

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LCCS LCCP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
0	Unit type	LCCS, LCCP	Unit type			
1	Unit number				0.0 - 899.9	
2	Time of day				00:00 - 23:59	
3	Day of week	LCCS00 - LCCS01 (v0.00.0 - 0.00.1)				
					0 - 6 (0 = Sun)	
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 temperature (Coldstore temperature)					
22	Air off temperature					
23	Evaporator temperature					
24	Suction line temperature					
25	Superheat (Evaporator temp - suction line temp)					
<b>AVERAGE ERRORS</b>						
26	Average coldstore temperature error					

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<b>AUTOMATICALLY ADJUSTED SETPOINTS</b>						
28	Current Air off temperature setpoint (calculated by controller)					
29	Current Evaporator temperature setpoint (calculated by controller)					
<b>PRIMARY TEMPERATURE SETPOINTS</b>						
30	Coldstore temperature (Air on) setpoint (target for item 21)			xxCC xxCO xxOC xxOO	-30 to -12 -30 to -12 -5 to +10 -5 to +10	-20 -26 0 +4
32	Overtemperature alarm tolerance			xxCC xxCO xxOC xxOO	0 - 20 0 - 20 0 - 20 0 - 20	10 10 5 10
33	Door open alarm delay time				00:00 - 00:30	00:15
34	Time door presently open					
35	Total time door has been open in last 24 hours					
<b>PROBE SELECTION</b>						
36	Air on probe selection	OFF AO.En	Disabled Enabled		0 - 1	AO.En
37	Air off probe selection	OFF AF.En	Disabled Enabled		0 - 1	AF.En
38	Evaporator probe selection	OFF EP.En	Disabled Enabled		0 - 1	EP.En
39	Suction line probe selection	OFF SP.En	Disabled Enabled		0 - 1	SP.En
<b>DEFROST INFORMATION</b>						
40	Duration of last defrost					
41	Time since end of last defrost					
42	Duration of current defrost					
44	Duration of last power down					
45	Suction line or Comms initiated defrost selection	CU.In SL.In	Comms unit initiated Suction line temp initiated		0 - 1	SL.In
46	Comms unit initiated defrost command status	0 P.dEF F.dEF	No comms defrost Defrost command Forced defrost			

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<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				00:00 - 00:10	00:00
<b>DEFROST SETPOINTS</b>						
50	Defrost termination temperature (evaporator probe)			xxCC xxCO xxOC xxOO	0 - 30 0 - 30 0 - 30 0 - 30	20 20 15 20
57	Defrost termination time limit			xxCC xxCO xxOC xxOO	00:10 - 00:30 00:10 - 00:30 00:10 - 01:00 00:10 - 01:00	00:20 00:20 00:20 00:40
58	Defrost initiation temperature (suction line probe)			xxCC xxCO xxOC xxOO	-10 to +20 -10 to +20 +5 to +30 +5 to +30	10 10 15 15
59	Drain down time			xxCC xxCO xxOC xxOO	00:00-00:20 00:00-00:20 00:00-00:05 00:00-00:05	00:10 00:10 00:05 00:02
<b>MISCELLANEOUS SETTINGS</b>						
62	Communications controlled shutdown selection	LCCx04on (v0.00.4 on)				
		OFF Sh.dn	Disabled Enabled		0 - 1	0
63	Network command	LCCx04 on (v0.00.4 on)				
		run Sh.dn	Run Shutdown			
64	Door open refrigeration delay time			xxCC xxCO xxOC xxOO	00:00 - 00:15 00:00 - 00:15 00:00 - 00:30 00:00 - 00:30	00:05 00:05 00:00 00:00
66	Defrost input	LCCx04 on (v0.00.4 on)				
		OFF dF.IP	No input Input present			
68	Defrost valve type selection	LCCS01 (v0.00.1) only				
		no nc	Normally open Normally closed		0 - 1	no
69	Number of defrosts expected per day	0 1 - 6	Disable alarm 94 Alarm enabled		0 - 6	3

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<b>MODES, INPUTS AND OUTPUTS</b>						
70	Operating mode	rEFr dEFr dr.dn dF.rc	Refrig. Defrost Drain down Defrost recovery			
71	Door switch input	OFF dr.OP	Door closed Door open			
72	Pan heater relay	OFF Pn.Ht	Contacts open Contacts closed			
73	Fans relay	OFF Fn.on	Contacts open Contacts closed			
74	Defrost relay	up to LCCS03 (up to v0.00.3)				
		OFF dO.on	Contacts open Contacts closed			
		LCCx04 on (v0.00.4 on)				
		0 dt.on dc.on	OFF Termination output on Control output on			
75	Liquid solenoid relay	OFF LS.on	Off Demanding refriger.			
76	Defrost relay mode selection	d.tEr d.con	Termination mode Control mode		0 - 1	d.tEr
<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	Inhibit defrost	OFF no.dF	Off No defrosts		0 - 1	
79	Forced refrigeration	LCCx04 on (v0.00.4 on)				
		OFF Fr.on	Off Forced refrigeration		0 - 1	

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<b>INPUTS up to LCCS03 (up to v0.00.3)</b>						
79	Defrost input	OFF dF.IP	No input Input present			
<b>SYSTEM ALARMS</b>						
80	Group alarm 81 - 88	0 1 - 255	No alarms Check 81 - 88			
81	Coldstore (Air on) overtemperature	CLr AO.Ht	No fault Fault			
83	Air on probe fault	CLr AO.Pr	No fault Fault			
84	Air off probe fault	CLr AF.Pr	No fault Fault			
85	Thermistor power supply fault	CLr PS.Ft	No fault Fault			
86	Door open alarm	CLr dO.Ft	No fault Fault			
87	Unit shutdown by communications network command	LCCx04 on (v0.00.4 on)				
		CLr Sh.dn	No fault Shutdown			
88	All probes faulty, deselected or disconnected	CLr t.SEn	No fault Fault			
<b>MISCELLANEOUS DATA</b>						
89	Thermistor excitation value (Factory set)		Not used			
<b>SYSTEM ALARMS</b>						
90	Group alarm 91 - 98	0 1 - 255	No alarms Check 91 - 98			
92	Evaporator probe fault	CLr EP.Pr	No fault Fault			
93	Suction line probe fault	CLr SL.Pr	No fault Fault			
94	Expected defrosts have not been detected	CLr dEF.F	No fault Fault			
<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 TYPE SELECTION</b>						
102	Probe type selection	5000 2000	Tempkey Elm		0 - 1	5000
<b>DISPLAY PUSHBUTTONS LCCP04 on (v0.00.4 on)</b>						
121	Display pushbutton 1 Status	OFF P1.IP	Not pressed Button pressed			
122	Display pushbutton 2 Status	OFF P2.IP	Not pressed Button pressed			

**BITSWITCH SETTINGS**

4321  
 xxCC Frozen food  
 xxCO Ice cream

xxOC Chillers  
 xxOO Produce

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.

<b>DISPLAY DATA</b>		<b>LCCS LCCP</b>
<b>NORMAL DISPLAY</b>		
-99 <sup>c</sup>	Rounded coldstore temperature (item 21 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	
door	Door open alarm	
Ht	High coldstore (air on) temperature	
isoL	Isolated (Shutdown)	
A.on	Air on temperature follows this text	
A.oFF	Air off temperature follows this text	
EVAP	Evaporator temperature follows this text	
suct	Suction line temperature follows this text	
T.diF	Superheat temperature follows this text	
L.dEF	Time since last defrost follows this text	
<b>OTHER TEXT</b>		
JTL	Start-up text	