

# TROUBLE SHOOTING GUIDE

<b>Description</b>	<b>Type</b>	<b>Start Condition</b>	<b>Stop Condition</b>
Compressor 1 HP fault	Alarm	Pd > 4500kPa	Pd < 3506kPa
Compressor 2 HP fault	Alarm	Pd > 4500kPa	Pd < 3506kPa
Compressor 3 HP fault	Alarm	Pd > 4500kPa	Pd < 3506kPa
Compressor 1 LP fault	Alarm	Ps < 165kPa	Ps > 330kPa
Compressor 2 LP fault	Alarm	Ps < 165kPa	Ps > 330kPa
Compressor 3 LP fault	Alarm	Ps < 165kPa	Ps > 330kPa
Return Air temperature sensor fault	Warning	Probe 9 Faulty / Wiring open or short circuit	Sensor OK
Outdoor coil Comp 1	Warning	Probe 6 Faulty / Wiring open or short circuit	Sensor OK
Outdoor coil Comp 2	Warning	Probe 8 Faulty / Wiring open or short circuit	Sensor OK
Outside air temperature sensor fault	Warning	Probe 10 Faulty / Wiring open or short circuit	Sensor OK
Discharge Temperature 1 / High Pressure Comp 1 fault	Alarm	Probe 5 Faulty / Wiring open or short circuit or HP1	Feed back signal OK
Discharge Temperature 2 / High Pressure Comp 2 fault	Alarm	Probe 7 Faulty / Wiring open or short circuit or HP2	Feed back signal OK
Discharge Temperature 3 / High Pressure Comp 3 fault	Alarm	Discharge 3 Sensor / Wiring open or short circuit or HP3	Feed back signal OK
Filter Dirty	Warning	Filter alarm	Clean Filter Reset Filter Timer

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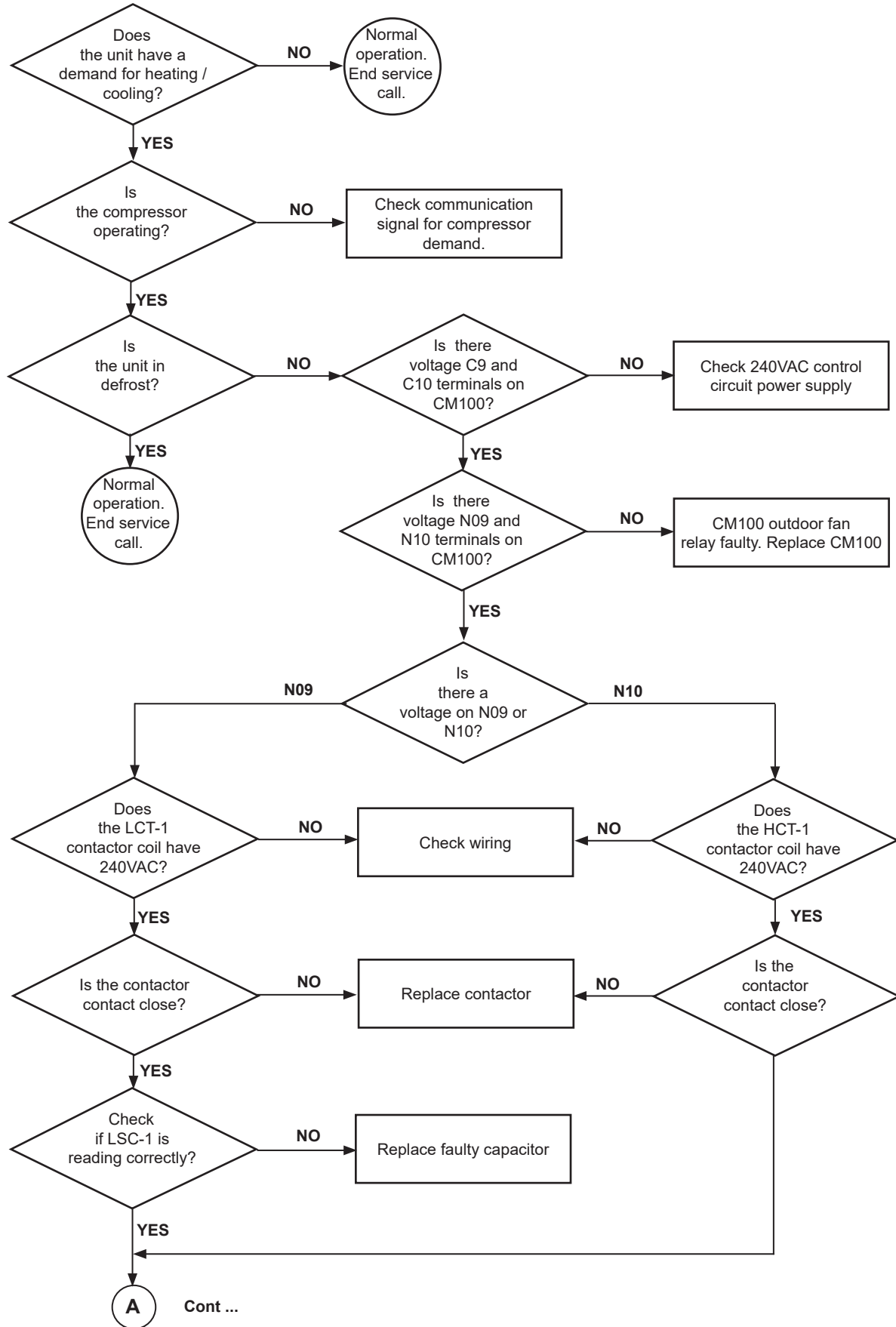
FAULT	POSSIBLE CAUSES	REMEDIES
<b>The system does not start.</b>	In built turn ON safety timers have been activated.	Ensure that 5 minutes has passed from turn ON time.
	A breaker has turned OFF or a fuse has blown.	Check breakers and fuses.
	The set point setting is incorrect.	Check the Control Interface settings are correct. Check the "set point" is set low enough for cooling or high enough for heating.
	The Control Interface programmable settings are incorrect.	Check the Control Interface programmable settings. See operating instructions section.
<b>Compressor does not start (but the outdoor and indoor fan starts).</b>	Compressor maybe off due to compressor overheat safety feature. The internal overload is triggered if compressor temperature gets to 120°C.	Compressor will restart when temperature internal over temperature thermistor gets down to 100°C
<b>Air does not flow.</b>	During heating operation, the hot start function may have been activated.	The Indoor Fan is delayed for 45 seconds. This is to prevent cold drafts. Wait for 45 seconds and the air will start flowing.
<b>Cooling/Heating is not sufficient.</b>	The cooling/heating function may not work effectively when the return air filter is clogged with dust and dirt.	Clean the return air filter.
	The cooling/heating function may not work effectively if the air inlet and air outlet on the outdoor unit are blocked.	Make sure the air inlet and air outlet on the outdoor unit is not blocked. Check that the area around the outdoor unit is free from obstructions that may cause the airflow to recirculate.
	The airflow across the indoor coil may not be enough.	Reduce the total static pressure on the indoor fan to increase airflow. For example increase duct sizes, reduce tight duct work bends or increase return air grille size.
	The cool/heat load is too great for the air conditioner.	Perform a heat load analysis on the conditioned space. You may need to consider upgrading the air conditioner to a larger system.
	Open windows or doors will cause inefficient operation.	Close windows and doors in conditioned areas.
	Appropriate zones (if installed) are not turned on.	Turn on appropriate zones
	The outside temperature is beyond the air conditioner design conditions.	If you know a extreme day is coming, turn the air conditioner ON a few hours before ambient temperatures reach extreme. This should help on those few extreme days.

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FAULT	POSSIBLE CAUSES	REMEDIES
<b>Steam emitted from outdoor unit</b>	This is caused by the defrosting operation of the outdoor units heat exchanger in heating operation in cold ambient conditions.	This is normal during the defrost situation in cold ambient conditions.
<b>Water emitted from outdoor unit.</b>	Condensation of water on the outdoor coil during heating operation.	This is normal during heating operation.
<b>Occasional wishing noise can be heard from the outdoor unit.</b>	This is the sound of the gas changing directions as de-ice cycle begins.	This is normal functions of an air conditioner. The unit is removing any ice on the outdoor unit.
<b>The compressor is running but the system is not cooling</b>	The reversing valve has jammed between heating and cooling.	Replace reversing valve.
	The system is in heating mode.	Check the temperature setting.
<b>The outdoor coil keeps freezing over.</b>	Outdoor coil sensor might be faulty. See temperature/resistance table under operation details section.	Replace faulty sensor.
<b>One condenser fan is not working on stage 2.</b>	The fan is faulty. Test the fan motor for correct voltage, check the motor winding resistance, open circuit, check capacitor.	Replace faulty fan. If the fan motor needs to be replaced and there isn't one available immediately, then just disconnect the fan electrically and cover the faulty motors fan guard. This way the unit can still operate at reduced capacity using 1 fan until you get a replacement fan motor. This is only applicable to circuit#2 (large compressor)
<b>The indoor outlet air has an odour.</b>	This happens when smell of the room, furniture or cigarettes are absorbed into the unit and discharged with the airflow.	If this happened, it is recommended to run the air conditioner on cooling for a period of time with the doors and windows open or have the indoor unit washed by a technician. Consult the installer of the unit.
	Check that P-Trap is installed in the condensate drain line.	Re-pipe condensate drain with a P-trap and run drain into household waste water drainage line.

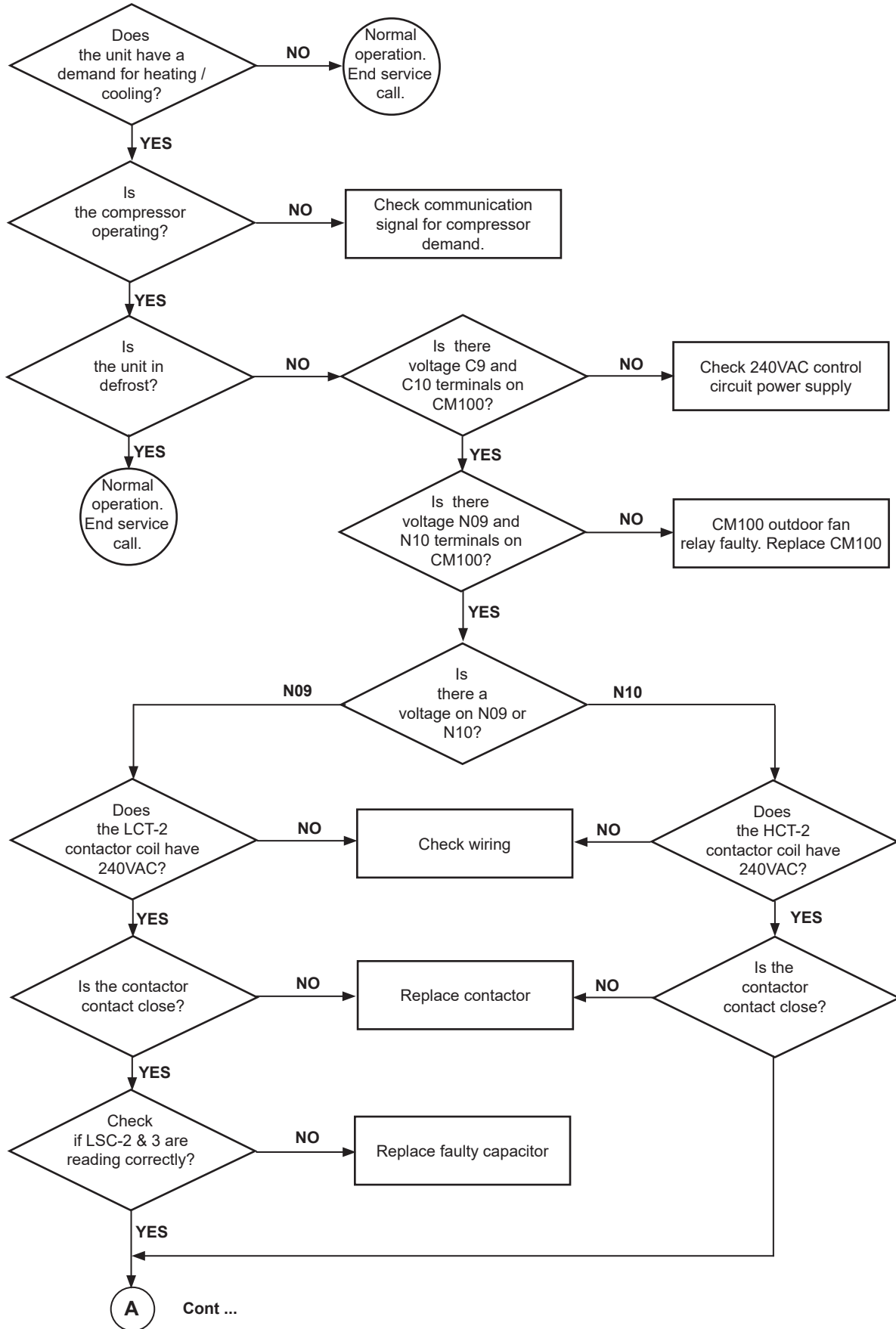
# TROUBLE SHOOTING GUIDE

## Stage 1: Outdoor Fan (OF-1) Not Operating



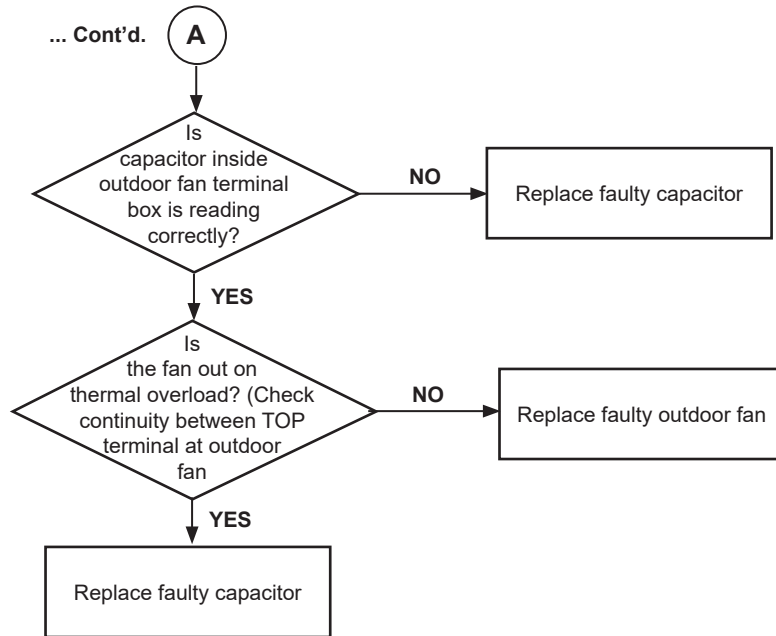
# TROUBLE SHOOTING GUIDE

## Stage 2: Outdoor Fans (OF-2 / OF-3) Not Operating

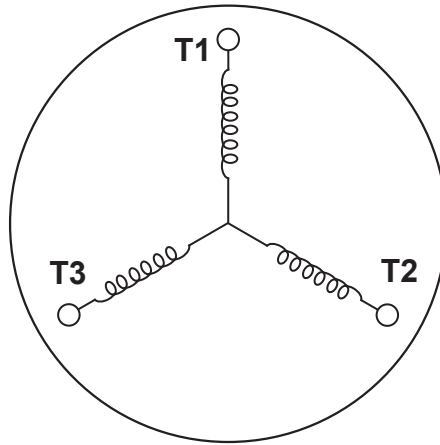


# TROUBLE SHOOTING GUIDE

## Condenser Fan(s) Not Operating



# TROUBLE SHOOTING GUIDE



**COMPRESSOR WINDINGS**

			RATING OF COMPRESSOR WINDINGS (OHMS)		
MODEL	COMPRESSOR	COMPRESSOR MODEL	T1 - T2	T1 - T3	T2- T3
PKY820T-3Q2	Compressor #1	COPELAND - ZP103KCE-TFD	1.36	1.36	1.36
	Compressor #2				
	Compressor #3				
PKY960T-3Q2	Compressor #1	COPELAND - ZP120KCE-TFD	1.23	1.23	1.23
	Compressor #2				
	Compressor #3				

# TROUBLE SHOOTING GUIDE

## CL01 CONTROL INTERFACE TROUBLESHOOTING GUIDE

CONDITION	CAUSES OR CHECKPOINTS																														
<p>CL01 Control Interface does not power up.</p> <p>Display is blank</p>	<ul style="list-style-type: none"> <li>• Check data cable for fault, replace as required.</li> <li>• Make sure that wiring connection is correct as per wiring diagram.</li> <li>• Check wiring connections and polarity as follows:                     <table style="margin-left: 20px;"> <tr> <td style="text-align: center;"><b>CL01 Terminal</b></td> <td style="text-align: center;"><b>CM100 Terminal</b></td> </tr> <tr> <td style="text-align: center;">Power</td> <td style="text-align: center;">Vout</td> </tr> <tr> <td style="text-align: center;">485A</td> <td style="text-align: center;">R+/T+</td> </tr> <tr> <td style="text-align: center;">485B</td> <td style="text-align: center;">R-/T-</td> </tr> <tr> <td style="text-align: center;">GND</td> <td style="text-align: center;">GND + Screen</td> </tr> </table> </li> </ul> <p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>◦ Data: RS485</li> <li>◦ Cable specs: 4 Core (2Pair) Twisted Pair 7/0.20 (AWG24) Shielded Data Cable</li> <li>◦ Maximum Cable Length: up to 200m</li> <li>◦ Do not connect screen to Control Interface, cut wire as short as possible in order to prevent shorting. Connect screen at CM100 only.</li> <li>◦ Do not run data cable near power cables and other sources of interference.</li> </ul> <ul style="list-style-type: none"> <li>• Check that supply voltage is correct. Vout -to- GND = 20.6VDC</li> <li>• Check CM100 is powered-up and CP05 is operational.</li> </ul>	<b>CL01 Terminal</b>	<b>CM100 Terminal</b>	Power	Vout	485A	R+/T+	485B	R-/T-	GND	GND + Screen																				
<b>CL01 Terminal</b>	<b>CM100 Terminal</b>																														
Power	Vout																														
485A	R+/T+																														
485B	R-/T-																														
GND	GND + Screen																														
<p>CL01 Control Interface power up but still not working.</p>	<ul style="list-style-type: none"> <li>• Check that the CL01 is enabled in CM100 Controller. Refer to Installation &amp; Commissioning Guide for procedure.</li> <li>• Check CM100 Software Version, make sure that your version is 1.0B62 or above. If the software version is lower than 1.0B62, your CM100 will require software version.</li> <li>• Check for debugging software, by turning off CP05, press and hold down "↑" and "↓" keys for 10 secs. The CP05 Control Interface will enter the debugging menu.</li> </ul> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <table border="1" style="font-size: small;"> <tr><td>Mode_FanWC</td><td>168</td></tr> <tr><td>No LC7 ESP</td><td>No</td></tr> <tr><td>LC7 Fan Auto</td><td>No</td></tr> <tr><td>LC7 Fan Cont</td><td>Yes</td></tr> <tr><td>LC7 Fan Low</td><td>No</td></tr> <tr><td>LC7 Fan Med</td><td>Yes</td></tr> <tr><td>LC7 Fan Hi</td><td>No</td></tr> <tr><td>OnBoard Sensor</td><td>238</td></tr> </table> <table border="1" style="font-size: small;"> <tr><td>Change_Time:</td><td>0</td></tr> <tr><td>Change_BlockOp:</td><td>0</td></tr> <tr><td>Change_Block24:</td><td>0</td></tr> <tr><td>Change_EEPROM:</td><td>0</td></tr> <tr><td>Change_BlkwWrite:</td><td>0</td></tr> <tr><td>En_Wall_1:</td><td>Yes</td></tr> <tr><td>Modbus Poll time:</td><td>386</td></tr> </table> </div> <p style="text-align: center; margin-left: 100px;">Check settings must be &gt;1</p> <p style="text-align: center; margin-left: 100px;">Check settings must be 300 - 400ms</p> <ul style="list-style-type: none"> <li>• Check polling time settings, which should be 300 - 400ms.</li> <li>• Try control initialization from CP05 menu to rectify any possible software issues with CM100 to CL01 via Service Menu:</li> </ul> <div style="text-align: center; margin-left: 100px;"> <span style="border: 1px solid black; padding: 2px;">Main Menu</span> →              <span style="border: 1px solid black; padding: 2px;">G. Service</span> →              <span style="border: 1px solid black; padding: 2px;">f. Service settings</span> →              <span style="border: 1px solid black; padding: 2px;">c. Thermoregulation</span> →              <span style="border: 1px solid black; padding: 2px;">Initialization</span> </div> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>◦ Thermoregulation is under Service settings sub-menu level 6/7. Service settings are password protected, enter the Service Password (7378) in order to access these sub-menu.</li> </ul>	Mode_FanWC	168	No LC7 ESP	No	LC7 Fan Auto	No	LC7 Fan Cont	Yes	LC7 Fan Low	No	LC7 Fan Med	Yes	LC7 Fan Hi	No	OnBoard Sensor	238	Change_Time:	0	Change_BlockOp:	0	Change_Block24:	0	Change_EEPROM:	0	Change_BlkwWrite:	0	En_Wall_1:	Yes	Modbus Poll time:	386
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Change_BlkwWrite:	0																														
En_Wall_1:	Yes																														
Modbus Poll time:	386																														
<p>CL01 Control Interface buttons not operating</p>	<ul style="list-style-type: none"> <li>• Reset the power to the Control Interface by turning the main power supply OFF / ON, as the Control Interface may not be responding.</li> <li>• Check data cable for fault, replace as required.</li> <li>• Make sure the Keypad Lock feature is not active. The lock "🔒" symbol will appear on the screen if Keypad Lock is active.</li> </ul>																														
<p>CL01 Display Backlight and "ON/OFF" button Backlight issues</p>	<ul style="list-style-type: none"> <li>• Check Display Backlight and "ON/OFF" button Backlight settings.</li> <li>• Check that Backlights are not turned-OFF.</li> <li>• Check the intensity of Backlight brightness, which can be adjusted. Refer to page 17 for Backlight adjustment procedure.</li> </ul>																														



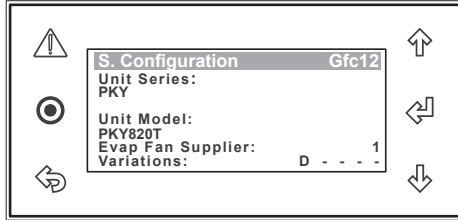
# TROUBLE SHOOTING GUIDE

## EVAP FAN COMMISSIONING FOR DIFFERENT SUPPLIERS

### SELECTING THE EVAP FAN SUPPLIER (For Software Ver. 2021-136-2018)

Select the Evap Fan Supplier by going into the Service Menu.

Main Menu → G. Service → f. Service settings → c. Thermoregulation → S. Configuration Gfc12



- Change the Unit Series to PKY using the ↓ or ↑ arrow keys and press ↵ enter button.
- Change the Unit Model to PKY820T or PKY960T (as required) using the ↓ or ↑ arrow keys and press ↵ enter button.
- Change Evap Fan Supplier to 1 for Part number 2590-014 (K3G560RB3175) or 2 for Part number 2590-021 (SC560F5-150-005) using the ↓ or ↑ arrow keys and press ↵ enter button.
- Once changed the supplier, use the ↶ back key to go back to the menu.

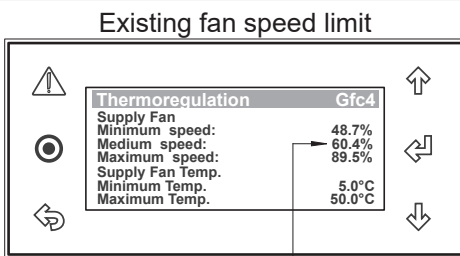
#### NOTE

The Service settings sub-level menu is password protected. Enter the Service Password (7378), using the ↓ or ↑ Buttons in order to access service settings and then press the ↵ Button to lock-in each of the password digits.

## CONTROL AIRFLOW LIMITS TABLE

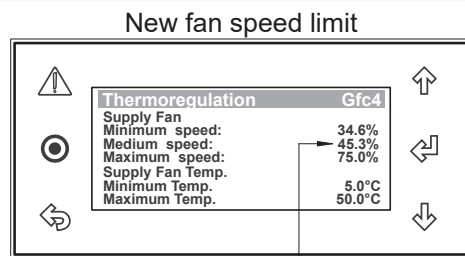
### PKY820T

**Software Version 2021-136-2017**  
Fan Part # 2590-014 (K3G560RB3175)



Set Fan Speed

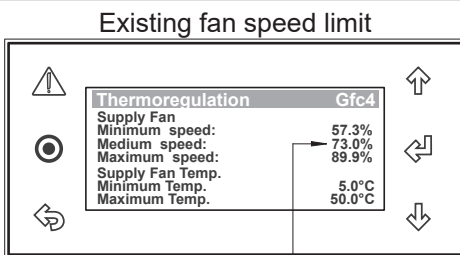
**Software Version 2021-136-2018**  
Fan Part # 2590-021 (SC560F5-150-008)



Set Fan Speed

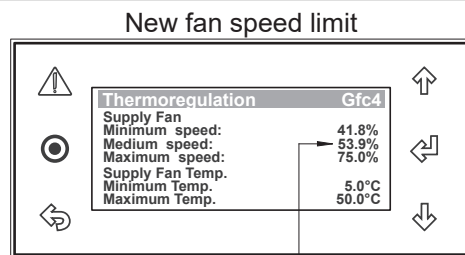
### PKY960T

**Software Version 2021-136-2017**  
Fan Part # 2590-014 (K3G560RB3175)



Set Fan Speed

**Software Version 2021-136-2018**  
Fan Part # 2590-021 (SC560F5-150-008)

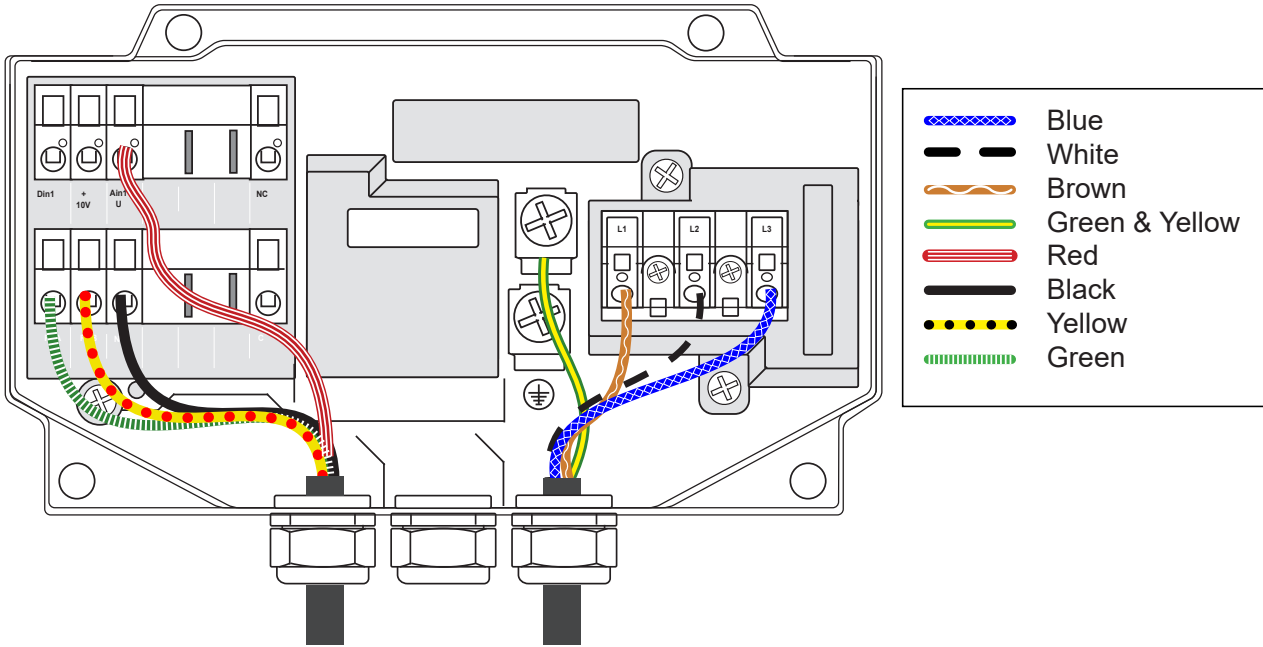


Set Fan Speed

# TROUBLE SHOOTING GUIDE

## WIRING TERMINAL CONNECTION

### Supplier 1 - 2590-014 (K3G560RB3175)



### Supplier 2 - 2590-021 (SC560F5-150-005)

