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| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | UACT | |
|--|---------------------------------------|---------------|-----------------------|-------------|-------------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 1. Jnet NETWORK IDENTIFICATION | | | | | | |
| 0 | Unit type | UAct | 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 | Coldroom temperature | | | | | |
| 38 | Coldroom temperature sensor selection | OFF Ct.En | Disabled Enabled | | 0 - 1 | Ct.En |
| 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 AO.En | Disabled Enabled | | 0 - 1 | AO.En |
| 141 | Termination sensor 1 temperature | | | | | |
| 147 | Termination sensor 1 selection | OFF tS.1.E | | | 0 - 1 | tS.1.E |
| 142 | Termination sensor 2 temperature | | | | | |
| 148 | Termination sensor 2 selection | OFF tS.2.E | Disabled Enabled | | 0 - 1 | tS.2.E |
| 143 | Termination sensor 3 temperature | | | | | |
| 149 | Termination sensor 3 selection | OFF tS.3.E | Disabled Enabled | | 0 - 1 | tS.3.E |
| 144 | Termination sensor 4 temperature | | | | | |
| 150 | Termination sensor 4 selection | OFF tS.4.E | Disabled Enabled | | 0 - 1 | tS.4.E |
| 247 | Site temperature (from broadcast) | | | | | |
| 248 | Site humidity (from broadcast) | | | | | |
| 122 | Temperature display unit choice | CELS FAhr | Celsius Fahrenheit | | 0 - 1 | CELS |

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| 3. TEMPERATURE ALARMS | | | | | | |
| 26 | Average coldstore temperature error | | | | | |
| 32 | Overtemperature alarm tolerance | 0.0 | Disable Ht alarm | 0 1 2 3 | 0 - 20 0 - 20 0 - 20 0 - 20 | 10 10 5 10 |
| 480 | Cabinet under temperature alarm tolerance (from v0.00.2) | | Disable LT alarm | 0, 1 2, 3 | 0 to -40 0 to -40 | -20.0 -5.0 |
| 481 | Overtemperature warning time (from v0.00.2) | | 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 (from v0.00.2) | | | | | |
| 47 | Period over which averages are taken | | | 0 - 1 2 - 3 | 00:30 - 03:00 | 02:00 |
| 4. TEMPERATURE CONTROL | | | | | | |
| 275 | Control temperature | 0 1 | A.oFF Cr.t | Optimised Air off temperature Coldroom temperature | | 0 - 1 A.oFF |
| 30 | Current coldstore temperature setpoint (target for item 21) | | | | 0 1 2 3 | - 30 to -12 - 30 to -12 - 5 to +25 - 5 to +25 |
| 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 | Current Optimised 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 | | | | | |

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| 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 | Input 1 state | oFF door | Input off Door open | | | |
| 139 | Input 2 state | oFF trAP | No input Man trapped | | | |
| 72 | Liquid solenoid relay (RL1) | OFF LS.on | Off Demanding refrig. | | | |
| 73 | Fan relay (RL2) | oFF Fn.on | Off Fans on | | | |
| 143 | Defrost relays (RL3-6) | - - - - 1 - - - - 2 - - - - 3 - - - - 4 | None energised RL3 energised RL4 energised RL5 energised RL6 energised | | | |
| 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) | 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 |
| 70 (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 | | | | | UACT | |
|---|---|------------------------|---|---------------------------------------|--|----------------------------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | 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 |
| 351 | Defrost method for defrost time 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 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 |
| 352 | Defrost method for defrost time 2 | 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 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 |
| 353 | Defrost method for defrost time 3 | 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 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 |
| 354 | Defrost method for defrost time 4 | 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 | 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 | 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 | | | | | |
| 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) | | | | | |

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| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE | |
| 7.4 COORDINATED DEFROST INITIATION This information is for use be defrost schedulers. | | | | | | | |
| 69 | No of defrosts expected per day (Note, When the defrost strategy is set to coordinated defrost this item sets the number of defrosts a day that are required.) | 0 1 - 6 | Function disabled No of defrosts | | 0 - 6 | 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 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 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 | | v0.00.0 1 - 15 from v0.00.1 16 - 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 | | | | |

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|---------------------------------------|---|---------------|--|------------------|--|----------------------------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 217 | Evaporator data to plant | | | | | |
| 220 | Defrost coordinator status | oFF cord | No defrost coordinator Defrost coordinator present on network | | | |
| 7.5 DEFROST TERMINATION | | | | | | |
| 141 | Termination sensor 1 temperature | | | | | |
| 147 | Termination sensor selection | OFF tS.1.E | | | 0 - 1 | tS.1.E |
| 142 | Termination sensor 2 temperature | | | | | |
| 148 | Termination sensor 2 selection | OFF tS.2.E | | | 0 - 1 | tS.2.E |
| 143 | Termination sensor 3 temperature | | | | | |
| 149 | Termination sensor 3 selection | OFF tS.3.E | | | 0 - 1 | tS.3.E |
| 144 | Termination sensor 4 temperature | | | | | |
| 150 | Termination sensor 4 selection | OFF tS.4.E | | | 0 - 1 | tS.4.E |
| 50 | Defrost termination temperature | | | 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 - 00:59 00:05 - 00:59 00:05 - 00:59 00:05 - 00:59 | 00:20 00:20 00:20 00:40 |
| 59 | Drain down duration | | | 0 1 2 3 | 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 |

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|---|--|---------------|--------------------------------------|---------------------------------|---------------|---------------|-------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE | |
| 7.6 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 107 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 | | | | |
| 8. FAN CONTROL | | | | | | | |
| 108 | Fan control | 1 | F.on | Fan runs always | 0, 1 | 1 - 2 | F.on |
| | | 2 | F.oFF | Fan off during defrost | | | |
| | | 3 | oFF.E | Fan off during electric defrost | 2, 3 | 1 - 3 | |
| 109 | Fan delay after defrost | 00:00 | Fans cycle on evap temperature | | 1 - 3 | 00:00 | |
| 9. DOOR FUNCTIONS | | | | | | | |
| 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 | 00:00 - 00:15 | 00:05 |
| | | | | | 1 | 00:00 - 00:15 | 00:05 |
| | | | | | 2 | 00:00 - 00:30 | 00:00 |
| | | | | | 3 | 00:00 - 00:30 | 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 | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | UACT | |
|---|--|---------------------------------------|---|--|---------------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 10. 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 | | | |
| 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 | | | |
| 238 | Select times for shutdown control (v0.00.6 on) | 0 1-8 | Disabled Timer number | | 0 - 8 | 0 |
| 239 | Shutdown command status (v0.00.6 on) | CLr t.S.dn | Normal Shutdown | | | |
| 11. DISPLAY FUNCTIONS | | | | | | |
| 122 | Temperature display unit choice | CELS FAhr | Celsius Fahrenheit | | 0 - 1 | CELS |
| 199 | Backlight control (v0.00.5 on) | 0 1 2 3 | B.oFF BL.on BL.F.F BL.n.F | Backlight off Backlight on Backlight off, flashes for alarm Backlight on, flashes for alarm | 0 - 3 | |
| 12. 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 |
| 13. RESTORE FACTORY DEFAULTS | | | | | | |
| To set the factory defaults into the memory of the controller, first set the virtual bitswitches on item 966, 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 Off cycle (produce) | | | |
| 9 | Set default values selected by virtual bitswitch | 1234 | Set default values | | | |
| | Note: Setting the virtual bitswitch alone has no effect. | 1066 | Write to NVRAM without delay | | | |










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| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 14. RESTORE PARAMETERS FROM NETWORK | | | | | | |
| <p>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.</p> <p style="text-align: center;">When all parameters are downloaded item 964 is cleared to 0.</p> | | | | | | |
| 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 | |
| 15. SYSTEM ALARMS | | | | | | |
| 80 | Group alarm 81 - 88 (see display data) | 0 1 - 255 | No alarms Check 81 - 88 | | | |
| 81 | Coldstore overtemperature | CLr C.Ht | No fault Fault | | | |
| 82 | Coldstore temperature sensor fault | CLr Ct.Sn | No fault Fault | | | |
| 83 | Air on sensor fault | CLr AO.Sn | No fault Fault | | | |
| 84 | Air off sensor fault | CLr AF.Sn | No fault Fault | | | |
| 85 | Sensor power supply fault | CLr PS.Ft | No fault Fault | | | |
| 86 | Non critical door open alarm | CLr 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 | | | |
| 490 | Group alarms 491 - 498 (from v0.00.2) (see display data) | | | | | |
| 491 | Low temperature (from v0.00.2) | CLr C.Lt | No fault Fault | | | |
| 492 | Overtemperature warning (from v0.00.2) | CLr C.I.Ht | No fault Fault | | | |
| 493 | Overtemperature warning timeout (from v0.00.2) | 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 1 sensor fault | CLr t1.Sn | No fault Fault | | | |

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|---------------------------------------|--|--------------|------------------------------|-------------|-------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 92 | Termination 2 sensor fault | CLr t2.Sn | No fault Fault | | | |
| 93 | Termination 3 sensor fault | CLr t3.Sn | No fault Fault | | | |
| 94 | Termination 4 sensor fault | CLr t4.Sn | No fault Fault | | | |
| 96 | Critical door open alarm | CLr d0.Ft | No fault Fault | | | |
| 97 | Expected defrosts have not been detected | 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 | | | |
| 257 | Man trapped | CLr traP | No fault Man trapped | | | |
| 258 | Backup defrost strategy in operation | CLr d.bAc | No fault Backup defrost | | | |

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| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 16. DIAGNOSTIC & TEST FUNCTIONS | | | | | | |
| 44 | Power off duration | | | | | |
| 6 | Jnet communications speed (in kilo baud) | 4800 | Baud rate | | | |
| 7 | Jnet communications (Half duplex) | HALF | 2 wire | | | |
| 954 | Zone No (V0.00.5 on) | | | | | |
| 967 | Latest unit number 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 | Virtual bitswitch setting | Fr.Fd IcE.C Chil OFF.C | Frozen food Ice cream Chiller Produce (off cycle) | | | |
| 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 | |
| 421 | Temp. sensor 1 reading | | | | | |
| 422 | Temp. sensor 2 reading | | | | | |
| 423 | Temp. sensor 3 reading | | | | | |
| 424 | Temp. sensor 4 reading | | | | | |
| 425 | Temp. sensor 5 reading | | | | | |
| 426 | Temp. sensor 6 reading | | | | | |
| 427 | Temp. sensor 7 reading | | | | | |

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| ITEM | DESCRIPTION | CODE | CODE MEANING | DEFAULT SET | RANGE | ITEM 9 VALUE |
| 428 | Temperature sensor open Circuit indication (from v0.00.2) | 0 1 2 4 | No Fault Sensor 7 Sensor 6 Sensor 5 | | | |
| 429 | Temperature sensor short Circuit indication (from v0.00.2) | 8 16 32 64 | Sensor 4 Sensor 3 Sensor 2 Sensor 1 | | | |
| 10 | Processor alarms (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 | | UACT |
|--|--|------|
| NORMAL DISPLAY | | |
| - 99° | 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 | |
| Lt | Low coldroom temperature | |

| 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 | <u>Note:</u> 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) |
| | None |  | 0 | |
| | 1 |  | 1 | |
| | 2 |  | 2 | |
| | 3 |  | 4 | |
| | 4 |  | 8 | |
| | 5 |  | 16 | |
| | 6 |  | 32 | |
| | 7 |  | 34 | |
| | 8 |  | 128 | |