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PREDICT® is the patented JTL pattern recognition algorithm for providing defrost on demand for the cabinets on a system

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	UAPA	Unit type			
19	Software Version number					
1	Unit number				0.1 - 899.8	
501	Unit number (HGD section)				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 1 2 3	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	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 (Not available when set for HGD/well operation)	OFF tS.En			0 - 1	OFF
247	Site temperature (from broadcast)					
248	Site 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					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
2.1 HGD SECTION						
500	Enable HGD case monitoring	oFF H.G.d	Disabled Enabled		0 - 1	oFF
520	Estimated cabinet temperature (calculated from Air on and Air off temperatures)					
533	Cabinet temperature ratio (Item 20 calculated as value between Air off and Air on using this ratio)			0 1 2 3	0 - 80 0 - 80 0 - 80 0 - 80	50.0 50.0 40.0 60.0
521	Air on temperature					
536	Air on sensor selection	OFF AO.En	Disabled Enabled		0 - 1	AO.En
3. TEMPERATURE ALARMS						
26	Average cabinet temperature error					
526	Average HGD cabinet temperature					
32 (532)	Cabinet overtemperature alarm tolerance	0.0	Disable Ht alarm	0 1 2 3	0 - 20 0 - 20 0 - 20 0 - 20	10.0 10.0 5.0 10.0
480 (540)	Cabinet under temperature alarm tolerance	0.0	Disable LT alarm	0 1 2 3	0 to -40 0 to -40 0 to -40 0 to -40	-20.0 -20.0 -5.0 -5.0
481 (541)	Overtemperature warning time	00:00	Disable alarm	0 - 2 3	00:00 to 23.59 00:00 to 23.59	6:00 12:00
482	Cabinet overtemperature accumulated time in last 24 hours					
542	HGD overtemperature accumulated time in last 24 hours					
27 (527)	Average Air off temperature error					
34 (534)	Air off over temperature tolerance	0.0	Disable Ht alarm	0-1 2-3	0 - 30 0 - 30	15.0 10.0
47	Period over which averages are taken			0-1 2-3	00:30 - 03:00	01:30 01:00

JTL CABINET CONTROLLER ITEM NUMBERS						UAPA	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
4. TEMPERATURE CONTROL							
275	Control temperature	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, 1 2 3	-30 to -15 -5 to +10 -5 to +10	-22 +1 +4
125	Alternative cabinet temperature setpoint - secondary				0, 1 2 3	-30 to -15 0 to 10 0 to 10	-20 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, 1 2 3	- 39 to -20 - 10 to +5 - 10 to +5	- 30 - 6 - 4
140	Temperature deadband					0.4 - 3.0	0.4
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						UAPA	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULT**	**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			
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	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
6. 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)	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 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 Drain down Liquid hold off Pump down Shutdown			
217	Plant data to network (binary value interpreted on item 211)						

JTL CABINET CONTROLLER ITEM NUMBERS						UAPA	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULT**	**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 nonE n.i.L.b rt.in nonE Prdt n.i.F.b c.d.L.b c.d.F.b	None None Network initiated (learned backup) Internal clock initiated None 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 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 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
61	Pump down time					00:00 - 00:10	00:00

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**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 1 2 3	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 1 2 3	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 1 2 3	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 1 2 3	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 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)					
7.4 COORDINATED DEFROST INITIATION This information is for use by defrost coordinators and for PREDICT defrost (7.5)						
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

JTL CABINET CONTROLLER ITEM NUMBERS						UAPA	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
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 blac GrEY 3 - Ph oFF.C	Electric brown phase Electric black phase Electric Grey phase Electric 3 phase Not used Not used Off cycle		0 - 6	3-Ph
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		1 - 31	1
210	Electrical distribution Panel No.					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						
220	Defrost coordinator status	oFF cord		No defrost coordinator Defrost coordinator present on network			

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
7.5 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)					
321 to 336	Sorted array of average reading samples (frames)					

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
7.6 DEFROST TERMINATION						
144 (413)	Termination method Selection (Termination sensor not available when selected for HGD/well case operation)	EuAP A.OFF tEr tot	Evaporator sensor Air off sensor Termination sensor Time only	0, 1, 2 3	1 - 4 1 - 4	EuAP 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 1 2 3	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 1 2 3	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
7.7 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 (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						UAPA	
ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
8. FAN CONTROL							
108	Fan control (106 must be set to FAn.S) Note: When "Fan runs always" is selected the fans DO NOT stop during or after defrost.	1 2 3 4 5	F.on F.oFF F.c.d.d F.c.d.t F.on.d	Fan runs always Fan off during defrost Fan controlled during defrost Fan controlled during defrost on termination temp (v0.00.5 on) Fan on during defrost (v0.00.5 on)	0, 1 2, 3	upto v0.00.4 1 - 3 from v0.00.5 1 - 4 from v0.00.5 1 - 5	F.oFF F.on
146	Temperature to turn fan off during defrost. Depends on item 108				0, 1 2, 3	-12.0 to -2.0 0.0 to 20.0	-7.0 10.0
153	v0.00.5 on Fan control after defrost (106 must be set to FAn.S) Temperature set on item 150 If item 109 is non zero the fans will start on time if the temperature is not reached.	0 1 2 3	F.r.i.d F.r.o.t F.r.E.t F.r.t.t	Fans restart immediately Fans restart on time delay Fans restart on evaporate temperature Fans restart on termination temperature.		0 - 3	F.r.i.d
150	Temperature to bring fan on after defrost. Depends on item 153				0, 1 2, 3	-20.0 to -10.0 -5.0 to 5.0	-15.0 0.0
109	Fan delay after defrost (106must be set to Fans)	up to v0.00.4 v0.00.5 on		Fans cycle on evap temp when set to 00:00 Fan sequence depends on item 153		00:00 - 00:10	00:00
9. TRIM HEATER CONTROL							
390	Control strategy Note. Non-trading and network adjustment available from v0.00.5	1 2 3 4 5	oFF ISOL 24hr trad Jnet	No control Off when isolated Fixed adjustment Fixed with non-trading adjustment Network adjustment		up to v0.00.4 1 - 3 from v0.00.5 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			
396	Load shedding adjustment (v0.00.5 on)					0 - 100%	100%

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**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	Select timer for lights off broadcast (v0.00.05 on)	0 1 - 8	Disabled Timer number		0 - 8	0
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
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 (v0.00.0)	Off PFC.E	Disabled Enabled		0 - 1	Off
134	Enable Jnet Network command to cut off refrigeration and/or defrost in the event of a plant fault (from v0.00.1)	0 Off 1 I n.d.r 2 I n.r F 3 I n. dF	Disabled Inhibit defrost & Refrigeration Inhibit refrigeration Inhibit defrost		0 - 3	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			
238	Select times for shutdown control (v0.00.5 on)	0 1 - 8	Disabled Timer Number		0 - 8	0
239	Shutdown command status (v0.00.5 on)	CLr t.S.dn	Normal Shutdown			

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
12. DISPLAY FUNCTIONS						
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			
502	Enable 2nd display	oFF 2.dPY	Disabled Enabled		0 - 1	oFF
199	Backlight control (v0.00.5 on)	0 B.oFF 1 BL.on 2 BL.F.F 3 BL.n.F	Backlight off Backlight on Backlight off, flashes for alarm Backlight on, flashes for alarm		0 - 3	
13. LOAD SHEDDING (v0.00.5 on)						
600	Enable load shedding	0 off 1 L.S.En	Disabled Enabled		0 - 1	oFF
601	Inhibit defrost	0 1-8	Disabled Global plant input no		0 - 8	0
602	Inhibit refrigeration	0 1-8	Disabled Global plant input no		0 - 8	0
603	Fans off	0 0-8	Disabled Global plant input no		0 - 8	0
604	Lights off	0 0-8	Disabled Global plant input no		0 - 8	0
605	Raise set point to alternative (item 125)	0 0-8	Disabled Global plant input no		0 - 8	0
607	Reduce trim heat	0 0-8	Disabled Global plant input no		0 - 8	0
14. 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				2012 - 2042	
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
15. 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	0 1 2 3	Frozen food Ice cream Chiller Produce (off cycle)			
9	Set default values selected by Bitswitch Note: Setting the bitswitches alone has no effect.	1234	Set default values	0 1 2 3	Frozen food Ice cream Chiller Produce (off cycle)	
		1066	Write to NVRAM without delay			
16. RESTORE PARAMETERS FROM NETWORK (FROM V0.00.6) 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	

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ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
17. SYSTEM ALARMS						
80	Group alarm 81 - 88 (see display data)	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 reference 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			
490	Group alarms 491 - 498 (see display data)					
491	Low temperature	CLr C.Lt	No fault Fault			
492	Overtemperature warning	CLr C.I.Ht	No fault Fault			
493	Overtemperature warning timeout	CLr C.I.to	No fault Fault			
90	Group alarm 91 - 98 (see display data)	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			
250	Group alarms 251 - 258 (see display data)	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					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
510	Group alarms 511 - 518 (see display data)					
511	HGD cabinet over temperature	CLr C.Ht	No fault Fault			
512	Air off overtemperature	CLr A.Ht	No fault Fault			
513	HGD air on sensor fault	CLr AO.Pr	No fault Fault			
514	Air off sensor fault	CLr AF.Pr	No fault Fault			
515	Sensor reference fault	CLr PS.Ft	No fault Fault			
517	Shutdown alarm	CLr Sh.dn	No fault Fault			
518	All sensors faulty, deselected or disconnected	CLr t.SEn	No fault Fault			
550	Group alarms 551 -558 (see display data)					
551	HGD low temperature	CLr C.Lt	No Fault Fault			
552	HGD Overtemperature warning	CLr C.I.Ht	No fault Fault			
553	HGD Overtemperature warning timeout	CL C.I.to	No fault Fault			

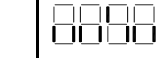
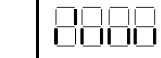
JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
18. DIAGNOSTIC & TEST FUNCTIONS						
44	Power off duration					
6	Communications speed (in kilo baud)	4.8	Baud rate			
7	Communications (Half duplex)	HALF	2 wire			
967	Latest unit no polled on zone					
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 ICE.c Chil OFF.c	Frozen food Ice cream Chiller Produce (off cycle)			
89	Sensor excitation value (Factory test)		Not used			
99	Test digital display	CLr SEt	Not active Test active		0 - 1	
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					

JTL CABINET CONTROLLER ITEM NUMBERS					UAPA	
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**FACTORY DEFAULT**	**RANGE**	**ITEM 9 VALUE**
428	Temperature sensor open circuit indication	0 1 2 4 8 16	No fault Sensor 5 Sensor 4 Sensor 3 Sensor 2 Sensor 1			
429	Temperature sensor short circuit indication					
10	Processor alarms (11 - 17) (see display data)	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	UAPA
GRAPHICS DISPLAY	
	Fans running
	Defrost recovery
	Defrost
	Fault condition
NORMAL DISPLAY	
- 99^{c}	Cabinet temperature (item 20 rounded)
dEF	Defrost (with graphics above)
dEF	Defrost recovery (with graphics above)
Off	Unit Shutdown or fans only mode (indicated by fan symbol)
--	Display data error
ALARM TEXT (in descending priority order)	
SEn	All sensors faulty, deselected or disconnected
Ht	High cabinet temperature
Lt	Low cabinet temperature
ISOL	Unit shutdown
OTHER TEXT	
jtl	Start-up text
Lo	Switched to primary setpoint
Hi	Switched to secondary setpoint

GRAPHICAL DISPLAY OF BIT DATA (FROM V0.00.5)

Graphical display of bit data used on items where the data was shown previously as a decimal value

bit	Graphic	Value
None		0
1		1
2		2
3		4
4		8
5		16
6		32
7		34
8		128

Note:
Where the data is shown as a decimal value the meaning is the sum of the associated value e.g. bits 2 and 5 set would be displayed as 18 (16+2)