CMS200

QUICK GUIDE - ISSUE 1

nexo

CMS200

LED	DESCRIPTION
❄	Compressor is running.
🌀	Evaporator fan is running.
⏻	Saving temperature is disabled.
(((	Motion detected.

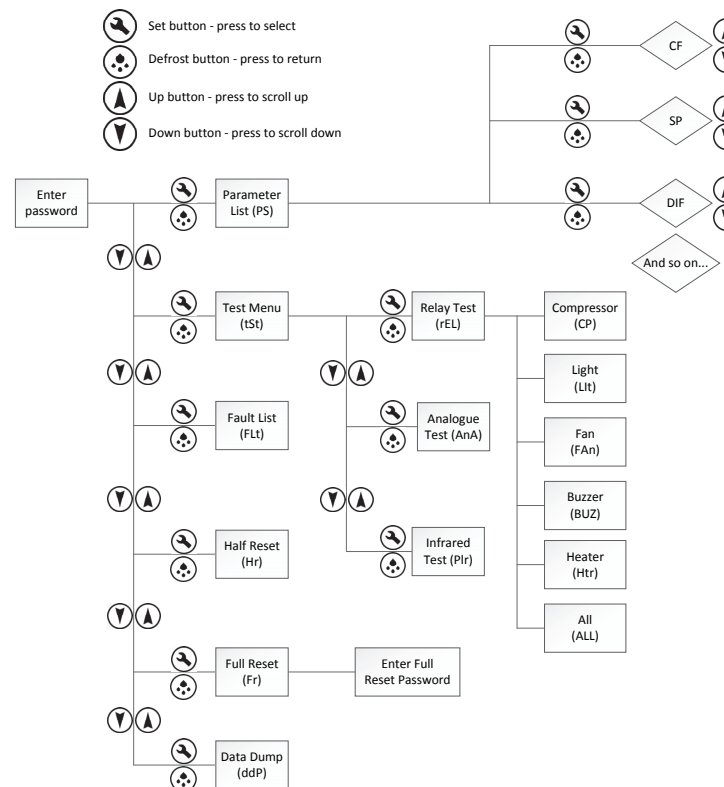| BUTTON	SERVICE ENGINEER FUNCTION
🔧 Set	• Use as part of the controller password. • Selects menu options. • Selects parameters for change. • Use in the test routine.
⦿ Defrost	• Use as part of the controller password. • Use to de-select menu options (return). • Use in the test routine.
▲ Up	• Use as part of the controller password. • Increases the parameter values. • Scrolls up menus • Scrolls up through parameters • Use in the test routine.
▼ Down	• Use as part of the controller password. • Scrolls down menus. • Decreases parameter values. • Scrolls down through parameters • Use in the test routine.

MENU ACCESS

1. Press the **Set** button until PAS is displayed
2. Enter the button sequence of the Main menu entry password
3. Press the **Set** button four times (x 4)
4. Press the **Down** button twice (x 2)
5. Press the **Up** button once (x 1)
6. Press the **Defrost** button twice (x 2), ensure PS is displayed

MENU STRUCTURE

🔧 Set button - press to select
⦿ Defrost button - press to return
▲ Up button - press to scroll up
▼ Down button - press to scroll down

Enter password

Parameter List (PS) → CF, SP, DIF, And so on...

Test Menu (tSt) → Relay Test (rEL) → Compressor (CP), Light (LIt), Fan (FAn), Buzzer (BUZ), Heater (Htr), All (ALL)

Fault List (FLt)

Analogue Test (AnA)

Half Reset (Hr)

Infrared Test (PIr)

Full Reset (Fr) → Enter Full Reset Password

Data Dump (ddP)

HALF RESET

1. Once the menu has been accessed:
2. Press the **Down** button to scroll to the half re-set option
3. Press the **Set** button to select the half reset option. The display will alternate between 'Hr' and 'nO'
4. Press the **Up** button to change 'nO' to 'yES'
5. Press the **Set** button to perform half reset
6. The controller should reset and begin the power-up sequence.

ELECTRICAL CONNECTIONS
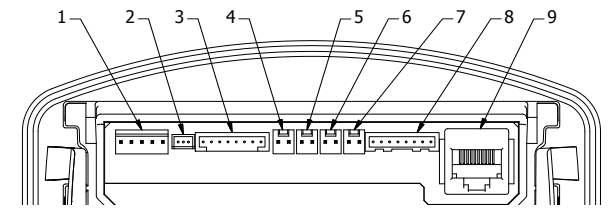
1 Modem interface	6 Condenser sensor
2 RMD port (If applicable)	7 Appliance sensor
3 Interface cable	8 Stock sensor
4 Evaporator sensor	9 RJ45 Port
5 Door sensor	

ALARMS

rSF — Refrigeration system failure
Refrigeration system failure alarms trigger if the set point (SP) temperature is not reached within the time defined by the compressor runtime (Ct) parameter.

Ht — Condenser high temperature
Condenser high temperature alarms alert to problems with the refrigeration system such as a blocked condenser or faulty condenser fan.

d0 — Door open
Door open alarms are triggered if the cooler door is left open for longer than the time defined by the alarm delay (Ad) parameter. This may also indicate problems with the cooler door or the door switch.

CMS200
QUICK GUIDE - ISSUE 1

nexo

ALARMS

PF1
PF2
PF3

Sensor failures
The controller has detected an open circuit on the appliance input (PF1), on the condenser input (PF2) or on the evaporator input (PF3).

PARAMETERS

Set point (SP)
Defines the compressor cut-out temperature during the Ready mode. GD -3.0°C (27°F)

Differential (dIF)
Defines the compressor cut-in temperature when added to the set point (SP) temperature during the Ready mode.
GD 3.0°C (5°F)

Calibration 1 (CA1)
Calibrates or adds an offset to temperatures measured by the appliance sensor. GD 0.0°C (0°F)

Compressor rest time (rt)
Defines the minimum time between compressor cycles.
GD 3 minutes

Delay to saving (dS)
Defines the delay in switching to the Saving mode from Ready mode. GD 0 (no delay)

Lights delay (Ld)
Defines the delay to switch off the cooler lights after the controller switches to the Saving mode. GD 0 (no delay)

Saving restart period (Sr)
Cooler runs at the ready mode temperatures for the duration of this period to ensure that the product is at the ready mode temperatures prior to retail outlet opening time.
GD 120 minutes

Refrigeration system failure (Ct)
Defines the maximum continuous runtime of the compressor without reaching the set point (SP) temperature. GD 72 hours

Celsius or Fahrenheit (CF)
Option to set the EMS controller to Celsius (°C) or Fahrenheit (°F). GD 0 (°C)

Saving differential (Sd)
Defines the compressor cut-in temperature, when added to the saving set point (SSP) temperature, during the Saving mode.
GD 3.0°C (5°F)

PARAMETERS

Saving set point (SSP)
Defines the compressor cut-out temperature during the Saving mode. GD 3.0°C (37°F)

Freeze-up protection (dtt)
Defines the temperature to stop further cooling to prevent freeze-up due to low temperature. GD -6.0°C (21°F)

Defrost interval (dE)
Defines the period between the end of defrost cycle and beginning of the next defrost cycle. A time-based defrost cycle helps improve evaporator efficiency. GD 6 hours

Defrost duration (dd)
Defines the maximum time of a defrost cycle. GD 15 minutes

Fan cycle on (FCO)
Defines the active period of the evaporator fan while the compressor is switched off. GD 5 minutes

Fan cycle off (FCF)
Defines the inactive period of the evaporator fan while the compressor is switched off. GD 20 minute

Alarm delay (Ad)
Defines the maximum time the cooler door can be open before sounding the alarm buzzer. GD 0 (disabled)

Buzzer duration (b1)
Defines the duration of the buzzer for door open alarm conditions. GD 60 seconds

Motion sensor enable (Sn)
Enables the input from the motion sensor. GD 1 (enabled)

Display stability (d2)
Defines the rate of change of the displayed temperature.
GD 46

Low voltage (LO)
Defines the minimum voltage allowed before switching off the compressor. GD 0 (disabled)

High voltage (HI)
Defines the maximum voltage allowed before switching off the compressor. GD 0 (disabled)

Defrost termination temperature (dtd)
Defines the temperature to end the defrost cycle.
GD 15°C (59°F)

Condenser high temperature (Ht)
Defines the maximum temperature measured in the refrigeration system by monitoring the condenser sensor.
GD 0°C (32°F) - disabled.

PARAMETERS

Activity frequency (AF)
Defines the minimum number of door openings or motion counts to indicate an active 30 minute period in the self-learning matrix. GD 0 (low frequency)

Fan set point (FSP)
Prevents excessive condensation on the evaporator in environments where warm, and presumed humid, air is present by operating the evaporator fan. GD 15°C (59°F)

Buzzer enable (b0)
Enables or disables a warning buzzer for alarm conditions.
GD 1 (enabled)

Saving temperature disable (PEr)
Disables the saving mode temperatures so that the controller maintains the Ready mode temperatures at all times. GD 0 (off)

Learning period (LP)
Defines whether the controller uses a 1-day or a 7-day learning period. GD 0 (1 day)

Display (dIS)
Defines whether the controller displays the temperature (3.0 for example), or the word USE during the Ready mode.
GD 1 (temperature)

Marketing mode (Ar)
Sets the cooler lights to remain on at all times for display purposes. GD 0 (off)

Defrost method (dF)
Provides the option for a time-based or temperature-based defrost cycle. GD 0 (time-based)

Defrost termination method (dtF)
Provides the option to end a defrost cycle on the defrost duration (dd) only or on defrost duration (dd) or defrost termination temperature (dtd). GD 1 (time or temperature)

Defrost activation temperature (ddt)
Defines the temperature measured on the evaporator sensor that activates an off-cycle defrost. GD -10°C (14°F)

Defrost heater (dHr)
Enables the use of an auxiliary relay to switch a defrost heater or solenoid valve. GD 0

Shelf data enable (ShF)
Option to allow the Nexo controller to log stock sensing data to be sent to the cloud. Stock sensing hardware currently unavailable. GD 0 (disabled)

*GD - Global default