



OPERATING INSTRUCTIONS



AirScreen

ASU
R-AS SERIES MODELS



Caution: Read the instructions before using the machine.

REFRIGERATED "AIRSCREEN" SERIES

TABLE OF CONTENTS

* Table of Contents & General Information	Page 2
I. Introduction	Page 3
II. Delivery Inspection & Unpacking	Page 4
III. Electrical Requirements	Page 5
IV. Installation	Page 6
V. Transporting	Page 7
VI. Unit Features	Page 7
VII. Electronic Controls	Page 8 - 9
VIII. Operation	Page 10
IX. Performance	Page 11-12
X. Defrost	Page 12-14
XII. General Cleaning and Maintenance	Page 14-17
XIII. Service Information	Page 17
XIV. Troubleshooting Guide	Page 18-19
XV. Wiring Diagram	Page 20-21
XVI. Warranty	Page 22
XVII. Warranty Registration & Service Record	Page 23

GENERAL INFORMATION

A schedule should be put in place for inspections and preventative maintenance.

New users should be properly trained in the use of this equipment.

No special protective equipment is required to operate this unit.

**IN THE EVENT OF ACCIDENT OR
BREAKDOWN - UNPLUG UNIT.**

**FOR SERVICE INQUIRIES PLEASE CALL
FWE SERVICE • 800-222-4393**



Hours of Continuous Open Door Use *



ASU-10
4 Hours



R-AS-10
1.5 Hours

Door Open duration is based on a room ambient temperature of 75°F (24°C) and 45% relative humidity.

INTRODUCTION

Congratulations and thank you for purchasing a FWE AirScreen Refrigerator.

The unit has the exclusive "Food Sentry" AirScreen control that offers the ultimate in performance and is designed to operate continuously as a highly efficient "standard" closed door refrigerator or as an "AirScreen".

*With the door open the unit is capable of maintaining 40°F (4.4°C) temperature or below for a minimum 45 minutes and a maximum of 120 minutes (R-AS-10 Model) / 4 hours (ASU-10 Model) depending on conditions.

IMPORTANT THINGS TO DO BEFORE USING YOUR FWE AIRSCREEN:

1. Carefully uncrate your unit and check it for damage following the procedures outlined in this manual.
2. Read this installation and operating manual carefully for proper installation and use of your unit.
3. Submit your Warranty & Manufacturer Registration online (www.fwe.com/warranty). Scan the QR code to the right. **Warranty registration must be submitted within 30 days of initial delivery to be valid.**
4. Make sure all operators are familiar with the proper and safe operation of this equipment as described in this manual.



ASU-10
Model Shown

DELIVERY INSPECTION

1. FWE cannot assume responsibility for loss or damage suffered in transit. The carrier assumed full responsibility of delivery in good order when the shipment was accepted.
2. All units are factory tested for performance then carefully packaged and certified free from defects when shipped.
3. Inspect the packaging for external damage when received. If damage is found follow FWE's policy on damaged goods outlined below:

FWE's policy on damaged goods:

1. **VISIBLE DAMAGE (Packaging has visible damage when received):**
 - A. Receiver should not accept delivery of the unit.
 - B. Receiver should sign the bill of lading and clearly indicate which merchandise is being "refused due to damage".
2. **CONCEALED DAMAGE (Unit has damage that could not be detected until the packaging was removed):**
 - A. Receiving should inspect the unit for concealed damage inside and out as soon after delivery as possible.
 - B. If damage is discovered:
 1. Save all packaging materials for inspection.
 2. Immediately inform your dealer and trucking company. Receiver must call the carrier to schedule an inspection of the damaged unit within 15 days.
 3. Contact FWE customer service at 800-222-4393 to alert them of the situation.
 4. Under no circumstances may a damaged unit be returned to FWE without a prior written factory Return Merchandise Authorization (RMA).

UNPACKING

1. Your AirScreen refrigerator is shipped from the factory on a wood pallet and packaged in a durable cardboard carton. The carton is constructed using large staples and attached to the pallet using poly strapping. Remove all the staples prior to removing the carton to avoid scratching the unit
2. After removing the strapping material the unit can be carefully removed from the pallet.
3. FWE does not recommend laying the unit down horizontally on its front, sides or back. If the unit has been laid down horizontally it must be allowed to remain upright for a minimum of 48 hours before plugging in and turning on. This insures that the compressor oils and refrigerant settle and avoid damage to the refrigeration components when turned on.
4. Remove tray slides and all packaging from inside the unit.




ELECTRICAL REQUIREMENTS

1. Check the serial plate for the voltage of the unit and insure the electrical outlet provided matches the voltage of the unit.

See the electrical specifications chart to the right:

2. **WARNING:** The supply voltage must be checked by a qualified electrician with a full knowledge of all electrical codes. Improper installation can result in personal injury and property damage. Prior to connection be certain that the voltage of the unit is correct (refer to serial tag for correct unit voltage). If the unit is 120V use a dedicated 15 Amp circuit with a 5-15R receptacle. If the unit is 220-240 use a dedicated 15 Amp circuit with a 6-15R receptacle. Wire to the outlet must be sized correctly to handle the load.

3. **WARNING:** For your safety and protection, all units are supplied with a 10 foot power cord with a 3 prong grounded plug. Unit must be plugged into a properly grounded outlet. Do not under any circumstances cut or remove the round grounding prong from the plug, or use an extension cord.
4. There is a wiring diagram in the back of this manual for technical reference, however if service is required contact FWE Customer Service and provide the model and serial number of the unit.

ELECTRICAL DATA ASU-10 / R-AS-10		ELECTRICAL DATA ASU-10 / R-AS-10 INTERNATIONAL ONLY	
VOLTS	120	VOLTS	220-240
WATTS	1020	WATTS	1357
AMPS	8.5	AMPS	5.9
HERTZ	60	HERTZ	50/60
PHASE	Single	PHASE	Single
PLUG USA	5-15P 	PLUG CANADA*	6-15P 
PLUG CANADA	5-15P 		

*Consult factory for additional plugs for international use



**SHOCK HAZARD
NOTICE**

DO NOT, UNDER ANY CIRCUMSTANCES, CUT OR REMOVE THE GROUNDING PRONG FROM THE CORD PLUG.

ONLY A QUALIFIED ELECTRICIAN OR SERVICE TECHNICIAN SHOULD ATTEMPT TO REPAIR OR REPLACE ELECTRICAL COMPONENTS OR WIRING.

To Avoid Electric Shock Disconnect power before servicing, moving or cleaning unit.

INSTALLATION

Location: The proper location and assembly of your FWE AirScreen is extremely important for proper performance. Carefully follow the guidelines listed below:

- 1. Install unit level.**
This is important for the health of the refrigeration system and efficient draining of the defrost water. Improper draining of evaporator water can cause loss in performance and require additional defrosting.
- 2. Install unit away from hot cooking equipment or other sources of heat.**
Being near heat sources can increase the ambient temperature around the unit making it work harder, lose efficiency and shorten effective open door time.
- 3. Install unit away from appliances that give off steam or moisture.**
Increased room humidity speeds up the formation of frost on the evaporator coil shortening the effective open door time.
- 4. Install the unit away from room ventilation ducts and not under ventilation hoods.**
Moving air from ventilation ducts or hoods can disturb the air flow around the unit which can cause poor open door performance. Especially avoid locations where there is airflow directed at the front of the unit that can push air and humidity into the cabinet when the door is open. Also avoid drafty locations like near frequently opened doors.
- 5. Install the unit with a minimum of 6" from the back of the unit to a wall or other obstruction.**
Proper clearance is required for good airflow around the condenser unit for efficient operation.
- 6. Install unit so the doors can be opened a minimum of 90 degrees:**
The door is designed to swing and latch to the side of the unit.
- 7. Install the tray slides:**
Tray slides have tabs formed into them. Slide the tabs into the square holes on the side of the cabinet and push down to seat. The slides can be installed level or can be mounted at a slight slope forward to help product slide forward on the trays.
- 8. Side air tunnels:**
Side tunnels inside the unit must be installed tightly against the inside walls of the cabinet. This is important for proper cold air flow across the product on the trays.
- 9. Install unit away from areas where there may be frequent standing water.**
- 10. Install unit in an area that is conducive to safe and proper use.**

TRANSPORTING

- 1. WARNING:** Do not attempt to move the AirScreen Refrigerator until the unit is turned off, the power cord is unplugged and out of the way, or secured around the rear handle.
- Door must be securely closed and all caster locks released.
- Maneuver the unit by grasping the handles on the sides or rear.
- 4. CAUTION:** The unit is designed for internal use and not designed for outdoor all-terrain transport.
- 5. CAUTION:** The heavy compressor assembly is located at the bottom of the unit and lowers its center of gravity. Moving the product loaded with product can change the center of gravity making the unit top heavy losing some stability. Be extra cautious when approaching uneven flooring and when going over door thresholds, drains and grates.



UNIT FEATURES

Temperature setting:

Your units operating temperature is preset to 38°F (3.3°C) with an operating temperature range of 33°F to 40°F (.5°C to 4.4°C).

Full Swing Door with Magnetic (hold open) Catch:

Door can open flat against the cabinet side and is secured in place by a magnetic catch. Closed door is secured magnetically thus removing the need for a cumbersome door latch.

Tray Slides:

Ten (10) pairs of removable stainless steel tray slides are provided. Tray slides are spaced at 4 1/2" and each space can accommodate one (1) 18"x26" standard sheet pan.

Side Grips and Rear Handles:

For ease of mobility stainless steel recessed hand grips are provided on the left and right sides and a 1" welded tubular push/pull handle is attached to the rear of the cabinet.

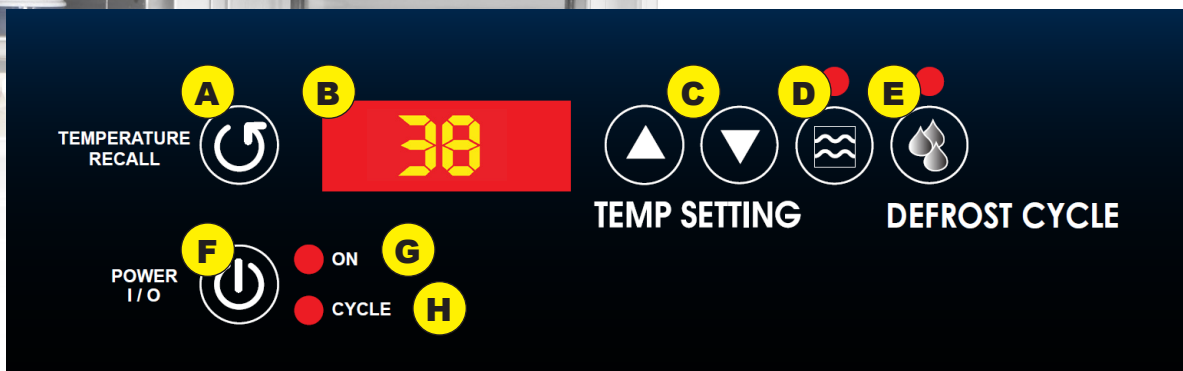
Castors:

6" diameter polyurethane casters attached to 10 gauge stainless steel corner reinforcement plates are standard. Front casters have foot actuated locks.

ELECTRONIC CONTROLS



Intuitive controls with active temperature monitoring and thermometer display are easy to use, read, and are highly accurate. Advanced Digital Controls feature temperature set points, actual temperature indicator, clean condenser reminder and door open alarm (to alert operator when door has been opened beyond allowed time span)



A Temp Recall Button: Press to display either the "Actual Internal Cabinet" or "Set Point" Temperature.

B Temp Display: Shows either "Actual Internal Cabinet" Temperature or desired "Set Point" Temperature. The unit is configured to "Actual" from the factory but can be changed to "Set" value by pressing and holding the temp recall button for 5 seconds until the display flashes either "S" (Set Point) or "A" (Actual) indicating which is active. Repeat this procedure until the desired display format is achieved. Pressing and releasing the button when the unit is running will momentarily display the opposite value.

C Temp Setting (Arrow) Buttons: Use to set the desired temperature. Factory preset to 38°F (3.3°C). Temperature range is 33°F to 40°F (.5°C to 4.4°C). Use the Up Arrow to raise and the Down Arrow to lower the temperature.

D Clean Condenser Reminder: The clean condenser reminder alert LED will light up approximately every 60 days of run time. The condenser should be cleaned at this time. Refer to section "General Cleaning and Maintenance" for cleaning instructions. To reset the reminder after cleaning press the clean condenser button.

E Defrost Cycle Button and Indicator Light:

1. Press to initiate a manual "On Demand Defrost".
2. Press to cancel defrost. The cooling system starts after a 60 second countdown timer.
3. Defrost indicator light illuminates when in defrost.

F Power I/O Button: Has 2 Functions:

1. Turns the unit on or off
2. Changes temperature units between °F (Fahrenheit) and °C (Celsius):

To Change:

- A. Turn unit off
- B. Press and continue to hold the Power I/O button for 5 seconds. When the display shows either "de9F" indicating the unit is in Fahrenheit or "de9C" indicating the unit is in Celsius let go of the button. When the display goes blank (about 3 seconds) press the Power I/O button to turn the unit on and confirm the temperature unit setting. Repeat the steps if necessary to get the desired temperature unit.

G On Indicator Light: ON
Indicates the unit is turned on.

H Cycle Indicator Light: CYCLE
Lights when the refrigeration system is running (unit is cooling).

OPERATION

Closed door operation:

When the door is closed it operates like a highly efficient refrigerator that provides faster "pull down" and "recovery" times than a standard refrigerator.

Open door "AirScreen use":

The FWE, **Model # R-AS-10**, AirScreen Refrigerator is specifically designed to hold 40°F (4.4°C) temperature or below for a minimum of 45 minutes and a maximum of 120 minutes, dependent upon application and operating conditions.

The FWE, **Model # ASU-10**, AirScreen Refrigerator is specifically designed to hold 40°F (4.4°C) temperature or below for a minimum of 45 minutes and a maximum of 4 hours, dependent upon application and operating conditions.

Loading:

Note: Lowering the cabinet temperature during prechilling as described in the following steps can help extend open door times. However, be aware that these temperatures may be too low to store some products overnight. Adjust temperatures accordingly.

1. Before loading, prechill the empty cabinet to 34°F to 36°F (1.1°C to 2.2°C) with the door closed a minimum of 1 hour.
2. Space items on trays so air can flow between them. Do not block tunnel slots with items as this will restrict air flow.
3. Load cabinet from the bottom to the top with **PRECHILLED FOOD PRODUCTS** AT 38°F (3.3°C) or colder.
4. Push trays all the way back to the rear wall and fill unused tray slots with empty trays. All ten trays must be in place for best open door performance.
5. Prior to operating with the door open the trays of already cold product must be allowed at least 30 minutes in a closed door unit set to 36°F (2.2°C) or lower to allow temperatures to equalize. Prechilled product held longer in a closed door unit can help maximize effective open door times.

Serving:

1. The AirScreen is equipped with a smart controller and when the door is opened the control displays "Open".
2. Open the door just prior to serving. Keeping the door closed as long as possible before serving increases effective open door time.
3. Keep all ten trays in the unit during service. Empty trays help hold cold air in the unit.
4. Keep trays pushed back in the unit during service. Trays pulled forward and protruding out of the unit disrupt airflow and dump cold air into the room decreasing effective open door times.

CAUTION:

HOLDING FOOD AT TEMPERATURES MORE THAN 40°F(4.4°C) MAY BE DANGEROUS. TEMPERATURES MORE THAN 40°F (4.4°C) PROMOTE THE GROWTH OF HARMFUL BACTERIA AND TOXINS IN SOME FOODS.

PERFORMANCE

When the door is opened fans create a unique air flow pattern that keeps cold air in and warm air out of the food zone. This contributes to safer product storage during open door service times. The AirScreen is ideal for hospital and nursing home tray / assembly line kitchen operations, flight kitchens, cafeterias, fast food and QSR applications. For best results, the air curtain was designed for "low profile" food product typical of these applications.

FACTORS THAT AFFECT PERFORMANCE

AirScreen Refrigerators are not designed to give unlimited open door use!

1. **Room Temperature:** Ambient room temperature of 75°F or lower is optimum. High room temperature makes the unit work harder. As the temperature in the room rises effective open door time decreases.
2. **Humidity:** Never place AirScreen near steamers, steam tables, dishwashers or other humidity producing equipment. Higher surrounding humidity levels will increase ice buildup on the evaporator coil causing loss of performance and shorter open door times. Humidity levels above 45% relative humidity will significantly affect performance.
3. **Heat:** Never place your AirScreen Refrigerator next to sources of heat like ovens, fryers or other heated cooking equipment. Added heat in the area of the air curtain makes the unit work harder causing loss of performance and shorter open door times.
4. **Room air movement:** Portable or fixed fans, ceiling or wall ventilation ducts and drafts from open doors will greatly affect the performance of the air curtain especially if the air is forced directly into the unit with the door open.
5. **Pre-chilling:** This step is very important to maximize effective open door time.
6. **Sequence of Loading Trays:** Trays should be loaded from bottom to top.
7. **Sequence of Unloading Trays:** It's best to remove food product starting with the top tray and working downward.
8. **Product loading:** Load product with space between them on trays and away from sidewalls to avoid blocking airflow.
9. **Door open too long:** If conditions are optimal you can expect to see the maximum **120 minutes (R-AS-10 Model) / 4 hours (ASU-10 Model)** door open time. Managing the service time and closing the door as soon as possible gives more time for the unit to cool back down between open door sessions.

.... CONTINUES ON NEXT PAGE.

PERFORMANCE (CONTINUED)

- 10. Trays:** During open door use all ten (10) trays should be kept loaded even if empty. Do not allow trays to extend out of the AirScreen during open door use. These procedures will help hold cold air in the unit and maximize open door times.
- 11. Reloading:** Once all food product has been used, and prior to reloading the AirScreen, close the door for at least 45 minutes. This will allow for the air curtain to go through a defrost cycle and cool back down to temperature. After reloading unit with cold product follow all procedures outlined in the operation section under loading.
- 12. Defrosting:** Proper defrosting is essential to performance. Defrost is automatic however additional manual defrosts are advisable when conditions are not optimal.
- 13. Condenser coil:** Clean regularly for best performance.
- 14. Door gasket:** Inspect and clean regularly to maintain a good seal.

Additional performance notes:

1. There is a time lag between the cabinet air temperature and the actual product temperature. The product temperature can be 10°F (-12°C) to 25°F (-4°C) cooler than the temperature indicated by the temperature display.
2. Moisture on the side walls and puddling in the cabinet after an open door session is normal. Simply wipe inside of the unit out between open door sessions.
3. If you are experiencing some freezing on fragile products like salads it is advisable to cover these with covers or plastic wrap.

DEFROST

Defrost cycles:

The **ASU-10** model uses a sensor based defrost and there is no adjustment.

The **R-AS-10** model uses a time based defrost.

DEFROST (CONTINUED)

- 1. Automatic (door open time based) Defrost:**
If the door is open for 45 minutes or longer the unit will go into an automatic defrost when the door is closed.
- 2. Manual defrost:**
Manual defrost is initiated by the operator. Manual defrost can only be started with the door closed by pressing the manual defrost button on the front of the control. The light above the manual defrost button will illuminate to let you know the unit is in defrost. It is advisable, if time permits, to do additional manual defrosts especially after long door open times or in higher humidity conditions.
- 3. Canceling Defrost:**
The manual defrost button has a second function. When unit is in a defrost cycle it can be canceled by pressing the manual defrost button. This starts a sixty second countdown timer and after the countdown ends the cooling cycle will start. Allow at least two minutes for evaporator coil to cool before opening door.

Important Note: Canceling a defrost cycle is not recommended.

Additional Defrost Information:

1. The defrost system is designed to allow proper defrosting of accumulated ice build-up on the evaporator coil.
2. Internal cabinet temperature will rise during a defrost cycle.
3. The cooling system condenser/compressor is disabled during defrost.
4. During a defrost cycle the condensation water from the evaporator coil flows from the top of the unit down a drain line into the condensate vapor pan where it is evaporated. Vapor from this evaporating water can sometimes be visible and should be considered a normal operating condition.
5. Defrost cycles take around 15 minutes. However it is advisable to allow a minimum of 45 minutes for a defrost cycle. This allows time for the cooling system to come back on and bring the temperatures down.

... CONTINUED ON NEXT PAGE

DEFROST (CONTINUED)

6. Defrost is not canceled when you open the door. If possible let the defrost cycle finish and allow the compressor to come on for a few minutes before opening the door for service.
7. Running the unit in very high humidity conditions with long door open times will create excessive ice buildup on the evaporator coil and greatly reduce performance. This may require additional manual defrosts to keep the evaporator coil free of ice.
8. Be aware that pushing the defrost button after the door has been closed can cancel a defrost cycle if it has already automatically started.
9. Not allowing enough time with the door closed between open door sessions for defrosting can shorten effective open door times.
10. Defrosting heavy ice buildups caused by running in abnormal conditions can cause the vapor pan at the bottom of the unit to overflow. In this case it is possible to attach a hose to the bottom of the vapor pan and allow it to drain into a floor drain.

GENERAL CLEANING & MAINTENANCE



**SHOCK HAZARD
NOTICE**

WARNING: RISK OF ELECTRICAL SHOCK.
DISCONNECT ELECTRICAL POWER SUPPLY BEFORE
CLEANING ANY PARTS OF THE UNIT OR PRIOR TO ANY
SERVICE.

Cleaning the Condenser:

The clean condenser reminder Alert will light up approximately every 60 days of run time. It is very important to keep the condenser coil clean to insure a long, reliable service life for your FWE AirScreen. Keeping the condenser fins clean of lint and dust accumulation allows the unit to operate efficiently, use less energy and achieve top performance.

GENERAL CLEANING & MAINTENANCE (CONTINUED)

To clean the condenser:

1. Disconnect the unit from electrical power by unplugging.
 2. Remove the front louver assembly: The front louver assembly is held in place with magnets and is easily removed by pulling it down and out. Removing the front louver assembly allows full access to the front facing condenser.
 3. If more access to components is required, the rear and side louvers can be taken off by removing the screws that hold the louvers in place.
 4. Brush any dirt, lint or dust from the finned surface of the condenser coil and other cooling system parts.
- Note:** Care should be taken not to bend any condenser fins, as this will reduce performance and compressor life.
5. Secure all removed louvers back in place when you are finished.

General Cleaning Guide of Stainless Steel:

Stainless steel should be cleaned with warm water, mild soap and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain. Stainless steel polish may be used to renew and protect the outside cabinet finish. **Do NOT use stainless steel polish inside the unit!**

YES!
USE THESE
PRODUCTS



**DO NOT
USE THESE
PRODUCTS**



- Do not use (products) as they may tend to mar the finish.

- **Do NOT use cleansers containing chlorine, this may promote corrosion of the stainless steel.**

... CONTINUED ON NEXT PAGE

GENERAL CLEANING & MAINTENANCE (CONTINUED)

- Check the ingredients of cleaning solutions or disinfectants used as they may contain chlorinated solvents. Always read the label of the cleaning solutions. Check warnings about use on stainless steel products. Repeated use of chlorinated solvents may cause a chemical reaction with the stainless steel, which will damage the surface and cause rusting.
- Care should also be taken to avoid splashing the unit with water containing chlorinated cleansers, when mopping the floor around the unit.
- For stubborn harder spills, use baking soda and water (mixed 1 TBSP baking soda to 1 pint water ratio). Unit must be cleaned with warm water to remove any baking soda residue.

**Experiencing white powder residue?
Your cleanser contains chlorine.
Do NOT use cleansers containing chlorine.**

Cleaning the Interior:

- For stubborn stains, the use of baking soda is recommended. This can be used on breaker and door strips as well as door gaskets.
- The door gasket is press fit into a groove and can be removed for cleaning when necessary.

Side wall air tunnel assemblies:

- For routine cleaning, it is NOT necessary to remove the interior airflow tunnels (left and right sides). These panels are critical to the performance of the air curtain and need to remain properly installed. If there is a situation like a major spill it is possible to remove them for cleaning.
- The side wall air tunnel assemblies have keyhole slots that hook over carriage bolts on the interior side wall of the unit:

Removal: Lift tunnel straight up and pull away from the sidewall to disengage it from the carriage bolts. Tilt the air tunnel at an angle to remove it from the cabinet.

Installation: Position the tunnel against the side wall and lift up while aligning the large portion of the keyhole slots over the carriage bolts. Push the tunnel tightly against the sidewall and pull down to lock into place.

GENERAL CLEANING & MAINTENANCE (CONTINUED)**Routine Visual Check:**

1. Inspect door gasket for wear and proper seating in the groove. Replace worn or torn door gaskets.
2. Inspect bumpers for damage or wear.
3. Inspect cord for damage or wear.
4. Inspect casters and remove debris such as mop strings, hair or hair nets. Replace worn or broken casters.

SERVICE INFORMATION

Before calling service check these common causes for the unit not cooling to the set temperature:

1. **The unit does not turn on:**
 - Is the unit turned on? Press the power on/off button and the "ON" indicator light should illuminate
 - Is the electrical cord plugged in?
 - Is the circuit breaker on or the fuse ok?
2. **The evaporator coil needs additional defrosting:**
 - Initiate a Manual defrost. See defrost section.
3. **The condenser coil is dirty restricting air flow:**
 - Clean the condenser coil. See general cleaning and maintenance section.

There are additional items outlined in Troubleshooting section.

If after checking the above items the unit is still not operating properly, please contact FWE to arrange a service call by an authorized service agent.

FWE Customer Service: 800-222-4393
Email: service@fweco.net

Spare Parts:

Spare or replacement parts may be obtained through a parts supplier or an authorized service agent. There is a basic list of parts as well as a QR code that can be used to get to the parts website on a sticker located under the serial tag.

TROUBLESHOOTING GUIDE

1. **AirScreen does not turn on (control display does not light up):**
 - A. Check that unit is plugged in.
 - B. Check circuit breakers and fuses.
 - C. Check for damaged cord. Technician required.
 - D. Control issue or other internal issue. Technician required.
2. **Closed door cabinet temperature too high (unit running):**
 - A. Control Setting is too high – Set a lower temperature on the control.
 - B. Product temperature very warm. Give the unit time to pull product down to temperature.
 - C. Unit may be in a defrost cycle. Wait for the defrost cycle to finish.
 - D. Dirty or clogged condenser coil. Clean condenser coil.
 - E. Iced up evaporator coil. Unit may require additional manual defrosting.
 - F. Refrigerant system issue. Technician required.
3. **Open door cabinet temperature to high (unit running):**
 - A. Control Setting is too high – Set a lower temperature on the control.
 - B. Product load was not properly pre-chilled.
 - C. Door left open to long.
 - D. Inadequate Air Circulation – Rearrange the product load to improve air circulation.
 - E. Room ventilation or fans blowing air into the unit. Block air baffles or move fans.
 - F. All 10 shelves should have trays on them. Keep empty trays in the unit.
 - G. Unit may be in a defrost cycle. Wait for the defrost cycle to finish.
 - H. Dirty or clogged condenser coil. Clean condenser coil.
 - I. Iced up evaporator coil. Unit may require additional manual defrosting.
 - J. Review operation, installation and performance guidelines.
 - K. Refrigerant system issue. Technician required.
4. **Closed door cabinet temperature to low:**
 - A. Control setting to low – set a higher temperature on control.
 - B. Compressor running continuously (not cycling) and open displayed on control indicates a bad or out of adjustment door switch. Technician required.
 - C. Compressor relay stuck closed. Technician required.
5. **Condensing unit fails to start- hums but trips on overload protector:**
 - A. Turn unit off and wait 30 minutes before turning back on to see if unit resets itself.
 - B. Low voltage should be checked by an electrician and corrected.
 - C. Compressor motor Start capacitor failure. Technician required.
 - D. Condenser relay not closing or defective. Technician required.
 - E. Compressor motor winding open or shorted. Technician required.
 - F. Internal mechanical trouble with compressor. Technician required.



TROUBLESHOOTING GUIDE (CONTINUED)

6. **Condensing unit operates for prolonged periods or continuously:**
 - A. Evaporator coil iced – Defrost.
 - B. Prolonged or too frequent door openings – Train staff on proper use.
 - C. Excessive heat load placed in the cabinet. Allow sufficient time for removal of heat.
 - D. Dirty condenser coil- clean
 - E. Controls relay failure. Technician required.
 - F. Low refrigerant or other refrigeration system issue. Technician required.
7. **Noisy condensing unit:**
 - A. Loose parts or mounting. Technician required.
 - B. Tubing rattles - Find and increase tube clearance. Technician required.
 - C. Bent fan blade causing vibration – replace blade. Technician required.
 - D. Noisy motor - May require replacement. Technician required.
8. **Unit evaporator coil excessive icing:**
 - A. Operating in a highly humid environment. Additional manual defrosting may be required.
 - B. Door gasket not sealing properly. Adjust or replace gasket.
 - C. Door requires adjustment. Technician required.
 - D. Room ventilation or fans blowing air into the unit. Move unit, block air baffles or move fans.
9. **Vapor pan overfilling (water on the floor under the unit):**
 - A. Door being kept open to long allowing excessive ice buildup on evaporator coil. Review operating parameters.
 - B. High room humidity causing excessive ice buildup on evaporator coil. Review operating parameters.
 - C. Vapor pan drain plug out. Put plug back in place.
 - D. Attach hose to drain pan and run into a floor drain.
10. **Control Error Messages:**

"Err1"	Sensor Failure
"Err2"	Configuration Connector Error
"Err3"	Not Defined
"Err4"	Under Temperature
"Err 5"	Over Temperature
"Err6"	Key Shorted
"Err7"	Door Switch
"Err8"	EPROM Possible corruption

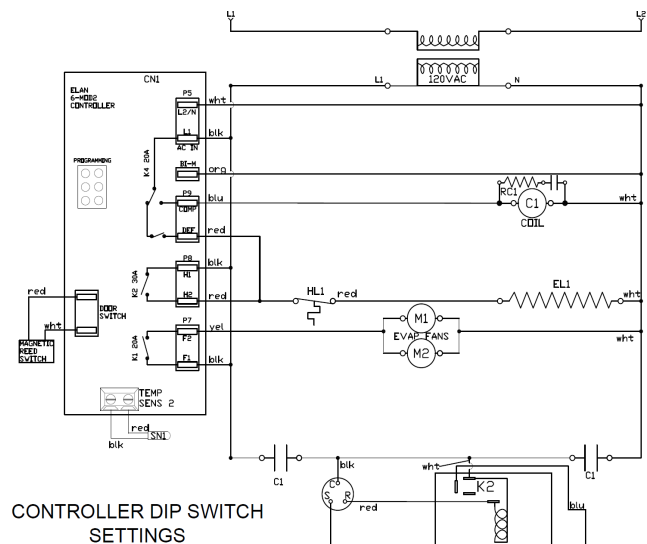


**SHOCK HAZARD
NOTICE**

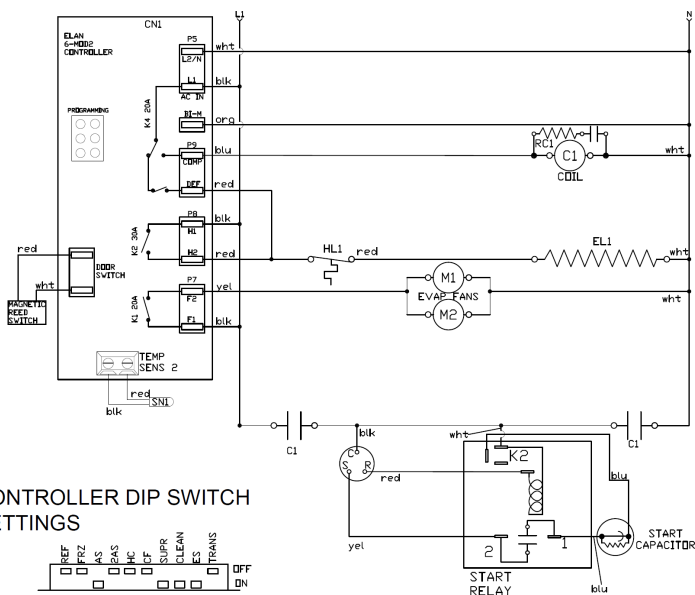
WARNING: RISK OF ELECTRICAL SHOCK. DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS OF THE UNIT OR PRIOR TO ANY SERVICE.

WIRING DIAGRAMS FOR R-AS-10

R-AS-10
220V



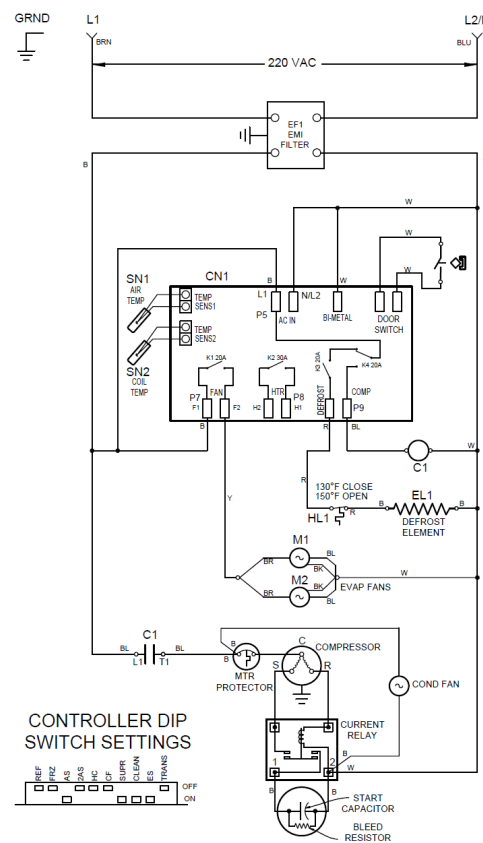
CONTROLLER DIP SWITCH SETTINGS



CONTROLLER DIP SWITCH SETTINGS

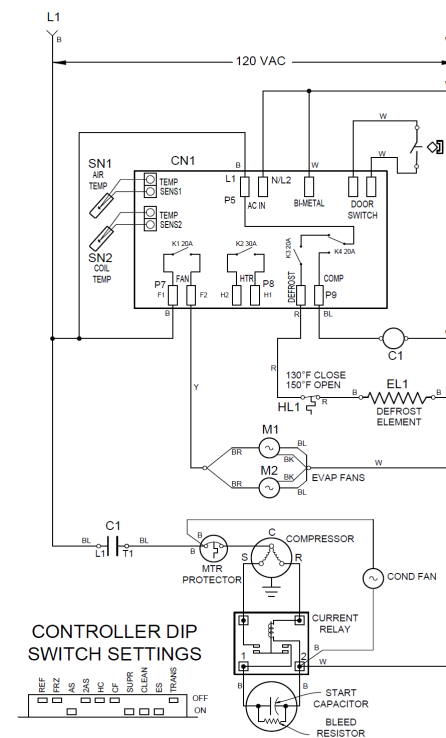
R-AS-10
120V

WIRING DIAGRAMS FOR ASU-10



CONTROLLER DIP SWITCH SETTINGS

ASU-10
220V



CONTROLLER DIP SWITCH SETTINGS

ASU-10
120V

WARRANTY (LIMITED 2 YEAR)

FWE / Food Warming Equipment Company, Inc. (Seller) warrants to the original purchaser, subject to the exceptions and conditions below, that FWE manufactured equipment shall be free from defects in material or factory workmanship, under ordinary use for the purpose for which it is designed. The effective warranty period is as follows:

PARTS: Seller will furnish without charge to the original purchaser, FOB Sellers' factory, replacement parts for repairs to all new standard catalog products and factory custom / modified units, which in Seller's sole judgment, prove defective in materials or workmanship under normal and proper use with the reserved right to request the return of any part claimed to be defective, prior to issuing replacement part or authorizing warranty service, for a period of two (2) years from date of original shipment from Seller's plant, except for equipment used in a Correctional Environment / Facilities, which is warranted for a period of one (1) year from date of original shipment from Seller's plant.

LABOR: Seller's labor warranty shall be performed by a Seller-approved Service Agency who must contact Seller to obtain a Warranty Service Authorization (WSA) number prior to performing any repairs. If service is required during overtime periods, the difference between overtime and standard labor rates shall be paid by the purchaser. Seller does not assume any responsibility for any charges not expressly authorized, incidental to the repair or replacement of equipment covered by this warranty, nor charges exceeding, in Sellers sole judgment, normal and customary amounts. Only approved travel charges will be allowed. Seller's labor warranty shall be from the date of original shipment date from Seller's plant for a period of one (1) year, except for equipment used in a **Correctional Environment / Facilities** which is warranted for a period of six (6) months.

This warranty is for normal usage and does not apply to any product or parts thereof that have been misused, altered, or where Seller's operating instructions or specific voltage is not observed; nor shall this warranty apply to defective products or parts resulting from accident following date of original shipment, nor extend to or cover removal, installation, re-installation or calibration, or service calls or cost of repairs undertaken by a customer. This warranty is also subject to the following:

- 1.] Customer returning the warranty registration card, accompanying Sellers original shipment, to Seller within thirty (30) days of receipt;
- 2.] Giving immediate notice of any allegedly defective part or product to Seller; and
- 3.] Customer, at Sellers request, returning said defective parts or product to Seller.

This is the sole warranty applicable to the merchandise. It is expressly understood that Seller's liability hereunder is limited to the repair or replacement, at Seller's option, of products or parts, defective materials or workmanship as provided above. Seller's judgment as to the cause and nature of any defect will be final. Seller shall in no case be responsible for special or consequential damages or any other obligation or liability with respect to products sold by Seller.

This warranty, as stated above, applies to equipment installed in the Continental United States. FWE equipment installed outside the Continental United States shall carry parts coverage only. All labor costs are approved on a discretionary basis, based on like repairs in the Continental U.S. This warranty shall stand in whole or in part as allowed by law. Any exclusion of a part of this warranty, as may be allowed by law, shall not void balance of warranty.

This is a limited warranty pursuant to the Consumer Product Warranties Act, 15 U.S. Code. section 2303.
© 2021 Food Warming Equipment Co., Inc.

WARRANTY (REGISTRATION)

Submit your Warranty & Manufacturer Registration online (www.fwe.com/warranty). Scan the QR code to the right.

Warranty registration must be submitted within 30 days of initial delivery to be valid.



SERVICE RECORD

Model Number: _____

Serial Number: _____

Date of Purchase: _____

Notes: _____



FWE Parts Department:
www.FWEparts.com
Order Hotline • 800-222-4393



FOOD WARMING EQUIPMENT COMPANY, INC. 5599 HIGHWAY 31W. PORTLAND, TN 37148

WWW.FWE.COM SALES@FWE.COM 800-222-4393

© 2021 Food Warming Equipment Co., Inc.
Errors subject to correction. All specifications subject to change without notice. Printed in USA.

Revision 21.01



IF YOU CAN DREAM IT, WE CAN BUILD IT
COOK | HOLD | TRANSPORT | SERVE | REFRIGERATION | BARS