

GENESIS INTERNATIONAL, INC.

WALK-IN SINGLE ZONE DEFROST CONTROL & ALARMING SYSTEM WITH LEAK DETECTION

NEMA 4X (WIC-L-4)



WALK-IN CONTROL (WIC-L-4)
Part Number 88-0577

The Wizard Single Zone Cooler Control System with Refrigerant Leak Option NEMA 4X (WIC-L-4) was designed to incorporate most of the control functions necessary to monitor and control the evaporators of a walk-in cooler and freezer of a supermarket, convenience store or restaurant into a compact, simple to install package. The WIC-L-4 utilizes the latest microprocessor technology with two row 16 character LCD back-lighted display. Plain English menu driven user interface is easy to understand and manipulate. It is equipped with a real time clock with a 5 day power loss backup. The control has as standard, an onboard 95db buzzer and a red light that will notify of an alarm. The unit is standard with 4 SPDT relays. A single Control can replace the following items for a complete Walk-In unit:

Temperature Monitoring, Controlling & Alarming
Door Opening Alarm
Defrost Controller
Refrigerant Leak Monitor and Alarm

MODEL #	NEMA/IP RATING	ELECTRICAL CATEGORY	POLLUTION PROTECTION
WIC-L-4	4X/IP67	II	3

ENCLOSURE	Inches (mm) 12.3 x 15.0 x 8.2 (312 x 381 x 208)
POWER	25 - 250V AC, 50/60Hz, 1.0 Amp
OPERATING TEMPERATURE	45°F - 99°F
OPERATING HUMIDITY	30 - 90% RH, non-condensing
DISPLAY	2 lines by 16 characters, alphanumeric LCD with back light, Alarm Indication Light indicates active alarm
KEYPAD	5 tactile key switches Scroll up, Scroll down, Select/Change, Exit, Alarm Silence/Clear
INPUTS	Thermistor Temperature Sensor Door Ajar Magnetic Contact Switch Defrost Termination Switch/Sensor

Control, Fan, Defrost and Alarm Relays - These Relay Outputs are 1 Form C SPDT rated for 250 VAC and 3.15 Amp per circuit. Each relay circuit is fused with a slow blow fuse on the common leg. Outputs are screw terminal type.

CONTROL	One (1) Liquid Solenoid Relay One (1) Evaporator Fan Relay One (1) Defrost Heater Relay
ALARMS	One (1) System Alarm Relay Door Ajar, Low & High Temperature Four (4) Refrigerant Gas Leak Alarm Relays, Two alarm levels (2 SPDT Relays per level)

ALARM INDICATORS

LCD DISPLAY	Cause of Alarming
BUZZER	piezo-electric, 90db @10ft, silenceable
FRONT PANEL LED LIGHT	Flashing red light when Control is in alarm
STROBE LIGHT (Optional)	Mounted on top of the housing, activates during any alarm condition.

LISTINGS	ETL, Conforms to UL Std. 3111-1 Certified to CAN/CSA C22.2 Std. No. 1010.1
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WIC-4-L 05-02-09

Real Time Clock with power loss backup - The built-in electronic time clock is used for time-stamp of alarm logs. The time clock has ninety nine year calendar for automatic day light saving change over. The clock maintains its setting for up to 5 days without power.

Software Access "Passcode" - The WIC-L-4 is passcode protected. No operating parameters can be changed without unlocking the Control. User passcode can be changed by supervisor.

Enclosure - The WIC-L-4 comes in a NEMA 4X Enclosure. This enclosure is intended for either indoor or outdoor use, 0 to 50 °C, to provide a degree of protection against corrosion, windblown dust and rain, splashing water, and hose directed water.

Four Key Menu System - Consistent menu structure using only four keys. Operating parameters can be accessed and changed easily.

Alarm History logs - Last ten alarm logs are maintained for reviewing at any time. Each log has its own time stamp along with alarm reading.

Standard Defrost Control - The WIC-L-4 controls the Defrost of the evaporator coil, runs the Pump Down Cycle and Drip Cycle and One relay each for defrost, liquid solenoid, Evaporator Fan and Evaporator Heater.

Temperature Alarming - The WIC-L-4 can monitor the temperature in a single zone (room). The WIC-L-4 will activate its audible visual alarm and the System Alarm Relays based upon the following alarm conditions:

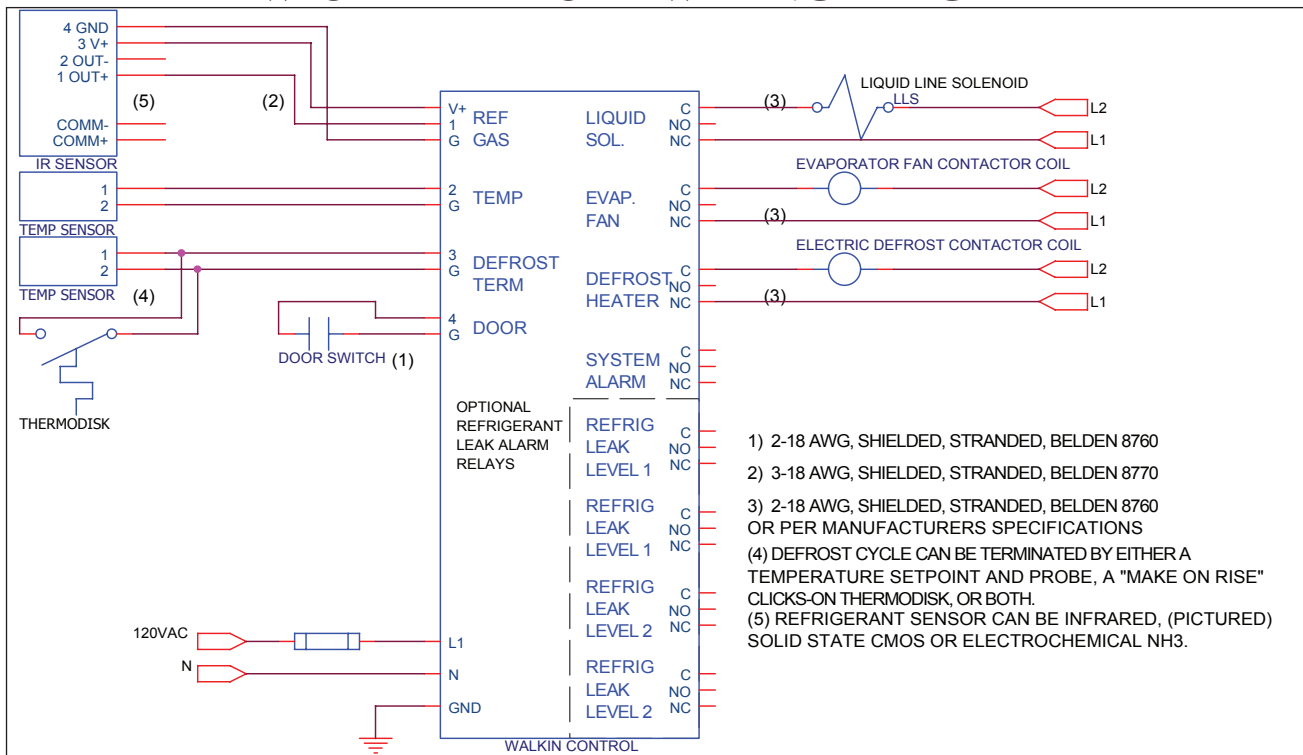
High Alarm . The room temperature must exceed the High Alarm Limit for a time period equal to or longer than the High Temp Alarm delay.

Low Alarm . The room temperature must be below the Low Alarm Limit for a time period equal to or longer than the Low Temp Alarm delay.

Door Ajar Alarming - The WIC-L-4 will activate its System Alarm Relay if the monitored door is opened (Door Switch is closed) for more than the Door Open Alarm Delay time. When the door is opened, the display shows the duration of the door opening in hours and minutes. To monitor more than one door, connect all door switches in parallel. (Genesis #28-0117)

Refrigeration Leak Monitoring - With the addition of a SHERLOCK Refrigerant gas sensor, the WIC-L-4 makes any refrigerated room or freezer room ASHRAE 15-2004 and Mechanical Code Compliant. The sensor can be gas specific Infrared (IR), Solid State CMOS or Electro-Chemical. The Leak detection feature adds 4 SPDT alarm relays for two leak alarm levels with 1 silence-able and 1 non silence-able relay for each alarm level. The WIC-L-4 can remotely notify systems and isolate the evaporator coil if a leak level exceeds safety limits.

WIC-L-4 TYPICAL WIRING DIAGRAM



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