**Controller Detail/Parameters** 8/2/2022

Select either Fridge or Freezer Mode

Fridge mode preset at 5degC – The actual temp parameter will be set in service mode.

Freezer mode preset at -20degC - The actual temp parameter will be set in service mode.

Data Logging – record time, date, amb temp, internal temp

Operation – ie set for freezer mode, compressor will come on and cool to (-20) and turn off. Compressor will restart at (set differential) 2deg, ie compressor starts at -18 to cool back down to -20.

AC operation – if AC power fails whilst in operating mode, unit will switch to battery operation.

DC operation – If DC power fails whilst in operation, unit switches to battery power.

Battery charging circuitry via AC power

Separate BMS board

**Parameter/Service List**

Set temperature presets for fridge or freezer operation

High/Low alarms or differential from set point

Min compressor off time (seconds) if compressor turns off, min time before comp will start

Data logging intervals (secs or mins)

**Inputs**

Cabinet temp – PT1000

Condensor temp – PT1000

Ambient temp – PT1000

Door switch

**Outputs**

Compressor – on/off

Internal fan

Condensor fan – controlled by power board. Fan output on compressor controller is used as an input (goes low) so our controller knows compressor is on.

Speed control to compressor controller via resistor or similar

Door Frame heater – On continuously when freezer mode is selected