

JTL SOFTWARE VARIATIONS		EC ECCN ECRB ECLS ECDM
VERSION	DESCRIPTION	DATE
v0.00.2	Cabinet temperature ratio added	Dec 87
v0.00.3	Drain down time removed. Defrost also terminated on falling suction line temperature. Hysteresis added to high temperature alarms to prevent fleeting alarms when temperature hovers about alarm level. When defrost terminates on temperature, 'surplus' defrost time added to defrost recovery period. Associated compressor pack no and buffered air off setpoint added. Forced defrost and inhibit defrost added on maintenance unit items 77 & 78. Digital display test added on maintenance unit item 99.	Feb 88
v0.00.4	<u>Ice cream cabinets</u> Cabinet temperature ratio default value changed from 66 to 50. Air off temperature setpoint default value lowered to -36 C. Cabinet temperature setpoint default value lowered to -26 C. Defrost initiation temperature default value raised to 0 C. <u>Frozen food cabinets</u> Cabinet temperature ratio default value changed from 66 to 50. <u>Fresh meat cabinets</u> Defrost initiation temperature default value raised to 15 C. <u>Dairy/Produce cabinets</u> Air off setpoint default value lowered to -4 C. Defrost initiation temperature default value raised to 15 C.	
v0.00.5	Unit number allowed up to 899.9	
v0.00.7	Defrost termination valve shut if air off temperature goes above the termination temperature at any time, regardless of the defrost cycle status. Defrost inhibited for 4 hours after previous defrost. Temperature probe selection added. Associated compressor pack no allowed up to 899.9	Aug 88
v0.00.8	Power down cancels defrost inhibit timer.	Nov 88
v0.00.9	Data log capacity increased to 3 sets of 1000 temperatures.	Feb 89
v0.01.0	Defrost inhibited for 3 hours after previous defrost.	Apr 89
v0.01.1	Exitation voltage test function added on item 89. Display now allows requested information to be displayed in preference to alarm information.	Jul 89
v0.01.2	Forced defrost keeps gas valve open even if termination temperature is reached.	Jul 89
v0.01.3	Fast communications available. Comms speed indicated on maintenance unit item 6.	Sep 89
v0.01.4	New executive program used. Data logging data retrieval speed increased on communications. Defrost initiation temperature on Dairy cases reduced to 10 C. Alarm added for all probes faulty or disabled and displayed on maintenance unit item 88. In the event of a suction line probe fault the defrost initiation temperature sensing is automatically transferred from the suction line probe to the evaporator probe, if possible. In the event of an air off probe fault the defrost initiation temperature sensing is automatically transferred from the air off probe to the evaporator probe, if possible.	Sep 89
v0.01.5	In the event of an air off probe fault the evaporator probe is used for control.	Oct 89
v0.01.7	Defrost initiation via comms added. Period over which averages taken made variable on item 47. Fresh meat cabinet temperature factor default value changed to 40. Produce cabinet temperature factor default value changed to 60.	May 90

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v0.01.9	Bit switch setting displayed on maintenance unit item 8.	Aug 90
v0.02.0	Controller type (EC) now displayed on maintenance unit item 0. Defrost input state added to maintenance unit item 71.	Sep 90
v0.02.1	Defrost relay can be selected to operate defrost termination or defrost control on maintenance unit item 75.	Dec 90
v0.02.2	Comms initiated forced defrost added. Communications defrost commands close liquid valve.	Mar 91
v0.02.3	Associated compressor pack no removed from maintenance unit item 100. Text on item 75 changed to d.tEr/d.con from GAS/ELEC.	Apr 91
v0.02.4	Anti-shortcycling timer added on maintenance unit item 48. Liquid line valve closed during contact initiated defrost. Temperature probes now read up to 70 C for hot gas.	Jul 91
v0.02.5	Liquid hold-off time for contact/comms initiated defrost added on item 49. Liquid line valve held closed while defrost input present. Expected number of defrosts per day alarm added on item 94 with setting on item 69.	Feb 92
	ECLS type added.	Aug 93