

<b>JTL FIRMWARE VARIATIONS</b>		<b>LP32X</b>
<b>RELEASE</b>	<b>DESCRIPTION</b>	<b>DATE</b>
v0.155	Production issue	Feb 2018
v1.169	Analogue input values default to -99.9 instead of 0.0 Inverter set to low limit on high discharge pressure input instead of staged compressor fast unload mode. Inverter compressor stopped if high discharge pressure input present and no staged compressors running instead of staged compressor fast unload mode and no staged compressors running. Items 949 and 969 range corrected to 0-8191 instead of 0-0. Inverter PID terms Hz.	Jan 2019
V2.216	Battery drain issue fixed. Relay 2 function extended to include Compressors off/not available or high suction pressure alarm (4). New data over IP scheme supported including SuctionP, SuctionP Setpoint, Total Capacity Power with legacy POIP continuing to be supported. Run hours moved to battery-backed RAM. Base I/O Sys info now stored correctly, fixing ADCRef Tolerance error. Unit numbers stored in dedicated area in EEPROM. Compressor control takes account of Auto input and stops inverter compressors when in Manual mode. On high discharge pressure, inverter compressors run at minimum speed and stop in turn once all staged compressors are off. No of items supported by HTTP requests increased from 24 to 64. Item 989 display test added. Item 9393 pressure units added. Item 9392 temperature units added. Last power down period added. Time since last awake and pilling interval fixed. Items 81 & 82 received broadcast pressures added. Jnet comms level increased to 6. Staged compressor SuctionP Increase Gain default increased to 4.0 Staged compressor Suction Decrease Gain default increased to 5.0 Inverter staging gain default increased to 4.0 Data set items added for SuctionT, dischargeT, LiquidP. Site ambient and outside temperatures default to -99.9. Jnet receive timeout increased to 30 seconds.	Jan 2019
V3.216	Improvements to IP particularly HTTP & FTP operation. Improvements to operating system	Feb 2019
V4.254	Further improvements to IP operation. Some changes to power up operation.	Feb 2019
V5.329	Deadband for LT CO2 operation increased to 60 psi maximum. Settable items can be individually set to their default value for the current virtual bitswitch setting by pressing the 5 key until either the word "Dflt" or the default value are displayed when pressing the Set key. Bootloader supported. Automated production testing supported. Inverter compressor will not start if High Discharge Pressure input is present. Various diagnostics items added for inputs, outputs, HTTP sessions, FTP sessions and timers. Standard item 5000 Liquid Pressure Control defaults to Off. PID: I term also frozen when at slew rate limit. Output limited to output max and min when forcing. Output limited to output limits when not forcing. Further improvements to the operating system.	June 2020