



CFFM-93-57-99

REFRIGERATED BULK FLORAL MERCHANDISER

INSTALLATION AND OPERATING INSTRUCTIONS

SAFETY FIRST

1. Read these instructions thoroughly before installing merchandiser.
2. Heed all warning labels and stickers.
3. Electrical work should be performed by Qualified Electricians only.
4. Display Cases are shipped with generic settings. Therefore, a Qualified Refrigeration Service Technician should properly adjust case settings for each store's unique ambient conditions if necessary.
5. Disconnect power before servicing. Merchandiser contains moving parts.
6. Self-contained merchandisers should be allowed a minimum of 4 hours to stabilize before power is applied.
7. Only Qualified Refrigeration Service Technicians should perform service work on Killion merchandisers.

Call Killion for technicians in your area.

ATTENTION

**READ INSTALLATION & OPERATING
INSTRUCTIONS THOROUGHLY BEFORE
OPERATING THE MERCHANDISER.**

ATTENTION

**LISEZ LE & D'INSTALLATION ; CONSIGNES
D'UTILISATION COMPLÈTEMENT AVANT D'ACTIONNER
LE MARCHANDISEUR.**

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PRE-INSTALLATION

Shipment Examination

If the packaging is externally damaged, do not accept the shipment unless the damage is listed on the Bill of Lading and the crate/packaging is opened in the presence of the carrier's agent.

If there is no visible external damage; but the contents are damaged, or goods are missing, have the carrier's agent inspect the shipment immediately for concealed damage.

On all shipments, consignee will be responsible for filing a claim with the carrier. If replacement parts are required, send order to:

KILLION INDUSTRIES, INC.

1380 Poinsettia Ave.

Vista, CA 92081

Toll Free (800) 421-5352 ext. 120

Fax (760) 727-1622

parts.service@killionindustries.com

Location

ATTENTION

Read the entire INSTALLATION SECTION before placing the unit in its final location.

ATTENTION

Lisez la SECTION d'INSTALLATION entière avant de placer l'unité dans son endroit final.

Killion refrigerators are Type 1 Open Display Refrigerators and designed to operate in air-conditioned stores where temperature and relative humidity are maintained at or below 75°F dry bulb temperature and 55% relative humidity. Avoid locations where the refrigerator is exposed to heat sources such as the sun's rays or hot tables as these external heat sources can affect the refrigerator's efficiency.

Do not enclose refrigerated display case with walls. There should be ample space on each side of the condensing unit to facilitate free airflow. Closing off the sides by any means will cause the refrigerator undue strain, and could damage the compressor.

Air drafts will affect the refrigerator's temperature holding capability. Be certain there is no air-conditioning or heating vents discharging air into the display case area. Overhead fans, swamp coolers, or anything that creates a draft will disrupt the air curtain and adversely affect the refrigerator. An open door will sometimes create an air movement that will sweep the refrigerated air out of the merchandising area.

Do not locate the refrigerator under a low ceiling. There should be at least four feet (48") of free space above the merchandiser at all times. A low ceiling can lead to reduced temperature holding capacity and expose the unit to undue strain. Additionally, nothing can be stacked on top of the unit, as this will also interfere with proper ventilation.

Do not locate the refrigerator directly against a wall. There should be a minimum of six inches between the rear of the refrigerator and any wall behind the unit.

Killion Industries, Inc. • 1380 Poinsettia Ave., Vista, CA 92081

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Plumbing Requirements

The high volume condensate pump for condensate removal will require a drain line run down from the ceiling to a location near the merchandiser. Recommended drain line: ½" I.D. pipe.

The horizontal run must slope away from the case to prevent the backflow of water into the refrigerated merchandiser. Recommended slope is four inches for every ten feet of run. A backflow prevention device comes pre-installed on the pump line to prevent condensate water from flowing back into the pump reservoir. Make sure that there are no sags in the length where condensate can pool, and any bends in the run should be kept to a minimum.

Electrical Supply

A licensed electrician must make all electrical connections. All wiring must comply with applicable local and national codes. Each refrigerator must be served with a separate overload protected circuit. It is necessary that separate, dedicated circuit(s) be provided for each merchandiser to prevent the possibility of another appliance tripping the breaker and causing an interruption of electrical service.

The unit requires a dedicated 4-wire ground, 208/230 Volt 30 Amp power supply connected to a NEMA L14-30 locking receptacle. This receptacle must be located within eight feet of the upper back of the refrigerated display case. It is highly recommended against using an extension cord with the refrigerated display case.

INSTALLATION

Refrigerated Display w/ High Volume Condensate Pump

1. Move the refrigerated merchandiser into desired position.
2. Attach the disconnect fitting (supplied by Killion Industries) to the end of the drain line coming down from the ceiling.
3. Locate the flex tube from the high volume condensate pump with the disconnect fitting attached. Screw this into the fitting attached to the store drain line from the ceiling.
4. Plug the display case into the store power supply. Twist to lock the plug to the receptacle.
5. Locate the power switch at the top of the case in the compressor area and switch it to "ON".
6. Let the refrigerator run for at least four hours to allow the merchandiser to cool and the temperature to stabilize.
7. Once the case is cool and running, it can be stocked with merchandise.

ROUTINE MAINTENANCE

Regular periodic cleaning will ensure proper operation, minimize maintenance costs, and prolong the life of refrigerated merchandisers. The following maintenance should be performed every three months. Depending on the conditions of your store, you may need to increase maintenance intervals.

WARNING

Remove product to a suitable storage refrigerator while performing maintenance. Turn off refrigerated merchandiser and disconnect from electrical source prior to performing maintenance.

AVERTISSEMENT

Enlevez le produit sur un réfrigérateur approprié de stockage tout en exécutant l'entretien. Tournez le marchandiseur au loin frigorifié et le démontez de la source électrique avant d'exécuter l'entretien.

Routine Maintenance

- Clean all dust and debris from the merchandising display areas.
- Clean all air grills, grates, honeycombs, and panels with warm water and a mild detergent.
- Remove access panel(s) (lower side panel) screws to expose evaporator coil, drain pan, and condensate pump.
- Clean case interior and pull down shades with a damp rag soaked in mild soap and water. Remove the shelving and display racks and clean with mild soap and water. Wipe down light tubes and interior surfaces.
- Clean the dust from all air grills using mild soap and water.
- Vacuum interior bottom and wipe clean of sediment or deposits in coil drain pan and around condensate pump. Wipe evaporator fan blades clean to remove any dirt or film that may be deposited on them. Use caution to not bend blades with undue pressure.
- Clean evaporator coil with a non-acidic, EPA approved cleaner, such as Nu-Brite or Alka-Brite, or comparable product.
- Check the pumps and pump lines for blockage. Be sure condensate pumps are operating and freely transferring condensate water.
- Replace access panels (screw into place).
- Vacuum the top of the case in the compressor area to remove dust and debris from the compartment.
- Check refrigerant level through sight glass (located near the condensing unit), if bubbles are visible, the unit is low on refrigerant. (Call a qualified refrigeration service technician for service).

- Check air filter and replace if it is dirty. If needed, vacuum dust and debris from condenser coil and motor area.
- Replace any screens, panels, screws, etc. that may have been removed during the maintenance procedure.

WARNING

Improper maintenance or a reduction in scheduled maintenance may result in hazardous conditions and reduce case performance.

AVERTISSEMENT

L'entretien inexact ou une réduction de l'entretien Programmé peut avoir comme conséquence des conditions dangereuses et réduire l'exécution de cas.

Disregarding any of the above written instructions will void the warranty.

Lighting

Fluorescent light tubes are mounted behind the top fascia. The ballast is self-contained within the light fixture. The switch is located at the front left side next to the light fixture.

Refrigeration

Refrigerated merchandisers come pre-programmed at the factory. Please note the programmed settings are generic factory settings. If necessary these settings can be adjusted by a qualified Refrigeration Service Technician to accommodate a store's unique ambient conditions and for the product being displayed. To reset the controller back to default factory settings, see the section labeled **Resetting the LAE Refrigeration Controller** in the **Appendix** of this manual.

Temperature Control

This merchandiser comes with a switch that can be used to adjust the temperature within the case. It is located at the top front of the case, in the compressor area. Set the switch to the "Summer" setting during warmer weather to lower the case's temperature to keep product cool. Set the switch to the "Winter" setting during cooler weather to raise the case's temperature to prevent product freezing.

Stocking / Product Load Limits

The cold air re-circulating system requires free airflow through all grills, including the grill above the bottom well at the front of the refrigerator.

- DO NOT place product in merchandisers until case is at proper operating temperature.
- DO NOT stock the product so tightly that the refrigerated airflow is hampered. Overstocking refrigerated merchandisers can lead to reduced temperature holding capacity and expose the unit to undue strain.
- DO NOT stock product so tightly against back wall that airflow is restricted. There should be at least a one-inch gap between the back of the case and product.
- DO NOT block any air grills, honeycomb air discharge areas, or any panels with slots intended for air intake or discharge.
- DO NOT dump excess product water into the case. This will cause strain on the condensate removal systems that can cause the case or condensate systems to leak and overflow. The fertilizer used in floral display water can also plug pumps and condensate lines leading to leaks and overflow.

CAUTION

Proper product rotation is necessary to prevent product loss. Move older product to the front of the case and set the newer product in the back.

ATTENTION

La rotation appropriée de produit est nécessaire pour empêcher la perte de produit. Déplacez un produit plus ancien à l'avant du cas et placez le produit plus dans le dos.

Relocating / Moving

Before moving or relocating a case that has been in use, it is important to remove all condensate water from evaporator pans, so that water damage does not occur. A wet/dry vacuum works well to remove water.

Be sure that all plumbing and electrical connections are disconnected before attempting to relocate the case. Follow all directions in the **Pre-Installation** and **Installation** sections when placing the unit in its new location.

Troubleshooting

If you feel that your refrigerated merchandiser is not operating properly, please review the following list before placing a service call:

Troubleshooting Check List

1. Is the refrigerator in a defrost cycle? Refrigerators periodically go into defrost cycles. During a defrost cycle, the refrigerator thermometer may read above 45° F. The thermometer provided with the refrigerator measures the air temperature in the back of the case. This is only the air temperature; the product temperature will remain below 45° F when the case is operating properly. Wait an hour and return to the merchandiser to recheck the temperature.
2. Do the store conditions exceed 75° F / 55% relative humidity? Killion Type 1 Refrigerated Display Cases are not designed to operate in conditions exceeding 75° F / 55% relative humidity.
3. Has the compressor stopped running for an extended period of time? The most common cause is high pressure triggering the high pressure safety switch. This can happen when the condensing coil, or the intake filters to the condensing coil, are dirty. Clean the condensing coil or replace any dirty intake filters. Have a qualified technician locate and reset the high pressure safety switch and restart the case.
4. Is there at least four feet (48") between the top of the merchandiser and the store's ceiling? Top-mounted condensing units need this space to properly vent the heat they create. Nothing can be stacked on top of the case, as this also will interfere with proper ventilation.
5. Are external sources such as heaters, sunrays, drafts, hot tables, etc. introducing heat into the case? Move these external sources away from the refrigerated merchandiser or move the merchandiser away from these sources.
6. Is the return air grill on the front of the bottom deck blocked with dust or product? Remove all product and dust from the return air grill to ensure proper airflow.
7. Is there too much product loaded into the case that it is blocking the air flow from the back of the unit? The load limits outlined in the Product Stocking / Load Limits section of this manual must be followed.
8. Is the case leaking water? Make sure the condensate pumps are operating properly. Verify that all the drain lines are clear to freely transfer water.
9. Is the case too warm? Change the setting switch in the top front of the case (in the compressor area) to the "Summer" setting for a cooler temperature.
10. Is the case too cold? Change the setting switch in the top front of the case (in the compressor area) to the "Winter" setting for a warmer temperature.

If you need further assistance, please call Killion's customer service department at 1-800-421-5352.

WARRANTY

KILLION INDUSTRIES, INC. warrants the Merchandiser and all parts thereof to be free from defects in material and workmanship under normal use and service. Merchandisers are designed to operate in air-conditioned stores where temperature and relative humidity are maintained at or below 75°F dry bulb temperature and 55% relative humidity. Its obligations under this Warranty shall be limited to repairing or replacing, at its option, any part of the Fixture which proves thus defective within one year from the date of invoice, and which KILLION'S examination discloses to its satisfaction to be thus defective. Additionally, if a malfunction occurs within 90 days from the date of invoice, KILLION will assume responsibility for the reasonable cost of labor, provided KILLION is the dispatching agent. No labor costs will be paid unless the repairing agent has obtained a Service Authorization Number from KILLION prior to the repair. This Warranty shall not apply to the refrigerator, or any part thereof, which has been subject to any accident, alteration, abuse, misuse, or damage by flood, fire, or act of God. In no event shall the company be liable for injury to person or property caused by defective equipment, loss of use, revenue or profit or for any other indirect, special or consequential damages including, but not limited to, food spoilage or product loss.

SPECIAL ATTENTION

Killion Refrigerated Merchandisers require an adequate supply of free inlet air available. Please note the location of the condensing unit, as both top and bottom mounted units are available. Additionally, an unobstructed exhaust area for the dissipation of hot air must be available so it does not recycle into the inlet air.

Top mounted units should not be located under a low ceiling or "boxed-in" under a canopy or any similar construction, thereby restricting, or completely shutting off, free air circulation. Inadequate or improper airflow through the condenser section will result in high head pressure, higher operating temperature, excessive wear, and possible a compressor failure.

Bottom mounted units should not be located directly against a wall. There should be a minimum of four inches between the rear of the refrigerator and the wall.

Installation made under such location conditions will constitute improper installation and unit abuse, thereby invalidating all mechanical warranty coverage.

WARRANTY IS NOT TRANSFERABLE. This warranty is not assignable and applies only in favor of the original purchaser / place of original installation. Any such assignment or transfer shall void the warranties herein made and shall void all warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

TRANSPORTATION COSTS. KILLION will pay the cost of freight for any and all parts under warranty. KILLION will not accept returned parts freight collect, unless that shipment has received prior approval. KILLION is not responsible for any other transportation costs.

WARRANTY CLAIMS. All claims should include: model number, serial number, and all pertinent information supporting the existence of the alleged defect. Any action for breach of these warranty provisions must commence within One (1) year after the cause of action occurred.

This warranty is in lieu of all other warranties, expressed or implied, and does not include any implied warranties of merchantability or fitness for a particular purpose. KILLION'S sole liability shall be limited to the repair or replacement of any defective part or parts, as above stated, and shall not include labor or other expenses incurred in the removal and /or installation of defective parts or equipment, unless otherwise specified above.

APPENDIX

RESETTING THE LAE CONTROL TO FACTORY DEFAULT



Figure 1
Detail image of LAE Control Display.

Note: The case must be powered on to reset the controller settings.

1. Locate the LAE Controller Display on your specific case. It is typically located near the compressor.
2. Hold down both the “i” and the “x” buttons for 5 seconds. The parameter SPL will show on the screen.
3. Tap the “▼” button. The screen will show the rES parameter.
4. Hold down the “i” button. While holding down the button, tap the “▼” to change the setting from “nO” to “YES”, then release the “i” button.
5. Tap the “x” button to return the controller to normal operation. All parameters are now returned to the default factory settings.

Should you have any questions call Killion Customer Service at 1-800-421-5352 x120 or email at parts.service@killionindustries.com .