

GENESIS INTERNATIONAL, INC.

WALK-IN DUAL ZONE DEFROST CONTROL & ALARMING SYSTEM WITH LEAK DETECTION NEMA 4X (WIC2-L-4)



WALK-IN CONTROL 2 ZONE WITH REFRIGERANT
LEAK DETECTION NEMA 4X (WIC2-L-4)

Part Number 88-0582

The Wizard Dual Zone (WIC2-L) Cooler Control System NEMA 4X with Leak Detection 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 WIC2-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 11 SPDT relays. A single control can replace the following items for Two complete Walk-In units:

Temperature Monitor, Control, Alarm
Door Opening Alarm
Defrost Controller
Refrigerant Leak Monitor and Alarm

Model#	Nema/IP Rating	Size Inches(mm)	Electrical Category	Pollution Protection
WIC2-L-4	4X	12.3 x 15 x 8.2	II	2
		IP67 (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** Two (2) of Each:
Thermistor Temperature Sensor
SHERLOCK sensor CMOS, IR or Electro-Chemical 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 Two (2) Liquid Solenoid Relays
Two (2) Evaporator Fan Relays
Two (2) Defrost Heater Relays

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



WIC2-L-4 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 clock has ninety nine year calendar for automatic day light saving change over and will maintains its settings for up to 5 days without power.

Software Access "Passcode" - The WIC2-L-4 is passcode protected. No operating parameters can be changed without first unlocking the Control. User passcode can be changed by supervisor.

Enclosure - The WIC2-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 WIC2-L-4 controls the Defrost of the evaporator coil, runs the Pump Down Cycle and Drip Cycle and adds 2 extra relays, for defrost, liquid solenoid, Evaporator Fan and Evaporator Heater.

Temperature Alarming - The WIC2-L-4 can monitor the temperature in two separate zones (rooms). The WIC2-L-4 will activate its audible visual alarm and the System Alarm Relays based upon the following alarm conditions:

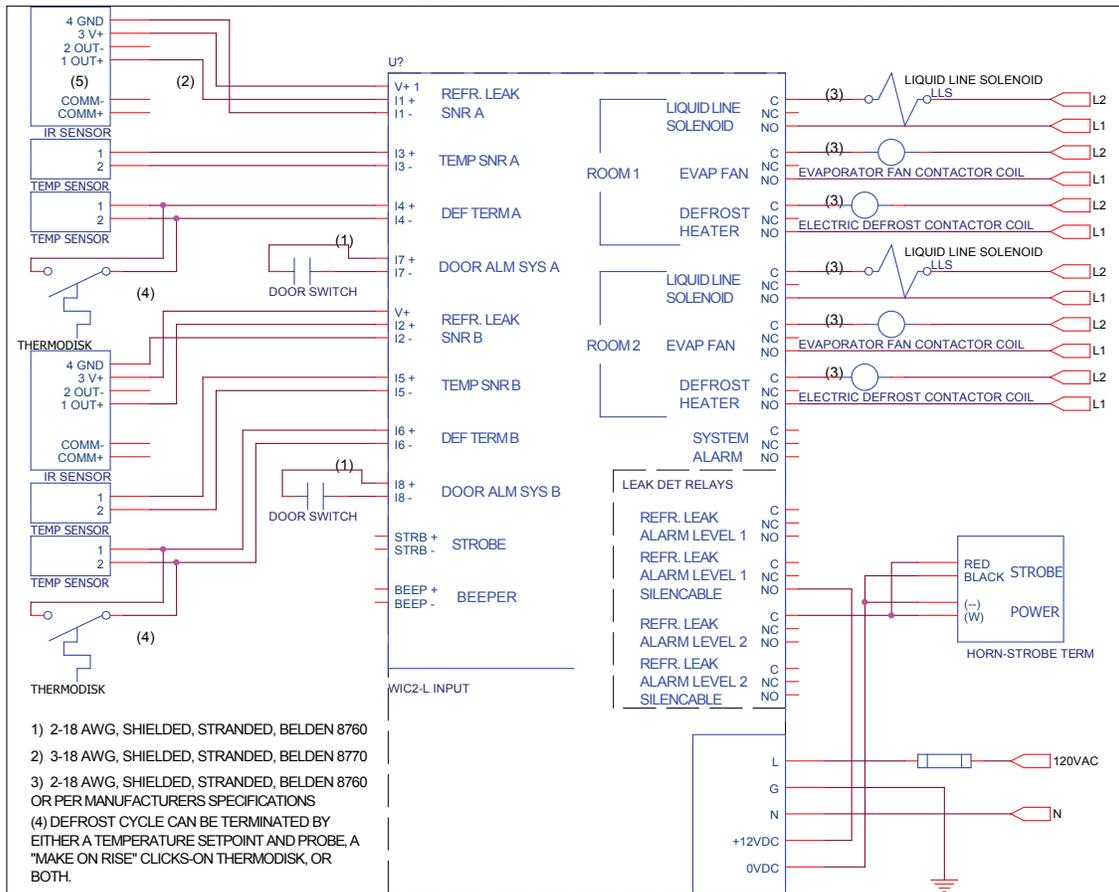
High Alarm. The room temperature must exceed the High Alarm Limit for a time period equal to or longer than the High Temp Alarm delay.

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 WIC2-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 1 or 2 SHERLOCK Refrigerant gas sensors, the WIC2-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 WIC2-L-4 can remotely notify systems and isolate the evaporator coil if a leak level exceeds safety limits.

WIC2-L-4 TYPICAL WIRING DIAGRAM



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