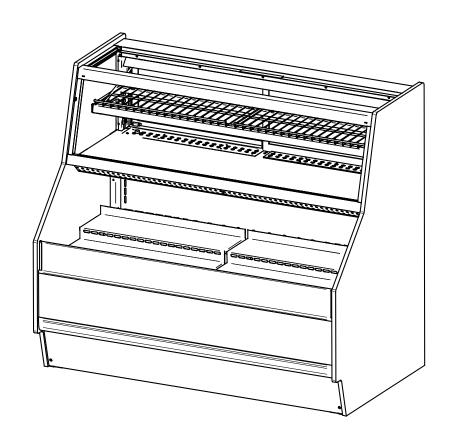


# FEDERAL INDUSTRIES INSTALLATION & OPERATIONS MANUAL REFRIGERATED ESSRC MODELS



# KEEP THIS MANUAL FOR FUTURE REFERENCE

Engineering and technical data are subject to change without notice.

FEDERAL INDUSTRIES Toll Free 1(800) 356-4206 P.O. Box 290 WI Phone (608) 424-3331 Belleville, WI 53508 Fax: (608) 424-3234

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# INTRODUCTION

Thank you for purchasing a Federal Industries display case. This manual contains important instructions for installing and servicing the Refrigerated Self-Service Merchandisers. A repair parts list and wiring diagram are also included in the manual. Read all of these documents carefully before installing or servicing your case.



#### **NOTICE**

Read this manual before installing your case. Keep this manual and refer to it before doing any service on the equipment. Failure to do so could result in personal injury or damage to the case.



#### NOTICE

Installation and service of the electrical components in the case must be performed by a licensed electrician.

The portions of this manual covering components contain technical instructions intended only for persons qualified to perform electrical work.



#### **DANGER**

Improper or faulty hookup of electrical components in the case can result in severe injury or death.

All electrical wiring hookups must be done in accordance with all applicable local, regional, or national standards.

# **SERIAL NUMBER**

Record the model and serial numbers of the case for	easy reference.	Always refer to both model	and serial
numbers in your correspondence regarding the case.			
Case Model	Serial Number_		
Condensing Unit Model	Serial Number		

This manual cannot cover every installation, use, or service situation. If you need additional information, call or write us:

TECHNICAL SERVICE DEPARTMENT
Federal Industries
P.O. Box 290
Belleville, WI 53508

Toll Free (800) 356-4206 / WI Phone (608) 424-3331

# WARNING LABELS & SAFETY INSTRUCTIONS



This is the safety-alert symbol. When you see this symbol on your case or in the manual, be alert to the potential for personal injury or damage to your equipment.

Be sure you understand all safety messages and always follow recommended precautions and safe operating procedures.



## **NOTICE TO EMPLOYERS**

You must make sure that everyone who installs, uses, or services your case is thoroughly familiar with all safety information and procedures.

Important safety information is presented in this section and throughout the manual. The Following signal words are used in the warning and safety messages:

**DANGER:** Severe injury or death <u>will</u> occur if you ignore the message.

**WARNING:** Severe injury or death <u>can</u> occur if you ignore the message.

**CAUTION:** Minor injury or damage to your case <u>can</u> occur if you ignore the message.

**NOTICE:** This is important installation, operation, or service information. If you ignore the

message, you may damage your case.

The warning and safety labels shown throughout this manual are placed on your Federal Industries case at the factory. Follow all warning label instructions. If any warning or safety labels become lost or damaged, call our customer service department at 1(800) 356-4206 for replacements.



This label is located on the back of the display case.

CAUTION
HAZARDOUS MOVING PARTS
DO NOT OPERATE UNIT WITH
DISPLAY PANS REMOVED.

This label is located below the display pan.

## PRE-INSTALLATION PROCEDURES

#### **Inspection for Shipping Damage**

You are responsible for filing all freight claims with the delivering truck line. Inspect all cartons and crates for damage as soon as they arrive. If damage is noted to shipping crates, cartons, or if a shortage is found, note this on the bill of lading (all copies) prior to signing.

If damage is discovered when the case is uncrated, immediately call the delivering truck line and follow up the call with a written report indicating concealed damage to your shipment. Ask for an immediate inspection of your concealed damage item. Crating material must be retained to show the inspector from the truck line.

## **GENERAL ELECTRICAL & GROUNDING**



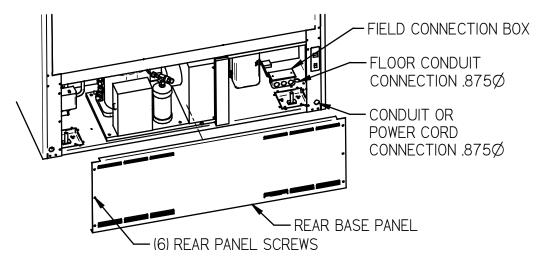
DANGER: Improper or faulty hookup of electrical components in the display case can result in severe injury or death.

#### **Permanent Connected (OPTION)**

- -Only a licensed electrician must perform all case electrical connections.
- -All electrical wiring hookups must be done in accordance with all applicable local, regional, or national electrical standards.
- -A separate circuit for each display case is required to prevent other appliances on the same circuit from overloading the circuit and causing malfunction.
- -The electrical service must be grounded upon installation.
- -See the electrical data plate located at the rear of the case for proper circuit size and wire ampacity.
- -The electrical connection box is accessible from the rear of the case with rear grill removed.

#### **Cord Connected (OPTION)**

- -A factory installed optional power cord is properly sized to the amperage requirements of the case. See the electrical data plate located on the rear exterior of the case for the proper circuit size for each case.
- The cord is factory installed protruding from the rear corner of the case.
- -A separate circuit for each display case is required to prevent other appliances on the same circuit from overloading the circuit and causing malfunction.



# INSTALLATION INSTRUCTIONS

#### **Locating Display Case**

The case should be located where it is not subjected to the direct rays of the sun, heating ducts, grills, radiator, or ceiling fans, nor should it be located near open doors or main door entrances. Also, avoid locations where there are excessive air movement or air disturbances.

The case requires a minimum of 12" clearance at the rear of the unit for air discharge. Do not locate case with back tight against the wall.

No clearance is needed on sides of the unit.

## **Removing Case From Shipping Skid and General Installation**



CAUTION: Do not push or pull against the door frames and do not pull on end panels when removing the case from the skid or moving the case. Case damage or glass breakage will result.

- 1. Remove crate top and sides and note missing or damaged items as explained in the pre-installation procedures outlined above.
- 2. Move the case as near as possible to the final location and before removing it from the shipping skid.
- 3. Remove the (4) brackets that secure the case to the shipping skid.
- 4. Prepare cabinet according to instructions in this section that pertain to your model.
- 5. Lift the case off of skid and into required position. Only lift the case from under the rear lip and front bottom trim channel above the base. Note: Do not push or pull on front bottom trim channel.
- 6. The case must be level for proper drainage of defrost condensate to the condensate evaporator. Using the wrench provided level and square the case as needed by adjusting the leg leveler in each corner of base. The 6'cases also have a set of leg levelers in the center. These must be adjusted so the base is flat.
- 7. The leveled case must be sealed to the floor using a NSF Listed Sealant.

## **Cleaning**

For initial setup, clean the case as outlined in the "Weekly Cleaning" section of this manual.

# REFRIGERATION

**Self Contained Models** Use pressure gauges to set pressure control.

	ESGSSRC5058	ESGSSRC5958	ESGSSRC7758
Refrigeration R404 Charge	32 OZ	34 OZ	36 OZ
Low Pressure Switch Cut In	82 psi	82 psi	82 psi
Low Pressure Switch Cut Out	48 psi	45 psi	51 psi
High Pressure Switch Cut Out	400 psi		
TXV Setting (turns from full open) (Turn screw counter clockwise to stop for full open position)	1.5	1.5	1.5

The self-contained models are shipped from the factory with a completely operational 404A refrigeration system and require no modifications or adjustments upon installation. Case must be installed as per the installation section of this manual to provide proper condensing air cooling.

#### **Self Contained Refrigeration Operation**

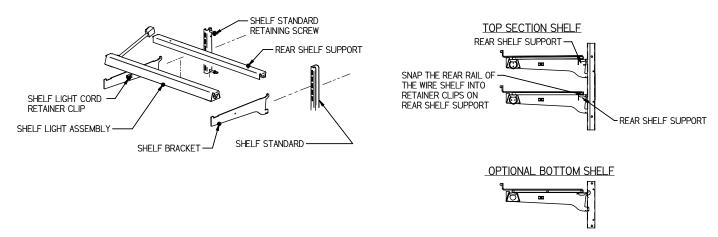
The unit temperature is controlled by the low pressure side of a dual high/low pressure switch. The compressor will run until either the minimum run timer times out (approx 10 min) or the suction pressure reaches the set cut out point at which time the compressor turns off. The compressor will remain off until the suction pressure rises and reaches the set cut in point of the pressure switch at which time the compressor turns on.

Note: The condenser fan runs continuously.

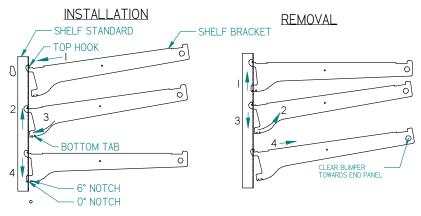
This unit also has a defrost timer that will shut the compressor off a set number of times per day to insure a full defrost occurs. The compressor will remain off until the either the off time is reached or until the temperature sensor on the coil reaches a set temperature which ever happens first.

# SHELVING INSTALLATION & REMOVAL

#### **Shelf Bracket & Supports Installation**



- 1. Turn the light switch to the off position. Remove rear doors as described in the "Rear Door Removal" section of this manual to allow access to interior of case.
- 2. Follow the instruction in the illustration below and insert (1) of the (2) shelf brackets in the desired shelf standard slot on one side of the case. Place the additional shelf bracket in the same shelf standard slot on the opposite end of case. The bracket with a shelf light cord retainer clip must be on the side with the shelf light receptacle.

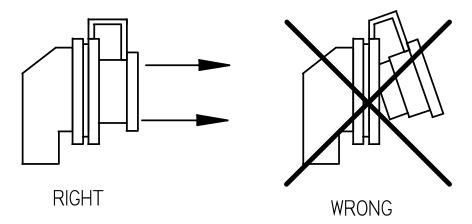


- I. Place shelf bracket top hook into desired shelf standard slot.
- 2. Lift shelf bracket top hook to allow shelf bracket bottom tab to clear shelf standard slot.
- 4. Place the desired shelf bracket notch of 0, 6, or 12 4. remove shelf bracket top from shelf standard slot. degrees onto bottom of shelf standard slot.
- I. Lift shelf bracket up to allow shelf bracket notch to clear the bottom of shelf standard slot.
- 2. Swing shelf bracket bottom tab out of shelf standard slot
- 3. Swing shelf bracketbottom tab into shelf standard 3. Drop shelf bracket down to allow shelf bracket top hook to clear top of shelf standard slot.
- 3. Hang one end of shelf light housing on the front notch of a shelf bracket and then the other end of shelf light housing on the notch of the shelf bracket on the opposite end.

NOTE: On models without shelf lights, use a shelf support instead of a shelf light housing.

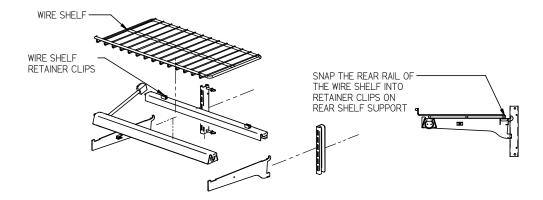
- 4. Push shelf light cords into plastic shelf cord retainer clip located on inside of shelf bracket.
- 5. Remove the cap from the appropriate female light sockets.

**IMPORTANT:** Grip each side of cap firmly and wiggle and pull cap straight out of socket. Do not roll cap during removal. Incorrect removal of cap may cause damage to electrical connection.



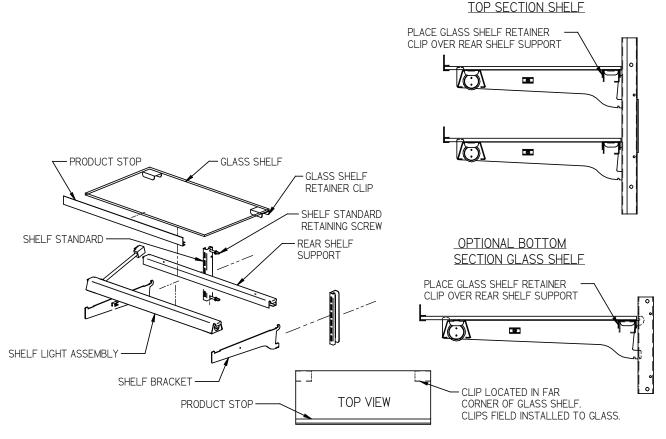
- 6. If the socket is not being used for a shelf light, the cap must be plugged into socket for entire light system to operate.
- 7. Plug in each shelf light by aligning the male pins on the appropriate shelf light cord plugs with the female light sockets and push together. **IMPORTANT:** Do not roll plug during insertion.
- 8. Hang one end of the shelf support on to the rear notch of one shelf bracket and then on the rear notch of the shelf bracket on the opposite side. NOTE: If the bottom open section shelf is supplied instead of step risers, the bottom rear support is not the same as the top rear support. See illustration above.
- 9. Place supplied shelving onto shelf supports as outlined in the appropriate "Shelf Installation" section of this manual.
- 10. Removal of shelving is performed by following steps in reverse order.
- 11. The shelf standards are removable from case by removing the (2) shelf standard retaining screws holding them to the inside wall of case.

## **Wire Shelves Installation**



- 1. Install shelf brackets & shelf supports as described in Shelf Bracket & Supports Installation Section of this manual.
- 2. Place the front of wire shelf onto front shelf light. (On front shelf support for models without shelf lights)
- 3. Snap the rear of shelf into the clear plastic clips on rear shelf support.

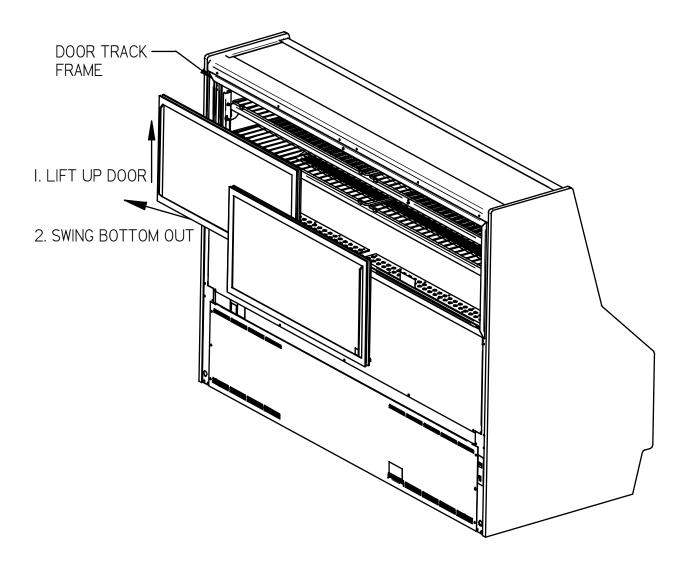
#### **Glass Shelves Installation**



- 1. For first time installation attach (2) glass shelf retainer clips to each glass shelf in location shown in illustration. Clean area of glass where glass shelf holder is to be located with rubbing alcohol and let air dry before installing shelf glass holder. Remove backing from tape located on flat side of glass shelf holder. Position the glass shelf holders in the (2) far corners of glass. Repeat for each glass shelf.
- 2. For first time installation attach (1) product stop to each glass shelf as shown in detail above. Align the product stop edge with the edge of the glass and push the "U" portion of the product stop on to glass lip across the entire front of glass.
- 3. Attach a clear bumper on both sides of the light housing top surface for the front of the glass to set on. This step may have already been performed at the factory for you.
- 4. Place front of glass shelf onto clear bumpers on front shelf light. (On front shelf support for models without shelf lights.)
- 5. If clear plastic clips were factory-installed on top of rear shelf support, remove and discard clear plastic clips.
- 6. Set the rear of the glass shelf onto the rear shelf support so that the back side of the glass shelf retainer straddles the rear shelf support and lower shelf into place.

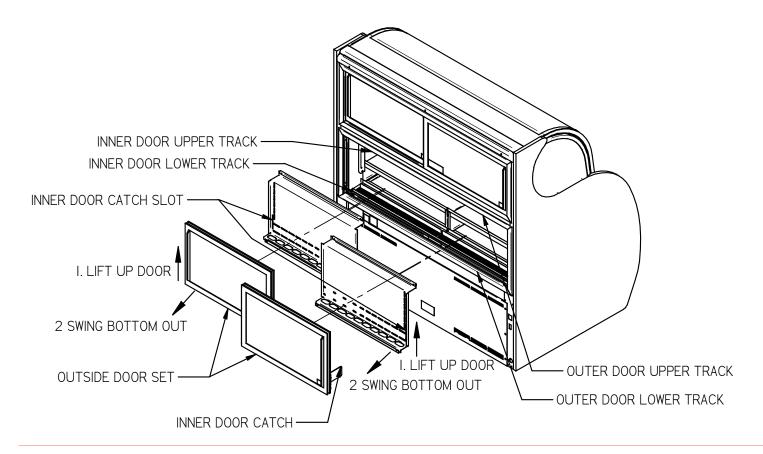
# **REAR DOORS**

# **TOP SECTION REAR DOORS**



- 1. Start with the outer door and lift the door upward until the bottom edge of door clears the lower track and then swing the bottom of the door outward and down out of upper track.
- 2. After the outer door is removed repeat the procedure for the inner door.
- 3. Reverse this procedure for door reinstallation. The doors are not interchangeable.

#### **BOTTOM SECTION REAR DOORS (OPTIONAL)**



- 1. Start with the outer outside door and lift the door upward until the bottom edge of door clears the lower track and then swing the bottom of the door outward and down out of upper track.
- 2. Remove the outer inside door using the same procedure.
- 3. The inner door set can then be removed using the same procedure starting with the inner outside door followed by the inner inside door.
- 4. Reverse this procedure for door reinstallation starting with the inner inside door followed by the inner outside door. Check that the doors slide freely.
- 5. Replace the outside inner door and the outside outer door. Be sure to slide the inner door catch into the inner door catch slot for each door.

Note: None of the doors are not interchangeable and they must be replaced in the same location that they where removed from.

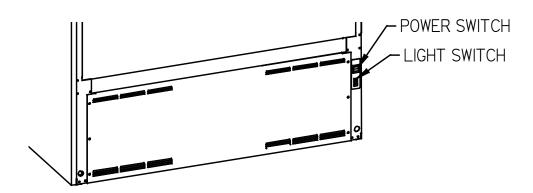
# **OPERATING INSTRUCTIONS**



NOTICE: This refrigerated display case is designed to operate

in a maximum environment of 80 DEG. F and 55% relative humidity. Exceeding these limits will cause poor case

performance and sweating of glass panels.



## **Controls**

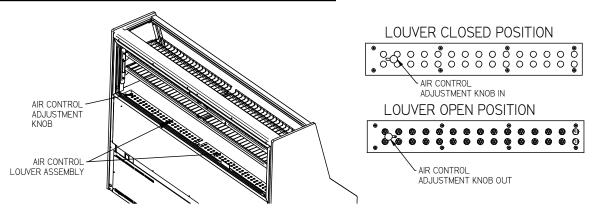
#### **Power Switch**

This switch controls the power to the entire unit. The switch rocker is red in the "on" position, black in the "off" position.

#### Light Switch

This switch controls the power to the lighting circuit. The switch rocker is red in the "on" position, black in the "off" position.

#### **Top Section Refrigeration Louver Control**



The top section of this unit can be changed from a refrigerated section to a non refrigerated section by opening or closing the louver. Unlock the louver position by loosening the control knob (turn control knob counter clockwise) and lock the louver position by tightening the control knob (turn control knob clockwise). Sliding the air control knob out will open the louver making the top section refrigerated and sliding the air control knob in will close the louver making the top section non-refrigerated (see illustration above). Even with the louver in the closed position the top section will be colder then ambient. If a refrigerated section is required for potentially hazard food the air control louver must be completely open. A half open louver will not allow sufficient air flow to top section. The air control louver assembly can be placed in the case in either direction. The air control knob can either be facing the inside or the outside of the case. The side that the air control knob is facing will not effect case operation.



**NOTICE:** 

If a top refrigerated section is required for potentially hazard food the air control louver must be completely open. A half open louver will not allow sufficient air flow to top section.

#### **Placing Product into Case**

- Do not exceed 75 pounds of weight per shelf. Heavy product should be distributed evenly across the entire shelving area.
- Determine desired shelving location and angle before placing product in case. Product must be removed to readjust shelf location and angle.
- Allow a minimum of 2" between top of product and bottom of shelf as shown in diagram below.
- Do not overhang the front or rear of shelves with product. Improper clearance in front and rear of shelf will block the refrigerated airflow and will cause product loss.
- -Do not block the slots along the front and rear air discharge slots. Covering these slots will block the refrigerated airflow and could cause product loss.
- -The display deck is removable for cleaning and can become dislodged in shipment. To ensure proper airflow and performance of the case, make sure that the display deck is pushed completely down into evaporation tub.
- -Allow refrigerated models to run for at least two hours before placing pre-chilled product into unit.



NOTICE: CASE MUST BE STOCKED WITH PRE-CHILLED PRODUCT ONLY.



**NOTICE:** This refrigerated display case is designed to operate

in a maximum environment of 80 DEG. F and 55% relative

humidity. Exceeding these limits will cause poor case

performance and sweating of glass panels.

# **MAINTENANCE**

# Top Light Bulb Replacement

- 1. To remove bulb from top light housing, grip the bulb receptacle end caps at each end of bulb. Pull the bulb receptacle end caps straight outward away from unit.
- 2. The bulb is inside a clear shatter proof tube with a white plastic end cap on each end. Be careful not to allow bulb to slide out of shatter proof tube.
- 3. Reinstall new bulb in to the existing shatter proof tube and reuse white plastic end caps. Reinstall bulb assembly in the same manner as described in the Bulb Removal Procedure. Be sure bulb is secure in bulb receptacles
- 4. Reinstall new bulb in the same manner as described in the Bulb Removal Procedure. Be sure bulb is secure in bulb receptacles. **Note: Be sure to use a direct equivalent to the original bulb.**

## **Shelf Light Bulb Replacement**

- 1. All shelf light fixtures use a spring-loaded socket at one end. To remove the bulb push the bulb towards the spring-loaded socket until the opposite ends drops out of the socket.
- 2. The bulb is inside a clear shatter proof tube with a black plastic cap on each end. Be careful not to allow bulb to slide out of shatter proof tube.
- 3. Reinstall new bulb in to the existing shatter proof tube and reuse black plastic end caps. Reinstall bulb assembly in the same manner as described in the Bulb Removal Procedure. Be sure bulb is secure in bulb receptacles

Note: Be sure to use a direct equivalent to the original bulb.

# PERIODIC MAINTENANCE



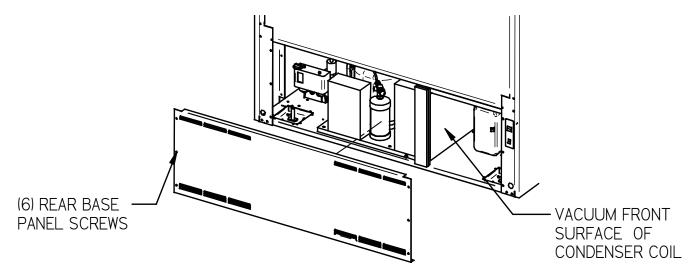
**NOTICE:** 

Condenser coil must be cleaned a minimum of twice per month to insure proper refrigeration performance and prevent compressor failure. Failure to clean condenser coil will void condenser warranty.

#### **Cleaning Condenser Coil (All Self Contained Refrigerated Units)**

It is very important that the Condenser coil is cleaned twice per month to insure proper refrigeration performance and to prevent compressor failure. Failure to clean condenser coil will void condenser warranty.

- 1. Disconnect power to the unit.
- 2. Remove the back base panel located on the back bottom of unit by removing the (6) front panel retaining screws.
- 3. Carefully vacuum the front surface of condenser coil. Take care not to bend coil fins with vacuum cleaner nozzle.
- 4. Reinstall back panel and retaining screws.



# **CLEANING INSTRUCTIONS**

#### **Daily Cleaning**

The case should be cleaned thoroughly, as described in the weekly cleaning section, before it is used for the first time.



**NOTICE:** Avoid splashing or soaking any electrical components with water to

prevent electrical damage to the case.



**NOTICE:** Shut off lights and power switches and remove all product from case.

Allow sufficient time for the unit to reach room temperature before

proceeding with cleaning.



**NOTICE:** Remove all product from case before proceeding with cleaning

procedure.



**NOTICE:** Acrylic front air deflector requires special washing procedures to

prevent hazing and yellowing of material.

Note: For major spills or foreign material buildup use complete weekly cleaning instructions.

Note: Detergents are not recommended and do not use abrasive cleaners or pads to prevent scratching of surfaces.

- 1. Clean all foreign materials from the door opening.
- 2. Wipe complete interior of both the upper & lower areas of case using a damp cloth.
- 3. The glass can be cleaned with common window cleaners.
- 4. The remaining exterior surface should be wiped down using any ammoniated cleaners or soapy warm water.
- 5. IMPORTANT: Cleaning the clear acrylic plastic front air deflector require special care to prevent hazing and yellowing of material. Lightly dust (not wipe) surface with clean soft cloth. Then the surface can be wiped carefully with a soft, wet cloth or chamois. The cloth or chamois must be kept free of grit by frequently rinsing in clean water. Grease and oil can be removed with kerosene. Do not use window cleaners or kitchen scouring compounds. DO NOT use solvents such as Acetone, Benzene, Carbon Tetrachloride, and Lacquer Thinners. A spray wax such as Pledge or Maguire's polish can be applied and wiped with a clean soft cloth. The wax tends to fill in and hide small scratches.

#### **Weekly Cleaning**

This procedure is recommended on a weekly basis. It may need to be performed more often if necessary to maintain a clean, sanitary case. The case should be cleaned to this procedure before using the first time.



**NOTICE:** 

Avoid splashing or soaking any electrical components with water to prevent electrical damage to the case.



**NOTICE:** 

Shut off lights and power switches and remove all product from case. Allow sufficient time for the unit to reach room temperature before proceeding with cleaning.



**NOTICE:** 

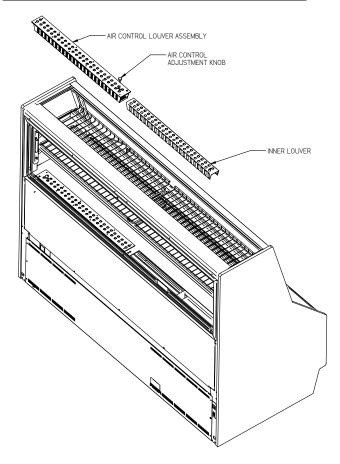
Remove all product from case before proceeding with cleaning procedure.



**NOTICE:** 

Acrylic front air deflector requires special washing procedures to prevent hazing and yellowing of material. Read weekly cleaning procedure carefully.

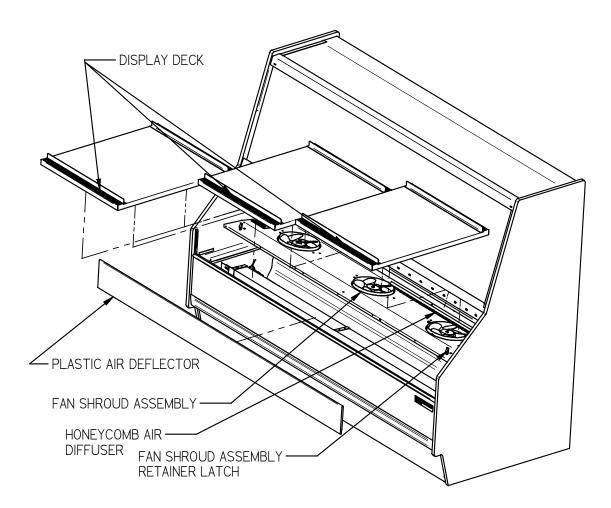
## **Weekly Top Section Interior Cleaning**



1. Remove both upper rear doors as described in the "Door Removal" section of this manual.

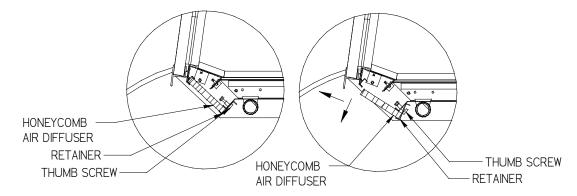
- 2. Clean all foreign material from inner and outer rear door tracks and clean both sides of the doors using warm soapy water and a brush. Apply a light film of lubricant such as PAM to door tracks to make the doors operate smoother.
- 3. The glass can be cleaned with common window cleaners.
- 4. Remove interior shelving from unit as described in the "Shelving Installation and Removal" section of this manual. Remove both shelf standards from interior of case by removing the (2) thumbscrew from top and bottom of each standard.
- 5. Lift and remove the air control louver assembly(s) from the inside rear of case. Unscrew the louver control knob and slide the inner louver out of louver assembly.
- 6. Clean all shelves, shelf support bars, shelf light housings, shelf brackets, and air control louver parts using warm soapy water and a brush. Rinse thoroughly and allow to dry.
- 7. Clean the entire interior of the case using warm soapy water. Wipe off all soapy water with a damp cloth and allow to dry. (DO NOT use solvents such as Acetone, Benzene, Carbon Tetrachloride, and Lacquer Thinners)
- 8. Reassemble all components in reverse order.

#### **Weekly Bottom Section Interior Cleaning**



- 1. Clean all foreign material from inner and outer rear door tracks and clean both sides of the doors using warm soapy water and a brush. Apply a light film of lubricant such as PAM to door tracks to make the doors operate smoother.
- 2. If supplied; remove interior shelving or display steps from unit as described in the "Shelving Installation and Removal" section of this manual.

- 3. Clean all shelves, shelf support bars, shelf light housings, shelf brackets, shelf standards and display steps using warm soapy water and a brush. Rinse thoroughly and allow to dry.
- 4. Lift the display deck(s) up and out of evaporator tub.
- 5. Remove the fan shroud assembly by lifting (2) black tabs up on fan shroud assembly retainer latch at each end of the front of the fan shroud and removing the thumb screws from along the rear lip of the fan shroud. Lift the fan shroud assembly and reach in and unplug the evaporator fan motor cord(s). Lift fan shroud assembly out of tub.
- 6. Clean the display deck(s) using warm soapy water and a brush. Rinse thoroughly and allow to dry. Wipe off fan shroud assembly (do not rinse or submerge fan motors).
- 7. Clean the entire interior of the case using warm soapy water. Wipe off all soapy water with a damp cloth and allow to dry. (DO NOT use solvents such as Acetone, Benzene, Carbon Tetrachloride, and Lacquer Thinners)
- 8. Remove the honeycomb air diffuser(s) from upper air duct track.
- 9. Remove the honeycomb air diffuser(s) from upper air duct track. Loosen thumb screws on Retainer located behind diffuser. Retainer will drop down allowing diffuser to be pulled out of case.



- 10. Clean honey comb air diffuser warm soapy water and a brush. Rinse thoroughly and allow to dry.
- 11. Remove the clear plastic front air deflector by lifting it up and out of case. IMPORTANT: Cleaning the Acrylic plastic front air deflector require special care to prevent hazing and yellowing of material. Lightly dust (not wipe) surface with clean soft cloth. Then the surface can be wiped carefully with a soft, wet cloth or chamois. The cloth or chamois must be kept free of grit by frequently rinsing in clean water. Grease and oil can be removed with kerosene. Do not use window cleaners or kitchen scouring compounds. DO NOT use solvents such as Acetone, Benzene, Carbon Tetrachloride, and Lacquer Thinners. A spray wax such as Pledge or Maguire's polish can be applied and wiped with a clean soft cloth. The wax tends to fill in and hide small scratches.
- 12. Reassemble all components in reverse order.

NOTE: Depending on the amount of usage and spillage of foreign material, some fasteners may have to be removed and parts disassembled to allow proper cleaning of the unit.

# **Weekly Exterior Cleaning**

- 1. Clean the front and top glass using any common window cleaner.
- 2. The exterior surfaces should be wiped down using any ammoniated cleansers or warm soapy water.

## SERVICE INFORMATION

#### **CAUTION**

RISK OF ELECTRIC SHOCK DISCONNECT POWER BEFORE SERVICING UNIT Before any service work is performed on the case, make sure all power is disconnected to the case.

Service problems or request for repair parts from authorized service agencies, trained service personnel, or owners should be referred to:

#### **CUSTOMER SERVICE DEPARTMENT**

Federal Industries P.O. Box 290 Belleville, WI 53508

Toll Free: (800) 356-4206 / WI Phone (608) 424-3331

Fax: (608) 424-3234

#### **Special Service Situations**

There are rare occasions when the refrigerant charge must be evacuated from a case in order to perform service work. In those situations, Federal Industries recommends that the refrigerant charge be evacuated into a recovery system to prevent the possibility of hydrofluorocarbons (HFC's) from being released into the atmosphere.

If moisture or liquid is observed around or under a Federal Industries case, an immediate investigation should be made by qualified personnel to determine the source of the moisture or liquid. The investigation made should determine if the case is malfunctioning or if there is a simple housekeeping problem.



Moisture or liquid around or under a case is a potential slip/fall hazard for persons walking by or working in the general area of the case. Any case malfunction or housekeeping problem that creates a slip/fall hazard around or under a case should be corrected immediately.

#### **Pre-Service Checklist**

You may avoid the cost and inconvenience of an unnecessary service call by first reviewing this checklist of frequently encountered situations that can cause unsatisfactory case performance.



CAUTION: Before servicing case turn off power at the main breaker of fuse

box.

#### Case Does Not Operate

- -Check for disconnected power supply.
- -Check for tripped breaker or blown fuse.
- -Check that power switch is on.

## Lights Do Not Operate

- -Check that light switch is on.
- -Be sure light is properly seated in the sockets.

#### If supplied with shelf light option

- -Check that shelf light cord(s) are tight in the sockets.
- -Plug unused light sockets with socket cap provided with socket.

#### Case Temperature Too Warm

- -Check that the cold air inlet and outlet slots are not blocked.
- Be sure that the rear doors are closed and tightly sealed.
- -Check for a blocked or dirty condenser coil fins.
- -Check cold airflow. Lack of adequate cold airflow could be a defective evaporator fan or blocked evaporator coil. Check that paper or foreign material is not blocking evaporator. If the evaporator coil is blocked due to excessive frost, turn the power switch "off" position for approximately one hour to defrost.
- -Is the case installed properly to allow adequate air flow to and from condenser?
- -Check that there is no air movement around case causing disruption to air curtain. Such as ceiling fans, heating/AC air ducts, exterior doors, ect.

# **SALE & DISPOSAL**

#### **Owner Responsibility**

If you sell or give away your Federal Industries case you must make sure that all safety labels and the Installation-Service Manual are included with it. If you need replacement labels or manuals, Federal Industries will provide them free of charge. Contact the customer service department at Federal Industries at (800) 356-4206.

The customer service department at Federal Industries should be contacted at the time of sale or disposal of your case so records may be kept of its new location.

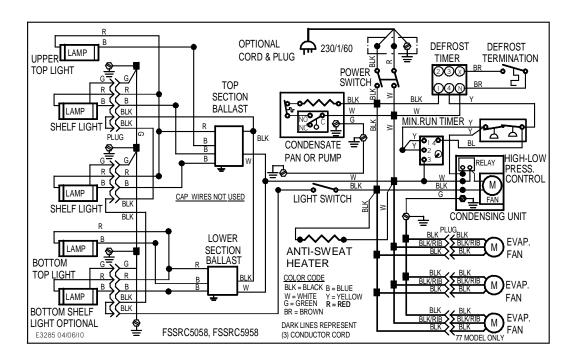
If you sell or give away your Federal Industries case and you evacuate the refrigerant charge before shipment. Federal Industries recommends that the charge be evacuated into a recovery system to prevent the possibility of HFC's from being released into the atmosphere.

# **REFRIGERATION & ELECTRICAL DATA**

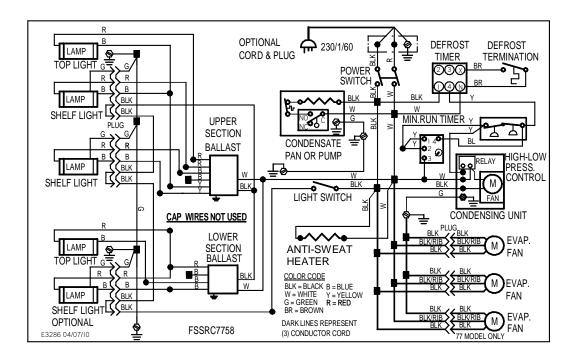
	SELF CONTAINED			
MODEL	404A REFRIG.	VOLTAGE	AMPERAGE	OPTIONAL CORD STYLE
ESGSSRC5058	32 OZ	230/60/1	10	15AMP NEMA 6-15
ESGSSRC5958	34 OZ	230/60/1	13	15AMP NEMA 6-15
ESGSSRC7758	36 OZ	230/60/1	13	15AMP NEMA 6-15

# MAIN WIRING DIAGRAMS

#### SELF CONTAINED ESGSSRC5058, ESGSSRC5958



#### **SELF CONTAINED ESGSSRC7758**



REFRIGERATION	ESGSSRC5058 240V	ESGSSRC5958 240V	ESGSSRC7758 240V	
Compressor (SC)	30-18052	30-18645	30-18645	
Condensing Unit (SC)	30-17887	30-18215	30-18215	
Evaporator Coil	33-13357	33-13358	33-13359	
TXV	32-1	8244	32-18245	
Filter Drier		32-12626		
Site Glass		32-54010		
Evaporator Fan Motor (SC)		41-17811		
Evaporator Fan Blade	72-17355	72-32506	72-17355	
Latch Evaporator Housing to Coil		66-13640		
Pressure Control (SC)		32-51009		
Defrost Timer		41-32317		
Minimum Run Timer		41-18658		
Condensate Pan Ass'y (SC)		SA4471-3		
Condensate Pan Heater (SC)		40-17838-3		
Condensate Pan Float Ass'y		SA2928-1		
Condensate Pan Switch	41-13022			
Condensate Drain Tube	SA4490-2 SA4490-2 & SA4683			
Thermometer	32-13662			
ELECTRICAL	ESGSSRC5058 240V	ESGSSRC5958 240V	ESGSSRC7758 240V	
Light Switch		41-11066		
Power Switch		41-18186		
Light Ballast (Top Section) (SC)	39-1	2903	39-12904	
Light Ballast (Btm Section) (SC)	39-12902		39-12903	
Light Bulb (Top Section)	42-11069	42-11070	42-11071	
Light Bulb (Btm Section)	42-11069	42-11070	42-11071	
Light Bulb Shatter Tube(Top Lights)	42-15503	42-15640	42-15642	
Top Light Tomb Stone	42-15440			
Top Light Cap	42-15441			
Shelf Light Bulb	42-11069	42-11070	42-11071	
Shelf Light Bulb Receptacle	42-10834			
Shelf Light Bulb Recept.Spring	42-10833			
Shelf Light Bulb Shatter Tube Cap	78-12462			
Light Bulb Shatter Tube(All Shelf Lights)	42-30200	42-15641	42-15637	
Shelf Light Recept.	43-18431			
Shelf light Cord (Top Section)	43-16861-1			
Shelf light Cord (Btm Section)	43-16861-1			
Main Wire Harness	43-18528			
Anti Sweat Heater (SC)	43-18491-2	43-18491-3	43-18491-4	
Power Cord (Optional)	43-17839			
. 51151 GG14 (GP1151141)	E3285 E3286			

PANELS & GLASS	ESGSSRC5058	ESGSSRC5958	ESGSSRC7758	
Front Glass	51-19107-5	51-19107-6	51-19107-7	
Top Glass	51-19106-5	51-19106-6	51-19106-7	
End Panel Ass'y Left (Black)		68-19146-L		
End Panel Ass'y Right (Black)		68-19146-R		
SHELVING	ESGSSRC5058	ESGSSRC5958	ESGSSRC7758	
Shelf Top Wire Black (Top Section)	63-18213-11	63-18213-10	63-18213-9	
Shelf Wire Black (Optional)(Btm				
Section)	63-18213-5	63-18213-6	63-18213-7	
Glass Shelf (Top Section) (Optional)	52-19149-2	52-19149-3	52-19149-4	
Glass Shelf (Btm Section) (Optional)	52-11214	52-11217	52-12034	
Glass Shelf Retainer(Optional)		SA4091		
Shelf Bracket (Top Section)	67-16038-3A			
Shelf Bracket (Btm Section)	67-16038-1A			
Shelf Standard (Top Section)	M16522-2L / M16522-2R			
Shelf Standard (Btm Section)	M16522-2L / M16522-2R			
Step Riser (Btm Section)	SA4486-2	SA4486-3	SA4486-4	
DOORS	ESGSSRC5058	ESGSSRC5958	ESGSSRC7758	
Rear Door Inner Clear Top Section	53-18209-2	53-18209-3	53-18209-4	
Rear Door Outer Clear Top Section	53-18210-2	53-18210-3	53-18210-4	
Rear Door Inner Refl. Top Section	53-18209-6	53-18209-7	53-18209-8	
Rear Door Outer Refl. Top Section	53-18210-6	53-18210-7	53-18210-8	
Rear Door Frame - Top	SA4463-2	SA4463-3	SA4463-4	
Rear Door Jamb(Btm Section)(Optional)	Χ	57-19121-10	X	
Rear Door Inner Solid(Btm Section)(Opt)	Х	53-19147-3	Х	
Rear Door Outer Solid(Btm	<del>-</del> -			
Section)(Opt)	Χ	53-19148-3	X	
CatchDoor Inner Inside(Btm Section)(Opt)	M15356-2			
Catch Outer Inside(Btm Section)(Opt)	M15356-1			
Rear Door Inner Inside(Btm				
Section)(Opt)	SA4465-2	SA4465-3	SA4465-4	
Rear Door Outer Inside(Btm Section)(Opt)	SA4464-2	SA4464-3	SA4464-4	

MISCELLANEOUS	ESGSSRC5058	ESGSSRC5958	ESGSSRC7758
Duct Louver Ass'y (Top Section)	SA4467-2	SA4467-3	SA4467-4
Deflector Front Clear (Btm Section)	15-18198-2	15-18198-3	15-18198-4
Security Night Cover Panel (Optional)	M17218-2	M17218-3	M17218-4
Security Night Cover Latch (Optional)	66-11727		
Night Curtain (Optional)	65-18155	65-18013	65-18592