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JTL DEFROST TIME SCHEDULER ITEM NUMBERS					ND110	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	nd11	Unit type			
19	Software version number					
1	Unit number				0.1 - 899.9	
2. INPUTS AND OUTPUTS						
20	Operating mode (v0.00.2 on)	oFF Auto	Manual Automatic			
171	Auto/manual (IP-1)	OFF Auto	Manual (pack controller dormant) Auto mode			
160	Watchdog output (RL4)	OFF On	Watchdog fail Watchdog healthy			

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3. DEFROST CONTROL						
3.1 COMMON DATA						
400	Number of defrost systems				0 - 48	48
401	Maximum assisted defrost duration Note: Off cycle defrosts as assumed to be longer than this setting				15 - 40	25
404	Maximum number of gas/electric defrosts allowed at any time				1 - 48	3
398	Jnet network defrost arrangement (v0.00.2 on)	nonE PrEd dEFS	No scheduling Predict scheduler Time scheduler			
399	JTL Predict defrost controller present on network (v0.00.2 on)	oFF PrEd	Not present Present			
176	Defrost scheduling operation in manual (v0.00.2 on)	Auto MAN	Enabled in auto only Enabled always		0 - 1	Auto
146	JTL numbering on systems on defrost display Note: Depends on unit no setting on item 1.	oFF J.no	System no. range 1- 48 System no. range x01 - x48		0 - 1	oFF
405	Enable forced defrost function from display pushbuttons (v0.00.0 only)	oFF Fd.En	Disabled Enabled	0	0 - 1	oFF
140	Enable forced defrost function from display pushbuttons (v0.00.1 on)	Off Fd.En	Disabled Enabled	0	0 - 1	Off
406	Select defrost relay termination at beginning or end of drain down period	OFF t.End.	Relay terminates at beginning of drain down Relay terminates at end of drain down		0 - 1	OFF
407	Group interface selection	OFF CG.On	Group interface not used. Group interface used for differential pressure control.		0 - 1	OFF
408	Drain (bleed) down interface selection	OFF dd.On	Drain down interfaces not used. Drain down interfaces used for drain down control.		0 - 1	OFF
409	Stub defrost interfaces selection	OFF Sb.On	Stub interfaces not used. Stub interfaces used for defrost control.		0 - 1	On

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3.2 DEFROST DATA							
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".							
		SYSTEM				TIME	
410	Start time for first daily defrost	1			00:00 - 23:59	08:00	
420		2				08:30	
430		3				09:00	
440		4				09:30	
450		5				10:00	
460		6				10:30	
470		7				11:00	
480		8				11:30	
490		9				12:00	
500			10				12:30
510			11				13:00
520			12				13:30
530			13				08:15
540			14				08:45
550			15				09:15
560			16				09:45
570			17				10:15
580			18				10:45
590			19				11:15
600			20				11:45
610			21				12:15
620			22				12:45
630			23				13:15
640			24				13:45
650			25				08:00
660			26				08:30
670			27				09:00
680			28				09:30
690			29				10:00
700			30				10:30
710			31				11:00
720			32				11:30
730			33				12:00
740			34				12:30
750			35				13:00
760			36				13:30
770			37				08:15
780			38				08:45
790			39				09:15
800			40				09:45
810			41				10:15
820			42				10:45
830			43				11:15
840			44				11:45
850			45				12:15
860			46				12:45
870			47				13:15
880			48				13:45

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The item numbers for each system is setup follow the start times listed above. EG. The duration of defrost for system 21 is 610 plus 1 ie., 611. Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.						
xx1	Duration of defrost (mins)				5 - 60	20
xx2	Defrost pattern	0 1 - 6 7 8	No defrosts. Number of equally spaced daily defrosts. 3 defrosts per day, but the 3rd is missing. 4 defrosts per day, but the 4th is missing.		0 - 8	4
xx3	Forced defrost	OFF Fd.on	No forced defrost Forced defrost on		0 - 1	
xx4	Forced refrigeration	OFF Fr.on	No forced refrig. Forced refrig. on		0 - 1	
xx5	Defrost mode	0 deF dr.dn F.dEF F.rEF Fd.in d.inh Stub	Refrig. Defrost Drain down Forced defrost Forced refrig. Forced defrost initiated but currently inhibited (see item 404) Defrost inhibited (see item 404) Defrost interface fail			
xx6	Drain down time				0 - 15	5
xx7	Compressor group associated with this defrost system	0 Lt.C Ht.C Sat.C	No association Lt compressor group Ht compressor group Satellite compressor group		0 - 3	0
xx8	No of evaporators on this defrost system	0 1 - 10	Defrost terminated on time only. JTL units terminate defrost on temp. and inform pack.		0 - 10	0
xx9	No of JTL-controlled evaporators terminated					

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4. DISPLAY FUNCTIONS						
140	Enable forced defrost function from display pushbuttons (v0.00.1 on)	Off Fd.En	Disabled Enabled	0	0 - 1	Off
405	Enable forced defrost function from display pushbuttons (v0.00.0 only)	oFF Fd.En	Disabled Enabled	0	0 - 1	oFF
146	JTL numbering on systems on defrost display Note: Depends on unit no setting on item 1.	oFF J.no	System no. range 1- 48 System no. range x01 - x48		0 - 1	oFF
5. CLOCK CALENDAR						
Note,from v0.00.2 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				v0.00.0	
					00 - 99	
					v0.00.1 on	
					1992 - 2022	
18	Daylight saving enable (v0.00.2 on)	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
6. RESTORE FACTORY DEFAULTS						
9	Set default values To set the factory defaults into the memory of the controller, 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.	1234 1066	Load default settings Write to NVRAM immediately (v0.00.2 on)			

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7. DIAGNOSTIC & TEST FUNCTIONS						
6	JTL Network communications speed	4.8 38.4	Kilo Baud Kilo Baud			
7	2/4 wire communications choice (Half/Full duplex)	up to v0.00.2				
		HALF Full	2 wire 4 wire		0 - 1	HALF
		from v0.00.3				
		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		Unused			
89	Thermistor excitation value (Factory test)		Not used			
99	Test digital display	CLr SEt	Not active Test active		0 - 1	
175	Display pushbutton status (v0.00.1 on)	0 P 1 - P - 2 - P - - 3	pb 1 pressed pb 2 pressed pb 3 pressed			
199	Test relay outputs (v0.00.2 on)	clr SEt	Not active Active		0 - 1	
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			

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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		ND110
NORMAL DISPLAY		
99	Systems on defrost (cycles when more than one)	
--	Nothing on defrost	
ALARM TEXT (in descending priority order)		
Stub	Defrost interface fault	
OTHER TEXT		
JTL	Start-up text	
Func	Function button pressed	
data	Normal display follows this text	
S-99	System status follows this text	
0	Refrig.	
deF	Defrost	
dr.dn	Drain down	
F.dEF	Forced defrost	
F.rEF	Forced refrig.	
Fd.in	Forced defrost initiated but currently inhibited (see item 404)	
d.inh	Defrost inhibited (see item 404)	
Stub	Defrost interface fail	
FAIL	Network communications failure	