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JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>1. Jnet NETWORK IDENTIFICATION</b>						
0	Unit type	LAPI	Unit type			
19	Software Version number					
1	Unit number				0.1 - 899.8	
<b>2. TEMPERATURES</b>						
Note: 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)			xxCC xxCO xxOC xxOO	0 - 80 0 - 80 0 - 80 0 - 80	50 50 40 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					
147	Termination sensor selection	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)					
248	Site relative humidity (from broadcast)					
246	Site absolute humidity (from broadcast)					
122	Temperature display unit choice	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>3. TEMPERATURE ALARMS</b>						
26	Average cabinet temperature error					
32	Cabinet overtemperature alarm tolerance	0.0	Disable Ht alarm	xxCC xxCO xxOC xxOO	0 - 20 0 - 20 0 - 20 0 - 20	10 10 5 10
27(431)	Average Air off temperature error					
34	Air off over temperature tolerance	0.0	Disable Ht alarm	xxCX xxOX	0 - 30 0 - 30	15 10
47	Period over which averages are taken			xxCx xxOx	00:30 - 03:00	01:30 01:00
<b>4. TEMPERATURE CONTROL</b>						
275	Control temperature ( from v0.00.5 on ) Note: upto v0.00.4 control is on air off	1 A.oFF 2 CAb.t	Air off Cabinet		0 - 1	Cab.t
30	Current Cabinet temperature Setpoint (see items 123 to 127)					
123	Enable 2nd setpoint	oFF E.2SP	Disabled Enabled		0 - 1	oFF
124	Cabinet temperature setpoint - primary (target for item 20)			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			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	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
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					
241	Average liquid line valve open percentage over data logging interval period					

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
<b>5. ELECTRONIC EXPANSION VALVE CONTROL</b>							
Note: 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.							
<b>5.1 OPERATIONAL SUPERHEAT</b>							
161	Superheat measurement method	1 2	2t Pt1	2 temperature Pressure transducer		1 - 2  Pt1	
156	Operational Superheat (determined by method set on item 161)						
152	Suction line temperature						
151	Evaporator temperature						
155	Suction pressure (guage)						
158	Pressure transducer zero offset				-10.0 to +10.0	0.0	
159	Auto zero pressure transducer offset						
175	Pressure transducer type (v0.00.2 on)	3 4	07 34	PTXV07 PTXV34	xxCC xxCo xxOx	3 - 4 3 - 4 3 only  34 07 07	
177	Pressure transducer calibration method  Note: Auto zero adjustment is shown on item 159. Network zero adjustment is shown on item 206.	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)					1.0 - 10.00  3.0	
179	Pressure display unit choice	0 1 2 3	nonE PSI bAr PASC	Not selectable (kPa) p.s.i. bar kPa		0 - 3  PSI	
157	Refrigerant type	3	404A	R404A	xxCC	3-9	744
		4	407A	R407A			
		5	407b	R407B	xxCO	3-9	407A
		6	507A	R507A			
		7	408A	R408A			
		8		not used	xxOx	3-7	407A
		9	744	R744 (CO2)			

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>5.2 Jnet NETWORK AUTOMATIC PRESSURE TRANSDUCER CALIBRATION</b>						
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	CLr F.Av.P	Off Force pressure			

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
<b>5.3 ELECTRONIC EXPANSION VALVE CONTROL DATA</b>							
188	Superheat control strategy	up to v0.00.4					
		0	OFF	SUCCEEDS (Floating)		0 - 1	En.SL
		1	En.SL	Enable upper limit			
		from v0.00.5					
		0	Succ	SUCCEEDS (Floating)	xxCx	0 - 2	Succ
		1	Suc.L	Enable upper limit			
		2	F-SH	Fixed superheat	xxOx	0 - 2	F-SH
189	Superheat setpoint (for fixed and upper limit depending on item 188)	upto v0.00.4					
						6 - 12	8
		from v0.00.5					
						4 - 12	6
140	Temperature deadband (v0.00.5 on) Note: for use with fixed and limited superheat strategies	0.4 - 3.0					
		up to v0.00.7					
		0.4					
		from v0.00.8					
		2.0					
168	Current opening % (PI x modifier) OR override						
172	PI output (before modification)						
277	Proportional output (v0.00.7 on)						
278	Integral output (v0.00.6)						
170	Valve control gain (proportional term)	up to v0.00.7					
						1 - 100	20
		from v0.00.8					
					xxCx	1 - 100	20
			xxOx	1 - 100	5		
171	Valve control time constant (integral term)	up to v0.00.7					
		0		Integral disabled		0 - 250	25
		1 - 250		Time constant			
		from v0.00.8					
			xxCx	0 - 250	25		
			xxOx	0 - 250	100		
162	Minimum Superheat for pressure control strategy	up to v0.00.7					
						0 - 10.0	6.0
		from v0.00.8					
					xxCx	0 - 10	6.0
			xxOx	0 - 10	3.0		
186	Minimum superheat for 2 temperature control strategy	xxCx					
						0 - 5.0	4.0
		xxOx					
						0 - 5.0	3.0

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
163	Maximum Valve opening % (PI)				10 - 100	100
164	Minimum Valve opening % (PI) for pressure control strategy				0 - 50	0
187	Minimum valve opening % for 2 temperature control strategy			xxCx xxOx	5 - 50 5 - 50	5 10
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	OFF Hp.on	Disabled Enabled		0 - 1	HP.on
<b>5.4 ELECTRONIC EXPANSION VALVE OVERRIDE DATA</b>						
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)					
243	PREDICT override current average					
<b>5.5 ELECTRONIC EXPANSION VALVE MODIFIER DATA</b>						
194	Average temperature error over past 5 mins					
190	Modifier value (%)					
191	Modifier error gain			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	00:02
195	Modifier increase time constant				1 - 100	10
196	Modifier integral term output					

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>6. INPUTS &amp; OUTPUTS</b>						
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	IP- - IP1 - IP- 2 IP12	No inputs Shutdown Lighting override Both inputs on			
273	Enable input IP1 to override PEV control	OFF En.PO	Off Enable PEV override		0 - 1	En.PO
274	PEV override input state	OFF P.O.On	Off PEV override on			
72	Defrost relay	oFF dc.on	Relay deenergised Defrost control on			
74	Fans/Heater relays	oFF Fn.on Hr.on	Off Fans on Heater on			
395	Trim heater relay	oFF th.on	Off Trim heater on			
106	Auxiliary output selection	0 1 2	nonE FAn.S Htr.S		0 - 2	FAn.S
<b>7. SUCTION PRESSURE OPTIMISATION</b>						
200	Disable suction pressure optimisation for this unit	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 optimisation			
203	Related suction line from plant controls (Data from network)	nonE Lt Ht SAt	Not selected Low temperature High temperature Satellite			
202	Raw network data for optimiser from plant (Data interpreted on item 203)					
211	Evaporator suction group - Required by Mark 2 optimisers (Data to network)	0 1 2 3	nonE Lt Ht SAt		0 - 3	nonE
212	Operating mode	rEFr dEFr dF.rc dr.dn Li.Ho Pu.dn Sh.dn	Refrigeration Defrost Defrost recovery Frain down Liquid hold off Pump down Shutdown			
217	Plant data to network (binary value interpreted on item 211)					



JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>8.2 REAL TIME INITIATED DEFROST TIMES</b>						
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)						
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					
<b>8.3 Jnet NETWORK INITIATED DEFROST</b>						
46 (215)	Jnet Network initiated defrost command status	P.dEF F.dEF nonE	Defrost Forced defrost No command			
261 to 272	Defrost schedule (12 times starting at item 261 through to 272)					

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>8.4 COORDINATED DEFROST INITIATION</b> This information is for use by defrost schedulers						
69	No of defrosts required per day (Note, when the defrost strategy is set to PREDICT operation, this item is not available. When the defrost strategy is set to coordinated defrost this item sets the number of defrosts a day that are required.)	0 1 - 12	Function disabled No of defrosts		0 - 12	3
224	Time since the start of last defrost					
216	Defrost requirement to defrost coordinator					
223	Defrost requirement priority				1 - 8	1
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 1 2 3 4 5 6	rEd YELL bLuE 3 - Ph oFF.C	Electric red phase Electric yellow phase Electric blue phase Electric 3 phase Not used Not used Off cycle		0 - 6 rEd
213	Electric circuit choice (depends on item 214)	1 2 3 4 5 6 7	cct1 cct2 cct3 cct4 cct5 cct6 cct7	Circuit 1 Circuit 2 Circuit 3 Circuit 4 Circuit 5 Circuit 6 Circuit 7		1 - 7 1
215 (46)	Jnet network initiated defrost command status (repeats item 46)	P.dEF F.dEF nonE	Defrost Forced defrost No command			
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			
220	Defrost coordinator status	oFF cord	No defrost coordinator Defrost coordinator present on network			

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
<b>8.5 JTL PREDICT DEFROST INITIATION</b>							
225	Minimum time between defrosts (hours)				2 - 8	6	
226	Maximum time between defrosts (hours)				6 - 72	24	
242	PREDICT initiation override level (%)				0 - 100	25	
243	PREDICT override current average						
<b>8.6 DEFROST TERMINATION</b>							
144	Termination method selection	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						
147	Termination sensor selection	OFF ts.En	Disabled Enabled		0 - 1	OFF	
50	Defrost termination temperature (the sensor used is available on item 144)			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	
<b>8.7 DEFROST 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 (Note, when item 412 is indicating Jnet network initiated defrost. 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		
222	Enable forced defrost requirement to defrost coordinator	oFF F.r.En	Disabled Enabled		0 - 1	0	
221	Forced defrost requirement to defrost coordinator (requires item 222 set to 1)	0 - 63	Forced value				

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI									
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE								
				4321										
<b>9. FAN CONTROL</b>														
108	Fan control (106 must be set to FAn.S)	1 2 3	F.on F.oFF F.c.d.d	Fan runs always Fan off during defrost Fan controlled during defrost	up to v0.00.7									
						1 - 3	F.on							
					from v0.00.8									
					xxCx xxOx	1 - 3 1 - 3	F.oFF F.on							
146	Temperature to turn fan off during defrost. Depends on item 108				xxCx xxOx	-12.0 to -2.0 0.0 to 20.0	-7.0 10.0							
109	Fan delay after defrost	00:00	Fans cycle on evap temperature			00:00 - 00:10	00:00							
150	Temperature to bring fan on after defrost. Depends on item 108				xxCx xxOx	-20.0 to -10.0 -5.0 to 5.0	-15.0 0.0							
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							
<b>10. TRIM HEATER CONTROL</b>														
390	Control strategy	1 2 3 4 5	nonE oFF 24hr trad nEt.A	No control Off when isolated Fixed adjustment Fixed with non- trading adjustment Network adjustment		1 - 5	oFF							
								391	Actual output (% of full power)					
								392	Fixed output. Used for strategy 3 and as a base for strategies 4 & 5.				0 - 100%	50%
								393	Non-trading hours adjustment				0 - 100%	75%
								394	Network delivered adjustment					
395	Trim heater relay	oFF th.on	Off Trim heater on											





JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>11. Jnet NETWORK LIGHTING CONTROL</b>						
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 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	OFF En.L.S	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	
<b>12. Jnet COMMAND FUNCTIONS</b>						
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	Jnet network commands	nonE O.S.df  PL.Ft P.C.Ft	No command Other associated systems on defrost Plant fault Plant comms fault			

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>13. DISPLAY FUNCTIONS</b>						
122	Temperature display unit choice	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS
136	Enable fans only operation from display switch	Off E.d.Fo	Disable Enable		0 - 1	E.d.Fo
137	Controller state	run FAn.O	Operational Fans only			
138	Enable Shutdown from display switch	OFF E.d.Sd	disable Enable		0 - 1	Off
139	Controller State	run OFF	Operational Shutdown			
121	Display switch status	Si - - Si1 - Si- 2 Si12	OFF Position 1 Position 2 Both			
<b>14. CLOCK CALENDAR</b>						
Note, 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	Sun - Sat	0 = Sunday 1 = Monday etc			
4	Date				01:01 - 31:12	
5	Year				2004-2034	
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
<b>15. RESTORE FACTORY DEFAULTS</b>						
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.	1234	Set default values	xxCC xxCO	Frozen food (CO2) Frozen Food (HFC)	
		1066	Write to NVRAM without delay	xxOC xxOO	Chiller (HFC) Produce (HFC)  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					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>16. SYSTEM ALARMS</b>						
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			
86	Plant alarm (v0.00.8 on)	CLr AL.iP	No fault Plant alarm			
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 (Note, This alarm normally depends on the setting in item 69. When the defrost initiation strategy is set to PREDICT the alarm occurs 3 hours after the defrost requirement has been set when no defrost has occurred).	CLr dEF.F	No fault Fault			
96	Energy saving sensor fault	CLr E.S.Pr	No fault Fault			
97	Excessive Superheat fault	CLr Hi.Sh	No fault Fault			
98	Pressure transducer fault	CLr Pt.FL	No fault Fault			
250	Group alarms 251 - 258	0 1 - 255	No alarms Check 251 - 258			
251	Forced defrost activated	CLr F.dEF	No fault Forced defrost			
252	Network communications failure	CLr FAIL	No fault Comms failure			
258	Backup defrost strategy in operation	CLr d.bAc	No fault Backup defrost			

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>17. DIAGNOSTIC &amp; TEST FUNCTIONS</b>						
44	Power off duration					
6	Communications speed (in kilo baud)	4.8	Baud rate			
7	Communications (Half duplex)	HALF	2 wire			
973	Latest polling interval  This time shows the polling interval between the last two successful network awake messages to this unit.	min:sec				
974	Time since last awake message	min:sec				
975	Network receive timer  Each time a message is read correctly the timer is set to 10 it counts down. If the timer reaches 0 then the communications module is reset.	seconds	(counts down to 0)			
976	Network receive bad character counter  The counter counts down from a preset number. When the counter reaches 0 the communications module is reset.		(counts down to 0)			
977	Transmit control line status for the operation of the Jnet network communications.	Hi Lo	Transmit Receive			
8	Bitswitch setting	0 1 2 3	Frozen food (CO2) Frozen food 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	iP - - iP1 - iP - 2 iP12	No inputs Input 1 on Input 2 on Both inputs on			
101	Test output relays	Clr SEt	Not active Test active		0 - 1	
121	Display switch status	Si - - Si1 - Si- 2 Si12	OFF Position 1 Position 2 Both			
421	Temperature sensor 1 reading					
422	Temperature sensor 2 reading					
423	Temperature sensor 3 reading					
424	Temperature sensor 4 reading					
425	Temperature sensor 5 reading					
204	Unadjusted suction pressure					

JTL CABINET CONTROLLER ITEM NUMBERS					LAPI	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
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>DISPLAY DATA</b>		<b>LAPI</b>
	Fans running	
	Defrost recovery	
	Defrost	
	Fault condition	
- 99°	Cabinet temperature (item 20 rounded)	
dEF	Defrost & defrost recovery	
Off	Unit Shutdown or fans only mode (indicated by fan symbol)	
--	Display data error	
<b>ALARM TEXT (in descending priority order)</b>		
SEn	All sensors faulty, deselected or disconnected	
Ht	High cabinet temperature	
AL.IP	Plant alarm	
<b>OTHER TEXT</b>		
JtL	Start-up text	
Lo	Switched to primary setpoint	
Hi	Switched to secondary setpoint	