

JTL CABINET CONTROLLER ITEM NUMBERS					Eced	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
0	Unit type	Eced05 on (v0.00.5 on)				
		Eced	Unit type			
1	Unit number				0.0 - 899.9	
2	Time of day				00:00 - 23:59	
3	Day of week	up to Eced06 (v0.00.6)				
					0 - 6 (0 = Sun)	
6	Communications speed	Eced04 on (v0.00.4 on)				
		4800 600	Baud rate Baud rate			
8	Bitswitch Setting	Eced05 on (v0.00.5 on)				
9	Set default values selected by Bitswitch				0 - 1	
<b>PROCESSOR ALARMS</b>						
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			
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			
<b>MISCELLANEOUS DATA</b>						
19	Software Version number					

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<b>TEMPERATURES</b>						
20	Estimated cabinet temperature (calculated from Air on and Air off temperatures)					
21	Air on temperature					
22	Air off temperature					
23	Evaporator temperature	ECED01 on (v0.00.1 on)				
24	Suction line temperature	ECED01 on (v0.00.1 on)				
25	Superheat (Evaporator temp - suction line temp)	ECED01 on (v0.00.1 on)				
<b>AVERAGE ERRORS</b>						
26	Average cabinet temperature error					
27	Average Air off temperature error					
<b>AUTOMATICALLY ADJUSTED SETPOINTS</b>						
28	Current Air off temperature setpoint (calculated by controller)					
29	Current Evaporator temperature setpoint (calculated by controller)	ECED01 on (v0.00.1 on)				

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<b>PRIMARY TEMPERATURE SETPOINTS</b>						
30	Cabinet temperature setpoint (target for item 20)			xxCC xxCO xxOC xxOO	-30.0 to -15.0 -30.0 to -15.0 -5.0 to +10.0 -5.0 to +10.0	-20 -26 0 +4
31	Air off setpoint (starting point and lower limit for item 28)			xxCC xxCO xxOC xxOO	-39.0 to -20.0 -39.0 to -20.0 -10.0 to +5.0 -10.0 to +5.0	-30 -36 -8 -4
32	Overtemperature alarm tolerance			xxCC xxCO xxOC xxOO	0 - 20 0 - 20 0 - 20 0 - 20	10 10 5 10
33	Cabinet temperature ratio (item 20 calculated as value between Air off and Air on using this ratio)	ECED00-ECED05 (v0.00.0 - 0.00.5)				
				xxCC xxCO xxOC xxOO	20 - 80 20 - 80 20 - 80 20 - 80	50 50 66 66
		ECED06 on (v0.00.6 on)				
				xxCC xxCO xxOC xxOO	20 - 80 20 - 80 20 - 80 20 - 80	50 50 40 60
35	Defrost termination probe selection	ECED02 on (v0.00.2 on)				
		OFF E.t.En	Air off probe Evaporator probe			OFF

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<b>PROBE SELECTION</b>						
36	Air on probe selection	ECED01 on (v0.00.1 on)				
		OFF A.O.En	Disabled Enabled		0 - 1	A.O.En
37	Air off probe selection	ECED01 on (v0.00.1 on)				
		OFF A.F.En	Disabled Enabled		0 - 1	A.F.En
38	Evaporator probe selection	ECED01-ECED03 (v0.00.1 - 0.00.3)				
		OFF E.P.En	Disabled Enabled		0 - 1	OFF
		ECED04 on (v0.00.4 on)				
		OFF E.P.En	Disabled Enabled		0 - 1	E.P.En
39	Suction line probe selection	ECED01-ECED03 (v0.00.1 - 0.00.3)				
		OFF S.P.En	Disabled Enabled		0 - 1	OFF
		ECED04 on (v0.00.4 on)				
		OFF S.P.En	Disabled Enabled		0 - 1	S.P.En
<b>DEFROST INFORMATION</b>						
40	Duration of last defrost					
41	Time since end of last defrost					
42	Duration of current defrost					
43	Time next defrost is due					
44	Power off time					
<b>MISCELLANEOUS DATA</b>						
48	Max starts/hour  (Anti-shortcycling timer when using liquid valve relay to control a condensing unit)	ECED05 on (v0.00.5 on)				
		0 10.PH 15.PH 20.PH	No limit 10 starts per hour 15 starts per hour 20 starts per hour		0 - 3	0

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<b>DEFROST SETPOINTS</b>						
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)						
50	Defrost termination temperature (Air off or evaporator probe, see item 35)			xxCC xxCO xxOC xxOO	0 - 20 0 - 20 0 - 20 0 - 20	15 15 12 20
51	Defrost time 1	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	xxCC xxCO xxOC xxOO	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	xxCC xxCO xxOC xxOO	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	xxCC xxCO xxOC xxOO	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	xxCC xxCO xxOC xxOO	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	xxCC xxCO xxOC xxOO	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	00:00 00:00 00:00 00:00
56	Defrost time 6	00:00 00:01 - 23:59	Defrost disabled Defrost enabled	xxCC xxCO xxOC xxOO	00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59	00:00 00:00 00:00 00:00
57	Defrost termination time limit	ECED00 - ECED06 (v0.00.0 - 0.00.6)				
				xxCC xxCO xxOC xxOO	00:10 - 00:40 00:10 - 00:40 00:10 - 01:00 00:10 - 01:00	00:20 00:20 00:20 00:40
		ECED07 on (v0.00.7 on)				
				xxCC xxCO xxOC xxOO	10 - 40 10 - 40 10 - 59 10 - 59	20 20 20 40
60	Defrost schedule selection	ECED07 on (v0.00.7 on)				
		24 hr 12 hr	24 hour schedule 12 hour schedule		0 - 1	24 hr

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<b>MODES, INPUTS AND OUTPUTS</b>						
70	Operating mode	rEFr dEFr dr.dn dF.rc Pu.dn	Refrig. Defrost Drain down Defrost recovery Pump down			
72	Defrost relay	OFF dF.on	Contacts open Contacts closed			
73	Liquid solenoid relay	OFF LS.on	Off Demanding refriger.			
<b>FORCING FUNCTIONS</b>						
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	OFF Fd.on	Off Forced defrost on		0 - 1	
78	Forced refrigeration	OFF Fr.on	Off Forced refrigeration		0 - 1	
<b>MISCELLANEOUS DATA</b>						
79	Refrigeration hold off	ECED04 - ECED06 (v0.00.4 - v0.00.6)				
		OFF no.rF	Refrigeration No refrigeration			
<b>SYSTEM ALARMS</b>						
80	Group alarm 81 - 88	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 probe fault	Clr AO.Pr	No fault Fault			
84	Air off probe fault	Clr AF.Pr	No fault Fault			
85	Thermistor power supply fault	Clr PS.Ft	No fault Fault			
87	Unit number corrupted/not set	Clr Un.CF	No fault Fault			
88	All probes faulty, deselected or disconnected	ECED04 on (v0.00.4 on)				
		Clr t.SEn	No fault Fault			
<b>MISCELLANEOUS DATA</b>						
89	Thermistor excitation value (Factory set)	ECED04 on (v0.00.4 on)				
			Not used			

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<b>SYSTEM ALARMS</b>						
90	Group alarm 91 - 98	Eced01 on (v0.00.1 on)				
		0 1 - 255	No alarms Check 91 - 98			
92	Evaporator probe fault	Eced01 on (v0.00.1 on)				
		CLr EP.Pr	No fault Fault			
93	Suction line probe fault	Eced01 on (v0.00.1 on)				
		CLr SL.Pr	No fault Fault			
<b>UTILITY</b>						
99	Test digital display	CLr SEt	Not active Test active		0 - 1	
<b>PROBE SELECTION</b>						
102	Probe type selection	Eced06 on (v0.00.6 on)				
		5000 2000	Tempkey Elm		0 - 1	5000

## BITSWITCH SETTINGS

4321

xxCC Frozen food  
 xxCO Ice cream  
 xxOC Chillers  
 xxOO Provisions

where C = CLOSED or ON  
 O = OPEN or OFF  
 x = Don't care

Note 1: For unmarked switches  
 C = dot visible  
 O = dot not visible

Note 2: Setting the bitswitches alone has no effect.  
 Use ITEM 9 to set the default values after the switches are set.

<b>DISPLAY DATA</b>		<b>ECED</b>
<b>NORMAL DISPLAY</b>		
-99°	Cabinet temperature (item 20 rounded)	
dEF	Defrost	
dEFr	Defrost recovery	
--	Display data error	
<b>ALARM TEXT (in descending priority order)</b>		
t.SEn	All probes faulty, deselected or disconnected	
Ht	High cabinet or air off temperature	
<b>OTHER TEXT</b>		
JTL	Start-up text	
SEt.P	Cabinet setpoint data follows this text	
A.On	Air on temperature follows this text	
A.OFF	Air off temperature follows this text	
t.o.d	Time of day follows this text	
L.dEF	Time since end of last defrost follows this text	
n.dEF	Time of next defrost follows this text	