

JTL CABINET CONTROLLER ITEM NUMBERS					LCNL	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
0	Unit type	LcnL	Unit type			
1	Unit number				0.0 - 899.9	
2	Time of day				00:00 - 23:59	
6	Communications speed	4800 600	Baud rate Baud rate			
8	Bitswitch Setting					
9	Set default values selected by Bitswitch				0 - 1	
<b>PROCESSOR ALARMS</b>						
10	Processor alarms (11 - 17)	0 1 - 255	No alarms Check 11 - 17			
11	Static RAM Fault	CLr rA.Ft	No fault Fault			
12	Program/counter fault	CLr PC.Ft	No fault Fault			
13	Stack pointer fault	CLr SP.Ft	No fault Fault			
14	Background loop fault	CLr bL.Ft	No fault Fault			
15	PROM checksum fault	CLr Pr.Ft	No fault Fault			
16	NVRAM fault	CLr n.Ft	No fault Fault			
17	Instruction TRAP fault	CLr tP.Ft	No fault Fault			
<b>MISCELLANEOUS DATA</b>						
19	Software Version number					
<b>TEMPERATURES</b>						
21	Air on 1 temperature (well case)					
22	Air off temperature					
23	Evaporator temperature					
24	Suction line temperature					
25	Air on 2 temperature (HGD case)					

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<b>PRIMARY TEMPERATURE SETPOINTS</b>						
30	Cabinet temperature setpoint (target for items 110 and 120)			xxxC xxxO	-30 to -18 -30 to -18	- 20 - 26
31	Air off setpoint (starting point and lower limit for item 118/128)			xxxC xxxO	-35 to -20 -35 to -20	- 27 - 33
32	Overtemperature alarm tolerance				0 - 20	10
33	Cabinet 1 temperature ratio (well case) (Item 110 calculated as value between Air off and Air on 1 using this ratio)				20 - 80	50
34	Cabinet 2 temperature ratio (HGD case) (Item 120 calculated as value between Air off and Air on 2 using this ratio)				20 - 100	75
35	v0.00.2 on					
	Evaporator temperature termination selection	OFF Et.En	Air off termination Evaporator termination		0 - 1	OFF
<b>DEFROST INFORMATION</b>						
40	Duration of last defrost					
41	Time since end of last defrost					
42	Duration of current defrost					
45	Suction line or Comms initiated defrost selection	C.U.In S.L.In	Comms unit initiated Suction line temp initiated		0 - 1	S.L.In
46	Comms unit initiated defrost command status	P.dEF F.dEF 0	Pack on defrost Pack on forced defrost Pack not on defrost			
<b>MISCELLANEOUS SETTINGS</b>						
47	Period over which averages are taken				00:30 - 03:00	01:00
48	Max starts/hour (Anti-shortcycling timer when using liquid valve relay to control a condensing unit)	0 10.PH 15.PH 20.PH	No limit 10 starts per hour 15 starts per hour 20 starts per hour		0 - 3	0
49	Liquid hold off time (Initiated by comms defrost command)				00:00 - 00:10	00:00

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<b>DEFROST SETPOINTS</b>						
50	Defrost termination temperature (Air off probe)				0 - 20	15
57	Defrost termination time limit				Up to v0.00.1	00.15
					00:05 - 00:20	
					v0.00.2 on	
					00.05 - 00.50	
58	Defrost initiation temperature (Suction line probe)				- 5 to 20	0
<b>MISCELLANEOUS SETTINGS</b>						
62	Communications controlled shutdown selection	LCNL01 on (v0.00.1 on)				
		OFF Sh.dn	Disabled Enabled		0 - 1	0
63	Network command	LCNL01 on (v0.00.1 on)				
		run Sh.dn	Run Shutdown			
69	Number of defrosts expected per day	0 1 - 6	Disable alarm 93 Alarm enabled		0 - 6	3
<b>MODES, INPUTS AND OUTPUTS</b>						
70	Operating mode	rEFr dEFr dF.rc	Refrig. Defrost Defrost recovery			
71	Defrost input	OFF dF.IP	No defrost Defrost contacts closed			
73	Fans relay	OFF Fn.on	Contacts open Contacts closed			
74	Defrost relay	o dt.on  dc.on	Relay deenergised Defrost termination on Defrost control on			
75	Liquid solenoid relay	OFF LS.on	Off Demanding refriger.			
76	Defrost relay mode selection	d.tEr	Defrost termination		0 - 1	d.tEr
		d.con	Defrost control			
<b>FORCING FUNCTIONS</b>						
Forced functions remain forced if the Maintenance unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance unit is unplugged.						
77	Forced defrost	OFF Fd.on	Off Forced defrost on		0 - 1	
78	Forced refrigeration	OFF no.dF	Off No defrosts		0 - 1	
79	Forced refrigeration	OFF Fr.on	Off Forced refriger.		0 - 1	

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<b>SYSTEM ALARMS</b>						
80	Group alarm 81 - 88	0 1 - 255	No alarms Check 81 - 88			
81	Cabinet 1 overtemperature	CLr C1.Ht	No fault Fault			
82	Cabinet 2 overtemperature	CLr C2.Ht	No fault Fault			
83	Air off overtemperature	CLr A.Ht	No fault Fault			
84	Air on 1 probe fault	CLr A1.Pr	No fault Fault			
85	Air on 2 probe fault	CLr A2.Pr	No fault Fault			
86	Air off probe fault	CLr AF.Pr	No fault Fault			
87	Thermistor power supply fault	CLr PS.Ft	No fault Fault			
88	All probes faulty, deselected or disconnected	CLr t.SEn	No fault Fault			
<b>MISCELLANEOUS DATA</b>						
89	Thermistor excitation value (Factory test)		Not used			
<b>SYSTEM ALARMS</b>						
90	Group alarm 91 - 98	0 1 - 255	No alarms Check 91 - 98			
91	Evaporator probe fault	CLr EP.Pr	No fault Fault			
92	Suction line probe fault	CLr SL.Pr	No fault Fault			
93	Expected defrosts have not been detected	CLr dEF.F	No fault Fault			
98	Unit number corrupted/not set	LCNL00 (v0.00.0) only				
		CLr Un.CF	No fault Fault			
98	Unit shutdown by communications network command	LCNL01 on (v0.00.1 on)				
		CLr Sh.dn	No fault Shutdown			
<b>UTILITY</b>						
99	Test digital display	CLr SEt	Not active Test active		0 - 1	
<b>COMPRESSOR PACK DATA</b>						
101	Air off setpoint for compressor pack					

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<b>PROBE SELECTION</b>						
105	Air on 1 probe selection	OFF A.1.En	Disabled Enabled		0 - 1	A.1.En
106	Air on 2 probe selection	OFF A.2.En	Disabled Enabled		0 - 1	A.2.En
107	Air off probe selection	OFF A.F.En	Disabled Enabled		0 - 1	A.F.En
108	Evaporator probe selection	OFF E.P.En	Disabled Enabled		0 - 1	E.P.En
109	Suction line probe selection	OFF S.L.En	Disabled Enabled		0 - 1	S.L.En
<b>CABINET 1 TEMPERATURE DATA (WELL CASE)</b>						
110	Estimated cabinet 1 temperature (calculated from items 111 and 112)					
111	Air on 1 temperature					
112	Air off temperature					
113	Evaporator temperature					
114	Suction line temperature					
115	Superheat (Evaporator temp - suction line temp)					
116	Average cabinet 1 temperature error					
117	Average Air off temperature error					
118	Current Air off temperature setpoint (calculated by controller)					
119	Current Evaporator temperature setpoint (calculated by controller)					
<b>CABINET 2 TEMPERATURE DATA (HGD CASE)</b>						
120	Estimated cabinet 2 temperature (calculated from items 121 and 122)					
121	Air on 2 temperature					
122	Air off temperature					
123	Evaporator temperature					
124	Suction line temperature					
125	Superheat (Evaporator temp - suction line temp)					
126	Average cabinet 2 temperature error					
127	Average Air off temperature error					
128	Current Air off temperature setpoint (calculated by controller)					
129	Current Evaporator temperature setpoint (calculated by controller)					
<b>LIGHTING CONTROL</b>						

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ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
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140	Select lighting control	OFF L.C.on	Off Lighting control function selected			
141	Lighting unit command	LU.Co  0	Lighting off command Clear			
142	Over ride input	OFF L.O.IP	No input Over ride input on			
143	Lights and blinds	on  L.OFF	Lights on and blinds up Lights off and blinds down			
<b>FORCING FUNCTIONS</b>						
Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.						
144	Force lights on	OFF L.on	Off Lights on		0 - 1	
145	Force lights off	OFF L.OFF	Off Lights off		0 - 1	
<b>LIGHTING CONTROL</b>						
146	Manual lights on	OFF	Not used			
147	Manual lights off	OFF	Not used			
148	Lighting contractor type selection (shown for lights-on state)	n.o n.c	normally open normally closed		0 - 1	n.c
150	Lighting override timer (time delay before lighting off/blinds close on manual control)		Not used		00:30 - 02:00	02:00
<b>DISPLAY PUSHBUTTONS</b>						
151	Display pushbutton 1 Status	OFF	Not used			
152	Display pushbutton 2 Status	OFF	Not used			

## BITSWITCH SETTINGS

4321

xxx**C** Frozen food  
xxx**O** Ice cream

where **C** = CLOSED or ON  
**O** = OPEN or OFF  
x = Don't care

Note 1: For unmarked switches  
C = dot visible  
O = dot not visible

Note 2: Setting the bitswitches alone has no effect.  
Use **ITEM 9** to set the default values after the switches are set.

DISPLAY DATA		LCNL
<b>NORMAL DISPLAY</b>		
- 99°	Cabinet temperature (item 110 or 120 rounded)	
dEF	Defrost	
dEFr	Defrost recovery	
--	Display data error	
<b>ALARM TEXT (in descending priority order)</b>		
t.SEn	All probes faulty, deselected or disconnected	
Ht	High cabinet temperature	
Hi.At	High air off temperature	
ISOL	Isolated (shutdown)	
<b>OTHER TEXT</b>		
JTL	Start-up text	