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JTL CABINET CONTROLLER ITEM NUMBERS						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
1. Jnet NETWORK IDENTIFICATION							
0	Unit type	LAPn		Unit type			
19	Software Version number						
1	Unit number					0.1 - 899.8	
2. TEMPERATURES Note: 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)				0 (CC) 1 (CO) 2 (OC) 3 (OO)	20 - 80 20 - 80 20 - 80 20 - 80	50 50 40 60
21	Air on temperature						
36	Air on sensor selection	OFF AO.En		Disabled Enabled		0 - 1	AO.En
22 (405)	Air off temperature						
37 (409)	Air off sensor selection	0 1 2 3 4 5 6 7	none S 1 - - S - 2 - S - - 3 S 1 2 - S 1 - 3 S - 2 3 S 1 2 3	none selected Sensor 1 Sensor 2 Sensor 3 Sensor 1 & 2 Sensor 1 & 3 Sensor 2 & 3 Sensor 1, 2 & 3		0 - 7	S 1 - -
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)						
401	Air off 1 temperature						
402	Air off 2 temperature						
403	Air off 3 temperature						
408	Overall air off calculation method	0 1 2 3 4 5 6	none Lo.rd Nd.rd Hi.rd A.All A.Lo A.Hi	Lowest air off reading Middle air off reading Highest air off reading Average air off Average of lowest 2 Average of highest 2		1 - 6	Nd.rd

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
141	Termination sensor temperature					
147	Termination sensor selection	OFF tS.En			0 - 1	OFF
131	Fan control sensor temperature					
130	Fan control sensor enabled	OFF E.S.En	OFF enabled		0 - 1	OFF
247	Site temperature (from broadcast)					
248	Site humidity (from broadcast)					
246	Site absolute humidity (from broadcast) (v0.01.1 on)					
122	Temperature display unit choice	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS
3. TEMPERATURE ALARMS						
26	Average cabinet temperature error					
32	Cabinet 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
27	Average Air off temperature error					
431	Average air off temperature 1 (v0.00.4 on)					
432	Average air off temperature 2 (v0.00.4 on)					
433	Average air off temperature 3 (v0.00.4 on)					
34	Air off over temperature tolerance	0.0	Disable Ht alarm	0, 1 (CX) 2, 3 (OX)	0 - 30 0 - 30	15 10
47	Period over which averages are taken			0, 1 (CX) 2, 3 (OX)	00:30 - 03:00	01:30 01:00

JTL CABINET CONTROLLER ITEM NUMBERS						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
4. TEMPERATURE CONTROL							
275	Control temperature (from v0.01.1 on) Note: up to v0.01.1 control is on air off	1 2	A.oFF CAb.t	Air off Cabinet		0 - 1	Cab.t
30	Current cabinet temperature setpoint (target for item 20) (See items 123 & 127)						
123	Enable 2nd setpoint	oFF E.2SP		Disabled Enabled		0 - 1	oFF
124	Cabinet temperature setpoint - primary (target for item 20)				0 (CC) 1 (CO) 2 (OC) 3 (OO)	-30 to -15 -30 to -15 -5 to +10 -5 to +10	-20 -26 +1 +4
125	Alternative cabinet temperature setpoint - secondary				0 (CC) 1 (CO) 2 (OC) 3 (OO)	-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 (407)	Air off setpoint (starting point and lower limit for item 28)				0 (CC) 1 (CO) 2 (OC) 3 (OO)	- 39 to -20 - 39 to -20 - 10 to +5 - 10 to +5	- 27 - 33 - 6 - 4
140	Temperature deadband					0.4 - 3.0	0.4
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 (406)	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						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
5. 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	IP1 - IP - 2 IP1 2		Defrost input on Lighting override input on Both inputs on			
72	Defrost relay (function depends on item 75)	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	oFF Fn.on Hr.on		Off Fans on Heater on			
395	Trim heater relay (v0.00.5 on)	oFF th.on		Off Trim heater on			
75	Defrost relay mode selection	d.tEr d.Con		Defrost termination Defrost control		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					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
6. SUCTION PRESSURE OPTIMISATION						
200	up to v0.00.6 Disable suction pressure optimisation for this unit when both air sensors are faulty from V0.00.7 Disable suction pressure optimisation for this unit . Note: Suction pressure optimisation is disabled when both air sensors are faulty regardless of this setting.	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)	0 nonE 1 Lt 2 Ht 3 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 Drain down Liquid hold off Pump down Shutdown			
217	Plant data to network (binary value interpreted on item 211)					

JTL CABINET CONTROLLER ITEM NUMBERS						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
7. DEFROST CONTROL							
7.1 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 SL.in n.i.L.b rt.in iP.in Prdt n.i.F.b c.d.L.b c.d.F.b	None Suction initiated Network initiated (learned backup) Internal clock initiated External clock initiated Predict operation Not used Network initiated (fixed schedule backup) Coordinated defrost (learned backup) Coordinated defrost (fixed schedule backup)		0 - 9	0
412	Current defrost initiation strategy in operation	nonE SL.in JnEt rt.in iP.in		None Suction initiated Jnet network initiated Internal clock initiated External clock initiated			
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
61	Pump down time					00:00 - 00:10	00:00

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
7.2 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
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
53	Defrost time 3	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	13:00 14:00 15:00 16:00
54	Defrost time 4	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	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					
7.3 SUCTION INITIATED DEFROST						
58	Defrost initiation temperature (suction line sensor)			0 (CC) 1 (CO) 2 (OC) 3 (OO)	-5 - +20 -5 - +20 0 - 20 0 - 20	0 0 +15 +10
7.4 CONTACT INITIATED DEFROST						
65	Invert defrost input	no YES	Input=defrost No input=defrost		0 - 1	no
7.5 Jnet NETWORK INITIATED DEFROST						
46	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						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
7.6 COORDINATED DEFROST INITIATION							
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 (v0.06 on)						
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	brn
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 from v0.01.1 1 - 15 v0.01.2 1 - 31	cct1

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
210	Electrical distribution Panel No. (from v0.01.1)				0 - 7	0
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			
7.7 JTL PREDICT DEFROST INITIATION						
225	Minimum time between defrosts (hours)				2 - 8	6
226	Maximum time between defrosts (hours)				6 - 72	24
227	Number of samples to discard from top & bottom of sorted list				0 - 3	1
228	PREDICT volatility integral setpoint				2.0 - 12.0	6.0
229	PREDICT volatility integral					
230	Current PREDICT volatility					
231	Long run PREDICT volatility					
232	Ratio of current PREDICT volatility/long run volatility					
233	Mean value from PREDICT sampling array					
234	Minimum value from PREDICT sampling array					
235	Maximum value from PREDICT sampling array					
236	Average reading in last complete PREDICT sample (frame)					
237	Latest reading					
281 to 296	Array of superheat readings in current samples (frame)					
301 to 316	Array of average reading samples (frames)					

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
321 to 336	Sorted array of average reading samples (frames)					
7.8 DEFROST TERMINATION						
144 (413)	Termination method Selection	EuAP A.OFF tEr tot	Evaporator sensor Air off sensor Termination sensor Time only	0, 1 (CX) 2 (OC)	1 - 4	EuAP
				3 (OO)	1 - 4	tot
141	Termination sensor temperature					
147	Termination sensor selection	OFF tS.En			0 - 1	OFF
50	Defrost termination temperature (the sensor used is item 144)			0 (CC) 1 (CO) 2 (OC) 3 (OO)	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			0 (CC) 1 (CO) 2 (OC) 3 (OO)	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
7.9 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 (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 CABINET CONTROLLER ITEM NUMBERS						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
8. FAN CONTROL							
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		1 - 3	F.on
146	Temperature to turn fan off during defrost. Depends on item 108				0, 1 (Cx) 2, 3 (Ox)	-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				0, 1 (Cx) 2, 3 (Ox)	-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				0 (CC) 1 (CO) 2 (OC) 3 (OO)	-30 to -15 -30 to -15 -5 to +8 -5 to +8	-25.0 -30.0 0.0 2.0
9. TRIM HEATER CONTROL (v0.00.5 on)							
390	Control strategy	1 2 3 4 5	oFF ISOL 24hr trad Jnet	No control Off when isolated Fixed adjustment Not operational Not operational		1 - 5	ISOL
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 output status	oFF th.on		Off Trim heater on			

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
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 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	
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			

JTL CABINET CONTROLLER ITEM NUMBERS						LAPN	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
12. DISPLAY FUNCTIONS							
129	Display type selection (up to v0.00.3 and from v0.00.6)	2 3	Lcd.1 Lcd.8	LCD1-7 types LCD8 type		2 - 3	Lcd.8
122	Temperature display unit choice	CELS FAhr		Celsius Fahrenheit		0 - 1	CELS
136	Enable fans only operation from display switches	Off E.d.Fo		Disable Enable		0 - 1	Off
138	Enable Shutdown from display switches	OFF E.d.Sd		disable Enable		0 - 1	Off
121	Display switch status	Si - - Si1 - Si- 2 Si12		OFF Position 1 Position 2 Both			
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					up to v0.00.4 1992 - 2022 v0.00.5 on 2004 - 2034	
18	Daylight saving enable	Stnd dAY.S		Standard time Daylight saving time		0 - 1	Stnd

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
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 Ice Cream Chiller Produce (off cycle)	0 1 2 3		
9	Set default values selected by Bitswitch Note: Setting the bitswitches alone has no effect.	1234	Set default values	0 (CC) 1 (CO) 2 (OC) 3 (OO)	Frozen food Ice cream 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	
		1066	Write to NVRAM without delay			
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	Parameters restore progress	rdy dnl.r din.P dnl.c FA.IL	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 CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
16. 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 (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			
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			
253	Air off 2 overtemperature	CLr A2.Ht				
254	Air off 3 overtemperature	CLr A3.Ht				
255	Air off 1 sensor fault	CLr A1.Sn				
256	Air off 2 sensor fault	CLr A2.Sn				

JTL CABINET CONTROLLER ITEM NUMBERS						LAPN
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
257	Air off 3 sensor fault	CLr A3.Sn				
258	Backup defrost strategy in operation	CLr d.bAc	No fault Backup defrost			
17. 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			
967	Latest unit no polled on zone (from v0.01.1)					
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	Fr.Fd (0) ICE.C (1) ChiL (2) OFF.C (3)	Frozen food Ice cream 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 switch status	Si - - Si1 - Si- 2 Si12	OFF Position 1 Position 2 Both			
421	Temperature sensor 1 reading					

JTL CABINET CONTROLLER ITEM NUMBERS					LAPN	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULTS**	**RANGE**	**ITEM 9 VALUE**
422	Temperature sensor 2 reading					
423	Temperature sensor 3 reading					
424	Temperature sensor 4 reading					
425	Temperature sensor 5 reading					
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	LAPN
GRAPHICS DISPLAY	
	Fans running
	Defrost recovery
	Defrost
	Fault condition
NORMAL DISPLAY	
- 99^{c}	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
Lo	Switched to primary setpoint
Hi	Switched to secondary setpoint