The LCCU-USPR is a spare parts kit which is used to replace the following obsolete JTL products as a spare part:

RCCS
RCCT (formerly known as RCCK)
LCCS
LCCT
LCCE (in most applications)
LCCP

The LCCU-USPR comprises three parts:

a) LCCU controller
b) CAB47-05 Jnet network cable converter
c) CAB40-05 7 to 5 pin display converter cable

Some rewiring is necessary when replacing the obsolete part with the LCCU affecting the network connections or the input and output connections. For full details see below.

The LCCU is a universal controller which provides defrost functionality of all the former products, as such it requires to be set up correctly to achieve the functionality desired. The attached user guide gives full details of programming information to set up the controller. Your attention is drawn in particular to item 107 which selects the appropriate defrost initiation method, and item 144 which selects the defrost termination method.

Note the LCCU is only suitable for liquid line solenoid valve control with a mechanical (thermostatic) expansion valve.

LCCU OUTPUT CONVERSION

FUNCTION	**LCCU**	**LCCE /LCCP (see notes 3 & 4)**	**LCCS/ LCCT (see note 1)**	**RCCS/RCCT (RCCK) (see note 2)**
PAN HEATER/ SUCTION VALVE	1 NO 1 LN	1 NO 1 LN	1 NO 1 LN	LD1 LN1
FANS	2 NO 2 LN	2 NO 2 LN	2 NO 2 LN	LD2 LN2
LIQUID SOLENOID	3 NO 3 LN	3 NO 3 LN	3 NO 3 LN	LD4 LN4
DEFROST	4 NO 4 LN 4 NC	4 NO 4 LN 4 NC	4 NO 4 LN 4 NC	LD3 LN3 X
NOT USED	5 NO 5 LN 5 NC	5 NO 5 LN 5 NC		

NOTE 1: No rewiring is necessary for LCCS/LCCT
NOTE 2: Rewire as shown, ensure wiring to LN is rewired to LN which requires crossover. LN must be connected to the line voltage and NO/NC to the load to ensure correct EMC operation.
NOTE 3: Output 5 on LCCE is for a second defrost heater, LCCU DOES NOT support this function.
NOTE 4: Output 5 on LCCP is for an alarm output, LCCU from v0.00.6 supports this function.

LCCU INPUT CONVERSION

Temperature Sensors
No rewiring is necessary, sensor connections can be directly swapped (plugged in)

Inputs

FUNCTION	**LCCU LCCE LCCP (see note 5)**	**LCCS/LCCT (see note 5)**	**RCCS/RCCT (RCCK) (see note 6)**
DOOR CLOSED	I1 C	IN1 C	CON3 (VOLT FREE CONTACT)
DEFROST INPUT/ PLANT ALARM	I2 C	IN2 C	

NOTE 5: No rewiring is necessary for LCCS/LCCT/LCCE/LCCP
NOTE 6: Rewiring is essential for Door Closed. The volt free contact connected to CON3 must be replaced with a 230 Vac input to IN1 when the coldstore door is closed. C must be connected to the supply neutral.

LCCU Jnet Communications Conversion
The LCCU, RCCS and RCCT controllers are fitted with 3 pin din sockets for Jnet Network connection. Thus no rewiring is necessary.

The LCCS and LCCT are fitted with a 2 pin screw terminal which thus requires rewiring. The LCCU is supplied with a CAB47-05 conversion cable. Use suitable terminals to link the network cable to the CAB47-05 the negative lead (connected to pin 1 of the LCCS/T CONNG) should be connected to the blue lead of the CAB47-05.

LCCU Display Connections
The display connection on the LCCU uses a 7 pin connector. To convert the 5 pin display to this connection, use the CAB40-05 cable supplied with the LCCU.

Display Types
The LCCU supports the LCD13 and the old LED1 and LED5 displays. The LCD13 is a backlit LCD display in a black plastic enclosure. The LED1 is fitted behind a black bezel and the LED5 display has a grey mounting with 3 pushbuttons. Item 129 on the maintenance unit selects the type of display, 0=LED5 and 1=LED1 and LCD13.

Note: if the wrong display is selected, the display characters will appear to be "backwards".

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