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JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	Lcic/LciP	Unit type			
19	Software Version number					
1	Unit number				0.1 - 899.8	
2. TEMPERATURES						
Note: From version 0.01.6 the temperatures can be displayed on the maintenance unit in degrees Celsius or Fahrenheit. The choice is made on item 122. All setpoint ranges in this document are shown in celsius.						
20	Estimated cabinet temperature (calculated from Air on and Air off temperatures)					
33	Cabinet temperature ratio (Item 20 calculated as value between Air off and Air on using this ratio)	up to v0.01.5				
				xxCC	20 - 80	50
				xxCO	20 - 80	50
				xxOC	20 - 80	40
		xxOO	20 - 80	60		
v0.01.6 on						
				xxCC	0 - 80	50
				xxCO	0 - 80	50
				xxOC	0 - 80	40
				xxOO	0 - 80	60
21	Air on temperature					
36	Air on sensor selection	OFF AO.En	Disabled Enabled		0 - 1	AO.En
22	Air off temperature					
37	Air off sensor selection	OFF AF.En	Disabled Enabled		0 - 1	AF.En
23	Evaporator temperature					
38	Evaporator sensor selection	OFF EP.En	Disabled Enabled		0 - 1	EP.En
24	Suction line temperature					
39	Suction line sensor selection	OFF SP.En	Disabled Enabled		0 - 1	SP.En
25	Superheat (Evaporator temp - suction line temp)					
141	Termination sensor temperature (v0.01.3 on)					
147	Termination sensor selection (v0.01.3 on)	OFF tS.En			0 - 1	OFF
131	Energy saving sensor temperature					
130	Energy saving sensor enabled	OFF E.S.En	OFF Enabled		0 - 1	OFF
247	Site temperature (from broadcast) (v0.01.9 on)					
248	Site humidity (from broadcast) (v0.01.9 on)					

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
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				4321		
122	Temperature display unit choice (v0.01.6 on)	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS
3. TEMPERATURE ALARMS						
26	Average cabinet temperature error					
27	Average Air off temperature error					
32	Cabinet overtemperature alarm tolerance	0.0	Disable Ht alarm (v0.00.3 on)	xxCC xxCO xxOC xxOO	0 - 20 0 - 20 0 - 20 0 - 20	10 10 5 10
34	Air off over temperature tolerance (v0.01.4 on)	0.0	Disable Ht alarm	xxCX xxOX	0 - 30 0 - 30	15 10
47	Period over which averages are taken			up to v0.00.7		
					00:30 - 03:00	01:00
				v0.00.8 on		
				xxCx xxOx	00:30 - 03:00	01:30 01:00

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE		CODE MEANING	RANGE	ITEM 9 VALUE
				4321		
4. TEMPERATURE CONTROL						
30	LCIC					
	Cabinet temperature setpoint (target for item 20)			xxCC xxCO xxOC xxOO	- 30 to -15 - 30 to -15 - 5 to +10 - 5 to +10	- 20 - 26 +1 +4
	LCIP					
	Current Cabinet temperature Setpoint (see items 123 to 127)					
123	Enable 2nd setpoint (LCIP only)	oFF E.2SP	Disabled Enabled		0 - 1	oFF
124	Cabinet temperature setpoint - primary (target for item 20) (LCIP only)			xxCC xxCO xxOC xxOO	-30 to -15 -30 to -15 -5 to +10 -5 to +10	-20 -26 +1 +4
125	Alternative cabinet temperature setpoint - secondary (LCIP only)			xxCC xxCO xxOC xxOO	-30 to -15 -30 to -15 0 to 10 0 to 10	-20 -26 5 10
126	Selected setpoint in operation (LCIP only)	Lo Hi	Main setpoint (item 124) Alternative setpoint (item 125)		0 - 1	Lo
31	Air off setpoint (starting point and lower limit for item 28)			xxCC xxCO xxOC xxOO	- 39 to -20 - 39 to -20 - 10 to +5 - 10 to +5	- 27 - 33 - 6 - 4
48	Max starts/hour (Anti-shortcycling timer when using liquid valve relay to control a condensing unit)	0 1 2 3	unLm 10.PH 15.PH 20.PH	Unlimited 10 starts per hour 15 starts per hour 20 starts per hour	0 - 3	unLm
28	Current Air off temperature setpoint (calculated by controller)					
29	Current Evaporator temperature setpoint (calculated by controller)					
240	Liquid line valve open percentage for last sample period (v0.01.8 on)					
241	Average liquid line valve open percentage over data logging interval period (v0.01.8 on)					

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
5. ELECTRONIC EXPANSION VALVE CONTROL						
Note: From version v0.01.4 pressures can be displayed on the maintenance unit in psi, bar or kPa. The choice is made on item 179. All setpoint ranges in this document are shown in psi. (Note: for electronic expansion valve [PEV] control, item 160 must be set on)						
5.1 OPERATIONAL SUPERHEAT						
161	Control strategy	2t Pt1	2 temperature Pressure transducer		1 - 2	Pt1
156	Operational Superheat (determined by strategy set on item 161)					
152	Suction line temperature					
151	Evaporator temperature					
155	Suction pressure (guage)					
158	Pressure transducer zero offset				up to version 0.00.5	
					-7.0 to +7.0	0.0
					v0.00.6	
					-10.0 to +10.0	0.0
159	Auto zero pressure transducer offset (v0.00.7 on)					
175	Pressure transducer type and load resistors (v0.00.6 on) LCIC only	0	nonE	None selected	v0.00.6 - 0.00.7	
		1	18 - 2	PTXV18 on 449	1 - 3	18 - 2
		2	18 - 1	PTXV18 on 250	v0.00.8 on	
		3	07 - 1	PTXV07 on 250	1 - 3	7 - 1
176	Pressure transducer location (v0.00.6 on) LCIC only	0 1 2 3	0 in undr Air	Feature not used In evaporator Under cabinet In ambient air	0 - 3	0
177	Pressure transducer calibration method Note: Auto zero adjustment is shown on item 159. Network zero adjustment is shown on item 206.	up to v0.01.5				
		off A.Pt.O	None Auto zero		0 - 1	off
		v0.01.6 on				
		0 1 2	nonE A.Pt.O nEt.A	None Auto zero Network adjustment	0 - 2	nonE
178	Rate of fall of superheat to trigger auto zero sequence (°C/min) (v0.00.7 on)				1.0 - 10.00	3.0
179	Pressure display unit choice (v0.01.4 on)	0 1 2 3	nonE PSI bAr PASC	Not selectable (kPa) p.s.i. bar kPa	0 - 3	PSI
157	Refrigerant type	0 1 2 3 4 5 6 7	nonE 22 502 404A 407A 407b 507A 408A	None R22 R502 R404A R407A R407B R507A R408A	Up to v0.00.7	
					0 - 6	22
					v0.00.8 on	
					1 - 6	22
					v0.01.4 on	

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
					1 - 7	404A
5.2 Jnet NETWORK AUTOMATIC PRESSURE TRANSDUCER CALIBRATION (v0.01.6 on)						
204	Unadjusted suction pressure					
205	Jnet network zero adjustment status	FroZ LiVE	Adjustment frozen Adjustment live			
206	Jnet network zero adjustment					
207	Average suction pressure over last hour at evaporator (defrosts are discounted)					
208	Average suction pressure from plant via network					
209	Suction line pressure drop			xxCx xxOx	0.0 - 10.0	4.0 6.0
154	Force average pressure to current pressure (v0.01.7 on)	CLr F.Av.P	Off Force pressure			

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
5.3 ELECTRONIC EXPANSION VALVE CONTROL DATA						
160	Select electronic expansion valve control	OFF E.C.En	OFF Electronic expansion valve control		0 - 1	OFF
168	Current opening % (PI x modifier) OR override)					
172	PI output (before modification)					
170	Valve control gain (proportional term)				1 - 100	20
171	Valve control time constant (integral term)	0 1 - 250	Integral disabled Time constant		0 - 250	20
162	Minimum Superheat (from v0.01.8 this applies to pressure control strategy only).			v0.00.4 and v0.00.6 on		
					0 - 10.0	6.0
				v0.005		
				xxCx xxOx	0 - 10.0 0 - 10.0	4.0 6.0
186	Minimum superheat for 2 temperature control (v0.01.8 on)			xxCx xxOx	0 - 5.0 0 - 5.0	4.0 3.0
163	Maximum Valve opening % (PI) NOTE DO NOT SET TO 100 ON V0.00.4 SOFTWARE				10 - 100	100
164	Minimum Valve opening % (PI) (From v0.01.8 this applies to pressure control only).			v0.00.4		
					0 - 50	10
				v0.00.5 - 0.00.7		
				xxCx xxOx	0 - 50 0 - 50	0 10
				v0.00.8 on		
	0 - 50	0				
187	Minimum valve opening % for 2 temperature control (v0.01.8 on)			xxCx xxOx	5 - 50 5 - 50	5 10
165	Pulsed valve period control	2 3.1 3 4.7 4 6.25 5 7.8 6 9.4	Pulse width period for valve (in seconds) (n/64 x 100 s) where n=setting		2 - 6	6.25
166	Forced Valve opening %				0 - 100	
167	Force valve shut	OFF F.Sht	Off Forced shut		0 - 1	
169	Current Valve status	OFF PE.on	Off On			
173	Maximum time at minimum output	00:00	Not used		00:00 - 00:10	00:05
174	High suction pressure shutdown selection (v0.00.5 on)	OFF Hp.on	Disabled Enabled		0 - 1	HP.on

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
5.4 ELECTRONIC EXPANSION VALVE OVERRIDE DATA						
180	Superheat override status	OFF Or.on	Off Override on			
181	Time since last override (in hr:mn)					
182	Duration of last override (in secs)					
183	Duration of this override (in secs)					
184	Accumulated override time (in secs)					
185	Time since output last modified by override (in hr:mn)					
5.5 ELECTRONIC EXPANSION VALVE MODIFIER DATA						
194	Average temperature error over past 5 mins					
190	Modifier value (%)					
191	Modifier error gain			v0.00.4		
					1 - 100	20
				v0.00.5 on		
				xxCx xxOx	1 - 100 1 - 100	10 20
192	Modifier error adjustment upper limit (%)				1 - 25	10
193	Time temperature above setpoint before modifier increased				00:01 - 00:20	00:05
195	Modifier increase time constant				1 - 100	10
196	Modifier integral term output					

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
6. INPUTS & OUTPUTS						
70	Operating mode	rEfr dEfr dF.rc dr.dn Li.Ho Pu.dn Sh.dn	Refrigeration Defrost Defrost recovery Drain down Liquid hold off Pump down Shutdown			
71	Inputs	0 IP-1 IP-2 Both	IP- - IP1 - IP- 2 IP12	No inputs Defrost input on Lighting override input on Both inputs on		
72	Defrost relay (function depends on item 75)	0 or oFF dt.on dc.on	Relay deenergised Defrost termination on Defrost control on			
73	Liquid solenoid relay	OFF LS.on	Off Demanding refrig.			
74	FANS/Heater relays	0 or oFF Fn.on Hr.on	Off Fans on Heater on			
75	Defrost relay mode selection	d.tEr d.Con	Defrost termination Defrost control	up to v0.01.4		
				0 - 1	d.tEr	
				v0.01.5 on		
				0 - 1	d.con	
106	Auxiliary output selection	0 1 2	nonE FAn.S Htr.S	Not used Fan control Heater	0 - 2	Not used

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
7. SUCTION PRESSURE OPTIMISATION (v0.01.4 on)						
200	Disable suction pressure optimisation for this unit when both air sensors are faulty	En.SO di.SO	Enable Disable		0 - 1	En.SO
201	Exclude evaporator from suction pressure optimisation (Data to network)	OFF in.SO	Off Inhibit from suction optimisation			
203	Related suction line from plant controls (Data from network)	0 or nonE Lt Ht SAt	Not selected Low temperature High temperature Satellite			
202	Raw network data for optimiser from plant (Binary data interpreted on item 203)					
211	Evaporator suction group - Required by Mark 2 optimisers (Data to network) (v0.01.9 on)	0 1 2 3	nonE Lt Ht SAt	Not selected Low temperature High temperature Satellite	0 - 3	nonE
70 (212)	Operating mode	rEFr dEFr dF.rc dr.dn Li.Ho Pu.dn Sh.dn	Refrigeration Defrost Defrost recovery Drain down Liquid hold off Pump down Shutdown			
217	Plant data to network (binary value interpreted on item 211) (v0.01.9 on)					

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
8. DEFROST CONTROL						
8.1 DATA & STRATEGIES						
40	Duration of last defrost					
41	Time since end of last defrost					
42	Duration of current defrost					
107 (411)	Defrost strategy	0	nonE	None	up to v0.01.4	
		1	SL.in	Suction initiated	0 - 4 0 - 4 0 - 4 0 - 4	SL.in
		2	n.i.L.b	Network initiated (learned backup)		SL.in
		3	rt.in	Internal clock initiated External clock		SL.in
		4	iP.in	initiated		rt.in
		5	nonE	Not used	v0.01.5 to v0.01.7	
		6	nonE	Not used	0 - 4	0
7	n.i.F.b	Network initiated (fixed schedule backup)	v0.01.8 on			
				0 - 7	0	
412	Current defrost initiation strategy in operation (v0.02.0 on)	nonE SL.in JnEt rt.in iP.in	None Suction initiated Jnet network initiated Internal clock initiated External clock initiated			
69	No of defrosts expected per day	0	Function disabled		0 - 6	3
		1 - 6 (up to v0.01.7) 1 - 12 (v0.01.8 on)	No of defrosts No of defrosts		0 - 12	3
61	Pump down time				00:00 - 00:10	00:00

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
8.2 REAL TIME INITIATED DEFROST TIMES						
When a 12 hour schedule is selected (item 60) the defrosts repeat on a 12 hour cycle ie., if 08:00 is selected then a 2nd defrost occurs at 20:00 (and vice versa)						
Daylight saving operation added from v0.01.6. Time and defrost schedule can be automatically displayed as standard time or daylight saving (summer) time if desired. When daylight saving is operational the displayed schedule is automatically adjusted so that defrost still occur at the same "standard time".						
51	Defrost time 1	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	xxCC xxCO xxOC xxOO	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	01:00 02:00 03:00 04:00
52	Defrost time 2	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	xxCC xxCO xxOC xxOO	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	07:00 08:00 09:00 10:00
53	Defrost time 3	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	xxCC xxCO xxOC xxOO	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	13:00 14:00 15:00 16:00
54	Defrost time 4	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	xxCC xxCO xxOC xxOO	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	19:00 20:00 21:00 22:00
55	Defrost time 5	00:00 00:01 - 23:59	Defrost disabled Defrost enabled		00:00 - 23:59	00:00
56	Defrost time 6	00:00 00:01 - 23:59	Defrost disabled Defrost enabled		00:00 - 23:59	00:00
60	Defrost schedule selection	24 hr 12 hr	24 hour schedule 12 hour schedule		0 - 1	24 hr
43	Time next defrost is due					
8.3 SUCTION INITIATED DEFROST						
58	Defrost initiation temperature (suction line sensor)			xxCC xxCO xxOC xxOO	-5 - +20 -5 - +20 0 - 20 0 - 20	0 0 +15 +10
8.4 CONTACT INITIATED DEFROST						
65	Invert defrost input	no YES	Input=defrost No input=defrost		0 - 1	no
8.5 Jnet NETWORK INITIATED DEFROST						
46 (215)	Jnet Network initiated defrost command status	P.dEF F.dEF 0 or nonE	Defrost Forced defrost No command			
261 to 272	Defrost schedule (12 times starting at item 261 through to 272) (v0.01.8 on)					

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
8.6 DEFROST METHOD DATA (v0.01.9 on) This information is for use by defrost schedulers							
211	Evaporator suction group	0 1 2 3	nonE Lt Ht SAT	Not selected Low temperature High temperature Satellite		0 - 3 nonE	
214 (414)	Defrost heater choice	0	rEd	Electric red phase		up to v0.01.9	
		1	YELL	Electric yellow phase		0 - 3	rEd
		2	bLuE	Electric blue phase			v0.02.0 on
		3	3 - Ph	Electric 3 phase		0 - 6	rEd
4	GAS.2	2 pipe gas					
5	GAS.3	3 pipe gas					
6	oFF.C	Off cycle					
213	Electric circuit choice (depends on item 214)	0	nonE	Not electric		up to v0.01.9	
		1	cct1	Circuit 1		0 - 7	None
		2	cct2	Circuit 2			
		3	cct3	Circuit 3			
		4	cct4	Circuit 4			
5	cct5	Circuit 5					
6	cct6	Circuit 6			1 - 7	cct1	
7	cct7	Circuit 7					
217	Evaporator data to plant						
219	Jnet network defrost arrangement	nonE cord dEF.S PrEd	None Defrost co-ordinator present on network Timed defrost scheduler present on network Predict co-ordinator present on network				

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
8.7 DEFROST TERMINATION							
35	Defrost termination sensor selection (choice moved to item 144) (up to v0.01.2)	OFF E.C.En	Air off sensor Evaporator		0 - 1	OFF	
144 (413)	Termination method selection (v0.01.3 on)	1	EuAP	Evaporator sensor	xxCX	1 - 4	EuAP
		2	A.OFF	Air off sensor	xxOC		
		3	tEr	Termination sensor			
		4	tot	Time only	xxOO	1 - 4	tot
141	Termination sensor temperature (v0.01.3 on)						
147	Termination sensor selection (v0.01.3 on)	OFF tS.En	Disabled Enabled		0 - 1	OFF	
50	Defrost termination temperature (the sensor used is available on item 144 or 35)			xxCC xxCO xxOC xxOO	0 - 20 0 - 20 0 - 20 0 - 20	15 15 12 20	
145	Minimum defrost duration (Defrost heater cycles on termination temperature (item 50) as required during this time)				00:00 - 00:30	00:10	
57	Maximum defrost duration			xxCC xxCO xxOC xxOO	00:05 - 00:40 00:05 - 00:40 00:05 - 00:59 00:05 - 00:59	00:20 00:20 00:20 00:40	
59	Drain down duration				00:00 - 00:10	00:05	
49	Liquid hold off duration (starts when drain down completed)				00:00 - 00:10	00:00	
8.8 DEFROST FORCING FUNCTIONS							
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 (Note from v0.01.0 on, when item 107 is indicating Jnet network initiated defrost then forced defrost sends the command to the plant for action. It is NOT actioned locally)	OFF Fd.on	Off Forced defrost on		0 - 1		
78	Inhibit defrost	OFF no.dF	Off No defrosts		0 - 1		
79	Forced refrigeration	OFF Fr.on	Off Forced refrigeration		0 - 1		

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
9. FAN CONTROL						
108	Fan control (106 must be set to FAn.S)	1 2	F.on F.oFF	Fan runs always Fan off during defrost		1 - 2 F.on
109	Fan delay after defrost (v0.01.5 on)	00:00		Fans cycle on evap temperature		00:00 - 00:10 00:00
130	Fan control sensor enabled	OFF E.S.En	OFF enabled			0 - 1 OFF
131	Fan control sensor temperature					
132	Fan control setpoint			xxCC xxCO xxOC xxOO	-30 to -15 -30 to -15 -5 to +8 -5 to +8	-25.0 -30.0 0.0 2.0
10. Jnet NETWORK LIGHTING CONTROL						
Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.						
110	Select Jnet network lighting control	OFF LC.on	off Lighting control function selected			0 - 1 LC.on
113	Lights and blinds	on L.OFF	Lights on and blinds up Lights off and blinds down			
111	Jnet network lighting unit network command	LU.Co 0 or nonE	Lighting off command No command			
112	Over ride input	OFF L.O.IP	No input Over ride input on			
118	Lighting contactor type selection (shown for lights-on state)	n.o n.c	normally open normally closed			0 - 1 n.c
119	Lights off during shutdown selection (v0.01.4 on)	OFF En.LS	Off Lights off during shutdown			0 - 1 Off
120	Lighting override timer (time delay before lighting off/blinds close on network control)					00:30 - 02:00 02:00
116	Manual lights on	OFF P.on	OFF Lights on			
117	Manual lights off	OFF P.off	OFF Lights off			
114	Force lights on	OFF L.on	Off Lights on			0 - 1
115	Force lights off	OFF L.OFF	Off Lights off			0 - 1





JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
11. Jnet COMMAND FUNCTIONS							
62	Jnet network controlled Shutdown selection	oFF Sh.dn	Disabled Enabled		0 - 1	oFF	
63	Jnet network command for shutdown	nonE Sh.dn FAn.S	No command Shutdown Fans only shutdown				
133	Enable plant to override temperature control and run refrigeration regardless of the temperature setpoint	Off nrc.E	Disabled Enabled		0 - 1	Off	
134	Enable Jnet network command to cut off refrigeration in event of plant fault	Off	Disabled		0 - 1	Off	
135	Display Jnet network commands	nonE O.S.df PL.Ft P.C.Ft	No command Other associated systems on defrost Plant fault Plant comms fault				
12. DISPLAY FUNCTIONS							
129	Display type selection (v0.01.6 on)	2 3	Lcd.1	LCD1-7 types LCD8 type		2 - 3	up to v0.01.8
			Lcd.8				Lcd.1
							v0.01.9 on
							Lcd.8
122	Temperature display unit choice (v0.01.6 on)	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS	
136	Enable fans only operation from display pushbuttons (v0.01.4 on)	Off E.d.Fo	Disable Enable		0 - 1	Off	
137	Controller state (v0.01.4 on)	run FAn.O	Operational Fans only				
138	Enable Shutdown from display pushbuttons	OFF E.d.Sd	disable Enable		0 - 1	Off	
139	Controller State	run OFF	Operational Shutdown				
121	Display pushbutton status	OFF	Pb- -	OFF			
		P1.IP	Pb1 -	Button 1 pressed			
		v0.01.5 on					
		P2.IP both	Pb- 2 Pb12	Button 2 pressed Both buttons pressed			
122	Display pushbutton 2 status (up to v0.01.4)	OFF P2.IP	Off Button 2 pressed				

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
13. CLOCK CALENDAR						
Note from version 0.01.6, the time and date can be displayed as standard or daylight saving (summer) time. This choice is made on item 18. When daylight saving is chosen and the controller is connected to a JTL Network Controller supporting daylight saving operation, the change is made automatically to the current EU directive.						
2	Time of day				00:00 - 23:59	
3	Day of week (v0.01.6 on)	Sun - Sat	0 = Sunday 1 = Monday etc			
4	Date (v0.01.6 on)				01:01 - 31:12	
5	Year (v0.01.6 on)				1992 - 2022	
18	Daylight saving enable (v0.01.6 on)	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
14. RESTORE FACTORY DEFAULTS						
To set the factory defaults into the memory of the controller, first set the bitswitches as shown, then set item 9 to the set default value of "1234". This should be done on initial commissioning of the unit or when the unit is being installed as a replacement part.						
9	Set default values selected by Bitswitch Note: Setting the bitswitches alone has no effect.	1	Set default value (up to v0.01.5)	xxCC xxCO xxOC xxOO	Frozen food Ice cream Chiller Produce (off cycle)	
		1234	Set default values (v0.01.6 on)			
		1066	Write to NVRAM without delay (v0.01.7 on)			
					where C = CLOSED or ON O = OPEN or OFF x = Don't care For unmarked switches C = dot visible O = dot not visible	

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
15. SYSTEM ALARMS						
80	Group alarm 81 - 88	0 1 - 255	No alarms Check 81 - 88			
81	Cabinet overtemperature	CLr C.Ht	No fault Fault			
82	Air off overtemperature	CLr A.Ht	No fault Fault			
83	Air on sensor fault	CLr AO.Pr	No fault Fault			
84	Air off sensor fault	CLr AF.Pr	No fault Fault			
85	Sensor power supply fault	CLr PS.Ft	No fault Fault			
87	Shutdown alarm	CLr Sh.dn	No fault Fault			
88	All sensors faulty, deselected or disconnected	CLr t.SEn	No fault Fault			
90	Group alarm 91 - 98	0 1 - 255	No alarms Check 91 - 98			
91	Termination sensor fault	CLr dt.Pr	No fault Fault			
92	Evaporator sensor fault	CLr EP.Pr	No fault Fault			
93	Suction line sensor fault	CLr SL.Pr	No fault Fault			
94	Expected defrosts have not been detected	CLr dEF.F	No fault Fault			
96	Energy saving sensor fault	CLr E.S.Pr	No fault Fault			
97	Excessive Superheat fault (v0.01.2 on)	CLr Hi.Sh	No fault Fault			
98	Pressure Transducer fault (v0.00.8 on)	CLr Pt.FL	No fault Fault			
250	Group alarms 251 - 258 (v0.01.4 on)	0 1 - 255	No alarms Check 251 - 258			
251	Forced defrost activated (v0.01.4 on)	CLr F.dEF	No fault Forced defrost			
252	Network communications failure (v0.01.8 on)	CLr FAIL	No fault Comms failure			
258	Backup defrost strategy in operation (v0.01.4 on)	CLr d.bAc	No fault Backup defrost			

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE		CODE MEANING	RANGE	ITEM 9 VALUE
				4321		
16. DIAGNOSTIC & TEST FUNCTIONS						
44	Power off duration					
6	Communications speed (in kilo baud)	4.8 38.4		Baud rate Baud rate		
7	Communications (Half duplex)	HALF		2 wire		
8	Bitswitch setting	0 1 2 3		Frozen food Ice cream Chiller Produce (off cycle)	xxCC xxCO xxOC xxOO	
89	Sensor excitation value (Factory test)			Not used		
99	Test digital display	CLr SEt		Not active Test active	0 - 1	
100	Test inputs (v0.01.9 on)	iP - - iP1 - iP - 2 iP12		No inputs Input 1 on Input 2 on Both inputs on		
101	Test output relays (v0.01.5 on)	CLr SEt		Not active Test active	0 - 1	
121	Display pushbutton status (v0.01.5 on)	P2.iP both	Pb- 2 Pb12	Button 2 pressed Both buttons pressed		
421	Temperature sensor 1 reading (v0.02.0 on)					
422	Temperature sensor 2 reading (v0.02.0 on)					
423	Temperature sensor 3 reading (v0.02.0 on)					
424	Temperature sensor 4 reading (v0.02.0 on)					
425	Temperature sensor 5 reading (v0.02.0 on)					
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		
204	Latest polling interval (v0.01.4 - 0.01.5)	min:sec				

JTL CABINET CONTROLLER ITEM NUMBERS					LCIC/LCIP	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
205	Time since last awake message (v0.01.3 - 0.01.5)	min:sec				
206	Jnet network receive timer (v0.01.4 - 0.01.5)	seconds	(counts down to zero)			
207	Jnet network receive bad character counter (v0.01.3 - 0.01.5)		(counts down to zero)			

DISPLAY DATA		LCIC, LCIP
GRAPHICS DISPLAY		
	Fans running	
	Defrost recovery	
	Defrost	
	Fault condition	
NORMAL DISPLAY		
- 99°	Cabinet temperature (item 20 rounded)	
dEF	Defrost	
dEFr	Defrost recovery	
Off	Unit Shutdown or fans only mode (indicated by fan symbol)	
FAnS	Fans only mode	
--	Display data error	
ALARM TEXT (in descending priority order)		
t.SEn	All sensors faulty, deselected or disconnected	
Ht	High cabinet or air off temperature	
ISOL	Unit shutdown	
OTHER TEXT		
JTL	Start-up text	
LitE	Lighting selection status follows this text	
StAt	Cabinet status selection follows this text	
t.SEL	Temperature setpoint selection follows this text	
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	
FAn.C	Energy saving temperature follows this text	
T.diF or S-Ht	Superheat temperature follows this text	
L.dEF	Time since last defrost follows this text	
n.dEF	Time of next defrost follows this text	
SEt.P	Cabinet temperature setpoint follows this text	