

<b>JTL FIRMWARE VARIATIONS</b>		<b>LCPT LCPN</b>
<b>VERSION</b>	<b>DESCRIPTION</b>	<b>DATE</b>
v0.00.4	Production Issue. Based on LCPC v0.00.3 with adjustable deadband. Electronic expansion valve control removed.	July 98
v0.00.5	Fans delay after defrost added on item 109. Display switch 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 v0.00.4 corrected. Watchdog restart information available on network communications.	July 98
v0.00.6	Option for dual temperature control from display keyswitch added on items 123-126	Sept 98
v0.00.7	Temperature choice for display added for Celsius and Fahrenheit on item 122. New library software used by executive. Enhanced digital display choice added on item 129. Daylight saving operation added using choice on item 18. Maintenance unit display text improved in line with new software library features.	Apr 99
v0.00.8	Spelling of celsius changed on item 122. 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" 2K Elm sensor option added on item 102.	Dec 99
v0.00.9	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. 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. LCPN released.	June 2000
v0.01.0	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. Air off sensor 2 and 3 added. Fan control during defrost added on items 146 and 150. Defrost in backup mode alarm added. Input test feature added on item 100.	Nov 2001
v0.01.1	Second setpoint selection error introduced in v0.01.0 corrected.	Apr 2002

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v0.01.2	<p>Air off alarm cancelled when no air off sensors selected.</p> <p>Defrost recovery period now lasts for full allowed duration, but when temperature is low enough (as before) dEFr is suppressed on display.</p> <p>Site number recorded.</p> <p>Circuit 0 not allowed on electric defrost data.</p> <p>Unit number range changed to 0.1 to 899.8</p> <p>Time delay added on detection of defrost scheduler fault before action to override is taken.</p> <p>Network comms initialised to prevent transmit enable on for 10 seconds after power up on Mark 2 boards.</p> <p>Item 412 added to show current defrost strategy in operation.</p> <p>Items 411 &amp; 413 repeat items 107 &amp; 144 for convenience.</p> <p>Temperatures added on items 421 - 427 for test purposes. Note, these temperatures are <u>NOT</u> dependant on sensor selections.</p> <p>Jnet communications level upgraded to 2.</p> <p>Changes to factory settings invokes read of factory data by network controller.</p> <p>Jnet awake enhanced.</p> <p>JTL site number broadcast.</p> <p>Hardware tests fully controllable by network communications.</p> <p>Item 214 (414) enhanced to add gas &amp; off cycle defrosts.</p> <p>Coordinated defrost strategy added.</p> <p>Sub type number changed.</p> <p>Item 422 displays data from air off sensor 1 not the computed air off temperature.</p> <p>Broadcast item setting is allowed when MU plugged in.</p>	Mar 2004
v0.01.3	<p>Individual air off temperature errors visible on item 431 - 3.</p> <p>Air off alarm averaging on item 27 reinstated for display purposes. This function was removed on v0.01.0.</p> <p>Operation of defrost recovery that was changed in v0.01.2 corrected.</p>	Nov 2004