

Cold store with heater mat options HHU functions (CS1.08)				Defaults					
HHU	Description	Type	Limits/Units	F/F	Ltmp	Chill	Prov	Prod	Fish
				-18	-18	-1	+3	+8	+2
00	-								
01	-								
02	-								
03	-								
04	-								
05	-								
06	-								
07	-								
08	Duration of last defrost	D	HH:MM						
09	Duration of current 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	Temperature difference	D	deg C						
15	Air off setpoint	D	deg C						
16	Effective evap setpoint	D	deg C						
17	-								
18	End time of previous defrost	D	HH:MM						
19	Time of next defrost	D	HH:MM						
20	Time of day	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
21	Defrost time 1	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
22	Defrost time 2	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
23	Defrost time 3	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
24	Defrost time 4	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
25	Defrost time 5	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
26	Defrost time 6	S	HH:MM	00:00	00:00	00:00	00:00	00:00	00:00
27	Maximum defrost duration	S	20 to 59 mins	30	30	30	40	40	30
28	Drain down duration	S	00 to 10 mins	8	8	0	0	0	0
29	Door interlock time	S	00 to 10 mins	5	5	0	0	0	0
30	Pumpdown duration	S	2 to 10 mins	2	2	2	2	2	2
31	Suction line temperature to turn fans on	S	-10 to 30 deg C	-1	-1	5	5	5	5
32	Evaporator temperature to terminate defrost	S	-10 to 20 deg C	15	12	10	20	20	10
33	Evaporator offset to permit injection	S	0 to 10 deg C	2	0	0	0	0	0
34	Evap temp setpoint offset, lower limit	S	-10 to 0 deg C	-7	-5	-4	-4	-4	-4
35	Air off temperature setpoint	S	-39 to 20 deg C	-24	-20	-3	1	6	0
36	Temp difference setpoint	S	0 to 10 deg C	2	2	2	2	2	2
37	Scale factor for TEV output	S	50 to 100%	60	60	60	60	60	60
38	Overtemp alarm difference	S	-1 to 15 deg C	12	12	6	6	6	6
39	Evaporator function	S	100 to 139	100	100	100	100	100	100
40	-								

D = DISPLAY S = SETTABLE A = ALARM

NOTE: NOT UNDER DOCUMENTATION CONTROL

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				F/F	Ltmp	Chill	Prov	Prod	Fish
41	Operating mode	D	0 = defrost 1 = refrigerate 2 = pumpdown 5 = draindown 8 = initialise						
42	Heater mat output *	D	0 = off, 1 = on						
43	Output to EPR	D	0 = open 127 = shut						
44	Output to TEV	D	0 = shut 127 = open						
45	Liquid solenoid status	D	0 = shut, 1 = open						
46	Hot gas valve status	D	0 = shut, 1 = open						
47	Fan status	D	0 = off, 1 = on						
48	Tray heater status	D	0 = off, 1 = on						
49	Door status	D	0 = shut, 1 = open						
50	-								
51	High air off temp alarm	A	0 = OK, = alarm						
52	More data needed	A	0 = OK, = alarm						
53	Critical probe fault	A	0 = OK, = alarm						
54	Data corrupted	A	0 = OK, = alarm						
55	TEV control problem	A	0 = OK, = alarm						
56	Device number corrupted	A	0 = OK, = alarm						
57	High air on temp alarm	A	0 = OK, = alarm						
58	Low evaporator temp	A	0 = OK, = alarm						
59	Communications fault	A	0 = OK, = alarm						
60	RAM fault	A	0 = OK, = alarm						
61	PROM checksum fault	A	0 = OK, = alarm						
62	PC out of range	A	0 = OK, = alarm						
63	SP out of range	A	0 = OK, = alarm						
64	Background not executing	A	0 = OK, = alarm						
65	WPRAM fault	A	0 = OK, = alarm						
66	Time of day clock fault	A	0 = OK, = alarm						
67	-								
68	-								
69	Test mode	A	0 = OK, 1 = test						
70	Unit number	S	000.0 to 299.0						
71	Floor temperature *	D	deg C						
72	Floor heater on control threshold *	S	5 to 12 deg C	8	8	8	8	8	8
73	Low floor temperature alarm threshold *	S	2 to 4 deg C	3	3	3	3	3	3
74	Low floor temp alarm *	A	0 = OK, = alarm						
75	High floor temp alarm threshold *	S	12 to 18 deg C	14	14	14	14	14	14

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76	High floor temp alarm *	A	0= OK, = alarm						
77	-								
78	-								
79	-								
D = DISPLAY S = SETTABLE A = ALARM									
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				F/F	Ltmp	Chill	Prov	Prod	Fish
80	Software version number	D	1.08						
81	-								
82	-								
83	-								
84	-								
85	-								
86	-								
87	-								
88	-								
89	-								
90	-								
91	-								
92	-								
93	-								
94	-								
95	-								
96	-								
97	-								
98	Load data from bit switches	D		10	20	30	40	50	60
99	-								
	Bit switches on (closed)			1	2	3	4	5	6
D = DISPLAY S = SETTABLE A = ALARM									
* Note: these functions show as '----' if bit switch 8 is not set: ie, if heater mat operation is not selected									

CPU Bit switch settings CS 1.09

Temperature	Bit 1	Bit 2	Bit2
Frozen food	OFF	ON	ON
LTM&P	ON	OFF	ON
Meat chiller	OFF	OFF	ON
Provisions	ON	ON	OFF
Produce	OFF	ON	OFF
Fish	ON	OFF	OFF

Bit switches 4 and 5 must be ON.

Bit switch 6 selects method of TEV control.

ON: Electrical TEV. (software controlled).

OFF: Mechanical TEV.

Bit switch 7 selects the method of controlling evaporator pressure.

ON: EPR control.

OFF: Bang-bang control using liquid solenoid valve. Liquid valve is not used to back up the TEV.

NOTE: NOT UNDER DOCUMENTATION CONTROL

Bit Switch 8 is used to select whether there is a heater mat controller or not.
ON: No heater mat fitted.
OFF: Heater mat fitted.