



30" 2-DRAWER REFRIGERATOR



Equipment Manual

H&K Model Number 87050.01P

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

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This unit contains a flammable refrigerant. Exercise caution when installing and servicing this item.

Warnings

This Installation & Operating Manual contains important instructions and safety information. Read and understand the contents of this manual before attempting to install, operate, or service the unit.

Disconnect all power sources before attempting any service work.

A licensed technician should do all servicing and repairs.

Use of abrasive pads to clean the unit will result in scratching and spoiling the finish of the unit.

Do not leave the drawers open for extended period of time.



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Introduction

The Fresh Product Refrigerator is designed to hold product between 33°F - 40°F temperature during normal and peak sales periods.

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.

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.

- Cut the banding holding the cardboard carton to the shipping pallet, using heavy scissors or tin snips. Use caution to avoid contact with cut banding.
- Lift the cardboard carton straight up and off the unit.
- Cut the banding that holds the refrigerator to the shipping pallet or skid. Use caution to avoid contact with the cut banding.

****Note: Leave unit on skid until ready to install***

- Peel the protective adhesive film from all exposed areas (front, sides, and interior).

Caution! This unit is very heavy; do not attempt to remove this unit from its packaging without assistance.

Remove Packing & Loose Components

Remove any tape and foam blocking used to secure the loose components.

Wash and Sanitize Unit Interior & Drawer Components

Note! Use only McDonald's approved cleaning and sanitizing agents according to instructions.
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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.

Operating Instructions

Temperature Setting

The 87050.01P has been tested and preset at the factory to maintain a Product temperature between 33°F (0°C) and 40°F (5°C). The temperature controller located on the front panel displays the internal temperature of the refrigerator.

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			
			
	Info / Setpoint button		Increase / Manual activation button
	Manual defrost / Decrease button		Exit / Stand-by button

Set point (<i>Display and modification of desired temperature value</i>)
Press button “i” key and hold for more than 1/2 second, to display set point value By keeping button “i” pressed, use button ▼ and ▲ to set the desired value When button “i” is released, the new value is stored.

Operating Procedure

Start-Up: The refrigerator is turned ON by 1) plugging the cord into a Wall outlet. 2) Turn power switch (located back left side) of refrigerator to ON . The evaporator fan will run immediately, the compressor & the condenser fan will run after 1 minute delay. Let the unit run for 30 minutes before placing product in the refrigerator.

Temperature Setting: The unit has been tested at the factory and the control has been preset to maintain a Product temperature between 33° and 40°F (0° and 5°C).
HYS is Factory set to 3°

Condensate Disposal: The condensate from the refrigerator is disposed via a drain to a condensate evaporator located in the base of the condensing unit.

Loading and Restocking

- **DO NOT** over-load the refrigerator. All refrigeration requires good air circulation to maintain proper operation.
- **DO NOT** let plastic bags, packaging or containers block or obstruct the Evaporator air intake and return openings.
- **DO NOT** leave the drawer open, except to remove product or to restock.
- **DO NOT** Overload Drawer, **Max** Load for the Drawer is (66 lbs., 30kg.)

Cleaning

Caution! Do not use a pressurized spray to clean the 87050.01P.

Caution! Do not use abrasives or strong chemicals to clean any surfaces of the 87050.01P.

Warning! Do not spray liquids directly onto the power switch, into the compressor compartment at the top of the cabinet, or into the evaporator. Doing so will void the warranty and risk serious personal injury.

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.

Preventative Maintenance

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

WARNING! Verify refrigerator 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.

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.

Clean the Condenser Coils (Quarterly)

For proper operation of the condensing unit, the condenser fins should be cleaned and vacuumed every one (1) month. The front grill is designed to be removable without the use of tools for this purpose.

Tools:

- Brush
- Safety Gloves

Procedure

1. Remove appropriate cover to access fins to be cleaned.
2. Carefully brush any remaining greasy dust or debris.
3. Replace cover after cleaning.



Remove panel: Lift panel and pull out



Use a soft bristled brush to clean greasy on the coil



Check to see if the Drawer gaskets are in good condition

Check Gasket (Quarterly)

Check to see if drawer gasket broken. If the drawer gasket is broken, and cannot seal the cabinet properly, please call 1-800-521-3987 or visit hkionline.com to order replacement gasket (H-4-39-215).

Drawer Cleaning and Removal

- 1) Remove and clean Drawer Organizer.
- 2) Clean inside and outside of Drawer with McD approved Kay Peroxide Multi-Surface Cleaner and Disinfectant solution. *Please See PM Card for Cleaning Details.*



To Remove Drawers

- 1) open drawer fully and press front drawer lock forward on both sides
- 2) Grasp both sides of drawer lift and pull drawer forward and out.



To Remove Drawer Roller assembly

- 1) To remove roller assembly press rear lock back as shown, Then pull roller assembly out.
- 2) Clean Roller assembly, can be cleaned @ Sink



To Reload Drawer

- 1) First place Roller assemblies back in tracks on as Shown. Push roller assembly To rear of channel to lock roller assembly into track.
- 2) Please insure that front drawer lock Is in the unlocked/forward position as shown in picture.



- 3) Load drawer by grasping drawer on both sides Place rails on drawer body on front wheels of roller assembly as shown. Roll drawer back into cabinet while slightly Lifting the front of the Drawer.



Press front Locking tabs back to lock to insure Safe operation of the Drawer. Now roll Drawer back and forth and verify smooth drawer slide operation.



Please Scan QR Code on front of cabinet to access video on to remove and install drawer.



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.

Troubleshooting

Warning: Before servicing the unit, Unplug The power cord



PROBLEM	POSSIBLE CAUSE	WHAT TO DO
Unit does not run after plug into the receptacle on the side of the table	Unit is not “fully” plugged in.	Verify unit is plugged into outlet.
	The receptacle on the Wall isn’t working.	Plug the refrigerator into another extension outlet. If the receptacle on the Wall is not working, use alternate and contact licensed electrician to repair it.
	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.
Refrigerator is running but it won’t reach target operating temperature of 33°F (1°C) to 36° F (2°C).	Condenser Coil is dirty or clogged with debris.	Use a vacuum cleaner or soft brush to clean coils, per Preventative Maintenance instructions. If these steps do not fix problem, Call H&K at 800-788-2445 for service
	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.
	Room temperature and/or humidity exceed recommended maximums. 100°F (38°C) 50% RH max	Adjust store air conditioning. If these steps do not fix problem, Call H&K at 800-788-2445.
	Drawer gasket has been broken and door is not properly sealed.	Check drawer gasket condition according to the reference pictures below this table. Call H&K at 800-521-3987 or Visit hkonline.com to order replacement gasket. H&K Part# H-4-39-215
Controller reads “E1”	The sensor probe has failed and must be replaced	Call H&K at 800-788-2445 for service
Controller reads “E2”		Call H&K at 800-788-2445 for service

	The evaporator probe has failed and must be replaced	
Controller read 'def'	Unit is currently in defrost cycle.	If unit does not go back to normal operation after 1 hour, Call H&K at 800-788-2445 for service
Controller read 'rec'	Unit is currently is in recovery after defrost.	If unit does not go back to normal operation after 1 hour, Call H&K at 800-788-2445 for service

Gasket condition reference pictures:

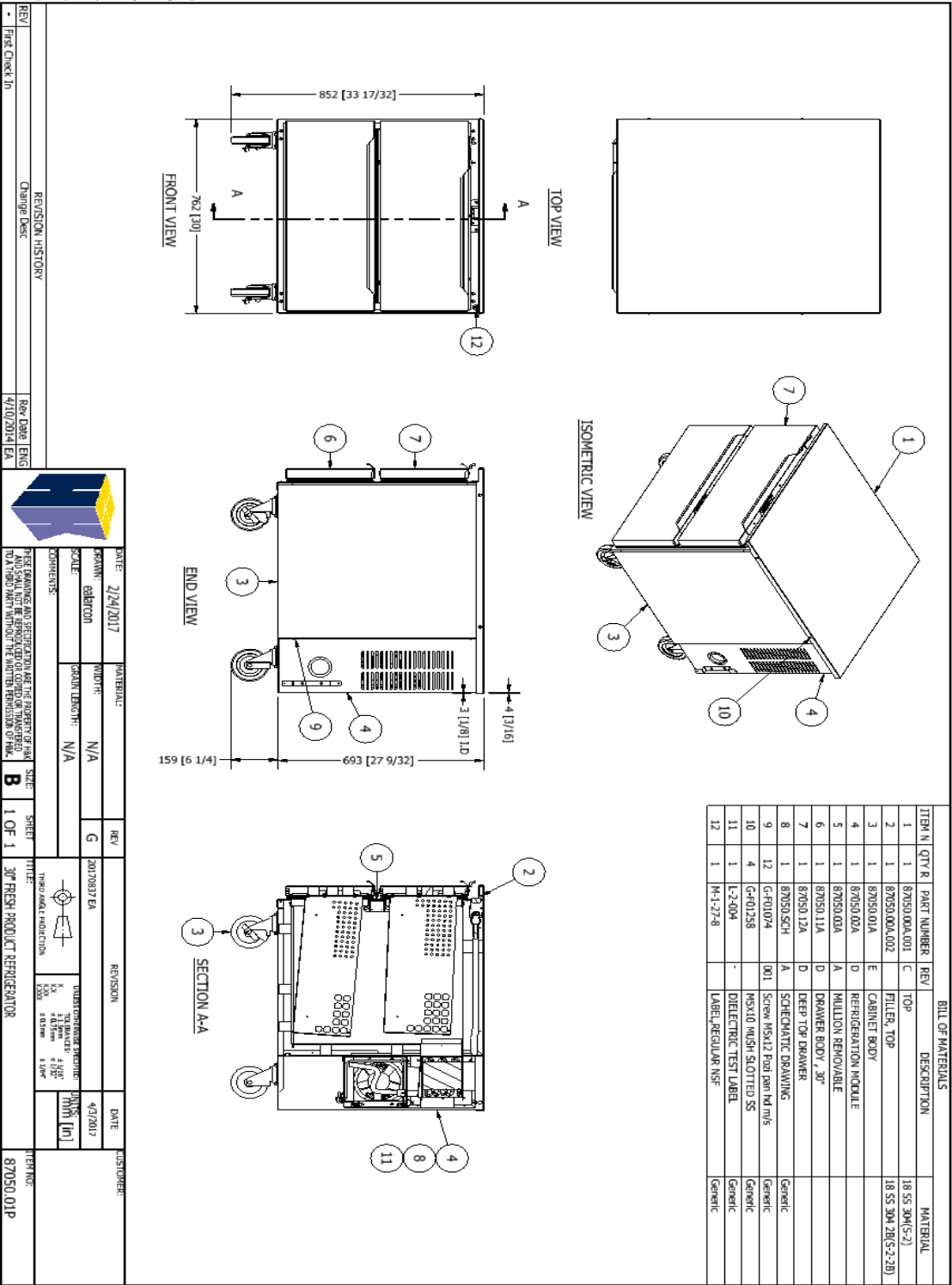
Gasket in good condition



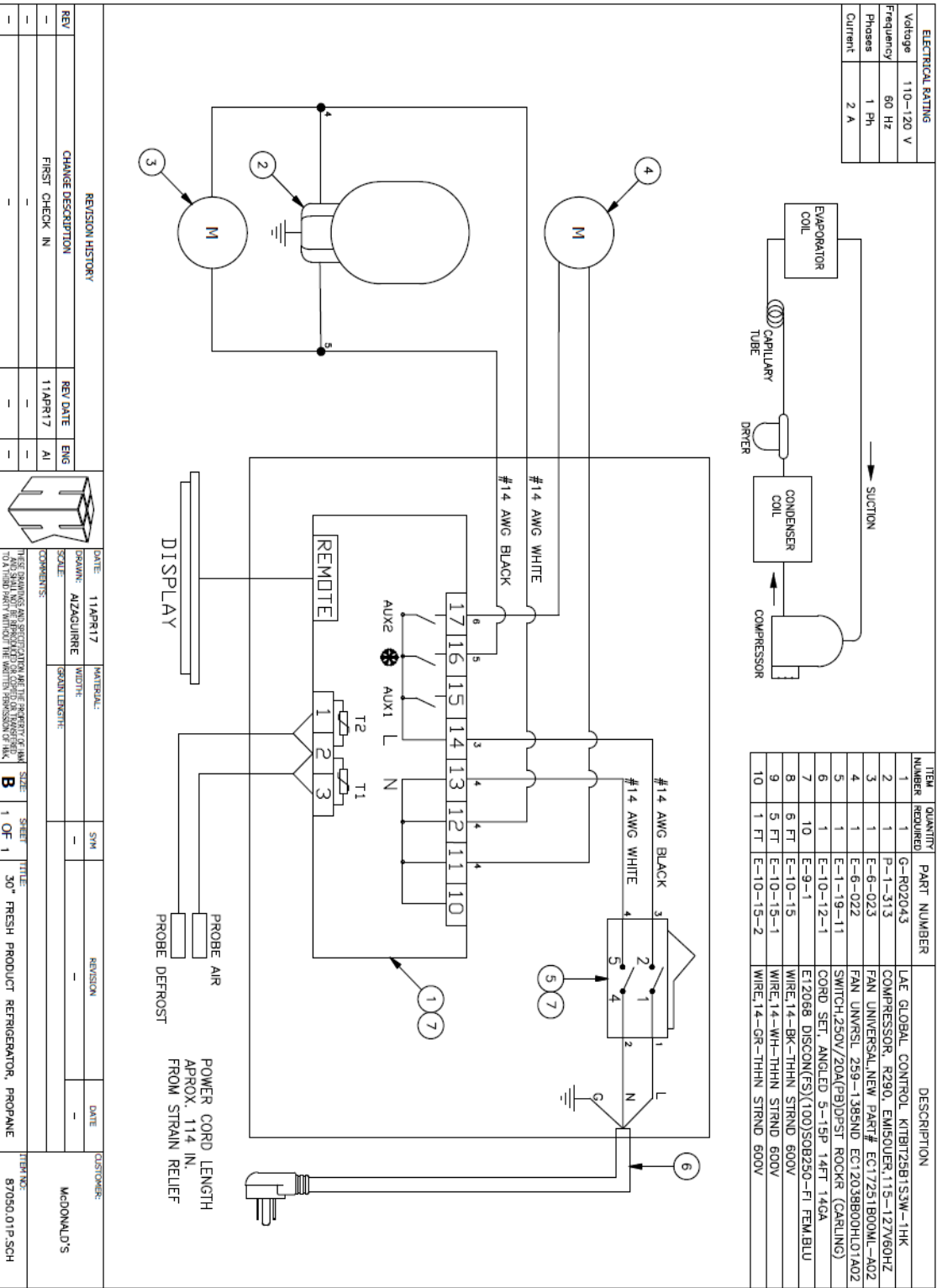
Gasket broken- Replace please **Call H&K at 800-521-3987 or Visit hkonline.com to order replacement gasket.**
H&K Part# H-4-39-215



Assembly Drawing



Wiring Diagram



Refrigeration Specification

Refrigerant	R-290
Operating pressure	LSP = 15 psig HSP = 100 psig
Electrical Data	120v-1ph-60hz MCA 2.0 MAX. FUSE 15amps
System charge	4.1 oz (116g)

Replacement Parts

DESCRIPTION	H&K PART NO.
Compressor	P-1-313
Capillary tube	8 Ft. (2.43 m.) of P-1-56-1200
Dryer	P-1-24-2
Controller	G-R02043
Power cord	E-10-12-8
Evaporator Fan	E-6-022
Condenser Fan	E-6-023
Drawer Gasket	H-4-39-215

Controller Parameters

Parameter	Value	Parameter
SPL	33° F	Minimum temperature setpoint
SPH	40 F	Maximun temperature setpoint
SP	33 F	Effective setpoint
C-H	REF	Operation mode:Refrigeration
HYS	3	Hysteresis (Differential)
CRT	1	Minimum compressor off time
CT1	5	Compressor run time if T1 failure
CT2	7	Compressor off time if T1 failure
CSD	0	Compressor stop delay door opening (active only if DS=Yes)
DFM	TIM	Defrost start mode: Time interval
DFT	12	Defrost interval
DFB	YES	Defrost timer backup
DLI	45	Defrost and temperature
DTO	50	Maximum Defrost duration
DTY	OFF	Defrost type (OFF cycle)
DPD	0	Evaporator pump down
DRN	0	Pause after Defrost
DDM	DEF	Display during Defrost
DDY	10	Display delay
FID	YES	Fans active during Defrost
FDD	45°	Evaporator fan re-star temperature after Defrost (referred to T2 probe)
FTO	0	Mximun evaporator fan stop after Defrost
FCM	NON	Evap operation mode: Fan on continuously
FDT	0	Evap air temperature difference for the fans to turn off after the compressor has stopped
FDH	1	Temperature differential for fan re-start
FT1	0	Fan stop delay
FT2	0	Timed fan stop
FT3	3	Timed fan run
ATM	NON	Alarm threshold control
ADO	5m	Delay before door open alarm warning
AHM	NON	Operation in case of high condenser alarm
ACC	0	Condenser periodic cleaning
IISM	NON	Switchover mode to second parameter set
SB	NO	Stand by button enabling
DI1	NON	Digital input operation
DI2	NON	Digital input operation
LSM	NON	Light control mode
OA1	Non	AUX 1 output
OA2	FAN	AUX 2 output: evap pan
OS1	-1	Probe T1 offset
T2	YES	Probe T2 enabling (evaporator)
OS2	0	Probe T2 offset
TLD	30	Delay for minimum temperature (TLO) and maximum temperature (THI) logging
SCL	°F	Read out scale
SIM	0	Display Slowdown
ADR	1	BIT25 address for PC communication
RES	NO	Restore default program