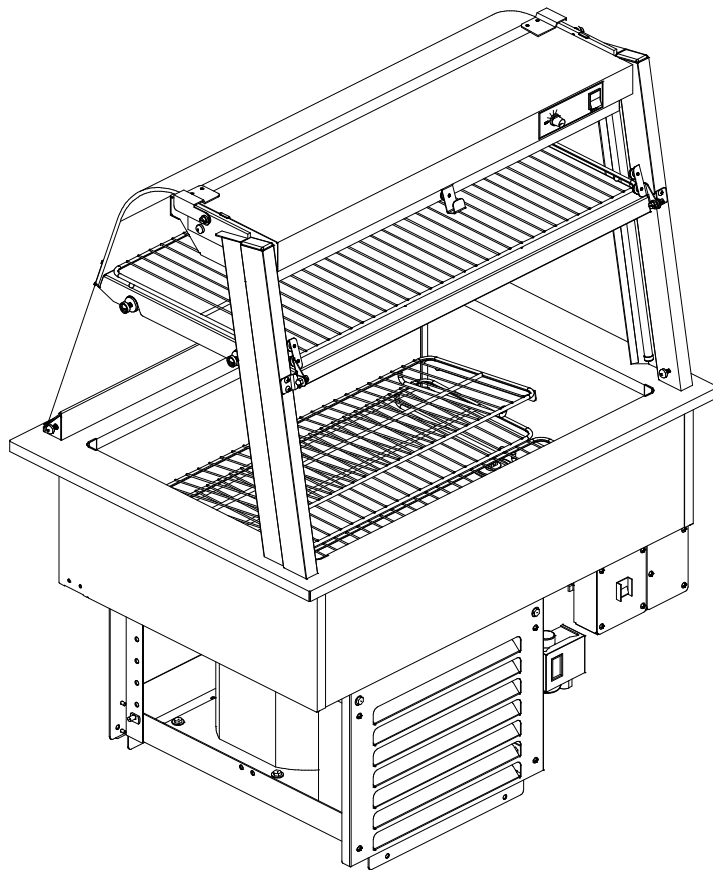




Hot and Cold Merchandiser

Covered under US Patent #RE40,151

Operation and Service Manual



For information, service or technical assistance, call:

TOLL FREE

1(800) 735-3853

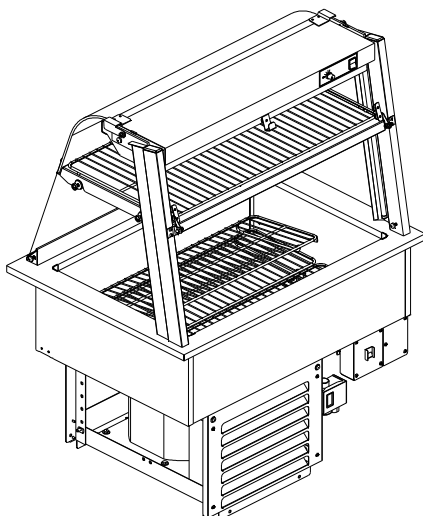
or

1(314) 231-1130

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Manufacturer's Introduction

The Duke curved glass hot and cold self-service merchandiser provides the maximum visual impact in a minimum amount of space and provides a 180° panoramic view of the product. The display merchandiser is well lit for maximum impact. The unique hot and cold over/under design provides infinite menu flexibility. Hot desserts on top, cold desserts, salads, juices, salad dressings, and drinks below.

Duke curved glass hot and cold display merchandisers attract customers to make last minute, high margin, impulse buys. The Duke curved glass hot and cold display merchandisers provide the opportunity to display both hot and cold items, in only 36" of counter space. The convection heated top compartment has superior holding capabilities and is accessed by simply lifting a curved, lightweight, see-through door. The lower cold holding area is completely open for easy access.

The entire mechanical package is located beneath the counter top and out of view of the customer. This eliminates noise and heat, yet allows for the properly sized cooling system. Both the convection heated top compartment and the refrigerated bottom section are temperature controlled to provide the optimal holding environment for a wide variety of food products.

Supplier Name: Duke Manufacturing Co.
 Address: 2305 North Broadway
 St. Louis, MO 63102
 Model#: CGHCM-36
 DKHCM-36
 Serial #: _____
 Compressor Charge: 11 ounces, R134A
 Date Received: _____
 Date Installed: _____
 Toll Free Telephone: 1-800-735-3853
 Fax: 1-314-231-3125
 Service Referral #: _____
 Local Service Name: _____
 Local Service #: _____

General Specifications

Model #: CGHCM-36
 DKHCM-36

Overall Dimensions
 Height: 47 1/4"
 Width: 36"
 Depth: 25"

Display Section Dimensions:
 Height: 23"
 Width: 34"
 Depth: 25"

Electrical: 120 VAC, 60 Hz, 1 Ph.
 12.5 Amps, 1500 Watts

230 VAC, 50 Hz, 1 Ph.
 6.5 Amps, 1500 Watts

Power Cord (60 Hz Model Only):
 6 ft, 3 wire, U.L. rated,
 NEMA 5-15P plug.

Shipping Weight: 250 lbs.

Installation Requirements

Counter Space Requirement:
 Width (Left to right): 40"
 Depth (Front to back): 26 1/2"

Counter Top Cutout
 Width (Left to right): 33 5/8"
 Depth (Front to back): 23 1/8"

Required depth
 Below counter top: 24"

Required clearance
 Above counter top: 30" (DKHCM-36)
 49" (CGHCM-36)

Electrical:

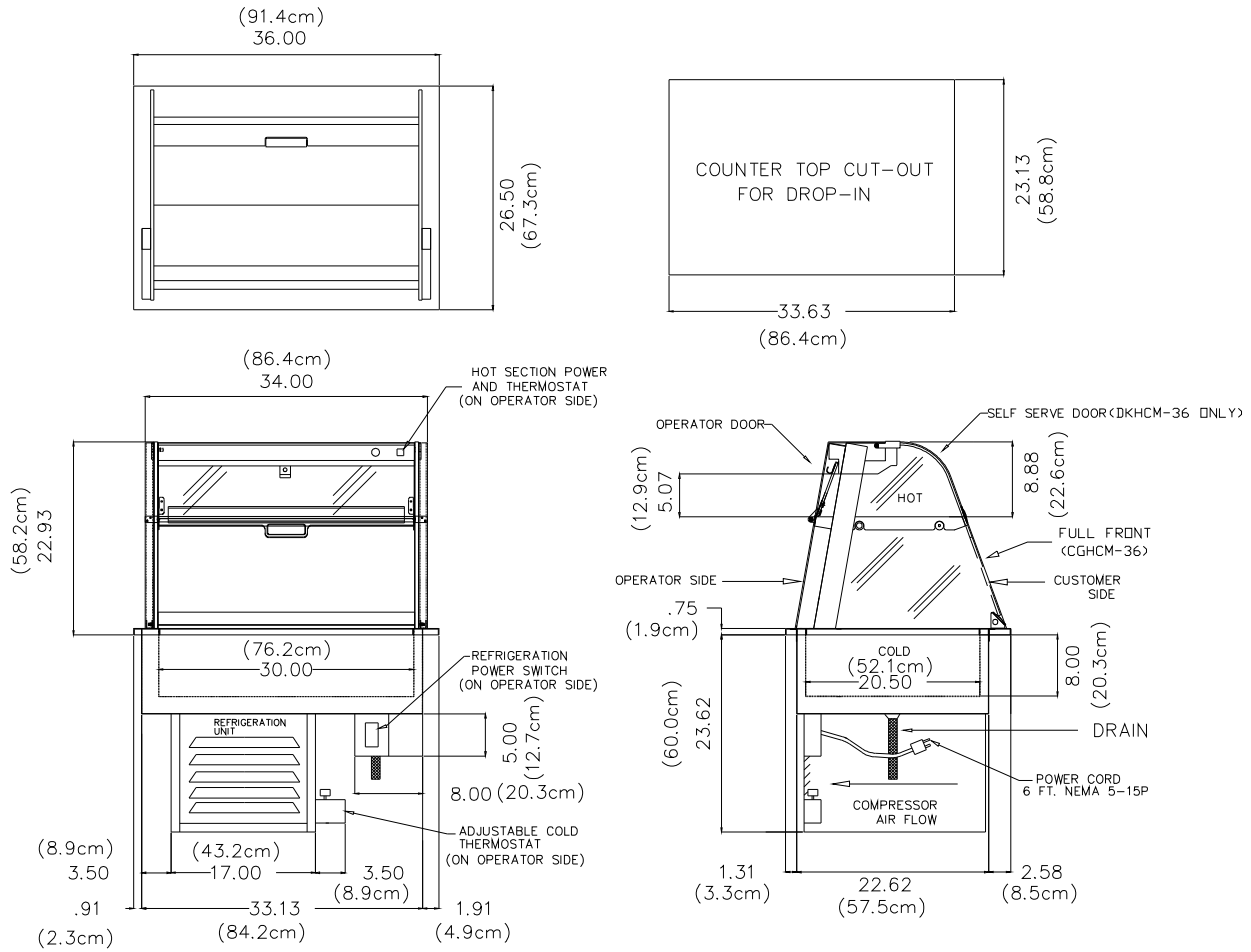
120 V./ 60 Hz: NEMA 5-15R Simplex receptacle,
 grounded, dedicated circuit, 15
 Amps minimum.

230 V./ 50 Hz: 220/240 VAC, grounded,, 15
 Amps minimum.



SPECIFICATION DRAWING

MODEL CGHCM-36
MODEL DKHCM-36



- CONVECTION AIR FLOW SYSTEM FOR EVEN HEAT DISTRIBUTION
- CLEAR PANEL ASSEMBLY FOR PRODUCT MERCHANDISING
- FRONT AND REAR DOOR FOR HOT FOOD ACCESS
- ANGLED DISPLAY SHELF IN COLD SECTION
- LIGHTS ON BOTH SIDES FOR PRODUCT DISPLAY
- MENU CARD HOLDERS ON TOP HOT SECTION AND BOTTOM COLD SECTION
- MODELS AVAILABLE FOR:
120 VOLTS / 12.5 AMPS / 60 Hz (WITH 6 FOOT CORD)
230 VOLTS / 6.5 AMPS / 50 Hz (WITH TERMINAL BLOCK CONNECTION)
- WEIGHT: 190LBS/86KG



LISTED
COMMERCIAL
COOKING
APPLIANCE



INDEXER
COMMERCIAL
APPAREL
DE QUISINE



ALSO CLASSIFIED BY
UNDERWRITERS LABORATORIES INC.
IN ACCORDANCE WITH
NSF NO. 4 1992
AND
NSF N07 1997



INSTALLATION CHECKLIST

INSTALLATION TO BE PERFORMED BY QUALIFIED PERSONS ONLY.

- ❑ Ensure NEMA 5-15R receptacle is located within 6 ft. of right side of installation location, as viewed from the operator side of merchandiser.
- ❑ Remove merchandiser from crating material. Do not throw away crating material until installation is complete.
- ❑ Ensure all pieces are removed from packing material. The shelf grates are packed separately. Inspect merchandiser and shelf grates for shipping damage.
- ❑ **Cut opening in counter.**
 - ❑ For **normal installation**, cut opening as illustrated in figure 1.1, then modify knee wall as shown in figure 1.3.
 - ❑ For **alternate installation**, cut opening as illustrated in figure 1.2.
- ❑ Place support braces under the counter top on each side of the opening (see figure 1.3), approximately 2.00" from the edge of the opening (36" centers).
- ❑ Remove two (2) 2x4 pieces of wood from crating material. Place boards on counter top close to each side of the hole, positioned so that when the merchandiser is placed into the hole, the edges of the merchandiser may rest on the boards.

!Warning!

Failure to place wood next to hole before installation may cause loss of fingers. Edges are VERY sharp.

!CAUTION!

Merchandiser is heavy, use three-person lift method to place into hole.

- ❑ Place merchandiser into cutout. Allow the merchandiser to rest on the 2x4 boards.
- ❑ Remove boards, one at a time, taking care not to catch fingers between merchandiser and counter.
- ❑ Plug merchandiser cord into receptacle.
- ❑ Prior to operating merchandiser, ensure any ceiling fans or air vents located near the installed merchandiser do not cause air to blow into the cold section of the merchandiser.

NOTE

Ambient airflow into the cold section of the merchandiser may cause elevated temperatures. Ensure any ceiling fans or air vents located near the installed merchandiser do not cause air to blow into the cold section of the merchandiser.

- ❑ Follow instructions for daily periodic maintenance, checklist and cleaning guide to operate merchandiser.



INSTALLATION CHECKLIST

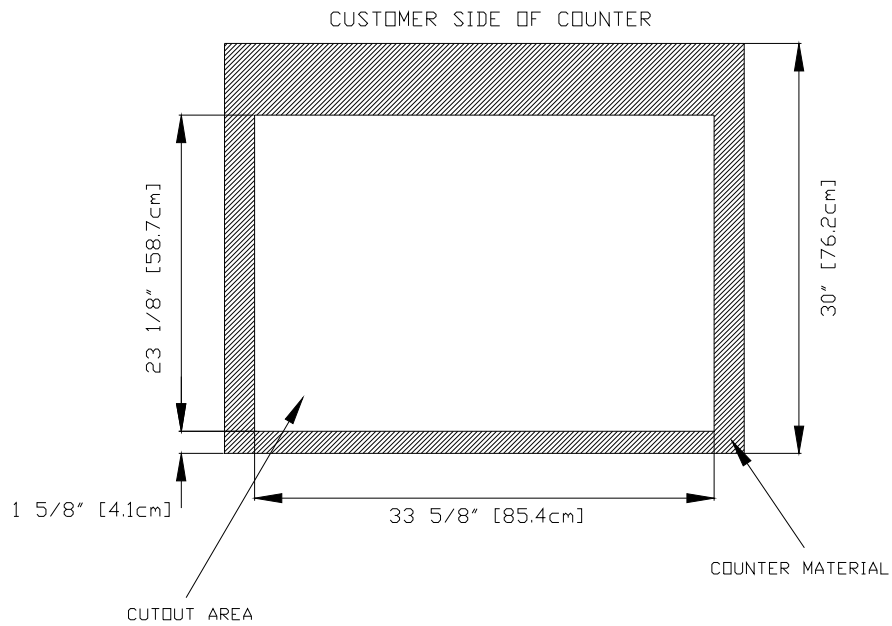


Figure 1.1, Standard Counter Cutout

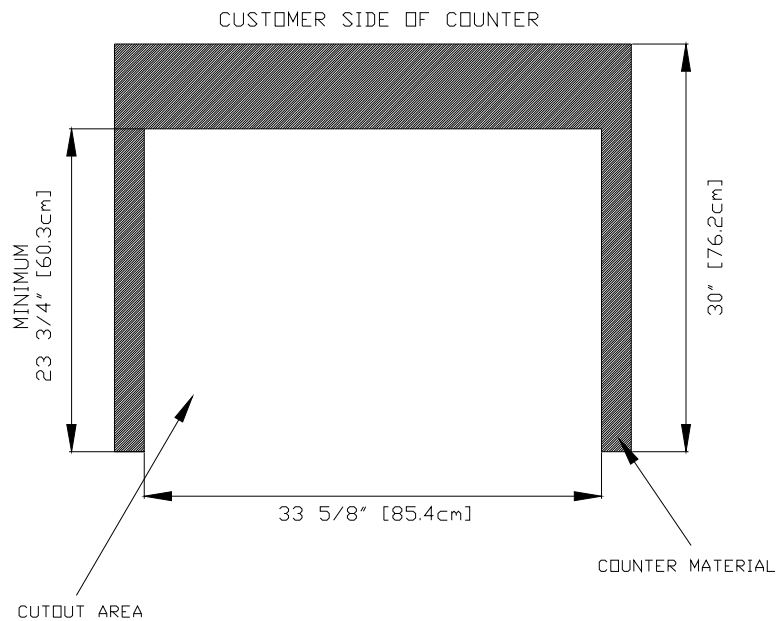


Figure 1.2, Alternate Counter Cutout



INSTALLATION CHECKLIST

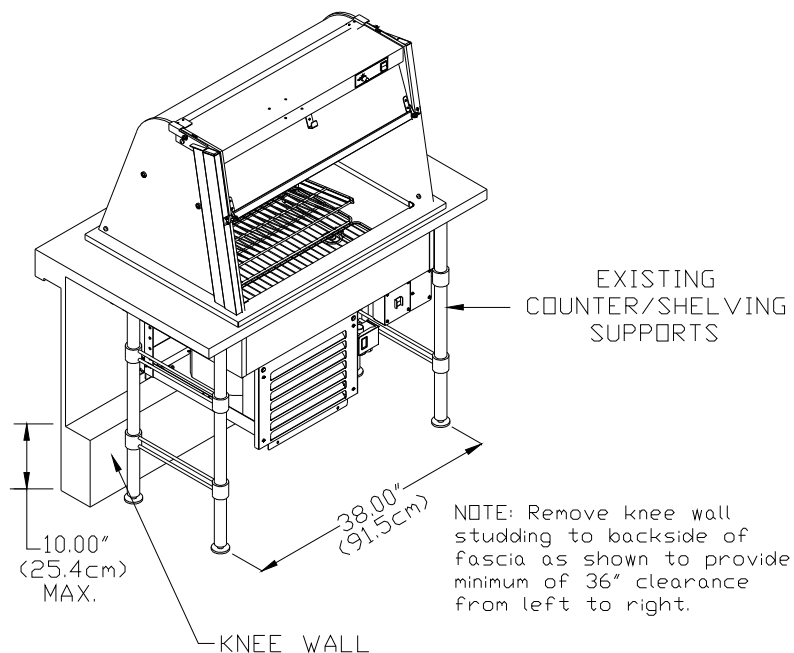


Figure 1.3, Standard Merchandiser Installation

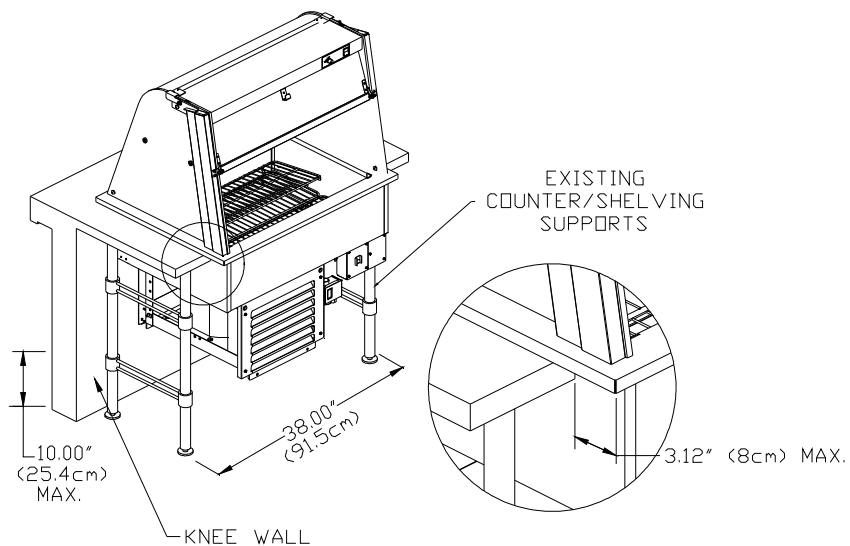
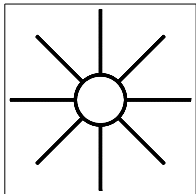


Figure 1.4, Alternate Merchandiser Installation



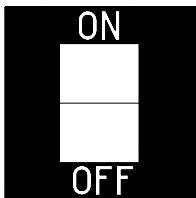
PERIODIC MAINTENANCE, CHECKLIST AND CLEANING GUIDE

DAILY



OPENING CHECKLIST

1. Check doors and sides of merchandiser to ensure that they are not damaged.
2. Ensure Drain Plug is installed in cold section.
3. Turn both the hot and cold section power switches to the "ON" position.
4. Check that the fans on the cold pan evaporator and the hot section are operating.
5. Ensure that the refrigeration compressor fan airflow is not blocked.
6. Ensure the thermostat for both the hot and cold sections are set to the proper position.
7. Ensure the hot section doors are closed (front and back).
8. Ensure drain plug is installed in cold section.
9. Let the unit set for 20 to 30 minutes before stocking product to achieve operating temperatures.
10. Check temperature of hot and cold sections.
11. Load products into appropriate sections of merchandiser when sections are at the proper temperature.



OPERATING INSTRUCTIONS/ADJUSTMENTS

Hot Section Temperature Adjustments:

1. Adjusting the hot section TEMP knob, located on the upper rear of the display changes the hot section temperature. Turning clockwise increases the temperature and counter-clockwise decreases the temperature.

The recommended starting setting is number 8. Check the food temperature and adjust the setting to hold the food at a safe temperature.

Cold Section Temperature Adjustments:

1. The cold section temperature may be adjusted at the thermostat located on the mechanical equipment below the counter. The cold section thermostat shows the temperature setting on the right side of the gage and the difference between the set temperature and the actual temperature on the left side of the gage.

The recommended starting temperature is number 25 on the right side. Check the food temperature and adjust the setting to hold the food at a safe temperature. Turning the knob counter-clockwise decreases the temperature. Turning the knob clockwise increases the temperature. Adjustments of the offset should only be performed by qualified refrigeration personnel.

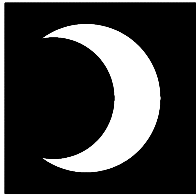
NOTE

The cold section should not need adjustment after the initial setup. If cold section temperatures are inconsistent, the equipment may need servicing. Contact your Duke Manufacturing Company authorized service agent.



PERIODIC MAINTENANCE, CHECKLIST AND CLEANING GUIDE

DAILY (Cont.)

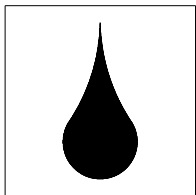


CLOSING CHECKLIST

1. Remove and store all products from the merchandiser.
2. Turn both hot and cold section power switches to the "OFF" position.
3. Clean merchandiser as outlined in the operator's manual cleaning instructions.

NOTE

Do not use the Duke Hot and Cold Merchandiser for overnight storage. Turn off the Merchandiser and defrost the cold section every night to prevent the excess build up of ice. Failure to defrost the merchandiser every may cause loss of ability to maintain safe food temperatures in the cold section.



CLEANING

!Caution!

Do not use caustic cleaners, acids, ammonia products, abrasive cleaners or cloths. These can damage the stainless steel and acrylic surfaces. Many glass cleaners contain ammonia, which will damage the acrylic doors and panels. Read cleaner labels carefully.

General

1. Ensure hot and cold section power switches are in the "OFF" position.
2. Unplug merchandiser or turn the power off at the equipment disconnect.
3. Open hot section doors to speed cool-down.
4. Allow hot section to cool for 20 to 30 minutes.
5. Wipe down all surfaces using a soft cloth or sponge with mild detergent.

Note

The cold section is equipped with a drain. Place a container below the drain to catch melted frost or cleaning solutions.

!Caution!

Do not use a scraper to remove frost. Using a scraper to remove frost may damage the finish of the display surface.



PERIODIC MAINTENANCE, CHECKLIST AND CLEANING GUIDE**DAILY (CONT.)****Cold Section Cleaning**

1. Remove and clean wire racks.
2. Ensure any large debris is removed from the cold section to prevent drain clogs.
3. Remove plug from cold section drain.
4. Allow frost to melt.
5. Clean cold section using a soft cloth or sponge with mild detergent.
6. Make sure that the area around the compressor fan is clear and the air flow is not blocked.
7. Place drain plug back into cold section drain.

Hot Section Cleaning

1. Remove and clean shelf. Do not submerge in water.
2. Wipe surfaces of hot section using a soft cloth or sponge with mild detergent.

WEEKLY**Condenser Coil Inspection and Cleaning**

The condenser coil cleanliness is vital to the proper operation of cold section. Build up of dust on the condenser coil and fan diminishes the effectiveness of the mechanical cooling unit and may cause elevated cold section temperatures. By performing the following steps regularly, the efficient operation of the cold section is assured.

1. Ensure hot and cold section power switches are in the "OFF" position.
2. Unplug merchandiser or turn the power off at the equipment disconnect.
3. Visually inspect the condenser coil and fan for cleanliness.
4. Clean condenser coils and fan if necessary.



TROUBLESHOOTING

There are no other user serviceable parts on the Duke Hot and Cold Merchandiser. If a malfunction occurs, ensure unit is plugged in then check all switches and circuit breakers. If the malfunction still exists, contact your Duke Manufacturing Company authorized service agent or call toll free 1-877-734-DUKE (3853) or 1-314-231-1130 X223.

COLD SECTION SERVICING

Only qualified persons are to service the refrigerant. The cold section servicing is not to exceed 11 ounces of R134A refrigerant. The compressor deck assembly is mounted on a pull out shelf to allow easy access for service and cleaning. Figure 2.1 illustrates the location of the servicing ports. Follow established procedures for servicing of refrigeration systems.

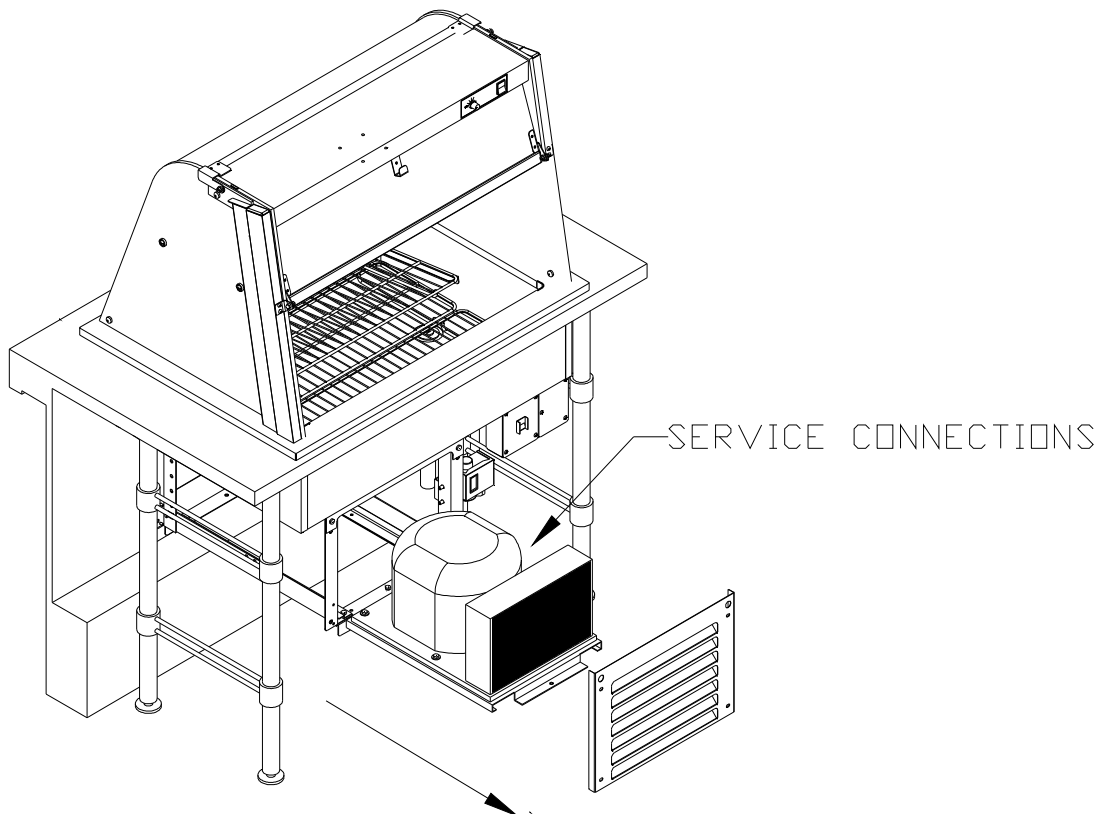
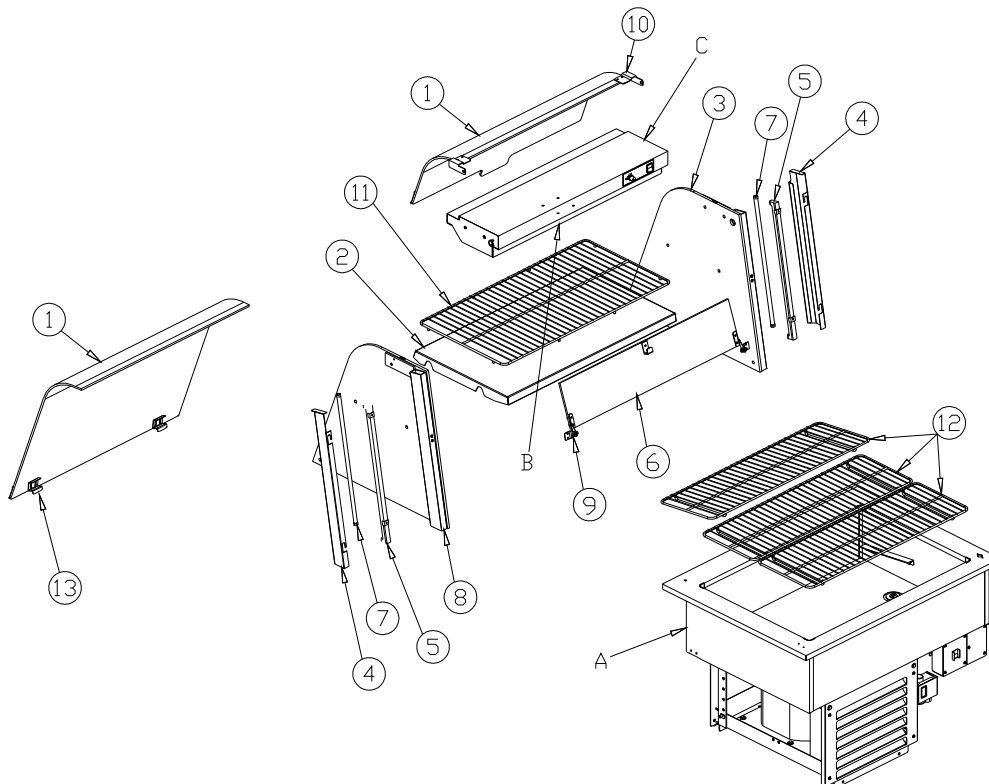


Figure 2.1, Servicing Connections

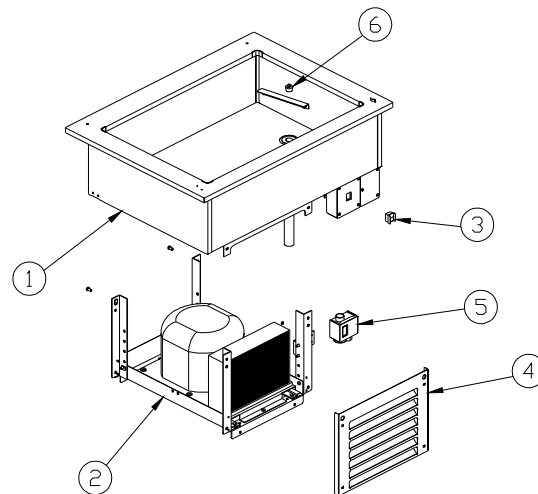
PARTS LISTS AND ILLUSTRATIONS

Key No.	Part No.	Description
1	156892 154896	DOOR, FRONT HALF (DKHCM) DOOR, FRONT FULL (CGHCM)
2	154911	SHELF,CENTER
3	154895	END, GLASS
4	155599 155600	LAMP SHIELD LH LAMP SHIELD RH
5	155641 155982	LAMP HOLDER, 120 VAC 60 HZ LAMP HOLDER, 230 VAC 50 HZ
6	154897	DOOR, REAR
7	155688 155985	LIGHT BULB, FLOURESCENT, 120 VAC 60 HZ LIGHT BULB, FLOURESCENT, 230 VAC 50 HZ
8	154901 154902	UPRIGHT, TUBE RIGHT UPRIGHT, TUBE LEFT
9	155602 155601	ASSY, HINGE LEFT BACK ASSY, HINGE RIGHT BACK
10	153889 153890	ASSY, HINGE LEFT FRONT ASSY, HINGE RIGHT FRONT
11	155574	RACK, HOT SECTION
12	155555	RACK, COLD SECTION
13	153899	LATCH (CGHCM)

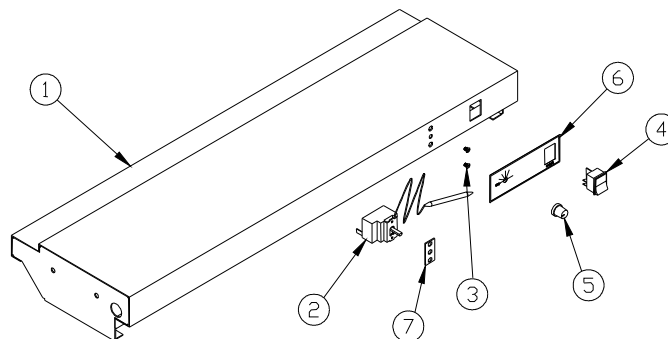


PARTS LISTS AND ILLUSTRATIONS

Key No.	Part No.	Description
1	155595	ASSY COLD PAN
2	216482	REFRIGERATION DECK, 120 VAC, 60 HZ
	216431	REFRIGERATION DECK, 230 VAC, 50 HZ
3	155712	SWITCH, DPST, LIGHTED, 10 AMP
4	154903	PANEL, AIR INTAKE
5	155938	THERMOSTAT, COLD SECTION
6	156007	PLUG, DRAIN

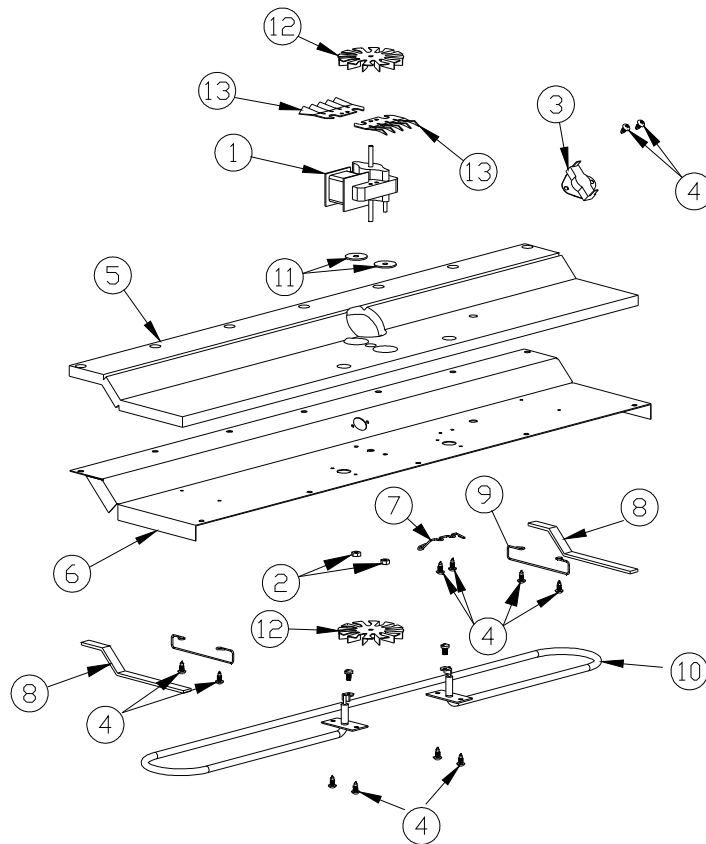


Key No.	Part No.	Description
1	154905	HOUSING, FAN
2	155637	THERMOSTAT
3	155677	SCREW, THERMOSTAT
4	155640	SWITCH, POWER, DPST
5	155638	KNOB
6	155562	LABEL, CONTROL
7	155678	SPACER, THERMOSTAT



PARTS LISTS AND ILLUSTRATIONS

Key No.	Part No.	Description
1	155629 155984	MOTOR 120 VAC, 60 HZ MOTOR 230 VAC, 50 HZ
2	155680	NUT 8/32 KEPS
3	155639	THERMOSTAT, HI-LIMIT
4	147254	SCREW, TEK #10
5	155644	INSULATION, TOP
6	154904	PANEL, MOTOR
7	512868	CLIP, T-STAT BULB
8	155649	GASKET SILICONE FOAM
9	155621	HANGER, ELEMENT WIRE
10	155582 155983	ELEMENT, HEAT, 1000 WATTS, 120 VAC ELEMENT, HEAT, 1000 WATTS, 230 VAC
11	155681	SPACER, MOTOR
12	155630	FAN BLADE
13	155720	HEAT SINK, MOTOR



WIRING DIAGRAM

SCHMATIC DIAGRAM
MODEL CGHCM-36 & DKHCM-36
HOT AND COLD MERCHANDISER
120 VAC, 60 HZ AND 230 VAC, 50 HZ

