

JTL FIRMWARE VARIATIONS		LCPC LCPP/LCPG
VERSION	DESCRIPTION	DATE
v0.00.0	Production Issue	Oct 97
v0.00.1	Lights can be selected to switch off during shutdown using item 119. Dual setpoint keyswitch function has priority over shutdown. 2K temperature sensor option added.	Oct 97
v0.00.2	Item 136 added to enable selection of display switch operated fans only shutdown. LCD7, 2 position keyswitch, supported. If only one display switch function selected then either "off" position on the LCD6 will select the function. Produce cabinet default for no of defrosts/day and compressor starts/hour amended. R408A refrigerant table extended. Fans operation during defrost recovery in "Fans on always" mode corrected.	Dec 97
v0.00.3	Optimiser functions added on items 200 - 203. High and low temperature setpoint selection added on temperature display. Air off temperature alarm tolerance added on item 34. Automatic exclusion from suction optimisation added on air sensor fault. Ht alarms disabled when alarm tolerance set to 0.0. Pressure display unit choice added on item 179. "Hi" and "Lo" added to display when selecting setpoints using display keyswitch. Forced defrost alarm added. Communications program by executive called more frequently to reduce communications turn round time for half duplex operation. "Active sign off" added to reduce inter-unit polling delays. Network communications performance information added on items 204 - 207.	June 98
v0.00.4	Fans off delay after defrost added on item 109. Watchdog restart network alarm added. Output test function added on item 101.	July 98
v0.00.5	Daylight saving function added. When the JTL network controller daylight saving function is operational and item 18 is set, the time and defrost schedules are displayed in daylight saving time. Cabinet temperature factor allowed down to 0. Display pushbutton test (item 121) amended. Defrost strategy (item 107) default changed to NONE. Defrost relay mode (item 75) default changed to control. Hardware input information on network communications corrected. Time termination strategy corrected. High temperature alarm misoperation in v0.00.3 corrected. Temperature choice for display added for Celsius and Fahrenheit on item 122. (LCPC only) Enhanced digital display choice added on item 129. (LCPC only)	Aug 98
	LCPP introduced with outputs for Power Module driving. LCPP defaults to fan control. LCPP does not support dual setpoint operation from keyswitch.	Oct 98
v0.00.6	LCPG introduced with built in probe converter. Temperature choice for display added for Celsius and Fahrenheit on item 122. (Added to LCPP) Automatic network calibration of pressure transducer facility added, selected by item 177. New library software used by executive. Enhanced digital display choice added on item 129. (Added to LCPP) Daylight saving operation added using choice on item 18. Maintenance unit display text improved in line with new software library features. NVRAM write handling amended to write to memory after 2 minute delay. Item 9 operation enhanced by allowing NVRAM write without delay by setting value to "1066" Liquid detection control strategy removed. Force pressure average added on item 154 for maintenance purposes. Item 203 suction group available on JTL network communications. Item 206 network zero adjustment range limited to ±15 psi.	May 99

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v0.00.7	<p>Network communication failure alarm added on item 252. Network defrost failure mode enhanced to give choice of learned defrost or fixed schedule. Learned defrost correctly activated in event of plant communications fail. Learned defrost schedule visible on items 261 - 272. Valve open logging added on items 240 and 241. Service datalogging of evaporator temperature error corrected. Factory test date added. Separate minimum superheat and minimum valve opening added for 2 temperature control on items 186 & 187. Maximum no of defrosts a day alarm extended to 12. Learned defrosts problem at midnight corrected. Error where first learned defrost is ignored corrected. Learned defrost saved correctly through a power down of controller. Additional factory information added.</p>	June 2000
v0.00.8	<p>Mark 2 pcb introduced. Plant data information added on items 211 - 217 for use with Mark 2 optimisers and defrost scheduling. Additional factory information added. Fans only display changed to OFF on LCD8/9 displays. Broadcast "receiving" of site wide data added. Defrost in backup mode alarm added. Input test feature added on item 100.</p>	Nov 2001
v0.00.9	<p>Second setpoint selection error introduced in v0.00.8 corrected.</p>	Apr 2002
v0.01.0	<p>Air off alarm cancelled when no air off sensor selected. Defrost recovery period now lasts for full allowed duration, but when temperature is low enough (as before) dEFr is suppressed on display. Site number recorded. Circuit 0 not allowed on electric defrost data. Unit number range changed to 0.1 to 899.8 Time delay added on detection of defrost scheduler fault before action to override is taken. Network comms initialised to prevent transmit enable on for 10 seconds after power up on Mark 2 boards. Item 412 added to show current defrost strategy in operation. Items 411 & 413 repeat items 107 & 144 for convenience. Temperatures added on items 421 - 425 for test purposes. Note, these temperatures are <u>NOT</u> dependant on sensor selections. Jnet communications level upgraded to 2. Changes to factory settings invokes read of factory data by network controller. Jnet awake enhanced. JTL site number broadcast. Hardware tests fully controllable by network communications. Item 214 (414) enhanced to add gas & off cycle defrosts.</p>	Dec 2003