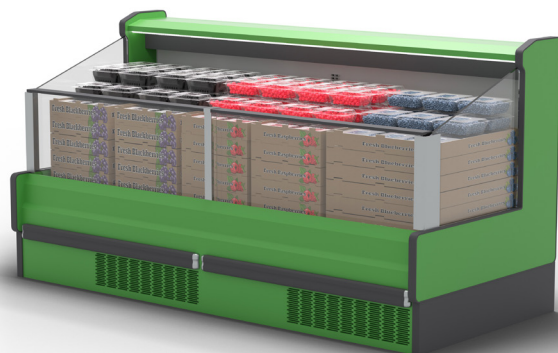


MOBILE SELF-CONTAINED MERCHANDISER INSTALLATION & OPERATION MANUAL



WARNING / FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WARNING

R-290 flammable refrigerant in use. Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

UPA (R-290)

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To ensure proper functionality and optimum performance, it is **STRONGLY** recommended that Hillphoenix cases be installed/serviced by qualified technicians who have experience working with commercial refrigerated display merchandisers and storage cabinets. For a list of Hillphoenix-authorized installation/service contractors, please visit our website at www.hillphoenix.com.

Hillphoenix®

a **DOVER** company



P120586E
Rev. 4
02/26

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LIABILITY NOTICE

For Cases with Shelf Lighting Systems

Hillphoenix does NOT design any of its shelf lighting systems or any of its display cases with shelf lighting systems for direct or indirect exposure to water or other liquids. The use of a misting system or water hose on a display case with a shelf lighting system, resulting in the direct or indirect exposure of the lighting system to water, can lead to several serious issues (including, without limitation, electrical failures, fire, electric shock, and mold) in turn resulting in personal injury, death, sickness, and/or serious property damage (including, without limitation, to the display itself, to the location where the display is situated [e.g., store] and to any surrounding property). DO NOT use misting systems, water hoses, or other devices that spray liquids in Hillphoenix display cases with lighted shelves.

If a misting system or water hose is installed or used on a display case with a shelf lighting system, then Hillphoenix shall not be subject to any obligations, damages, or liabilities (whether arising out of breach of contract, warranty, tort [including negligence], strict liability, or other theories of law) directly or indirectly resulting from, arising out of, or related to such installation or use, including, without limitation, any personal injury, death or property damage resulting from an electrical failure, fire, electric shock, or mold. P079211M, REVO

P079211M, REVO

WARNING: UNDER NO CIRCUMSTANCES should any component be replaced or added without consulting Hillphoenix Field Service Engineering. Utilizing improper components may result in serious injury to persons or damage to the system.

Important

At Hillphoenix®, the safety of our customers and employees, as well as the ongoing performance of our products, are top priorities. To that end, we include important warning messages in all Hillphoenix installation and operations handbooks, accompanied by an alert symbol paired with the word "DANGER", "WARNING", or "CAUTION."

All warning messages will inform you of the potential hazard; how to reduce the risk of case damage, personal injury or death; and what may happen if the instructions are not properly followed.

Hillphoenix® recommends that the installers and technicians installing and conducting maintenance of our refrigerated cases must take reasonable care of their own health and safety. As such Hillphoenix® requires the use of safety glasses, ear plugs, steel toed shoes, gloves, arm sleeves, knee guards, back supports and other such personal protective equipment as deemed reasonable for one's safety and protection during the installation and maintenance of our cases or as otherwise required by local ordinance, the general contractor or other governing authority.



DANGER

Indicates an immediate threat of death or serious injury if all instructions are not followed carefully.



WARNING

Indicates a potential threat of death or serious injury if all instructions are not followed carefully.



CAUTION

Indicates that failure to properly follow instructions may result in case damage.

Revision History

Rev.	Date	Change Description	Author
Rev 1.0	08/07	UPA Manual creation	P.M.
Rev 2.0	06/24	New format	T.A.G.
Rev 3.0	06/25	Updated R-290 information	T.A.G.
Rev 4.0	02/26	New GFCI information	T.A.G.

Thank you for choosing Hillphoenix for your food merchandising needs. This manual contains important technical information and will assist you with the installation and operation of your new Hillphoenix refrigerated display cases. By closely following the instructions, you can expect peak performance; attractive fit and finish; and long case life.

We are always interested in your suggestions for improvements (e.g. case design, technical documents, etc.). Please feel free to contact our Marketing Services group at the number listed below. Thank you for choosing Hillphoenix, and we wish you the very best in outstanding food merchandising.

CASE DESCRIPTION

This manual specifically covers the UPA-8' mobile self-contained produce merchandiser.

STORE CONDITIONS

Hillphoenix cases are designed to operate in an air-conditioned store that maintains a 75°F (24°C) store temperature and 55% (max) relative humidity (ASHRAE conditions). Case operation will be adversely affected by exposure to excessively high ambient temperatures and/or humidity.

REFRIGERATION SYSTEM OPERATION

Air-cooled condensing units require adequate ventilation for efficient performance. Minimum condensing temperatures should be no less than 70°F.

THIS UNIT CONTAINS R-290 FLAMMABLE REFRIGERANT. USE CAUTION WHEN HANDLING, MOVING OR SERVICING THE DISPLAY CASE. AVOID DAMAGING THE REFRIGERANT TUBING WHICH COULD INCREASE THE RISK OF A LEAK.

SHIPPING CASES

Transportation companies assume all liability from the time a shipment is received by them until the time it is delivered to the consumer. Our liability ceases at the time of shipment.

RECEIVING CASES

Examine fixtures carefully and in the event of shipping damage and/or shortages, please contact the Service Parts Department at the number listed to the right.

CASE DAMAGE

Claims for obvious damage must be 1) noted on either the freight bill or the express receipt and 2) signed by the carrier's

agent; otherwise, the carrier may refuse the claim. If damage becomes apparent after the equipment is unpacked, retain all packing materials and submit a written request to the carrier for inspection within 14 days of receipt of the equipment.

Failure to follow this procedure will result in refusal by the carrier to honor any claims with a consequent loss to the consumer.

If a UPS shipment has been damaged, retain the damaged material, the carton and notify us at once. We will file a claim.

LOST/MISSING ITEMS

Equipment has been carefully inspected to insure the highest level of quality. Any claim for lost/missing items must be made to Hillphoenix within 48 hours of receipt of the equipment. When making a claim please use the number listed below.

SERVICE PARTS & TECHNICAL SUPPORT

For service parts questions regarding our cases, please contact our Service Parts Department at 1-833-372-7871 or CaseParts@doverfoodretail.com

For technical questions regarding our cases, please contact our Technical Support Department at 1-833-280-5714.

CONTACTING THE FACTORY

If you need to contact Hillphoenix regarding a specific fixture, be certain that you have both the case model number and serial number. This information can be found on the data tag, located at the top-left interior, rear exterior panel or interior rear lower storage of the case. *Location may vary based on case design.* When you have this information, call the toll-free number listed above.

Hillphoenix
1925 Ruffin Mill Rd
Colonial Heights, VA 23834
Mon.-Fri. (8 a.m. to 5 p.m.)
Tel: 804-526-4455/Fax: 804-526-1926
www.hillphoenix.com

CASE INSTALLATION

INSTALLATION

The cases come equipped with a 120 volt, three-prong connection that can be plugged into any 30 amp NEMA L5-20 receptacle within the store. Do not locate the case next to an area of measurable air flow. Examples of these locations would be directly under an air vent or near a main entrance or exit. When setting cases be sure to allow at least six inches of space between the ends and nearest case or wall to provide sufficient airflow to the condenser.

The two front exterior panels are shipped attached to the case. The front panels are attached with three screws each located at the bottom of the panel. Once the screws are removed the panels lift off for easy access to electrical and plumbing components. The side panels, which are shipped loose in the case, fit behind the end and are attached with two screws.



Fig. 1 Panel attachment

REFRIGERATION COMPONENTS

Refrigeration components for the mobile self-contained cases are easily accessible in the tank and underneath the case. The suction line 1/4" access valve is located in the left hand front side of the tank and is accessible without lifting the fan plenum. This component may be reached by lifting only the left hand deck pan which minimizes the need to remove product.

PLUMBING

The drain trap and case piping are attached to the case at the factory so no assembly is required. The standard drain assembly is designed to direct the case drainage to an evaporative drain pan located underneath the case. Drain pan heaters are wired to a float control switch that cuts the heaters on when the water level in the drain pan reaches a certain level.

The case drain is located front and center of the case for convenient access. Should any future maintenance issues arise it is important to note that the drain outlet is especially molded of ABS material and the drain box is constructed of PVC.

Care should be given to make certain that all connections are water tight and sealed with appropriate PVC primer and PVC cement.



Fig. 2 Refrigeration components



Fig. 3 Internals

ELECTRICAL

The case comes pre-wired with a 120 volt, three prong connection that can be plugged into any 30 amp NEMA L5-20 receptacle, as shown in Fig. 4 below.

The ON/OFF switch for the case lights is located on the left side of the case just under the rear sill as shown in Fig. 4.

! CAUTION

This case must be powered only in electrical installations with ground fault circuit interrupter (GFCI) circuit breakers or residual current device (RCD).



Fig. 4 Case lights switch



DANGER

SHOCK HAZARD

Always disconnect power to case when servicing or cleaning. Failure to do so may result in serious injury or death.

PRE-POWER CHECKLIST

Before powering-up the case, be certain that all of the steps listed below have been completed to ensure proper case functionality, safety and compliance with warranty terms.

- ☐ Have you thoroughly examined the case for shipping damage? (see pg. 1)
- ☐ Have you removed and discarded the casters? (see pg. 1)
- ☐ Have you checked the vertical plumb of the case? The horizontal level? (see pg. 1)
- ☐ Have you sealed the case-to-case joints by applying caulk and acrylic tape to the pipe-chase seam? (see pg. 2)
- ☐ Have you removed the shipping blocks from the refrigeration lines? (see pg. 2)
- ☐ Have you sealed any tank penetrations? (see pg. 2)



ATTENTION!

Be certain to clear the case of any loose packaging or case materials before energizing the case. Failure to do so may result in case damage or malfunction.



ATTENTION!

Be certain that all piping and electrical connections comply with local codes.



ATTENTION!

Installation of 3rd-party materials may result in diminished case performance.

AIR FLOW & PRODUCT LOAD

Cases have been designed to provide maximum product capacity within the refrigerated air envelope. It is important that you do not overload the food product display so that it impinges on the air flow pattern.

Overloading will cause malfunction and the loss of proper temperature levels, particularly when discharge and return air sections are covered. Please keep products within the load limit lines shown in Fig. 5.

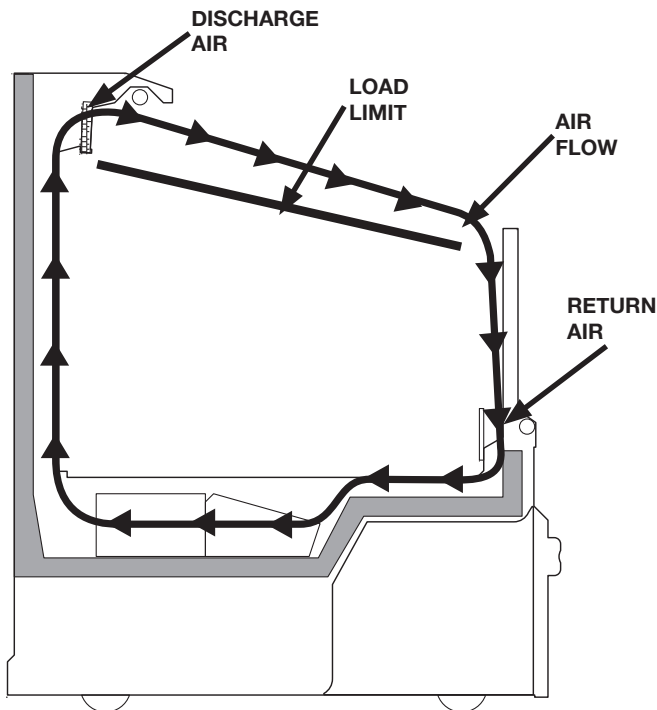


Fig. 5 Airflow

DEFROST & TEMPERATURE CONTROLS

The mobile self-contained cases come equipped with Timed-Off defrost. The timed-off defrost termination probe and the temperature control probe are located on the rear wall of the case behind the access cover in the rear baffle, as shown below.

Both of these probes are wired to the case controller that is located in the front of the case behind the front panels as shown in Fig. 6. It is important to consult the control setting guidelines shown in **Appendix B** before setting the defrost schedule. Further adjustments may be required depending on store conditions.



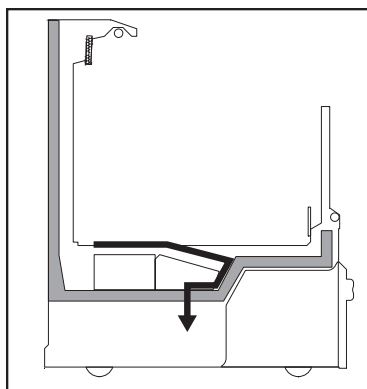
Fig. 6 Case controller location

CASE CLEANING

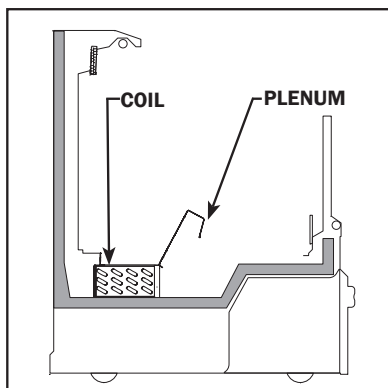
Case is designed to facilitate cleaning. All surfaces pitch to a deep-drawn drain trough that angles toward the front and center of the case where the 2" waste outlet is located for easy access.

In order to keep the unit running at peak design efficiency the air intake grill and the condenser coil should be cleaned at least once a month.

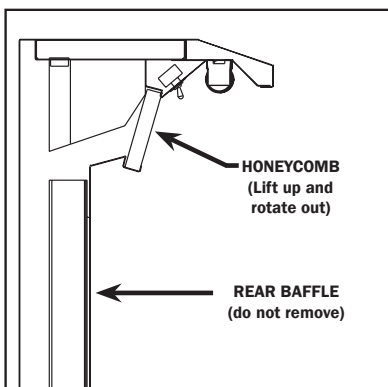
The coil is covered to keep food fluids from entering. The cover is screwed down to the coil but is easily removed when coil cleaning is desired. The fan plenum lifts up for cleaning, exposing a major portion of the inside bottom. Make certain coil cover and plenum are in their original positions after cleaning to avoid air leaks.



POSITIVE DRAIN OFF



COIL COVER AND PLENUM LIFT UP



CLEAN HONEYCOMB

CLEANING PROCEDURES

- A periodic cleaning schedule should be established to maintain proper sanitation, ensure maximum operating efficiency, and avoid the corrosive action of food fluids on metal parts that are left on for long periods of time. We recommend cleaning once a week.
- To avoid shock hazard, be sure all electrical power is turned off before cleaning. In some installations, more than one disconnect switch may have to be turned off to completely de-energize the case.
- Check waste outlet to insure it is not clogged before starting the cleaning and avoid introducing water faster than drip pipe can carry it away.
- Avoid spraying cleaning solutions directly on fans or electrical connections.
- Allow cases to be turned off long enough to clear any frost or ice from coil and flue areas.
- Remove and clean honeycomb discharge grill. You may need to use spray detergent and a soft, long bristle brush.
- Use mild detergent and warm water. When necessary, water and baking soda solution will help remove case odors. Avoid abrasive scouring powders or pads.
- For difficult stains that may appear on polymer exterior bumper parts, the following specialty cleaning products are recommended:

3M brand© Stainless Steel Cleaner and Polish

3M brand© Troubleshooter Cleaner

3M brand© Sharpshooter, Extra Strength No Rinse Cleaner

3M brand© Scotch-Brite No. 64 Cleaning and No. 74 Scrubbing Brushes

Revere© aluminum powder for tank liner

Armor All© for polymer parts

! DANGER

SHOCK HAZARD

Always disconnect power to case when servicing or cleaning. Failure to do so may result in serious injury or death.

Fig. 7 Cleaning locations



DANGER!

SHOCK HAZARD

Always disconnect power to case when servicing or cleaning. Failure to do so may result in serious injury or death.



CAUTION!

Exercise extreme caution when working in a case with the coil cover removed. The coil contains many sharp edges that can cause severe cuts to the hands and arms.

FANS

The fans are 8" in diameter. It is important that the fan speed be maintained as specified. Do not attempt a field modification by altering the fan speed as this will affect case performance.

Fan motors may be changed with an easy two-step process without lifting up the plenum, thereby avoiding the necessity to unload the entire product display to change the fan assembly:

1. Unplug the fan motor (Fig. 7), easily accessible outside the plenum. Be certain to push the power cord back through the plenum opening to avoid damage to the power cord.
2. Remove fasteners, then lift out the entire fan basket.

Reverse procedure when re-installing fan basket.

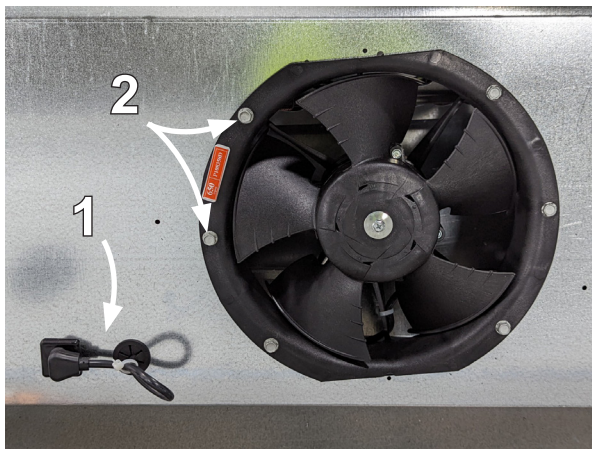


Fig. 7 Fan basket



ATTENTION!

Power cord must be pushed back through the plenum opening before removing the fan basket. Failure to do so may result in damage to the power cord.

CLEANING PROCEDURES

A periodic cleaning schedule should be established to maintain proper sanitation, insure maximum operating efficiency, and avoid the corrosive action of food fluids on metal parts that are left on for long periods of time. We recommend cleaning once a week.

- Be certain that all electricity to the case is turned off before servicing or cleaning to avoid electrical shock. In some cases, more than one switch may need to be turned off to completely de-energize the case.
- All surfaces pitch downward to a deep-drawn drain trough, funneling liquids and other debris to the waste outlet. Check waste outlet before starting the cleaning process to insure it is unclogged. Avoid introducing water faster than the case drain can carry it away.
- Lift the fan plenum to gain access to the coil for cleaning and maintenance (Fig. 8).

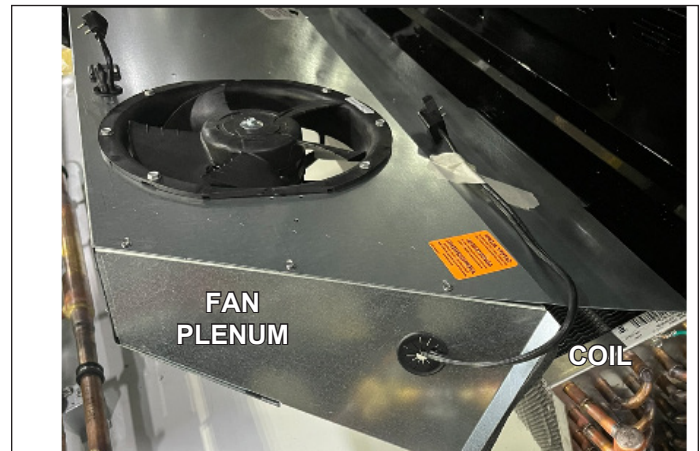


Fig. 8 Single-piece fan plenum and coil cover

- To clean the lights, shut off the lights in the case, then wipe them down with a soft, damp cloth. Avoid using harsh or abrasive cleaners as they may damage the lights. Be certain that the lights are completely dry before re-energizing.
- If any potentially harmful cleaners are used, be certain to provide a temporary separator (e.g., cardboard, plastic wrap, etc.) between those cases that are being cleaned and those that may still contain product.
- Avoid spraying cleaning solutions directly on electrical connections.
- Allow cases to be turned off long enough to clean any frost or ice from coil and pans.
- Remove kickplate and clean underneath the case with a broom and a long-handled mop. Use warm water and a disinfecting cleaning solution when cleaning underneath the cases.

TROUBLESHOOTING

PARTS SUBJECT TO WEAR & SPARE PARTS

Most spare parts carry clear, complete ID information. It is important that the refrigerated case parts be replaced by analogous parts of equivalent safety and quality; to order spare parts please contact Hillphoenix, stating the case model and serial number, found in this manual or on the case ID plate, and provide a description of the component and the desired quantity. Refer to the Parts section in the back of the manual for parts ordering and to identify parts that may need to be replaced.



CAUTION

Do not pressure wash equipment as damage to electrical components may result.

INSTRUCTIONS FOR PERSONNEL

In the Event of General Emergency

Immediately inform those in the vicinity of the perceived danger, gesticulating if necessary; cut the electrical power to the cabinet.

In the Event of Fire

In the event that the refrigerated case catches fire or is involved in a fire it is possible to use an extinguisher with a powder-type or CO2 extinguishing agent.

Resetting the Case

To restore normal operation it is necessary to eliminate all the causes of the emergency situation; if necessary repair or replace damaged parts.

Note: If safety devices are tripped it will be necessary to identify the cause before continuing work.



CAUTION

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.



CAUTION

R-290 flammable refrigerant in use. Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation operating and maintenance instructions thoroughly before installing or servicing this equipment.



DANGER

FLAMMABLE

DANGER - Risk of Fire or Explosion. Flammable Refrigerant Used. Do Not Use Mechanical Devices To Defrost Refrigerator. Do Not Puncture Refrigerant Tubing.



FAILURES AND TROUBLESHOOTING

Failures

In the event of a failure of mechanical/electrical/refrigeration parts the initial safety conditions must be restored immediately by replacing or repairing such faulty parts.

TABLE OF FAILURES AND TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The refrigerated cabinet does not work.	1. The main circuit breaker is set to OFF; 2. The power line between refrigerated cabinet and power socket is faulty; 3. The switch on the refrigerated cabinet control panel switch is not on.	1. Turn the main power on; 2. Make sure the plug is inserted properly in the socket; 3. Turn the power switch on the refrigerated cabinet panel ON.
The refrigeration effect of the refrigerated cabinet is poor.	1. The product door is not closed tightly; 2. The product temperature is set too high. 3. The product is exposed to direct sunlight or close to hot objects; 4. The goods are placed higher than the load line	1. Close the door tightly; 2. Lower the product temperature; 3. Keep the product in a cool place; 4. Place goods below the load line
The outer surface of the product is hot.	The outer surface of the product is wrapped with a condenser, which will generate heat during refrigeration.	This phenomenon is normal.

(Cont'd) NEXT PAGE

TABLE OF FAILURES AND TROUBLESHOOTING (Cont'd)

PROBLEM	POSSIBLE CAUSE	SOLUTION
The product is noisy	1. The product is in the high-frequency operation stage at the initial stage of operation; 2. The product is in the defrosting stage; 3. The product is not placed stably.	1. After one to two hours of operation, the noise will be significantly reduced; 2. The defrosting cycle of the product is 24 hours. In the defrosting stage, high noise is a phenomenon of genuine production; 3. Adjust the foot to make the cabinet stable.
Condensation occurs on the glass door	The ambient temperature and humidity of the product are too high	The operating environment of the product is 75°F/55RH. In case of excessive humidity, please wipe off the water stains on the surface with a rag
There is peculiar smell inside the product	1. New products will smell like plastic; 2. Check whether there are deteriorated goods in the cabinet; 3. The product has not been cleaned for a long time.	1. After the product is used for a period of time, the smell will disappear naturally; 2. Clean up spoiled food in time; 3. Clean the product regularly.

SAFETY DEVICES & SERVICE

SAFETY DEVICES

WARNING

It is absolutely forbidden for the user to tamper with safety devices. Before using the refrigerated case check that mechanical safety covers are properly in place. Any tampering shall render the warranty null and void and exonerate Hillphoenix from any liability with regard to users of the refrigerated case.

Only maintenance personnel may carry out maintenance tasks involving safety devices. These tasks are listed below:

SAFETY DEVICE	SCOPE OF INTERVENTION	ACTION
Incorporated over-pressure cut-out	On incorporated condenser unit	Cuts the electrical power of the compressor if the pressure of the refrigerant rises above the safety limits.
Ignition proof zone established around electrical junction box	On incorporated Condensing unit Condensor Fan	Prevents leak access to electrical components. Fans operate 100% of the times.
Case Internal leak mitigation system	External Blower system connected to the Tank drain adapter	Facilitates evacuation and dissipation of leaked charge during defrost cycle
Safety Housing (on cases with greater than 150gm charge) to be removed with tools for servicing	Sheet metal housing on Condensing unit	Prevents access to and protects piping in the Condensing Unit
Piping Cover (on cases with greater than 150gm charge) to be removed with tools for servicing	Sheet metal housing on external Copper piping	Prevents access to and protects external piping at the rear of the case

DESCRIPTION OF RESIDUAL DANGERS AND RISK

Residual Dangers

Dangers that have not been reduced/eliminated with the safety measures adopted on the refrigerated case can nevertheless be reduced/eliminated as long as users apply proper managerial practices.

- ☐ Ensure that all safety warning and labels are always in good condition; inspect them periodically and have them replaced whenever necessary.
- ☐ Do not install any spare parts that are not identical to the originals or of equivalent performance.
- ☐ Do not carry out any modifications or structural work without approval from Hillphoenix or a qualified field service technician.

☐ Should the refrigerated case be dented, inspect the structure visually or have qualified personnel carry out an inspection.

After a long period of disuse have a qualified field service technician carry out an inspection of the case to check that it is in good condition and working properly.

Residual Risks

While the refrigerated case has been designed to ensure maximum safety, there nevertheless remain some residual risks. Hillphoenix has identified the main **dangers and residual risks for users and maintenance personnel** as follows in the “Scheduled Maintenance Table” on the next page.

REFRIGERANT

This piece of equipment uses an R-290 Refrigeration system. This equipment has been clearly marked on the serial tag the type of refrigerant that is being used. There is also a warning label stating that the unit contains R-290 refrigerant.

No smoking or open flames when servicing this equipment. If needed, use a Class B (CO₂ or dry powder) type fire extinguisher.

Only an authorized service technician, certified in R-290 system should service this equipment.

DANGER

SHOCK HAZARD

Always disconnect power to case when servicing. Failure to do so may result in injury or death.

Use an R-290 approved fan for constant ventilation while working.

- If an R-290 approved fan is not available, make sure fan is at least 10' away from cabinet.
- Remove at least two panels from the base to allow air flow through the unit.
- Point the fan towards the bottom of the work area as R-290 is heavier than air.

The work area must be free from sources of ignition such as open flames and sparking electrical devices, like light switches. Keep a 10' perimeter around the case of clearance.

The propane gas used in the unit has no odor. The lack of smell does not indicate a lack of escaped gas.

Recommend posting a “Flammable Refrigerant” placard in the area prior to servicing.

MANIFOLD SET

A R-134a manifold set can be used for servicing this equipment.

REFRIGERANT RECOVERY

Follow all national and local regulations for R-290 refrigerant recovery.

SCHEDULED MAINTENANCE TABLE

DESCRIPTION OF RESIDUAL RISK	CAUSE	SAFETY MEASURES
Danger of falls in area surrounding the cabinet	Presence of: stairs, columns etc. and/or slippery floors and objects and/or work tools	Mark out the relevant zones and highlight them with warning signs and symbols (e.g. yellow/black striped marker tape on stairs etc.) that are visible during both routine use and maintenance.
Danger of objects accidentally falling	Haphazard storage of tools/objects.	Use tool boxes in work areas. Ensure personnel are trained.
Danger of injury to hands, arms, legs and head	During cleaning and maintenance there may be objects or parts of the cabinet protruding from the case itself (e.g. glass covers open during cleaning)	Mark out the work area with appropriate barriers. Always use the recommended personal safety devices.
Risk of refrigerating gas leaks	Accidental damage to pipes	Immediate shutdown of case operation. Disconnect electrical power supply. Contact a service technician.

LEAKING CHECKING AND REPAIR

Leak check an R-290 system the same way you would an R-134a or R-404a system with the following exceptions.

1. Do not use a Halide leak detector on an R-290 system.
2. Electronic leak detector must be designated specifically for combustible gas.

A quality combustible gas leak detector is mandatory for hydro-carbon service work. Leak detector should be placed near the bottom of the cabinet, as R-290 is heavier than air.

When repairing a leak, it is recommended using oxygen free dry nitrogen with a trace gas not exceeding 200PSI.

When accessing an R-290 system, proper charge is to be weighed into the system and the system is to be leak checked afterwards.

The R-290 equipment must have red process tubes and other devices through which the refrigerant is serviced, such as any service port. This color marking must remain on the equipment. If marking is removed, it must be replaced and extended at least 2.5 centimeters (1") from the compressor.

**CAUTION**

Component parts shall be replaced with like components. Service work shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

CHARGING

Follow the charge amount specified on the data tag. It is recommended to use the shortest hoses possible to prevent under-charging.

- Component parts shall be replaced with like components. Service work shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.
- Ensure the system is sealed and leak checked
- Evacuate system to a minimum 500 microns
- Weigh in correct charge
- Leak check the system again
- Bleed the refrigerant from the high side hose to the low side hose
- Disconnect the hoses
- Remove line taps

**DANGER****FLAMMABLE**

DANGER - Risk of Fire or Explosion. Flammable Refrigerant Used. Do Not Use Mechanical Devices To Defrost Refrigerator. Do Not Puncture Refrigerant Tubing.





CAUTION

It is highly recommended that a technician servicing a case with HC refrigerant is aware of safety considerations and maintenance procedures on how to safely handle flammable refrigerants.

DE-ICING EVENTS

Depending on the severity of the icing event, there may not be enough capacity in the pan to accommodate all of the water. The recommended procedure is for the service technician to:

1. Carry a 3/8" vinyl tube
2. Connect this tube to the outlet of the pump
3. Pump excess water to a drain or into a 5 gallon bucket

If the technician does not have this hose on-hand, then they can use the one attached to the pump by disconnecting it at the top of the case and reinstalling it when finished.



a **DOVER** company

Contact the Service Parts Department at:

1-833-372-7871

or

orderparts@doverfoodretail.com

Provide the following information about the part you are ordering:

- Model number and serial number* of the case for which the part is intended.
- Length of the part (if applicable).
- Color of part (if painted) or color of polymer part.
- Whether part is for left or right-hand application.
- Quantity

*Data tag is located on the left end exterior panel or top interior of the case.

If the parts are to be returned for credit, contact the Parts Department. Do not send parts without authorization.



A TECHNICAL REFERENCE SHEET

B WIRING DIAGRAM

C CONTROLLERS AND SETPOINTS

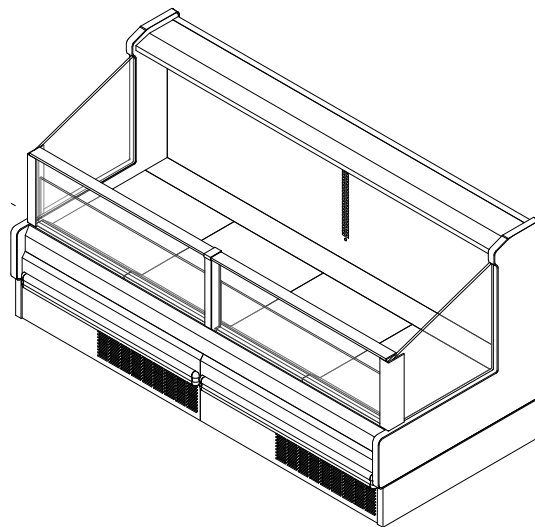
D PARTS LIST

UPA

8' Mobile Single-Deck Self-Contained Merchandiser
Boxed Produce

GENERAL NOTES:

- "----" indicates that the feature is not an option with this case model and/or the data is not yet available.
- **WARNING:** R-290 flammable refrigerant in use. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.



SHIPPING WEIGHT	
Case	Weight
UPA	---



COMPONENT

ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

UPA

Rev. Date	Rev. #	Rev. Title
06-05-25	4	ENDVIEW UPDATE
05-15-25	3	DATA UPDATE



A2 TECHNICAL REFERENCE SHEET

UPA

8' Mobile Single-Deck Self-Contained Merchandiser
Boxed Produce



SYSTEM REQUIREMENTS

Volts	Wiring Type	Phase	Frequency (Hz)	Plug	Minimum Circuit Ampacity	Maximum Overcurrent Protection	24hr Energy Usage (kWh)
120	2 Wire + Gnd	1	60	NEMA L5-20P	14.7	20.0	16.2

ELECTRICAL DATA

Fans Per Case	High Efficiency Fans	
	120 Volts	
	Amps	Watts
3	0.42	34.0

LIGHTING DATA

Lights Per Row	Light Length	Standard Power (Cornice Only)	
		120 Volts	
		Amps	Watts
2	4'	0.05	5.90

GUIDELINES AND CONTROL SETTINGS

Suction Pressure @ Case Outlet (psig)	Superheat Set Point @ Bulb (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
36.3	6 - 8	24	92

CONDENSING UNIT DATA

Volts	Phase	Frequency (Hz)	Horsepower	Running Load Amps (RLA) (Amps)	Locked Rotor Amps (LRA) (Amps)	Refrigerant	Refrigerant (g)
120	1	60	3/4	6.1	42	R-290	140

DEFROST CONTROLS

Defrosts Per Day	Timed-Off Defrost	
	Fail-Safe (Min)	Termination Temp (F)
4	45	45

NOTES:

- "----" indicates that the data is not yet available. R-290 has shown to be more efficient than typical HFC refrigerants. Finalized Energy Data will be available at a later date.
- Listed discharge air velocity represents the average velocity immediately after defrost completion using a Testo 410i vane anemometer with anemometer air scoop (HP part number P109185M) positioned adjacent to the interior edge of the discharge honeycomb
- Discharge air temperature values represent readings taken within the upper air channel immediately behind/upstream of the honeycomb.
- The recommended evaporator temperature and defrost settings may need to be adjusted based on system setup, store conditions, etc. The minimum recommended evaporator temperature is 4°F below the listed evaporator temperature.



COMPONENT

ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

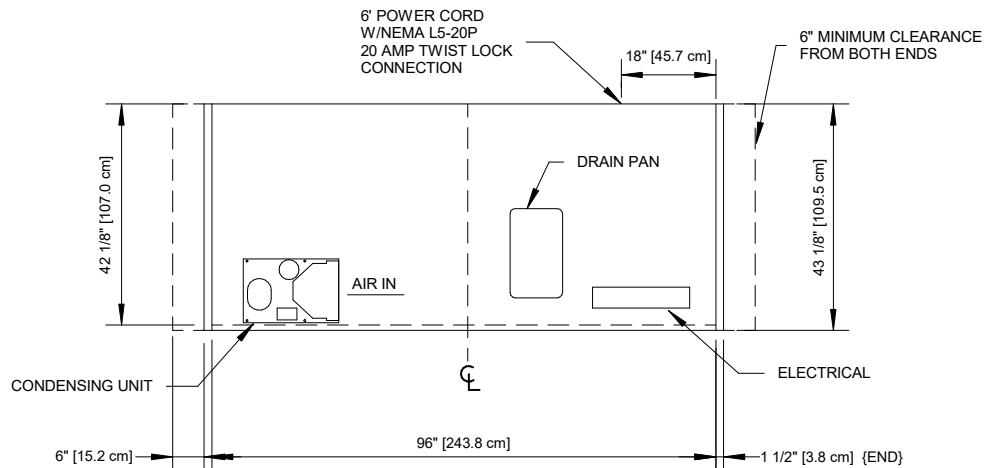
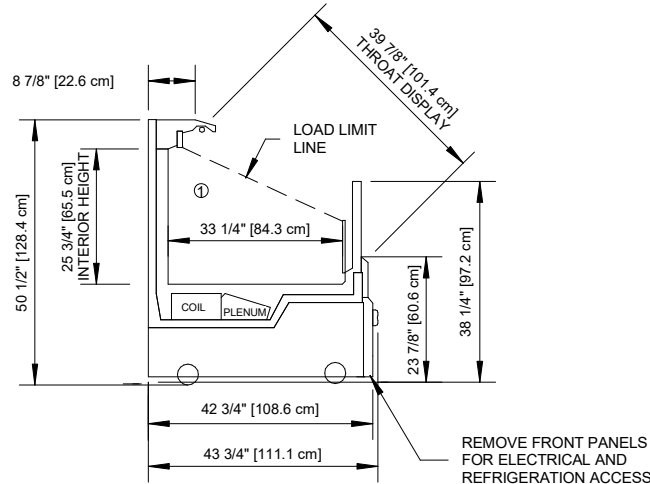
UPA

Rev. Date	Rev. #	Rev. Title
06-05-25	4	ENDVIEW UPDATE
05-15-25	3	DATA UPDATE



a hilti company

UPA

8' Mobile Single-Deck Self-Contained Merchandiser
Boxed Produce


NOTES:

① :AVAILABLE SHELF SIZES: 10", 12", 14", & 16"

- Ends add approximately 1" to case height, 1" to the front and 1/2" to the back



COMPONENT

ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

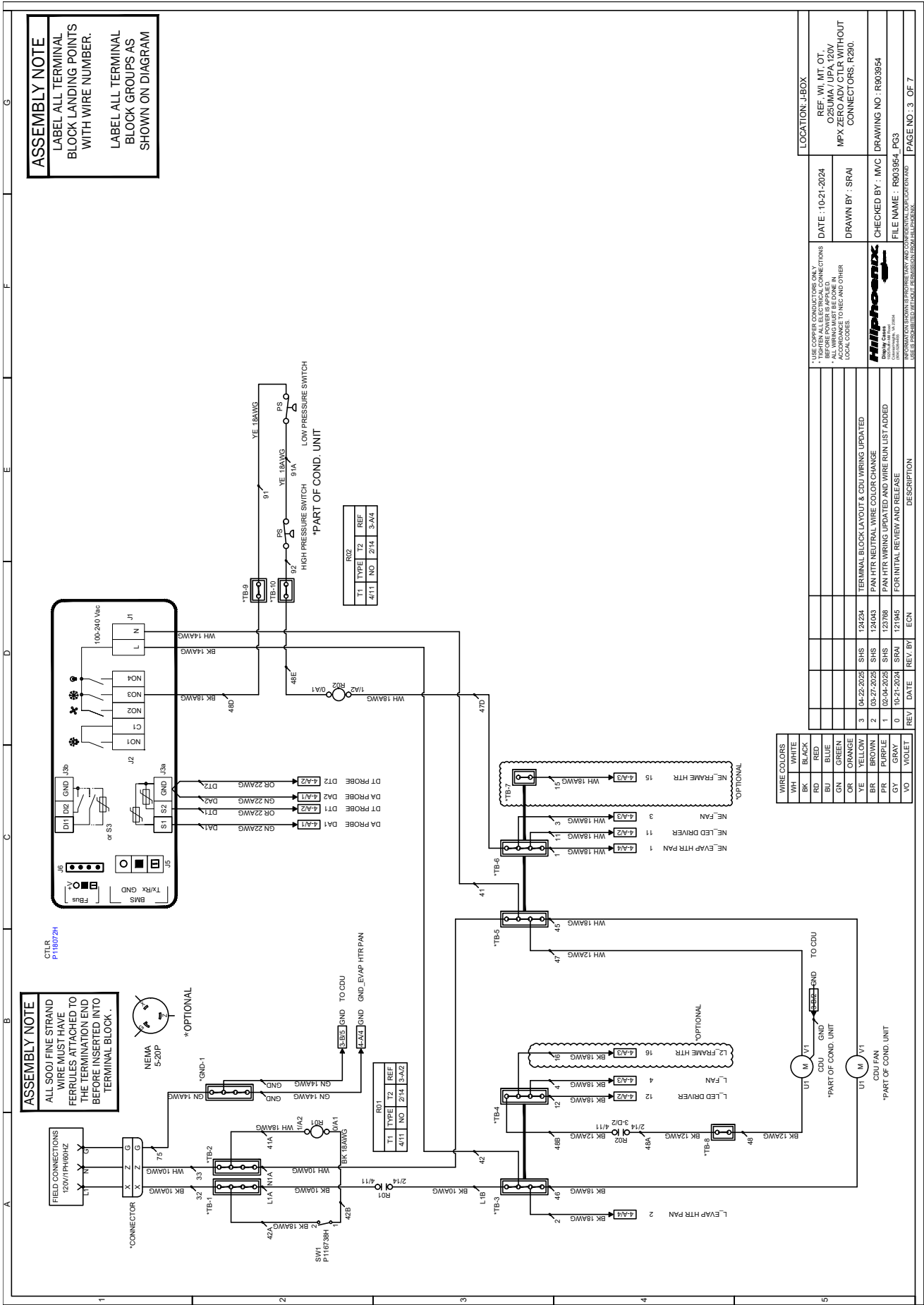
UPA

Rev. Date	Rev. #	Rev. Title
06-05-25	4	ENDVIEW UPDATE
05-15-25	3	DATA UPDATE

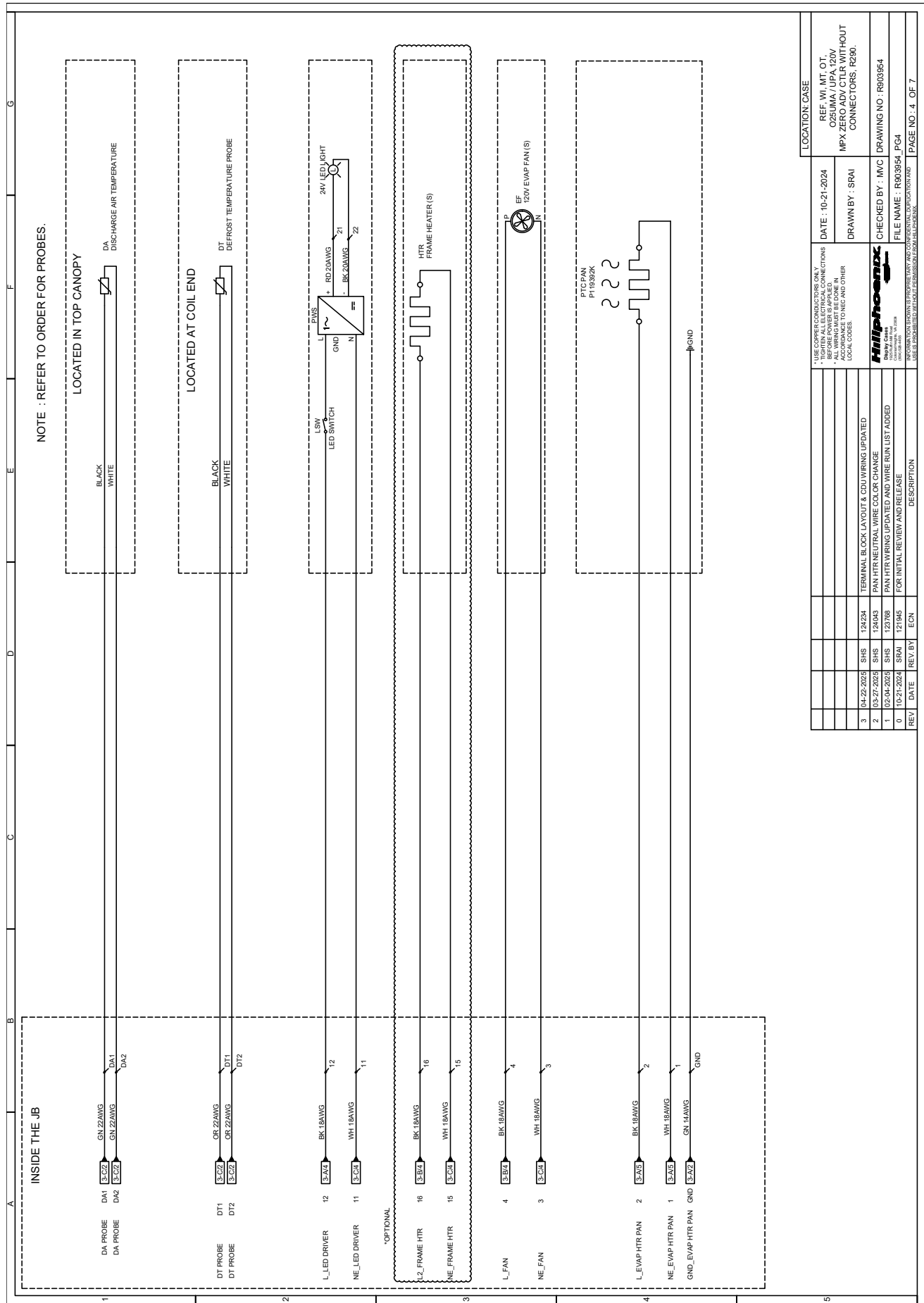


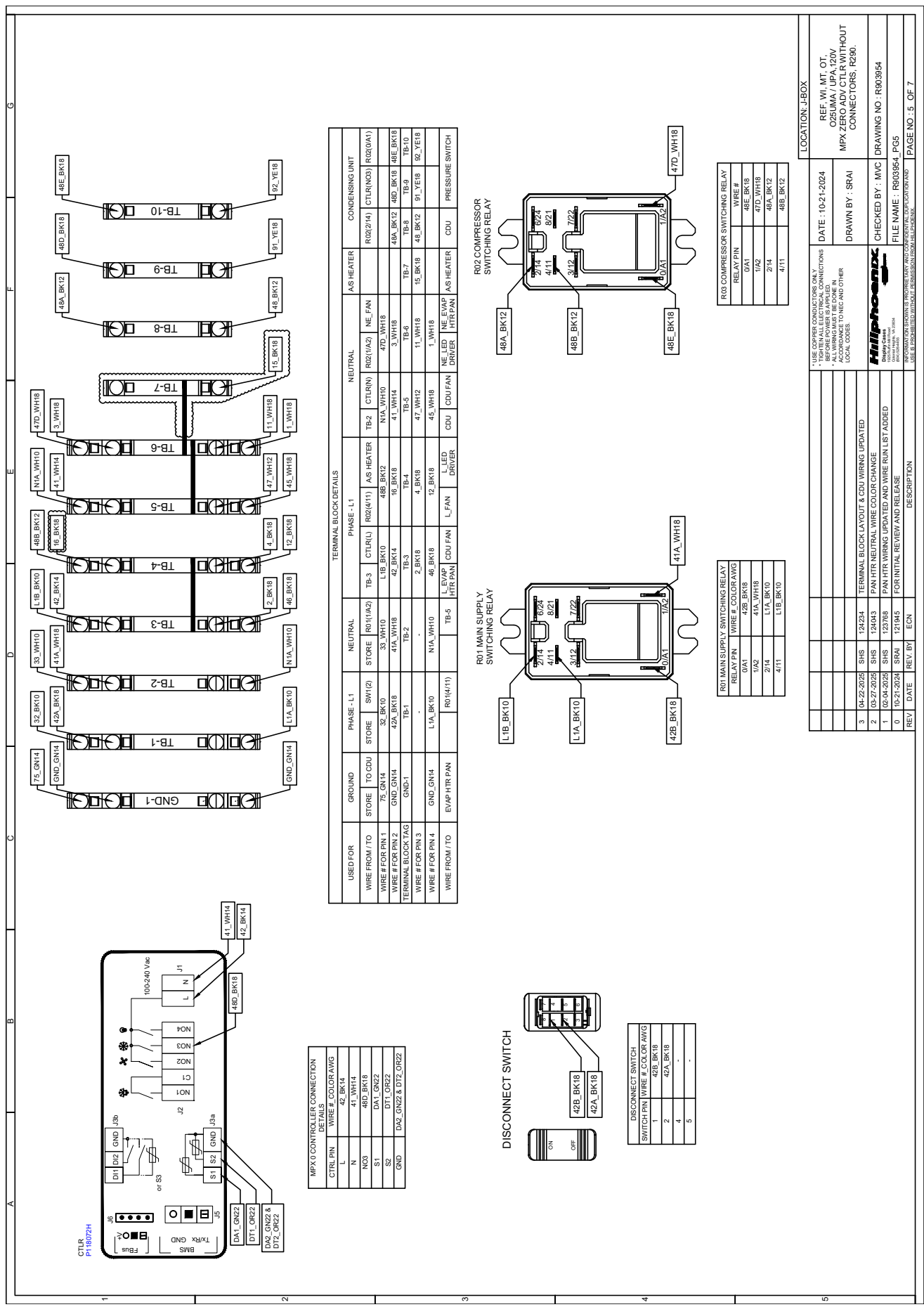
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B1 WIRING DIAGRAM



B3 WIRING DIAGRAM





B5 WIRING DIAGRAM

R290, O25UMA/UPA-- R003954										
SLNO	WIRE #	LENGTH	COLOR	AWG	WIRE PH	WIRE FROM	STRIP LENGTH	TO	STRIP LENGTH	REMARKS
INCOMER WIRES										
1	L1	18"	BLACK	10AWG	P001631A	STORE	0.35"(9MM)	TB-1	0.47"(12MM)	
2	L1A	18"	BLACK	10AWG	P001631A	TB-1	0.47"(12MM)	R01(4/11)	0.35"(9MM (RED FLG-P096492E))	
3	L1B		TB-3		R01(2/14)					
4	N1		CONNECTOR		STORE					
5	N1A	142"(HARNES)	WHITE	14AWG	P001632K	TB-2	0.47"(12MM)	TB-5	0.35"(9MM)	
6	75		GND-1		STORE					
7	32		CONNECTOR		STORE					
8	33	18"	BLACK	10AWG	P001631A	TB-1	0.35"(9MM)	TB-1	0.47"(12MM)	
			WHITE		P001632K	TB-2		TB-2		
CONTROLLER										
9	42	18"	BLACK	14AWG	P001548G	CTLR(L)	0.35"(9MM)	TB-3	0.47"(12MM)	
10	41	18"	WHITE		P001547K	CTLR(N)		TB-5		
11	GND	20"	GREEN	14AWG	P002454G	CDU		GND-1		
12	GND	20"	GREEN	14AWG	P002454G	DOOR	0.47"(12MM)			
13	48D	10"	BLACK	18AWG	P001278A	CTLR(NO3)		TB-9		
RELAYS										
14	47D	10"	WHITE	18AWG	P001277C	R02(1/A2)	0.35"(9MM (RED FLG-P096492E))	TB-6	0.47"(12MM)	
15	41A				R01(1/A2)	TB-2				
16	48E				R02(0/A1)	TB-10				
17	42A				SW1(2)	TB-1				
18	42B	18"	BLACK	12AWG	P001278A	SW1(1)	0.35"(9MM)	R01(1/A2)	0.35"(9MM (RED FLG-P096492E))	
19	48B				R02(4/11)	TB-4				
20	48A				R02(2/14)	TB-8				
21	48				CDU	TB-5				
22	47		WHITE		CDU		0.35"(9MM)	TB-8	0.47"(12MM)	
23	45		RED		CDU FAN	TB-5				
24	46		BLACK	18AWG	P001278A	CDU FAN		TB-3		
Hilphoenix										
DATE : 10-21-2024										
DRAWN BY : SRAI										
CHECKED BY : MVC										
FILE NAME : R003954.PG6										
DRAWING NO : R003954										
PAGE NO : 6 OF 7										

R290, O25UMA/LPA --- R903954									
END COMPONENTS									
25	DA1	18"	GREEN	22AWG		DISCHARGE AIR PROBE	0.35"(9MM)	CTLR(S1)	0.35"(9MM)
26	DA2		ORANGE	22AWG		DEFROST TERM PROBE		CTLR(GND)	
27	DT2							CTLR(S2)	
28	DT1							TB-7	
29	15		WHITE		P001277C	FRAME HTR		TB-4	0.47"(12MM)
30	16		BLACK		P001278A			TB-6	
31	11		WHITE	18AWG	P001277C	LIGHTS		TB-4	
32	12		BLACK		P001278A			TB-6	
33	3		WHITE		P001277C			TB-4	
34	4		BLACK	P001278A	EVAPORATOR FAN	TB-9			
35	91	YELLOW	18AWG	LP SWITCH					
36	91A	YELLOW	18AWG	HP SWITCH		0.35"(9MM)			
37	92	YELLOW	18AWG	HP SWITCH	0.35"(9MM)				
38	1	WHITE	18AWG	P001277C	TB-6	0.47"(12MM)			
39	2	BLACK	18AWG	P001278A	TB-3				

[illegible]

Parameter table

Code	Description	Def	Min	Max	UOM	User	User Terminal	UPA 8' BULK PRODUCE
Analogue inputs								
/P1	Type of probe, group 1 (S1, S2, S3) 0 = PT100 Standard Range -50/190 °C 1 = NTC Standard Range -50/190 °C	1	0	1	-	S	YES	
/P5	Configuration of analogue output Y1: 0 = 0-10 V; 6 = PWM.	6	0	6	-	S	NO	
/P6	Configuration of analogue output Y2: 0 = 0-10 V; 6 = PWM.	6	0	6	-	S	NO	
Digital inputs								
/FA	0 = Function disabled -1 = Serial probe S11 -2 = Serial probe S12 -3 = Serial probe S13 -4 = Serial probe S14	1	-4	3	-	S	YES	1
/Fb	Assign defrost temperature probe (SD) - see IFA	2	-4	3	-	S	YES	2
/Fc	Assign intake temperature probe (S1) - see IFA	3	-4	3	-	S	YES	0
/Fd	Assign defrost temperature probe 2 (S2) - see IFA	0	-4	3	-	S	NO	
/Fg	Assign auxiliary temperature/pressure probe 1 (Saux1) - see IFA	0	-4	3	-	S	NO	
/Fh	Assign auxiliary temperature/pressure probe 2 (Saux2) - see IFA	0	-4	3	-	S	NO	
/Fi	Assign ambient temperature probe (SA) - see IFA	0	-4	3	-	S	NO	
/Fj	Assign ambient humidity probe (SU) - see IFA	0	-4	3	-	S	NO	
/Fm	Assign glass temperature probe (SV) - see IFA	0	-4	3	-	S	NO	
/Fn	Assign dewpoint value (SDP) - see IFA	0	-4	3	-	S	NO	
/ca	Outlet temperature probe (Sm) calibration	0	-20	20	°C/F	S	NO	
/cb	Defrost temperature probe (S1) calibration	0	-20	20	°C/F	S	NO	
/cc	Intake temperature probe (S1) calibration	0	-20	20	°C/F	S	NO	
/cd	Defrost temperature probe 2 (S2) calibration	0	-20	20	°C/F	S	NO	
/cg	Auxiliary temperature/pressure probe 1 (Saux1) calibration	0	-20	20	°C/F	S	NO	
/ch	Auxiliary temperature/pressure probe 2 (Saux2) calibration	0	-20	20	°C/F	S	NO	
/cl	Ambient temperature probe (SA) calibration	0	-20	20	°C/F	S	NO	
/cl	Ambient humidity probe (SU) calibration	0	-20	20	°C/F	S	NO	
/cm	Glass temperature probe (SV) calibration	0	-20	20	°C/F	S	NO	
/cn	Dewpoint value (SDP) calibration	0	-20	20	°C/F	S	NO	
/co	Condenser temperature probe calibration	0	-20	20	°C/F	M	NO	
/Z	Analogue probe measurement stability	9	1	15	-	M	NO	
Control								
/ON	ON/OFF command 0 = OFF, 1 = ON	0	0	1	-	S	YES	
/A	Virtual probe composition 0 = Air off probe Sm 100 = Air on probe Sm	0	0	100	%	S	NO	
/1	Minimum set point	-50	-50	12	°C/F	M	NO	22
/2	Maximum set point	50	-1	200	°C/F	M	NO	65
/4	Automatic night set point variation	0	-50	50	°C/F	S	NO	
/6	Probe for nighttime control	0	0	1	-	S	NO	
/r	Control offset with probe error	0	0	20	°C/F	S	NO	
/7	Master solenoid valve configuration 0 = local valve, 1 = network valve (connected to Main)	0	0	1	-	S	YES	
/S1	Set point	50	r1	r2	°C/F	U	YES	24
/S2	Intake probe set point with double thermostat	50	r1	r2	°C/F	S	NO	
/rd	Differential	2	0,1	99,9	°C/F	U	YES	3
/rc	Operating mode 0 = Direct, 1 = Reverse	0	0	1	-	U	NO	
/r2	Set point S2 differential with double thermostat 0,0 = function disabled	0	0	99,9	°C/F	S	NO	
/rHS	Virtual probe composition for glass temp. probe estimate 0 = function disabled 100 = Air on probe S1	20	0	100	%	S	NO	
/rHA	Coeff. A for glass temp. probe estimate	2	-20	20	°C/F	S	NO	
/rHB	Coeff. B for glass temp. probe estimate	22	0	100	-	S	NO	
/rHo	Offset for anti-sweat modulation	2	-20	20	°C/F	S	NO	
/rHd	Differential for anti-sweat heater modulation	0	0	20	°C/F	S	NO	
/rHu	Manual anti-sweat heater activation percentage (of period rHr) 0 = function disabled	70	0	100	%	S	NO	
/rHt	Manual anti-sweat heater activation period 0 = function disabled	5	0	180	min	S	NO	
/rHr	Time to close for Standby status	0	0	999	min	U	NO	
/SH	Maximum time to close for Standby door	0	0	240	min	U	NO	
/H1A	Time light stays on after closing the door	0	0	240	min	U	NO	
/dbs	Safety timeout for double thermostat function	0	0	240	min	M	NO	
/db1	Double thermostat function logic 0 = AND logic, 1 = OR logic	0	0	1	-	M	NO	
Digital inputs								
/D1a	Assign start defrost digital input - see DIA	0	-1	2	-	S	NO	1
Digital outputs								
/DOA	Assign solenoid/compressor digital output 0 = not configured 1 = digital input 3 (ID3) 2 = digital input 2 (ID2) 3 = digital input 4 (ID4)	2	0	4	-	S	NO	3
/DOB	Assign alarm digital output - see DOA	0	0	4	-	S	NO	
/DOC	Assign auxiliary digital output serving the Main on the Secondary devices - see DOA	0	0	4	-	S	NO	
/DOE	Assign light digital output - see DOA	4	0	4	-	S	NO	0
/DOF	Assign light digital output serving the Main on the Secondary devices - see DOA	0	0	4	-	S	NO	
/DOG	Assign defrost digital output - see DOA	1	0	4	-	S	NO	0
/DOH	Assign auxiliary evaporator defrost digital output - see DOA	0	0	4	-	S	NO	
/DOK	Assign second ON/OFF compressor digital output - see DOA	0	0	4	-	S	NO	
/DOI	Assign evaporator fan digital output - see DOA	3	0	4	-	M	NO	0
/DOo	Assign digital output for liquid valve (pump down)	0	0	4	-	S	NO	
/DOs	Assign timed digital output - see DOA	0	0	4	-	M	NO	
/DOQ	Assign drain heater digital output - see DOA	0	0	4	-	M	NO	0
/DOA	Assign anti-sweat heater digital output - see DOA	0	0	4	-	M	NO	
/DOt	Assign digital output for max fan speed connection	0	0	4	-	M	NO	
/DOu	Assign digital output for min fan speed connection	0	0	4	-	M	NO	
/ROA	Assign evaporator defrost digital output logic 0 = direct, 1 = reverse	0	0	1	-	M	NO	
/ROt	Assign evaporator fan digital output logic - see ROA	0	0	1	-	M	NO	
/ROc	Auxiliary digital output logic - see ROA	0	0	1	-	M	NO	
/rOd	Auxiliary serving the Main on the Secondary devices digital output logic - see ROA	0	0	1	-	M	NO	
/rOe	Light digital output logic - see ROA	0	0	1	-	S	NO	
/rOf	Auxiliary evaporator defrost digital output logic - see ROA	0	0	1	-	S	NO	
/rOG	Defrost digital output logic - see ROA	0	0	1	-	S	NO	
/rOH	Auxiliary evaporator defrost digital output logic - see ROA	0	0	1	-	S	NO	
/rOI	Evaporator fan digital output logic - see ROA	0	0	1	-	S	NO	
/rOn	Liquid valve digital output logic - see ROA	0	0	1	-	M	NO	
/rOQ	Drain heater digital output logic - see ROA	0	0	1	-	M	NO	
/rOo	Assign digital output for max fan speed connection logic - see ROA	0	0	1	-	M	NO	
/rOt	Assign digital output for min fan speed connection logic - see ROA	0	0	1	-	M	NO	
/rOu	Minimum fan speed connection digital output logic - see ROA	0	0	1	-	M	NO	
/rOu	Maximum fan speed connection digital output logic - see ROA	0	0	1	-	M	NO	
/H9	Output switched with time bands 0 = Light 1 = AUX	0	0	1	-	S	NO	
/DOT1	Relay Type 0: normal mode 2: cycled mode	-	-	-	-	-	-	3
/DOT2	0: normal mode 2: cycled mode	-	-	-	-	-	-	3
/DOT3	1: delayed mode 3: zero crossing	-	-	-	-	-	-	3
/DOT4	1: delayed mode 3: zero crossing	-	-	-	-	-	-	3
SETPOINTS.MPX0.120V UPA 8' BULK PRODUCE, R290								
SHEETS 04/14/25 124194 1 TEXT HEADER UPDATED TO UPA								
REV. 02/17/25 123839 RELEASED TO PRODUCTION								
BY DATE ECN NO./R/ DESCRIPTION								
DRAWN BY: AKM DATE: 02/17/25								
R908609								
SHEET 1 OF 4								

Note:
For full parameter list and instructions, please refer to Carel's website
<https://www.carel.com/documents/101910/%2B0300106EN/aaf0a54c-0dec-45b4-92b4-bc812d1fc3fa?version=1.0>

ALL BENDS 90° UNLESS SPECIFIED		UNITS = INCHES (MM)
TOLERANCES (UNLESS SPECIFIED)		SETPOINTS.MPX0.120V
DIMENSIONS ON FLAT VIEWS ±0.0		UPA 8' BULK
DIMENSIONS ON FORMED VIEWS ±0.03		PRODUCE, R290
Hilphoenix		
Quality Gate		
100% Functional Test		
100% Visual Inspection		
100% Infrared Inspection		
100% Pressure Test		
100% Leak Test		
100% Final Inspection		
100% Final Approval		

SHEET 2 OF 4

C3 CONTROLLERS AND SETPOINTS

Code		Description	Def	Min	Max	UOM	User Terminal	UPA 8" BULK PRODUCE
Solenoid/compressor								
c0		Delay to enable solenoid/compressor and evaporation fans at power-on	0	0	240	min	M	NO
c1		Minimum time between consecutive compressor starts	0	0	15	min	M	NO
c2		Minimum compressor OFF time	0	0	15	min	M	NO
c3		Minimum compressor ON time	0	0	15	min	M	NO
c4		ON time for duty setting operation (Toff = 15 minutes, fixed value) 0 = compressor/valve always OFF 100 = compressor/valve always ON	0	0	100	min	M	NO
cc		Running time in continuous cycle	1	0	15	hours	M	NO
c6		Low temperature alarm bypass time after continuous cycle	60	0	240	min	M	NO
c11		Second compressor start delay	4	0	250	s	S	NO
c12		0 = delay at start and in normal control 1 = delay at start only	0	0	1	-	S	NO

A0		High and low temp. alarm reset differential	2	0.1	20	°C/°F	S	YES
A1		Alarm thresholds (AL, AH) relative to the set point St or absolute 0/1 = relative absolute	0	0	1	-	S	NO
A2		Alarm thresholds (AL2, AH2) relative to the set point S12 or absolute 0/1 = relative absolute	0	0	1	-	S	NO
A6		Configure compressor operation during external alarm (immediate or delayed) with fixed 15 min OFF time 0 = always OFF 100 = always ON	0	0	100	min	S	NO
A10		Configure solenoid/compressor control during external alarm (immediate or delayed) with fixed 15 min OFF time 0 = always ON 100 = always OFF	0	0	100	min	S	NO
A11		Delay time for delayed external alarm 0 = Signal-only alarm 100 = Always ON	0	0	240	min	S	NO
AA		Assign probe for high (AH/AHA) and low (AL/ALA) temperature alarms 0 = Not configured 1 = Outlet (Sm) 2 = Defrost (Sd) 3 = Intake (Si) 4 = Defrost2 (Sd2) 5 = Auxiliary 1 (Saux1) 6 = Auxiliary 2 (Saux2) 7 = Ambient (SA) 8 = Reserved 9 = Glass temperature (Svt) 10 = Dewpoint (SDP) 11 = Virtual probe (Sv)	1	0	11	-	S	YES
AA2		Assign probe for high (AH2, AHA2) and low (AL2, ALA2) temperature alarms - see AA	1	0	11	-	S	NO
AL		Low temperature alarm threshold (relative to set point)	4	0	50	°C/°F	S	YES
ALA		Low temperature alarm threshold (absolute threshold)	0	-50	50	°C/°F	S	NO
AH		High temperature alarm threshold (relative to set point)	10	0	50	°C/°F	S	YES
AHA		High temperature alarm threshold (absolute threshold)	0	-50	200	°C/°F	S	NO
AL2		Low temperature alarm threshold 2	0	0	50	°C/°F	S	NO
ALA2		Low temperature alarm threshold 2 (absolute threshold)	0	-50	50	°C/°F	S	NO
AH2		High temperature alarm threshold 2	0	0	50	°C/°F	S	NO
AHA2		High temperature alarm threshold 2 (absolute threshold)	0	-50	200	°C/°F	S	NO
A0A		Delay time for high and low temperature alarms (AH/AHA, AL/ALA)	120	0	240	min	U	YES
A2		Delay time for high and low temp. alarms (AH2/AHA2, AL2/ALA2)	30	1	240	min	U	NO
Ar		Signal alarms from Secondary to Main 0 = not enabled, 1 = enabled	1	0	1	-	S	NO
Add		High temperature alarm bypass time for door open	30	1	240	min	U	NO
Tdoor		Door open: alarm delay	30	1	240	min	S	NO
Htd		HACCP alarm delay 0 = monitoring disabled 1 = monitoring enabled	0	0	240	min	S	NO

NOTES: * for alarms with an absolute activation threshold (A1=1) the thresholds ALA/AHA2 and ALA2/AHA2 need to be set correctly (default full scale, absolute alarms disabled).

Code		Description	Def	Min	Max	UOM	User Terminal	UPA 8" BULK PRODUCE
Connectivity								
In		Type of unit 0 = Secondary, 1 = Main	0	0	1	-	S	YES
H0		Serial or Main/Secondary network address	199	0	247	-	S	YES
H1		BMS serial port configuration (stop bits and parity) 0 = 1 stop bit, no parity 1 = 2 stop bit, odd parity 2 = 1 stop bit, even parity 3 = 2 stop bits, odd parity	1	0	5	-	S	YES
H2		BMS serial port baudrate (bits) 0 = 1200 1 = 2400 2 = 4800 3 = 9600 4 = 19200 5 = 38400 6 = 57600 7 = 115200	4	0	8	-	S	YES
H3		BMS serial port protocol 0 = Cansel, 1 = Modbus	1	0	1	-	S	YES
Fieldbus								
Sn		No. of Slaves in the local network 0 = no Slaves	0	0	9	-	S	NO
H4		Bus port baudrate (bit/s) 0 = 1200 1 = 2400 2 = 4800 3 = 9600 4 = 19200 5 = 38400 6 = 57600 7 = 115200	4	0	1	-	S	NO
Notice: on fixed DEFAULT T values for VCC serial								
Display								
/5		Unit of measure 0 = °C/barg, 1 = °F/psig	0	0	1	-	S	YES
/6		Display decimal point 0 = Yes, 1 = No	0	0	1	-	S	NO
/11		Display on user terminal 0 = Terminal disabled 1 to 3 = Probe 1 to 3 4 to 8 = Reserved 9 = Control probe	9	0	15	-	S	NO
H5		Enable keypad and NFC functions 0 = Disabled, 1 = Enabled	1	0	1	-	U	NO
H8		Buzzer 0 = No, 1 = Yes	1	0	1	-	U	NO
ON		Unit On/Off command on display	1	0	1	-	S	NO
ONK		Enable unit On/Off from display	1	0	1	-	S	NO
ONS		Enable unit On/Off from supervisor	0	0	1	-	S	NO
Day/Night								
1st1..8-d		Start time band 1 to 8 day/day - see (1d1..8-d)	0	0	11	day	S	NO
1st1..8-h		Start time band 1 to 8 day: hours	0	0	23	hours	S	NO
1st1..8-m		Start time band 1 to 8 day: minutes	0	0	59	minutes	S	NO
1st1..8-d		End time band 1 to 8 day/day - see (1d1..8-d)	0	0	11	day	S	NO
1st1..8-h		End time band 1 to 8 day: hours	0	0	23	hours	S	NO
1st1..8-m		End time band 1 to 8 day: minutes	0	0	59	minutes	S	NO

SHS 04/14/25 124194		1 TEXT HEADER UPDATED TO UPA	SETPOINTS, MPX0.120V	
REV. 02/17/25 123839	RELEASED TO PRODUCTION	UPA 8" BULK		
BY	DATE	ECN NO./R	PRODUCE, R290	
DRAWN BY: AKM		DATE: 02/17/25	R908609	
DESCRIPTION		SHEET 3 OF 4		

ALL BENDS 90° UNLESS SPECIFIED

UNITS = INCHES (MM)

TOLERANCES (UNLESS SPECIFIED)

ANGULAR DIM. ± 1°

DIMENSIONS ON FLAT VIEWS ± 0.03

DIMENSIONS ON ROUNDED VIEWS ± 0.03

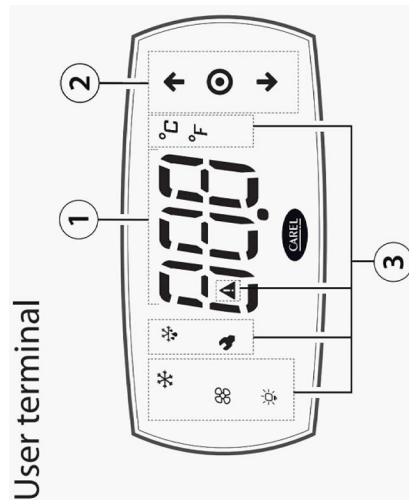
HAIPHENIX

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Parameter categories visible on the user terminal



Key:

- 1 Main field
- 2 Keypad
- 3 Operating mode

3.2.2 Display

The icons provide information on device operation and/or the activation of certain functions, as shown in the table.

Icon	Function	On	Flashing
88	Compressor	Compressor active	Compressor alarm active
88	Exhaust fan	Exhaust fan on	-
88	Light	Light on	-
88	Service	Maintenance request	-
88	Alarm	Alarm acknowledged	Alarm active
88	Unit of measure °C	Unit of measure °C	-
88	Unit of measurement degree Fahrenheit	Unit of measure °F	-

Tab. 3.2

3.2.1 Keypad

Button	Description	Function
↑ ↓	UP / DOWN	- Increase/decrease the value - Enter direct access function menu (from main screen) and activate/deactivate functions - LED on: direct access function menu - LED flashing: set parameter values
⊙	PRG	Pressed briefly: - Save value and return to the parameter code - Mute buzzer Pressed and held (until "—" is shown): - Enter direct access function menu (from main screen) and activate/deactivate functions Pressed and held (hold after "—" is shown): - Enter programming mode or return to previous level without saving - LED on: main screen programming mode

⓪ Notice: when scrolling, a button is enabled only when illuminated.

Mobile device and PC

The SHS and SPARK software can be used to configure the controller from a mobile device (smartphone, tablet), via NFC (Near Field Communication) or Bluetooth. The controller can be programmed according to the profile used for access to APPLICA or SPARK, with different parameter visibility depending on the rights associated with each profile (User, Service, Maintenance). Procedure:

1. download the 'Applica' app;
2. on the mobile device start the app for commissioning the controller;
3. activate NFC;
4. move the device closer to the controller, less than 10 mm away;
5. follow the instructions shown on the display.

3.2.5 Direct functions

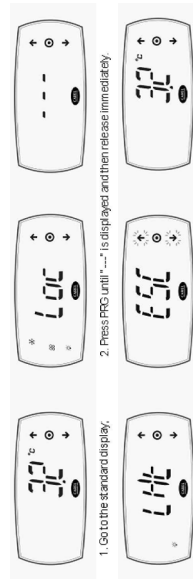
The following functions can be activated directly from the keypad or via the app:

Icon	Display	On/Off
⊙	Light	Cabinet light
⊙	Defrost	Continuous cycle
⊙	Defrost	Defrost
⊙	Defrost	Network defrost (Main only)
⊙	Clean cabinet	Clean cabinet
⊙	Unit ON with control request	Unit ON with control request

Tab. 3.4

Procedure:

1. go to the standard display;
2. press PRG until "—" is shown and then release immediately to unlock the display
3. press PRG again to access the direct commands (the first item will be the light command Lht);
4. press PRG to turn the light on/off and DOWN to move to the next direct function;
5. follow the previous steps for all the other functions;
6. When finished, press Esc to exit.

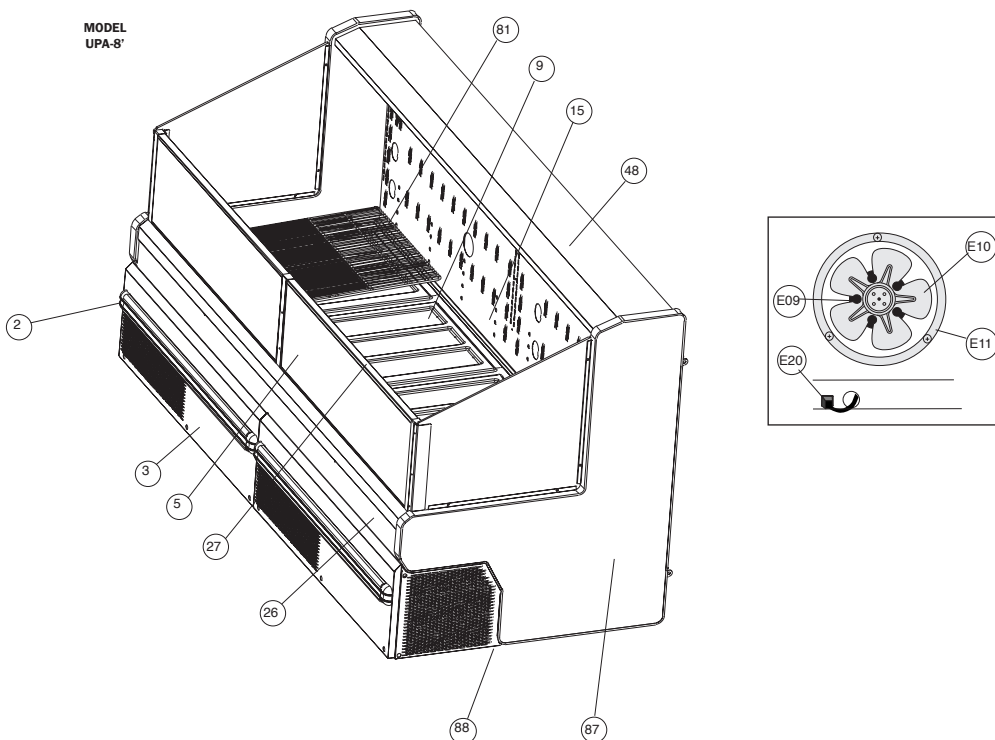


1. Go to the standard display;
2. Press PRG until "—" is displayed and then release immediately;
3. Press PRG again: Lht is displayed, the UP and DOWN buttons light up. Press PRG to turn the light on/off: the icon will come on or go off. Press the UP and DOWN buttons to select the function (Cht) or press Esc to exit.
4. Select Esc to exit
5. The standard display is shown

ALL BENDS 90° UNLESS SPECIFIED	UNITS = INCHES (MM)	SETPOINTS, MPX0.120V
TOLERANCES, UNLESS SPECIFIED	ALL ANGULAR DIM. ± 0.10	UPA 8" BULK
DIMENSIONS ON FORMED VIEWS ± 0.03	DIMENSIONS ON FORMED VIEWS ± 0.03	PRODUCE, R290
HALPHENIX	HALPHENIX	
SHS 04/14/25 124194	1 TEXT HEADER UPDATED TO UPA	R908609
REV. 02/17/25 123839	RELEASED TO PRODUCTION	
BY DATE ECN NO./R	DESCRIPTION	

SHEET 4 OF 4

D1 PARTS LIST



Location Number	Part Descriptions
2	Bumper
3	Lower Front Panel, Painted
5	Thermopane, Front Sill Glass
9	Deck Pan
11	Front Baffle, Painted (Not Shown)
12	Honeycomb, Discharge, 1" x 4" x 48", (Not Shown)
15	Rear Baffle, Painted White
26	Panel Front, Painted White
27	Sill Cap, front glass
48	Rear Sill, Painted
51	Back Panels, Upper and Lower (Not Shown)
81	Bottom Wire Racks
87	End Assembly, Identify Left or Right Hand, Color of Panel, and Color of PVC End Trim
88	End Panel, Painted
E09	Fan Motor - STATE HIGH EFFICIENCY OR STANDARD
E10	Fan Blade
E11	Fan Basket, 6"
E20	Fan Cord-Set, High Efficiency or Standard



A DOVER COMPANY

LIMITED & GENERAL WARRANTY TERMS

Hill Phoenix, Inc.'s. (hereinafter "Hillphoenix") products are warranted to be free from defects in materials and workmanship under normal use and maintenance for a period of 14 months from date and place of shipment from Hillphoenix (the "Base Warranty Period"), provided that the installation and maintenance of such products have been performed strictly in accordance with Hillphoenix's designated specifications.

Anthony products supplied as original equipment on Hillphoenix products receive Hillphoenix warranty.

All warranty repairs must be approved in advance before services are started. In the event of a qualifying warranty claim, the extent of Hillphoenix's liability under the Warranty is limited to the repair or replacement, at Hillphoenix's option, of any non-conforming products without charge. If required, a new or rebuilt part to replace any defective part will be provided without charge and will be shipped via standard ground freight, with shipping charges being covered by Hillphoenix during the base warranty period. The replacement part is covered under this warranty for the remainder of the applicable Base Warranty Period. In order to be eligible for warranty coverage, customer must: (i) notify Hillphoenix in writing within twenty-four hours upon discovery of a warrant defect, and (ii) comply with the warranty claim procedures provided by Hillphoenix from time to time. These warranty terms are incorporated into and governed by the Hill Phoenix Terms and Conditions of Sale.

This equipment warranty does not include labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing, or handling of either defective parts or replacement parts. Unauthorized modifications to set-points, parameters, and controls may result in deteriorated performance and/or equipment failure. Any unauthorized modifications could result in the warranty being voided.

The warranty shall not apply:

1. To any unit or any part thereof which has been subject to an accident, alteration, negligence, misuse or abuse, or which has not been operated in accordance with the manufacturer's recommendations, or in conditions outside of Manufacturer's specifications, or if the serial number of the unit has been altered, defaced, or removed.
2. When the unit, or any part thereof, is damaged by fire, flood, or other act of God.
3. To products that are impaired or damaged due to improper installation.
4. When installation and startup forms are not properly completed or returned within two weeks after startup.
5. If the defective part is not returned to the Manufacturer.
6. To service, maintenance or wear and tear parts (such as lights, starters and ballasts).
7. To cosmetic damage (e.g., scratches, dents, chips, and other damage to appliance finishes), unless such damage results from defects in materials and workmanship and is reported to Hillphoenix within 30 days from date of purchase.
8. To shipping damage.
9. To use in a non-commercial application.
10. Corrosion, discoloration, oxidation, or rust due to exposure to predisposed corrosive environments/atmospheres or contact with product damaging material/chemicals.
11. To service trips where no problem is diagnosed or found in the discretion of Hillphoenix.
12. To Removal/reinstallation of product for repair if installed in an inaccessible location.
13. To use of non-OEM parts for warrantable repair unless directed by Hillphoenix.
14. To repair/service tools/items.
15. To service trips to teach customer how to use product.
16. To product pick-up or delivery for repair purposes; repairs should take place on the customer's site unless directed by Hillphoenix.
17. To misdiagnosis or misrepair, including subsequent labor/component repair or replacement.
18. To stolen components.
19. To replacement service parts lost or misplaced on arrival by receiving personnel.
20. To service events on non-DFR products.
21. To excess repair time.
22. To excess required consumables charges, at the discretion of Hillphoenix.
23. If a service contractor takes longer than 120 days from the date of repair completion to submit a warranty invoice/claim.
24. To component/equipment failures, equipment shutdowns, operational performance degradation due to deviations and unauthorized changes to required and/or recommended set-points, parameters, and controls.

Examples of non-warrantable situations include, but are not limited to:

- Non-factory electrical connection or component issues
- Product is operated on low or improper voltages
- Use of extension cords to power the product

- Lack of basic preventative maintenance as outlined by product manuals
- Installation into a mobile application
- Failures or symptoms that result from site mechanical or electrical failures
- Loading of food or other content that prevents the product from operating properly
- 'Yellowing' of lighting products
- Any physical modifications or changes to product(s) will invalidate the warranty

MODIFICATIONS TO GENERAL WARRANTY

The following sets forth certain modifications to the General Warranty for specific products of Manufacturer:

DISPLAY CASE AND SPECIALTY PRODUCTS CLEARVOYANT® LED LIGHTING

The warranty period for Clearvoyant LED lighting components within the Clearvoyant lighting system is five years from date of shipment.

NO WARRANTY FOR NON-STANDARD PRODUCTS

A "Non-Standard Product" is any product that is different in any manner from any Hillphoenix product that has been previously designed and manufactured by Hillphoenix in accordance with its standard specifications. A Non-Standard Product also includes any standard Hillphoenix product that has been specially designed or modified to meet a particular Buyer specification, or that contains any additional or substituted product, part, accessory, equipment, fixture, component or material, or that has been assembled, manufactured, produced, or installed by any method or process, which is different from Hillphoenix's standard specifications for such product. Hillphoenix expressly disclaims and makes no warranties, express or implied, as to the condition, design, utility, quality, adequacy, or capacity with respect to any standard or Non-Standard Product, including, without limitation, any warranty of merchantability or fitness of such product for a particular purpose or intended use, whether or not such product has been designated by Hillphoenix as a Non-Standard Product. All Non-Standard Products, whether sold separately, or incorporated and/or attached to standard Hillphoenix products, and all services relating to such products, are sold to and accepted by Buyer "as is" and "with all faults". Without limiting any other provision of this purchase order, Hillphoenix shall have no liability to Buyer for any claim, loss, damage, consequential damages or expenses associated with any Non-Standard Product and/or its use or operation, or any other equipment or property of Buyer caused by or alleged by to be caused by any such product or its use or operation, whether directly, indirectly, incidentally or consequentially, or by any inadequacy thereof or deficiency or defect therein. The foregoing exclusion of warranty cannot be modified or waived except as expressly set forth in a writing signed by an officer of Hillphoenix authorized to make such modification or waiver.

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THE REMEDY OF REPAIR OR PROVISION OF A REPLACEMENT PART WITHOUT CHARGE SHALL BE THE EXCLUSIVE REMEDY FOR ANY WARRANTY CLAIM HEREUNDER. WITHOUT LIMITING THE FOREGOING, HILLPHOENIX SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR INCIDENTAL, INDIRECT, LIQUIDATED OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFIT, LABOR COST, LOSS OF REFRIGERANT OR FOOD PRODUCTS.

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THIS DOCUMENT DOES NOT GOVERN EXTENDED WARRANTIES AND ANY EXTENDED WARRANTIES PROVIDED BY HILLPHOENIX SHALL BE GOVERNED BY A SEPARATE DOCUMENT AGREED UPON BY HILLPHOENIX

Submit warranty claims to: hpx-warranty-wa-invoices@doverfoodretail.com

For warranty service, please contact Hill Phoenix at: Phone: 1-833-280-5714

Warning **Maintenance & Case Care**

When cleaning cases the following must be performed PRIOR to cleaning:

To avoid electrical shock, be sure all electric power is turned off before cleaning. In some installations, more than one switch may have to be turned off to completely de-energize the case.

Do not spray cleaning solution or water directly on fan motors or any electrical connections.

All lighting receptacles must be dried off prior to insertion and re-energizing the lighting circuit.

Please refer to the Use and Maintenance section of this installation manual.

Hillphoenix

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Tel: 1-804-526-4455

1925 Ruffin Mill Rd, Colonial Heights, VA 23834

Due to our commitment to continuous improvement, all specifications are subject to change without notice.

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