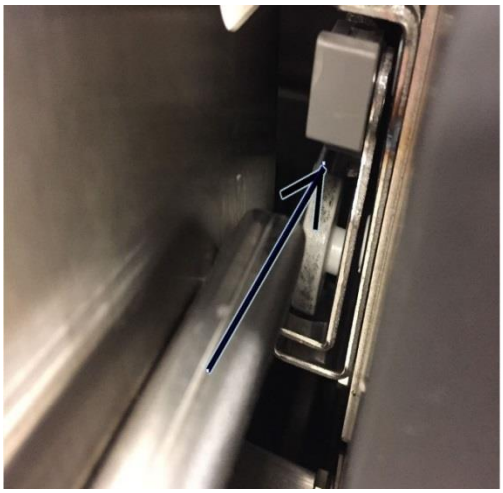
To Remove Drawer Roller Assembly

1) To remove the roller assembly, push the rear lock back as shown, and pull out the roller assembly. Repeat for other side.
2) Repeat steps for the other drawer.
3) The roller assemblies should be cleaned at the 3-compartment sink.

To Reload Drawer

1) Align the roller assembly with the slide track inside the unit as shown below.
2) Push the roller assembly to the rear of the slide track to lock the roller assembly into place.
3) Test each roller assembly by pulling to full extension. Verify slide stops.
4) Ensure the front drawer lock is in the unlocked/forward position as shown in picture.
5) Repeat steps for all roller assemblies.

1) Install each drawer by grasping both sides of the drawer.
2) Align top rails on drawer body with the front wheels of the roller assembly as shown below.
3) Push drawer back into cabinet while slightly lifting up on the front of the drawer.



1) Press the front locking tabs to lock each drawer in place.
2) Test drawer operation by opening and closing several times.

Drawer Removal Help?

For additional information on drawer removal and installation, please scan the QR code here.

Electricity

WARNING! Verify the unit is disconnected from the power source before attempting any preventative maintenance. Failure to disconnect the electric power could result in electric shock, burns, injuries or death.

Clean the Condenser Coils (Quarterly)

For proper operation of the refrigeration system, the condenser fins should be cleaned and vacuumed every three (3) months. The condenser grill cover is located on the right side, near the rear of the unit. To clean the condenser:

1. Locate the condenser grill cover to access the condenser fins. Lift panel up to remove.
2. Carefully brush away greasy dust or debris brushing only up and down in the direction of the fins.
3. Replace the cover after cleaning by aligning the metal tabs and sliding down.

CAUTION! The fins on a condenser coil are very sharp, and some refrigeration components can be very hot, resulting in possible cuts and/or burns. Avoid physical contact with the fins on the condenser coil or any related refrigeration lines. Gloves are recommended when accessing the internal components of any refrigerated equipment.

Check Drawer Gaskets (Quarterly)

Check each drawer gasket for rips or tears. If any damage is present, the gasket must be replaced. Please call 1-800-521-3987 or visit www.hkionline.com to order a replacement gasket.

Product Warranty

H&K International makes the following limited warranties to the original purchaser only for this equipment and replacement parts:

H&K warrants all components to be free of defects in material and workmanship, if properly installed, operated and maintained, for period of (2) years from the date of the delivery.

The company's obligation under this warranty is limited to repairing or replacing any part or parts of the refrigerator determined to be defective by an authorized representative of H&K.

The company reserves the privilege of determining if such repairs are to be made in the field or at the H&K factory.

The company assumes no liability for expenses or repairs made by other parties except by written consent.

Corrections of such defects by repair or replacement shall constitute fulfillment of all company obligations to the purchaser.

H&K shall not be liable for loss, damages or expenses arising from misuse, abuse, alteration, accident or improper installation of the refrigerator such as:

- Improper or unauthorized repair;
- Failure to follow proper installation instruction;
- Improper maintenance;
- Damage in shipment;
- Abnormal use;
- Improper power supply;
- Natural disaster;

Special Conditions

This warranty also does not cover:

- Overtime or holiday charges;
- Consequential damages (the cost of repairing or replacing other property which is damaged), loss of time, profits, use of any other incidental damages of any kind.

Expected life of this equipment is 7 to 10 years provided that it is maintained properly through H&K approved suppliers using only approved component parts and that the unit is cleaned regularly and not abused.

Refrigeration

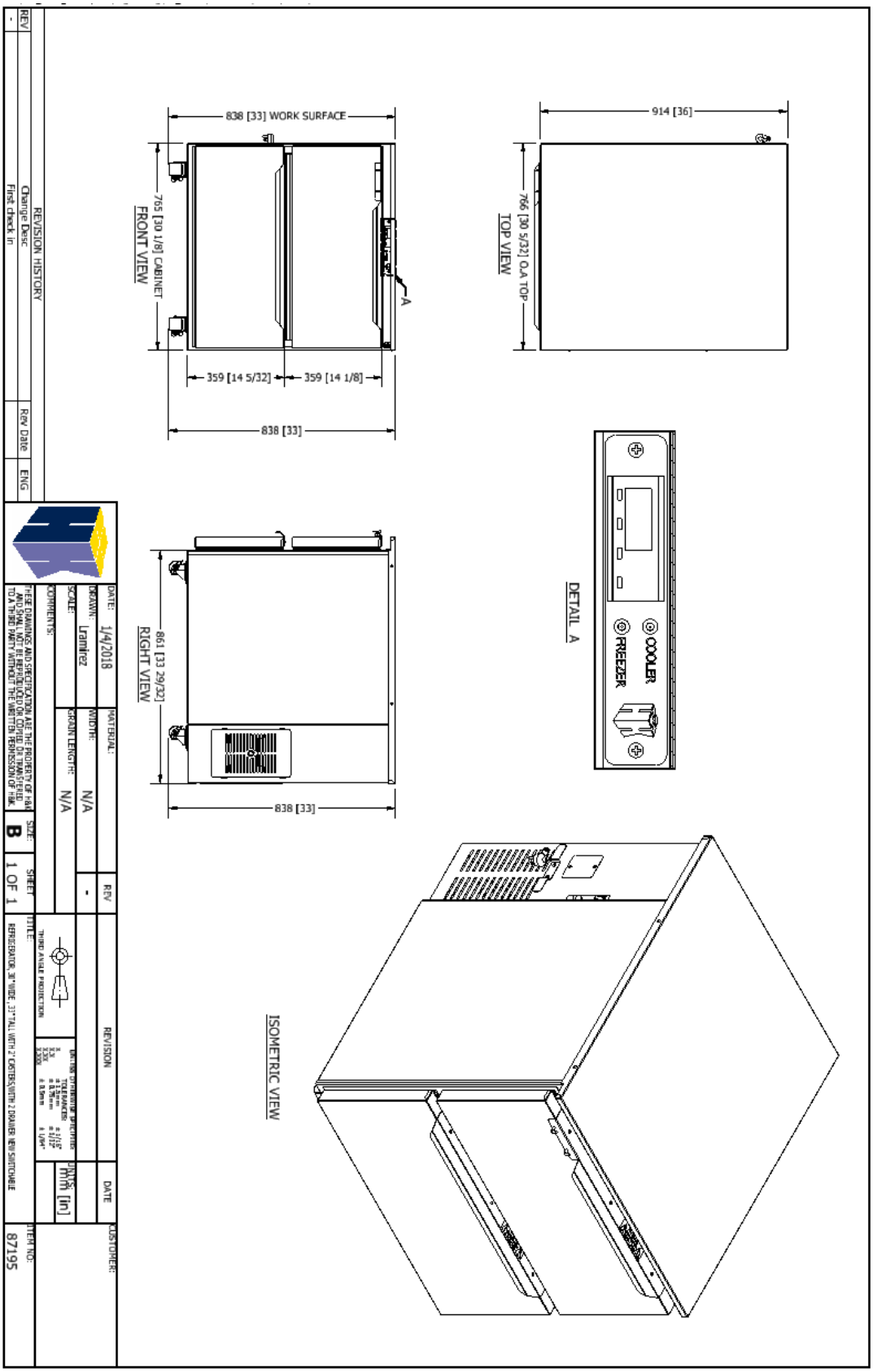
CAUTION: This unit contains a flammable refrigerant

- Under no circumstances can a mechanical device be used to defrost evaporator.
- Do not puncture refrigeration tubing.
- The unit is to be repaired by only a trained technician with experience with flammable refrigerants.
- Consult this manual before attempting to install or service a product with a flammable refrigerant.
- Unit must be disposed of in accordance with Federal or local regulations.

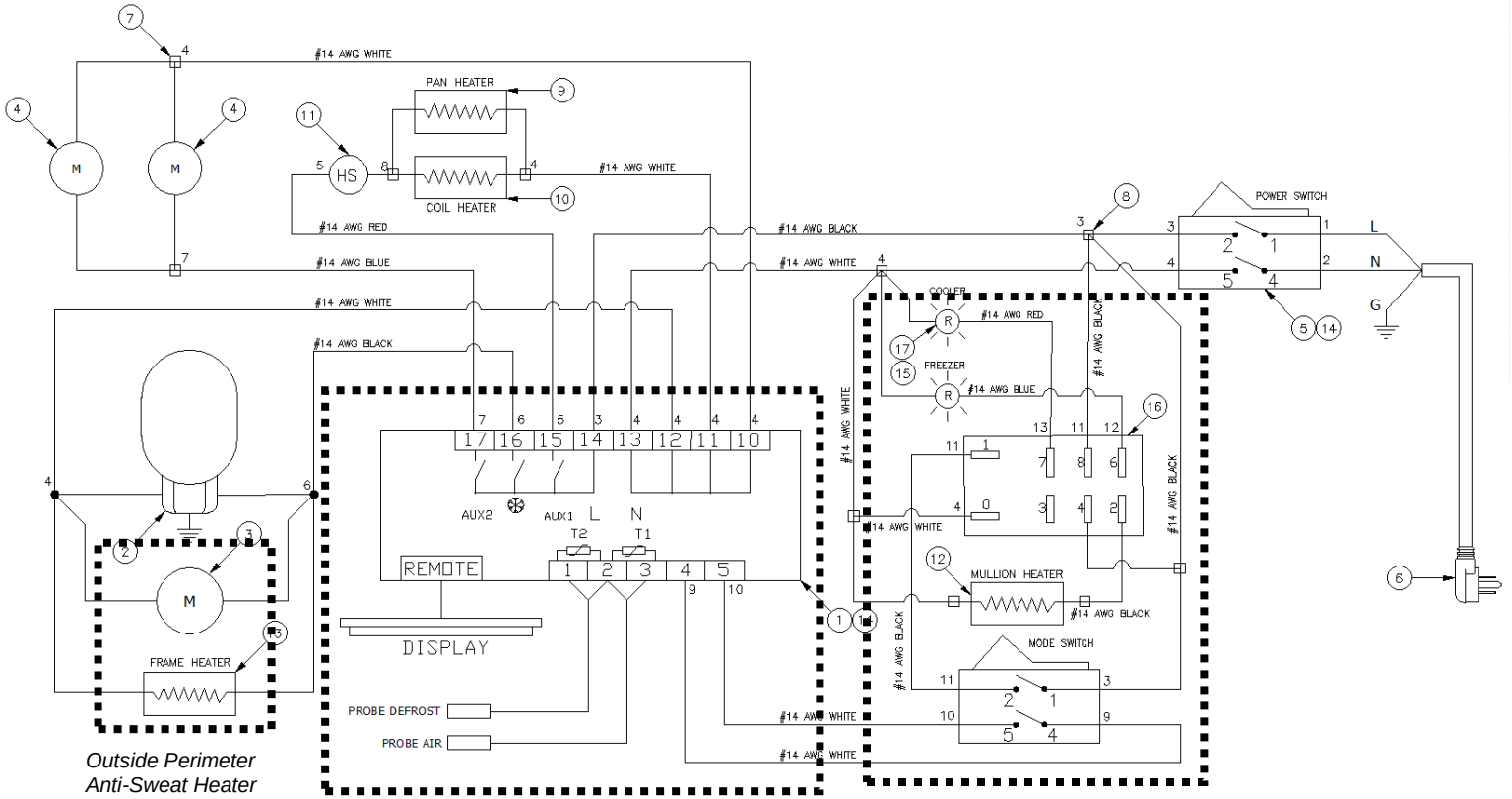
Troubleshooting

PROBLEM	*POSSIBLE CAUSE*	*WHAT TO DO*
Unit does not run	Unit is not “fully” plugged in.	Verify unit is plugged into a working outlet.
	The receptacle on the wall isn’t working.	Plug the refrigerator into another outlet if possible. Contact licensed electrician to repair outlet. **Do not use an extension cord for this unit.**
	Circuit breaker has been tripped.	Check circuit breaker to see if it has tripped. Reset if necessary.
	If these steps do not fix problem, **call H&K at 800-788-2445 for service**	
Unit is running but won’t reach target operating temperature of 33-40°F for COOLER mode, or -10-10°F for FREEZER mode	Condenser Coil is dirty or clogged with debris.	See Preventative Maintenance instructions to clean condenser coil
	Drawer is left opened for extended periods.	Review product loading and general use instructions with crew to ensure drawer is open for restocking and order filling only.
	Drawer gasket has been damaged and drawer is not properly sealed.	Check drawer gasket condition and replace if damaged.
	Unit is in incorrect cooling mode.	Ensure correct cooling mode is selected by inspecting red LED’s by controller display. If incorrect mode, switch mode by removing access panel on rear of unit.
	If these steps do not fix problem, **call H&K at 800-788-2445 for service**	
Controller reads “E1”	The air sensor probe is not functioning properly and must be replaced	**Call H&K at 800-788-2445 for service**
Controller reads “E2”	The evaporator probe is not functioning properly and must be replaced	**Call H&K at 800-788-2445 for service**
Controller reads “dEF” or “rec”	Unit is currently in defrost cycle, or recovering from a defrost cycle.	If unit does not go back to normal operation after 1 hour, **Call H&K at 800-788-2445 for service**
Controller buttons are not working	Controller needs to be reset.	Power cycle unit by turning off at power switch for 5 seconds. Turn back on and test buttons. If these steps do not fix problem, **call H&K at 800-788-2445 for service**

Assembly Drawing



Wiring Diagram

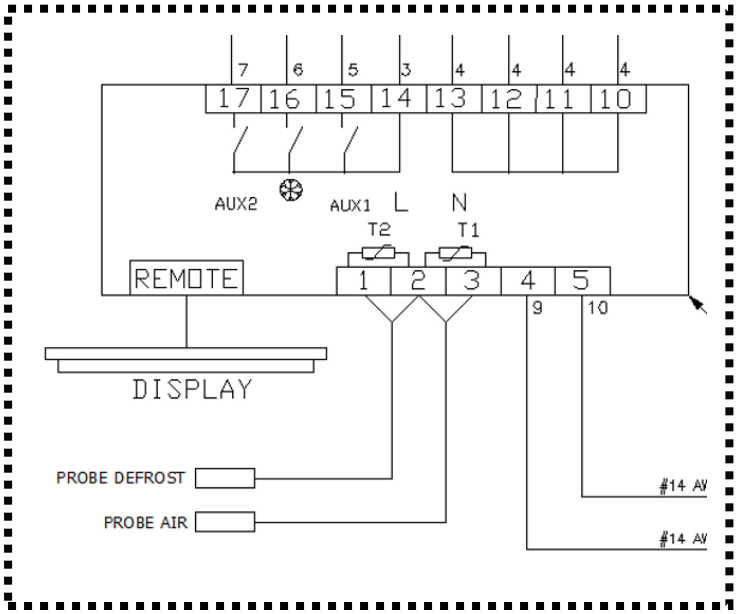


Outside Perimeter Anti-Sweat Heater runs with compressor only

See Controller Detail Below

Cooling Mode (Cooler/Freezer) switching circuit with LED indicator lights

Controller Detail



To Cooling Mode Switch – Located on left side of the back cover

Controller Inputs / Outputs:

14. L1 VAC – Black Wire
15. Defrost/Drain Pan Heater – Red Wire
16. Compressor/Condenser Fan – Black Wire
17. Evaporator Fans – Blue Wire

Refrigeration Specification

Refrigerant	R-290
Operating pressure	LSP = 15 psig HSP = 150 psig
Electrical Data	120v-1ph-60hz MCA 3.5 MAX. FUSE 15amps
System charge	4.4 oz. (125g)

Replacement Parts

DESCRIPTION	H&K PART NO.
Compressor	P-1-353
Capillary tube	6.5 Ft. (1.98 m.) of P-1-56-1200 (0.036”ID)
Dryer	P-1-12-25
Controller	G-R02043
Power cord w/plug	E-10-12-1
Plug, Pin and Sleeve (**87195-PS only**)	E-10-12-23
Evaporator Fan	E-6-022
Condenser Fan	E-6-023
Drawer Gasket	H-4-39-199
Power Switch / Mode Switch	E-1-19-11
Relay	E-14-15-4

Controller Parameters

*Due to the dual cooling modes on this units, several parameters below will only apply to specific cooling functions.

Parameter	Value	Units	Cooling Mode*		Description/Function
			Cooler	Freezer	
SPL	33	°F	X		Minimum limit for Setpoint SP
SPH	40	°F	X		Maximun limit fo Setpoint SP
SP	33	°F	X		Setpoint
C-H	REF		X		Refrigeration (REF) or Heating (HEA) Mode
HYS	3	°F	X		Differential
CRT	1	Mins	X		Minimum compressor off time
CT1	10	Mins	X		Compressor run time if T1 failure
CT2	15	Mins	X		Compressor off time if T1 failure
CSD	0	Mins	X		Compressor stop delay door opening
DFM	TIM		X		Defrost start mode: (TIM = Time interval based)
DFT	8	Hours	X		Defrost interval
DFB	YES		X		Defrost timer backup (YES=defrost timer does NOT reset with power cycle)
DLI	50	°F	X		Defrost end temperature (determined by T2 evaporator probe)
DTO	30	Mins	X		Maximum Defrost duration (minutes)
DTY	ELE		X		Defrost type (ELE = Electric defrost heater)
DPD	5	Secs	X		Evaporator pump down (secs)
DRN	7	Secs	X		Pause after Defrost (minutes)
DDM	DEF		X		Display during Defrost
DDY	30	Mins	X		Display delay after Defrost termination
FID	NO		X		Fans active during Defrost
FDD	24	°F	X		Evaporator fan re-star temperature after Defrost (determined by T2 evaporator probe)
FTO	8	Mins	X		Maximun evaporator fan stop after Defrost
FCM	non		X		Evaporator fan operation mode – fan runs continuously
FDT	0	°F	X		Evap air temperature difference for the fans to turn off after the compressor has stopped
FDH	1	°F	X		Temperature differential for fan re-start
FT1	0	Mins	X		Fan stop delay
FT2	3	Mins	X		Timed fan stop
FT3	0	Mins	X		Timed fan run
ATM	ABS		X		Alarm threshold control type (ABS = no offset)
ALA	-15	°F	X		Low Temperature Alarm Threshold
AHA	65	°F	X		High Temperature Alarm Threshold
ATI	T1		X		Probe used for Alarm Detection (T1 = Cabinet Air Temperature)
ATD	120	Mins	X		Delay before temperature alarm becomes active
ADO	0	Mins	inactive		Delay before door open alarm warning
AHM	NON		X		Operation in case of high condenser alarm
ACC	0	Weeks	X		Condenser periodic cleaning (0 = not used)
IISM	D12			X	Switchover mode to second parameter set
IISL	-10	°F		X	Minimum limit for Setpoint SP
IISH	0	°F		X	Maximun limit fo Setpoint SP
IISP	-10	°F		X	Setpoint
IIHY	5	°F		X	Differential
IIFC	TIM			X	Evaporator fan operation mode-- with FT2=3 and FT3=0, evaporator fans run with compressor only
IIDF	8	Hours		X	Defrost interval
SB	YES		X		Stand by button enabling
DI1	NON		inactive		Digital input operation
DI2	IISM		X		Digital input operation (Enables Freezer Mode)
LSM	NON		inactive		Light control mode (not-active)
OA1	DEF		X		AUX 1 output – Defrost Heater
OA2	FAN		X		AUX 2 output – Evaporator Fan Motors
OS1	-1	°F	X		Probe T1 offset
T2	YES		X		Probe T2 enabling (evaporator)
OS2	0	°F	X		Probe T2 offset
TLD	30	Mins	X		Delay for minimun temperature (TLO) and maximun temperature (THI) logging
SCL	F	°F / °C	X		Read out scale
SIM	0	Mins	X		Display Slowdown
ADR	1		X		BIT25 address for PC communication
RES	NO		X		Restore default program