

| Cold Cabinet HHU functions (CC1022 onwards) |  |      |                  | DEFAULTS |       |       |       |
|---|--|------|------------------|----------|-------|-------|-------|
| HHU   | DESCRIPTION                                      | TYPE | LIMITS/UNITS     | -23      | -15   | 0     | +5    |
| 00  | -  |      |                  |          |       |       |       |
| 01  | -  |      |                  |          |       |       |       |
| 02  | -  |      |                  |          |       |       |       |
| 03  | -  |      |                  |          |       |       |       |
| 04  | -  |      |                  |          |       |       |       |
| 05  | -  |      |                  |          |       |       |       |
| 06  | -  |      |                  |          |       |       |       |
| 07  | Time since last defrost                          | D    | HH:MM            |          |       |       |       |
| 08  | Duration of last defrost                         | D    | HH:MM            |          |       |       |       |
| 09  | Duration of present defrost                      | D    | HH:MM            |          |       |       |       |
| 10  | Air on temperature                               | D    | deg C            |          |       |       |       |
| 11  | Air off temperature                              | D    | deg C            |          |       |       |       |
| 12  | Evaporator temperature                           | D    | deg C            |          |       |       |       |
| 13  | Suction temperature                              | D    | deg C            |          |       |       |       |
| 14  | Temp difference                                  | D    | deg C            |          |       |       |       |
| 15  | Effective air off set-point                      | D    | deg C            |          |       |       |       |
| 16  | Effective evap set-point                         | D    | deg C            |          |       |       |       |
| 17  | Estimated cabinet temperature                    | D    | deg C            |          |       |       |       |
| 18  | End time of last defrost                         | D    | HH:MM            |          |       |       |       |
| 19  | Time of next defrost                             | D    | HH:MM            |          |       |       |       |
| 20  | Time of day                                      | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 21  | Defrost time 1                                   | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 22  | Defrost time 2                                   | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 23  | Defrost time 3                                   | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 24  | Defrost time 4                                   | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 25  | Defrost time 5                                   | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 26  | Defrost time 6                                   | S    | 00:00 to 23:59   | 00:00    | 00:00 | 00:00 | 00:00 |
| 27  | Maximum defrost duration                         | S    | 00:10 to 00:59   | 00:30    | 00:20 | 00:20 | 00:20 |
| 28  | Air on set-point                                 | S    | -25 to +20 deg C | -20      | -13   | +3    | +6    |
| 29  | Air on alarm offset                              | S    | +01 to +20deg C  | +10      | +10   | +6    | +6    |
| 30  | Air off to turn fans off during defrost          | S    | -10 to +30 deg C | +30      | +30   | +30   | +30   |
| 31  | Suction temp to end inject mode during pull-down | S    | -10 to +30 deg C | -1       | -1    | +5    | +5    |
| 32  | Air on temp to terminate defrost                 | S    | -10 to +30 deg C | +4       | +4    | +4    | +4    |
| 33  | Air off temp to terminate defrost                | S    | -10 to +30 deg C | +10      | +10   | +10   | +10   |
| 34  | Evaporator lower limit offset                    | S    | -6 to 0.0 deg C  | -6       | -6    | -6    | -6    |
| 35  | Air off set-point                                | S    | -35 to +20 deg C | -33      | -28   | -7    | -4    |
| 36  | Temp difference set-point                        | S    | 00 to 09 deg C   | +6       | +6    | +4    | +4    |
| 37  | TEV scale factor                                 | S    | 50 to 100        | 70       | 70    | 70    | 70    |
| 38  | Air off alarm offset                             | S    | 01 to 15 deg C   | 10       | 10    | 6     | 6     |
| 39  | Evaporator type                                  | D    | 10 to 40         | 10       | 20    | 30    | 40    |
| 40  | Estimated cab set-point                          | D    | deg C            |          |       |       |       |
| <b>D = DISPLAY S = SETTABLE A = ALARM</b>   |  |      |                  |          |       |       |       |

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|---|-------------------------------|------|--|----------|-----|-----|-----|
| HHU   | DESCRIPTION                   | TYPE | LIMITS/UNITS   | -23      | -15 | 0   | +5  |
| 41  | Operating mode                | D    | 0=defrost<br>1=Refrigerate<br>2=Pumpdown<br>5=Draindown<br>8=Initialise<br>16=Force defrost<br>33=Force refrig |          |     |     |     |
| 42  | EPR presence                  | D    | 0=Suction valve<br>1= EPR fitted   |          |     |     |     |
| 43  | Output to EPR (127=closed)    | D    | 0 to 127   |          |     |     |     |
| 44  | Output to TEV (127=open)      | D    | 0 to 127   |          |     |     |     |
| 45  | Liquid solenoid valve         | D    | 0=closed, 1=open   |          |     |     |     |
| 46  | Hot gas valve state           | D    | 0=closed, 1=open   |          |     |     |     |
| 47  | Fan status                    | D    | 0=off, 1=on  |          |     |     |     |
| 48  | Cabinet light status          | D    | 0=on, 1=off  |          |     |     |     |
| 49  | -                             |      |  |          |     |     |     |
| 50  | -                             |      |  |          |     |     |     |
| 51  | Air off overtemperature alarm | A    | 0=OK, 1= alarm   |          |     |     |     |
| 52  | Insufficient data             | A    | 0=OK, 1= alarm   |          |     |     |     |
| 53  | Critical probe fault          | A    | 0=OK, 1= alarm   |          |     |     |     |
| 54  | Data corrupted                | A    | 0=OK, 1= alarm   |          |     |     |     |
| 55  | TEV control problem           | A    | 0=OK, 1= alarm   |          |     |     |     |
| 56  | Unit number corrupted         | A    | 0=OK, 1= alarm   |          |     |     |     |
| 57  | Air on overtemperature alarm  | A    | 0=OK, 1= alarm   |          |     |     |     |
| 58  | Evaporator undertemperature   | A    | 0=OK, 1= alarm   |          |     |     |     |
| 59  | Communications timed out      | A    | 0=OK, 1= alarm   |          |     |     |     |
| 60  | RAM fault                     | A    | 0=OK, 1= alarm   |          |     |     |     |
| 61  | PROM fault                    | A    | 0=OK, 1= alarm   |          |     |     |     |
| 62  | PC out of range               | A    | 0=OK, 1= alarm   |          |     |     |     |
| 63  | SP out of range               | A    | 0=OK, 1= alarm   |          |     |     |     |
| 64  | Background execution fault    | A    | 0=OK, 1= alarm   |          |     |     |     |
| 65  | WPRAM fault                   | A    | 0=OK, 1= alarm   |          |     |     |     |
| 66  | Time of day clock fail        | A    | 0=OK, 1= alarm   |          |     |     |     |
| 67  | NOVRAM fail                   | A    | 0=OK, 1= alarm   |          |     |     |     |
| 68  | -                             |      |  |          |     |     |     |
| 69  | Self test mode                | S    | 0=normal, 1=test   | 0        | 0   | 0   | 0   |
| 70  | Unit number                   | S    | 00.0 to 199.9  | 0.0      | 0.0 | 0.0 | 0.0 |
| 71  | -                             |      |  |          |     |     |     |
| 72  | -                             |      |  |          |     |     |     |
| 73  | -                             |      |  |          |     |     |     |
| 74  | -                             |      |  |          |     |     |     |
| 75  | -                             |      |  |          |     |     |     |
| 76  | -                             |      |  |          |     |     |     |
| 77  | -                             |      |  |          |     |     |     |
| 78  | -                             |      |  |          |     |     |     |
| 79  | -                             |      |  |          |     |     |     |

**D = DISPLAY S = SETTABLE A = ALARM**

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|---|---|------|--------------|----------|-----|----|----|
| HHU   | DESCRIPTION                             | TYPE | LIMITS/UNITS | -23      | -15 | 0  | +5 |
| 80  | Software version number                 | D    | 1022         |          |     |    |    |
| 81  | -                                       |      |              |          |     |    |    |
| 82  | -                                       |      |              |          |     |    |    |
| 83  | -                                       |      |              |          |     |    |    |
| 84  | -                                       |      |              |          |     |    |    |
| 85  | -                                       |      |              |          |     |    |    |
| 86  | -                                       |      |              |          |     |    |    |
| 87  | -                                       |      |              |          |     |    |    |
| 88  | -                                       |      |              |          |     |    |    |
| 89  | -                                       |      |              |          |     |    |    |
| 90  | -                                       |      |              |          |     |    |    |
| 91  | -                                       |      |              |          |     |    |    |
| 92  | -                                       |      |              |          |     |    |    |
| 93  | -                                       |      |              |          |     |    |    |
| 94  |   |      |              |          |     |    |    |
| 95  | -                                       |      |              |          |     |    |    |
| 96  | -                                       |      |              |          |     |    |    |
| 97  | -                                       |      |              |          |     |    |    |
| 98  | Load defaults according to bit switches | S    |              | 10       | 20  | 30 | 40 |
| 99  | -                                       |      |              |          |     |    |    |
|   | Bit switches on (closed)                |      |              | 1        | 2   | 3  | 4  |

**D = DISPLAY S = SETTABLE A = ALARM**

**TABLE 1 - BIT SWITCH SETTINGS**

| Switch | Description  |
|--------|--|
| 1      | Select -23 degs C PROM data  |
| 2      | Select -15 degs C PROM data  |
| 3      | Select 0 degs C PROM data  |
| 4      | Select +5 degs C PROM data   |
| 5      | Not used   |
| 6      | ON = Tri-colour LED fitted (See Addendum 1)<br>OFF = Yellow LED fitted |
| 7      | ON = No EPR fitted<br>OFF = EPR fitted                                 |
| 8      | ON = Self test mode<br>OFF = Automatic                                 |

Note: only one of bit switches 1 to 4 should be ON.

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