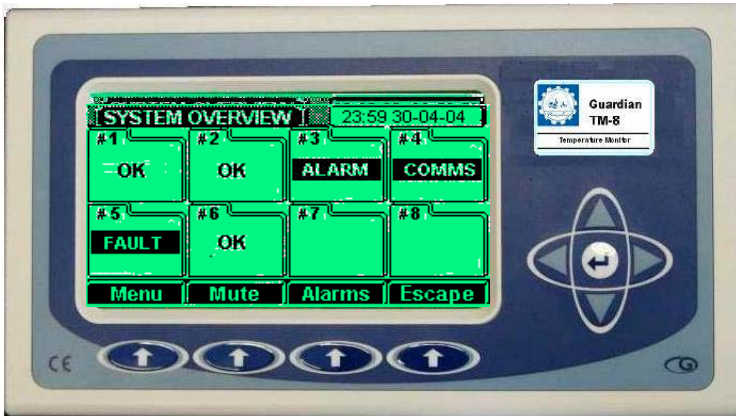


# LCD-8 RAM

## Refrigeration Alarm Monitor

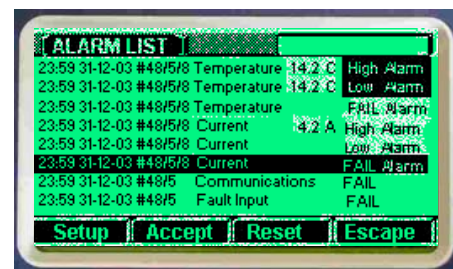
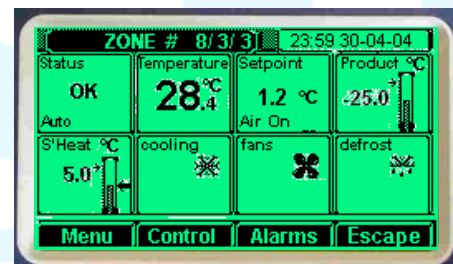


This Liquid Crystal Display (LCD) panel provides the local operator interface for up to **eight** Guardian GC1719 plant controllers.

Refrigeration Alarm Monitoring and display of temperatures, alarm status, control mode, relay states and zone parameter settings are selectable for a maximum of **sixty-four** refrigeration control zones.

Optional internet protocol (IP) facilities allow Local Area Network (LAN) connection to the internet for remote TCP/IP monitoring, email alarm messages and web page displays.

- Overview & alarm status for eight GC1719 units.
- Large LCD displays for zone temperature values.
- Detail display for each zone shows temperatures, alarm status, relay states.
- Alarm List with date, time and alarm description of out of limit measured values or fault inputs.
- Simple cursor and menu selection for local setup of individual zone Setpoints, Limits & Control Mode.
- RS485 Modbus communications of all settings and values to remote supervisory PC.
- Optional rail mounting Internet Protocol module provides Modbus over TCP / IP and HTTP for Web pages and Email alarm messages.



Guardian Products incorporate the experience accumulated during two decades of microprocessor control of commercial & industrial systems and refrigeration.

Rugged, reliable, cost-effective products with a high immunity to electrical noise provide flexible system configurations & facilities for Refrigeration Control and Monitoring.



GC1719 Plant Control

### LCD-8 RAM Overview

Guardian Controls International Ltd.

56, Crewe Road, Sandbach, Cheshire, England CW11 4NN.

mtm issue C 03/05/04

Email sales@guardian-controls.com  
Tel +44(0)1270760599 Fax +44(0)1270766804

# SYSTEM OVERVIEW

## LCD-8 Refrigeration Monitor

The LCD-8 monitor panel is normally fitted in the door of the appropriate electrical control panel.

The LCD-8 panel has cursor and menu function buttons and a LCD screen for selection, display and changes to control parameters locally at the electrical panel.

Each monitor panel supports up to a maximum of eight GC1719 controller units.

## GC1719 Plant Control

Each GC1719 unit provides temperature control and monitoring for up to eight refrigeration zones.

This gives a maximum of 64 control zones for each LCD-8 monitor panel.

The GC1719 units communicate latest states, measured values and any alarm conditions for all zones when requested by the central PC or the LCD-8 Monitor,

These communications require a two wire serial RS485 (Modbus RTU protocol 19200 baud) connection from each of up to eight controllers to both the central PC and the LCD-8 Monitor.

## MU20 Marshalling unit

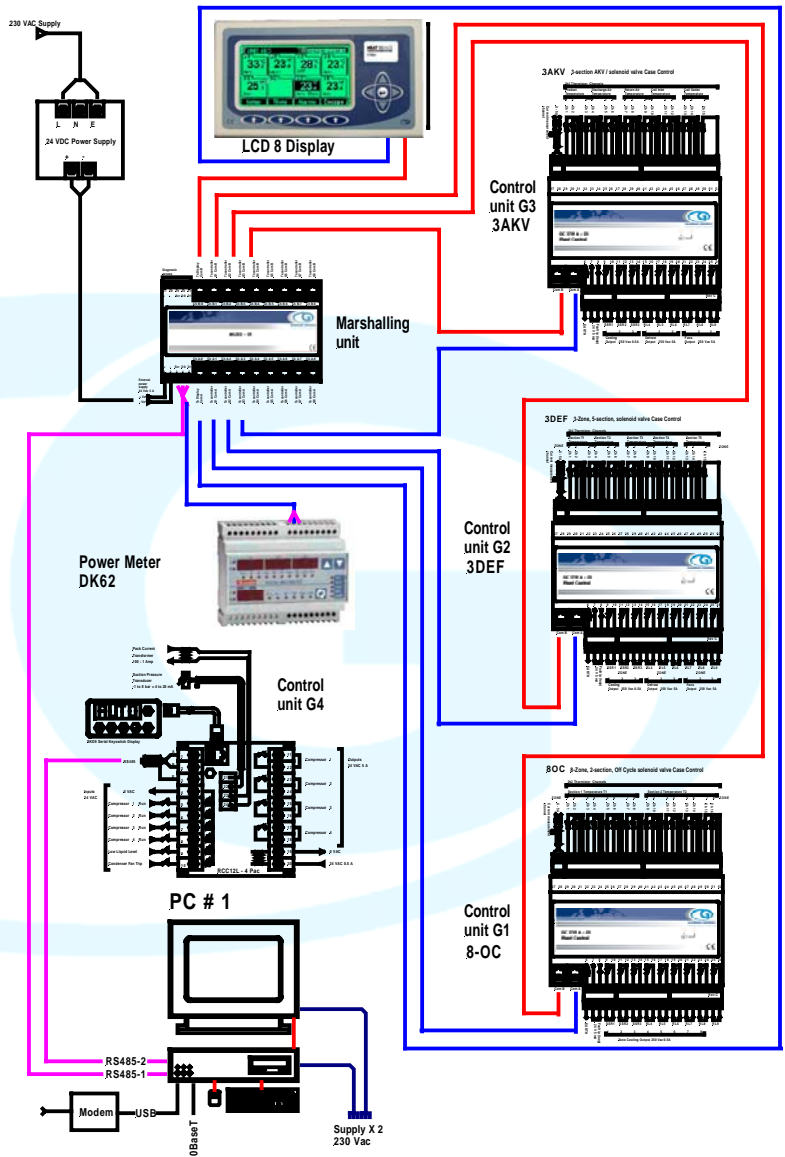
The Marshalling unit provides multiple 4-way connectors to simplify the wiring of the RS485 and power connections within the panel.

## DR 4524 Power Supply

Provides Power support at 24vdc 45 W for eight 'GC' Range units and an LCD-8 display.

## DK62 Power Multimeter

Measures and communicates voltages, currents, frequency, power and energy used by the system.



SPECIFICATIONS		LCD-8 Panel Monitor	GC1719 Plant Controller		
<b>Power</b>		24 V dc	24 V dc	<b>Analog Inputs</b>	
<b>Operation</b>		0 to 50 C	0 to 50 C	0-5A	1 current from CT
<b>Dimensions</b>	Height	125 mm	86 mm	2-wire thermistor	16 2k2 thermistor temperatures -40.0 C to +40.0 C
	Length	210 mm	156 mm		
	Depth	45 mm	59 mm		
<b>Mounting</b>			Rail Mounting	<b>Fault Input</b>	1 Fault Contact closure
	Door Cutout	<b>115 x200 mm</b>			
<b>Communications Links</b>		COM A, COM B	COMA, COMB	<b>Relays</b>	6 Control outputs (n/o)
Modbus RS484 @ 19200 baud		4-way sockets	4-way sockets	5A 230vac	

## LCD-8 RAM Overview

Guardian Controls International Ltd.

56, Crewe Road, Sandbach, Cheshire, England CW11 4NN.

mtm issue C 03/05/04

Email sales@guardian-controls.com  
Tel +44(0)1270760599 Fax +44(0)1270766804