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JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	LACI	Unit type			
19	Software Version number					
1	Unit number				0.1 - 899.8	
2. TEMPERATURES						
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	Coldroom temperature					
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
247	Site temperature (from broadcast)					
248	Site humidity (from broadcast)					
122	Temperature display unit choice	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS
3. TEMPERATURE ALARMS						
127	High temperature alarm inhibited selection	OFF A.inh	Alarms enabled always Alarms inhibited during defrost		0 - 1	OFF
26	Average coldstore temperature error					
32	Coldstore overtemperature alarm tolerance	0.0	Disable Ht alarm	0 (CC) 1 (CO) 2 (OC) 3 (OO)	0 - 20 0 - 20 0 - 20 0 - 20	10 10 5 10
47	Period over which averages are taken				00:30 - 03:00	02:00

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
4. TEMPERATURE CONTROL						
67	Isolate coldroom	run ISOL	Normal operation Coldroom isolated		0 - 1	run
275	Control temperature (from v0.00.3 on) Note: upto v0.00.2 control is on air off	0 1	A.OFF Cr.t	Air off Coldroom		0 - 1 Cr.t
30	Coldstore temperature setpoint (target for item 21)			0 (CC) 1 (CO) 2 (OC) 3 (OO)	- 30 to -12 - 30 to -12 - 5 to +25 - 5 to +25	- 20 - 26 0 +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 COLDSTORE CONTROLLER ITEM NUMBERS						LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE	
5. ELECTRONIC EXPANSION VALVE CONTROL							
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. (Note: for electronic expansion valve [PEV] control, item 160 must be set on)							
5.1 OPERATIONAL SUPERHEAT							
161	Superheat measurement method	1 2	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 v0.00.9					
						-10.0 to +10.0	0.0
		from v0.01.0					
		0, 1 (Cx) 2, 3 (Ox)				-20.0 to +20.0 -10.0 to +10.0	0.0
159	Auto zero pressure transducer offset						
175	Pressure transducer type (v0.00.1 on)	3 4	07 34	PTXV07 PTXV34	0 (CC) 1 (CO) 2, 3 (Ox)	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	up to v0.01.0					
		0, 1 (Cx)				3 - 9	744
		2, 3 (Ox)				3 - 7	407A
		from v0.01.0					
		0 (CC)				1 - 9	744
		1 (CO)				1 - 9	407A
		2, 3 (Ox)				1 - 7	407A

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI		
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE	
5.2 Jnet NETWORK AUTOMATIC PRESSURE TRANSDUCER CALIBRATION							
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			0, 1 (Cx) 2, 3 (Ox)	0.0 - 10.0	4.0 6.0	
154	Force average pressure to current pressure	CLr F.Av.P	Off Force pressure				
5.3 ELECTRONIC EXPANSION VALVE CONTROL DATA							
188	Superheat control strategy	up to v0.00.2					
		0	OFF	SUCCEEDS (Floating)		0 - 1	succ
		1	En.SL	Enable upper limit			
		from v0.00.3					
0	Succ	SUCCEEDS (Floating)	0, 1 (Cx)	0 - 2	Succ		
1	Suc.L	Enable upper limit					
2	F-SH	Fixed superheat	2, 3 (Ox)	0 - 2	F-SH		
189	Superheat setpoint (for fixed and upper limit depending on item 188)	upto v0.00.9					
		4 - 8	6				
		from v0.01.0					
		4 - 12	6				
140	Temperature deadband (v0.00.3 on) Note: for use with fixed and limited superheat strategies				0.4 - 3.0	0.4	
278	Temperature control error (v0.00.9 on)						
168	Current opening % (PI x modifier) OR override)						
172	PI output (before modification)						
277	Proportional output (v0.00.5 on)						
276	Integral output (v0.00.4)						
170	Valve control gain (proportional term)	upto v0.00.3					
		1 - 100	20				
		from v0.00.4					
0 - 100	20						
171	Valve control time constant (integral term)	0 1 - 250	Integral disabled Time constant		0 - 250	25	

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
162	Minimum Superheat for control strategy				0 - 10.0	6.0
186	Minimum superheat for 2 temperature control			0, 1 (Cx) 2, 3 (Ox)	0 - 5.0 0 - 5.0	4.0 3.0
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			0, 1 (Cx) 2, 3 (Ox)	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
5.4 ELECTRONIC EXPANSION VALVE LOW SUPERHEAT STATE DETECTION DATA						
180	Low superheat status	OFF Or.on	Off Low superheat			
181	Time since last low superheat state (in hr:mn)					
182	Duration of last low superheat state (in secs)					
183	Duration of current low superheat state (in secs)					
184	Accumulated low superheat state time (in secs)					
243	PREDICT low superheat state current average (%)					

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
5.5 ELECTRONIC EXPANSION VALVE AUTOMATIC CONTROL MODIFICATION DATA						
185	Time since output last modified by low superheat state (in hr:mn)					
194	Average temperature error over past 5 mins					
190	Modifier value (%)					
191	Modifier error gain			0, 1 (Cx)	1 - 100	10
				2, 3 (Ox)	1 - 100	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					
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			
273	Enable input IP1 to override PEV control	OFF En.PO	Off Enable PEV override		0 - 1	En.PO
274	PEV override input state (input 1)	OFF P.O.On	Off PEV override on			
139	Input 2 state (input 2) (v0.00.8 on)	OFF trAP door	No input Man trapped door open			
138	Input 2 function selection (v0.01.1 on)	3 4	tr.iP door Man trapped input Door input		3 - 4	tr.iP
72	Defrost relay (function depends on item 75)	oFF dc.on	Relay deenergised Defrost control on			274
74	Auxiliary heater and fan relays (RL1 & RL2)	oFF Fn.on Hr.on Both	Off Fans on Heater on Both on			

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
7. SUCTION PRESSURE OPTIMISATION						
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 from suction 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 (Binary 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	Not selected Low temperature High temperature Satellite	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 COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
8. DEFROST CONTROL						
8.1 DATA & STRATEGIES						
40	Duration of last defrost					
41	Time since end of last defrost					
42	Duration of current defrost					
411 (107)	Defrost strategy	0 1 2 3 4 5 6 7 8 9	nonE nonE n.i.L.b rt.in Prdt n.i.F.b c.d.L.b c.d.F.b	None Not used Network initiated (learned backup) Internal clock initiated Not used PREDICT initiated Not used Network initiated (fixed schedule backup) Co-ordinated defrost (learned backup) Co-ordinated defrost (fixed schedule backup)	0 - 9	0
412	Current defrost initiation strategy in operation	nonE JnEt rt.in	None Jnet network initiated Internal clock initiated			
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			
69	No of defrosts per day (Note, when the defrost strategy is set to PREDICT operation, this item is not used. When coordinated defrost is in operation this item sets the number of defrosts a day that are required).	0 1 - 6	Function disabled No of defrosts		0 - 6	3
61	Pump down time				00:00 - 00:10	00:00

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
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. 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	0 (CC) 1 (CO) 2 (OC) 3 (OO)	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	01:00 02:00 03:00 04:00
351	Defrost method for defrost time 1 (from v0.01.1)	0 1	E.dEF oFF.C	Electric defrost Off cycle defrost	0 - 1	E.dEF
52	Defrost time 2	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	0 (CC) 1 (CO) 2 (OC) 3 (OO)	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	07:00 08:00 09:00 10:00
352	Defrost method for defrost time 2 (from v0.01.1)	0 1	E.dEF oFF.C	Electric defrost Off cycle defrost	0 - 1	E.dEF
53	Defrost time 3	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	0 (CC) 1 (CO) 2 (OC) 3 (OC)	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	13:00 14:00 15:00 16:00
353	Defrost method for defrost time 3 (from v0.01.1)	0 1	E.dEF oFF.C	Electric defrost Off cycle defrost	0 - 1	E.dEF
54	Defrost time 4	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	0 (CC) 1 (CO) 2 (CO) 3 (OO)	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	19:00 20:00 21:00 22:00
354	Defrost method for defrost time 4 (from v0.01.1)	0 1	E.dEF oFF.C	Electric defrost Off cycle defrost	0 - 1	E.dEF
55	Defrost time 5	00:00 00:01 - 23:59	Defrost disabled Defrost enabled		00:00 - 23:59	00:00
355	Defrost method for defrost time 5 (from v0.01.1)	0 1	E.dEF oFF.C	Electric defrost Off cycle defrost	0 - 1	E.dEF
56	Defrost time 6	00:00 00:01 - 23:59	Defrost disabled Defrost enabled		00:00 - 23:59	00:00
356	Defrost method for defrost time 6 (from v0.01.1)	0 1	E.dEF oFF.C	Electric defrost Off cycle defrost	0 - 1	E.dEF
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 Jnet NETWORK INITIATED DEFROST						
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 COLDSTORE CONTROLLER ITEM NUMBERS					LACI		
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE	
8.4 COORDINATED DEFROST INITIATION							
This information is for use by defrost schedulers and for PREDICT defrost (8.5)							
69	No of defrosts required per day (Note, when the defrost strategy is set to PREDICT operation, this item is not used. When coordinated defrost is in operation 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	brn or rEd blac or YELL GrEY or bluE 3 - Ph oFF.C	Electric brown phase Electric black phase Electric Grey 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 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	cct1 cct2 cct3 cct4 cct5 cct6 cct7 cct8 cct9 cc10 cc11 cc12 cc13 cc14 cc15 cc16 cc17 cc18 cc19 cc20 cc21 cc22 cc23 cc24 cc25 cc26 cc27 cc28 cc29 cc30 cc31	Circuit 1 Circuit 2 Circuit 3 Circuit 4 Circuit 5 Circuit 6 Circuit 7 Circuit 8 Circuit 9 Circuit 10 Circuit 11 Circuit 12 Circuit 13 Circuit 14 Circuit 15 Circuit 16 Circuit 17 Circuit 18 Circuit 19 Circuit 20 Circuit 21 Circuit 22 Circuit 23 Circuit 24 Circuit 25 Circuit 26 Circuit 27 Circuit 28 Circuit 29 Circuit 30 Circuit 31		to v0.01.0 1 - 7 v0.01.1 on 1 - 15 V0.01.4 on 1 - 31	cct1
210	Electrical distribution Panel No. (from v0.01.1)				0 - 7	0.0	

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
215 (46)	Jnet network initiated defrost command status	P.dEF F.dEF nonE	Defrost Forced defrost No command			
217	Evaporator data to plant					
220	Defrost coordinator status	oFF cord	No defrost coordinator Defrost coordinator present on network			
8.5 JTL PREDICT DEFROST INITIATION See also information in 8.4						
225	Minimum time between defrosts (hours)				2 - 8	6
226	Maximum time between defrosts (hours)				6 - 72	24
8.5.1 PREDICT 1 OPERATION PREDICT 1 operation is associated with SUCCEEDS superheat control as set on Item 188						
242	PREDICT 1 low superheat state initiation level (%)				0 - 100	25
243	PREDICT 1 low superheat state current average (%)					
8.5.2 PREDICT 3 OPERATION (From v0.01.5) PREDICT 3 operation is associated with fixed superheat control as set on Item 188						
227	Number of samples to discard from top & bottom of sorted list				0 - 3	1
228	PREDICT 3 volatility integral setpoint				2.0 - 12.0	6.0
229	PREDICT 3 volatility integral					
230	Current PREDICT 3 volatility					
231	Long run PREDICT 3 volatility					
232	Ratio of current PREDICT 3 volatility/long run volatility					
233	Mean value from PREDICT 3 sampling array					
234	Minimum value from PREDICT 3 sampling array					
235	Maximum value from PREDICT 3 sampling array					
236	Average reading in last complete PREDICT 3 sample (frame)					
237	Latest reading					
281 to 296	Array of superheat readings in current samples (frame)					

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI		
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE	
301 to 316	Array of average reading samples (frames)						
321 to 336	Sorted array of average reading samples (frames)						
8.6 DEFROST TERMINATION							
144 (413)	Termination method selection	1	EuAP	Evaporator sensor	0, 1 (CX)	1 - 4	EuAP
		2 3 4	A.OFF tEr tot	Air off sensor Termination sensor Time only	2 (OC) 3 (OO)	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)			0 (CC) 1 (CO) 2 (OC) 3 (OO)	0 - 30 0 - 30 0 - 30 0 - 30	20 20 15 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			0, 1 (Cx)	00:05 - 00:59	00:20	
				2 (OC) 3 (OO)	00:05 - 00:59 00:05 - 00:59	00:20 00:40	
59	Drain down duration			0 (CC) 1 (CO) 2 (OC) 3 (OO)	00:00 - 00:20 00:00 - 00:20 00:00 - 00:05 00:00 - 00:05	00:10 00:10 00:05 00:02	
49	Liquid hold off duration (starts when drain down completed)				00:00 - 00:10	00:00	
8.7 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 when item 412 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		
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 COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
9. FAN CONTROL						
108	Fan control	F.on F.oFF oFF.E	Fan runs always Fan off during defrost Fans off during electric defrost	0, 1 (CX)	1 - 2	F.oFF
				2, 3 (OX)	1 - 3	
109	Fan delay after defrost	00:00	Use evap temp		00:00 - 01:00	00:00
10. DOOR MONITORING (up to v0.00.8 and from v0.01.1) From v0.01.1 Door functions require input 2 to be set for the door input						
138	Input 2 function selection (v0.01.1 on)	3 4	tr.iP door	Man trapped input Door input		3 - 4 tr.iP
128	Select door functions	oFF d.iP.E		Disabled Enabled		0 - 1 d.iP.E
34	Time door presently open					
35	Total time door has been open in last 24 hours					
64	Door open refrigeration delay time				0 (CC) 1 (CO) 2 (OC) 3 (OO)	00:00 - 00:15 00:00 - 00:15 00:00 - 00:30 00:00 - 00:30 00:05 00:05 00:00 00:00
33	Door open alarm delay time					00:00 - 00:30 00:15
126	Coldstore door open critical alarm selection	non.C Crit		Alarm non critical Alarm critical		0 - 1 non.C
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		No command 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 PFC.E		Disabled Enabled		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						
122	Temperature display unit choice	CELS FAhr		Celsius Fahrenheit		0 - 1 CELS
121	Display pushbutton status	Pb- - Pb1 - Pb- 2 Pb12		OFF Button 1 pressed Button 2 pressed Both buttons pressed		

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
13. CLOCK CALENDAR						
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
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.						
966	Virtual bitswitch setting From version 0.01.1 the physical bitswitches have been replaced by virtual bitswitches. Set this item in place of using the bitswitches which are redundant.	0 1 2 3	Frozen food (CO2) Frozen food (HFC) Chiller Produce (off cycle)	0 1 2 3		
9	Set default values selected by Bitswitch Note: Setting the bitswitches alone has no effect.	1234 1066	Set default values Write to NVRAM without delay	0 (CC) 1 (CO) 2 (OC) 3 (OO)	Frozen food (CO2) Frozen food (HFC) Chiller Produce (off cycle) where C = CLOSED or ON O = OPEN or OFF x = Don't care For unmarked switches C = dot visible O = dot not visible	
15. RESTORE PARAMETERS FROM NETWORK (from v0.01.1)						
To restore the data from the network first set the virtual bitswitch on item 966 and the appropriate unit number on item 1. Then check item 965 to see if this facility is available on the network. The information on item 965 is received from a network broadcast every few minutes. If the restore parameter facility is available and operational then item 965 will be set to a non zero number e.g. 2. To request restore parameters set item 964 to 1234. Item 963 displays parameters restore progress. When all parameters are downloaded item 964 is cleared to 0.						
965	Master database port	0 1 - 4	Not in use NC port no			
964	Set restore parameters from network	1234	Request restore			
963	Parameter restore progress	rdy nl.r din.p dnl.c FAIL	Restore function possible Restore requested Restore in progress Restore complete Restore fault			
959	Requested template	0 1-9999	As commissioned Template number		0 - 9999	

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
16. SYSTEM ALARMS						
80	Group alarm 81 - 88	0 1 - 255	No alarms Check 81 -88			
81	Coldroom overtemperature	CLr C.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	Door open alarm (up to v0.00.8 & from v0.01.1)	OFF dO.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 <small>(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).</small>	CLr dEF.F	No fault Fault			
95	Plant alarm (v0.00.9 on)	CLr AL.iP	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			
257	Man trapped (v0.00.9 on)	CLr trAP	No fault Man trapped			
258	Backup defrost strategy in operation	CLr d.bAc	No fault Backup defrost			

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
17. DIAGNOSTIC & TEST FUNCTIONS						
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				
967	Latest unit number polled on zone (from v0.01.1)					
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 (HFC) Chiller Produce (off cycle)	0 (CC) 1 (CO) 2 (OC) 3 (OO)		
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 pushbutton status	Pb- - Pb1 - Pb- 2 Pb12	OFF Button 1 pressed Button 2 pressed Both buttons pressed			
421	Temperature sensor 1 reading					
422	Temperature sensor 2 reading					
423	Temperature sensor 3 reading					
424	Temperature sensor 4 reading					

JTL COLDSTORE CONTROLLER ITEM NUMBERS					LACI	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULT	RANGE	ITEM 9 VALUE
425	Temperature sensor 5 reading					
204	Unadjusted suction pressure					
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			

DISPLAY DATA		LACI
NORMAL DISPLAY		
- 99 ^c	Coldroom temperature (item 20 rounded)	
dEF	Defrost	
dEFr	Defrost recovery	
OFF	Shutdown	
FAnS	Fans only	
--	Display data error	
JTL	Start-up text	
ALARM TEXT (in descending priority order)		
t.SEn	All sensors faulty, deselected or disconnected	
Ht	High Coldroom temperature	
trAP	Man trapped in	
AL.IP	Plant fault input	
ISOL	Unit shutdown	
door	Door open alarm	